LOS ANGELES COUNTY

Emergency Medical Services Commission

Ad Hoc Committee On The Prehospital Care of Mental Health and Substance Abuse Emergencies

FINAL REPORT

September 2016

Prehospital Care of
Mental Health and Substance Abuse Emergencies

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Contents

Introduction

The Ad Hoc Committee on the Prehospital Care of Mental Health and Substance Abuse [a, b] (MH/SA) Emergencies was created by a motion of the Los Angeles County Emergency Medical Services Commission (EMSC) on November 18, 2015 to address two broad goals:

1) To evaluate the current manner in which MH/SA emergencies are handled by the 9-1-1 system, and
2) To propose a short and long term vision to improve the quality of care and safety for the patients, families, neighbors and first responders.

Among the types of medical problems for which the public calls for an emergency response, MH/SA emergencies are unique as they involve a patchwork of various healthcare providers (not just EMS and paramedics) and law enforcement (LE) agencies.

As the result of the clear challenges in responding to MH/SA emergencies, several of the field response entities in Los Angeles have been developing individualized strategies to cope with the rising volume, complexity, and lack of resources for MH/SA patients. While noble and necessary, this has not resolved the problem of fragmentation of resources, nor the lack of uniform standards in the care provided.

The EMSC Ad Hoc Committee (hereafter referred to as the Committee) was composed of stakeholders from diverse disciplines and agencies through Los Angeles including:

- Los Angeles County Department of Health Services Emergency Medical Services (EMS) Agency
- Los Angeles Police Department (LAPD)
- Los Angeles County Sheriff's Department (LASD)
- Los Angeles Ambulance Association
- National Alliance on Mental Illness (NAMI)
- Los Angeles County Department of Mental Health (DMH)
- Los Angeles County Department of Public Health (DPH)
- California Branch of American College of Emergency Physicians (CAL-ACEP)
- Southern California Psychiatric Society
- Hospital Association of Southern California (HASC)
- LA Care
- HealthNet
- Board of Supervisors
- Exodus Mental Health Urgent Care Center (MHUCC)
- Los Angeles County Fire Department
- Los Angeles Area Fire Chiefs' Association
- Los Angeles County Mental Health Commission
- LAC+USC Medical Center Psychiatric Emergency Services
- Los Angeles County Police Chiefs' Association
- California State Firefighters' Association
- Peace Officers' Association of Los Angeles County
- Emergency Nurses Association

[a] The term substance abuse (SA) as used in this document is interchangeable with the term substance use disorder and both are used to define a dependence on alcohol and or drugs that is accompanied by intense and sometimes uncontrollable cravings and compulsive behaviors to obtain the substance.

[b] When using the term mental health and substance abuse (MH/SA) in this document it is acknowledged that the field responder's are providing "impressions" based on the person's exhibited behavior and history and not necessarily providing a diagnosis.

Background

There is substantial evidence to indicate that problems with the emergency care for patients with MH/SA emergencies are aggravated by the lack of coordination and integration of emergency, mental health, and substance abuse services. Experts have written about the significant dysfunction within each of the respective systems.

Emergency Department Services

The Institute of Medicine, in their landmark series of reports issued in 2006, strongly warned that emergency care in the United States (U.S.) is fragmented, underfunded, under-resourced, over-utilized, and overcrowded (see appendix for IOM key findings fact sheet). The demand for emergency care in the U.S. has grown rapidly; between 1993 and 2003 emergency department (ED) visits increased by 26% [1]. Meanwhile the number of EDs declined by 425.

Mental Health Services

At the same time, America's MH/SA systems have seen decades of severe contraction of acute care services (i.e. inpatient psychiatric hospital beds). Well-intentioned efforts to de-criminalize and de-institutionalize mental illness and substance abuse and remove afflicted individuals from jails, and an overall lack of availability and access to timely and appropriate community MH/SA services [2] compound the demand for services.

It is critical to understand the magnitude of people who suffer from mental illness and/or substance abuse. The burden of mental illness in the U.S. is great. Almost one in four adults suffers from a diagnosable mental disorder in any given year, and between 5% and 7% of adults suffer from a severe mental illness (SMI) [3,4]. The California Department of Mental Health estimated in 2007 that there were nearly two million people in the State of California in need of mental health services for SMI [3]. According to the California Health Care Foundation, 1 in 20 California adults suffers from a serious mental illness that causes substantial impairment in carrying out major life activities [5]. Mental illness is a leading cause of disability and suicide, and carries large social, economic, and personal costs [2,4].

Pediatric MH/SA Services:

The burden of MH/SA disorders in the pediatric and adolescent population, defined as <18 years of age, is large. In the United States 23% of children and adolescents have a MH/SA disorder and in the emergency settings nearly 70% of children and adolescents screen positive for at least one mental health disorder.[6,7]

Few emergency care providers have significant clinical experience with evaluating children and adolescents with MH/SA disorders and yet EMS and emergency department physicians are often faced with managing these children, performing a medical clearance evaluation, and referring them to limited inpatient and outpatient psychiatric services. A number of barriers exist to the provision of mental health services to children in emergency care systems. These barriers include knowledge gaps in pediatric psychiatric illness by emergency care providers, limitations of the prehospital and

ED settings to provide comprehensive evaluation, and lack of access to pediatric inpatient and outpatient mental health services.[8]

Substance Use Disorders Services

In California, approximately 2.3 million Californians need substance use disorder treatment, while only about 10% receive such care [Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2009-2013]. Meanwhile, the number of people who need access to addiction substance abuse treatment through Medi-Cal is increasing and person with untreated substance use disorders are among the highest users of publicly funded health services. Additionally, billions of dollars are lost every year due to direct and indirect costs of addiction.

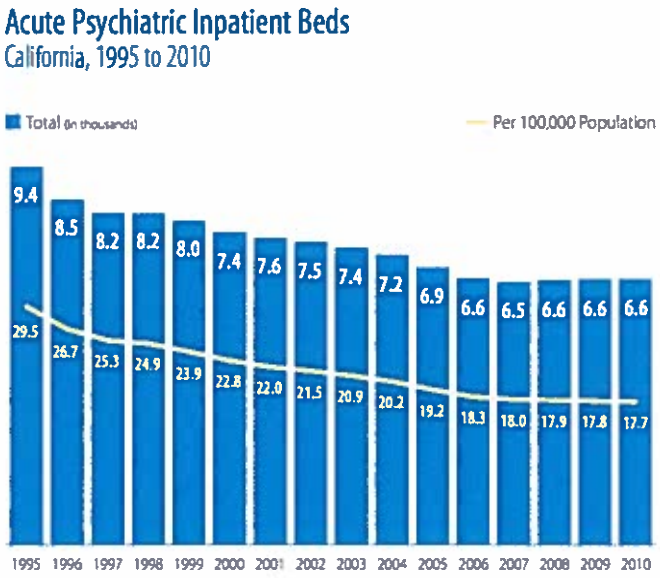
Resources for substance use disorders are limited. There are currently approximately 300 substance use disorder providers located throughout LA County, comprised of approximately 100 residential withdrawal management beds, 1,200 short term residential treatment beds, 3,000 intensive outpatient and outpatient treatment slots and 5,000 opioid treatment program slots (Substance Abuse Prevention and Control, LA County DPH). In LA County, approximately 18% of individuals who might need substance use treatment actually receive treatment. Although this penetration rate is higher than the 10% national average reported by SAMHSA, this data still demonstrates that the vast majority of individuals who would benefit from substance use treatment are not receiving it. Given that individuals with substance use disorders incur two to three times the total medical expenses of people without these conditions[12], and die an average of 26.1 years younger than the general population[13], this lack of treatment contributes to significant economic and human loss.

MH/SA Services in Emergency Departments

When MH/SA services and supports are unavailable or poorly coordinated, patients with unmet needs turn to the ED and the 9-1-1 system for care [9]. In the current healthcare delivery system, EDs are the only institutional providers required by federal law to evaluate anyone seeking care. In California, 8.4% of the population received care for a mental health problem in an ED in 2005, up from 2.7% in 2001[10].

In a 2010 survey of California EDs, over 75% of respondents reported that lack of inpatient beds was the primary reason for mental health boarding (patients waiting in the ED to be admitted), ED overcrowding, and extended lengths of stay [11]. Indeed, the reduction in psychiatric inpatient beds has been severe. In California between 1995 and 2011, there was a 30% decrease in psychiatric inpatient beds, from 9,353 to 6,367 [3]. The psychiatric bed-to-population ratio has steadily declined to an all-time low of 16.76 beds per 100,000 California residents, corresponding to a shortfall of 4,000 psychiatric beds [2,3] (see Figure 1).

Figure 1. Acute Psychiatric Inpatient Beds, California, 1995-2010 [5]



Estimating the number of annual MH/SA visits to EDs in LA County has been challenging due to inconsistent data reporting. However, the current best estimate is that there are approximately 150,000 MH/SA visits to LA County EDs annually. Additionally, in calendar year 2013 there were 490,701 EMS transports with 21,106 patients having a "behavioral" chief complaint. This number does not include MH/SA patients transported by other responders: LE, psychiatric mobile response teams (PMRT) and psychiatric evaluation teams (PET).

Committee Objectives

Focusing on prehospital care for MH/SA emergencies, the Committee posed a fundamental question: What happens when a person in LA County calls 9-1-1 with a MH/SA emergency?

Unlike the response for medical emergencies, which could be generally characterized as predictably delivered and uniformly regulated [c], the response to MH/SA emergencies is comparatively varied and lacks the same coordinated delivery and regulation. The main source of variation lies in the fact that two very different entities, LE or EMS agencies, may be dispatched as a result of a 9-1-1 call. The LA County DMH "Access Line" is a third entity that may be called by the public to respond to a MH/SA emergency, though notably it is distinctly separate from the 9-1-1 system. A call to the DMH Access Line could potentially trigger specific mental health teams to respond.

A number of questions naturally follow:

- When does LE respond, when does EMS respond, and how is this decided?
- What are the differences or similarities in the LE, EMS and DMH response?
- Is one response better than the other in terms of patient care, or patient preference?
- Do LE and EMS responses lead to different standards of care or outcomes for patients?

It is in this current climate of increased demand and decreased availability of MH/SA and emergency services, that the Committee was tasked to assess the current prehospital care for MH/SA emergencies, as the first step in developing a blue print for system improvement.

The main objectives of the committee focused on:

1. Generating a clear and comprehensive map of the process by which MH/SA emergencies are managed in the LA County EMS system, from a person placing a 9-1-1 call to destination (i.e. where the patient will be transported to).
2. Providing a coherent description of the multiple agencies and entities that can potentially respond to MH/SA emergencies
3. Describing the critical decision points in the MH/SA field responses for LE and EMS
4. Identifying sources of data that demonstrate the availability of services, or lack thereof, and/or data that exemplify the strain on the system
5. Articulating principles for change and improvement in the MH/SA emergency response system in LA County
6. Recommending specific areas for potential intervention by the EMS Agency, LE and EMS agencies, LA County Officials, or others.

MH/SA FIELD RESPONSE MAPS

Figures 2 and 3 display the process for EMS and LE response to MH/SA emergencies. Though the process starts with a call to 9-1-1 in both cases, once a decision has been made to dispatch EMS vs. LE, the processes, decision points, resources, and disposition options are unique to each discipline.

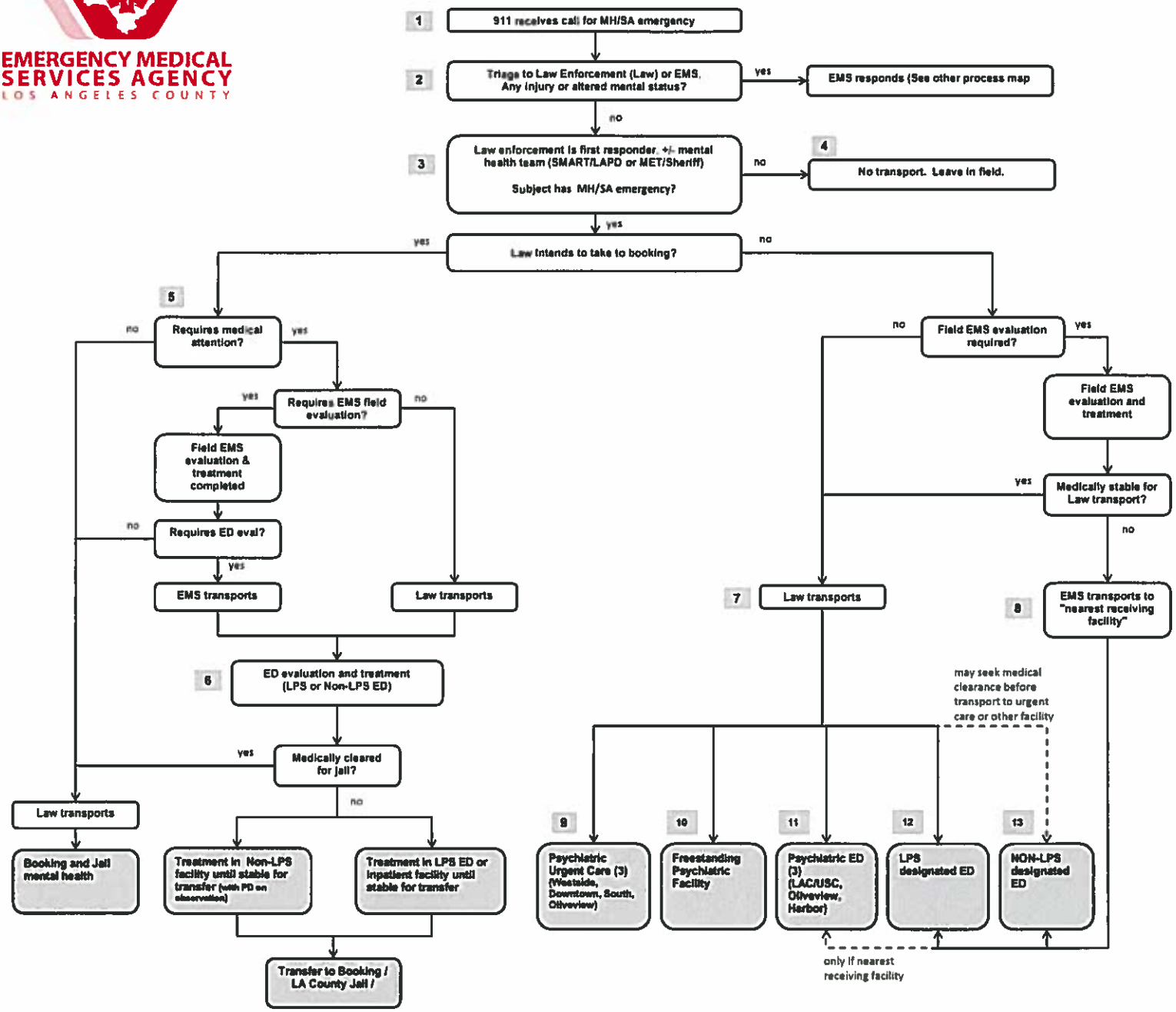
A detailed appendix is located at the end of this document which corresponds to the shaded grey numerals in each field response map, providing descriptions, areas of need, comments, recommendations, and barriers to change.

Figure 2

Los Angeles County Mental Health and Substance Abuse Emergency Response System

Process Map : Law Enforcement Response to MH/SA Emergencies (Approved 06/06/16)

EMERGENCY MEDICAL SERVICES AGENCY
LOS ANGELES COUNTY



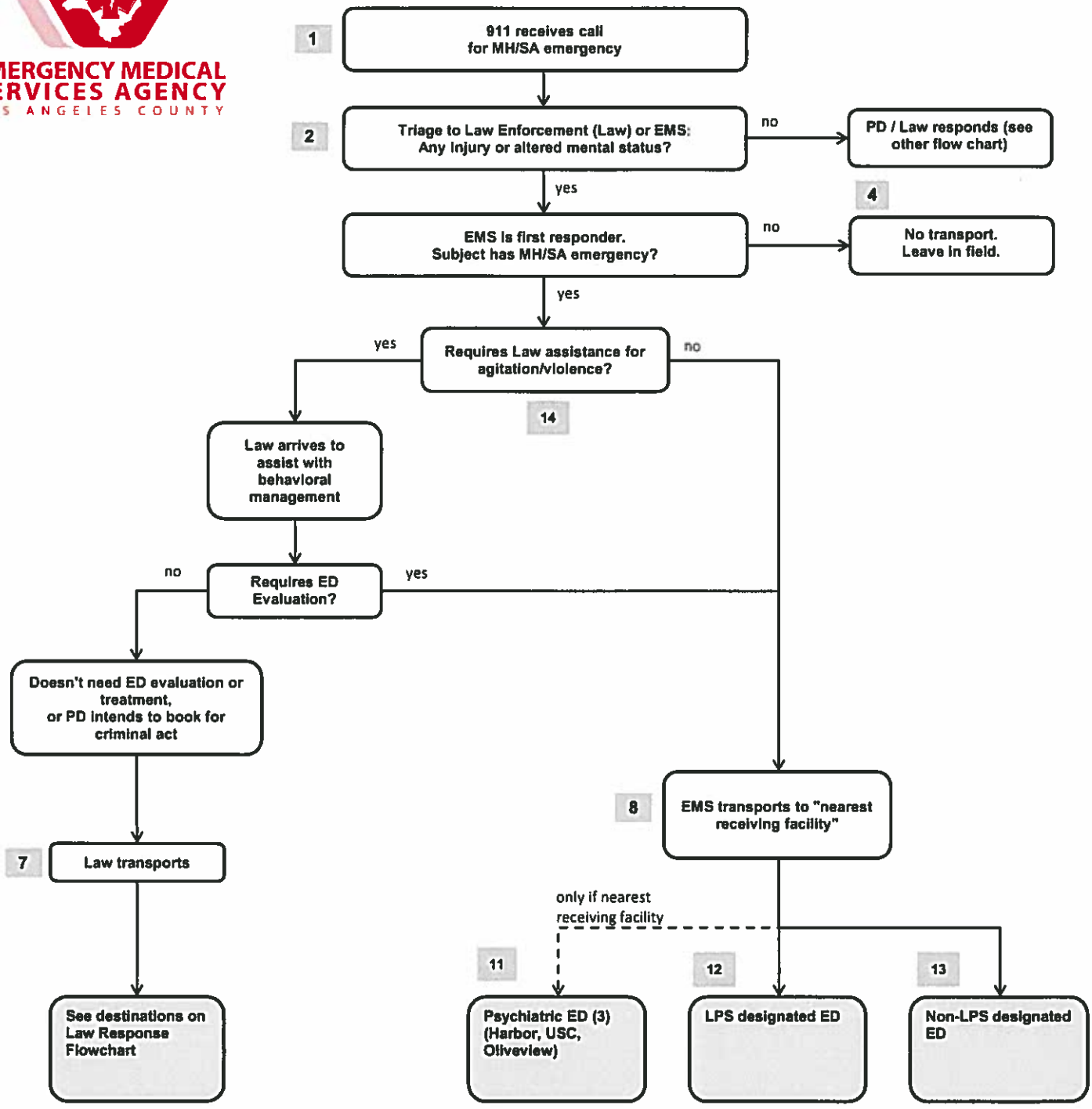
Abbreviations:
MH/SA: Mental Health and Substance Abuse, also commonly referred to as "behavioral"
Law: Law Enforcement Agency (Police Department, Sheriff's department)
EMS: Emergency medical services
ED: Emergency Department
LPS: Lanterman-petris-short (CA WIC 5150), referring to County designated mental health facilities

Figure 3

Los Angeles County Mental Health and Substance Abuse Emergency Response System

Process Map : EMS Response to MH/SA Emergencies (Approved 06/06/2016)

EMERGENCY MEDICAL SERVICES AGENCY
LOS ANGELES COUNTY



Abbreviations:
MH/SA: Mental Health and Substance Abuse, also commonly referred to as "behavioral"
Law: Law Enforcement Agency (Police Department, Sheriff's department)
EMS: Emergency medical services
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LPS: Lanterman-petris-short (CA WIC 5150), referring to County designated mental health facilities

Principles for evaluating current MH/SA emergency services and proposed changes

The Committee identified four major themes that should serve as fundamental guiding principles in evaluating both the current system and proposed changes.

1. MH/SA emergencies are medical emergencies, and, as such, are best treated from the point of first contact by medical/clinical personnel trained, equipped, and experienced to evaluate and manage the patient.

2. A proportion of MH/SA emergencies involve acute behavioral agitation, violence, threats of harm to self or others, or criminal activity, in which case they most likely require the combined response of EMS and LE.

3. MH/SA emergencies in adults and children are best treated in emergency facilities (transport destinations) that are appropriately designed and resourced to address MH/SA needs.

4. The system of prehospital care for MH/SA emergency patients should be based on established best practices, which are consistently applied throughout the County regardless of which agencies respond.

In addition to the above principles, the Committee underscored the fact that prehospital care response to MH/SA emergencies are just one component of the larger MH/SA and emergency systems in LA County. As such, this response is intimately related to, and impacted by, the lack of ready access to acute care services (e.g. inpatient psychiatric beds). In addition, it is impacted by patients' access (or lack thereof) to timely resources and treatment for non-emergent MH/SA problems, where case management and wrap-around care are needed to reduce the incidence of MH/SA emergencies

Committee Observations

A number of consensus observations were made by the Committee, with regard to the current MH/SA emergency response system:

1. The current MH/SA emergency field response is variable, and lacks uniformity and a source of central oversight. The dispatch of EMS or LE is based on local customs, and, in many circumstances, may be defaulted to LE as the first responder. LE officers are, therefore, often in a position of conducting clinical evaluations of MH/SA patients with a goal of determining whether the patient needs treatment, and to determine the best destination option, despite the lack of medical training.

2. The LE response, and more specifically the transport of patients in squad cars in handcuffs, has the undesirable effect of "criminalizing" persons with MH/SA emergencies.

3. LE agencies have made, and are continuing to make, valiant efforts to improve officers' training and interactions with MH/SA patients. Likewise, several agencies have developed MH/SA emergency response teams, staffed with specifically trained law or clinical personnel, to attempt to address the demand and risks of LE's response. Though an improvement upon the default response of routine LE, the availability of such specialized MH/SA response services remains limited and within the domain of LE (as opposed to within the domain of EMS).

4. The current EMS field treatment protocols for management of the acutely agitated person with a MH/SA emergency are limited to identification of patients with "agitated delirium" and treatment of these patients is limited to using chemical restraint (e.g. midazolam). The use of such agents for chemical restraint in MH/SA emergencies have not been well studied and often lack efficacy.

5. The current LE field protocols for management of the acutely agitated person with a MH/SA emergency are guided by department specific customs or training.

6. The current system provides several destination options to LE that increase the access to appropriate mental health care for patients with MH/SA emergencies (such as options to transport to Mental Health Urgent Care Centers (MHUCCs) or directly to freestanding Psychiatric Hospitals. Conversely, the current EMS destination is limited to emergency departments as per the State of California Health and Safety Code Division 2.5. This regulation appears to limit the timely access to appropriate mental health care for patients with MH/SA emergencies transported by EMS.

7. LA County EMS Agency Prehospital Care Reference No. 502, *Patient Destination* requires transportation to the "most appropriate receiving" facility. Generally, this is the "nearest emergency department". An exception to going to the nearest emergency

8. department includes transporting a patient to a specialized care center for pre-defined conditions such as stroke, ST elevation myocardial infarction (STEMI) and trauma. To date, there hasn't been the will of the community to create emergency specialty care designations for MH/SA care.

9. Many EDs that currently receive patients from EMS providers lack both sufficient resources and expertise to optimally manage MH/SA patients. Further, facilities that do not have authority to detain patients under WIC 5150 or 5585 (pediatric patients , 18 years of age), face significant barriers in securing a patient's transportation to an inpatient psychiatric hospital, resulting in lengthy patient boarding waiting for an evaluation by a PET or PMRT, then transfer to an available bed.

10. Substance use disorder services are largely unavailable or lack integration into the emergency and acute care system. Specifically LE and EMS providing field assessment and transport do not have acute substance detoxification services readily available as a destination option. Individuals with substance use disorders that arrive at an ED are often discharged with inadequate follow up or referrals to community resources for their addiction, as there are a scarcity of these resources and little to no options for referral. Additionally, EDs do not have an ability to transfer patients to detoxification services as there is limited or no access.

11. EMS providers have not sought LPS authority/certification to write involuntary detainments, though there is nothing prohibiting their application for such authority/certification.

Recommendations for change to the current MH/SA field response

Provided below is a summary of the final recommendations of the Committee based on their review of the current MH/SA field response maps. Details of these recommendations as they pertain to specific elements within the response maps can be found in the Appendix.

1. Modify and standardize the MH/SA emergency 9-1-1 triage criteria to match the field response (LE vs. EMS) to the type of emergency situation. Specifically: triage LE to patients who may be combative, violent, or exhibiting potential criminal behaviors, and triage EMS to all other MH/SA emergencies, including "agitated delirium". The net expected effect would be a decrease in responses where LE is the sole responder and a corresponding decrease in criminalization of mental illness and potential use of force, and an increase in the appropriate medicalization of MH/SA emergencies.

2. Investigate the potential of greater integration of co-deployed MH/SA and LE teams into the 9-1-1 first response systems. Consider a tiered approach to the dispatch of patrol units to MH/SA emergencies, such that MH/SA trained officers may preferentially respond to the scene.

3. Develop basic resource materials for persons with MH/SA emergencies who are not transported / left in the field, to increase access to mental health services when appropriate.

4. Standardize training/protocol across the County for all LE agencies regarding what constitutes a need for a medical evaluation by EMS providers.

5. Investigate the pros/cons of establishing MH/SA emergency specialized care centers, akin to the system for STEMI, trauma, stroke, etc., to improve the care for MH/SA emergencies.

6. Determine the feasibility (including regulatory and financial/economic or practical barriers) of alternate destinations to directly transport EMS patients to specialty EDs that demonstrate the capacity and expertise to care for MH/SA patients, to MHUCCs, or to other destinations that can provide the appropriate evaluation and treatment. Investigate and pursue the integration for substance abuse detoxification and rehabilitation services as destination options for EMS, LE and EDs.

7. Support regulatory changes to ensure parity for all populations, including the following key issues. Medi-Cal currently does not reimburse free standing mental health facilities for care to adult recipients. Further, the Drug Medi-Cal Organized Delivery System benefit program being implemented by DPH focuses on outpatient SA treatment and does not provide reimbursement for inpatient services. Finally, the Drug Medi-Cal Organized Delivery System benefit program contains annual limitations on residential treatment for substance use disorders for both youth and adult clients.

8. Develop additional treatment protocols (non-pharmacologic and pharmacologic) to address combative, agitated or potentially violent behavior in MH/SA adult and pediatric patients. Refer to the EMS Agency Medical Advisory Council to determine whether the EMS Agency should pursue the use of alternate agents for behavioral agitation as the result of acute psychosis, substance intoxication or withdrawal, delirium, and undetermined etiologies.

9. Explore the option of Sobering Centers as a patient destination for inebriates as these resources become more available in the community.

A future vision

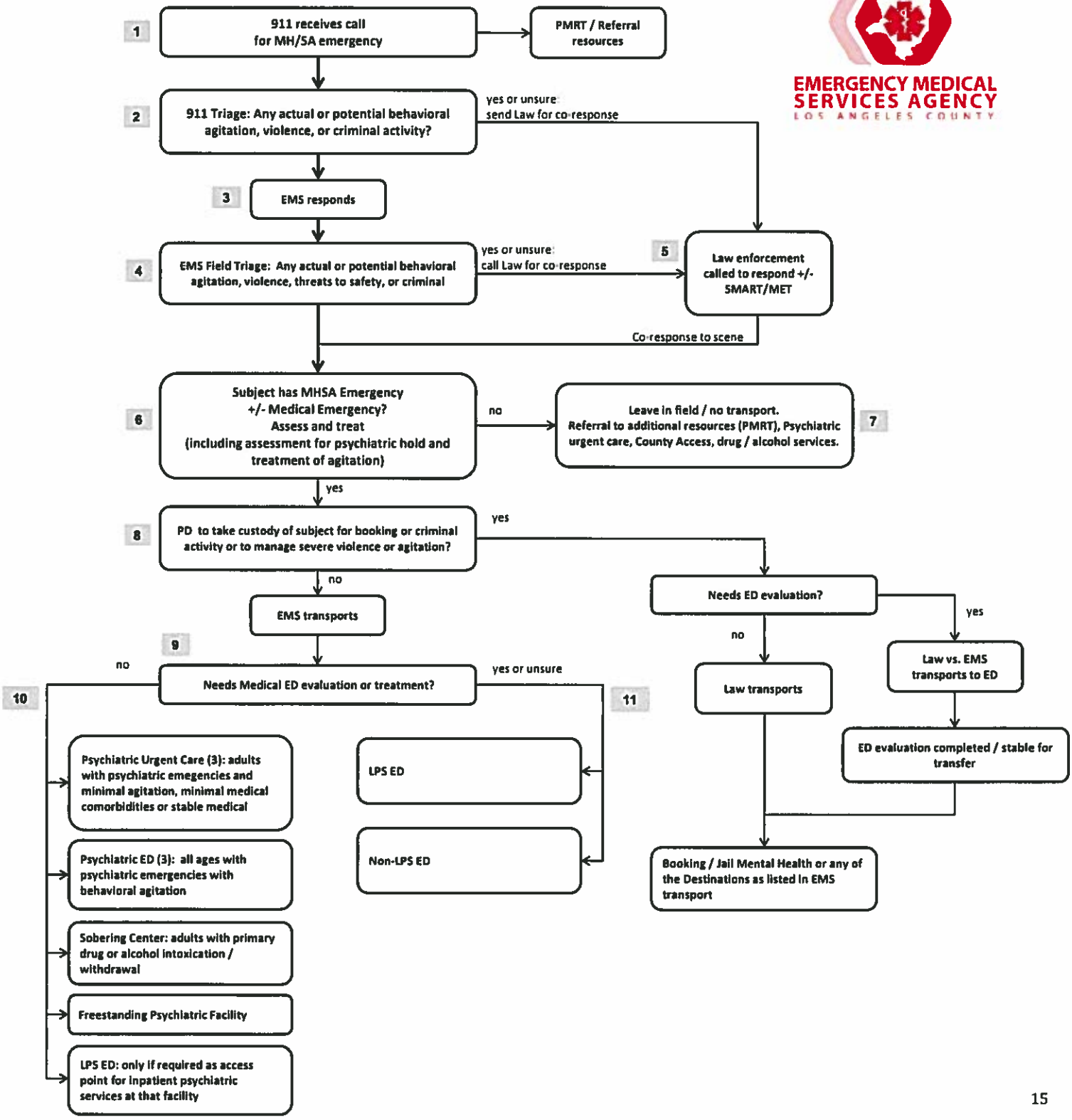
Having considered our current model, we shifted our focus to a combined vision of how to improve patient care for persons with MH/SA emergencies taking into account the Committee's principles and observations stated above.

Figure 4 proposes a fundamentally re-designed management algorithm to address MH/SA emergencies, consistent with the articulated principles and a primary focus on delivering higher quality patient care. Again, specific areas of focus are addressed in the appendix that corresponds to Figure 4.

Figure 4

Los Angeles County MH/SA Emergency Response System (Mental Health and Substance Abuse)

Process Map : Potential Field Response Map (Approved 6/1/16)



Concluding Remarks

MH/SA problems are prevalent, disabling, at times dangerous, and increasingly the cause for calls to the 9-1-1 system. In LA County, the field response to MH/SA emergencies is highly varied, with either a LE and/or EMS response based on non-uniformly standardized or regulated triage protocols. As a result, a person cannot reliably predict who will respond and how his or her MH/SA emergency will be evaluated and managed in the field, and, furthermore, how or where he or she will be transported to in the event that additional care is needed.

The current system has placed LE personnel frequently in the position of performing clinical evaluations for, and attempting to manage, MH/SA issues in the field. The Committee firmly asserts that MH/SA emergencies are medical emergencies, and as such are best addressed by trained healthcare personnel, whenever possible. Finally, the Committee fully recognizes that MH/SA emergencies are unique in their potential for first responders to encounter adult and pediatric patients who may be acutely agitated or potentially harmful to themselves or others. New protocols and training are necessary to tailor and equip the EMS and LE response to these situations, including training in verbal de-escalation as well as pharmacologic treatment protocols, in order to provide the highest quality of care and to minimize the use of force and potentially disastrous outcomes.

The Committee respectfully submits this analysis of the current field response system, with accompanying principles, observations, and specific recommendations, to the LA County EMSC.

APPENDIX TO FIGURES 2 and 3: LE AND EMS FLOWCHARTS

The numerical items below correspond to the flowcharts for the current LE and EMS response to behavioral emergencies. Sub-items are categorized as follows:

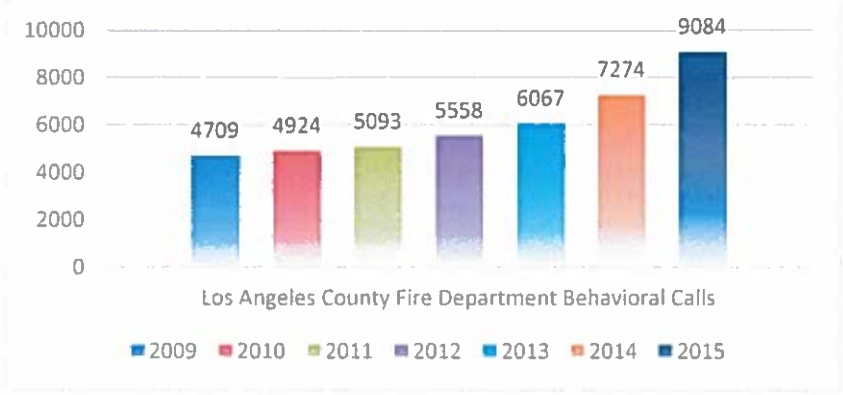
- Description
- Area of need
- Comment
- Recommendation
- Barriers to change

1. 9-1-1 receives call for MH/SA emergency:

   a. Description: All 9-1-1 calls are routed to the Public Safety Answering Point (PSAP). Most PSAPs are operated by LE, and, if the call taker determines that the call is medical, then they will, in most cases, transfer the call to an EMS call taker. There are a few PSAPs in LA County that handle both LE and EMS calls, but most medical related calls are transferred from LE to EMS call takers. There are more than 40 LE agencies and 13 EMS dispatching centers in LA County.

   b. Area of Need: It is unclear how many calls for MH/SA are received per year, or what proportion of all emergency 9-1-1 calls are related to MH/SA problems. The total quantity is difficult to discern because of poor data collection, but the expert consensus is that the demand for emergency services continues to rise.

      Below is a graph showing LA County Fire Department (LACoFD) dispatches for behavioral emergencies from 2009 – 2015. From 2013-2015, the department's overall EMS call volume rose by about 20%, while the behavioral emergency calls increased by 50%.



In 2016, the LA Police Department (LAPD) responded to approximately 18,000 MH calls, and the LA Fire Department (LAFD) responded to 11,500 calls. Some of these calls may have had response of both agencies.

2. Triage to LE vs. EMS:

    a. Description: The current 9-1-1 system is designed to triage based on the questions posed by the 9-1-1 call taker. In the LAPD, for example, if the caller indicates that the patient is having a MH/SA emergency, then police are dispatched. Only if the caller indicates that there is a medical emergency is there an EMS response.

    b. Comment: There is currently no known uniformity in the criteria used to triage the response to LE or EMS. As a result of this triage decision point, the 9-1-1/EMS system likely relies more heavily on the response of LE to MH/SA emergencies than perhaps desired. Concerns are raised about the training, ability and resources of LE to appropriately manage MH/SA emergencies, and such emergencies are likely better addressed by medically trained individuals.

    c. Area of need: It is unclear what percentage of 9-1-1 calls are triaged to LE vs. EMS in the current system. This is data that needs to be collected. It is currently unknown if other major counties in California have a triage system for MH/SA emergencies that is similar to Los Angeles, or whether any are designed in a way that reduces the use of LE as first responders.

    d. Recommendation: Consider modifying the MH/SA emergency triage criteria to match the field response (LE vs. EMS) to the type of emergency situation, i.e. triage LE specifically to patients who may have agitation, violence, or potential criminal behaviors and triage EMS to all other MH/SA emergencies.

    e. Barriers to change: Concerns for safety and training if EMS becomes the default first responder for MH/SA emergencies.

3. The availability of specialized and embedded mental health units ("SMART"/LAPD or "MET"/LA Sheriff) in law enforcement agencies is limited but possibly growing.

    a. Description: Mobile crisis units for mental health emergencies have several different monikers which vary based on the department that they are affiliated with:

        i. SMART (System-wide Mental Assessment Response Team) is associated with LAPD. They have 17 teams available per day on overlapping shifts with 24 hour coverage.

        ii. MET (Mental Evaluation Team) is associated with Los Angeles County Sheriff Department (LASD). They have eight teams providing coverage 18 hours/day with three additional teams to be added on September 1, 2016 and there are plans to expand to 23 teams over the next three years.

        iii. LE Teams are associated with 22 other local LE agencies. Eight additional METs affiliated with city police departments will be operational by September 30, 2016. Four additional METs are pending, including on with the LA World Airports. These METs operate according to the needs of each jurisdiction,

with most operating Monday-Friday between 9:00 a.m. until 8:00 p.m. Some METs operate on weekends depending on personnel resources.

iv. PMRT (Psychiatric Mobile Response Team) is associated with LAC DMH and are field-based teams that operate seven days a week from 8:00 a.m. until 2:00 a.m. These teams are geographically located in eight service areas and each team consists of eight to ten clinicians.

v. PET (Psychiatric Emergency Team) are associated with freestanding psychiatric hospitals.

vi. Other: There are other mobile crisis teams, which the LA County Metropolitan Transit Authority Crisis Response Unit (MTA-CRU) is an example of.

Embedded mental health units with LE are generally viewed as favorable responders to MH/SA emergencies, with better training to interact with this population. However, there is limited, or no, outcomes data regarding such entities. The availability of teams is limited by hours of operation, geographical access and mobility.

b. Comments: SMART and MET teams are not dispatched directly to calls and, thus, are not first responders. The SMART team can self-dispatch based on calls heard on the radio, and they are available on request of first responding patrol units. MET teams are dispatched on request of patrol deputies. The City of Houston Police Department utilizes a tiered response, which is considered a best practice, and is based on the intensity of the call and availability of their units.

i. Tier 1 – co-deployed Mental Health/LE team

ii. Tier 2 – Patrol unit that has received specialized mental health or crisis intervention training

iii. Tier 3 – Standard patrol unit.

It is noted that PMRT and PET are not accessible in the current 9-1-1 system algorithm

It is also noted that some freestanding psychiatric hospitals operate their own PET units, which are usually deployed to emergency departments to perform assessments for 5150 or 5585 (pediatric patients) and to facilitate transfer to their own psychiatric facility.

c. Recommendation: Investigate the potential of greater integration of co-deployed Mental Health/LE teams into the 9-1-1 first response systems. Consider a tiered approach to the dispatch of patrol units to MH/SA emergencies, such that MH/SA trained officers may preferentially respond to the scene.

d. Barriers to change: The main barrier to a widespread growth and integration of co-deployed teams is cost.

4. No transport, Leave in Field:

   a. Comment: Both LAPD and LASD provide a leaflet with resource information for MH/SA services. EMS providers do not have any standard information to give to these patients. DMH offers linkage through their ACCESS system, which funnels patients to their outpatient mental health programs.

   b. Recommendation: Investigate the development of basic resource materials for persons with MH/SA emergencies who are not transported, to increase access to mental health services when appropriate.

      DMH offered their ACCESS number, (800) 854-7771, to LE and EMS departments that are leaving patients in the field. LA County DMH should produce standard information that can be given out by both LE and EMS agencies outlining available outpatient mental health information and telephone numbers. It is essential that these resources receive patients regardless of payor status, redirecting them when necessary but never turning them away.

   c. Barriers to change: None

5. Requires medical attention:

   a. Comment: It is unclear what standard criteria are used, if any, by LE to determine whether the patient requires medical attention. LE officers are being asked to make a medical determination without any standardization of training. Current practice is to refer to EMS if there is an apparent injury or if the patient appears ill or has chronic medical problems.

   b. Recommendation: Standardization and training across the County for all LE agencies regarding what constitutes a need for a medical evaluation by EMS providers.

   c. Barriers to change: Apart from Peace Officer Standards and Training (POST), which is a state organization, there is not an easy way to ensure dissemination and standardization across all law enforcement agencies in LA County. The EMS Agency is part of the Department of Health Services and does not have any jurisdiction over the evaluation performed by peace officers in the field.

6. ED evaluation and treatment, ED at a Lanterman-Petris-Short (LPS) or non-LPS facility:

   a. Description: Current California law stipulates that patients on a 5150 or 5585 placed by LE should be brought to an LPS designated facility. Typically, this involves bringing the patient to the ED at an LPS designated facility, though there are some LPS designated hospitals without ED's that receive patients directly from LE under specific circumstances.

b. Comments: In practice, it is unclear how LE determines which ED to transport a patient to. The time from arrival at a specific facility until the facility staff take over the care, often referred to as "wall time" for LE officers is unknown, but may be a factor in determining which facility LE officers transport to. LE officers may generally transport to ED's that are closest to them, or those ED's who they have developed relationships or agreements with, or the ED that will lead to the least amount of wall time.

When patients on a 5150 hold are brought to ED's that are not located at LPS designated hospitals, then this is difficult for both the patient and the ED. These ED's are frequently ill equipped to manage MH/SA patients, lacking proper space, equipment, training, and experience. This results in poor and potentially unsafe treatment of the patient. Also, because of limited access to psychiatric inpatient bed capacity, these patients may be stuck waiting in an ED for several days for an inpatient bed to open up. This also impacts the ED holding the patient, reducing their available capacity and hampering their ability to provide emergency services to other patients.

7. LE transports:

a. Description: Some LE agencies frequently though not uniformly transport MH/SA patients in handcuffs in the back of a patrol car even if the patient is not aggressive or resistive. For example, LAPD policy requires that all MH/SA patients being transported in a patrol car have handcuffs applied. This is for the safety of the officer and the patient and to reduce use-of-force. LASD frequently utilizes handcuffs as well, but this is not in policy. As depicted in the flow chart, LE officers have a much greater range of destination options compared to EMS personnel. Health and Safety Code Division 2.5 stipulates that EMS personnel can only transport to an ED, and, per LA County EMS Agency policy, they must be transported to the "most appropriate receiving" ED (MAR), which may or may not be part of an LPS designated hospital. LE can transport to any ED, and they can bypass the nearest ED to transport to the nearest LPS designated hospital ED or County PES. Law enforcement can also transport to a MHUCC instead of an ED.

b. Comments: While method of transport is intended to reduce the potential for harm to the patient or the officer, it is a cause for major concern regarding the impact from a medical and patient's perspective on patients who are suffering MH/SA emergencies.

c. Recommendation: See Appendix item #2. If triage of MH/SA emergencies is re-calibrated to dispatch LE primarily to patients who have potentially combative, violent, or exhibiting criminal behaviors, then the number of transports of patients by LE would likely be reduced, thereby reducing the effect of "criminalization" of mental illness. The Committee believes that, when possible, transportation in an unmarked vehicle or ambulance versus a marked police vehicle is preferable both from patient safety and to reduced stigmatization.

d. Barriers to change: Standardization of management of MH/SA patients by LE across LA County is difficult because of a lack of a local governing body.

Delegation by LE of responsibility for maintaining custody of individuals detained under WIC 5150, aside from transfer of custody directly from LE to an LPS designated facility, is not clearly addressed in regulations. Therefore, EMS are sometimes hesitant to assume such responsibilities.

The Center for Medicare/Medicaid Services (CMS) has ruled that reduced stigmatization of patients does not constitute a medical need for ambulance transport. Thus, ambulance companies may not be reimbursed if this is the sole reason for utilizing ambulance transportation.

Health and Safety Code Division 2.5 and EMS Agency Prehospital Care Reference No. 502, *Patient Destination* limit destinations for emergency ambulance transportation. Any deviation from this could only be achieved through an authorized pilot study from the State EMS Authority (EMSA) or through a legislative change.

8. EMS transports to "most appropriate receiving facility":

a. Description: Current EMS Agency Prehospital Care Reference No. 502: *Patient Destination* requires EMS to transport to the nearest receiving facility, regardless of LPS designation status, and regardless of the availability of psychiatrists or appropriate resources (such as specialized facilities and staff for mental health emergencies). The options for patient destination are limited in comparison to law enforcement.

b. Comments: The EMS Agency has recognized the need for specialized care centers for certain types of medical illnesses (for example stroke, trauma, STEMI, pediatrics), which establishes resources and personnel that are specifically prepared to manage such emergencies.

c. Recommendation: Investigate the pros and cons of establishing MH/SA emergency specialized care centers to improve the care for MH/SA emergencies.

Consider a tiered system as outlined below:

i. Comprehensive Psychiatric Center with a PES (adult and pediatric facilities)
ii. ED at a LPS designated hospital
iii. MHUCC
iv. ED at a non-LPS designated hospital

d. Barriers to change: Hospitals have been reluctant in the past to become designated as psychiatric receiving centers. Federal law currently prohibits the use of federal Medi-Cal dollars for inpatient treatment. Hospitals are not reimbursed for providing SA services and the County's DPH Drug Medi-Cal programs appear to be focused on outpatient treatment not inpatient care.

9. MHUCC (Exodus Recovery Inc.):

   a. Description: Psychiatric or MHUCC provide intensive crisis services to individuals who would otherwise be taken to EDs. There are currently four 24/7 MHUCC's in Los Angeles County. A report to the LA County Board of Supervisors dated May 17, 2016 from DMH titled *Report Back on Collection of Standardized Urgent Care Center Data* provided April 2016 volumes from MHUCCs and this data is included below. Note that the estimated annualized total number of visits based on this monthly volume is 46,500.

SERVICES DELIVERED

Overall, 3,139 unique individuals were served by UCCs in the month of April. Some individuals received more than one visit; total visits to UCCs for that month was 3,875. Information for each UCC is as follows:

April 2016 Unique Clients Served and Visits to UCCs

Urgent Care Center	Unique Clients	Total Visits
DMH Olive View UCC	578	1,148
Exodus Eastside UCC	1,093	1,154
Exodus MLK UCC	868	937
Exodus Westside UCC	424	449
Telecare MHUCC	176	187
Total	3,139	3,875

Average length of stay in LPS-designated UCCs reflects the time spent in a crisis stabilization service which includes psychiatric evaluation, medication monitoring, case management, and crisis intervention. During April 2016, average time spent in UCCs for the four providing crisis stabilization was:

- **Exodus Eastside UCC: 8.43 hours**
- **Exodus Foundation MLK UCC: 9.08 hours**
- **Exodus Westside UCC: 11.54 hours**
- **Olive View UCC: 12.03 hours***

***due to data entry lag, data reflects prior month's (March) length of stay**

   b. The number of countywide admissions to acute ED's and psychiatric inpatient units within 30 days of MHUCC visit were 438 (14%). The number of countywide re-admissions to MHUCC's within 30 days of a previous visit were 253 (8%)

10. Free standing Psychiatric Facility:

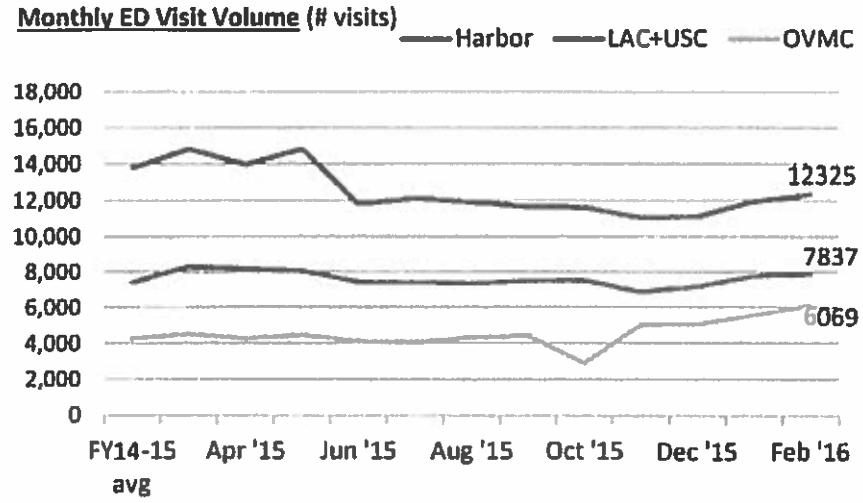
   a. Description: There are 11 free standing acute psychiatric hospitals in LA County, with a total licensed bed capacity of 1,334 (as of 2016). Data on the average daily census, average length of stay (ALOS), and beds by age groups was not available from LA County DPH Health Facilities division. According to HASC the ALOS for mental health admissions is eight days.

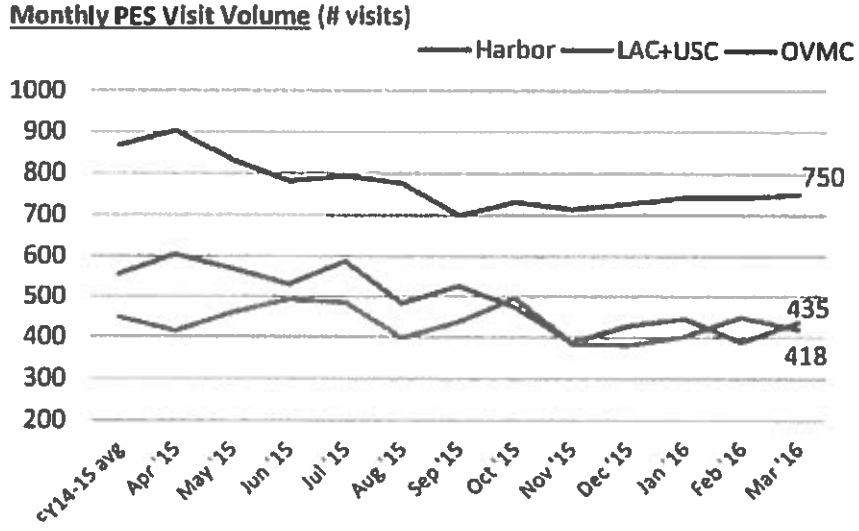
   b. Free standing psychiatric facilities often work collaboratively with local EDs and LE, in conjunction with their own PETs, to receive admissions to their hospitals. DMH also

has contracts with some of the free standing psychiatric facilities to accept LE transports.

11. PES:

a. Description: Three County hospitals, Harbor-UCLA Medical Center (Harbor), LAC+USC Medical Center (LAC+USC), and Olive View – UCLA Medical Center (OVMC) provide PES. These hospitals have facilities and staff that are specifically intended to treat MH/SA emergencies (restraint beds, showers, isolation rooms, video surveillance, trained personnel to manage agitated behaviors, mental health social workers, etc.). Monthly data for fiscal year 2015-2016 on ED volumes and PES volumes are shown graphically below. This data is taken from the DHS Dashboard Report published April 2016.





b. Comment: These facilities are likely the best suited for management of the acutely agitated or potentially violent patients with MH/SA emergencies, given their resources (availability of restraint beds, isolation rooms, and specific mental health staff).

12. ED at LPS designated hospital:

a. Description: There are 24 general acute care hospitals (including the 3 County hospitals) that are LPS designated and also have basic emergency services and are 9-1-1 receiving facilities. Self-report data on MH/SA ED Visit volumes (2013):

ED	MH/SA ED visits	All visits	% MH/SA visits of all-cause visits
LPS	66,812	1,069,399	6.25%
Non-LPS	71,146	2,113,153	3.37%

ED	Pediatric MH/SA ED visit	% Pediatric MH/SA visits of all-age MH/SA visits
LPS	7,508	11.24%
Non-LPS	3,997	5.62%

ED	MH/SA Admissions	% (Admitted of all MH/SA visits)
LPS	39,500	59.12%
Non-LPS	33,098	46.52%

b. Comment: The availability of psychiatrists and mental health staff in ED's at LPS designated facilities varies. It is presumed, that a patient would be seen by a psychiatrist or mental health professional in a shorter period of time than compared to an ED at a non-LPS designated facility; however if 9-1-1 MH/SA transports were only directed to LPS designated facilities, the increase volume from the non-LPS designated facilities may increase delays.

13. ED at non-LPS designated facility:

    a. Description: There are 50 general acute care hospitals that have basic emergency services and are 9-1-1 receiving facilities, but who do not have LPS designation. Self-report data on MH/SA ED Visit volumes (2013) is shown above and compares ED MH/SA visits at LPS and non-LPS designated EDs.

    b. Comment: The availability of psychiatrists and mental health staff in ED's at non-LPS designated facilities varies. It is presumed, that most of these facilities do not have on-call psychiatrists and if they have access to on-call psychiatrists there are variable response times to when the patient may be evaluated.

14. Requires LE assistance for agitation / violence:

    a. Description: The current EMS protocols only address "agitated delirium," which is insufficient to address the broad spectrum of agitation or violent behaviors that can be manifested from MH/SA emergencies. Most first responders have major concerns regarding persons with MH/SA emergencies who are potentially dangerous, agitated or violent. It remains unclear what is the best response to the agitated or violent patient.

    b. Area of need: EMS providers in LA County lack access to any medication that can treat acute psychosis unless it has progressed to the point of agitated delirium. Midazolam, used for agitated delirium, can worsen patients whose agitation is due to acute psychosis.

    c. Comment: Further guidance and decision support is needed to improve the management of the agitated or violent patient. It is unclear how much training is provided or required, if any, for LE or EMS in de-escalation techniques

    d. Recommendation: Investigate the development of additional treatment protocols (non-pharmacologic and pharmacologic) to address MH/SA emergencies, in adults and children with concomitant agitation or violence. Refer to the EMS Agency Medical Advisory Council to determine whether the LA County EMS Agency should pursue the use of alternate agents for acute psychosis. Literature exists regarding successful prehospital use of neuroleptics and ketamine.

    e. Barriers to change: none

APPENDIX TO FIGURE 4: POTENTIAL FIELD RESPONSE MAP

The numerical items below correspond to the flowcharts for the "potential field response map" to MH/SA emergencies.

1. 9-1-1 receives call for MH/SA emergency:

    a. For cases that do not require immediate LE or EMS evaluation, consider whether it is possible to triage to a mobile crisis response team (SMART, MET, PMRT, PET etc.). The Committee believes that the presence of LE has the potential to escalate the behavioral condition and/or situation of vulnerable patients, and the specialized mobile crisis response teams are highly trained in MH/SA emergencies and behavioral de-escalation.

2. 9-1-1 Triage: any actual or potential behavioral agitation, violence, or criminal activity:

    a. Description: The current 9-1-1 system is designed to triage based on the following primary question posed by the PSAP 9-1-1 operator: "Does the patient have any injury or altered mental status?" If the answer is "yes" EMS is dispatched to respond. If the answer is "no" LE responds.

    b. This field response map has the 9-1-1 triage question re-oriented towards having EMS as the default first responder and LE would be triaged to the scene based on the presence or anticipation of agitated or violent behavior, or possible criminal activity.

3. EMS responds:

    a. EMS always responds to the scene, in keeping with the principle that MH/SA emergencies are a type of medical emergency, as well as to provide potential treatment for mental health emergencies (see appendix item #6).

4. EMS Field Triage:

    a. When EMS arrives on scene, personnel assessing the situation should attempt to determine if the person has any actual or potential for behavioral agitation, threats to safety, or criminal activity. If the answer is yes, then LE is called to co-respond to the scene to provide additional assistance to ensure the safety of the subject and others.

5. LE called to co-respond (+/- SMART/MET):

    a. LE is called to respond in cases where the subject has actual or potential behavioral agitation, violence, threats to safety, or criminal activity.

6. Subject has MH/SA emergency +/- other medical emergency:

    a. EMS will determine if the patient has an MH/SA emergency, and/or another medical emergency.

b. Field treatment protocol will be updated to address persons with MH/SA emergencies and concomitant agitation or violent behaviors, including de-escalation techniques, pharmacological treatment, and use/avoidance of restraints.

c. At this stage the subject should also be assessed for the potential need of an involuntary psychiatric hold (WIC 5150 or 5585 for pediatric patients).

i. LPS certification may perhaps be extended to EMS providers. The Committee noted that LE officers, with little medical training are permitted to determine the need for involuntary holds, but EMS providers are not. As a long term goal, we believe that EMS providers are capable of safely determining the need for involuntary holds and should be granted that power. The training for both LE and EMS should be a requirement for purposes of consistency and uniformity across the County.

7. Leave in field / no transport:

a. Resources to community MH/SA services should be made available for persons left in the field, including but not limited to PMRT, MHUCC, County DMH ACCESS, addiction treatment services. Technology advances such as a development of an application that could provide real time information on available MH/SA resources would be a great adjunct.

8. LE to take custody of subject for booking, or to manage severe violence or agitation:

a. A binary yes/no question to determine most appropriate mode of transport and to reduce the unnecessary use of handcuffs/squad car transport. The Committee recognizes that the placement of handcuffs and the use of a patrol vehicle have the potential to escalate a MH/SA emergency, occasionally with severe negative results. The Committee suggest that LE agencies consider the need to handcuff individuals based on patient behavior rather than policy. The improved response capabilities of specialized LE teams and ongoing MH/SA training of LE officers throughout the County will improve the ability to successfully de-escalate patients prior to transport.

9, 10, 11. Needs medical ED evaluation or treatment:

a. EMS personnel will determine if the patient requires medical evaluation or treatment, and if yes, then transport to the most appropriate receiving hospital ED, which may be a LPS or non-LPS designated facility. Currently, policy limits the EMS providers to transport only to the nearest receiving facility. Unfortunately, most ED's in LA County are non-LPS EDs, and, thus, they lack expertise, training, and equipment to optimally manage MH/SA patients. When a MH/SA patient presents to that ED and requires an involuntary hold, the process of transferring that patient to an LPS designated facility can take days. The Committee recommends that EMS providers be able to triage MH/SA patients in the field for the possible need for involuntary hold and, when need is determined, transport those patients preferentially to the ED of the nearest LPS

designated hospitals. Patients with MH/SA emergencies that are not believed to require an inpatient psychiatric hospitalization can be effectively managed at any ED, whether or not its hospital has LPS designation. This would provide the perfect opportunity to create a seamless process to transfer patients to a network MHUCC. This network needs to be robust and expanded beyond the current MHUCCs.

b. If no need for ED medical evaluation, then options for destination need to be expanded to MHUCC, County PES, Sobering Center, freestanding psychiatric facilities, or EDs at LPS designated facilities. A specific plan should be developed to address pediatric patients with MH/SA disorders. The MHUCC system has been shown to be a safe and effective alternative to EDs for LE transports. There is no reason to believe that EMS providers cannot have similar success. The patient benefits from the MH expertise of the MHUCC, the EDs benefit from a lower burden on MH/SA patients, and the EMS providers benefit from rapid offloading of their patients in order to free up resources for the next emergency call.

APPENDIX: IOM Fact Sheet on the Future of Emergency Care: Key Findings and Recommendations (June 2006)

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

FACT SHEET • JUNE 2006

The Future of Emergency Care: Key Findings and Recommendations

KEY FINDINGS

Many EDs and trauma centers are overcrowded. [Drawn from *Hospital-Based Emergency Care: At the Breaking Point*]

- Demand for emergency care has been growing fast—emergency department (ED) visits grew by 26 percent between 1993 and 2003.
- But over the same period, the number of EDs declined by 425, and the number of hospital beds declined by 198,000.
- ED crowding is a hospital-wide problem—patients back up in the ED because they can not get admitted to inpatient beds.
- As a result, patients are often "boarded"—held in the ED until an inpatient bed becomes available—for 48 hours or more.
- Also, ambulances are frequently diverted from overcrowded EDs to other hospitals that may be farther away and may not have the optimal services. In 2003, ambulances were diverted 501,000 times—an average of once every minute.

Emergency care is highly fragmented. [Drawn from *Emergency Medical Services At the Crossroads*]

- Cities and regions are often served by multiple 9-1-1 call centers.
- Emergency Medical Services (EMS) agencies do not effectively coordinate EMS services with EDs and trauma centers. As a result, the regional flow of patients is poorly managed, leaving some EDs empty and others overcrowded.
- EMS does not communicate effectively with public safety agencies and public health departments—they often operate on different radio frequencies and lack common procedures for emergencies.
- There are no nationwide standards for the training and certification of EMS personnel.
- Federal responsibility for oversight of the emergency and trauma care system is scattered across multiple agencies.

Critical specialists are often unavailable to provide emergency and trauma care. [Drawn from *Hospital-Based Emergency Care: At the Breaking Point*]

- Three quarters of hospitals report difficulty finding specialists to take emergency and trauma calls.
- Key specialties are in short supply. For example, the number of neurosurgeons declined between 1990 and 2002, while the number of trauma visits increased.
- On-call specialists often treat emergency patients without compensation due to high levels of uninsurance.
- These specialists also face higher medical liability exposure than those who do not provide on-call coverage.

The emergency care system is ill-prepared to handle a major disaster. [Drawn from all three reports]

- With many EDs at or over capacity, there is little surge capacity for a major event, whether it takes the form of a natural disaster, disease outbreak, or terrorist attack.
- EMS received only 4 percent of Department of Homeland Security first responder funding in 2002 and 2003.
- Emergency Medical Technicians in non-fire based services have received an average of less than one hour of training in disaster response.
- Both hospital and EMS personnel lack personal protective equipment needed to effectively respond to chemical, biological, or nuclear threats.

EMS and EDs are not well equipped to handle pediatric care. [Drawn from *Emergency Care for Children: Growing Pains.*]

- Most children receive emergency care in general (not children's) hospitals, which are less likely to have pediatric expertise, equipment, and policies in place for the care of children.
- Children make up 27 percent of all ED visits, but only 6 percent of EDs in the U.S. have all of the necessary supplies for pediatric emergencies.
- Many drugs and medical devices have not been adequately tested on, or dosed properly for, children.
- While children have increased vulnerability to disasters—for example, children have less fluid reserve, which leads to rapid dehydration—disaster planning has largely overlooked their needs.

Drawn from the Future of Emergency Care report series, 2006 • Institute of Medicine • www.iom.edu

References

1. Tang, N., Stein, J., Hsia, R. Y., Maselli, J. H. & Gonzales, R. Trends and characteristics of US emergency department visits, 1997-2007. *JAMA* **304,** 664–670 (2010).

2. Torrey, E. F. A Dearth of Psychiatric Beds. *Psychiatric Times* 3–5 (2016). <http://www.psychiatrictimes.com/psychiatric-emergencies/dearth-psychiatric-beds>

3. Stone, A., Rogers, D., Kruckenberg, S. & Lieser, A. Impact of the mental healthcare delivery system on california emergency departments. *West. J. Emerg. Med.* **13,** 51–6 (2012).

4. Zun, L. S. *Behavioral Emergencies for the Emergency Physician.* (Cambridge University Press, 2013).

5. Holt, W. & Adams, N. *Mental Health Care in California : Painting a Picture.* (2013). <http://www.chcf.org/~/media/MEDIA LIBRARY Files/PDF/PDF M/PDF MentalHealthPaintingPicture.pdf>

6. Chun TH, Mace SE, Katz ER, American Academy of Pediatrics Committee on Pediatric Emergency Medicine, American College of Emergency Physicians, Pediatric Emergency Medicine Committee: Executive summary: Evaluation and management of children and adolescents with mental health or behavioral problems: Part I: Common clinical challenges of patients with mental health and/or behavioral emergencies. Pediatrics 2016;138(3):e20161571.

7. Chun TH, Mace SE, Katz ER, American Academy of Pediatrics Committee on Pediatric Emergency Medicine, American College of Emergency Physicians, Pediatric Emergency Medicine Committee: Evaluation and management of children and adolescents with mental health or behavioral problems: Part I: Common clinical challenges of patients with mental health and/or behavioral emergencies. Pediatrics 2016;138(3):e20161570.

8. Dolan MA, Fein JA, and the American Academy of Pediatrics, Committee on Pediatric Emergency Medicine. Technical Report - Pediatric and Adolescent mental health emergencies in emergency medical services system. Pediatrics 2011;127:e1356-e1366.

9. Derlet, R. & Richards, J. Overcrowding in the nation's emergency departments: complex causes and disturbing effects. *Ann. Emerg. Med.* 3–8 (2000). At <http://www.sciencedirect.com/science/article/pii/S0196064400701053>

10. Grant, D. *et al. Mental Health Status and Use of Mental Health Services by California Adults. Health Policy Research Brief,* UCLA Center for Health Policy Research, (2010).

11. American College of Emergency Physicians, "Psychiatric and substance abuse survey, 2008". 1–3 (2008). <https://www.acep.org/uploadedFiles/ACEP/Advocacy/federal_issues/PsychiatricBoardingSummary.pdf>

12. Thomas, Marshall R., et.al. Prevelance of psychiatric disorders and costs of cre among adult enrollees in a Medicaid HMO. Psychiatric Servcies 56.11 (2005): 1394-1401.

13. Oregon Department of Human Services, Addiction and Mental Health Division, Measuring Premature Mortality among Oregonians. 2008.