

# **THE SAN DIEGO HEPATITIS A EPIDEMIC: (MIS)HANDLING A PUBLIC HEALTH CRISIS**

## ***SUMMARY***

The 2017/2018 San Diego County Grand Jury (Grand Jury) examined responses to the local Hepatitis A outbreak, which lasted from November 2016 to February 2018. The investigation included development of a chronology of events related to the outbreak, examined measures taken to mitigate spread of the disease, communication and cooperation between San Diego County and City authorities in implementing these measures, and reviewed successes and problems in dealing with this unprecedented crisis.

The 2017/2018 San Diego County Grand Jury recommends:

- That the County declare a local public health emergency much sooner when confronted with a similar outbreak in the future.
- That the County Emergency Operations Plan be revised to establish a command structure during a health emergency, to facilitate the affected agencies' ability to recognize and implement their duties within this structure.
- That the County more clearly establish lines of authority to prevent misunderstandings regarding departmental responsibilities.
- That the County of San Diego designate a project manager who can communicate effectively with City officials and medical personnel to take necessary actions quickly during a health emergency.
- That the City of San Diego adopt the procedures described in Health and Safety Code §§101375-101380 to reinforce the authority of the county health officer in dealing with public health crises.
- That the City of San Diego designate a medical professional to report directly to the Mayor, someone who can advise city officials on the significance of announcements regarding potential health emergencies.
- That the City of San Diego construct and maintain additional secure restrooms and handwashing facilities in areas where the homeless congregate (a recommendation made by previous Grand Juries in 2004/2005, 2009/2010, and 2014/2015).

## ***INTRODUCTION***

In March 2017, San Diego County epidemiologists reported an outbreak of Hepatitis A (HepA) cases. This sudden increase in HepA centered on the local homeless population and illicit IV drug users, and was unrelated to food contamination. Over the next few months this developed into the largest epidemic of HepA in the country in over 25 years. It was not until six months later, after 434 cases and 16 deaths had been reported, that the Public Health Officer for the County of San Diego declared and San Diego County Board of Supervisors (Board) ratified a local public health emergency. The Board ended the emergency on January 23, 2018, at which time 580 cases and 20 deaths due to HepA had been reported.

The Grand Jury investigated the actions taken by the County and City of San Diego to respond to this unprecedented epidemic. Although other cities within the county were impacted and took action during the Hepatitis A crisis, the primary concentration of cases was located within the City of San Diego. Thus the Grand Jury focused its investigation on interactions between the County and City of San Diego. For that reason references to the City in this report are exclusively to the City of San Diego. Efforts to vaccinate at-risk individuals began quickly once the outbreak was identified. Mass vaccination programs were started in various locations within a month of the announcement.

The Grand Jury found that the County developed innovative and effective campaigns to contact and offer vaccinations to at-risk individuals in difficult-to-reach areas, such as riverbed encampments. However, inadequate communication and coordination of activities between the County and the City of San Diego delayed sanitization procedures that could have mitigated the spread of HepA. These problems could have been resolved more readily if the County had a more effective Emergency Operations Plan (EOP) for an epidemic of this magnitude.

## ***PROCEDURES***

The Grand Jury interviewed:

- Medical and administrative personnel from County of San Diego Health and Human Services Agency and Department of Public Health Services
- Upper level management from several cities in the county
- Law enforcement personnel from throughout the county

The Grand Jury visited:

- East Village public facilities, handwashing stations, and homeless encampment areas
- County detention facilities to review their procedures in combatting the spread of HepA

The Grand Jury read reports on the HepA emergency in local media and professional journal and from public health agencies.

The Grand Jury developed a Timeline for the Hepatitis A Crisis, combining reports from interviews, news articles, medical reports, emails, and other sources of information to define the chronology of events to understand local responses. This Timeline, presented as Appendix A of this report, is intended to serve as a resource for the public to provide a better understanding of the manner in which the crisis developed.

## ***DISCUSSION***

### ***Background***

Hepatitis A (HepA) is an acute infectious liver disease caused by the hepatitis A virus (HAV). The virus is commonly transmitted via the fecal-oral route. Even microscopic traces of fecal matter containing the virus can be transmitted from one individual to another in a variety of ways. HepA outbreaks present unique difficulties for epidemiological study for a variety of reasons: (1) infected individuals often do not display any symptoms, (2) the time between infection and symptoms ranges from two to seven weeks, (3) infected individuals are capable of

infecting others prior to the onset of symptoms (roughly 10 days after infection), and (4) initial symptoms are often mistaken for flu. In addition, the virus is very hardy. It can live for months outside the body, and survive extremes of cold and heat.

In underdeveloped countries HepA is most often caused by poor sanitation and overcrowding, conditions similar to those faced by the homeless in San Diego. In developed countries HepA is more often caused by eating food contaminated during growing, storage, and transportation of raw foods, inadequate cooking of food, or contact with infected food handlers who do not adequately wash their hands. International travelers can also contract HepA by visits to countries where the disease is prevalent.

### ***Identifying the Outbreak***

Multiple factors made it difficult to identify and determine the causes of the outbreak of HepA that occurred in San Diego in 2016 and 2017. First, an increase in occurrence had to be identified as an outbreak by public health officials, who depended on reports assembled from medical providers in the county. That information is disseminated to local health authorities and providers via the California Health Alert Network (CAHAN), a bulletin prepared and published by the San Diego County Health and Human Services Agency (HSSA).

A disease outbreak is recognized when a sudden increase in occurrence, significantly above the normal incidence, is reported in a specific group of people over a particular period of time. In San Diego, the normal occurrence of HepA had been one or two cases per month (15 to 22 per year) in the three years prior to the increase in early 2017.

Epidemiologists faced a number of difficulties in identifying and understanding this increase in hepatitis A cases, including the long incubation period and the absence of symptoms in the early stages of infection. Even more important was the transient nature of the infected individuals, who were difficult or impossible to locate for further study. In addition, the November 2016 CAHAN had reported that contaminated strawberries had been shipped to California, another potential source of infection, further complicating the search for the cause of the outbreak.

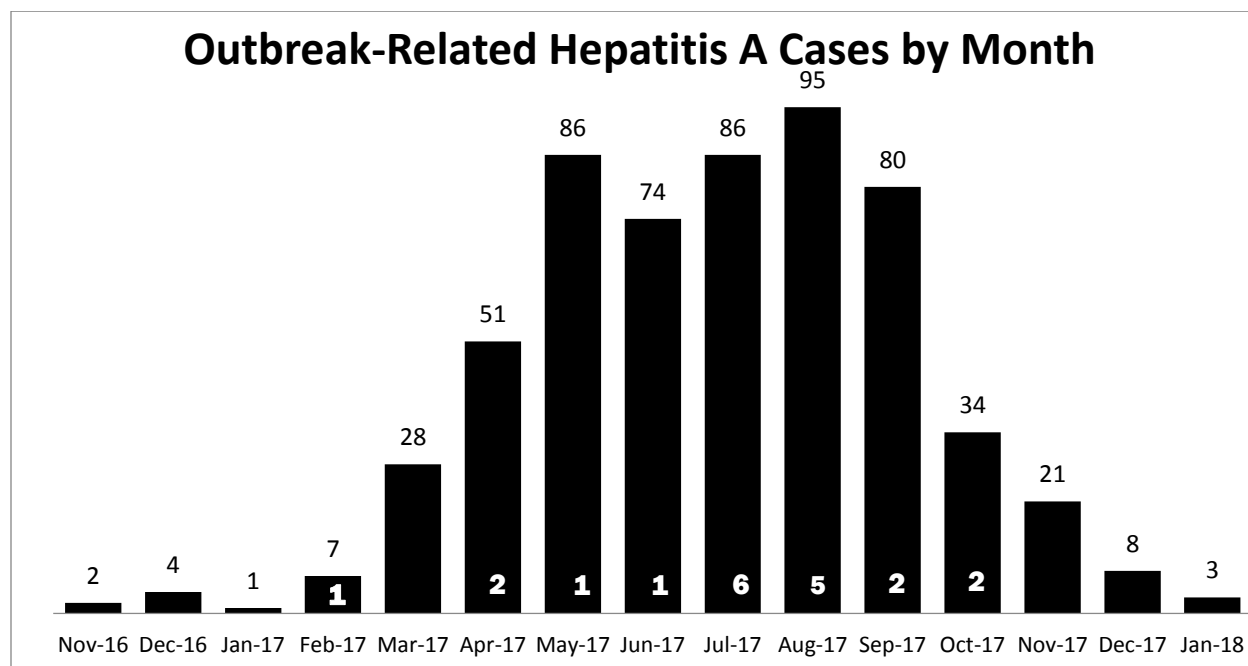
The March 10, 2017, CAHAN identified the rise in HepA as an outbreak. Health authorities throughout the county were notified that, between November 1, 2016, and March 4, 2017, 19 cases had been confirmed, resulting in 15 hospitalizations and one death. The increase in cases was first evident in February 2017, when seven cases were reported. Five more were added in the first few days of March, marking this as the largest outbreak of HepA in the United States in 20 years. Examination of those early cases revealed that this outbreak was not due to a food-borne contamination. Instead, the victims were primarily homeless and illicit drug users. The outbreak was not related to travel outside the country, and no common food, beverage, or drug source was identified. The common factor among the victims was lack of sanitary conditions. Subsequent epidemiological analysis determined that the first identified victim had been treated in El Cajon. Follow-up investigations were not possible as the patient had been dismissed and had not provided an address.

Recipients of the March 10, 2017 CAHAN report were advised to take four steps: (1) consider HepA in diagnoses of those with onset symptoms, (2) report all confirmed and suspected HepA

cases to the Epidemiology Program at PHS, (3) provide post-exposure treatment and protection to those who had been in close contact with HepA cases, and (4) begin to vaccinate homeless individuals who were not already immune. Vaccinations were made available at County Public Health Centers and through various immunization programs. In addition, the report also recommended that cities provide toilet and handwashing facilities for the homeless.

CAHAN bulletins continued to update health professionals on the status of the crisis and recommend actions to control the outbreak. The April 4, 2017, CAHAN reported the number of cases had increased to 39. Again, these cases were found to be primarily among drug users and homeless.

Table 1 shows the number of new cases of outbreak-related HepA by month from November 2016 to January 2018.



Created from data provided by the County Department of Public Health Services. White numbers inside the vertical bars represent the number of HepA deaths reported in that month.

***Declaration of a Health Emergency***

Although the increase in HepA cases was recognized as an outbreak or local epidemic in early March, it was not declared a public health emergency until September 1, 2017, and City and County officials did not come together for a joint press conference to address responses to the crisis until September 19, 2017.

Declaration of a public health emergency is a vital step in dealing effectively with a local epidemic. Such declaration gives the Public Health Officer (PHO) the legal basis for directing the health-related activities of governmental entities within the county, rather than merely advising or negotiating with them regarding steps that could be taken to control an outbreak. This authority is clearly articulated in the Health and Safety Code and in Annex E of the

Emergency Operation Plan, which define the statutory bases for local health emergency responses. The EOP provides limited guidance for administrators attempting to decide on a course of action in communicable disease emergencies. In a high-stress situation such as a local epidemic, where ambiguity is an enemy, it is essential that the responsibilities of different agencies be clearly defined, and that a single position of authority be clearly delineated. However, the EOP provides a list of five officials from the County of San Diego who could activate Annex E, Public Health Operations:

1. County Chief Administration Officer (CAO) in that capacity , or as Director/Coordinator of Emergency Services; or
2. Designated Deputy CAO; or
3. Director, Office of Emergency Services or designated representative; or
4. Public Health Officer (PHO) or designated representative; or
5. Chief, Emergency Medical Services or designated representative.

The numerical ranks in this list do not represent an order of precedence. The presumptive leader is not defined, which leads to uncertainty and delays when leadership and action is needed. The EOP should be revised to establish a clear command structure.

City and County have agreed that the County, through the PHS, has authority over the cities in regard to matters of public health. However, this does not mean that county and city worked together in an effective and coordinated manner, and it seems that there is uncertainty as to the limits on the authority of the PHS in directing activities within the City. The Health and Safety Code §§101375-101380 defines a process through which cities may consent to county authority by adopting a resolution or ordinance on an annual basis. Such resolutions have not been adopted by the City in recent years. The Grand Jury recommends that the procedures outlined in §§101375-101380 be carried out by the City to ensure that the authority of the PHS to enforce public health measures is recognized.

Analyses of email records revealed that the City and County discussed a number of possible responses to the crisis, but did not implement them for several months as the disease spread and the number of deaths continued to climb. In the six months between the identification of the outbreak and the declaration of a health emergency, 420 additional people were infected, and 15 more died. By the time a local public health emergency was declared, the epidemic had peaked and the number of new cases was declining.

Much of this delay in implementation can be attributed to the lack of coordination and cooperation between the City and County. Clearly the HepA epidemic was unprecedented, and no playbook for dealing with it existed. City and County agree that County agencies, the HSSA and PHS, are responsible for monitoring and responding to public health issues. However, there was little agreement beyond that. City officials said they depended on the County's greater experience and authority in dealing with public health crises, but found the County slow to respond. County officials in turn said that, although the City responded quickly, their responses were more likely to create impediments than immediate corrective action. This led to a number of conflicts and delays in responding to the crisis.

The Grand Jury learned that several factors played a role in the lack of coordination between City and County. As noted earlier, the EOP for dealing with a local public health emergency is not sufficiently developed to provide guidelines for agencies that may have overlapping or conflicting authorities. The EOP needs to be updated and improved to provide greater clarity in defining separate and joint responsibilities. The County, as the lead agency for local health emergencies, needs to develop more efficient and clear incident command and control protocols to create and execute action plans. That protocol should clearly identify actions to be taken, specify who is to have authority to direct the activities of all agencies within the county, and define directives that the cities must follow without delay.

An additional concern is that the City of San Diego does not have a clearly defined position for a medically-trained individual to advise city leadership in crisis situations such as the HepA epidemic. Administrators whose training and experience is concerned with municipal governance cannot be expected to understand the implications and significance of a CAHAN report. Such materials need to be evaluated by a medical professional who can advise city leaders on these matters. At present the only medical advisor position in the City administration is in the Fire-Rescue Department, where a physician has filled a position as EMS Medical Director who reports to a Deputy Fire Chief, rather than having a more direct link to City leaders. A recent proposed change in this position – designating a committee of physicians from UCSD Medical School to serve as EMS Medical Directors – does not appear to the Grand Jury to improve the problem of access to city leaders and may further weaken the position by dividing authority among individuals rather than assigning it to a single person.

At the County level, it may be helpful to designate someone with administrative experience, such as a deputy CAO, to work with the PHO in communicating recommendations and, if necessary, directives to city officials. This would allow the PHO to focus on developing measures to respond to an epidemic without having to simultaneously direct the implementation of those measures.

### ***Responses to the Outbreak***

Once PHS identified the HepA outbreak it initiated a three-pronged response to the crisis, focused on vaccination, sanitation, and education. The Grand Jury examined the measures taken and problems encountered in the first two forms of response in detail. Education measures, to some extent, were a part of the vaccination and sanitation activities and, although there were some difficulties in coordinating the preparation and distribution of posters, they were less critical than the vaccination and sanitation activities.

### ***Vaccination***

Vaccination is the most effective method for protecting individuals who have not been exposed to the virus. A single dose provides about 90% immunity, and a second dose given six months later provides close to complete immunity.

The County began initial vaccination programs in March, 2017, concurrent with recognition of the outbreak. The first CAHAN reports advised all clinicians and emergency medical service providers to be immunized and to begin vaccinating the homeless. This was followed by mass

free vaccination programs at local shelters and other organizations that served the homeless community throughout the county.

These programs were effective in reaching a substantial portion of the urban homeless population who were motivated to be vaccinated. However, those who were not predisposed to accept vaccination and those who lived in isolated settlements (e.g., along rivers or in canyons) were more difficult to reach, and innovative methods had to be developed to treat these groups. For example, the County of San Diego's Emergency Medical Director gained state approval for firefighter paramedics to administer vaccinations under the supervision of registered nurses, which increased the number of responders to give injections. In another creative and effective effort to increase access to the homeless, PHS created "foot teams" of nurse volunteers, accompanied by law enforcement and/or outreach personnel familiar with the homeless in an area, that went to homeless encampments throughout the county to offer free vaccinations.

Individuals who rejected vaccination had a variety of reasons, ranging from fear of needles to a lack of trust in government officials to rumors that the injections were intended to give them the disease or kill them. The foot teams joined forces with groups such as the Homeless Outreach Teams (HOT), or other individuals known to and trusted by the homeless to inform them of the importance of vaccination, reassure them of its safety and, in some cases, offer them gift cards or other inducements. Anecdotal reports indicate that these more individualized efforts were successful in vaccinating many who were initially hesitant or antagonistic.

Available records indicate that this massive vaccination program was successful in reaching a large portion of the homeless community. As of February 7, 2018, a total of 291 nurses from HSSA, hospitals, and health providers in the county had vaccinated 106,516 individuals. This greatly exceeds the estimated number of homeless persons in the county, indicating that the information campaign concerning the vaccination program reached far beyond the targeted population. The vaccination program was the single most effective measure taken to control the HepA crisis.

### ***Sanitation Measures***

Vaccination serves to protect individuals who have not developed immunity to HepA, but it does not address the causes of an outbreak. In San Diego the basic lack of sanitation and sanitary conditions among the homeless provided an environment in which HepA could easily spread. Besides the primary problem – the lack of public toilets and handwashing stations – other ideas have been offered to explain why the outbreak occurred at this time. One suggestion is that the outbreak was due to an effort to push the homeless out of downtown and into increasingly congested encampments in order to improve the appearance of the downtown area prior to the July 2016 All-Star baseball game. Another proposed that the ban on single-use plastic grocery bags, which started in November 2016, deprived the homeless of an efficient and relatively sanitary method for containing and disposing of fecal matter. However, there is little medical evidence to support these conjectures.

The primary problem was that the homeless did not have access to public toilets and handwashing stations that would have provided more sanitary living conditions, making it virtually inevitable that their encampments would become breeding grounds for the spread of

HepA. The failure to provide access to public toilets for the homeless had been noted in San Diego County Grand Jury reports in 2005, 2010, and 2015, but their recommendations were not adopted by the City. The City response to the 2015 report noted that, although the City agreed that there was an urgent need for public restrooms in downtown San Diego, the actual placement of these facilities required further analysis. Primary concerns included a lack of funds for installation, difficulties in finding suitable locations, concerns about criminal activities, and a need for security in and around such facilities.

Three primary approaches to improve sanitary conditions and limit the spread of HepA were employed: distribution of hygiene kits, installation of public toilet and handwashing stations, and sanitization of the areas where homeless encampments were found. We examine the details of each measure in turn.

### *Hygiene Kits*

PHS personnel prepared and distributed hygiene kits as part of their outreach vaccination program. These kits contained wet wipes, hand sanitizer, bottled water, plastic bags for waste disposal, and information sheets describing HepA symptoms and access to treatment. Over the course of the emergency PHS distributed over 11,000 kits to at-risk individuals. There is no data to assess the effectiveness of these kits, but they may have been more important in increasing public awareness of the crisis than in reducing transmission.

### *Handwashing Stations and Portable Toilets*

The March 10, 2017, CAHAN included a recommendation that cities begin to provide public toilets and handwashing facilities for the homeless. In this report the Grand Jury focuses on the installation of these stations in the City of San Diego, as it was the site of the largest population of homeless people. Similar actions were taken in other cities, where they were more easily implemented because the number of homeless individuals was smaller.

Handwashing stations provide an effective method for reducing transmission of HepA. Infected people who wash their hands are less likely to transmit the virus through casual contact, and uninfected people who keep their hands clean reduce the likelihood of infection through touching their hands to their mouth or nose. Although the potential benefit of handwashing stations is clear, implementation of this recommendation was problematic for several reasons. Citizens objected to placement of stations in their neighborhoods, fearing that they would serve as a magnet for more homeless people to move into the area, and law enforcement believed that portable toilets associated with these stations could serve as locations for drug use and prostitution. As a result, requests from the County to install public toilets and handwashing stations in the City were initially met with resistance and requests for further information that delayed placement of stations.

On May 4, 2017, the County proposed the placement of handwashing stations in areas frequented by the homeless, but the City declined to take action. The County repeated the proposal two weeks later, offering to pay for the stations, but the City again declined.

On June 28, the City offered to consider a permitting process, but required that the County conduct a pilot test on County property. The City said that its reluctance to place portable toilets



downtown and in other areas was because of a concern about encroaching on the public right-of-way as well as the possibility of criminal activities associated with similar facilities in the past. The City requested descriptions and possible locations for the handwashing stations, stating that it was ready to issue permits for placing them on public right-of-way but the County said these stations were still in the planning stage. On July 14, two pilot stations were placed on HSSA property near Rosecrans Street, not an area of primary need, because no permit had been issued for placements on city property.

In late August, 2017, the County again raised the issue of installing handwashing stations in the downtown area. The City declared it was ready to authorize a single permit covering any sites the County wanted within a few days. On August 30, 2017, a single handwashing station was placed in the downtown area.

On August 31, 2017, the County issued a directive, demanding that the City take immediate action to address the unsanitary living conditions of homeless individuals in the City, implement a cleaning and sanitation protocol, and place handwashing stations in at least 30 locations.

The next day, September 1, 2017, the County declared a local health emergency, giving PHS added authority in implementing measures designed to counter the epidemic. City officials have asserted that this action was taken at their urging. These differing accounts further illustrate the lack of an efficient, coordinated program.

Over the next few weeks handwashing stations and public toilets were placed in a number of cities and in unincorporated areas of the county. County records indicate that 160 handwashing stations were placed throughout the county. The City of San Diego reported that 82 handwashing stations had been installed on city property, along with sets of four portable toilets at four locations. Security was provided at the portable toilet installations. The City also announced that many of the existing public restrooms would be open 24 hours a day, rather than being locked overnight as had been done previously.

### ***Street Sanitizing***

A concern about a large number of homeless living in crowded conditions on the streets without access to basic sanitation is that such areas can become breeding grounds for HAV. This concern led to the decision to sanitize these areas, using power-washing equipment and diluted chlorine bleach to remove and disinfect waste deposits. The County distributed a sanitation procedure document with recommendations for cleaning right-of-ways, which included both legal and logistical requirements. On September 5, 2017, Adams and University Avenue sidewalks and streets were power-washed by city contractors. On September 11, 2017, a different contractor began power-washing streets and sidewalks with a bleach solution in and near downtown San Diego on a biweekly schedule. All persons living in these areas were given notice that they had to move and were not to return.

Although these operations appear to be an effective method for controlling the spread of HepA, they may in fact have created new problems. If infected individuals were among those forced to move, eviction from sidewalk encampments may have served to spread the disease beyond the rather limited area where they had been living. Reports from homeless advocates confirm that

homeless individuals did move into new locations where sanitizing procedures were not being done. A second concern is that power washing with bleach may not be effective unless the solution is concentrated enough, but this level of concentration may cause environmental damage, harming vegetation and animal life in the area.

Power-washing is also expensive. This was made even more critical when it was revealed that the City had awarded a \$1.3 million contract to an out-of-state company to power-wash the streets, at a cost that appeared far more expensive than hiring a local firm. Rather than hiring local workers, the contracted company brought in workers daily from Los Angeles, who received overtime pay for travel, plus other add-ons that added at least \$99,000 to the contract.

### ***Riverbed cleaning.***

In September 2017, the City restated a concern about the possibility of HAV being transmitted through waste deposited in or near riverbeds in the county, and asked the County to assist in cleaning these areas. The County responded that riverbeds and ravines inside city limits were under the jurisdiction of the City. Subsequent comments from a variety of public health authorities, both local and national, reported that this was an extremely unlikely method for transmission. Despite that, a number of homeless encampments were closed by the police, and cleaning crews were sent to remove the accumulated wastes.

### ***End of the Emergency***

On January 23, 2018, the County ended the local health emergency, 11 months after the announcement of an outbreak and five months after a public health emergency had been declared. At that time there had been no new cases of HepA for four weeks. The total number of confirmed cases related to the outbreak stood at 580, with 20 deaths.

Examination of responses to the HepA epidemic revealed a number of shortcomings in the existing plans and procedures for dealing with local health emergencies. The primary focus of this report is not to identify deficiencies or assign blame. Instead, the Grand Jury hopes that this report will play a role in developing new policies and procedures to respond to public health crises and improve coordination between agencies in dealing with the demands of that situation.

## ***FACTS AND FINDINGS***

***Fact:*** An outbreak of hepatitis A among homeless and IV drug users in San Diego County was identified and reported in early March 2017.

***Fact:*** A local public health emergency was not declared until September 2017, six months after the outbreak was identified.

***Fact:*** The Local Public Health Emergency declaration was terminated on January 23, 2018.

***Fact:*** Between March 2017 and February 2018, 580 cases of HepA were reported, resulting in 20 deaths.

***Finding 01:*** An earlier declaration of a local public health emergency would have provided the authority to direct the implementation of more effective measures to deal with the epidemic.

**Fact:** The Emergency Operations Plan for local public health emergencies does not define the separate and combined responsibilities of County and City agencies during an emergency.

**Fact:** The Emergency Operations Plan lists multiple authorities, within different jurisdictions, that could potentially direct activities during a health emergency, rather than defining a single authority.

**Finding 02:** The Emergency Operations Plan failed to establish an incident command structure in a health emergency which led to confusion and jurisdictional conflict.

**Fact:** Prior to the declaration of a local public health emergency, County and City departments did not effectively cooperate and coordinate their activities.

**Fact:** Prior to the declaration of a local public health emergency, handwashing stations, an effective tool in combatting disease transmission, had not been allowed on City property because permits had not been granted.

**Fact:** Information provided by the County to the City regarding availability of handwashing stations was seen as inconsistent by City staff.

**Fact:** Over 40 handwashing stations were installed in the City within a week after declaration of a local public health emergency.

**Finding 03:** The lack of early cooperation between County and City resulted in unnecessary delays in installation of handwashing stations and other public health measures.

**Fact:** The County Public Health Service is responsible for monitoring and managing public health activities within the county, including directing those activities within municipalities.

**Fact:** Health and Safety Code §§101375-101380 defines a procedure by which a city may consent on an annual basis to the authority of the county health officer to enforce orders and statutes relating to public health.

**Finding 04:** The City has not followed the procedures defined in Health and Safety Code §§101375-101380 to allow the county health officer to enforce orders relating to public health.

**Finding 05:** City administrators and County health officers had different concerns in responding to the crisis and failed to appreciate each other's perspectives.

**Finding 06:** The City of San Diego does not have a staff member with medical expertise to evaluate and fully appreciate the significance of public health directives.

**Finding 07:** The County has not designated a project manager with sufficient expertise to understand the administrative concerns of City staff in responding to public health directives.

## ***COMMENDATION***

The 2017/2018 San Diego County Grand Jury commends the San Diego County Department of Public Health Services and the nurses, law enforcement personnel, paramedics, and homeless service providers who created the special foot teams to provide vaccinations for unsheltered individuals living in difficult-to-reach areas. This method for ensuring the widest possible distribution of vaccinations to an at-risk population represented an innovative and effective procedure to help deal with an unprecedented health emergency. The tireless efforts of the foot team personnel, who hiked in to homeless encampments and persuaded residents to agree to vaccination, reflect their dedication to the task of providing health care to our citizens. This procedure will undoubtedly be considered as a best practice for other agencies if they face a similar public health threat.

## ***RECOMMENDATIONS***

**The 2017/2018 San Diego County Grand Jury recommends that the Health and Human Services Agency for the County of San Diego:**

**18-06: Declare a local public health emergency much sooner when confronted with a similar outbreak in the future.**

**The 2017/2018 San Diego County Grand Jury recommends that the Chief Administrative Officer for the County of San Diego:**

**18-07: Direct that the County Emergency Operations Plan be revised to establish a command structure during a health emergency, facilitating the affected agencies' ability to recognize and implement their duties within this structure.**

**18-08: Clearly establish lines of authority to prevent misunderstandings regarding departmental responsibilities**

**18-09: Designate a project manager who can communicate effectively with City officials and medical personnel to take necessary actions quickly during a health emergency.**

**The 2017/2018 San Diego County Grand Jury recommends that the Mayor of the City of San Diego direct:**

**18-10: That the City of San Diego adopt the procedures described in Health and Safety Code §§101375-101380 to reinforce the authority of the county health officer in dealing with public health crises.**

**18-11: That the City of San Diego designate a medical professional to report directly to the Mayor, someone who can advise city officials on the significance of announcements regarding potential health emergencies.**

**The 2017/2018 San Diego County Grand Jury recommends that the San Diego City Council and Mayor of the City of San Diego direct:**

**18-12: That the City of San Diego construct and maintain additional secure restrooms and handwashing facilities in areas where the homeless congregate (a recommendation made by Grand Juries in 2005/2006, 2009/2010, and 2015/2016).**

### ***REQUIREMENTS AND INSTRUCTIONS***

The California Penal Code §933(c) requires any public agency which the Grand Jury has reviewed, and about which it has issued a final report, to comment to the Presiding Judge of the Superior Court on the findings and recommendations pertaining to matters under the control of the agency. Such comment shall be made no later than 90 days after the Grand Jury publishes its report (filed with the Clerk of the Court); except that in the case of a report containing findings and recommendations pertaining to a department or agency headed by an elected County official (e.g. District Attorney, Sheriff, etc.), such comment shall be made within 60 days to the Presiding Judge with an information copy sent to the Board of Supervisors.

Furthermore, California Penal Code §933.05(a), (b), (c), details, as follows, the manner in which such comment(s) are to be made:

- (a) As to each grand jury finding, the responding person or entity shall indicate one of the following:
  - (1) The respondent agrees with the finding
  - (2) The respondent disagrees wholly or partially with the finding, in which case the response shall specify the portion of the finding that is disputed and shall include an explanation of the reasons therefor.
- (b) As to each grand jury recommendation, the responding person or entity shall report one of the following actions:
  - (1) The recommendation has been implemented, with a summary regarding the implemented action.
  - (2) The recommendation has not yet been implemented, but will be implemented in the future, with a time frame for implementation.
  - (3) The recommendation requires further analysis, with an explanation and the scope and parameters of an analysis or study, and a time frame for the matter to be prepared for discussion by the officer or head of the agency or department being investigated or reviewed, including the governing body of the public agency when applicable. This time frame shall not exceed six months from the date of publication of the grand jury report.
  - (4) The recommendation will not be implemented because it is not warranted or is not reasonable, with an explanation therefor.
- (c) If a finding or recommendation of the grand jury addresses budgetary or personnel matters of a county agency or department headed by an elected officer, both the agency or department head and the Board of Supervisors shall respond if requested by the grand jury, but the response of the Board of Supervisors shall address only those budgetary or personnel matters over which it has some decision making authority. The response of the

elected agency or department head shall address all aspects of the findings or recommendations affecting his or her agency or department.

Comments to the Presiding Judge of the Superior Court in compliance with Penal Code §933.05 are required from:

<b><u>Responding Agency</u></b>	<b><u>Recommendations</u></b>	<b><u>Date</u></b>
<b>Director, Health &amp; Human Services Agency, San Diego County</b>	<b>18-06</b>	<b>08/15/18</b>
<b>Chief Administrative Officer, County of San Diego</b>	<b>18-07 through 18-09</b>	<b>08/15/18</b>
<b>Mayor, City of San Diego</b>	<b>18-10 through 18-12</b>	<b>08/15/18</b>
<b>City Council, City of San Diego</b>	<b>18-12</b>	<b>08/15/18</b>

## Appendix A. Timeline for the Hepatitis A Crisis<sup>1</sup>

The 2017/2018 San Diego County Grand Jury compiled a chronological list of events covering the San Diego Hepatitis A health emergency from outbreak through declaration and conclusion of the Local Health Emergency.

This timeline draws from the following sources:

- County of San Diego public documents
- City of San Diego public documents
- Federal, State of California and County of San Diego procedural manuals
- Interviews of San Diego County and City of San Diego public officials
- Local and national press reports

This document tracks the activities of the County and City of San Diego along with the activities of non-governmental organizations. Although other cities within the county were impacted and took action during the Hepatitis A crisis, the primary concentration of cases was located within the City of San Diego. For that reason the following references to “City” are exclusive to the City of San Diego.

**November 2016:** County Public Health began tracking elevated HepA levels in San Diego.<sup>2</sup>

**February 2017:** County Public Health noted a sharp increase in HepA among the homeless and illicit IV drug-using populations starting in November 2016.

**Death:** February 25, 2017, 58 year old male, East HHS region. Patient had underlying condition.<sup>3</sup>

**March 2017:** HepA increase designated an outbreak.

- **March 10:** County issued California Health Alert Network (CAHAN) to all clinicians and emergency practitioners, suggesting they be vaccinated and begin vaccinating the homeless population. 19 acute cases reported between November 1, 2016 and March 4, 2017. County suggested the city provide toilet facilities in areas where the homeless congregate.
- **March 28:** Father Joe’s Villages began partnering with County personnel to address the illness.

**April 2017:** Both City and County medical staff and officials urged the homeless and others at risk be immunized, noting that the outbreak could become a public health crisis. Mass vaccinations were organized at shelters and churches.<sup>4</sup>

- **April 5:** CAHAN reported 39 acute cases.
- **April 19:** 51 reported cases.
- **Deaths:** 72 year old male and 71 year old male, both from Central region and with underlying conditions.<sup>5</sup>

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<sup>1</sup> Information contained in this appendix was consolidated from a variety of sources, including the City of San Diego and San Diego County public documents, Federal, State and County operational procedures manuals, interviews with government employees and others involved in control measures, and media resources.

<sup>2</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepatitis-outbreak-20170505-story.html>

<sup>3</sup> County Health Document, November 21, 2017. Source for all following death data.

<sup>4</sup> <http://www.sandiegouniontribune.com/news/watchdog/sd-me-hepatitis-how-20170923-story.html>

## May 2017:

- **May 4:** CAHAN reported 80 cases and 3 deaths since November 2016. County Public Health requested information on ambulance transports of HepA patients; City asked for request in writing. City and County discussed providing information to Downtown San Diego Partnership about sanitation guidance for downtown businesses. City and County discussed improved sanitation and the deployment of handwashing stations.<sup>6</sup>
- **May 5:** City Human Resources communicated to the police, fire, libraries, park and recreation, transportation, environmental, and storm water services departments about a possible risk of infection and that the City was offering free vaccinations.<sup>7</sup> County Health Services notified the San Diego Hotel-Motel Association of the need to maintain routine cleaning of public and employee restrooms with chlorine-based disinfectants.<sup>8</sup>
- **May 19:** County sent a formal request for details of ambulance transport information concerning HEP A patients. City officials responded immediately, asking for names of those patients. City and County discussed providing sanitation guidelines to local businesses. City provided downtown vendors with sanitation guidelines. County requested permission to deploy handwashing stations.<sup>9</sup>
- **May 31:** CAHAN reported 133 acute cases and three deaths.
- **May Death:** 47 year old female, Central region with underlying condition.

## June 2017:

- **June 5:** City received a list of HepA patient names from the County.<sup>10</sup>
- **June 28:** City and County discussed distributing HepA information posters to libraries and recreation centers. City requested final description of handwashing stations and placement options from the County and reported that County said it was only in the planning phase. City awaiting County guidance before issuing permits for stations,<sup>11</sup>
- **Death:** 35 year old male, North Inland region, with underlying condition.

## July 2017:

Two prominent San Diegans announced they had raised enough money to purchase two tents that are capable of housing 250 homeless people each.

- Escondido Police Department officers and HHSA nurses began working together vaccinating those considered at high risk. Public restrooms and Escondido streambed encampments began to undergo regular cleaning.
- **July 13:** Two handwashing stations were installed by PHS on County property.<sup>12</sup> CAHAN reported 228 cases and five deaths.
- **July 14:** County sent updated flyer to the City for distribution to Downtown Partnership. City introduced potential permit option to the County for handwashing stations.<sup>13</sup>

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<sup>5</sup> County Health Document, November 21, 2017. Source for all following death data.

<sup>6</sup> <https://www.voiceofsandiego.org/topics/government/two-months-mulling-posters-more-details-on-bureaucratic-idling-amid-the-growing-hep-a-crisis-20170927-story-html>

<sup>7</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-city-warning-20171003-story-html>

<sup>8</sup> <http://www.sandiegouniontribune.com/news/health/sd-me-sro-hepatitis-20171107-story-html>

<sup>9</sup> Voice of San Diego, 9/27/2017

<sup>10</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepa-outbreak-20170612-story-html>

<sup>11</sup> <http://www.sandiegouniontribune.com/news/watchdog/sd-me-hepatitis-blame-20170925-story-html>

<sup>12</sup> Voice of San Diego, 9/27/2017

<sup>13</sup> Ibid



- **July 20:** County nurses began offering vaccinations in the San Diego riverbed area amid concerns by City officials that the river could carry virus.<sup>14</sup>
- **July 28:** City reported they were waiting for County to provide public information posters.<sup>15</sup>
- **Deaths;** 62 year old male, Central region; 53 year old male, North Inland; 47 year old male, North Central; 53 male, region unknown; 50 year old male, North Central; 59 year old female, South region. All had underlying conditions.

**August 2017:** Prevention outreach began at central city trolley and bus stations with plans to expand into North County.<sup>16</sup>

- **August 8:** City issued second memorandum to city employees who worked with the at-risk population to seek vaccination.<sup>17</sup>
- **August 16:** CAHAN reported 333 acute cases since November 2016 and 11 deaths.
- **August 31:** County issued a directive demanding the City take immediate action to address unsanitary living conditions and implement cleaning and sanitation protocols for at least 30 locations within five days. City finalized permits and responded that they would comply as soon as possible with County directives. City requested that MTS allow handwashing stations on MTS operated properties.<sup>18</sup>
- **Deaths:** 43 year old female, East region; 62 year old male, Central region; 61 year old male, Central region; 39 year old and 58 year old males Central region. All had underlying conditions.

**September 2017:**

- **September 1:** County declared the Hepatitis A Virus outbreak a Public Health Emergency.<sup>19</sup>
- **September 5:** Urban Corps, under contract to City, power-washed Adams and University Avenue streets and sidewalks.<sup>20</sup>
- **September 6:** County published and distributed a sanitation procedure document containing recommended procedures for cleaning rights-of-way. Public was notified of cleaning and asked to remove any hazardous items. Cleaning contractors were instructed as to what chemicals to use, gear to wear, and tools to use.<sup>21</sup>
- **September 11:** City contractor, Clean Harbors, began power-washing streets and sidewalks in downtown San Diego with a bleach and chlorine solution every other week. City announced 14 restrooms in Balboa Park would remain open 24/7.<sup>22</sup>
- **September 12:** CAHAN reported 421 cases, including 4 healthcare workers and 6 food handlers, and 16 deaths.

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<sup>14</sup> Ibid, <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hep-river-20171006-story-html>

<sup>15</sup> Voice of San Diego, 9/27/2017

<sup>16</sup> InSite San Diego, September 5, 2017

<sup>17</sup> Copy of City memorandum, August 8, 2017

<sup>18</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepatitis-emergency-20170901-story-html>, Voice of San Diego, 9/27/2017

<sup>19</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepatitis-emergency-20170901-story-html>

<sup>20</sup> <https://www.sandiegoreader.com/news/2017/sep/07/stringers-hepatitis-them-canyons/>

<sup>21</sup> Sanitation Procedures for Public Right-Of-Ways, September 6, 2017

<sup>22</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-cleaning-expand-20170927-story-html>

- **September 14:** City officials reiterated their concerns regarding the possibility of polluted waterways in San Diego and urged the County to assist. County replied the riverbeds and ravines were under the City's jurisdiction.<sup>23</sup>
- **September 19:** Mayor made first public statement regarding the outbreak during a press conference with City and County officials. City stated County did not provide direction until late August; County responded that City did not need County to inform City of what steps to take to address sanitation concerns.<sup>24</sup>
- **September 20:** Union-Tribune article cited four previous Grand Jury reports warning of the lack of city restrooms and sanitation. City officials agreed the City could have done more.<sup>25</sup>
- **September 21:** Escondido increased sanitation efforts. El Cajon established 38 handwashing stations in parks and started power-washing areas where homeless congregated. El Cajon Police Homeless Outreach Team began working with County nurses to vaccinate those at-risk.<sup>26</sup>
- **September 26:** County reported more than 42,000 immunizations given to date; noting that the population of illicit drug users countywide was approximately 400,000; the homeless population is estimated at 9,100; those living in unstable circumstances were near 25,000. Immunization efforts continued.<sup>27</sup>
- **September 27:** Sidewalk cleaning began in Midway area, Pacific and Ocean Beaches.
- **September 29:** Sidewalk cleaning began in Uptown and Mid-City.<sup>28</sup>
- **Deaths:** 56 year old male, Central region, underlying condition unknown; 81 year old male, Central region with underlying condition.

#### October 2017:

- **October 6:** Medical experts reported that San Diego County and City followed the California Code of Regulations and the Control of Communicable Diseases Manual in their handling of the HepA outbreak. Challenges included difficulties in locating and reaching the at-risk population, their unsanitary living conditions, and lack of trust in officials.<sup>29</sup>
- **October 9:** City-sanctioned homeless camp opened with 200 four-person tents, security, restrooms and showers at 20<sup>th</sup> and B Streets. To date County has vaccinated more than 54,000 persons.<sup>30</sup>
- **October 10:** City, working with local health providers, reached out to the 101 single occupancy hotels (5068 rooms) for vaccination efforts.<sup>31</sup>

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<sup>23</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hep-river-20171006-story-html>, Voice of San Diego, 9/27/2017

<sup>24</sup> <http://www.sandiegouniontribune.com/news/watchdog/sd-me-hepatitis-how-20170923-story-html>

<sup>25</sup> <http://www.sandiegouniontribune.com/news/watchdog/sd-me-grand-jury-20170920-story-html>

<sup>26</sup> <http://www.nbcsandiego.com/news/local/City-of-El-Cajon-Takes-Steps-to-Combat-Hepatitis-A-Outbreak,9/21/2017>

<sup>27</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepa-update-20170926-story-html>

<sup>28</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-cleaning-expand-20170927-story-html>

<sup>29</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepatitis-prevention-20171006-story-html>

<sup>30</sup> <http://www.pbs.org/newshour/rundown/outbreak-waiting-happen-hepatitis-marches-san-diegos-homeless-community/>

<sup>31</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepatitis-18-story-html>

- **October 13:** Mayor announced a temporary modification in State law, allowing paramedics to give HepA vaccinations under the supervision of registered nurses. HHS defined areas of operation for immunization teams (approximately 100 locations).<sup>32</sup>
- **October 16:** County released zip code map of HepA cases. Location data was used to help county determine where to send vaccine teams.<sup>33</sup>
- **October 24:** County reported no new deaths and a slowing in the number of reported cases of HAV. County reiterated that the CDC did not recommend testing of SD's waterways.<sup>34</sup> County released age and gender data of HepA victims. The County did not release data earlier to protect patient privacy, even though such information was available for deaths caused by other contagious diseases such as influenza. Medical expert stated the importance of educating the public to limit the spread of infection.<sup>35</sup>
- **October 26:** Carlsbad opened portable toilets and handwashing stations in high-traffic public areas.
- City-owned parking lots opened to those who sleep in their cars.<sup>36</sup> The Center, an LGBT nonprofit outreach, began working with the county to immunize those at risk in the LGBT community.<sup>37</sup>
- **October 31:** reported 536 HepA cases.
- **October Deaths:** 62 year old male, North Coastal region; 67 year old male, Central region; both with underlying conditions.

#### **November 2017:**

- **November 6:** City began construction of tent at 16<sup>th</sup> and Newton, near Father Joe's Villages. City considering two other sites including one near Midway for veterans. A 60 space parking lot at Aero and Murphy Canyon became a "safe parking zone" for those who sleep in their cars.<sup>38</sup> City reached out to the single-room occupancy hotel residents, to immunize those who were staying in hotels which are not members of the San Diego Hotel-Motel Association.<sup>39</sup>
- **November 11:** Vista, San Marcos and Encinitas paired HOT and public health nurses to reach out with vaccinations and other assistance.<sup>40</sup>
- **November 27:** County extended health emergency another 14 days as number of cases continued to decline. 105,482 vaccinations given. County was required to review health emergency every 14 days.<sup>41</sup>

**December 5:** County voted to extend local health emergency for two more weeks.<sup>42</sup>

#### **January 2017**

<sup>32</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepatitis-emergency-20171013-story-html>

<sup>33</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepatitis-map-20171017-story-html>

<sup>34</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepatitis-cases-20171024-story-html>

<sup>35</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-hepatitis-deaths-20171024-story-html>

<sup>36</sup> <http://www.sandiegouniontribune.com/communities/north-county/sd-no-carlsbad-parks20171114-story-html>

<sup>37</sup> <http://www.sandiegouniontribune.com/news/health/sd-me-hepatitis-update-20171031-story-html>

<sup>38</sup> <http://www.sandiegouniontribune.com/news/hepatitis-crisis/sd-me-shelter-sites-20171106-story-html>

<sup>39</sup> <http://www.sandiegouniontribune.com/news/health/sd-me-sro-hepatitis-20171107-story-html>

<sup>40</sup> <http://www.sandiegouniontribune.com/communities/north-county/sd-no-homeless-outreach-20171108-story-html>

<sup>41</sup> <https://www.countynewscenter.com/hepatitis-a-outbreak-slows-health-emergency-continues/>

<sup>42</sup> InSite San Diego, December 5, 2017

- **January 2:** County extended local health emergency two more weeks with plans to “transition out of the emergency” as case numbers continued to decline.<sup>43</sup>
- **January 23:** County ended local HepA declaration. No new cases for four weeks, but the outbreak was not necessarily over. Sanitation, vaccination and education efforts continued.<sup>44</sup>

**HepA Outbreak Totals:** 580 cases with 20 deaths.

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<sup>43</sup> <https://www.countynewscenter.com/hepatitis-a-emergency-winding-down/>

<sup>44</sup> <https://www.countynewscenter.com/county-ends-local-health-emergency-declared-for-hepatitis-a-outbreak/>