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San Diego Homeless Hygiene Evaluation

Focused Clinical Multidisciplinary Independent Study Project

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March 20, 2018

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Introduction

During a shift in the VA Emergency Department, I met a homeless veteran in his 70s who presented with yet another congestive heart failure decompensation. He understood his medical condition and knew he needed to take diuretics regularly to avoid such complications. He even had his medication with him, but he refused to take it on the street. The veteran explained to me that the diuretic made him urinate every hour, but he rarely had access to a restroom. He did not want to urinate illegally, so instead he was forced to compromise his own health.

It is generally accepted that hygiene is a problem for the homeless population and that these hygiene problems precipitate health problems for homeless patients. But to address homeless hygiene effectively, society must go beyond accepting the existence of the problem. The challenges of homeless hygiene must be understood in their intricacies. To craft durable solutions that are well-accepted, the problem must be seen from the perspectives of the various community stakeholders affected by homeless hygiene problems. Of course, it is critical to understand the perspective of the homeless population on hygiene challenges. It is also important to gather the distinctive viewpoints, priorities, and concerns of doctors, charity workers, law enforcement officers, business owners, and government officials.

Project Design and Scope

This focused clinical multidisciplinary independent study project (ISP) was designed to improve my understanding in the area of homeless hygiene challenges through a range of clinical and non-clinical experiences. The project focused on the following goals:

1. Gain an understanding of the scope and impact of hygiene problems faced by the homeless population
    a. Appreciate the social, financial, and health impacts of homeless hygiene problems.
2. Understand homeless hygiene problems from the different perspectives of the various stakeholders in the San Diego community
3. Understand the prioritization of hygiene problems from the perspectives of different community stakeholders
4. Gain insight into the reasons for the successes and failures of prior and current interventions
5. Learn about the acceptance or rejection of different types of interventions by various stakeholders in the community
6. Gain knowledge about the network of charitable programs and resources currently available to the homeless
7. Gain experience in relating to homeless patients and appreciation of the challenges they face
8. Establish the underlying knowledge and understanding suitable for creating and implementing future interventions to address homeless hygiene problems

I focused on capturing a breadth of experiences to learn about homeless hygiene. The design was to expose me to the various perspectives in the San Diego community and allow me to evaluate homeless hygiene problems specifically. Looking forward, the project was planned to enable me to design and implement future interventions, better serve homeless medical patients, and coalesce and share my experiences and assessments.

During each experience, I took the opportunity to discuss hygiene and other homeless challenges. I also had conversations with homeless patients on my other clinical rotations, including Inpatient Medicine, Gastroenterology, and Pain Medicine. Figure 1 lists the core experiences that comprised this ISP.

Experience	Time Spent	Locations	Brief Description
UCSD Free Clinics	23 clinics	Downtown, Pacific Beach, Lemon Grove, and Normal Heights	Student provider in the clinic
San Diego Community Clinics	14 clinics	Imperial Beach, Logan Heights, El Cajon, and Otay Mesa	Student provider with Dr. Faith Chisum, Dr. Brendan Kidder, Dr. Setareh Jones, and Dr. Danielle Richardson
Father Joe's Villages Health Center	2 days	Downtown	Shadowing and assisting the triage nurses
San Diego Day Center for the Homeless	1 meeting	Downtown	Interview with Paul Sheck
Project 25	1 meeting	Downtown	Observed a case discussion meeting
Think Dignity	1 meeting	North Park	Inquired about mobile shower program
San Diego Sheriff's Department	2 meetings	Various locations	Interviewed Tiffany about law enforcement's perspective
Homeless Outreach Team	1 meeting	Downtown	Interviewed Officer David McGowan with the HOT team during a hepatitis A vaccine drive
UCSD Infectious Disease	1 meeting	San Diego	Interviewed Dr. Darcy Wooten about the hepatitis A outbreak
UCSF Psychiatry Homeless Outreach Program	1 meeting	San Francisco	Interviewed Fern Delgado about UCSF's homeless outreach program
San Diego Business and Property Owners	1 meeting	San Diego	Interviewed Debbie, property manager, about renting to former homeless

Figure 1: List of experiences

Homelessness in San Diego

In his 2017 State of the City Address, San Diego Mayor Kevin Faulconer directly addressed what he termed the "homeless crisis." He acknowledged that in a sense, homelessness is a symptom of deeper problems, including poverty, addiction, and mental illness. The mayor spoke directly to the growing homelessness and reduced funding and declared, "We must make reducing homelessness our region's number one priority."[1]

As of January 2017, San Diego County had 9,116 people who are homeless, with 5,621 of those unsheltered. This total increased by 5% from 2016, and the number of unsheltered homeless people increased by 14%. The number of sheltered homeless decreased by 6% from 2016.[2] Men represented 69% of the unsheltered homeless population, women represented 29%, and 2% identified as transgender. The majority of homeless (76.6%) reported that they became homeless in San Diego.[3] This is especially relevant as there is a large concern that San Diego is a homeless destination. One of the reasons given for limiting homeless resources is to avoid attracting more homeless people to San Diego.

Only 3% of the homeless population reported having substance abuse issues that are long term or impact their ability to remain housed, but 20% reported instances of substance abuse issues that are not long term or impacting housing. Likewise, 4% reported a severe mental illness that is long term or affects their ability to remain housed, and 39% reported mental health issues while on the street. The main count reported 57% of the homeless were age 25-54. It should be noted that this main count underrepresents the youth population, and there is a separate youth count.

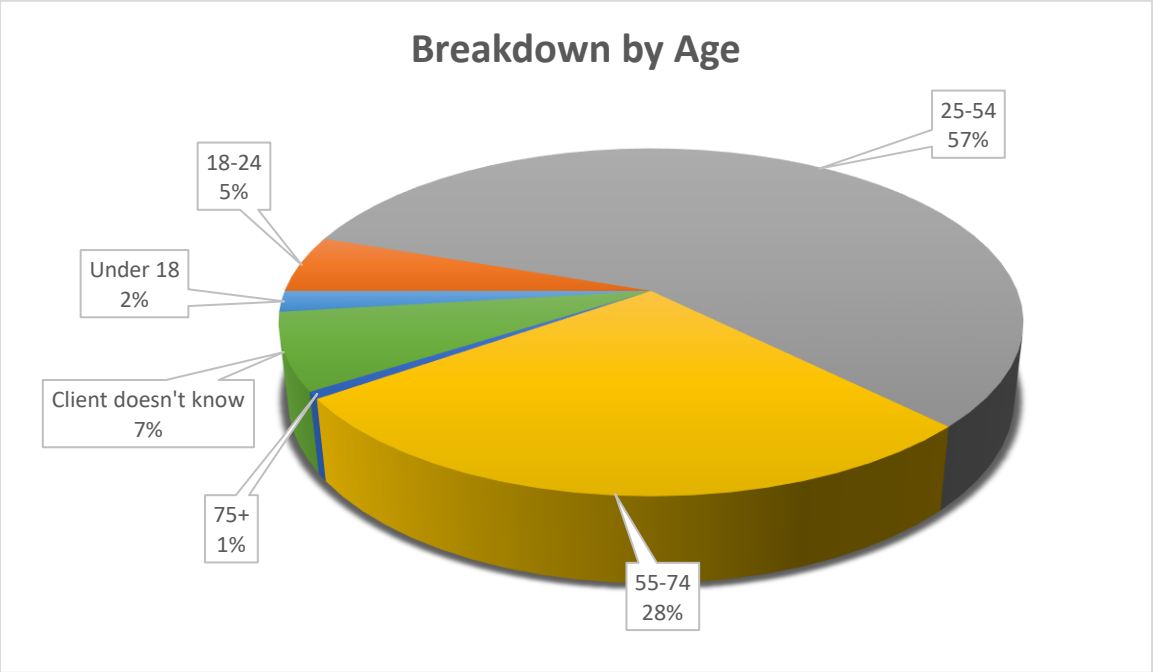

Figure 2: Breakdown of homeless population by age based on the Point-In-Time Count[4]

The youth count reported 1,150 homeless under the age of 24, which is a 39% increase (68 under 18 years old and 1,082 youths 18-24 years old). This increase is partially attributable to a new methodology which employed youth service providers in a specific youth count. Of these youths, 57% are male and 36% are female, with 1% identifying as transgender. Of the total homeless youths, 76.8% are unsheltered.[5]

In 2017, the number of homeless families decreased by 2% to 513 with 82.3% of those families in shelters.[4] In my experiences, I rarely saw families, and I never saw families living on the street. It is likely that some of the individuals I met have families that I did not learn about from them. Because I had limited interactions with families, I cannot say for certain that the insights

discussed below entirely pertain to homeless families. In all probability, the dynamics of living on the street are very different for families than they are for single homeless people.

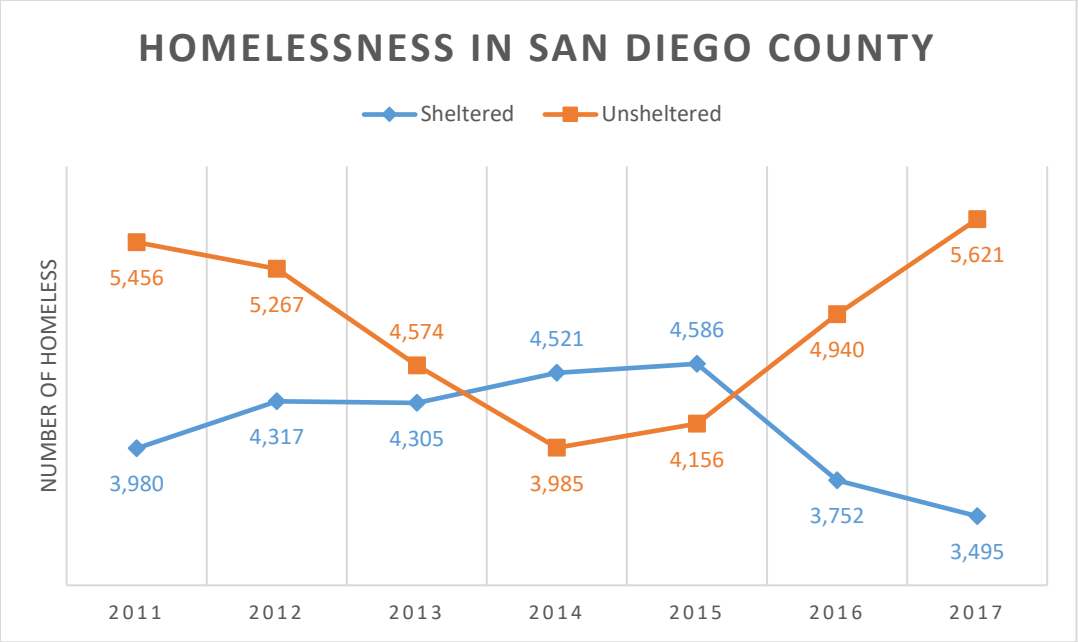

Figure 3: Trend of homelessness in San Diego County based on the Point-In-Time Count[4]

The survey also asked the unsheltered respondents about the duration of their homelessness and how many times they had been homeless. A majority of the unsheltered homeless (63%) had been without housing for over 1 year. Over half (55%) reported this as their only episode of homelessness, but 18% reported at least 4 episodes of homelessness in the prior 3 years.[4]

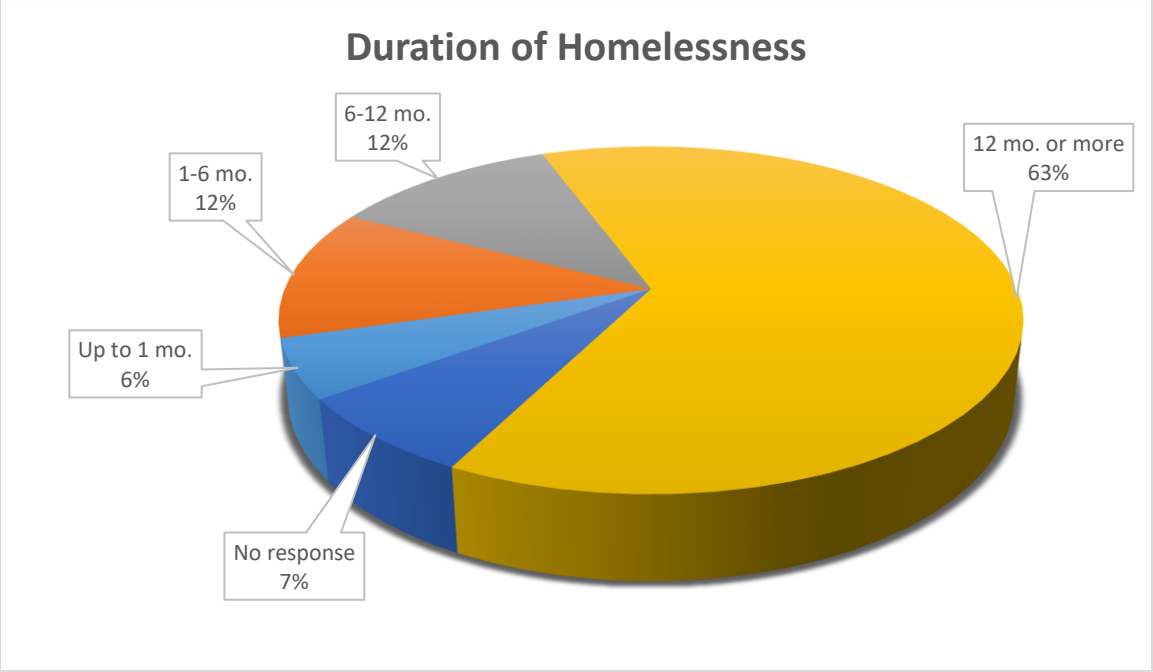

Figure 4: Duration of homelessness for unsheltered people based on the Point-In-Time Count[4]

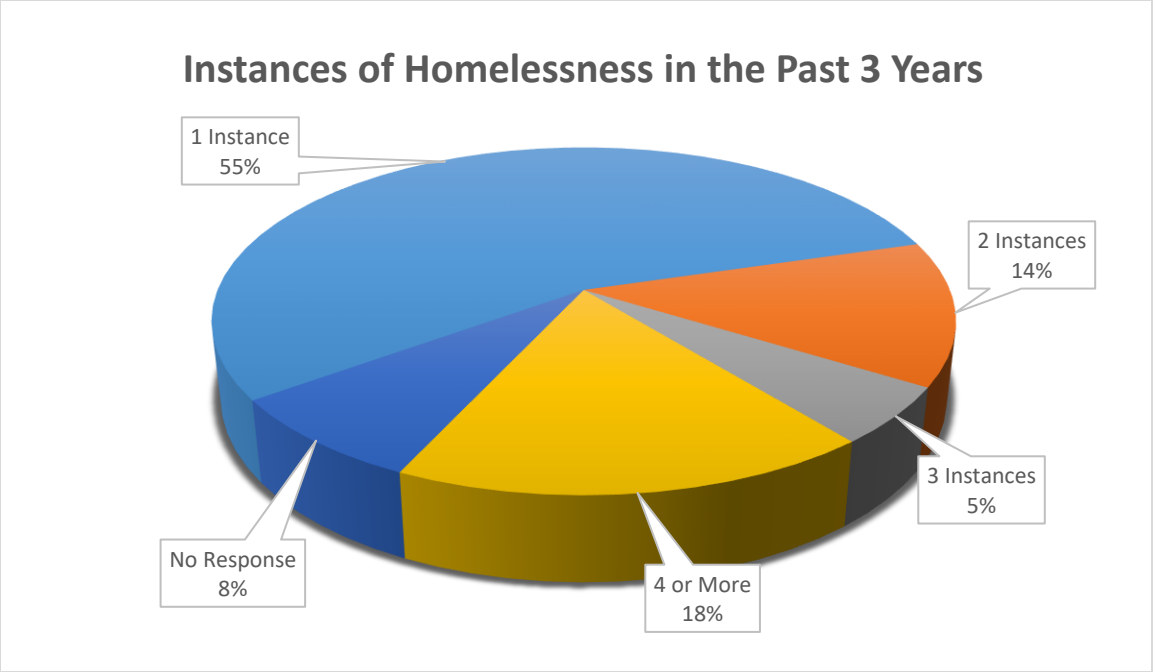

Figure 5: Repeat homelessness for unsheltered individuals in the past 3 years based on the Point-In-Time Count[4]

In general, data addressing homeless hygiene challenges are limited with few studies directly evaluating hygiene problems. For example, in February 2014, the Portland State University Hygiene Project surveyed 550 members of Portland's homeless population about hygiene problems. The survey's results were not surprising, but the numbers are enlightening. Regarding restrooms, the survey showed that the homeless used public facilities (55%), the Portland Loo (33%), shelter restrooms (32%), private businesses, outside/street/brush, and plastic jugs/buckets. Respondents reported impacts of hygiene challenges that included harassment by police/security (40%), citation or ticketing (21%), denial of access to food/services because of poor hygiene (22%), and denial of access to shelter because of poor hygiene (20%). Respondents endorsed the following barriers to meeting hygiene needs: limited facility hours (55%), too far away (30%), and other barriers (29%) including long lines, health challenges, facility cleanliness, and time limits.[6]

The highest concentration of homeless resources and services are provided in downtown San Diego. While most of my assessment focuses on the services provided downtown, it should be noted that the other areas of San Diego County have even less for their homeless populations. Many of the programs that work well are limited by geographic range in who they are able to help.

Housing for Homeless

Many of the outreach workers I spoke with stated that one of the root factors in homelessness in San Diego is the low availability of inexpensive housing. Many of the rent-controlled apartments that are available have too many restriction conditions to make it realistic for any homeless clients to manage to rent them. Project 25 is a program that identifies the homeless people who are the highest "users" of the medical and legal system and employs intensive medical, psychological, and social work intervention to get them housed and supported with follow-up. Despite the intensive team approach required for each client, Project 25 has achieved

enormous cost-savings for the medical and social safety net system. The Project 25 team explained that they often have to do the most work with their former homeless clients on hygiene issues. As their clients are high users of the medical system, many have medical conditions affecting hygiene. These conditions regularly place them in jeopardy of being evicted for hygiene issues. Many clients struggle with dependency, and some tend to ignore personal hygiene while they are using. Others have orthopedic injuries that make it difficult to manage personal cleanliness. For example, the team described one client who they often find sitting in his own feces in a wheelchair when they visit to check on him. They have had to plan frequent visits to help keep him clean and bathed.

Most homeless learn about housing options and apply for housing through homeless resource centers like Father Joe's Villages. These centers will often provide assistance in completing applications for housing. Some of the temporary shelters also have services to help their clients apply for housing and jobs. Unfortunately there are always long waits just to access these services.

I spoke with Debbie, who is a property manager in San Diego, about her experiences working with homeless clients. In her experience, she has had multiple homeless clients who have all had guaranteed funding through government programs. For every one of these, when the time came for the client to take over their own funding, they ended up failing to follow through and returned to the streets. She also reported frequent contract violations for all of her homeless clients.

Debbie relayed a story of a homeless veteran client who had fellow homeless take advantage of him. They made various promises to him so they could move into the apartment with him. The others brought in mattresses with bed bugs and damaged the unit. In the end she had to evict the veteran and all the other people who had moved in with him.

Overall, there is an exceedingly high demand for housing in San Diego. In Debbie's experience, when any unit is placed on the market, there are at least 30 applications from prospective clients who are already housed. From a business standpoint, it does not make sense to accept a homeless person with all the risks entailed over someone who is not currently homeless and has a proven track record. This makes it difficult to accommodate housing for the homeless in San Diego.

In October, San Diego opened its first officially approved tent encampment with 200 tents that sleep 4 people each.[7] While tent encampments are not an ideal solution, they do provide a place for long-term homeless encampment. Based on my discussions with outreach workers as noted below, these encampments tend to be better maintained and tend to promote improved hygiene.

Homeless "Categories"

Before I undertook this project, my understanding of homelessness was severely limited. I only appreciated the homeless population in terms of broad overlapping categories: veterans, drug users, disabled, and mentally ill. I had had very little experience serving the homeless, so my perspective was based largely upon media representations and societal norms. One of the main purposes of this project was to work directly with homeless people and begin to build a realistic and nuanced understanding of the homeless population.

Much of the demographic research focusing on the homeless population provides prescribed homeless categories: sheltered or unsheltered; male, female, or trans; homeless or at risk of

becoming homeless. These categories are useful for research purposes, and they tend to be used broadly within the organizations serving the homeless population.

Tiffany is a sheriff's deputy in San Diego who explained that in her experience, she has come to identify a few rough "types" of homeless people. These are archetypes constructed over her experience, rather than strict groupings. Any one homeless person will not necessarily fit into any of these groups.

The first group is temporary homeless. These are people who are not chronically homeless, but rather who have become homeless due to circumstances such as losing their job or being evicted from their apartment. Tiffany explained that this distinction is important because they are not tied into the homeless social network. This means that they often do not know about the resources available to them.

A second group are chronically homeless people who have chosen to stop looking for housing. These people are long-term homeless who have an established system for living on the street. Some have access to support from family or society and have chosen not to use it. Some like the freedom from societal constraints that homelessness provides. They have chosen to continue living on the street rather than pursuing housing. This group is well tied into the homeless social network and typically know their resource options. They tend to establish a consistent campsite and work to improve its habitability. Often, these campsites can be built up with structures, electricity, and latrines.

A third group are homeless people who prioritize alcohol or drugs over having a home. Tiffany was quick to clarify that this prioritization is dictated by addiction, not a logically made choice. These people tend to take actions focused more on procuring alcohol or drugs rather than improving their living environment. Often, these people move around, not staying at one campsite for any extended period of time. As such, they tend to be less concerned about the tidiness and cleanliness of their campsite. Furthermore, this group tends to have the greatest amount of hygiene issues.

It should also be noted that in regards to homeless categories, women have different hygiene challenges than men. It is inherently more challenging for women to find a location to urinate. Furthermore, women are more at risk of being attacked or being sexually assaulted in the public restrooms. Homeless women also must manage menstruation. As it happens, most of my patients throughout the course of this project were men, so I had little chance to learn about the specific hygiene challenges and solutions for homeless women.

I was surprised by the amount patients who were homeless because of chronic orthopedic pain. The Point-in-Time Count reported 40% of unsheltered homeless people have a physical disability and 43% have a chronic health condition.[4] Many of my patients had been housed but were earning income below the poverty line. After suffering a back injury or other orthopedic injury, they were unable to work. Many had chronic orthopedic pain that continued to interfere with their ability to work. Disability did not provide them with enough money, and they eventually lost their housing. For patients with new conditions, disability can often take up to two years to be established. In the interim, these patients can get a small amount of funding from General Relief, but it comes with a cap in total disbursements. In the long run, these patients struggle to escape from homelessness, not because of addiction or psychological conditions, but because of chronic, disabling pain.

In my experiences, I have discovered the homeless population to be widely diverse and difficult to fit into specific categories. Many of my homeless community clinic patients were well organized and capable. This diversity of course means that one-size-fits-all interventions are unlikely to exist. Each intervention will probably work best if it is targeted to a subset of the population.

Law Enforcement and Homelessness

When it comes to homelessness, the public typically sees law enforcement only when media airs images of officers breaking up homeless encampments. Much of my discussion with Tiffany focused on the actual roles of law enforcement in homelessness and the actual perspectives held by officers toward homeless people. Tiffany is now a detective for the San Diego Sheriff's department, and she has experience working in Imperial Beach, El Cajon, Otay Mesa, and Benita. She spoke to both her personal views and those she has heard expressed by other officers.

One of the first points she noted was that she sees many homeless people come thorough arraignment court for various charges. Arraignment court is extremely fast with no time for the judge to explain any of the procedures or charges. Tiffany noted that people coming through usually don't know what is happening, and often end up asking her questions. This would suggest that while homeless people tend to be involved frequently with the justice system, they often don't fully understand what is happening.

As Tiffany explained to me, in law enforcement overall, frustration is a common attitude toward the homeless. However, this is not an attitude of not wanting homeless or disliking the homeless. The frustration actually arises from the volume of time that officers end up spending responding to calls about the homeless. Tiffany explained that often these calls are complaining about homeless people in a park during the day or asking law enforcement to remove a homeless person from the caller's street. The general attitude is that these calls are a waste of time, especially because "removing" a homeless person doesn't make them disappear; it just makes them move to a different location.

She noted that often officers will get to know many of the homeless people on their beat. Usually, the homeless that an officer gets to know are not the ones that end up causing trouble. Unfortunately, officers are incentivized to rotate through different locations, rather than establishing a rapport in one location over time. This policy makes community policing difficult. In various cities and areas, there have been calls for community policing, but the current incentive structure of the San Diego sheriff's department does not allow for such established relationships. Officers tend to dislike having a tent encampment on their beat because it generally means more work; however, they also acknowledge that overall, established encampments tend to work well for the homeless population.

Urination and Defecation

Second-Class Restroom Access

Possibly the most well-known hygiene challenge for homeless people is where to urinate and defecate. For non-homeless people visiting downtown, the norm would be to find a Starbucks or McDonald's nearby, which assures a clean restroom experience. Likely, most other large or

medium businesses would do as well. Aside from occasionally asking people to make a purchase first, most businesses are happy to share their restrooms with the non-homeless.

The story is different for the homeless. Most businesses try to deter or flat out refuse to open their restrooms to homeless people. This is not out of malice to the homeless, but rather an unfortunately logical action. It is important for businesses to offer clean restrooms to their clients. As will be discussed in detail below, homeless people usually have difficulty showering regularly, leaving them dirty and strong-smelling. There do not seem to be any numbers in the literature that specifically address how often homeless people shower. From my conversations, it is strictly dependent upon their access to a shower. Every person I spoke with would prefer to shower daily, and they are all self-conscious about how they smell.

Furthermore, the fear is that some homeless people will leave the restroom untidy or use it for bathing, drug use, drug dealing, or sex. If a business becomes known in the homeless community as offering an open restroom, they could discover their restroom in frequent overuse by homeless patrons. Many business owners I spoke with are sympathetic to the homeless population, but they are concerned that allowing the homeless to use their bathrooms could cause complaints from their customers.

Jim Lovell, MSW runs the Third Avenue Charitable Organization (TACO), which works directly with the homeless and underserved through multiple outreach programs. Jim explained that the First Lutheran Church downtown, which houses TACO, even had to close its restrooms to the public. In their case, the decision was based on the unsustainable cost of repeatedly requiring plumbing repairs. Most of these repairs involved snaking the pipes to clear blockages caused by flushing various items down the toilet.

Homeless Toileting Practices

I frequently discussed the issue of restrooms with my homeless patients. Many had come up with reliable solutions. Most of them reported that they had a public restroom near their campsite that they used regularly. See Figure 8 below for a map of the downtown public restrooms. Multiple outreach workers I spoke with pointed out that this is a key factor in the location of homeless encampments or clusters of homeless sleeping sites. Unfortunately, this tends to deter businesses, homeowners, and governments from installing public restrooms, as the locals do not want to create a new homeless gathering site in their area. I saw that this concern of possibly encouraging homeless to gather in a location is a recurring major deterrent to many possible interventions.

Some homeless people informed me that they carry a bottle with them for urine and a plastic bag for defecation so they can dispose of the waste later. Some had an arrangement with a housed friend who allowed them to use their restroom and shower on a regular basis. My homeless patients who live in cars often were able to use the restroom of the store in whose parking lot they spend the night.

Tiffany explained that in her experience with the sheriff's department, the longer-term encampments were often the cleanest in terms of bathroom facilities. She reported that when group of homeless people build up improvised housing in the canyons, they often built latrine-type restroom facilities separate from their living quarters. These may only consist of a hole in the ground, but they are at least separate from the living area. Unfortunately, every so often, the

deputies were instructed to go through and clear out such encampments to force the homeless people to move elsewhere.

In shadowing the clinic triage nurses at Father Joe's Villages, I learned that one of the most common requests was for Immodium. Homeless clients were not requesting the medication to treat diarrhea from exposure to unsanitary food or other infections; they wanted to take Immodium so they could avoid defecating. As an aspiring gastroenterologist, this was especially concerning to me. The triage nurses also shared that many homeless people wear diapers. This is more common among homeless women. Unlike how they are often portrayed, most of the homeless population is far from careless about where they urinate and defecate. In fact, most are so concerned about avoiding public defecation that they are willing to constipate themselves to regain control over their toileting.

Current Public Restrooms

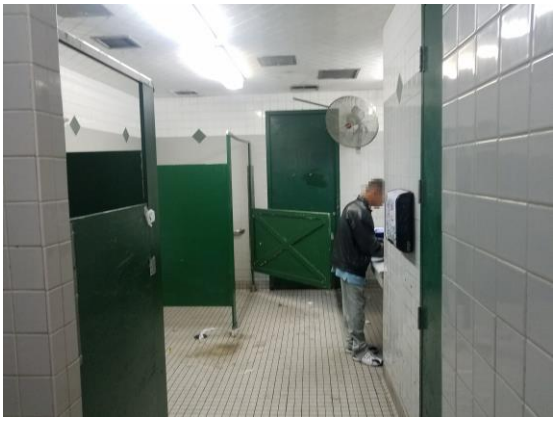

Figure 6: Public Restroom at Father Joe's Villages

Public restrooms are spaced throughout downtown San Diego, but they pose their own challenges. Multiple outreach workers commented on the danger associated with using public restrooms. Using an unguarded public restroom, especially at night, could expose a homeless person to being attacked. Owing to the privacy afforded by a restroom, they are often used as locations for sex or drugs. Father Joe's Villages runs a public restroom with an attendant at Imperial Avenue and 15th Street as part of a contract with the city. The restroom has 2 stalls with doors, multiple urinals, and multiple sinks. As it is based in the middle of their homeless housing, medical clinic, and the Day Center, this restroom is primarily used by homeless patrons. Even so, it has the feel of a normal restroom. In contrast, the attendant-run public restroom next to the San Diego Civic Theater feels like a prison with heavy metal doors and bars.

Figure 7: Public restroom at the San Diego Civic Theater

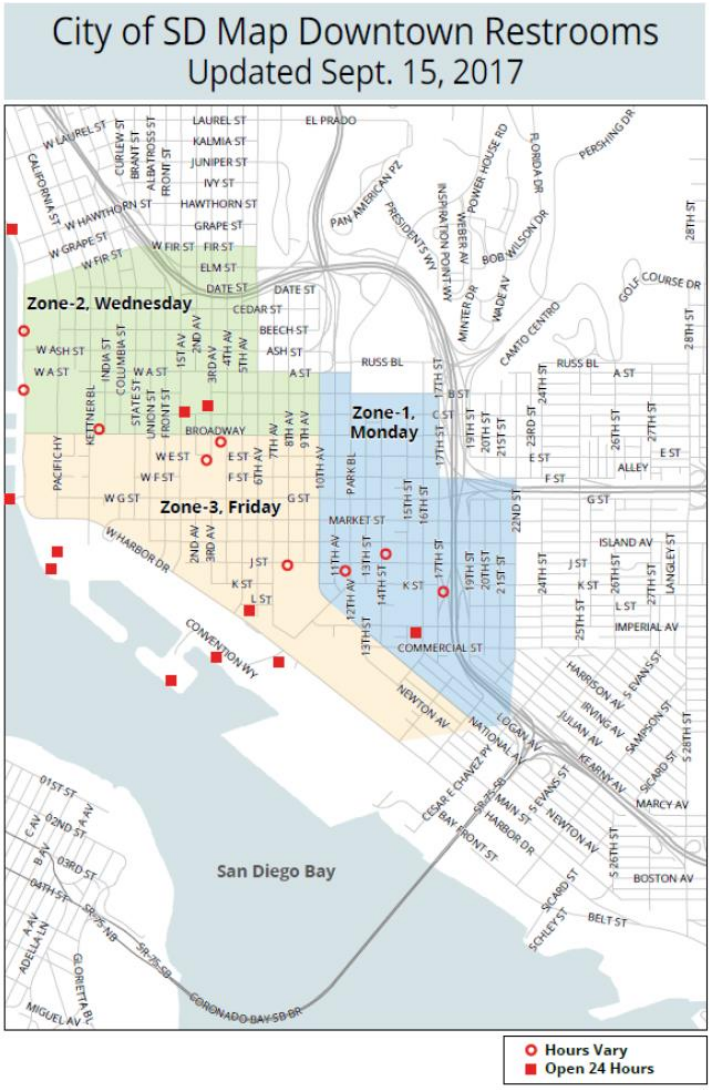

Figure 8: Map of public restrooms in downtown San Diego

In February 2016, San Diego removed one of the two Portland Loo public toilets that had been installed in January 2016. Though an important attempt to provide publicly available toilet facilities, the project was plagued by cost overruns and crime. The installation cost rose from $215,000 to $560,000. The second Portland Loo was kept in place, as it has not had the same increase in crime.[8] However, its location is now a major construction site, meaning the toilet is either inaccessible or has been removed. Notably, Portland Loo public toilets have been successful in many states, including Oregon, California, Texas, Alaska, Colorado, Massachusetts, Montana, Ohio, Utah, Washington, and British Columbia.[9]

Figure 8 above shows the locations of the 20 public restrooms at the time in downtown San Diego and Figure 9 shows that some are open 24 hours while others are only open at specific times.[10,11] These facilities do not include showers, but they do have sinks for handwashing.

City of San Diego Public Restroom in Downtown, Regional Parks, Shoreline Beaches and Bays

UPDATED AS OF 9-14-17

Downtown Public Restrooms:

No.	Site	Address	Jurisdiction	Hours
1	One America Plaza	600 West Broadway, San Diego, CA 92101	Irvine Company	7:00 a.m. to 7:00 p.m.
2	Civic Complex #1	202 C Street, San Diego, CA 92101 (1st & C)	City of San Diego	24 hrs.
3	Civic Complex #2	202 C Street, San Diego, CA 92101 (3rd & C)	City of San Diego	24 hrs.
4	County Waterfront Park	Harbor Drive at West Beech Street, San Diego, CA 92101	County of San Diego	6:00 a.m. to 10:00 p.m.
5	Downtown Library	330 Park Boulevard, San Diego, CA 92101	City of San Diego	Floors #1-5 & 8-9 Mon to Thur: 9:30 a.m. to 7:00 p.m. Fri & Sat: 9:30 a.m. to 6:00 p.m. Sun: 12:00 p.m. to 5:00 p.m.
6	Embarcadero North	West of Seaport Village, San Diego, CA 92101	County of San Diego	24 hrs.
7	Embarcadero North	Harbor Drive and B Street, San Diego, CA 92101	Port of San Diego	6:00 a.m. to 10:30 p.m.
8	Embarcadero South	Marina Park Way, San Diego, CA 91201	Port of San Diego	24 hrs.
9	Fault Line Park	East side of 14th Street, between Island Avenue and J Street, San Diego, CA 92101	Owner: City of San Diego Managed by: Pinnacle Development and Adjacent HOA	6:00 a.m. to 9:00 p.m.
10	Fifth Avenue Landing	Waterfront @ 5th, San Diego, CA 92101	Port of San Diego	24 hrs.
11	Hilton Parking	One Park Boulevard, San Diego, CA 92101	Port of San Diego	24 hrs.
12	Horton Plaza Park	4th Street and Broadway, San Diego, CA 92101	Owner: City of San Diego Managed: Westfield	Mon to Fri: 5:00 a.m. to 10:00 p.m. Sat & Sun: 6:00 a.m. to 11:00 p.m.
13	Lyceum	79 Horton Plaza, San Diego, CA 92101	SD Repertory Theatre	9:00 a.m. to 5:00 p.m.
14	Neil Good Day Center	299 17th Street, San Diego, CA 92101	St. Vincent de Paul	6:00 a.m. to 4:00 p.m.
15	Ruocco Park	Harbor-Pacific Highway, San Diego, CA 92101	Port of San Diego	24 hrs.
16	St. Vincent de Paul	1501 Imperial Avenue, San Diego, CA 92101	St. Vincent de Paul	24 hrs.
17	Solar Turbines	North Embarcadero, San Diego, CA 92101	Port of San Diego	24 hrs.
18	The Legend	Outfield Park 8th Avenue, San Diego, CA 92101	East Village Square	7:00 a.m. to Sunset
19	Tin Fish Gaslamp	170 Sixth Avenue, San Diego, CA 92101	City of San Diego	24 hrs.
20	Tuna Harbor	G St and Tuna Ln Park, San Diego, CA 92101	Port of San Diego	24 hrs.

Figure 9: List of public restrooms in downtown San Diego[10]

Other Interventions

The general public is often aware of the challenge of accessing a restroom based on the smell of urine along downtown streets. San Francisco has experimented with many interventions to attempt to reduce public urination, including open air urinals (2016), increasing the fine for public urination to $500 (2002), painting walls with hydrophobic paint to make urine spray back off the wall (2015), solar powered mobile toilets, and public toilets with attendants. These initiatives have had varying success. The attended public toilets remain clean and safe, although costly to operate. The open air urinals face a community lawsuit attempting to remove them. This lawsuit stems from a question of public decency and morality, rather than from questions of functionality or safety. The increased fine produced no change in public urination.[12] Information on the number of fines for public urination or defection in San Francisco and San

Diego has been difficult to locate. Imposing such a fine assumes that homeless people choose to urinate and defecate in public places, rather than using restrooms. In my conversations with the homeless and homeless providers, the opposite is the case. All who I spoke with strongly desire access to a reliable restroom facility. My heart failure patient is a prime example of a homeless person who would rather compromise his own health than urinate in public. There is also a moral conflict in trying to solve the problem through criminalization rather than providing sufficient facilities.

One possible intervention I see would be to give out small, handheld urinals to any homeless people interested. Models have been designed that function for both urine and stool and for both men and women. These could be procured relatively cheaply and made available to the homeless through common points of contact, such as emergency rooms and community clinics. Many of the homeless people I spoke with would be interested in having such a urinal with them, whether for regular use or for emergencies. For patients with medical problems requiring frequent urination or defecation, having such a urinal may be the key factor in enabling therapeutic compliance. For my heart failure patient, providing an inexpensive urinal may have enabled him to take his diuretics, thereby likely extending his life by avoiding heart failure exacerbations. It could also have saved the healthcare system a significant amount of money in caring for his heart failure exacerbations.

Medical Impact

Medically, having unreliable access to clean restroom facilities causes and exacerbates a wide array of problems. As I observed first hand, patients often do not take their diuretics as prescribed, leading to fluid overload and emergent hospitalizations. As I discuss below, the hepatitis A outbreak likely took hold in the homeless community in part because of the lack of proper waste management. I saw and heard stories of multiple patients with perianal abscesses that were likely connected to poor hygiene with defecation. The safety concerns with public restrooms also becomes a medical issue. Homeless patients often suffer trauma injuries from being assaulted, and according to my conversations, public restrooms without attendants are one of the more risky locations for being attacked. On a less severe note, intentionally inducing constipation to avoid defecating in public carries its own health impacts, not the least of which is abdominal pain and cramping.

Key Points

- Restrooms are harder for homeless to access.
- Homeless people are generally equally concerned with hygienic restroom use.
- Immodium is a common request to prevent homeless patients from needing to use the restroom.
- Portable toilets and handwashing stations are not maintained or refilled frequently enough.
- Handing out handheld urinals may be a helpful intervention.

Showering

Without a residence, finding a place to shower can be next to impossible. As noted above, homeless people often have to resort to using sinks to bathe. Some have arrangements with friends or family that allow them to use the shower at their house occasionally. Most of the

people I spoke with are acutely aware of their need to shower and deeply embarrassed by their smell. This was reiterated by all the outreach workers I spoke with throughout my experiences. This is often a key impediment for homeless people in trying to secure a job, and it can interfere with receiving other services. Father Joe's Villages Clinic triage has a policy that clients must first handle their smell before they are seen in the clinic. The clinic does provide basic hygiene kits, which include soap, shampoo, toothbrush, toothpaste, and often a razor. There is a public shower facility across the courtyard from the clinic. The staff reported that the rules are generally well-received by clients. Occasionally a client will become upset with the rule. It can be difficult for clients to have to reschedule an appointment, but many actually appreciate being informed kindly that they need a shower.

Having access to showers is also important for homeless people suffering from scabies or lice. These patients require treatments that are administered in the shower. Furthermore, they are understandably embarrassed about their condition and resistant to using the group showers often available to homeless.

Showers at the Neil Good Day Center

Paul Sheck runs the Neil Good Day Center in downtown San Diego. One of the key outreach programs that the Day Center provides is operating the showers located in Father Joe's Villages. When I spoke with Paul about the shower program, I imagined that running such an outreach program would be fraught with problems and high costs. I was surprised to discover that with many years of experience, they have streamlined the operation so it runs smoothly without any major problems.

The showers are large group showers with 7 shower heads in each room and 1 handicapped shower. Paul noted that this layout helps keep people moving through and nearly eliminates the risk of illegal activity happening inside. Occasionally one person will stay in the shower for an extended period, but they tend to self-police with the rest of the crowd moving through the showers. The Day Center provides over 30,000 showers for over 6,700 homeless clients each year, providing about 100 showers per day.[13] Based on survey results, they have enough showers and time slots to serve the current demand. Paul is currently working on expanding the hours of shower operation to accommodate homeless people who have jobs and need to shower early in the morning or late at night. Paul noted that they have to budget for frequently replacing the towels as they are often stolen, fall apart from washing, or get torn up for washcloths. The only major limiting factor to the Day Center's shower program is geography. There is a limited range of homeless clients that can be served by the single shower location.

It seems that the next step would be to duplicate the Day Center's model in other locations to serve more of the homeless population. Establishing the actual location would likely be very difficult as the showers and Day Center serve as a gathering point for the homeless population in the area. Many of the homeless people choose to set up camp on the street outside the Day Center. With this in mind, it would be hard to find another location where the immediate neighbors would not fight adamantly against the creation of such a gathering point.

Think Dignity's Mobile Shower Platform

Think Dignity is a think tank that has created a mobile shower platform that they operate throughout San Diego. They also readily provide documentation on the operation of their mobile shower program to make it easier for others to duplicate and expand the program. The mobile

trailer contains 2 showers and 2 toilets. Think Dignity has arranged host sites that provide volunteers, water, electricity, and city drain access for the trailer. They provide hygiene products and towels. The unit costs $25,000 and the truck to haul it costs $30,000. The largest challenge to expanding the program is securing new locations to host the mobile showers. I witnessed discussions with a couple host locations that were concerned that hosting the showers would increase the risk of transmitting hepatitis A to their other non-homeless clients.[14]

Key Points

- Many homeless resort to sinks for bathing.
- Showers are especially important for treating lice or scabies.
- The Day Center's shower program is successful and streamlined.
- Think Dignity runs a mobile shower program and shares its operating plan to ease duplication elsewhere.
- Securing new locations is the limiting factor in providing more showers to homeless in San Diego.

Clean Clothing

Clothing is an often-overlooked factor in determining homeless hygiene. Clothing drives for the homeless often focus on providing warm clothes for winter or providing homeless with the clothes that they lack. Rarely do efforts address how to help the homeless keep their clothing clean. The fact of living and sleeping on the streets and in the canyons means that their clothes get more dirty faster. Add to this the challenges discussed above of accessing regular showers, and the smell of body odor will also permeate their clothes. In this sense, it is especially important for homeless people to have access to a means of washing their clothing. Unfortunately, this is probably the most difficult hygiene challenge.

Part of the challenge with laundry is that to be most effective, laundry needs to coincide with a shower, as many homeless people do not have extra sets of clothing. Paul Sheck noted that rather than deal with the hassle of figuring out laundry, many homeless would prefer to wear clothes until they fall apart and replace old dirty clothes with newly donated clothes. This is a problem for interventions looking to provide clothes to the homeless. While it is important to ensure they have access to new clothing when needed, such interventions risk creating more waste of existing clothing as it is discarded rather than washed.

Some programs already exist that provide homeless access to laundry service. The Day Center provides access to washers and dryers for its clients based on first come first served signup sheets. As with their shower program, the Day Center has streamlined its laundry program to eliminate problems. It now runs relatively smoothly. They rent washers so the rental provider is responsible for maintenance and repairs. Paul reports minimal problems with stolen clothes and regular compliance with the rules. Overall, the Day Center's laundry program is successful and deserves to be duplicated elsewhere

Key Points

- Clean laundry is an often overlooked hygiene problem for the homeless.
- Laundry services must be matched with shower services to be most effective.
- The Day Center's laundry program is successful and streamlined.

Hepatitis A

Timeline

On November 1, 2016, the County received reports of the first 2 cases of hepatitis A suspected to be involved in the outbreak. The first death from hepatitis A occurred in February. In March, 2017 San Diego County health officials declared an outbreak of hepatitis A. By mid-April, there had been 42 reported cases and 2 dead. Emails showed scattered discussions among city officials. By May, there were 80 cases and 3 dead. Health officials had noted that the traditional clinical vaccination plan was insufficient, and county teams began offering vaccines at homeless camps. There were also records of discussions about sanitation improvements. By the end of May, there were over 130 cases, which grew to 160 cases and 4 dead by early June. In July, 2 handwashing stations were set up near a health department building in Midway, not downtown San Diego.

By August, there had been 330 cases and 15 dead. Media outlets began reporting the story, and the city quickly placed 40 handwashing stations throughout the downtown area. On September 1st, officials declared a state of emergency. Interventions included mass vaccination campaigns and power washing downtown streets with bleach. Records at the time showed that Mayor Faulconer was focusing about 70% of his schedule on the epidemic.[15] Eventually, the county added multiple portable toilets and handwashing stations throughout downtown with lighting and security guards (see Figure 13). By November, 536 cases had been reported and 20 had died. El Cajon responded to the epidemic by passing new measures banning panhandling, sleeping on the sidewalk, setting up encampments, and serving meals to groups of homeless people in public spaces.[16–20]

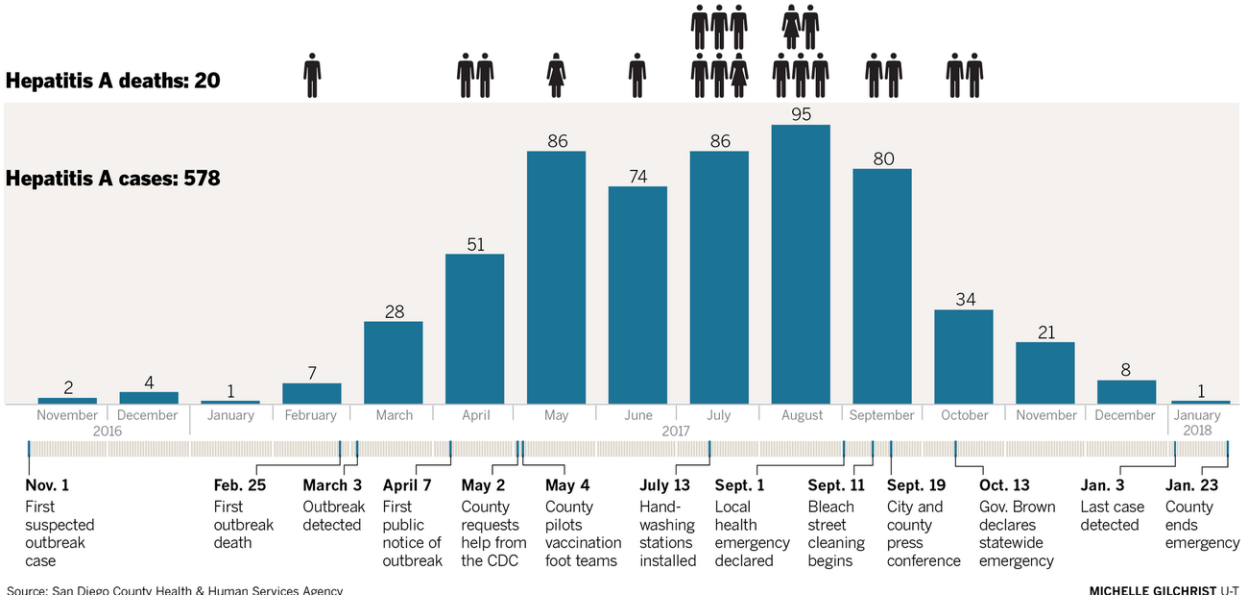

Figure 10: Timeline of Hepatitis A Outbreak. From The San Diego Union-Tribune.[17]

On January 23, 2018, the County ended the local health emergency. Over the course of the outbreak, 580 cases had been reported, 398 were hospitalized, and 20 had died.[21] The county recorded 123,392 vaccinations administered and 11,163 hygiene kits distributed during the effort. The hygiene kits contained hand sanitizer, cleansing wipes, bottled water, an informational flyer, and a waste bag.[21]

Figure 12: County hygiene kits

Figure 11: Handwashing station outside the Day Center

In my conversations with the homeless population and providers, their reactions were mostly positive regarding the new public restrooms, portable toilets, and handwashing stations. The main problem they raised with the handwashing stations was with the infrequency that the portable toilets and handwashing stations were serviced. Given the high demand for such facilities, the toilets fill up quickly and the handwashing stations run out of water quickly. Additionally, the handwashing stations are used for showering, which puts a much greater demand on the small amount of water in their tanks. The general expectation, however, is that these portable toilets will be removed once the public focus shifts away from the hepatitis A outbreak. Since the end of the outbreak, some of the portable toilets and hadwashing stations have been removed and some remain in place.

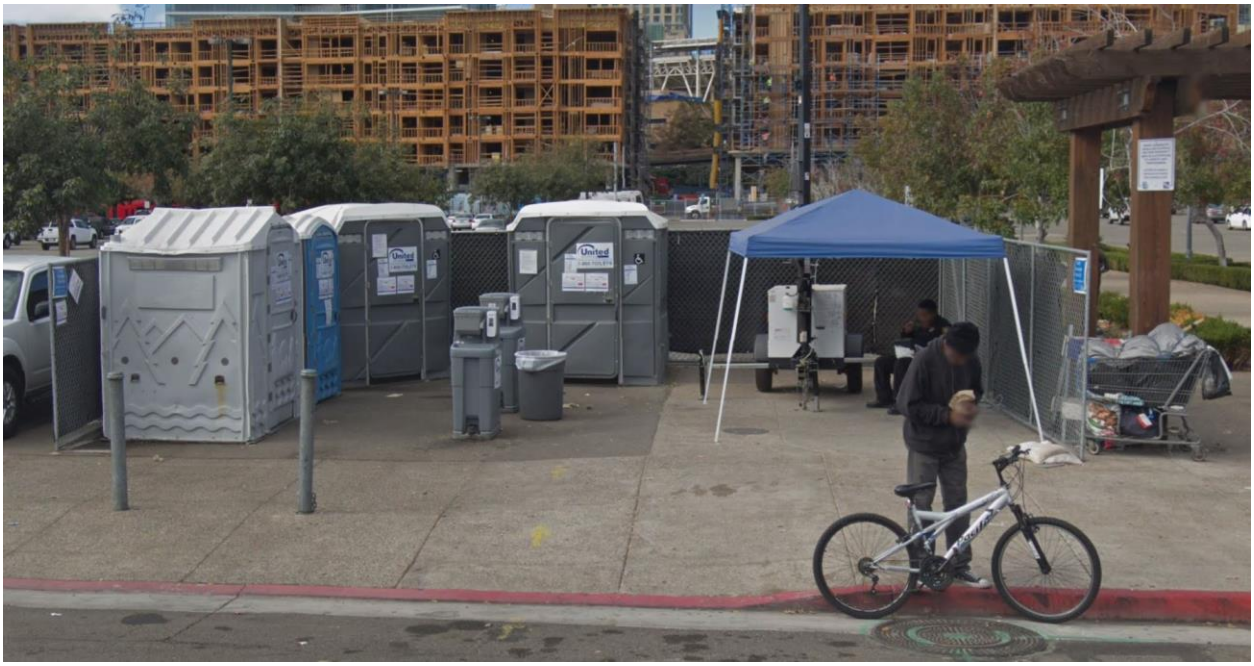

Figure 13: An installation of restrooms and handwashing stations with lighting and a guard (November 2017). Picture courtesy of Google Street View. The installation had been removed by March 2018.

Figure 14: Another similar installation of restrooms and handwashing stations with a disabled individual shaving at the handwashing station. This installation was still present in March 2018.

Hepatitis A Patient Experiences

In my first two weeks on inpatient medicine in early July 2017, I personally cared for three patients with hepatitis A. All were homeless with other comorbid conditions affecting their livers, such as alcoholism. None of them were aware of the hepatitis A outbreak, nor were they familiar with the disease. When I discussed hygiene with them, they all had attempted to follow good hygiene practices, but they complained of poor access to clean water, difficulty finding restroom facilities, and unsanitary eating conditions. Two of them lived in homeless communities in the canyons.

On later outpatient community clinic rotations in October 2017, my homeless patients tended to be more aware of the risk of hepatitis A. This likely indicates that educational outreach efforts were effective; however these were also patients who were following up in outpatient clinic and did not have drug or alcohol abuse issues. Many of these later patients used their disability or general relief funding to purchase bottled water and hand sanitizer. Some even acted as homeless community advocates, educating their friends about hygiene practices. They were aware of the importance of hepatitis A vaccination, and they could tell me when they were due for their second shot in the series.

Possible Causes

It seems clear that hepatitis A was able to take hold and spread rapidly in San Diego's homeless population given the challenges in accessing restrooms, handwashing, and showering facilities. What is not clear is why the outbreak occurred in San Diego instead of New York or Miami. Other large cities have homeless populations that face similar hygiene challenges. Even if there is a reason that San Diego was more prone to the hepatitis A outbreak, why did it occur now instead of ten years prior?

One theory is that San Diego created the conditions for the outbreak with the preparation process for the 2016 All-Star Game. The city drove the homeless out of the tourist parts of downtown and into tightly packed encampments and large lines of tents. They also locked and removed bathrooms in an effort to control drug use and prostitution. The increased homeless population density and reduced access to restrooms likely fed the fecal-oral transmitted disease.[7]

Some health officials have also theorized that the plastic bag ban was a possible trigger for the outbreak in San Diego. Homeless people who were unable to access a restroom would sometimes use a plastic bag to contain stool until they could dispose of it. The plastic bag ban went into effect in November 2016, which was the same month as the first recorded case of hepatitis A. Of course, this could be merely coincidence as well.[7]

David Ross is known as the "Water Man" for his efforts to provide San Diego's homeless population with restrooms and clean water. In 2011, he noticed that the increase in the homeless population was not matched by more restrooms. He installed and funded the maintenance of 4 portable toilets, which served up to 500 people per day until they were removed by the city. He continued to campaign for public restrooms and was instrumental in the installation of the two Portland Loos.[22]

In 2000, in preparation for the creation of Petco Park, the East Village Redevelopment Homeless Advisory Council provided a report meant to address and manage the effects of displacing homeless from the site of the ballpark. The report called for more restrooms, shelter beds, and low cost housing. In total, 4 grand jury reports have addressed the risks posed by insufficient

restroom facilities for the homeless in San Diego. A report in 2010 warned of an impending illness outbreak caused by unsanitary conditions.[22,23]

Vaccination Intervention

The key component of managing the outbreak was the organization of massive vaccination drives. Community health clinics began actively offering hepatitis A vaccines. Vaccine drives were set up outside the Day Center and various homeless health clinics. The police department's Homeless Outreach Team (HOT) escorted teams of nurses into the canyons and other homeless encampments to provide vaccinations and education. I spoke with Officer David McGowan with HOT during one of these vaccination drives. At the peak of the effort, there were multiple teams administering about 170 vaccines every Monday and Wednesday. Teams would reach out in advance to educate homeless and create interest in the vaccines. Given that multiple organizations were involved in running different vaccine drives throughout San Diego, I heard multiple concerns about record keeping. The Father Joe's Villages Clinic and the downtown vaccine tables reported vaccines into the San Diego Immunization Record system. However, there was a question of whether the vaccines administered by HOT and nurse outreach teams were being recorded in the same system. Much of the early effort seems to have been focused on administering as many doses as possible to curtail the outbreak.

In retrospect, Dr. Eric McDonald, chief of the United States Epidemiology and Immunization Services, noted that 308 of the 580 outbreak cases had medical conditions that should have warranted vaccination against hepatitis A before the outbreak.[17] This means that 53% of the outbreak cases should have been avoided by standard vaccination precautions. This gap is likely largely attributable to poor follow-up within the homeless community. Homeless patients have worse regular care for vaccinations, screening, and chronic medical management. The barriers to medical care associated with homelessness may have contributed to over half of the hepatitis A outbreak.

To explore how to improve homeless follow-up, I spoke with Fern Delgado, who was involved with University of California San Francisco's psychiatry outreach with homeless patients. The program's purpose was to motivate homeless psychiatry patients to follow-up with services after discharge from the inpatient psychiatry service. The inpatient team would save their sleeping location in their EMR before discharge and connect the patient with resources. If the patients did not follow up with the resources as outpatients, an outreach team would go out with internet-connected iPads to attempt to locate the patient. Most patients were excited to sign up for the service, and the program reported a 50% success rate in locating patients in the field. Fern believes that had they included photographs in each patient's EMR it may have been easier for the outreach teams to find patients.

Such an outreach effort could be mobilized in San Diego to improve vaccination follow-up for homeless patients. In fact, it would be beneficial for homeless patients in general to have such follow-up organized after being discharged from the hospital. Ensuring homeless patients get connected with outpatient services could significantly reduce the impact of homeless patients waiting until their condition is severe to seek medical services.

Post Hoc Evaluation of the Interventions

After the hepatitis A outbreak, I met with Darcy Wooten, MD, an infectious disease specialist who was closely involved in the outbreak response efforts. I specifically sought out her

evaluation of the response and interventions. Most criticism of the San Diego County Public Health Department has focused on the initial delays in responding. By February to March of 2017, the hepatitis A outbreak was evident to epidemiologists, but the county did not declare an emergency until September 2018. Fortunately, after declaring an emergency, the intervention was rapid and effective. The county officials communicated with CDC officials well and held weekly meetings to evaluate the ongoing intervention and adapt to changing conditions rapidly. In an early community meeting with representatives from all the hospitals, a pharmacist raised the concern that some patients were receiving extra vaccination doses. For example, one patient had received 4 doses in 1 month. Every time he went to a different hospital's emergency department, he would be vaccinated. Even though all vaccines were being reported to the San Diego Immunization Registry (SDIR), the emergency departments were not checking SDIR in advance. Fortunately there is no known harm associated with receiving multiple doses of the hepatitis A vaccine, other than the increased cost. In response, the hospitals and county adjusted the protocol for checking the database.

From the start, the CDC emphasized to the city and county that the most important component of the intervention was the vaccination effort. The CDC used mathematical modeling to determine that at least 100,000 at risk people needed to be vaccinated to stop the outbreak. It was recognized early in one of the meetings that new mass vaccination strategies were needed. This is when the county began recruiting public health nurses for county-operated vaccine outreach efforts. As noted above, the foot teams were especially effective because they partnered with community providers who were already known and respected by the homeless population. This mitigated some of the fear of official-looking people coming to inject the homeless population. Dr. Wooten noted that the media's focus on the hepatitis A outbreak helped improve public awareness and drive interest in the vaccination effort among the homeless.

The county targeted the at risk population, especially the homeless and drug users. This targeted vaccination effort ensured the best result for the public cost of the intervention. Dr. Wooten reported that there was a threat of a hepatitis A vaccine shortage at one point, which she attributed to healthcare systems vaccinating healthy individuals who were worried about hepatitis A, but who were not in an at risk category.

Soon, healthcare systems were recruited to run vaccination clinics with assigned populations using vaccines provided by the county. For example, UCSD was assigned to immunize people in single room occupancies, which is a population at risk for homelessness. The landlords would advertise the vaccine clinics in advance. UCSD also targeted behavioral health centers, which often do not have nurses on staff who could administer immunizations.

It should also be noted that the city was highly responsive to the hepatitis A outbreak, with the mayor spending a significant portion of his time focused on the intervention. When the new public restrooms faced issues of security, the city provided funding for security guards. Dr. Wooten explained that some of the city's efforts, including power spraying the streets, were not backed by any prior evidence. While some efforts may have been more for political appearance, the overall responsiveness of the city was important in curbing the hepatitis A outbreak.

Looking forward, Dr. Wooten noted that San Diego will likely face another communicable disease outbreak again, unless permanent changes are made to improve homeless hygiene infrastructure and resources. In terms of hepatitis A, the vaccination clinics were run through

February in an effort to administer as many 2nd round immunizations as possible. Fortunately, the vaccine bestows a theoretically lifelong immunity to most people after the first dose.

Key Points

- The hepatitis outbreak ran from November 2016 to January 2018. There were 580 cases, 20 deaths, and 398 hospitalizations.
- The county recorded 123,392 vaccine doses delivered during the outbreak, exceeding the 100,000 vaccines theoretically necessary to stop the outbreak.
- The outbreak may have arisen from efforts to clear out the homeless for the 2016 All-Star Game or from the plastic bag ban.
- 53% of the outbreak cases should have previously received the hepatitis A vaccine due to other medical conditions.
- San Diego could model UC San Francisco's psychiatry homeless outreach program to improve homeless follow up with outpatient services.

Conclusion

This project grew out of a personal interest in helping a homeless veteran who would not take his diuretics because he did not have frequent access to a restroom. That patient forced me to realize how little I understood of the hygiene challenges that the homeless population faces daily. The course of my experiences uncovered the following key lessons:

- The health of the homeless population influences the greater public health.
- The majority of homeless people are heavily focused on overcoming the challenges they face to maintain the best hygiene possible.
- Issues with homeless hygiene are interwoven with and driven by the general social, health, and economic challenges of living without traditional housing, reliable food, or job security.
- Each hygiene issue is caused and influenced by a complex interaction of factors.
- Homeless people are a heterogeneous population that can be roughly divided into various categories, which imperfectly represent the individuals within them.
- No single intervention will completely fix a hygiene issue because no single intervention will work for all homeless people, and the hygiene issues are so fundamentally tied to the state of being homeless.
- The public restroom and public shower interventions currently in place work well for the populations they serve.
- The majority of interventions and resources for the homeless in San Diego County are focused on the downtown area, leaving the surrounding areas with an even wider gap between the supply of and demand for resources for the homeless.
- The limiting factors for expanding successful interventions like restrooms and showers are funding and the ability to establish new locations.
- Special populations (e.g. elderly, trans, children, women, disabled, and mentally ill) may not be served sufficiently by interventions that work well for the general homeless population. These groups may need specialized services.
- Tensions exist among homeless, businesses, residents, and police, which often result in homeless people being forced to move from location to location.

- This forced itinerancy prevents the homeless from establishing permanent encampments, which often have designated restroom locations.
- The combination of large concentrations of homeless people with the closure of public restrooms likely precipitated the hepatitis A outbreak.
- Vaccination efforts and other interventions targeting the homeless are more effective when well-known community workers act as emissaries to encourage trust in the new intervention.
- Very few homeless people have come to San Diego seeking out the community resources. Providing more services and resources does not draw homeless people from other cities.

Solutions that Work

- Learn from other cities and providers, and copy what is already working. Freely publish the operational details for successful interventions so they can be duplicated.
- Improve access to permanent shelter, reliable food, and job security.
- Couple outreach with support for physical disabilities, chronic pain, mental health, and substance dependency.
- Current permanent and mobile shower facilities are efficient with minimal problems. They need to be duplicated in different geographic locations with the proper density to serve the entire homeless population.
- Supervised restroom facilities are effective and safe, but need to be placed with greater density and 24-hour availability.
- Public laundry facilities such as those at the Neil Good Day Center work well with minimal problems. They need to be duplicated in other locations.
- Address homeless hygiene proactively in a manner that balances the burden among the various interests to avoid public health crises that have high costs in terms of morbidity/mortality, public expense, and damage to the city's image.
- Declare public health emergencies early to activate effective resources and organizational structures for interventions.
- Establish locations for permanent homeless encampments that have clean, secure restroom and showering facilities.

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