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Issue Brief

Community Paramedicine: San Francisco Pilot Tests Sobering Center as ED Alternative

With the highest density of liquor stores of any city in California, San Francisco and its residents bear the high societal and personal costs associated with excessive drinking. The rate of emergency department (ED) visits due to acute or chronic alcohol use is 61% higher in San Francisco than in California overall (71.0 vs. 44.2 per 10,000 adults).[1] Among the 7,500 homeless people counted in San Francisco in 2017, 15% reported alcohol or other drug use as the primary cause of their homelessness, and 41% reported chronic use of alcohol or other drugs.[2] Of those who were chronically homeless (i.e., had a condition that prevented them from maintaining work or housing), 65% reported alcohol or substance use.

In 2003, the San Francisco Department of Public Health teamed up with the nonprofit Community Awareness and Treatment Services (CATS) to address ED overcrowding and ambulance diversion (i.e., hospitals temporarily closing their EDs to patients arriving by ambulance) and to better use ED resources to treat people with acute medical conditions. Together, these partners opened the San Francisco (SF) Sobering Center, which was designed to address the needs of clients with a history of alcohol dependence. To reduce the number of patients with alcohol-related issues but no other acute medical needs who are transported by ambulance to EDs, the San Francisco Fire Department (SFFD) launched a community paramedicine (CP) pilot project with the SF Sobering Center in 2017. The center is an alternate destination to the ED for adults with acute alcohol intoxication (i.e., an impairment of mental and physical abilities resulting from consumption of large quantities of alcohol). It is managed by registered nurses (RNs), is open 24/7, and provides short-term care (4 to 12 hours) in a safe, medically supervised environment where acutely intoxicated people can be assessed, monitored, and if needed, transported to an ED.

Overview

In the first six months of 2016, San Francisco's 911 dispatch center received more than 6,000 calls seeking help for someone with alcohol intoxication, an average of 32 calls per day. Each year from 2011 to 2016, SFFD paramedics transported about 2,400 adults with acute alcohol intoxication and no other acute medical or mental health needs to EDs; these are people who could have been cared for in a

sobering center. This pilot project expands the role of the paramedic to assess and transport people with acute alcohol intoxication to a sobering center as an alternative destination to the ED, and it seeks to better match health care services with the needs of 911 callers.

When 911 is called by or on behalf of a patient, paramedics are required by California law to transport that patient, even if the person does not have an emergency condition, to the ED of an acute care hospital.[3] For this pilot program, all 450 ambulance paramedics in San Francisco were trained to use a protocol to assess patients for possible transport to the SF Sobering Center. Once trained, these paramedics are referred to as alternate destination paramedics. The protocol specifies that clients with complex medical or mental health conditions, or who show evidence of having recently used substances other than alcohol, be taken to an ED. If an alcohol-intoxicated patient meets the medical criteria in the protocol, the alternate destination paramedic seeks the patient's consent to be transported to the SF Sobering Center; patients who decline are transported to an ED.

Ten SFFD paramedic captains who have trained as community paramedics fill several roles, including serving as a resource for the alternate destination paramedics and performing case reviews for quality assurance.

What Is Community Paramedicine?

Community paramedicine is a locally designed, community-based, collaborative model of care that leverages the skills of paramedics and emergency medical services (EMS) systems to address specific local problems and to take advantage of locally developed linkages and collaborations between and among EMS and other health care and social service providers.

Community paramedics receive specialized training in addition to general paramedicine training and work within a designated CP program under local medical control as part of a community-based team of health and social services providers.

Source: Kenneth W. Kizer, Karen Shore, and Aimee Moulin, *Community Paramedicine: A Promising Model for Integrating Emergency and Primary Care*, July 2013, California Health Care Foundation, www.chcf.org.

To learn more about community paramedicine, watch the animated video at www.chcf.org/community-paramedicine-briefing.

Project Design

California's Office of Statewide Health Planning and Development requires an application and review process for pilot projects designed to test and evaluate new or expanded roles for health care professionals. The pilot project application for CP, submitted by the state's Emergency Medical Services Authority (EMSA), was approved in November 2014, paving the way for 14 pilot projects across the state.

The major steps involved in the design of each site's project were:

1. Identify key partners including EMS agencies, fire departments, hospitals, and ambulance providers
2. Assess needs with key partners to identify areas that could be addressed by CP
3. Develop protocols and policies
4. Select community paramedics and develop training/curriculum
5. Review human subject safety through an institutional review board (IRB)
6. Identify data elements to track

CP training was available to paramedics who met these EMSA criteria:

- Commitment to an additional training program[4]
- Four years of experience as a California licensed paramedic

- Current local EMS agency accreditation in good standing
- No clinical deficiencies or disciplinary actions in the past 12 months

The pilot project in San Francisco involves two distinct roles: community paramedics and alternate destination paramedics. Like all other community paramedics trained across the state, the paramedic captains serving as community paramedics for the San Francisco pilot completed a 152-hour core training curriculum. They then completed additional training on alcohol intoxication, the triage protocol for assessing people potentially eligible for transport to the SF Sobering Center, and onsite clinical training at the center. The alternate destination paramedics received eight hours of training on the protocol to assess clients for transport to the SF Sobering Center.

The SF Sobering Center CP pilot aims to achieve the following goals:

- Reduce use of ED services by adults with uncomplicated acute alcohol intoxication by having trained paramedics assess and transport patients meeting specific criteria to the SF Sobering Center.
- Demonstrate appropriate use of a nontraditional alternative to the ED for treatment of acutely intoxicated patients who have been assessed by paramedics.
- Minimize the need for subsequent transport to EDs from the SF Sobering Center and ensure that no patient is harmed by being managed in the center rather than in an ED.
- Improve the efficiency of ambulance resources (it typically takes less time for an ambulance to drop off a patient at the SF Sobering Center than at an ED, meaning that the ambulance is available to respond to the next 911 call more quickly).

How It Works

When responding to a 911 call in San Francisco for an acutely intoxicated person, an alternate destination paramedic conducts an assessment and applies specific criteria (see sidebar) to determine if the patient is eligible to be transported to the SF Sobering Center (see Figure 1 on page 4). If the person is eligible, the alternate destination paramedic asks for the person's agreement to go to the center. If the person declines, or is ineligible based on the protocol, the person is transported to an ED.

The protocol specifies that the primary issue for clients must be alcohol-related and that other health conditions must be relatively minor for the client to be eligible for ambulance transport to the SF Sobering Center. If the alternate destination paramedic is unsure whether the patient should be taken to the center, a community paramedic can be consulted. San Francisco's community paramedics are available for consultation in the field (e.g., on the street, in homeless shelters), at an ED, or by phone, but their vehicles, though equipped with emergency response equipment, cannot be used for transporting patients.

The SF Sobering Center is funded by the City and County of San Francisco and serves many repeat and homeless clients. The center is open around the clock and has 12 beds — 8 for men and 4 for women. Care is managed by RNs and medical assistants who follow protocols and practice guidelines. Nursing staff conduct an initial assessment and then regularly

Patient Eligibility Criteria for San Francisco's CP Pilot

1. Be at least 18 years old
2. Be found on a street or in a shelter, or be in Police Department custody
3. Voluntarily consent or have presumed consent (when not oriented enough to give verbal consent) to go to the SF Sobering Center
4. Not be on the center's exclusion list
5. Be medically appropriate by meeting all the following criteria:
   - Indication of alcohol intoxication (odor of alcoholic beverages on breath, bottle found on person)
   - Glasgow Coma Score: 13+
   - Pulse rate: >60 and <120
   - Systolic blood pressure: >90
   - Diastolic blood pressure: <110
   - Respiratory rate: >12 and <24
   - Oxygen saturation: >89%
   - Blood glucose level: >60 and <250
   - No active bleeding
   - No bruising or hematoma above clavicles
   - No active seizure
   - No laceration that has not been treated

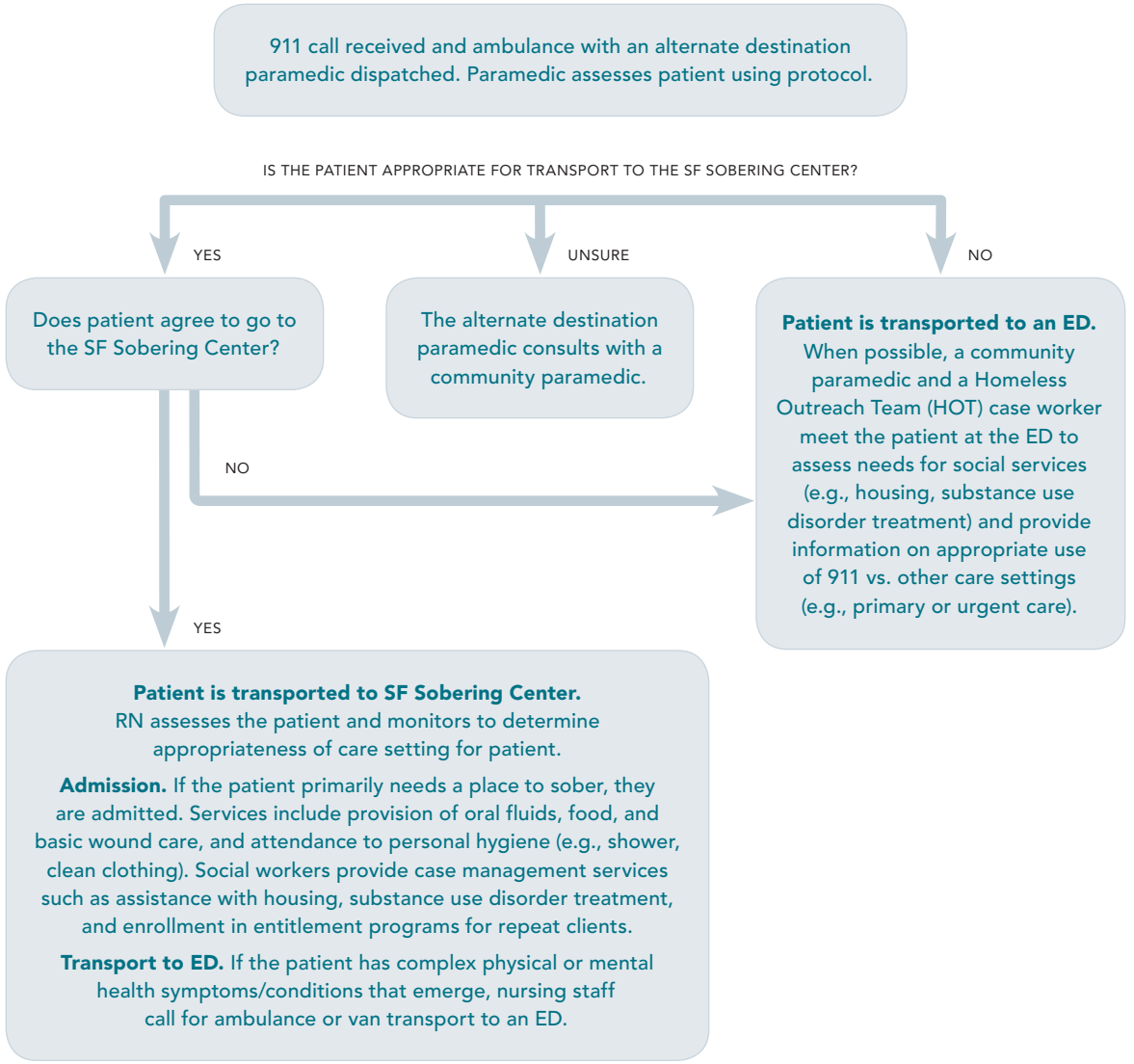
monitor the clients to ensure that it is appropriate for them to stay at the center; if not, nursing staff request their transfer to an ED. The center provides a warm, indoor place for clients to sleep as they sober up, and it offers oral fluids, food, basic wound care, showers, and clean, dry clothing (the staff will wash the patient's clothing or give them donated clean clothing).

In a recent one-year period, 1,271 clients had a total of 3,452 encounters at the SF Sobering Center.[5] Of these encounters, 25% were clients with a single visit, 24% were clients with two to five visits, and 51% were clients who had six or more visits. Many were homeless at the time of their visit (64%), and even more reported a history of homelessness (78%). Almost 95% reported having a diagnosis of alcohol use disorder in their lifetime, and many had other health conditions such as liver disease, high blood pressure, depression, and heart disease.

"If an alternate destination paramedic calls me to discuss a patient and their suitability for transport to the SF Sobering Center, we talk about whether the patient meets the medical and other criteria. If they do, I nudge the paramedic to take the patient to the center, where they will be closely monitored, and if the person is a repeat client, will also receive case management services to address the person's health care and other needs."

— Scott Eberhart, community paramedic

Figure 1. Assessment Process for San Francisco CP Pilot



With specialized training and a caseload of clients with primarily alcohol intoxication issues, nursing staff at the SF Sobering Center are attuned to signs and behaviors that indicate it may be unsafe for the client to be admitted to or remain at the center. The center's social workers provide case management and referrals to repeat clients. They also can enroll clients in housing assistance and entitlement programs such as Medi-Cal, general assistance, and Supplemental Security Income (SSI), as well as refer them to substance use disorder treatment programs.

Clients are typically discharged from the SF Sobering Center within 4 to 12 hours when they can walk safely and speak clearly. The center uses a harm reduction model and works with clients to help them make better choices about their alcohol use, with the ultimate goal being that clients seek treatment. For clients who want to enter treatment, the center provides stabilization services until the client can safely be admitted to a detoxification program.

Results

All the state's CP pilot projects are reviewed as part of an independent evaluation conducted by researchers at the University of California, San Francisco (UCSF). For a detailed report on the first-year results for the 13 other CP pilot projects, see UCSF's *Evaluation of California's Community Paramedicine Pilot Program* (January 2017). The evaluation does not include any results for the SF Sobering Center pilot, however, since it began after the report was published. Evaluation data from the first several months of this pilot project were made available in November 2017.

Patients Served

Although clients can be taken to the SF Sobering Center by the police or a Homeless Outreach Team (HOT)[6] van, or can walk in for services if preapproved by the center's staff, the pilot project focuses on clients who would otherwise be taken by ambulance to an ED. During the first six months of the pilot, the center admitted 1,795 clients; 274 (15%) arrived by ambulance. Of the clients who arrived by ambulance, about 90% were male and 21% Hispanic. The average age was 50.

Reducing ED Visits

Of the 274 patients served by the project between February and July 2017, seven were subsequently transported to an ED. During this period, a total of 267 ED visits were avoided. More detailed analysis will be included in future project evaluation reports.

Patient Safety

To ensure patient safety throughout the pilot, the community paramedics meet weekly with nursing staff at the SF Sobering Center to review the records of all patients arriving by ambulance. In addition, a clinical committee consisting of the center's deputy director, the San Francisco EMS medical director, and the SFFD medical director review any "secondary transports," which are cases when the patient is transported from the center to an ED. Secondary transports may be necessary if a patient's physical or mental health conditions change while at the center, or if a patient has an underlying condition that is not observed prior to admission and that results in a need for the level of care an ED provides. The transfer rate for the first six months of the pilot averaged 2.5%, ranging from zero to two secondary transports per month. None of the transfers led to adverse patient outcomes or patient safety issues.

Referrals to Treatment

SF Sobering Center staff encourage repeat clients to seek treatment through detoxification or residential treatment programs. The center is now the predominant source of referrals for the city's public residential detoxification program.

"A lot of people don't understand the impacts of addiction and how fatal it is. To really help people with addiction issues, you have to meet them where they are and be there when they're ready to make a change. There is a struggle with alcoholism where we take care of people to the point they go back out and drink again. At the SF Sobering Center, the chance that a person is going to get into treatment is higher — the staff have incredible patience and are prepared to help someone when they are ready to seek treatment."

— Clement Yeh, MD, SFFD medical director

Implementation Challenges

Several issues have challenged this project's implementation. First, even though they have received training as part of the pilot program, some alternate destination paramedics focus on transporting patients to the ED. Thus, they may not consider the potential for better patient care and better use of health system resources when clients with only acute alcohol intoxication are taken to the SF Sobering Center rather than an ED. To address this challenge, SFFD community paramedics are conducting a survey to gather information on factors that inhibit the alternate destination paramedics from transporting appropriate patients to the center.

Second, clients who frequently call 911 and may be appropriate for treatment at the SF Sobering Center might be more comfortable being seen at an ED, even though they may not get all the medical and social services that they would receive at the SF Sobering Center.

Third, when SF Sobering Center clients are ready for discharge, the options available to them are insufficient. For example, there are not enough residential detoxification or treatment program beds, supportive housing options, and shelter beds to meet the needs of this population. In addition, social workers and case management staff may be limited in their ability to help some clients who are unable to reduce their alcohol use.

Fourth, communication and information transfer between the alternate destination paramedics and SF Sobering Center staff could be improved so that the paramedics know prior to transport whether the center is able to accept their patient.

"We have a 49-year-old patient who is homeless and has alcohol use disorder. He presented to the ED over 300 times in one year for alcohol-related complaints. We connected him to the SF Sobering Center and their case manager. We got him into medical detox several times and eventually into a dual diagnosis residential treatment program to also address his mental health conditions. He had a minor relapse while in this program but was taken immediately to the center. He is still struggling with relapses and mental health issues but has not had any alcohol-related ambulance transports in the last eight months. We continue to support him and coordinate his care with the SF Sobering Center staff."

— April Bassett, community paramedic

Drivers of Implementation Success

Although San Francisco's pilot project has been underway for only nine months, several factors were identified as essential to its successful implementation. Of paramount importance are the relationships among experienced community paramedics, staff at the SF Sobering Center, alternate destination paramedics, ED staff, HOT team case workers, and providers of detoxification or residential treatment for substance use disorders. The community paramedics serve as an information and resource hub for these partners.

The community paramedics provide valuable advice and feedback to the alternate destination paramedics on whether a specific client is appropriate for transfer to the SF Sobering Center versus the ED, which may lead to more use of the center. The community paramedics are also described as very engaged and attuned to the various needs of the clients served. Complete flexibility with their schedule while on shift is important; this allows the community paramedics to structure each day's activities so that they can meet the evolving needs of clients, alternate destination paramedics, and ED staff.

Several aspects of the staffing at the SF Sobering Center have contributed to the successful pilot project implementation:

- RNs provide a high level of medical support.
- RN leaders serve as strong advocates for and proponents of the program.

- Staff have extensive experience working with clients who have acute alcohol intoxication. They are attuned to subtle changes during the sobering process and can initiate transfer of the patient to an ED if needed.
- Onsite social workers work with the community paramedics and HOT team case workers to provide case management assistance for repeat clients to obtain housing, entitlements, and treatment for substance use disorders. The center staff, community paramedics, and HOT team case workers have the time to be more attentive to the social service needs of clients than is possible for ED staff.

"Paramedics can definitely follow protocols to make the determination if a patient can go to a sobering center versus the ED. If patients with alcohol intoxication are transported to a sobering center where they can access more resources such as referral to addiction treatment, the ED can focus on higher-acuity patients (e.g., those with chest pain or cancer) who need the level of care that only the ED can provide. We want to get patients to the right place to provide the best care."

— Steve Polevoi, MD
codirector, San Francisco Emergency Physicians Association
medical director, UCSF Medical Center at Parnassus

Finally, the SFFD and EMS medical directors, community paramedics, and nurse leadership at the SF Sobering Center are all committed to the idea of community paramedicine as a means to help meet the needs of San Francisco's homeless, vulnerable clients.

Future Considerations

The community paramedics and SF Sobering Center staff have a strong and growing relationship where they provide complementary services for repeat patients with acute alcohol intoxication. Together, they help to address patients' medical and broader social service needs. Because the 10 community paramedics do not transport clients to the center, however, the success of this pilot project depends on alternate destination paramedics appropriately identifying and screening potential clients. Ongoing training for alternate destination paramedics that includes the following may increase the use of the SF Sobering Center as an alternate destination:

- Regular updates on the types of patients who may benefit from transport to the center
- Reminders of the potential for improvement in patient care and overall health through case management, referrals to detoxification and residential treatment, and addressing clients' broader social needs
- Broad dissemination of information on recent changes at the center, including additional staff and physical improvements (such as a doorbell) that make it more accessible

For communities that are highly impacted by alcohol use and are interested in starting an alternate destination sobering center CP program, close collaboration and support is necessary for stakeholders including EMS agency leadership, fire department/ambulance service provider leadership, sobering center staff, hospital EDs, and substance use disorder treatment providers. The links between these organizations will allow for the necessary program infrastructure to be built and for clients to be successfully referred for treatment. Rigorous training paired with excellent communication among community paramedics, transport/ambulance paramedics, and sobering center staff will be needed, as they will have day-to-day operational responsibility for assessing and treating patients who may be suitable for the program.

The alternate destination sobering center model enables patients to obtain care more tailored to their sobering needs and have improved access to substance use treatment. Health care system resources may also be used more effectively if ED visits are avoided.

About the Author

Karen Shore, PhD, is an independent health policy consultant. Shore previously served as program director for the Institute for Clinical and Economic Review, where she ran the California Technology Assessment Forum, and as the president and CEO of the Center for Health Improvement.

Acknowledgments

Photo courtesy of Jim Wilson, *The New York Times* / Redux.

About the Foundation

The California Health Care Foundation is dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford.

CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with changemakers to create a more responsive, patient-centered health care system.

For more information, visit www.chcf.org.

Endnotes

1. "Age-Adjusted ER Rate Due to Alcohol Abuse," San Francisco Health Improvement Partnership, 2013-2015, www.sfhip.org.
2. *2017 San Francisco Homeless Count & Survey: Comprehensive Report*, Applied Survey Research, June 2017, hsh.sfgov.org (PDF).
3. 13 CCR § 1105(c).
4. California paramedics receive a minimum of 1,090 hours of training in addition to the 160 hours of training they received as an emergency medical technician (EMT).
5. Shannon Smith-Bernardin et al., "Utilization of a Sobering Center for Acute Alcohol Intoxication," *Academic Emergency Medicine* 24, no. 9 (September 2017): 1060-71, doi:10.1111/acem.13219.
6. The San Francisco Homeless Outreach Team (HOT) was established in June 2004 and is a collaboration between the SF Department of Public Health, Human Services Agency, SF Public Library, and the nonprofit Public Health Foundation Enterprises. This multidisciplinary team seeks to engage and stabilize the most vulnerable and at-risk homeless people and to help prevent the harmful effects of homelessness. Some of the HOT team case workers are formerly homeless or in recovery from substance use disorders.