The Anaheim Bus Project

A. Our Initiative:

With the rising epidemic of opioids in the United States, our team is committed to fighting all the negative fallouts from this problem; and the best place to start that battle is our local community. From 2011 to 2015 there were 782 emergency room visits related to opioid problems and abuse in the city of Anaheim (3). Many people are also being incarcerated unnecessarily due to non violent drug offenses. Our goal is to put a stop to this by giving preventative care aide to the homeless population of Anaheim to reduce emergency care visits, stop unnecessary incarceration, and to get these men and women off of drugs so that they have a fighting chance to get a job, and be reintegrated into our community.

B. The Issues:

Like stated before, between the years 2011 and 2015 Anaheim experienced 782 opioid related emergency room visits. With the average emergency room (ER) visit for an opioid related issues increasing from \$58,500 to \$92,400 from 2009 to 2015 (24), these visits are costing the community and the city extensive amounts of money. If we take the average of those two costs for opioid ER visits and multiply it by the 782 residents of Anaheim, we get a staggering final cost of \$59,001,900. Now the question is why are we targeting the homeless population of Anaheim with this preventative care bus. With only .3% of homeless people having their own private insurance, and only 35% on Medicare, Medicaid, or other public services, this leaves 64.7% of homeless people without a way to pay for their medical bills, leaving that burden on the hospitals (12). And since 35% of homeless people are on medicare or medicaid, this also leaves a burden on taxpayers. Adding to this, a study conducted by the Kaiser Family Foundation in 2011 found that 80% of ER visits made by homeless people could have been treated with preventative care (12), 30% of homeless people have also admitted to miss using or abusing drugs (26), and studies have shown that when working with the homeless population it is almost impossible to treat them for any other medical condition before treating addiction (6). Incarceration is another major issue that is overall costing taxpayers unnecessary amounts of money, while also making it harder for many people dealing with homelessness to get their lives back. According to the Federal Bureau of Justice Statistics over 48.6% of people incarcerated were either on drugs or were involved in some kind of drug crime (8). 15% of the incarcerated population was also homeless before being imprisoned (8). With incarceration costing \$70,812 per inmate per year in California. With homeless people having a much higher likelihood of being incarcerated, helping those in that population addicted to drugs wean off of them will not only be better for their own health and lives, but will also cost the city of Anaheim less money and take the burden of this off the taxpayers.

C. The Costs:

The first initial cost would be the bus itself, costing anywhere between \$175,000 and \$350,000 (13). Buses of this type usually get between 8-14 mpg, which, based on gas prices today, and an

approximation of 30 miles of driving per trip would cost roughly \$10 per trip in gas. The drug that we would be using to treat for those addicted to opioids is methadone. Methadone treatment costs \$4,700 per patient per year (7). We expect that a bus of this nature would be able to see roughly 3,400 people if it were active everyday of the year. This number is based off a similar style of bus that is being run in Redwood City, California (25). Given that 30% of homeless people have admitted to miss using or abusing drugs, we expect, on the very highest end, this bus could treat 1,020 opioid addicted patients with methadone. We would also need doctors and nurses to operate the bus, for what we believe would be on average, for 3 hours a day. We believe three doctors and two nurses, getting paid \$89 an hour and \$33 an hour respectively, would be sufficient to service the bus. However, volunteer staff could also very much be a possibility. With all of this added up, the first year of operation, since it includes the initial cost of the bus, would cost \$5,362,285. This is given the price of the bus being \$350,000 and the bus being operational 365 days out of the year. After the initial cost of the bus is covered, the cost to run the bust yearly would be \$5,012,285. Even though \$5 million is a very large price tag, it is still less that half of the cost yearly from ER opioid related cases, costing \$11,800,380 a year.

D. Obstacles:

As with the implementation of anything there are always going to be obstacles. Our main two concerns with the implementation of the bus would be its reception and effectiveness, and unexpected costs. When it comes to reception and effectiveness there is always the possibility that people may not want help and may see a bus like this as an intrusion. However when it comes to the homeless populations around Anaheim, it seems like the majority of them want to get back on their feet, and we believe that this bus could be a very good stepping stone for that. Therefore we don't see this as being too much of an obstacle. Unexpected costs are also always going to be a factor. When any car or bus runs for a long time it is going to need maintenance, or there could just be an unexpected problem with the bus. Gas prices could spike, and so could the price of the drug methadone. However there is an equal likelihood that the opposite could happen and that prices for both could stay the same or even drop. However there is always the possibility that more funding may be needed at some point.

E. Future Outlook:

Our team is committed to making this a possibility in the city of Anaheim. We intend to keep pursuing this project of ours, trying to make this project more publicly known. Our long term future outlook is that the city of Anaheim can be a benchmark for preventative care and helping the homeless and then soon after implementation of a bus like this, cities around the state, and possibly even the country would follow suit.

F. References:

- ¹Crocket, Alison, and Matt Curtis. "Opioid Overdose: Preventing and Reducing Opioid Overdose Mortality." World Health Organization, 2013.
- ² Cunha, John P. "Common Side Effects of Narcan Nasal (Naloxone Hydrochloride Nasal Spray) Drug Center." RxList, 27 Oct. 2017, www.rxlist.com/narcan-nasal-side-effects-drug-center.htm.
- ³ Fry, Hannah. "H.B. and Costa Mesa Account for More than 1,200 Opioid-Related ER Visits in 4 Years in O.C. Study." Los Angeles Times, Los Angeles Times, 17 Aug. 2017, www.latimes.com/socal/daily-pilot/news/tn-dpt-me-opioid-report-20170817-story.html.
- ⁴ Graham, Jordan. "Orange County Homeless Deaths Hit All-Time High." Orange County Register, Orange County Register, 16 June 2017, www.ocregister.com/2017/02/07/orange-county-homeless-deaths-hit-all-time-high/.
- ⁵ Henrichson, Christian, and Ruth Delany. "The Price of Prisons." Vera, 20 July 2012, www.vera.org/publications/price-of-prisons-2015-state-spending-trends.
- ⁶ Institute of Medicine. 1988. Homelessness, Health, and Human Needs. Washington, DC: The National Academies Press. https://doi.org/10.17226/1092.
- ⁷ "Is Drug Addiction Treatment Worth Its Cost?" NIDA, National Institute on Drug Abuse, Dec. 2012,
- www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-thir d-edition/frequently-asked-questions/drug-addiction-treatment-worth-its-cost.
- 8 "Jail." Jail | Anaheim, CA Official Website, Anaheim Police, www.anaheim.net/253/Jail.
- ⁹ Jolly, Katherine. "Katherine Jolly." Human Interests, 6 July 2016, humaninterests.seattle.gov/2016/07/06/new-mobile-medical-van-to-assist-homeless-in-seattle/.
- ¹⁰ Linkins, Karen W, et al. Frequent Users of Health Services Initiative: Final Evaluation Report. The Lewin Group, Aug. 2008, http://www.aidschicago.org/resources/legacy/pdf/2009/housing_fu_hsinitiative.pdf.
- ¹² "Medicaid Coverage and Care for the Homeless Population: Key Lessons to Consider for the 2014 Medicaid Expansion." Kaiser Family, Sept. 2012.

- ¹³ "Mobile Medical Clinics FAQs." Mobile Medical & Dental Clinic Vehicle FAQs | La Boit Specialty Vehicles, La Boit Special Vehicles, Inc. , www.laboit.com/health-dental/health-fag.html.
- ¹⁴ "NARCAN® NASAL SPRAY AFFORDABILITY MOST INSURED LIVES HAVE A COPAY OF \$10 OR LESS**." NARCAN® (Nalaxone HCl) Nasal Spray, www.narcan.com/affordability.
- ¹⁵ Santana, Julieta. "Mobile Clinics Bring Health Care to Families of Migrant Farmworkers." Mobile Healthcare Association, May 2005, www.mobilehca.org/featured.html.
- ¹⁶ "OpenGov Anaheim Finance and Budget Visualization." OpenGov, Anaheim Police, 2017, anaheim.opengov.com/transparency#/145/accountType=expenses&breakdown=524745f8-4d89-4858-b081-cd294ab8ee3a¤tYearAmount=cumulative¤tYearPeriod=years&graph=pie&legendSort=desc&proration=true&saved_view=null&selection=01AEE38660BED3D01794D6922450E10B&year=NaN&selectedDataSetIndex=2&fiscal_start=earliest&fiscal_end=latest.
- ¹⁷ Opioid Overdoses and Death in Orange County, CA (2011-2015). OC Health Care Agency, 2015, ochca.maps.arcgis.com/apps/MapJournal/index.html?appid=66c8b67aa72842f49431616c94bce3 02.
- ¹⁸ Sanchez, Richard. Opioid Overdose and Death in Orange County. OC Health Care Agency.
- ¹⁹ Srinivasan, Venkat. "Some of the Most Effective Health Clinics Are on Wheels." Slate Magazine, 14 May 2015, www.slate.com/articles/health_and_science/medical_examiner/2015/05/mobile_health_clinics_o utcomes community relationships privacy concerns.html.
- ²⁰ Stevens, Jennifer P., et al. "The Critical Care Crisis of Opioid Overdoses in the United States." Annals of the American Thoracic Society, vol. 14, no. 12, 2017, pp. 1803–1809., doi:10.1513/annalsats.201701-022oc.
- ²¹ Suzanne Zerger, MA Research Specialist, "Learning about Homelessness & Health in your Community: A Data Resource Guide," August 2005
- ²² Thompson, Don. "California Prison Tuition: \$75,560." US News, 5 June 2017, www.usnews.com/news/best-states/new-york/articles/2017-06-05/correction-california-prisons-c osts-story.

5

²³ "What Are the Typical Costs of a Law Enforcement Overdose Response Program?" Working with BJA NTTAC, 17 Dec. 2015,

 $\underline{www.bjatraining.org/naloxone/what-are-typical-costs-law-enforcement-overdose-response-program.}$

²⁴ https://www.statnews.com/2017/08/11/opioid-overdose-costs/

²⁵http://www.slate.com/articles/health_and_science/medical_examiner/2015/05/mobile_health_cl inics outcomes community relationships privacy concerns.html

²⁶ https://www.samhsa.gov/homelessness-housing