

Know Your Naloxone: Tools and Resources

Naloxone Training Resources

- [Have A Safety Plan:](https://www.safeproject.us/safety-plan/) This website provides valuable resources and practical tips for individuals looking to create a personalized safety plan to help prevent opioid overdose. It offers step-by-step guidance on how to assess potential overdose risks, prepare for emergencies, and make informed decisions to reduce harm. The safety plan includes key elements such as identifying trusted contacts, securing Naloxone, and knowing how to recognize the signs of an overdose. Visitors to the site can access and download a comprehensive safety plan checklist, which is designed to be printed and filled out., ensuring that important steps are not overlooked. <https://www.safeproject.us/safety-plan/>
- [CDC Training: Talking About Naloxone:](https://www.cdc.gov/overdose-prevention/hcp/trainings/talking-about-naloxone.html) This free continuing education training is specifically tailored for physicians, nurses, and other healthcare professionals. It focuses on equipping providers with essential communication skills and strategies to effectively talk to patients about Naloxone, a life-saving medication used to reverse opioid overdoses. The course covers a range of critical topics, including how to approach sensitive conversations about opioid use, overdose risk, and the role of Naloxone in preventing overdose deaths. <https://www.cdc.gov/overdose-prevention/hcp/trainings/talking-about-naloxone.html>
- [Naloxone Saturation Webinar Series:](https://www.youtube.com/playlist?list=PLrv84CEAfjGXHZVImSoVnkUZPDklPqd3x) This series focuses on strategies and best practices for optimizing naloxone distribution to address opioid overdose deaths. The webinars cover topics such as effective opioid education and other approaches to enhance naloxone accessibility and utilization. This resource is valuable for healthcare professionals, policymakers, and community organizations involved in combating the opioid crisis. <https://www.youtube.com/playlist?list=PLrv84CEAfjGXHZVImSoVnkUZPDklPqd3x>

Information on Naloxone:

- [Video: The Benefits Of Naloxone:](https://pcssnow.org/courses/the-benefits-of-naloxone/) Dr. Hillary Kunins, a Providers Clinical Support System Clinical-Medications for Opioid Use Disorder expert, explains the benefits of naloxone, a medication that can immediately revive a person who has overdosed on an opioid. <https://pcssnow.org/courses/the-benefits-of-naloxone/>

- Fact Sheet: Family and Caregivers How and When to Use Naloxone for an Opioid Overdose: The CDC fact sheet provides guidance for family members and caregivers on how to use naloxone during an opioid overdose. It highlights signs of overdose, such as slow or stopped breathing and unresponsiveness. The sheet advises calling 911 and administering naloxone immediately. It also reassures that naloxone is safe, even if the person hasn't taken opioids, and may cause temporary withdrawal symptoms, but it is not harmful. The fact sheet encourages carrying naloxone as a precaution for overdose situations.
https://www.cdc.gov/overdose-prevention/media/pdfs/2024/04/Naloxone-Fact-Sheet_FamilyandCaregivers_HowandWhen_4_11_2024.pdf
- How and When to Use Naloxone for an Opioid Overdose: This handout, provided by the Centers for Disease Control and Prevention (CDC), offers essential information about recognizing the signs of an opioid overdose. It also includes detailed instructions on how to properly administer Naloxone, a life-saving medication, and guidance on when its use is necessary. This resource aims to help individuals respond quickly and effectively in emergency situations, by using naloxone to respond to an opioid overdose.
https://www.cdc.gov/overdose-prevention/media/pdfs/2024/04/Naloxone-Fact-Sheet_FamilyandCaregivers_HowandWhen_4_11_2024.pdf
- Lifesaving Naloxone: The CDC page on Naloxone explains that naloxone is a life-saving medication that can reverse opioid overdoses, including those from heroin, fentanyl, and prescription opioids. It can be administered via a nasal spray or injection and works quickly to restore normal breathing within minutes. Naloxone is safe, easy to use, and can be carried by anyone, especially those at risk of opioid overdose. The CDC highlights its availability without a prescription in all 50 states and emphasizes the importance of carrying naloxone in situations where opioid overdose is possible. It encourages individuals to obtain naloxone if they or someone they know may be at risk.
<https://www.cdc.gov/stop-overdose/caring/naloxone.html>
- Using Nasal Spray to Reverse an Opioid Overdose: The fact sheet explains how to use naloxone nasal spray for an opioid overdose. https://www.npaihb.org/wp-content/uploads/2020/07/Using_Nasal_Spray_to_Reverse_Opioid_Overdose_Factsheet.pdf
- What is naloxone? This website published by the National Institute on Drug Abuse (NIDA) is an informational website explaining the properties of the medication, signs of opioid overdose, and different types of naloxone delivery systems (injectable vs. nasal spray)
<https://nida.nih.gov/publications/drugfacts/naloxone#:~:text=Is%20Narcan%C2%AE%20the%20same,generic%20is%20%E2%80%9Cnaloxone.%E2%80%9D>

Access to Naloxone:

- Find naloxone near you: The Harm Reduction Coalition website offers resources to help people find harm reduction services in their area, including access to sterile syringes, naloxone, and safer drug use tools. The Naloxone Finder helps users locate naloxone distribution programs, with many offering free supplies. Additionally, it provides access to mail-based naloxone for those without local resources. The website supports individuals who use drugs and their communities by connecting them to resources that prioritize safety and well-being.
<https://harmreduction.org/resource-center/harm-reduction-near-you/?emci=d0f290da-07e4-ef11-90cb-0022482a94f4&emdi=8cb2c682-1bf5-ef11-90cb-0022482a94f4&ceid=12160954>
- Next Distro: operates as a vital resource, providing a comprehensive harm reduction supplies mailing program that supports over 30 harm reduction programs across the country. This initiative ensures that essential harm reduction supplies and educational materials are accessible to individuals and communities in need, regardless of their location. <https://nextdistro.org/naloxone>
- Remedy Alliance is committed to ensuring that harm reduction programs have sustainable and equitable access to low-cost Naloxone, a crucial life-saving medication used to reverse opioid overdoses. The organization works closely with a wide range of partners, including harm reduction programs, mutual aid networks, health departments, and non-profit organizations, to address the urgent need for accessible overdose prevention resources in communities across the country. <https://remedyallianceftp.org/>

Naloxone Saturation & Mapping Resources:

- Overdose Detection Mapping Application Program (ODMAP): The Overdose Detection Mapping Application Program (ODMAP) is a free, web-based tool that helps public safety and health agencies track suspected overdoses in near real-time. Managed by the Washington/Baltimore HIDTA, it allows agencies to upload overdose data via mobile devices or dispatch systems. ODMAP alerts users to spikes in overdose events and provides nationwide overdose data. It's used by nearly 4,000 agencies across the U.S., supporting effective response, resource allocation, and targeted intervention. Access is limited to government entities with data-sharing agreements.
<https://odmap.hidta.org/Account/Login?ReturnUrl=%2F>

Naloxone Distribution:

- Expanding Access to Naloxone: A Review of Distribution Strategies: The article reviews strategies to expand naloxone access to reduce opioid overdoses. Key methods include Overdose Education and Naloxone Distribution (OEND) programs, which train people to use naloxone, and making it available at pharmacies. Studies show these programs are effective and cost-efficient. The article suggests that increasing naloxone access to high-risk individuals can save lives and reduce overdose deaths. <https://ldi.upenn.edu/our-work/research-updates/expanding-access-to-naloxone-a-review-of-distribution-strategies/>

Naloxone Project Planning:

- Guide to Developing and Managing Overdose Prevention and Take-Home Naloxone Projects: The guide offers a comprehensive approach to developing and managing Overdose Prevention and Take-Home Naloxone programs. It covers key steps such as integrating overdose education into services for people who use drugs, establishing community outreach, and understanding legal and medical considerations. The guide also provides details on program implementation, including securing funding, training staff, collecting data, and conducting outreach. It highlights the importance of naloxone in preventing opioid overdose deaths and offers case studies, FAQs, and additional resources to support these programs. <https://harmreduction.org/wp-content/uploads/2020/08/Resource-OverdosePrevention-GuidetoDevelopingandManagingOverdosePreventionandTakeHomeNaloxoneProjects.pdf>

Information for Prescribers:

- Monitoring of Liver Function Tests and Hepatitis in Patients Receiving Buprenorphine/Naloxone: Information on monitoring liver function tests in patients with or without underlying chronic hepatitis who are receiving buprenorphine for the treatment of opioid dependence. Answers: What should I do if a patient receiving buprenorphine does develop evidence of acute hepatitis or worsening chronic hepatitis? <https://pcssnow.org/courses/monitoring-of-liver-function-tests-and-hepatitis-in-patients-receiving-buprenorphine-naloxone/>
- Buprenorphine Prescribing Flexibility: Buprenorphine Monoprodukt for Adverse Effects from Buprenorphine/Naloxone: Guidance document on the appropriateness of prescribing buprenorphine monoprodukt on a case-by-case basis for the treatment of Opioid Use Disorder for management of patients who experience adverse effects from

buprenorphine/naloxone (bup/nx; Suboxone, Zubsolv).

<https://pcssnow.org/courses/buprenorphine-prescribing-flexibility-buprenorphine-monoproduct-for-adverse-effects-from-buprenorphine-naloxone-guidance/>

- Treatment of Acute Pain in Patients Receiving Buprenorphine/Naloxone: Guidance on managing acute pain in a patient receiving buprenorphine/naloxone (bup/nx; Suboxone, Zubsolv) for the treatment of opioid dependence.
<https://pcssnow.org/courses/treatment-of-acute-pain-in-patients-receiving-buprenorphine-naloxone/>
- Course: Preventing Opioid-Involved Overdose with Education and Naloxone: Description: Overdose is the leading cause of accidental injury death in the United States surpassing motor vehicle crashes, claiming more than 100,000 American lives annually. Fentanyl, a synthetic opioid, that is sold as heroin and counterfeit prescription opioids is driving the recent surges in overdose deaths in most communities. Overdose prevention, that includes equipping people who use drugs and their social networks with naloxone rescue kits is an established strategy to address opioid overdose. <https://pcssnow.org/courses/22-preventing-opioid-involved-overdose-with-education-and-naloxone/>
- Recognizing and Responding to Opioid Overdose; Safety and Naloxone Training: The CDC estimated that in 2022 there were over 107,000 overdose deaths in the United States, surpassing the toll of gun violence and car accidents combined. This webinar reviews resources and tools on how to recognize and respond to an overdose.
<https://pcssnow.org/courses/recognizing-and-responding-to-opioid-overdose-safety-and-naloxone-training/>

Responding to Myths About Fentanyl and/or Naloxone:

- Clearing the Haze: Marijuana and Fentanyl: The article dispels the myth that marijuana is commonly contaminated with fentanyl, clarifying that there is no substantial evidence to support this claim. <https://drugfree.org/article/marijuana-and-fentanyl/>
- Drug and Alcohol Dependence Journal Article: The article titled "*Cannabis Use is Associated with Reduced Risk of Exposure to Fentanyl Among People on Opioid Agonist Therapy During a Community-Wide Overdose Crisis*" published by the British Columbia Centre on Substance Use (BCCSU). This article examines the relationship between cannabis use and the reduced risk of fentanyl exposure in individuals receiving opioid agonist therapy (OAT), such as methadone or buprenorphine, during a period of widespread overdose deaths. <https://www.bccsu.ca/wp-content/uploads/2020/12/DAD108420-Cannabis-use-is-associated-with-reduced-risk-of-exposure-to-fentanyl-among-people-on-opioid-agonist-therapy-during-a-community-wide-overdose-crisis.pdf>

- Drug Policy Alliance: Facts About Fentanyl: In this handout, the Drug Policy Alliance provides an overview of essential facts about fentanyl, including its composition, effects, and the risks associated with its use. The document also includes important information about the prevalence of fentanyl in the illicit drug market, its potential for overdose, and harm reduction strategies. This resource aims to educate the public, reduce stigma, and promote informed decision-making regarding fentanyl and related issues.
https://drugpolicy.org/wp-content/uploads/2023/05/2023.04.05_fentanyl_factsheet.pdf
- Drug Policy Alliance: Touching Fentanyl Cannot Cause Overdose: A Doctor Gives the Facts: In this informative video, Dr. David Goodman-Meza, an addiction medicine specialist, explains that fentanyl cannot cause an overdose through skin contact. He stresses that this misconception can create unnecessary fear among both first responders and the general public. <https://drugpolicy.org/resource/touching-fentanyl-cannot-cause-overdose-a-doctor-gives-the-facts/>

Good Samaritan Act:

- Drug Misuse: Most States Have Good Samaritan Laws and Research Indicates They May Have Positive Effects: The GAO report "*Fentanyl and Other Synthetic Opioids: Overview of the Federal Response and Key Issues*" (GAO-21-248) reviews federal efforts to address the rise in fentanyl-related overdose deaths. The report examines strategies such as law enforcement actions, harm reduction programs, and public health initiatives. It also calls for better data collection and more coordinated federal efforts to combat the opioid crisis, offering recommendations to strengthen these responses.
<https://www.gao.gov/products/gao-21-248>
- Good Samaritan drug overdose laws: The Good Samaritan Drug Overdose Laws aim to reduce the fear of legal consequences for individuals who seek help during an overdose emergency. These laws provide legal protections to people who call 911 for help during an overdose, ensuring they won't be charged with drug possession or related offenses. The strategy has been shown to encourage timely assistance in overdose situations, ultimately saving lives. This approach is supported by experts, although further research is needed to fully understand its long-term impact on overdose deaths and overall public health.
<https://www.countyhealthrankings.org/strategies-and-solutions/what-works-for-health/strategies/good-samaritan-drug-overdose-laws>

Information for First Responders and Rural Communities:

- Connecting Communities to Substance Use Services: Practical Approaches for First Responders: A SAMHSA resource that helps first responders connect people who use drugs (PWUD) to treatment and support services. It emphasizes a public health approach, highlighting trauma-informed care, harm reduction, and cultural competence. The guide explores referral programs, outreach, community paramedicine, and diversion strategies while stressing collaboration with community partners. It also addresses challenges like funding, training, and stigma. Ultimately, it aims to equip first responders with practical tools to improve outcomes for individuals affected by substance use.
<https://library.samhsa.gov/sites/default/files/pep23-06-01-010.pdf>
- Emergency Medical Services (EMS) Mental Health: SAMHSA provides resources to help EMS personnel manage work-related stress and mental health challenges. These include articles, hotlines, and the "Service to Self Training Course," a free online program addressing mental health risks and substance use. By using these tools, EMS professionals can strengthen resilience and improve their well-being.
<https://www.samhsa.gov/resource/dbhis/ems-mental-health>
- First Responder Substance Use Stigma Measures Toolkit: The First Responder Substance Use Stigma Measures Toolkit, developed by NACCHO, helps assess and reduce stigma among first responders toward individuals with opioid use disorder (OUD). It includes validated measures to evaluate attitudes, preparedness, and beliefs related to OUD and harm reduction strategies. The toolkit provides assessment templates and background information to facilitate effective implementation. By using it, organizations can better understand and address stigma, improving first responders' interactions with individuals with OUD and enhancing public health outcomes.
<https://www.naccho.org/uploads/downloadable-resources/Programs/Community-Health/First-Responder-Substance-Use-Stigma-Measures-Toolkit.pdf>

Resources compiled by the American Academy of Addiction Psychiatry (AAAP) including material developed by the AAAP-led Opioid Response Network (ORN), Providers Clinical Support System-Medications for Opioid Use Disorder (PCSS-MOUD) and others recommended by ORN consultants.

Academic References:

Policy/Law & Naloxone:

Abouk, R., Pacula, R. L., & Powell, D. (2019). Association Between State Laws Facilitating Pharmacy Distribution of Naloxone and Risk of Fatal Overdose. *JAMA internal medicine*, 179(6), 805–811.
<https://doi.org/10.1001/jamainternmed.2019.0272>

Bohler, R. M., Freeman, P. R., Villani, J., Hunt, T., Linas, B. S., Walley, A. Y., Green, T. C., Lofwall, M. R., Briden, C., Frazier, L. A., Fanucchi, L. C., Talbert, J. C., & Chandler, R. (2023). The policy landscape for naloxone distribution in four states highly impacted by fatal opioid overdoses. *Drug and alcohol dependence reports*, 6, 100126. <https://doi.org/10.1016/j.dadr.2022.100126>

Xu, J., Davis, C. S., Cruz, M., & Lurie, P. (2018). State naloxone access laws are associated with an increase in the number of naloxone prescriptions dispensed in retail pharmacies. *Drug and alcohol dependence*, 189, 37–41. <https://doi.org/10.1016/j.drugalcdep.2018.04.020>

Lambdin, B. H., Davis, C. S., Wheeler, E., Tueller, S., & Kral, A. H. (2018). Naloxone laws facilitate the establishment of overdose education and naloxone distribution programs in the United States. *Drug and alcohol dependence*, 188, 370–376. <https://doi.org/10.1016/j.drugalcdep.2018.04.004>

Naloxone Mapping:

Burrell, A., Ethun, L., Fawcett, J. A., Rickard-Aasen, S., Williams, K., Kearney, S. M., & Pringle, J. L. (2017). The pharmacist's role in overdose: Using mapping technologies to analyze naloxone and pharmacy distribution. *Journal of the American Pharmacists Association : JAPhA*, 57(2S), S73–S77.e1. <https://doi.org/10.1016/j.japh.2016.11.006>

Horton, M., McDonald, R., Green, T. C., Nielsen, S., Strang, J., Degenhardt, L., & Larney, S. (2017). A mapping review of take-home naloxone for people released from correctional settings. *The International journal on drug policy*, 46, 7–16. <https://doi.org/10.1016/j.drugpo.2017.05.015>

Yi, G., Dayton, L., Uzzi, M., Browne, K., Konstantopoulos, A., & Latkin, C. (2022). Spatial and neighborhood-level correlates of lay naloxone reversal events and service availability. *The International journal on drug policy*, 106, 103739. <https://doi.org/10.1016/j.drugpo.2022.103739>

Naloxone Training & Distribution:

Overdose rescues by trained and untrained participants and change in opioid use among substance-using participants in overdose education and naloxone distribution programs: a retrospective cohort study: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-14-297>

Knudsen, H. K., Freeman, P. R., Oyler, D. R., Oser, C. B., & Walsh, S. L. (2023). Scaling up overdose education and naloxone distribution in Kentucky: adoption and reach achieved through a "hub with many spokes" model. *Addiction science & clinical practice*, 18(1), 72. <https://doi.org/10.1186/s13722-023-00426-6>

Evaluation of Strategies to Enhance Community-Based Naloxone Distribution Supported by an Opioid Settlement <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2819204>

Drainoni, M. L., Koppelman, E. A., Feldman, J. A., Walley, A. Y., Mitchell, P. M., Ellison, J., & Bernstein, E. (2016). Why is it so hard to implement change? A qualitative examination of barriers and facilitators to distribution of naloxone for overdose prevention in a safety net environment. *BMC research notes*, 9(1), 465. <https://doi.org/10.1186/s13104-016-2268-z>

Enich, M., Flumo, R., Campos, S., Flores, N., Sullivan, N., Mellor, J., O'Neill, C., & Nyaku, A. N. (2023). Overdose education and naloxone distribution program design informed by people who use drugs and naloxone distributors. *Preventive medicine reports*, 35, 102374. <https://doi.org/10.1016/j.pmedr.2023.102374>

Kohli, S., Garg, J., Velasquez, D. E., & Weiner, S. G. (2023). Designing a public access naloxone program for public transportation stations. *Healthcare (Amsterdam, Netherlands)*, 11(2), 100694. <https://doi.org/10.1016/j.hjdsi.2023.100694>

Lambdin, B. H., Bluthenthal, R. N., Garner, B. R., Wenger, L. D., Browne, E. N., Morris, T., Ongais, L., Megerian, C. E., & Kral, A. H. (2024). Organize and mobilize for implementation effectiveness to improve overdose education and naloxone

distribution from syringe services programs: a randomized controlled trial. *Implementation science* : IS, 19(1), 22. <https://doi.org/10.1186/s13012-024-01354-y>

Lambdin, B. H., Bluthenthal, R. N., Wenger, L. D., Wheeler, E., Garner, B., Lakosky, P., & Kral, A. H. (2020). Overdose Education and Naloxone Distribution Within Syringe Service Programs - United States, 2019. *MMWR. Morbidity and mortality weekly report*, 69(33), 1117–1121. <https://doi.org/10.15585/mmwr.mm6933a2>.

Levine, S., Medley, A., & Norton, A. (2021). Putting indigenous harm reduction to work: developing and evaluating “not just naloxone”. *International Journal of Indigenous Health*, 16(2). [Putting Indigenous Harm Reduction to Work: Developing and Evaluating “Not Just Naloxone” | International Journal of Indigenous Health](https://doi.org/10.1080/17447605.2021.1911111)

Rowe, C., Santos, G. M., Vittinghoff, E., Wheeler, E., Davidson, P., & Coffin, P. O. (2015). Predictors of participant engagement and naloxone utilization in a community-based naloxone distribution program. *Addiction (Abingdon, England)*, 110(8), 1301–1310. <https://doi.org/10.1111/add.12961>

Tobin, K., Clyde, C., Davey-Rothwell, M., & Latkin, C. (2018). Awareness and access to naloxone necessary but not sufficient: Examining gaps in the naloxone cascade. *The International journal on drug policy*, 59, 94–97. <https://doi.org/10.1016/j.drugpo.2018.07.003>

Zang, X., Macmadu, A., Krieger, M. S., Behrends, C. N., Green, T. C., Morgan, J. R., Murphy, S. M., Nolen, S., Walley, A. Y., Schackman, B. R., & Marshall, B. D. (2021). Targeting community-based naloxone distribution using opioid overdose death rates: A descriptive analysis of naloxone rescue kits and opioid overdose deaths in Massachusetts and Rhode Island. *The International journal on drug policy*, 98, 103435. <https://doi.org/10.1016/j.drugpo.2021.103435>

Sugarman, O. K., Hulsey, E. G., & Heller, D. (2023). Achieving the potential of naloxone saturation by measuring distribution. *JAMA Health Forum*, 4(10), e233338. <https://doi.org/10.1001/jamahealthforum.2023.3338>

Freeman, P. R., Walley, A. Y., Winhusen, T. J., Oga, E. A., Villani, J., Hunt, T., Chandler, R. K., Oyler, D. R., Reilly, B., Gelberg, K., Douglas, C., Lyons, M. S., Holloway, J., Vandergrift, N. A., Adams, J. W., Asman, K., Baker, T. J., Brancato, C. J., Cheng, D. M., ... El Bassel, N. (2025). Effect of the Communities That HEAL intervention on overdose education and naloxone distribution: A cluster-randomized, wait-list controlled trial. *American Journal of Public Health*, 115(1), 83–94. <https://doi.org/10.2105/AJPH.2024.307845>

Pharmacy-Related Naloxone Distribution:

Gray, M., Shin, S. S., Silcox, J., Flores, D., Bolivar, D., Irwin, A. N., Floyd, A. S., Bratberg, J., Boggis, J. S., Hartung, D. M., & Green, T. C. (2023). "Like it was just everyday business": A qualitative study of pharmacy-based naloxone and syringe customer experience. *Journal of the American Pharmacists Association : JAPhA*, 63(3), 838–846. <https://doi.org/10.1016/j.japh.2023.01.013>

Morgan, J. R., Freibott, C. E., Jalali, A., Jeng, P. J., Walley, A. Y., Chatterjee, A., Green, T. C., Nolan, M. L., Linas, B. P., Marshall, B. D. L., & Murphy, S. M. (2022). The role of increasing pharmacy and community distributed naloxone in the opioid overdose epidemic in Massachusetts, Rhode Island, and New York City. *Drug and alcohol dependence reports*, 4, 100083. <https://doi.org/10.1016/j.dadr.2022.100083>

Rawal, S., Osae, S. P., Tackett, R. L., MacKinnon, N. J., Soiro, F. D., & Young, H. N. (2023). Community pharmacists' naloxone counseling: A theory-informed qualitative study. *Journal of the American Pharmacists Association : JAPhA*, 63(6), 1743–1752.e2. <https://doi.org/10.1016/j.japh.2023.08.018>

Thakur, T., Frey, M., & Chewning, B. (2020). Pharmacist roles, training, and perceived barriers in naloxone dispensing: A systematic review. *Journal of the American Pharmacists Association : JAPhA*, 60(1), 178–194. <https://doi.org/10.1016/j.japh.2019.06.016>

Overdose Survival-Related:

Holmes, L. M., Rishworth, A., & King, B. H. (2022). Disparities in opioid overdose survival and naloxone administration in Pennsylvania. *Drug and alcohol dependence*, 238, 109555. <https://doi.org/10.1016/j.drugalcdep.2022.109555>

Rowe, C., Santos, G. M., Vittinghoff, E., Wheeler, E., Davidson, P., & Coffin, P. O. (2016). Neighborhood-Level and Spatial Characteristics Associated with Lay Naloxone Reversal Events and Opioid Overdose Deaths. *Journal of urban health : bulletin of the New York Academy of Medicine*, 93(1), 117–130. <https://doi.org/10.1007/s11524-015-0023-8>