

Naloxone: Understanding Its Community Use and Effectiveness

The increasing rates of fatal opioid overdoses over the last decade has emphasized the need for strategies that efficiently reduce mortality.¹ Approved by the United States Food and Drug Administration, naloxone (also referred to by the brand name, Narcan®) is an opioid overdose antagonist that serves to reverse the effects of opioids in overdoses by replacing the opioids in a person's system, attaching to the receptors to which the opioids were bound.^{2,3,4} This document outlines research supported talking points regarding the feasibility and effectiveness of overdose education and naloxone distribution (OEND).

NALOXONE EFFECTIVENESS AND SAFETY

- **Naloxone administration results in high rates of successful opioid overdose reversal.** Opioid overdose events where naloxone is administered are reversed at rates between 83%-100%.^{5,6} Reductions due to naloxone distribution in community-level fatal overdoses mortality range from 37 to 90 percent.⁷
- **Naloxone-related policies decrease the number of opioid-related deaths.** Naloxone Access Laws and Good Samaritan Laws are associated with a reduction of opioid-related fatalities ranging between 9 and 11 percent.^{8,9}
- **Naloxone administration is safe to use for overdose reversal.** Serious adverse effects among overdose events where naloxone is administered are rare, with fewer than 1% reported.^{10,11}
- **Communities with high saturation of naloxone distribution experience lower opioid overdose death rates.** Take-home naloxone kits and OEND implementation lead to reduced opioid-related deaths when compared to communities with lower rates of naloxone distribution.^{12,13,14}

NALOXONE TRAINING EFFECTIVENESS

- **Almost anyone can successfully administer naloxone when adequately trained.** Family members, law enforcement officers, traditional first responders, bystanders, and those who use opioids (both prescription and nonprescription) can be trained to effectively reverse opioid-related overdoses by administering naloxone.^{12,15,16,17,18,19,20,21}
- **OEND training increases retained opioid-related knowledge and overdose reversal self-efficacy.** Training improves knowledge about responding to overdoses and increases the levels of self-reported confidence in one's perceived ability to administer naloxone and efficiently responding to an overdose event.^{15,17,18,22,23}
- **Compared to untrained rescuers, trained rescuers are more likely to employ appropriate, recommended overdose reversal behaviors to victims of overdose.**

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Laypersons, patients with opioid prescriptions, and their social network (e.g., families) who receive training in opioid overdose prevention education and naloxone administration are more likely to (1) stay with the overdose victim; (2) call 911 (or the appropriate emergency response team); (3) perform rescue breathing; and (4) use a naloxone kit.^{18,22,24,25}

- **OEND trainings can be implemented through institutions such as hospitals as well as at the community level.** Emergency departments and community-based organizations successfully provide training to potential rescuers, including bystanders and medical professionals.^{24,26} OEND-trained medical providers who counsel and prescribe naloxone to patients at risk of an opioid overdose, in turn, reduce fatalities.²³ Furthermore, training individuals at high risk for witnessing overdoses may reduce opioid overdose mortality at a population level.²⁷

COUNTERING COMMON MISPERCEPTIONS ON NALOXONE

- **Naloxone-related policies do not increase illicit use of prescription or non-prescription opioids.** Variations of Naloxone Access Laws and Good Samaritan Laws do not increase the recreational use of prescription painkillers.^{8,20}
- **Patients prescribed naloxone are less likely than patients without a prescription of naloxone to have an overdose event.** Patients who received a naloxone prescription experience up to 50% fewer opioid-related visits to the emergency department compared to patients without naloxone prescription within six months post-prescription.^{10,12}
- **Law enforcement and first responders who administer naloxone may serve as referrers to non-fatal overdose victims to seek treatment.**²⁸ First responders may serve as liaisons connecting victims of overdose with the people, resources, services, and other support systems to prevent future overdose incidences and other adverse health outcomes.
- **Naloxone has no abuse or dependence potential.** Naloxone accelerates acute withdrawal symptoms in individuals with opiate-dependency and does not affect non-opioid related overdoses.^{5,29}
- When examining the cost per year of life gained to provide naloxone kits to laypeople including individuals who use opioids and likely overdose bystanders, **naloxone distribution is cost-effective.**^{7,30} Naloxone distribution may also be cost-saving when accounting for emergency medical service use and overdose-related cost.⁷

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