

Public Distribution of Naloxone to Improve the Survival Rate of Opiate

Choose **Ohio** First

Overdose Victims

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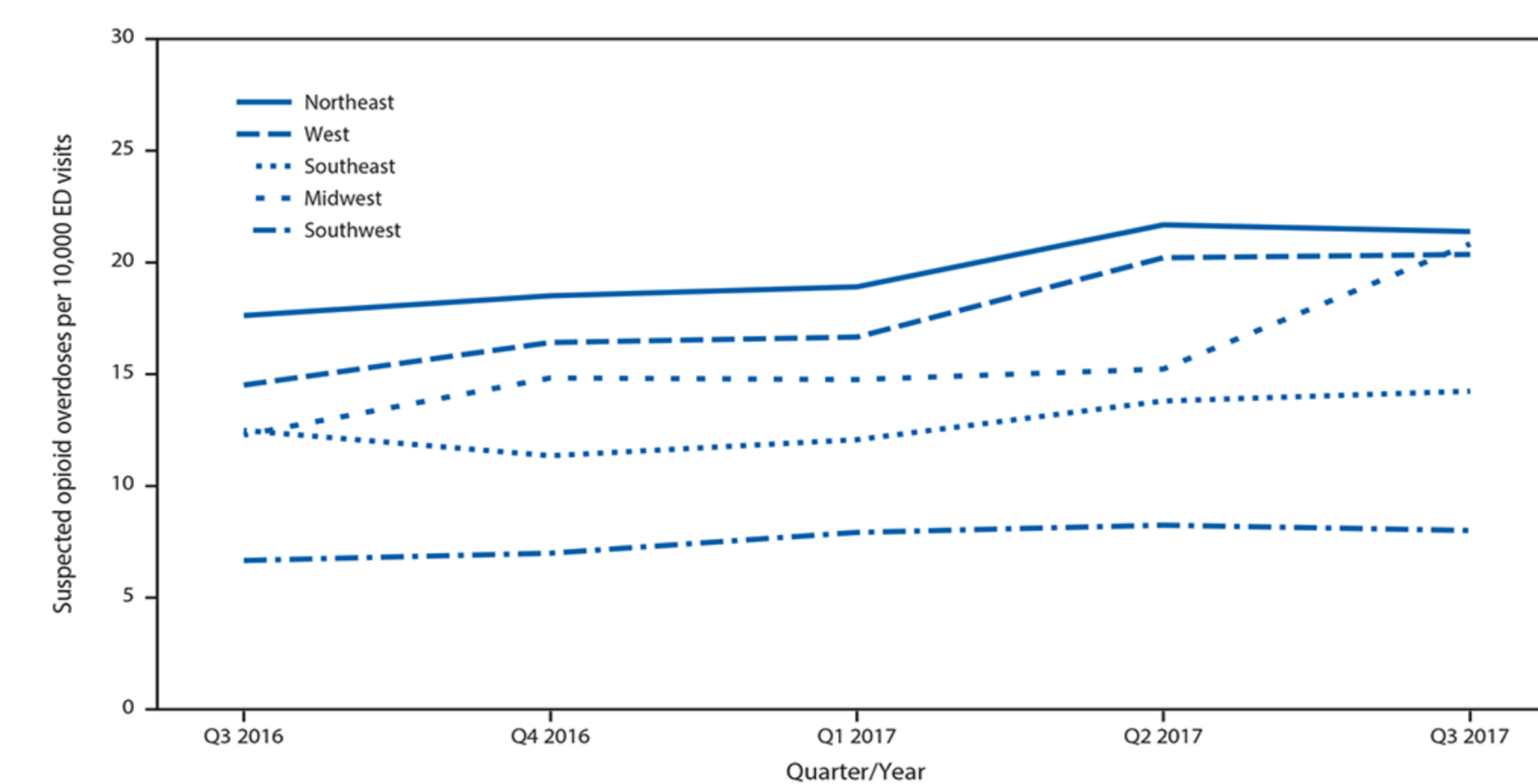
INTRODUCTION

From 2015 to 2016, opioid overdose deaths increased by 27.7%, killing over 42,000 people. From July 2016 through September 2017, a total of 142,557 ED visits were suspected opioid overdoses. Naloxone is a medication developed specifically to reverse the effects of an opioid overdose. This drug, being an opioid antagonist, has the ability to bind to opioid receptors without activating them. Thus, blocking opioid agonists such as heroin, oxycodone, or hydrocodone from attaching to the activation sites. During an overdose, breathing becomes dangerously slow, the heart starts to beat at abnormal rhythms, and the lack of oxygen begins to do permanent damage to the brain. Naloxone has the ability to quickly restore respiration, reversing these effects.

OBJECTIVES

The study, conducted from 1996 to June 2014, shows a significant need for readily available opioid antagonists such as naloxone. The increased availability and education of naloxone is a necessary step in the fight against opioids.

FIGURE 1. Quarterly rate* of suspected opioid overdose, by U.S. region† — 52 jurisdictions in 45 states, National Syndromic Surveillance Program, July 2016–September 2017‡



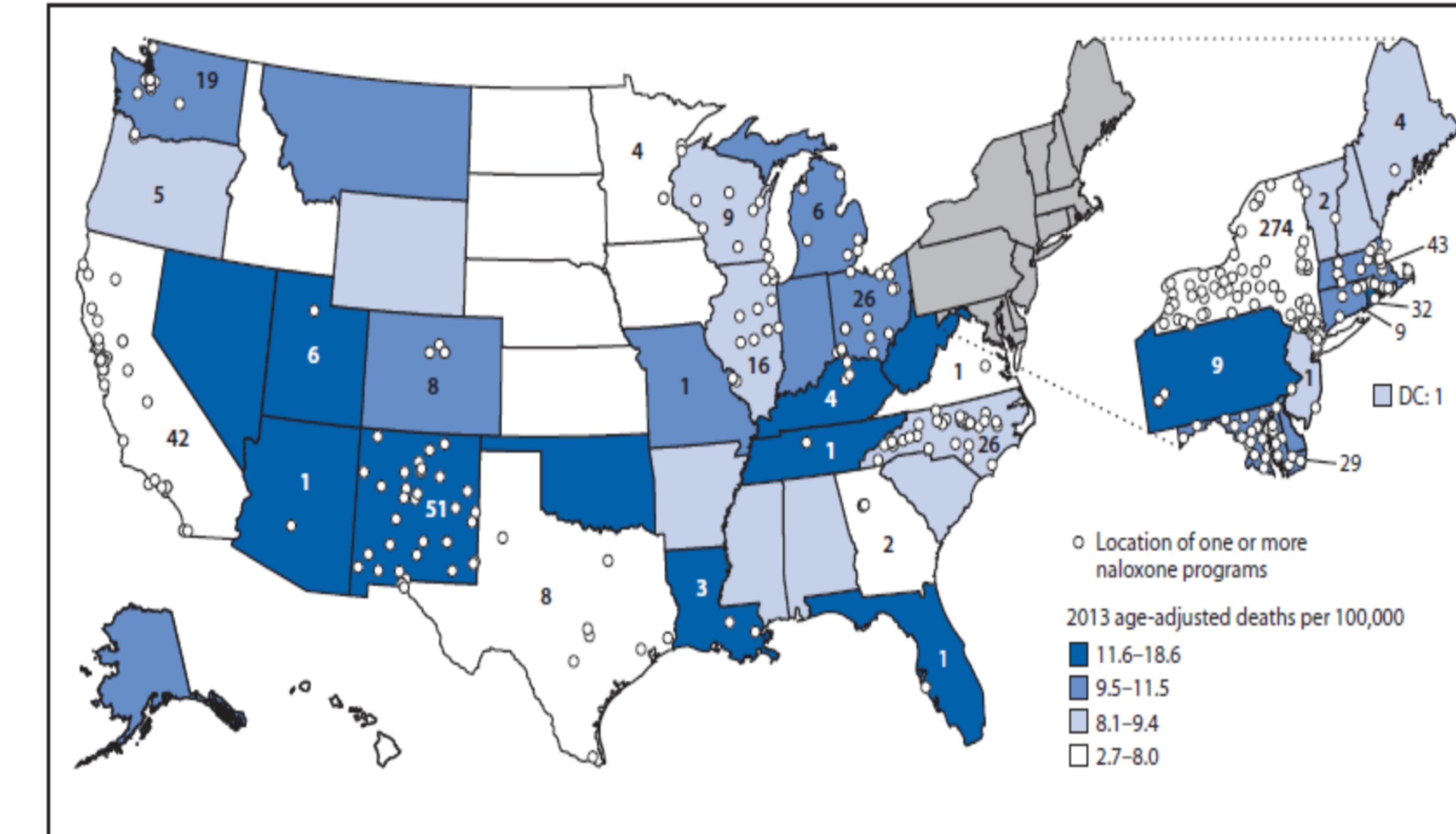
Abbreviation: ED = emergency department.
* Per 10,000 ED visits.

Figure 1. Suspected Opioid Overdoses by Region
Source: cdc.gov

METHODS

- The Harm Reduction Coalition (HRC) surveyed 140 organizations known to distribute naloxone kits to laypersons. Managers from 136 of these organizations replied. (Wheeler, Jones, Gilbert, & Davidson, 2015)
- The survey included questions involving how many programs were distributing naloxone kits; how many persons trained in overdose protocol were given kits; how many overdose reversals were reported (from the use of these kits, administered by trained laypersons), and to report whether the information provided was based solely on program data or included estimates. Lastly, the survey asked about the formulation of naloxone provided in the kits, as well as specifics in training or difficulties obtaining naloxone (Wheeler et al., 2015).

FIGURE 2. Number* and location of local drug overdose prevention programs providing naloxone to laypersons, as of June 2014, and age-adjusted rates† of drug overdose deaths‡ in 2013 — United States



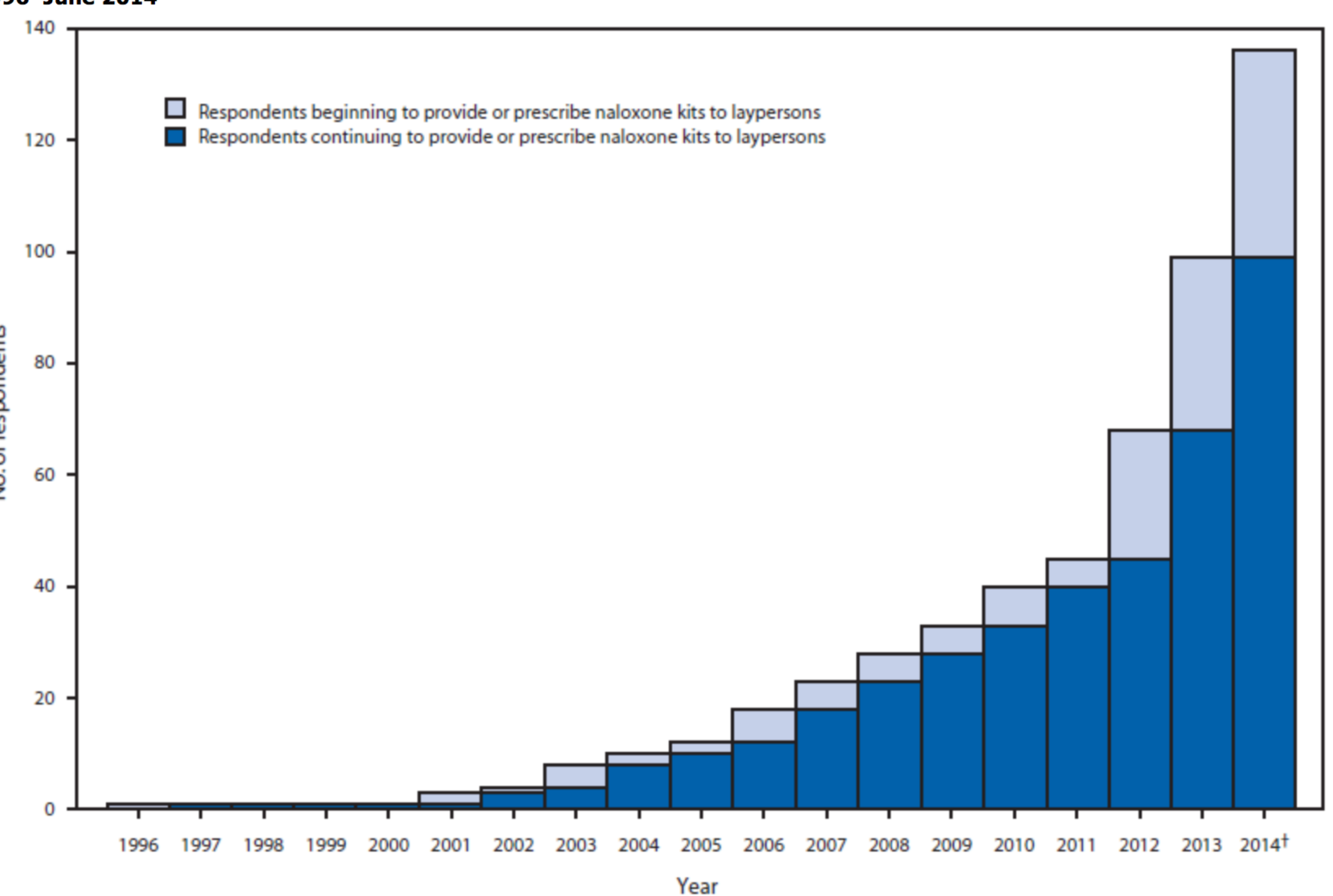
* Total N = 644; numbers on map indicate the total number of programs within each state.
† Per 100,000 population.
‡ CDC, National Center for Health Statistics; Compressed Mortality File 1999–2013 on CDC WONDER Online Database, released January 2015.

Figure 2. Overdose Prevention Programs and Mortality Rates. Source: cdc.gov, 2015

RESULTS

- 152,283 laypersons in total were provided with naloxone kits according to the 136 responding organizations (Wheeler et al., 2015).
- From the 109 organizations who kept documentation of the data, there were 26,463 reported reversals (Wheeler et al., 2015).
- Of the organizations that participated, 93 collected and reported data describing the types of recipients of the kits. Of those reported, 81.6 % were the primary drug user, 11.7 % were reported as friends and family, 3.3% were service providers such as first responders, and 3.4% did not disclose (Wheeler et al., 2015).

FIGURE 3. Number of survey respondents reporting beginning or continuing to provide naloxone kits to laypersons, by year — United States, 1996–June 2014*†



* Results of a survey conducted in July 2014 by the Harm Reduction Coalition, in which 136 organizations reported 644 local sites where laypersons were trained to recognize an opioid drug overdose and provided or prescribed naloxone kits.
† As of June 2014.

Figure 3. Growth of Naloxone Kit Providers
Source: cdc.gov, 2015

CONCLUSIONS

These results show that naloxone is highly effective not only in the more obvious medical setting, but also through overdose prevention programs. Through these results, we can infer that the public distribution of naloxone would improve the survival rate of opiate victims. Thus, the funding, education, and availability of this medication should continue to grow. According to pdaps.org, naloxone was recently made available over the counter in 49 states. Although this is a step forward, there are many reasons why naloxone over the counter availability is not enough. First, this medication is usually expensive, which can make it unobtainable for many of its intended recipients. Second, the purchase generally requires identification which may discourage addicts or family members from buying for fear of repercussions. Lastly, greater education of the public can put this useful medication in the hands of people closest to the addicts for personal safety as well as for the safety of those addicted.

FUTURE WORK

The future of this medicine lies on making it more accessible to those that require it. Making naloxone cheaper for the public would increase usage and stop more overdoses. Public knowledge of how to use naloxone is imperative and should continue to grow as it becomes more available. More studies should be done to identify the primary recipients of the doses and study the affects on first time users versus habitual drug users.

References

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Acknowledgments

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