DISTRIBUTION OF INTRANASAL NALOXONE TO POTENTIAL OPIOID OVERDOSE BYSTANDERS IN SWEDEN: EFFECTS ON OVERDOSE MORTALITY IN A FULL REGION-WIDE STUDY

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Background:
Distribution of take-home naloxone is suggested to reduce opioid-related fatalities, but few studies have examined the effects on overdose deaths in the general population of an entire community. The Skåne Region is a forerunner in Sweden in implementing harm reduction services. Needle and syringe programs (NSP) were introduced 25 years before the rest of the country and broad access to opioid agonist therapy (OAT) has been available during the past decade. This study aimed to assess the effects on overdose deaths of a large-scale take-home naloxone programme starting in June 2018, with distribution of naloxone via the extensive network of NSP and OAT clinics.

Methods:
From the national causes of death register, deaths diagnosed as X42 or Y12 (ICD-10) were registered as overdoses. Numbers of overdoses were calculated per 100 000 inhabitants in the general population and controlled for data including only individuals with a prior substance use disorder in national patient registers, to focus on effects within the primary target population. Using an observational design, the full intervention period (2019-2021) was compared with a historic control period (2013-2017).

Results:
Annual average number of overdose deaths decreased significantly from 3.9 to 2.8 per 100 000 inhabitants from the control period to the intervention period (a significant decrease in men, from 6.7 to 4.3, but not in women, from 1.2 to 1.3). Significant changes remained when examining only prior substance use disorder patients. Decreases in overdose deaths could not be attributed to a change in treatment needs for opioid use disorders in healthcare and social services.

Conclusion:
This study, involving 3 years of take-home naloxone distribution, demonstrated a decreased overdose mortality in the population, however, only in men. The findings call for further implementation of naloxone and for studies of potential barriers in reaching women and reducing risk behaviour.