Increase in Naloxone Prescriptions Dispensed in US Retail Pharmacies Since 2013

Christopher M. Jones, PharmD, MPH, Peter G. Lurie, MD, MPH, and Wilson M. Compton, MD, MPE

Distribution of naloxone, traditionally through community-based naloxone programs, is a component of a comprehensive strategy to address the epidemic of prescription opioid and heroin overdose deaths in the United States. Recently, there has been increased focus on naloxone prescription in the outpatient setting, particularly through retail pharmacies, yet data on this practice are sparse. We found an 1170% increase in naloxone dispensing from US retail pharmacies between the fourth quarter of 2013 and the second quarter of 2015. These findings suggest that prescribing naloxone in the outpatient setting complements traditional community-based naloxone programs. (*Am J Public Health*. 2016;106: 689–690. doi:10.2105/AJPH.2016.303062)

Overdose deaths from prescription opioids and heroin constitute a public health crisis in the United States. Distribution of naloxone to individuals likely to witness an overdose is a key component of a comprehensive strategy to address the opioid epidemic[1] and traditionally has occurred through community-based naloxone programs.[2] Distribution of naloxone has been shown to reduce overdose deaths in communities that implemented overdose education and naloxone distribution programs.[3] Recently, there has been increased focus on expanding naloxone access through prescription of naloxone in the outpatient setting.[4,5]

Although data on community-based naloxone programs are available and suggest continued growth in the number of programs and the number of people receiving naloxone from these programs,[2] a paucity of information is available on outpatient naloxone prescribing to those using opioids (illicitly or by prescription), their caregivers, or their family members. To inform efforts to comprehensively expand naloxone access, we analyzed national prescription trends.

METHODS

Prescription data are from IMS Health's National Prescription Audit, which estimates prescriptions from US pharmacies based on a proprietary sample that includes approximately 67% of the pharmacies in the United States and captures nearly 80% of dispensed retail prescriptions.[6]

We calculated quarterly counts of naloxone prescriptions dispensed by US retail pharmacies between July 2010 and June 2015, stratified into 3 groups: (1) Evzio, an auto-injector approved in 2014; (2) the 2 milligram/2 milliliter formulation typically used off label with a nasal atomizer in community settings[2]; and (3) other formulations. We also calculated the percentage of dispensed naloxone by recipient gender and age and provider specialty for the 12-month period ending June 2015.

RESULTS

Naloxone dispensing from US retail pharmacies was low and stable between the third quarter of 2010 and the fourth quarter of 2013, ranging between 241 and 463 prescriptions per quarter. Starting with the first quarter of 2014, there was a steep rise in naloxone dispensing (Figure 1). In the second quarter of 2015, 4291 prescriptions were dispensed, an 1170% increase over prescriptions in the fourth quarter of 2013. There was a coincident shift toward use of the 2 milligram/2 milliliter naloxone formulation. The introduction of Evzio, first sold in July 2014, led to additional increases in dispensed naloxone prescriptions and in the second quarter of 2015 represented 29.3% of naloxone prescriptions.

Between July 2014 and June 2015, 50.7% of the naloxone prescriptions were dispensed to females, and 45.6% were dispensed to males (unspecified = 3.6%). Those aged 19 years and younger accounted for 4.3% of the prescriptions, those aged 20 to 39 years accounted for 28.7%, those aged 40 to 59 years accounted for 42.7%, those aged 60 to 74 years accounted for 17.1%, and those aged 75 years and older accounted for 5.6% (unspecified = 1.6%). Primary care physicians accounted for 35.1% of the prescriptions, followed by nurse practitioners and physician assistants (19.3%), pain medicine specialists (10.0%), addiction medicine specialists or psychiatrists (6.1%), and physical medicine and rehabilitation physicians or occupational medicine specialists (5.0%); all other specialties combined accounted for 24.5%.

DISCUSSION

Naloxone prescriptions dispensed from US retail pharmacies increased more than 10-fold

ABOUT THE AUTHORS

Christopher M. Jones is with the Division of Science Policy, Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services, Washington, DC. Peter G. Lurie is with the Office of Public Health Strategy and Analysis, Office of the Commissioner, US Food and Drug Administration, Silver Spring, MD. Wilson M. Compton is with the National Institute on Drug Abuse, National Institutes of Health, Rockville, MD.

Correspondence should be sent to Christopher M. Jones, PharmD, MPH, Director, Division of Science Policy, Office of the Assistant Secretary for Planning and Evaluation, US Department of Health and Human Services, 200 Independence Ave SW, Washington, DC 20201 (e-mail: christopher.m.jones@fda.hhs.gov; cjonespharmd@gmail.com). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

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Note. *The conclusions of this brief are those of the authors and do not necessarily represent the official position of the US Department of Health and Human Services, US Food and Drug Administration, or National Institutes of Health.*

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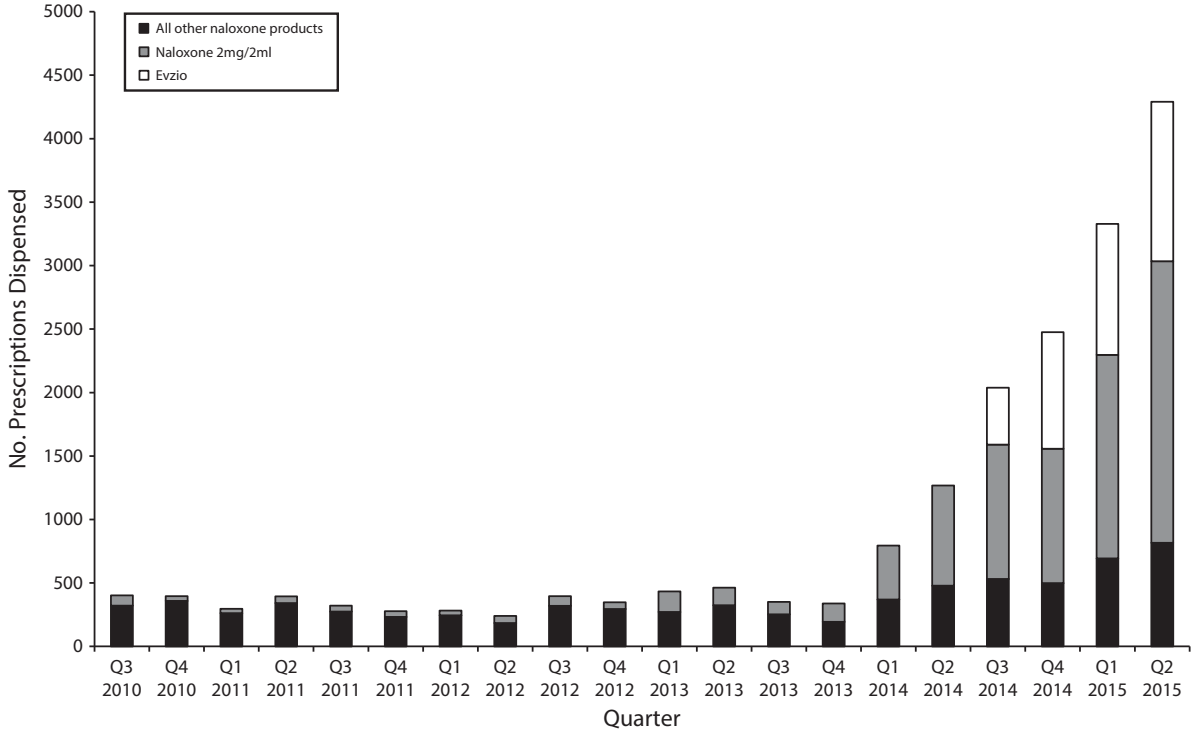

FIGURE 1—Naloxone Prescriptions Dispensed From Retail Pharmacies in the United States by Quarter: July 2010–June 2015

between the fourth quarter of 2013 and the second quarter of 2015. This increase occurred alongside a 187% increase in the number of naloxone kits distributed by community-based organizations and a 160% increase in the number of reversals reported by these organizations between 2010 and 2014.[2] The introduction of Evzio, a product designed for use by nonmedical personnel, appears to have supplemented the dispensing of other naloxone products.

Most naloxone in the community continues to be distributed through community-based programs, primarily to illicit drug users. However, challenges to sustaining such programs, difficulty in ensuring optimal geographic representation, and the magnitude of the opioid crisis require additional methods of dissemination. Our findings suggest that the rapid growth of naloxone prescriptions in the outpatient setting can be a complementary approach. The finding that primary care physicians accounted for the largest percentage of naloxone prescriptions is consistent with previous research indicating that these providers prescribe most opioids.[7]

Overall, we must address the multiple barriers to naloxone prescription, including stigma of addressing health issues related to addiction, limited knowledge about naloxone prescribing, uncertainty about who should receive naloxone, and concerns about naloxone availability and cost.[8] Future research should examine the facilitators of and barriers to naloxone prescription across medical specialties as well as the relation between increased naloxone prescribing and mortality. AJPH

CONTRIBUTORS

C. M. Jones conceptualized the brief, was responsible for the data analyses, and was the lead writer. P. G. Lurie and W. M. Compton conceptualized the brief, contributed specific content, and drafted revisions of the brief.

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HUMAN PARTICIPANT PROTECTION

Human participant protection was not required because the study was a secondary analysis of de-identified data.

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