access to quality health care and early intervention when combined with environmental interventions like THRIVE may result in more significant changes in healthy food consumption.

What Next?

Future efforts must address obesity holistically (Figure A). Multilevel interventions are needed to increase healthy food consumption and decrease obesity in AIAN populations. Continued policy efforts that focus on access to healthy foods, increased physical activity, and health behaviors in tribal nations are warranted. We will never know the precise remedy for obesity, but we can begin to work toward solutions by designing obesity interventions based on the multiple social determinants that contribute to our health. Interventions that address the individual, family, community, and tribal norms while improving the physical environment, socioeconomic conditions, health behaviors, and access to quality health care may be more effective in addressing obesity. AJPH

Allyson Kelley, DrPH, MPH, CHES

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I am grateful to the communities in which I have worked and the many teachers along the way—they have taught me what is needed to build healthy communities and nations.

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The author reports no conflicts of interest.

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Improving Public Health Systems for Substance-Affected Pregnancies

See also Admon et al., p. 148.

In 2017, more than 48 000 Americans died from an opioid-related overdose.[1] Although the United States has contended with opioid-related crises in the past, the current crisis is of unprecedented scope, and it shows no sign of subsiding. The current opioid epidemic has affected nearly every demographic group in the United States, including pregnant women and their infants. From 1999 to 2014, the number of pregnant women diagnosed with opioid use disorder grew more than fourfold,[2] and the number of infants diagnosed with neonatal opioid withdrawal grew nearly sevenfold.[3] The opioid crisis is exposing gaps in our public health system, and there is an urgent need for a comprehensive response that includes the needs of pregnant women and children.

In this issue of *AJPH*, the article by Admon et al. (p. 148) highlights the issues of opioid-affected births and the emerging threat of amphetamines. Opioid-affected births grew from 1.5 (95% confidence interval (CI) = 1.3, 1.8) to 6.5 (95% CI = 6.2, 6.9) per 1000 deliveries from 2004 to 2015. Similarly, amphetamine-affected births increased to 2.4 (95% CI = 2.2, 25) per 1000 delivery hospitalizations in 2014 to 2015 from their nadir in 2008 to 2009. Substance use in pregnancy is a complex public health problem. A broad public health approach to substance use in pregnancy is needed that includes reducing both licit (e.g., alcohol, tobacco) and illicit (e.g., heroin) substance exposures.

PUBLIC HEALTH APPROACHES

According to the 2017 National Survey of Drug Use and Health, 8.5% of US pregnant women had used an illicit substance, 13.8% had smoked cigarettes, and 11.5% had used alcohol while pregnant.[4] Admon et al. similarly found that women who used opioids and amphetamines commonly also used additional licit and illicit substances, especially tobacco, cannabis, and alcohol. Alcohol use in pregnancy is particularly problematic, as it can result in fetal alcohol spectrum disorders, which have lifelong implications for the child.

Public health approaches to substance use in pregnancy must also consider the life course, beginning well before pregnancy and extending beyond childhood. A 2009 publication by the Substance Abuse and Mental Services Health Administration (SAMHSA), titled "Substance-Exposed Infants: State Responses to the Problem," provides a framework for this approach. Before pregnancy, focusing on primary prevention and optimizing preconception health should be the priority. During pregnancy, ensuring that pregnant women have access to evidence-based substance use treatment is imperative as is addressing mental health and infectious comorbidities. As Admon et al. point out, some states have used punitive approaches, criminalizing substance use in pregnancy. Such policies, which were also employed in the crack cocaine epidemic of the early 1980s through the early 1990s, have not proven effective; they stigmatize pregnant women, creating an incentive to avoid needed care.[5]

We should focus on improving care for infants by keeping the infant and mother together, reducing variability in care, and

ABOUT THE AUTHOR

Stephen W. Patrick is with the Vanderbilt Center for Child Health Policy, Departments of Pediatrics and Health Policy, Vanderbilt University Medical Center, Nashville, TN.

Correspondence should be sent to Stephen W. Patrick, MD, MPH, MS, Vanderbilt Center for Child Health Policy, 2525 West End Ave, Suite 1200, Nashville, TN 37203 (e-mail: stephen.patrick@vanderbilt.edu). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

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providing a smooth transition to home. Because opioid use disorder is a chronic medical condition involving a likelihood of relapse, our responsibility to mothers and infants does not end at hospital discharge. After discharge, we should ensure continuous access to care (i.e., medical care and addiction treatment), minimize adverse postdischarge outcomes for both mother and infant (e.g., readmission), and connect infants with such resources as early intervention services. Health care providers involved in postdischarge care should acknowledge that the newborn period can be stressful, which can increase the odds of relapse, and should support mothers and infants using a chronic disease model (Figure A).

The opioid epidemic has exposed deficiencies throughout the continuum of US maternal and child health care. Challenges remain in treatment access of women of reproductive age (especially inconsistencies during the postpartum period), hospital care is variable for opioid-exposed infants, and child welfare systems are stretched.[6] In 2017, in a mandated report to Congress,[7] SAMHSA provided a blueprint for dealing with the crisis. The report highlights prevention strategies, such as decreasing barriers to contraception and ascertaining whether opioid prescribing is necessary and appropriate. It addresses enhancing treatment access, including improving access to treatment for substance use disorder in the preconception period through at least the first year of life. Lastly, the services strategy includes improving access to family-centric treatment and developmental services (e.g., early intervention). Complete, well-funded implementation of this blueprint could vastly improve the care that pregnant women and infants affected by the opioid epidemic receive today and serve as the foundation to improve outcomes in future epidemics.

URGENT ACTION NEEDED NOW

Substantial attention has recently been paid to the opioid epidemic. In just the past three years, legislative efforts—such as the Protecting Our Infants Act, the Comprehensive Addiction and Recovery Act, and, most recently, the SUPPORT (i.e., Substance Use-Disorder Prevention That Promotes Opioid Recovery and Treatment) for Patients and Communities Act—have increased resources for fighting the epidemic. Although these efforts have been important, they have yet to provide the funding, infrastructure, and coordination needed to stem the tide of the opioid epidemic and provide the foundation for lasting public health infrastructure to improve outcomes for substance-affected pregnancies.

More Americans will die this year from opioid overdose than died of AIDS during the worst year of the HIV epidemic. We should learn from our response to the HIV epidemic and, as some have suggested, establish programs and provide funding to combat this crisis just as the Ryan White Act of 1990 did to combat HIV/AIDS. There is no time to waste; each passing year, the opioid epidemic grows in complexity and expands. AJPH

Stephen W. Patrick, MD, MPH, MS

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Moving From Public Health Surveillance to Action

See also Cosby et al., p. 155.

Public health surveillance is the systematic, ongoing collection, management, analysis, and interpretation of data followed by the dissemination of these data to public health programs to stimulate public health action.[1] Over the past several years, a number of surveillance studies have examined trends in the leading causes of death in detail, as well as social determinants of health focusing on differences by place in the United States.[2–4] In general, these studies have found that worse health outcomes and slower relative gains in life expectancy in rural populations began in the mid-1980s, a trend that has continued to the present day.[5]

THE RURAL MORTALITY PENALTY

The study by Cosby et al. (p. 155) delves deeper to examine this trend and other factors at play in these rural mortality differences. By using regression

ABOUT THE AUTHORS

Elizabeth M. Stein is with the Occupational and Environmental Medicine Department, Guthrie, Ithaca, NY. Patrick L. Remington is with the Department of Population Health Sciences, School of Medicine and Public Health, University of Wisconsin, Madison.

Correspondence should be sent to Elizabeth M. Stein, Preventive Medicine and Public Health Physician, Guthrie Clinic, 1780 Hanshaw Rd, Ithaca, NY 14850 (e-mail: elizabeth.stein@guthrie.org). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

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