Abstract

Quantifying the opioid epidemic's impact on society

Carolyn Byrnes, MPH, CPH[1], Julie Donohue, PhD[2], Marian Jarlenski, PhD, MPH[2], Eric Roberts, PhD[2], Steve M. Albert, PhD[2] and Mark Roberts, MD[2]
(1)Pennsylvania Department of Health, Harrisburg, PA, (2)University of Pittsburgh Graduate School of Public Health, Pittsburgh, PA

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Issue: The opioid epidemic is one of the worst public health crises in Pennsylvania, and the nation. Pennsylvania's multi-agency response is informed by data.

Description: Pennsylvania's Opioid Data Dashboard is a government and academic collaboration that includes data on the commonwealth's prevention efforts, naloxone use, access to medication assisted treatment (MAT), and the opioid epidemic's impact on society. Quantifying societal impacts was achieved by evaluating the epidemic's impact on families, the economy, opioid related diseases, and criminal justice system. In 2019, the dashboard had over 30,000 page views.

The following metrics are visualized on the dashboard:

Families: Maternal opioid-use disorder (OUD), neonatal abstinence syndrome (NAS), and children in kinship care due to parental drug use.
Economy: Estimated lost wages from drug use disorder, estimated lost lifetime wages from fatal overdose, and the respective lost state income tax.
Opioid Related Diseases: HIV, hepatitis, cellulitis, osteomyelitis, and endocarditis.
Criminal Justice: overdose reversals by law enforcement, arrests involving opioids, drug court availability, screening for OUD and treatment with MAT in correctional facilities.

Lessons Learned: We can empower policy makers and communities to make data-driven decisions by telling compelling stories with data. These data are used to monitor the opioid crisis, evaluate initiatives, and inform policy decisions. For example, Pennsylvania law does not allow for syringe service programs (SSPs), a vital public health intervention, which reduces the spread of infectious diseases among injection drug users (IDU). By using data on infectious diseases among IDU to tell a story, a case can be made for legalizing SSPs.

Recommendations: For multi-agency projects, early leadership buy-in and use of a common platform to share data are crucial first steps. While quantifying the human impact of a public health issue, also consider the economic cost as a compelling argument to act and fund a response.

Biostatistics, economics Communication and informatics Epidemiology Public health or related public policy Systems thinking models (conceptual and theoretical models), applications related to public health