Elements of a Comprehensive Public Health Response to the Opioid Crisis

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The U.S. Centers for Disease Control and Prevention's report of 116 overdose deaths a day from prescription and illicit opioids in 2016 underscores the need for urgent action to prevent overdose deaths, promote evidence-based programs for treatment and recovery, and implement programs and policies that support the primary prevention of addiction (1, 2). Significant attention has been paid to the government response to the opioid epidemic and the efforts needed to guide federal and state agencies and assets to address the crisis. The public health response to date at federal and state levels has consistently focused on several major tactics: implementing prescription drug monitoring programs, expanding medication-assisted treatment, and improving the availability of naloxone. Building on the work of Butler (3), we posit that the opioid crisis requires an even more coordinated and comprehensive approach that includes robust prevention efforts; draws on leadership, partnership support, community engagement, and clinical expertise; and utilizes the available evidence.

We understand the desire policymakers and practitioners have for a "silver bullet" or an "easy" fix to address pressing public health problems. However, no single public health tactic or policy will end the opioid crisis. Instead, "silver buckshot" may more aptly describe the many efforts needed to address the nationwide epidemic of addiction and overdose deaths. The complex nature of this epidemic and its broad, pervasive, and substantial impact on communities and society at large justify a multipronged set of strategies and solutions. The comprehensive approach presented here builds on successful efforts by states and territories. It incorporates national "roadmaps" and "frameworks" that have been developed individually to guide government responses to the opioid crisis but have not fully addressed all of the tactical approaches to ending it (4–10). At a minimum, an outcomes-based approach would include strategies that 1) reduce the rate of death from unintentional opioid overdose; 2) alleviate the effect of the opioid crisis on children (neglect, abuse, and state custody), families, and communities; 3) reduce the supply of prescription opioids and related opportunities for diversion while developing integrated approaches to pain management; 4) ensure widespread and timely availability of medication-assisted treatment; 5) use evidence-based programs to prevent substance use disorder; and 6) offer opportunities for persons with opioid use disorder to sustain recovery and achieve their full potential.

The 6 key elements that frame our comprehensive approach are as follows.

Leadership, with key leaders in government and nongovernment agencies and in communities statewide, establishes a shared vision for comprehensively addressing opioid use disorder throughout the jurisdiction.

Partnership and collaboration promote the cross-cutting, multisector work needed to comprehensively address opioid use disorder. Clear objectives, defined strategies and tactics, and an understanding of the various cultures and business practices of partner groups (including clinicians and health care systems) are critical for success.

Epidemiology and surveillance capacity is a core asset of public health agencies. A comprehensive approach directs this strength to improve prevention, treatment, and recovery response by using real-time public health data for decision making and to inform the development and implementation of programs and policies.

Education and prevention include building individual and community resilience, addressing health-related social needs, implementing evidence-based campaigns to educate and build awareness, and engaging communities in addressing the root causes of addiction.

Treatment and recovery may or may not be part of a public health agency's purview. However, public health leaders should work to assess local policies and ensure that they promote evidence-based, comprehensive services for substance use treatment and recovery support that are accessible without waitlists to the population at large (including pregnant women and incarcerated persons). Leaders should partner to develop policies that support such activities statewide where needed.

Harm reduction and overdose prevention efforts (such as syringe services programs) provide opportunities to intervene and refer individuals to treatment. Public health leadership in implementing such programs is an important part of a comprehensive strategy, yet it requires significant attention to the political milieu in a jurisdiction, to fostering public understanding of the science of addiction, and to reducing stigma.

The **Table** enumerates each element and the tactics it comprises. Although public health agencies do not have direct responsibility for all of the elements described, leaders need to assess these strategies and ensure their implementation by relevant sectors. We posit that states and territories that adopt this approach and tailor it to relevant local and regional contexts will see reductions in opioid use disorder and overdose deaths by virtue of the strategy's comprehensive nature and the additive effect of working across public health, health care delivery, and other sectors to create change. We also acknowledge the critical importance of a seventh

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Table. Comprehensive State and Territorial Approach: Elements With Key Strategies

Element 1: Leadership

Key strategies include ensuring the following:

- Engagement of gubernatorial and cross-cabinet/executive branch leadership
- Support and engagement of state and territorial legislator and key legislative policy staff
- Support and engagement of community leadership
- Support and engagement of public and private health care delivery leadership
- Support and engagement of education, corrections, housing, economic development, and social services leadership

Element 2: Partnership and collaboration

Key strategies include the following:

- Engaging cross-cabinet state and territorial agencies, departments, and commissions (e.g., attorneys general, health and human service agencies, justice and corrections agencies, and licensure boards)
- Engaging substate districts, including local public health agencies
- Engaging surrounding/neighbor states
- Engaging public and private insurers, community health centers, urgent care centers, hospitals, integrated health care systems, and other health care delivery partners
- Engaging federal funding sources and agencies
- Supporting multistate collaboration and data sharing with local, state, and federal law enforcement agencies
- Supporting public health collaboration with medical, veterinary, dental, and pharmacy associations and provider communities
- Engaging social service agencies and community-serving private and public agencies and organizations
- Engaging the media
- Engaging the faith community
- Engaging business leaders and chambers of commerce
- Engaging community groups and coalitions

Element 3: Epidemiology and surveillance

Key strategies include the following:

- Ensuring timely collection and analysis of data, including PDMP and clinical data, to drive public health action
- Developing key indicator dashboards with real-time reporting to agency leadership and partners
- Standardizing overdose reporting across the state, improving classification of opioid overdose deaths on death certificates, linking reporting systems to national efforts, and requiring overdose deaths to be reported in existing notifiable disease systems
- Maximizing the link to publicly available information and establishing data sharing agreements between state agencies (e.g., public health, health care services, behavioral/mental health, education, employment, housing, and social services)
- Examining variability in the incidence and prevalence of opioid use disorder by specific populations and/or in-state regions to customize response efforts

Element 4: Education and prevention

Key primary prevention strategies implemented across the lifespan include the following:

- Culturally appropriate education and awareness campaigns to raise awareness and address the stigma associated with addiction
- Evidence-based strategies to prevent ACEs by strengthening family environments for at-risk children, including evidence-based home visiting and positive youth development programs
- School-based primary prevention programs, including peer education and leadership programs in schools and colleges
- Implementation of the Drug-Free Communities program
- Community mobilization, including developing and expanding community coalitions
- Development and implementation of programs that address health-related social needs, including housing, education, employment support, and food security

Key strategies to limit the supply of opioids (such as judicious prescribing and rational pain management) include the following:

- Developing/implementing pain management core competency education for practicing clinicians and students, including dentists and other prescribers
- Mandating the use of PDMPs as clinical and surveillance tools; permitting physician delegates to query PDMP systems; and providing clinicians with deidentified, specialty-specific data to help them self-monitor prescribing habits
- Improving PDMP linkage to electronic health record systems/clinical providers
- Permitting the sharing of PDMP data between health systems, including the U.S. Department of Veterans Affairs and military facilities, and public health agencies
- Permitting the sharing of PDMP data between states and territories
- Incentivizing the use of evidence-based pharmacologic and nonpharmacologic alternatives to opioids for pain
- Expanding policies that strengthen regulation of pain clinics
- Developing policies that promote the implementation of prescribing guidelines and rules
- Implementing/expanding policies that require electronic prescribing of opioids
- Strengthening the authority of licensure boards/commissions to sanction overprescribing and/or failure to follow prescribing guidelines
- Support for detailing/in-service trainings in clinical settings, such as physician practices

Element 5: Treatment and recovery

Key strategies to promote evidence-based efforts to diagnose and treat opioid use disorder (such as treatment and recovery at the state and territorial level) include the following:

Treatment capacity

- Supporting efforts to scale and spread SBIRT in clinical settings, such as EDs and primary care practices, to identify risky substance use behaviors
- Increasing insurance coverage, including leveraging the Medicaid waiver process
- Expanding the availability of MAT across diverse clinical settings (addiction specialty centers, primary care, EDs, OB/GYN, and psychiatry) and making it widely available to all persons who require it, including justice-involved and incarcerated persons

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Developing an adequate workforce of Drug Enforcement Agency "x-waivered" physicians, nurse practitioners, and physician assistants (buprenorphine–naloxone prescribers) through strategies that incentivize provider participation in health home models (e.g., "spokes" in hub-and-spoke models)
Scaling and spreading health home models that integrate and coordinate services and support across primary care, acute care, behavioral health care, and long-term care or have added counseling services and treatment for polysubstance use and, where appropriate, co-located HIV and hepatitis screening, treatment, and recovery services
Supporting/expanding the use of peer recovery coaches in the ED and other hospital/large integrated delivery system settings
Establishing or expanding specialty treatment services for pregnant women and their infants
Establishing or expanding telehealth programs to increase access to care in rural, underserved areas
Establishing or expanding diversion to treatment programs and use of drug courts by law enforcement agencies
Enforcing mental health parity laws
Expanding support for the treatment and recovery workforce
Assessing land use and other local or state ordinances that may impede construction of treatment and recovery facilities
Recovery supports
Creating statewide networks of recovery centers with comprehensive and evidence-based services and supports
Promoting training and deployment of peer recovery coaches statewide
Promoting access to stable recovery housing
Promoting employment supports and opportunities for persons in recovery
Element 6. Harm reduction and overdose prevention
Key strategies to promote evidence-based harm reduction and overdose prevention activities include the following:
Expanding safe drug-disposal systems and sharps collection
Disseminating occupational health and safety standards for emergency/first responders
Disseminating safe storage guidelines for opioid medications to the public
Implementing evidence-based syringe services programs that include referral to treatment and naloxone distribution
Implementing statewide naloxone "standing orders"
Expanding naloxone distribution programs, including training for first responders and the public on its use
Implementing the Good Samaritan law or similar protections for persons who help those experiencing an overdose
Increasing screening and treatment for co-occurring depression, suicidal ideation, anxiety, and PTSD to mitigate risk for opioid misuse
Implementing use of fentanyl test strips as a self-testing strategy to prevent overdose
Continuing to assess the efficacy and potential legal status of supervised injection facilities under specific circumstances as the evidence base emerges

ACE = adverse childhood event; ED = emergency department; MAT = medication-assisted treatment; OB/GYN = obstetrics and gynecology; PDMP = prescription drug monitoring program; PTSD = posttraumatic stress disorder; SBIRT = screening, brief intervention, referral to treatment.

element: enforcement. Although enforcement lies beyond the purview of public health action, law enforcement and justice systems must be engaged to affect the drug supply, trafficking, and criminal activity that contribute to the opioid crisis.

A limited evidence base supports many of the prevention, treatment, and recovery efforts that currently make up local, state, and federal responses to the opioid crisis. Where evidence exists, it informs our proposed approach, but the many tactics described here need to be evaluated and assessed. As evidence is published and shared, the framework will be updated. In addition to building the evidence base for this work, sustainable funding mechanisms must be identified to support these elements, and the political environment to take a comprehensive approach needs to be cultivated. In our estimation, many federal agencies offer grant programs, which together cover almost all of the strategies. Although more money is needed to scale up and spread public health action, stakeholders also need to align their activities to avoid duplication of effort and to realize efficiencies that may be gained across programs or within specific communities.

The elements of our approach are meant to guide action in domains where public health agencies can and should lead. We suggest that the combination of these strategies in 1 coherent public health approach that is tailored for regional cultures and contexts will have a lasting effect in states and communities. We urge the clinical community, our state and territorial public health colleagues, and local and federal partners in public health to assess each element and the proposed tactics and work with partners for rapid implementation.

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