

PERSPECTIVE: PART I

HARM REDUCTION AND THE DRUG OVERDOSE CRISIS: EVIDENCE AND ADVOCACY OPPORTUNITIES

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Many physicians began their journey in medicine with a rite of passage that involved the Hippocratic Oath and emphasized the principle of “first, do no harm.” Despite the foundational position of this principle in medical training, practices that seek to first reduce harm, or harm reduction, remain outside the scope of general medical practice for many clinicians and in many healthcare settings. As of December 2017, more than 70,000 Americans died of a drug overdose in the prior year. In the midst of the worst drug overdose epidemic in U.S. history, general internists have an opportunity to lead the integration of harm reduction into their work as clinicians, educators and researchers. In this perspective, we discuss five distinct but complementary harm reduction strategies, both those that are increasingly the standard of care in general medical settings as well as those that are relatively new areas of focus in the United States. We briefly discuss each strategy and identify advocacy opportunities at the local, state and federal levels for clinicians, educators, and researchers.

There is no universal definition of *harm reduction* and no single comprehensive list of harm reduction strategies. The Harm Reduction Coalition notes that harm reduction “accepts, for better or worse, that licit and illicit drug use is part of our world and chooses to work to minimize its harmful effects.” Harm reduction “establishes quality of individual and community life and well-being—not necessarily cessation of all drug use—as the criteria for successful interventions and policies.” A tenant of harm reduction is meeting people “where they’re at,” accepting that they may not be interested in stopping or reducing drug use while also attempting to

address the negative consequences of drug use including skin and soft tissue infections, transmission of HIV and hepatitis C, substance use disorder, incarceration, overdose, and death.

Overdose education and naloxone distribution programs seek to prevent opioid overdose deaths by educating people at risk and potential bystanders about preventing, recognizing and responding to overdoses. Education includes the use of naloxone, an opioid antagonist that reverses potentially life-threatening respiratory depression. In Massachusetts, a state-supported, community-based OEND program reduced opioid-related overdose deaths by up to 46%.¹ The availability of naloxone differs by state. Policy approaches to promote availability of naloxone include liability protections for individuals administering naloxone; as of 2017, “Good Samaritan laws” had been enacted in 40 states and the District of Columbia. Additionally, “standing orders” that allow individuals to obtain naloxone without a prescription exist in most states.

Syringe services programs (SSP) were established in the 1980s in response to the HIV epidemic with the goal of providing access to and encouraging use of sterile injection supplies (e.g., needles, syringes, cotton, sterile water). SSPs have been shown to reduce HIV and Hepatitis C virus transmission and high-risk injection behaviors such as syringe sharing.² Despite clinical concerns about “risk compensation,” high-quality randomized controlled trial evidence also demonstrates that participants of SSPs do

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not increase injection frequency. As of 2015, there were 228 SSPs in the United States. Federal law currently gives states and local communities, under limited circumstances, the opportunity to use federal funds to support certain components of SSPs while prohibiting use of federal funds from being used to purchase sterile needles or syringes.

Supervised injection facilities (SIF) are legally sanctioned facilities where people who use intravenous drugs can inject pre-obtained drugs under supervision. Typically, facilities have well-lit stalls, sterile injection equipment, and staff who can respond to overdose or other emergencies. Services may also include assessment and referral to primary health care, addiction treatment or other social services; and exchange of needles. Evidence from cohort and modeling studies suggests that SIFs are associated with lower overdose mortality (88 fewer overdose deaths per 100,000 person-years), 67% fewer ambulance calls for overdoses, and a decrease in HIV infections. Effects on hospitalizations are unknown.³ No SIFs currently exist in the United States. Several cities, including Philadelphia, New York City, and San Francisco, are moving forward with plans to open SIFs though these efforts will require navigation of local, state and federal regulations.

Low threshold buprenorphine access refers to relaxing criteria and expectations for a patient to be treated with buprenorphine for opioid use disorder (OUD) with a goal of engaging patients who may otherwise not receive care. Higher threshold approaches to buprenorphine treatment can impose barriers to care by setting rules about patient selection (e.g., excluding patients who use benzodiazepines), participation in psychosocial treatments, or frequency of monitoring (e.g., requiring daily medication pick-

up). In a prospective study of a low threshold buprenorphine program in New York City, rates of retention and induction-related adverse events were consistent with prior studies of office-based treatment.⁴ Barriers exist to implementing low threshold buprenorphine access. To prescribe buprenorphine, clinicians must complete 8-24 hours of training and confirm their capacity to refer patients for counseling and other services. Prescribers must adhere to patient limits and specific federal record keeping requirements. Some Medicaid programs require frequent urine drug testing and participation in psychosocial treatment.

Fentanyl testing allows individuals to test a substance prior to use to determine whether it contains the highly potent synthetic opioid. As of November 2017, past year overdose deaths involving synthetic opioids such as fentanyl more than doubled to nearly 28,000; deaths due to synthetic opioids are now the most common cause of drug overdose. Studies have shown that individuals who use drugs report willingness to use test strips.⁵ However, no test strip is approved by the Food and Drug Administration, and test quality may vary. We are not aware of studies of the impact of fentanyl test use on subsequent substance use or risk of overdose. Recent legislation in Rhode Island and Maryland has legalized the possession of fentanyl testing strips, which may be considered drug paraphernalia. In California, funding has been made available by the state public health department to provide test strips at the state's syringe exchange program.

Clearly, there is tremendous variation in the current status of each harm reduction strategy. For general internists interested in incorporating harm reduction into their practice or improving access to these strategies in their community, efforts should

focus on implementation of practices that are relatively mainstream (i.e., naloxone), advocacy when policy does not reflect the state of the evidence, and research when additional evidence is needed. These efforts must be tailored to the individual strategy and its context. For example, advocates of supervised injection facilities in several U.S. cities must engage their local communities to identify the neighborhoods (or the specific neighborhoods) where pilot sites will be located. On a broader scale, several harm reduction strategies will require legislation at the state and federal level to remove barriers to expansion. For example, expansion of low threshold buprenorphine will remain challenging until lawmakers change state-specific Medicaid policy (e.g., prior authorization, mandatory urine testing) or federal regulations on patient limits for individual buprenorphine prescribers.

Across all strategies and settings, a harm reduction approach seeks to end the stigma that can prevent people who use drugs from seeking care. Terms such as *addict* or *drug-seeker* can reinforce stereotypes or negative feelings about patients and perpetuate this stigma. Person-first language, such as *person who injects drugs*, and appropriate diagnostic terms, such as *opioid use disorder*, are essential for maintaining a professional, patient-centered dynamic.

General internists care for patients with substance use disorders and see the harms of both substance use and of the complications that are more likely when that substance use is stigmatized. As clinicians, educators and researchers, general internists seek to identify and address the underlying conditions that led to the current drug overdose crisis. We must also advocate for improved access to harm reduction strategies so that our patients live to see those conditions improve.

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