

New York, pharmacists assessed exposure and distributed PEP starter packs as indicated,<sup>4</sup> but this required pharmacists to open original containers and dispense medications in other vessels, diminishing the utility of the remaining medication and potentially leading to billing errors, such as being billed for both the starter pack and the remaining medication.

Assessing risk requires screening for sensitive information (e.g., sexual behavior). To facilitate effective counseling, many states legally mandate maintaining a private space for such purposes. With the right incentives aligned, such as scope of practice and reimbursement, community pharmacies lacking such spaces may seek to construct them.

## CONCLUSIONS

Pharmacists hold a unique position among all health care

providers; they are accessible and provide care to individuals with diverse conditions. HIV, with its persistent stigma and associated structural barriers to clinical engagement, presents a prime opportunity for community pharmacist intervention. Many challenges are jurisdiction-specific, including the need for policy change with regard to pharmacists' scopes of practice, appropriate training of pharmacists in these areas, and further development of the infrastructure necessary to support expansion of practice. When challenges have been addressed, successful programs flourish and stand to benefit their communities, driving new infections down. Although political will and investment may be required, these high-value interventions can effectively address health equity concerns as they prevent disease. *AJPH*

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# A Primary Prevention Approach to the Opioid Epidemic

Fraser and Plescia recently published an essay in *AJPH*, "The Opioid Epidemic's Prevention Problem," which called out the elephant in the room—primary prevention's role in the opioid crisis.<sup>1</sup> While we grieve the lives lost because of opioid overdoses and wring our hands over the rate of drug overdose deaths increasing another 9.6% in 2017 from 2016, calls for more upstream work including primary prevention remain unanswered.<sup>2</sup> Dispensing naloxone and prescription drug monitoring programs have had a positive impact on the opioid crisis. However, as the authors declare, "these

strategies alone will not end the opioid epidemic."<sup>1(p215)</sup> As is, naloxone stands to reduce the opioid overdose mortality rate, and treatment stands to reduce opioid use disorder (OUD) prevalence. However, ending the opioid crisis will require reducing the incidence of opioid misuse rate, and this will be achieved by protecting unsuspecting victims from starting down the road to OUD in the first place.

As medication experts, pharmacists serve as gatekeepers of safe medication use for patients. This includes verifying the appropriateness and safety of the

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J. E. Myers conceptualized the editorial. All authors contributed to drafting and critically revising the editorial and approved the final editorial.

## ACKNOWLEDGMENTS

This work was supported by the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention at the Centers for Disease Control and Prevention (grant NU62PS924575-01-00).

## CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

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our own experience implementing a statewide community pharmacy initiative called ONE Rx (Opioid and Naloxone Education).

## PREREQUISITES FOR PRIMARY PREVENTION

Prevention of OUD depends upon the public health principle of primary prevention being

medication being dispensed, and educating the patient about appropriate use of that medication. The focus of this editorial is on the role of the community pharmacist in preventing OUD in high-risk individuals. We propose a means to prevent OUD in the community pharmacy setting. We will also share

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*This editorial was accepted March 1, 2019.  
doi: 10.2105/AJPH.2019.305060*

integrated into health care delivery more broadly. One reason that it is not happening as often as it should is lack of clarity about the conditions necessary for primary prevention to be effective. Successful primary prevention is contingent on three critical prerequisites.

First, the disorder being prevented must have a detectable preclinical phase, during which individuals with elevated risk of the disorder can be identified and their progression stopped. This also allows the identification of individuals in the early stages of the disorder, but that is secondary prevention, which is beyond the purpose of this editorial. It is known that OUD is a chronic and progressive disease, more common among individuals presenting with certain risk factors; therefore, there is the opportunity to identify these individuals and provide evidence-based, individualized, nonstigmatizing care for them to prevent the start of an OUD.

Second, a tool for identifying individuals at risk who would benefit from primary prevention is required; frequently, this is a risk-stratification tool. The Opioid Risk Tool (ORT) is a tool used to stratify patients receiving an opioid prescription for risk of opioid misuse.<sup>3</sup> This tool needs to be feasible, affordable, and acceptable to patients, and must be able to effectively identify patients in need. The ORT, incorporated in our intervention, the North Dakota ONE Rx project, has been shown to be easily administered in community pharmacies and able to identify patients with high risk for OUD.<sup>4</sup>

Third, this risk-stratification tool needs to be used among a population with elevated prevalence of the condition seeking to be identified, which increases the

overall accuracy of the results. Individuals being first exposed to opioid medications, those on chronic medication, and patients with chronic pain are just such a population. This allows us to evaluate and identify individuals who may be at elevated risk for OUD. Furthermore, this activity needs to occur in the ideal setting to access this high-risk population. After a pain clinic, there is no health care setting with more direct access to this high-risk population than the community pharmacy.

### COMMUNITY PHARMACY INVOLVEMENT

There is need for a more proactive, prevention-based approach to patient care, and what we have done through the ONE Rx project holds promise for doing just that to prevent opioid use disorder.<sup>5</sup> Pharmacists across the state of North Dakota were offered a three-hour continuing education seminar on OUD and accidental overdose.<sup>4</sup> Trained pharmacists were given a toolkit for patient education and

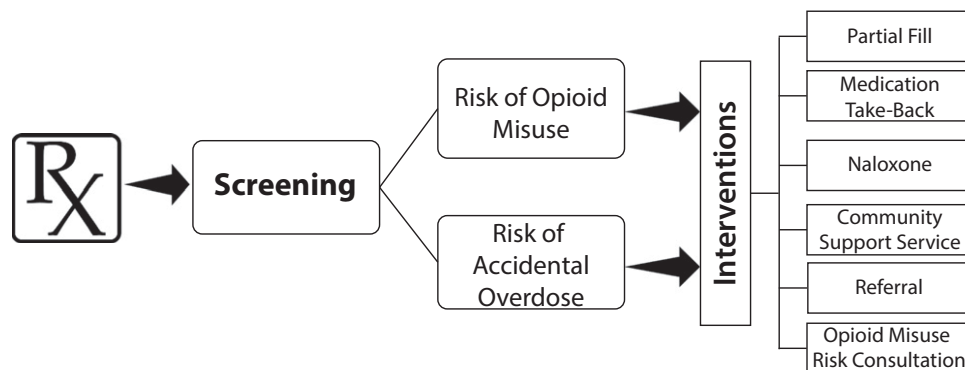
referral in the community, educated on the application of screening results to clinical decision-making and outcomes for individual patients, and authorized to prescribe and dispense naloxone to high-risk individuals.

Through ONE Rx, each and every patient receiving an opioid prescription is screened for OUD with the ORT (Figure 1).<sup>4</sup> On the basis of the screening results, pharmacists provide education and interventions such as naloxone prescribing and dispensing, referral to community support services, opioid misuse consultation, provider contact, and medication take-back consultation. In four months of work through ONE Rx, 1032 individuals have been screened. Of the 1032 encounters, 4.6% were identified at an elevated risk for OUD, and 18% of the 1032 received one or more of the ONE Rx interventions regarding safe opioid use. Previous research has reported on opportunities for community pharmacists to provide preventive services and referral in the community pharmacy.<sup>6</sup> Cochran et al. used a Motivational Intervention and Medication Therapy Management model and reported a new

randomized controlled trial to support patients with opioid medication misuse in the community pharmacy setting.<sup>7</sup> ONE Rx provides further supporting evidence for the role of the community pharmacist in preventive services and care for patients in the midst of the opioid crisis.

Depriving individuals in pain of needed analgesics increases the risk that they will seek more dangerous opioids elsewhere. However, what is proposed in the ONE Rx project is not pushing patients with aberrant behaviors away but rather drawing them in for counseling, patient education, and referral, as necessary. This includes introducing them to nonopioid alternative medications as well as nonpharmacological approaches to pain control.

Fraser and Plescia have called out the opioid epidemic's prevention problem. A primary prevention approach of identifying patients at high risk for OUD and then providing patient care is one opportunity to respond to this call and reduce the incidence of OUD. ONE Rx is an innovative process by which community pharmacists identify those at high risk for opioid



*Note.* Community support services = available addiction support in local community discussed; medication take-back = appropriate disposal of opioids; naloxone = prescribed and dispensed; opioid misuse risk consultation = risk of accidental overdose and potential for misuse discussed with every patient; patient care partial fill = medication dispensed with smaller quantity than prescribed; referral = to community support services.

**FIGURE 1—Statewide Community Pharmacy Initiative ONE Rx (Opioid and Naloxone Education): North Dakota**

misuse and care for patients receiving an opioid prescription and thus participate in primary prevention of an OUD, ultimately reducing the incidence of OUD. *AJPH*

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#### CONFLICTS OF INTEREST

The authors have no conflict of interest to declare.

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# Geneva Health Forum: The First International Conference on Precision Global Health

The Seventh Edition of the Geneva Health Forum: Precision Global Health in the Digital Age was the first conference entirely dedicated to the newly emerging concept of precision global health. Precision global health aims to more precisely bring the right interventions to the right people at the right time. It does this by integrating digital tools into innovative solutions, all of which are rooted in a unique synergy between life science, social science, and data science.

Increased connectivity, improved access, and user-friendly interfaces qualify digital technologies as primary candidates for transforming the way we practice global health. The role of technology has been prominent in outbreak preparedness and response. mHealth, the use of mobile technologies and other wireless devices in health care, improved contact tracing during the West African Ebola virus epidemic. The use of timestamps and the collection of GPS (Global Positioning System) points with surveillance data allowed real-time identification of contacts who had not been visited yet,

strongly increasing the accountability of contact tracers.<sup>1</sup>

Technological leapfrogging has enabled mHealth to become a powerful tool in the context of lower- and middle-income countries, allowing us to better communicate messages and raise health awareness through social media campaigns. Learning for health professionals also benefits from technology, such as with the award-winning OpenWHO platform (<https://openwho.org>), which has reshaped the landscape for distance learning through the promotion of massive open online courses. OpenWHO won a Jet d'Or de Genève, a prize awarded at the Geneva Health Forum to honor persons or projects that have made a significant contribution to global health by strengthening health professional training via an interactive, Web-based, knowledge transfer platform. Such platforms allow remote participants to access top-quality faculties.

Additionally, digital technologies have played a central role in advancing methodological frameworks for large data volume and large data sets. Deep-learning

algorithms have enabled Big Data to be analyzed in an efficient and rapid manner, with the application of image recognition and text interpretation. Precision global health thus aims to use digital innovations to make quantum leaps in global health. Digital tools, when combined with social and life sciences, offer great potential for solving complex problems, and as technology continues to evolve, the global health community must evolve with it.

#### ACCESSMOD 5

AccessMod 5 is a newly created tool that supports universal health care by modeling physical accessibility to health care. Its five main functions include the following:

1. accessibility analysis,
2. geographic analysis,

3. referral analysis,
4. zonal statistics, and
5. scaling up analysis.<sup>2</sup>

Recently, the tool was used to model access to emergency hospital care in Sub-Saharan Africa, as shown in Figure 1.<sup>3</sup> The Seventh Edition of the Geneva Health Forum recognized access to medicines as a major challenge in global health and awarded the Jet d'Or de Genève to Nadya Wells, who addressed the issue by using the case of insulin and praziquantel for best practices on access and affordability.

#### NEAR-FIELD COMMUNICATION WEARABLES

Several projects presented at the Geneva Health Forum embodied efforts to deliver global health interventions with more precision. Among them, Khushi Baby produces real-time and actionable maternal and child health data.<sup>4</sup> The Khushi Baby project, led by Yale undergraduates, stemmed from the realization that low awareness of the importance of vaccines,

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This editorial was accepted March 7, 2019.

doi: 10.2105/AJPH.2019.305063