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Perspective

Nineteen Days in America

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he mass shootings in Buffalo, New York; Laguna Woods, California; Uvalde, Texas; and Tulsa, Oklahoma, are heart-rending tragedies. For many of us, it is almost impossible to look upon the faces of the victims and the grief of their families. After all, we, too, are parents and children, spouses, uncles, aunts, cousins, and friends. But many of us are also physicians, and one of our major responsibilities, shared with other health care professionals, is the delivery of preventive care. It is therefore clear that we have a role in the epidemic of gun violence that is shaking our country: to become effective agents of prevention.

These latest episodes of mass murder bring to mind the many similar shootings we have witnessed during the past few years. Yet mass shootings represent only one part of the problem of gun violence in America. According to the Centers for Disease Control and Prevention, there were 45,222 firearm-related deaths from homicide, suicide, unintentional injuries, and police-involved shootings in the United States in 2020, the most recent year for which data are available.1 That means that in an average 19 days in America (the time between the massacres in a Buffalo grocery store and a Tulsa medical center), gun violence kills 2348 people across the country (see graphic). Gun violence is now the leading cause of death among U.S. children and adolescents.² Many more people - often adolescents and young adults - sustain nonfatal firearm-related injuries, which can leave them with permanent disability and mental anguish; these survivors become our lifelong patients. And the ripple effects of a gunshot reach far beyond those struck by a bullet, devastating

families and neighborhoods and disproportionately affecting communities of color.

People often call these killings senseless, but tragically, they do make sense: we are seeing exactly the results the system is designed to achieve. We know that most countries have vastly lower rates of firearm-related violence and deaths. And yet we in the United States choose to give ready access to weapons of war to people who will use them to hurt themselves and destroy others.

As physicians, we know that prevention is better than treatment. We advise patients and families about lifestyle and dietary changes to prevent or ameliorate obesity, diabetes, and heart disease. We prescribe drugs to control serum lipid and glucose levels. We ask about many aspects of safety in the home, but clinicians often don't talk with patients, even those at increased risk of hurting themselves or others, about guns. Shouldn't limiting access to deadly weapons be part of preventive care?

Infuriatingly, gun violence prevention has been intensely politicized. Even the most obvious policy measures, measures with overwhelming public support,3 face obstruction from legislators. We are not constitutional scholars, but neither are the vast majority of people who claim that the right to bear arms described in the Second Amendment to the U.S. Constitution is an impenetrable obstacle to any regulation. "Arms" might include anything from a knife to a nuclear weapon. No one is advocating a ban on pocketknives, and no one is claiming an individual right to an atomic bomb. Where we as a society draw the line along the spectrum of armaments (which has changed over time) is a choice.

It is our obligation of citizenship to struggle with questions that evolve as our nation does. The notion that a small group of men in the 18th century committed future generations of Americans to this level of carnage is an abdication of our responsibility, as citizens, to aggressively confront threats facing our communities.

What can we do as individuals? At the bedside and in exam rooms, physicians and other health care providers remain trusted sources of information and advice. We can learn to recognize and counsel people who are at risk for firearm-related injury and death. We can provide guidance to our patients regarding firearm safety, help them understand the risks associated with firearms in the home, and help them recognize situations where those risks are particularly acute. We can improve medical education to enhance our ability to provide trauma-informed care to support survivors.4

Beyond improving care for patients and their families, we can work to ensure attention to firearm-injury prevention in our practices and in the communities we serve. We can support and work with community-based organizations and invest in community-led violence-prevention efforts. We can advocate for much-needed funding and infrastructure to support research aimed at reducing firearm-related injuries and deaths. And we can use our voices to bring data to conversations about policy.

For example, when some people advocate for increasing armed security at schools as a solution to violent attacks, we can call this idea what it is: ludicrous. If a mere five security guards were needed at each of the 130,000 U.S. elementary and secondary

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schools,5 a force of 650,000 people would be required; for comparison, in 2020, the U.S. Army had approximately 481,000 activeduty personnel. Without even accounting for college campuses, grocery stores, places of worship, movie theaters, concert venues, nightclubs, medical centers, and all the other places where devastating mass shootings have occurred, such a proposal calls for an unprecedented militarization of the U.S. civilian population a response that would have predictably drastic and traumatic effects on young people and on all Americans.

Although the roots of the epidemic of gun violence in the United States are deep and tangled, those of us who dedicate our lives to health and well-being cannot sit by and allow that epidemic to grow. We can change the narrative of gun violence in America. When it comes to gun violence, physicians should be at the forefront of prevention.

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Background data shown in red in the graphic are from the Gun Violence Archive (https://www.gunviolencearchive.org/).

Disclosure forms provided by the authors are available at NEJM.org.

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A Comprehensive Covid-19 Response — The Need for Economic Evaluation

Govind Persad, J.D., Ph.D., and Ankur Pandya, Ph.D.

ecently, the World Health KOrganization has exhorted countries to fight the Covid-19 pandemic with other interventions in addition to vaccines. But for countries to mount a comprehensive and effective response, more than exhortation is needed. Policymakers must understand the benefits and burdens associated with various policy options. They also have to be equipped to rigorously and systematically compare these benefits and burdens, both when evaluating individual policies and when determining which policies to include in a legislative or regulatory package.

Policymakers often use economic evaluations to weigh the costs and benefits of health policies. Some Covid-related policies and interventions are similarly amenable to assessment. Policies that have been adopted or discussed during the Covid-19 response include improving ventilation in indoor spaces; monitoring wastewater; increasing the availability of vaccines, therapies, testing, or face coverings; providing financial incentives for vaccination; requiring vaccination, testing, or face coverings; investing in the development of new vaccines, therapies, or tests; enforcing capacity restrictions for certain venues; ensuring isolation of people who test positive; providing financial support for people who must isolate or who experience economic disruption; closing certain spaces; restricting domestic or international travel; and issuing stayat-home orders. The amount and quality of evidence available on the costs and benefits of these interventions vary. For example, the efficacy of Covid-19 vaccines has been extensively studied, and costeffectiveness analyses have been conducted for vaccination.¹ In contrast, improving ventilation is believed to help reduce Covid-19 transmission, but its effects are less well understood.

Furthermore, making Covidrelated policy decisions requires considering not only trade-offs between health outcomes and the direct costs of interventions such as providing tests or vaccines, but additional dimensions related to economic activity, distributive justice, and individual liberty. Whether economic evaluations consider all societal effects or effects on only the health care system will influence the benefits and costs that are identified and how they are assessed. Creating an "impact inventory," as recommended by the Second Panel on Cost-Effectiveness in Health and Medicine, is one way that analysts can be

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