Commentary to the National Assembly of Serbia Regarding Harm Reduction
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President Dačić, Members of the National Assembly of Serbia, thank you for allowing me to present on the issue of harm reduction.

About Me:

My name is Lindsey Stroud. I am the Director of the Consumer Center at the Taxpayers Protection Alliance (TPA). TPA is a non-profit, non-partisan organization dedicated to educating the public through the research, analysis and dissemination of information on the government's effects on the economy.

I am also creator and manager of Tobacco Harm Reduction 101 and I have been researching and writing on the issue of tobacco and harm reduction since 2016.

Harm Reduction

Harm Reduction: The policies and programs that aim to minimize negative health effects and the social and legal impacts associated with risky behaviors.

Essentially, harm reduction is anything that reduces harm. From condoms to safety belts in automobiles to helmets to medication and clean syringes to products that decrease the harm of cigarette smoking, society has consistently sought to reduce the harm posed by risky behaviors, and or biological threats.

History of Harm Reduction

Condoms: The First form of Harm Reduction

Condoms have been around for thousands of years. The first documentation of "condom" was reported to be used by King Minos of Crete (3000 B.C.), who employed the bladder of goat to be used, as mistresses kept dying after intercourse. Ancient Egyptians reportedly used linen sheets to specifically prevent disease including bilharzia. Ancient Romans were said to have used linen and animal intestines and bladders.[1]

Today, condoms are estimated at being 98 percent effective in protecting against most sexually transmitted diseases, but don't guarantee the same level of protection from all diseases, including those that are spread by skin-to-skin contact.[2]

AIDS: More Widespread Use of Condoms, New Harm Reduction Measures Introduced

In the 1980s, the "discovery of AIDS as a sexually transmitted disease … brought about the popularity of condoms as a contraceptive" as well as to prevent other sexually transmitted diseases. One study's mathematical model estimated that "consistent use of condoms" could reduce the risk of AIDS "by a substantial margin."[3] The authors estimated that a person that consistently used condoms among multiple partners would have a "much smaller chance of contracting AIDS than does a monogamous individual who does not use a condom."

Needle Exchange Services

While using condoms helped reduced individuals' chances of being infected with HIV, in the 1980s another population subgroup was also disadvantaged by the virus: intravenous drug users (IDUs).

In 1984, amid the AIDS pandemic, the U.S. Centers for Disease Control and Prevention (CDC) noted that "[a]bstention from IV drug usage and reduction of need-sharing … should also be effective in preventing transmission of the virus and of AIDS."[4]

Communities in the United States went further, applying the principal of harm reduction rather than informing persons to refrain from IV drug use by creating needle exchanges where users could safely receive new, clean needles for their drug use.

While offering access to clean needles to prevent transmission of deadly disease, needle exchange services also offer a variety of "injection supplies such as bleach, cotton and alcohol wipes," as well as "condoms and referrals to drug-treatment programs and social services."[5]

Despite these efforts by individuals and communities, the U.S. federal government, as well as state governments, did not want to institute needle exchange programs. By 1991, needle exchanges were only "in a small handful of cities" and only one – Portland, Oregon – had "limited legality." Across the globe, many public health advocates faced pressure from governments in offering needle exchange services, including Australia, England and Canada.[6]

In 1988, the United States Congress "enacted a prohibition on the use of federal funds" for needle exchange programs.[7] This ban on federal funds would remain fully intact until 2015 when Congress loosened some of the restrictions but still forbid federal funds to purchase syringes.

By 2007, there were an estimated 185 needle exchange programs in 36 states. More than 50 percent the programs were "administered by non-governmental organizations, but all [were operating] with the oversight from local and state health departments."[8]

Research from legal state needle exchange programs have found a reduction in HIV prevalence. A series of longitudinal studies examined New York's needle exchange program between 1990 and 2002 and reported that HIV prevalence decreased "from 50 percent to 17 percent."[9]

The U.S. Opioid Crisis Continues to Advance Harm Reduction Measures

The opioid epidemic in America has also given way to the advancement of harm reduction among drug users. Between 1999 and 2019, approximately 500,000 Americans "died from an overdose involving any opioid, including prescription and illicit opioids."[10]

The opioid epidemic gave credence to further forms of harm reduction, including medication assisted treatment (MAT). MAT "is the use of medications, in combination with counseling and behavioral therapies, to provide a 'whole-patient' approach to the treatment of substance abuse disorders."[11]

MAT relies on opioid dependency medication that either suppress and/or reduce cravings, or blocks effects of opioids. Research has shown that "MAT significantly increases a patient's adherence to treatment and reduces illicit opioid use compared to not drug uses."[12] Further, the reduction of drug use also reduces infectious disease transmissions.

The federal government has also increased access and funding for opioid overdose-reversal drugs, including Naloxone. Naloxone is an "opioid antagonist" that reverses opioid overdoses and "can quickly restore normal breathing to a person if their breathing has slowed or stopped because of an opioid overdose."[13] According to a 2015 report from the CDC, between 1996 and June 2014, which examined a survey of 140 organizations, finding the "surveyed organizations provided naloxone kits to 152,283 laypersons and received reports of 26,463 overdose reversals."[14]

Further, the federal government has increased funding for MAT drugs and naloxone. In 2016, the U.S. Medicaid program spent $985.7 million on opioid treatment drugs and naloxone.[15] This increased to $1.212 billion in 2018.

Tobacco Harm Reduction

Cigarette smoking is responsible for an estimated 8 million annual global deaths.[16] Since the 1950s, leading public health agencies across the world have understood the ill effects of combustible cigarettes. While many public health campaigns have taken the approach to just eliminate smoking, scientists across the globe have been, and continue to, research and promote tobacco harm reduction products, which allow users to consume nicotine without the harms associated with smoking.

Research overwhelmingly shows the smoke created by the burning of tobacco, rather than the nicotine, produces the harmful chemicals found in combustible cigarettes.[17] There are an estimated 600 ingredients in each tobacco cigarette, and "when burned, [they] create more than 7,000 chemicals."[18] As a result of these chemicals, cigarette smoking is directly linked to cardiovascular and respiratory diseases, numerous types of cancer, and increases in other health risks among the smoking population.[19]

There is no significant scientific evidence connecting major health problems with the use of just nicotine. According to Raymond Niaura, Ph.D., professor of social and behavioral sciences at

New York University's College of Global Public Health, existing evidence "indicates that nicotine itself, while not completely benign, carries substantially lower risks than smoking."[20] This conclusion is shared by the U.S. surgeon general and the U.K. Royal College of Physicians, which agrees "nicotine, while addictive, is not the primary cause of smoking-related diseases."[21]

In a comprehensive study of nicotine health effects, Niaura noted "that even very high doses of medicinal nicotine had little effect on cardiovascular function." Emphasizing "a continuum of harm among combustible and noncombustible, nicotine containing products," Niaura urged the use of alternative nicotine products, with "the goal of moving users away from the most addictive, appealing and toxic combustibles to less harmful alternatives — ideally FDA approved [modified-risk tobacco products.]"[22]

Tobacco harm reduction products have been around for centuries – namely smokeless tobacco, which remained "the dominant form of tobacco used in the U.S. until early in the 20th century."[23] Smokeless tobacco includes moist snuff, chewing tobacco, and Swedish and American snus. A 2009 study analyzing "all the epidemiologic evidencing linking smokeless tobacco use and cancer" found "very little evidence" of smoking tobacco producing elevated cancer risks.[24]

Further, real-life data on the efficacy of snus' tobacco harm reduction potential comes from Sweden. Swedish men have the highest rate of smokeless tobacco use in Europe, which is directly linked to the lowest smoking rate on the continent. Swedish men also have the lowest rates of lung cancer and other smoking-related diseases in Europe. If men in all other countries of the European Union substituted smokeless tobacco for smoking at the same rates as Swedish men, almost 274,000 deaths per year would be prevented.[25]

Numerous public health groups have found e-cigarettes to reduce the harm associated with combustible cigarettes. In 2015, Public Health England, a leading health agency in the United Kingdom and similar to the FDA found "that using [e-cigarettes are] around 95% safer than smoking," and that their use "could help reducing smoking related disease, death and health inequalities."[26] In 2018, the agency reiterated their findings, finding vaping to be "at least 95% less harmful than smoking."[27]

As recently as February 2021, PHE provided the latest update to their ongoing report on the effects of vapor products in adults in the UK. The authors found that in the UK, e-cigarettes were the "most popular aid used by people to quit smoking [and] … vaping is positively associated with quitting smoking successfully."[28]

In 2016, the Royal College of Physicians found the use of e-cigarettes and vaping devices "unlikely to exceed 5% of the risk of harm from smoking tobacco."[29] The Royal College of Physicians (RCP) is another United Kingdom-based public health organization, and the same public group the United States relied on for its 1964 Surgeon General's report on smoking and health.

In January 2018, the National Academies of Sciences, Engineering, and Medicine noted "using current generation e-cigarettes is less harmful than smoking."[30]

Further, e-cigarettes are effective in reducing smoking. A 2019 study in The New England Journal of Medicine found e-cigarettes are twice as effective as nicotine replacement therapy (NRT) in helping smokers quit.66 The authors noted of the 100 participants reporting abstinence during a 52-week follow up, 80 percent reported using e-cigarettes, while only 9 percent said they were using NRT products, such as nicotine-containing lozenges or gum.67

An October 2020 review in the *Cochrane Library Database of Systematic Reviews* analyzed 50 completed studies which had been published up until January 2020 and represented more than 12,400 participants.

The authors found that there was "moderate-certainty evidence, limited by imprecision, that quit rates were higher in people randomized to nicotine [e-cigarettes] than in those randomized to nicotine replacement therapy." The authors found that e-cigarette use translated "to an additional four successful quitters per 100." The authors also found higher quit rates in participants that had used e-cigarettes containing nicotine, compared to the participants that had not used nicotine.

Notably, the authors found that for "every 100 people using nicotine e-cigarettes to stop smoking, 10 might successfully stop, compared with only six of 100 people using nicotine replacement therapy or nicotine-free e-cigarettes."

Automobiles & Seatbelts

While the previous forms of harm reduction discussed include risky behaviors, driving a car is not typically on the list of adverse behaviors. Yet, automobile accidents are responsible for an estimated 1.35 million global deaths each year, with an average of 3,700 people dying each day due to car crashes.[31] Further, car accidents impact another 20-50 million people with non-fatal injuries.

In 1961, Wisconsin became the first state that required automobile manufacturers to install seatbelts in all vehicles. The U.S. government instituted a national mandate in 1968.

The movement to require persons to wear seatbelts was not an easy one in the United States. Indeed, in 1973, the U.S. national Highway Traffic Safety Administration (NHTSA) put forth a requirement for all newly manufactured cars to include a seatbelt interlock mechanism that would prevent automobiles from starting until the driver's seatbelt had been buckled. Congress would later block the requirement only to have the matter brought before the U.S. Supreme Court, which rule in favor of NHTSA to require "passive restraints."[32]

Eventually, in 1985, Nancy Dole, then-Secretary of the Department of Transportation, issued a rule "that required automakers to install driver's side airbags in all new cars unless … two-thirds of the states passed mandatory seat belt laws by April 1, 1989."[33] By the end of 1985, eight states

had seatbelt laws in effect and one – New York – had already required front seat passengers to wear seatbelts in December, 1984.[34] As of 2020, only state – New Hampshire – did not require front seat passengers to wear seatbelts. Worldwide, an estimated 87 percent of countries reported front seat seatbelt national or subnational laws.[35]

The efficacy of seatbelts as a harm reduction tool have been consistently proven. The CDC estimates that "seatbelts reduce the risk of death by 45%, and cut the risk of serious injury by 50%."[36] It estimated that in the United States, between 1975 and 2017, seatbelts "have saved an estimated 374,196 lives."[37]

Conclusions

- From condoms to drug use to cigarettes to automobiles, innovations have been developed, and are continuously sought, to reduce the risk of adverse behaviors and/or actions. Government policies should not interfere with efforts by public health, manufacturers, and consumers to expand access to harm reduction innovations.
- Harm reduction policies have effectively reduced the harms and deaths associated with adverse products, as well as help to promote continued safety among such users.
- Governments should work with individuals, the private sector, and public health organizations to monitor harm reduction developments, as well as promote their use.

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