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REPORT OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH

CSAPH Report 1-I-22

Subject: Drug Shortages: 2022 Update

Presented by: Noel Deep, MD, Chair

Referred to: Reference Committee K

INTRODUCTION

American Medical Association (AMA) Policy H-100.956, “National Drug Shortages,” directs the Council on Science and Public Health (CSAPH) to evaluate the drug shortage issue, including the impact of group purchasing organizations and pharmacy benefit managers on drug shortages, and report back at least annually to the House of Delegates (HOD) on progress made in addressing drug shortages in the United States. This report provides an update on continuing trends in national drug shortages and ongoing efforts to further evaluate and address this critical public health issue.

METHODS

English-language reports were selected from a PubMed and Google Scholar search from September 2019 to August 2022, using the text term “drug shortages.” Additional articles were identified by manual review of the references cited in these publications. Further information was obtained from the internet sites of the U.S. Food and Drug Administration (FDA), National Academies of Sciences, Engineering, and Medicine (NASEM), U.S. Department of Health and Human Services (HHS), American Society of Health-System Pharmacists (ASHP), and Duke Margolis Center for Health Policy.

BACKGROUND

CSAPH has issued twelve reports on drug shortages, with the most recent published at the November 2021 Special Meeting. The findings and conclusions of the first five reports are summarized in CSAPH Report 2-I-15, “National Drug Shortages: Update.” The remainder of this report will provide an update on drug shortages since the 2021 report was developed, including specific comment on issues associated with the role of pharmacy benefit managers (PBMs).

CURRENT TRENDS IN DRUG SHORTAGES

Drug shortages remain an ongoing public health concern in the United States and the AMA continues to monitor the situation and take action when appropriate. Overall, new drug shortages are decreasing; however, a large number of shortages are still ongoing and pose continued problems for patient care. Additionally, new shortages may occur as manufacturing capacity in the pharmaceutical industry is prioritized during the continuing COVID-19 and monkeypox public health emergencies, specifically for the production of vaccines and treatments.

The two primary data sources for information on drug shortages in the United States continue to be the Drug Shortage Program at the FDA and the Drug Shortage Resource Center maintained by
ASHP in cooperation with the University of Utah Drug Information Service (see Box 1 for links to these resources). It should be noted that FDA resources also include guidance on drugs which have had their use dates extended while a known shortage is ongoing.

According to current ASHP statistics (see Appendix 1), the downward trend in new drug shortages over the last few years has continued. At its peak in 2011, there were 267 new drug shortages reported; in 2021, there were 114. For the first 6 months of 2022, there have been 81 newly reported shortages. However, while the number of new shortages may be decreasing each year, the number of active drug shortages has stayed relatively steady (282 active shortages in Q2 2019, 264 shortages in Q2 2022), indicating that individual shortages are taking longer to resolve. For the first two quarters of 2022, the five classes of drugs with the most ongoing shortages include: central nervous system drugs (40 total), fluids and electrolytes (36), antimicrobials (30), cardiovascular (27), and hormones (19). Fluids and electrolytes were not present in last year’s top five classes of drug shortages, indicating a surge in products currently facing shortage.

In addition, the number of manufacturers reporting the underlying cause of the drug shortage as “unknown” has continued to decrease, from 82 percent in 2019 to 42 percent in 2021. Compared to 2020, “business decision” has decreased as well from 14 percent to 4 percent in 2021. Behind “unknown,” “supply/demand” was listed as the second most common reason (27 percent) for drug shortages by manufacturers in 2021. Beyond issues with manufacturing, ASHP has also reported that hospitals are having difficulty staffing their pharmacies with experienced staff to proactively identify, prevent and alleviate gaps in supply.

The Food and Drug Administration

The FDA continues to utilize a mobile app to provide up-to-date access to information about drugs in shortage as well as notifications about new and resolved drug shortages. This mobile app also gives physicians the ability to report a drug shortage. The FDA Drug Shortages webpage includes a current shortages list, a link to the mobile app, and additional information (Box 1).

The ninth annual report on drug shortages from the FDA to Congress published in early 2022 summarizes the major actions the FDA took in calendar year 2021 related to drug shortages. During the COVID-19 public health emergency, the FDA continued to closely monitor the medical product supply chain and as expected, the supply chain was impacted by the pandemic, leading to supply disruptions or shortages of drug products in the United States. Appendix 2 includes a breakdown of the FDA’s calendar year 2021 metrics, including the number of expedited reviews (274) and expedited inspections (29).

The Essential Medicines Report

In May 2022, HHS and the Assistant Secretary for Preparedness and Response (ASPR) released the first Essential Medicines Supply Chain and Manufacturing Resilience Assessment. A critical function of this report was to prioritize drugs for increased scrutiny from a previously developed list of essential medicines. In their report, a group of stakeholders identified 86 medications as critical or important for minimum acute patient care with no other alternative available. Of the drugs identified, 56 drugs (65 percent) at the time of publication were in shortage as described by the ASHP database. Within their report, the group outlines six challenges for addressing drug shortages: market structure, global competition, labor/workforce, manufacturing processes, supply chain/distribution, and regulatory barriers.
The Drug Enforcement Administration

Outside of the FDA, HHS and ASPR, the Drug Enforcement Administration (DEA) is another critical federal agency that impacts drug shortages. As part of its regulatory authority under the Controlled Substances Act, the DEA maintains a closed system around the manufacturing of Schedule I and II drugs, as well as List I chemicals (ephedrine, pseudoephedrine and phenylpropanolamine). This closed system means that the DEA requires the registration and continuous oversight of any entity involved in the manufacturing and distribution supply chain of these drugs, including a strict quota on the volume and quantity of a controlled substance that can be manufactured at a given time. Per the DEA, this quota is intended “prevent, detect, and investigate the diversion of controlled pharmaceuticals and listed chemicals from legitimate sources while ensuring an adequate and uninterrupted supply for legitimate medical, commercial, and scientific needs.” The FDA and DEA have an ongoing memorandum of understanding to share information regarding information that may impact drug shortages.

However, there have been several instances where DEA quotas have either directly or indirectly caused a drug shortage of a critically necessary medication. For example, in 2019 the DEA proposed a 53 percent decrease to the overall quota of Schedule II opioids that could be manufactured in 2020. However, by the spring of 2020, there was a surge in demand for injectable opioids to help patients on ventilators fighting COVID-19.

In response to a 2020 joint letter from AMA, ASHP and other stakeholders, the DEA increased the manufacturing quota by 15 percent, yet injectable fentanyl, hydromorphone, and morphine are all still classified as active shortages by ASHP in 2022. Other drugs, such as mixed amphetamine salts for the treatment of attention deficit hyperactivity disorder, are similarly facing decreases in DEA manufacturing quotas while under an active drug shortage.

In light of the opioid crisis, in which medications that help prevent overdose are underprescribed nationwide, supply restrictions may have significant unintended consequences. The potential benefit of supply reduction is that it may discourage the diversion of controlled substances. The potential harm of supply reduction is that patients may suffer serious harm when needed medications are unavailable for any reason. Your Council on Science and Public Health is currently unaware of any evidence that the overall benefits of supply reductions outweigh the overall harms.

Pharmacy Benefit Managers

At the AMA 2022 Annual Meeting, the topic of PBMs and their role in driving drug shortages was specifically raised. PBMs, which serve as an intermediary between health insurers and pharmaceutical companies, have long been a source of scrutiny by our AMA, with a multitude of policies directly calling for oversight or reform of PBM activities.

Concern around PBMs and drug shortages is the potential for manipulating price and access to medications. However, these claims cannot be tested as PBM pricing information has historically been opaque, but that may be changing. On June 7, 2022, the Federal Trade Commission (FTC) announced that it has launched an investigation into vertically integrated PBMs and has specifically cited issues around PBM-owned pharmacies and prior authorizations. In April 2022, prior to the FTC’s decision, the AMA sent a letter urging the FTC to take action and increase PBM transparency. Additional bipartisan legislation, the Pharmacy Benefit Manager Transparency Act of 2022, was introduced on May 24, 2022, and at the time of writing is pending review by the Senate Commerce, Science and Transportation committee. In its current form, the PBM
Transparency Act would require, among other things, for PBMs to file annual reports with the FTC on many of their practices.15

Beyond possible manipulations of cost and access, other PBM practices may exacerbate drug shortages or otherwise impact the ability of a practice to mitigate shortages. For example, PBMs may utilize techniques known as “brown bagging,” in which a health plan requires a patient to obtain a medication from a PBM-owned specialty pharmacy and then bring it to the clinic for the practitioner to administer. Previously, the Council on Medical Service has investigated the issue of brown bagging medications in the context of patient care.16 In the context of drug shortages, brown bagging decreases visibility of the supply chain for hospitals and practices; they are unable to predict which medications are to be needed when, and as such may be unable to procure or adequately plan for future demand.

Monkeypox Vaccines

Amidst the monkeypox public health emergency, there is currently a shortage of vaccinations available in the United States. Two vaccines may be used for the prevention of monkeypox disease.17 The JYNNEOS vaccine, a third-generation vaccine produced by a small European biotech company, Bavarian Nordic, is approved for the prevention of monkeypox and smallpox disease and the ACAM2000 vaccine, produced by Baxter, is approved for immunization against smallpox disease and made available for use against monkeypox under an Expanded Access Investigational New Drug (EA-IND) protocol. In the United States, there is a large supply of ACAM2000, but this vaccine has more known side effects and contraindications.18 JYNNEOS is the primary vaccine being used in the U.S monkeypox outbreak.

After its FDA approval in 2019, the Strategic National Stockpile (SNS) was reportedly supposed to procure 120 million doses of JYNNEOS, enough to immunize sixty million people as one element of the U.S. government’s smallpox preparedness efforts.19 However, as with other supplies in the national stockpile, JYNNEOS inventory was not maintained to an appropriate level due to chronic underfunding as well as the redirection of funds to other purposes, such as shelter for 20 thousand unhoused migrant children at the southern border.20,21 With a shelf-life of 3 years, millions of doses of JYNNEOS in the SNS had expired.22 Only 2,400 doses of the JYNNEOS vaccine were available in the immediate holdings of the SNS at the onset of the current monkeypox outbreak.23 More than 1.1 million doses of the vaccine purchased by the U.S. government were at Bavarian Nordic’s facility in Denmark and required authorization from an on-site FDA inspection before they could be shipped to the U.S.24

To help alleviate the shortage, the FDA granted emergency use authorization for intradermal administration of JYNNEOS, which utilizes approximately one-fifth of the total volume of vaccine compared to currently approved subcutaneous administration.25 In addition, the administration has increased efforts to boost domestic manufacturing, including partnerships with Michigan-based facilities to perform filling and finishing to expedite the distribution of previously ordered vaccines.26

CURRENT AMA DRUG SHORTAGE ACTIVITIES

AMA staff continue to remain engaged in drug shortage activities. Staff are involved in a multi-stakeholder effort to remain current on policies, drug shortage and supply chain issues, and to develop group recommendations on the topics. The effort includes our AMA, the ASHP, the American Hospital Association (AHA), the United States Pharmacopeia (USP), the American Society of Anesthesiologists (ASA), and the American Society of Clinical Oncology (ASCO).
Earlier this year, our AMA additionally sent a letter to leadership of the Senate Committee on Health, Education, Labor and Pensions to advocate for legislation modernizing the medical supply chain. In the letter, the AMA called upon Congress to, among other things:

- Incentivize advanced manufacturing technology and develop new continuous manufacturing technology for critical drugs and active pharmaceutical ingredients;
- Improve the function and composition of the Strategic National Stockpile;
- Improve multinational cooperation on supply chain resilience;
- Incentivize quality and resilience; and
- Replicate asks for critical drug manufacturing transparency and oversight for medical devices and ancillary supplies (e.g., PPE).

CONCLUSION

The rate of new medical product shortages is decreasing, but individual shortages are lasting longer. Due to the ongoing COVID-19 and monkeypox public health emergencies, the medical supply chain has been under intense, increased scrutiny. The AMA’s drug shortage policy is timely and already addresses a variety of issues that are under consideration by the White House, FDA, and other stakeholders. Additional policy modifications have been recommended to reflect ongoing efforts by other organizations interacting with the drug manufacturing space, such as the DEA and FTC.

RECOMMENDATIONS

The Council on Science and Public Health recommends that the following be adopted and the remainder of the report be filed.

1. Policy H-100.956, “National Drug Shortages” be amended by addition to read as follows:

1. Our AMA considers drug shortages to be an urgent public health crisis, and recent shortages have had a dramatic and negative impact on the delivery and safety of appropriate health care to patients.

2. Our AMA supports recommendations that have been developed by multiple stakeholders to improve manufacturing quality systems, identify efficiencies in regulatory review that can mitigate drug shortages, and explore measures designed to drive greater investment in production capacity for products that are in short supply, and will work in a collaborative fashion with these and other stakeholders to implement these recommendations in an urgent fashion.

3. Our AMA supports authorizing the Secretary of the U.S. Department of Health and Human Services (DHHS) to expedite facility inspections and the review of manufacturing changes, drug applications and supplements that would help mitigate or prevent a drug shortage.

4. Our AMA will advocate that the US Food and Drug Administration (FDA) and/or Congress require drug manufacturers to establish a plan for continuity of supply of vital and life-sustaining medications and vaccines to avoid production shortages whenever possible. This plan should include establishing the necessary resiliency and redundancy in manufacturing capability to minimize disruptions of supplies in foreseeable circumstances including the possibility of a disaster affecting a plant.
5. The Council on Science and Public Health shall continue to evaluate the drug shortage issue, including the impact of group purchasing organizations and pharmacy benefit managers on drug shortages, and report back at least annually to the House of Delegates on progress made in addressing drug shortages.

6. Our AMA urges continued analysis of the root causes of drug shortages that includes consideration of federal actions, evaluation of manufacturer, Group Purchasing Organization (GPO), pharmacy benefit managers, and distributor practices, contracting practices by market participants on competition, access to drugs, pricing, and analysis of economic drivers, and supports efforts by the Federal Trade Commission to oversee and regulate such forces.

7. Our AMA urges regulatory relief designed to improve the availability of prescription drugs by ensuring that such products are not removed from the market or caused to stop production due to compliance issues unless such removal is clearly required for significant and obvious safety reasons.

8. Our AMA supports the view that wholesalers should routinely institute an allocation system that attempts to fairly distribute drugs in short supply based on remaining inventory and considering the customer's purchase history.

9. Our AMA will collaborate with medical specialty society partners and other stakeholders in identifying and supporting legislative remedies to allow for more reasonable and sustainable payment rates for prescription drugs.

10. Our AMA urges that during the evaluation of potential mergers and acquisitions involving pharmaceutical manufacturers, the Federal Trade Commission consult with the FDA to determine whether such an activity has the potential to worsen drug shortages.

11. Our AMA urges the FDA to require manufacturers to provide greater transparency regarding the pharmaceutical product supply chain, including production locations of drugs, and provide more detailed information regarding the causes and anticipated duration of drug shortages.

12. Our AMA supports the collection and standardization of pharmaceutical supply chain data in order to determine the data indicators to identify potential supply chain issues, such as drug shortages.

13. Our AMA encourages global implementation of guidelines related to pharmaceutical product supply chains, quality systems, and management of product lifecycles, as well as expansion of global reporting requirements for indicators of drug shortages.

14. Our AMA urges drug manufacturers to accelerate the adoption of advanced manufacturing technologies such as continuous pharmaceutical manufacturing.

15. Our AMA supports the concept of creating a rating system to provide information about the quality management maturity, resiliency and redundancy, and shortage mitigation plans, of pharmaceutical manufacturing facilities to increase visibility and transparency and provide incentive to manufacturers. Additionally, our AMA encourages GPOs and
purchasers to contractually require manufacturers to disclose their quality rating, when available, on product labeling.

16. Our AMA encourages electronic health records (EHR) vendors to make changes to their systems to ease the burden of making drug product changes.

17. Our AMA urges the FDA to evaluate and provide current information regarding the quality of outsourcer compounding facilities.

18. Our AMA urges DHHS and the U.S. Department of Homeland Security (DHS) to examine and consider drug shortages as a national security initiative and include vital drug production sites in the critical infrastructure plan.

19. Our AMA urges the Drug Enforcement Administration and other federal agencies to regularly communicate and consult with the FDA regarding regulatory actions which may impact the manufacturing, sourcing, and distribution of drugs and their ingredients. (Modify Current HOD Policy)

2. That Policy H-440.847, “Pandemic Preparedness,” which addresses the adequacy of the Strategic National Stockpile, be reaffirmed. (Reaffirm HOD Policy)

Fiscal Note: Less than $1,000
Box 1. Resources available to assist in mitigation of drug shortages.

<table>
<thead>
<tr>
<th></th>
<th>Resource Name</th>
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<tbody>
<tr>
<td>1</td>
<td>ASHP Resource Center</td>
</tr>
<tr>
<td>2</td>
<td>ASHP list of current shortages</td>
</tr>
<tr>
<td>3</td>
<td>FDA Drug Shortages Page (includes current shortages list, extended use dates, mobile app, and additional information)</td>
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</tbody>
</table>
APPENDIX 1

ASHP/University of Utah Drug Information Service Drug Shortage Data

Figure 1. National Drug Shortages: New Shortages by Year: January 2001 to June 30, 2022

Note: Each column represents the number of new shortages identified during that year.
University of Utah Drug Information Service
Contact: Erin.Fox@hsc.utah.edu, @foxerinr for more information.

Figure 2. National Drug Shortages: New Shortages by Year - Percent Injectable: January 2001 to June 30, 2022, % Injectable

Note: Each column represents the number of new shortages identified during that year.
University of Utah Drug Information Service
Contact: Erin.Fox@hsc.utah.edu, @foxerinr for more information.
Figure 3. National Drug Shortages: Active Shortages by Quarter: 5 Year Trend

Note: Each point represents the number of active shortages at the end of each quarter.
University of Utah Drug Information Service
Contact: Erin.Fox@hsc.utah.edu, @foxerinr for more information.

Figure 4. National Drug Shortages: Active Shortages Top 5 Drug Classes

University of Utah Drug Information Service
Contact: Erin.Fox@hsc.utah.edu, @foxerinr for more information.
Figure 5. National Drug Shortages: Common Drug Classes in Short Supply: 5 Year Trend

![Graph showing drug classes in short supply from 2017 to 2021](image)

University of Utah Drug Information Service  
Contact: Erin.Fox@hsc.utah.edu, @foxerinr for more information.

Figure 6. National Drug Shortages: Reasons for Shortages as Reported by Manufacturers During UUDIS Investigation — 2021

![Pie chart showing reasons for drug shortages in 2021](image)

University of Utah Drug Information Service  
Contact: Erin.Fox@hsc.utah.edu, @foxerinr for more information.
APPENDIX 2

**Breakdown of CDER’s and CBER’s Shortage Numbers, CY 2021**

<table>
<thead>
<tr>
<th></th>
<th>CDER</th>
<th>CBER</th>
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<tbody>
<tr>
<td>New Shortages</td>
<td>38</td>
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<tr>
<td>Prevented Shortages</td>
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<td>14</td>
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<td>Ongoing Shortages</td>
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<tr>
<td>Notifications</td>
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<tr>
<td>No. of Manufacturers Notifying</td>
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<td>23</td>
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**ACTIONS TAKEN TO MITIGATE SHORTAGES**

<table>
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<tr>
<th></th>
<th>CDER</th>
<th>CBER</th>
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<td>Regulatory Flexibility and Discretion</td>
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<tr>
<td>Expedited Reviews</td>
<td>260</td>
<td>14*</td>
</tr>
<tr>
<td>Expedited Inspections</td>
<td>29</td>
<td>0</td>
</tr>
</tbody>
</table>

* This number includes expedited reviews for eight biologics license application (BLA)/BLA supplements and six lot-release submissions for CBER-regulated products.
REFERENCES


EXECUTIVE SUMMARY

Objective. The Council on Science and Public Health initiated this report due to the significant public health threat that climate change represents and the impact on the health of patients, with marginalized populations expected to be disproportionately impacted. The Council’s last update on climate change was CSAPH Report 3-I-08, “Global Climate Change and Human Health.”

Methods. Sentinel reports on climate, global climate change, and human health were reviewed including the Intergovernmental Panel on Climate Change (IPCC) assessment reports, Lancet Countdown on Health and Climate Change reports, reports from the World Health Organization (WHO), the Environmental Protection Agency (EPA), and the National Oceanic and Atmospheric Administration (NOAA). English language articles were selected from searches of the PubMed, Google Scholar, and Cochrane Library databases from January 2012 to June 2022 using the search terms: “climate change and health,” “climate crisis and health,” “decarbonization and health,” and “climate change and equity.” Additional articles were also identified by manual review of the reference lists of pertinent publications. Websites managed by federal agencies, applicable professional organizations, and foundations were reviewed for relevant information.

Results. It is unequivocal that human influence has warmed the atmosphere, ocean and land. The scale of recent changes across the climate system are unprecedented over many centuries. Human-induced climate change is affecting weather and climate extremes in every region across the globe. The extent and magnitude of climate change impacts are larger than previously estimated and they are causing severe and widespread disruption in nature and in society; reducing our ability to grow nutritious food or provide enough clean drinking water, thus affecting people's health and well-being and damaging livelihoods. Limiting global warming to 1.5 degrees Celsius would require “rapid and far-reaching” transitions in land, energy, industry, buildings, transport, and cities.

Conclusion. Impacts from climate change on extreme weather, air quality, and the transmission of disease increasingly threaten the health and well-being of people in the U.S., and it is widely recognized that many of the impacts of warming will disproportionately impact the most vulnerable. The health effects of climate change include increased allergies, asthma, respiratory and cardiovascular disease; injuries and premature deaths related to extreme weather events; heat-related deaths due to continued warming; changes in the prevalence and geographical distribution of food- and water-borne illnesses and other infectious diseases, and threats to mental health.

To meet the Paris Agreement goals and prevent catastrophic levels of global warming, global GHG emissions must decline by half within a decade. Emissions are declining too slowly or heading in the wrong direction in the highest emitting sectors. This delay in progress is contributing to millions of deaths each year. The U.S. health care sector is responsible for an estimated 8.5 percent of national carbon emissions. These emissions stem from the operations of health care facilities (scope 1), from both purchased sources of energy, heating, and cooling (scope 2) and from the supply chain of health care goods and services (scope 3). The U.S. health sector accounts for 25 percent of global health sector emissions—the highest proportion attributable to any individual country’s health sector. Physician’s pledge to do no harm, it’s time for the health sector to do the same by addressing the climate crisis and protecting public health.
REPORT OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH

CSAPH Report 2-I-22

Subject: Climate Change and Human Health

Presented by: Noel Deep, MD, Chair

Referred to: Reference Committee K

The Council on Science and Public Health initiated this report due to the significant public health threat that climate change represents and the impact on the health of patients, with marginalized populations expected to be disproportionately impacted. The Council’s last update on climate change was CSAPH Report 3-I-08, “Global Climate Change and Human Health.”

The Council’s 2008 report recognized that ongoing adverse global climate change is widely accepted by the majority of scientists, climatologists, and meteorologists, and human activity is influencing the rate and extent of this process. The report noted that the extent of climate change will depend on many factors, most notably, changes in global greenhouse gas (GHG) emissions. Anthropogenic contributions to global climate change exist, and the International Panel on Climate Change (IPCC), as well as many other reports, make a compelling case for linkage between these events. The report concluded the potential exists for devastating events with serious health implications, including extreme heat and cold events, flooding and droughts, increases in vectors carrying infectious diseases, and greater air pollution. Furthermore, the report noted the health effects from these events should be of concern to the medical community and require action. The report called on the health care community to advocate for public health policies that recognize and mitigate climate risk and strengthen health services, as well as improve communication and coordination at regional and international levels.

While the American Medical Association (AMA) House of Delegates (HOD) has adopted numerous policies on climate changes since 2008, the Council initiated this report with acknowledgement that an update on this topic is long overdue. There is growing recognition of the impacts of climate change on health, with record-breaking heat waves, wildfires, droughts, and devastating floods impacting our patients and our communities and a limited window to act. We acknowledge that additional reports on the topics of climate mitigation and adaptation will be necessary but have decided to focus this report on the health effects of climate change and decarbonization. We also want to recognize that the AMA Board of Trustees (BOT) is working on a strategic plan on climate change, which will be presented to the HOD at the 2023 Annual Meeting. The BOT will also consider Resolution 605-A-22, which called for the AMA to establish a climate crisis campaign, determine high-yield advocacy and leadership opportunities, and centralize our AMA’s efforts towards environmental justice and an equitable transition to a net-zero carbon neutral society. We hope that this report informs the strategy being developed by the BOT.

EXISTING AMA POLICY

In June 2022, the AMA declared climate change a public health crisis that threatens the health and well-being of all individuals and called on the AMA to protect patients by advocating for policies
that: (a) limit global warming to no more than 1.5 degrees Celsius, (b) reduce US greenhouse gas emissions aimed at carbon neutrality by 2050, and (c) support rapid implementation and incentivization of clean energy solutions and significant investments in climate resilience through a climate justice lens. The policy also called on the AMA to develop a strategic plan for how we will enact our climate change policies including advocacy priorities and strategies to decarbonize physician practices and the health sector with report back to the House of Delegates at the 2023 Annual Meeting. (D-135.966, “Declaring Climate Change a Public Health Crisis”)

AMA policy supports scientific findings that the Earth is undergoing adverse climate change which will create conditions that affect public health and will have a disproportionate impact on vulnerable populations, including children, the elderly, and the poor (H-135.938, “Global Climate Change and Human Health”). Accordingly, our AMA supports increased climate change education so physicians may understand the health risks that climate change poses and counsel patients on how to protect themselves from those health risks (H-135.919, “Climate Change Education Across the Medical Education Continuum”). It is the policy of the AMA to encourage physicians to implement programs in their practices that promote environmental sustainability and communicate these practices to their patients and their community (H-135.923, “AMA Advocacy for Environmental Sustainability and Climate”). Additionally, the AMA will urge physicians to become spokespersons for environmental stewardship (H-135.969, “Environmental Health Programs”).

With respect to air pollution and GHG reduction, the AMA urges the enactment of comprehensive legislation to address adverse health effects that are the product of air pollution (H-135.984, “Federal Clean Air Legislation”). The AMA encourages the US EPA to use its authority to regulate GHG emissions and limit carbon dioxide emissions. The AMA believes the coordinated efforts of the government along with industry and the public is the best way to minimize air pollution (H-135.999, “Federal Programs”).

METHODS

Sentinel reports on climate, global climate change, and human health were reviewed including the Intergovernmental Panel on Climate Change (IPCC) assessment reports, Lancet Countdown on Health and Climate Change reports, reports from the World Health Organization (WHO), the Environmental Protection Agency (EPA), and the National Oceanic and Atmospheric Administration (NOAA).

English language articles were selected from searches of the PubMed, Google Scholar, and Cochrane Library databases from January 2012 to June 2022 using the search terms: “climate change and health,” “climate crisis and health,” “decarbonization and health,” and “climate change and equity.” Additional articles were also identified by manual review of the reference lists of pertinent publications. Websites managed by federal agencies, applicable professional organizations, and foundations were reviewed for relevant information.

DEFINITIONS

Adaptation is “taking action to prepare for and adjust to both the current and projected impacts of climate change.”

Climate change is “a long-term change in the average weather patterns that have come to define Earth’s local, regional and global climates.”
Decarbonization means “switching from the use of fossil fuels such as coal, natural gas or oil to carbon-free and renewable energy sources.”

Global warming is “the long-term heating of Earth’s surface observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth’s atmosphere. This term is not interchangeable with the term “climate change.”

Greenhouse gases (GHGs) are gases that trap heat in the atmosphere. GHGs emitted in the US include carbon dioxide (79 percent), methane (11 percent), nitrous oxide (7 percent), and fluorinated gases (3 percent).

THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC)

The IPCC is the United Nations body for assessing the science related to climate change. Limiting global warming to no more than 2 degrees Celsius above pre-industrial levels was the de facto target for global policymakers at the UN’s 2010 climate conference in Cancun, Mexico. In 2015, scientists warned that the 2 degrees Celsius limit was not adequate for avoiding some of the more severe impacts of climate change and reducing the limit to 1.5 degrees Celsius would be preferable.

The Paris Agreement

The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at the UN Climate Change Conference of the Parties (COP) 21, on December 12, 2015, and entered into force on November 4, 2016. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels. To achieve this goal, countries aim to reach global peaking of greenhouse gas emissions as soon as possible to achieve a climate neutral world by mid-century. The Paris Agreement is important because for the first time, a binding agreement brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects.

Special Report on Global Warming of 1.5°C

In 2018, the IPCC issued a special report on the impacts of global warming of 1.5 degrees Celsius above pre-industrial levels and related GHG emission pathways contained in the Paris Agreement. The report concluded the global climate has changed relative to the pre-industrial period, and there is evidence that these changes have had impacts on organisms and ecosystems, as well as on human systems and well-being. Human activities are estimated to have caused approximately 1.0 degree Celsius of global warming above pre-industrial levels, with a likely range of 0.8 to 1.2 degrees Celsius. Risks to natural and human systems are expected to be lower at 1.5 degrees Celsius than at 2 degrees Celsius of global warming. This is true for heat-related morbidity and mortality and for ozone-related mortality if emissions needed for ozone formation remain high. Global warming is likely to reach 1.5 degree Celsius between 2030 and 2052 if it continues to increase at the current rate. The report finds that limiting global warming to 1.5 degrees Celsius would require “rapid and far-reaching” transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide would need to fall by about 45 percent from 2010 levels by 2030, reaching ‘net zero’ around 2050. The report also recognized that many of the impacts of warming will fall disproportionately on the poor and vulnerable.
The Sixth Assessment Cycle

To date the IPCC has released three reports during this cycle. The Synthesis Report for this cycle is scheduled to be released in late 2022 or early 2023. Below are the high-level findings from the Sixth Assessment reports.

Physical Science Basis (2021). It is unequivocal that human influence has warmed the atmosphere, ocean and land. The scale of recent changes across the climate system as a whole are unprecedented over many centuries to many thousands of years. Human-induced climate change is already affecting many weather and climate extremes in every region across the globe. Evidence of observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones, and their attribution to human influence, has strengthened. Global warming of 1.5 and 2 degrees Celsius will be exceeded during the 21st century unless deep reductions in GHG emissions occur in the coming decades.

Mitigation of Climate Change (2022). Total net anthropogenic GHG emissions have continued to rise during the period 2010–2019, and average annual GHG emissions during 2010–2019 were higher than in any previous decade, but the rate of growth between 2010 and 2019 was lower than that between 2000 and 2009. Net anthropogenic GHG emissions have increased since 2010 across all major sectors globally. An increasing share of emissions can be attributed to urban areas. The unit costs of several low-emission technologies (solar energy, wind energy, and lithium-ion batteries) have decreased, but innovation has lagged in developing countries due to weaker enabling conditions.

Global GHG emissions are projected to peak between 2020 and 2025 in global modelled pathways that limit warming to 1.5 degrees Celsius with no or limited overshoot and in those that limit warming to 2 degrees Celsius. Global net zero CO2 emissions are reached in the early 2050s in modelled pathways that limit warming to 1.5°C (>50%) with no or limited overshoot, and around the early 2070s in modelled pathways that limit warming to 2°C (>67%). Reaching and sustaining global net zero GHG emissions results in a gradual decline in warming. Reducing GHG emissions across the full energy sector requires major transitions, including a substantial reduction in overall fossil fuel use, the deployment of low-emission energy sources, switching to alternative energy carriers, and energy efficiency and conservation. The deployment of carbon dioxide removal (CDR) to counterbalance hard-to-abate residual emissions is unavoidable if net zero CO2 or GHG emissions are to be achieved.

Impacts, Adaptation, and Vulnerability (2022). Climate change is affecting nature, people’s lives and infrastructure and its dangerous and pervasive impacts are increasingly evident in every region of the world. These impacts are hindering efforts to meet basic human needs and they threaten sustainable development. This report found that the extent and magnitude of climate change impacts are larger than estimated in previous assessments. They are causing severe and widespread disruption in nature and in society; reducing our ability to grow nutritious food or provide enough clean drinking water, thus affecting people’s health and well-being and damaging livelihoods.

Many species are reaching limits in their ability to adapt to climate change, and those that cannot adjust or move fast enough are at risk of extinction. We see a lengthening wildfire season and increases in the area burned. Roughly half of the world’s population experiences severe water shortages at some point during the year, in part due to climate change and extreme events such as flooding and droughts. Drought conditions have become more frequent in many regions, negatively affecting agriculture and energy production from hydroelectric power plants. Globally, climate change is increasingly causing injuries, illness, malnutrition, threats to physical and mental health
and well-being, and even deaths. Climate change impacts are expected to intensify with additional warming.

Climate change risks and impacts can be reduced, within limits, if humans and nature adapt to the changing conditions. The scale and scope of actions to reduce climate risks have increased worldwide. However, there are large gaps between ongoing efforts and adaptation needed to cope with current levels of warming. Poverty and inequality present significant adaptation limits, resulting in unavoidable impacts for vulnerable groups, including women, young people, the elderly, ethnic and religious minorities, indigenous people, and refugees.

HEALTH EFFECTS OF CLIMATE CHANGE

Impacts from climate change on extreme weather, air quality, and the transmission of disease increasingly threaten the health and well-being of people in the U.S., particularly populations that at increased risk. The health effects of climate change include increased allergies, asthma, respiratory and cardiovascular disease; injuries and premature deaths related to extreme weather events; heat-related deaths due to continued warming; changes in the prevalence and geographical distribution of food- and water-borne illnesses and other infectious diseases, and threats to mental health. (See Figure 1.) While not discussed in detail in this report, it is important to recognize that climate change can cause or exacerbate resource scarcity, which may result in conflict or migration of populations. Individuals most at risk are typically the least able to relocate. The health effects of climate change are outlined in the Council’s 2008 report, but as the IPCC reports indicate, the frequency and intensity of extreme weather events will likely increase.

Allergies and Respiratory Health. The combustion of fossil fuels is a major source of air pollution and cause of climate change. Fossil fuels release airborne fine particulate matter and ground-level ozone. Poor air quality contributes to a range of non-communicable diseases, including cardiovascular and respiratory disease. It is estimated that more than 8 million people died in 2018 from fossil fuel pollution, significantly higher than previous estimates—meaning that air pollution from burning fossil fuels was responsible for about 1 in 5 deaths worldwide. Furthermore, hotter temperatures and lack of rainfall increase the risk of drought and wildfires, both of which create particle pollution. As temperatures rise, plants produce more pollen, increasing ragweed and other allergens. Warmer temperatures allow allergens to thrive in new regions and for allergy seasons to last longer.

Cardiovascular Disease. Air pollution can exacerbate cardiovascular disease and contribute to the development of the disease. The evidence is particularly strong for outdoor particle pollution exposure. Exposure to PM <2.5 μm in diameter (PM_{2.5}) over a few hours to weeks can trigger cardiovascular disease-related mortality and nonfatal events; longer-term exposure (increases the risk for cardiovascular mortality to an even greater extent and reduces life expectancy within more highly exposed segments of the population by several months to a few years; reductions in PM levels are associated with decreases in cardiovascular mortality within a time frame as short as a few years. Short- and long-term exposure to increased concentrations of PM_{2.5} has been shown to increase hospitalizations for serious cardiovascular events such as coronary syndrome, arrhythmia, heart failure, stroke, and sudden cardiac death, particularly in people with established heart disease. Numerous studies have shown that exposure to higher concentrations of PM_{2.5} and some gaseous air pollutants (nitrogen oxides, sulfur dioxide, and ozone) can also result in arterial hypertension and increased blood pressure. Extreme heat also impacts heart health. A recent study showed 600-700 additional deaths from cardiovascular disease annually over a decade-long period in the U.S. The spike in deaths during heat waves was most pronounced in men and non-Hispanic Black adults.
Agriculture and Food Security. The agriculture sector is responsible for 11 percent of U.S. GHG emissions, which come from livestock, agricultural soils, and rice production.\(^{20}\) GHG emissions from agriculture have increased by 6 percent since 1990, largely driven by a 62 percent growth in combined \(\text{CH}_4\) and \(\text{N}_2\text{O}\) emissions from livestock manure management systems.\(^{30}\) Research indicates that shifts towards sustainable diets could lead to co-benefits, such as minimizing GHG emissions and land use, reducing the environmental footprint, aiding in climate change mitigation, and improving population health.\(^{31}\) This is possible by reducing reliance on red meat consumption and prioritizing plant-based foods and other healthier alternatives, which can reduce chronic disease risk. Climate change is also expected to threaten food production, food prices, and distribution systems. Crop yields are predicted to decline due to changes in rainfall, severe weather events, and increasing competition from weeds and pests.\(^{32}\) Prices are expected to rise in response to declining food production leading to food insecurity and a reliance on foods of poor nutrient quality.

Vector-borne diseases. Climatic hazards have enhanced specific aspects of pathogens, including improved climate suitability for reproduction, acceleration of the life cycle, increasing seasons/length of likely exposure, enhancing pathogen-vector interactions (for example, by shortening incubations) and increasing virulence. Between 2004 and 2018, the number of reported illnesses from mosquito, tick, and flea bites more than doubled, with more than 760,000 cases reported in the United States\(^{33,36}\). Nine new germs spread by mosquitoes and ticks were discovered or introduced into the United States during this period.\(^{34}\) Warming had positive effects on mosquito population development, survival, biting rates and viral replication, increasing the transmission efficiency of West Nile virus.\(^{35}\) Global mobility, urbanization and climate change is also a major driver of the increase in the number of dengue virus infections, which have doubled every decade since 1990.\(^{36,37}\) Further, the geographic ranges where ticks spread Lyme disease, anaplasmosis, ehrlichiosis, and spotted fever rickettsiosis have expanded, and experts predict that tickborne diseases will continue to increase and perhaps worsen.\(^{38}\)

Fungi. Rising temperatures have allowed certain disease-causing fungi to spread into new areas that previously were too cold for them to survive. For example, Valley fever, caused by a fungus that lives in the soil in hot and dry areas, has already spread into the Pacific Northwest.\(^{39}\)

Water-borne diseases. Ocean warming has accelerated the growth of harmful algal blooms and diseases caused by \textit{Pseudo-nitzschia sp.}, blue green cyano-bacteria, and dinoflagellates.\(^{40}\) Ocean warming and heavy precipitation, which reduces coastal water salinity, is predicted to also provide fertile conditions for \textit{Vibrio vulnificus} and \textit{Vibrio cholerae}, this being a leading explanation for Vibriosis outbreaks in areas where this disease is rare.\(^{41,42}\) Further, floods and storms are associated with wastewater overflow, leading to the direct and foodborne transmission of noroviruses, hantavirus, hepatitis and \textit{Cryptosporidium}.\(^{43,44,45}\)

Zoonotic diseases. Patterns of contact between human and wildlife reservoirs have increased as human populations move into previously unoccupied regions. Changing environmental conditions can also alter species range and density, leading to novel interactions between species, and increase the risk of zoonotic emergence.\(^{46}\) Further, habitat disruptions caused by warming, drought, heatwaves, wildfires, storms, floods and land cover change were also associated with bringing pathogens closer to people. Spillovers from viruses (Nipah virus and Ebola), for instance, were associated with wildlife (bats, rodents, and primates) moving over larger areas foraging for limited food resources caused by drought or finding new habitats following wildfires.\(^{47}\)
Mental Health. The connections between climate change and mental health have been mostly discussed in relation to emergency preparedness and disaster response, particularly in the context of extreme weather events. The mental health effects of disasters may include trauma and shock, post-traumatic stress disorder (PTSD), feelings of abandonment, and anxiety and depression that can lead to suicidal ideation and risky behavior. Rising temperatures can lead to mood and anxiety disorders, schizophrenia and vascular dementia, and can increase emergency department usage and suicide rates. Concern about climate change coupled with worry about the future can lead to fear, anger, feelings of powerlessness, exhaustion, stress and sadness, which is being referred to as “eco-anxiety” or “climate anxiety.” Climate anxiety and dissatisfaction with government responses are widespread in children and young people and can impact their daily functioning. Distress about climate change in young people is associated with perceiving that they have no future, that humanity is doomed, and that governments are failing to respond adequately, and with feelings of betrayal and abandonment by governments and adults.

DECARBONIZATION

In 2021, President Biden announced the U.S. target was to achieve a 50-52 percent reduction from 2005 levels in economy-wide net GHG pollution by 2030. Since 1990, gross U.S. GHG emissions have decreased by 7 percent. In 2020, U.S. GHG emissions decreased 11 percent compared to 2019 levels primarily from CO₂ emissions from fossil fuel combustion largely due to the COVID-19 pandemic and reductions in travel and economic activity. However, it is estimated that in 2021 U.S. GHG emissions increased by 6 percent above 2020 levels, returning to pre-pandemic levels.

In efforts to reach the U.S. commitments under the Paris Agreement, the administration signed Executive Order (EO) 14057, “Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability”, a multi-faceted approach to addressing climate change. EO 14057’s stated goals include:

- 100 percent carbon emission free electricity by 2030,
- 100 percent of government acquired vehicles to be zero emission vehicles by 2035,
- a net-zero emission federal building portfolio by 2032,
- a 65 percent reduction in overall greenhouse gas emissions by 2030

Other goals without explicit time frames include net-zero emissions of federal procurements, climate resilient infrastructure and a climate focused federal workforce.

The Lancet Countdown on Health and Climate Change

Published annually, the Lancet Countdown is an international, multidisciplinary collaboration, dedicated to monitoring the health profile of climate change, and independently assessing the delivery of commitments made by governments under the Paris Agreement. In 2021, the report indicated that the current global decarbonization commitments are “insufficient to meet Paris Agreement ambitions and would lead to a roughly 2.4 degrees Celsius average global temperature increase by the end of the century.” To meet the Paris Agreement goals and prevent catastrophic levels of global warming, global GHG emissions must reduce by half within a decade. Emissions are declining too slowly or heading in the wrong direction in the highest emitting sectors. This delay in progress is contributing to millions of deaths each year. At the current pace of reduction, it would take more than 150 years for the energy system to fully decarbonize, and the unequal response between countries is resulting in an uneven realization of the health benefits of a low-carbon transition. The use of public funds to subsidize fossil fuels is partly responsible for the
slow decarbonization rate, with 65 out of 84 countries reviewed still providing an overall subsidy to fossil fuels in 2018.\textsuperscript{59} Despite years of scientific reporting on the impacts of climate change, efforts to build resilience have been slow and unequal, with countries with low levels of human development index being the least prepared to respond to the changing health profile of climate change and funding remaining a consistent challenge. Even with overwhelming evidence on the health impacts of climate change, countries are not delivering an adaptation response proportionate to the rising risks their populations face.\textsuperscript{60}

\textit{Role of the Health Sector}

The U.S. health care sector is responsible for an estimated 8.5 percent of national carbon emissions. These emissions stem from the operations of health care facilities (scope 1), from both purchased sources of energy, heating, and cooling (scope 2) and from the supply chain of health care goods and services (scope 3). The U.S. health sector accounts for 25 percent of global health sector emissions—the highest proportion attributable to any individual country’s health sector.\textsuperscript{61} In 2021, as part of the United Nations Climate Change Conference (COP26), 60 countries, including the United States, committed to creating climate-resilient, low-carbon, sustainable health systems, with 20 countries committing to net-zero health care system emissions by 2050. However, while more than 90 percent of Standard & Poor’s 500 Companies annually publish sustainability reports, as do many private and nongovernmental entities, the same cannot be said of U.S. health care organizations, despite their commitment to improving health.\textsuperscript{62}

\textit{HHS Health Sector Climate Pledge}

In 2022, the US Department of Health & Human Services announced a pledge initiative, calling upon the private health care sector to publicly commit to reducing and reversing their carbon footprint.\textsuperscript{63} The voluntary pledge calls upon signees to reduce emissions by 50 percent by 2030, become net-zero emitters by 2050, complete an inventory of supply chain emissions and to develop climate resilience plans for their facilities and communities. The pledge has been signed by more than 60 major hospital groups, pharmaceutical companies, insurers, and medical associations.\textsuperscript{64}

\textit{National Academy of Medicine: Action Collaborative on Decarbonizing the U.S. Health Sector}

NAM has launched an Action Collaborative on Decarbonizing the U.S. Health Sector. This public–private partnership includes leadership from the federal government, the biomedical and pharmaceutical industries, hospital systems, private payers, and health professions, including the AMA, with the aim to develop and implement a shared action plan for decarbonizing the health sector and strengthening its sustainability and resiliency.\textsuperscript{65}

The collaborative is focusing its decarbonization efforts in four areas: (1) working with industry to reduce scope 3 emissions, as well as facilitate coordination with the federal government to accelerate and better enable low-carbon innovations; (2) accelerating climate-sensitive health care delivery and practice, including reducing scope 1 and scope 2 emissions and identifying opportunities for linking performance on sustainability metrics to value-based payment and reimbursement; (3) expanding health professionals’ curricula and programming on climate change; and (4) developing sustainability metrics and indicators for industry and health systems, along with shared plans for public reporting.\textsuperscript{66}

\textit{Resources on Health System Decarbonization}
Health Care Without Harm has released a Road Map that provides a plan to get health care toward zero emissions. By implementing this set of seven high-impact actions, health care can put itself firmly on the road to zero emissions, while helping provide leadership for the rest of the world to travel in the same direction. The Road Map identifies seven high-impact actions as key to health care decarbonization:

1. Power health care with 100 percent clean, renewable electricity.
2. Invest in zero emissions buildings and infrastructure.
3. Transition to zero emissions, sustainable travel, and transport.
4. Provide healthy, sustainably grown food and support climate resilient agriculture.
5. Incentivize and produce low-carbon pharmaceuticals.
6. Implement circular health care and sustainable health care waste management.
7. Establish greater health system effectiveness.

The UK’s National Health Service (NHS) is the world’s first health care system to commit to achieve net-zero carbon emissions. Its Greener NHS plan contains critical lessons for the U.S. health system. The NHS has taken action in the following areas:

- Developing a framework to evaluate the carbon reduction associated with new models of care under consideration.
- Working with suppliers to ensure they meet or exceed the NHS commitment on net-zero emissions before the end of the decade, with new procurement from April 2022 onward required to consider net zero as part of the purchasing process.
- Shifting to using zero-emission vehicles, including production of the world’s first zero-emission ambulance.
- Ensuring that digital transformation of health care aligns with the goal of becoming a net-zero health service, investing in innovations to support that goal, and setting up a scanning mechanism to identify future pipeline innovations.
- Supporting the construction of 40 new net-zero hospitals as part of the government’s health infrastructure plan, which includes a new net-zero carbon hospital standard.
- Completing a $60 million LED lighting replacement program that will improve patient comfort and save money.
- Making health care systems more resilient to enable them to withstand or adapt to the demands of future climate events, such as floods and extreme temperatures.
- Appointing a new chief sustainability officer to lead the national program and report regularly to the national board; ensuring that every NHS organization has a board-level net-zero lead and a green plan; and supporting an update to the NHS constitution to include the response to climate change as a core principle.

To support healthcare organizations in advancing toward their decarbonization commitments, the Agency for Healthcare Research and Quality (AHRQ) contracted with the Institute for Healthcare Improvement to develop a primer that offers guidance on high-priority measures and strategies for health care organizations to reduce their carbon footprint. The recommendations are intended to inform organizations beginning their journey in measuring and reducing GHG emissions. The primer describes six domains contributing to GHG emissions in health care: building energy, transportation, anesthetic gas, pharmaceuticals and chemicals, medical devices and supplies, and food. To meaningfully track and reduce GHG emissions, the primer recommends health care organizations should use the Greenhouse Gas Protocol (GHGP) framework, a globally recognized standard for quantifying and reporting on emissions.
The SEC is expected to finalize a rule requiring publicly traded companies to disclose climate-related risks. The proposed rules also would require a registrant to disclose information about its direct GHG emissions (Scope 1) and indirect emissions from purchased electricity or other forms of energy (Scope 2). In addition, a registrant would be required to disclose GHG emissions from upstream and downstream activities in its value chain (Scope 3), if material or if the registrant has set a GHG emissions target or goal that includes Scope 3 emissions. These proposals for GHG emissions disclosures would provide investors with decision-useful information to assess a registrant’s exposure to, and management of, climate-related risks, and in particular transition risks.

EPA AUTHORITY

The Clean Air Act is the law that defines the EPA’s authority and responsibility to regulate air pollutants. In 2015, the Obama Administration’s Clean Power Plan (CPP) established guidelines for to cut power-plant emissions and instructed the states to submit their plans by 2018 and then gave them until 2030 to meet their goals. The CPP relied on section 7411 of the Clean Air Act to enforce guidelines on power plants. In 2019, the Trump Administration issued its Affordable Clean Energy (ACE) Rule which eliminated the guidelines set by the Clean Power Plan. However, the ACE rule was vacated by the U.S. Court of Appeals. As a result, petitioners challenged the EPA's authority to broadly regulate GHG emissions. In a recent Supreme Court decision, West Virginia v. EPA, the Court held Congress did not grant the EPA, under the Clean Air Act, the authority to devise emissions caps based on the generation shifting approach the agency took in the Clean Power Plan (CPP). This decision limited the EPA’s ability to reduce pollution from power plants.

FEDERAL LEGISLATION

In August 2022, Congress passed H.R. 5376, also known as the Inflation Reduction Act of 2022 (IRA). The IRA authorized spending of $369 billion over the next ten years, with much targeted towards environmental policies. According to the Department of Energy, these policies are anticipated to cut domestic greenhouse gas emissions by up to 40 percent by 2030. Several of the programs contained in the IRA are targeted at reducing or reimbursing the upfront investments required to convert to more environmentally friendly technology. For example, the IRA contains tax credits or reimbursements for electric vehicle purchases, households that install rooftop solar panels or heat pumps, and a new Advanced Industrial Facilities Deployment Program to provide financial assistance for facilities looking to modernize. Other key elements are investments in the domestic manufacturing workforce to promote green technology production within the United States.

In addition to monetary investments, the IRA also contains important policy changes, particularly around the powers conferred to the EPA. While the IRA does not abrogate the holdings of West Virginia v. EPA, it does provide direct funding to the EPA for seven programs to reduce GHG, and it explicitly defines GHG as carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride. These changes are expected to strengthen the agency’s ability to mount a legal defense against challenges similar to those levied in West Virginia v. EPA.

The bill also includes tax credits for carbon capture and sequestration, which could extend the life of coal plants and make it harder to reach critical targets for clean power. The bill requires the federal government to offer parts of the Gulf of Mexico and Alaska’s Cook Inlet for oil and gas development. It also requires additional oil and gas leasing for new wind and solar projects to be approved. As a part of the compromise, negotiators are expected to put forth a separate bill on oil
and gas “permitting reform” that could weaken environmental protections under the National Environmental Policy Act.

STATE AND LOCAL ACTIONS

At the state level, many of the most impactful state policies are enacted by coalitions of multiple states. For example, California has been allowed to institute stricter tailpipe emission standards since obtaining a Clean Air Act waiver in 1970, and other states are allowed to adopt California’s standards. As of 2019, 17 states and the District of Columbia, representing approximately 40 percent of light duty vehicle sales in the United States, utilize California’s low-emission vehicle emission regulations.73 As such, this informal coalition of states places significant market pressure on car manufacturers to simply have all new vehicles meet California emission standards rather than dealing with the logistical complexity of having two markets with two different sets of regulations in the United States.74

Similarly, when the United States initially withdrew from the Paris Agreement, 24 states and 2 territories representing approximately 50 percent of the United States population formed the United States Climate Alliance pledging to meet the US’s Paris Agreement goals under the Clean Power Plan. Other important state coalitions include the Regional Greenhouse Gas Initiative, the Western Climate Initiative, Inc., and the Midwestern Greenhouse Gas Reduction Accord which serve as major “cap-and-trade” markets for their respective regions.

Other notable state-level actions in recent years include California’s Plastic Pollution Prevention and Packaging Producer Responsibility Act (requiring all packaging in the state to be recyclable or compostable by 2032), Illinois’ Climate and Equitable Jobs Act (requiring 100% renewable energy by 2050), and Wisconsin’s Office of Sustainability and Clean Energy (100% carbon-free electricity by 2050).

As of writing, 35 of the 50 largest cities in the United States have published local climate action plans.75 Similar to states, local governments and cities often tackle climate change through coalitions such as Climate Mayors, a collection of 470 mayors representing approximately 74 million Americans committed to building political will for climate change policy. Many municipal climate plans echo those seen at the federal and state levels aiming to reduce greenhouse gas emissions, but they also provide insight into the unique issues facing different geographies. For example, the city of Miami has invested $400 million into the Miami Forever bond to fund projects addressing sea-level rise and flood prevention,76 and the city of Ann Arbor implemented the 10,000 Trees Initiative to give away free trees and rebuild the city’s canopy.77

AMA ACTIONS

Medical Society Consortium on Climate and Health (MSCCH)

The AMA is a member of the MSCCH. The Consortium works to facilitate the medical community’s awareness-raising efforts, by bringing together associations representing over 600,000 clinical practitioners to carry three simple messages:

- Climate change is harming Americans today and these harms will increase unless we act;
- The way to slow or stop these harms is to decrease the use of fossil fuels and increase energy efficiency and use of clean energy sources; and
- These changes in energy choices will improve the quality of our air and water and bring immediate health benefits.
In 2019, the AMA signed on to the “Climate, Health, and Equity: A Policy Action Agenda,” which recognizes climate change is a public health emergency and outlines ten policy recommendations to provide a roadmap to develop coordinated strategies for simultaneously tackling climate change, health, and equity. The agenda calls out 10 specific policy priorities, including the following:

1. Meeting and strengthening greenhouse gas emission reduction commitments and supporting the Paris Agreement.
2. Transitioning rapidly away from the use of coal, oil and natural gas to clean, safe, and renewable energy and energy efficiency.
3. Emphasizing active transportation in the transition to zero-carbon transportation systems.
4. Promoting healthy, sustainable and resilient farms and food systems, forests, and natural lands.
5. Ensuring that all U.S. residents have access to safe and affordable drinking water and a sustainable water supply.
6. Investing in policies that support a just transition for workers and communities adversely impacted by climate change and the transition to a low-carbon economy.
7. Engaging the health sector voice in the call for climate action.
8. Incorporating climate solutions into all health care and public health system.
9. Building resilient communities in the face of climate change.
10. Investing in climate in a way that benefits health, and health in a way that doesn’t harm the climate.

In January of 2020, the AMA joined the MSCCH in calling on President Trump to stop our withdrawal from the Paris Climate Agreement. The letter recognizes that climate change is a public health emergency. Rejoining the Paris Climate Agreement is not just about preventing the worst of the devastating health harms climate change will bring. It is also about seizing this public health crisis and turning it into a major public health opportunity.

NAM Action Collaborative on Decarbonizing the Health Sector

The AMA is also a member of the National Academy of Medicine Action Collaborative on Decarbonizing the Health Sector as a member of the Steering Committee and co-lead of the Health Care Delivery Workgroup, which is working toward the following four goals:

• Goal 1: Make the multi-faceted case for health systems and hospitals to minimize their carbon footprints and operate more sustainably
• Goal 2: Identify a set of policy and regulatory barriers preventing progress on decarbonization and resilience from accelerating, and identify solutions
• Goal 3: Identify a core set of sustainability metrics for hospitals and clinical practice
• Goal 4: Develop decarbonization playbooks and best practices for hospitals and health care delivery institutions, leveraging existing frameworks and success stories

AMA Litigation Center

The AMA has long advocated for upholding the Clean Power Plan through amicus briefs and most recently filed such a brief with the American Thoracic Society and dozens of leading medical organizations and public health leaders in West Virginia v. EPA. The AMA brief stated the importance of the EPA's authority to regulate carbon dioxide emissions from power plants in order to mitigate the health effects of climate pollutants and help address climate change as a threat to public health.
CONCLUSION

It is now unequivocal that human influence has warmed the atmosphere, ocean and land. The scale of recent changes across the climate system are unprecedented over many centuries to thousands of years. Human-induced climate change is affecting weather and climate extremes in every region across the globe. The extent and magnitude of climate change impacts are larger than previously estimated and they are causing severe and widespread disruption in nature and in society; reducing our ability to grow nutritious food or provide enough clean drinking water, thus affecting people's health and well-being and damaging livelihoods. Limiting global warming to 1.5 degrees Celsius would require “rapid and far-reaching” transitions in land, energy, industry, buildings, transport, and cities.78

Impacts from climate change on extreme weather, air quality, and the transmission of disease increasingly threaten the health and well-being of people in the U.S., and it is widely recognized that many of the impacts of warming will disproportionately impact the most vulnerable. The health effects of climate change include increased allergies, asthma, respiratory and cardiovascular disease; injuries and premature deaths related to extreme weather events; heat-related deaths due to continued warming; changes in the prevalence and geographical distribution of food- and water-borne illnesses and other infectious diseases, and threats to mental health.

To meet the Paris Agreement goals and prevent catastrophic levels of global warming, global GHG emissions must be reduced by half within a decade. Emissions are declining too slowly or heading in the wrong direction in the highest emitting sectors. This delay in progress is contributing to millions of deaths each year. The U.S. health care sector is responsible for an estimated 8.5 percent of national carbon emissions. These emissions stem from the operations of health care facilities (scope 1), from both purchased sources of energy, heating, and cooling (scope 2) and from the supply chain of health care goods and services (scope 3). The U.S. health sector accounts for 25 percent of global health sector emissions, the highest proportion attributable to any individual country’s health sector. Physicians pledge to do no harm; it is time for the health sector to do the same by addressing the climate crisis and protecting public health.

RECOMMENDATIONS

The Council on Science and Public Health recommends that the following be adopted and the remainder of the report be filed.

1. That Policy D-135.966, “Declaring Climate Change a Public Health Crisis” be amended by addition to read as follows:

1. Our AMA declares climate change a public health crisis that threatens the health and well-being of all individuals. 2. Our AMA will protect patients by advocating for policies that: (a) limit global warming to no more than 1.5 degrees Celsius, (b) reduce US greenhouse gas emissions aimed at a 50 percent reduction in emissions by 2030 and carbon neutrality by 2050, and (c) support rapid implementation and incentivization of clean energy solutions and significant investments in climate resilience through a climate justice lens. 3. Our AMA consider signing on to the Department of Health and Human Services Health Care Pledge or making a similar commitment to lower its own greenhouse gas emissions. 4. Our AMA encourages the health sector to lead by example in committing to carbon neutrality by 2050. 5. Our AMA will develop a strategic plan for how we will enact our climate change policies including advocacy priorities and strategies to decarbonize
physician practices and the health sector with report back to the House of Delegates at the 2023 Annual Meeting. (Modify Current HOD Policy)

2. That Policy H-135.938, “Global Climate Change and Human Health” be amended by addition and deletion to read as follows:

Our AMA: 1. Supports the findings of the Intergovernmental Panel on Climate Change’s fourth assessment report and concurs with the scientific consensus that the Earth is undergoing adverse global climate change and that anthropogenic contributions are significant. These climate changes have adversely affected the physical and mental health of people. We recognize that minoritized and marginalized populations, children, the elderly, rural communities, and those who are economically disadvantaged will suffer disproportionate impacts from climate change on vulnerable populations, including children, the elderly, and the poor.

2. Supports educating the medical community on the potential adverse public health effects of global climate change and incorporating the health implications of climate change into the spectrum of medical education, including topics such as population displacement, heat waves and drought, flooding, infectious and vector-borne diseases, and potable water supplies.

3. (a) Recognizes the importance of physician involvement in policymaking at the state, national, and global level and supports efforts to search for novel, comprehensive, and economically sensitive approaches to mitigating climate change to protect the health of the public; and (b) recognizes that whatever the etiology of global climate change, policymakers should work to reduce human contributions to such changes.

4. Encourages physicians to assist in educating patients and the public on the physical and mental health effects of climate change and on environmentally sustainable practices, and to serve as role models for promoting environmental sustainability.

5. Encourages physicians to work with local and state health departments to strengthen the public health infrastructure to ensure that the global health effects of climate change can be anticipated and responded to more efficiently, and that adaptation interventions are equitable and prioritize the needs of the populations most at risk, and that the AMA’s Center for Public Health Preparedness and Disaster Response assist in this effort.


7. Encourages physicians to assess for environmental determinants of health in patient history-taking and encourages the incorporation of assessment for environmental determinants of health in patient history-taking into physician training. (Modify Current HOD Policy)


Our AMA: (1) supports practices and policies in medical schools, hospitals, and other health care facilities that support and model a healthy and ecologically sustainable food system, which provides food and beverages of naturally high nutritional quality; (2) encourages the development of a healthier food system through tax incentive programs, community-level initiatives and federal legislation; and (3) will consider working with other health care and public health organizations to educate the health care community and the public about the importance of healthy and ecologically sustainable food systems. (Reaffirm HOD Policy)


Our AMA: (1) endorses the need for additional research on atmospheric monitoring and climate simulation models as a means of reducing some of the present uncertainties in climate forecasting;
(2) urges Congress to adopt a comprehensive, integrated natural resource and energy utilization policy that will promote more efficient fuel use and energy production;

(3) endorses increased recognition of the importance of nuclear energy's role in the production of electricity;

(4) encourages research and development programs for improving the utilization efficiency and reducing the pollution of fossil fuels; and

(5) encourages humanitarian measures to limit the burgeoning increase in world population.

(Fiscal Note: less than $1,000)

FIGURE 1

Source: Centers for Disease Control and Prevention
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Whereas, The United States has the highest incarceration rate in the world\(^1\); and

Whereas, Incarcerated individuals disproportionately have lower incomes and are more likely to be Black, male, and live in urban settings\(^2\); and

Whereas, In 2018, Black Americans represented 33% of the sentenced prison population, whites 30%, and Hispanic 23%, whereas these groups made up 12%, 63%, and 16% of the U.S. adult population, respectively\(^3\); and

Whereas, A 2009 study found that incarcerated people have higher rates of hypertension, arthritis, cervical cancer, and hepatitis than non-incarcerated individuals\(^5\); and

Whereas, Incarcerated individuals may also experience heightened challenges in transitions of care relative to the non-incarcerated population, including poor transfer of medical, laboratory and pharmacy records, poor communication among providers, variable access to care, limited family involvement, and inability to afford treatment\(^6,7\); and

Whereas, Many states have rules wherein Medicaid beneficiaries who are incarcerated are de-enrolled and must re-enroll in Medicaid upon release, which can have a significant lag time that frequently lasts up to several months\(^8,9\); and

Whereas, As of 2019, 43 states had implemented suspension of benefits rather than termination for certain prisons, and 42 had done this for certain jails, allowing inmates to immediately reinstate their Medicaid eligibility upon release\(^10\); and

Whereas, Federal rules prohibit Medical matching funds for being used for inmate health expenses with the exception of costs incurred due to inpatient hospitalization, creating additional coverage issues for the incarcerated population separate from eligibility\(^11\); and

Whereas, Federal Medicaid rules include a coverage exclusion “related to services for patients in Institutions for Mental Diseases, which include residential treatment facilities of over sixteen beds that are primarily engaged in the diagnosis, treatment, or care of persons with mental diseases”\(^12\); and

Whereas, The Medicaid Reentry Act of 2021 was introduced into the US House of Representatives and would allow for Medicaid payment for medical services rendered to incarcerated individuals during the 30-day period before the individual’s release\(^13\); and

Whereas, The Bureau of Justice Assistance awards grants for projects that create strategic, sustainable plans to facilitate successful reentry, ensure collaboration with the criminal justice
system and social services, and collect data to measure performance outcomes related to recidivism and service provision\textsuperscript{14}; and

Whereas, Individuals released from prison may legally be barred from pursuing opportunities in employment, social programs, and voting\textsuperscript{15-17}; and

Whereas, Pursuant to a report mandated by the Fair Chance to Compete for Jobs Act, the Bureau of Justice Statistics in the US Department of Justice found that 33\% of persons did not find employment at any point during the 16 quarters after their release from prison from 2010 to 2014\textsuperscript{18}; and

Whereas, Because the predominant source of insurance in the United States is through employment, lack of employment opportunities for formerly incarcerated individuals leads to a concomitant lack of access to health insurance, particularly in states that have not expanded Medicaid\textsuperscript{19}; and

Whereas, Homelessness and residential instability has been identified as one of the greatest challenges confronting ex-offenders and their chance to achieve successful reintegration, with some studies finding that formerly incarcerated individuals were 10 times more likely to be homeless than the general public\textsuperscript{20,21}; and

Whereas, Periods of homelessness have been shown to significantly increase the risk of recidivism for new convictions, revocations, and readmission to prison, suggesting the presence of a vicious cycle wherein incarceration increases the risk of homelessness which further increases the risk of subsequent incarceration\textsuperscript{20}; and

Whereas, The increased risk of homelessness among the formerly incarcerated population increases with the number of times an individual has been incarcerated, with people who have been to prison once experiencing homelessness at a rate 7 times greater than that of the general public and people who have been incarcerated more than once experiencing homelessness at a rate 13 times higher than the general public\textsuperscript{21}; and

Whereas, The AMA has extensive policy on reducing the poor health outcomes associated with incarceration (H-430.986 Health Care While Incarcerated), on the health impacts of homelessness (H-160.903 Eradicating Homelessness), on support for standard ongoing medical, psychiatric, and substance misuse care for inmates upon release from correctional facilities in order to prevent recidivism (H-430.997 Standards of Care for Inmates of Correctional Facilities), and on support for the National Commission on Correctional Health Care Standards and its efforts to improve the quality of health care services for incarcerated persons (D-430.997 Support for Healthcare Services for Incarcerated Persons), but has no policy supporting or promoting access to stable employment and housing for former inmates; therefore be it

RESOLVED, That our American Medical Association support efforts to reduce the negative health impacts of incarceration, such as: (1) implementation and incentivization of adequate funding and resources towards indigent defense systems; (2) implementation of practices that promote access to stable employment and laws that ensure employment non-discrimination for workers with previous non-felony criminal records; and (3) housing support for formerly incarcerated people, including programs that facilitate access to immediate housing after release from carceral settings (New HOD Policy); and be it further
RESOLVED, That our AMA partner with the American Public Health Association and other stakeholders to urge Congress, the Department of Justice, and the Department of Human Services to minimize the negative health effects of incarceration by supporting programs that facilitate employment and housing opportunities for formerly incarcerated individuals as well as research into alternatives to incarceration. (Directive to Take Action)

Fiscal Note: Modest - between $1,000 - $5,000

Received: 09/20/22

References:

RELEVANT AMA POLICY

Health Care While Incarcerated H-430.986
1. Our AMA advocates for adequate payment to health care providers, including primary care and mental health, and addiction treatment professionals, to encourage improved access to comprehensive physical and behavioral health care services to juveniles and adults throughout the incarceration process from intake to reentry into the community.
2. Our AMA advocates and requires a smooth transition including partnerships and information sharing between correctional systems, community health systems and state insurance programs to provide access to a continuum of health care services for juveniles and adults in the correctional system.
3. Our AMA encourages state Medicaid agencies to accept and process Medicaid applications from juveniles and adults who are incarcerated.
4. Our AMA encourages state Medicaid agencies to work with their local departments of corrections, prisons, and jails to assist incarcerated juveniles and adults who may not have been enrolled in Medicaid at the time of their incarceration to apply and receive an eligibility determination for Medicaid.

5. Our AMA advocates for states to suspend rather than terminate Medicaid eligibility of juveniles and adults upon intake into the criminal legal system and throughout the incarceration process, and to reinstate coverage when the individual transitions back into the community.

6. Our AMA advocates for Congress to repeal the “inmate exclusion” of the 1965 Social Security Act that bars the use of federal Medicaid matching funds from covering healthcare services in jails and prisons.

7. Our AMA advocates for Congress and the Centers for Medicare & Medicaid Services (CMS) to revise the Medicare statute and rescind related regulations that prevent payment for medical care furnished to a Medicare beneficiary who is incarcerated or in custody at the time the services are delivered.

8. Our AMA advocates for necessary programs and staff training to address the distinctive health care needs of women and adolescent females who are incarcerated, including gynecological care and obstetrics care for individuals who are pregnant or postpartum.

9. Our AMA will collaborate with state medical societies, relevant medical specialty societies, and federal regulators to emphasize the importance of hygiene and health literacy information sessions, as well as information sessions on the science of addiction, evidence-based addiction treatment including medications, and related stigma reduction, for both individuals who are incarcerated and staff in correctional facilities.

10. Our AMA supports: (a) linkage of those incarcerated to community clinics upon release in order to accelerate access to comprehensive health care, including mental health and substance use disorder services, and improve health outcomes among this vulnerable patient population, as well as adequate funding; (b) the collaboration of correctional health workers and community health care providers for those transitioning from a correctional institution to the community; (c) the provision of longitudinal care from state supported social workers, to perform foundational check-ins that not only assess mental health but also develop lifestyle plans with newly released people; and (d) collaboration with community-based organizations and integrated models of care that support formerly incarcerated people with regard to their health care, safety, and social determinant of health needs, including employment, education, and housing.

11. Our AMA advocates for the continuation of federal funding for health insurance benefits, including Medicaid, Medicare, and the Children’s Health Insurance Program, for otherwise eligible individuals in pre-trial detention.

12. Our AMA advocates for the prohibition of the use of co-payments to access healthcare services in correctional facilities.


**Standards of Care for Inmates of Correctional Facilities H-430.997**

Our AMA believes that correctional and detention facilities should provide medical, psychiatric, and substance use disorder care that meets prevailing community standards, including appropriate referrals for ongoing care upon release from the correctional facility in order to prevent recidivism.


**Disease Prevention and Health Promotion in Correctional Institutions H-430.989**

Our AMA urges state and local health departments to develop plans that would foster closer working relations between the criminal justice, medical, and public health systems toward the prevention and control of HIV/AIDS, substance abuse, tuberculosis, hepatitis, and other infectious diseases. Some of these plans should have as their objectives: (a) an increase in collaborative efforts between parole officers and drug treatment center staff in case management aimed at helping patients to continue in treatment and to remain drug free; (b) an increase in direct referral by correctional systems of parolees with a recent, active history of intravenous drug use to drug treatment centers; and (c) consideration by judicial authorities of assigning individuals to drug treatment programs as a sentence or in connection with sentencing.


**Support for Health Care Services to Incarcerated Persons D-430.997**

Our AMA will:

1. express its support of the National Commission on Correctional Health Care Standards that improve the quality of health care services, including mental health services, delivered to the nation's correctional facilities;
2. encourage all correctional systems to support NCCHC accreditation;
3. encourage the NCCHC and its AMA representative to work with departments of corrections and public officials to find cost effective and efficient methods to increase correctional health services funding;
(4) continue support for the programs and goals of the NCCHC through continued support for the travel expenses of the AMA representative to the NCCHC, with this decision to be reconsidered every two years in light of other AMA financial commitments, organizational memberships, and programmatic priorities; (5) work with an accrediting organization, such as National Commission on Correctional Health Care (NCCHC) in developing a strategy to accredit all correctional, detention and juvenile facilities and will advocate that all correctional, detention and juvenile facilities be accredited by the NCCHC no later than 2025 and will support funding for correctional facilities to assist in this effort; and (6) support an incarcerated person’s right to: (a) accessible, comprehensive, evidence-based contraception education; (b) access to reversible contraceptive methods; and (c) autonomy over the decision-making process without coercion.


**Compassionate Release for Incarcerated Patients H-430.980**

Our AMA supports policies that facilitate compassionate release for incarcerated patients on the basis of serious medical conditions and advanced age; will collaborate with appropriate stakeholders to develop clear, evidence-based eligibility criteria for timely compassionate release; and promote transparent reporting of compassionate release statistics, including numbers and demographics of applicants, approvals, denials, and revocations, and justifications for decisions.

BOT Rep. 10, I-20

**Dietary Intake of Incarcerated Populations D-430.995**

Our AMA: 1) urges the National Commission on Correctional Health Care, the American Correctional Association, and individual states to mandate adherence to the current Dietary Reference Intakes and Dietary Guidelines for Americans (with adjustments, as needed, for special populations) as a criterion for accreditation and/or standards compliance, until national dietary guidelines specific for adolescent and adult incarcerated populations becomes available; and 2) urges the Food and Nutrition Board of the Institute of Medicine to examine the nutrient status and dietary requirements of incarcerated populations and issue guidelines on menu planning for adolescent and adult incarcerated populations.

CSAPH Rep. 4, A-11, Reaffirmed: Res. 904, I-19

**Support for Standardized Diagnosis and Treatment of Hepatitis C Virus in the Population of Incarcerated Persons H-430.985**

Our AMA: (1) supports the implementation of routine screening for Hepatitis C virus (HCV) in prisons; (2) will advocate for the initiation of treatment for HCV when determined to be appropriate by the treating physician in incarcerated patients with the infection who are seeking treatment; and (3) supports negotiation for affordable pricing for therapies to treat and cure HCV among correctional facility health care providers, correctional facility health care payors, and drug companies to maximize access to these disease-altering medications.

Res. 404, A-17

**Increased Oversight of Suicide Prevention Training for Correctional Facility Staff H-430.984**

1. Our AMA strongly encourages all state and local adult and juvenile correctional facilities to develop a suicide prevention plan that meets current National Commission on Correctional Health Care standards for accreditation.
2. Our AMA strongly encourages all state and local adult and juvenile correctional facility officers to undergo suicide prevention training annually.

Res. 408, A-17

**Medications for Opioid Use Disorder in Correctional Facilities H-430.987**

1. Our AMA endorses: (a) the medical treatment model of employing medications for opioid use disorder (OUD) as the standard of care for persons with OUD who are incarcerated; and (b) medications for persons with OUD who are incarcerated, an endorsement in collaboration with relevant organizations including but not limited to the American Society of Addiction Medicine and the American Academy of Addiction Psychiatry.
2. Our AMA advocates for legislation, standards, policies and funding that require correctional facilities to increase access to evidence-based treatment of OUD, including initiation and continuation of medications for OUD, in conjunction with psychosocial treatment when desired by the person with OUD, in correctional facilities within the United States and that this apply to all individuals who are incarcerated, including individuals who are pregnant, postpartum, or parenting.
3. Our AMA advocates for legislation, standards, policies, and funding that require correctional facilities within the United States to work in ongoing collaboration with addiction treatment physician-led teams, case
managers, social workers, and pharmacies in the communities where patients, including individuals who are pregnant, postpartum, or parenting, are released to offer post-incarceration treatment plans for OUD, including education, medication for addiction treatment and counseling, and medication for preventing overdose deaths, including naloxone (or any other medication that is approved by the United States Food and Drug Administration for the treatment of an opioid overdose), and help ensure post-incarceration medical coverage and accessibility to mental health and substance use disorder treatments, that include medication and behavioral health and social supports for addiction treatment.

4. Our AMA advocates for all correctional facilities to use a validated screening tool to identify opioid withdrawal and take steps to determine potential need for treatment for OUD and opioid withdrawal syndrome for all persons upon entry.


Support Public Health Approaches for the Prevention and Management of Contagious Diseases in Correctional and Detention Facilities H-430.979

1. Our AMA, in collaboration with state and national medical specialty societies and other relevant stakeholders, will advocate for the improvement of conditions of incarceration in all correctional and immigrant detention facilities to allow for the implementation of evidence-based COVID-19 infection prevention and control guidance.

2. Our AMA will advocate for adequate access to personal protective equipment and SARS-CoV-2 testing kits, sanitizing and disinfecting equipment for correctional and detention facilities.

3. Our AMA will advocate for humane and safe quarantine protocols for individuals who are incarcerated or detained that test positive for or are exposed to SARS-CoV-2, or other contagious respiratory pathogens.

4. Our AMA supports expanded data reporting, to include testing rates and demographic breakdown for SARS-CoV-2 and other contagious infectious disease cases and deaths in correctional and detention facilities.

5. Our AMA recognizes that detention center and correctional workers, incarcerated persons, and detained immigrants are at high-risk for COVID-19 infection and therefore should be prioritized in receiving access to safe, effective COVID-19 vaccine in the initial phases of distribution, and that this policy will be shared with the Advisory Committee on Immunization Practices for consideration in making their final recommendations on COVID-19 vaccine allocation.

6. Our AMA will advocate: (a) for all employees working in a correctional facility or detention center to be up to date with vaccinations against COVID-19, unless there is a valid medical contraindication; (b) for all employees working in a correctional facility or detention center, not up to date with vaccination for COVID-19 to be COVID rapid tested each time they enter a correctional facility or detention center, as consistent with Centers for Disease Control and Prevention (CDC) or local public health guidelines; (c) for correctional facility or detention center policies that require non-employed, non-residents (e.g. visitors, contractors, etc.) to either show evidence of being up to date for COVID-19 vaccines or show proof of a negative COVID test when they enter a correctional facility or detention center as consistent with CDC or local public health guidelines, at no cost to the visitor; (d) that all people inside a correctional facility or detention center wear an appropriate mask at all times, except while eating or drinking or at a 6 ft. distance from anyone else if local transmission rate is above low risk as determined by the CDC; and (e) that correctional facilities or detention centers be able to request and receive all necessary funding for COVID-19 vaccination and testing, according to CDC or local public health guidelines.

Whereas, There are 47 million foreign-born residents in the U.S. in 2022 (14.3% of the population) being the largest number ever recorded; and

Whereas, The Census Bureau projects the foreign-born share of the U.S. population to continue to increase reaching 69 million by 2060; and

Whereas, Immigration status is being increasingly recognized as a social determinant of health identifying the immigrant population as a vulnerable population that is at increased risk for poor physical, psychological and social health outcomes, and inadequate healthcare; and

Whereas, Poor health outcomes among immigrants are not only dependent on socioeconomic characteristics, but often determined by factors that are unique for this population – language barriers, difficulty navigating the healthcare system, stigmatization, marginalization, and discrimination within the healthcare system, inability to have medical coverage, poor understanding of specific immigrants’ health challenges by health professionals; and

Whereas, Healthcare inequities among immigrants include not only personal medical services but also public health services and programs; for example, immunizations, often due to institutional, structural, and systemic factors; therefore be it

RESOLVED, That our American Medical Association declare that immigration status is a public health issue that requires a comprehensive public health response and solution (Directive to Take Action); and be it further

RESOLVED, That our AMA recognize interpersonal, institutional, structural, and systemic factors that negatively affect immigrants’ health (New HOD Policy); and be it

RESOLVED, That our AMA promote the development and implementation of educational resources for healthcare professionals to better understand health and healthcare challenges specific for the immigrant population (Directive to Take Action); and be it further

RESOLVED, That our AMA support the development and implementation of public health policies and programs that aim to improve access to healthcare and minimize systemic health barriers for immigrant communities. (New HOD Policy)

Fiscal Note: Moderate - between $5,000 - $10,000

Received: 09/27/22
References:
Whereas, 27 states have no minimum age of juvenile adjudication; and
Whereas, Without a minimal age law, children of any age can be arrested; and
Whereas, Without minimal age law, children of any age can be charged with a juvenile violation; and
Whereas, Without minimal age law, children of any age can be potentially incarcerated; and
Whereas, Without minimal age law, racial injustice and health inequalities take place; and
Whereas, Without minimal age law, families and individuals suffer economic burden, social disgrace and stigmatization impacting future life and employment; and
Whereas, Evidence supports decriminalizing young children – providing them with appropriate support and avoiding handcuffs and cages – as a humane and productive approach with positive mental and physical health outcomes for the very young of society; and
Whereas, The United Nations Standard Minimum Rules for the Administration of Juvenile Justice (The Beijing Rules) Rules do not set a minimum age, however, they set forth the considerations when setting a minimum age, such as the emotional, mental and intellectual maturity of the child; and
Whereas, Research by the National Governors Association identifies 15 states that have set the minimum age at 10 years old for juvenile adjudication; therefore be it
RESOLVED, That our American Medical Association create a policy to establish minimal age of 10 years for juvenile justice jurisdiction in the United States (New HOD Policy); and be it further
RESOLVED, That our AMA introduce legislation to establish minimal age of 10 for juvenile justice jurisdiction in the United States. (Directive to Take Action)

Fiscal Note: Modest – between $1,000 - $5,000

Received: 09/27/22
RELEVANT AMA POLICY

**Juvenile Justice System Reform H-60.919**

Our AMA:
1. Supports school discipline policies that permit reasonable discretion and consideration of mitigating circumstances when determining punishments rather than "zero tolerance" policies that mandate out-of-school suspension, expulsion, or the referral of students to the juvenile or criminal justice system.
2. Encourages continued research to identify programs and policies that are effective in reducing disproportionate minority contact across all decision points within the juvenile justice system.
3. Encourages states to increase the upper age of original juvenile court jurisdiction to at least 17 years of age.
4. Supports reforming laws and policies to reduce the number of youth transferred to adult criminal court.
5. Supports the re-authorization of federal programs for juvenile justice and delinquency prevention, which should include incentives for: (a) community-based alternatives for youth who pose little risk to public safety, (b) reentry and aftercare services to prevent recidivism, (c) policies that promote fairness to reduce disparities, and (d) the development and implementation of gender-responsive, trauma-informed programs and policies across juvenile justice systems.
6. Encourages juvenile justice facilities to adopt and implement policies to prohibit discrimination against youth on the basis of their sexual orientation, gender identity, or gender expression in order to advance the safety and well-being of youth and ensure equal access to treatment and services.
7. Encourages states to suspend rather than terminate Medicaid coverage following arrest and detention in order to facilitate faster reactivation and ensure continuity of health care services upon their return to the community.
8. Encourages Congress to enact legislation prohibiting evictions from public housing based solely on an individual's relationship to a wrongdoer, and encourages the Department of Housing and Urban Development and local public housing agencies to implement policies that support the use of discretion in making housing decisions, including consideration of the juvenile's rehabilitation efforts.

Citation: CSAPH Rep. 08, A-16; Reaffirmed: Res. 917, I-16;

**Youth Incarceration in Adult Facilities H-60.916**

1. Our AMA supports, with respect to juveniles (under 18 years of age) detained or incarcerated in any criminal justice facility: (a) early intervention and rehabilitation services, (b) appropriate guidelines for parole, and (c) fairness in the expungement and sealing of records.
2. Our AMA opposes the detention and incarceration of juveniles (under 18 years of age) in adult criminal justice facilities.

Citation: Alt. Res. 917, I-16;
Whereas, COVID-19 vaccination has demonstrated safety effectiveness in preventing hospitalization and death for children and adolescents;¹ and
Whereas, The risks of cardiac and thromboembolic complications from COVID-19 disease, including MIS-C, is far higher than the risk of myocarditis from vaccination;¹,³ and
Whereas, COVID-19 vaccines reduce the risk of significant morbidity, including “long COVID” and missed days from school and work;¹ and
Whereas, Children can serve as a pool for ongoing community spread of COVID-19 clusters and outbreaks;² and
Whereas, Vaccination has been demonstrated to reduce overall community transmission of COVID-19;¹-³ and
Whereas, Risk of exposure to COVID-19 poses significant concern for children with chronic medical conditions such as asthma, diabetes and developmental disorders;¹,² therefore be it
RESOLVED, That our American Medical Association encourage states to make COVID-19 vaccination a requirement for school attendance for children and college/university students once the FDA grants full approval for COVID-19 vaccination for all relevant age groups. (New HOD Policy)

Fiscal Note: Minimal – less than $1,000

Received: 09/27/22

REFERENCES:
RELEVANT AMA POLICY

Education and Public Awareness on Vaccine Safety and Efficacy H-440.830

1. Our AMA (a) encourages the development and dissemination of evidence-based public awareness campaigns aimed at increasing vaccination rates; (b) encourages the development of educational materials that can be distributed to patients and their families clearly articulating the benefits of immunizations and highlighting the exemplary safety record of vaccines; (c) supports the development and evaluation, in collaboration with health care providers, of evidence-based educational resources to assist parents in educating and encouraging other parents who may be reluctant to vaccinate their children; (d) encourages physicians and state and local medical associations to work with public health officials to inform those who object to immunizations about the benefits of vaccinations and the risks to their own health and that of the general public if they refuse to accept them; (e) will promote the safety and efficacy of vaccines while rejecting claims that have no foundation in science; (f) supports state policies allowing minors to override their parent’s refusal for vaccinations; and encourages state legislatures to establish comprehensive vaccine and minor consent policies; and (g) will continue its ongoing efforts with other immunization advocacy organizations to assist physicians and other health care professionals in effectively communicating to patients, parents, policy makers, and the media that vaccines do not cause autism and that decreasing immunization rates have resulted in a resurgence of vaccine-preventable diseases and deaths.

2. Our AMA: (a) supports the rigorous scientific process of the Advisory Committee on Immunization Practices as well as its development of recommended immunization schedules for the nation; (b) recognizes the substantial body of scientific evidence that has disproven a link between vaccines and autism; and (c) opposes the creation of a new federal commission on vaccine safety whose task is to study an association between autism and vaccines.

Citation: Res. 9, A-15; Modified: CSAPH Rep. 1, I-15; Appended: Res. 411, A-17; Modified: Res. 011, A-19;
Whereas, The AMA declared gun violence in the United States a national public health crisis (PHC) in 2016; and

Whereas, From January 1, 2022, through September 27, 2022, there were 32,944 gun violence deaths in the United States¹, including 15,124 homicides, murders, and unintentional deaths; and

Whereas, At least 13% of mass shootings involve the use of illegally purchased weapons²; and

Whereas, Over 80% of individuals who engage in K-12 school shootings stole firearms from family members², and

Whereas, From January 1, 2022, through September 27, 2022, there were 29,518 gun violence survivors¹ that were injured; and

Whereas, The economic cost of firearm injury in the United States is estimated to be $557 billion per year³, including immediate costs such as hospital treatment, ambulances, and the police response; subsequent costs such as long-term physical and mental health care, rehabilitation care, institutional care, forgone earnings from disability or death, and criminal justice costs; and quality-of-life costs for pain and suffering over a victim’s life span⁴; and

Whereas, The AMA has extensive policy calling for expansion of national research and mitigation strategies from entities such as the Centers for Disease Control and Prevention, the National Institutes of Health, and the United States Surgeon General to address our national firearm injury PHC; and

Whereas, These entities have failed to produce timely research, recommendations, and mitigation strategies to address the national firearm injury PHC; and

Whereas, The US Congress has struggled to develop non-partisan conversations around firearm safety strategies, but has recently taken the first step by passing the S.2938: Bipartisan Safer Communities Act⁵; and

Whereas, The majority of community gun violence⁶ and firearm related crime in the United States occurs through the use of and access to illegal firearms⁷-¹⁸; and

Whereas, The AMA can help reorient the public and the national conversation about the national firearm injury PHC around public health in a solutions-oriented, unbiased, and non-partisan manner; therefore be it

RESOLVED, That our American Medical Association support research looking at the major sources of illegal gun supply, as well as possible methods of decreasing the proliferation of illegal firearms in the United States (New HOD Policy); and be it further
RESOLVED, That our AMA work with key stakeholders including, but not limited to, firearm manufacturers, firearm advocacy groups, law enforcement agencies, public health agencies, firearm injury victims advocacy groups, healthcare providers, and state and federal government agencies to study and develop evidence-informed public health recommendations to mitigate the effects of violence committed with illegal firearms (Directive to Take Action); and be it further

RESOLVED, That our AMA convene national public forums including, but not limited to, online venues, national radio, and televised/streamed in-person town halls, that bring together key stakeholders and members of the general public to focus on finding common ground, non-partisan measures to mitigate the effects of illegal firearms in our firearm injury public health crisis (Directive to Take Action); and be it further

RESOLVED, That our AMA reaffirm House policies H-145.975, H-145.984, H-145.997, D-145.994, and D-145.999 calling for increased funding for national firearm violence research. (Reaffirm HOD Policy)

Fiscal Note: Not yet determined

Received: 09/28/22

REFERENCES:
RELEVANTAMA POLICY

Firearm Safety and Research, Reduction in Firearm Violence, and Enhancing Access to Mental Health Care H-145.975
1. Our AMA supports: a) federal and state research on firearm-related injuries and deaths; b) increased funding for and the use of state and national firearms injury databases, including the expansion of the National Violent Death Reporting System to all 50 states and U.S. territories, to inform state and federal health policy; c) encouraging physicians to access evidence-based data regarding firearm safety to educate and counsel patients about firearm safety; d) the rights of physicians to have free and open communication with their patients regarding firearm safety and the use of gun locks in their homes; e) encouraging local projects to facilitate the low-cost distribution of gun locks in homes; f) encouraging physicians to become involved in local firearm safety classes as a means of promoting injury prevention and the public health; and g) encouraging CME providers to consider, as appropriate, inclusion of presentations about the prevention of gun violence in national, state, and local continuing medical education programs.

2. Our AMA supports initiatives to enhance access to mental and cognitive health care, with greater focus on the diagnosis and management of mental illness and concurrent substance use disorders, and work with state and specialty medical societies and other interested stakeholders to identify and develop standardized approaches to mental health assessment for potential violent behavior.

3. Our AMA (a) recognizes the role of firearms in suicides, (b) encourages the development of curricula and training for physicians with a focus on suicide risk assessment and prevention as well as lethal means safety counseling, and (c) encourages physicians, as a part of their suicide prevention strategy, to discuss lethal means safety and work with families to reduce access to lethal means of suicide.


Firearms as a Public Health Problem in the United States - Injuries and Death H-145.997
1. Our AMA recognizes that uncontrolled ownership and use of firearms, especially handguns, is a serious threat to the public's health inasmuch as the weapons are one of the main causes of intentional and unintentional injuries and deaths. Therefore, the AMA:

(A) encourages and endorses the development and presentation of safety education programs that will engender more responsible use and storage of firearms;

(B) urges that government agencies, the CDC in particular, enlarge their efforts in the study of firearm-related injuries and in the development of ways and means of reducing such injuries and deaths;

(C) urges Congress to enact needed legislation to regulate more effectively the importation and interstate traffic of all handguns;

(D) urges the Congress to support recent legislative efforts to ban the manufacture and importation of nonmetallic, not readily detectable weapons, which also resemble toy guns; (5) encourages the improvement or modification of firearms so as to make them as safe as humanly possible;

(E) encourages nongovernmental organizations to develop and test new, less hazardous designs for firearms;

(F) urges that a significant portion of any funds recovered from firearms manufacturers and dealers through legal proceedings be used for gun safety education and gun-violence prevention; and

(G) strongly urges US legislators to fund further research into the epidemiology of risks related to gun violence on a national level.

2. Our AMA will advocate for firearm safety features, including but not limited to mechanical or smart technology, to reduce accidental discharge of a firearm or misappropriation of the weapon by a non-registered user; and support legislation and regulation to standardize the use of these firearm safety features on weapons sold for non-military and non-peace officer use within the U.S.; with the aim of establishing manufacturer liability for the absence of safety features on newly manufactured firearms.

Data on Firearm Deaths and Injuries H-145.984
The AMA supports legislation or regulatory action that: (1) requires questions in the National Health Interview Survey about firearm related injury as was done prior to 1972; (2) mandates that the Centers for Disease Control and Prevention develop a national firearm fatality reporting system; and (3) expands activities to begin tracking by the National Electronic Injury Surveillance System.
Citation: (Res. 811, I-94; Reaffirmed: CSA Rep. 6, A-04; Reaffirmation A-13)

Epidemiology of Firearm Injuries D-145.999
Our AMA will: (1) strongly urge the Administration and Congress to encourage the Centers for Disease Control and Prevention to conduct an epidemiological analysis of the data of firearm-related injuries and deaths; and (2) urge Congress to provide sufficient resources to enable the CDC to collect and analyze firearm-related injury data and report to Congress and the nation via a broadly disseminated document, so that physicians and other health care providers, law enforcement and society at large may be able to prevent injury, death and the other costs to society resulting from firearms.
Citation: Res. 424, A-03; Reaffirmation A-13; Modified: CSAPH Rep. 1, A-13; Reaffirmation: A-18

Firearm Related Injury and Death: Adopt a Call to Action H-145.973
Our AMA endorses the specific recommendations made by an interdisciplinary, inter-professional group of leaders from the American Academy of Family Physicians, American Academy of Pediatrics, American College of Emergency Physicians, American College of Obstetricians and Gynecologists, American College of Physicians, American College of Surgeons, American Psychiatric Association, American Public Health Association, and the American Bar Association in the publication "Firearm-Related Injury and Death in the United States: A Call to Action From 8 Health Professional Organizations and the American Bar Association," which is aimed at reducing the health and public health consequences of firearms and lobby for their adoption.
Citation: Res. 214, I-16

Removing Restrictions on Federal Funding for Firearm Violence Research D-145.994
Our AMA will provide an informational report on recent and current organizational actions taken on our existing AMA policies (e.g. H-145.997) regarding removing the restrictions on federal funding for firearms violence research, with additional recommendations on any ongoing or proposed upcoming actions.
Citation: Res. 201, I-16

Physicians and the Public Health Issues of Gun Safety D-145.997
Our AMA will request that the US Surgeon General develop a report and campaign aimed at reducing gun-related injuries and deaths.
Citation: (Res. 410, A-13)
Whereas, Suicide is the 12th leading cause of death in the United States (2020), and is a public health issue for individuals and for the communities they live in;¹ and

Whereas, While older adults comprise just 12% of the population, they make up approximately 18% of all suicide deaths;² and

Whereas, Among people who attempt suicide, one in four seniors will succeed, compared to 1 in 200 youths;³ and

Whereas, The new mental health line, known as the 988 Suicide and Crisis Lifeline, was launched nationally on July 1, 2022; and

Whereas, The Department of Health and Human Services (HHS) through its Substance Abuse and Mental Health Services Administration, has awarded nearly $105 million in grant funding, provided by the American Rescue Plan, to 54 states and territories in advance of the transition of the National Suicide Prevention Lifeline;⁴ and

Whereas, With States having varying degrees of operational readiness, the success of 988 now is important to get activated; and

Whereas, The 988 number currently does not designate priority by age group; and

Whereas, Seniors who are homebound may lack the social connections they need and call centers are expected to be appropriately funded and staffed with properly trained operators to handle suicide risk; therefore be it

RESOLVED, That our American Medical Association, with other interested organizations, develop model legislation for use by states who wish to pursue funding for the 988 Suicide and Crisis Lifeline (Directive to Take Action); and be it further

RESOLVED, That our AMA advocate that the Department of Health and Human Services (HHS) prioritize education and outreach activities for use of the 988 Suicide and Crisis Lifeline to those who are at highest risk for suicide completion with a special emphasis on those over age 65. (Directive to Take Action)

Fiscal Note: Modest – between $1,000 - $5,000

Received: 09/29/22
REFERENCES:

2. American Association for Marriage and Family Therapy. (2022, September). Suicide and the Elderly. Suicide in the Elderly (aamft.org)

RELEVANT AMA POLICY

Awareness Campaign for 988 National Suicide Prevention Lifeline D-345.974

Our AMA will: (1) utilize their existing communications channels to educate the physician community and the public on the new 9-8-8 National Suicide Prevention Lifeline program; (2) work with the Federation and other stakeholders to advocate for adequate federal and state funding for the 9-8-8 system; and (3) collaborate with the Substance Abuse and Mental Health Services Administration and the 9-8-8 partner community to strengthen suicide prevention and mental health crisis services.

Citation: Res. 423, A-22
Whereas, Our AMA has recognized that gun violence is an urgent public health crisis; and
Whereas, While most media attention focuses on mass shootings, the majority (60%) of gun
related deaths are in fact due to suicide;¹ and
Whereas, The prototypical gun related suicide happens in older, rural, white males;² and
Whereas, Suicide is often an impulsive act amenable to intervention; and
Whereas, New federal legislation facilitates universal adoption of Extreme Risk Protection
Orders (Red Flag laws);³ and
Whereas, One of the barriers to addressing this crisis is that clinicians are often hesitant to
discuss and counsel about firearm safety;⁴ therefore be it

RESOLVED, That our American Medical Association and other organizations develop and
disseminate a formal educational program to enable clinicians to effectively and efficiently
address suicides with an emphasis on seniors and firearms (Directive to Take Action); and be it further

RESOLVED, That our AMA develop with other interested organizations a toolkit for clinicians to
use addressing Extreme Risk Protection Orders in their individual states (Directive to Take
Action); and be it further

RESOLVED, That our AMA partner with other groups interested in firearm safety to raise public
awareness of magnitude and interventions available regarding senior suicides and firearms.
(Directive to Take Action)

Fiscal Note: Not yet determined

Received: 09/29/22

REFERENCES:
and cohort effects on suicide death in the United States from 1999 to 2018: moderation by sex, race, and firearm
involvement. Molecular psychiatry, 26(7), 3374-3382.
RELEVANT AMA POLICY

Firearms and High-Risk Individuals H-145.972
Our AMA supports: (1) the establishment of laws allowing family members, intimate partners, household members, and law enforcement personnel to petition a court for the removal of a firearm when there is a high or imminent risk for violence; (2) prohibiting persons who are under domestic violence restraining orders, convicted of misdemeanor domestic violence crimes or stalking, from possessing or purchasing firearms; (3) expanding domestic violence restraining orders to include dating partners; (4) requiring states to have protocols or processes in place for requiring the removal of firearms by prohibited persons; (5) requiring domestic violence restraining orders and gun violence restraining orders to be entered into the National Instant Criminal Background Check System; and (6) efforts to ensure the public is aware of the existence of laws that allow for the removal of firearms from high-risk individuals.
Citation: CSAPH Rep. 04, A-18; Reaffirmed: BOT Rep. 11, I-18; Reaffirmed: CSAPH Rep. 3, I-21

Firearm Safety and Research, Reduction in Firearm Violence, and Enhancing Access to Mental Health Care H-145.975
1. Our AMA supports: a) federal and state research on firearm-related injuries and deaths; b) increased funding for and the use of state and national firearms injury databases, including the expansion of the National Violent Death Reporting System to all 50 states and U.S. territories, to inform state and federal health policy; c) encouraging physicians to access evidence-based data regarding firearm safety to educate and counsel patients about firearm safety; d) the rights of physicians to have free and open communication with their patients regarding firearm safety and the use of gun locks in their homes; e) encouraging local projects to facilitate the low-cost distribution of gun locks in homes; f) encouraging physicians to become involved in local firearm safety classes as a means of promoting injury prevention and the public health; and g) encouraging CME providers to consider, as appropriate, inclusion of presentations about the prevention of gun violence in national, state, and local continuing medical education programs.
2. Our AMA supports initiatives to enhance access to mental and cognitive health care, with greater focus on the diagnosis and management of mental illness and concurrent substance use disorders, and work with state and specialty medical societies and other interested stakeholders to identify and develop standardized approaches to mental health assessment for potential violent behavior.
3. Our AMA (a) recognizes the role of firearms in suicides, (b) encourages the development of curricula and training for physicians with a focus on suicide risk assessment and prevention as well as lethal means safety counseling, and (c) encourages physicians, as a part of their suicide prevention strategy, to discuss lethal means safety and work with families to reduce access to lethal means of suicide.

Ban on Handguns and Automatic Repeating Weapons H-145.985
It is the policy of the AMA to:
(1) Support interventions pertaining to firearm control, especially those that occur early in the life of the weapon (e.g., at the time of manufacture or importation, as opposed to those involving possession or use). Such interventions should include but not be limited to:
(a) mandatory inclusion of safety devices on all firearms, whether manufactured or imported into the United States, including built-in locks, loading indicators, safety locks on triggers, and increases in the minimum pressure required to pull triggers;
(b) bans on the possession and use of firearms and ammunition by unsupervised youths under the age of 21;
(c) bans of sales of firearms and ammunition from licensed and unlicensed dealers to those under the age of 21 (excluding certain categories of individuals, such as military and law enforcement personnel);
(d) the imposition of significant licensing fees for firearms dealers;
(e) the imposition of federal and state surtaxes on manufacturers, dealers and purchasers of handguns and semiautomatic repeating weapons along with the ammunition used in such firearms, with the attending revenue earmarked as additional revenue for health and law enforcement activities that are directly related to the prevention and control of violence in U.S. society; and
(f) mandatory destruction of any weapons obtained in local buy-back programs.
(2) Support legislation outlawing the Black Talon and other similarly constructed bullets.
(3) Support the right of local jurisdictions to enact firearm regulations that are stricter than those that exist in state statutes and encourage state and local medical societies to evaluate and support local efforts to enact useful controls.

(4) Oppose concealed carry reciprocity federal legislation that would require all states to recognize concealed carry firearm permits granted by other states and that would allow citizens with concealed gun carry permits in one state to carry guns across state lines into states that have stricter laws.

(5) Support the concept of gun buyback programs as well as research to determine the effectiveness of the programs in reducing firearm injuries and deaths.

Citation: BOT Rep. 50, I-93; Reaffirmed: CSA Rep. 8, A-05; Reaffirmation A-14; Appended: Res. 427, A-18; Reaffirmation: A-18; Modified: Res. 244, A-18;

Gun Violence as a Public Health Crisis D-145.995
Our AMA: (1) will immediately make a public statement that gun violence represents a public health crisis which requires a comprehensive public health response and solution; and
(2) will actively lobby Congress to lift the gun violence research ban.
Citation: Res. 1011, A-16; Reaffirmation: A-18; Reaffirmation: I-18

Firearm Availability H-145.996
1. Our AMA: (a) advocates a waiting period and background check for all firearm purchasers; (b) encourages legislation that enforces a waiting period and background check for all firearm purchasers; and (c) urges legislation to prohibit the manufacture, sale or import of lethal and non-lethal guns made of plastic, ceramics, or other non-metallic materials that cannot be detected by airport and weapon detection devices.

2. Our AMA supports requiring the licensing/permitting of firearms-owners and purchasers, including the completion of a required safety course, and registration of all firearms.

3. Our AMA supports “gun violence restraining orders” for individuals arrested or convicted of domestic violence or stalking, and supports extreme risk protection orders, commonly known as “red-flag” laws, for individuals who have demonstrated significant signs of potential violence. In supporting restraining orders and “red-flag” laws, we also support the importance of due process so that individuals can petition for their rights to be restored.
Whereas, Led by the Society of Pediatric Radiology (SPR), the Image Gently Alliance was formed in late 2006 with the goal of “changing practice by raising awareness of the opportunities to lower radiation dose in the imaging of children” (1); and

Whereas, The SPR recruited other organizations/members of the imaging team into the alliance in 2007 including the American College of Radiology (ACR), American Association of Physicists in Medicine (AAPM), and American Society of Radiologic Technologists (ASRT) (1); and

Whereas, The practice of shielding reproductive organs and in utero fetuses began in the 1950s given concerns about the long-term effects of radiation and the potential for passing on genetic mutations through genetic inheritance (2,3); and

Whereas, In response to these concerns, state and federal laws and regulations have been created requiring the use of gonad shields in medical imaging studies (4,5); and

Whereas, Through technological advances, medical physicists estimate the dose from routine diagnostic imaging to reproductive organs has been reduced by 95% without compromising diagnostic quality (2,3); and

Whereas, Technological advances and optimization have resulted in marginal hereditary risk reduction from gonad shielding ranging from 1x10^-6 in women and 5x10^-6 in men (6); and

Whereas, Research on radiation dosing has shown that routine diagnostic imaging does not produce harmful levels of radiation to patients and fetuses (2,3); and

Whereas, Modern mechanisms to optimize imaging parameters such as automatic exposure control (AEC) are negatively affected by shielding (7); and

Whereas, The gonad shield results in decreased activity on the detector, triggering AEC to increase radiation output, which results in increased exposure and patient dose along with the degradation of image quality (7); and

Whereas, The gonad shield produces artifacts and can obscure relevant anatomy and diagnostic information (7); and

Whereas, Non-diagnostic or obscured images may need to be repeated increasing patient dose when shields are used (7); and

Whereas, The gonad surface shield is ineffective at reducing internal scatter (7); and
Whereas, Studies have shown that gonad shields are incorrectly placed for females in 91% of radiographs and for males in 66% of radiographs, rendering them ineffective (8,9); and

Whereas, On January 12th, 2021, the National Council on Radiation Protection and Measurements (NCRP) issued a statement that the risks of utilizing gonad shields far outweigh the negligible benefits to reproductive organs and therefore they should not be routinely used (10); and

Whereas, Similar statements opposing routine or mandatory use of gonadal shields were released by the ACR and the AAPM in 2019 and by the ASRT in 2021 (11,12); therefore be it

RESOLVED, That our American Medical Association oppose mandatory use of gonad shields in medical imaging considering the risks far outweigh the benefits (New HOD Policy); and be it further

RESOLVED, That our AMA advocate that the U.S. Food and Drug Administration amend the code of federal regulations to oppose the routine use of gonad shields in medical imaging (Directive to Take Action); and be it further

RESOLVED, That our AMA, in conjunction with state medical societies, support model state and national legislation to oppose or repeal mandatory use of gonad shields in medical imaging (New HOD Policy)

Fiscal Note: Modest - between $1,000 - $5,000

Received: 09/30/22

References
1. https://www.imagegently.org/About-Us/Campaign-Overview
4. https://www.ecfr.gov/cgi-bin/text-idx?SID=c6f098dfc8555d412079f3e5357c66&mc=true&node=se21.8.1000_150&rgn=div8
6. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC705227/
8. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3292647/
Resolutions: 911
(I-22)

Introduced by: Society for Cardiovascular Angiography & Interventions

Subject: Critical Need for National Emergency Cardiac Care (ECC) System to Ensure Individualized, State-Wide, Care for ST Segment Elevation Myocardial Infarction (STEMI), Cardiogenic Shock (CS) and Out-of-Hospital Cardiac Arrest (OHCA), and to Reduce Disparities in Health Care for Patients with Cardiac Emergencies

Referred to: Reference Committee K

Whereas, Cardiovascular Disease is the number one cause of death for men and women in the United States, and

Whereas, The Acute Coronary Syndromes of unstable angina pectoris (USAP), Non-ST segment Elevation MI (NSTEMI) and STEMI are major causes of death and disability, and

Whereas, Survival for uncomplicated STEMI patients has dramatically improved over the last 6 decades (> 97% survival rate) with the implementation of systems of Emergency Cardiac Care (ECC), survival for STEMI with cardiogenic shock (CS) is unacceptably high, and

Whereas, STEMI patients with cardiogenic shock (STEMI-CS) have mortality rates near 50%, except in some U.S. localities where the survival rates may be as high as 70% because of specialized medical centers that provide care teams and therapeutic modalities, like early use of Mechanical Circulatory Support (MCS), shock teams and coronary revascularization, through organized systems of ECC, and

Whereas, Out-of-Hospital Cardiac Arrest (OHCA) is the fifth most common cause of death in the United States, accounting for more deaths than colon cancer, breast cancer, prostate cancer, influenza, pneumonia, HIV, firearms and house fires combined, and

Whereas, 90% of OHCA occur in the home or workplace and these patients require intense and precisely orchestrated ECC on site, during transportation by Emergency Medical Technicians/Paramedics, and subsequent ECC as inpatients, and

Whereas, Survival for patients with OHCA and refractory ventricular fibrillation is markedly improved, from less than 10% to over 40%, when systems of ECC include uniquely applied invasive procedures like emergent Extracorporeal Membrane Oxygenation (ECMO/ECPR), and

Whereas, Specialized systems of ECC, designed for coordinating and escalating cardiovascular care for patients with STEMI, STEMI-CS and OHCA, in some States, have produced significant improvements in survival for these catastrophic cardiovascular disorders, and

Whereas, STEMI and STEMI-CS care is provided in a disparate manner to sociodemographic groups like the elderly, women, Black and Hispanic patients, with Black and Hispanic women having the highest mortality (29% and 46%, respectively), and
Whereas, Hospitals of different sizes, in diverse geographic and socioeconomic locations with varying clinical capabilities, provide different levels of ECC, and pre-hospital care can be quite variable\textsuperscript{11,12}, there is a need to systematize ECC in the United States because standardization of systems of ECC\textsuperscript{13,14} results in improved treatment times and survival for patients with STEMI, STEMI-CS and OHCA\textsuperscript{4,5,7,8,13,14,15,17}, and

Whereas, The implementation of systems of care for ECC, with strict protocol adherence, diminishes treatment disparities between sociodemographic groups\textsuperscript{15,16}, and

Whereas, States that have addressed ECC solutions, unique to their State, some with laws\textsuperscript{18} and others with State-wide clinical agreements between health systems and physicians\textsuperscript{19}, therefore be it

RESOLVED, That our American Medical Association encourage each state to standardize pre-hospital and inpatient care for cardiac emergencies, with individualized systems of Emergency Cardiac Care (ECC), specific for each state, to improve care and enhance survival for all patients, especially for those citizens who receive sociodemographically disparate care, when they present with cardiac emergencies (STEMI, STEMI-CS and OHCA) (New HOD Policy); and be it therefore,

RESOLVED, That our AMA encourage states to designate hospitals as ECC Centers based on their individual capabilities to provide ECC, much like the designations and systems of care for Stroke and Trauma Centers. (New HOD Policy)

Fiscal Note: Minimal - less than $1,000

Received: 09/30/22

Abbreviations:
Acute Coronary Syndrome – ACS
Cardiogenic Shock – CS
Emergency Cardiac Care – ECC
Extracorporeal Membrane Oxygenation – ECMO
Extracorporeal Membrane Oxygenation facilitated Cardio-Pulmonary Resuscitation - ECPR
Mechanical Circulatory Support – MCS
Myocardial Infarction – MI
Out of Hospital Cardiac Arrest – OHCA
ST segment Elevation Myocardial Infarction – STEMI
ST segment Elevation Myocardial Infarction with Cardiogenic Shock – STEMI-CS
Unstable Angina Pectoris – USAP
References:
6. American Heart Association Facts, A Race against the Clock, Out of Hospital Cardiac Arrest. www.heart.org/policyfactsheets.