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REPORT 2 OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH (I-25)
Regulation of Ionizing Radiation Exposure for Health Care Professionals
(Reference Committee K)

EXECUTIVE SUMMARY

BACKGROUND AMA Policy H-455.975, "Regulation of Ionizing Radiation Exposure for Health Care Workers," was adopted at the 2024 House of Delegates (HOD) Interim Meeting and calls for our AMA to study how best to accomplish comprehensive protection from ionizing radiation for employees, taking into account variation in body types, pregnancy status, specifics of procedures being performed, as well as how exposure can be limited beyond PPE.

Resolution 505-A-25, "Mandating Properly Fitting Lead Aprons in Hospitals," was referred. That resolution asked that our American Medical Association collaborate with relevant stakeholders to ensure: (1) adequate stocking of diverse lead apron sizes for all radiation-exposed personnel and medical trainees, and (2) consistent implementation of evidence-based radiation safety principles to keep exposure as low as reasonably achievable in accordance with specialty society guidelines, in order to promote optimal protection practices.

METHODS. English language reports were selected from searches of the PubMed and Google Scholar databases using the search terms: "occupational exposure" and "ionizing radiation"; "health care" and "ionizing radiation"; "radiation safety" and "health care". Additional articles were identified by manual review of the reference lists of pertinent publications. Web sites managed by federal agencies and applicable professional organizations were also reviewed for relevant information.

DISCUSSION. Ionizing radiation can cause chemical changes in cells and damage DNA, thereby increasing the risk of developing certain health conditions. In health care settings, ionizing radiation can come from nuclear medicine and medical imaging equipment, such as x-ray, CT scan, fluoroscopy or PET scan machines. With the use of diagnostic imaging and radiation therapy in health care growing rapidly, there are concerns regarding the potentially increasing rate of occupational exposure to ionizing radiation for health care professionals. The health effects of high-dose and single-exposure radiation are generally understood, but the consequences of exposure to long term low-dose radiation are not as well-delineated. Data suggests that health care professionals exposed to ionizing radiation may experience an increased risk of cancer, cardiovascular disease, reproductive health effects, and the development of cataracts. However, the use of protective measures significantly reduces these risks. The regulatory landscape is complicated and there is a patchwork of entities overseeing different facets of nuclear material regulation in the United States. In many cases it is the states, radiation safety officers, and health care institutions that determine what implementation and operationalization of those regulations looks like resulting in variation across jurisdictions and facilities.

CONCLUSION. Despite the limited evidence on negative health effects associated with low-dose and very-low dose occupational radiation exposure in health care facilities, the precautionary principle as well as international guidance, federal and state regulation, and non-governmental and specialty society guidance supports continued use of personal protective equipment (PPE) that appropriately fits and covers all body types, genders, and pregnancy statuses as well as continued education and training on ways to reduce exposure. At the same time, continued research into the health effects of low level and very-low level ionizing radiation, the effectiveness of PPE and engineering controls designed to reduce exposure, and ways to improve PPE use fidelity are needed.

REPORT OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH

CSAPH Report 2-I-25

Subject: Regulation of Ionizing Radiation Exposure for Health Care Professionals

Presented by: Padmini Ranasinghe, MD, MPH, Chair

Referred to: Reference Committee K

AMA Policy H-455.975, "Regulation of Ionizing Radiation Exposure for Health Care Workers," was adopted at the 2024 Interim Meeting of the AMA House of Delegates (HOD). The policy asks the following:

1. Our American Medical Association encourages public and private healthcare institutions to ensure comprehensive coverage of different body types by providing readily available PPE that reduces exposure to as low as reasonably achievable for employees of all genders and pregnancy statuses.
2. Our AMA will work with the appropriate and interested parties to study how best to accomplish comprehensive protection from ionizing radiation for employees, taking into account variation in body types, pregnancy status, specifics of procedures being performed, as well as how exposure can be limited beyond PPE (personal protected equipment), with report back at I-25.

Furthermore, resolution 505-A-25, "Mandating Properly Fitting Lead Aprons in Hospitals," was referred. That resolution asked that our American Medical Association collaborate with relevant stakeholders to ensure:

1. Adequate stocking of diverse lead apron sizes for all radiation-exposed personnel and medical trainees, and
2. Consistent implementation of evidence-based radiation safety principles to keep exposure as low as reasonably achievable in accordance with specialty society guidelines, in order to promote optimal protection practices.

Given that both resolutions relate to the same topic, they will be addressed together in this report.

METHODS

English language reports were selected from searches of the PubMed and Google Scholar databases using the search terms: "occupational exposure" and "ionizing radiation"; "health care" and "ionizing radiation"; "radiation safety" and "health care". Additional articles were identified by manual review of the reference lists of pertinent publications. Websites managed by federal agencies and applicable professional organizations were also reviewed for relevant information.

DISCUSSION

Ionizing radiation is high-energy radiation that has enough energy to remove an electron (negative particle) from an atom or molecule. It can cause chemical changes in cells and damage DNA, thereby increasing the risk of developing certain health conditions. In health care settings, ionizing radiation can come from nuclear medicine and medical imaging equipment, such as x-ray,

fluoroscopy, CT scan, or PET scan machines. Diagnostic imaging in health care has been growing rapidly in the U.S. and around the world. Approximately 93 million CT scans are done on 62 million patients in the U.S. annually.[1] When considering X-rays, mammograms, PET scans, and fluoroscopic procedures, patients' exposures to medical radiation is not insignificant. At the current rate of CT scans usage, five percent of future cancers will be due to this imaging modality alone.[1] Most research and recommendations on radiation safety in health care focus on patients, aiming to minimize their exposure by reducing both the amount of radiation per test and the total number of tests they undergo over their lifetime.[2,3] The goal of the As Low As Reasonably Achievable (ALARA) radiation exposure principle includes the three basic strategies of decreasing time, increasing distance and using shielding to reduce radiation exposure. Multiple government agencies have education for both patients and physicians, focused on making sure imaging is necessary and uses the lowest dose of radiation possible.[4–6]

The growing use of imaging and interventional procedures that depend on ionizing radiation has raised concerns about the potential rise in occupational exposure to ionizing radiation among health care professionals. Radiology, cardiology, pulmonology, critical care, radiation oncology, thoracic surgery, orthopaedic surgery and anesthesiology are specialties that use fluoroscopy or other radiation-creating equipment regularly, thereby exposing health care professionals and staff in those specialties to radiation regularly. A study that assessed the occupational radiation exposure of doctors over a 25-year period at a National Health Services teaching hospital found that the occupational radiation exposure of radiologists and cardiologists, as measured by body and collar dosimeters, has decreased over the 25-year period.[7] There was a decrease in ionizing radiation exposure to the eye in the cardiologists' cohort, but an increase in ionizing radiation exposure to the eye in the radiologists' cohort.[7] Definitive trends in the surgeon/anesthesiologists' group were more difficult to establish, but there was a significant decrease in exposure demonstrated by body and hand dosimeter measurements, but an increase in eye exposure.[7]

Radiation suites are not the only areas where diagnostic imaging occurs in health care settings. For example, in emergency departments (EDs) portable X-rays are frequently done. A recent study found the radiation levels in a level 1 trauma ED to be well-below the limit and thus noted that specific safety interventions were unwarranted.[8] Furthermore, intraoperative imaging is playing a larger role with the rise of minimally invasive surgeries such as spinal procedures. Because direct visibility is not possible in these surgeries, spine surgeons rely on intraoperative imaging to confirm proper placement of medical devices.[9] With the use of ionizing radiation spanning multiple specialties outside of radiology, finding unifying guidance is difficult.

Measuring Radiation Exposure

Measuring radiation released from a machine is quite easy; measuring radiation absorbed into an organ is much more difficult.[10] Measuring radiation dose in an organ is not practical, so calculations are done to determine the dose estimate, which is the product of the radiation measurement from the machine and various factors to account for different organs. Placing one dosimeter inside and another outside a lead apron provides an assessment of exposure. The exposure of the outside dosimeter is a surrogate for exposure to those unprotected areas (i.e., the head and hands) and the one inside represents exposure to protected areas (i.e., heart, thyroid, genitals).

The International Commission on Radiological Protection has dose limits on occupational exposure: 20mSv/yr averaged over a 5-year defined period with no single year exceeding 50 mSv.[11] A 2010 Korean study found that the average yearly radiation dose under the apron for interventional pain specialists was 1.08 mSv and 20.32 mSv over the collar.[12] A British study looking at 25-years of radiation exposure found the yearly dose to be <1 mSV on body dosimeters

and 3.17-5.12 mSv on dosimeters in unprotected areas (e.g., hands).[7] It is clear that personal protective equipment (PPE) works when it is consistently used correctly. When environmental safety factors are employed (e.g., C-arm positioning) along with the ALARA principle, a physician's radiation exposure can stay within the allowable limits.

HEALTH EFFECTS

The ill effects of high-dose radiation are generally understood, but the consequences of long-term exposure to low-dose radiation are not as well-delineated. While data suggests that health care professionals exposed to ionizing radiation may experience an increased risk of cancer, cardiovascular disease, reproductive health effects, and the development of cataracts, the use of protective measures significantly reduces these risks.

Cancer

Although there is substantial evidence that exposure to ionizing radiation at moderate to high levels is associated with cancer, there is only limited information regarding risks at lower radiation doses. A review article examining 16 epidemiological studies published between 1975 and 2019, which looked at cancer risks in medical professionals exposed to ionizing radiation, found that medical personnel exposed to radiation before 1950, or those involved in fluoroscopically guided interventional procedures or radionuclide treatments, have higher cancer risks.[13] However, the strength of the evidence is moderate due to methodological limitations.

Cardiovascular Disease

A recent systematic review and meta-analysis examining 93 studies found that exposure to low doses of ionizing radiation is linked to an increased risk of cardiovascular disease (CVD) in a dose-dependent manner.[14] However, more research is needed to determine the exact relationship between low-dose ionizing radiation exposure and CVD risk and to identify the underlying biological mechanisms. A 2024 meta-analysis of 27 articles also looked at low-dose radiation and cardiovascular effects.[15] Only one of the 27 studies included looked at physicians, but it found that compared to control individuals, physicians exposed to radiation had higher rates of capillary changes which may indicate early vascular damage.[15]

Radiation-induced cataracts

The lens of the eye is among the most radiosensitive tissues and radiation-induced cataracts have long been recognized. However, consensus is lacking on the radiation exposure threshold responsible for cataract formation.[9] A systematic review and meta-analysis assessing the risk of developing a radiation-induced cataract in interventional cardiologists (ICs) found that posterior lens opacity was significantly higher in interventional cardiologists relative to the control group, suggesting that ICs are at high risk of developing radiation-induced cataracts.[16] Similarly, a systematic review found increased risk of occupational cataract in health care professionals operating medical imaging.[17] The study also found a dose-response relationship between ionizing radiation exposure and the prevalence of opacities.[17] An epidemiological study examining the risk of radiation-induced cataracts in ICs compared 106 exposed cardiologists to 99 unexposed non-medical workers and found a significantly higher rate of cataracts among the cardiologists, with 18 percent showing posterior subcapsular lens opacities, compared to only five percent in the control group.[18]

Reproductive Health

The reproductive system is especially vulnerable to ionizing radiation. Spermatogenic cells are particularly sensitive to radiation, and exposure can lead to varying degrees of infertility, depending on the dose received. Ionizing radiation also poses significant risks to female reproductive health due to the high radiosensitivity of ovarian follicles and the hormonal networks that regulate fertility.[19] Prenatal radiation exposure significantly increases the risk of miscarriage, stillbirths, and congenital anomalies.[20] There is some evidence that radiation safety concerns disproportionately deter women from pursuing specialties like interventional cardiology.[21,22] Sixty cardiologists who were pregnant as trainees reported higher rates of obstetrical complications compared to those reported among women in the general population:15 percent experienced miscarriage, eight percent low birth weight, three percent pre-term delivery, and seven percent other complications like pre-eclampsia, eclampsia and emergent C-section.[23] However, it is unclear what aspects of the training (e.g., radiation exposure, physical demands) are responsible for this increase as a 2013 study among medical and surgical residents found similar complication rates.[24] Interestingly, in the 2024 survey of cardiology trainees, most reported access to well-fitted lead, radiation shields, and dosimeters; however, they lacked access to dosimetry data.[23]

REDUCING OCCUPATIONAL RADIATION EXPOSURE

Ways to reduce occupational exposure include time, distance and shielding. Shielding involves PPE, traditionally lead aprons, but there are other environmental methods like shields within the room. In looking at wearable PPE, a survey in Ireland revealed that most centers (72 percent) had only medium and large sized lead aprons, making arm-hole gaps and radiation of sensitive tissues a concern in those facilities.[25] Besides fit, there is concern for the weight of traditional lead aprons and how that weight can cause musculoskeletal problems in physicians over time, with several studies finding that operators in cardiac catheterization labs suffer from spinal problems.[26–29] Wearing lead aprons throughout a surgery that may take several hours or more is physically demanding and may cause some to question the benefit-risk ratio of PPE.[9] There has been interest in finding lighter-weight options that are just as effective. In one study, spine surgeons evaluated three types of non-lead materials and found the most effective one was only 30-40 percent of the weight of lead.[30] Another study found that non-lead aprons in general seemed to perform as well and were noted to be lighter.[31]

Some PPE, while considered effective, are often not used or used correctly, such as radiation glasses. For instance, one study found that PPE use was inconsistent and not always available (e.g., lead glasses were consistently used 10.2 percent and never used 61.1 percent of the time).[32] The same study found all forms of PPE were inconsistently used by 92.6 percent of participants and women were 4.3 times more likely to report that PPE was not available. Importantly, it has been suggested that PPE compliance was related to fit and availability.[33] Likewise, a study of orthopedic trainees found that reported barriers to PPE usage included lack of availability and perceived impracticality.[34] Finally, there is some evidence that inventorying and ensuring the availability of safety equipment, hands-on instruction to complement traditional didactics, lowering default frame rates, and converting to real-time dosimetry may reduce radiation exposure among vascular surgery trainees.[35]

Educational gaps and professional society guidance

With the exception of trainees in radiologic fields, the Accreditation Council for Graduate Medical Education (ACGME) is relatively silent on educating trainees on radiation safety. For Diagnostic

Radiology training programs, there is an ACGME directive on education for radionucleotide handling, but no specific requirements for radiation exposure safety. Other Radiology-based training programs have education on radiation safety listed, but other affected specialties, like cardiology, do not have it listed as a specific milestone requirement.[36] Training programs are left to develop their own guidance, leading to inconsistent education among trainees.[37]

Multiple national medical specialty societies have developed guidance for physicians and other health care professionals impacted by ionizing radiation (Appendix I). Medical physicists and radiation safety officers (RSOs) play a role in the development and maintenance of radiology suites. The American College of Radiology has created a manual for RSOs which addresses occupational exposure to ionizing radiation. RSOs play a key role in making sure policies are developed and implemented. The American College of Radiology-American Association of Physicists in Medicine's joint 2021 guidelines state that RSOs should have the "knowledge and responsibility to apply appropriate radiation protection regulations and has been assigned such responsibility by the licensee or registrant."[38]

IONIZING RADIATION REGULATORY LANDSCAPE

The regulatory framework around ionizing radiation protection, use, disposal, safety, and monitoring is a patchwork of international guidance, federal, state, and local regulation and standards, as well as non-governmental and specialty society guidance.

International Standards

The International Atomic Energy Agency (IAEA) provides high level guidance on radiation safety regulations and standards.[39] In 2006, the IAEA published the IAEA Safety Standards Series No. SF-1, which sets out the fundamental principles of protection and safety with an emphasis on the protection of human health and the environment from the hazardous effects of ionizing radiation.[40] These principles are further reinforced through the International Basic Safety Standards (BSS), which regulate radiation dose limits, protection procedures, and monitoring mechanisms across multiple sectors, including health care.[41] Similarly, the World Health Organization (WHO), the Joint Commission, and the International Commission on Radiological Protection (ICRP) provide guidelines on radiation safety in medical practice.[42–45] The WHO establishes maximum allowable radiation doses for both patients and medical personnel to mitigate harmful side effects. The WHO also leads the Global Initiative on Radiation Safety in Health Care Settings to mobilize the health sector towards safe and effective use of radiation in medicine, which provides a platform for collaboration between health authorities, radiation protection regulators, international agencies, professional societies, patient networks, and scientific bodies.[46] The ICRP provides safety guidance for medical applications, including dose monitoring and strategies for reducing radiation exposure.[44] The Joint Commission outlines radiation risks of diagnostic imaging and fluoroscopy and includes standards around radiation safety for healthcare organizations to meet accreditation requirements.[45]

Federal Legislation and Administrative Landscape

There is copious federal legislation that outlines how multiple agencies, departments, councils, institutes, and commissions are responsible for setting requirements for use, storage, disposal, monitoring, auditing, and incident reporting of nuclear materials. (Appendix II). The result is a patchwork of entities overseeing different facets of nuclear material regulation in the United States. Although the federal regulatory landscape is complicated, the agencies most closely connected to radiation safety in health care settings and their respective roles are listed below:

- Nuclear Regulatory Commission (NRC) regulates civilian use of radioactive materials through licensing, setting dose and exposure limits, implementing monitoring, labeling, and notice requirements, and issuing penalties for noncompliance.[47]
- Environmental Protection Agency (EPA) sets generally applicable standards on the radioactivity in soil, water and air and provides federal guidance on recommendations for radiation protection including standardized dose limits, methods for dose and risk assessment.[48]
- Food and Drug Administration (FDA) regulates the manufacture, safety, and maintenance of medical devices that make or use radiation, electronic devices that emit radiation, and radiopharmaceuticals.[6,49,50]
- Occupational Safety and Health Administration (OSHA) sets standards for radiation protection in the workplace including exposure limits, exposure monitoring requirements, notification about radioactive hazards, and recordkeeping about radioactive hazards and exposures.[51]
- Department of Energy (DOE) oversees the treatment and disposal of much of the country's radioactive waste and is responsible for siting, building, and operating a geologic repository to dispose of nuclear waste.[52,53]
- National Institutes for Occupational Health and Safety (NIOSH) conducts epidemiological studies of the health effects of occupational exposure to ionizing radiation and evaluates exposures to ionizing radiation and reconstructs occupational radiation dose for certain workers with cancer who file claims under the Energy Employees Occupational Illness Compensation Program Act.[54,55]
- The National Council on Radiation Protection & Measurements (NCRP) formulates and disseminates information, guidance and recommendations on radiation protection and measurements.[56]

More detailed information about key legislation, statutory authority, published guidance reports, and agency, department, council, institute, and commission roles can be found in Appendices III, IV, V, and VI.

Interagency collaboration

There is a significant overlap in the radiation safety and protection work done by the agencies outlined above, which necessitates extensive agency collaboration. The Interagency Steering Committee on Radiation Standards (ISCORS) is comprised of eight Federal agencies, three Federal observer agencies and two state observer agencies. ISCORS facilitates consensus on acceptable levels of radiation risk to the public and workers and promotes consistent risk approaches in setting and implementing standards for protection from ionizing radiation.[57]

Despite collaborative efforts like ISCORS, interagency discrepancies still arise. For instance, OSHA's Ionizing Radiation standard (29 CFR part 1910) has not been revised from its original version, whereas the DOE (10 CFR part 835) and the NRC (10 CFR part 20) both have updated standards based on more recent radiation protection guidance from the ICRP (Publications 60, 26 and 30).[58–63] Consequently, many states, DOE, and NRC have cumulative annual dose limits, whereas OSHA uses quarterly dose limits. Specifically, each worker who is expected to receive more than 10 percent of the applicable annual dose limit (NRC) or more than 25 percent of the quarterly dose limit (OSHA) is required to wear one or more dosimeters. In response, OSHA issued a letter of interpretation explaining if an employer complied with the more current regulation at 10 CFR part 20 that it would be considered a de minimis condition because that standard is as or more

protective than the OSHA standard. Additionally, OSHA's dose limits are not different for pregnant workers compared to other workers. However, NCRP, ICRP, and the Conference of Radiation Control Program Directors (CRCPD) have each recommended lower doses for the fetus of workers exposed to radiation.[58,64]

Memorandums of Understanding (MOUs) are another mechanism of collaboration to facilitate efficient and effective radiation safety and protection between agencies. (Appendix VII). For instance, NRC and OSHA both have authority over occupational safety and health at NRC-licensed facilities; however, identifying boundaries between the nuclear and radiological safety that NRC regulates and industrial safety and health that OSHA regulates can be complicated.[65] The NRC is responsible for radiation and chemical hazards produced by radioactive materials and facility conditions that affect the safety of radioactive materials. However, NRC licensees are required to comply with OSHA's standards and regulations for all other conditions and OSHA has authority to regulate employee exposures from all radiation sources not regulated by the NRC (e.g., X-ray equipment, linear accelerators, accelerator-produced radioactive materials, electron microscopes, ion implanters, and naturally occurring radioactive materials).[65] Collectively the NRC and OSHA regulations establish: dose limits for staff; requirements for the wearing of dosimeters; requirements for the posting of warning signs; requirements for periodic employee training and hazard communication; requirements for comprehensive record keeping for exposure monitoring results; periodic facility radiation safety assessments and preventive interventions; and requirements for timely reporting of results of exposure monitoring and exposure incidents to individual employees, including exposures to staff that exceed regulatory limits.[59,60,65]

The federal regulatory landscape provides high-level standards (e.g., licensure requirements, exposure limits, use of PPE and dosimeters, and regular survey and recordkeeping) as well as nonbinding guidance on how to implement those standards. (Appendix III). However, in many cases it is the states, RSOs, and health care institutions that determine what implementation and operationalization of those regulations looks like.

State Legislative Efforts

States also play a significant role in the regulation of occupational exposure to ionizing radiation. Most states have a radiation control agency and/or radiation protection program, responsible for regulating radiation-producing machines (e.g., x-rays and linear accelerators)[51] In NRC agreement states, these agencies also regulate radioactive materials [51] Some states also regulate occupational exposure to ionizing radiation in part through licensing and certification of medical imaging and radiation therapy professionals. In addition, there are instances where Agreement States or those with State Plans, each as described below, take on the regulatory responsibilities of agencies like the NRC and OSHA within their state boundaries.[66,67] More information about state specific regulations, licensing, state radiation programs, and implementation is in Appendix VII.

NRC Agreement States have entered into an effective regulatory discontinuance agreement with the NRC, which allows them to regulate occupational exposure to radioactive materials within their borders. Agreement States exercise licensing, regulatory, and enforcement actions under direction of the governors in a manner that is compatible with the licensing and enforcement programs of the NRC. There are 39 NRC Agreement States, which administer about 75 percent of the more than 20,000 active source, byproduct, and special nuclear materials licenses in place in the United States.[68] The NRC periodically reviews the performance of each Agreement State to assure compatibility with NRC's regulatory standards. Other collaborative efforts between the NRC and Agreement States include: (1) National Materials Program (NMP), which is the collective framework of the NRC and Agreement States; (2) the Integrated Materials Performance Evaluation

Process (IMPEP), which ensures uniform nationwide regulation by reviewing the regulatory performance of both the NRC and the States using a common set of performance criteria; and (3) The Office of Nuclear Material Safety and Safeguards (NMSS), which establishes and maintains communications and working relationships between the NRC and States, local government, other Federal agencies and Native American Tribal Governments.[66,69,70]

Like NRC Agreement States, some states have OSHA approved State Plans in lieu of direct OSHA oversight. OSHA State Plans are required to have standards and enforcement programs that are at least as effective as OSHA's and may have different or more stringent requirements. There are 29 OSHA-approved State Plans operating state-wide occupational safety and health programs.[71]

Non-Governmental Guidance

In addition to the role of the federal and state legislative and agency oversight, there is also significant non-governmental guidance. The Conference of Radiation Control Program Directors (CRCPD) is a non-governmental nonprofit comprised primarily of state and local government radiation professionals (e.g., directors and staffs of regulatory programs from both Agreement and non-Agreement States) that regulate the use of radiation sources.[72,73] As such, the CRCPD provides a forum for the states to interact with the NRC and coordinate the regulation of radioactive materials that are not governed by the Atomic Energy Act (AEA). CRCPD has five councils and more than 70 working groups that research a variety of topics pertinent to radiation protection. Similarly, the Organization of Agreement States (OAS) is a professional organization that includes the directors and staff of Agreement State programs. OAS was established to facilitate communication between the NRC and the Agreement States. Both the CRCPD and the OAS participate in the National Materials Program. Additionally, the National Academy of Sciences (NAS) and United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) publish a series of reports that provide much of the data used in setting radiation standards.[74] Finally, as noted above medical specialty societies also play an important role in providing guidance and setting policy on radiation safety in health care settings. (Appendix I)

Regulatory standards and guidance for radiation safety in health care settings

There is extensive federal, state, and local regulation of radiation safety in health care settings along with non-binding guidance and technical reports from international organizations, non-governmental organizations, and medical specialty societies. In general, the federal regulations provide high-level standards for the structure and function of a radiation protection program, but the implementation of those standards is often determined by the state regulations and the RSO with guidance from a variety of sources (e.g., ICRP, NMP, NMSS, OAS, CRCPD, NCRP, EPA,).

For instance, in order to obtain a license, either from the NRC or an Agreement State the facility must have a radiation protection program as outlined in 10 CFR Part 20.[60] At a minimum, a radiation protection program should include the following:

- Qualified staff (e.g., radiation safety officer, medical physicist, nuclear pharmacist).[75]
- Standard procedures (e.g., PPE that fits, a dosimetry program, area monitoring and surveys), engineering and administrative controls (e.g., proper labeling, shielding, interlock systems), and radiological controls (e.g., entry and exit controls, receiving, inventory control, storage, and disposal) to facilitate occupational doses and doses to members of the public that are as low as is reasonably achievable (ALARA).[58–61,76]

- Worker training on radiation protection, including health effects associated with ionizing radiation dose, and radiation protection procedures and controls to minimize dose and prevent contamination.[59,76]
- Emergency procedures to identify and respond to radiological emergency situations.
- Recordkeeping and reporting programs (e.g., dosimetry reports, notifications), internal audits, and regular external review (at least annually) of the radiation protection program content and implementation.[51,60,61,77]

However, the details of the type of PPE, dosimeters, manner of training, and methods for ensuring correct use are not outlined in the regulation. For instance, the regulation requires PPE that fits and is suitable for the assessed hazards; however, it does not necessarily stipulate lead aprons or protective glasses. Similarly, dosimeters are required, but the type and number used are up to the employer. This highlights the importance and value of uniform education and training standards for RSOs, and consistent guidance from medical specialty societies and international, federal, interstate, and non-governmental organizations.

CONCLUSION

Ionizing radiation can have harmful health effects; however, the evidence on the health effects of low-dose and very-low dose occupational radiation exposure in health care facilities is limited. This is especially true as it relates to physicians and other health care professionals. Despite the limited evidence on negative health effects associated with low-dose and very-low dose occupational radiation exposure in health care facilities, the precautionary principle as well as international guidance, federal and state regulation, and non-governmental and specialty society guidance supports continued use of PPE that appropriately fits and covers all body types, genders, and pregnancy statuses as well as continued education and training on ways to reduce exposure. At the same time, continued research into the health effects of low level and very-low level ionizing radiation, the effectiveness of personal protective equipment and engineering controls designed to reduce exposure, and ways to improve PPE use fidelity are needed.

CURRENT AMA POLICY

Current AMA policy encourages public and private healthcare institutions to ensure comprehensive coverage of different body types by providing readily available PPE that reduces exposure to as low as reasonably achievable for employees of all genders and pregnancy statuses. Additional policies are primarily focused on protecting patients from ionizing radiation. (See Appendix VIII).

RECOMMENDATIONS

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

That Policy H-455.975, "Regulation of Ionizing Radiation Exposure for Health Care Workers" be amended by addition and deletion to read as follows:

~~1.~~ Our American Medical Association encourages: (1) public and private health care institutions to ensure the availability of personal protective equipment (PPE) that provides comprehensive coverage of different body types ~~by providing readily available PPE that reduces~~ to reduce ionizing radiation exposure to as low as reasonably achievable for employees and trainees of all genders and pregnancy statuses; (2) continued research on the health effects of low level and very-low level ionizing radiation, the effectiveness of

PPE and administrative and engineering controls designed to reduce exposure (e.g., shielding, interlock systems, labeling,), barriers to PPE use (e.g., fit, availability, cost), and ways to improve PPE use fidelity (e.g., training, education, and access to appropriately sized and ergonomic PPE), and (3) education for all health care personnel, including trainees, exposed to ionizing radiation that includes awareness of and methods to limit radiation exposure to both patients and clinicians. Training programs should provide education specific to their specialties so trainees know which protective equipment and controls their facilities should have in place and know how to use them correctly.

~~2. Our AMA will work with the appropriate and interested parties to study how best to accomplish comprehensive protection from ionizing radiation for employees, taking into account variation in body types, pregnancy status, specifics of procedures being performed, as well as how exposure can be limited beyond PPE (personal protected equipment), with report back at I-25~~.

Fiscal Note: Minimal – less than $1,000.

APPENDIXES

Appendix I: Specialty Societies Providing Guidance on Radiation Safety and PPE

American Academy of Orthopaedic Surgeons[78] – Educational Materials and Articles[79]
American Association of Neurologic Surgeons[80]
American Association of Physicists in Medicine[81]
American College of Cardiology[82] – Consensus statement[83], Educational Materials[84] and JACC articles[26]
American College of Chest Physicians[85]
American College of Nuclear Medicine[86]
American College of Radiation Oncology[87] – Policy Statement on Radiation Therapy Supervision[88]
American College of Radiology[89] - Manual for Radiation Safety Officers[2]
American College of Surgeons[90]
American Orthopaedic Association[91]
American Orthopaedic Foot & Ankle Society[92]
American Roentgen Ray Society[93] - Webinars[94]
American Society of Anesthesiologists[95]
American Thoracic Society[96]
Association of Academic Radiology[97]
Association of Program Directors in Vascular Surgery[98] – Guidance for pregnant trainees[99]
Congress of Neurological Surgeons[100]
Health Physics Society[101] – Positions and Position Statements[102,103]
North American Spine Society[104] - Educational Materials[105]
Radiological Society of North America[106] - Educational Materials[107]
Society for Cardiovascular Angiography and Interventions[108] – Educational Materials[109] and a Campaign on Women and Safety[110]
Society for Pediatric Radiology[111]
Society of Critical Care Medicine[112]
Society of Interventional Radiology[113] - Toolkits[114]
Society of Nuclear Medicine and Molecular Imaging[115]
Society of Thoracic Surgeons[116]

Appendix II: Key Federal Legislation on Radiation[117,118]

Atomic Energy Act of 1954, as Amended[119]	The Atomic Energy Act (AEA) is the fundamental U.S. law on both the civilian and the military uses of nuclear materials. On the civilian side, it established the Atomic Energy Commission (AEC) to provide for both the development and the regulation of the uses of nuclear materials and facilities in the United States. The ensuing amendments and consequent legislation delegate regulatory authority to the NRC, EPA, and DOE. The AEA also authorizes States to adopt equivalent or more stringent alternatives to the Federal health and environmental protection standards with respect to byproduct material.
Energy Reorganization Act of 1974, as amended[120]	The Energy Reorganization Act split the functions of the AEC. The DOE was assigned responsibility for the development and production of nuclear weapons, promotion of nuclear power, and other energy-related work. The NRC was assigned the regulatory authority for civilian nuclear activities. Later amendment to the Act also provided protections for employees who raise nuclear safety concerns.
Reorganization Plans[121]	Reorganization Plan No. 3 of 1970 established the EPA and gave it a role in establishing "generally applicable environmental standards for the protection of the general environment from radioactive material." Reorganization Plan No. 1 of 1980 strengthened the executive and administrative roles of the NRC Chairman. This Reorganization Plan also provided that all policy formulation, policy-related rulemaking, and orders and adjudications would remain vested with the full Commission.
Radiation Control for Health and Safety Act of 1968[122]	Under the Radiation Control for Health and Safety Act, the FDA (via amendments to Section 531-542 of the FD&C Act) is responsible for developing and administering performance standards, monitoring compliance, and conducting research for these electronic products including those in the medical sphere like diagnostic x-ray or ultrasound imaging devices, microwave or ultrasound diathermy devices, microwave blood warmers or sterilizers, laser coagulators, ultrasound phacoemulsifiers, x-ray or electron accelerators, sunlamps, ultraviolet dental curing devices,
Nuclear Waste Policy Act of 1982[123]	The Nuclear Waste Policy Act of 1982 delineates responsibilities of the DOE, NRC, and EPA with respect to nuclear waste treatment, disposal, and management. DOE has the responsibility to site, construct, operate, and close a repository for the disposal of spent nuclear fuel and high-level radioactive waste. EPA sets public health and safety standards for releases of radioactive materials from a repository. NRC promulgates regulations governing construction, operation, and closure of nuclear waste repositories.
Low-Level Radioactive Waste Policy	The Low-Level Radioactive Wast Policy Amendments Act gives States the responsibility to dispose of low-level radioactive waste generated within their borders and allows them to form compacts to locate facilities

Amendments Act of 1985[121]	to serve a group of States. The Act also requires the NRC to establish standards for determining when radionuclides are present in waste streams in sufficiently low concentrations or quantities as to be below regulatory concern.
Clean Air Act[124]	The Clean Air Act gives the federal government authority to regulate and limit air emissions and pollution. It authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants (HAPs). Some HAPs are radionuclides.
Clean Water Act[125]	The Clean Water Act regulates the discharges of pollutants, including some radionuclides, into the waters of the United States. It authorizes EPA and states to set and enforce quality standards for surface waters.
Energy Policy Act[126]	The Energy Policy Act requires EPA to promulgate standards to ensure protection of public health from high-level radioactive wastes in a deep geologic repository that might be built under Yucca Mountain in Nevada.
The Safe Drinking Water Act[127]	The Sage Drinking Water Act requires EPA to set legal limits on the levels of certain radionuclides in drinking water.
Administrative Procedure Act (5 U.S.C. Chapters 5 through 8)[128]	This Act is the fundamental law governing the processes of Federal administrative agencies. Its original focus was on rulemaking and adjudication. It requires, for example, that affected persons be given adequate notice of proposed rules and an opportunity to comment on the proposed rules and that, in cases in which another statute requires that the agency provide a hearing "on the record," the parties are given adequate opportunity to present facts and argument and the hearing officer is impartial. The Act gives interested persons the right to petition an agency for the issuance, amendment, or repeal of a rule. It also provides standards for judicial review of agency actions.
National Environmental Policy Act[129]	Every proposal for a major Federal action significantly affecting the quality of the human environment requires a detailed statement on, among other things, the environmental impact of the proposed action and alternatives to the proposed action.

Appendix III: Federal Agency Roles Regarding Ionizing Radiation

NRC	10 CFR Part 20 authorizes the NRC to regulate civilian use of radioactive materials (e.g., source material, special nuclear materials, and byproduct material) for things like commercial nuclear power plants and nuclear medicine through licensing, setting dose and exposure limits, implementing monitoring, labeling, and notice requirements, and issuing penalties for noncompliance.
EPA	40 CFR Part 191 authorized the EPA to set generally applicable standards on the radioactivity in soil, water and air that comes from human use of radioactive elements for the protection of human health and the environment from radioactive materials. In addition to setting legally enforceable standards, the EPA issues federal guidance and technical reports with recommendations on radiation protection (e.g., standardized dose limits, methods for dose and risk assessment), which are used by federal and state agencies in developing radiation regulations and standards.
FDA	21 CFR Parts 892 and 1020 gives the FDA authority to regulate the manufacture, safety, and maintenance of medical devices (e.g., linear accelerators, radiography, fluoroscopy, and CT equipment), electronic devices that emit radiation, and radiopharmaceutical through the Radiological Health Program and the Center for Devices and Radiological Health.[6,49,50,130] However, the States regulate the operation of these devices. FDA also publishes guidance documents that represent FDA's current thinking on a topic and provides a suggested or recommended approach to meet the requirements of a regulation or statute. The guidance documents are not legally binding, but they are a suggested or recommended approach to meet the requirements of a regulation or statute.
OSHA	29 CRF 1910 authorizes OSHA to set standards for radiation protection in the workplace. This includes setting exposure limits, monitoring exposure with personnel monitoring equipment (e.g., film badges, pocket chambers, pocket dosimeters, or film rings), posting signage to notify employees of radiation and radioactive areas, disposal of radioactive, and recordkeeping. 29 CRF 1910 also requires, "protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protectives shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition." It is incumbent upon the employer to assess hazards, communicate to employees that these hazards exist, provide PPE that properly fits each employee, and train employees on appropriate use. Examples of commonly used PPE for radiation protection from X-rays and gamma rays include lead aprons/vests, lead thyroid collars, lead gloves, and safety goggles
DOE	The DOE is responsible for managing much of the country's tries radioactive waste (e.g., providing a repository for high-level waste, operating the Waste Isolation Pilot Plant (WIPP), and providing a disposal option for the portion of the NRC-regulated low-level waste that is not generally suitable for near-surface disposal). 10 CFR 961 establishes the contractual terms and conditions under which the Department of Energy (DOE) will make available nuclear waste disposal services. 10 CFR 835 establishes radiation protection standards, limits, and program requirements for protecting individuals from ionizing radiation resulting from the conduct of DOE activities.
NIOSH	The NIOSH mission is to develop new knowledge in the field of occupational safety and health and to transfer that knowledge into practice.[55] To facilitate this the NIOSH Division of Field Studies and Engineering, Field Research Branch conducts epidemiological studies of

	the health effects of occupational exposure to ionizing radiation and evaluate exposures to ionizing radiation. Similarly, the NIOSH Division of Compensation Analysis and Support reconstructs occupational radiation dose for certain workers with cancer who file claims under the Energy Employees Occupational Illness Compensation Program Act.[131,132]
NCRP	The National Council on Radiation Protection and Measurements (NCRP) seeks to formulate and widely disseminate information, guidance and recommendations on radiation protection and measurements which represent the consensus of leading scientific thinking. The primary statutory goals of the NCRP under Public Law 88-376 are to: (1) collect, analyze, develop and disseminate in the public interest information and recommendations about protection against radiation and radiation measurements; (2) provide a means by which organizations concerned with the scientific and related aspects of radiation protection and of radiation quantities, units and measurements may cooperate for effective utilization of their combined resources, and to stimulate the work of such organizations; (3) develop basic concepts about radiation quantities, units and measurements, about the application of these concepts, and about radiation protection; and (4) cooperate with the International Commission on Radiological Protection, the Federal Radiation Council, the International Commission on Radiation Units and Measurements, and other national and international organizations, governmental and private, concerned with radiation quantities, units and measurements and with radiation protection.[133] The NCRP has 138 reports and commentaries, but those reports require purchase.[134] Only their annual meeting proceedings and statements are free to the public.

Appendix IV: Code of Federal Regulations Authority and Statutory Language on Radiation Safety and Exposure Guidance

10 CFR Part 20[60]

§ 20.1003 Definitions.

ALARA (acronym for "as low as is reasonably achievable") means making every reasonable effort to maintain exposures to radiation as far below the dose limits in this part as is practical consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed materials in the public interest.

Annual limit on intake (ALI) means the derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by the reference man that would result in a committed effective dose equivalent of 5 rems (0.05 Sv) or a committed dose equivalent of 50 rems (0.5 Sv) to any individual organ or tissue. (ALI values for intake by ingestion and by inhalation of selected radionuclides are given in table 1, columns 1 and 2 of appendix B to §§ 20.1001-20.2401).

. . .

§ 20.1101 Radiation protection programs.

(a) Each licensee shall develop, document, and implement a radiation protection program commensurate with the scope and extent of licensed activities and sufficient to ensure compliance with the provisions of this part. (See § 20.2102 for recordkeeping requirements relating to these programs.)

(b) The licensee shall use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable (ALARA).

(c) The licensee shall periodically (at least annually) review the radiation protection program content and implementation.

(d) To implement the ALARA requirements of § 20.1101 (b), and notwithstanding the requirements in § 20.1301 of this part, a constraint on air emissions of radioactive material to the environment, excluding Radon-222 and its daughters, shall be established by licensees other than those subject to § 50.34a, such that the individual member of the public likely to receive the highest dose will not be expected to receive a total effective dose equivalent in excess of 10 mrem (0.1 mSv) per year from these emissions. If a licensee subject to this requirement exceeds this dose constraint, the licensee shall report the exceedance as provided in § 20.2203 and promptly take appropriate corrective action to ensure against recurrence.

. . .

§ 20.1201 Occupational dose limits for adults.

(a) The licensee shall control the occupational dose to individual adults, except for planned special exposures under § 20.1206, to the following dose limits.

(1) An annual limit, which is the more limiting of—

(i) The total effective dose equivalent being equal to 5 rems (0.05 Sv); or

(ii) The sum of the deep-dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 50 rems (0.5 Sv).

(2) The annual limits to the lens of the eye, to the skin of the whole body, and to the skin of the extremities, which are:

(i) A lens dose equivalent of 15 rems (0.15 Sv), and

(ii) A shallow-dose equivalent of 50 rem (0.5 Sv) to the skin of the whole body or to the skin of any extremity.

. . .

§ 20.1501 General.

(a) Each licensee shall make or cause to be made, surveys of areas, including the subsurface, that—

(1) May be necessary for the licensee to comply with the regulations in this part; and

(2) Are reasonable under the circumstances to evaluate—

(i) The magnitude and extent of radiation levels; and

(ii) Concentrations or quantities of residual radioactivity; and

(iii) The potential radiological hazards of the radiation levels and residual radioactivity detected.

(b) Notwithstanding § 20.2103(a) of this part, records from surveys describing the location and amount of subsurface residual radioactivity identified at the site must be kept with records important for decommissioning, and such records must be retained in accordance with §§ 30.35(g), 40.36(f), 50.75(g), 70.25(g), or 72.30(d), as applicable.

(c) The licensee shall ensure that instruments and equipment used for quantitative radiation measurements (e.g., dose rate and effluent monitoring) are calibrated periodically for the radiation measured.

(d) All personnel dosimeters (except for direct and indirect reading pocket ionization chambers and those dosimeters used to measure the dose to the extremities) that require processing to determine the radiation dose and that are used by licensees to comply with § 20.1201, with other applicable provisions of this chapter, or with conditions specified in a license must be processed and evaluated by a dosimetry processor

10 CFR Part 35[76]

§ 35.2 Definitions.

Associate Radiation Safety Officer means an individual who—

(1) Meets the requirements in §§ 35.50 and 35.59; and

(2) Is currently identified as an Associate Radiation Safety Officer for the types of use of byproduct material for which the individual has been assigned duties and tasks by the Radiation Safety Officer on—

(i) A specific medical use license issued by the Commission or an Agreement State; or

(ii) A medical use permit issued by a Commission master material licensee.

Authorized medical physicist means an individual who—
(1) Meets the requirements in §§ 35.51(a) and 35.59; or
(2) Is identified as an authorized medical physicist or teletherapy physicist on—
(i) A specific medical use license issued by the Commission or Agreement State;
(ii) A medical use permit issued by a Commission master material licensee;
(iii) A permit issued by a Commission or Agreement State broad scope medical use licensee; or
(iv) A permit issued by a Commission master material license broad scope medical use permittee.

Authorized nuclear pharmacist means a pharmacist who—
(1) Meets the requirements in §§ 35.55(a) and 35.59; or
(2) Is identified as an authorized nuclear pharmacist on—
(i) A specific license issued by the Commission or Agreement State that authorizes medical use or the practice of nuclear pharmacy;
(ii) A permit issued by a Commission master material licensee that authorizes medical use or the practice of nuclear pharmacy;
(iii) A permit issued by a Commission or Agreement State broad scope medical use licensee that authorizes medical use or the practice of nuclear pharmacy; or
(iv) A permit issued by a Commission master material license broad scope medical use permittee that authorizes medical use or the practice of nuclear pharmacy; or
(3) Is identified as an authorized nuclear pharmacist by a commercial nuclear pharmacy that has been authorized to identify authorized nuclear pharmacists; or
(4) Is designated as an authorized nuclear pharmacist in accordance with § 32.72(b)(4).

Authorized user means a physician, dentist, or podiatrist who—
(1) Meets the requirements in §§ 35.59 and 35.190(a), 35.290(a), 35.390(a), 35.392(a), 35.394(a), 35.490(a), 35.590(a), or 35.690(a); or
(2) Is identified as an authorized user on—
(i) A Commission or Agreement State license that authorizes the medical use of byproduct material;
(ii) A permit issued by a Commission master material licensee that is authorized to permit the medical use of byproduct material;
(iii) A permit issued by a Commission or Agreement State specific licensee of broad scope that is authorized to permit the medical use of byproduct material; or
(iv) A permit issued by a Commission master material license broad scope permittee that is authorized to permit the medical use of byproduct material.

Radiation Safety Officer means an individual who—
(1) Meets the requirements in §§ 35.50(a) or (c)(1) and 35.59; or
(2) Is identified as a Radiation Safety Officer on—
(i) A specific medical use license issued by the Commission or Agreement State; or
(ii) A medical use permit issued by a Commission master material licensee.

§ 35.50 Training for Radiation Safety Officer and Associate Radiation Safety Officer.

Except as provided in § 35.57, the licensee shall require an individual fulfilling the responsibilities of the Radiation Safety Officer or an individual assigned duties and tasks as an Associate Radiation Safety Officer as provided in § 35.24 to be an individual who—

(a) Is certified by a specialty board whose certification process has been recognized by the Commission or an Agreement State and who meets the requirements in paragraph (d) of this section. The names of board certifications that have been recognized by the Commission or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit web page. To have its certification process recognized, a specialty board shall require all candidates for certification to:

(1)

(i) Hold a bachelor's or graduate degree from an accredited college or university in physical science or engineering or biological science with a minimum of 20 college credits in physical science;

(ii) Have 5 or more years of professional experience in health physics (graduate training may be substituted for no more than 2 years of the required experience) including at least 3 years in applied health physics; and

(iii) Pass an examination administered by diplomates of the specialty board, which evaluates knowledge and competence in radiation physics and instrumentation, radiation protection, mathematics pertaining to the use and measurement of radioactivity, radiation biology, and radiation dosimetry; or

(2)

(i) Hold a master's or doctor's degree in physics, medical physics, other physical science, engineering, or applied mathematics from an accredited college or university;

(ii) Have 2 years of full-time practical training and/or supervised experience in medical physics—

(A) Under the supervision of a medical physicist who is certified in medical physics by a specialty board recognized by the Commission or an Agreement State; or

(B) In clinical nuclear medicine facilities providing diagnostic or therapeutic services under the direction of physicians who meet the requirements for authorized users in §§ 35.57, 35.290, or 35.390; and

(iii) Pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in clinical diagnostic radiological or nuclear medicine physics and in radiation safety; or

(b)

(1) Has completed a structured educational program consisting of both:

(i) 200 hours of classroom and laboratory training in the following areas—

(A) Radiation physics and instrumentation;

(B) Radiation protection;

(C) Mathematics pertaining to the use and measurement of radioactivity;

(D) Radiation biology; and

(E) Radiation dosimetry; and

(ii) One year of full-time radiation safety experience under the supervision of the individual identified as the Radiation Safety Officer on a Commission or an Agreement State license or permit issued by a Commission master material licensee that authorizes similar type(s) of use(s) of byproduct material. An Associate Radiation Safety Officer may provide supervision for those areas for which the Associate Radiation Safety Officer is authorized on a Commission or

an Agreement State license or permit issued by a Commission master material licensee. The full-time radiation safety experience must involve the following—

(A) Shipping, receiving, and performing related radiation surveys;

(B) Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides;

(C) Securing and controlling byproduct material;

(D) Using administrative controls to avoid mistakes in the administration of byproduct material;

(E) Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures;

(F) Using emergency procedures to control byproduct material; and

(G) Disposing of byproduct material; and

(2) This individual must obtain a written attestation, signed by a preceptor Radiation Safety Officer or Associate Radiation Safety Officer who has experience with the radiation safety aspects of similar types of use of byproduct material for which the individual is seeking approval as a Radiation Safety Officer or an Associate Radiation Safety Officer. The written attestation must state that the individual has satisfactorily completed the requirements in paragraphs (b)(1) and (d) of this section, and is able to independently fulfill the radiation safety-related duties as a Radiation Safety Officer or as an Associate Radiation Safety Officer for a medical use license; or

(c)

(1) Is a medical physicist who has been certified by a specialty board whose certification process has been recognized by the Commission or an Agreement State under § 35.51(a), has experience with the radiation safety aspects of similar types of use of byproduct material for which the licensee seeks the approval of the individual as Radiation Safety Officer or an Associate Radiation Safety Officer, and meets the requirements in paragraph (d) of this section; or

(2) Is an authorized user, authorized medical physicist, or authorized nuclear pharmacist identified on a Commission or an Agreement State license, a permit issued by a Commission master material licensee, a permit issued by a Commission or an Agreement State licensee of broad scope, or a permit issued by a Commission master material license broad scope permittee, has experience with the radiation safety aspects of similar types of use of byproduct material for which the licensee seeks the approval of the individual as the Radiation Safety Officer or Associate Radiation Safety Officer, and meets the requirements in paragraph (d) of this section; or

(3) Has experience with the radiation safety aspects of the types of use of byproduct material for which the individual is seeking simultaneous approval both as the Radiation Safety Officer and the authorized user on the same new medical use license or new medical use permit issued by a Commission master material licensee. The individual must also meet the requirements in paragraph (d) of this section.

(d) Has training in the radiation safety, regulatory issues, and emergency procedures for the types of use for which a licensee seeks approval. This training requirement may be satisfied by completing training that is supervised by a Radiation Safety Officer, an Associate Radiation Safety Officer, authorized medical physicist, authorized nuclear pharmacist, or authorized user, as appropriate, who is authorized for the type(s) of use for which the licensee is seeking approval.

CFR 10 Part 835[61]

§ 835.1 Scope.

(a) ***General.*** The rules in this part establish radiation protection standards, limits, and program requirements for protecting individuals from ionizing radiation resulting from the conduct of DOE activities.

(b) ***Exclusion.*** Except as provided in paragraph (c) of this section, the requirements in this part do not apply to:

(1) Activities that are regulated through a license by the Nuclear Regulatory Commission or a State under an Agreement with the Nuclear Regulatory commission, including activities certified by the Nuclear Regulatory Commission under section 1701 of the Atomic Energy Act;

(2) Activities conducted under the authority of the Deputy Administrator for Naval Reactors, as described in Pub. L. 98-525 and 106-65;

(3) Activities conducted under the Nuclear Explosives and Weapons Surety Program relating to the prevention of accidental or unauthorized nuclear detonations;

(4) DOE activities conducted outside the United States on territory under the jurisdiction of a foreign government to the extent governed by occupational radiation protection requirements agreed to between the United States and the cognizant government;

(5) Background radiation, radiation doses received as a patient for the purposes of medical diagnosis or therapy, or radiation doses received from participation as a subject in medical research programs; or

(6) Radioactive material on or within material, equipment, and real property which is approved for release when the radiological conditions of the material, equipment, and real property have been documented to comply with the criteria for release set forth in a DOE authorized limit which has been approved by a Secretarial Officer in consultation with the Director, Office of Environment, Health, Safety and Security.

(7) Radioactive material transportation not performed by DOE or a DOE contractor.

(c) Occupational doses received as a result of excluded activities and radioactive material transportation listed in paragraphs (b)(1) through (b)(4) and (b)(7) of this section, shall be included to the extent practicable when determining compliance with the occupational dose limits at §§ 835.202 and 835.207, and with the limits for the embryo/fetus at § 835.206. Occupational doses resulting from authorized emergency exposures and planned special exposures shall not be considered when determining compliance with the dose limits at §§ 835.202 and 835.207.

(d) The requirements in subparts F and G of this part do not apply to radioactive material transportation by DOE or a DOE contractor conducted:

(1) Under the continuous observation and control of an individual who is knowledgeable of and implements required exposure control measures, or

(2) In accordance with Department of Transportation regulations or DOE orders that govern such movements.

§ 835.2 Definitions.

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ALARA means “As Low As is Reasonably Achievable,” which is the approach to radiation protection to manage and control exposures (both individual and collective) to the work force and to the general public to as low as is reasonable, taking into account social, technical, economic, practical, and public policy considerations. As used in this part, ALARA is not a dose limit but a process which has the objective of attaining doses as far below the applicable limits of this part as is reasonably achievable.

Annual limit on intake (ALI) means the derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by the reference man (ICRP Publication 23) that would result in a committed effective dose of 5 rems (0.05 sieverts (Sv)) (1 rem = 0.01 Sv) or a committed equivalent dose of 50 rems (0.5 Sv) to any individual organ or tissue. ALI values for intake by ingestion and inhalation of selected radionuclides are based on International Commission on Radiological Protection Publication 68, *Dose Coefficients for Intakes of Radionuclides by Workers*, published July, 1994 (ISBN 0 08 042651 4). This document is available from Elsevier Science Inc., Tarrytown, NY.

Authorized limit means a limit on the concentration of residual radioactive material on the surfaces or within the property that has been derived consistent with DOE directives including the as low as is reasonably achievable (ALARA) process requirements, given the anticipated use of the property and has been authorized by DOE to permit the release of the property from DOE radiological control.

. . .

§ 835.202 Occupational dose limits for general employees.

(a) Except for planned special exposures conducted consistent with § 835.204 and emergency exposures authorized in accordance with § 835.1302, the occupational dose received by general employees shall be controlled such that the following limits are not exceeded in a year:

(1) A total effective dose of 5 rems (0.05 Sv);

(2) The sum of the equivalent dose to the whole body for external exposures and the committed equivalent dose to any organ or tissue other than the skin or the lens of the eye of 50 rems (0.5 Sv);

(3) An equivalent dose to the lens of the eye of 15 rems (0.15 Sv); and

(4) The sum of the equivalent dose to the skin or to any extremity for external exposures and the committed equivalent dose to the skin or to any extremity of 50 rems (0.5 Sv).

(b) All occupational doses received during the current year, except doses resulting from planned special exposures conducted in compliance with § 835.204 and emergency exposures authorized in accordance with § 835.1302, shall be included when demonstrating compliance with §§ 835.202(a) and 835.207.

(c) Doses from background, therapeutic and diagnostic medical radiation, and participation as a subject in medical research programs shall not be included in dose records or in the assessment of compliance with the occupational dose limits.

10 CFR Part 961[135]

§ 961.1 Purpose.

This part establishes the contractual terms and conditions under which the Department of Energy (DOE) will make available nuclear waste disposal services to the owners and generators of spent nuclear fuel (SNF) and high-level radioactive waste (HLW) as provided in section 302 of the Nuclear Waste Policy Act of 1982 (Pub. L. 97-425). Under the contract set forth in § 961.11 of this part, DOE will take title to, transport, and dispose of spent nuclear fuel and/or high-level radioactive waste delivered to DOE by those owners or generators of such fuel or waste who execute the contract. In addition, the contract will specify the fees owners and generators of SNF and/or HLW will pay for these services. All receipts, proceeds, and revenues realized by DOE under the contract will be deposited in the

Nuclear Waste Fund, an account established by the Act in the U.S. Treasury. This fund will pay for DOE's radioactive waste disposal activities, the full costs of which will be borne by the owners and generators under contract with DOE for disposal services.

21 CFR 892[136]

§ 892.1 Scope.

(a) This part sets forth the classification of radiology devices intended for human use that are in commercial distribution.
(b) The identification of a device in a regulation in this part is not a precise description of every device that is, or will be, subject to the regulation. A manufacturer who submits a premarket notification submission for a device under part 807 cannot show merely that the device is accurately described by the section title and identification provision of a regulation in this part but shall state why the device is substantially equivalent to other devices, as required by § 807.87.
(c) To avoid duplicative listings, a radiology device that has two or more types of uses (e.g., use both as a diagnostic device and a therapeutic device) is listed in one subpart only.
(d) References in this part to regulatory sections of the Code of Federal Regulations are to chapter I of this title 21, unless otherwise noted.
(e) Guidance documents referenced in this part are available on the Internet at http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/default.htm.

. . .

§ 892.3 Effective dates of requirement for premarket approval.
A device included in this part that is classified into class III (premarket approval) shall not be commercially distributed after the date shown in the regulation classifying the device unless the manufacturer has an approval under section 515 of the act (unless an exemption has been granted under section 520(g)(2) of the act). An approval under section 515 of the act consists of FDA's issuance of an order approving an application for premarket approval (PMA) for the device or declaring completed a product development protocol (PDP) for the device.
(a) Before FDA requires that a device commercially distributed before the enactment date of the amendments, or a device that has been found substantially equivalent to such a device, has an approval under section 515 of the act, FDA must promulgate a regulation under section 515(b) of the act requiring such approval, except as provided in paragraph (b) of this section. Such a regulation under section 515(b) of the act shall not be effective during the grace period ending on the 90th day after its promulgation or on the last day of the 30th full calendar month after the regulation that classifies the device into class III is effective, whichever is later. See section 501(f)(2)(B) of the act. Accordingly, unless an effective date of the requirement for premarket approval is shown in the regulation for a device classified into class III in this part, the device may be commercially distributed without FDA's issuance of an order approving a PMA or declaring completed a PDP for the device. If FDA promulgates a regulation under section 515(b) of the act requiring premarket approval for a device, section 501(f)(1)(A) of the act applies to the device.
(b) Any new, not substantially equivalent, device introduced into commercial distribution on or after May 28, 1976, including a device formerly marketed that has been substantially altered, is classified by statute (section 513(f) of the act) into class III without any grace period and FDA must have issued an order approving a PMA or declaring completed a PDP for the device before the device is commercially distributed unless it is reclassified. If FDA

knows that a device being commercially distributed may be a "new" device as defined in this section because of any new intended use or other reasons, FDA may codify the statutory classification of the device into class III for such new use. Accordingly, the regulation for such a class III device states that as of the enactment date of the amendments, May 28, 1976, the device must have an approval under section 515 of the act before commercial distribution.

21 CFR 1020[137]

§ 1020.31 Radiographic equipment.
The provisions of this section apply to equipment for radiography, except equipment for fluoroscopic imaging or for recording images from the fluoroscopic image receptor, or computed tomography x-ray systems manufactured on or after November 29, 1984.

. . .

§ 1020.32 Fluoroscopic equipment.
The provisions of this section apply to equipment for fluoroscopic imaging or for recording images from the fluoroscopic image receptor, except computed tomography x-ray systems manufactured on or after November 29, 1984.

29 CFR Part 1904[77]

§ 1904.0 Purpose.
The purpose of this rule (part 1904) is to require employers to record and report work-related fatalities, injuries, and illnesses.

29 CFR Part 1910[59]

§ 1910.132 General requirements.
(a) **Application.** Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.
(b) **Employee-owned equipment.** Where employees provide their own protective equipment, the employer shall be responsible to assure its adequacy, including proper maintenance, and sanitation of such equipment.
(c) ***Design.*** All personal protective equipment shall be of safe design and construction for the work to be performed.
(d) ***Hazard assessment and equipment selection.***
(1) The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:
(i) Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;
(ii) Communicate selection decisions to each affected employee; and,
(iii) Select PPE that properly fits each affected employee.

(2) The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.

(e) ***Defective and damaged equipment.*** Defective or damaged personal protective equipment shall not be used.

(f) ***Training.***

(1) The employer shall provide training to each employee who is required by this section to use PPE. Each such employee shall be trained to know at least the following:

(i) When PPE is necessary;

(ii) What PPE is necessary;

(iii) How to properly don, doff, adjust, and wear PPE;

(iv) The limitations of the PPE; and,

(v) The proper care, maintenance, useful life and disposal of the PPE.

. . .

(h) ***Payment for protective equipment.***

(1) Except as provided by paragraphs (h)(2) through (h)(6) of this section, the protective equipment, including personal protective equipment (PPE), used to comply with this part, shall be provided by the employer at no cost to employees.

(2) The employer is not required to pay for non-specialty safety-toe protective footwear (including steel-toe shoes or steel-toe boots) and non-specialty prescription safety eyewear, provided that the employer permits such items to be worn off the job-site.

§ 1910.1096

(b) ***Exposure of individuals to radiation in restricted areas.***

(1) Except as provided in paragraph (b)(2) of this section, no employer shall possess, use, or transfer sources of ionizing radiation in such a manner as to cause any individual in a restricted area to receive in any period of one calendar quarter from sources in the employer's possession or control a dose in excess of the limits specified in Table G-18:

TABLE G-18

	Rems per calendar quarter
Whole body: Head and trunk; active blood-forming organs; lens of eyes; or gonads	11/4
Hands and forearms; feet and ankles	183/4
Skin of whole body	71/2

. . .

(d) ***Precautionary procedures and personal monitoring.***

(1) Every employer shall make such surveys as may be necessary for him to comply with the provisions in this section. *Survey* means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions. When appropriate, such

evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive material present.
(2) Every employer shall supply appropriate personnel monitoring equipment, such as film badges, pocket chambers, pocket dosimeters, or film rings, and shall require the use of such equipment by:
(i) Each employee who enters a restricted area under such circumstances that he receives, or is likely to receive, a dose in any calendar quarter in excess of 25 percent of the applicable value specified in paragraph (b)(1) of this section; and
(ii) Each employee under 18 years of age who enters a restricted area under such circumstances that he receives, or is likely to receive, a dose in any calendar quarter in excess of 5 percent of the applicable value specified in paragraph (b)(1) of this section; and
(iii) Each employee who enters a high radiation area.

40 CFR 191[138]

§ 191.03 Standards.
(a) Management and storage of spent nuclear fuel or high-level or transuranic radioactive wastes at all facilities regulated by the Commission or by Agreement States shall be conducted in such a manner as to provide reasonable assurance that the combined annual dose equivalent to any member of the public in the general environment resulting from:
(1) Discharges of radioactive material and direct radiation from such management and storage and
(2) all operations covered by Part 190; shall not exceed 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other critical organ.
(b) Management and storage of spent nuclear fuel or high-level or transuranic radioactive wastes at all facilities for the disposal of such fuel or waste that are operated by the Department and that are not regulated by the Commission or Agreement States shall be conducted in such a manner as to provide reasonable assurance that the combined annual dose equivalent to any member of the public in the general environment resulting from discharges of radioactive material and direct radiation from such management and storage shall not exceed 25 millirems to the whole body and 75 millirems to any critical organ.

Appendix V: Agency Reports[134,139,140]

Federal Guidance Report No. 15[141]	Updates and expands the 1993 FDR No. 12 providing age-specific, reference person effective dose rate coefficients for 1,252 radionuclides based on external exposure to radionuclides distributed in air, water and soil for use in implementing radiation protection programs.	EPA - 2019
Federal Guidance Report No. 14[142]	Provides recommendations for keeping patients ionizing radiation doses as low as reasonably achievable without compromising the quality of patient care.	EPA - 2014
Federal Guidance Report No. 13[143]	Provides methods and data for estimating risks due to both internal and external radionuclide exposures. It includes coefficients for assessing cancer risks from environmental exposure to about 800 radionuclides. Both mortality and incidence risk coefficients are tabulated for inhalation, food and water ingestion, submersion in air and exposure to uniform soil concentrations. The age-averaged coefficients consider age-specific intake rates, dose modeling and risk modeling.	EPA - 1999
Federal Guidance Report No. 12[144]	The external dose coefficients in this report are intended for use by federal agencies having regulatory responsibilities for protection of members of the public and/or workers. We also encourage their use by state and local authorities. This document provides exposure-to-dose coefficients for general application based on the 1987 Federal Radiation Protection Guidance.	EPA - 1993
Radiation Protection Guidance to Federal Agencies for Occupational Exposure; Approval of Environmental Protection Agency Recommendations[145]	This guidance provides general principles and specifies the numerical primary guides for limiting worker exposure. It applies to all workers who are exposed to radiation in the course of their work, either as employees of institutions and companies subject to Federal regulation or as Federal employees.	EPA - 1987
Radiation Protection Guidance for Federal Agencies (Federal Radiation Council)[146]	This guidance presents recommendations for population groups exposed to environmental sources of radiation. It provides Radiation Protection Guides (RPG); guidance on general principles of control applicable to all environmental radionuclides; and specific guidance in connection with exposure of population groups to radium-226, iodine-131, strontium-90, and strontium-89.	EPA - 1961
Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Medical Use Licenses, Final Report (NUREG-1556, Volume 9, Revision 3)[147]	This technical report contains information intended to provide program-specific guidance and assist applicants and licensees in preparing applications for materials licenses for the medical use of byproduct material.	NRC - 2019
REGULATORY GUIDE 8.4 - PERSONNEL MONITORING DEVICE—DIRECT-READING POCKET DOSIMETERS [148]	This guide provides guidance acceptable to the U.S. Nuclear Regulatory Commission (NRC) staff for use in complying with the NRC's regulations on direct-reading pocket dosimeters; it includes specific performance standards for personnel monitoring but not for area monitoring.	NRC - 2011

REGULATORY GUIDE 8.2 - ADMINISTRATIVE PRACTICES IN RADIATION SURVEYS AND MONITORING [149]	This guide provides guidance acceptable to the U.S. Nuclear Regulatory Commission (NRC) staff for use in complying with the NRC's regulations for administrative practices associated with surveys and monitoring of ionizing radiation in licensed institutions; it is intended primarily for administrative and management personnel in organizations that are involved in, or are planning to initiate, activities involving the handling of radioactive materials or radiation.	NRC - 2011
REGULATORY GUIDE 8.18 - INFORMATION RELEVANT TO ENSURING THAT RADIATION EXPOSURES AT MEDICAL INSTITUTIONS WILL BE AS LOW AS IS REASONABLY ACHIEVABLE[150]	This guide is directed specifically toward medical licensees and recommends methods that the staff of the U.S. Nuclear Regulatory Commission (NRC) considers acceptable to maintain exposures as low as is reasonably achievable (ALARA) in medical institutions.	NRC - 2011
Radiation Dose Estimates for Radiopharmaceuticals (NUREG/CR-6345)[151]	The dose estimates were calculated using the MIRD Technique as implemented in the MIRDOSE3 computer code, developed by Oak Ridge Institute for Science and Education, Radiation Internal Dose Information Center. In this code, residence times for source organs are used with decay data from the MIRD Radionuclide Data and Decay Schemes to produce estimates of radiation dose to organs of standardized phantoms representing individuals of different ages.	NRC 1996
Report No. 151: Structural Shielding Design and Evaluation for Megavoltage X- and Gamma-Ray Radiotherapy Facilities.[152]	This Report presents recommendations and technical information related to the design and installation of structural shielding for megavoltage x- and gamma-ray radiotherapy facilities.	NRCP - 2005
Report No. 177: Radiation Protection in Dentistry and Oral & Maxillofacial Imaging.[153]	This Report provides radiation protection guidance for the use of x rays in dental practice, including the use of cone-beam computed tomography, digital-imaging devices, and handheld x-ray systems. The aim of this Report is to provide a practical radiation protection guide for dentists and their assistants. Information is presented in a clear and comprehensive format focusing on dental radiological practices.	NCRP - 2019
Report No. 148: Radiation Protection in Veterinary Medicine.[154]	Report No. 148 is concerned with the protection of individuals who may be exposed to radiation emitted by x-ray equipment and both sealed and unsealed radioactive sources in the practice of veterinary medicine. To the extent that the animal patient exposure is reduced, there is usually a proportional decrease in the occupational exposure to personnel. The Report provides guidance for the development of an effective radiation safety program and recommendations for the design of radiological	NCRP - 2004

	facilities and for the use of radiographic, fluoroscopic and therapeutic equipment in veterinary medicine. Included are recommendations for the use of radiopharmaceuticals in diagnosis and therapy, and for the use of lasers and ultrasonic equipment.	
Report No. 147: Structural Shielding Design for Medical X-ray Imaging Facilities.[155]	Report No. 147 (2004) presents recommendations and technical information related to the design and installation of structural shielding for facilities that use x rays for medical imaging. The purpose of structural shielding is to limit radiation exposure to employees and members of the public.	NRCP - 2004
Report No. 144: Radiation Protection for Particle Accelerator Facilities.[156]	The Report revises and expands on the earlier report and includes new information on source intensities, shielding, dosimetry, and the environmental aspects of particle accelerator operation. It is primarily concerned with radiological safety aspects that are special to the operation of particle accelerators having energies above about 5 MeV up to the highest energies available, while not neglecting low-energy neutron generators. The purpose of this Report is to provide design guidelines for radiation protection, and to identify those aspects of radiological safety that are of major, or even unique, importance to the operation of particle accelerator installations and to suggest methods by which safe operation may be achieved.	NCRP - 2003
Report No. 133: Radiation Protection for Procedures Performed Outside the Radiology Department.[157]	Report No. 133 (2000) is an 81 page document with five sections, two appendices, a glossary, and references. Section 1 introduces sources of occupational radiation exposure and compares occupational exposures in medicine with other sources of occupational exposure. Section 2 describes radiologic medical procedures that are often performed outside the radiology department and categorizes the procedures according to their potential for occupational exposure. Section 3 addresses conditions that affect potential occupational exposure such as time, distance, shielding, and orientation of radiation source, patient and operator. Section 4 addresses medical personnel monitoring and Section 5 briefly addresses the responsibility of management to provide safe conditions for both employees and patients.	NCRP - 2000

Appendix VI: Interagency MOUs regarding radiation safety[158,159]

OSHA and FDA (2024)[160]	The FDA and OSHA will share relevant information with each other, while ensuring that the exchange of such information complies with applicable law. If FDA, in its inspections of facilities, has reason to believe that a potential violation of an employer's obligations under the OSH Act or an OSHA standard or regulation has occurred, FDA will provide this information to OSHA to the extent that is feasible. If OSHA, in its investigations of facilities where FDA regulated products are produced, processed, manufactured or held has reason to believe that factors are present which may indicate a possible violation of FDA standards, OSHA will provide this information to FDA, to the extent feasible. The FDA and OSHA agree to maintain a practicable process including procedures and criteria for information sharing and a plan for implementation. The FDA and OSHA agree to develop and implement a plan for training appropriate employees based on the priorities and needs of each organization to meet the intention of this MOU.
DOE and EPA (2024)[161]	DOE will coordinate with EPA on the scope, objectives, research results, and associated funding of mutually agreed cooperative research and/or training activities. DOE will not make recommendations regarding future or potential EPA regulatory activities in response to technical information requests. EPA will provide oversight and direction of its own work, funding authorization, and mission and objectives. EPA will coordinate with DOE on the scope, objectives, research results, and associated funding of mutually agreed cooperative research and/or training activities. EPA will neither make recommendations regarding specific siting, design or facility concepts nor participate in any DOE site selection process.
NRC and FDA (2023)[162]	The NRC and the FDA agree to inform each other, as appropriate and permitted by law, as soon as possible, but no later than 30 calendar days whenever either agency identifies a significant product complaint, allegation, medical incident, or emergency that involves the products that are covered by this MOU or becomes aware through notification, inspection, or surveillance mechanisms at either agency of a significant potential public health problem such as a malfunction, failure, or medical incident involving a product covered by this MOU. The Parties may consider performing joint inspections or other collaborations when appropriate and as permissible by law, and as resources permit. In addition, both Parties will discuss providing technical expertise for planning, performance, or review in areas of mutual interest, subject to program priorities and availability of funds and personnel. FDA and NRC may assist each other to the extent appropriate and as permissible by law, and as resources allow, to investigate incidents, complaints, or other situations involving products covered by this MOU.

	Upon request by the FDA, the NRC will promptly notify NRC licensees and Agreement State Program Directors of any public health issues or other important user communications initiated by the FDA and intended for public dissemination. the FDA and the NRC may share information concerning jointly regulated products, new technology or methods under development or review, including devices for which regulations or the NRC's 10 CFR Part 35, Subpart K guidance(s) are being, or has not yet been, developed and that are of mutual regulatory interest.
NRC and DOE (2023)[163]	Establishing Roles and Responsibilities for National Environmental Policy Act (NEPA) Implementation Requirements for Reactor Demonstration Projects Supported by DOE Addendum No. 7 to the Nuclear Energy Innovation Capabilities Act Memorandum of Understand.
NRC and OSHA (2013)[65]	NRC Responsibilities The NRC is responsible for licensing and regulating the nation's civilian use of byproduct, source and special nuclear materials in order to assure the adequate protection of the public health and safety, promote the common defense and security, and to protect the environment. However, the NRC does not have statutory authority to protect against industrial safety and health hazards that do not involve the use or consequences of licensed radioactive materials. OSHA Responsibilities Under the OSH Act, every employer has a general duty to furnish each employee with employment and a place of employment that is free from recognized hazards that are causing or are likely to cause death or serious physical harm and to comply with all OSHA standards, rules, and regulations (29 U.S.C. 654(a) and 666). In order to minimize workplace hazards, NRC licensees are required to comply with OSHA's standards and regulations. OSHA has authority to regulate employee exposures from all radiation sources not regulated by the NRC. Examples of these radiation sources include x-ray equipment, some accelerators, incidental accelerator-produced radioactive materials, electron microscopes, betatrons, ion implanters, experimental particle physics research colliders (only when used to probe the fundamental properties of nature), and naturally occurring radioactive materials.
NRC and EPA (2002)[164]	For NRC-licensed sites at which NRC determines during the license termination process that there is radioactive ground-water contamination in excess of EPA's MCLs, or for which NRC contemplates either restricted release (10 CFR 20.1403) or the use of alternate criteria for license termination (10 CFR 20.1404), NRC will seek EPA's expertise to assist in NRC's review of a decommissioning or license termination plan. In addition, NRC will consult with EPA if either the planned level of residual radioactive soil concentrations in the proposed action or the actual residual level of radioactive soil concentrations found in the final site survey exceed the radioactive soil concentration in Table 1. With respect to all such sites, the NRC will consult with EPA on the application of the NRC decommissioning requirements and will take such action as the NRC determines to be appropriate based on its consultation with EPA.

	If the NRC requests EPA's consultation on a decommissioning plan or license termination plan, EPA will provide, within 90 days of NRC's notice to EPA, written notification of its views on the matter.
NRC and FDA (2002)[165]	The purpose of this Memorandum of Understanding (MOU) is to coordinate existing NRC and FDA regulatory programs for (1) medical devices, drugs, and biological products utilizing byproduct, source, or special nuclear material; and (2) the use of potassium iodide (KI) in response to events involving accidental release of radioactive iodine. These regulatory programs include activities for evaluating and authorizing the manufacture, sale, distribution, licensing, and labeled intended use of such products. FDA is responsible for assuring the safety, effectiveness, and proper labeling of medical products, i.e., drugs, devices, and biological products. NRC is responsible for licensing and regulating nuclear facilities and material and for conducting research in support of the licensing and regulatory process, as mandated by the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and in accordance with the National Environmental Policy Act of 1969, as amended, and other applicable statutes. NRC responsibilities include protecting public health and safety, protecting the environment, and safeguarding materials in the interest of national security. Upon request, FDA and NRC will assist each other, to the fullest extent possible, in the investigation of incidents or complaints involving products of mutual regulatory concern. Both agencies will make every reasonable effort to accommodate joint inspection or observer requests depending upon availability of personnel and current FDA or NRC priorities. Each agency will assign one or more persons to assure that investigations are coordinated in a manner that maximizes regulatory efficiency and minimizes duplication of effort. Each agency will promptly notify the other when there is a change in an assigned contact person.
OSHA and DOE (1994)[166]	DOE and OSHA will, to the fullest extent possible, cooperate and coordinate at all organizational levels to develop and carry out information exchange, technical and professional assistance, referrals of alleged violations, and related matters concerning compliance and law enforcement activity to ensure the health and well-being of the workforce and the general public. Resolution of policy issues concerning agency jurisdiction and operations will be coordinated by appropriate DOE and OSHA staff with input from the Office of the Solicitor. DOE and OSHA will designate points of contact for carrying out interface activities. The whistleblower protection provisions of the Energy Reorganization Act, 42 U.S.C. Section 5851, as well as those in section 11(c) of the OSH Act, 29 U.S.C. Section 660(c), are applicable to employees of USEC and contractors at USEC administered facilities.
FDA and OSHA (1974)[167]	FDA responsibilities: Prior to the issuance of standards by FDA under the Radiation Control for Health and Safety Act to control the emissions of radiation from electronic products, representatives of FDA will consult representatives of OSHA, during

	the development stage of the standards, for advice to further assure that the FDA standards will be compatible with OSHA standards relating to radiation or other occupational safety and health hazards. If FDA in its routine compliance program involving an environment has reason to believe that occupational factors are present which may raise questions under the Act, FDA will advise OSHA of its findings. OSHA responsibilities: Prior to the issuance of standards developed under the Act related to radiation from electronic products, representatives of OSHA will consult with FDA during the developmental stage to assure that the radiation safety and health regulations established by OSHA are compatible with the Federal performance standard for electronic product radiation emissions established by FDA. If OSHA in its routine compliance program involving an occupational environment has reason to believe that there are factors present which may indicate a possible violation of FDA standards, OSHA will advise FDA of its findings. Shared responsibilities of OSHA and FDA: In States with an approved State plan under Section 18 of the Act, OSHA will encourage State safety and health officials to cooperate with State radiological health officials in the enforcement and the standard setting efforts relating to performance standards for electronic product radiation. Exchange procedures and techniques used in determining compliance with the appropriate regulations promulgated by each agency. Cooperate in the enforcement efforts and thereby avoid duplication of efforts for the purpose of assuring the full safety and health protection of both the employers and the public. Meet on a quarterly basis, or more often as required, to implement and carry out this memorandum.

Appendix VII: State Regulatory Landscape[66,67,71,168]

State	Agreement State	OSHA State Plan**	Dosage limit	Dosimetry requirements	PPE requirements (list specifics if documented in reg)	Licensure ***	State Radiation Protection Program or Agency	Radioactive Materials Program
Alabama	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default). Respiratory equipment - NISOH certified.	Yes	Alabama Public Health: Radiation Control	Alabama Public Health: Radiation Control
Alaska	No	State Plan**	NRC standard + 0.5 rem for pregnant women	No state statute - NRC standard applies	No explicit PPE statute (NRC default)	Yes	Alaska Department of Health and Social Services, Division of Public Health: Radiological Health	NRC oversite
Arizona	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default). Respiratory equipment - NISOH certified.	Yes	Arizona Department of Health Services: Bureau of Radiation Control	Arizona Bureau of Radiation Control
Arkansas	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default). Respiratory equipment - NISOH certified.	Yes	Arkansas Department of Health: Radiation Control	Arkansas Department of Health: Radiation Control
California	Yes	State Plan**	NRC standard	No state statute - NRC standard applies	General PPE statute (NRC default or vague language). Respiratory equipment - NISOH certified.	Yes	California Department of Public Health: Division of Radiation Safety and Environmental Management	California Department of Public Health: Radiologic Health Branch

Colorado	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	Require 0.5 mm protection for direct radiation and 0.25 mm protection for scatter radiation. Respiratory equipment - NISOH certified.	Yes	Colorado Department of Public Health and Environment: Radiation Management	Colorado Department of Public Health and Environment: Radioactive Materials Unit
Connecticut	LOI *	State Plan**	OSHA standard + NRC standard (0.5 rem) for pregnant women	NRC standard	Require 0.5 mm protection of lead equivalent for direct radiation and 0.25 mm protection for scatter radiation. Mention of thyroid shields.	Yes	Connecticut Department of Energy and Environmental Protection: Radiation	NRC oversite
Delaware	No	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation. Respiratory equipment - NISOH certified.	Yes	Delaware Office of Radiation Control	NRC oversite

Florida	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard. Finger or wrist dosimetric devices: shall be worn for analytical x-ray equipment workers and personnel maintaining analytical x-ray equipment.	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation. Respiratory equipment - NISOH certified.	Yes	Florida Health: Radiation Control	Florida Health: Radioactive Materials
Georgia	Yes	Federal Plan	OSHA standard + NRC standard (0.5 rem) for pregnant women	State statute requiring radiographers - must wear a combination of a direct-reading dosimeter, an alarming ratemeter, and a personal monitoring device. No state statute for other employees -- NRC standard applies	Require at least 0.25 mm lead equivalent material from secondary radiation. Respiratory equipment - NISOH certified.	Yes	Georgia Environmental Protection Division: Radiation Protection Programs	Georgia Environmental Protection Division: Radiation Protection Programs

Hawaii	No	State Plan**		State statute requires radiographers to wear a direct reading pocket dosimeter, an alarm ratemeter, and either a film badge or a thermolumine scent dosimeter (TLD). NRC standard applies	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation.	Yes	Hawaii Indoor and Radiological Health Branch	NRC oversite
Idaho	No	Federal Plan	OSHA standard	OSHA standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation.	Yes	Idaho Department of Health and Welfare: X-ray Licensure	NRC oversite
Illinois	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	Require at least 0.25 mm lead equivalent material from secondary radiation. State law defines protective apron as one that is made of radiation attenuating materials, at least 0.25-mm lead equivalent. Respiratory equipment - NISOH certified.	Yes	Illinois Emergency Management Agency: Nuclear and Radiation Safety	Illinois Emergency Management Agency: Radioactive Materials

Indiana	LOI ***	State Plan**	OSHA standard	OSHA standard. Finger or wrist dosimetric devices: required for analytical x-ray equipment workers or personnel maintaining such equipment.	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation. Respiratory equipment - NVLAP certified.	Yes	Indiana State Department of Health: Medical Radiology Services Program	NRC oversite
Iowa	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation. Respiratory equipment - NISOH certified.	Yes	Iowa Department of Public Health: Bureau of Radiological Health	Iowa Department of Public Health: Radioactive Materials Program
Kansas	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard State statute requiring radiographers must wear a combination of a direct-reading dosimeter, an alarming ratemeter, and a personal monitoring device.	No explicit PPE statute. (NRC default)	Yes	Kansas Department of Health and Environment: Radiation Control Program	Kansas Department of Health and Environment: Radioactive Materials and Licensing

Kentucky	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	No statute delineating when PPE should be used, but there are definitions. Protective apron means an apron made of radiation absorbing materials of at least 0.25 mm lead equivalency and protective barrier means a barrier of radiation absorbing material used to reduce radiation exposure and Protective glove means a glove made of radiation absorbing materials at least 0.25 mm lead equivalent.	Yes	Kentucky Cabinet for Health and Family Services: Radiation Health Branch	Kentucky Cabinet for Health and Family Services: Radioactive Materials Program
Louisiana	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	No state statute. NRC standard will apply	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation. Mention of lead vests/aprons. Respiratory equipment - NISOH certified.	Yes	Louisiana Department of Environmental Quality: Emergency and Radiological Services Division	Louisiana Department of Environmental Quality: Emergency and Radiological Services Division

Maine	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation.	Yes	Maine Division of Environmental and Community Health: Radiation Control Program	Maine Division of Environmental and Community Health: Radioactive Materials Section
Maryland	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	No state statute. NRC standard will apply	No explicit PPE statute. (NRC default)	Yes	Maryland Department of the Environment: Radiological Health Program	Maryland Department of the Environment: Radioactive Materials Licensing
Massachusetts	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation.	Yes	Massachusetts Radiation Control	Massachusetts Radiation Control: Radioactive Materials Licensing
Michigan	No	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation and lead aprons, vests, and gloves mentioned.	Yes	Michigan Occupational Safety & Health Administration: Radiation Safety	NRC oversite
Minnesota	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation and thyroid shields mentioned.	Yes	Minnesota Department of Health: Radiation Control	Minnesota Department of Health: Radioactive Materials

Mississippi	Yes	Federal Plan	Annual limit: 5 rem the whole body, the head and trunk, active blood-forming organs, gonads, or lens of eye is; 7.5 rem to hands and forearms, feet and ankles, localized area of skin; and 1.5 rem to other organs. No statute for pregnancy.	Dosimeters should be worn whenever protective clothing or devices are worn	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation.	Yes	Mississippi Division of Radiological Health	Mississippi Division of Radiological Health
Missouri	No	Federal Plan	Combined annual and quarterly limits: 5 rem annual/3 rem quarterly to the while body, head and trunk, major portion of the bone marrow, gonads, or lens of the eye; 30 rem annual/10 rem quarterly to the skin of a large body area; and 75 rem annual/25 rem quarterly to hands, forearms, feet and ankles. No statute for pregnancy.	Dosimeters required when there is any reasonable possibility of receiving a weekly dose ≤ 50 mrem	No explicit PPE statute (NRC default)	Yes	Missouri Department of Health & Senior Services: Radiation Control	NRC oversite

Montana	No	Federal Plan	OSHA standard	OSHA standard	No explicit PPE statute (NRC default)	Yes	Montana Department of Public Health and Human Resources: Radiation Machine Registration	NRC oversite
Nebraska	Yes	Federal Plan	NRC aligned (annual limit: 5 rem (whole body), 15 rem (eye), and 50 rem (skin/extremities)) - 0.5 rem for pregnant women.	NRC standard	Require ≥ 0.5 mm protection of lead equivalent material in high risk settings and mention of lead aprons and thyroid shields.	Yes	Nebraska Department of Health & Human Services: Radiation Control	Nebraska Department of Health and Human Services: Radioactive Materials
Nevada	Yes	State Plan**	NRC aligned (annual limit: 5 rem (whole body), 15 rem (eye), and 50 rem (skin/extremities)) - 0.5 rem for pregnant women.	NRC standard	No explicit PPE statute (NRC default)	Yes	Nevada Radiation Control Program	Nevada Radioactive Material Program
New Hampshire	Yes	Federal Plan	NRC aligned (annual limit: 5 rem (whole body), 15 rem (eye), and 50 rem (skin/extremities)) - 0.5 rem for pregnant women.	NRC standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation. Mention of lead aprons, eyewear, and thyroid shields. Respiratory equipment - NISOH certified.	Yes	New Hampshire Department of Health and Human Services: Radiological Health	New Hampshire Radioactive Materials Program

New Jersey	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	General PPE statute (NRC default or vague language)	Yes	State of New Jersey Department of Environmental Protection: Radioactive Materials Program	State of New Jersey Department of Environmental Protection: Radioactive Materials Program
New Mexico	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	New Mexico Environment Department: Radiation Control Bureau	New Mexico Environment Department: Radioactive Materials
New York	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation and at least 0.25 mm lead equivalent material from secondary radiation. Mention of lead aprons, eyewear, thyroid shields, and other shielding. Respiratory equipment - NISOH certified.	Yes	New York State Department of Health: Radiological Health	New York State Department of Health: Radioactive Materials Licensing
North Carolina	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	General PPE statute (NRC default or vague language)	Yes	North Carolina Radiation Protection Section	North Carolina Radiation Protection Section
North Dakota	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	North Dakota Radiation Control Program	North Dakota Radiation Control Program

Ohio	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	General PPE statute (NRC default or vague language). Mention of shielding requirements for equipment.	Yes	Ohio Department of Health; Radiological Health and Safety	Ohio Department of Health; Radioactive Materials Licensing and Inspection
Oklahoma	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Oklahoma Department of Environmental Quality: Radiation Management	Oklahoma Department of Environmental Quality: Radiation Management
Oregon	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Oregon Radiation Protection Services	Oregon Radioactive Materials Licensing
Pennsylvania	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Pennsylvania Radiation Protection Programs	Pennsylvania Radioactive Materials Licensing Program
Rhode Island	LOI ***	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Rhode Island Department of Health: Radiological Health Program	Rhode Island Department of Health: Radioactive Material
South Carolina	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Radioactive Materials (Title A)	Radioactive Material Licensing and Compliance
South Dakota	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	South Dakota Department of Environment & Natural Resources: Radioactive Materials and Radiation Machines	NRC oversite

Tennessee	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	General PPE statute (NRC default or vague language)	Yes	Tennessee Department of Environment & Conservation: Radiation	Tennessee Radioactive Material and X-Ray Permits
Texas	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	Require at least 0.5 mm protection of lead equivalent material from direct radiation. Mention of lead aprons, eyewear, thyroid shields, and other shielding.	Yes	Texas Department of Health Services: Radiation Control Program	Texas Department of Health Services: Radiation Control Program
Utah	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Utah Division of Waste Management and Radiation Control	Utah Radioactive Materials Regulatory Program
Vermont	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Vermont Health and the Environment: Radiological Health	Vermont Radioactive Materials Program
Virginia	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Virginia Department of Health: Radiological Health	Virginia Department of Health Radioactive Materials Program
Washington	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Washington State Department of Health: Radiation Protection	Washington State Department of Health: Radioactive Materials
West Virginia	LOI ***	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	West Virginia Radiological Health Program	NRC oversite

Wisconsin	Yes	Federal Plan	NRC standard + 0.5 rem for pregnant women	NRC standard	General PPE statute (NRC default or vague language)	Yes	Wisconsin Department of Health Services: Radiation Protection	Wisconsin Department of Health Services: Radioactive Materials Program
Wyoming	Yes	State Plan**	NRC standard + 0.5 rem for pregnant women	NRC standard	No explicit PPE statute (NRC default)	Yes	Wyoming Homeland Security: Radiological Services	Wyoming Homeland Security: Radiological Services

** Letter of Intent (LOI) state.*
*** State Plan includes private workers in addition to state and local government workers*
**** Licensure required for radiation oncologists and medical physicists*
Dose:
NRC Standard - Annual limit of 15 rem to lens of the eye & 50 rem to skin/extremities
OSHA Standard - Quarterly limit: 1.25 rem to whole body (head and trunk; active blood-forming organs; lens of eyes; or gonads); 18.75 rem to hands forearms and ankles; and 7.5 rem to skin of whole body.
Dosimetry:
NRC Standard - Dosimeter required for: adults likely to receive ≤ 10% and minors likely to receive a deep dose ≤ 0.1 rem, a lens dose ≤ 0.15 rem, or a shallow dose ≤ 0.5 rem
OSHA Standard - Dosimeter required for individuals likely to receive an annual dose ≤ 25% of the limit; minors where they'll likely receive ≤ 5% of their limit quarterly.

Appendix VIII: Existing AMA policy on radiation

H-455.994 Risks of Nuclear Energy and Low-Level Ionizing Radiation

1. Our American Medical Association supports the following policy on nuclear energy and low-level ionizing radiation. Usefulness of Nuclear Energy: Energy produced by nuclear reactors makes an important contribution to the generation of electricity in the US at present, and it will continue to do so in the foreseeable future. Investigation and research should continue in order to develop improved safety and efficiency of nuclear reactors, and to explore the potential of competing methods for generating electricity. The research should include attention to occupational and public health hazards as well as to the environmental problems of waste disposal and atmospheric pollution.
2. Research on Health Effects of Low Level Radiation: There should be a continuing emphasis on research that is capable of determining more precisely the health effects of low level ionizing radiation.
3. Uranium Mill Tailings: Uranium mill tailings should be buried or otherwise covered.
4. Radioactive Waste Disposal: There should be acceleration of pilot projects to evaluate techniques for the disposal of high-level radioactive wastes. The decommissioning of nuclear reactors is a source of nuclear waste which requires accelerated technological investigation and planning.
5. Occupational Safety: The philosophy of maintaining exposures of workers at levels "as low as reasonably achievable (ALARA)" is commended. The present federal standards for occupational exposure to ionizing radiation are adequate. The responsibilities of the various federal agencies regarding workers in the nuclear energy industry should be clarified; these agencies include the Departments of Energy, Defense, HHS, Labor and Transportation; and the NRC, VA and EPA.
6. Minimizing Exposures to Radiation: Each physician should attempt to minimize exposures of patients to ionizing radiation in accord with good medical practice.
7. Radiation Exposure Standards: The present standards for exposure of populations to ionizing radiation are adequate for the protection of the public.
8. Emergencies and Governmental Readiness: Government agencies at all levels should be prepared to respond to nuclear energy-related emergencies. There is need for improved public planning by the several federal agencies involved, including the Federal Emergency Management Agency (FEMA) and the agencies of state and local governments. Responsible officials should develop skills and undergo periodic retraining in order to be able to act appropriately during major radiation emergencies. Because emergency planning is a complex task involving aspects of health as well as problems related to utilities, state and local governments and the federal government (FEMA) would benefit from the cooperation of physicians and others in the health sciences.
9. Federal Radiation Emergency Planning Responsibilities: Federal groups such as the NRC and FEMA must work together closely to fulfill responsibilities in radiological emergency preparedness and in crisis management. There is a need for NRC and FEMA to define better the roles of community hospitals and of physicians.
10. Reactor Operators and Radiation Inspectors: There is a need for better training of operating personnel with regard to prevention and management of untoward reactor operating conditions. Selection, training, and ongoing performance evaluation of operating personnel, and of radiation inspectors, are key elements in the safety of reactor workers and of the public. Physicians should help develop methods of selecting and evaluating personnel in the nuclear power industry.
11. Radiation Training for Physicians: Physicians should be prepared to answer the questions of their patients about ionizing radiation, especially if there is a radiation emergency. Each

hospital should have adequately trained physicians and a plan and protocol for receiving and caring for radiation victims.

12. Radiation Education for the Public: Further education of the public about ionizing radiation is recommended.
13. Location of Nuclear Reactors: All nuclear reactors built in the future should be placed in areas of low population density; present reactors located in low density areas should be managed so that the populations surrounding them remain small.
14. Multiple Sources of Power Generation: AMA recommends the use of a diverse set of electricity generating methods and a continuing emphasis on the conservation of energy.
15. X-Ray Security Scanners:
    1. Our AMA believes that as of June 2013, no data exist to suggest that individuals, including those who are especially sensitive to ionizing radiation, should avoid backscatter security scanners due to associated health risks.
    2. Our AMA supports the adoption of routine inspection, maintenance, calibration, survey, and officer training procedures meant to ensure that backscatter security scanners operate as intended.
16. Our AMA supports continued authorization of federal radiation exposure compensation programs and expanded program eligibility to downwind individuals, communities, and tribes affected by the ongoing environmental harms of historic atomic weapons testing, including, but not limited to, residents of areas affected by the test of the first atomic bomb in New Mexico and uranium miners employed between 1942 through 1990. [CSA Rep. A, A-81Reaffirmed: CLRPD Rep. F, I-91Reaffirmed: Sunset Report, I-01Reaffirmed: CSAPH Rep. 1, A-11Appended: CSAPH Rep. 4, A-13Modified: CSAPH Rep. 8, A-23Modified: Res. 435, A-24]

H-455.976 Monitoring Patient Exposure to Ionizing Radiation
Our American Medical Association will support public health, radiology and radiation oncology specialty societies and all other interested parties to monitor the issue of radiation exposure to the American public and develop a plan, if appropriate, to allow the ongoing monitoring and quantification of radiation exposure sustained by individual patients in medical settings. [CSAPH Rep. 8, A-23]

H-455.975 Regulation of Ionizing Radiation Exposure for Health Care Workers
Our American Medical Association encourages public and private healthcare institutions to ensure comprehensive coverage of different body types by providing readily available PPE that reduces exposure to as low as reasonably achievable for employees of all genders and pregnancy statuses. Our AMA will work with the appropriate and interested parties to study how best to accomplish comprehensive protection from ionizing radiation for employees, taking into account variation in body types, pregnancy status, specifics of procedures being performed, as well as how exposure can be limited beyond PPE (personal protected equipment), with report back at I-25. [Res. 904, I-24]

H-455.977 Ionizing Radiation Exposure in the Medical Setting

1. Our American Medical Association will support appropriate specialty medical societies and other interested stakeholders to collaborate:
    a. For feasibility of monitoring and quantifying the cumulative radiation exposure sustained by individual patients in medical settings.
    b. Continue to educate physicians and the public on the appropriate use and risks of low linear energy transfer radiation in order to reduce unnecessary patient exposure in the medical setting.
2. Our AMA will continue to monitor the National Academy of Sciences' ongoing efforts to study the impact of low levels of low linear energy transfer radiation on human health.

3. Our AMA will support education and standards for all providers and medical personnel using ionizing and non-ionizing radiation that includes awareness of, and methods to avoid, patient over-radiation.
4. Our AMA will support policies that promote the safe use of medical imaging devices, informed clinical decision-making regarding the use of procedures that use radiation, and patient awareness of medical radiation exposure.
5. Our AMA will encourage the continued development and use of standardized electronic medical record systems that will help physicians track the number of imaging procedures a patient is receiving, in both the in-patient and out-patient settings, which will help physicians discuss the potential dangers of high level of radiation exposure with patients. [CSAPH Rep. 8, A-23].

H-455.996 Nuclear Regulatory Commission Licensure Requirements for Physicians
Our AMA urges the U.S. Nuclear Regulatory Commission to continue to require that the training requisite for licensure be documented, and that it contain elements of instruction in radiological physics, radiation biology, radiation safety, nuclear instrumentation, and the safe and effective clinical use of radionuclides in patients. [Res. 148, A-80Reaffirmed: CLRPD Rep. B, I-90Modified: Sunset Report, I-00Reaffirmed: CSAPH Rep. 1, A-10Reaffirmed: CSAPH Rep. 01, A-20]

H-455.978 Nuclear Regulatory Commission Medical Use Program
The AMA encourages the efforts of the Nuclear Regulatory Commission to assure that any regulations that affect the practice of nuclear medicine and radiology be science-based. [Sub. Res. 516, I-97Reaffirmed: CSAPH Rep. 3, A-07Reaffirmed: CSAPH Rep. 01, A-17]

D-455.993 Interference with Practice of Medicine by the Nuclear Regulatory Commission
Our AMA will express its opposition to the imminent proposed changes to the Section 10 CFR Part 35.390(b) by the Nuclear Regulatory Commission (NRC) which would weaken the requirements for Authorized Users of Radiopharmaceuticals (AUs), including shortening the training and experience requirements, the use of alternative pathways for AUs, and expanding the use of non-physicians, with AMA advocacy for such opposition during the open comment period ending July 3, 2019. [Res. 719, A-19]

H-135.985 Environmental Protection and Safety in Federal Facilities
The AMA urges physicians to contribute to the solution of environmental problems by serving as knowledgeable and concerned consultants to environmental, radiation, and public health protection agencies of state and local governments. [BOT Rep. T, I-87Reaffirmed: Sunset Report, I-97Reaffirmed: CSAPH Rep. 3, A-07Reaffirmed: CSAPH Rep. 01, A-17]

H-455.988 Public Education on the Danger of Radiation Exposure
Our American Medical Association supports public initiatives, such as the "Image Wisely" and "Image Gently" campaigns, which aim to increase awareness of radiation in the medical setting and reduce exposure. [Res. 121, A-86Reaffirmed: Sunset Report, I-96Reaffirmed: CSAPH Rep. 3, A-06Appended: Res. 921, I-11Modified: CSAPH Rep. 1, A-21]

H-455.993 Treatment of Radiation Accident Victims
1. Our American Medical Association encourages all acute care facilities, through their medical staffs, to review and become familiar with radiation accident contingency plans required by the JCAHO, particularly those facilities in areas where major radiation-emitting equipment is located.

2. Our AMA supports the development of guidelines for training and preparedness of medical staffs, proper treatment regimens and the maintenance and use of decontamination equipment for use at the time of radiation accidents. [Res. 36, I-81Reaffirmed: CLRPD Rep. F, I-91Reaffirmed: Sunset Report, I-01Reaffirmed: CSAPH Rep. 1, A-11Reaffirmed: CSAPH Rep. 1, A-21]

H-460.938 Effects of Electric and Magnetic Fields
Our American Medical Association will continue to monitor developments and issues related to the effects of electric and magnetic fields, even though no scientifically documented health risk has been associated with the usually occurring levels of electromagnetic fields.
Our AMA encourages research efforts sponsored by agencies such as the National Institutes of Health, U.S. Department of Energy, and the National Science Foundation to continue on exposures to

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REPORT 3 OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH (I-25)
Plastic Pollution Reduction
(Reference Committee K)

EXECUTIVE SUMMARY

BACKGROUND. AMA Policy H-135.901, "Addressing the Health Consequences of Microplastics in Humans," was adopted by the House of Delegates at the 2025 Annual Meeting and asked the AMA to study and report back with policy recommendations on ways to reduce plastic pollution and its impact on climate change and health, including but not limited to federal, state, and local taxes and limitations on the use of single-use plastic consumer products and other types of plastic, interventions to reduce microplastics, and alternatives to plastic.

METHODS. English language reports were selected from searches of the PubMed and Google Scholar databases using the search terms: "plastics" AND "health", "microplastics" AND "health," "plastics" AND "climate change," and "bioplastics" and "plastic waste management." Legal research tools, state legislative databases, and municipal websites were also searched to identify which jurisdictions have passed legislation on limiting plastic. Additional articles were identified by manual review of the reference lists of pertinent publications. Web sites managed by federal agencies and advocacy organizations were also reviewed for relevant information.

DISCUSSION. Plastic is an important component in a diverse range of products, many of which are crucial and, in some cases, lifesaving in our modern society. Nearly 98 percent of plastic produced is derived from fossil fuels, such as ethane, propane, and methane, through an industrial process called cracking. Plastic production has increased exponentially since 1950, and plastic production is anticipated to triple by 2060. A large driver of this exponential growth is the production of single use plastics. Challenges with plastic waste disposal have become increasingly problematic as global production has grown. While recycling strategies are effective for other materials, only a small percentage of plastic is currently recycled. If not recycled, disposal strategies for plastic include controlled or uncontrolled landfilling, open burning, thermal conversion, or export from high-income to low-income countries.

Plastics have negative repercussions on both the environment and human health at every stage of their life cycle, from extraction through production, to use and disposal. During the extraction and production phases of plastics, there are numerous environmental harms, occupational risks, and increased exposure to dangerous chemicals and pollutants for nearby communities. During its use phase, there are potential health risks from the microplastics degrading from the plastic product as well as exposure to the thousands of chemical additives in plastic. Once disposed of, plastic and microplastics accumulate in both soil systems and water environments where they have the potential to bioaccumulate within the food web. Plastic also contributes to greenhouse gas emissions (GHG) along the entirety of its life cycle and accounts for approximately four percent of all global GHG emissions.

CONCLUSION. Plastic poses serious environmental and human health concerns across its lifespan. Limits on the use of plastics, when possible, in particular single use plastics, are one of the most important strategies to reduce the burden of plastic pollution on both the environment and human health.

REPORT OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH

CSAPH Report 3-I-25

Subject: Plastic Pollution Reduction

Presented by: Padmini Ranasinghe, MD, MPH, Chair

Referred to: Reference Committee K

AMA Policy H-135.901, "Addressing the Health Consequences of Microplastics in Humans," was adopted by the House of Delegates (HOD) at the 2025 Annual Meeting and asks the following:

1. Our AMA recognizes the potential health risks associated with microplastics exposure and encourage increased research to better understand the human health effects of microplastics.
2. Our AMA supports the respective specialty medical societies with subject matter expertise and federal and state public health agencies, including the Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency (EPA), to develop evidence-based guidelines for monitoring and mitigating microplastic exposure in water, food, air, and other consumer products.
3. Our AMA will collaborate with relevant stakeholders to promote public education about microplastics, their sources, potential health risks, and possible strategies for reducing exposure.
4. Our AMA will study and report back with policy recommendations on ways to reduce plastic pollution and its impact on climate change and health, including but not limited to federal, state, and local taxes and limitations on the use of single-use plastic consumer products and other types of plastic, interventions to reduce microplastics, and alternatives to plastic. [Res. 429, A-25, Res. 418, A-25][1]

METHODS

English language reports were selected from searches of the PubMed and Google Scholar databases using the search terms "plastics" AND "health", "microplastics" AND "health," "plastics" AND "climate change," and "bioplastics" and "plastic waste management." A 2023 report by the Minderoo-Monaco Commission on Plastics and Human Health, an international and interdisciplinary group comprised of scientists, healthcare workers, and policy analysts, served as a primary reference for this report, as it synthesized and summarized health impacts from plastic across its life cycle, and included over 1500 references. Legal research tools, state legislative databases, and municipal websites were also searched to identify which jurisdictions have passed legislation on limiting plastic, supported by keyword combinations like "microbead ban," "plastic bag tax," and "single-use container legislation." Additional articles were identified by manual review of the reference lists of pertinent publications. Web sites managed by federal agencies and advocacy organizations were also reviewed for relevant information. Due to the technical nature of this report, a glossary of terms is provided at the end in Appendix A for easy reference.

DISCUSSION

Plastic is a component in a wide array of everyday products. Plastic production has increased exponentially, particularly in the last two decades with the growth in the production and use of single-use plastics.[2] With this large growth in plastics, the associated waste has also grown, and plastic has increasingly come under scrutiny in terms of its negative environmental and health impacts. Only a small percentage of plastic is currently recycled, meaning most of it ends up in landfills or in the environment, such as in rivers, lakes or the ocean.[2] In this way, plastics have become pervasive and ubiquitous in our natural and built environments across the globe. There is also concern that as plastic degrades and breaks down, smaller plastic particles, otherwise known as microplastics, end up inside animals and humans alike, which is associated with its own negative impacts.[3] This report provides a brief summary of plastic production as well as the known health and environmental impacts from plastic, looking across the product lifespan. The report also addresses interventions and strategies to reduce plastic and plastic-related pollution and thereby reduce harm to human health and the environment.

What is plastic and what are microplastics?

Plastic is an important component in a diverse range of products, many of which are crucial and, in some cases, lifesaving in our modern society. Plastics are ubiquitous in products within medicine, electronics, aerospace, construction, food packaging, and synthetic clothing, just to name a few. Its use in a wide variety of products is tied to its chemical structure and its relatively inexpensive production cost.[4] While there are many types of materials that are considered plastic, it is generally defined as a synthetic or semi-synthetic material that uses carbon-based polymers as its primary ingredient.[4] A polymer is a large molecule that is made up of many repeating, smaller units (or monomers), arranged in a chain-like or network-like chemical structure.[5] In the case of most synthetic plastics, the polymer chain is composed of carbon atoms found in a repeating pattern, often with side branches. Due to their chemical nature, plastic polymers are both very flexible and very durable. Plastics' flexibility allows them to be molded into many different forms, which is helpful from a product perspective. However, its durability is a major factor in their impact on our environment and health, in that they do not easily break down chemically.[6] Nearly 98 percent of synthetic plastic polymers are derived from fossil fuels, such as ethane, propane, and methane, through an industrial process called cracking.[4] Depending on the plastic fossil-fuel base, different industrial cracking processes are employed to create various plastic polymers.[4] A few examples of plastic polymers include polypropylene and polyethylene, with polyethylene being the most widely used plastic in the world.[7]

Following cracking, the manufacturing process to make a finished plastic product involves adding chemicals to the plastic polymer, which are used as both processing aids and additives. Processing aids are employed to improve efficiency and quality while additives provide a wide range of functional and aesthetic properties.[4,8] There are over 10,500 chemicals known to be used in the plastic manufacturing process, a majority of them additives for which there is little understanding of their overall safety and health impacts.[9] A few well-known and better studied additives include phthalates, bisphenols, brominated chemicals, and perfluoroalkyl and polyfluoroalkyl chemicals, also known as PFAS chemicals.[10] Phthalates are used in plastics to increase their flexibility, transparency, durability, and longevity.[11] Bisphenols make plastic hard and clear and are used as a protective coating on the inside of food and beverage cans.[11] Brominated chemicals are one class of chemicals that help reduce product flammability.[11] Lastly, PFAS chemicals are a common component in many plastic consumer products, such as food packaging, clothing, and cosmetics, as they help create grease-resistant and water-resistant surfaces.[10]

In 1950, global plastic production was less than two million tons and in 2019 it was 460 million tons (see Figure 1).[2] Plastic production is anticipated to triple by 2060.[4] There has been massive investment in

fossil fuel-based plastic production by major, multinational energy companies to create alternative revenue streams for products derived from fossil fuels, partly in response to growing demands for renewable energy.[4] Supplies of inexpensive natural gas, made possible through the expansion of shale fracking in the U.S., has also been fueling new investments in plastic manufacturing infrastructure in the U.S. and abroad.[12] Increased plastic production investment is notable in the U.S., China, Middle East, and Europe.[4] Single use plastics are a major driver of increased plastic production.[13] Single-use plastics are plastic items designed to be used once and then disposed of, as opposed to being reused or recycled. These include food packaging and containers, plastic bags, plastic straws, face masks, medical gloves, etc. The health care industry is a large user of single-use plastics and a contributor to plastic waste.[14] Nearly a quarter of the 14,000 tons of waste generated daily in U.S. health care facilities is plastic.[15]

Challenges with plastic waste disposal have become increasingly problematic as global production has grown. While recycling strategies are effective for other materials such as paper, glass and aluminum, only a small percentage of plastic is currently recycled (around nine percent globally and only about five percent in the U.S.).[2,4] To provide a point of comparison, about 68 percent of paper and paperboard, 25 percent of glass, and about 35 percent of aluminum containers and packaging is recycled in the U.S. (as of 2018).[16,17] If not recycled, disposal strategies for plastic include controlled or uncontrolled landfilling, open burning, thermal conversion, or export.[4] Large quantities of plastic are exported from high-income to low-income countries where it is landfilled.[18] It is estimated that somewhere between 75 to 80 percent of plastic is landfilled or is improperly discarded into the natural environment where it will persist for hundreds to thousands of years.[4,19] Additionally, around 14 percent is incinerated, which is associated with a number of environmental and health downsides, and some plastic is converted to energy in waste-to-energy facilities.[4] As plastics degrade in landfills and within the environment, they break down into smaller and smaller pieces, often referred to as microplastics. Microplastics are pieces of plastic that range in size but are defined as less than 5 millimeters, while nanoplastics are smaller than 1 micrometer.[20]

Impacts of plastic on the environment and human health

Plastics have negative repercussions on both the environment and human health at every stage of their lifecycle, from extraction through production, to use and disposal (see Figure 2). The following is not an exhaustive summary of all potential negative environmental and health impacts from plastics but is intended to provide a broad snapshot of impacts across the plastic life span. The Minderoo – Monaco Commission on Plastics and Human Health report includes a comprehensive analysis of plastic's health impacts across its lifecycle and is a useful resource for an-depth look at this issue.[4]

<u>Extraction and Production Phases</u>

During the extraction of fossil fuels and production of plastics, there are numerous environmental harms, occupational risks, and increased exposure to dangerous chemicals and pollutants for nearby communities. Since plastic is primarily derived from fossil fuels, individuals who work in the oil and gas industries are most affected and face severe occupational health risks and disparities in health outcomes. Workers in the fossil fuel industry have higher rates of other negative health outcomes due to increased exposure to dangerous chemicals, such as increased mortality from cardiovascular disease and several types of cancer, including mesothelioma.[21] Workers in fossil fuel industries also face substantial safety hazards, including but not limited to explosions and fires due to the ignition of flammable vapors or gases, falls from platforms or equipment, and transportation issues. Highway vehicle crashes are the leading cause of death among oil and gas extraction worker fatalities.[22]

Oil spills also pose significant environmental and human health harms. The U.S. National Oceanic and Atmospheric Administration reports that oil spills are relatively common, with thousands occurring each year, most of them small.[23] However, when large oil spills occur, they can be major disasters and

especially dangerous, such as the Exxon Valdez spill in 1989 or the Deepwater Horizon spill in 2010. Whether large or small, oil spills can have damaging effects, such as releasing toxic chemicals into the environment and covering local wildlife in oil, which can put them at physical risk.[23] The Deepwater Horizon oil spill is a useful case study for understanding the many public health impacts from oil spills. Clean-up workers experienced respiratory issues, skin rashes, headaches, and nausea.[24] Local communities impacted by the spill reported increased stress, anxiety, and depression, as well as economic hardship that was largely due to concerns about the safety of seafood and a decrease in tourism to the area, threatening their livelihoods.[24,25]

Early signs that plastics could cause health harm came from occupational settings in the 1970s. Workers in plastic manufacturing had elevated risks of angiosarcoma of the liver from working with vinyl chloride (a gas that is used primarily to make polyvinyl chloride, a hard plastic resin) as well as dermatitis and respiratory ailments from exposure to other chemicals used in the process.[26,27] Thousands of chemicals are used in plastic production and at least one third of the known chemicals have a high or medium concern as a human health hazard.[4] Workers within plastic manufacturing are exposed to chemicals at much higher levels than the general public, primarily through inhalation.[27]

Depending on the type of fossil fuel, populations living near extraction and production facilities may be at higher risk of adverse health outcomes. Fracking, for example, has been shown to contaminate surrounding water sources, create noise and air pollution, and trigger earthquakes.[28,29] Children living near fracking sites in Pennsylvania around their birth were two to three times more likely to be diagnosed with leukemia between the ages of two and seven than those who were not exposed to fracking at a young age.[29] Pregnant mothers living close to fracking sites in Pennsylvania had an increased risk of giving birth prematurely and of having high-risk pregnancies.[29] A recent study also found that pregnant women who live in counties with higher levels of fracking activities in Texas were at much higher risk of giving birth to children with specific birth defects.[30] Fracking sites are also disproportionately located in areas of poverty and minority communities.[28]

Use and Disposal Phases

During its use phase, there are potential health risks from microplastics degrading from the plastic product as well as the thousands of chemical additives in plastic. Humans are exposed to micro- and nano- plastics through food, water, and air.[3] Microplastics have been found throughout human tissues and bodily fluids, including the lungs, colon, spleen, kidneys, liver, heart, placenta, blood, great vessels, meconium, feces, and breastmilk.[3,31,32] Recent studies have also identified microplastics in the brain, indicating there is possibility of microplastics passing through the blood-brain barrier.[33,34] There are many factors that influence the potential toxicity of microplastics, including size, shape, and chemical properties. The potential physiological mechanisms for impact are complex, but include oxidative stress, neurotoxicity, metabolic dysfunction, and induction of immune responses within the body.[3] While research on the health impacts of microplastics in our body is still nascent, recent research found a four-fold increase in the risk of poor cardiovascular outcomes in patients with microplastics present in their carotid artery plaque.[35] The presence of microplastics in our bodies has also been associated with respiratory complications, endocrine disruption, inflammatory bowel disease symptom severity, narrowing of fetal capillaries, and stomach and esophageal cancers, although the biological mechanisms for these effects are not entirely clear at this time.[36]

Microplastics can also be viewed as “trojan horses” as they carry with them a complex array of chemicals which separate from the plastic and spread throughout our bodies via the circulatory system.[3] While health and safety information are lacking for most chemicals in plastic, at least four major categories of chemicals found in plastics have been more extensively studied in terms of health impacts. These include phthalates, bisphenols, PFAS, and flame-retardant additives.[11] The effects of these chemical additives are

known to affect nearly every organ system in the body of people of all ages, but particularly young children.[9]

A meta-analysis on human health impacts from several major classes of plastic-associated chemicals found they are associated with adverse health outcomes across a wide range of human health conditions.[10] Bisphenol A (BPA) is classified as an endocrine disrupting chemical and is associated with decreased anoclitoral distance in infants (an indicator of potential reproductive health issues later in life), type 2 diabetes in adults, insulin resistance in children and adults, polycystic ovary syndrome, obesity and hypertension in children and adults, and cardiovascular disease.[10,37] As public awareness of BPA has increased, manufacturers have switched to alternative bisphenol formulations, which have very similar chemical structures, and thus may have similar health effects but have yet to be studied.[11]

Phthalates, commonly used as plasticizers to make plastic more flexible and durable, are also well-known endocrine disruptors and impact reproductive systems.[38] Phthalates are associated with spontaneous pregnancy loss, decreased anogenital distance in boys, insulin resistance in children and adults, with additional associations between certain phthalates and decreased birth weight, type two diabetes in adults, precocious puberty in girls, reduced sperm quality, endometriosis, adverse cognitive development and intelligence quotient (IQ) loss, adverse fine motor and psychomotor development and elevated blood pressure in children and asthma in children and adults.[10] Some phthalates were removed from the market in Europe in the 1990s due to health concerns and various substitutes have been introduced but there are few studies assessing their health impacts.[11]

Polychlorinated biphenyls (PCBs) and polybrominated diphenyl ethers (PBDEs) are utilized as flame retardants in plastics. PCBs and PBDEs are associated with decreased birth weight and in general populations, PCBs are associated with type 2 diabetes in adults and endometriosis, bronchitis in infants, cardiovascular disease, non-Hodgkin's lymphoma and breast cancer.[10] In PCB-poisoned populations, exposure is associated with overall mortality, mortality from hepatic disease (men), cardiovascular disease in both men and women, and several cancers. PBDEs are adversely associated with children's cognitive development and IQ loss as well as changes in thyroid function.[11]

Lastly, PFAS exposure is associated with decreased birth weight, increased body mass index and overweight in children, attention deficit hyperactive disorder in girls, and allergic rhinitis.[10] Some PFAS have also been associated with changes in thyroid function.[10] Notably, PFAS chemicals have been found in measurable amounts in the blood of nearly all Americans based on data from the National Health and Nutrition Examination Survey since the late 1990s.[39] Recent estimates on the economic costs of health impacts from the chemicals in plastic demonstrate that U.S. health costs are around $249 billion in plastic-attributable disease burden in 2018, which are likely an underestimation due to limitations on not knowing the full extent of chemical exposure in the population.[40]

Once disposed of poor waste management contributes to plastic and microplastics accumulating in both soil systems and water environments. Plastic particles have been identified in environments across the globe, from Antarctica to the Arctic, in the peaks of the Himalayas to the deepest trenches of the ocean.[3] Plastic pollution is considered a planetary boundary threat (a term used to describe global change processes where human activities affect Earth system functioning in a substantial way) and is having negative effects on Earth ecosystems by contributing directly to climate change and negatively impacting biodiversity loss.[41,42] Microplastics within the soil can facilitate the proliferation of biological disease factors and impact water filtration and soil aeration, which may impact plant growth and productivity.[19] Additionally, the presence of microplastics has been detected in 1300 terrestrial and aquatic species from across the entire food chain web.[43] Plastic waste also accumulates in bodies of water, with some researchers estimating that a garbage truck’s worth of plastic enters the ocean every minute.[18] In water environments, plastic pollution is an increasingly visible and pervasive problem, as best evidenced by the

Great Pacific Garbage Patch, an area that due to ocean currents has brought together a large concentration of trash, primarily plastics.[44] While it is difficult to estimate its size with certainty, as it is constantly in motion, some studies have estimated that the Great Pacific Garbage Patch covers an area roughly twice the size of Texas.[45] Within the water, various organisms interact with plastics and microplastics, either ingesting it or getting entangled, which has resulted in more than 400,000 documented marine animal deaths.[46]

The health challenges of plastic waste disposal are not limited to microplastics in the soil and water. With nearly two billion people across the globe lacking solid waste collection services and plastic waste routinely being shipped from higher income countries to low- and middle-income countries under the guise of recycling, plastic waste is often incinerated in open burning pits, which is a primary method of disposal in many parts of the world.[47–49] The amount of plastic being burned is estimated to be roughly equivalent to the quantity entering the sea or soil.[47] Incineration of plastic waste is a major source of air pollution that contains many toxic substances including brominated compounds, dioxins, mercury, and black carbon, to name just a few.[48,50] Many of these compounds are known carcinogens, cause reproductive and development problems, increase the risk of heart disease, and aggravate respiratory disease, such as asthma and emphysema.[48,50]

Relationship between plastic and climate change

Plastic also contributes to greenhouse gas emissions (GHG) along the entirety of its life cycle and accounts for approximately four percent of all global GHG emissions (See Figure 3 in Appendix B).[4,51] Since plastic polymers are primarily derived from fossil fuels and the process of cracking is energy intensive, the production and manufacture of plastics account for a majority of the known GHG emissions over the plastic lifespan. Additionally, the end-of-life processes for plastic waste – which could be incineration or shipping from high-income countries to low and middle-income countries – also contributes to GHG emissions.[51]

There is increasing evidence that anthropogenic increases in GHG emissions in the last 150 years are increasing global surface temperatures which is impacting climate patterns.[52,53] These changes are causing regional and seasonal temperature extremes, reducing snow cover and sea ice, and intensifying heavy rainfall. Climate change has already caused irreversible damage. The consequences of unmanaged climate change include droughts, water scarcity, rising sea levels and flooding, severe fires, melting polar ice, temperature extremes, declining biodiversity, increased vector-borne diseases, and catastrophic storms, all of which impact health and safety.[54] For more details on how climate change impacts health, refer to previous AMA Council on Science and Public Health reports from 2022 and 2008, or view the AMA report, *Addressing the Public Health Crisis of Climate Change*.[54–56]

STRATEGIES FOR REDUCING PLASTIC POLLUTION AND REDUCING HARM

Due to the overwhelming quantities of plastic being produced and the scale of the problem, meaningful action to reduce plastic pollution globally should focus on reducing the amount of plastic being produced in the first place through upstream policy and economic levers, as opposed to relying on individual behavior change. The Minderoo-Monaco report includes several recommendations for reducing plastic pollution, the primary one being the passage of a UN Global Plastics Treaty, which is in the process of being developed and debated.[4] One of the key components of this treaty would aim to create a global cap on plastic production. As of April 2024, the European Union approved new rules to reduce, reuse and recycle packaging, with certain single-use plastic packaging types banned as of 2030.[57] The types of packaging that will be banned include packaging for unprocessed fresh fruit and vegetables, for foods and beverages filled and consumed in cafés and restaurants, individual portions (e.g., condiments, sauces, creamer, sugar), miniature toiletry products, and very lightweight plastic carrier bags.[57] A summary of

U.S.-based legislation on plastics and single-use plastic bans is provided in a subsequent section. Additionally, as opposed to a linear use framework (production → use → disposal), it has been suggested that the modern plastic economy needs to be converted to a more sustainable, circular model. This requires a shift to an integrated waste management framework focused on the hierarchy of 'reduce, reuse, recycle, and recover,' which would help reduce the overwhelming strain of plastic pollution.[19,41]

Improved waste management

Recycling is an important strategy for addressing plastic waste. However, as the low recycling rate of plastic indicates, there are many barriers to making plastic recycling a more viable option. Challenges include the chemical diversity of plastic products, contamination of the plastic during collection, inadequate infrastructure, unknown toxins, and the downcycling of recycled plastics, all of which hinder the effectiveness and efficiency of plastic recycling processes.[58–60] As there are many types of plastic produced, with many containing multiple materials with other non-recyclable materials or complex structures and many used for food storage, there can be numerous contaminants with the plastic waste stream making it difficult to separate and process the plastic effectively.[58] The U.S. also has outdated and inadequate recycling infrastructure and collection systems to keep pace and efficiently manage plastic waste streams. Inadequate infrastructure coupled with a lack of consumer education and understanding on what materials can be recycled and how has led to very poor recycling rates in the U.S. and therefore leads to plastic accumulation in landfills and the environment.[58]

The regulatory and economic environment around waste management in the U.S. is also an important contributing factor. Recycling rates in Europe are on average considerably higher than the U.S. In 2021 the European Union achieved a 32.5 percent recycling rate for plastic waste, while a few countries were closer to the 50 percent recycling rate target that has been set (Germany and the Netherlands recycled 36 percent and 47 percent, respectively).[61] A contributing factor to this difference is the associated costs of end-of-life disposal methods, with most European Union citizens paying higher prices for both landfilling and incineration, which helps make recycling a more favorable option. As a result, this has led to more industrial processing and innovation, more recycled product uptake, and the structuring of collection and sorting methods that help reduce cross-contamination which makes recycling more efficient.[61] Additionally, the U.S. operates under a patchwork of state and local regulations when it comes to recycling as there is no overarching federal law on recycling.[62]

Another challenge with plastic recycling is that most of these processes result in "downcycling," where the recycled plastic is used to make lower-quality products compared to the original material and therefore even recycled plastics can only go through one or two recycling cycles before being unable to be used again versus glass or metal products which can go through several iterations of recycling (glass can be recycled an infinite number of times as its properties do not degrade over time).[59] Additionally, since various plastics could potentially contain thousands of different chemicals, recycling processes may increase the toxicity of the plastics due to the introduction of new chemicals or increase the concentration of existing ones.[59] Plastic recycling processes may also release microplastic pollution in the environment.[63] Lastly, the cost of collecting, sorting, and processing plastic waste can be high, and the domestic market demand for recycled plastic has not been sufficient to support a robust plastic recycling market.[58]

There are several potential solutions to address the challenges with plastic recycling, which include the promotion of innovative, circular design concepts with plastic products, technological and infrastructure improvements, consumer education, and creating market incentives for recycled products. Prior to production, better and innovative design that considers the entire life cycle of plastic, with recycling in mind, could aim to use fewer materials and make it easier to separate components, thus improving recyclability.[41] Recycling infrastructure investment is also seriously needed in the U.S. Expanding and

modernizing recycling facilities and collection systems is critical for managing the growing amount of plastic waste effectively.[58] To reduce microplastic pollution and other potential pollutants while recycling, additional environmental filtration controls are recommended to decrease the volume of air pollution and microplastics entering water systems.[63] These types of investment would also need to be coupled with the development of more advanced sorting systems to help separate different types of plastics more effectively for processing.[41,58] On the consumer side, better education on proper recycling practices and the importance of reducing plastic consumption can help reduce contamination and increase participation, which could also help create consumer demand for recycled plastic products.[58] Education coupled with incentives for recycling and recycled products could potentially help make recycled plastic more economically viable over the long term.

Reformulation and alternatives

As concerns over plastic have grown, so has interest in finding alternatives, such as bioplastics. Bioplastics are generally described as plastics made from non-fossil fuel,[1] renewable polymers derived from starches and proteins and break down via natural processes (i.e., they are biodegradable).[64,65] Currently, bioplastics account for roughly one percent of the overall global plastics market.[19,66] There are several advantages to bioplastics, including their ability to save fossil fuel resources, reduce greenhouse gas emissions, and improved end of life outcomes if they are compatible with existing recycling systems and biodegrade.[19,67]

However, the ability for bioplastics to become a more substantial alternative to synthetic plastics in the market over the medium or even long-term is unrealistic due to several factors. First, large scale production of bioplastics is more expensive compared to synthetic plastics derived from fossil oils, partially as a result of the increased supply of inexpensive natural gas, and therefore not economically viable currently.[68] Bioplastics are also not up to par on certain physical and chemical properties as compared to synthetic plastics, and exhibit poor functional quality due to high-water vapor permeability, oxygen permeability, fragility, low thermal resistance, low mechanical properties, vulnerability to degradation, and low processability.[68] Another challenge with bioplastics is that their production, which comes from agricultural products such as corn, competes with food production for consumption and increased production would require the use of arable land, fertilizers, and pesticides for crops, which can also have negative environmental repercussions, such as soil erosion and degradation.[19,67] There are also concerns that while bioplastics are "biodegradable," it is not well understood how they will adequately break down in open environments or outside of industrial composting facilities.[19] Lastly, bioplastics are also produced with the use of chemical additives to provide specific physical properties and therefore may pose a similar risk as some of the chemicals used in synthetic plastics without improved understanding of those chemicals and potential health harms.[19] While the market for bioplastics is expected to grow, there are still challenges that need to be overcome for bioplastics to occupy a larger share of the plastics market and contribute meaningfully to the reduction in plastic waste and pollution.

Health Care Strategies

Recommendations for reducing plastic waste in the health care sector include: increasing physician awareness and education around the health harms of plastics and microplastics; conducting organizational audits to identify ways to reduce the use of unnecessary single-use plastics; physicians raising awareness about impacts of plastic-associated chemicals on human and environmental health with patients and the public; and increased research on the health harms of microplastics and nanoplastics.[15,69,70] This could

[1] There are a few biodegradable fossil-fuel derived plastic polymers that can be categorized as a bioplastic. However, the majority are not and therefore the focus of this section is on renewable sources of bioplastic polymers from natural sources.

include conducting longitudinal biomonitoring studies in human populations, including high-risk populations, to assess microplastics exposure, as well as longitudinal observational studies in human populations, including high-risk populations, to assess the impacts of microplastic exposure on human health.[4,11] Strategies for reducing waste within health care settings are described in further detail in the AMA Council on Science and Public Health report, *Promoting the Use of Multi-Use Devices and Sustainable Practices in the Operating Room*, adopted at the 2023 Interim Meeting of the AMA House of Delegates.[71]

U.S. POLICY AND REGULATORY LANDSCAPE

In the U.S., policies and regulations aimed at reducing single-use plastics, such as plastic bag bans or taxes, have been implemented, but these regulations or bans largely occur at the city or county level.[72] However, there are several jurisdictions with state-wide restrictions on plastic products (See Appendix C).[73] In general, most legislation around banning or restricting single use plastics is in the form of regulating plastic bags, though some states have begun regulating the use of other single-use plastic items, such as plastic bottles. This can range from an outright prohibition on plastic bags to allowing only plastic bags that meet certain requirements, to mandating a small charge per plastic bag a customer uses. Typically, there are also exceptions to these requirements that may include customers using SNAP benefits and/or some smaller retailers.[74,75] For places that implement a tax on single use plastic, such as a tax on plastic bags at grocery stores, they are generally used toward existing funds within the jurisdiction that pay for environmental clean-up or conservation efforts.[76] The effectiveness of single use plastic bans in the U.S. are, at this time, not well studied or documented. However, studies have indicated that plastic bag regulations lead to a 25 to 47 percent decrease in plastic bags at shoreline cleanups.[77,78] For a non-exhaustive, high-level summary of U.S. state and local regulations on single use plastics, which is intended to provide a snapshot of the range of current U.S. regulations, see Appendix C.

Some states have taken the opposite approach and enacted legislation that prohibits city and county governments from enacting restrictions on single-use plastics. These bans, sometimes referred to as "bans on bans," can be a total prohibition on any regulation or a prohibition on a total ban but may allow city and counties to impose a tax on single-use plastics.[79] Justification for these bans vary by state but some general reasons are plastic bags are largely reused, recycling is seen as a more effective solution, and plastic bags tend to carry less harmful bacteria than reusable bags.[79] Overall these justifications are not particularly compelling for several reasons. First, plastic recycling has proven to be an ineffective solution in reducing plastic waste in the U.S. Second, while reusable bags have been found to contain different types of bacteria, there have been very few known cases of reusable grocery bags being a source of infection and over 99 percent of bacteria can be removed through regular washing.[80,81] In fact, during the COVID-19 pandemic, there were claims that reusable grocery bags could carry and transmit the virus, but those assertions were found to be false.[82]

In terms of regulating the chemicals within plastic, at the state level, in September 2024, California passed legislation that will end the use of intravenous medical supplies that contain Di(2-ethylhexyl) phthalate (DEHP), a plasticizer chemical commonly added to polyvinyl chloride that is suspected of being a human carcinogen. The law will go into effect in 2030 and is anticipated to affect the entire U.S. market with a few other states already proposing similar bills.[83] A similar ban on DEHP in IV bags has also been adopted in the European Union.[84]

At the federal level, the Microbead-Free Waters Act of 2015 prohibits the manufacture and sale of rinse-off cosmetic products containing plastic microbeads, such as exfoliants and toothpaste, across the U.S., requiring states with existing bans to align with this standard.[85] While the U.S. Environmental Protection Agency (EPA) has yet to enact direct bans on microplastics, as of 2024 it was funding research, developing analytical methods, and prepared a National Strategy to Prevent Plastic Pollution.[20,86]

Additionally, the Agency for Toxic Substances and Disease Registry (ATSDR), in partnership with the Centers for Disease Control and Prevention (CDC), established a working group to investigate potential health impacts of microplastics, the current state of which is unknown due to recent federal funding cuts and agency reorganization.[87] Federal legislation such as the Save Our Seas Act and the Infrastructure Investment and Jobs Act provide funding support for microplastic monitoring, environmental cleanup efforts, and treatment technologies targeting emerging contaminants.[86] These federal initiatives complement state-level plastic regulations by addressing the growing concerns around microplastic pollution and its broader environmental and public health effects.

Additionally, S.3127, the "Break Free from Plastic Pollution Act," proposed in 2023 but not passed, was comprehensive federal legislation aimed at significantly reducing plastic pollution nationwide.[88] It proposed a national ban on certain single-use plastic products, including single-use plastic bags, straws, utensils, and foodware, while promoting producer responsibility and funding for waste management improvements. The bill proposed to require manufacturers to reduce plastic production and implement reuse and recycling programs.[88]

There have also been recommendations to improve the Toxic Substances Control Act (TSCA) to address the lack of safety information on chemical additives in plastic. TSCA is a federal law passed in in 1976 which provides the U.S. EPA with the authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures.[89] As opposed to a "precautionary principle" approach, TSCA's framework assumes that a chemical is considered safe until proven unsafe and the onus of proving harm is on the U.S. EPA, as opposed to the chemical manufacturer. This approach is different from the European Union's chemical regulation approach, REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals). Within the EU REACH program, the responsibility of data generation, risk assessment, and risk management is the responsibility of industry, and they are more proactive in restricting the use of chemicals that are suspected to be unsafe.[90]

The TSCA inventory includes 83,000 chemicals and is continually updated as new chemicals are commercially manufactured or imported. Out of these 80,000+ chemicals, the EPA has only banned nine chemicals in the past four decades, and only about 200 have been tested for safety.[91–93] Reform of TSCA was signed into law in 2016 by President Obama, which amended TSCA to require EPA to conduct risk evaluations of chemicals on a specified schedule starting with those likely to pose health risks (there was no requirement prior), to consider risks to "potentially exposed or susceptible subpopulations," and determine if a chemical poses an "unreasonable risk" without consideration of cost.[94] The 2016 legislation also required EPA to regulate any existing chemical determined to pose an unreasonable risk "to the extent necessary so that the chemical substance or mixture no longer presents such risk" and empowered the EPA to require manufacturers to perform additional safety testing if more data is needed.[91,94] Despite these amendments to TSCA, there is still concern that the legislation does not go far enough to proactively addressing health safety and concerns of chemicals in the U.S.[90,91]

Recommendations on how TSCA can further be improved to protect health and safety include: (1) considering all conditions of use and exposure pathways for chemicals, in other words, consider cumulative impacts of chemicals; (2) quantifying exposures across pathways and populations; (3) better identifying and protecting potentially exposed or susceptible subpopulations; (4) gathering health and toxicity data to fill data gaps; and (5) using validated systematic review methodology in chemical assessments.[91]

CURRENT AMA POLICY

AMA has existing policy supporting sustainability efforts in health care, which includes policy promoting multiple-use equipment versus single-use equipment, as well as policy calling for a ban on plastic microbeads. AMA has several policies on chemical additives common in plastics, including PFAS, BPA, and phthalates that call for continued research, robust evidence-based regulatory frameworks. In the case of Policy H-135.945, "Encouraging Alternatives to PVC/Phthalate Products in Health," the AMA calls for a phasing out of polyvinyl chloride products with Di(2-ethylhexyl) phthalates in health care settings.

Existing AMA Policy D-135.976, "Modernization of the Federal Toxic Substances Control Act (TSCA) of 1976" calls on the AMA to advocate for modernizing the TSCA to require chemical manufacturers to provide adequate safety information on all chemicals and give federal regulatory agencies reasonable authority to regulate hazardous chemicals in order to protect the health of all individuals, especially vulnerable populations; support the public disclosure of chemical use, exposure and hazard data in forms that are appropriate for use by medical practitioners, workers, and the public; and work with members of the Federation to promote a reformed TSCA that is consistent with goals of Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH).

Furthermore, resolution 429-A-25, "Addressing the Health Consequences of Microplastics in Humans," was adopted by the House of Delegates.[1] This new policy recognizes the potential health risk of microplastics, encouraged increased research on the topic, called on AMA to support respective medical specialties and other relevant organizations to develop evidence-based guidelines for monitoring and mitigating microplastic exposure in water, food, air, and other consumer products, and for AMA to collaborate with relevant parties to promote public education on microplastics.

CONCLUSION

Plastic poses serious environmental and human health concerns across its lifespan because it is primarily derived from fossil fuels, contains thousands of chemicals added during its production, is not easily recycled, and very slowly degrades in the environment. Plastic production, and consequently the volume of plastic waste, has grown exponentially over the last fifty years, threatening ecosystems and public health across the globe. There are several policy levers that can be employed across all levels of government and within institutions to reduce the burden of plastic pollution, the most impactful being to limit the amount of plastic being produced and used in the first place. Other strategies include improved waste management and recycling systems as well as the use of bioplastics as an alternative to synthetic plastics. Additionally, more research is needed to better understand the effectiveness of policies that limit the use of single-use plastic products as well as the health impacts of microplastics and the chemicals found in plastics.

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 H-135.901, "Addressing the Health Consequences of Microplastics in Humans" be amended by addition and deletion to read as follows:

> ADDRESSING THE HEALTH CONSEQUENCES OF <u>PLASTICS AND</u> MICROPLASTICS IN HUMANS
>
> 1. Our American Medical Association recognize the potential health risks associated with <u>plastics and</u> microplastics ~~exposure~~ and encourage increased research to better understand the human health

effects and environmental impacts of plastics across their lifespan ~~microplastics,~~ including the chemicals used in plastic production.

2. Our AMA supports the development of ~~respective specialty medical societies with subject matter expertise and federal and state public health agencies, including the Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency (EPA), to develop~~ evidence-based guidelines for monitoring and mitigating microplastic exposure in water, food, air, and other consumer products.

3. Our AMA will collaborate with relevant stakeholders to promote public education about microplastics, their sources, potential health risks, and possible strategies for reducing exposure.

~~4. Our AMA will study and report back with policy recommendations on ways to reduce plastic pollution and its impact on climate change and health, including but not limited to federal, state, and local taxes and limitations on the use of single-use plastic consumer products and other types of plastic, interventions to reduce microplastics, and alternatives to plastic.~~

4. Our AMA supports policies to reduce plastic pollution, such as limits on single-use plastics (for example plastic bags), incentivizing non-plastic alternatives such as reusable bags, food containers, and packaging, incentivizing alternative reformulations of synthetic plastics (such as bioplastics), and improving recycling infrastructure and systems to better manage plastic waste.

2. That Policy D-135.976, "Modernization of the Federal Toxic Substances Control Act (TSCA) of 1976" be amended by addition and deletion to read as follows:

Our AMA will: (1) collaborate with relevant stakeholders to advocate for modernizing the Toxic Substances Control Act (TSCA) to require chemical manufacturers to provide adequate safety information on all chemicals and give federal regulatory agencies reasonable authority to regulate hazardous chemicals in order to protect the health of all individuals, especially vulnerable populations; (2) support the public disclosure of chemical use, exposure and hazard data in forms that are appropriate for use by medical practitioners, workers, and the public; (3) encourage the U.S. Environmental Protection Agency to consider the cumulative impacts of chemicals within their risk assessment process and quantify exposures across pathways and populations; ~~and~~ (~~3~~4) work with members of the Federation to promote a reformed TSCA that is consistent with goals of Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH), and (5) support the proactive restriction or phasing-out of chemicals suspected of posing significant health risks.

Fiscal Note: Minimal – less than $1,000.

APPENDIX A - GLOSSARY

Bisphenols	Bisphenols represent a group of industrial chemicals used in plastic production to make hard, clear plastic (such as water bottles or baby bottles). They are also used as protective coatings on the inside of food and beverage cans.
Brominated chemicals	Compounds that contain bromine (a naturally occurring element), which helps reduce product flammability.
Cracking	A petrochemical process in which saturated hydrocarbons are broken down into smaller, often unsaturated, hydrocarbons known as olefins, that are then made into plastic resins.[51]
Ethane	A colorless, odorless, and flammable hydrocarbon gas, that is a key component of natural gas.
Ethylene	A colorless, flammable hydrocarbon gas that serves as a key industrial chemical in making plastics and industrial chemicals.
Fracking	Otherwise known as hydraulic fracking, this is a method of extracting natural gas and oil from deep shale rock formations using forced water, sand, and a mix of chemicals into horizontally drilled wells.
Hydrocarbons	Organic compounds composed entirely of carbon and hydrogen atoms; the primary components of fossil fuels.
Microplastics	Pieces of plastic that range in size but are less than 5 millimeters which are produced in two ways: (1) through the breakdown or degradation of larger plastic materials, or (2) intentionally manufactured at that size for use in consumer products.
Monomer	An individual network of atoms or molecules that are chemically united together to form a polymer.
Nanoplastic	Pieces of plastics smaller than 1 micrometer
Perfluoroalkyl and polyfluoroalkyl chemicals	Also known as PFAS chemicals, represent a large group of synthetic chemicals that are broadly defined by their chain of linked carbon and fluorine atoms. The strength of the carbon and fluorine chemical bond makes PFAS chemicals persistent with our environment and they do not break down easily, hence why they are known as “forever chemicals.” PFAS chemicals are a common component in many plastic consumer products, such as food packaging, clothing, and cosmetics, as they help create grease and water-resistant surfaces
Phthalates	A class of synthetic chemicals that are widely used in consumer products; are added to plastics to increase their flexibility, transparency, durability, and longevity.
Polymer	A large molecule that is made up of many repeating, smaller units (or monomers), and creates a network-like chemical structure.
Polypropylene	A versatile and widely used plastic found in many products, including food storage containers. Polyethylene is the most widely used plastic in the world found in many everyday products, such as plastic bags, plastic containers, and medical tubing.
Propylene	A colorless, flammable gas used as a chemical intermediate in the production of various substances, including polypropylene plastic applications.
Vinyl Chloride	A colorless, flammable gas that is primarily used to make hard plastic resin commonly found in plastic pipes and packaging materials

APPENDIX B - FIGURES

Figure 1. Historical Global Plastic Production[95]

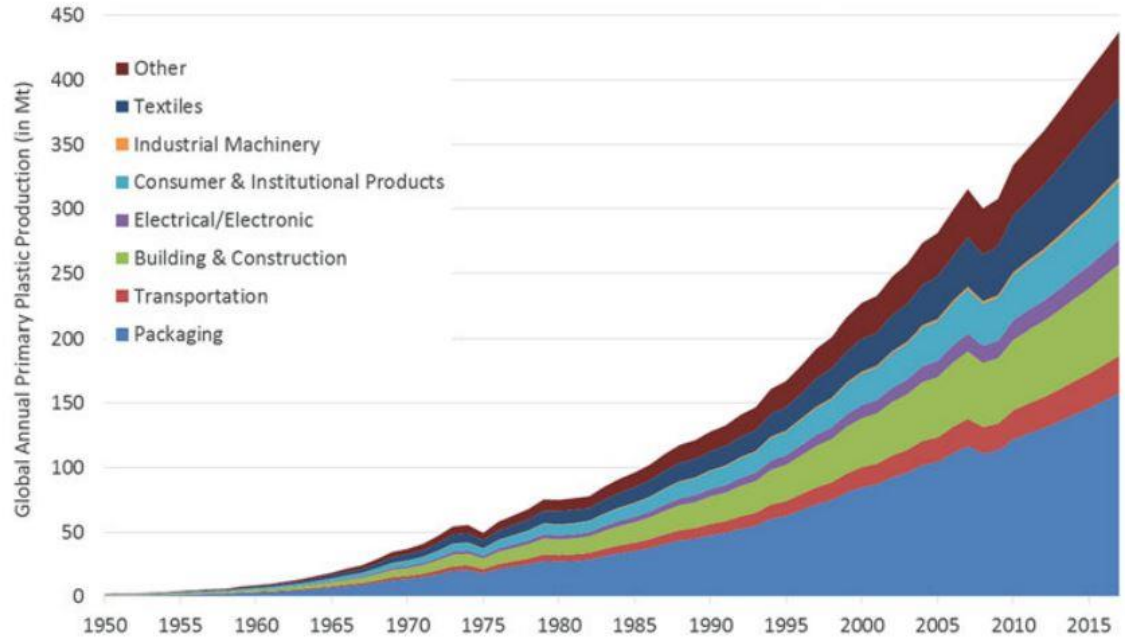


Figure 2. Health Impacts of Plastic Across its Life Cycle[4]

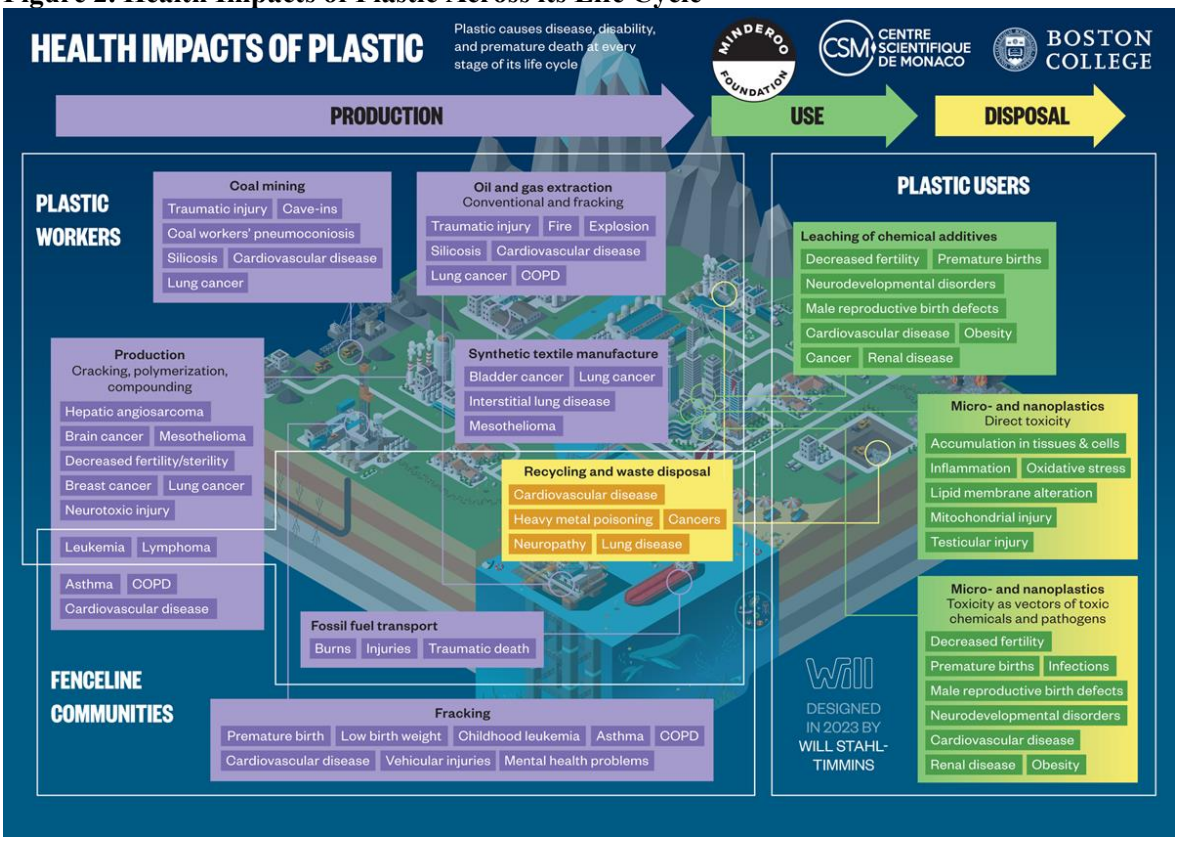
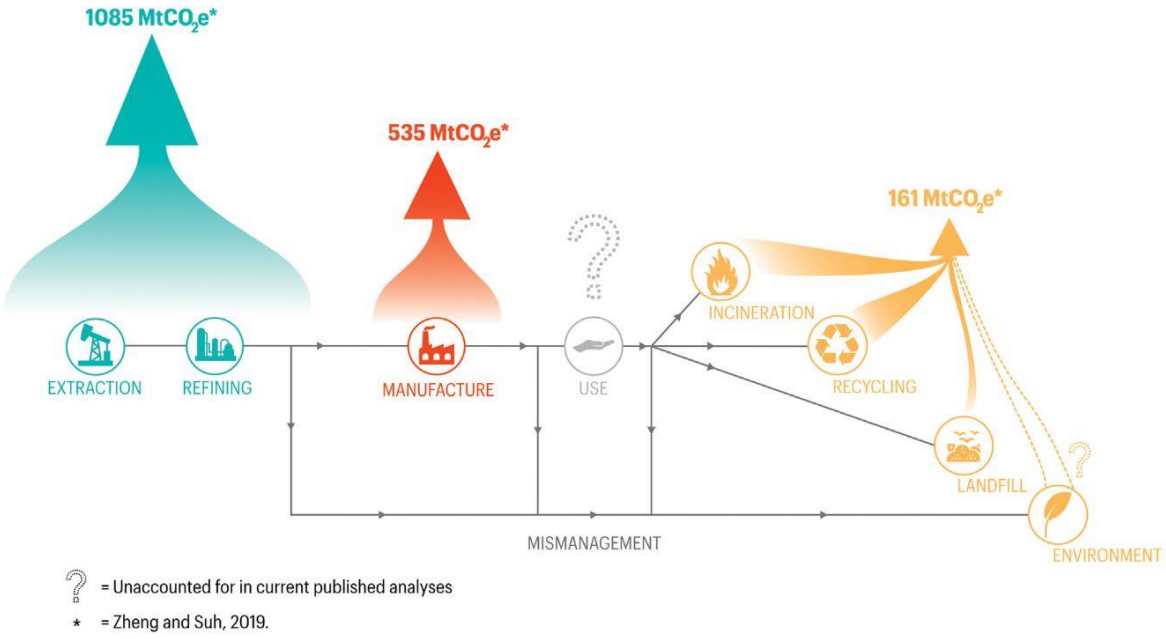


Figure 3. Visualization of the estimated amounts of greenhouse gases released at each stage of the plastic life cycle.[51]



APPENDIX C – ADOPTED U.S. STATE AND LOCAL LEGISLATION ON PLASTIC PRODUCTS AS OF JUNE 2025

State	Summary of Legislation on plastics
Alaska	A majority of Alaskan communities, including Anchorage with code 15.95.020, have banned plastic bags unless they meet a certain requirement, such as being a certain thickness.[96]
Arizona	State law, SB 1241, bans any county, city, or town from "impos(ing) a tax, fee, assessment, charge" on "auxiliary containers" which includes bags, bottles, cups, and other containers made out of plastic.[97]
Arkansas	State law prohibits a municipality or county to "restrict, tax, prohibit, or otherwise regulate the use, disposition, or sale" of containers that are made out of plastic (Act 751 of the 93rd General Assembly).[98]
California	In August 2014, California became the first state to enact legislation imposing a statewide ban on single-use plastic bags at large retail stores. Additionally, by 2032, there must be a 25 percent decrease in single-use plastic packaging and food ware in the state, all single-use packaging and plastic ware must be recyclable or compostable and must recycle 65 percent of single-use plastic packaging and food ware.[99]
Colorado	With only a few exceptions, as of January 1, 2024, no store or retail food establishment can provide single-use plastic carryout bags to customers. There is also now a minimum of a 10-cent fee for recycled paper carryout bags.[100]
Connecticut	As of July 1, 2021, the state adopted a ban on stores providing or selling single-use checkout bags to customers (CT Gen Stat. Section 22a-246a).[101]
Delaware	As of Jan 1, 2021 store that has a single location of at least 7,000 square feet or has 3 or more locations each having at least 3,000 square feet of retail space cannot provide any single-use plastic carryout bags (Section 6099A). Additionally, other stores shall "adopt practices to eliminate the need for plastic carry out bags" and plastic bag manufacturers shall provide stores with recycling opportunities and educational programs for plastic bag and film recycling (7 DE Admin. Code 1301).[102,103]
Florida	State law prohibits local governments from regulating, taxing, or banning auxiliary containers, disposable plastic bags, or wrappings. However, Miami-Dade County circumvented this preemption by passing legislation that only applies to public places and eliminated single-use plastics and Styrofoam at Miami-Dade County facilities, including Miami International Airport.[104,105]
Georgia	Atlanta bans "non-compostable single-use serviceware" which includes plastic bags and plastic straws and South Fulton city bans single-use plastic bags in retail establishments.[106,107]
Hawaii	A few islands like Oahu have banned plastic bags and charge a minimum of 15 cents for recyclable or reusable bags.[108]
Idaho	State law prohibits any "regulation regarding the use, disposition or sale or any imposition of any prohibition, restriction, fee imposition or taxation" of containers that are designed for one-time use made out of plastic that is not made by the state legislature (Statute 67-2340).[109]
Illinois	Effective July 1, 2025, state legislation bans a hotel with 50 or more rooms to provide small, single-use plastic bottles with personal care products. Many cities have enacted their own legislation to either ban plastic single-use bags (see Evanston) or charge a small fee per single-use plastic bag (see, for example, Chicago).[75,110,111]

Indiana	State law, passed in 2016, bans local governments from taxing or restricting the use of disposable plastic bags by retailers.[112,113]
Iowa	State law prohibits counties to "adopt an ordinance, motion, resolution, or amendment that sets standards or requirements regarding the sale or marketing" of merchandise, including containers made out of plastic that are "used for consuming, carrying, or transporting" (HF 295).[114]
Kansas	Lawrence is the only city in Kansas with single-use plastic legislation. The city bans single-use disposable plastic bags with Ordinance No. 9996.[115]
Maine	With some limited exceptions, Maine bans retail establishments from providing single-use carry-out bags to customers (see 39 Maine Rev. Stat. Section 1611).[116]
Maryland	As of May 13, 2025, state law requires certain producers, including plastic producers, to increase recycling rates and develop more sustainable packaging designs (MD SB 901). Additionally, many counties and cities have banned retail establishments from providing single-use plastic carry-out bags.[117]
Massachusetts	As of June 2025, Massachusetts has pending legislation (Bill S2541) that would ban single-use plastic carry-out bags statewide and require a minimum 10-cent fee on paper or reusable bags, with half of the fee directed to environmental protection efforts. The bill also proposes limiting plastic use by requiring straws and plasticware only upon request, banning the sale of small plastic water bottles (1 liter or less) and 100ml plastic alcohol containers (with exceptions for health, safety, and emergencies), and prohibiting state agencies from purchasing single-use plastic bottles. Additional provisions include a statewide recycling program for large plastic items like car seats, mandatory "Do Not Flush" labels on non-flushable wipes, development of a public composting plan, creation of an Environmental Protection Trust Fund, and a Producer Responsibility Commission to recommend extended packaging waste reduction strategies.[118]
Michigan	State law bans municipalities from "regulating, prohibiting or adding fees to the use or sale" of single-use plastic products.[112]
Minnesota	State law prohibits any counties and cities from imposing any ban "upon the use of paper, plastic, or reusable bags for packaging of any item or good purchased from a merchant, itinerant vendor, or peddler" (section 471.9998). Alternatively, some cities have adopted a five-cent tax on single-use plastic bags (see, for example, Minneapolis, Duluth, and Edina).[119–121]
Mississippi	State law bans a county or municipality from regulating the use, disposition or sale or imposing a fee on packaging made out of plastic, regardless of if it's single-use or reusable (SB 2570).[112]
Missouri	State law prohibits any county, city, town or village to "impose any ban, fee, or tax upon the use of either paper or plastic bags for packaging of any item or good purchased from a merchant, itinerant vendor, or peddler" (Section 260.283).[122]
Montana	State law bans any local unit of government from adopting any policies that would prohibit, restrict, or regulate (including imposing a fee) on plastic products (HB 407).[123]
Nevada	Nevada has no statewide ban on single-use plastics, but several local jurisdictions have enacted restrictions, including a retailer plastic bag distribution ban effective January 1, 2022. Senate Bill 324 bans the sale of water in disposable plastic bottles (4 liters or less) in communities near Lake Tahoe.[124]
New Jersey	New Jersey currently enforces one of the most comprehensive statewide bans on single-use plastics through P.L. 2020, c.117, which became fully effective on May 4, 2022. The law prohibits single-use plastic carryout bags at all retail and food service establishments and bans paper bags in grocery stores over 2,500 square

	feet. Polystyrene foam food containers are also banned, with all exemptions having expired by May 2024. Plastic straws are allowed only upon customer request, per provisions in effect since November 4, 2021. The law is enforced through progressive penalties, ranging from warnings to fines of up to $5,000 per day. By 2023, it had already led to the elimination of 5.5 billion plastic bags and 110 million paper bags, while contributing to a 37% reduction in shoreline plastic litter and an 88% decrease in plastic straw distribution.[125]
New York	New York currently enforces a statewide ban on single-use plastic bags through the Bag Waste Reduction Act, effective since March 1, 2020. It prohibits retail and food service businesses from distributing plastic carryout bags and requires a minimum 5-cent charge for paper bags.[126]
North Carolina	State preemption law prohibits local governments from enacting their own plastic bag restrictions.[127]
Oregon	Oregon enforces a statewide ban on single-use plastic bags under House Bill 2509, effective January 1, 2023. The law prohibits most retailers, including grocery stores, restaurants, and other retail locations, from providing single-use plastic checkout bags and requires a minimum fee for paper alternatives. Senate Bill 543 expands Oregon's plastic reduction efforts by phasing out polystyrene foam food ware, packing peanuts, and coolers, and banning PFAS in food packaging starting January 1, 2025. By 2027, single-use plastic bags will be fully phased out at all checkout lanes statewide.[128]
Rhode Island	Rhode Island enforces a statewide ban on single-use plastic bags at retail establishments under the Plastic Waste Reduction Act, which took effect on January 1, 2024. The law establishes a uniform statewide standard and encourages consumers to use reusable bags. Paper bags may still be offered at some stores, but plastic checkout bags are not allowed.[129]
South Carolina	North Myrtle Beach became the 15th municipality to adopt a plastic bag ban, effective October 1, 2022. Charleston and at least 10 other coastal communities have banned plastic bags, straws, and foam containers.[130]
South Dakota	South Dakota prohibits local governments from regulating or banning single-use packaging under Codified Law 34A-6-92. This statute preempts municipal action on plastic bags, straws, beverage containers, and other packaging materials, aiming to maintain regulatory consistency statewide.[131]
Texas	Although some cities previously enacted local bans, a 2018 Texas Supreme Court ruling invalidated these ordinances, citing conflict with the state's Solid Waste Disposal Act. As a result, municipalities are prohibited from regulating the sale or use of containers, including plastic bags.[112]
Utah	Several municipalities such as Park City and Moab have implemented local restrictions on plastic bags and polystyrene containers. A 2023 update to Utah's bottle bill allows redemption center workers to sort containers by material type starting in 2025, supporting broader recycling efforts.[132]
Vermont	Vermont does not ban plastic bags outright but has passed legislation requiring retailers to charge a five-cent fee on both plastic and paper bags beginning July 1, 2024. The state has enacted laws and regulations to address single-use plastic bag usage, including a ban on plastic carry-out bags, the implementation of the five-cent fee on paper bags, and supporting public education initiatives to promote the use of reusable alternatives.[133,134]
Virginia	Virginia issued Executive Order 77, which mandates that all state agencies eliminate the use of disposable plastic bags and single-use foodware within 120 days of implementation. This executive order also required a full phase-out of

	other single-use plastics in state agencies and public universities by the year 2025. To note, this executive order was later repealed by a subsequent governor. Additionally, Virginia enacted legislation that bans single-use polystyrene foam containers statewide beginning July 1, 2025. Although the state does not currently have a plastic bag ban that applies broadly to retail businesses, House Bill 1757, passed in 2020, grants local governments the authority to enact their own fees or bans on plastic bags. Several municipalities in Virginia have already passed ordinances utilizing this authority, and enforcement is managed by the Virginia Department of Environmental Quality.[135]
Washington	Washington has enacted a statewide ban on single-use plastic bags that took effect on October 1, 2021, under Senate Bill 5323 passed in 2020. Retailers are prohibited from providing single-use plastic bags to customers and must charge an eight-cent fee for paper or reusable bag alternatives. A newer law signed in 2025 increases penalties related to plastic waste and permits retailers to offer thicker bags for sale beginning January 1, 2026, through the year 2028. Enforcement of these regulations is carried out by the Washington State Department of Ecology, and the law is recognized as one of the most comprehensive bans in the United States.[136]
Wisconsin	While municipalities previously had authority to regulate single use plastics, the 2015 Wisconsin Act 302 now prohibits local governments from enacting bans or fees.[137]
Wyoming	Local governments such as the Town of Jackson and Teton County have implemented ordinances banning single-use plastic bags and requiring a twenty-cent fee for paper or reusable alternatives. These fees support local waste reduction programs.[138]

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AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 901
(I-25)

Introduced by: Medical Society of the District of Columbia

Subject: Distinction Between Healthful and Unhealthful “Ultraprocessed” Foods

Referred to: Reference Committee K

Whereas, legislation is currently pending in the U.S. Congress to ban all “ultraprocessed foods” from the National School Lunch Program (H.R.2530, “Healthy Lunch for Healthy Kids Act”), without differentiating between “ultraprocessed” foods that serve public health needs and those that harm public health; and

Whereas, similar bills are pending in California and Pennsylvania, and the Make America Healthy Again Commission has described the consumption of “ultraprocessed foods” as a major public-health concern; and

Whereas, the term “ultraprocessed” has no universally accepted definition, leading to a July 25, 2025, federal Request for Information for suggestions on how to define the term, although it has been used to describe a wide range of products (e.g., sausage, burgers, sodas, breads, and cereals, among many others); and

Whereas, foods called “ultraprocessed” vary greatly in their health effects; in a large 2023 Harvard study, consumption of “ultraprocessed” cereals was associated with 22% reduced diabetes risk, fruit-based products were associated with 18% reduced risk, and yogurt was associated with a 9% reduced risk, while frequent consumption of animal-based “ultraprocessed” foods and sugar-sweetened beverages was associated with 44% and 15% increased risk of diabetes, respectively; and

Whereas, overly broad bans on “ultraprocessed” foods will hinder vital public health initiatives, including FDA-mandated addition of folic acid to cereal grain products, reducing spina bifida incidence; fortification of dairy milk and soymilk with vitamin D (a vitamin found in very few unfortified foods) and calcium, preventing rickets; and fortification of cereals with vitamin B12, reducing the risk of pernicious anemia; and

Whereas, overly broad bans on “ultraprocessed” foods will impede clinical management of nutrition-related conditions (e.g., the use of soymilk for breast cancer risk reduction, lactose intolerance, or dairy allergies and cholesterol-free meat substitutes for the management of lipid disorders); and

Whereas, in clinical trials, the inclusion of low-fat, plant-based “ultraprocessed” foods in intervention diets has been shown to not compromise weight loss or other health outcomes; and

Whereas, broad restrictions on “ultraprocessed” foods, without differentiating those that are healthful and those that are not, are likely to lead to (1) increased risk of nutritional deficiencies in children and adults, (2) increased risk of diabetes and cardiovascular disease, and (3) increased challenges for physicians and dietetic personnel guiding patients to healthful and convenient nutritional choices; and

Whereas, current AMA policy on “ultraprocessed” foods (H-150.914. Addressing the Health Impacts of Ultraprocessed Foods) inadvertently promotes the misunderstanding that all ultraprocessed foods are unhealthful and are to be avoided, potentially leading to serious adverse public health consequences; and

Whereas, a simple, one-word revision could transform AMA policy from one that runs counter to public health efforts to one that supports public health, allowing a differentiation between healthful processed foods that should remain in public nutrition programs and unhealthful processed foods that merit removal; therefore be it

RESOLVED, that our American Medical Association encourage public education on the difference between healthful “ultraprocessed” foods and unhealthful “ultraprocessed” foods (New HOD Policy); and be it further

RESOLVED, that our AMA amend AMA policy H-150.914, Addressing the Health Impacts of Ultraprocessed Foods, by deletion to remove the first appearance of the word “food,” so as to read “Our AMA supports and promotes public awareness and education about the differences between healthful ~~foods~~ and unhealthful ultraprocessed foods (UPF) and the benefits of minimally processed and unprocessed foods.” (Modify Current HOD Policy)

Fiscal Note: Minimal – less than $1,000

Received: 9/15/25

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RELEVANT AMA POLICY

H-150.914 Addressing the Health Impacts of Ultraprocessed Foods
1. Our AMA supports and promotes public awareness and education about the differences between healthful foods and unhealthful ultraprocessed foods (UPF) and the benefits of minimally processed and unprocessed foods.
2. Our AMA supports federal, state, and local policies that promote and incentivize the production and distribution of healthier, affordable, minimally-processed and unprocessed foods.
3. Our AMA encourages the integration of nutrition education into all levels of medical education to empower clinicians to best counsel patients efficiently and effectively on reducing unhealthful UPF

consumption.
4. Our AMA supports increased funding to the FDA for research into the health impacts of ultraprocessed foods and strategies to mitigate their risks. [Res. 430, A-25]

H-150.922 Reduction in Consumption of Processed Meats
Our AMA supports: (1) reduction of processed meat consumption, especially for patients diagnosed or at risk for cardiovascular disease, type 2 diabetes, and cancer; (2) initiatives to reduce processed meats consumed in public schools, hospitals, food markets and restaurants while promoting healthy alternatives such as a whole foods and plant-based nutrition; (3) public awareness of the risks of processed meat consumption; and (4) educational programs for health care professionals on the risks of processed meat consumption and the benefits of healthy alternatives. [Res. 406, A-19]

H-150.927 Strategies to Reduce the Consumption of Food and Beverages with Added Sweeteners
1. Our American Medical Association acknowledges the adverse health impacts of sugar- sweetened beverage (SSB) consumption and food products with added sugars, and support evidence-based strategies to reduce the consumption of SSBs and food products with added sugars, including but not limited to, excise taxes on SSBs and food products with added sugars, removing options to purchase SSBs and food products with added sugars in primary and secondary schools, the use of warning labels to inform consumers about the health consequences of SSB consumption and food products with added sugars, and the use of plain packaging.
2. Our AMA encourages continued research into strategies that may be effective in limiting SSB consumption and food products with added sugars, such as controlling portion sizes; limiting options to purchase or access SSBs and food products with added sugars in early childcare settings, workplaces, and public venues; restrictions on marketing SSBs and food products with added sugars to children; and changes to the agricultural subsidies system.
3. Our AMA encourages hospitals and medical facilities to offer healthier beverages, such as water, unflavored milk, coffee, and unsweetened tea, for purchase in place of SSBs and apply calorie counts for beverages in vending machines to be visible next to the price.
4. Our AMA encourages physicians to
a. counsel their patients about the health consequences of SSB consumption and food products with added sugars and replacing SSBs and food products with added sugars with healthier beverage and food choices, as recommended by professional society clinical guidelines.
b. work with local school districts to promote healthy beverage and food choices for students.
5. Our AMA recommends that taxes on food and beverage products with added sugars be enacted in such a way that the economic burden is borne by companies and not by individuals and families with limited access to food alternatives.
6. Our AMA supports that any excise taxes are reinvested in community programs promoting health.
7. Our AMA will advocate for the end of tax subsidies for advertisements that promote among children the consumption of food and drink of poor nutritional quality, as defined by appropriate nutritional guiding principles. [CSAPH Rep. 03, A-17; Modified: Res. 429, A-22]

H-150.929 Promotion of Healthy Lifestyles I: Reducing the Population Burden of Cardiovascular Disease by Reducing Sodium Intake
1. Our American Medical Association calls for a step-wise, minimum 50% reduction in sodium in processed foods, fast food products, and restaurant meals to be achieved over the next decade.
2. Our AMA urges the FDA to publish future editions of their voluntary targets expeditiously to make further progress on sodium reduction.
3. Our AMA supports federal, state, and local efforts to set robust targets for reducing sodium levels in school meals, meals in health care facilities, and other meals provided by daily meal providers.
4. Our AMA will advocate for federal, state, and local efforts to reduce sodium levels in products from food manufacturers and restaurants to the greatest extent possible, without increasing levels of other unhealthy ingredients, such as added sugars or artificial ingredients.
5. Our AMA supports federal, state, and local efforts to require front-of-package warning labels for foods that are high in sodium based on the established recommended daily value.
6. Our AMA will assist in achieving the Healthy People 20302010 goal for sodium consumption, by will working with the FDA, the National Heart Lung Blood Institute, the Centers for Disease Control and Prevention, the American Heart Association, Academy of Nutrition and Dietetics, and other interested

partners to educate consumers about the benefits of reductions in sodium intake and other dietary approaches to reduce hypertension.
7. Our AMA supports the continuing education of physicians and other members of the health care team on counseling patients on lifestyle modification strategies to manage blood pressure, advocating for culturally relevant dietary models that reduce sodium intake.
8. Our AMA recommends that the FDA consider all options to promote reductions in the sodium content of processed foods.
9. Our AMA supports further study and evaluation of national salt reduction programs to determine the viability, industry engagement, and health and economic benefits of such programs.
10. Our AMA supports federal, state, and local efforts to regulate advertising of foods and products high in sodium, especially advertising targeted to children. [CSAPH Rep. 01, A-16; Modified: CSAPH Rep. 04, I-24]

D-150.974 Support for Nutrition Label Revision and FDA Review of Added Sugars
1. Our AMA will issue a statement of support for the newly proposed nutrition labeling by the Food and Drug Administration (FDA) during the public comment period.
2. Our AMA will recommend that the FDA further establish a recommended daily value (%DV) for the new added sugars listing on the revised nutrition labels based on previous recommendations from the WHO and AHA).
3. Our AMA will encourage further research into studies of sugars as addictive through epidemiological, observational, and clinical studies in humans.
4. Our AMA encourages the FDA to: (a) develop front-of-package warning labels for foods that are high in added sugars based on the established recommended daily value; and (b) limit the amount of added sugars permitted in a food product containing front-of-package health or nutrient content claims. [Res. 422, A-14; Appended: Res. 903, I-18]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 903
(I-25)

Introduced by: Tennessee

Subject: Nitrous Oxide Inhalant Abuse

Referred to: Reference Committee K

Whereas, flavored and unflavored nitrous oxide canisters are sold as food processing propellants for whipped cream and culinary food use on popular e-commerce websites, in tobacco and vape shops, and in gas stations; and

Whereas, the coercive branding on these nitrous oxide canisters bears far greater resemblance to vape or nicotine products than other food processing additives; and

Whereas, the misuse of these products by inhalation can lead to, among other symptoms, asphyxiation, blood clots, palpitations, paralysis, psychiatric disturbances, vitamin B12 deficiency, and in some cases, death; and

Whereas, recent social media trends have popularized the misuse and inhalation of nitrous oxide among children and adolescents across the United States with research results underscoring a significant increase over the last decade of nitrous oxide as an inhalant; therefore be it

RESOLVED, that our American Medical Association encourage and support the regulation of the branding of nitrous oxide canisters by U.S. Food and Drug Administration. (New HOD Policy)

Fiscal Note: Minimal – less than $1,000

Received: 9/18/25

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 904
(I-25)

Introduced by: Mississippi

Subject: Supporting Certification of the Public Health Workforce

Referred to: Reference Committee K

Whereas, public health professionals play a crucial role in safeguarding population health, promoting wellness, and responding effectively to health crises, including pandemics, natural disasters, and health inequities; and

Whereas, the National Board of Public Health Examiners (NBPHE) was established in 2005 in response to a call from the Surgeon General for the credentialing and certification of public health workers, launching the Certified in Public Health (CPH) examination in 2008, and has since certified more than 14,000 professionals; and

Whereas, the CPH certification is voluntary and designed based on a rigorous Job Task Analysis (JTA), conducted every 5-7 years, to ensure alignment with current professional competencies in data analytics, leadership, communication, law and ethics, disease prevention, community engagement, policy advocacy, and population health outcomes; and

Whereas, leading public health organizations such as the American Public Health Association, the Council on Education in Public Health, the National Association of City and County Health Officials, and the Association of State and Territorial Health Officials support certification and are institutional members of the NBPHE; and

Whereas, the CPH certification process parallels well-established certification standards in medicine and is crucial for ensuring professional competency, credibility, continuous professional development, and preparedness in addressing evolving public health challenges; and

Whereas, physicians play an integral and leading role in public health initiatives and are well-positioned to promote high standards of professional competency within the public health workforce; and

Whereas, support from the American Medical Association would significantly enhance the recognition, adoption, and value of CPH certification across the healthcare and public health sectors; therefore be it

RESOLVED, that our American Medical Association support and endorse the Certified in Public Health (CPH) credential as a valuable certification for public health professionals (New HOD Policy); and be it further

RESOLVED, that our AMA encourage physicians engaged in public health practice to pursue and advocate for the CPH certification. (New HOD Policy)

Fiscal Note: Minimal – less than $1,000

Received: 9/22/25

RELEVANT AMA POLICY

H-275.926 Medical Specialty Board Certifications Standards

1. Our American Medical Association opposes any action, regardless of intent, that appears likely to confuse the public about the unique credentials of American Board of Medical Specialties (ABMS) or American Osteopathic Association Bureau of Osteopathic Specialists (AOA-BOS) board certified physicians in any medical specialty, or take advantage of the prestige of any medical specialty for purposes contrary to the public good and safety.
2. Our AMA opposes any action, regardless of intent, by organizations providing board certification for non-physicians that appears likely to confuse the public about the unique credentials of medical specialty board certification or take advantage of the prestige of medical specialty board certification for purposes contrary to the public good and safety.
3. Our AMA continues to work with other medical organizations to educate the profession and the public about the ABMS and AOA-BOS board certification process. It is AMA policy that when the equivalency of board certification must be determined, the certification program must first meet accepted standards for certification that include both
    a. a process for defining specialty-specific standards for knowledge and skills and
    b. offer an independent, external assessment of knowledge and skills for both initial certification and recertification or continuous certification in the medical specialty. In addition, accepted standards, such as those adopted by state medical boards or the Essentials for Approval of Examining Boards in Medical Specialties, will be utilized for that determination.
4. Our AMA opposes discrimination against physicians based solely on lack of ABMS or equivalent AOA-BOS board certification, or where board certification is one of the criteria considered for purposes of measuring quality of care, determining eligibility to contract with managed care entities, eligibility to receive hospital staff or other clinical privileges, ascertaining competence to practice medicine, or for other purposes. Our AMA also opposes discrimination that may occur against physicians involved in the board certification process, including those who are in a clinical practice period for the specified minimum period of time that must be completed prior to taking the board certifying examination.
5. Our AMA advocates for nomenclature to better distinguish those physicians who are in the board certification pathway from those who are not.
6. Our AMA encourages member boards of the ABMS to adopt measures aimed at mitigating the financial burden on residents related to specialty board fees and fee procedures, including shorter preregistration periods, lower fees and easier payment terms.
7. Our AMA encourages continued advocacy to federal and state legislatures, federal and state regulators, physician credentialing organizations, hospitals, and other interested parties to define physician board certification as the medical profession establishing specialty-specific standards for knowledge and skills, using an independent assessment process to determine the acquisition of knowledge and skills for initial certification and recertification.[Res. 318, A-07 Reaffirmation A-11 Modified: CME Rep. 2, I-15 Modified: Res. 215, I-19 Modified: Res. 316, I-22 Appended and Reaffirmed: CME Rep. 04, I-23 Reaffirmed in lieu of: Res. 302, A-24]

H-275.924 Continuing Board Certification

Our American Medical Association Principles on Continuing Board Certification

1. Changes in specialty-board certification requirements for CBC programs should be longitudinally stable in structure, although flexible in content.
2. Implementation of changes in CBC must be reasonable and take into consideration the time needed to develop the proper CBC structures as well as to educate physician diplomates about the requirements for participation.
3. Any changes to the CBC process for a given medical specialty board should occur no more frequently than the intervals used by that specialty board for CBC.
4. Any changes in the CBC process should not result in significantly increased cost or burden to physician participants (such as systems that mandate continuous documentation or require annual milestones).

5. CBC requirements should not reduce the capacity of the overall physician workforce. It is important to retain a structure of CBC programs that permits physicians to complete modules with temporal flexibility, compatible with their practice responsibilities.
6. Patient satisfaction programs such as The Consumer Assessment of Healthcare Providers and Systems (CAHPS) patient survey are neither appropriate nor effective survey tools to assess physician competence in many specialties.
7. Careful consideration should be given to the importance of retaining flexibility in pathways for CBC for physicians with careers that combine clinical patient care with significant leadership, administrative, research and teaching responsibilities.
8. Legal ramifications must be examined, and conflicts resolved, prior to data collection and/or displaying any information collected in the process of CBC. Specifically, careful consideration must be given to the types and format of physician-specific data to be publicly released in conjunction with CBC participation.
9. Our AMA affirms the current language regarding continuing medical education (CME): “Each Member Board will document that diplomates are meeting the CME and Self-Assessment requirements for CBC Part II. The content of CME and self-assessment programs receiving credit for CBC will be relevant to advances within the diplomate’s scope of practice, and free of commercial bias and direct support from pharmaceutical and device industries. Each diplomate will be required to complete CME credits (AMA PRA Category 1 Credit”, American Academy of Family Physicians Prescribed, American College of Obstetricians and Gynecologists, and/or American Osteopathic Association Category 1A).”
10. In relation to CBC Part II, our AMA continues to support and promote the AMA Physician’s Recognition Award (PRA) Credit system as one of the three major credit systems that comprise the foundation for continuing medical education in the U.S., including the Performance Improvement CME (PICME) format; and continues to develop relationships and agreements that may lead to standards accepted by all U.S. licensing boards, specialty boards, hospital credentialing bodies and other entities requiring evidence of physician CME.
11. CBC is but one component to promote patient safety and quality. Health care is a team effort, and changes to CBC should not create an unrealistic expectation that lapses in patient safety are primarily failures of individual physicians.
12. CBC should be based on evidence and designed to identify performance gaps and unmet needs, providing direction and guidance for improvement in physician performance and delivery of care.
13. The CBC process should be evaluated periodically to measure physician satisfaction, knowledge uptake and intent to maintain or change practice.
14. CBC should be used as a tool for continuous improvement.
15. The CBC program should not be a mandated requirement for licensure, credentialing, recredentialing, privileging, reimbursement, network participation, employment, or insurance panel participation.
16. Actively practicing physicians should be well-represented on specialty boards developing CBC.
17. Our AMA will include early career physicians when nominating individuals to the Boards of Directors for ABMS member boards.
18. CBC activities and measurement should be relevant to clinical practice.
19. The CBC process should be reflective of and consistent with the cost of development and administration of the CBC components, ensure a fair fee structure, and not present a barrier to patient care.
20. Any assessment should be used to guide physicians’ self-directed study.
21. Specific content-based feedback after any assessment tests should be provided to physicians in a timely manner.
22. There should be multiple options for how an assessment could be structured to accommodate different learning styles.
23. Physicians with lifetime board certification should not be required to seek recertification.
24. No qualifiers or restrictions should be placed on diplomates with lifetime board certification recognized by the ABMS related to their participation in CBC.
25. Members of our House of Delegates are encouraged to increase their awareness of and participation in the proposed changes to physician self-regulation through their specialty organizations and other professional membership groups.
26. The initial certification status of time-limited diplomates shall be listed and publicly available on all American Board of Medical Specialties (ABMS) and ABMS Member Boards websites and

physician certification databases. The names and initial certification status of time-limited diplomates shall not be removed from ABMS and ABMS Member Boards websites or physician certification databases even if the diplomate chooses not to participate in CBC.

27. Our AMA will continue to work with the national medical specialty societies to advocate for the physicians of America to receive value in the services they purchase for Continuing Board Certification from their specialty boards. Value in CBC should include cost effectiveness with full financial transparency, respect for physicians' time and their patient care commitments, alignment of CBC requirements with other regulator and payer requirements, and adherence to an evidence basis for both CBC content and processes. [CME Rep. 16, A-09 Reaffirmed: CME Rep. 11, A-12 Reaffirmed: CME Rep. 10, A-12 Reaffirmed in lieu of Res. 313, A-12 Reaffirmed: CME Rep. 4, A-13 Reaffirmed in lieu of Res. 919, I-13 Appended: Sub. Res. 920, I-14 Reaffirmed: CME Rep. 2, A-15 Appended: Res. 314, A-15 Modified: CME Rep. 2, I-15 Reaffirmation A-16 Reaffirmed: Res. 309, A-16 Modified: Res. 307, I-16 Reaffirmed: BOT Rep. 05, I-16 Appended: Res. 319, A-17 Reaffirmed in lieu of: Res. 322, A-17 Modified: Res. 953, I-17 Reaffirmation: A-19 Modified: CME Rep. 02, A-19 Reaffirmed: Res. 310, I-22 Reaffirmed in lieu of: Res. 302, A-24 Reaffirmed in lieu of: Res. 316, A-24]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 905
(I-25)

Introduced by: Organized Medical Staff Section, Massachusetts

Subject: Standardizing Brain Death Policies

Referred to: Reference Committee K

Whereas, the core purpose of the AMA is to “promote the science and art of medicine and the betterment of public health." AMA policy provides the conceptual foundation and organizational framework for the activities that the Association undertakes to achieve its core purpose; and

Whereas, end-of-life issues are integral to the spectrum of healthcare delivery; and

Whereas, our American Medical Association currently has no established policy on standardized death determination; and

Whereas, before 1980, “the disparity between the common law determination of death and accepted medical practice pointed to the need for a uniform law. One goal of the Uniform Determination of Death Act was to close this disparity. The Uniform Law Commission (ULC) joined forces with the American Bar Association (ABA), the American Medical Association (AMA), and a Presidential Commission to provide a consistent basis for determining death. The President’s Commission was the Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. The ABA and the AMA approved the UDDA shortly after publication. Health care is generally a matter of state law. The Act intended to provide a standard for states to emulate”[1]; and

Whereas, the Uniform Determination of Death Act (UDDA) states that:

> “1. [Determination of Death]. An individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions, or (2) irreversible cessation of all functions of the entire brain, including the brain stem, is dead. A determination of death must be made in accordance with accepted medical standards.
> 2. [Uniformity of Construction and Application]. This Act shall be applied and construed to effectuate its general purpose to make uniform the law with respect to the subject of this Act among states enacting it.”[2]

and

Whereas, the current status of determination of brain death/death by neurologic criteria (BD/DNC), by the Uniform Determination of Death Act is that such determination must be made in accordance with accepted medical standards, but the UDDA does not delineate those standards[3]; and

Whereas, today, there is variability in hospital policies about, and the practice of, BD/DNC determination within the United States which is in part due to the fact that there is no consensus amongst states as to a uniform standard[4]; and

Whereas, the accepted medical standards for BD/DNC determination “are only identified statutorily in Nevada and New Jersey and on a state health organization website in New York.

Lack of guidance about the accepted medical standards for BD/DNC determination contributes to variability across hospital BD/DNC determination policies, leading to medical, ethical and legal challenges"[5]; and

Whereas, as an example of states' handling of this issue, Massachusetts law states, "In addition to the rules of evidence in courts of general jurisdiction, the following rules relating to a determination of death and status apply: (1) Death occurs when an individual has sustained either (i) irreversible cessation of circulatory and respiratory functions or (ii) irreversible cessation of all functions of the entire brain, including the brain stem. A determination of death shall be made in accordance with accepted medical standards" but does not define what those medical standards are[6]; and

Whereas, the *New England Journal of Medicine* published an article on the history of BD/DNC without any more guidance or information[7]; and

Whereas, the Joint Commission indicated this is not within their purview, and deferred to the Centers for Medicare and Medicaid Services, who met to learn about this issue, but have taken no further action[8]; and

Whereas, the American Academy of Neurology (AAN), American Academy of Pediatrics (AAP), Child Neurology Society (CNS), and Society of Critical Care Medicine (SCCM) are the only national or international medical societies who have taken responsibility for writing guidelines on the determination of death by neurologic criteria in the United States since the 1980s[3, 9-12]; and

Whereas, a recent published update of BD/DNC consensus guidelines, "Pediatric and Adult Brain Death / Death by Neurologic Criteria Consensus Guideline; Report of the AAN Guidelines Subcommittee" has been a major step in codifying the contemporary state of determination in the United States, though additional information and changes in technology could invite future refinement of guidelines[13]; and

Whereas, the UDDA "was originally written in collaboration with the American Medical Association but they were not involved with the drafting committee; as the principal federal and state advocate on key health issues that impact physicians, patients, and healthcare institutions, they would be an ideal champion for revisions"[14]; and

Whereas, the American Medical Association is the best single organization to bring about a national consensus inclusive of medical and legal stakeholders of death determination; therefore be it

RESOLVED, that our American Medical Association collaborate with appropriate stakeholders to identify "accepted medical standards" for determination of brain death/death by neurologic criteria (BD/DNC) as required by the Uniform Determination of Death Act (Directive to Take Action); and be it further

RESOLVED, that our AMA encourage and support legislative and regulatory efforts to have one uniform set of standards for brain death/death by neurologic criteria used throughout the United States. (New HOD Policy)

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

Received: 9/22/25

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RELEVANT AMA POLICY

6.1.6 Anencephalic Newborns as Organ Donors

Permitting parents of an anencephalic newborn to donate their child’s organs has been proposed as a way to increase the organ supply for pediatric transplantation.
However, organ donation in these circumstances also raises concerns, particularly about the accuracy of diagnosis and the potential implications for other vulnerable individuals who lack decision-making capacity and are not able to participate in decisions to donate their organs,
although anencephalic newborns are thought to be unique among other brain- damaged beings because they lack past consciousness and have no potential for future consciousness.
In the context of prospective organ donation from an anencephalic newborn, physicians may ethically:
(a) Provide ventilator assistance and other medical therapies that are necessary to
sustain organ perfusion and viability until such time as a determination of death can be made in accordance with accepted medical standards.
(b) Retrieve and transplant the organs of an anencephalic newborn only after such determination of death, and in accordance with ethics guidance for transplantation and for medical decisions for minors.
AMA Principles of Medical Ethics: I,III,V
The Opinions in this chapter are offered as ethics guidance for physicians and are not intended to establish standards of clinical practice or rules of law.

Citation: Issued: 2016.

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 906
(I-25)

Introduced by: Private Practice Physicians Section

Subject: Rethink the Medicare Annual Wellness Visit

Referred to: Reference Committee K

Whereas, the Medicare annual wellness visit (AWV) was established by the Patient Protection and Affordable Care Act (ACA) with the laudable goal of encouraging preventive care and reducing the cost of healthcare by addressing health issues before they become serious or costly; and

Whereas, the AWV does not include disease management and need not include a physical exam; and

Whereas, physician organizations' prioritization of the AWV appears to hamper patients with urgent medical issues from securing timely appointments with their physicians; and

Whereas, this often forces patients with urgent needs to seek care in emergency rooms, urgent care centers, or from physician assistant and nurse practitioners, which can result in inflated healthcare costs and compromised quality of care; and

Whereas, since the implementation of the AWV in 2011, there is little evidence to demonstrate improvement in patient outcomes; and

Whereas, patients drawn in by emails encouraging an AWV likely lead to the overutilization of primary care visits that are in short supply by low-risk, highly health-conscious individuals, diverting time and resources from patients with higher-risk conditions or acute needs; and

Whereas, replacing the AWV with a more thorough annual comprehensive examination would offer patients the opportunity to have their healthcare needs met expeditiously, utilize limited primary care services more efficiently, and would likely be more effective in improving patient outcomes; and

Whereas, physician reimbursement for an annual comprehensive examination should be greater than reimbursement for the AWV to reflect the increase in scope and encourage its acceptance and utilization; therefore be it

RESOLVED, that our American Medical Association advocate for a thoughtful reevaluation of the Medicare annual wellness visit and consider replacing it with an annual comprehensive examination that would integrate preventive care services, a thorough physical exam, and the management of acute or chronic health conditions. (Directive to Take Action)

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

Received: 9/22/25

RELEVANT AMA POLICY

Providers and the Annual Wellness Visit H-330.879
1. Our AMA supports that the Medicare Annual Wellness Visit (AWV) is a benefit most appropriately provided by a physician or a member of a physician-led health care team that establishes or continues to provide ongoing continuity of care.
2. Our AMA supports that, at a minimum, any clinician performing the AWV must enumerate all relevant findings from the visit and make provisions for all appropriate follow-up care.
3. Our AMA supports that the Centers for Medicare & Medicaid Services (CMS) provide a means for physicians to determine whether or not Medicare has already paid for an AWV for a patient in the past 12 months.
4. Our AMA encourages CMS to educate Medicare enrollees, that, in choosing their primary care physician, they are encouraged to make their AWVs with their primary care physician in order to facilitate continuity and coordination of their care

Citation: CMS Rep. 03, I-16

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 907
(I-25)

Introduced by: Florida, South Carolina, Tennessee, Oklahoma

Subject: In-Office Dispensing of Generic Medications

Referred to: Reference Committee K

Whereas, many insurance companies require PAs for inexpensive generic medications, which in many cases can be purchased for less than a patient's insurance copay, resulting in waste of both physician and patient time; and

Whereas, in-office dispensing of generic medications can reduce the need for prior authorizations, eliminating administrative delays and lowering overall system costs; and

Whereas, patients may pay less for certain generic medications when purchased directly from their physician compared to using their insurance benefits; and

Whereas, one in five new prescriptions are never filled, and in-office dispensing of generic medications may improve medication adherence; and

Whereas, physician dispensing is permitted in most states and has been shown in one study to be at least equivalent in quality to pharmacist dispensing; therefore be it

RESOLVED, that our American Medical Association consider developing educational material for physicians interested in dispensing generic medications to reduce patient costs, improve access, and decrease unnecessary prior authorization requirements (Directive to Take Action); and be it further

RESOLVED, that our AMA encourage medical associations in states with restrictive dispensing laws to advocate for legislation allowing physicians to dispense generic medications to patients. (New HOD Policy)

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

Received: 9/24/25

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RELEVANT AMA POLICY

9.6.6 Prescribing & Dispensing Drugs & Devices

In keeping with physicians' ethical responsibility to hold the patient's interests as paramount, in their role as prescribers and dispensers of drugs and devices, physicians should:
(a) Prescribe drugs, devices, and other treatments based solely on medical considerations, patient need, and reasonable expectations of effectiveness for the particular patient.
(b) Dispense drugs in their office practices only if such dispensing primarily benefits the patient.
(c) Avoid direct or indirect influence of financial interests on prescribing decisions by:
(i) declining any kind of payment or compensation from a drug company or device manufacturer for prescribing its products, including offers of indemnification;
(ii) respecting the patient's freedom to choose where to fill prescriptions. In general, physicians should not refer patients to a pharmacy the physician owns or operates.
AMA Principles of Medical Ethics: II,III,IV,V; Issued: 2016

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 908
(I-25)

Introduced by: Utah

Subject: Support of Access to Insulin-Detemir

Referred to: Reference Committee K

Whereas, insulin-detemir (known also under its branded name of Levemir) has been widely available and safely used for over 20 years, including in populations such as pregnant individuals and athletes for whom its properties are particularly well-suited; and

Whereas, insulin-detemir is currently no longer available in the United States, due to the decision of the manufacturer to discontinue its domestic production and sales here; and

Whereas, the manufacturer has signaled its intention to discontinue production of insulin-detemir worldwide in favor of focusing on other products that are more profitable, which will leave no available insulin-detemir anywhere in the world; and

Whereas, insulin-detemir has been off-patent now for six years, but no other company has been able to gain approval of a biosimilar version because of the immense expense of the current process; and

Whereas, if the manufacturer follows through on their plan to discontinue insulin-detemir worldwide, it will likely become impossible to ever have it back on the market, since current FDA process requires a comparison with a sample produced by the initial company that obtained permission to manufacture the medication, and that will no longer exist if the manufacturer ceases production; and

Whereas, insulin-detemir has a lower risk of hypoglycemic events compared to NPH insulin which is currently available over the counter; and

Whereas, insulin has been continuously available over the counter for 75 years and that availability has not resulted in increased harm among individuals who rely on insulin; and

Whereas, over-the-counter availability of insulin-detemir will make domestic manufacturing more economically viable, and there will always be some people in the United States who are not able to afford visiting with a prescriber but who still rely on insulin to treat their diabetes, and having additional options and ways of obtaining any product is necessary for free market dynamics to help keep prices less expensive; therefore be it

RESOLVED, that our American Medical Association support the designation of insulin-detemir as a drug in shortage to expedite FDA review and approval of biosimilar versions while the reference product remains available globally (New HOD Policy); and be it further

RESOLVED , that our AMA support allowing some of the funding allocated to the Special Diabetes Program to be used to incentivize domestic manufacturing of insulin, including insulin-detemir (New HOD Policy); and be it further

RESOLVED, that our AMA encourages the FDA to consider classifying insulin-detemir as an over-the-counter medication to expand access and affordability for individuals with diabetes (New HOD Policy); and be it further

RESOLVED, that our American Medical Association lobby Congress to pass legislation, or a similarly effective action, to accomplish the goals outlined in this resolution. (Directive to Take Action)

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

Received: 9/24/25

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 909
(I-25)

Introduced by: American Academy of Sleep Medicine

Subject: Clinical Significance of Sleepiness

Referred to: Reference Committee K

Whereas, healthy sleep is recognized as vital for health and well-being in children, adolescents, and adults[1]; and

Whereas, excessive sleepiness is reported by one third of U.S. adults[2]; and

Whereas, sleepiness is a critical patient-reported outcome that is associated with increased risk for adverse health effects and diminished quality of life[3]; and

Whereas, excessive daytime sleepiness is detrimental to productivity, health, well-being, quality of life, and safety, making interventions that target sleepiness of critical importance to patients[3,4]; and

Whereas, sleepiness has clinical relevance as a critical marker of insufficient sleep[5,6], symptom of medical and mental health conditions, and side effect of medications[7,8]; and

Whereas, sleepiness is recognized as a major patient-reported symptom and disability associated with disorders of sleep and wakefulness and is a critical outcome in clinical trials evaluating treatments for these conditions[9]; and

Whereas, the evaluation and management of sleepiness is essential for ensuring patient safety and delivering patient-centered care; and

Whereas, existing AMA policy (H-15.958) recognizes sleepiness behind the wheel as a major public health issue; and

Whereas, existing AMA policy (H440.791) recognizes the importance of sleep health and advocates for public health interventions and policies to improve sleep health; therefore be it

RESOLVED, that our AMA support the evaluation and management of sleepiness as vital clinical services that are essential for patient safety and patient-centered care (New HOD Policy); and be it further

RESOLVED, that our AMA support initiatives that assess the impact of sleepiness and its treatment on daytime functioning and quality of life in diverse populations. (New HOD Policy)

Fiscal Note: Minimal – less than $1,000

Received: 9/24925

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RELEVANT AMA POLICY

H-440.791 Sleep Deprivation as a Public Health Crisis

1. Our AMA recognizes the role of sleep health for all people, the contributions of sleep duration and quality on chronic health outcomes, mental health, and trauma, and the systemic drivers of modern living contributing towards poorer sleep.
2. Our AMA declares sleep deprivation a public health crisis in the United States and to declare sleep health a public health priority.
3. Our AMA supports efforts to increase research into the socioeconomic, psychosocial, environmental, technologic, and commercial drivers of sleep deprivation, poor sleep quality, and shortened sleep duration. [Res. 407, A-25]

H-450.973 Outcomes Research

1. It is the policy of the AMA to (a) continue to promote outcomes research as an effective mechanism to improve the quality of medical care, (b) urge that the results of outcomes research be used for educational purposes and not as part of punitive processes, (c) promote the use of outcomes research in the development of practice parameters, (d) advocate that findings of outcomes research which identify individual physicians should only be disclosed within formal peer review processes, and (e) monitor outcomes research activities of the federal government, research organizations, and others.
2. The AMA urges state medical societies, national medical specialty societies, hospital medical staffs, and individual physicians to (a) assist organizations in the planning, development, implementation, and evaluation of appropriate outcomes research, (b) identify the significance and limitations of the findings of outcomes research, and (c) ensure that outcomes research is conducted in a manner that protects the confidentiality of patients and physicians.
3. The AMA urges organizations conducting or planning to conduct outcomes research to (a) ensure the accuracy of the data used in outcomes research, (b) include relevant physician organizations and practicing physicians in all phases of outcomes research, including the planning, development, implementation, and evaluation of outcomes research, (c) provide physician organizations and practicing physicians with adequate opportunity to review and comment on interpretations of the results of outcomes research, and (d) ensure that outcomes research is conducted in a manner that maintains patient and physician confidentiality.
[BOT Rep. K, A-91Reaffirmed: BOT Rep. 40, I-93Reaffirmed: CMS Rep. 7, A-05Reaffirmed: CMS Rep. 1, A-15Reaffirmed: CEJA Rep. 11, A-25}

H-15.958 Fatigue, Sleep Disorders, and Motor Vehicle Crashes

1. Our American Medical Association recognizes sleepiness behind the wheel as a major public health issue and continues to encourage a national public education campaign by appropriate federal agencies and relevant advocacy groups.
2. Our AMA recommends that the National Institutes of Health and other appropriate organizations support research projects to provide more accurate data on the prevalence of sleep-related disorders in the general population and in motor vehicle drivers, and provide information on the consequences and natural history of such conditions.

3. Our AMA recommends that the U.S. Department of Transportation (DOT) and other responsible agencies continue studies on the occurrence of highway crashes and other adverse occurrences in transportation that involve reduced operator alertness and sleep.
4. Our AMA encourages continued collaboration between the DOT and the transportation industry to support research projects for the devising and effectiveness- testing of appropriate countermeasures against driver fatigue, including technologies for motor vehicles and the highway environment.
5. Our AMA urges responsible federal agencies to improve enforcement of existing regulations for truck driver work periods and consecutive working hours and increase awareness of the hazards of driving while fatigued. If changes to these regulations are proposed on a medical basis, they should be justified by the findings of rigorous studies and the judgments of persons who are knowledgeable in ergonomics, occupational medicine, and industrial psychology.
6. Our AMA recommends that physicians:
    a. become knowledgeable about the diagnosis and management of sleep-related disorders.
    b. investigate patient symptoms of drowsiness, wakefulness, and fatigue by inquiring about sleep and work habits and other predisposing factors when compiling patient histories.
    c. inform patients about the personal and societal hazards of driving or working while fatigued and advise patients about measures they can take to prevent fatigue-related and other unintended injuries.
    d. advise patients about possible medication-related effects that may impair their ability to safely operate a moto vehicle or other machinery.
    e. inquire whether sleepiness and fatigue could be contributing factors in motor vehicle-related and other unintended injuries.
    f. become familiar with the laws and regulations concerning drivers and highway safety in the state(s) where they practice.
7. Our AMA encourages all state medical associations to promote the incorporation of an educational component on the dangers of driving while sleepy in all drivers education classes (for all age groups) in each state.
8. Our AMA recommends that states adopt regulations for the licensing of commercial and private drivers with sleep-related and other medical disorders according to the extent to which persons afflicted with such disorders experience crashes and injuries.
9. Our AMA reiterates its support for physicians' use of E-codes in completing emergency department and hospital records, and urges collaboration among appropriate government agencies and medical and public health organizations to improve state and national injury surveillance systems and more accurately determine the relationship of fatigue and sleep disorders to motor vehicle crashes and other unintended injuries.

[CSA Rep. 1, A-96Appended: Res. 418, I-99Reaffirmed: CSAPH Rep. 1, A-09Modified: CSAPH Rep. 01, A-19Reaffirmation: A-22]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 911
(I-25)

Introduced by: Women Physicians Section, Academic Physicians Section

Subject: Safeguarding NIH-Funded and Other Women's Health Research in Peer-Reviewed Publishing

Referred to: Reference Committee K

Whereas, U.S. Health Secretary Robert F. Kennedy Jr. has signaled his distrust of prominent peer-reviewed journals such as The Lancet and the New England Journal of Medicine, going so far as to state that the Trump administration intends to prevent government scientists, including those at the National Institutes of Health (NIH), from publishing in such journals in their current form[1]; and

Whereas, he further announced plans to create government-controlled "in-house" journals that would replace independent publications as the venue for federally funded research[1]; and

Whereas, a 2022 study of published in Proceedings of the National Academy of Sciences of 49 peer-reviewed journals found that articles with novel findings were more often published, refuting the Trump administration's belief that peer-reviewed journals uphold the status quo in an anti-scientific manner[2]; and

Whereas, The Lancet, JAMA, NEJM, and other high-impact journals are globally respected for their rigorous peer review processes and critical role in advancing evidence-based medicine, public trust, and global collaboration; and

Whereas, politicizing the dissemination of scientific research threatens the transparency, credibility, and independence of the U.S. biomedical research enterprise; and

Whereas, restricting where NIH-funded researchers can publish undermines academic freedom and may disproportionately harm early-career scientists, physician-scientists, and public health researchers[3]; and

Whereas, existing policy H-460.865 reaffirms the commitment of the AMA to protect and freely disseminate scientific knowledge, data and research in alignment with the First Amendment of the U.S. Constitution; and

Whereas, women's health remains under-researched and underfunded, with documented disparities in publication, funding, and representation in scientific literature[4]; and

Whereas, agency staff at the NIH and Veteran's Administration have already been encouraged to deny grants for projects including the word "women," in the administration's self-described effort to halt research concerning diversity, equity and inclusion[5]; and

Whereas, the AMA Women Physicians Section (WPS)—as the largest section within the AMA and a leading advocate for advancing equity in research and health outcomes—recognizes that

limiting access to high-visibility publishing platforms may further marginalize research on women's health and underrepresented populations; therefore be it

RESOLVED, that our American Medical Association supports the independence of scientific research concerning women and underrepresented populations and the integrity of peer-reviewed medical journals (New HOD Policy); and be it further

RESOLVED, that our AMA advocates for continued dissemination of rigorous women's health research in respected, independent journals and oppose measures that could silence or sideline these efforts (Directive to Take Action); and be it further

RESOLVED, that our AMA publicly supports the freedom of the National Institutes of Health and other federally funded scientists and researchers to publish in independent, peer-reviewed journals of their choosing. (Directive to Take Action)

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

Received: 9/25/25

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RELEVANT AMA POLICY

H-460.973 Protection of Scientific Freedom from Special Interest Groups
The AMA reaffirms that the principles of scientific freedom for individual investigators should be upheld by all research funding agencies, administrators, and professional societies. [Sub. Res. 91, I-88; Reaffirmed: Sunset Report, I-98; Reaffirmed: CSAPH Rep. 2, A-08; Reaffirmed: CSAPH Rep. 01, A-18]

H-460.895 Free Speech Applies to Scientific Knowledge
Our AMA will advocate that scientific knowledge, data, and research will continue to be protected and freely disseminated in accordance with the U.S. First Amendment. [Res. 228, A-17; Reaffirmed: BOT Rep. 14, I-18]

8.5 Disparities in Health Care
Stereotypes, prejudice, or bias based on gender expectations and other arbitrary evaluations of any individual can manifest in a variety of subtle ways. Differences in treatment that are not directly related to differences in individual patients' clinical needs or preferences constitute inappropriate variations in health care. Such variations may contribute to health outcomes that are considerably worse in members of some populations than those of members of majority populations.

This represents a significant challenge for physicians, who ethically are called on to provide the same quality of care to all patients without regard to medically irrelevant personal characteristics.

To fulfill this professional obligation in their individual practices physicians should:

(a) Provide care that meets patient needs and respects patient preferences.
(b) Avoid stereotyping patients.
(c) Examine their own practices to ensure that inappropriate considerations about race, gender identify, sexual orientation, sociodemographic factors, or other nonclinical factors, do not affect clinical judgment.
(d) Work to eliminate biased behavior toward patients by other health care professionals and staff who come into contact with patients.
(e) Encourage shared decision making.
(f) Cultivate effective communication and trust by seeking to better understand factors that can influence patients' health care decisions, such as cultural traditions, health beliefs and health literacy, language or other barriers to communication and fears or misperceptions about the health care system.

The medical profession has an ethical responsibility to:

(g) Help increase awareness of health care disparities.
(h) Strive to increase the diversity of the physician workforce as a step toward reducing health care disparities.
(i) Support research that examines health care disparities, including research on the unique health needs of all genders, ethnic groups, and medically disadvantaged populations, and the development of quality measures and resources to help reduce disparities.
[Issued: 2016]

H-525.988 Sex and Gender Differences in Medical Research
Our AMA:
(1) reaffirms that gender and sex exclusion in broad medical studies questions the validity of the studies' impact on the health care of society at large;
(2) affirms the need to include people of all sexes and gender identities and expressions in studies that involve the health of society at large and publicize its policies;
(3) supports increased funding into areas of women's health and sexual and gender minority health research;
(4) supports increased research on women's health and sexual and gender minority health and the participation of women and sexual and gender minority communities in clinical trials, the results of which will permit development of evidence-based prevention and treatment strategies for all women and sexual and gender minority individuals from diverse cultural and ethnic groups, geographic locations, and socioeconomic status;
(5) recommends that all medical/scientific journal editors require, where appropriate, a sex-based and gender-based analysis of data, even if such comparisons are negative; and
(6) recommends that medical and scientific journals diversify their review processes to better represent women and sexual and gender minority individuals;
(7) supports the FDA's requirement of actionable clinical trial diversity action plans from drug and device sponsors that include women and sexual and gender minority populations;
(8) supports the FDA's efforts in conditioning drug and device approvals on post-marketing studies which evaluate the efficacy and safety of those products in women and sexual and gender minority populations when those groups were not adequately represented in clinical trials; and
(9) supports and encourages the National Institutes of Health and other grant-making entities to fund post-market research investigating pharmacodynamics and pharmacokinetics for generic drugs that did not adequately enroll women and sexual and gender minority populations in their clinical trials, prioritizing instances when those populations represent a significant portion of patients or reported adverse drug events. [Res. 80, A-91; Appended: CSA Rep. 4, I-00; Modified: CSAPH Rep. 1, A-10; Reaffirmed: CSAPH Rep. 05, A-16; Modified: Res. 004, A-23; Modified: CSAPH Rep. 04, A-24]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 912
(I-25)

Introduced by: Connecticut

Subject: Increasing Access through Federated Healthcare Data Architecture

Referred to: Reference Committee K

Whereas, large de-identified patient datasets are critical to study rare diseases, health disparities, and population-wide trends, and their availability enables augmented intelligence innovation, expands access to precision medicine, enhances interoperability, and advances patient-centered healthcare[1-9]; and

Whereas, multi-center research collaborations present opportunities for novel insights and are necessary for replicability and large-scale validation of findings, yet institutions and researchers with limited access to large datasets face barriers to participation, restricting their contribution to medical advances[10-13]; and

Whereas, federated data refers to a model in which participating organizations keep their patient-level data locally, transform them to a common data model, and run standardized queries/algorithms locally that return only approved or aggregate results, thereby enabling multi-site analyses without centralizing protected health information (PHI), enhancing both security and collaboration[15]; and

Whereas, federated data architecture's success is accepted in medical literature and underpins established networks such as the Food and Drug Administration's Sentinel Distributed Database and Patient-Centered Outcomes Research's Distributed Research Network[16-21]; and

Whereas, the U.S. government already has a federation-ready interoperability policy stack to facilitate multi-center research, enable cross-network exchange nationwide (with a majority of hospitals planning participation), and standardize electronic health information access[22-27]; and

Whereas, the U.S. government supports the technical resources (hardware and software) necessary to achieve a federated data model and adopting a federated data model aligns with articulated goals for cross-organizational data exchange without consolidation, as reflected in federal initiatives such as America's AI Action Plan and the White House and CMS Health Tech Ecosystem initiative[28-30]; and

Whereas, a non-federated data architecture allows for limitation of data access to historically prestigious institutions (e.g. Intelligent Research in Sight (IRIS) Registry) and allows entities that control de-identified datasets to profit by selling to external parties (e.g. Healthcare Cost and Utilization Project (HCUP)), reducing interoperability and equity in research and disproportionately harming institutions without extensive resources[31,32.]; and

Whereas, given the aforementioned technical and legislative infrastructure, adopting a federated data architecture is possible, and doing so would expand equitable access to de-identified

datasets, reduce gatekeeping and profit-driven restrictions on de-identified data, and enhance interoperability[17]; therefore be it

RESOLVED, that our American Medical Association study federated data architecture to evaluate its utility in expanding access to large de-identified healthcare datasets across institutions with the aims of enhancing interoperability through multi-center collaboration, preserving confidentiality by avoiding centralization of PHI, and accelerating ethical research and precision care. (Directive to Take Action)

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

Received: 9/25/25

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RELEVANT AMA POLICY

D-478.996 Information Technology Standards and Costs

1. Our American Medical Association will:
    a. encourage the setting of standards for health care information technology whereby the different products will be interoperable and able to retrieve and share data for the identified important functions while allowing the software companies to develop competitive systems.
    b. work with Congress and insurance companies to appropriately align incentives as part of the development of a National Health Information Infrastructure (NHII), so that the financial burden on physicians is not disproportionate when they implement these technologies in their offices.
    c. review the following issues when participating in or commenting on initiatives to create a NHII:
        i. cost to physicians at the office-based level;
        ii. security of electronic records; and
        iii. the standardization of electronic systems;
    d. continue to advocate for and support initiatives that minimize the financial burden to physician practices of adopting and maintaining electronic medical records.
    e. continue its active involvement in efforts to define and promote standards that will facilitate the interoperability of health information technology systems.
2. Our AMA advocates that physicians:
    a. are offered flexibility related to the adoption and use of new certified Electronic Health Records (EHRs) versions or editions when there is not a sufficient choice of EHR products that meet the specified certification standards.
    b. not be financially penalized for certified EHR technology not meeting current standards.

[Res. 717, A-04; Reaffirmation, A-05; Appended: Sub. Res. 707, A-06; Reaffirmation A-07; Reaffirmed in lieu of Res. 818, I-07; Reaffirmed in lieu of Res. 726, A-08; Reaffirmation I-08; Reaffirmation I-09; Reaffirmation A-10; Reaffirmation I-10; Reaffirmed: Res. 205, A-11; Reaffirmed in lieu of Res. 714, A-12; Reaffirmed in lieu of Res. 715, A-12; Reaffirmed in lieu of Res. 724, A-13; Reaffirmation I-13; Reaffirmation A-14; Reaffirmed: BOT Rep. 03, I-16; Reaffirmed: BOT Rep. 05, I-16; Appended: Res. 204, I-17; Reaffirmation: I-17; Reaffirmed: BOT

Rep. 45, A-18; Reaffirmed: BOT Rep. 19, A-18; Reaffirmation: A-19; Reaffirmed: CMS Rep. 7, I-20; Reaffirmation: A-22; Reaffirmed: A-23]

D-478.995 National Health Information Technology

1. Our American Medical Association will closely coordinate with the newly formed Office of the National Health Information Technology Coordinator all efforts necessary to expedite the implementation of an interoperable health information technology infrastructure, while minimizing the financial burden to the physician and maintaining the art of medicine without compromising patient care.
2. Our AMA:
    a. Advocates for standardization of key elements of electronic health record (EHR) and computerized physician order entry (CPOE) user interface design during the ongoing development of this technology.
    b. Advocates that medical facilities and health systems work toward standardized login procedures and parameters to reduce user login fatigue.
    c. Advocates for continued research and physician education on EHR and CPOE user interface design specifically concerning key design principles and features that can improve the quality, safety, and efficiency of health care.
    d. Advocates for continued research on EHR, CPOE and clinical decision support systems and vendor accountability for the efficacy, effectiveness, and safety of these systems.
3. Our AMA will request that the Centers for Medicare & Medicaid Services:
    a. Support an external, independent evaluation of the effect of Electronic Medical Record (EMR) implementation on patient safety and on the productivity and financial solvency of hospitals and physicians' practices.
    b. Develop, with physician input, minimum standards to be applied to outcome-based initiatives measured during this rapid implementation phase of EMRs.
4. Our AMA will
    a. seek legislation or regulation to require all EHR vendors to utilize standard and interoperable software technology components to enable cost efficient use of electronic health records across all health care delivery systems including institutional and community based settings of care delivery.
    b. work with CMS to incentivize hospitals and health systems to achieve interconnectivity and interoperability of electronic health records systems with independent physician practices to enable the efficient and cost effective use and sharing of electronic health records across all settings of care delivery.
5. Our AMA will seek to incorporate incremental steps to achieve electronic health record (EHR) data portability as part of the Office of the National Coordinator for Health Information Technology's (ONC) certification process.
6. Our AMA will collaborate with EHR vendors and other stakeholders to enhance transparency and establish processes to achieve data portability.
7. Our AMA will directly engage the EHR vendor community to promote improvements in EHR usability.
8. Our AMA will advocate for appropriate, effective, and less burdensome documentation requirements in the use of electronic health records.
9. Our AMA will urge EHR vendors to adopt social determinants of health templates, created with input from our AMA, medical specialty societies, and other stakeholders with expertise in social determinants of health metrics and development, without adding further cost or documentation burden for physicians.

[Res. 730, I-04; Reaffirmed in lieu of Res. 818, I-07; Reaffirmed in lieu of Res. 726, A-08; Reaffirmation A-10; Reaffirmed: BOT Rep. 16, A-11; Modified: BOT Rep. 16, A-11; Modified:

BOT Rep. 17, A-12; Reaffirmed in lieu of Res. 714, A-12; Reaffirmed in lieu of Res. 715, A-12; Reaffirmed: BOT Rep. 24, A-13; Reaffirmed in lieu of Res. 724, A-13; Appended: Res. 720, A-13; Appended: Sub. Res. 721, A-13; Reaffirmed: CMS Rep. 4, I-13; Reaffirmation I-13; Appended: BOT Rep. 18, A-14; Appended: BOT Rep. 20, A-14; Reaffirmation A-14; Reaffirmed: BOT Rep. 17, A-15; Reaffirmed in lieu of Res. 208, A-15; Reaffirmed in lieu of Res. 223, A-15; Reaffirmation I-15; Reaffirmed: CMS Rep. 07, I-16; Reaffirmed: BOT Rep. 05, I-16; Appended: Res. 227, A-17; Reaffirmed in lieu of: Res. 243, A-17; Modified: BOT Rep. 39, A-18; Reaffirmed: BOT Rep. 45, A-18; Reaffirmed: BOT Rep. 19, A-18; Reaffirmation: A-19; Reaffirmed: CMS Rep. 3, I-19; Reaffirmed: CMS Rep. 2, A-22; Reaffirmation: Res. 715, A-24; Reaffirmed: Res. 802, I-24]

H-315.962 Research Handling of De-Identified Patient Information
Our American Medical Association supports efforts to promote transparency in the use of de-identified patient data and to protect patient privacy by developing methods of, and technologies for, de-identification of patient information that reduce the risk of re-identification of such information. [BOT Rep. 16, I-21; Reaffirmation: A-22; Reaffirmed: CMS Rep. 07, A-24]

H-480.931 Assessing the Intersection Between AI and Health Care
Augmented Intelligence Development, Deployment, and Use in Health Care

1. General Governance
    a. Health care AI must be designed, developed, and deployed in a manner which is ethical, equitable, responsible, accurate, transparent, and evidence-based.
    b. Use of AI in health care delivery requires clear national governance policies to regulate its adoption and utilization, ensuring patient safety, and mitigating inequities. Development of national governance policies should include interdepartmental and interagency collaboration.
    c. Compliance with national governance policies is necessary to develop AI in an ethical and responsible manner to ensure patient safety, quality, and continued access to care. Voluntary agreements or voluntary compliance is not sufficient.
    d. AI systems should be developed and evaluated with a specific focus on mitigating bias and promoting health equity, ensuring that the deployment of these technologies does not exacerbate existing disparities in health care access, treatment, or outcomes.
    e. Health care AI requires a risk-based approach where the level of scrutiny, validation, and oversight should be proportionate to the overall potential of disparate harm and consequences the AI system might introduc [See also Augmented Intelligence in Health Care H-480.939 at (1)]
    f. AI risk management should minimize potential negative impacts of health care AI systems while providing opportunities to maximize positive impacts.
    g. Clinical decisions influenced by AI must be made with specified qualified human intervention points during the decision-making process. A qualified human is defined as a licensed physician with the necessary qualifications and training to independently provide the same medical service without the aid of AI. As the potential for patient harm increases, the point in time when a physician should utilize their clinical judgment to interpret or act on an AI recommendation should occur earlier in the care plan. With few exceptions, there generally should be a qualified human in the loop when it comes to medical decision making capable of intervening or overriding the output of an AI model.
    h. Health care practices and institutions should not utilize AI systems or technologies that introduce overall or disparate risk that is beyond their capabilities to mitigate. Implementation and utilization of AI should avoid

exacerbating clinician burden and should be designed and deployed in harmony with the clinical workflow and, in institutional settings, consistent with AMA Policy H-225.940 - Augmented Intelligence and Organized Medical Staff.

i. Medical specialty societies, clinical experts, and informaticists are best positioned and should identify the most appropriate uses of AI-enabled technologies relevant to their clinical expertise and set the standards for AI use in their specific domain. [See Augmented Intelligence in Health Care H-480.940 at (2)]

2. When to Disclose: Transparency in Use of Augmented Intelligence-Enabled Systems and Technologies That Impact Medical Decision Making at the Point of Care
    a. Decisions regarding transparency and disclosure of the use of AI should be based upon a risk- and impact-based approach that considers the unique circumstance of AI and its use case. The need for transparency and disclosure is greater where the performance of an AI-enabled technology has a greater risk of causing harm to a patient.
        i. AI disclosure should align and meet ethical standards or norms.
        ii. Transparency requirements should be designed to meet the needs of the end users. Documentation and disclosure should enhance patient and physician knowledge without increasing administrative burden.
        iii. When AI is used in a manner which impacts access to care or impacts medical decision making at the point of care, that use of AI should be disclosed and documented to both physicians and/or patients in a culturally and linguistically appropriate manner. The opportunity for a patient or their caregiver to request additional review from a licensed clinician should be made available upon request.
        iv. When AI is used in a manner which directly impacts patient care, access to care, medical decision making, or the medical record, that use of AI should be documented in the medical record.
    b. AI tools or systems cannot augment, create, or otherwise generate records, communications, or other content on behalf of a physician without that physician's consent and final review.
    c. When AI or other algorithmic-based systems or programs are utilized in ways that impact patient access to care, such as by payors to make claims determinations or set coverage limitations, use of those systems or programs must be disclosed to impacted parties.
    d. The use of AI-enabled technologies by hospitals, health systems, physician practices, or other entities, where patients engage directly with AI, should be clearly disclosed to patients at the beginning of the encounter or interaction with the AI-enabled technology. Where patient-facing content is generated by AI, the use of AI in generating that content should be disclosed or otherwise noted within the content.
3. What to Disclose: Required Disclosures by Health Care Augmented Intelligence-Enabled Systems and Technologies
    a. When AI-enabled systems and technologies are utilized in health care, the following information should be disclosed by the AI developer to allow the purchaser and/or user (physician) to appropriately evaluate the system or technology prior to purchase or utilization:
        i. Regulatory approval status.
        ii. Applicable consensus standards and clinical guidelines utilized in design, development, deployment, and continued use of the technology.
        iii. Clear description of problem formulation and intended use accompanied by clear and detailed instructions for use.

iv. Intended population and intended practice setting.
v. Clear description of any limitations or risks for use, including possible disparate impact.
vi. Description of how impacted populations were engaged during the AI lifecycle.
vii. Detailed information regarding data used to train the model:
    1. Data provenance.
    2. Data size and completeness.
    3. Data timeframes.
    4. Data diversity.
    5. Data labeling accuracy.
viii. Validation Data/Information and evidence of:
    1. Clinical expert validation in intended population and practice setting and intended clinical outcomes.
    2. Constraint to evidence-based outcomes and mitigation of "hallucination"/"confabulation" or other output error.
    3. Algorithmic validation.
    4. External validation processes for ongoing evaluation of the model performance, e.g., accounting for AI model drift and degradation.
    5. Comprehensiveness of data and steps taken to mitigate biased outcomes.
    6. Other relevant performance characteristics, including but not limited to performance characteristics at peer institutions/similar practice settings.
    7. Post-market surveillance activities aimed at ensuring continued safety, performance, and equity.
ix. Data Use Policy:
    1. Privacy.
    2. Security.
    3. Special considerations for protected populations or groups put at increased risk.
x. Information regarding maintenance of the algorithm, including any use of active patient data for ongoing training.
xi. Disclosures regarding the composition of design and development team, including diversity and conflicts of interest, and points of physician involvement and review.

b. Purchasers and/or users (physicians) should carefully consider whether or not to engage with AI-enabled health care technologies if this information is not disclosed by the developer. As the risk of AI being incorrect increases risks to patients (such as with clinical applications of AI that impact medical decision making), disclosure of this information becomes increasingly important. [See also Augmented Intelligence in Health Care H-480.939]

4. Generative Augmented Intelligence
    a. Generative AI should: (a) only be used where appropriate policies are in place within the practice or other health care organization to govern its use and help mitigate associated risks; and (b) follow applicable state and federal laws and regulations (e.g., HIPAA-compliant Business Associate Agreement).
    b. Appropriate governance policies should be developed by health care organizations and account for and mitigate risks of:
        i. Incorrect or falsified responses; lack of ability to readily verify the accuracy of responses or the sources used to generate the response.

   ii. Training data set limitations that could result in responses that are out of date or otherwise incomplete or inaccurate for all patients or specific populations.
   iii. Lack of regulatory or clinical oversight to ensure performance of the tool.
   iv. Bias, discrimination, promotion of stereotypes, and disparate impacts on access or outcomes.
   v. Data privacy.
   vi. Cybersecurity.
   vii. Physician liability associated with the use of generative AI tools.
- c. Health care organizations should work with their AI and other health information technology (health IT) system developers to implement rigorous data validation and verification protocols to ensure that only accurate, comprehensive, and bias managed datasets inform generative AI models, thereby safeguarding equitable patient care and medical outcomes. [See Augmented Intelligence in Health Care H-480.940 at (3)(d)]
- d. Use of generative AI should incorporate physician and staff education about the appropriate use, risks, and benefits of engaging with generative AI. Additionally, physicians and healthcare organizations should engage with generative AI tools only when adequate information regarding the product is provided to physicians and other users by the developers of those tools.
- e. Clinicians should be aware of the risks of patients engaging with generative AI products that produce inaccurate or harmful medical information (g., patients asking chatbots about symptoms) and should be prepared to counsel patients on the limitations of AI-driven medical advice.
- f. Data and prompts contributed by users should primarily be used by developers to improve the user experience and AI tool quality and not simply increase the AI tool's market value or revenue generating potential.

5. Physician Liability for Use of Augmented Intelligence-Enabled Technologies
   - a. Current AMA policy states that liability and incentives should be aligned so that the individual(s) or entity(ies) best positioned to know the AI system risks and best positioned to avert or mitigate harm do so through design, development, validation, and implementation. [See Augmented Intelligence in Health Care H-480.939]
      i. Where a mandated use of AI systems prevents mitigation of risk and harm, the individual or entity issuing the mandate must be assigned all applicable liability.
      ii. Developers of autonomous AI systems with clinical applications (screening, diagnosis, treatment) are in the best position to manage issues of liability arising directly from system failure or misdiagnosis and must accept this liability with measures such as maintaining appropriate medical liability insurance and in their agreements with users.
      iii. Health care AI systems that are subject to non-disclosure agreements concerning flaws, malfunctions, or patient harm (referred to as gag clauses) must not be covered or paid and the party initiating or enforcing the gag clause assumes liability for any harm.
   - b. When physicians do not know or have reason to know that there are concerns about the quality and safety of an AI-enabled technology, they should not be held liable for the performance of the technology in question.
   - c. Liability protections for physicians using AI-enabled technologies should align with both current and future AMA medical liability reform policies.
6. Data Privacy and Augmented Intelligence

a. Entity Responsibility:
    i. Entities, e.g., AI developers, should make information available about the intended use of generative AI in health care and identify the purpose of its use. Individuals should know how their data will be used or reused, and the potential risks and benefits.
    ii. Individuals should have the right to opt-out, update, or request deletion of their data from generative AI tools. These rights should encompass AI training data and disclosure to other users of the tool.
    iii. Generative AI tools should not reverse engineer, reconstruct, or reidentify an individual's originally identifiable data or use identifiable data for nonpermitted uses, e.g., when data are permitted to conduct quality and safety evaluations. Preventive measures should include both legal frameworks and data model protections, e.g., secure enclaves, federated learning, and differential privacy.
b. User Education:
    i. Users should be provided with training specifically on generative AI. Education should address:
        1. Legal, ethical, and equity considerations.
        2. Risks such as data breaches and re-identification.
        3. Potential pitfalls of inputting sensitive and personal data.
        4. The importance of transparency with patients regarding the use of generative AI and their data.

[See H-480.940, Augmented Intelligence in Health Care, at (4) and (5)]

7. Augmented Intelligence Cybersecurity
    a. AI systems must have strong protections against input manipulation and malicious attacks.
    b. Entities developing or deploying health care AI should regularly monitor for anomalies or performance deviations, comparing AI outputs against known and normal behavior.
    c. Independent of an entity's legal responsibility to notify a health care provider or organization of a data breach, that entity should also act diligently in identifying and notifying the individuals themselves of breaches that impact their personal information.
    d. Users should be provided education on AI cybersecurity fundamentals, including specific cybersecurity risks that AI systems can face, evolving tactics of AI cyber attackers, and the user's role in mitigating threats and reporting suspicious AI behavior or outputs.
8. Mitigating Misinformation in AI-Enabled Technologies
    a. AI developers should ensure transparency and accountability by disclosing how their models are trained and the sources of their training dat Clear disclosures are necessary to build trust in the accuracy and reliability of the information produced by AI systems.
    b. Algorithms should be developed to detect and flag potentially false and misleading content before it is widely disseminated.
    c. Developers of AI should have mechanisms in place to allow for reporting of mis- and disinformation generated or propagated by AI-enabled systems.
    d. Developers of AI systems should be guided by policies that emphasize rigorous validation and accountability for the content their tools generate, and, consistent with AMA Policy H-480.939(7), are in the best position to manage issues of liability arising directly from system failure or misdiagnosis and must accept this

liability with measures such as maintaining appropriate medical liability insurance and in their agreements with users.

e. Academic publications and journals should establish clear guidelines to regulate the use of AI in manuscript submissions. These guidelines should include requiring the disclosure that AI was used in research methods and data collection, requiring the exclusion of AI systems as authors, and should outline the responsibility of the authors to validate the veracity of any referenced content generated by AI.
f. Education programs are needed to enhance digital literacy, helping individuals critically assess the information they encounter online, particularly in the medical field where mis- and disinformation can have severe consequences.

9. Payor Use of Augmented Intelligence and Automated Decision-Making Systems
    a. Use of automated decision-making systems that determine coverage limits, make claim determinations, and engage in benefit design should be publicly reported, based on easily accessible evidence-based clinical guidelines (as opposed to proprietary payor criteria), and disclosed to both patients and their physician in a way that is easy to understand.
    b. Payors should only use automated decision-making systems to improve or enhance efficiencies in coverage and payment automation, facilitate administrative simplification, and reduce workflow burdens. Automated decision-making systems should never create or exacerbate overall or disparate access barriers to needed benefits by increasing denials, coverage limitations, or limiting benefit offerings. Use of automated decision-making systems should not replace the individualized assessment of a patient's specific medical and social circumstances and payors' use of such systems should allow for flexibility to override automated decisions. Payors should always make determinations based on particular patient care needs and not base decisions on algorithms developed on "similar" or "like" patients.
    c. Payors using automated decision-making systems should disclose information about any algorithm training and reference data, including where data were sourced and attributes about individuals contained within the training data set (e.g., age, race, gender). Payors should provide clear evidence that their systems do not discriminate, increase inequities, and that protections are in place to mitigate bias.
    d. Payors using automated decision-making systems should identify and cite peer-reviewed studies assessing the system's accuracy measured against the outcomes of patients and the validity of the system's predictions.
    e. Any automated decision-making system recommendation that indicates limitations or denials of care, at both the initial review and appeal levels, should be automatically referred for review to a physician (a) possessing a current and valid non-restricted license to practice medicine in the state in which the proposed services would be provided if authorized and (b) be of the same specialty as the physician who typically manages the medical condition or disease or provides the health care service involved in the request prior to issuance of any final determination. Prior to issuing an adverse determination, the treating physician must have the opportunity to discuss the medical necessity of the care directly with the physician who will be responsible for determining if the care is authorized.
    f. Individuals impacted by a payor's automated decision-making system, including patients and their physicians, must have access to all relevant information

(including the coverage criteria, results that led to the coverage determination, and clinical guidelines used).

g. Payors using automated decision-making systems should be required to engage in regular system audits to ensure use of the system is not increasing overall or disparate claims denials or coverage limitations, or otherwise decreasing access to care. Payors using automated decision-making systems should make statistics regarding systems' approval, denial, and appeal rates available on their website (or another publicly available website) in a readily accessible format with patient population demographics to report and contextualize equity implications of automated decisions. Insurance regulators should consider requiring reporting of payor use of automated decision-making systems so that they can be monitored for negative and disparate impacts on access to care. Payor use of automated decision-making systems must conform to all relevant state and federal laws.

[BOT Rep. 01, I-24; Reaffirmed: CSAPH Rep. 08, A-25; Reaffirmed in lieu of the first resolve: Res. 226, A-25]

H-406.987 Medical Information and Its Uses

DATA TRANSPARENCY PRINCIPLES TO PROMOTE IMPROVEMENTS IN QUALITY AND CARE DELIVERY

Our AMA seeks to help physicians improve the quality reporting of patient care data and adapt to new payment and delivery models to transform our health care system. One means of accomplishing this goal is to increase the transparency of health care data. The principles outlined below ensure that physicians, practices, care systems, physician-led organizations, patients and other relevant stakeholders can access and proactively use meaningful, actionable health care information to achieve care improvements and innovations. These principles do not replace but build upon existing AMA policies H-406.990, H-406.989, H-406.991, and H-406.996 that address safeguards for the release of physician data and physician profiles, expanding these guidelines to reflect the new opportunities and potential uses of this information.

Transparency Objectives and Goals

Engaging Physicians - Our AMA encourages greater physician engagement in transparency efforts, including the development of physician-led quality measures to ensure that gaps in measures are minimized and that analyses reflect the knowledge and expertise of physicians.

Promoting New Payment and Delivery Models - Our AMA supports appropriate funding and other support to ensure that the data that are used to inform new payment and delivery models are readily available and do not impose a new cost or additional burden on model participants.

Improving Care Choices and Decisions - Our AMA promotes efforts to present data appropriately depending on the objective and the relevant end-user, including transparently identifying what information is being provided, for what purpose, and how the information can or cannot be used to influence care choices.

Informing Physicians - Our AMA encourages the development of user interfaces that allow physicians or their staff to structure simple queries to obtain and track actionable reports related to specific patients, peer comparisons, provider-level resource use, practice patterns, and other relevant information.

Informing Patients - Our AMA encourages patients to consult with physicians to understand and navigate health care transparency and data efforts.

Informing Other Consumers - Our AMA seeks opportunities to engage with other stakeholders to facilitate physician involvement and more proactive use of health care data.

Data Transparency Resources
Data Availability - Our AMA supports removing barriers to accessing additional information from other payers and care settings, focusing on data that is valid, reliable, and complete.

Access to Timely Data - While some datasets will require more frequent updates than others, our AMA encourages use of the most current information and that governmental reports are made available, at a minimum, from the previous quarter.

Accurate Data - Our AMA supports proper oversight of entities accessing and using health care data, and more stringent safeguards for public reporting, so that information is accurate, transparent, and appropriately used.

Use of Quality Data - Our AMA supports definitions of quality based on evidence-based guidelines, measures developed and supported by specialty societies, and physician-developed metrics that focus on patient outcomes and engagement.

Increasing Data Utility - Our AMA promotes efforts by clinical data registries, regional collaborations, Qualified Entities, and specialty societies to develop reliable and valid performance measures, increase data utility and reduce barriers that currently limit access to and use of the health care data.

Challenges to Transparency
Standardization - Our AMA supports improvements in electronic health records (EHRs) and other technology to capture and access data in uniform formats.

Mitigating Administrative Burden - To reduce burdens, data reporting requirements imposed on physicians should be limited to the information proven to improve clinical practice. Collection, reporting, and review of all other data and information should be voluntary.

Data Attribution - Our AMA seeks to ensure that those compiling and using the data avoid attribution errors by working to correctly assign services and patients to the appropriate provider(s) as well as allowing entities to verify who or where procedures, services, and items were performed, ordered, or otherwise provided. Until problems with the current state of episode of care and attribution methodologies are resolved, our AMA encourages public data and analyses primarily focused at the system-level instead of on individual physicians or providers. [BOT Rep. 6, A-15; Reaffirmation: I-18; Reaffirmed: CSAPH Rep. 2, I-19]

H-315.983 Patient Privacy and Confidentiality

1. Our American Medical Association affirms the following key principles that should be consistently implemented to evaluate any proposal regarding patient privacy and the confidentiality of medical information:
    a. that there exists a basic right of patients to privacy of their medical information and records, and that this right should be explicitly acknowledged;
    b. that patients' privacy should be honored unless waived by the patient in a meaningful way or in rare instances when strong countervailing interests in public health or safety justify invasions of patient privacy or breaches of confidentiality, and then only when such invasions or breaches are subject to stringent safeguards enforced by appropriate standards of accountability;

   c. that patients' privacy should be honored in the context of gathering and disclosing information for clinical research and quality improvement activities, and that any necessary departures from the preferred practices of obtaining patients' informed consent and of de-identifying all data be strictly controlled;
   d. that any information disclosed should be limited to that information, portion of the medical record, or abstract necessary to fulfill the immediate and specific purpose of disclosure; and
   e. that the Health Insurance Portability and Accountability Act of 1996 (HIPAA) be the minimal standard for protecting clinician-patient privilege, regardless of where care is received.
2. Our AMA affirms:
   a. that physicians and medical students who are patients are entitled to the same right to privacy and confidentiality of personal medical information and medical records as other patients;
   b. that when patients exercise their right to keep their personal medical histories confidential, such action should not be regarded as fraudulent or inappropriate concealment and;
   c. that physicians and medical students should not be required to report any aspects of their patients' medical history to governmental agencies or other entities, beyond that which would be required by law.
3. Employers and insurers should be barred from unconsented access to identifiable medical information lest knowledge of sensitive facts form the basis of adverse decisions against individuals.
   a. Release forms that authorize access should be explicit about to whom access is being granted and for what purpose, and should be as narrowly tailored as possible.
   b. Patients, physicians, and medical students should be educated about the consequences of signing overly-broad consent forms.
   c. Employers and insurers should adopt explicit and public policies to assure the security and confidentiality of patients' medical information.
   d. A patient's ability to join or a physician's participation in an insurance plan should not be contingent on signing a broad and indefinite consent for release and disclosure.
4. Whenever possible, medical records should be de-identified for purposes of use in connection with utilization review, panel credentialing, quality assurance, and peer review.
5. The fundamental values and duties that guide the safekeeping of medical information should remain constant in this era of computerization. Whether they are in computerized or paper form, it is critical that medical information be accurate, secure, and free from unauthorized access and improper use.
6. Our AMA recommends that the confidentiality of data collected by race and ethnicity as part of the medical record, be maintained.
7. Genetic information should be kept confidential and should not be disclosed to third parties without the explicit informed consent of the tested individual.
8. When breaches of confidentiality are compelled by concerns for public health and safety, those breaches must be as narrow in scope and content as possible, must contain the least identifiable and sensitive information possible, and must be disclosed to the fewest possible to achieve the necessary end.
9. Law enforcement agencies requesting private medical information should be given access to such information only through a court order. This court order for disclosure should be granted only if the law enforcement entity has shown, by clear and convincing

evidence, that the information sought is necessary to a legitimate law enforcement inquiry; that the needs of the law enforcement authority cannot be satisfied by non-identifiable health information or by any other information; and that the law enforcement need for the information outweighs the privacy interest of the individual to whom the information pertains. These records should be subject to stringent security measures.

10. Our AMA must guard against the imposition of unduly restrictive barriers to patient records that would impede or prevent access to data needed for medical or public health research or quality improvement and accreditation activities. Whenever possible, de-identified data should be used for these purposes. In those contexts where personal identification is essential for the collation of data, review of identifiable data should not take place without an institutional review board (IRB) approved justification for the retention of identifiers and the consent of the patient. In those cases where obtaining patient consent for disclosure is impracticable, our AMA endorses the oversight and accountability provided by an IRB.
11. Marketing and commercial uses of identifiable patients' medical information may violate principles of informed consent and patient confidentiality. Patients divulge information to their physicians only for purposes of diagnosis and treatment. If other uses are to be made of the information, patients must first give their uncoerced permission after being fully informed about the purpose of such disclosures
12. Our AMA, in collaboration with other professional organizations, patient advocacy groups and the public health community, should continue its advocacy for privacy and confidentiality regulations, including:
    a. the establishment of rules allocating liability for disclosure of identifiable patient medical information between physicians and the health plans of which they are a part, and securing appropriate physicians' control over the disposition of information from their patients' medical records;
    b. the establishment of rules to prevent disclosure of identifiable patient medical information for commercial and marketing purposes;
    c. the establishment of penalties for negligent or deliberate breach of confidentiality or violation of patient privacy rights.
13. Our AMA will pursue an aggressive agenda to educate patients, the public, physicians and policymakers at all levels of government about concerns and complexities of patient privacy and confidentiality in the variety of contexts mentioned.
14. Disclosure of personally identifiable patient information to public health physicians and departments is appropriate for the purpose of addressing public health emergencies or to comply with laws regarding public health reporting for the purpose of disease surveillance.
15. In the event of the sale or discontinuation of a medical practice, patients should be notified whenever possible and asked for authorization to transfer the medical record to a new physician or care provider. Only de-identified and/or aggregate data should be used for "business decisions," including sales, mergers, and similar business transactions when ownership or control of medical records changes hands.
16. The most appropriate jurisdiction for considering physician breaches of patient confidentiality is the relevant state medical practice act. Knowing and intentional breaches of patient confidentiality, particularly under false pretenses, for malicious harm, or for monetary gain, represents a violation of the professional practice of medicine.
17. Our AMA Board of Trustees will actively monitor and support legislation at the federal level that will afford patients protection against discrimination on the basis of genetic testing.

18. Our AMA supports privacy standards that would require pharmacies to obtain a prior written and signed consent from patients to use their personal data for marketing purposes.
19. Our AMA supports privacy standards that require pharmacies and drug store chains to disclose the source of financial support for drug mailings or phone calls.
20. Our AMA supports privacy standards that would prohibit pharmacies from using prescription refill reminders or disease management programs as an opportunity for marketing purposes.
21. Our AMA will draft model state legislation requiring consent of all parties to the recording of a physician-patient conversation.

[BOT Rep. 9, A-98 Reaffirmation I-98 Appended: Res. 4, and Reaffirmed: BOT Rep. 36, A-99 Appended: BOT Rep. 16 and Reaffirmed: CSA Rep. 13, I-99 Reaffirmation A-00 Reaffirmed: Res. 246 and 504 and Appended Res. 504 and 509, A-01 Reaffirmed: BOT Rep. 19, I-01 Appended: Res. 524, A-02 Reaffirmed: Sub. Res. 206, A-04 Reaffirmed: BOT Rep. 24, I-04 Reaffirmed: BOT Rep. 19, I-06 Reaffirmation A-07 Reaffirmed: BOT Rep. 19, A-07 Reaffirmed: CEJA Rep. 6, A-11 Reaffirmed in lieu of Res. 705, A-12 Reaffirmed: BOT Rep. 17, A-13 Modified: Res. 2, I-14 Reaffirmation: A-17 Modified: BOT Rep. 16, A-18 Appended: Res. 232, A-18 Reaffirmation: I-18 Reaffirmed: Res. 219, A-21 Reaffirmed: Res. 229, A-21 Reaffirmed: BOT Rep. 12, I-21 Reaffirmed: BOT Rep. 22, A-22 Reaffirmation: A-23 Reaffirmed: CSAPH Rep. 08, A-24]

H-450.933 Clinical Data Registries

1. Our AMA encourages multi-stakeholder efforts to develop and fund clinical data registries for the purpose of facilitating quality improvements and research that result in better health care, improved population health, and lower costs.
2. Our AMA encourages national medical specialty societies, state medical associations, and other physician groups to join the National Quality Registry Network and to participate in efforts to advance the development and use of clinical data registries.
3. Our AMA supports flexibility in the development and implementation of clinical data registries. The following guidelines can help maximize opportunities for clinical data registries to enhance the quality of care provided to patients:

a. Practicing physicians must be actively involved in decisions related to the development, maintenance and use of clinical data registries and registry data.
b. Data elements, risk-adjustment models and measures used in the registry should be fully transparent.
c. Registries should provide timely, actionable feedback reports to individual physicians or entities reporting at the organizational level.
d. Registries and electronic health records should be interoperable, and should be capable of sharing and integrating information across registries and with other data sources in a HIPAA-compliant and confidential manner.
e. Registry stewards should establish a formal process to facilitate the modification, expansion, or dissolution of the registry in order to accommodate advances in technology and changing clinical data needs to ensure continued utility of their registry.

4. Our AMA encourages physicians to participate in clinical data registries, and will encourage efforts that help physicians identify existing registries suitable for and of benefit to their patient populations and their practices.
5. Our AMA will continue to advocate for and support initiatives that minimize the costs and maximize the benefits of physician practice participation in clinical data registries.
6. Our AMA supports that, with the consent of the participating physician, physician-specific clinical registry data may be used to meet third-party quality reporting requirements, in accordance with the following principles:

a. Data should be used to improve the quality of patient care and the efficient use of resources in the delivery of health care services.
b. Data related to resource use and cost of care must be evaluated and reported in conjunction with quality of care information.
c. Effective safeguards must be established to protect against the dissemination of inconsistent, incomplete, invalid or inaccurate physician-specific medical practice data.
d. Case-matched, risk-adjusted quality measure and resource use data are provided to physicians to assist them in determining their relative utilization of resources in providing care to their patients.
e. When data are collected and analyzed for the purpose of meeting quality reporting requirements, the methodologies used to create the profiles and report the results are developed in conjunction with relevant physician organizations and practicing physicians, and are disclosed in sufficient detail to allow each physician or medical group to re-analyze the validity of the reported results prior to more general disclosure.
[CMS Rep. 8, A-14; Reaffirmed: CMS Rep. 05, I-16; Reaffirmed: CMS Rep. 10, A-17; Reaffirmed: CMS Rep. 06, A-18; Reaffirmed: CSAPH Rep. 2, I-19]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 917
(I-25)

Introduced by: New Jersey

Subject: Urging Comprehensive Research and Safety Testing of Industry-Engineered Food Additives (IEFAs), Including High Fructose Corn Syrup

Referred to: Reference Committee K

Whereas, food consumption data from the U.S. Department of Agriculture show that the use of high fructose corn syrup (HFCS) increased by more than 1,000% between 1970 and 1990, far exceeding changes in intake of any other food or food group; and

Whereas, HFCS now represents more than 40% of the caloric sweeteners added to foods and beverages and is the predominant caloric sweetener in soft drinks in the United States; and

Whereas, recent scientific studies have identified potential adverse health effects from certain industry-engineered food additives (IEFAs), including artificial obesogens, such as increased risk of obesity, metabolic disorders, and other chronic diseases; and

Whereas, one such study found that high sugar and sugar-sweetened beverage intake during adolescence was positively associated with increased risk of colorectal adenomas, with each 5% increase in calories from total fructose intake associated with a 17% higher risk of total adenomas and a 30% higher risk of high-risk adenomas (Gastroenterology, 2021); and

Whereas, the development and use of many IEFAs, including HFCS, have often proceeded without comprehensive, long-term safety testing; and

Whereas, rigorous research protocols and pre-market safety evaluations are essential to protect public health and prevent unintended health consequences; therefore be it

RESOLVED, that our American Medical Association supports stronger safety protocols and regulatory oversight of food additives, to protect the health and well-being of the American public (New HOD Policy); and be it further

RESOLVED, that our AMA advocate federal policies requiring comprehensive scientific research and safety testing of industry-engineered food additives, including HFCS and other similar substances, prior to their approval by federal regulators for use in the food supply. (Directive to Take Action)

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

Received: 9/26/25

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RELEVANT AMA POLICY

1. Policy H-150.919 H-15
   The Health Effects of High Fructose Syrup H-150.919
   1. Our American Medical Association recognizes that at the present time, insufficient evidence exists to specifically restrict use of high fructose corn syrup (HFCS) or other fructose-containing sweeteners in the food supply or to require the use of warning labels on products containing HFCS.
   2. Our AMA encourages independent research (including epidemiological studies) on the health effects of HFCS and other added sugars, and evaluation of the mechanism of action and relationship between fructose dose and response.
   3. Our AMA in concert with the Dietary Guidelines for Americans, recommends that consumers limit the amount of added sugars in their diet.

   Citation: CSAPH Rep. 8, A-23;
2. H-150.998 Food Additives

Our American Medical Association supports the passage of legislation that would amend the Food Additive Act to require evidence based upon scientifically reproducible studies of the association of food additives with an increased incidence of cancer in animals or humans at dosage levels related to the amounts calculated as normal daily consumption for humans before removal of an additive from the market.
Citation: Sub. Res. 4, A-77; Reaffirmed: CLRPD Rep. C, A-89; Reaffirmed: Sunset Report, A-00; Modified: BOT Rep. 6, A-10; Reaffirmed: BOT Rep. 7, A-21;

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 918
(I-25)

Introduced by: New York

Subject: Remove Outdated Barriers to Genetic Testing

Referred to: Reference Committee K

Whereas, genetic testing for inherited and acquired mutations or variations of the genome is the basis for modern healthcare and is widely used in the management of infertility in men and women in the treatment of a variety of conditions, including many cancers; and

Whereas, Federal law, The Genetic Information Nondiscrimination Act (GINA) of 2008 protects people from genetic discrimination in health insurance and employment. GINA prohibits the use of genetic information for making decisions about health coverage or employment. Federal Law supersedes state laws making state laws fairly meaningless in terms of patient protection; and

Whereas, NYS has outdated anachronistic requirements for written consent that has to be provided to the lab to process testing for genomic abnormalities, including karyotype, testing for specific genetic abnormalities such as Y-chromosome microdeletions, and cancer gene mutation testing for cancer patients; and

Whereas, NYS is only one of 6 states that still have outdated requirements for consent for genetic testing; and

Whereas, physicians are overburdened with useless paperwork, written consent requirements delay critical care, written consent does not provide any more protection to patients than does verbal consent, and patients are protected from discrimination by both the federal law and the NYS law irrespective of the requirement for written consent; and

Whereas, many genetic abnormalities can be derived based on other characteristics with a high degree of certainty, and imposing barriers on genetic testing serves little purpose; and

Whereas, NYS has a history of making intelligent decisions, such as getting rid of the HIV consent that was widely acknowledged to impair treatment just as the genetic testing consent does. Similar laws that prohibit discrimination on the basis of HIV positivity protect patients with gene mutations; therefore be it

RESOLVED, that our American Medical Association advocate for federal and state legislation to remove requirements for separate written consent for genetic or genomic testing, and to eliminate unnecessary restrictions on sharing test result records with the treating team of providers, while preserving essential patient protections, including safeguards against discrimination by insurance companies (Directive to Take Action); and be it further

RESOLVED, that our AMA advocate for changes to laws nationwide in the states that continue to impose barriers to genetic or genomic testing in the form of written consent requirements in Massachusetts, Michigan, Nebraska, New York, South Dakota, and that our AMA report on the status of this resolution at the 2026 Annual Meeting. (Directive to Take Action)

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

Received: 9/26/25

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 919
(I-25)

Introduced by: American Association of Public Health Physicians

Subject: Strengthening Trust through AMA-Based Leadership for Evidence-Based Vaccines (STABLE Vaccines)

Referred to: Reference Committee K

Whereas, our American Medical Association (AMA) has a long-standing mission to promote the art and science of medicine and the betterment of public health[1]; and

Whereas, science-based vaccine recommendations are essential to safeguarding individual and population health[2], especially in the face of vaccine misinformation, disinformation, and politicization; and

Whereas, the current public health landscape is marked by fragmented and sometimes conflicting vaccine guidance from various institutions, which can create confusion and erode public trust[3]; and

Whereas, our AMA is uniquely positioned as a trusted and authoritative voice in medicine[4], and can serve as a convening body to bring together clinicians, scientists, public health officials, and other key stakeholders to develop, promote, and disseminate evidence-based vaccine recommendations; and

Whereas, there is a pressing need for a centralized, science-driven source that the public and clinicians can rely on for accurate, up-to-date vaccine information[5], and our AMA has the infrastructure, credibility, and reach to fulfill this role as both a central repository and a public-facing megaphone; and

Whereas, no single organization possesses all the expert guidance and sustainable funding necessary to replicate the historical functions of ACIP[6], it is therefore essential to establish a coordinating body to unify and lead these efforts; therefore be it

RESOLVED, that our American Medical Association will serve as a convener of key stakeholders to advance science-based vaccine recommendations (Directive to Take Action); and be it further

RESOLVED, that our AMA will establish itself as a trusted, centralized source and public-facing megaphone for science-based vaccine guidance (Directive to Take Action); and be it further

RESOLVED, that our AMA will contribute expertise and funding, as appropriate, to advance the mission of coordinating and promoting scientifically grounded and reliable vaccine guidance. (Directive to Take Action)

Fiscal Note: $3.1 million annually – Research and develop public facing materials.

Received: 9/26/25

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RELEVANT AMA POLICY

H-440.875 Assuring Access to ACIP/ AAFP/AAP recommended vaccines
H-440.860 Financing of Adult Vaccines: Recommendations for Action
H-440.887 Distribution and Administration of Vaccines
H-460.894 Value of Preventive Services
H-425.997 Preventive Services
G-625.012 Betterment of Public Health
D-440.922 Full Commitment by our AMA to the Betterment and Strengthening of Public Health Systems

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 920
(I-25)

Introduced by: Senior Physicians Section

Subject: Alcohol and Aging: Educating Physicians and Advocating for Safer Warnings

Referred to: Reference Committee K

Whereas, alcohol use remains common among individuals aged 65 and older, with studies showing that approximately 62% of this population consume alcohol and 6% meet standard definitions of being heavy users, at more than two drinks per day[1]; and

Whereas, older adults experience increased physiological sensitivity to alcohol[2]; and

Whereas, older adults are at increased susceptibility for alcohol-medication interactions[3]; and

Whereas, recent studies demonstrate that in seniors, even moderate alcohol consumption may increase mortality risk, including cancer and chronic diseases, compared to occasional drinking[4,5]; and

Whereas, alcohol abuse and dependence are under-recognized in older adults by healthcare personnel, who may not identify or recognize atypical geriatric symptoms associated with alcohol use, thereby possibly missing opportunities for intervention and therapy[6]; and

Whereas, the AMA as of July 2025 has adopted public health policy in support of “alcohol product labeling to create awareness of health risks,” signaling a willingness to advocate for more explicit warnings[7,8]; and

Whereas, the National Institute on Alcohol Abuse and Alcoholism and the Dietary Guidelines for Americans recommends restricting or limiting alcohol intake[9]; therefore be it

RESOLVED, that our American Medical Association advocate for the inclusion of clear, evidence-based warnings concerning the health risks of alcohol use in seniors on all alcoholic beverage containers, and work with regulatory bodies to develop standards for such warning labels in alignment with AMA policy. (Directive to Take Action)

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

Received: 9/26/25

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RELEVANT AMA POLICY

Alcohol Consumption and Health H-30.934

1. Our AMA recognizes that alcohol consumption at any level, not just heavy alcohol use or addictive alcohol use, is a modifiable risk factor for cancer.
2. Our AMA will work with relevant parties to:
    a. Promote public education about the risks between alcohol use and cancer, especially breast cancer; and
    b. Educate clinicians regarding the influence of alcohol use and breast cancer as well as other cancer risks and treatment complications.
3. Our AMA supports evidence-based efforts to minimize alcohol use, including eliminating the use of “pinkwashing” to market alcohol products and supporting warning labels on the ingredients and products.

Citation: Res. 516, A-19; Appended: Res. 431, A-25

Supporting Labeling and Dietary Guideline Clarity for Alcoholic Beverages H-30.940

1. Our AMA:
    a. supports accurate and appropriate labeling disclosing the alcohol content of all beverages, including so-called "nonalcoholic" beer and other substances as well, including over-the-counter and prescription medications, with removal of "nonalcoholic" from the label of any substance containing any alcohol.
    b. supports efforts to educate the public and consumers about the alcohol content of so-called "nonalcoholic" beverages and other substances, including medications, especially as related to consumption by minors.
    c. urges the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) and other appropriate federal regulatory agencies to continue to reject proposals by the alcoholic beverage industry for authorization to place beneficial health claims for its products on container labels.
    d. urges the development of federal legislation to require nutritional labels on alcoholic beverages in accordance with the Nutritional Labeling and Education Act.
2. Our AMA:
    a. expresses its strong disapproval of any consumption of "nonalcoholic beer" by persons under 21 years of age, which creates an image of drinking alcoholic beverages and thereby may encourage the illegal underaged use of alcohol.
    b. recommends that health education labels be used on all alcoholic beverage containers and in all alcoholic beverage advertising (with the messages focusing on the hazards of alcohol consumption by specific population groups especially at risk, such as pregnant people, as well as the dangers of irresponsible use to all sectors of the populace).
    c. recommends that the alcohol beverage industry be encouraged to accurately label all product containers as to ingredients, preservatives, and ethanol content (by percent, rather than by proof).
3. Our AMA actively supports and will work for a total statutory prohibition of advertising of all alcoholic beverages except for inside retail or wholesale outlets. Pursuant to that goal, our AMA
    a. supports federal and/or state oversight for all forms of alcohol advertising.

b. supports continued research, educational, and promotional activities dealing with issues of alcohol advertising and health education to provide more definitive evidence on whether, and in what manner, advertising contributes to alcohol abuse.
c. opposes any form of advertising which links alcoholic products to agents of socialization in order to promote drinking.
d. will work with state and local medical societies to support the elimination of advertising of alcoholic beverages from all mass transit systems.
e. urges college and university authorities to bar alcoholic beverage companies from sponsoring athletic events, music concerts, cultural events, and parties on school campuses, and from advertising their products or their logo in school publications.
f. urges its constituent state associations to support state legislation to bar the promotion of alcoholic beverage consumption on school campuses and in advertising in school publications.

4. Our AMA:
    a. urges producers and distributors of alcoholic beverages to discontinue all advertising directed toward youth, including promotions on high school and college campuses.
    b. urges advertisers and broadcasters to cooperate in eliminating television program content that depicts the irresponsible use of alcohol without showing its adverse consequences (examples of such use include driving after drinking, drinking while pregnant, or drinking to enhance performance or win social acceptance).
    c. supports continued warnings against the irresponsible use of alcohol and challenges the liquor, beer, and wine trade groups to include in their advertising specific warnings against driving after drinking.
    d. commends those automobile and alcoholic beverage companies that have advertised against driving while under the influence of alcohol.
5. Our AMA supports federal and state legislation and regulations requiring standardized, front-of-package labeling on all alcoholic beverages that discloses:
    a. the number of standard drinks per container and aligns with current guidelines on alcohol consumption; and
    b. the best available science, including appropriate acknowledgment of alcohol's causal link to cancer and the evidence that the risk of harm increases with greater alcohol consumption.
6. Our AMA supports legislation and regulations ensuring:
    a. alcohol labeling is presented with sufficient prominence, legibility, and design features, such as minimum font size, and color contrast, and optional pictorial elements, to enhance readability and support informed decision-making across populations; and
    b. clear, evidence-based point-of-sale warning signage in physical and digital retail environments where alcohol is sold.
7. Our AMA supports extending alcohol labeling requirements to "non-alcoholic" or "zero proof" beverages that are manufactured, packaged, or marketed in a manner similar to alcoholic beverages, to ensure consistent transparency regarding alcohol content.
8. Our AMA continues to strongly urge the Dietary Guidelines Advisory Committee to explicitly warn about the risks of alcohol consumption and its relationship to certain cancers and other diseases and affirm that there is no safe threshold for alcohol consumption.
9. Our AMA will submit a public comment in response to the Alcohol and Tobacco Tax and Trade Bureau's proposed rule on Alcohol Facts Statements, calling for labeling standards that include standard drink information, health risk disclosures, consumer-centric design, and harmonization with federal dietary guidance and emerging public health evidence.
10. Our AMA supports research and evaluation initiatives to determine the impact of alcohol warning labels and signage on consumer knowledge and behavior, health outcomes, and alcohol sales patterns, with ongoing assessment to ensure future labeling interventions are evidence-informed and population-appropriate.

Citation: CSA Rep. 1, A-04; Reaffirmation A-08; Reaffirmed CSAPH Rep. 01, A-18; Modified Res. 427, A-22; Modified: Res. 918, I-22; Modified: Speakers Rep. 02, I-24; Modified: Res. 405, A-25

Alcohol Use Disorder in Older Adults H-30.950

1. Our AMA encourages medical educators to expand instructional material on alcohol and aging at all levels of medical education, particularly in residency and/or postgraduate training.
2. Our AMA will cooperate with other groups, such as the American Association of Retired Persons and appropriate government agencies, in public education programs for older adults concerning alcohol-related problems.

Citation: CSA Rep. 1, I-93; Reaffirmed: CSA Rep. 8, A-05; Modified: CSAPH Rep.1, A-25

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 921
(I-25)

Introduced by: Senior Physicians Section

Subject: Prioritizing Deprescribing in Seniors

Referred to: Reference Committee K

Whereas, despite American Medical Association policy on polypharmacy D-120.928, the prevalence of polypharmacy has tripled over the last twenty years[1]; and

Whereas, 4 out of 10 people older than 65 take five or more medications, putting them at risk of adverse drug toxicity, falls, delirium, cognitive impairment and decreased quality of life[1]; and

Whereas, the demographic surge of people older than 65 will only make the problem more prevalent; and

Whereas, deprescribing, the proactive and systematic identification and discontinuation of medications with potential risk greater than potential benefits, offers a significant opportunity to improve patient safety and quality of care; and

Whereas, the Agency for Healthcare Research and Quality (AHRQ) has designated deprescribing as a patient safety priority[2]; therefore be it

RESOLVED, that our American Medical Association declare that deprescribing, the proactive and systematic identification and discontinuation of medications with potential risk greater than potential benefits, is a medical priority in the management of senior patients and advocate for the integration of deprescribing as a standard component of high-quality prescribing practices (Directive to Take Action); and be it further

RESOLVED, that our AMA advocate for the development of educational initiatives and clinical decision support tools to facilitate safe and effective deprescribing in electronic health records (Directive to Take Action); and be it further

RESOLVED, that our AMA call for research and policy efforts to address barriers for implementation of deprescribing in routine medical care (Directive to Take Action); and be it further

RESOLVED, that our AMA advocate for all insurers to reimburse deprescribing activities (Directive to Take Action); and be it further

RESOLVED, that our AMA shall report back on the status of deprescribing to the House of Delegates at A-26 and yearly thereafter, with appropriate metrics to address potential barriers and to guide further advocacy, until it has become implemented as a mainstream component of health care. (Directive to Take Action)

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

Received: 9/26/25

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RELEVANT AMA POLICY

Safe and Efficient E-Prescribing H-120.921
Our AMA encourages health care stakeholders to improve electronic prescribing practices in meaningful ways that will result in increased patient safety, reduced medication error, improved care quality, and reduced administrative burden associated with e-prescribing processes and requirements. Specifically, the AMA encourages:
A. E-prescribing system implementation teams to conduct an annual audit to evaluate the number, frequency and user acknowledgment/dismissal patterns of e-prescribing system alerts and provide an audit report to the software vendors for their consideration in future releases.
B. Health care organizations and implementation teams to improve prescriber end-user training and on-going education.
C. Implementation teams to prioritize the adoption of features like structured and codified Sig formats that can help address quality issues, allowing for free text when necessary.
D. Implementation teams to enable functionality of pharmacy directories and preferred pharmacy options.
E. Organizational leadership to encourage the practice of inputting a patient's preferred pharmacy at registration, and re-confirming it upon check-in at all subsequent visits.
F. Implementation teams to establish interoperability between the e-prescribing system and the EHR to allow prescribers to easily confirm continued need for e-prescription refills and to allow for ready access to pharmacy choice and selection during the refill process.
G. Implementation teams to enhance EHR and e-prescribing system functions to require residents assign an authorizing attending physician when required by state law.
H. Organizational leadership to implement e-prescribing systems that feature more robust clinical decision support, and ensure prescriber preferences are tested and seriously considered in implementation decisions.
i. Organizational leadership to designate e-prescribing as the default prescription method.
J. The DEA to allow for lower-cost, high-performing biometric devices (e.g., fingerprint readers on laptop computers and mobile phones) to be leveraged in two-factor authentication.
K. States to allow integration of PDMP data into EHR systems.
L. Health insurers, pharmacies and e-prescribing software vendors to enable real-time benefit check applications that enable more up to date prescription coverage information and allow notification when a patient changes health plans or a health insurer has changed a pharmacy's network status.
M. Functionality supporting the electronic transfer and cancellation of prescriptions.
Citation: BOT Rep. 20, A-19

Reducing Polypharmacy as a Significant Contributor to Senior Morbidity D-120.928

1. Our American Medical Association will work with other organizations e.g., AARP, other medical specialty societies, PhRMA, and pharmacists to educate patients about the significant effects of all medications and most supplements, and to encourage physicians to teach patients to bring all medications and supplements or accurate, updated lists including current dosage to each encounter.
2. Our AMA along with other appropriate organizations encourages physicians and ancillary staff if available to initiate discussions with patients on improving their medical care through the use of only the minimal number of medications (including prescribed or over-the-counter, including vitamins and supplements) needed to optimize their health.
3. Our AMA will work with other stakeholders and EHR vendors to address the continuing problem of inaccuracies in medication reconciliation and propagation of such inaccuracies in electronic health records.
4. Our AMA will work with other stakeholders and EHR vendors to include non-prescription medicines and supplements in medication lists and compatibility screens

Citation: Res. 515, A-22

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 922
(I-25)

Introduced by: Medical Student Section, Underrepresented in Medicine Advocacy Section

Subject: Addressing Health Impacts of Indian Boarding Schools

Referred to: HOD Reference Committee K

Whereas, Indian boarding schools in the United States were established and perpetuated under federal policies such as the Indian Civilization Act of 1819, which funded missionary-run schools to forcibly "civilize" Native American children by erasing their cultural identities and replacing them with Anglo-American practices[1-2]; and

Whereas, it is documented that in over 417 institutions operated across 37 states, Native American children faced physical abuse, malnutrition, overcrowded conditions, and punishment for speaking their languages or practicing cultural traditions, with over 973 documented deaths and many more unmarked graves[3]; and

Whereas, boarding school attendees were exposed to DDT, which was directly applied to their bodies as a 'delousing' measure, significantly increasing their risk of developing breast cancer, liver cancer, and hematologic malignancies compared to non-attendees[3-4]; and

Whereas, Indian boarding schools created conditions that led to alarmingly high rates of infectious diseases, including tuberculosis, which was up to four times more prevalent among attendees, with mortality rates as high as 40-60%[4-6]; and

Whereas, former boarding school attendees suffer from significantly elevated rates of chronic health conditions, including diabetes, arthritis, hyperlipidemia, and anemia, as well as post-traumatic stress disorder, alcohol and opioid use disorders, and suicidality[5-6]; and

Whereas, survivors of Indian boarding schools and their descendants face ongoing barriers to healing, including limited access to healthcare, pervasive poverty, intergenerational trauma, loss of cultural identity, disrupted family structures, high rates of violence, and educational inequities, all of which contribute to persistent health disparities and hinder recovery[7]; and

Whereas, Tribal Nations have implemented initiatives to promote healing and recovery from the intergenerational trauma caused by Indian boarding schools, yet these efforts are often undermined by insufficient funding, inadequate resources, and lack of structural support from federal and state governments[7]; and

Whereas, the following federal legislation has been reintroduced in the 119th Congress: the Truth and Healing Commission on Indian Boarding School Policies Act S. 671 (formerly H.R. 7227/S. 1723), which aims to investigate human rights violations, document unmarked burial sites, and provide recommendations for reparative justice[8-9]; therefore be it

RESOLVED, that our American Medical Association support efforts to address the historical injustices and ongoing health impacts of Indian boarding schools. (New HOD Policy)

Fiscal Note: Minimal – less than $1,000

Date Received: 09/29/25

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RELEVANT AMA POLICY

H-350.976 Improving Health Care of American Indians and Alaska Natives
(1) Our American Medical Association recommends that all individuals, special interest groups, and levels of government recognize the American Indian and Alaska Native people as full citizens of the US, entitled to the same equal rights and privileges as other US citizens. (2) Our AMA recommends that the federal government provide sufficient funds to support needed health services for American Indians and Alaska Natives. (3) Our AMA recommends that state and local governments give special attention to the health and health-related needs of nonreservation American Indians and Alaska Natives in an effort to improve their quality of life. (4) Our AMA recommends that American Indian and Alaska Native religious and cultural beliefs be recognized and respected by those responsible for planning and providing services in Indian health programs. (5) Our AMA recognizes practitioners of Indigenous medicine as an integral and culturally necessary individual in delivering health care to American Indians and Alaska Natives. (6) Our AMA monitors Medicaid Section 1115 waivers that recognize the value of traditional American Indian and Alaska Native healing services as a mechanism for improving patient-centered care and health equity among American Indian and Alaska Native populations when coordinated with physician-led care. (7) Our AMA supports consultation with Tribes to facilitate the development of best practices, including but not limited to culturally sensitive data collection, safety monitoring, the development of payment methodologies, healer credentialing, and tracking of traditional healing services utilization at Indian Health Service, Tribal, and Urban Indian Health Programs. (8) Our AMA recommends strong emphasis be given to mental health programs for American Indians and Alaska Natives in an effort to reduce the high incidence of alcoholism, homicide, suicide, and accidents. (9) Our AMA recommends a team approach drawing from traditional health providers supplemented by psychiatric social workers, health aides, visiting nurses, and health educators be utilized in solving these problems. (10) Our AMA will continue its liaison with the Indian Health Service and the National Indian Health Board and establish a liaison with the Association of American Indian Physicians. (11) Our AMA recommends that state and county medical associations establish liaisons with intertribal health councils in those states where American Indians and Alaska Natives reside. (12) Our AMA supports and encourages further development and use of

innovative delivery systems and staffing configurations to meet American Indian and Alaska Native health needs but opposes overemphasis on research for the sake of research, particularly if needed federal funds are diverted from direct services for American Indians and Alaska Natives. (13) Our AMA strongly supports those bills before Congressional committees that aim to improve the health of and health-related services provided to American Indians and Alaska Natives and further recommends that members of appropriate AMA councils and committees provide testimony in favor of effective legislation and proposed regulations. [CLRPD Rep. 3, I-98; Reaffirmed: Res. 221, A-07; Reaffirmation A-12; Reaffirmed: Res. 233, A-13; Reaffirmed: BOT Rep. 09, A-23; Modified: CMS Rep. 03, A-24; Reaffirmed: Res. 244, A-24]

H-350.977 Indian Health Service
The policy of the American Medical Association is to support efforts in Congress to enable the Indian Health Service to meet its obligation to bring American Indian health up to the general population level. Our AMA specifically recommends:

1. Indian Population:
    a. In current education programs, and in the expansion of educational activities suggested below, special consideration be given to involving the American Indian and Alaska native population in training for the various health professions, in the expectation that such professionals, if provided with adequate professional resources, facilities, and income, will be more likely to serve the tribal areas permanently;
    b. Exploration with American Indian leaders of the possibility of increased numbers of nonfederal American Indian health centers, under tribal sponsorship, to expand the American Indian role in its own health care;
    c. Increased involvement of private practitioners and facilities in American Indian care, through such mechanisms as agreements with tribal leaders or Indian Health Service contracts, as well as normal private practice relationships; and
    d. Improvement in transportation to make access to existing private care easier for the American Indian population.
2. Federal Facilities: Based on the distribution of the eligible population, transportation facilities and roads, and the availability of alternative nonfederal resources, the AMA recommends that those Indian Health Service facilities currently necessary for American Indian care be identified and that an immediate construction and modernization program be initiated to bring these facilities up to current standards of practice and accreditation.
3. Personnel:
    a. Compensation scales for Indian Health Service physicians be increased to a level competitive with other Federal agencies and nongovernmental service;
    b. Consideration should be given to increased compensation for specialty and primary care service in remote areas;
    c. In conjunction with improvement of Service facilities, efforts should be made to establish closer ties with teaching centers and other federal health agencies, thus increasing both the available staffing and the level of professional expertise available for consultation;
    d. Allied health professional staffing of Service facilities should be maintained at a level appropriate to the special needs of the population served without detracting from physician compensation;
    e. Continuing education opportunities should be provided for those health professionals serving these communities, and especially those in remote areas, and, increased peer contact, both to maintain the quality of care and to avert professional isolation and burnout; and
    f. Consideration should be given to a federal statement of policy supporting continuation of the Public Health Service to reduce the great uncertainty now felt by many career officers of the corps.
4. Medical Societies: In those states where Indian Health Service facilities are located, and in counties containing or adjacent to Service facilities, that the appropriate medical societies should explore the possibility of increased formal liaison with local Indian Health Service physicians. Increased support from organized medicine for improvement of health care provided under their

direction, including professional consultation and involvement in society activities should be pursued.

5. Our AMA also supports the removal of any requirement for competitive bidding in the Indian Health Service that compromises proper care for the American Indian population.
6. Our AMA will advocate that the Indian Health Service (IHS) establish an Office of Academic Affiliations responsible for coordinating partnerships with LCME- and COCA-accredited medical schools and ACGME-accredited residency programs.
7. Our AMA will encourage the development of funding streams to promote rotations and learning opportunities at Indian Health Service, Tribal, and Urban Indian Health Programs.
8. Our AMA will call for an immediate change in the Public Service Loan Forgiveness Program to allow physicians to receive immediate, but incremental, loan forgiveness when they practice in an Indian Health Service, Tribal, or Urban Indian Health Program.
9. Our AMA supports reform of the Indian Health Service (IHS) Loan Repayment Program eligibility for repayment with either a part-time or full-time employment commitment to IHS and Tribal Health Programs.[CLRPD Rep. 3, I-98; Reaffirmed: CLRPD Rep. 1, A-08; Reaffirmation A-12; Reaffirmed: Res. 233, A-13; Appended: Res. 305, A-23; Reaffirmed: BOT Rep. 09, A-23; Reaffirmed: CMS Rep. 03, A-24; Reaffirmed: Res. 244, A-24; Reaffirmed: BOT Rep. 31, A-24; Modified: CMS Res. 305, A-24]

D-350.977 Addressing the Longitudinal Healthcare Needs of American Indian Children in Foster Care

(1) Our American Medical Association recognizes the Indian Child Welfare Act of 1978 as a model in American Indian and Alaska Native child welfare legislation. (2) Our AMA supports federal legislation preventing the removal of American Indian and Alaska Native children from their homes by public and private agencies without cause. (3) Our AMA will work with local and state medical societies and other relevant stakeholders to support legislation preventing the removal of American Indian and Alaska Native children from their homes by public and private agencies without cause. (4) Our AMA supports state and federal funding opportunities for American Indian and Alaska Native child welfare systems. (5) Our AMA will support the construction of health information systems to enhance information exchange between both tribal and non-tribal child welfare agencies and health care professionals. (6) Our AMA will advocate for the designation of medical teams, and/or committees to longitudinally follow children in foster care, including to ensure the provision of continuity of care for children who are at the age of transition out of foster care. (7) Our AMA will advocate for oversight of local, tribal, and state child welfare systems by physicians with expertise in pediatrics and child psychiatry. (8) Our AMA will promote existing medical homes which provide continuity of care to children in foster care when feasible. (9) Our AMA will support the appointment of a licensed pediatrician or family medicine physician (with substantial pediatric experience) in each state with experience in child welfare to the position of medical director of child welfare and a psychiatrist with substantial child and adolescent psychiatric experience to the position of psychiatric medical director of child welfare for each Title IV-E agency. [Res. 443, A-22; Appended: Res. 930, I-22]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution 923
(I-25)

Introduced by: Medical Student Section, Oregon, Washington

Subject: Enhancing Disaster Preparedness Mechanisms for People with Disabilities

Referred to: HOD Reference Committee K

Whereas, people with disabilities face disproportionately higher risks during disasters due to systemic gaps in emergency preparedness, including inaccessible evacuation routes, inadequate emergency communication, and insufficient medical resources in shelters[1-3]; and

Whereas, 26% of U.S. adults live with a disability, yet emergency preparedness plans frequently fail to account for their specific needs—contributing to the fact that individuals with disabilities are two to four times more likely to be injured or die during disasters[4-6]; and

Whereas, the National Association of the Deaf and other advocacy groups have documented failures in emergency alert systems, including the lack of visual, auditory, and tactile notifications necessary for individuals with sensory impairments, leading to increased risk for injury and fatality[18-20]; and

Whereas, individuals with developmental disabilities (DD) are more than four times more likely to be injured during a disaster compared to their peers, yet disaster preparedness training for individuals with DD remains inadequate[21]; and

Whereas, disability-specific disaster preparedness measures—such as assistive technologies, durable medical equipment, and mobility devices—have been shown to improve emergency response outcomes for individuals with disabilities[27]; and

Whereas, studies indicate that tailored preparedness training significantly enhances disaster readiness among wheelchair users, and the World Health Organization recommends incorporating assistive technologies into humanitarian response efforts to reduce barriers to essential services during crises[27]; and

Whereas, funding for both disability-related research and emergency preparedness programs inclusive of people with disabilities has experienced periods of decline over the past decade; federal support for disability research, such as through the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), remained largely flat in real terms from 2012 to 2019, while philanthropic investment in disability issues accounted for only about 2% of U.S. grantmaking and declined by 14% globally between 2017 and 2018[29,30]; and

Whereas, the Americans with Disabilities Act (ADA) and the Rehabilitation Act of 1973 mandate accessibility in public spaces, but compliance gaps in emergency planning persist, with a 2019 National Council on Disability report highlighting that federal and local disaster preparedness policies often overlook disability-specific accommodations[11-12,16]; and

Whereas, major disasters—including the Maui (Lāhainā) wildfires (2023), the Southern California wildfires (2025), and Hurricane Helene (2024)—have revealed severe failures in emergency response for people with disabilities, as evidenced by higher mortality rates due to inaccessible evacuation routes, inadequate emergency assistance, and individuals with disabilities being left behind due to a lack of accessible transportation, sign language interpreters, and emergency medical resources for those with mobility impairments[7-10]; therefore be it

RESOLVED, that our American Medical Association, in coordination with relevant stakeholders, advocate for greater integration of inclusive emergency alert systems (e.g., visual, auditory, and haptic notifications) in emergency preparedness planning to ensure disaster response accessibility for people with disabilities (Directive to Take Action); and be it further

RESOLVED, that our AMA support increased federal and state funding for disability-specific disaster preparedness measures such as assistive technologies, durable medical equipment, mobility devices, and education programs in collaboration with relevant stakeholders. (New HOD Policy)

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

Date Received: 09/29/25

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RELEVANT AMA POLICY

H-130.942 Development of a Federal Public Health Disaster Intervention Team
Our AMA: … (2) through its Center for Public Health Preparedness and Disaster Response, will work with the DHHS, PHSCC, DHS, and other relevant government agencies to provide comprehensive disaster education and training for all federal medical and public health employees and volunteers through the National Disaster Life Support and other appropriate programs. Such training should address the medical and mental health needs of all populations, including children, the elderly, and other vulnerable groups. [BOT Rep. 3, A-07; Reaffirmed in lieu of Res. 218, I-15]

D-130.966 Domestic Disaster Relief Funding
Our AMA: …(2) will lobby actively for the recommendations outlined in the AMA/APHA Linkages Leadership Summit including: a) appropriate funding and protection of public health and health care systems as critical infrastructures for responding to day-to-day emergencies and mass causality events; b) full integration and interoperable public health and health care disaster preparedness and response systems at all government levels; d) incorporation of disaster preparedness and response competency-based education and training in undergraduate, graduate, post-graduate, and continuing education programs. [Res. 421, A-11; Reaffirmation: A-15]

H-295.868 Education in Disaster Medicine and Public Health Preparedness During Medical School and Residency Training
(1) Our American Medical Association recommends that formal education and training in disaster medicine and public health preparedness be incorporated into the curriculum at all medical schools and residency programs. (2) Our AMA encourages medical schools and residency programs to utilize multiple methods, including simulation, disaster drills, interprofessional team-based learning, and other interactive formats for teaching disaster medicine and public health preparedness. (3) Our AMA encourages public and private funders to support the development and implementation of education and training opportunities in disaster medicine and public health preparedness for medical students and resident

physicians. (4) Our AMA encourages medical schools and residency programs to use community-based disaster training and drills as appropriate to the region and community they serve as opportunities for medical students and residents to develop team skills outside the usual venues of teaching hospitals, ambulatory clinics, and physician offices. (5) Our AMA will make medical students and residents aware of the context (including relevant legal issues) in which they could serve with appropriate training, credentialing, and supervision during a national disaster or emergency, e.g., non-governmental organizations, American Red Cross, Medical Reserve Corps, and other entities that could provide requisite supervision. (6) Our AMA will work with the Federation of State Medical Boards to encourage state licensing authorities to include medical students and residents who are properly trained and credentialed to be able to participate under appropriate supervision in a national disaster or emergency. (7) Our AMA encourages physicians, residents, and medical students to participate in disaster response activities through organized groups, such as the Medical Response Corps and American Red Cross, and not as spontaneous volunteers. (8) Our AMA encourages teaching hospitals to develop and maintain a relocation plan to ensure that educational activities for faculty, medical students, and residents can be continued in times of national disaster and emergency. [CME Rep. 15, A-09; Reaffirmed: CME Rep. 7, A-10; Appended: CME Rep. 7, A-10; Reaffirmed and Appended: CME Rep. 1, I-11; Modified: CME Rep. 1, A-21]

H-90.968 Medical Care of Persons with Disabilities
Our AMA: … (1g) cooperation among physicians, health & human services professionals, and a wide variety of adults with disabilities to implement priorities and quality improvements for the care of persons with disabilities; and (4) will collaborate with appropriate stakeholders to create a model general curriculum/objective that… b) includes people with disabilities as patient instructors in formal training sessions and preclinical and clinical instruction; and (8) encourages the Accreditation Council for Graduate Medical Education and graduate medical education programs to develop and implement curriculum on providing appropriate and comprehensive health care to people with a range of disabilities. [CCB/CLRPD Rep. 3, A-14; Appended: Res. 306, A-14; Appended: Res. 315, A-17; Appended: Res. 304, A-18; Reaffirmed in lieu f the 1st Resolved: Res. 304] [Modified: Res. 428, A-22]

D-90.992 Preserving Protections of the Americans with Disabilities Act of 1990
Our American Medical Association supports legislative changes to the Americans with Disabilities Act of 1990, to educate state and local government officials and property owners on strategies for promoting access to persons with a disability. [Res. 220, I-17]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 924
(I-25)

Introduced by: LGBTQ+ Section

Subject: Preserving Access to Gamete Donation and Gestational Carriers and Protecting Parental Rights

Referred to: Reference Committee K

Whereas, the American Society for Reproductive Medicine (ASRM) defines a gamete donor as an individual who is not a sexually intimate partner of the recipient and a gestational carrier as a person who carries a pregnancy resulting from the transfer of a preimplantation embryo created by one or more genetic parents or gamete donors;[1,2] and

Whereas, indications for the use of gamete donors include male partner sperm or seminal fluid abnormalities, ejaculatory dysfunction, significant Rh isoimmunization of a female partner who is Rh negative with an Rh positive male partner, prior failure of fertilization during IVF after intracytoplasmic sperm injection, or females without male partners, inclusive of single females and LGBTQ+ couples;[1] and

Whereas, indications for the use of gestational carriers include uterine abnormalities or absence, absolute psychological or medical contraindication to pregnancy, serious psychological or medical condition that could be exacerbated by pregnancy or cause significant risk to mother or fetus, or biologic inability to conceive or carry a child, inclusive of single males and LGBTQ+ couples;[2] and

Whereas, gamete donation and gestational carrying are routinely utilized by same-sex couples who cannot conceive without using ART;[3,4,5,6] and

Whereas, gestational carrying pregnancies are similar in safety to other ART pregnancies;[7] and

Whereas, there are no substantial medical or psychological risks for gestational carriers or their children, and that proper screening, medical oversight, and psychological support contribute to positive outcomes of gestational carrying;[8] and

Whereas, gestational carrying is considered ‘commercial’ if financial compensation is provided to the carrier, and ‘altruistic’ if the carrier does not take financial compensation;[9] and

Whereas, regulation of commercial and altruistic gestational carrying varies significantly across the United States, with some jurisdictions banning commercial gestational carrying on ethical grounds while others allow it under strict legal frameworks;[10-16] and

Whereas, in Supreme Court case Pavan v. Smith (2017), two same-sex married couples from Arkansas utilized artificial insemination and were denied birth certificates that listed both intended parents and instead were issued birth certificates that only listed the birth mother; however, ultimately, the Supreme Court reversed the decision of the Arkansas Supreme Court and held that married same-sex couples cannot be denied the benefits that the States have

linked to marriage and that all married couples must be treated equally under United States law;[17] and

Whereas, despite Pavan v. Smith, some state regulations continue to be exclusionary to LGBTQ+ couples seeking gestational carrier services, with the unintended consequence of also excluding heterosexual couples that are not both genetically related to the carried child, therefore treating these married couples differently and unconstitutionally;[18] and

Whereas, the strongest ideological motivation for gestational carrying restrictions is anti-LGBTQ+ sentiment with the goal of preventing non-heterosexuals from reproducing and family building, yet these restrictions harm all people seeking these reproductive options;[19] and

Whereas, gestational carrying continues despite criminal or civil bans, and that bans only serve to leave the parties without legal protection;[20] and

Whereas, gestational carrying most commonly goes wrong when the involved parties do not clearly delineate terms of the carrying in contract, which can be addressed through consistent and equitable regulation and infrastructure;[21,22] and

Whereas, banning commercial gestational carrying disproportionately impacts LGBTQ+ individuals and those experiencing infertility who do not have family or friends willing to serve as altruistic carriers;[23] and

Whereas, the absence of clear gamete donation and gestational carrying laws can lead to significant legal and financial risks for intended parents, donors and carriers, and children, including uncertainty in parental rights, unenforceable agreements, and jurisdictional conflicts;[21,22,24] and

Whereas, establishment of legal parentage is complex for all due to state variation and financial and legal barriers, with particular challenges for single intended parents and LGBTQ+ intended parents and those using gestational carrying as a method of family building;[26-30] and

Whereas, there is also notable variation across states in establishing parentage when considering the use of donor gametes, leaving intended parents navigating a complex and often expensive and time-consuming legal environment in order to be considered a legal guardian; therefore be it

RESOLVED, that our American Medical Association support policies and initiatives that protect, standardize, and improve access to gamete donation and gestational carrying as recognized options for assisted reproduction (New HOD Policy); and be it further

RESOLVED, that our AMA support efforts by appropriate parties to provide resources for intended parents, gestational carriers, gamete donors, and children born with the aid of gamete donation and/or gestational carrying (New HOD Policy); and be it further

RESOLVED, that our AMA advocates for accessibility, timeliness, and dignity in the process of establishing parentage for children born from gamete donation and/or gestational carrying. (Directive to Take Action)

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

Received: 9/29/25

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RELEVANT AMA POLICY

4.2.1 Assisted Reproductive Technology
Physicians should increase their awareness of infertility treatments and options for their patients. Physicians who offer assisted reproductive services should: (a) Value the well-being of the patient and potential offspring as paramount. (b) Ensure that all advertising for services and promotional materials are accurate and not misleading. (c) Provide patients with all of the information they need to make an informed decision, including investigational techniques to be used (if any); risks, benefits, and limitations of treatment options and alternatives, for the patient and potential offspring; accurate, clinic-specific success rates; and costs. (d) Provide patients with psychological assessment, support and counseling or a referral to such services. (e) Base fees on the value of the service provided. Physicians may enter into agreements with patients to refund all or a portion of fees if the patient does not conceive where such agreements are legally permitted. (f) Not discriminate against patients who have difficult-to-treat conditions, whose infertility has multiple causes, or on the basis of race, socioeconomic status, or sexual orientation or gender identity. (g) Participate in the development of peer-established guidelines and self-regulation. [Code of Medical Ethics, Issued 2016]

Protecting Access to IVF Treatment D-425.989
Our American Medical Association opposes any legislation or ballot measures that could criminalize in-vitro fertilization. 2) Our AMA will work with other interested organizations to oppose any civil or criminal legislation or ballot measures or court rulings that would: (a) equate gametes (oocytes and sperm) or embryos with children; and/or (b) otherwise restrict or interfere with evidence-based care for Assisted Reproductive Technology (ART). 3) Our AMA, through the AMA Task Force to Preserve the Patient-Physician Relationship, will report back at I-24, on the status of, and AMA's activities surrounding, proposed ballot measures or legislation and pending court rulings, that would: (a) equate gametes or embryos with children; and/or (b) otherwise restrict or interfere with evidence-based care for Assisted Reproductive Technology (ART). [Res. 217, A-24]

4.2.4 Third-Party Reproduction
Individual physicians who care for patients in the context of third-party reproduction should: (a) Establish a patient-physician relationship with only one party (gestational carriers, gamete donor[s] or intended rearing parent[s]) to avoid situations of dual loyalty or conflict of interest. (b) Ensure that the patient undergoes appropriate medical screening and psychological assessment. (c) Encourage the parties to agree in advance on the terms of the agreement, including identifying possible contingencies and deciding how they will be handled. (d) Inform the patient about the risks of third-party reproduction for that individual (those including individuals), possible psychological harms to the individual(s), the resulting child, and other relationships. (e) Satisfy themselves that the patient's decision to participate in third-party reproduction is free of coercion before agreeing to provide assisted reproductive services. 2) Collectively, the profession should advocate for public policy that will help ensure that the practice of third-party reproduction does not exploit disadvantaged women or commodify human gametes or children. [Code of Medical Ethics, Issued 2016]

4.2.2 Gamete Donation
Physicians who participate in gamete retrieval and storage should: (a) Inform prospective donors of sperm or ova: (i) about the clinical risks of gamete donation, including the near and long-term risks and the discomforts of ovarian hyperstimulation and egg retrieval as appropriate; (ii) about the need for full medical disclosure and that prospective donors will be tested for infectious disease agents and genetic disorders; (iii) whether and how the donor will be informed if testing indicates the presence of infectious disease or genetic disorder; (iv) that all information collected, including test results, will be stored indefinitely; (v) what additional personal information will be collected about the donor; (vi) under what circumstances and with whom personal information, including identifying information, will be shared for clinical purposes; (vii) how donated gametes will be stored and policies and procedures governing the use of stored gametes; (viii) whether and how the donor will be compensated; (ix) the fact that state law will govern the relationship between the donor and any resulting child (or children). (b) Exclude prospective donors for whom testing reveals the presence of infectious disease agents. (c) Obtain the prospective donor's consent for gamete retrieval. (d) Discuss, document and respect the prospective donor's preferences for how gametes may be used, including whether they may be donated for research purposes. (e) Discuss, document, and respect the prospective donor's preferences regarding release of

identifying information to any child (or children) resulting from use of the donated gametes. (f) Adhere to good clinical practices, including ensuring that identifying information is maintained indefinitely so that: (i) donors can be notified in the event a child born through use of his/her gametes subsequently tests positive for infectious disease or genetic disorder that may have been transmitted by the donor; (ii) the number of pregnancies resulting from a single gamete donor is limited. [Code of Medical Ethics, Issued 2016]

Resident and Fellow Access to Fertility Preservation H-310.902
Our American Medical Association encourages insurance coverage for fertility preservation and infertility treatment within health insurance benefits for residents and fellows offered through graduate medical education programs.
Our AMA supports the accommodation of residents and fellows who elect to pursue fertility preservation and infertility treatment, including but not limited to, the need to attend medical visits to complete the gamete preservation process and to administer medications in a time-sensitive fashion.

Advocating for Increased Support to Physicians in Family Planning and Fertility D-405.944
Our American Medical Association will advocate for academic and employed physician practices to contract with insurance providers who provide infertility coverage that defrays the steep costs for fertility treatments.
Our AMA will work with other key stakeholders to encourage full support of physicians desiring to have families to allow for flexible work policies and clinical coverage for those undergoing fertility treatments.

Reproductive Health Insurance Coverage H-185.926
Our AMA supports: (1) insurance coverage for fertility treatments regardless of marital status or sexual orientation when insurance provides coverage for fertility treatments; and (2) local and state efforts to promote reproductive health insurance coverage regardless of marital status or sexual orientation when insurance provides coverage for fertility treatments.

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 925
(I-25)

Introduced by: Washington, Oregon, California, Colorado, Montana

Subject: Evidence-Based Vaccine and Preventive Services Recommendations

Referred to: Reference Committee K

Whereas, the Advisory Committee on Immunization Practices (ACIP) and the U.S. Preventive Services Task Force (USPSTF) appears to be losing all credibility because of the unprecedented federal politicization of public health; and

Whereas, Robert F. Kennedy, Jr., secretary of health and human services and a veteran antivaccine activist, recently fired the entire ACIP's membership, and the newest appointees were announced only a few days before the scheduled September meeting; and CDC director Susan Monarez, who led the agency for a month, testified to the Senate in September about her experience of being pushed out of office for not condoning attacks on vaccines unsupported by evidence; and

Whereas, according to The Wall Street Journal, Kennedy plans to dismiss all 16 members of the USPSTF, labeling them as too "woke;" the July 10 meeting of the USPSTF was abruptly canceled without explanation, prompting alarm across the medical community; and on June 27, 2025, the U.S. Supreme Court ruled that USPSTF members are considered "inferior officers," meaning the HHS Secretary has legal authority to remove or replace them; and

Whereas, multiple references in our AMA policy refer to the ACIP and USPSTF as authoritative sources for credible vaccine and preventive services recommendations; and

Whereas, our state and national policies on vaccines and preventive services should ideally be based on recommendations developed by a trusted national entity which gathers input from authoritative medical entities, such as the American Academy Pediatrics, American Academy of Family Physicians, American College of Obstetrics and Gynecologists, American College of Physicians, and other credible medical specialty groups; therefore be it

RESOLVED, that our American Medical Association will replace all references in our policies to the Advisory Committee on Immunization Practices (ACIP) and the U.S. Preventive Services Task Force (USPSTF) with "current evidence-based recommendations developed by authoritative medical entities" (Directive to Take Action); and be it further

RESOLVED, that our AMA will study options for replacing, to the extent possible, the ACIP and USPSTF at the earliest possible time with a national entity which will develop and publish credible evidence-based recommendations for vaccines and preventive services. (Directive to Take Action)

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

Received: 9/29/25

REFERENCES

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3. Senators introduce resolution supporting prevention task force RFK Jr. may disband. Senators introduce resolution supporting U.S. Preventive Services Task Force : Shots - Health News : NPR

RELEVANT AMA POLICY

H-440.875 Assuring Access to ACIP/AAFP/AAP-Recommended Vaccines

1. It is our American Medical Policy that all persons, regardless of economic and insurance status, receive all Advisory Committee on Immunization Practices (ACIP)-recommended vaccines as soon as possible following publication of these recommendations in the Centers for Disease Control and Prevention's (CDC) Morbidity and Mortality Weekly Report (MMWR).
2. Our AMA will continue to work with the federal government, Congress, and other stakeholders to improve liability protection for vaccine manufacturers and health care professionals who provide immunization services and to examine and improve compensation mechanisms for patients who were legitimately injured by a vaccine.
3. Our AMA will continue to work with the federal government, Congress, and other appropriate stakeholders to enhance public opinion of vaccines and to monitor and ensure the continued safety of existing and newly approved vaccines (including providing adequate resources for post-approval surveillance) so as to maintain and improve public confidence in the safety of vaccines.
4. Our AMA will work with appropriate stakeholders, including vaccine manufacturers, vaccine distributors, the federal government, medical specialty societies, and third party payers, to guarantee a robust vaccine delivery infrastructure (including but not limited to, the research and development of new vaccines, the ability to track the real-time supply status of ACIP-recommended vaccines, and the timely distribution of ACIP-recommended vaccines to providers).
5. Our AMA will work with appropriate federal and state agencies and private sector entities to ensure that state Medicaid agencies and private insurance plans pay health care professionals at least the approved Relative Value Unit (RVU) administration Medicare rates for payment when they administer ACIP-recommended vaccines.
6. Our AMA will work with the Centers for Medicare and Medicaid Services (CMS) to address barriers associated with Medicare recipients receiving live zoster vaccine and the routine boosters Td and Tdap in physicians' offices.
7. Our AMA will work through appropriate state entities to ensure all health insurance plans rapidly include newly ACIP-recommended vaccines in their list of covered benefits, and to pay health care professionals fairly for the purchase and administration of ACIP-recommended vaccines.
8. Our AMA will urge Medicare to include Tdap (Tetanus, Diphtheria, Acellular Pertussis) under Medicare Part B as a national public health measure to help prevent the spread of Pertussis.
9. Until compliance of our AMA Policy H-440.875(6) is actualized to the AMA's satisfaction regarding the tetanus vaccine, our AMA will aggressively petition CMS to include tetanus and Tdap at both the "Welcome to Medicare" and Annual Medicare Wellness visits, and other clinically appropriate encounters, as additional "triggering event codes" (using the AT or another modifier) that allow for coverage and payment of vaccines to Medicare recipients.
10. Our AMA will aggressively petition CMS to include coverage and payment for any vaccinations administered to Medicare patients that are recommended by the ACIP, the US Preventive Services Task Force (USPSTF), or based on prevailing preventive clinical health guidelines.

H-425.988 The US Preventive Services Task Force Guide to Clinical Preventive Services

1. Our American Medical Association will continue to work with the federal government, specialty societies, and others, to develop guidelines for, and effective means of delivery of, clinical preventive services
2. Our AMA will continue our efforts to develop and encourage continuing medical education programs in preventive medicine.

H-440.860 Financing of Adult Vaccines: Recommendations for Action

1. Our American Medical Association supports the concepts to improve adult immunization as advanced in the Infectious Diseases Society of America's 2007 document "Actions to Strengthen Adult and Adolescent Immunization Coverage in the United States," and support the recommendations as advanced by the National Vaccine Advisory Committee's 2008 white paper on pediatric vaccine financing.
2. Our AMA will advocate for the following actions to address the inadequate financing of adult vaccination in the United States: Provider-related
    a. Develop a data-driven rationale for improved vaccine administration fees.
    b. Identify and explore new methods of providing financial relief for adult immunization providers through, for example, vaccine company replacement systems/deferred payment/funding for physician inventories, buyback for unused inventory, and patient assistance programs.
    c. Encourage and facilitate adult immunization at all appropriate points of patient contact; e.g., hospitals, visitors to long-term care facilities, etc.
    d. Encourage counseling of adults on the importance of immunization by creating a mechanism through which immunization counseling alone can be reimbursed, even when a vaccine is not given.

H-440.877 Distribution and Administration of Vaccines

1. It is optimal for patients to receive vaccinations in their medical home to ensure coordination of care. This is particularly true for pediatric patients and for adult patients with chronic disease and co-morbidities. If a vaccine is administered outside the medical home, all pertinent vaccine-related information should be transmitted back to the patient's primary care physician and entered into an immunization registry when one exists to provide a complete vaccination record.
2. All physicians and other qualified health care providers who administer vaccines should have fair and equitable access to all ACIP recommended vaccines. However, when there is a vaccine shortage, those physicians and other health care providers immunizing patients who are prioritized to receive the vaccine based upon medical risks/needs according to ACIP recommendations must be ensured timely access to adequate vaccine supply.
3. Physicians and other qualified health care providers should:
    a. Incorporate immunization needs into clinical encounters, as appropriate.
    b. Strongly recommend needed vaccines to their patients in accordance with ACIP recommendations and consistent with professional guidelines.
    c. Either administer vaccines directly or refer patients to another qualified health care provider who can administer vaccines safely and effectively, in accordance with ACIP recommendations and professional guidelines and consistent with state laws.
    d. Ensure that vaccination administration is documented in the patient medical record and an immunization registry when one exists
    e. Maintain professional competencies in immunization practices, as appropriate.
4. All vaccines should be administered by a licensed physician, or by a qualified health care provider pursuant to a prescription, order, or protocol agreement from a physician licensed to practice medicine in the state where the vaccine is to be administered or in a manner otherwise consistent with state law.
5. Patients should be provided with documentation of all vaccinations for inclusion in their medical record, particularly when the vaccination is provided by someone other than the patient's primary care physician.
6. Physicians and other qualified health care providers who administer vaccines should seek to use integrated and interoperable systems, including electronic health records and immunization registries, to facilitate access to accurate and complete immunization data and to improve information-sharing among all vaccine providers.
7. Vaccine manufacturers, medical specialty societies, electronic medical record vendors, and immunization information systems should apply uniform bar-coding on vaccines based on standards promulgated by the medical community.
8. Our American Medical Association encourages vaccine manufacturers to make small quantities of vaccines available for purchase by physician practices without financial penalty.

H-460.894 Value of Preventive Services

1. Our American Medical Association encourages committees that make preventive services recommendations to:
   a. follow processes that promote transparency and clarity among their methods;
   b. develop evidence reviews and recommendations with enough specificity to inform cost-effectiveness analyses;
   c. rely on the very best evidence available, with consideration of expert consensus only when other evidence is not available;
   d. work together to identify preventive services that are not supported by evidence or are not cost-effective, with the goal of prioritizing preventive services; and
   e. consider the development of recommendations on both primary and secondary prevention.
2. Our AMA encourages relevant national medical specialty societies to provide input during the preventive services recommendation development process.
3. Our AMA encourages comparative-effectiveness research on secondary prevention to provide data that could support evidence-based decision making.
4. Our AMA encourages public and private payers to cover preventive services for which consensus has emerged in the recommendations of multiple guidelines-making groups.

H-425.997 Preventive Services

1. Our AMA encourages the development of policies and mechanisms to assure the continuity, coordination and continuous availability of patient care, including professional preventive care and early-detection screening services, provided the services are cost effective.
2. It is the policy of the AMA that any preventive service that is being considered for inclusion in public or private sector insurance products have evidence-based data to demonstrate improved outcomes or quality of life and the cost effectiveness of the service.
3. Our AMA believes that preventive care should ideally be coordinated by a patient's physician.

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 926
(I-25)

Introduced by: American Urological Association, American Association of Clinical Urologists, Washington, California

Subject: Establishment of Federal and State Offices of Men's Health

Referred to: Reference Committee K

Whereas, the Age-Adjusted Death Rate for US Males increased 22.5% from 2018 to 2021 (855.5 per 100,000 in 2018 to 1048.0 per 100,000 in 2021)[1]; and

Whereas, there are significant racial differences in US Male Age-Adjusted Death rates in 2021: 1715.5 per 100,000 for AIAN (American Indian or Alaska Native), 1380.2 per 100,000 for Blacks, 1055.3 per 100,000 for Whites, 934.8 per 100,000 for Hispanic, and 578.1 per 100,000 for Asian[2]; and

Whereas, the percentage of coronary heart disease in US Males has increased 8.5% from 2019 to 2022[3]; and

Whereas, the suicide rate for US Males is increased 14% from 2011 to 2021 (20.0 per 100,000 in 2011 to 22.8 per 100,000 in 2021). There is a significant racial difference in US Suicide Rates in 2022: 39.3 per 100,000 AIAN (American Indian or Alaska Native), 30.6 per 100,000 for Whites, 23.7 for NHPI (Native Hawaiian or Pacific Islander, 15.2 per 100,000 for Blacks, 13.4 per 100,000 for More than one race, 13.0 per 100,000 for Hispanics or Latino, and 10.8 per 100,000 for Asians[4]; and

Whereas, firearm homicides increased 67.5% from 2014 to 2021 (4.0 per 100,000 in 2014 to 6.7 per 100,000 in 2021) with men representing 85.7% of all firearm deaths[5]; and

Whereas, overall opioid overdose deaths in males was 32,078 in 2018 and 56,968 in 2023, a 78% increase. Males represented 72% of overall opioid deaths in 2023. More than 70% of overall opioid deaths occurred among males[6]; and

Whereas, minority and LGBTQ+ men face distinct health disparities influenced by social, economic, and cultural factors that can be addressed with a coordinated effort at the federal and state level[7,9,10]; and

Whereas, current AMA policy encourages the establishment of a federal Office of Men's Health within the US Department of Health and Human Services[8]; and

Whereas, each state has different trends and challenges related to Men's Health; and

Whereas, coordination of awareness, outreach, and outcome analysis can better identify barriers to care for all men, including racial minorities and LGBTQ+.[7,9,10]; therefore be it

RESOLVED, that our American Medical Association amend Policy D-160.985, Establishment of an Office of Men's Health, to read as follows:

Establishment of ~~an~~ Federal and State Offices of Men's Health

1. Our AMA encourages the establishment of an Office of Men's Health ~~at the U.S.~~ within the federal Department of Health and Human Services to coordinate awareness, outreach, and outcomes on men's health.

2. Our AMA encourages the establishment of an Office of Men's Health within each state's Department of Health and Human Services to coordinate awareness, outreach, and outcomes on men's health. (Modify Current HOD Policy)

Fiscal Note: Minimal – less than $1,000

Received: 9/29/25

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8. American Medical Association Policy D-160.985. "Establishment of an Office of Men's Health." Res. 417, A-07. Reaffirmed: BOT Rep. 22, A-17. AMA House of Delegates Policy Database.
9. Centers for Disease Control and Prevention (CDC). "Behavioral Risk Factor Surveillance System (BRFSS): Prevalence Data & Trends." https://www.cdc.gov/brfss. Also see: State Health Facts: Health Insurance Coverage of Men 19-64 (CPS). Kaiser Family Foundation. Accessed 7 July 2025. https://www.kff.org/other/state-indicator/uninsured-rates-for-nonelderly-adults-by-sex.
10. Healthy People 2030. Office of Disease Prevention and Health Promotion. "Social Determinants of Health." https://health.gov/healthypeople. Also see: Institute of Medicine. "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care." (2003). Washington, DC: National Academies Press

RELEVANT AMA POLICY

Establishment of a Federal Office of Men's Health D-160.985
Our AMA encourages the establishment of an Office of Men's Health at the U.S. Department of Health and Human Services to coordinate awareness, outreach, and outcomes on men's health.

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 927
(I-25)

Introduced by: Federal Services

Subject: Battlefield Acupuncture – An Educational Call to Arms

Referred to: Reference Committee K

Whereas, in 2016 alone, more Americans died of drug overdose than were killed in action during the entire Vietnam War–a grim statistic that shows no sign of abating; and

Whereas, in order to counter the persistent epidemic of unrequited pain and to reduce the reliance on narcotic analgesics, clinicians need a wider range of alternatives, including non-pharmacological options to treat acute and chronic pain; and

Whereas, Battlefield Acupuncture (BFA) is a contemporary modification of the ancient art of acupuncture that was developed by in the aftermath of 9/11 by an Air Force radiation oncologist, turned medical acupuncturist, Colonel (Dr.) Richard Niemtzow; and

Whereas, the BFA technique has been consistently shown to be a fast, simple, safe, inexpensive, but elegant form of auricular acupuncture that can be used to treat acute and chronic pain of virtually any type; and

Whereas, Battlefield Acupuncture simply involves learning how to reliably identify just 5 key points on the external ear; and

Whereas, a major Department of Defense/Veteran's Health Administration Joint Incentive Fund project confirmed that BFA is a highly effective, reproducible technique that can be quickly and easily taught (in as little as 3 hours), and performed by a wide array of medical professionals, with high levels of patient satisfaction; and

Whereas, BFA has been clinically shown to produce rapid results—within minutes, in approximately 80% of patients, regardless of the etiology of their underlying pain; and

Whereas, BFA is highly cost effective, given that the cost of a single semi-permanent needle is approximately 60 cents and that a complete (10 needle) treatment can be administered for less than $7.00/patient; and

Whereas, over the past two decades, use of BFA has steadily increased throughout all branches of the U.S. Armed Forces and in a growing number of Veteran's Administration (VA) facilities; and

Whereas, to date, over 6,500 military and VA healthcare providers – ranging from physicians, nurses, physician assistants, nurse practitioners, dentists, physical therapists, combat medics and others have been successfully trained in applying the BFA technique; and

Whereas, in 2023 BFA was incorporated into the formal training of Ukrainian combat medics by a civilian, Ukrainian-American acupuncturist, where it has also been shown to provide consistently high levels of pain amelioration and patient satisfaction; and

Whereas, instruction in BFA is currently being considered for formal adoption by the North Atlantic Treaty Organization's (NATO) Centre of Excellence for Military Medicine; and

Whereas, the widespread use and adoption of BFA has markedly reduced the amount of narcotic analgesia required by some of our nation's most severely wounded warriors—including those with traumatic amputations and/or phantom limb pain; therefore be it

RESOLVED, that our American Medical Association encourage greater awareness of and/or instruction in the use of Battlefield Acupuncture as a quick, safe, and effective means to treat acute and chronic pain in patients, given its exceptional safety record, high level of reproducibility, and ability to be administered in an extremely cost-effective manner, without concerns for drug-drug interactions or dependence on narcotic analgesics. (New HOD Policy)

Fiscal Note: Minimal – less than $1,000

Received: 9/29/25

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AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 929
(I-25)

Introduced by: American Academy of Child and Adolescent Psychiatry

Subject: Protecting Access to Evidence-based Psychotropic Medication for the Treatment of Pediatric Mental Illness

Referred to: Reference Committee K

Whereas, psychotropic medications can be valuable tools in the treatment of a wide range of psychiatric conditions in youth; and

Whereas, the use of psychopharmacology in the treatment of pediatric mental health conditions is based on decades of research and real-world outcomes showing consistent improvement and excellent tolerability in both the short and long term; and

Whereas, decisions about prescribing psychotropic medications are made carefully, based on a comprehensive evaluation by a trained medical professional and a review of the risks and benefits of psychopharmacology with the patient and caregiver; and

Whereas, misinformation about the safety and efficacy of FDA-approved psychotropic medication undermines the value of clinical research and physician authority in psychiatric treatment; therefore be it

RESOLVED, that our American Medical Association opposes limitations on access to psychotropic medication as part of a comprehensive mental health treatment plan (New HOD Policy); and be it further

RESOLVED, that our AMA advocates that the U.S. Department of Health and Human Services and Congress use peer reviewed pediatric mental health research, and evidence based clinical guidelines developed by non-profit medical professional societies to inform pediatric mental health policy. (Directive to Take Action)

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

Received: 9/30925

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RELEVANT AMA POLICY

H-100.971 Preserving the Doctor-Patient Relationship
The AMA and interested physicians will continue to work with the Food and Drug Administration to prevent the unnecessary intrusion of the government and other regulatory bodies into the doctor-patient relationship, especially as it concerns the prescription of medication.
[Sub. Res. 510, I-95; Reaffirmed: CSA Rep. 8, A-05; Reaffirmed: CSAPH Rep. 1, A-15; Reaffirmed: CSAPH Rep. 01, A-25]

H-373.995 Government Interference in Patient Counseling
1. Our American Medical Association vigorously and actively defends the physician-patient-family relationship and actively opposes state and/or federal efforts to interfere in the content of communication in clinical care delivery between clinicians and patients.
2. Our AMA strongly condemns any interference by government or other third parties that compromise a physician's ability to use their medical judgment as to the information or treatment that is in the best interest of their patients.
3. Our AMA supports litigation that may be necessary to block the implementation of newly enacted state and/or federal laws that restrict the privacy of physician-patient-family relationships and/or that violate the First Amendment rights of physicians in their practice of the art and science of medicine.
4. Our AMA opposes any government regulation or legislative action on the content of the individual clinical encounter between a patient and physician without a compelling and evidence-based benefit to the patient, a substantial public health justification, or both.
5. Our AMA will educate lawmakers and industry experts on the following principles endorsed by the American College of Physicians which should be considered when creating new health care policy that may impact the patient-physician relationship or what occurs during the patient-physician encounter:
    a. Is the content and information or care consistent with the best available medical evidence on clinical effectiveness and appropriateness and professional standards of care?
    b. Is the proposed law or regulation necessary to achieve public health objectives that directly affect the health of the individual patient, as well as population health, as supported by scientific evidence, and if so, are there no other reasonable ways to achieve the same objectives?
    c. Could the presumed basis for a governmental role be better addressed through advisory clinical guidelines developed by professional societies?
    d. Does the content and information or care allow for flexibility based on individual patient circumstances and on the most appropriate time, setting and means of delivering such information or care?
    e. Is the proposed law or regulation required to achieve a public policy goal - such as protecting public health or encouraging access to needed medical care - without preventing physicians from addressing the healthcare needs of individual patients during specific clinical encounters based on the patient's own circumstances, and with minimal interference to patient-physician relationships?
    f. Does the content and information to be provided facilitate shared decision-making between patients and their physicians, based on the best medical evidence, the physician's knowledge and clinical judgment, and patient values (beliefs and preferences), or would it undermine shared decision-making by specifying content that is forced upon patients and physicians without regard to the best medical evidence, the physician's clinical judgment and the patient's wishes?
    g. Is there a process for appeal to accommodate individual patients' circumstances?
6. Our AMA strongly opposes any attempt by local, state, or federal government to interfere with a physician's right to free speech as a means to improve the health and wellness of patients across the United States.

[Res. 201, A-11; Reaffirmation: I-12; Appended: Res. 717, A-13; Reaffirmed in lieu of Res. 5, I-13; Appended: Res. 234, A-15; Reaffirmation: A-19; Modified: Speakers Rep. 02, I-24]

G-605.009 Establishing A Task Force to Preserve the Patient-Physician Relationship When Evidence-Based, Appropriate Care Is Banned or Restricted

1. Our American Medical Association will convene a task force of appropriate AMA councils and interested state and medical specialty societies, in conjunction with the AMA Center for Health Equity, and in consultation with relevant organizations, practices, government bodies, and impacted communities for the purpose of preserving the patient-physician relationship.
2. This task force, which will serve at the direction of our AMA Board of Trustees, will inform the Board to help guide organized medicine's response to bans and restrictions on abortion, prepare for widespread criminalization of other evidence-based care, implement relevant AMA policies, and identify and create implementation-focused practice and advocacy resources on issues including but not limited to:
    a. Health equity impact, including monitoring and evaluating the consequences of abortion bans and restrictions for public health and the physician workforce and including making actionable recommendations to mitigate harm, with a focus on the disproportionate impact on under-resourced, marginalized, and minoritized communities.
    b. Practice management, including developing recommendations and educational materials for addressing reimbursement, uncompensated care, interstate licensure, and provision of care, including telehealth and care provided across state lines.
    c. Training, including collaborating with interested medical schools, residency and fellowship programs, academic centers, and clinicians to mitigate radically diminished training opportunities.
    d. Privacy protections, including best practice support for maintaining medical records privacy and confidentiality, including under HIPAA, for strengthening physician, patient, and clinic security measures, and countering law enforcement reporting requirements.
    e. Patient triage and care coordination, including identifying and publicizing resources for physicians and patients to connect with referrals, practical support, and legal assistance.
    f. Coordinating implementation of pertinent AMA policies, including any actions to protect against civil, criminal, and professional liability and retaliation, including criminalizing and penalizing physicians for referring patients to the care they need.
    g. Anticipation and preparation, including assessing information and resource gaps and creating a blueprint for preventing or mitigating bans on other appropriate health care, such as gender affirming care, contraceptive care, sterilization, infertility care, and management of ectopic pregnancy and spontaneous pregnancy loss and pregnancy complications.
    h. Work with interested parties to encourage the development of institution-level guidance and protection for physicians practicing in states with restrictions potentially interfering with the patient-physician relationship.
3. Our American Medical Association will appoint an ad hoc committee or task force, composed of physicians from specialties who routinely provide gender-affirming care, payers, community advocates, and state Medicaid directors and/or insurance commissioners, to identify issues with physician payment and reimbursement for gender-affirming care and recommend solutions to address these barriers to care.

[Res. 621, A-22; Appended: Res. 816, I-23; Appended: Res. 207, I-24]

H-450.935 Health Care Standards

Our AMA: (1) supports the ability of non-governmental organizations to evaluate appropriate medical diagnosis or therapy or current or new diagnostic or therapeutic tests, procedures, medications or other procedures that improve the quality of patient care; (2) supports the position that any practice guidelines, parameters, best practices models, or similar set of principles or clinical recommendations, whether developed or issued by government or non-government organizations, including those that result from any comparative effectiveness research or evidence-based medicine system, do not, and should expressly state that they do not, establish standard of care or create specific requirements for physicians that restrict the exercise of their clinical judgment; (3) urges any organization, whether governmental or non-governmental, promulgating any practice guidelines, parameters, best practices models, or similar set of principles or clinical recommendations, to include a statement that they are guidelines only; and (4) urges any organization, whether governmental or non-governmental, promulgating any practice guidelines, parameters, best practices models, or similar set of principles or clinical recommendations, to

set and make publicly available a regular schedule for review and update and to include the level of evidence supporting the guidelines.
[Res. 205, A-10; Reaffirmation I-10; Reaffirmed: Res. 105, A-18]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 930
(I-25)

Introduced by: The Medical Society of the District of Columbia

Subject: Establishing Fire Risk Standards for Civilian and Non-Industrial Clothing

Referred to: Reference Committee K

Whereas, in the setting of recent arson crimes where assailants intentionally set unsuspected victims' clothes on fire in a New York City Subway (Dec 2024) and Washington, D.C. Metrobus (Nov 2024), and more recently in Times Square (March 2025) and Queens (Sept 2025), the rapidity of the victim being consumed by flames drew attention to this public health concern;[8,9,10,11] and

Whereas, fire-related injuries and fatalities continue to be a public health concern, particularly among vulnerable populations such as children, aging individuals, and individuals with disabilities;[6] and

Whereas, from 2000 to 2009, more than 43,000 individuals were treated in U.S. emergency rooms and 1,131 people died due to clothing ignition, with 75% of the fatalities occurring among adults aged 65 and older, despite this group making up only 14% of the population;[7] and

Whereas, the Flammable Fabrics Act (FFA), a federal law administered by the U.S. Consumer Product Safety Commission, currently governs the flammability of textiles and wearing apparel, establishing minimum safety standards for certain garments, including general clothing;[1] and

Whereas, the FFA does not comprehensively address modern synthetic materials or provide updated testing standards that reflect current textile technology and burn risk potential;[1] and

Whereas, research indicates that textiles composed of synthetic fibers, such as polyester and nylon, can melt and adhere to skin, increasing burn severity compared to natural fibers like cotton and wool;[4] and

Whereas, studies have shown that flame-resistant-treated fabrics significantly reduce ignition risk and burn injury severity, particularly in high-risk environments;[4] and

Whereas, the National Fire Protection Association (NFPA) has established standards (e.g., NFPA 2112 and NFPA 70E) for flame-resistant clothing in occupational settings, but similar standards do not exist for general civilian use;[2] and

Whereas, existing regulations from the Occupational Safety and Health Administration (OSHA) primarily address workplace fire risks and do not extend to general consumer clothing;[3] and

Whereas, enhanced labeling and consumer education on fire risk associated with various textile materials can contribute to informed purchasing decisions and injury prevention;[5] and

Whereas, public knowledge about clothing flammability risks remains low, yet national survey data show that a majority of U.S. homeowners support stricter safety standards (53%) and warning labels (64%) on clothing to reduce the risk of burn injuries and fatalities;[7] and

Whereas, a majority of homeowners indicated that such warning labels would either not affect their purchasing decisions (64%) or be an incentive to purchase an item (24%), highlighting the importance of industry to not only label clothing flammability risk but also to manufacture garments with low flammability risk;[7] therefore be it

RESOLVED, that our American Medical Association study the flammability of and fire-resistant treatments for consumer clothing materials and their potential public health benefits (Directive to Take Action); and be it further

RESOLVED, that our AMA study the value of updated flammability risk standards that incorporate modern textile compositions and their associated fire risks (Directive to Take Action); and be it further

RESOLVED, that our AMA encourage the Consumer Product Safety Commission (CPSC) and relevant regulatory bodies to update and enforce stricter fire safety labeling and testing requirements for civilian clothing and support educating the public on flammability risk on apparel labels. (New HOD Policy)

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

Received: 9/30/25

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RELEVANT AMA POLICY

H-10.989 Better Fire Prevention in Public Buildings
The AMA urges state public authorities to enact uniform fire protection codes in public buildings, for the risks such furnishings hold for the emission of toxic gases as well as intense heat, and at least in the case of new construction, the introduction of expanded sprinkler systems and fully automatic smoke detectors. [Res. 32, A-88; Reaffirmed: Sunset Report, I-98; Modified and Reaffirmed: CSAPH Rep. 2, A-08; Modified: CSAPH Rep. 01, A-18]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 931
(I-25)

Introduced by:	American Academy of Dermatology, Society for Investigative Dermatology, American Contact Dermatitis Society, American Society for Dermatologic Surgery, National Medical Association
Subject:	Preserving Evidence-Based, Equitable Grooming Standards in Military Service
Referred to:	Reference Committee K

Whereas, the Department of War has issued directives that would eliminate or severely restrict shaving waivers and facial-hair accommodations for service members with medical needs, limiting the period of medical accommodation to one year before facing separation from service;[1-5] and

Whereas, pseudofolliculitis barbae (PFB), or "razor bumps," is a chronic inflammatory skin condition caused by shaving that affects individuals across demographic groups but is most prevalent in those with tightly curled hair, disproportionately impacting Black service members (with 45-83% prevalence in that population compared with ~18% among White service members), and is recognized as one of the most common dermatologic conditions in the U.S. Armed Forces;[6-10] and

Whereas, PFB can lead to papules, pustules, hyperpigmentation, scarring, and increased risk of infection and skin damage if forced shaving is required;[6-8] and

Whereas, for severe or refractory PFB, durable management often requires a shaving waiver and/or laser hair removal after conservative measures fail (e.g. topical retinoids, antibiotics, improved grooming techniques, etc) fail;[3-6] and

Whereas, a strict, blanket elimination of shaving waivers would undermine existing best-practice medical guidance on the management of PFB and risk worsening dermatologic sequelae and/or scarring in affected individuals;[6-10] and

Whereas, military branches have historically varied in their shaving waiver policies – with the Army and Marine Corps previously permitting permanent waivers in severe cases, the Air Force authorizing extended multi-year profiles, and the Navy generally limiting waivers – resulting in inconsistent timelines, criteria, and re-evaluation procedures across duty stations;[7-9] and

Whereas, studies have shown that shaving waivers may be associated with delayed promotion in the Air Force, disproportionately impacting Black service members who are more likely to be affected by PFB;[10] and

Whereas, eliminating such accommodations without adequate procedural safeguards, individualized evaluation, or due process may impose disproportionate burdens on affected service members;[7,12-13] therefore be it

RESOLVED, that our American Medical Association advocate against Department of War policy changes that restrict or eliminate evidence-based, medically necessary shaving waivers for service members, and oppose administrative or physical evaluation board separation on this basis when service members otherwise meet qualifications for continued service (Directive to Take Action); and be it further

RESOLVED, that our AMA urge the Department of War to implement any changes to shaving waiver policy through an evidence-based and transparent process that incorporates input from military dermatologists, occupational health experts, affected service members, and other interested parties with relevant expertise (Directive to Take Action); and be it further

RESOLVED, that our AMA advocate for consistent and equitable shaving waiver policies across all military service branches, including standardized criteria, clear re-evaluation intervals and portability of waivers across duty stations (Directive to Take Action); and be it further

RESOLVED, that our AMA urge the Department of War to authorize permanent shaving waivers for service members with severe or refractory pseudofolliculitis barbae, especially those who have already received military dermatologist recommendations for permanent waivers and are unresponsive to optimized medical therapy, and to extend this option consistently across all service branches (Directive to Take Action); and be it further

RESOLVED, that our AMA support ongoing research on pseudofolliculitis barbae and related dermatologic conditions, including medical management, equity impacts of grooming practices, and evidence-based approaches to accommodations within the Armed Forces. (New HOD Policy)

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

Received: 9/29/25

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RELEVANT AMA POLICY

D-440.905 Protecting Evidence-Based Medicine, Public Health Infrastructure and Biomedical Research

1. Our AMA affirms that protecting science, clinical integrity, and the patient-physician relationship is central to the organization's mission.
2. Our AMA assertively and publicly leads the House of Medicine in collective, sustained advocacy for federal and state policies, proposals, and actions that safeguard public health infrastructure, advance biomedical research, improve vaccine confidence, and maintain the integrity of evidence-based medicine and decision-making processes.
3. Our AMA will report back at the 2025 Interim Meeting of the AMA House of Delegates on the actions taken to implement this policy.
[Res. 242, A-25]

H-373.995 Government Interference in Patient Counseling

1. Our American Medical Association vigorously and actively defends the physician-patient-family relationship and actively opposes state and/or federal efforts to interfere in the content of communication in clinical care delivery between clinicians and patients.
2. Our AMA strongly condemns any interference by government or other third parties that compromise a physician's ability to use their medical judgment as to the information or treatment that is in the best interest of their patients.
3. Our AMA supports litigation that may be necessary to block the implementation of newly enacted state and/or federal laws that restrict the privacy of physician-patient-family relationships and/or that violate the First Amendment rights of physicians in their practice of the art and science of medicine.
4. Our AMA opposes any government regulation or legislative action on the content of the individual clinical encounter between a patient and physician without a compelling and evidence-based benefit to the patient, a substantial public health justification, or both.
5. Our AMA will educate lawmakers and industry experts on the following principles endorsed by the American College of Physicians which should be considered when creating new health care policy that may impact the patient-physician relationship or what occurs during the patient-physician encounter:
A. Is the content and information or care consistent with the best available medical evidence on clinical effectiveness and appropriateness and professional standards of care?
B. Is the proposed law or regulation necessary to achieve public health objectives that directly affect the health of the individual patient, as well as population health, as supported by scientific evidence, and if so, are there no other reasonable ways to achieve the same objectives?
C. Could the presumed basis for a governmental role be better addressed through advisory clinical guidelines developed by professional societies?
D. Does the content and information or care allow for flexibility based on individual patient circumstances and on the most appropriate time, setting and means of delivering such information or care?
E. Is the proposed law or regulation required to achieve a public policy goal - such as protecting public health or encouraging access to needed medical care - without preventing physicians from addressing the healthcare needs of individual patients during specific clinical encounters based on the patient's own circumstances, and with minimal interference to patient-physician relationships?
F. Does the content and information to be provided facilitate shared decision-making between patients and their physicians, based on the best medical evidence, the physician's knowledge and clinical judgment, and patient values (beliefs and preferences), or would it undermine shared decision-making by specifying content that is forced upon patients and physicians without regard to the best medical evidence, the physician's clinical judgment and the patient's wishes?
G. Is there a process for appeal to accommodate individual patients' circumstances?
6. Our AMA strongly opposes any attempt by local, state, or federal government to interfere with a physician's right to free speech as a means to improve the health and wellness of patients across the United States.
[Res. 201, A-11 Reaffirmation: I-12 Appended: Res. 717, A-13 Reaffirmed in lieu of Res. 5, I-13 Appended: Res. 234, A-15 Reaffirmation: A-19 Modified: Speakers Rep. 02, I-24

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 932
(I-25)

Introduced by: American College of Radiology, American Society of Radiation Oncology, American Academy of Family Physicians, American College of Radiation Oncology

Subject: Shared Decision-Making and Low Dose CT Lung Cancer Screening in Clinical Practice

Referred to: Reference Committee K

Whereas, more than 230,000 people in the United States will be diagnosed with lung cancer this year, and approximately 125,000 will die from the disease[1]; and

Whereas, lung cancer remains the leading cause of cancer death in the United States, claiming more lives annually than breast, prostate, and colorectal cancers combined; and

Whereas, a significant number of lung cancer deaths could be prevented if current screening recommendations were adopted, allowing for early detection of lung cancer at its most treatable stages; and

Whereas, the life-saving benefits of low dose CT (LDCT) screening in at-risk populations are well documented; in fact, 20–30% more lives could be saved if high-risk patients were referred for regular LDCT screening[2]; and

Whereas, accordingly, LDCT screening of high-risk individuals is recommended by the American Cancer Society, the American Lung Association, the American College of Surgeon's Commission on Cancer, the National Comprehensive Cancer Network, the U.S. Preventive Services Task Force, and many other medical and scientific organizations; and

Whereas, shared decision-making (SDM) is a collaborative process that allows patients and their physicians to make health care decisions together, taking into account the best scientific evidence available, as well as the patient's values and preferences; and

Whereas, the American Medical Association (AMA) recognizes SDM as a process with three core elements: clinical information, tools to identify patient values, and structured guidance to integrate both into informed choices[3]; and

Whereas, SDM has been shown to improve patient satisfaction, adherence to treatment plans, and health outcomes, particularly in preventive care and chronic disease management; and

Whereas, despite its benefits, SDM is underutilized in many clinical settings due to time constraints, lack of training, and limited access to decision aids; and

Whereas, increasing the number of clinical visits that incorporate SDM can strengthen the patient-physician relationship and promote patient-centered care; and

Whereas, a recent study found that conducting a shared decision-making visit with patients was associated with significantly higher adherence to LDCT lung cancer screening for four years after the initial screening, thus supporting SDM as a strategy to increase LDCT screening adherence[4]; therefore be it

RESOLVED, that our American Medical Association, in conjunction with other interested national specialty societies of expertise (e.g., ACP, AAFP, ACR, etc.), create and share educational resources and training to help physicians efficiently discuss and document LDCT lung cancer screening during shared decision-making visits for high-risk populations. (Directive to Take Action)

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

Received: 9/29/25

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3. Shared Decision-Making H-373.997
4. Chung, Y., Liu, C., Rula, E. Y., Dako, F., Carlos, R. C., Lee, R. K., & Christensen, E. (2025). Association of Shared Decision-Making with Long-term Adherence to Lung Cancer Screening. CHEST. https://doi.org/10.1016/j.chest.2025.06.026

RELEVANT AMA POLICY

Lung Cancer Screening to be Considered Standard Care H-185.936

1. Our American Medical Association recommends that coverage of screening low-dose CT (LDCT) scans for patients at high risk for lung cancer by Medicare, Medicaid, and private insurance be a required covered benefit.
2. Our AMA will empower the American public with knowledge through an education campaign to raise awareness of lung cancer screening with low-dose CT scans in high-risk patients to improve screening rates and decrease the leading cause of cancer death in the United States.
3. Our AMA will work with interested national medical specialty societies and state medical associations to urge the Centers for Medicare & Medicaid Services and state Medicaid programs to increase access to low-dose CT screening for Medicaid patients at high risk for lung cancer by including it as a covered benefit, without cost-sharing or prior authorization requirements, and increasing funding for research and education to improve awareness and utilization of the screening among eligible enrollees.[Sub. Res. 114, A-14 Appended: Res. 418, A-22 Appended: Res. 112, A-23]

Preventive Prostate Cancer Screening H-425.966

Our AMA encourages: (1) public and private payers to ensure coverage for prostate cancer screening when the service is deemed appropriate following informed physician-patient shared decision-making; and (2) national medical specialty societies to promote public education around the importance of informed physician-patient shared decision-making regarding medical services that are particularly sensitive to patient values and circumstances, such as prostate cancer screening. [CMS Rep. 06, A-19]

AMERICAN MEDICAL ASSOCIATION HOUSE OF DELEGATES

Resolution: 933
(I-25)

Introduced by: American College of Surgeons

Subject: Addressing Gaps in National Healthcare Safety Network (NHSN) Data Quality

Referred to: Reference Committee K

Whereas, Surgical Site Infection (SSI) rates are a significant cause of patient morbidity following surgery; and

Whereas, SSI rates are commonly measured by hospital systems using a variety of data collection systems including the Centers for Disease Control and Prevention's (CDC) National Healthcare Safety Network (NHSN) and the American College of Surgeons' National Surgical Quality Improvement Program (NSQIP); and

Whereas, NSQIP performance is confidential and is used for performance improvement only, while NHSN 's performance data are publicly reported and can have significant negative financial implications for hospitals that perform poorly; and

Whereas, NSQIP data collection is standardized, audited, manually abstracted by trained nurse reviewers, and includes 30-day follow up data, while NHSN data collection methodologies have been shown to vary widely among hospitals; and

Whereas, a recent study of 16 hospitals found none had the same NHSN program implementation processes, and NHSN- and NSQIP-reported SSI rates correlated poorly[1]; and

Whereas, in January 2025 the NHSN revised its definition to include "any access of an incision", a definition which will erroneously capture drainage of seromas and minor hematomas as SSI events; and

Whereas, the new definition of SSI will result in an increase in the number of events captured but will not result in an increase in the accuracy of NHSN data; and

Whereas, the new definition of SSI will create perverse incentives to avoid primary wound closure in high-risk colorectal operations and disincentivizes common diagnostic maneuvers (such as opening a portion of a wound to assess for a possible infection); therefore be it

RESOLVED, that our American Medical Association advocate for the CDC to use its January 2024 definition of Surgical Site Infection (SSI) in the National Healthcare Safety Network (NHSN), and require documented clinical impression of an SSI (Directive to Take Action); and be it further

RESOLVED, that our AMA advocate for the CDC to establish and enforce consistent NHSN data collection methods across hospitals and audit hospital NHSN data quality regardless of hospital performance status. (Directive to Take Action)

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

Received: 9/30/25

REFERENCES

1. Ju MH, Ko CY, Hall BL, Bosk CL, Bilimoria KY, Wick EC. A Comparison of 2 Surgical Site Infection Monitoring Systems. JAMA Surg. 2015;150(1):51-57. doi:10.1001/jamasurg.2014.2891.
2. Haley VB, Van Antwerpen C, Tserenpuntsag B, et al. Use of administrative data in efficient auditing of hospital-acquired surgical site infections, New York State 2009-2010. Infect Control Hosp Epidemiol. 2012;33(6):565-571.
3. Atchley KD, Pappas JM, Kennedy AT, et al. Use of administrative data for surgical site infection surveillance after congenital cardiac surgery results in inaccurate reporting of surgical site infection rates. Ann Thorac Surg. 2014;97(2):651-658.
4. National Healthcare Safety Network, Surgical Site Infection Event (SSI), January 2025
5. National Healthcare Safety Network, Patient Safety Component Manual, January 2024

RELEVANT AMA POLICY

Quality Management H-450.966
Pay-for-Performance Principles and Guidelines H-450.947
Health Plan "Report Cards" H-450.961
Development of Quality Measures with Appropriate Exclusions and Review Processes H-450.927
Development of Quality Measures with Appropriate Exclusions and Review Processes D-450.953
Activities of the National Quality Forum H-450.939
Work of the Task Force on the Release of Physician Data H-406.991
Rollback on Physician Performance Measures D-450.949
Clinical Data Registries H-450.933
Performance Measures for Evidence-Based Medicine H-450.920
Support for Ongoing Development of Measures of Quality H-450.958
Quality Patient Care Measures H-410.960
Physician-Focused Alternative Payment Models H-385.913
Physician Pay-for-Performance Programs H-140.872
Claims Based Data as a Flawed Quality of Care Measure H-406.988
Physician Payment Reform H-390.849
Payer Measures for Private and Public Health Insurance D-180.984
Population Based Practices in Managed Care Systems H-285.971
Alternative Payment Models and Vulnerable Populations D-385.952
Moving to Alternative Payment Models H-450.931
Health Care Reform Physician Payment Models D-385.963