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*From the American Heart Association*

## Editor's Note

This is my first opportunity as the new chair of the Advocacy Coordinating Committee to announce the coming issue of our Policy Report. It's our chance to highlight the exciting work we are doing at the American Heart Association in policy research to support our ambitious advocacy work at the local, state and federal levels.

This issue summarizes the outcome of our year-long process to develop our strategic policy agenda. It will serve as a guiding document for our advocacy work over the next three years. Each year we will prioritize our policy priorities at the state and federal levels. The policy agenda is focused and aligns closely with the priorities of the association as we move toward our 2020 goal to improve cardiovascular health of the U.S. population by 20 percent and reduce mortality from heart disease and stroke by 20 percent. Our policy agenda spans heart disease and stroke research, priorities around nutrition, physical activity, and tobacco control and prevention, access to quality and affordable health care, systems of care, and non-profit issues.

We also want to tell you about the latest policy statements we've published in *Circulation* and other peer-reviewed journals. These include statements on e-cigarettes, health screening in the workplace, food and beverage offerings in healthier work environments, summaries of lessons learned from our quality improvement programs, the impact of registries legislation on stroke systems of care, and shared use of school facilities to promote physical activity. We celebrated the 50<sup>th</sup> anniversary of the U.S. Surgeon General's Report on Tobacco with a statement that highlighted what we've accomplished in tobacco control and prevention and where we go from here. Finally, we'll highlight the recent Corporate Forum in Washington, DC that addressed such important policy topics as care delivery, the legislative perspective on 21<sup>st</sup> century cures, and health care innovation from discovery to market.

We hope this issue of the *Policy Report* is an important resource for our partners in public health, as well as practitioners, policy makers and the media. We welcome your feedback.



John Warner, MD  
Chair, Advocacy Coordinating Committee



# The Latest Policy Statements

## Electronic cigarettes: A policy statement from the American Heart Association

Aruni Bhatnagar, PhD, FAHA, Chair; Laurie P. Whitsel, PhD; Kurt M. Ribisl, PhD; Chris Bullen, MBChB, PhD; Frank Chaloupka, PhD; Mariann R. Piano, PhD; Rose Marie Robertson, MD, FAHA; Timothy McAuley, PhD; David Goff, MD, PhD, FAHA; Neal Benowitz, MD. *Circulation*. August 25, 2014.

This paper reviews the latest science about electronic cigarettes (also called electronic nicotine delivery systems or ENDS), the newest class of products entering the tobacco control landscape. It gives an overview on design, operations, constituents, toxicology, safety, user profiles, public health, youth access, impact as a cessation aid and secondhand exposure. Based on the current evidence, we provide policy recommendations in key areas of tobacco control such as clean indoor air laws, taxation, regulation, preventing youth access, marketing and advertising to youth, counseling for cessation, surveillance and defining e-cigarettes in state law. The paper concludes by outlining a future research agenda to further our understanding of this emerging area of tobacco control and the impact of e-cigarettes on public health.

<http://circ.ahajournals.org/content/130/16/1418>

## The 50th Anniversary of the US Surgeon General's Report on Tobacco: What We've Accomplished and Where We Go From Here: A Presidential Advisory From the American Heart Association

Elliott Antman, MD, FAHA, Donna Arnett, PhD, FAHA, Mariell Jessup, MD, FAHA, Chris Sherwin. *Circulation*, January 2014.

January 11, 2014, marked the 50<sup>th</sup> anniversary of one of the most significant milestones in our nation's public health. U.S. Surgeon General Dr. Luther Terry courageously released the first Surgeon General's Report on Smoking and Health. This landmark report transformed the way Americans viewed tobacco and was the beginning of a decades-long decline in tobacco use. This paper celebrates this important anniversary by summarizing the substantial progress that has been made since 1964 in reducing the toll of tobacco in America, but also notes the considerable work yet to be accomplished.

<http://jaha.ahajournals.org/content/3/1/e000740>

## The Role of Worksite Health Screening: A Policy Statement from the American Heart Association

Ross Arena, Donna K. Arnett, Paul E. Terry, Suihui Li, Fikry Isaac, Lori Mosca, Lynne Braun, William H. Roach, Jr, Russell R. Pate, Eduardo Sanchez, Mercedes Carnethon and Laurie P. Whitsel. *Circulation*. July 10, 2014.

This statement summarizes overarching considerations for worksite health screening regarding privacy, adherence to clinical guidelines on the frequency of screenings, the types of screenings that should be done by employers and health plans, the regulatory environment at the state and federal levels and other logistical concerns. It reinforces that health screenings should not be done as a stand-alone initiative but in coordination with comprehensive

workplace health promotion and an organizational commitment to a culture of health. The statement provides guidance to employers with particular attention to implications for subsequent health and wellness programming in the context of a rapidly changing US healthcare landscape.

<http://circ.ahajournals.org/content/130/8/719>

## Food-and-beverage environment and procurement policies for healthier work environments.

Christopher Gardner, PhD, Laurie P. Whitsel, PhD, Anne Thorndike, MD, Mary M. Marrow, JD, Jennifer J. Otten, PhD, Gary D. Foster, PhD, JoAnn S. Carson, PhD and Rachel K. Johnson, Ph. *Nutrition Reviews*. 2014. 72(6):390-410.

The importance of creating healthier work environments by providing healthy foods and beverages in worksite cafeterias, through on-site vending machines and at meetings and conferences is drawing increasing attention. Large employers, federal and state governments, and hospital systems are significant purchasers and providers of food and beverages. The American Heart Association, federal government and other organizations have created procurement standards to guide healthy purchasing by these entities. There is a need to review how procurement standards are currently implemented, to identify important minimum criteria for evaluating health and purchasing outcomes, and to recognize significant barriers and challenges to implementation, along with success stories.

The purpose of this policy paper is to describe the role of food-and-beverage environment and procurement policy standards in creating healthier worksite environments; to review recently created national model standards; to identify elements across the standards that are important to consider for incorporation into policies; and to delineate issues to address as standards are implemented across the country.

<http://onlinelibrary.wiley.com/doi/10.1111/nure.12116/abstract>



## Promoting Physical Activity through the Shared Use of School Recreational Spaces: A Policy Statement From the American Heart Association

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Deborah R. Young, John O. Spengler, Natasha Frost, Kelly R. Evenson, Jeffrey M. Vincent, Laurie Whitsel. *American Journal of Public Health*: September 2014, Vol. 104, No. 9, pp. 1583-1588. AJP.2013.301461.

Most Americans are not sufficiently physically active, even though regular physical activity improves health and reduces the risk of many chronic diseases. Those living in rural, non-white, and lower-income communities often have insufficient access to places to be active, which can contribute to their lower level of physical activity. The shared use of school recreational facilities can provide safe and affordable places for communities. Studies suggest that challenges to shared use include additional cost, liability protection, communication among constituencies interested in sharing space, and decision-making about scheduling and space allocation. This American Heart Association policy statement provides recommendations for federal, state and local decisionmakers to support and expand opportunities for physical activity in communities through the shared use of school spaces.

<http://ajph.aphapublications.org/doi/abs/10.2105/>

## Sustainable Development Goals and the Future of Cardiovascular Health: A Statement from the Global Cardiovascular Disease Taskforce

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William A. Zoghbi, MD, Tony Duncan, (Chairs), Elliot Antman, MD, Marcia Barbosa, Beatriz Champagne, PhD, Deborah Chen, PhD, Prof Habib Gamra, John G. Harold, MD, Staffan Josephson, PhD, Michel Komajda, MD, Susanne Logstrup, Bongani M. Mayosi, Jeremiah Mwangi, Johanna Ralston, Ralph L. Sacco, MD, K.H. Sim, Sidney C. Smith Jr., MD, Panos E. Vardas, MD, PhD, Prof. David A. Wood. *Journal of the American Heart Association*. September 22, 2014.

The Global Cardiovascular Disease Taskforce is an amalgamation of experts representing the global cardiovascular disease community. "Sustainable Development Goals and the Future of Cardiovascular Health" is a call to the United Nations and the cardiovascular disease community to continue the progress made in addressing non-communicable diseases. The taskforce acknowledges the substantial successes in reigning in the spread of cardiovascular disease since the dawning of the new millennium, which includes the establishment of a Global Action Plan and target parameters such as a 25 percent reduction in worldwide cardiovascular disease mortality by 2025.

This proposal was specifically timed to coincide with the United Nations update of the Sustainable Development Goals for 2015 and beyond. We have an unprecedented opportunity to convince international bodies to devote appropriate resources to curb the rise of non-communicable diseases and address the global spread of cardiovascular disease and stroke and their associated health risk factors. Given that cardiovascular disease causes more deaths annually than communicable diseases, the taskforce is hoping the United Nations will reorganize its priorities when considering its new global policy agenda for the future.

<http://jaha.ahajournals.org/content/3/5/e000504.full.pdf>

## Stroke Outcomes Measures Must Be Appropriately Risk Adjusted To Ensure Quality Care of Patients: A Presidential Advisory From the American Heart Association/American Stroke Association

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Gregg C. Fonarow, MD, FAHA, Chair, Mark J. Alberts, MD, FAHA, Joseph P. Broderick, MD, FAHA, Edward C. Jauch, MD, FAHA, Dawn O. Kleindorfer, MD, FAHA, Jeffrey L. Saver, MD, FAHA, Penelope Solis, JD, Robert Suter, DO, MHA and Lee H. Schwamm, MD, FAHA

As part of its commitment to promote high-quality, evidence-based care for cardiovascular and stroke patients, the American Heart Association/American Stroke Association fully supports the development of properly risk-adjusted outcome measures for stroke. To accurately assess and report hospital-level outcomes, adequate risk adjustment for case mix is essential. During the development of the Centers for Medicare & Medicaid Services 30-day stroke mortality and 30-day stroke readmission measures, concerns were expressed that these measures were not adequately designed because they do not include a valid initial stroke severity measure, such as the National Institutes of Health Stroke Scale (NIHSS). As currently constructed, therefore, these outcome measures may be prone to mischaracterizing the quality of stroke care being delivered by hospitals and may ultimately harm acute ischemic stroke patients. This paper lays out the concerns raised by the American Heart Association/American Stroke Association and offers alternate approaches to more accurately measuring the quality of care delivered to patients with ischemic stroke.

<http://stroke.ahajournals.org/content/45/5/1589>

## Synthesizing Lessons Learned From Get With The Guidelines: The Value of Disease-Based Registries in Improving Quality and Outcomes

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A. Gray Ellrodt, MD, Gregg C. Fonarow, MD, FACC, FAHA, Lee H. Schwamm, MD, FAHA, Nancy Albert, PhD, CCNS, CHF, CCRN, NE-BC, FAHA, FCCM, Deepak L. Bhatt, MD, MPH, FACC, FAHA, FSCAI, Christopher Cannon, MD, Adrian F. Hernandez, MD, MHS, Mark A. Hlatky, MD, Russell V. Luepker, MD, MS, Pamela N. Peterson, MD, MSPH, FACC, Mat Reeves, BVSc, PhD, Eric Edward Smith, MD, MPH, FRCPC, FAHA

In 2000, having developed a leadership role in translating cardiovascular science into internationally respected guidelines, the American Heart Association/American Stroke Association created a comprehensive suite of programs called Get With The Guidelines (GWTG). Using the best evidence from the latest American College of Cardiology/AHA/ASA guidelines as its foundation, GWTG was created on the premise that a rigorous approach to translating guidelines into clinical practice was needed to give the maximum benefit for patients with cardiovascular disease and those at risk.

In addition to the support of program staff for participating hospitals to implement these guidelines, the association also developed sophisticated clinical databases, or registries, through which hospitals and physicians collect information in real time for assessment of quality, regional and national benchmarking, national recognition and the generation of new science. From the four GWTG disease-specific registries, more than 200 articles have been published in peer-reviewed journals, documenting the program's impact in several domains.

This paper highlights the lessons learned from the GWTG program and elucidates their policy implications in four distinct sections: 1) the program's association with a substantial improvement in quality of care over a broad range of cardiovascular conditions in multiple settings; 2) GWTG's ability to generate new knowledge, identify areas for future quality improvement efforts and measure, reduce racial and gender disparities and determine the safety and effectiveness of therapies applied in routine practice; 3) GWTG's contribution to increasing the value of healthcare for our hospitals, payers, and our patients; and 4) demonstration of how linking GWTG's clinical database with administrative data (e.g. Medicare fee-for-service claims data) fosters real world clinical effectiveness research (CER). The final two sections address the limitations of GWTG and summarize policy recommendations.

<http://circ.ahajournals.org/content/128/22/2447>

### **The Variable Impact of State Legislative Advocacy on Registry Participation and Regional Systems of Care Implementation**

Ivan C. Rokos, MD, FAHA, Lee H. Schwamm, MD, FAHA, Madeleine Konig, MPH, Mary-Beth Harty, JD, MPH, Katie B. Horton, RN, MPH, JD, Jeff Ranous, A. Gray Ellrodt, MD, Steven A. Farmer, MD, PhD, Michael R. Frankel, MD, T. Bruce Ferguson, MD, FAHA, David C. Goff, MD, PhD, FAHA, Loren Hiratzka, MD, FAHA, Alice K. Jacobs, MD, FAHA

Given their ability to promote the widespread dissemination of guideline-based evidence into practice, the American Heart Association/American Stroke Association advocates for the creation of, and

participation in, quality improvement registries, as well as the development of regional systems of care for time-critical diagnoses including ST-elevation myocardial infarction, out-of-hospital cardiac arrest, resuscitation, and acute stroke. One particular strategy is to encourage the passage of legislation creating a statewide data registry.

This paper assesses the impact of this legislative approach on overall registry participation and systems of care development. It analyzes the efforts of five "case" states that have passed legislation (Maryland, New Jersey, North Dakota, Rhode Island, Tennessee) and compares them to two "control" states without legislation (Indiana and Pennsylvania). The quantitative part of the analysis evaluates both the number of participating hospitals and the number of patient records submitted to state registries stratified by key time-points in system development. The analysis uses program data from the Get With The Guidelines (GWTG)-Stroke and ACTION Registry-Get With The Guidelines (ACTION-GWTG) programs for its analysis. The qualitative component of the analyses explores various supporting themes and lessons learned from each state's experience as collected through guided interviews with individuals from state agencies, hospitals and AHA/ASA Advocacy and Quality Improvement offices.

The paper's quantitative and qualitative analyses lead the authors to conclude "that state-based legislative efforts are generally associated with desired large-scale changes and represent a reasonable strategy for AHA/ASA Advocacy to pursue in order to create regional systems-of-care."

<http://circ.ahajournals.org/content/128/16/1799.short>

## **AHA Strategic Policy Agenda 2014-2017**

Every three years, the American Heart Association updates its strategic policy agenda to translate the latest science and evidence base into policy priorities that guide its advocacy efforts at the federal, state and local levels. The association's agenda for 2014-17 reflects the organization's focused efforts on achieving its 2020 impact goal to improve the cardiovascular health of all Americans by 20 percent while reducing deaths from cardiovascular diseases and stroke by 20 percent.

The policy agenda is focused on areas that will have the greatest health impact over the next several years in heart disease and stroke research, cardiovascular health promotion, appropriate and timely access to quality heart disease and stroke care. The policy agenda also addresses issues important to the non-profit environment.

The strategic policy agenda is tightly aligned with the association's priorities to reduce tobacco use, increase fruit and vegetable consumption, reduce consumption of sugar-sweetened beverages, reduce sodium in the food supply, increase physical activity, improve blood pressure control, improve post-event rehabilitation and improve systems of care.

Across all policy priorities, there is a focus on addressing health disparities and reducing inequity. This umbrella document captures all of the potential advocacy work for the American Heart Association over the next three years. Priorities are established annually at the federal, state and local level based on feasibility, the political environment, resource constraints and momentum. The

association will measure its progress in all of its strategic areas and will attempt to quantify the health impact of its policy work over the next three years. To read the entire strategic policy agenda, please go to [http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_466100.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_466100.pdf)





# Corporate Forum Policy Dialogue July 2014 Proceedings

## Introduction

The practice of medicine has transformed over the past decade as an influx of new innovations have been deployed to achieve a higher-performing healthcare system. These innovations reduce preventable injuries to patients, reward quality over volume and spur the adoption of new technologies. As a result, there is a greater incentive for a patient-centered and outcomes-focused healthcare system that rapidly designs, tests and implements new models of treatment and care.

To further explore the impact of innovation on cardiovascular disease and stroke care, the American Heart Association/American Stroke Association convened its first annual Corporate Forum Policy Dialogue on July 21, 2014 in Washington, DC. The goal was to facilitate a conversation among corporate leaders who embrace the association's values and are committed to building healthier lives free of cardiovascular diseases and stroke. The meeting, which included 45 thought leaders across government and industry, further explored the role of innovation in healthcare and allowed for the exchange of new ideas and best practices.

*"Over the past three decades, there have been numerous, major advances in the treatment of cardiovascular disease and stroke. All were made possible by a forward-thinking mentality and a refusal to accept the status quo. To achieve scientific breakthroughs, you have to be bold, and you have to be optimistic, expecting progress instead of hoping for it. Today, because of high-tech, we are allowed to dream even bigger than ever before, and to anticipate even greater leaps forward."*

*Elliott Antman, MD  
President, American Heart Association*

## Background: Culture of Innovation

Innovation in healthcare has expanded to mean more than the development of medical devices, drugs and new therapies and

become a larger culture of innovation across the spectrum of care. As a result of the passage of the Affordable Care Act, for example, we see innovation in healthcare through the use of big data to improve population health via new delivery and payment system reforms. These reforms have resulted in the use of electronic health data and technology to improve our ability to diagnose and treat illness and to help patients become more engaged in their own health. Moreover, digital health, including mobile apps and wearable devices, are a growing component of clinical care. They have the potential to transform how providers interact with patients, deliver care and practice medicine.

Although this culture of innovation in healthcare is starting to take hold, challenges still remain. The innovation pipeline — from discovery to market — lags on average by 17 years due to a variety of factors. There is significant interest by policymakers to better understand how to best narrow the gap to produce a learning health care system that gets treatments and care models out in the marketplace so that the system is more efficient and effective. The new models of care that have emerged, including patient-centered medical homes (PCMHs), accountable care organizations (ACOs) and bundled payments have created a paradigm shift to achieve the "triple aim": better care for individuals, better health for populations and lower per-capita costs.

Although progress has been made, the healthcare system continues to be fragmented and siloed. These new models have implications for the care that is delivered to patients with cardiovascular diseases and stroke and have the potential to improve patient outcomes. Policymakers have begun to identify ways to realign financial incentives to emphasize better care coordination and seamless transitions of care.

As we look to the future, big data has the potential to improve clinical decision making at the point of care. Tapping into vast databases and new technologies, a provider now can access knowledge relevant to the individual patient, yielding better decisions

and outcomes at a rapid pace. Moreover, big data has the potential to revolutionize research. Large databases enable observational studies on a scale and at a speed randomized controlled trials cannot approach.

In 2011, the Institute of Medicine issued a report entitled *Toward Precision Medicine: Building a Knowledge Network for Biomedical Research and a New Taxonomy of Disease* (2011) describing a vision for how big data might be used in the future. From this report, one might envision the emerging data from clinical medicine and biomedical research being fed into an information commons, which is used to construct a knowledge network that could offer new insights into disease and even new taxonomic classifications of diseases.

### **Context: American Heart Association/ American Stroke Association and Innovation**

The American Heart Association/American Stroke Association is committed to leveraging technology and data to develop new and unprecedented approaches to improving the cardiovascular health of all Americans, and science is at the core of that mission. In addition to developing treatment guidelines and scientific statements that have become the standard of care for patients, we remain true to our founders' vision to grow and improve the field as we fund thousands of research projects each year to accelerate science.

The association's newest project seeks to leverage the synergies created from combining the power of long-term population studies with molecular analysis to study specific distinctions between subgroups of patients. The Cardiovascular Genome Phenome Study (CVGPS) combines the clinical and genomic data from Boston University, University of Mississippi Medical Center, the academic coordinating center homes of the Framingham Heart Study (FHS) and the Jackson Heart Study (JHS) with the goal of better understanding patients' characteristics, risk profiles, and therapeutic needs as they relate to cardiovascular disease.

These combined institutional databases will be available for new research projects where investigators will be able to correlate genomic variations with disease course, severity, treatment responses, demographics, and both routine and novel diagnostic measures, for a 360 degree look at cardiovascular health and disease. Investigators in CVGPS will build a comprehensive, state-of-the-art biorespository, develop new analytic methods and introduce new e-health approaches to digital data collection.

The American Heart Association/American Stroke Association is equally committed to translating science into practice to improve the health of all Americans. The Guideline Advantage is one example of how the association is turning data into action. It's rapidly translating science into clinical practice to improve patient outcomes, while creating a learning health care system that emphasizes population health.

The Guideline Advantage is a joint quality improvement program from the American Cancer Society, American Diabetes Association and American Heart Association. This program works with existing EHRs or health technology platforms to extract relevant patient data and provide regular reports and benchmarking on adherence to guidelines. This population health management tool not only allows clinicians to meet their quality reporting requirements — the platform is payer agnostic — but it also promotes the use of evidence-based treatment guidelines, performance measurement tools and quality

improvement strategies that help clinicians offer their patients advantages for a healthy life.

The association is particularly committed to equipping patients with the information and tools that will enable them to contribute to improving their own health outcomes. The Heart360 platform is an example of how science is leveraged to impact the patient experience. Heart360 gives patients and doctors an easy-to-use, secure way to track data like blood pressure, blood glucose and weight, while maintaining ongoing communication. The web-based platform allows patients to upload their data and download real-time reports to analyze trends in their health numbers. Doctors or other healthcare providers track their patients' health remotely and can communicate with them at any time through a secure messaging platform. Providers can also send alerts to the patient's handheld device or email inbox. In short, Heart360 connects the right technology, the right information and the right people to influence behavior. Patients are not on their own anymore. Instead of being passive recipients of care and information, they are proactive, empowered participants in their own care.

The growing evidence shows that Heart360 can have an impact. A study at Kaiser Permanente Colorado showed that after six months, patients who used Heart360 for home blood pressure monitoring were 50 percent more likely to have their blood pressure under control than those whose blood pressure was managed through doctors' office visits. Through Heart360, patients became more empowered, better informed and much more engaged in their own health.

### **Policy Dialogue: Agenda and Speakers**

The agenda (Appendix 1) includes perspectives from government and industry while providing an opportunity for speakers, attendees and association staff to explore innovation in relation to improving cardiovascular health outcomes. The goals of the policy dialogue were for participants to gain new perspectives, garner additional feedback and generate new insight.



Framing the day's discussion, Dan Mendelson of Avalere Health LLC highlighted the incentives for innovation in an evolving and uncertain environment and discussed how those incentives could be used to create stability in the market.

The first panel focused on the traditional definition of medical innovation — the pipeline from discovery to market. Dr. Ellis Unger of the FDA reviewed the agency's efforts to streamline the approval process to accelerate the availability of new drugs and devices. Eric Gascho of the National Health Council discussed the shift toward greater patient engagement throughout the innovation pipeline.

Clay Alspach, Chief Majority Health Council, U.S. House of Representatives Energy and Commerce Committee, and Rachel Stauffer, Health Policy Director for Representative Diana DeGette, a senior Democrat on the Committee, gave a legislative overview and provided a progress report on the *21<sup>st</sup> Century Cures* initiative that was launched by Chairman Fred Upton (R-MI) and Congresswoman Diana DeGette (D-CO). This bipartisan effort is intended to take a

comprehensive look at how Congress can accelerate the pace of cures. The committee is examining the entire spectrum of the process — from the discovery of clues in basic science, to streamlining the drug and device development process, to leveraging digital medicine and social media at the treatment phase.

The luncheon keynote speaker, Dr. Scott Berkowitz of Johns Hopkins University, discussed lessons learned from establishing the Johns Hopkins Accountable Care Organization. He also emphasized the importance of innovation at the patient, patient-care interface, health care environment and health care delivery system levels.

The afternoon panel focused on innovation in the context of care delivery. Dr. Hoangmai Pham of the Centers for Medicare and Medicaid Innovation discussed the emerging models being tested by CMMI as well as the challenges and opportunities that are ahead as healthcare delivery is transformed. Dr. Richard Migliori of the United Health Group outlined the role of private payors in care delivery innovation. He also emphasized the importance

<b>Appendix 1: Agenda</b>	
<b>Welcome and Opening Remarks</b>	<i>Gordon Tomaselli, MD</i> Co-Chair, American Heart Association Corporate Forum  <i>Elliott Antman, MD</i> President, American Heart Association
<b>Opening Keynote</b> <b>The Impact of Innovation on Healthcare</b>	<i>Dan Mendelson</i> Chief Executive Officer Avalere Health
<b>Panel Discussion</b> <b>Innovation from Discovery to Market</b>	<i>Ellis Unger, MD</i> Director, Office of Drug Evaluation-I Center for Drug Evaluation and Research U.S. Food and Drug Administration  <i>Eric Gascho</i> Assistant Vice President of Government Affairs National Health Council
<b>Legislative Perspective</b> <b>21st Century Cures</b>	<i>Clay Alspach, JD</i> Chief Majority Health Council, Committee on Energy and Commerce U.S. House of Representatives  <i>Rachel Stauffer</i> Health Policy Director, Office of Rep. Diana DeGette (D-Col) U.S. House of Representatives
<b>Luncheon Keynote</b> <b>Lessons Learned from Implementing</b> <b>New Care Delivery Models</b>	<i>Scott Berkowitz, MD</i> Executive Director, Johns Hopkins Medicine Alliance for Patients, LLC Medical Director for Accountable Care Office of Johns Hopkins Physicians
<b>Panel Discussion</b> <b>Innovation in Care Delivery</b>	<i>Hoangmai Pham, MD</i> Acting Director of the Seamless Care Models Group Centers for Medicare and Medicaid Innovation Centers for Medicare and Medicaid Services  <i>Richard Migliori, MD</i> Executive Vice President, Medical Affairs Chief Medical Officer, United Health Group  <i>Jean Slutsky, PA, MSPH</i> Chief Engagement and Dissemination Officer Patient-Centered and Outcomes Research Institute
<b>Closing Remarks</b>	<i>Nancy Brown,</i> Chief Executive Officer, American Heart Association

of innovation at the patient, patient-care interface, health care environment and health care delivery system levels.

Finally, Jean Slutsky of the Patient-Centered Outcomes Research Institute gave an overview of PCORI's role in generating the evidence and how it is deploying this information to engage patients in the continuum of research, as well as identifying new ways to disseminate research findings to a broad range of stakeholders.

### **Policy Dialogue: Themes and Discussions**

The policy dialogue encouraged numerous and sometimes different perspectives on a wide range of issues. The age of big data has arrived and opportunities to improve patient outcomes are perhaps greater today than ever before. It's also evident that the status quo is not acceptable. The system and all stakeholders must be forward-thinking and optimistic to achieve scientific breakthroughs that can be translated into clinical practice and have a maximum impact on patient care.

Most importantly, participants agreed that the collective mentality must be one of expecting, rather than hoping for, progress. Three themes emerged: engagement of patients across the innovation pipeline; incentives that further support innovation in the market; and use of data and population health to improve outcomes and reduce costs.

### **Patient Engagement**

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#### **Questions for Discussion**

*What are the lessons learned from patient engagement efforts over the course of the past five years and what are some of the barriers to meaningful patient engagement?*

*How will regulatory science need to evolve to address the fast-paced nature of innovation, while still maintaining high standards for patient safety and product effectiveness?*

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The engagement of patients across the continuum of the innovation pipeline was a theme that was front of mind to most participants. Federal agencies like the Agency for Healthcare Research and Quality as well as the FDA have shown significant interest in engaging patients in their work. Dr. Unger of the FDA alluded to the agency's emphasis on establishing new methods of engaging patients in the regulatory decisionmaking process. He also discussed the patient-focused benefit-risk meetings convened by the FDA to further obtain input from patients who are experiencing specific disease conditions. Jean Slutsky of PCORI noted that engagement science is not well developed and needs to be further refined to better understand how we engage patients moving forward.

The challenge for regulatory agencies like the FDA is the balance between the urgency for drugs and devices for disease states that have no known therapies, while ensuring that any potential new drug or device is both safe and effective. Patients who are battling diseases with no treatments or therapies are much more likely to accept the risks even if there is a small chance of treating or curing their disease and the FDA must navigate the appropriate balance between the two. Assessing the risk and benefits with any drug or device, however, is imperative.

A number of participants welcomed this move to further engage patients, but also noted the challenges in recruiting and retaining

patients. The group acknowledged that the diversity and size of a clinical trial population is important when translating the results to the population at-large and identifying specific subpopulations that are most likely to have positive outcomes with a particular drug therapy or device. They also recognized that lack of awareness of the clinical trial process broadly and of particular studies, specifically, among patients and providers is a growing burden to recruiting patients. Participants noted the "fear factor" on the part of patients who do not have the necessary resources or tools to navigate the complexity of clinical trials. Patient organizations like the American Heart Association/American Stroke Association can serve as a resource to both industry and to patients in identifying potential patients and retraining them in the trials.

Patient input and feedback is critical — assessing what symptoms patients want treated and gaining a better perspective of the challenges they face can impact the development of drugs and devices. Although participants considered patient engagement important, the regulations that govern how industry engages with patients are complex, burdensome and ultimately confusing. This often leads to companies choosing not to consult with patients in order to mitigate any potential risk and avoid further delay of approval.

### **Incentives for Innovation**

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#### **Questions for Discussion**

*How are patients being engaged in the delivery of their care and what tools and resources have been deployed to ensure seamless transitions of care?*

*How will liberating big data move us to a fully patient-centered healthcare system and what elements are missing in achieving greater patient engagement?*

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The Affordable Care Act included new financial incentives to reform the way healthcare is delivered in the United States. The CMMI is charged with testing new delivery and payment models that not only reduce health expenditures but also improve the quality of care that is delivered. Dr. Pham of CMMI noted that the challenge moving forward is identifying reforms and building financial incentives that have the ability to move the market past the "point of no return." It will be critical to ensure that there is a market for these reforms, and that payors, providers and patients are engaged in order to incorporate stakeholder feedback and build sustainable support.

Participants noted that unlike in the past, CMMI has to be more proactive than reactive. This means anticipating the future to ensure that the market for delivery and payment system reform thrives and has the ability to improve patient care moving forward. A number of attendees also discussed the need for comprehensive evaluations to fully assess the impact of the new models that are being tested, while determining if the models are scalable in different healthcare environments under different organizational and leadership structures. Dan Mendelson of Avalere Health LLC mentioned that hospitals and health systems need more predictability and a greater control over costs to successfully implement the new delivery and payment system reforms.

Dr. Berkowitz of Johns Hopkins University noted that one of the greatest challenges moving forward is the fact that a majority of the healthcare systems remains under a fee-for-services payment model

where providers are reimbursed for the *number* of services they perform and not necessarily the *quality* of services. New payment models such as bundled payment and the Medicare Shared Savings Program are intended to move from volume-based payment to value-based payment. These new payment models, however, have not sufficiently penetrated the market to create a paradigm shift. Finally, Dr. Berkowitz noted that success will be achieved when patients are fully engaged and providers want to participate in the process.

## Population Health

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### Questions for Discussion

*What can be done to translate research into clinical practice more rapidly and what are the regulatory barriers that further hinder innovation?*

*How has health information technology been leveraged to improve quality of care and what are some emerging best practices?*

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Big data has been a critical component of quality improvement efforts in healthcare. The use of clinical data, claims data and patient-generated data allows for a better understanding of the patient population and creates the ability to rapidly identify areas of improvement. Dr. Migliori of the UnitedHealth Group emphasized the power of data analytics to improve the patient experience. He also noted that the transition to population health is different from the status quo, with population health being more than just about the patients who come into a medical practice, but about the larger community. Ultimately, he noted, big data has the potential to revolutionize the way care is delivered nationwide.

Participants were optimistic about population health and big data to transform care delivery, but they also recognized that there are significant challenges and barriers. The various technology platforms that are used among hospitals and health systems are not

interoperable, which hinders the ability for seamless care delivery across the continuum of patient care. Moreover, common data standards are equally important and must be integrated to realize the power of technology. In this way, participants suggested that if data standards are not established and implemented, the system will continue to face challenges moving forward.

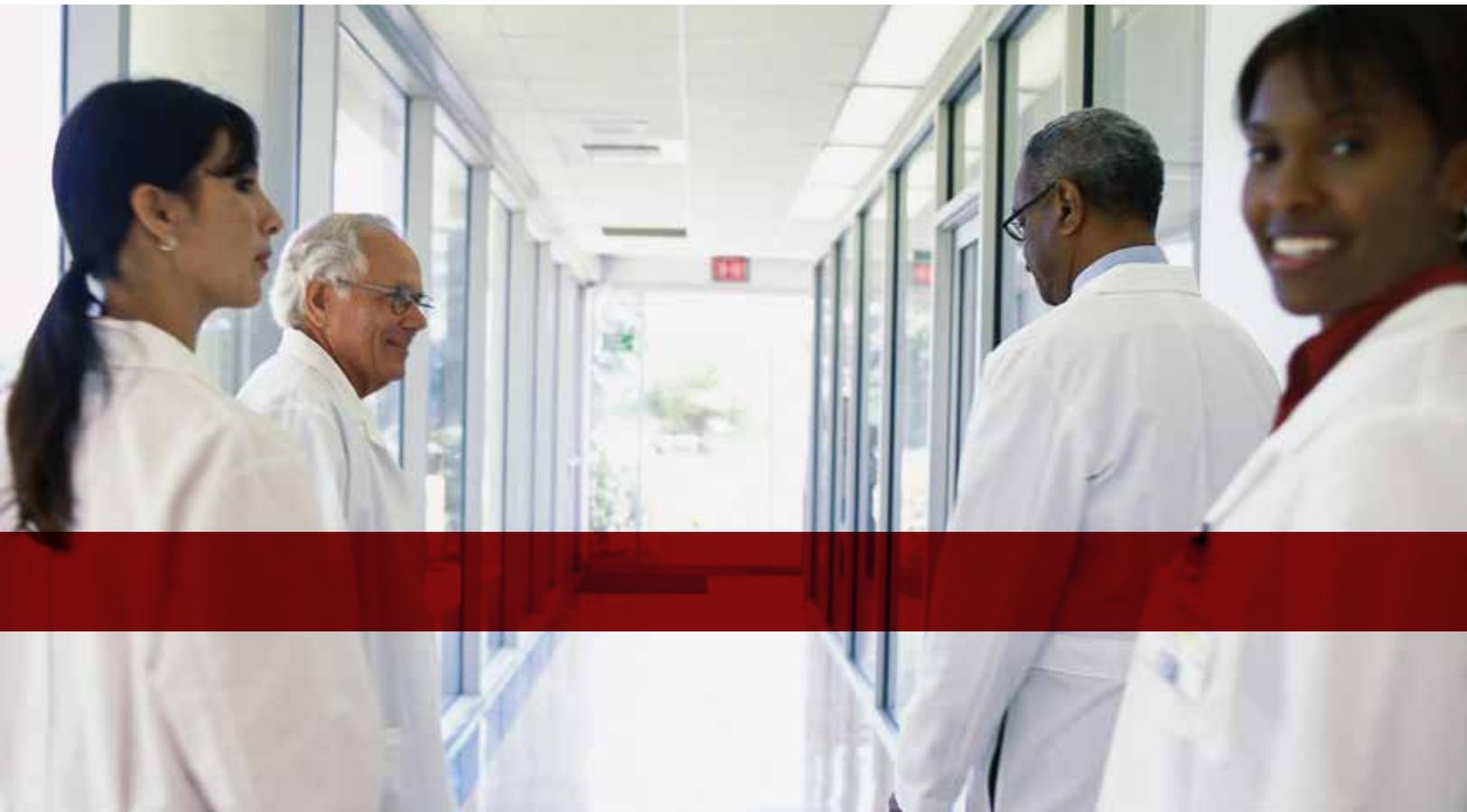
Dr. Pham of CMMI noted that having data is only the beginning of quality improvement efforts. If the system considers it an “end,” it is setting itself up to fail. Attendees agreed and argued that it is even more important for us to have interoperable systems with common data standards to harness the data and transform it into information that will improve the quality of patient care.

Dr. Berkowitz of Johns Hopkins University highlighted similar points and emphasized the impact data aggregation and analytics have had in improving the quality of care that his system delivers. Moving forward, it will be imperative to connect the various points to give patients and providers the best possible information for treatment decisions.

### Conclusion

The American Heart Association/American Stroke Association Corporate Forum Policy Dialogue created an opportunity for discussion among government and industry leaders and allowed the association to better understand the challenges and barriers that lie ahead. The association intends to use the ideas generated at the Corporate Forum to inform its work and define a more specific policy agenda in this area.

As we look to build healthier lives free of cardiovascular diseases and stroke, it is imperative that we leverage our collective resources to make a meaningful impact. We are at a transformative point in time. It will require providers, payors and patients to collectively move us to a healthcare system that is patient-centered and outcomes-focused.



# Policy Position Statements

## Promoting Cardiovascular Health Tobacco

### Policy Position on Smoke-Free Policies in Multi-Unit Housing (June 2013)

The American Heart Association has long advocated for strong public health measures that will reduce the use of tobacco products in the United States and limit exposure to secondhand smoke. The policies prioritized by the association and its national partners include adequate funding for tobacco cessation and prevention programs, comprehensive smoke-free air laws, taxation of tobacco products and FDA regulation of tobacco.

As states and localities accomplish each of these policy priorities, they are increasingly looking for other policy strategies to address the impact of tobacco use on health. Smoke-free policies in multi-unit housing are emerging as an important strategy to address smoking and exposure to tobacco smoke in homes where children, adolescents, the elderly and the disabled are especially vulnerable. Research has shown that smoke-free policies in the home reduce secondhand smoke exposure for all residents; and can increase cessation among smokers and decrease relapse in former smokers.

The American Heart Association supports comprehensive smoke-free policies in multi-unit housing. In public housing, these policies could be mandated as part of regulation since taxpayer dollars are used to subsidize the health and economic consequences of smoking. In privately owned housing, legislation or regulation could provide incentives to owners such as insurance discounts, or funding for education, communication and cessation resources as motivation to adopt comprehensive smoke-free policies. While advocating for comprehensive smoke-free policies,

the American Heart Association wants to ensure that smokers are not denied access to public housing as they can abide by policies that allow for outdoor smoking areas.

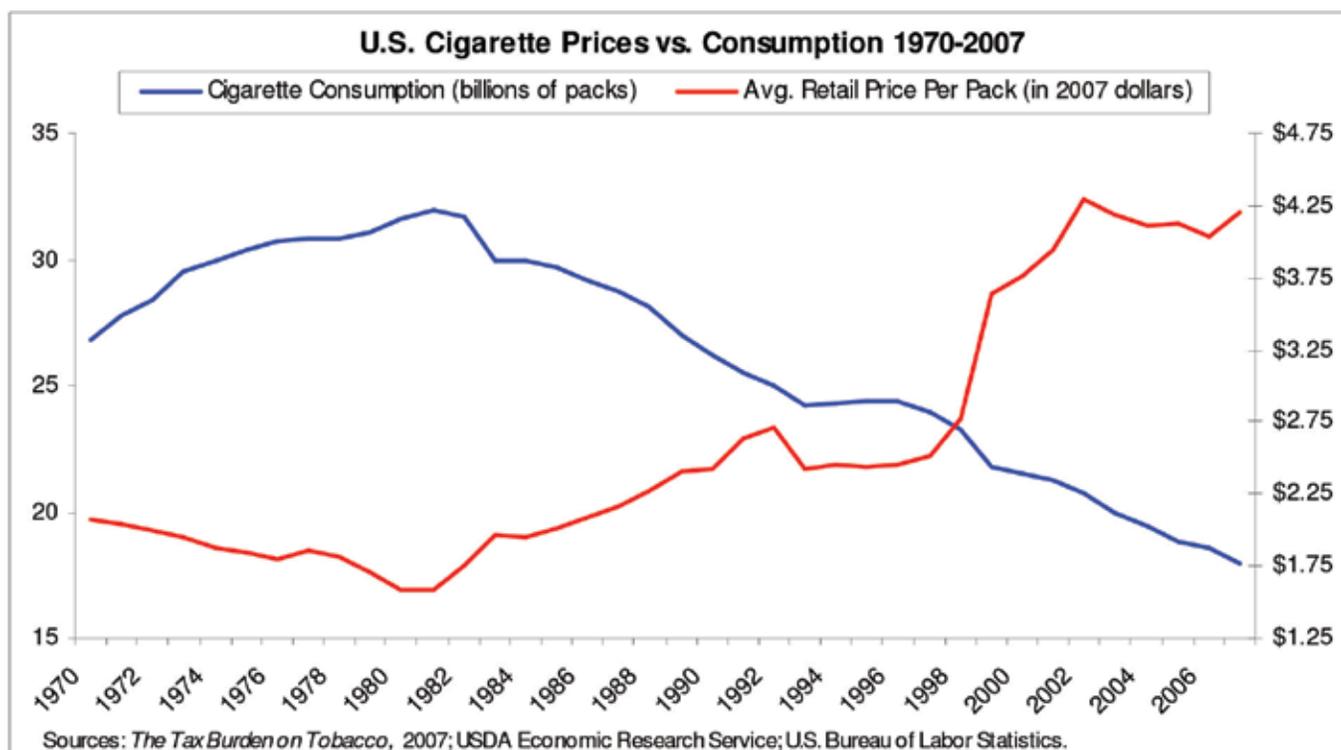
[http://www.heart.org/idc/groups/ahaecc-public/@wcm/@adv/documents/downloadable/ucm\\_469126.pdf](http://www.heart.org/idc/groups/ahaecc-public/@wcm/@adv/documents/downloadable/ucm_469126.pdf)

### FDA Regulation of Tobacco

The signing of the Family Smoking Prevention and Tobacco Control Act by President Obama in 2009 was a landmark achievement toward further reducing disease and death from use of tobacco. The U.S. Food and Drug Administration (FDA) now has the tools and jurisdiction to reign in the tobacco industry. The AHA will continue to work with the Center for Tobacco Products and support and monitor its efforts to prohibit marketing and advertising of tobacco targeting youth, to ban misleading claims, and to regulate the manufacture of tobacco products in the interest of public health. The AHA will ensure comprehensive implementation of FDA regulation of tobacco and learn from the data gathered during the regulatory process to continue to improve tobacco control efforts in the United States.

### Excise Taxes

To help save lives, the AHA advocates for significant increases in federal, state, and county or municipal excise taxes that cover all tobacco products. This work has successfully led to significant increases in the federal, state and local excise taxes on tobacco. Currently, the federal government imposes a tax of \$1.01/pack of cigarettes and increased the rates on other tobacco products such as smokeless tobacco products and cigars. At the same time, states have imposed tobacco excise taxes with a current





nationwide average of \$1.53/pack (as of July 2013).<sup>1</sup> This is an increase from an average of 43.4 cents in January 2002 — an incredible public health achievement. Many studies have examined the impact of cigarette tax increases on smoking prevalence, especially in youth. Most have found that higher taxes reduce consumption and especially cessation rates in young smokers. The general consensus is that for every 10% increase in the real price of cigarettes, the increased cost reduces overall cigarette consumption by approximately 3% to 5%, lowers the number of young adult smokers by 3.5%, and cuts the number of children who smoke by 6% to 7%. These taxes are a health win that reduces tobacco use, saves lives, raises revenue for cash-strapped states, and lowers healthcare costs.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_321036.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_321036.pdf)

#### Reference

1. Campaign for Tobacco Free Kids. State cigarette excise tax rates and rankings. December 13, 2012. Available at <http://www.tobaccofreekids.org/research/factsheets/pdf/0097.pdf>. Accessed online January 7, 2013.

#### Clean Indoor Air Laws

The AHA advocates for comprehensive smoke-free workplace laws at the state and local levels in compliance with the Fundamentals of Smoke-free Workplace Laws guidelines ([http://www.no-smoke.org/pdf/CIA\\_Fundamentals.pdf](http://www.no-smoke.org/pdf/CIA_Fundamentals.pdf)). There is increasing evidence that comprehensive smoke-free laws implemented across localities, states, and even countries lower the incidence of cardiovascular disease (CVD) and significantly improve public health. Physicians should counsel patients that exposure to secondhand smoke is a fully preventable cause of death. The AHA maintains that smoke-free laws should be comprehensive and apply to all workplaces and public environments and that there should be no preemption of local ordinances and no exemptions for hardship, opting out, or ventilation or for casinos, bars, and private clubs.

The AHA supports further research to determine the impact of comprehensive clean indoor air laws on the incidence of acute myocardial infarction (MI), stroke, mortality, and other morbidities in adults and children and the magnitude of the impact of these

laws, as well as more comprehensive surveillance of incidence and prevalence of CVD to track the impact of public health interventions.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_304804.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_304804.pdf)

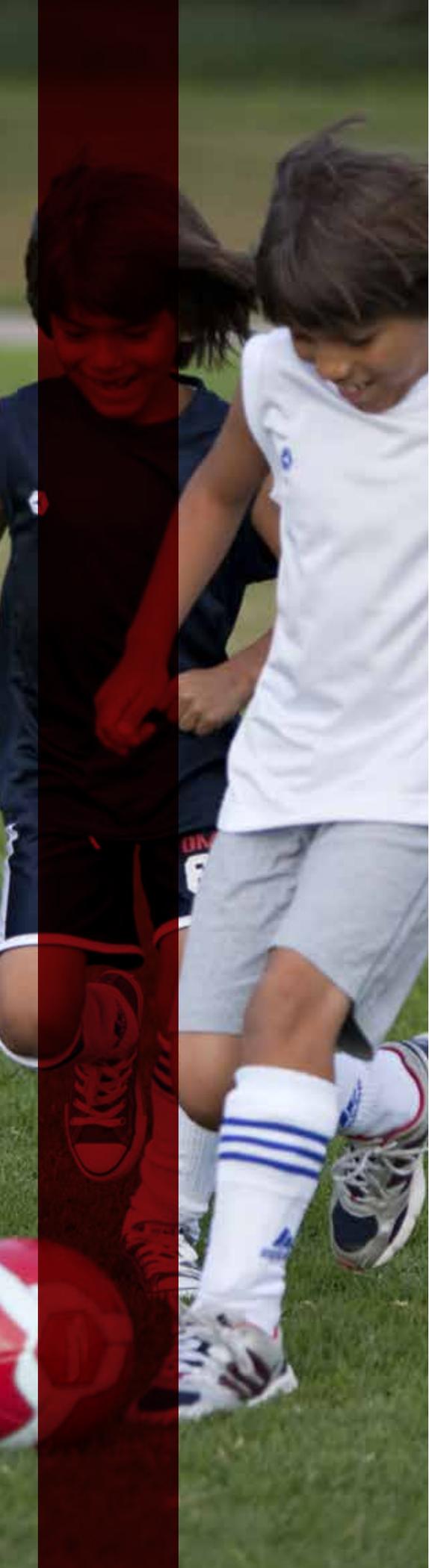
#### Eliminating the Sale of Tobacco Products in Pharmacies

The AHA advocates that tobacco products should not be sold in pharmacies, citing the incongruence of placing tobacco products for sale near tobacco cessation aids. Reducing availability of tobacco products is a key strategy in changing societal norms regarding tobacco use, leading to fewer persons starting to use tobacco and more users trying to quit.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_304805.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_304805.pdf)

#### Smokeless Tobacco Products

As a national nonprofit health organization committed to promoting tobacco control research and policy efforts, the AHA does not recommend the use of smokeless tobacco products as an alternative to cigarette smoking or as a smoking cessation product. Following the passage of FDA regulation of tobacco and clean indoor air laws, the tobacco industry responded with a plethora of products that are alternatives to traditional cigarette smoking. As a result, there is a disturbing trend toward increased initiation and use of smokeless tobacco products among youth and adolescents. The AHA will work to ensure that the FDA closely monitors and scrutinizes actual and implied health claims for these products. Given that the use of smokeless tobacco products in general has harmful effects on health and is addictive, the scientific community should prioritize strategic efforts to (1) evaluate factors associated with the initiation and use of smokeless tobacco products; (2) determine to what extent the use of these products results in continued tobacco use, including dual smoking and use of smokeless tobacco products by smokers who would otherwise quit; and (3) assess the effect of “reduced risk” messages related to smokeless tobacco products on public perception, tobacco use and cessation, and policy decision making. Clinicians should continue



to discourage the use of all tobacco products and emphasize the prevention of smoking initiation and smoking cessation as primary goals for tobacco control.

<http://circ.ahajournals.org/content/122/15/1520>

### **Top 10 Things to Know: Smokeless Tobacco (ST) and Cardiovascular Disease**

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### **Comprehensive Coverage of Tobacco Cessation Services in Private and Public Healthcare Plans**

The AHA advocates for comprehensive coverage of tobacco cessation services in public and private health insurance programs that includes use of nicotine replacement products, medication, and counseling. Tobacco cessation treatment programs remain highly cost-effective. In Massachusetts, just 2 years after implementation of tobacco cessation coverage, 26% of smokers covered by MassHealth quit smoking, and there was a decline in the use of other costly healthcare services (a 38% decrease in hospitalizations for heart attacks; a 17% drop in emergency department and clinic visits attributable to asthma; and a 17% drop in claims for adverse maternal birth complications, including preterm labor).<sup>1</sup> Additional research with the program showed that the comprehensive coverage led to reduced hospitalizations for heart attacks and a net savings of \$10.5 million, or a return on investment of \$3.07 for every dollar spent.<sup>2</sup> Savings from these programs likely will continue to increase as time goes on and the impact of quitting increases.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_321037.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_321037.pdf)

### **Comprehensive Sustainable Funding for Tobacco Cessation and Prevention Programs**

The AHA advocates for sustainable funding of state tobacco prevention and cessation programs at levels that meet or exceed the recommendations of the U.S. Centers for Disease Control and Prevention (CDC). In accordance with

CDC recommendations, tobacco control programs should be comprehensive, appropriately staffed, and effectively administered. The CDC's best practices incorporate community programs to reduce tobacco use and make smoking not the norm, develop robust school programs, enforce existing regulations and laws, and support statewide programs. The best practices also develop cessation programs, health promotion activities, surveillance and evaluation, administration and management, and counter marketing efforts, including paid broadcast and print media, media advocacy, public relations, and public education.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_321035.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_321035.pdf)

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1. Land T, Warner D, Paskowsky M, Cammaerts A, Wetherell L, Kaufmann R, Zhang L, Malarcher A, Pechacek T, Keithly L. Medicaid coverage for tobacco dependence treatments in Massachusetts and associated decreases in smoking prevalence. *PLoS One*. 2010;5:e9770.
2. Land T, Rigotti NA, Levy DE, Paskowsky M, Warner D, Kwass JA, Wetherell L, Keithly L. A longitudinal study of Medicaid coverage for tobacco dependence treatments in Massachusetts and associated decreases in hospitalizations for cardiovascular disease. *PLoS Med*. 2010;7:e1000375.

## **Physical Activity**

### **Physical Education in Schools**

The quality and quantity of physical education in the nation's schools is an important part of a student's comprehensive, well-rounded education and a means of positively affecting lifelong health and well-being. The optimal physical education program will foster a long-term commitment to physical activity as part of a healthy lifestyle that will help children prevent chronic disease and other conditions, including abnormal cholesterol levels, high blood pressure, obesity, and heart disease. The AHA advocates for more frequent quality physical education in all schools. Quality physical education should be supplemented, but not replaced, by additional school-based physical activity.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_446067.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_446067.pdf)

## Physical Activity Guidelines for Americans

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In a landmark achievement, the U.S. Department of Health and Human Services published the first ever Physical Activity Guidelines for Americans in 2008. These science-based guidelines help guide Americans aged 6 years and older in efforts to improve and maintain their health and avoid disease through appropriate and regular physical activity and serve as the foundation for federal, state, and local physical activity policy. The guidelines also help physicians provide advice to their patients and help people learn about the health benefits of physical activity, the amount of exercise to do each day to improve or maintain health, and how to be physically active while reducing the risks of injury. Unlike the Dietary Guidelines for Americans, which are evaluated for an update every 5 years, the Physical Activity Guidelines have no such mandate from Congress. A regularly updated set of Physical Activity Guidelines is needed to guide our efforts and reduce sedentary behavior through a regular review of the latest science. The AHA will ask Congress to mandate a review of the Physical Activity Guidelines every 5 years, as is done with the Dietary Guidelines, to determine if there is enough emerging science to revise the guidelines and a comprehensive update should be mandatory at least every ten years.

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### Top 10 Things to Know: Population Approaches to Improve Diet, Physical Activity, and Smoking Habits

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### Shared Use of School Facilities

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In light of our nation's epidemic of sedentary behavior, the AHA supports a number of efforts to increase opportunities for physical activity within the community, worksites, and schools. School facilities, especially those that are centered in the community, can be an excellent resource for recreation and exercise where options for engaging in physical activity are limited or too expensive. The most innovative districts are promoting shared use of school facilities, such as school fields, running tracks, and fitness facilities, to address the educational and health needs of students and to maximize the community's use of recreational activity spaces.<sup>1</sup> The AHA supports regulation and legislation that allows shared use of school facilities within the community when school is not in session.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_312809.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_312809.pdf)

#### Reference

1. Schneider J. Joint-use facilities where everybody benefits. *Building Design Construction*. June 2008. Available at: <http://www.bdcnetwork.com/joint-use-facilities-where-everybody-benefits>. Accessed January 7, 2013.

### Changing the Built Environment to Promote Active Living

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The AHA supports legislation and other initiatives that create more livable and active communities, including robust funding for and implementation of Safe Routes to School; sustained concentrated funding to assist communities in implementing active transportation networks; adoption of Complete Streets policies to consider the

needs of all users, including bikers and walkers, in transportation projects; school construction that allows for physical activity facilities; and the use of health impact assessments within community planning to increase recreational green spaces.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_323233.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_323233.pdf)

## Diet/Nutrition

### Mobile Vending Around Schools

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The AHA advocates for nutrition policy efforts that make healthy foods more affordable and accessible to all consumers and that bring food pricing and subsidies in line with federal dietary guidelines and AHA nutrition recommendations. The recent trend of mobile food vending allows for the possibility of greater access to healthy foods, such as fruits and vegetables, in low-income communities. However, it can also increase access to less-healthy foods, which is of particular concern around schools, where the targeted consumers are children.

Mobile vending around schools should provide only healthy foods and be in line with the Institute of Medicine nutrition standards for competitive foods in schools. As an emerging issue, there is limited evidence showing the health impact of mobile vending around schools. The AHA supports additional research and pilot approaches with evaluation to determine the impact on children's health, diet, purchasing behavior, and calories consumed.

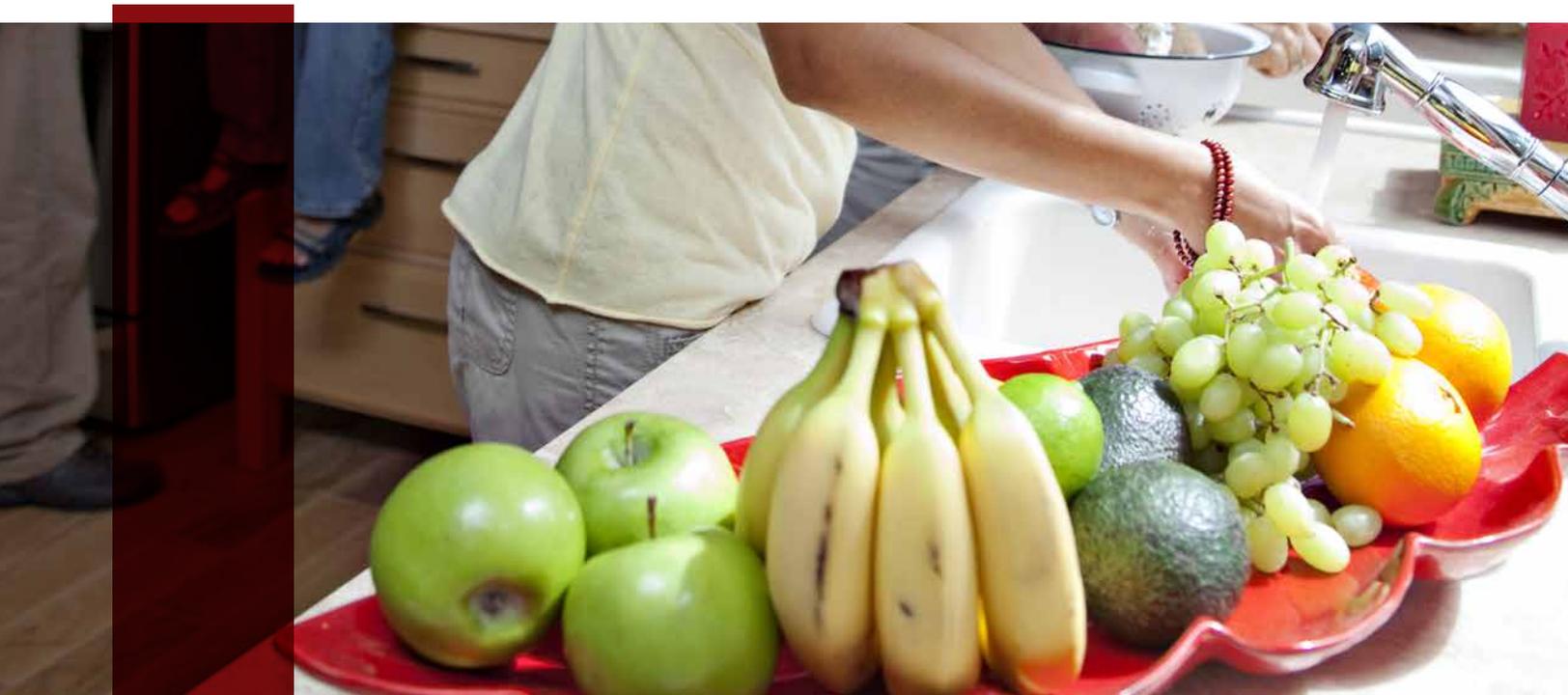
[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_446658.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_446658.pdf)

### Nutrition Education and Promotion in Schools

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Schools have an important role in providing a healthy nutrition and physical activity environment for children. School is where children spend a lot of time. To build a foundation for lifelong healthy living, the AHA advocates for

- Robust state and federal nutrition standards for school meals and competitive foods, the foods sold in vending machines, à la carte, school stores, and other places outside the meal program
- State and federal laws that hold schools accountable for implementation of robust local wellness policies that are transparent, shared with parents and the community, evaluated regularly, written into school improvement plans, and include expanded areas like food marketing and advertising to children, physical education, and staff promotion and wellness
- State laws and local policy that require schools to establish standing local wellness committees that meet regularly and have representation from school food services, physical education and health education, school administrators, parents, students, social services, counseling, school nurses, and others connected to the health of students and the school environment
- Robust technical assistance to support schools in implementing nutrition standards, effective nutrition education and promotion, and model local wellness policies with robust implementation and evaluation
- Regional or local cooperative agreements between school districts to increase purchasing power for healthy foods
- Cooperative agreements with local farmers and markets, as well as implementation of school gardens to increase the use of



fresh fruits and vegetables in the school meal program and foster nutrition education that increases learning opportunities.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_301787.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_301787.pdf)

### **Food Marketing and Advertising to Children**

Research shows that aggressive marketing and advertising of high-calorie, unhealthy foods to children contribute to today's childhood obesity epidemic. Inappropriate consumption of low-nutrient, high-calorie foods contributes to energy imbalance. Consequently, the AHA sees no ethical, political, scientific, or social justification for marketing and advertising low-nutrient, high-calorie foods to children and supports efforts to diminish this practice in the United States. The AHA believes that industry should strengthen its voluntary standards for food marketing and advertising to children and would support other measures that restrict food advertising and marketing to children including, but not limited to Federal Trade Commission oversight, allowing only healthy foods to be marketed and advertised to children, discouraging product placement of food brands in multiple media technologies, eliminating the use of toys as a marketing tool for unhealthy kids' meals by restaurants, using licensed characters on only healthy foods, and not allowing unhealthy food and beverage advertising and marketing in schools or on educational materials. The intended effect of advocating for these positions is 2-fold: to improve children's dietary behaviors by reducing the consumption of low-nutrient, high-calorie foods while promoting consumption of healthy food choices.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_306133.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_306133.pdf)

### **Reducing Sodium in the Food Supply**

The AHA advocates for a stepwise reduction in sodium consumption in the US diet to 1500 mg/d by 2020. The AHA also recommends a concurrent sustained commitment by the food

and restaurant industries to maximize the use of technology and reduce the amount of salt added to the food supply. The AHA will collaborate with the FDA, the U.S. Department of Agriculture, the CDC, the National Forum for Heart Disease and Stroke Prevention, the New York City Department of Health and Mental Hygiene, and other organizations to achieve lower sodium levels in the food supply, address food labeling, develop consumer education campaigns, and promote a progressive sodium reduction strategy to lower the daily consumption of sodium by 2020.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_304869.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_304869.pdf)

### **Top 10 Things to Know: Sodium, Blood Pressure, and Cardiovascular Disease: Further Evidence Supporting the American Heart Association Sodium Reduction Recommendations**

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### **Eliminating Industrially Produced Trans Fats in the Food Supply**

The AHA believes that eliminating *trans* fats from the food supply through public policy approaches is an important strategy for improving cardiovascular health.<sup>1</sup> Policies include robust nutrition standards in schools, menu labeling in restaurants, bans on use of *trans* fats in restaurants, robust standards for foods marketed and advertised to children, and strong procurement policies for foods purchased in government buildings and workplaces.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_301697.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_301697.pdf)

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## Sugar-Sweetened Beverage Taxes

The AHA supports a multipronged approach to address the nation's obesity epidemic, which includes creating policies that improve access and affordability of healthy foods to all people. The AHA also considers the concept of pricing less healthy foods and beverages higher to discourage consumption as a possible policy alternative to bring food and beverage pricing in line with the AHA's Diet and Lifestyle Recommendations and federal dietary guidelines where possible. However, the AHA believes additional research is necessary to determine the impact of these types of sales taxes or excise taxes on consumption rates and shifts in consumer choice with special consideration for disparate populations. The AHA supports initiatives in certain states to pilot this policy strategy with comprehensive surveillance to discern real-world impact on consumption trends and dietary behavior. The AHA believes there should be careful consideration of unforeseen, unintended consequences and prioritizes evaluation as the most important component to determine the impact on consumer behavior.

### Criteria for AHA Support of a Beverage Tax Initiative

To determine if the AHA might support a sugar-sweetened beverage tax proposal to assess/evaluate efficacy, the following criteria were developed as a baseline for support:

- The tax is structured to result in an increase in price for sugar-sweetened beverages (eg, a tax imposed at the time of sale as opposed to a tax imposed on the manufacturer, which can spread the cost of the tax among all products produced by the manufacturer).
- The amount of tax is anticipated to be sufficient to result in a reduction in consumption of sugar-sweetened beverages (at least 1 cent per ounce).
- Money is dedicated for evaluation with guidance that ensures rigorous evaluation, including health outcomes.
- There is a standard definition of "sugar-sweetened beverage."
- The tax does not expire after a specified time.
- At least a portion of the money is dedicated for prevention of heart disease and stroke and/or prevention of obesity.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_304547.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_304547.pdf)

## Menu Labeling

The AHA supports providing information about calories on restaurant menus and menu boards at the point of purchase. Although the ultimate goal is to provide this information in all restaurants, initially it should be required in restaurants with standardized menus and recipes that do not vary markedly from day to day. In tandem with this recommendation, the AHA supports the development and implementation of a consumer education campaign to help people "know their energy needs" for recommended daily calorie intake and food and beverage serving sizes.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_301652.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_301652.pdf)

## Procurement Standards for the Purchase of Foods and Beverages by Governments and Employers

The AHA advocates for robust nutrition standards for foods and beverages purchased for use in the workplace and in government buildings.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_320781.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_320781.pdf)

## Healthy Food Financing Initiatives

Ensuring access to healthy foods in all communities across the United States is a priority for the AHA. Several policy strategies attempt to accomplish this important goal, including healthy food financing. The AHA supports healthy food financing initiatives at the local, state, and federal levels, especially those that integrate in-store and out-of-store marketing strategies to increase the availability and affordability of healthy foods once stores are built or renovated to help shoppers choose healthy foods. Members of the community should be involved in creating these marketing strategies. Plans for sustainability should be in place because healthy food financing initiative projects are typically 1-time grants or loans. Evaluation should be incorporated into these initiatives to assess not only the economic impact and community revitalization but also the health impact and consumer purchasing behavior in communities, especially for disparate populations.

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## Front-of-Package and Retail Shelf Icons

Consumers, manufacturers, third-party organizations such as the AHA, and retailers realize the benefit of informing purchasers how to make healthy purchasing choices by providing symbols and other messaging on food packaging or retail shelves. Consequently, health-related icons have proliferated in the marketplace leading to significant consumer confusion. The AHA ultimately favors the establishment by the FDA of a directed, standardized, comprehensive front-of-package food labeling program and icon system with unified criteria based on the best available science and consumer research, featuring consumer education as a primary goal, along with healthier food selection and consumption. In the meantime, systems currently in the marketplace and additional research will determine which type of guidance works best for educating the consumer and facilitating healthier food choices.

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# Obesity

## Comprehensive Worksite Wellness Programs

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With >130 million Americans employed across the United States, workplaces provide a large audience for CVD and stroke prevention activities. Experience has shown that workplace wellness programs are an important strategy to prevent the major shared risk factors for CVD and stroke, including cigarette smoking, obesity, hypertension, dyslipidemia, physical inactivity, and diabetes. An estimated 25% to 30% of companies' medical costs per year are spent on employees with the major risk factors listed above.<sup>1</sup> Employees and their families share the financial burden through higher contributions to insurance, higher copayments and deductibles, reduction or elimination of coverage, and trade-offs of insurance benefits against wage or salary increases. When wellness programs are successful, their influence extends beyond individual workers to their immediate family members, who are often exposed to their favorable lifestyle changes. Worksite wellness programs that can reduce these risk factors can ultimately decrease the physical and economic burden of chronic diseases, including CVD, stroke, and certain cancers. The societal benefits of a healthy employed population extend well beyond the workplace. The AHA supports efforts to achieve comprehensive worksite wellness programs to address CVD and stroke prevention.

<http://circ.ahajournals.org/content/120/17/1725>

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## Use of Financial Incentives Within Worksite Wellness Programs

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As healthcare costs continue to skyrocket, employers are considering innovative strategies to reduce their expenses. Many employers are offering comprehensive worksite wellness programs that produce a return on investment and improve employee health and productivity. The AHA is a long-time supporter of these programs and wholeheartedly endorses their implementation, which creates a culture of health in an environment where a majority of adults spend a large part of their day. Another approach some employers are using to reduce costs is to charge selected employees more for their health insurance premiums or raise deductibles if they are overweight, smoke, or do not achieve other healthy behaviors. The 2010 Patient Protection and Affordable Care Act (ACA) codifies existing statutes that allow employers to charge employees a differential insurance premium based on meeting certain health status factors or behavior metrics. The premise behind the new law is that the financial incentive/disincentive will motivate employees to take personal responsibility for their own health and improve their behaviors and health status over the short and long term. However, this underlying premise is not well supported by evidence-based research. Moreover, the unintended ramifications of this policy could be decreased access to health care, preventive services, and disease management. The AHA supports additional research to monitor the outcomes of an incentive-based approach tied

to healthcare premiums for behavior outcomes on the quality of worksite wellness programming, employee health, and access to health care. The AHA also worked closely with the Health Enhancement Research Organization, the American Cancer Society, the American Cancer Society Cancer Action Network, the American Diabetes Association, and the American College of Occupational and Environmental Medicine to develop guidance for employers who want to implement incentive-based designs within their worksite wellness programs.

[http://journals.lww.com/joem/Fulltext/2012/07000/Guidance\\_for\\_a\\_Reasonably\\_Designed\\_.20.aspx](http://journals.lww.com/joem/Fulltext/2012/07000/Guidance_for_a_Reasonably_Designed_.20.aspx)

## Prevention, Diagnosis, and Treatment of Child and Adolescent Obesity in the Healthcare Environment

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The AHA acknowledges that addressing overweight and obesity in children and adolescents in health care is a critical part of reversing the bulging waistlines and concomitant incidence of chronic disease across the United States. An American Medical Association Expert Committee released recommendations on the assessment, prevention, and treatment of child and adolescent overweight and obesity ([http://www.ama-assn.org/ama1/pub/upload/mm/433/pecd\\_obesity\\_recs.pdf](http://www.ama-assn.org/ama1/pub/upload/mm/433/pecd_obesity_recs.pdf)). The AHA endorses these recommendations. The evidence base concerning appropriate treatment and prevention options is still evolving; however, these recommendations represent the best available science, most effective practice, and soundest methods moving forward. The AHA policy statement ([http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_301721.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_301721.pdf)) not only summarizes these recommendations but also defines the corresponding policy changes that must occur for the recommendations to be fully realized in a healthcare setting. Providers play a key role in the fight against childhood obesity and need to be given the support and training necessary to be effective in the clinical environment and as advocates in their communities.

### Top 10 Things to Know: Change Agents for Obese Children

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### Top 10 Things to Know: Approaches to the Prevention and Management of Childhood Obesity: The Role of Social Networks and the Use of Social Media and Related Electronic Technologies

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## Body Mass Index (BMI) Screening and Surveillance in Schools

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The obesity epidemic in children is an enormous societal problem with far-reaching consequences. The AHA places a high priority on addressing the nation's childhood obesity epidemic and supports a more comprehensive surveillance system in the United States to support the goals of eliminating the epidemic burden of heart disease and stroke.<sup>1</sup> Within this context, BMI surveillance in schools — where heights and weights are measured annually and data are collected longitudinally and there is public reporting of the aggregate data — may serve to expand the understanding of childhood obesity trends and help determine the efficacy of obesity prevention programs and support program planning. The results will provide

important population-based assessment and prevalence data. The programs should be adequately funded, because states and schools incur a cost to conduct them. The AHA also supports these assessments annually in the healthcare environment to improve diagnosis and treatment of childhood obesity.

BMI screening programs in schools used for individual health assessment, where results are reported to parents, raise a number of concerns around measurement techniques, adequate training for those conducting the assessment, privacy protection, effective parental notification, and the importance of linking families and physicians to resources in the community that address prevention and treatment.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_301789.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_301789.pdf)

### **Top 10 Things to Know: Mortality, Health Outcomes, and Body Mass Index (BMI) in the Overweight Range**

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### **Obesity Prevention and Health Promotion in Child Care Settings**

The AHA advocates for strong health promotion and obesity prevention programs in early childhood programs. Reaching young children and their families in child care settings is an important strategy for the primary prevention of CVD and associated risk factors through children's dietary intake, physical activity, and energy balance, thus combating the childhood obesity epidemic. Children spend many waking hours in these programs, and they should be safe, healthy, and smoke-free environments.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_304549.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_304549.pdf)

### **Chemicals in the Environment and the Impact on Obesity**

The AHA recognizes that the causes of obesity are multifactorial and complex and therefore must be addressed on multiple levels. Recently, endocrine-disrupting chemicals such as diethylstilbestrol, bisphenol A, phthalates and organotins have been proposed as potential "obesogens" that contribute to a toxic chemical burden that may initiate or exacerbate the development of obesity and its related comorbidities. Endocrine-disrupting chemicals are found in a variety of products, including plastics, cosmetics, shampoos, soaps, lubricants, pesticides, paints, and flame-retardant materials. Laboratory studies are still determining the exact mechanisms by which these substances affect weight, but current evidence suggests that they disrupt developmental and homeostatic controls over fat production and energy balance. However, determining the link with obesity can be especially challenging because obese people might be eating more and therefore exposing themselves to more of the chemicals in food packaging. Teasing out causality can be challenging. Although limited research exists on the effect

of these environmental chemicals on human populations, several epidemiological studies have found that chemical exposure, particularly during critical developmental periods, is positively correlated with increased weight, CVD, and diabetes. Additional research is needed to clarify these results and establish a causal link between exposure to endocrine-disrupting chemicals and adverse health effects in humans, as well as to discern the physiological, cellular, and metabolic impact of exposure. The AHA recommends further research before taking a proactive advocacy position.

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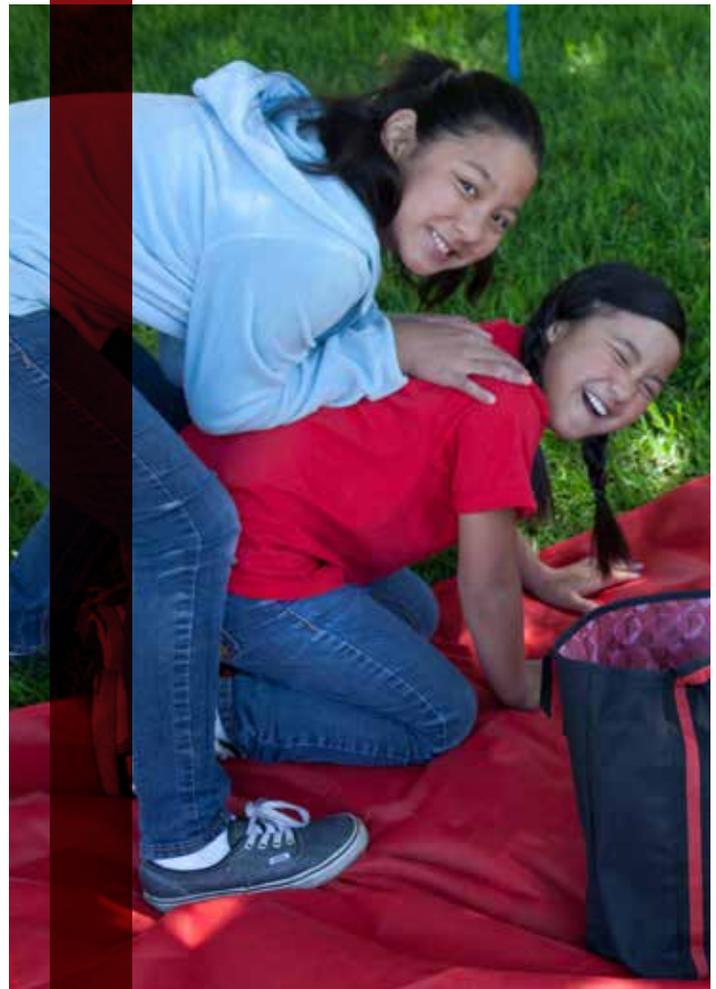
### **Air Pollution**

The AHA maintains that exposure to particulate matter air pollution is a modifiable risk factor that contributes to cardiovascular morbidity and mortality. Long-term exposures can increase risk, and a reduction in air pollution can lower risk of developing CVD. For this reason, the AHA monitors and supports legislation or regulation that will decrease air pollution and supports Environmental Protection Agency standards for reducing exposure to fine particulate matter in all communities.

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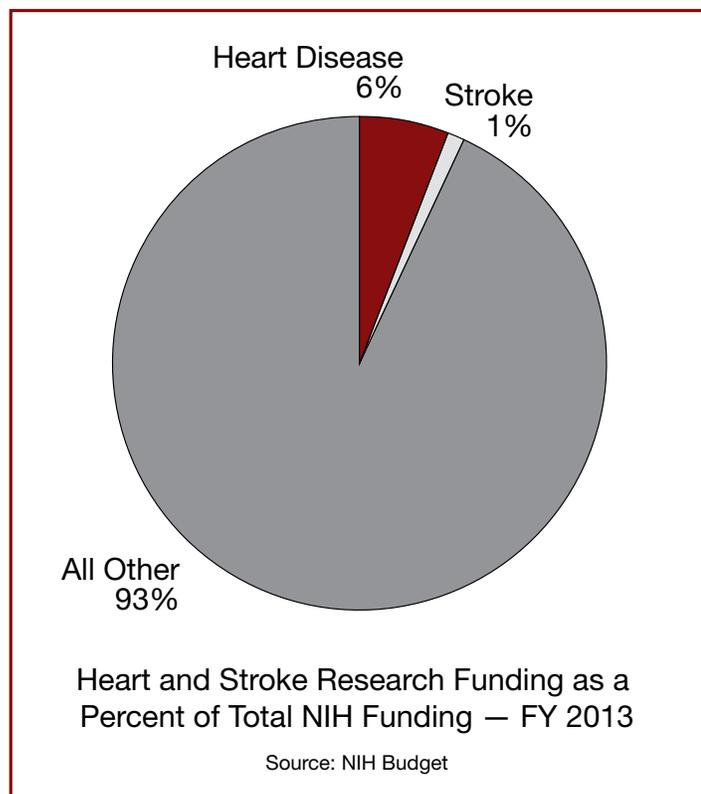
### **Top 10 Things to Know: Air Pollution and Cardiovascular Disease (CVD)**

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## Research

### National Institutes of Health



An estimated 83 million U.S. adults suffer from CVDs. These life-threatening conditions include coronary heart disease, heart failure, stroke, and high blood pressure. In 2008, CVD was the cause of nearly 33% of all U.S. deaths and an underlying or contributing cause of about 55% of deaths. However, due in large part to National Institutes of Health (NIH)–funded research, death rates from heart disease and stroke have dropped by 60% and 70%, respectively, since 1940. Despite the significant return on investment, the NIH invested a disproportionate and meager 6% of its fiscal year 2013 budget on heart research and a mere 1% on stroke research (see chart). This funding level is not commensurate with scientific opportunities, the number of people afflicted with CVD, and the Each year, the AHA joins the medical research community and the physical and economic toll exacted on our nation.

In advocating for an adequate appropriation for the NIH to capitalize on the investment to improve Americans' health, spur economic growth and innovation, and advance science. The AHA also advocates for funding increases for NIH heart and stroke research and works to protect the NIH from cuts in funding.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_304822.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_304822.pdf)

#### Top 10 Things to Know:

##### About Heart Disease and Stroke Statistics

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### CDC Heart Disease and Stroke Prevention Programs

Each year, the CDC spends on average only 16 cents per person in the United States on heart disease and stroke prevention. The CDC Division for Heart Disease and Stroke Prevention awards grants to states and conducts surveillance to improve cardiovascular health for all. However, some states receive no money. State heart disease and stroke prevention programs focus on controlling blood pressure and cholesterol, knowing heart disease and stroke signs and symptoms, calling 911, improving emergency response and quality of care, and eliminating health disparities. The CDC supports the Paul Coverdell National Acute Stroke Registry to measure, track, and improve the quality and delivery of stroke care in 6 states (Georgia, Massachusetts, Michigan, Minnesota, North Carolina, and Ohio). More than 246 hospitals participate in the Paul Coverdell National Acute Stroke Registry. Goals include addressing gaps between practice and guidelines and promoting growth of quality improvement in stroke care in hospitals and emergency medical services (EMS). Since January 2005, the Paul Coverdell National Acute Stroke Registry has collected about 120,000 stroke and transient ischemic attack cases. Data show sustained progress in 7 of 10 stroke quality improvement measures.

In 20 states, the Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) program screens uninsured and underinsured low-income women aged 40 to 65 years for heart disease and stroke risk. They receive counseling, education, referral, and follow-up as appropriate. From 2000 to mid-2008, WISEWOMAN reached >84,000 low-income women, provided >210,000 lifestyle interventions, and identified 7647 new cases of high blood pressure, 7928 new cases of high cholesterol, and 1140 new cases of diabetes. Among those participants who were rescreened 1 year later, average blood pressure and cholesterol levels had decreased considerably.

The AHA advocates for adequate CDC funding for implementation of heart disease and stroke prevention programs in all states, the Paul Coverdell National Acute Stroke Registry, WISEWOMAN, and a broad surveillance system.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_301639.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_301639.pdf)

### Comparative Effectiveness Research

Determining the comparative effectiveness of different treatment modalities provides a potentially useful approach for improving clinical decision making and patient outcomes. There are, however, differing views of the definition, scope, and application of comparative effectiveness research that have led to considerable controversy. As a mission-driven volunteer organization that focuses on optimal cardiovascular health for all Americans and the best interests of patients with CVDs and stroke, the AHA offers the following principles on comparative effectiveness research:

- Conducting and interpreting comparative effectiveness research according to fundamental scientific principles
- Defining value for patients through comparative effectiveness research
- Applying comparative effectiveness research to patient treatment decisions
- Funding and oversight of comparative effectiveness research

The AHA stands committed to seek input, engage in meaningful dialogue, and join in collaboration with other voluntary health organizations to help create a stronger consensus on how comparative effectiveness research can best serve the public interest.

<http://circ.ahajournals.org/content/119/22/2955>

## Genetics and CVD

The ready availability of human genetic data represents a great opportunity to improve human health by personalizing health care and has the potential to entirely transform how we think about the risk for disease. However, recent technological advances also create new moral, ethical, and legal challenges that must be addressed before the positive impact of these advances on human health can be fully realized.

- Although recent legislation protects individuals from discrimination by employers or health insurance providers on the basis of their genetic information, important areas of potential discrimination such as life insurance are not included.
- Legislation should be formulated to provide broader protection. Further patenting of DNA sequences should not be approved where the “invention” involves the observation of functionally unaltered human DNA, because allowing these patents can lead to a monopoly on testing related to these genes, reduce access to testing, and further inhibit scientific discovery.
- All genetic tests, including laboratory-developed genetic tests, should undergo independent review to confirm their analytic and clinical validity. The FDA would be an appropriate body to carry out this review. Detailed information should be made available to healthcare professionals and the public at large.
- Genetic testing should be carried out in a specialist center where genetic counseling is available. Pharmacogenomics can be used to predict drug efficacy and adverse events or to identify optimal doses for individual patients. Genetics and genomics should be a fundamental part of the training curriculum for all health professionals.

It is imperative that there be significant funding for research on the genetics of CVD by the NIH and other funding agencies to promote discovery, improve assessment of variant pathogenicity, refine genotype-phenotype correlations, and gain the necessary insights into disease pathogenesis that will ultimately allow transformation of the clinical management of inherited CVD.

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### Top 10 Things to Know: Genetics and Cardiovascular Disease

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## Access to Quality Health Care

### American Heart Association/American Stroke Association Stroke Association Principles for Palliative Care

The American Heart Association/American Stroke Association aims to help all Americans build healthier lives free of cardiovascular diseases and stroke. These efforts include increasing access to high-quality, evidence-based care that improves patient outcomes and quality of life and is consistent with patients’ values, preferences

and goals. Ensuring awareness of and access to palliative care aligns with the AHA/ASA’s goals.

Palliative care is defined as medical and supportive care for people with serious illness that is routinely integrated into care by all practitioners and focused on providing patients and their families with relief from illness and suffering burden — including symptoms, pain and stress — regardless of diagnosis.<sup>1</sup> The AHA/ASA has developed principles to guide its advocacy in this important area.

The AHA/ASA believes that its engagement in support of palliative care is appropriate and necessary for several reasons. First, many patients suffer from burdensome symptoms that adversely affect function and quality of life.<sup>2,3,4,5,6,7,8,9,10,11</sup> As a result, many patients and families want palliative care, but often do not receive it.<sup>12,13,14</sup> Meanwhile, advance care planning, a component of palliative care, supports the alignment of care with patient preferences, as it offers patients and families the opportunity to understand what to expect in the future, and to express their preferences and expectations for the medical care they wish to receive.<sup>15</sup> Medical literature also supports shared decision making as a best practice<sup>16,17</sup> and has demonstrated that palliative care may improve outcomes.<sup>18,19</sup>

Recognizing the literature showing that palliative care helps meet the priority needs of patients, better aligns patient care with preferences, supports clinical care best practices and contributes to improved quality of care and outcomes for patients and families, the AHA/ASA supports a system of care that:

- Provides patients with access to continuous, coordinated, comprehensive, high-quality palliative care given simultaneously with specialist-level cardiovascular and stroke care.
- Ensures well-prepared, empowered individuals and families.
- Customizes care to reflect patient and family preferences, as well as the unique situation of each individual.
- Develops and supports a skilled, compassionate and responsive healthcare workforce.
- Continually assesses itself and its performance against these principles.

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## Pulse Oximetry Screening in Newborns

Pulse oximetry is a screening tool that, when used with newborns, can identify certain critical congenital heart defects (critical CHDs). The signs of certain critical CHDs might not be apparent before an infant is discharged from the hospital, which can result in significant morbidity and occasional mortality. Routine pulse oximetry screening performed on asymptomatic newborns after 24 hours of life but before hospital discharge may detect such problems. These tests are cost-effective. Routine pulse oximetry performed after 24 hours in hospitals that have on-site pediatric cardiovascular services incur very low costs and risk of harm.

A 2009 statement from the AHA and the American Academy of Pediatrics<sup>1</sup> determined that further research was needed across larger groups and systems before pulse oximetry screening could be recommended as a standard of care. Since then, many studies that support this practice have been published, and on September 23, 2011, the Secretary of the US Department of Health and Human Services adopted the recommendation of the Advisory Committee

on Heritable Disorders in Newborns and Children to add pulse oximetry screening for critical CHDs in newborns to the Uniform Screening Panel.

It is now up to individual states to adopt this recommendation for their panels, determine an appropriate implementation strategy, and set a timeline for implementation. The AHA supports the Secretary's decision requiring that all newborns be screened for critical CHDs with pulse oximetry before they are discharged from the birthing facility. So far several states – California, Indiana, New Hampshire, New Jersey, Tennessee, West Virginia, Connecticut, Virginia, and Maryland – have responded and are implementing or establishing regulation to conduct pulse oximetry screening for newborns. The AHA believes that it is critically important to evaluate screening initiatives as they are implemented. The AHA also advocates for a comprehensive screening model in newborn care with pulse oximetry screening as one important strategy within that model. Pulse oximetry screening is an effective, noninvasive, inexpensive tool to diagnose critical CHDs.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_430441.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_430441.pdf)

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## Healthcare Reform

As a patient-centered organization, the AHA approaches its commitment to healthcare reform from the patient perspective and believes the following 6 principles are integral to providing effective, equitable, and excellent health care for Americans. These principles are access to care, preventive services, quality health care, the elimination of health disparities, biomedical research to improve the prevention and treatment of CVD, and establishment of an adequate and diverse workforce.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_306160.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_306160.pdf)

## Health Equity and CVD

CVDs take a disproportionate toll on many racial and ethnic groups in the United States.<sup>1</sup> Racial and ethnic minority populations also confront more barriers to CVD diagnosis and care, receive lower-quality treatment, and experience worse health outcomes than their white counterparts.<sup>2</sup> Such disparities are linked to a number of complex factors, such as income and education, genetic and physiological factors, access to care, and communication barriers.<sup>2,3</sup>

The AHA/American Stroke Association (ASA) advocates for

- Meaningful, affordable high-quality health coverage for all U.S. residents that is culturally and language appropriate
- The Health Equity and Accountability Act, comprehensive legislation designed to help eradicate health disparities
- Funding at the national and state levels for WISEWOMAN or similar programs that provide free screening and lifestyle intervention services to low-income, uninsured, or underinsured women
- Improved reporting of healthcare data, including new drug and medical device safety and efficacy data, by sex, race, and ethnicity

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## The Uninsured With Heart Disease and Stroke

An estimated 7.3 million Americans with CVDs are uninsured (Analysis of 2006–2010 National Health Interview Survey data conducted by the George Washington University Center for Health Policy Research for the American Heart Association; August 2011), often with dire health consequences. They are far less likely than their insured counterparts to receive appropriate and timely medical care and, as a result, suffer worse medical outcomes, including higher mortality rates.

Of adults (aged 18 to 64 years) who report having heart disease, hypertension, or stroke, approximately 15% are uninsured.<sup>8</sup> There are identifiable characteristics of the typical uninsured CVD patient that reflect social inequities as well.<sup>8</sup>

- Their average age is 44.
- Only 61% of uninsured individuals with CVD report having a usual place of medical care, compared with 95% of their insured counterparts.
- Blacks and Hispanics are more likely to be uninsured than whites.
- The uninsured also report being unable to afford prescription drugs nearly 4 times more often than those who are insured (43% versus 11%).
- Nearly half of the uninsured with CVD cite cost as the reason they lacked coverage; 36% cite a lost job or new employer.
- Between 10% and 22% of adults with congenital heart disease are uninsured, and two thirds have reported difficulty obtaining health insurance or changing jobs to guarantee coverage.<sup>11</sup>

The AHA supports the many patient-centered protections in the ACA that will make insurance more accessible, affordable, and adequate for Americans with heart disease or stroke. The association is working to ensure that these reforms are implemented in a common-sense and beneficial way for patients and will also work to build on these reforms in the coming years to prevent patient protections from being undermined or repealed.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_304486.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_304486.pdf)

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## Medicaid and CVD

Medicaid, the nation's health insurance program for low-income Americans, covers many of the country's poorest and sickest patients and provides a critical financing mechanism for their healthcare services, including those for CVD patients. More than 16 million adults with Medicaid coverage (53%) have a history of CVD.<sup>1</sup> Under the ACA, as of 2014, Medicaid eligibility expanded to cover uninsured persons below 133% of the poverty level (approximately \$11,000 in 2011 dollars). By 2019, Medicaid is expected to cover an additional 16 million individuals.<sup>2</sup>

The Medicaid program is a shared responsibility between the federal government and the states. Although states operate the program, make significant choices about coverage, and determine who is eligible, the federal government establishes program parameters and matches state spending on health and long-term care services.

Currently, the Congressional Budget Office projects that federal Medicaid spending will more than double in the next decade. This dramatic increase in federal support for healthcare services for lower-income Americans is driven by increases in healthcare spending, growing demand for long-term care as the baby-boomer generation ages, and eligibility changes made by the new healthcare reform law, among other factors.

In response to tight budgets, federal and state governments are considering a variety of approaches to reduce the growth of federal and state Medicaid spending and give states more flexibility in how the program operates. The AHA opposes policies that reduce access to or significantly increase the cost of necessary care for persons with CVD. These include policies that cause states to scale back eligibility, cut benefits, or significantly increase cost sharing for Medicaid beneficiaries. Such proposals are at odds with the association's first principle of healthcare reform, which states that "all residents of the United States should have meaningful, affordable healthcare coverage."<sup>3</sup>

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_426261.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_426261.pdf)



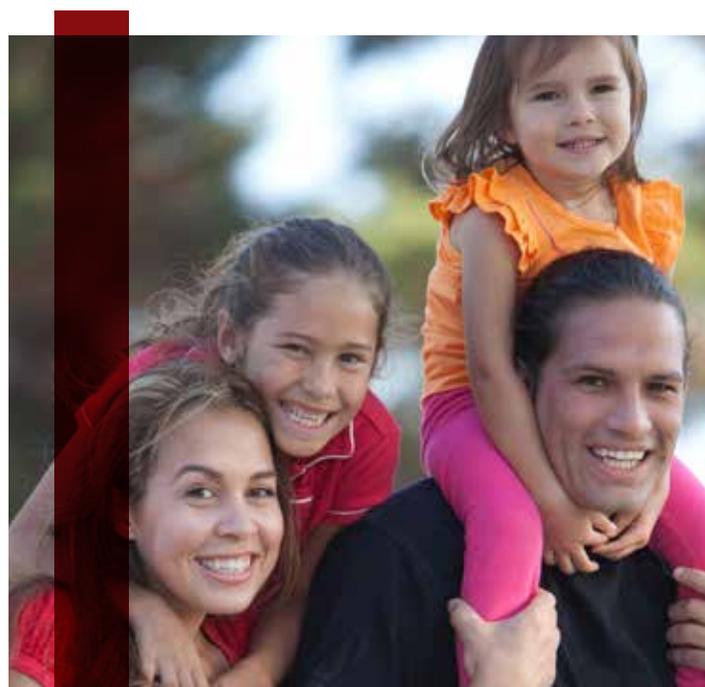
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## Medicaid Preventive Services

The AHA believes that disease prevention is an important way to improve the quality of health of Americans for the long term and to reduce overall costs of care. Several recent studies support the link between minimizing risk factors and reducing chronic disease. Approximately 44% of the decline in U.S. age-adjusted coronary heart disease death rates from 1980 to 2000 can be linked to improvements in risk factors, including reductions in total blood cholesterol, systolic blood pressure, smoking prevalence, and physical inactivity. However, these reductions were partially offset by increases in prevalence of obesity and diabetes.<sup>1</sup>

One of the provisions of the ACA emphasizes preventive services for the Medicaid population by giving states an incentive to provide U.S. Preventive Services Task Force Level A and B recommended services to Medicaid enrollees. The Task Force is an independent body supported by U.S. Department of Health and Human Services staff. The U.S. Preventive Services Task Force assigns 1 of 5 letter grades to each of its recommendations. Level A and B recommendations are those supported by the greatest amount of quality scientific evidence with significant certainty that the net benefit to patients is moderate or substantial. Although the full list is wide-ranging, examples of services for CVD and stroke include blood pressure monitoring, cholesterol testing and drug therapy, behavioral counseling for a healthy diet, obesity screening, and tobacco cessation programs.



Beginning in January 1, 2013, states that provide these prevention services without cost sharing are eligible for a 1% increase in the Federal Medical Assistance percentage for the services that they offer.<sup>2</sup>

The AHA supports coverage of preventive benefits in private and public health insurance plans. The AHA encourages states to cover CVD-related U.S. Preventive Services Task Force A and B benefits under Medicaid without cost sharing to achieve the 1% federal payment increase.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_322234.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_322234.pdf)

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# Stroke

## Interactions within Stroke Systems of Care: Policy Recommendations from the American Heart Association/ American Stroke Association

Higashida R, Alberts MJ, Alexander DN, Crocco TJ, Demaerschalk BM, Derdeyn CP, Goldstein LB, Jauch EC, Mayer SA, Meltzer NM, Peterson ED, Rosenwasser RH, Saver JL, Schwamm L, Summers D, Wechsler L, Wood JP; on behalf of the American Heart Association Advocacy Coordinating Committee. Interactions within stroke systems of care: a policy statement from the American Heart Association/ American Stroke Association. *Stroke*. 2013: published online before print August 29, 2013, 10.1161/STR.0b013e3182a6d2b2

### A Summary Policy Brief

#### Background

As the No. 4 cause of death in the United States, stroke and its care have a profound impact on public health. Across the United States and in other parts of the world, cities, states and regions are developing multi-tiered systems for the care of patients with acute stroke. They often involve a range of healthcare components supported by various rules and regulations.

Several new care paradigms and technologies are emerging as important elements of a stroke system of care. They include:

- the development and proliferation of various levels of stroke centers;
- the expanded use of telemedicine technologies;
- advanced medical, endovascular and surgical interventions; and
- comprehensive rehabilitation strategies and programs.

Pre-hospital care and triage, as well as the efficient transfer of patients between hospitals, are also key components of stroke systems.

This paper by Higashida et. all builds on the original 2005 Stroke Systems Task Force white paper and puts forth concepts and elements for stroke systems of care that are intended to optimize patient care and management processes and improve patient outcomes. They are practical to implement and are supported by existing clinical data and/or expert consensus opinion. The paper also makes policy recommendations for the key elements of a stroke system of care.

## Recommendations

1. Public health leaders along with medical professionals and others should assign and implement public education programs focused on stroke systems and the need to seek emergency care in a rapid manner. These programs should be repetitive and should be assigned to reach diverse populations.
  - 1a. EMS leaders in coordination with local, regional and state agencies (and in consultation with medical authorities and local experts) should develop triage paradigms and protocols that ensure that all patients with a known or suspected stroke are rapidly identified and assessed using a validated and standardized instrument for stroke screening. Examples include the FAST (Face, Arm, Speech Test) scale, LAPSS (Los Angeles Pre-Hospital Stroke Screen) or the Cincinnati Pre-Hospital Stroke Scale (CPSS).
2. Unless there are compelling mitigating circumstances, in cases where there are several acceptable hospitals in a well-defined geographic region, extra transportation times to reach another facility should be limited to no more than 15–20 minutes. In cases where several hospitals exist, EMS should seek care at the facility capable of offering the highest level of stroke care.
  - 2a. Protocols using pre-hospital EMS notification that a stroke patient is en-route should be used routinely.
3. Healthcare authorities, medical leaders and government agencies should support the formation, operations and certification of stroke centers as one proven means to improve patient care outcomes. The stroke centers should publicly report their performances and outcomes.
4. Different services within a hospital that may be transferring patients through a continuum of care, as well as different hospitals that may be transferring to other facilities, should establish hand-off and transfer protocols and procedures that ensure safe and efficient patient care within and between facilities.
  - 4a. Protocols for inter-hospital transfer of patients should be established and approved beforehand so that efficient patient transfers can be accomplished at all hours of the day and night
5. All hospitals care for stroke patients within a stroke system of care should develop, adopt and adhere to care protocols that reflect current care guidelines as established by national and international professional organizations and state and federal agencies and laws.
6. Due to the limited distribution and availability of neurologic, neurosurgical and radiologic expertise, the use of telemedicine/telestroke resources and systems should be supported by healthcare institutions, governments, payors and vendors as one method to ensure adequate 24/7 coverage and care of stroke patients in a variety of settings.
7. Cities, counties and regions are urged to develop an organizational infrastructure and decisionmaking body to assist in addressing care issues, decisionmaking, implementation and problem solving. This is typically in the form of a “Stroke Committee” defined by a region or other overarching body.
  - 7a. All of the elements of a stroke system of care will operate in a highly complex and multidisciplinary environment with many elements and stakeholders, each with their own rules and recommendations. In terms of the many controlling authorities, it is paramount that the best interest of the patient be the primary concern and driving factor when rules and regulations are made and implemented.

8. Government agencies and third-party payors are urged to develop and implement reimbursement schedules for patients with acute stroke that reflect the demanding care and expertise that such patients require to achieve an optimal outcome, regardless of whether they receive a specific medication or procedure.
9. Each major element of a stroke system of care, as well as the entire system as defined by local regional factors, should develop and implement at least two meaningful quality improvement projects that will result in improved patient care and/or outcomes.
  - 9a. Stroke outcome measures must include adjustments for baseline severity.
10. A stroke system of care should ensure that all patients have access to post-stroke care (i.e., discharge planning services, rehabilitation, nursing facilities, medical follow-up) regardless of their financial status or socio-economic background. Such availability will ensure that each patient has the opportunity to achieve a maximum recovery from their stroke, which will ultimately reduce its societal and economic impact.

## Stroke in the United States

Stroke is the No. 4 killer in the United States and the leading cause of long-term disability. As baby boomers age, the problem of stroke among older adults is expected to worsen. With increased rates of stroke, the associated costs of care are projected to increase 25% by 2030.<sup>1</sup> A number of factors can increase the risk of stroke. Although there have been improvements in identifying risk factors and treatments, the ASA, a division of the AHA, urges policymakers to support the following policy recommendations for improving the quality of care that stroke patients receive:

- Support the development and implementation of stroke systems of care, including the use of telemedicine
  - Increase the NIH investment in stroke research, which currently constitutes only 1% of the NIH budget
  - Improve access to needed stroke care, including rehabilitation
- [http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_305054.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_305054.pdf)

### Top 10 Things to Know: About Heart Disease and Stroke Statistics

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### Top 10 Things to Know: Million Hearts Initiative for Stroke

[my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm\\_436056.pdf](http://my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm_436056.pdf)

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## Stroke in Infants, Children, and Youth

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Although stroke is often viewed as an illness that mainly afflicts the elderly, it can also affect the young. The risk is greatest in the first year of life, but young adults can also experience a stroke. The common risk factors and symptoms of stroke in the young differ from those in adults, and, as a result, delayed care or misdiagnosis remains common.<sup>1</sup> As a result, the AHA/ASA guidelines for managing stroke in children focus on the prompt recognition and diagnosis of stroke, as well as implementation of steps to reduce the likelihood of a subsequent stroke.

The AHA/ASA advocates for public policies that allow children and young adults with stroke to live fuller, longer lives, including

- More public resources devoted to researching the causes and treatment of pediatric stroke
- Support for the CDC Birth Defects Centers to advance our knowledge of the risk factors of pediatric stroke
- Support for activities to increase awareness among parents, families, caregivers, and healthcare providers about pediatric stroke
- Monitoring of the implementation of healthcare reform to ensure access to adequate, affordable insurance coverage, including coverage for age-appropriate rehabilitative and habilitative services

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_302255.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_302255.pdf)

### Top 10 Things to Know: Management of Stroke in Infants and Children

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## Primary Stroke Centers

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The lack of adequate acute stroke care capabilities in many hospitals endangers the lives of the thousands of Americans who suffer strokes each year. One approach to improving the stroke care infrastructure is the establishment of “stroke centers,” ie, hospitals that have the expertise and infrastructure to deliver high-quality stroke care.<sup>1</sup> There are 2 types of stroke centers: primary and comprehensive. Primary stroke centers (PSCs) have the ability to stabilize and provide emergency care for patients with acute stroke, whereas comprehensive stroke centers can provide more specialized care for patients with complex strokes. PSCs deliver high-quality care and support stroke systems of care. These qualities allow for the quick and effective triage of stroke patients so that they receive the most timely and appropriate care.

To receive accreditation as a PSC, a hospital must meet certain requirements. Although many states and other entities have developed their own designation process, the AHA/ASA and the Joint Commission have the largest and most well-known accreditation process. This combines the scientific knowledge of the AHA/ASA with the healthcare facility evaluation experience of The Joint Commission. The AHA supports the development and accreditation of PSCs to improve the quality of acute stroke care, support stroke systems of care, and improve access to lifesaving stroke care. Specifically, the AHA encourages states to

- Formally recognize PSC accreditation through legislation or regulation

- Develop comprehensive and coordinated stroke systems of care that recognize PSCs as being a cornerstone to effective systems development

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_438862.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_438862.pdf)

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## Telemedicine Within Stroke Systems of Care

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In areas underserved for acute stroke care (ie, where resources are insufficient to provide around-the-clock coverage for a healthcare facility or where travel time and distance to an approved PSC could impede care), telestroke systems should be used to supplement resources.

In underserved areas, telemedicine technology provides specialists with the data necessary to assist clinicians at the bedside in stroke-related decision making for patients.

Barriers to effective telestroke implementation include licensure and liability laws, technology assessment and deployment, community outreach/education, ensuring confidentiality of information shared, and processes of requesting and delivering telemedicine consultations.

The AHA/ASA policy recommendations for implementation of telemedicine within stroke systems of care seek to improve the outcomes of stroke patients, reduce barriers to both patients and healthcare providers, and improve healthcare delivery.

<http://stroke.ahajournals.org/content/40/7/2635.full.pdf+html>

### Top 10 Things to Know: Recommendations for Implementation of Telemedicine Within Stroke Systems of Care

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## Clinical Registries

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Clinical registries are databases of health information on specific clinical conditions, procedures, or populations. They capture clinically important events relevant to a particular population or condition and can be integrated with electronic health records to directly support the evaluation of care delivery and patient outcomes. Registries can broaden knowledge of clinical service patterns, processes, and patient outcomes and can capture valuable, real-time patient data that are not present in an administrative record, which typically only contains claims data or billing information. These can be used in a variety of ways: to monitor certain populations, evaluate trends in the use of certain procedures and the prevalence of certain conditions, or to measure and thereby improve quality of care or safety of protocols/guidelines and certain drugs, therapies, or devices. The AHA supports the use of registries to improve quality of care and help identify risk factors to reduce chronic diseases. Specifically, the AHA

- Urges policy makers to create federal, state, and local CVD and stroke registries to monitor incidence and support the development of relevant quality-improvement initiatives
- Encourages policy makers to use patient-centered, evidence-based, broadly adopted registries like Get With The Guidelines to meet many of the quality-improvement and reporting requirements enacted in healthcare reform

- Encourages state officials to establish stroke registries to support high-quality stroke systems of care and mandate reporting  
[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_432451.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_432451.pdf)  
[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_438049.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_438049.pdf)

## Cardiovascular Care

### Systems of Care for Acute Cardiovascular Conditions

Response time during a cardiovascular event is critical, and in certain cases, it can mean the difference between life and death. Because following certain care processes has proven to improve patient outcomes and can also be cost-effective, the AHA/ASA advocates for resources in states and regions to help facilitate the development of coordinated systems of care for acute cardiovascular conditions, such as stroke, heart attack, and sudden cardiac arrest (SCA).

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_304794.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_304794.pdf)

### Top 10 Things to Know: Cardiovascular Disease

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### Rural and Community Access to Emergency Devices: Sudden Cardiac Arrest

In the United States, each year ≈382,800 EMS-treated SCAs occur outside of a hospital setting. On average, just 11% of victims survive.<sup>1</sup> Their survival chances can more than double with immediate cardiopulmonary resuscitation (CPR) or early defibrillation with an automated external defibrillator (AED). For each minute that passes without these, the victim's chances of survival drop dramatically. Training in these skills, particularly in rural communities, can make a significant difference for a victim.

A recent study sponsored in part by the NIH and the AHA shows that most SCAs that occur in public places are “shockable” arrhythmias (those that respond to a shock from an AED), making AEDs in public places highly valuable.<sup>2</sup>

The AHA advocates for increased funding to the Rural and Community Access to Emergency Devices Program, which awards grants to communities to purchase AEDs and funds training for lay rescuers and first responders in their use.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_301646.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_301646.pdf)

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## Congenital Heart Defects in Children, Youth, and Adults

CVD is often viewed as a problem for adults; however CHDs are the most common birth defect in the United States and are the leading killer of infants with birth defects. Despite their prevalence, thanks to advances in detection, research, and technology, more children with CHD are surviving into adulthood. Most CHD patients will require follow-up care during their lives, and, in some cases, subsequent surgeries. The AHA advocates for policies that will help survivors of congenital heart defects as they grow into adults, including

- More public resources devoted to researching the causes and treatment of CHD throughout the lifespan, along with specialized programs of care needed for children and adults with CHD.
- Support for the CDC Birth Defects Centers to advance our knowledge of the preventable causes of CHD
- Support for activities across the lifespan, including research in transition of care; increasing awareness among parents, families, and healthcare providers about CHDs; and improving understanding of healthcare utilization, costs, and needs for the growing adult population<sup>1</sup>
- Improved access to preconception and prenatal care for women of reproductive age to reduce modifiable risk factors for CHDs
- Effective screening for congenital heart defects in newborns before they are discharged from a hospital/birthing center  
[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_304875.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_304875.pdf)

### Top 10 Things to Know: Neurodevelopmental Outcomes in Children With Congenital Heart Disease: Evaluation and Management

[my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm\\_442159.pdf](http://my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm_442159.pdf)

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### Reducing Barriers to Implementation of Bystander CPR

A victim's chances of surviving an SCA improve when the 4 main actions in the AHA Chain of Survival are followed:

1. Early recognition of the emergency and activation of EMS
2. Early bystander CPR
3. Early delivery of shock(s) from a defibrillator if indicated
4. Early advanced life support and postresuscitation care

Because it can take time for EMS personnel to reach a victim, the actions taken by bystanders in the first few minutes of an SCA are critical. Although the majority of cardiac arrests occur at home, the presence of trained and willing rescuers and the availability of an AED are critical regardless of whether the cardiac arrest occurs in a public place or at home. Despite evidence that bystander-initiated CPR can markedly improve outcomes for a victim of SCA, there is still a low rate of its use. Any hesitation, even by those who are trained, can make a difference between life and long-term disability or even death for a victim. The fear of failure is the most common concern cited by bystanders.<sup>1</sup>



As a result, the AHA recommends several ways to increase rates of bystander CPR performed:

- Broaden CPR/AED training in public places and create telephone dispatcher-assisted CPR training. This is particularly useful because of the large number of cardiac arrests that occur at home.
- Provide reassurance for bystanders. Increase awareness of Good Samaritan legislation.
- Encourage the use of hands-only (compression-only) CPR for the untrained rescuer. It is easier to perform and can be readily guided by telephone dispatchers.

<http://circ.ahajournals.org/content/117/5/704>

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## Drug Formularies

A drug formulary is a compilation of drugs or drug products approved by a healthcare facility, healthcare system, payer, or third party for its safety and effectiveness. The approving group must be familiar with FDA terminology, the generics approval process, and the current regulatory issues surrounding bioequivalence or biosimilars. The AHA addresses several issues, including therapeutic substitution, therapeutic interchange, and generic substitution to preserve medication access for CVD and stroke patients and their well-being.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_435977.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_435977.pdf)

## Coronary Arterial Calcification and Carotid Intima-Media Thickness Screenings Among Asymptomatic Adults

To reduce the high morbidity and heavy financial burden of coronary heart disease 4 states have recently proposed or passed legislation mandating that health insurers offer coverage of certain imaging tests to screen asymptomatic adults for risk of CHD. These include scans to determine the amount of coronary artery calcification and ultrasound screenings to assess the thickness of

arterial walls by measuring carotid intima-media thickness, both of which are markers for CHD risk. The AHA thinks it is important to identify persons at risk for developing CHD, particularly those at intermediate risk; however, there is currently not enough evidence to support the clinical usefulness of the widespread screening of asymptomatic adults. Until stronger and more granular evidence is established for the efficacy of coronary artery calcification scans and carotid intima-media thickness ultrasound screenings for CHD in the asymptomatic adult population, the AHA does not support state efforts to mandate coverage for these CHD screening methods. Instead, the AHA recommends that individual patients discuss alternative guideline-recommended CHD screening options with their physicians and make decisions that are consistent with the best available information based on the current science.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_437479.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_437479.pdf)

## Percutaneous Coronary Intervention Without Surgical Backup

Percutaneous coronary intervention (PCI), more commonly known as angioplasty, is a procedure that uses a small balloon inserted with a catheter to widen coronary arteries that have been narrowed by cholesterol build-up. Initially, PCI was performed at clinical sites with surgical backup because complication rates and rates of urgent surgery were high; however, as techniques, experience, and technology improved, the need for emergency surgery declined. Currently, rates for emergency cardiac surgery resulting from PCI procedures are 0.2%. PCI is lifesaving in patients with acute ST-segment elevation myocardial infarction and has been shown to improve quality of life when performed electively in appropriate patients. Consequently, many clinical care centers are interested in knowing more about performing PCI without surgical backup. There is presently no nationwide consensus on the practice; allowing or preventing PCI without surgical backup varies from state to state.

The AHA believes certain criteria must be considered if states wish to pursue policy allowing PCI without surgical backup.

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_437472.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_437472.pdf)

# Quality of Care

## Forecasting the Future of Cardiovascular Disease in the United States: An Update

To prepare for future cardiovascular care needs, the American Heart Association developed a methodology to project the prevalence and future costs of care for hypertension, coronary heart disease, heart failure, stroke and all other CVD through 2030 (Heidenreich et al., 2011). In 2012, the indirect and direct cost estimates were further disaggregated by type of service (hospital, physician, home health, nursing home, prescriptions.)

The AHA updated the projections to reflect more recent available data for some key sources. These included:

- 2006-2010 Medical Expenditure Panel Survey
- 1999-2010 National Health and Nutrition Examination Survey
- 2010 Census and projections
- 2012 Annual Social and Economic Supplement, Current Population Survey
- 2012 Congressional Budget Office Long-Term Budget Outlook projections of per capita increases in health care costs
- 2012 “Expectancy Data, The Dollar Value of a Day: 2011 Dollar Valuation”
- 2010 Multiple Cause of Death from CDC WONDER system

The projections assume no change in policy but do reflect changing demographics as well as revised assumptions about per capita health care cost growth. They illustrate what is likely to happen to CVD prevalence and costs if no change to current policy is made and no further action is taken to reduce the disease and economic burden of CVD. They also serve as a useful baseline to gauge the success of current and future CVD policy.

### Highlights

- By 2030, 43.9% of the U.S. population — 122 million people — will have some form of CVD.
  - By 2030, 43% of men and 45% of women will have some form of CVD, and blacks suffer at higher rates than whites and Hispanics.
  - Hypertension, which impacted 38 percent of adult Americans in 2013, is the most common form of cardiovascular disease, but it’s not the fastest growing. Between 2013 and 2030, heart failure and stroke will each increase by about 20% due largely to the aging of the population.
- Between 2013 and 2030, real (2012\$) total direct medical costs of CVD are projected to more than double, from \$415 billion to \$918 billion.
- Real indirect costs (due to lost productivity) for all CVD are estimated to increase from \$189 billion in 2013 to \$290 billion in 2030, an increase of 53%.
- The combined costs are projected to exceed \$1.1 trillion by 2030.
  - Annual CVD costs for persons age 65 to 79 are projected to increase by a whopping 144 percent, from \$215 billion in 2013 to \$524 billion per year in 2030.

These findings indicate CVD prevalence and costs are projected to increase substantially. Effective prevention strategies are needed to limit the growing burden of CVD.

### Key Changes

Total projected costs of CVD in 2030 increased by about 10% since the initial analysis (Heidenreich et al., 2011). Cost projections changed the most for CHD (+40%), HF (-45%), and stroke (+38%). This was driven primarily by a large increase in the “treated prevalence” of CHD and stroke in the Medical Expenditures Panel Survey condition files.

In 2008, MEPS changed the way they coded conditions to

**Table 1. Projections of Crude CVD Prevalence (%), 2010–2030 in the United States**

Year	All CVD*		Hypertension		CHD		HF		Stroke	
	Original	Update	Original	Update	Original	Update	Original	Update	Original	Update
2010	36.9		33.9		8.0		2.8		3.2	
2015	37.8	41.0	34.8	38.8	8.3	6.8	3.0	2.3	3.4	3.0
2020	38.7	42.0	35.7	39.7	8.6	7.1	3.1	2.5	3.6	3.2
2025	39.7	42.9	36.5	40.6	8.9	7.5	3.3	2.7	3.8	3.4
2030	40.5	43.9	37.3	41.4	9.3	7.8	3.5	2.8	4.0	3.6
% Change (2015 to 2030)	7	7	7	7	12	15	17	22	18	20

**Table 2. Projected Direct (Medical) Costs of CVD, 2010–2030 (in Billions 2012\$) in the United States**

Year	All CVD*		Hypertension		CHD		HF		Stroke		Hypertension as Risk Factor†	
	Original	Update	Original	Update	Original	Update	Original	Update	Original	Update	Original	Update
2010	\$278		\$71		\$36		\$25		\$29		\$133	
2015	\$365	\$456	\$93	\$112	\$48	\$102	\$33	\$16	\$39	\$66	\$174	\$180
2020	\$480	\$576	\$121	\$140	\$63	\$129	\$44	\$21	\$52	\$85	\$227	\$225
2025	\$634	\$730	\$158	\$175	\$83	\$165	\$59	\$27	\$71	\$110	\$300	\$284
2030	\$834	\$918	\$204	\$216	\$109	\$209	\$79	\$34	\$97	\$141	\$397	\$357
% Change (2015 to 2030)	128	101	119	93	127	105	139	113	149	114	128	98

include people that have ever been told they have the disease. The estimated per-person costs fell with the addition of these relatively lower treatment intensity cases, but the net effect was to increase the total costs of CHD and stroke. In addition, many more HF patients were now listed as having a CHD/stroke comorbidity, which led us to attribute less of their spending to HF and lowered the HF cost estimates.

A second significant revision, which also offset some of the increases described above, were lower projections of annual real growth in per capita medical costs made by the Congressional Budget Office. The original estimate of 3.6% declined to 2.7% in the update.

The American Heart Association will continue to update these forecasted numbers each year to help inform our policy efforts and underscore the importance of prevention initiatives and improved access to quality affordable health care.

## Women and CVD

Heart disease, stroke, and other CVDs are the No. 1 cause of death in American women, claiming almost 420,000 lives each year, or nearly 1 death every minute. CVD kills more women than the next 3 causes of death combined, including breast cancer and all other forms of cancer.<sup>1</sup> Despite these alarming numbers, women, particularly those who are young, who are minorities, or who are from low socioeconomic backgrounds, are often not aware of the different symptoms of heart disease and stroke in women (compared with men). Nearly two thirds of women who died suddenly from CVD had no previous symptoms.<sup>1</sup> Fortunately, CVD is largely preventable. The AHA seeks to raise awareness on the rates, impact, and symptoms of heart disease and stroke in women through successful campaigns such as Go Red for Women and Por Tu Corazon, which is geared to a Spanish-speaking audience. The AHA also supports expanding the CDC-administered WISEWOMAN program, which provides CVD screening and lifestyle counseling to low-income, uninsured, and underinsured women in particular communities. Because researchers have identified gender differences in response to cardiac medications, some quite serious, the AHA supports improved reporting of healthcare data, including new drug and medical device safety and efficacy data, by sex, race, and ethnicity

[http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm\\_302256.pdf](http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_302256.pdf)

### Top 10 Things to Know: Guidelines for the Primary Prevention of Stroke

[my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/documents/downloadable/ucm\\_424330.pdf](http://my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/documents/downloadable/ucm_424330.pdf)

### Top 10 Things to Know: Prevention of Heart Failure

[my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/documents/downloadable/ucm\\_424041.pdf](http://my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/documents/downloadable/ucm_424041.pdf)

### Top 10 Things to Know: Women and PAD

[my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm\\_436798.pdf](http://my.americanheart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm_436798.pdf)

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## Preparticipation Screening of Young Athletes

Sudden cardiac death is the leading nontraumatic cause of death among young athletes.<sup>1</sup> Although the precise incidence of sudden cardiac death among high school athletes is unknown, estimates range from 1 in 23,000 to 1 in 300,000.<sup>2</sup> Sudden cardiac death can be caused by a variety of CVDs, but is most commonly associated with congenital or acquired malformations, which can be triggered by intense athletic activity.

The AHA recommends prescreening elements that would identify or at least alert professionals to risk factors in certain athletes. Competitive athletic prescreening should consist of a targeted personal history, family history, and physical examination. Those athletes with positive findings should be referred for further evaluation and testing.<sup>3</sup> At this time, the AHA does not recommend the use of tests such as a 12-lead ECG or echocardiogram in mandatory preparticipation screening programs. Instead, these tests should be used as follow-up if an initial screening raises suspicions about the presence of a CVD.<sup>1</sup>

Any expansion of screening programs should be made in response to new science.<sup>4</sup> Policies, programs, training, and continuing education that increase provider knowledge of prescreening guidelines should be implemented.

[http://www.heart.org/idc/groups/ahaecc-public/@wcm/@adv/documents/downloadable/ucm\\_443945.pdf](http://www.heart.org/idc/groups/ahaecc-public/@wcm/@adv/documents/downloadable/ucm_443945.pdf)

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