The cornerstone of a healthy lifestyle is a diet and physical activity pattern that follows the recommendations of several agencies, including the AHA and the government. In January, the 2010 Dietary Guidelines for Americans (DGA) were released, emphasizing the importance of reducing the prevalence of overweight and obesity and diet-related chronic disorders through improved lifestyle habits. The evidence supporting the benefits of these guidelines continues to mount; for example, the prevalence of the metabolic syndrome, and among women insulin resistance, was significantly lower in those in the highest quintile of a DGA adherence score compared to those in the lowest quintile. Other investigators studying women reported that adherence to the DGA and AHA dietary guidelines was associated with lower odds of carotid atherosclerosis and slower progression of atherosclerosis.

Further evidence demonstrated that total and cardiovascular disease mortality was lower among those who were most adherent to a “prudent” diet, and that those who were most adherent to the 2006 AHA Diet and Lifestyle recommendations had significantly smaller waist circumference and lower levels of serum insulin and CRP concentration.

However, despite the collective evidence supporting the reduced risk profile and events among those who follow dietary guidelines, less than 40 percent of the population meets several components of the DGA targets (e.g., consuming two or more fruit servings daily). Because many of the beneficial effects of lifestyle changes accrue over time, long-term adherence is essential; however, while interventions targeting dietary habits initially have high rates of adherence, over time adherence deteriorates and behavior changes are not sustained. The adoption and maintenance of CVD risk-reducing behaviors pose many challenges, but if sustained, even modest changes can reduce CVD morbidity and mortality. The AHA 2020 goals are directing attention to this vital component of cardiovascular health and will provide mechanisms to address this at the population and individual level.

Currently, several evidence-based strategies can enhance adherence to healthy dietary habits, as detailed in an AHA scientific statement on lifestyle interventions for dietary change. Several members of the NPAM Council participated in the writing of this statement, which reflected their collective work in helping individuals improve their lifestyle habits. Similarly, several members of the NPAM leadership have played significant roles in the development of dietary guidelines and policies. Although it may not be possible to list all of them, I would like to recognize a few “giants” in NPAM. Dr. Linda Van Horn served as chair of the 2010 Dietary Guidelines Advisory Committee, whose members included Drs. Larry Appel, Eric Rimm and Tom Pearson. The 2010 DGA policy document is based on this committee’s science report, which was released in 2010. Dr. Van Horn, along with Dr. Rachel Johnson, has been invited to join President Obama’s Council on Fitness, Sports and Nutrition.

Science Board; Dr. Johnson was a participant in Newsweek’s Executive Forum on Childhood Obesity along with former President Bill Clinton and First Lady Michelle Obama. Dr. Appel, who delivered the Conner Lecture at Scientific Sessions 2011, was a panel member of the Institute of Medicine (IOM) report, “Strategies to Reduce Sodium Intake in the U.S.” He is also involved in the AHA Sodium Task Force and the national campaign that the AHA is launching to help reduce sodium and implement the recommendations of the IOM report. Dr. Alice Lichtenstein is serving as vice chair of the IOM Front of Package Nutrition Labeling Committee and also is co-chair, along with Dr. Neil Stone, of the Adult Treatment Panel IV for Detection, Evaluation and Treatment of High Blood Cholesterol in Adults. Dr. Scott Grundy, one of the early leaders of the NPAM Council, served as the chair of ATP III. NPAM notables who are serving on the ATP IV include Drs. Frank Sacks, Ronald Krauss, Robert Eckel and Peter Wilson. While surely I missed many outstanding leaders among the NPAM membership, we encourage you to become involved.

NPAM Council-Sponsored Scholarship to Attend 2011 PAPH Course

The NPAM Council sponsors a $2,000 scholarship to attend the 2011 CDC Physical Activity and Public Health (PAPH), sponsored by the University of South Carolina. The 2011 Physical Activity and Public Health courses will take place Sept. 13-21, 2011, at the Sea Pines Resort in Hilton Head, S.C.

More details: sph.sc.edu/paph.
in the NPAM Council and its numerous activities addressing nutrition, diabetes, obesity, physical activity, metabolism and behavior change as pathways to improve cardiovascular health and reduce risk. You will have opportunities to meet and learn from these exceptional scientists and to join them in contributing to the scientific foundations of promoting cardiovascular health.

References:

Eat Less, Eat Right, Move More
Lawrence J. Appel, MD, MPH

On Sunday, Nov. 14, 2010, I had the tremendous honor and privilege of giving the Conner Lecture at the opening session of our national meeting. This lecture honors Dr. Lewis A. Conner, the first president of the American Heart Association and the first editor of the American Heart Journal. The title of my talk was “Achieving Cardiovascular Health: The Crucial Role and Underappreciated Impact of Improved Diet.” The table lists the key take-home points from this lecture.

I did not take this task lightly. Giving the lecture provided an exceptional opportunity to promote a healthy diet, a central component of the AHA 2020 Impact Goal and of our council’s mission. In the remainder of this column, I provide a brief synopsis. In the United States and worldwide, the burden of preventable cardiovascular disease and stroke remains unacceptable. For example, of the 33.5 million deaths worldwide in 2004, over half (16.3 million) could be attributed to diet. In view of these astonishing facts, the AHA developed its 2020 Impact Goal, of which a core focus was improved diet. Specifically, it recommended, in the context of DASH-style dietary pattern and energy balance:

- At least 4½ cups of fruit and vegetables per day
- At least two servings per week of fish
- At least three servings per day of fiber-rich whole grains
- Less than 1,500 mg of sodium per day
- Less than 450 kcal per week from sugar-sweetened beverages.

While few Americans meet most or all of these recommendations, the potential benefits are incredibly impressive, along with the potential for substantial flexibility. Dietary approaches associated with a reduced risk of CVD include DASH-style dietary patterns, Mediterranean-style dietary patterns, and certain Asian dietary patterns (e.g., a traditional Okinawan dietary pattern).

I also highlighted the importance of reduced sodium intake as a means to lower blood pressure. Basically, as sodium intake is reduced, so is blood pressure. Benefits extend from infants to older persons. The potential benefit of reduced sodium, especially in combination with a DASH-style diet, is truly impressive — approximately 10 mmHg reduction in systolic blood pressure in prehypertensive and hypertensive adults. A reduced sodium intake also lowers the age-related rise in systolic blood pressure.

At a population level, reducing average sodium intake by just 400 mg/day would prevent about 30,000 heart attacks per year, while reducing sodium intake by 1,200 mg/day would prevent nearly 100,000 heart attacks. These benefits are similar to what would be expected from drug therapy for hypertension, smoking cessation or weight reduction.

From my perspective, one of the most exciting yet underappreciated effects of diet is the opportunity to reduce racial disparities in health. African-Americans and non-African-Americans benefit from consuming less sodium and eating the DASH diet, but the blood pressure reductions in African-Americans are significantly greater than corresponding reductions in non-African-Americans. The implications of these findings are incredibly important — we have the scientific basis to reduce racial disparities in health now. It is just a matter of applying research that we have already conducted.
In January, nearly 70 participants from the areas of active video games, game development, technology, public health, behavior change, research, education, nursing, cardiac rehabilitation, physical activity and marketing came together for a conference titled, “The Power of Play: Innovations in Getting Active.”

The goal of this event, supported by Nintendo of America and hosted by the American Heart Association, was to examine the role of active video games and their impact on promoting healthy behaviors. Never before has there been such a coordinated effort between a private marketer of active video games and a voluntary healthcare organization. This was an important first step for the AHA to focus its research agenda in this space and explore opportunities for collaboration.

The conference took place in San Francisco and began with introductions from the AHA’s incoming president, Dr. Gordon Tomaselli, who welcomed participants and highlighted the association’s 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. This was followed by a variety of presentations and a Q&A session led by past NPAM Council chair Dr. Barry Franklin. Barry noted that even small bouts of physical activity have importance and can often make the biggest impact on people who are doing nothing. He underscored the potential of active-play video games as a gateway for moving people to adopt more positive health behaviors and getting people to move more, sit less and avoid physical inactivity.

Barry shared the stage with a mom blogger, who provided examples of how consumers can overcome barriers and incorporate regular physical activity into their lives. She addressed compliance and retention by describing what makes experiences fun and social. Other talks addressed the growth of computer and video games (U.S. computer and video game software sales generated $10.5 billion in 2009); special populations and technology, including the visually impaired; examining game-playing experiences using sensor technology; video games in education; and physical fitness and kids’ performance in school.

The remainder of the conference focused on the science and included panel presentations by three experts in the field of active video games and health. The CVN Council liaison to the new Behavior Change Subcommittee, Dr. Laura Hayman, led one of the science breakout sessions on science gaps and future research directions. Opportunities and challenges were discussed in all groups, including the behavioral aspects of adherence to regular physical activity through technology, the concept of creating a center for active video games research, and collecting active video game usage data via national data sets such as the National Health and Nutrition Examination Survey.

Conference proceedings for the second day of the event will be published online in the AHA journal Circulation this spring.