Finally, the authors acknowledge that there are clear limitations in terms of the impact of clinicians on individual behaviors relative to other factors in the environment. In a 15-30 minute visit, which may occur only once or twice a year, it is difficult for a clinician to overcome the powerful influences affecting behavior such as advertising, the ease of availability of unhealthy foods, and the influence of family and peers on behavior. In addition, access to clinicians is uneven in our society, and thus disparities by income level, race and ethnicity, and other factors exist which limit the ability of the clinicians to influence behaviors at the same level for all patients.

As we seek to design a system that more effectively promotes healthy behavior and preventive activities, it is clear that there must be significant changes in our systems of care. One or more of the authors observe that the burden of preventive activities cannot simply fall on the doctor or dentist, but must involve a team effort of all members of a given practice. Prevention needs to be incorporated in a more holistic way into each clinical office visit, including a more active role by other members of the office team to deliver effective evidence-based messages, answer questions about prevention and health promotion, and reinforce individual efforts to achieve healthier lifestyles. Just as performance improvement is a team activity, incorporating prevention into a practice must be better organized and implemented by the entire health care team to gain maximum effectiveness.

Finally, the authors acknowledge the unique role that doctors and dentists play beyond simply delivering care, and the obligation they have to be engaged beyond clinical practice. The medical, dental, and public health community has been actively engaged for many years in promoting policy changes at the state and federal level, such as advocating for increases in the cigarette tax. Because of the respected role clinicians have in society, they often have a special opportunity to work with legislators and other key policymakers to impact public policy. The role of the primary care clinician is a unique one, and the opportunities these clinicians have to both influence individual behavior and to affect public policy will likely grow in the future as there is an increasing recognition of the need to make prevention a vital part of the efforts to improve health outcomes and to control costs. These three clinicians effectively describe those various roles and make a strong case for the important influence they and their colleagues can have in the future.

The Role of Pediatricians in Prevention
Elizabeth Tilson, MD, MPH

Pediatricians are primed and well-positioned to address prevention in their practices and with their patients. In fact, prevention is already a core part of pediatric practice. Pediatricians regularly address many issues relevant to prevention, including diet and exercise, physical development, learning, mental health, immunizations, dental health, tobacco, alcohol use, substance abuse, sexually transmitted infections, and environmental exposures.

Pediatricians are well-prepared to address preventive issues for several reasons. First, we are trusted. Pediatricians, like physicians in general, are privileged to have the respect of their patients and are considered a trustworthy source for health advice. Parents value and want a relationship with their pediatrician and look to the pediatrician to partner with them in the care of their children. Second, we are trained. Pediatricians receive specialized training in prevention and early detection during residency and ongoing continuing medical education. We also have the pre-existing visit structure. Our well-child planned visit schedule is the perfect opportunity to promote prevention activities. Also, importantly, we have the right audience. Parent and adult caregiver role modeling and actions are some of the strongest influences on children’s health behavior, and these adults accompany children to office visits. During these visits, we have the opportunity to address the adult-child dyad. And finally, we have the right timing. Many health behaviors are established at a young age and many health and behavioral problems are more easily modified with early detection and intervention. By being involved with the care of a child, often from birth, we have ample opportunity to provide guidance and promote the establishment of healthy behaviors or intervene early to prevent problems before they are well-entrenched.

Despite the fact that pediatricians are well-positioned to address prevention, they encounter some barriers when trying to do so. Despite training, there still may be a perceived lack of knowledge or skill to provide preventive services. Third party payors, such as insurance companies, may not reimburse visits solely dedicated to prevention (e.g., a follow-up visit to address obesity detected at a well-child visit). Completion of an immunization series may be deterred by incomplete or inaccessible prior medical records or parental concerns generated by the lay media. Pediatricians may worry that adult caregivers perceive it to be inappropriate for a pediatrician to comment on adults’ behavior, and there are multiple competing demands during the short visit time.

In addition, there may be many linguistic and cultural differences that come into play when dealing with preventive issues. For example, recent immigrants may not trust the safety of tap water and therefore not offer it to their children. Dental caries may develop secondary to the lack of fluoride. There might be cultural differences in the perception of a healthy body image, thus affecting parents’ motivation to address weight concerns in their child. There may be
By being involved with the care of a child, often from birth, [pediatricians] have ample opportunity to provide guidance and promote the establishment of healthy behaviors or intervene early to prevent problems before they are well-entrenched.

cultural differences in food preparation, thus affecting the acceptance of standard American dietary advice. There may be social stigmas surrounding cognitive development and mental health services, thus diminishing parents' willingness to accept these services for their child.

Finally, one of the biggest challenges to prevention is the reality that most of a patient's time is spent outside the influence of the practice. It may be difficult to make office visits so powerful that they can override the negative forces to which the child is exposed the rest of the year. For example, children may be exposed to asthma triggers, toxins, and environments that deter healthy eating and exercise in their homes, schools, and neighborhoods. These factors may be pervasive and persistent and can greatly affect a child's health.

While numerous, many of these barriers may be overcome or at least reduced. Pediatricians, and physicians in general, can pursue more training in promoting prevention, such as training in motivational interviewing techniques that can be applied to many health behaviors. Pediatricians can advocate for policies to allow for reimbursement of counseling and prevention visits, either on their own or through their professional societies. Practices can utilize the North Carolina Immunization Registry to obtain and share immunization history across practice sites. Pediatricians can provide and link parents to trustworthy sources of information about vaccines (e.g., American Academy of Pediatrics website) to balance the messages they may receive in the lay media.

Pediatricians can be reassured that many adults perceive advice on health behavior as appropriate and typically welcome it, especially as it affects their child's health. An especially appropriate setting for this advice is in the context of an adult caregiver who smokes. Exposure to parental smoking can not only have ill effects on children's health, but can also greatly increase the risk of the child becoming a smoker. Studies have shown that the majority of parents who smoke believe that pediatricians should offer them cessation advice and would welcome that advice. Offering this advice could prevent the immediate and long-term consequences of exposure to environmental tobacco smoke.

In trying to handle multiple competing demands during an office visit, pediatricians can prioritize preventive activities, utilize quick clinical tools, engage in system redesign, and embrace a multidisciplinary approach to prevention. Pediatricians can strive to follow evidence-based screening, practices, and protocols and prioritize those activities with a strong evidence base. The United States Preventive Services Task Force is one source of evidence-based recommendations for preventive services. Pediatricians can use their quick screening, assessment, and counseling tools. For example, the Ages and Stages Questionnaire, the PEDS Response Form, the Pediatric Symptom Checklist, and the Edinburgh Postnatal Depression Scale are all quick, validated tools that assess behavior, development, and mental health concerns. In addition, Eat Smart Move More NC has easy to use clinical tools for assessing and counseling about diet and exercise behaviors. Finally, pediatricians, as well as physicians in general, must recognize that they cannot do everything on their own. Embracing a multidisciplinary approach, both within and outside of the practice, can foster success. Physicians can ensure that non-physician staff is working at the top of their licenses and incorporated into prevention activities. Other professional disciplines can be incorporated into the practice setting as well, such as a developmental specialist, a mental health professional, or a dietician. One caveat with a co-located model, however, is that while potentially a benefit from a patient care standpoint, it can be a challenge to make this a financially sustainable business model. In the absence of co-location, physicians can know about their community resources and refer patients to them. Further, physicians can take advantage of case management services that may be available through a patient's insurer (e.g., Carolina Access Medicaid) or the public health system (e.g., Child Service Coordinator).

Physicians can seek to recognize and understand the cultural differences that may exist within their practice population, especially as they may relate to health behaviors and other issues relevant to prevention. One way to do so would be to assess how well a practice meets Federal Standards for Cultural and Linguistic Appropriate Services. The practice could then use these standards as a guide to achieving greater cultural and linguistic competency.
Finally, physicians can promote policy and environmental changes that affect how and where their patients live, learn, and play. Physicians can educate families about and promote healthy home environments and can lend support and advocacy for policy changes in schools and communities that promote health. In addition, physicians can model healthy behaviors and healthy environments by rewarding children with books or stickers rather than lollipops or other sweets, engaging in healthy behaviors themselves, and promoting workplace wellness efforts for their staff.

REFERENCES


I Want to Be a Superior Doctor
J. Carson Rounds, MD

The superior doctor prevents sickness;
The mediocre doctor attends to impending sickness;
The inferior doctor treats actual sickness.

Chinese proverb

Doctors and undertakers
Fear epidemics of good health.

Gerald Barzan

It is a lot harder to keep people well than it is to just get them over a sickness.

DeForest Clinton Jarvis

Benjamin Franklin was actually trying to sell shares in his fire insurance company when he coined the phrase “An ounce of prevention is worth a pound of cure,” but it has become one of the most well-known aphorisms about medicine. We all seem to agree with Ben, but it is hard to look at health in the United States today and say we all follow his advice. The leading causes of death in this country are mostly attributed to our behaviors. We moribly eat fast food, smoke, sit on our ever-enlarging buttocks while we watch TV and surf the web, all while complaining about the cost of drugs and medical care. We have mortgaged our families’ futures to foreign investors to pay for stents, bypass surgery, chemotherapy, gastric bypass surgery, dialysis, statins, and alcohol-related motor vehicle accidents. While we have the second most productive workforce in the world, we don’t have the healthiest.1 How can we start living in a manner that actually honors what we say we believe?

I fear that I have not yet achieved the status of the superior doctor named in the aforementioned Chinese proverb. How can I practice my art in such a way that my patients and my community truly strive to achieve optimum health? Dr. Warren Newton is fond of reminding me that a system gives the results it was designed to give. If you don’t like the results, you have to change the system. I believe the answer lies in transforming my practice while advocating for major changes in how our communities and nation approach health.

Changing my practice needs to start with my own health behaviors. A recent survey of California physicians found 7% were depressed, 53% reported moderate to severe stress, just over 6% screened positive for alcohol abuse, 35% did not participate in regular exercise, 34% slept less than six hours per night, and 21% reported working over 60 hours per week. There was a correlation between working over 65 hours a week and lack of exercise, less than six hours of sleep, and not eating breakfast.4 It is hard to lead others to change a behavior if you aren’t “practicing what you preach.” From my perspective as a practicing family physician, the traditional model of practice and the current health care system are not conducive to encouraging healthy physician behaviors.

There is also room for improvement in medical education. My medical education was state of the art, and I am quite grateful to all my teachers at the East Carolina University School of Medicine (I am too old to have attended the Brody School of Medicine!) and the Charlotte AHEC Family Medicine Residency. It would be hard to say, however, that we focused as much on prevention as we did on treating disease. I suppose it will always be necessary to emphasize disease and treatment, but we should endeavor to teach more about nutrition, exercise, and strategies to modify behaviors so my future partners can follow (and help me follow) Hippocrates’ advice that our food should be our medicine. I know much has changed since my days in training and I would encourage educators to continue to assess how best to create a culture of prevention.

Everything I do in my office is really nothing more than trying to convince another person to modify their behavior, whether it is giving them a prescription for an antibiotic which should be taken twice a day with food, recommending an immunization, or recommending 30 minutes of exercise.