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### Guest Editorial

91  Changing the Game in Childhood Obesity Prevention  
Janice Key, MD; Michael Finch, MD; and Vincent Degenhart, MD

### Scientific Articles

92  Prescription for Parks: A Creative Approach to Combat Childhood Obesity in South Carolina and to Get South Carolina Children Moving  
Deborah Greenhouse, MD, FAAP

94  The Docs-Adopt School Wellness Initiative: An Innovative Program to Involve Doctors in School-Based Obesity Prevention Efforts  
Janice D. Key, MD; Jennifer M. Byrne, MPH; Angela Saito, MD; Melissa Prendergast, RN; Joe Chambers, MD, MPH; David Spurlock

98  Team-Based Approach to Obesity Management  
Kayce Shealy, PharmD, BCPs, BCACP, CDE; Sarah Wagner, PharmD; Jennifer Clements, PharmD, BCPs, CDE, BCACP; Ashley Pugh, PharmD Candidate

101  Development and Use of the SCMA Childhood Obesity Taskforce Toolkit  
Janice D. Key, MD; James Simmons, MD

### Guest Column

105  The New Impact-Healthy Lifestyle Program at Children’s Hospital of Greenville  
Learn about various initiatives from our Taskforce partners  
Kerry Sease, MD, MPH

### Commentaries

107  South Carolina Chapter of the American Academy of Pediatrics

108  The Department of Health and Environmental Control

109  Eat Smart, Move More South Carolina

110  PROTeens

111  South Carolina Children’s Hospital Collaborative

112  The Department of Social Services

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**ASSOCIATION**

<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>President’s Page</td>
</tr>
<tr>
<td>113</td>
<td>Alliance Update</td>
</tr>
<tr>
<td>114</td>
<td>CME Calendar</td>
</tr>
</tbody>
</table>
The Doctor as the Patient

H. Tim Pearce, MD

As a general surgeon in a small town for 34 years and the founder of what is now a five man general/vascular practice, I am very accustomed to being in charge. I make my schedule and keep it as full as I can, even after serving a night of busy county call. In the operating room, I am the captain of the ship, but my anesthesia colleagues would tell you they allow me to feel that way when they are actually in charge.

On surgical rounds, I see post-operative pain, anxiety over the many tubes we place, and concern that body parts are not working properly. Some patients can’t believe their body has let them down. In the clinic, I try to take time with a woman with newly diagnosed breast cancer as well as those needing any kind of surgery. I have a good relationship with my patients, but I remain in charge of my world, blessed with good health and confidence my body would continue to thrive even with the stresses and challenges I give it.

And that is the way it has been all my life...until recently when worsening shortness of breath led me to seek evaluation, still arrogant enough to believe nothing was wrong. I was sure they would say all I had to do was lose weight and exercise. My cardiologist disagreed. First we did a stress thallium, which led to a cardiac-cath and the finding of a left main lesion just prior to the bifurcation. The diagnosis... The “widow maker.” The solution? Open heart surgery... three vessel bypass. Did I mention I have never really been a patient before, only for minor diagnostic procedures and one minor outpatient procedure? I haven’t known pain, anxiety over my health, uncertainty. I have never looked at my own mortality directly face-to-face. Until now.

I met my surgeon and I was comforted. He was professional, took his time, and we talked about his training and mine and how we both had gotten to where we now were. He largely allayed my fears, but when we discussed the date of my surgery, the first available date was late in the day in the middle of a busy week for him, when his only partner was out of town. So, I promptly requested and received the first day he could operate on me as his first case and he was not on call the night before. The importance of knowing my surgeon was rested was very important to me. All of a sudden, I had a new understanding of those that had to wait for me until late in the day.

As a surgeon and now a patient, I felt like Dr. Jack McGowan, a fictional surgeon played by William Hurt in the film “The Doctor” which came out several years ago. I could identify with Dr. McGowan who was a confident, mostly arrogant, and indestructible surgeon who knew no fear.

In the film, Dr. McGowan developed a laryngeal cancer and received face radiation and surgery. During the procedure he experienced the indignity of placing on a hospital gown... you know... the ones that are open in the back. I thought of him when they asked me to do the same thing. The harsh reality is that in the movie, the doctor had to endure the issues our patients face every day.

Post-operative... a huge issue. I have seen my patients go through it for years. I have tried to adjust and be sympathetic, but I have never been comfortable with large amounts of narcotics and sedation. I have heard my patients discuss which surgery they had that hurt the most. I don’t know where median sternotomy stands in comparison to other procedures, but I don’t want to go through any procedure that hurts more. I needed heavy narcotics and sedation and was totally dependent on my family, my nurses, my doctors, and the hospital. I had no idea that I could be that helpless.

The fact is that as an individual, doctor, or otherwise, to have a serious problem that you can’t fix yourself is humbling. The idea that you are forced through necessity to put your life in the hands of another is difficult to accept. Especially for a doctor. Some of you understand already, as you have been a patient with a serious illness. Many of you don’t understand yet, but unfortunately, most of you will.

Going through this ordeal, I cannot overstate the role of faith in recovery. I believe in spirituality. Physicians have many uncertainties to deal with. The presence of God is important as we face the challenge of illness, as a doctor, or as a patient.

As physicians, we do not have to be perfect. In fact, we need to acknowledge imperfection. We need to understand that we do not need to be superhuman.

As a patient, what we hope for from our physician is honesty and compassion, even if the news is bad. Medicine is about the universal need of all human beings to believe they can be healed, while knowing that no human can provide the ultimate healing that all of us need. As a physician and now as a patient, I realize more than ever the importance of spirituality in my life. The secret joy of health care is people. We should remember that every single life is precious to God. We are blessed to have our patients and the privilege to try to meet our patient’s needs. We must take joy and pride that we have been blessed with the hands and mind...
through which the healing power of the spirit can be realized.

So, what have I learned?

I am not invincible. I always knew I wasn’t, but now I really know!

1. Being a physician does not protect you from pain, anxiety, or fear.
2. Listen to your body; symptoms that are new and different should not be ignored.
3. Listen to what your doctors tell you (I am still working on that one).
4. Pray...it helps.

I am thankful to those that helped get me through this ordeal. I now have a new perspective on life, illness, death, hope, and faith.

H. Tim Pearce, MD
SCMA President

References:

* "the Healers Calling" by Dr Daniel P. Sulmasy
At a SCMA Board of Trustees meeting in August 2011 where former DHHS Director Robert Kerr spoke on the widespread obesity epidemic in South Carolina, Dr. Vincent Degenhart, Columbia anesthesiologist and former SCMA Trustee, recognized that physicians needed to lead in the fight against this health crisis. Through his leadership, the South Carolina Childhood Obesity Taskforce was created, consisting of numerous community and health care leaders all committed to stopping childhood obesity in South Carolina dead in its tracks.

In a January 2011 press conference on South Carolina’s battle against childhood obesity, Dr. Degenhart memorably told the public that “doctors cannot do it alone.” And he’s right.

Through the talents within the Taskforce, work is already under way. To date, numerous meetings have been held where leaders have discussed their ideas for the tools, resources, and methods of education needed in our state. The Taskforce has further outlined four key areas where efforts need to be concentrated: schools, childcare, health care and insurance, and advocacy.

Projects that have developed from the Taskforce thus far include; A Toolkit for South Carolina pediatricians and family medicine practitioners, Prescription for Parks, multiple educational sessions, implementation of obesity coding through Medicaid, partnerships with DHEC to eliminate obesity in more rural areas, and this journal symposium issue detailing obesity-related activities in the state, to name a few.

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Changing The Game in Childhood Obesity Prevention

BY JANICE KEY, MD; MICHAEL FINCH, MD; AND VINCENT DEGENHART, MD

No one discussed childhood obesity back in the days when the three of us were in training. Our textbooks (yes, we actually used books back then) had long chapters about failure to thrive and short stature, but little about children who gained weight too rapidly. In fact, there wasn’t a clinical measurement to even determine if a child was overweight or obese. Back then, body mass index (BMI) was an obscure mathematical calculation, not even recognized by clinicians. Those days are over. Now BMI is considered a vital sign and measurement is so essential that it is included as a Healthcare Effectiveness Data and Information Set (HEDIS) indicator of quality. Now the “epidemic” of childhood obesity is often featured in the news.

What happened? Why all the attention? The sudden and dramatic rise of childhood obesity has gotten everyone’s attention because it endangers the current and future health of our children. Forty years ago or more, it was only the rare child who was obese (think of Spanky in “Our Gang”). Whereas now, many if not most kids are overweight or obese. The National Health and Nutrition Examination Survey has documented the tripling of childhood obesity prevalence, from 5% in the 1970’s (which is the expected prevalence in a normally distributed bell-curve) to 16.9% in 2010. Even more discouraging for us, our children are much more likely to be overweight or obese. The “State of Obesity” annual report by the Robert Wood Johnson Foundation ranked South Carolina as 2nd fattest, with 21.5% of our 10-17 year olds obese. That means that about 1 out of 4 children in South Carolina very likely has a metabolic consequence due to unhealthy weight, such as impaired glucose tolerance leading to diabetes, elevated blood pressure or hypertension, fatty liver disease, and obstructive sleep apnea.

The sheer number of children has changed each of our clinical practice. We pediatricians (Key and Finch) now assess BMI percentile for each patient and spend a great deal of our time counseling parents about nutrition and exercise (see the article about the new SCMA Toolkit). Unfortunately, childhood obesity is now so prevalent and causes so much chronic illness that it’s impact extends beyond primary care of children and impacts every type of clinical practice. In fact, it was the increased risk of anesthesia for an obese child is what lead us (Dengenhart) to establish the SCMA Childhood Obesity Taskforce. Improved diagnosis, treatment, and prevention of childhood obesity are essential; all physicians must continue to be educated about this crisis and follow the most recent clinical practice guidelines.

However, improved clinical practice through traditional health is simply not enough to turn the tide of childhood obesity, especially here in South Carolina where we are a very near second only to Mississippi. When close to a third of kids and the majority of adults in South Carolina are an unhealthy weight, we must change our approach and use a new strategy. We can’t play one-on-one any more, we’ve got to go zone. In fact, we have to join the coaching staff. We have to change to a public health model that reaches people in the community and children in the schools. We physicians learned about what it takes to keep the body healthy before we specialized in treating different illnesses. In the midst of this crisis, we must acknowledge that expertise. We are the health experts for our communities and we must join public health efforts to effectively improve the health of our children by reducing childhood obesity.
C

hildhood obesity is a major problem in South Carolina. The statistics are sobering. We only need to look at the numbers to know that we need to be searching for innovative ways to combat this problem.

South Carolina does not have comprehensive surveillance data for children prior to middle school age. But we do have representative data that can give us an idea of just how significant a problem this is.

According to the Pediatric Nutrition Surveillance System, 28.9 percent of South Carolina children enrolled in the WIC program between the ages of 2 and 5 years were either overweight or obese in 2009. This data describing young children is potentially biased because it reflects only children who qualify for the WIC supplemental nutrition program.

At the elementary and middle school level, there have been several local projects between 2007 and 2011 that have evaluated the rates of overweight and obesity in Beaufort, Fairfield and Jasper counties. The lowest rate found was 37.2 among 3rd graders in Beaufort County while the highest was 58.7 percent among 8th graders in Jasper County.

In 2011, 29.6 percent of all South Carolina high school students were either overweight or obese. This data encompasses all socioeconomic groups and is representative of the entire state. Thus it is likely the most accurate data available. In addition, the Alliance for a Healthier Generation states that, based upon the 2011 National Survey of Children’s Health, 39.2 percent of South Carolina children between age 10 and 17 were overweight or obese. This ranks South Carolina 49th in the nation in the percentage of overweight or obese children.

Childhood obesity is a multifactorial problem. We know that the best defense against childhood obesity is a strong offense with good nutrition and plenty of exercise. This has led to numerous interventions including the 5-2-1-0-Let’s Go program, a nationally recognized childhood obesity prevention program that originated in Maine but now has partnerships in many other states. The goal is to encourage five daily servings of fruits and vegetables, two hours or less of screen time, at least an hour of exercise/active play and no sweet drinks. There are various programs available to help children and families improve their diet but there are not nearly as many options available to help children and families increase their daily exercise and active play. The result is that many children and adults in South Carolina get very little exercise and active play on a daily basis.

On a statewide level, 27.8 percent of adults in South Carolina engaged in no Leisure-Time physical activity in 2010. These are the parents and grandparents of South Carolina’s children and this statistic is sobering. The data regarding the children themselves is equally concerning. In 2011, 51 percent of middle schoolers and 43.4 percent of high schoolers in South Carolina did not engage in physical activity for 60 minutes daily at least 5 days per week. At the same time, 42.9 percent of middle schoolers and 39.2 percent of high schoolers watched television for at least 3 hours daily on school days. There are also race and gender disparities noted among South Carolina’s children. Black students are more likely to spend more sedentary time watching television than White students. Female students are more likely to spend more sedentary time watching television than male students. Several studies have shown a direct relationship between sedentary time and obesity in adolescents.

Sedentary time is hurting our children. We need to think outside the box to find ways to help them become more active while spending less time watching television and playing with computers.

Many children in South Carolina live in areas where they don’t have access to a safe, outdoor place to play. This can be a barrier to exercise for children and families. If we can improve this access, we can increase daily exercise time and move one step closer to preventing and treating childhood obesity.

The South Carolina Chapter of The American Academy of Pediatrics is an active participant on the South Carolina Medical Association Childhood Obesity Taskforce. The South Carolina State Park system is also an active participant on the task force. The Taskforce has looked at all aspects of the childhood obesity epidemic. There are representatives on the Taskforce from various agencies and groups that deal with children’s health. The Taskforce has looked at ways to improve access to healthy foods both at home and at school. They have also looked at ways to incorporate more activity into the school day. In addition, the Taskforce is trying to find a way to help children in South Carolina be more active outside of the school day. In order to do that, we have to find and promote safe places for the children and their families to explore, exercise and to discover all that nature has to offer. The Prescription for Parks program is the perfect solution to this problem.

The Prescription for Parks program is a pilot program based upon the collaboration of the SCAAP and the South Carolina State Parks. The SCAAP cares for a large population of children and families who need access to safe, outdoor places to play. South Carolina’s state parks form a vast treasure trove of wonderful places to play and ex-
explore. The Prescription for Parks program will help to bring the two together by providing access to the parks for a group of children and families who need it most.

Because the pilot for the Prescription for Parks program is being undertaken with no funding at all, it is by necessity a small program restricted to patients in two pediatric practices and utilizing only one state park, Sesquicentennial State Park in northeast Columbia. The two practices involved are located fairly close to the park which should minimize transportation barriers for families. The small pilot program will also allow us to track the families who are given the prescriptions and determine what percentage actually visited the park.

The prescription that we have created includes a built in incentive for the families. They can use the prescription form to enter the park four times. Each time that they visit, their prescription form will be stamped. After the fourth visit they will be eligible for a special offer on a State Park Passport.

The prescription form also serves as an incentive on its own. The form states many of the activities that families can participate in at the park. The activities listed include walking, canoeing, fishing, watching wildlife, slacklining and geocaching. To drum up even more interest, a geocache has been placed in the park that has been named “Prescription for Parks.” Children and families will have to walk on one of the trails to find this geocache. Hopefully this will spark interest in hiking the park trails and in geocaching. There are several other geocaches currently hidden in Sesquicentennial State Park along with numerous other geocaches hidden at state parks throughout South Carolina.

The goal of the Prescription for Parks pilot program is to connect children and families with our wonderful state park system. By tracking the prescriptions given to patients and the prescriptions turned in to the park system, we will be able to determine if this is an effective way to encourage increased physical activity among children who are overweight or obese. We hope to be able to use these outcomes to promote the program to potential sponsors who may help us to expand it statewide by including additional parks and additional pediatric practices. The eventual outcome would be a statewide collaboration between the park system and the pediatricians in South Carolina resulting in a seamless network of access to the parks for families dealing with childhood overweight and obesity.

The Prescription for Parks program is simply one piece of the solution to our childhood obesity problem. We need to put all of the pieces in place so that we can all work together to solve this problem. Only then will we be able to make South Carolina a healthier place for our children to grow up and become healthy adults.

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There are more people in South Carolina who are overweight or obese than who have a healthy weight. With those numbers, it is no longer enough to rely upon the traditional medical approach in which patients are counseled about changing their own individual behavior. Rather additional interventions that target today’s obesogenic environment are needed, addressing the many barriers to healthy nutrition and adequate exercise. For children, these systemic environmental and policy interventions must be in schools, where most children spend the majority of their time and where children often eat two or even three meals a day. In fact, schools are so important in obesity prevention among children and adolescents that the recent Institute of Medicine called for the strengthening of schools as the “heart of health” and devote one of the five recommendations to school-based strategies.

Many health care organizations recommend that physicians become involved in community and school-based obesity prevention efforts. The American Medical Association states that physicians bring a unique contribution to community and school-based obesity prevention efforts as they “provide credibility, personalize an issue drawing on years of experience working with patients, (and provide a) powerful voice … to existing advocacy”. The Institute of Medicine encouraged health care providers to advocate for “physical activity opportunities and accessible healthy foods and beverages in patients’ communities”. Similarly, the Expert Committee on Childhood Obesity, convened jointly by the American Medical Association, Center for Disease Control and Prevention and the Health Resources and Services Administration, asks that physicians “advocate for improved access to fresh fruits and vegetables and safe physical activity in your community and schools”. The American Academy of Pediatrics also targets advocacy specifically toward “policy makers from…schools to support a healthful lifestyle for all children, including proper diet and adequate opportunity for regular physical activity”. The American Academy of Family Physicians Americans In Motion – Healthy Interventions Initiative (AIM-HI) specifically targets schools with an educational program about fitness that includes the students family physician. However, despite this consensus about the need for physicians to be part of community efforts combating childhood obesity, to date few have done so. While physicians are concerned, most feel ill-equipped to address such a complex societal issue and are unfamiliar with methods of advocacy.

Development of the Docs-Adopt School Wellness Initiative

The Docs-Adopt School Wellness Initiative was developed by the Charleston County Medical Society (CCMS) School Health Committee in collaboration with the Medical University of South Carolina (MUSC) and the Charleston County School District (CCSD) through a community-based participatory approach with the goal of decreasing the prevalence of childhood obesity in Charleston County. The CCMS School Health Committee is an advisory committee for CCSD that has been in place for over 30 years, addressing many issues about the health and wellness of CCSD students and staff. The CCMS School Health Committee became more directly involved in school wellness efforts in response to the SC Student Health and Fitness Act of 2005, when a coordinated school health advisory committee (CSHAC) overseeing school district wellness policy was required. However, the Docs-Adopt School Wellness Initiative model goes beyond the requirements of the SC Student Health and Fitness Act by encouraging wellness committees at the individual school level, and by developing and implementing a...
school wellness program that integrates physician “adoption” of schools (“Docs-Adopt”) with use of a Wellness Checklist competition to incentivize effective evidence-based healthy policy and environmental changes. Through the Docs-Adopt School Wellness program, local physicians are paired with schools in order to support and advise efforts by the school’s wellness committee. Physicians serve as a health resource for the school wellness committee. No clinical services are provided to the schools as part of this initiative. As general health expertise is the only resource provided and not specific clinical knowledge, any physician can participate regardless of specialty. The “adopting” physician is one of many members on a school’s wellness committee that includes teachers, school nurses, coaches, parents, and students. The wellness committee is charged with making policy and environmental changes that improve nutrition and increase physical activity at that school. Using our simple checklist tool to identify wellness priorities, they can select from among existing effective programs that will meet the needs of their school. Schools that complete the requisite number of items on the checklist receive a small grant to support future wellness activities. Additional information about the Docs-Adopt School Wellness Initiative can be found on the MUSC Boeing Center for Children’s Wellness website (www.musc.edu/leanteam).

Program Description and Timeline
With support from a school district’s administration, schools and physicians are recruited and matched, ideally through prior relationships (patients or family members attend that school) or geographic proximity (practice location is near the school). Physicians and school wellness committee representatives (such as the school nurse) receive training annually on national and local obesity statistics, nutrition and physical activity standards and programs, school policies, and examples of activities and strategies that have worked. Physicians are recognized with their name on a sign in front of their schools or a decal for their office. (See Figure 1.) Wellness efforts are encouraged and tracked through a checklist; prioritizing effective healthy changes improving nutrition and increasing physical activity. At the end of each school year, a roundtable event is held during which schools share their successes and challenges. Schools that have completed a requisite number of items and are awarded a monetary incentive of $1,000/school. The “winning” school making the most changes and with the highest total points on the checklist receives additional prize money and a trophy that will stay at their school for the upcoming school year. The incentive money must be used for each school for a wellness project of their choice during the following school year. (See Figure 2 for timeline during a school year.)

Outcomes
Since the program was developed, the number of participating schools and the healthy changes they have made have in-

### Table 1. Examples of policy and environmental changes made by participating schools to improve nutrition and increase physical activity.

<table>
<thead>
<tr>
<th>Healthy Nutrition</th>
<th>Increased Physical Activity</th>
<th>Improve Both Nutrition and Physical Activity</th>
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<tbody>
<tr>
<td>Remove the deep fat fryer and serve baked foods instead of fried</td>
<td>Incorporate physical activity before the school day and during classroom time (such as Deskercise)</td>
<td>Hold monthly meetings of the Wellness Committee</td>
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<tr>
<td>Give students a Good Nutrition Placemat based on My Plate</td>
<td>Set up a fitness room for students and staff</td>
<td>Host a family fun &amp; fitness day with a free healthy lunch</td>
</tr>
<tr>
<td>Stock only healthy foods in the school store and serve only healthy foods in classroom parties (for example a birthday certificate rather than a cake)</td>
<td>Start a running club that meets weekly and that hosts/competes in races</td>
<td>Replace fundraisers that sell unhealthy foods (such as doughnuts/candy) with healthy fundraisers (such as a walk/run)</td>
</tr>
<tr>
<td>Plant a school garden</td>
<td>Provide pedometers to staff and students</td>
<td>Send a Wellness Newsletter to families and staff</td>
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</table>
creased rapidly. (See Figure 3.) Over the past 4 years, 79 out of 82 (96%) of CCSD schools have participated in the wellness checklist contest. In 2013 this model was expanded into 2 other adjacent school districts as well (Berkeley County School District and Dorchester County School District 2), through partnerships with South Carolina DHEC Region 7, Trident United Way Links to Success, and the Dorchester County Medical Society. Currently 146 schools in Charleston, Berkeley and Dorchester counties are involved in the program of which 119 are actively involved and 81 “adopted” by 99 doctors. All participating schools made policy and environmental changes targeting both healthy nutrition as well as increased physical activity. Specific examples of these many changes are listed in the Table.

Ongoing process and outcome evaluation has included surveys of physicians and school staff, identifying wellness efforts including policy and environmental changes concerning nutrition and physical activity, and tracking the uses of incentive awards. Evaluation has demonstrated the importance of physician participation in strengthening school wellness efforts. School variables such as size, minority enrollment, elementary/middle/high, rural/urban, or Title 1 status were not significantly associated with the amount of wellness efforts made by a school. Only physician participation (being “adopted” by a doctor) was a significant variable (p<0.05).\(^{10}\) Surveys and structured interviews of participating physicians have found common themes (the importance of annual training, the positive effect of prior relationship with the school) as well as areas for improvement (communication difficulties between schools and physicians). Surveys of school personnel have found that despite the fact that physicians rarely attended meetings held at the school, their membership on the committee added importance to the wellness effort and brought additional resources to the school. Overall both the physicians and school staff reported their participation in the program positively and continued to be involved in subsequent years.

Conclusions
Obesity is a recent phenomenon that has many complex underlying causes and does not have a simple solution. Effective interventions must include environmental and policy changes that target healthier nutrition and increased physical activity. The Docs-Adopt School Wellness Initiative is a community generated model that allows physicians to be involved in such school-based interventions. This program is feasible and uses physician expertise in a meaningful way such that they can contribute to the prevention of childhood obesity.
References:


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Team-Based Approach to Obesity Management

BY KAYCE SHEALY, PHARMD, BCPS, BCACP, CDE; SARAH WAGNER, PHARMD; JENNIFER CLEMENTS, PHARMD, BCPS, CDE, BCACP; ASHLEY PUGH, PHARMD CANDIDATE

Team-based approaches in practice have been shown to improve patient care and practice.\(^1\)\(^2\) The interdisciplinary healthcare team may be composed of several different types of professionals working towards and committed to a common goal.\(^2\) This approach has been studied in a variety of chronic medical conditions, including diabetes, osteoporosis, hypertension, and other cardiovascular conditions. A meta-analysis published in 2006 demonstrated that a team approach to diabetes management was one of two strategies that lowered hemoglobin A1C values substantially.\(^2\) Team-based care has also been prevailing in pediatric care, and, in fact, the American Academy of Pediatrics introduced the concept of a medical home.\(^2\)

While the composition of the team can vary depending on medical condition, setting (i.e. academic or nonacademic institution, private or institution-based clinic, government or non-government facility), or location (i.e. urban or rural), the backbone tends to be a medical professional or physician.\(^2\) The American Medical Association (AMA) recently endorsed team approaches to health care and adopted a policy to define physician-led team-based health care.\(^2\) Physician-led teams should incorporate skills and expertise of other healthcare professionals in order to improve patient outcomes.

Obesity is a rising problem among pediatrics and adults in the state of South Carolina as well as the United States.\(^4\) Due to the increased prevalence of chronic conditions that may be present among patients who are obese, as well as the various factors that may lead to obesity, applying a team-based approach to obesity management should be considered. This article seeks to identify other healthcare professionals who should be considered as other members of the physician-led healthcare teams to combat the growing obesity epidemic.

**Pharmacists**

Community and health-system pharmacists can have a direct impact on patient care. A pharmacist is trained in a graduate program to receive a doctorate degree. Depending on the pharmacy program, the number of years to receive this degree may be 3 to 6 years. A typical pharmacy curriculum progresses through basic sciences and extends to pharmacology and pharmacotherapy of drugs. In conjunction with didactic lectures, a future pharmacist will be trained in clinical application through small group facilitation, laboratory sessions, and introductory to advanced pharmacy practice experiences. Upon graduation, pharmacists will seek licensure in a designated state by passing a state law and national pharmacy examination. Licensed pharmacists will be required to complete a specific number of continuing education hours each year, which may include medication therapy management for chronic disease states, such as obesity. Depending on the desired career path, a pharmacist may seek additional clinical experience through a post-graduate residency program (1 or 2 years) or research experience through a fellowship program (2 years) upon graduation.

Beyond counseling, a pharmacist can play an integral role of a multidisciplinary team for obesity management. For obesity management, the pharmacist can obtain a comprehensive medication history. This history would be a review of current prescription and over-the-counter medications, including supplements (i.e., vitamins, herbs). Based on a patient’s current medication list, a pharmacist can identify drug-induced weight gain and recommend an alternative agent for the treated disease state. Any clinically significant drug-drug interactions and any medication errors can be screened and identified after a medication history has been obtained.

The pharmacist can provide additional assistance with patient assessment. A pharmacist is trained to obtain weight, calculate body mass index (BMI), conduct manual blood pressure measurements, and complete weight circumferences. If a dietitian is not available or other member of the healthcare team, a pharmacist could provide counseling and educational tools for nonpharmacologic interventions. Based on an adult patient’s success with lifestyle modifications, a pharmacist can determine the rationale for the most appropriate therapeutic option. The option would be determined by the drug’s efficacy and safety, along with cost and additional benefits. A formulary may be developed for medications in an institution (i.e. hospital) or outpatient-clinic associated with a hospital. A pharmacist can be a key member of a Pharmacy and Therapeutics committee (P/T Committee) to provide a summary of the evidence regarding a medication. Evidence-based medicine can help determine the criteria for use based on a drug’s efficacy and safety, as well as external validity to patients (i.e. inclusion and exclusion criteria).

For a patient who undergoes bariatric surgery, a pharmacist can provide insight on dose adjustments following this type of procedure. For example, insulin adjustments are required for a patient who had type 2 diabetes mellitus prior to gastric bypass. In addition, certain medications should be avoided following surgery, such as nonsteroidal anti-inflammatory drugs and bisphosphonates. A pharmacist can also provide adequate counseling and dosing requirements for vitamins and minerals, since deficiencies are common following bariatric surgery. Lastly, a pharmacist can discuss the risk of weight regain with any patient who is discontinued a chronic weight loss product (i.e. lorcaserin; phentermine / topiramate).
Nurses

A nurse’s professional training prepares him or her with the skill set to participate in a multidisciplinary weight management team in a variety of ways. First, the nurse is most often the professional who is responsible for recording important biometric data such as height, weight, BMI, waist circumference, blood pressure, blood glucose, and related parameters that are impacted by obesity. Therapeutic monitoring and treatment success will depend on these outcomes so it is imperative that these measurements be done by a professional, such as a nurse, so that the results are both consistent and precise. Second, a nurse is often responsible for collecting a detailed history from the patient and completing the appropriate documentation to be utilized by the multidisciplinary team. When considering weight management, a history should include previous methods for weight loss, comorbid conditions, current dietary habits, and physical activity levels. Upon initiation of medical weight management, a nurse may also assess motivation levels, health literacy, socioeconomic factors, and psychosocial status as these can be important to the overall picture. Like other healthcare professionals, nurses are trained to educate patients about disease states and wellness. Each patient will likely encounter a nurse at almost every visit allowing him or her to be utilized as a way to answer questions and educate patients more frequently. Moreover, this skill will provide opportunities for a patient’s weight loss success to be confirmed and commended frequently.

Social Workers

A social worker can be the key piece to a patient’s attainment of weight loss by finding access to the resources needed for a patient to be successful. For a patient with socioeconomic barriers, the social worker can assist one with access to state or federally funded health insurance and Supplemental Nutrition Assistance Program (SNAP). These programs allow them to access the healthcare and health coaching involved in medically managed weight loss as well as a means to purchasing food. When financial stressors are lessened, a patient may be able to make healthier choices when purchasing his or her food. Social workers will be able to place patients in support groups, community exercise programs, or other outreach programs. Studies have shown an increase in mood and anxiety disorders in the obese population. For those patients who have concurrent mental illnesses along with obesity, care from a mental health team will also be essential to treatment success. Social workers can facilitate the patient’s placement with the appropriate mental health professionals who can manage the patient’s treatment and ultimately increase his or her chances for weight loss success. Recent research indicates that socioeconomic variables including unemployment may be linked to obesity. Social work may also help with vocational rehabilitation for a person who is unemployed and overweight. Completion of a vocational rehabilitation program can increase person’s financial stability, mental health, and potentially physical activity levels and in turn may eventually resolve obstacles that previously impeded weight loss. A social worker can work with multidisciplinary team on a more broad level to identify social barriers that affect a certain patient population. Subsequently, after identifying these barriers, social workers can work with the appropriate agencies to address the barriers and problems. For example, senior citizens may benefit from assistance from the local senior citizen center or Area Agency on Aging (AAA). Finding safe and affordable places for physical activity can be a barrier for some patients. Social workers may be able to help a patient find access to such a place based on financial need. Studies have shown a correlation in obesity among family members. A social worker can find patterns and issues within a family and coordinate support services for them. Care for the children who are obese or at risk of becoming obese can be initiated through a social worker as well. Lastly, social work is required for the coordination and transition of care for patients who undergo bariatric procedures for weight loss.

Dieticians

The role of a registered dietician (RD) in a multidisciplinary weight management team may seem obvious but can include other responsibilities that are not as commonly thought of. The Academy of Nutrition and Dietetics recently outlined the scope of practice of a dietician. Most obviously, a dietician is able to provide Medical Nutrition Therapy (MNT) as part of the Nutrition Care Process (NCP). As part of this process, the dieticians assess a patient’s current nutrition and develop a nutritional diagnosis and intervention. The dietician provides nutritional monitoring and evaluation throughout NCP. A dietician’s expertise also provides the ability to make nutritional recommendations in situations where there is more than one dietary goal. For example, appropriate nutrition that will provide weight loss for a patient who also has diabetes and must be mindful of the effects of carbohydrate intake. Nutritional-focused physical assessments performed by a dietician can further identify gaps in proper nutrition. Culturally competent dieticians add the additional benefit of being able to recommend MNT for patients from different cultural backgrounds allowing for healthier food choices within the ethnic context of a patient’s current diet. The less obvious ways in which a dietician can be used as a resource to patients and other professionals alike is using his or her expertise to sort through the importance and validity of the vast amounts of information that is publicized in today’s media. Topics such as the nutritional value of certain food, the benefit of commercial diet plan, or the newfound focus on one particular nutrient can be overwhelming to a patient who is trying to manage his or her own weight. In addition, understanding the food industry’s labeling can create confusion, such as the case of organic versus natural. All of these points can be explained thoroughly by a dietician who is involved in team-based approach to weight management. Finally, for those patients who undergo bariatric procedures, a dietician who can provide MNT based on the physiological changes of the digestive system can be essential for the surgical recovery period and afterward to ensure the nutritional needs of the patient are being met under the constraints that result from these procedures.

Psychiatrists and Psychologists

With an increasing prevalence of obesity in the general population and elevated prevalence among individuals with a variety of psychiatric disorders, psychiatrists and psychologists frequently encounter patients who are overweight or obese. Chances are, these medical providers and professionals are dealing with patients who are also experiencing weight gain as a side effect of their medications specific to their psychiatric disorder. Aside from the multiple health risks including cardiovascular disease, diabetes, hypertension, and stroke, obesity has also been associated with psychiatric illness. Clinical studies of obese individuals demonstrate high rates of psychiatric comorbidities such...
as eating disorders, depression, anxiety, and personality disorders. There are generally three components in behavioral treatment for obesity which include: dietary change, increased physical activity, and behavior therapy techniques such as goal setting, self monitoring, stimulus control, as well as behavioral contracting. However, patients with both obesity and mental disorders may have a harder time adjusting to these particular lifestyle changes. Psychiatrists are in a unique position to manage pharmacotherapeutic options for weight loss, given that many of these agents act through neurochemistry just as the psychiatric medications do. It is important to have a collaboration of a team-based approach to help stabilize these patients. In the setting of a patient with a mental illness, these particular professionals can educate the patient different ways to manage a healthy lifestyle such as diet and exercise as well as give resources to the patient and family about weight management programs.

With proper selection of psychiatric medication by the psychiatrist and appropriate education from a social worker, this interdisciplinary team can help the outcomes of both mental and weight loss outcomes for many patients dealing with this specific issue. No matter if a patient has a mental illness or not, working together as a medical team can result in better outcomes overall for the patient and his or her health.

Conclusion

Team-based care has been shown to improve patient outcomes for chronic conditions such as diabetes and hypertension. Due to the various factors that may lead to obesity and the additional health risks that obesity predisposes a patient to, applying the team-based approach to obesity management should be considered. In addition to physicians, other healthcare professionals such as pharmacists, nurses, dietitians, social workers, and psychiatrists or psychologists may be able to provide skills and expertise to improve the management of obese patients.

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References:
Nutrition and exercise counseling has always been an integral to the health care of children and adolescents. However, since obesity has become so prevalent affecting even the youngest children, there has been an effort to improve counseling about healthy eating and active living and to use consistent messaging, so that patients will see the same information everywhere. This is a description of the process through which a Toolkit was created specifically for physicians in South Carolina, including development using national healthy lifestyles goals combined with a motivational interviewing approach. This Toolkit was developed by many collaborative partners and was tested in several pediatric practices before its launch at the SCMA annual meeting in May 2014. Health care providers who have completed training in use of the SCMA Toolkit may purchase printed materials or download the materials from the SCMA Childhood Obesity Taskforce website (https://www.scmedical.org).

Clinical practice guidelines for health supervision visits (well child visits) include assessment of growth and counseling about nutrition and exercise. For example, Bright Futures, guidelines developed by the American Academy of Pediatrics and the Maternal and Child Health Bureau, recommends age specific history and counseling about nutrition and exercise at each well child visit. The specific Bright Futures recommendations for the well visit of a 5 year old child includes promotion of a healthy weight, 1 hour a day of exercise, nutrition advice including breakfast, daily fruits and vegetables, whole grains and adequate calcium. The goals for healthy eating and active living for both children and adults were revised nationally by the United States Department of Agriculture in 2011, when the Food Pyramid was eliminated and replaced by a more intuitive graphic illustration of a dinner plate, MyPlate, that recommends healthy eating at every meal by balancing what is one the plate. Key consumer messages in MyPlate are that half the plate should be covered with fruits and vegetables, at least half of grain should be whole grains, and milk should be low fat or 1% fat. Incorporating this into the simple 5-2-1-0 daily goal (5 or more servings of fruits & vegetables, 2 hours or less spent watching screen such as television or a computer, 1 hour or more of at least moderate exercise, and no sugar-sweetened beverages) has been recommended by many experts. However, despite the fact that these guidelines and recommendations have been in place for 7 years, as with most clinical guidelines, they are often not followed with less than a third of children are appropriately counseled at their well child visit.

Clinical practice guidelines that recommend extensive counseling about nutrition and exercise have the best of intentions, healthier kids. However, it is discouraging when

<table>
<thead>
<tr>
<th>Table 1. Recommendations for use of the SCMA Childhood Obesity Taskforce Toolkit</th>
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<tbody>
<tr>
<td>Distribute “5-2-1-0 Healthy Habits Questionnaire” in triage to all patients &gt; 2 years old</td>
</tr>
<tr>
<td>Review answers on Questionnaire during visit, with focus on what they would like to change</td>
</tr>
<tr>
<td>Limit patient/parent to ONE change</td>
</tr>
<tr>
<td>Use only the corresponding pamphlet for the selected change</td>
</tr>
<tr>
<td>Keep pamphlets in a drawer in the exam room, not out on display (patient/parents pick up pamphlets that they do not use)</td>
</tr>
<tr>
<td>Open the pamphlet and point out one or two of the suggestions within it</td>
</tr>
<tr>
<td>Encourage the patient/parent that they CAN make this change; be a good coach!</td>
</tr>
<tr>
<td>Record the counseling provided and the materials distributed in the encounter note (Some practices scan in the Questionnaire)</td>
</tr>
<tr>
<td>On the next visit support the patient’s self-efficacy, either the healthy change they have made or the fact that they still want to work toward it</td>
</tr>
<tr>
<td>Celebrate success before selecting the next change</td>
</tr>
<tr>
<td>If the child is obese, consider monthly return appointments to make more rapid lifestyle changes and monitor response (improvement in BMI)</td>
</tr>
</tbody>
</table>
counseling often does not cause patients and their families to make healthy changes in their behavior. Busy practitioners need a toolkit that provides not only concise information but is efficient at reaching patients. Therefore, materials must not only effectively communicate the 5-2-1-0 message but also must use a method that empowers patients change their behavior. Motivational Interviewing is a technique long used by the best physicians but recently described and tested, first in the discipline of substance abuse treatment and but now also in the treatment and prevention of pediatric obesity.\(^7\) Motivational Interviewing is patient-centered and recognizes that only the patient can make a change, in other words the physician cannot make the patient be compliant. Rather, Motivational Interviewing focuses on active listening, promoting “change talk” until the patient is ready to make a change, and then supporting the patient’s self-efficacy to be successful in those changes.\(^8\)

The SCMA Childhood Obesity Toolkit was developed for health care providers in South Carolina, based upon using Motivational Interviewing to counsel patients and families about 5-2-1-0. Specific materials included in the toolkit initially included a “5-2-1-0 Healthy Habits Questionnaire” (one version for parents of younger children and one version for adolescents), an information sheet about fast food, a prescription pad with the 5-2-1-0 recommendations, and a separate pamphlet for each of the 5-2-1-0 recommendations. Pamphlets were color-coded to the corresponding section of the Questionnaire. Pilot testing was conducted in several pediatric practices across South Carolina. Based upon these trials the materials were edited and reprinted. (See Figure 1 for pamphlets and Figures 2a and 2b for 5-2-1-0 Healthy Habits Questionnaires). Also, the prescription pad was not used by health care providers in the trial and was therefore removed from the toolkit. Practices reported that parents and patients completed the questionnaires; no patient/parent refused to complete it or complained about the questionnaire. Also, all patients/parents selected something that they would like to change now; no parent said that they did not want to change something about nutrition and exercise. Practices reported that the toolkit was most useful when it was distributed to patients/parents during triage, was used for all children age 3 years or old (i.e. not just for overweight/obese children), and when only the pamphlet pertaining to the 1 identified changes was given to the patient (i.e. patients were not given all 4 pamphlets at once). (See Table 1, for Toolkit implementation.) Despite the good results of these pilot tests, as with all clinical resources there is a risk that when disseminated the Toolkit will not be utilized or will not be effective. Therefore, the SCMA is not merely producing the Toolkit materials but is also providing training prior to releasing them for use in a practice. Since launching the Toolkit in May 2014, several training workshops have been held. These have included the President’s Session at the SCMA Annual Meeting (May 2014), a workshop at the annual meeting of the South Carolina Chapter of the American Academy of Pediatrics (August 2014), and Pediatrics Grand Rounds at the Medical University of South Carolina (September 2014), training a total of X health care providers. In addition to future workshops about the Toolkit, the SCMA plans to offer web-based training in use of the toolkit in the near future. Use of the Toolkit is recommended in the new statewide Obesity Strategic Plan, developed by the South Carolina Department of Health and Human Services.

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**References**


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### 5-2-1-0 Healthy Habits Questionnaire (Ages 2–9)

We are interested in the health and well-being of all our patients. Please take a moment to answer the following questions.

<table>
<thead>
<tr>
<th>Patient Name:</th>
<th>Age:</th>
<th>Today's Date:</th>
</tr>
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**How many servings of fruits or vegetables does your child eat a day? One serving is most easily identified by the size of the palm of your child's hand.**

- □ 1 or less
- □ 2-3
- □ 4
- □ 5 or more

**How many times a week does your child eat dinner at the table together with the family?**

- □ 1 or less
- □ 2-3
- □ 4-5
- □ 6-7

**How many times a week does your child eat breakfast?**

- □ 1 or less
- □ 2-3
- □ 4-5
- □ 6-7

**How many times a week does your child eat takeout or fast food?**

- □ 1 or less
- □ 2-3
- □ 4-5
- □ 6 or more

**How many hours a day does your child watch TV/movies or sit and play video/computer games?**

- □ 1 or less
- □ 1-2
- □ 2-3
- □ Greater than 3

**Does your child have a TV in the room where he/she sleeps?**

- □ Yes
- □ No

**Does your child have a computer in the room where he/she sleeps?**

- □ Yes
- □ No

**How much time a day does your child spend in active play (faster breathing/heart rate or sweating)?**

- □ Less than 30 minutes
- □ 30 minutes to 1 hour
- □ More than an hour

**How many 8-ounce servings of the following do you drink a day?**

- □ 100% Juice
- □ Fruit drinks or sports drinks
- □ Soda
- □ Water
- □ Whole milk
- □ Non-fat or reduced fat milk
- □ 3 or more
- □ 2
- □ 1
- □ 0

**Based on your answers, is there ONE thing you would like to help your child change now? Please check one box.**

- □ Eat more fruits & vegetables.
- □ Spend less time watching TV/movies and playing video/computer games.
- □ Take the TV out of the bedroom.
- □ Eat less fast food/takeout.
- □ Play outside more often.
- □ Drink less soda, juice, or sports drinks.
- □ Switch to skim or low fat milk.
- □ Drink more water.
5-2-1-0 Healthy Habits Questionnaire
(Ages 10–18)

We are interested in the health and well-being of all our patients. Please take a moment to answer the following questions.

Patient Name: _________________________ Age: _____ Today's Date: _____________

How many servings of fruits or vegetables do you eat a day? One serving is most easily identified by the size of the palm of your hand.
- □ 1 or less □ 2-3 □ 4 □ 5 or more

How many times a week do you eat dinner at the table together with the family?
- □ 1 or less □ 2-3 □ 4-5 □ 6-7

How many times a week do you eat breakfast?
- □ 1 or less □ 2-3 □ 4-5 □ 6-7

How many times a week do you eat takeout or fast food?
- □ 1 or less □ 2-3 □ 4-5 □ 6 or more

How many hours a day do you watch TV/movies or sit and play video/computer games?
- □ 1 or less □ 1-2 □ 2-3 □ Greater than 3

Do you have a TV in the room where you sleep?
- □ Yes □ No

Do you have a computer in the room where you sleep?
- □ Yes □ No

How much time a day do you spend in active play (faster breathing/heart rate or sweating)?
- □ Less than 30 minutes □ 30 minutes to 1 hour □ More than an hour

How many 8-ounce servings of the following do you drink a day?
- 100% Juice: □ 3 or more □ 2 □ 1 □ 0
- Fruit drinks or sports drinks: □ 3 or more □ 2 □ 1 □ 0
- Soda: □ 3 or more □ 2 □ 1 □ 0
- Water: □ 0 □ 1-2 □ 3-4 □ 5 or more
- Whole milk: □ 3 or more □ 2 □ 1 □ 0
- Non-fat or reduced fat milk: □ 0 □ 1 □ 2 □ 3 or more

Based on your answers, is there ONE thing you would change now? Please check one box.
- □ Eat more fruits & vegetables.
- □ Spend less time watching TV/movies and playing video/computer games.
- □ Take the TV out of the bedroom.
- □ Eat less fast food/takeout.
- □ Play outside more often.
- □ Drink less soda, juice, or sports drinks.
- □ Switch to skim or low fat milk.
- □ Drink more water.
The New Impact-Healthy Lifestyle Program at Children’s Hospital of Greenville

BY KERRY SEASE, MD, MPH

T
he New Impact-Healthy Lifestyle Program at Children’s Hospital of Greenville, South Carolina is a comprehensive wellness program that hallmarks an innovative approach to wellness, bringing families and communities together to address the needs of overweight and obese youth in the upstate. The New Impact program started 5 years ago as a comprehensive interdisciplinary outpatient clinic designed to treat overweight and obese youth between the ages of 6 and 21. As the program has developed, the team has found innovative ways to incorporate community wellness activities and family involvement for the purposes of building an environment that promotes a healthy lifestyle for the child. Currently, the program boasts a family-focused approach, as both parents and children are given specific nutritional and exercise goals at every visit. The program has also developed an innovative community outreach program that utilizes trained professionals located in local YMCAs to meet children and their families “where they are” both literally and figuratively.

**The Foundation**

The New Impact clinical team has historically been comprised of one full-time pediatrician (divided between three physicians), a clinical psychologist, an exercise specialist and a registered dietitian. Over time, the program has grown to include a nurse/case manager who provides care coordination and facilitates family and community involvement. Additionally, the treatment team has developed strong, positive relationships with community stake-holders which include a number of team-trained, community-based wellness specialists employed at YMCA facilities across the program’s catchment area.

As a first step to enrollment, each participant in the program undergoes an initial screening appointment that includes lab work and physical examination by the physician as well as a clinical interview and administration of behavioral report measures by the psychologist. The goal of screening is to identify medical and psychological comorbidities and also to determine psychological readiness and barriers that can affect successful completion of the program. The team works to manage medical comorbidities identified on screening, but will also refer to specialty care providers as needed. Each child and family is provided with four psychological treatment sessions following the screening as part of the general program. An option for additional sessions at a self-pay rate is available for families with greater psychological needs.

The active treatment phase spans eight weeks during which children and families participate in alternating appointments with nutrition and community-based wellness specialists. The first two nutrition sessions are provided in a group setting and focus on We Can! messaging and the healthy plate model. Two additional nutrition appointments are completed in an individual manner and focus on nutrition planning based on the child’s specific needs.

Wellness specialists are included in the active treatment phase to promote physical activity and general healthy lifestyle changes. While the program initially included fitness instructors employed by the program to address physical activity, this role has evolved over time to incorporate community-based wellness specialist who are housed and employed at YMCA facilities in Greenville and neighboring counties. The inclusion of YMCA wellness specialists as part of the treatment team is a unique aspect of the program which allows participants to access care where they live and promotes the use of community resources to make positive lifestyle changes. In their role on the New Impact team, the YMCA serves as a community-based wellness center where wellness specialists can monitor basic anthropomorphic measurements as well as promote physical activity. Each participant is provided an eight week family membership to the YMCA as part of their treatment in addition to five individual visits with a wellness coach to establish specific exercise goals. The team has developed a manualized treatment protocol for the YMCA wellness specialists that outlines, step-by-step, each of five visits with participants and parents during the active treatment phase. During the treatment phase, participants are also offered incentives for adherence to behavioral goals such as remembering food logs or attending weekly fitness classes. These incentives are small, tangible rewards such as water bottles, backpacks, or $5 gift cards to retail stores.

Following the initial eight week active treatment phase, participants meet with team physicians every two to three months for up to one year. They are encouraged to continue involvement in their local YMCA and are eligible for both financial assistance and discount rates. Families can also participate in dietitian run cooking classes and other community-based wellness programs that are offered in collaboration with the team.

**A Family Approach**

An additional highlight of the New Impact program is the active inclusion of parents and family in active treatment components. While research indicates that parental example and family lifestyle are important factors in child wellness, few programs take this awareness to the level of the New Impact program. As in many weight management programs, parents are an integral part of treatment planning and participate in treatment sessions and nutritional education. However, in the New Impact program parents undergo an initial and final fitness assessment. This assessment allows the team
to develop goals and lifestyle recommendations that encourage parents to be a positive model for the child while also working to improve the family’s overall health. Parents also work with the dietician to set personal nutrition goals and maintain food logs. The eight week family membership to the YMCA allows for families to work together to incorporate positive changes in physical activity into their lifestyle.

**Community Access**

As another innovative feature, the New Impact program boasts connections to a number of community resources that allow families to access treatment close to home and incorporate wellness activities readily into their daily lives. Because of the large catchment area, the program serves families who travel a great distance for treatment. The team initially struggled to identify ways to keep their longer-distance families engaged in treatment when frequent check-ins were needed and community resources near the family homes were inconsistent. From this need grew the program’s partnership with the YMCA. The initial partnership began with one YMCA in Greenville, SC and has developed to include 13 YMCAs across eight counties. In the early phases, the YMCA offered to provide fitness classes to children for a moderate nominal fee. However, over time the partnership has evolved to a point where the YMCA has become an integrated member of the clinical team and offers free membership to families during the active phase of treatment, five individual sessions with wellness coaches who have been trained by clinical members of the New Impact team and discounted rates for family membership during maintenance phase of the program. While the team initially faced some resistance in their attempts to build ties to the communities of their participants due to concerns that services would somehow detract from the patient census at local county hospitals, this concern has been dispelled over time. The success of the program in building partnerships with the YMCA is in part because the goals of the program closely align with the YMCA’s mission to be seen as a community-based wellness center. Additionally, the team’s mission to build wellness opportunities in the communities where patients live has resonated with stakeholders and the public more broadly.

In addition to the partnership with the YMCA, the team’s nurse/case manager plays a vital role in community outreach and parent support. The nurse/case manager works to build relationships with community stakeholders to offer additional options for wellness programming and build supportive community involvement. Through their relationship with the community, the team has been able to coordinate with local Park and Recreation offices to offer play groups which promote a supportive social environment and active play opportunities for families involved in the New Impact program. The nurse/case manager further serves as an ambassador for families to their home community and will address childhood obesity related issues as needed. For instance, the nurse/case manager provides in-service programs for school nurses and guidance counselors on the medical and psychosocial factors associated with childhood obesity, orchestrates communication with the schools regarding bullying, and facilitates communication regarding participants other academic and community needs as appropriate.

**Next Steps**

As the New Impact program continues to grow, the team strives to continue building their relationships with community-based organizations and resources. The vision is to incorporate all elements of wellness programming into the services offered at the YMCA including screening, cooking courses, and wellness supports. Additionally, Dr. Reeves is working with the team to build a comprehensive database that can be utilized for research purposes.

**References**

South Carolina Chapter of the American Academy of Pediatrics

The SCAAP represents pediatricians caring for children throughout South Carolina. We work to improve health and access to health care for all children in our state. Childhood obesity is a major concern for South Carolina pediatricians and for South Carolina families. Participation in the Childhood Obesity Taskforce is a natural fit for the SCAAP. We contribute to the taskforce by sharing our experience in treating children, and we learn from the other members of the Taskforce and disseminate what we have learned to pediatricians throughout the state. We are incredibly excited about the Obesity Toolkit which will be released soon to physicians statewide. The toolkit will give pediatricians access to valuable resources to use when treating children and educating families. These resources will take the level of care for childhood obesity in South Carolina to a completely new level.
As the state's public health and environmental protection agency, The SC Department of Health and Environmental Control (DHEC) is committed to addressing obesity in our state. Obesity is a major contributor to the diseases that kill the most people, make the most people sick, and cost the state the most money to treat. Because of this, obesity is a priority focus area for the agency.

To address the issue, DHEC is integrating obesity prevention and control measures into all applicable agency programs, investing resources into the areas of the state that are disproportionately impacted by obesity and leading an effort to bring all stakeholders together to create and implement a state plan to address the issue. Overweight and obesity are strongly linked to type 2 diabetes. Even a small weight loss of 10% has been shown to lower a person's A1C and therefore reduce hyperglycemia complications by 21% (microvascular and macrovascular). DHEC partners with family medicine practices and federally qualified health centers to increase access to Diabetes Self-Management Education/Training (DSME/T) programs which emphasize weight management and increased physical activity.

Childhood obesity is also a leading concern here in South Carolina, and DHEC partners with the SC Department of Social Services to implement nutrition and physical activity standards for child care providers across the state. DHEC provides training for child care center directors and staff utilizing the Eat Smart, Move More, Grow Healthy Toolkit which includes an assessment of the child care environment and strategies to improve the young child's nutrition and activity levels while in child care. DHEC also works in conjunction with the SC Department of Education, the Alliance for a Healthier Generation and MUSC Boeing Center for Children's Wellness to create school environments that promote healthy eating and physical activity before, during, and after the school day.
Eat Smart, Move More South Carolina

Eat Smart, Move More South Carolina (ESMMSC) is a 501(c)(3) non-profit organization that advances community-led change to reduce obesity, by making the healthy choice the easy choice for every South Carolinian.¹ We partner with national, state and local community leaders and focus on policy, systems and environmental changes that influence people to make healthy choices.

ESMMSC partners with several groups to impact healthy eating, active living (HEAL) in all communities. Through the Healthy South Carolina Initiative, we assisted grant recipients in community engagement project implementation. Over three years, 39 counties have been reached.

Over the past four years, we worked with our Colleton County chapter, as a result of funding from BCBS of SC Foundation, to implement a comprehensive community action plan promoting HEAL across multiple settings using the Let'sGo! marketing campaign, which includes LetsGoSC.org. Results indicate an increase in HEAL activities, and five schools received national recognition from the Alliance for a Healthier Generation for school wellness efforts. The Childhood Obesity Toolkit was created under this initiative, which is being launched statewide to physicians through the SCMA.

ESMMSC partners with USC Arnold School of Public Health on two projects: Healthy Young People Empowerment (HYPE) Project and Childhood Obesity Prevention in S.C. Communities (COPAcities) Project. The HYPE Project teaches middle and high school-aged youth how to advocate for healthy change in their communities. The COPAcities Project examines how methods of community organizing can be used to create food systems change.

Through a Voices for Healthy Kids grant, ESMMSC is collaborating with the American Heart Association and SC Alliance of YMCAs to pass state legislation to ensure students have access to healthy foods on campus during and after school.

References

¹ Eat Smart, Move More: Making the Healthy Choice the Easy Choice. Available at http://eatsmartmovemoresc.org.
The childhood obesity crisis has reached dramatic proportions in South Carolina. Many common adult co-morbidities of obesity are originated in the obese adolescent, including type 2 diabetes (T2DM), hypertension, and obstructive sleep apnea. The primary focus of our collective efforts to combat this epidemic should be directed at prevention and non-surgical treatment strategies, and when those efforts fail, bariatric surgery has been shown to be a highly effective, long-lasting solution to refractory adolescent morbid obesity.

PROTeens, a division of Bariatric Solutions, is the Greenville Health System (GHS) adolescent bariatric surgical program designed to serve those obese teens with severe to morbid obesity that are beginning to develop life-threatening medical comorbidity. Along with our pediatric colleagues in the GHS New Impact program, we help provide education regarding behavioral modification and dietary education. If patients meet strict inclusion criteria (weight above the 95th percentile) and have significant co-morbidity, they may be eligible for surgical therapy. Prospective patients must also have failed more than 6 months of organized attempts at weight management and must have obtained both physiologic and skeletal maturity.

The surgeons at PROTeens perform three common laparoscopic bariatric operations, including adjustable gastric banding, the sleeve gastrectomy, and the Roux en Y divided gastric bypass. In consultation with the surgeon, each patient and their family will make an informed decision regarding which operation is best for them. The results within the program have been exceptional. In addition to the substantial weight loss seen in our bariatric patients, 100% of teens with T2DM have reported complete remission of their disease. There has been almost complete resolution of hypertension, sleep apnea and hyperlipidemia in our surgical population.

As in adults, bariatric surgery in adolescents has proven to be a safe, effective, and long-lasting solution to severe and morbid obesity in teenagers. The providers at PROTeens continue to be active advocates for all preventative measures, both non-surgical and surgical efforts, which will reverse the extensive co-morbidity seen in the obese adolescent population.
The South Carolina Children's Hospital Collaborative has lead the way in prevention of childhood obesity and laid the groundwork for the success of the SCMA Childhood Obesity Taskforce. The Collaborative, including the Children's Hospitals at the Medical University of South Carolina, University of South Carolina, Greenville Hospital, and McLeod Hospital, has focused on obesity prevention since 2006 when the South Carolina Institute for Childhood Obesity and Related Disorders (SCICORD) was established with support from the Duke Endowment. The five year project developed many partnerships with state agencies and other organizations resulting in a framework for continued efforts in the fight against childhood and adolescent overweight/obesity. SCICORD bolstered links among the four state Children's Hospitals within the Collaborative and their obesity treatment and prevention programs. SCICORD also served as a resource for some of the work by the South Carolina Medical Association (SCMA) directed toward the obesity epidemic in South Carolina.

At the request of SCICORD, The Journal of the SCMA published a symposium of childhood and adolescent obesity in April, 2009. In that issue many state stakeholders communicated a wealth of scientific knowledge discussing the practice guidelines, community and school intervention programs, co-morbidities and other relevant topics associated with childhood obesity. Much work toward this public health issue has been accomplished since that publication, but there is much more to be done. It is evident that this work is occurring not only through the work of the SCMA, but The Children's Hospital Collaborative and many health care providers in South Carolina as well.
The SC Department of Social Services (SC DSS) is an active partner in the SCMA Childhood Obesity Taskforce, and focuses specifically on obesity prevention among young children. The SC DSS Division of Early Care and Education (DECE) improves the quality of early care and education for children birth through 12 years and assures the accessibility of quality care to families. SC DSS embedded nutrition and physical activity related standards (ABC Grow Healthy) into the ABC Quality Rating and Improvement System which provides a quality rating for over 1,000 child care programs statewide, impacting an estimated 85,000 children. ABC Grow Healthy has been recognized as an emerging intervention by the Center for Training and Research Translation at the University of North Carolina. Our implementation experience in strategies and support for childhood obesity prevention with young children in ECE environments has resulted in SC receiving one of ten invitations to participate in a national meeting on parent engagement convened by the Early Care and Education Innovation Collaborative of the Institute of Medicine’s Roundtable on Obesity Solutions.

These new standards complement other DECE programs addressing nutrition and physical activity in child care. The Child and Adult Care Food Program in DECE provides reimbursement to child care providers meeting program requirements related to serving healthier meals and snacks. Child Care Licensing regulations under DECE require child care providers to provide children daily opportunities for outdoor play and to follow USDA meal pattern guidelines. DECE’s Center for Child Care Career Development tracks provider training related to nutrition and physical activity for young children.

DECE recognizes that healthy eating and physical activity opportunities are components of quality child care. By integrating policies and practices that improve access and availability of healthy foods coupled with efforts to increase physical activity into existing programs, DECE aims to impact the nutrition and physical activity behaviors of children attending childcare, and ultimately influence the health status of children in South Carolina.
Childhood obesity is a continuing epidemic in the state of South Carolina. This issue is of growing importance to the SCMA Alliance and the Alliance is passionate about healthy lifestyles for our children. Further, the Alliance has been very proactive in educating the children and parents in South Carolina about childhood obesity.

How are we doing this? Through the Commit to Be Fit Health Fairs held by the Alliance. These fairs, which target fourth graders across the state of South Carolina, feature eight interactive and hands-on stations that model the Eat Smart, Move More program. The one hour health fair can be held in schools and other community events by request. Everyone has so much fun participating, including the children and adult volunteers!

To give you a glimpse of what the fair includes, here are the eight stations that we feature:

2. Healthy Snacks – Shows fun alternatives to snacking.
3. Grocery Shopping – Teaches children to read labels properly.
4. Cheeseburger Challenge – By jumping rope, it is revealed how much activity is needed to burn the calories of a cheeseburger.
5. How Much Fat – Helps children understand healthy fat vs. unhealthy fats.
6. Sugar Busters – Demonstrates how much sugar is actually in soda.
7. Fresh is Best – Focuses on what fruits and vegetables are fresh each month.

The SCMA Alliance would love for your county, school, or organization to be involved by allowing us to host a Commit to Be Fit Fair! If your county does not have an Alliance, but would still like to host a fair, please let us know.

For more information or to host a fair, please contact Lauren Sutton at lalasutton@aol.com
October 2014

Friday                              October 3, 2014
Grove Park Inn | Ashville, North Carolina
South Carolina Neurological Association’s 2014 Annual Meeting
DESCRIPTION: Annual scientific meeting of the South Carolina Neurological Association
TARGET AUDIENCE: Neurologists
FACULTY: Stephen Macknik, PhD; Susan Martinez-Conde, MD; Greg Esper, MD; Ann Tildon, MD; Daniel Kremens, MD; Francis Walker, MD; Souvik Sen, MD
TUITION: $100.00 for SCNA members
CONTACT: Tamra Smith 803-798-6207 or tamra.smith@scmedical.org
http://scna.aan.com
This activity has been approved for AMA PRA Category 1 CreditsTM

Friday                              October 3 – 5, 2014
Marriott Harbor Beach | Fort Lauderdale, Florida
Update in Joint Reconstruction Surgery Symposium
SPONSOR: Cleveland Clinic Florida in collaboration with the CORE Institute
DESCRIPTION: The course will focus on the challenges and controversies in hip and knee arthroplasty, using an evidence-based approach to provide best clinical practice recommendations. The course will also provide guidance in the implementation of new technologies.
TARGET AUDIENCE: Orthopedic surgeons, fellows, residents, physician assistants, nurses and other interested health care professionals.
FACULTY: Program Director: Juan C. Suarez, MD
TUITION: $
CONTACT: Lois R. Hill, CME Department Cleveland Clinic Florida 954-659-5490 hilll5@ccf.org
www.ClevelandClinicFloridaCME.org
This activity has been approved for AMA PRA Category 1 CreditsTM

November 2014

Saturday                              November 12, 2014
Francis Marion Hotel | Charleston, South Carolina
National Pharmacology Conference 2014: Incorporating Evidence-Based Practice
SPONSOR: Medical University of South Carolina
DESCRIPTION: The need for evidenced-based practice in neonatology is increasingly important as clinical decisions and treatments are made. The conference is designed to help NICU professionals including physicians, nurse practitioners, nurse managers and experienced staff nurses make those decisions. The goal of the conference is to share evidence based approaches to the care of the neonate.
TARGET AUDIENCE: NICU professionals
FACULTY: Please see the brochure at www.musc.edu/cme
TUITION: Physicians early registration: $465 Regular: $495 One day:$250
CONTACT: Elizabeth Gossen 843-876-1960
gossen@musc.edu
www.musc.edu/cme
This activity has been approved for AMA PRA Category 1 CreditsTM

December 2014

Friday                              December 5 – 7, 2014
Francis Marion Hotel | Charleston, South Carolina
17th Annual Frontiers in Pediatrics
SPONSOR: Medical University of South Carolina
DESCRIPTION: The Division of General Pediatrics, MUSC - Department of Pediatrics, is pleased to present a three-day Continuing Medical Education Course designed to meet the needs of pediatric primary care practitioners, including Pediatricians, Family Physicians, and Nurse Practitioners. The course is organized to allow extensive discussion with presenters by limiting pure lecture presentations.
TARGET AUDIENCE: Pediatric Primary care Practitioners, including Pediatricians, Family Physicians, and Nurse Practitioners.
FACULTY: Please see the brochure at: www.musc.edu/cme
TUITION: Physician in Practice (with Online Syllabus) Early Registration: $445 Regular: $495 On-site: $545
CONTACT: Elizabeth Gossen 843-876-1960
gossen@musc.edu
www.musc.edu/cme
This activity has been approved for AMA PRA Category 1 CreditsTM
Saturday December 6, 2014
The Country Club of Charleston | Charleston, South Carolina
14th Annual Primary Care Symposium
SPONSOR: Roper St. Francis
DESCRIPTION: In its 13th year, the Primary Care Symposium will focus on: updates in atrial fibrillation, diabetes, Alzheimer’s, lipid management and back pain.
TARGET AUDIENCE: Primary Care Physicians, Nurses and Physician Assistants
FACULTY: Jacob Mintzer, MD; Matthew O’Steen, MD; John Ciccone, MD; Wayne Weart, MD and more…
TUITION: $ 50
CONTACT: Julie Radabaugh 843-789-1540
www.rsfh.com/symposium
This activity has been approved for AMA PRA Category 1 Credits™

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