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For more information, please visit our website

http://www.musc.edu/diabetes
EXECUTIVE SUMMARY
EXECUTIVE SUMMARY

The Diabetes Initiative of South Carolina (DSC) is charged with maintaining the updated standards for the clinical management of diabetes and patient education in the state. The DSC efforts have contributed to multiple accomplishments during the year 2011. Specifically highlighting, the significant improvements include:

- Release of updated clinical guidelines for the management of diabetes in SC;
- Improvement and enhancement of the DSC website to ease access to diabetes-related materials for health care providers and patients;
- An increase in the number of health care providers participating in the 2011 education and training programs;
- Establishment and implementation of the processes to assess, approve, and make available patient education programs and materials for diabetes;
- Implementation of diabetes care and treatment recommendations from the Board and Councils focused on improved quality of care;
- A significant decline in the rate of lower extremity amputations for South Carolinians with diabetes;
- An increase in the number of South Carolina health care providers receiving state-of-the-art diabetes treatment regimens;
- An increase in the number of community-based coalitions focused on the treatment and prevention of diabetes in South Carolina;
- An increase in the number of diabetes-related research and amount of extramural funding for the state;
- Establishment of enduring education materials for health care providers across the state;
- Maintenance of collaboration with the MUSC Office of Continuing Medical Education to assure high quality educational materials and programs for health care providers across the state.

The Diabetes Initiative represents a unique model for the rest of the nation to address the burden of diabetes. DSC functions as a mechanism for individuals and organizations to work together in maximizing the efficiency of activities and interventions. The collaborations of DSC with the South Carolina Department of Health and Environmental Control, the American Diabetes Association and the Centers of Excellence (Charleston, Columbia and Greenville) have resulted in great strides in diabetes prevention and control in South Carolina. Such cooperation with a central goal significantly reduces both the health burden and the economic burden in the state. The DSC Board acts as a forum for these groups as well as other agencies, health care providers, and organizations to facilitate preventive health services. In fact, the Diabetes Initiative represents a true statewide partnership that continues to expand. This collaborative body, consisting of the key groups and organizations regarding the reduction of the diabetes burden, has developed strategies and policies that have greatly enhanced the quality of diabetes care in South Carolina.

The partnerships, working through the three Councils (Outreach, Professional Education, and Surveillance), demonstrated significant risk and cost reductions from diabetes across the state in 2011.

The Outreach Council continues the impressive coordination of programs focused on patient education targeting the highest risk segments of the population. The Council works closely with the Diabetes Advisory Council to assess community needs and maintains an efficient and consolidated outreach effort. These programs have increased diabetes awareness and continue to motivate patients with diabetes to maintain their care. An annual conference is held for individuals affected by diabetes where multiple aspects of the disorder are presented and discussed. Several major extramurally funded grants continue to focus on imparting information about diabetes to diverse audiences. Over 200 diabetic children and youths with diabetes attended Camp Adam Fisher, where they learned the latest news about diabetes management from their peers and from volunteer health professionals.

Professional education remains a major focus of the Diabetes Initiative of South Carolina. The 17th Annual Diabetes Fall Symposium for Primary Health Care Professionals was attended by nearly 400 health professionals offering state-of-the-art presentations of scientific topics on diabetes treatment and control. The Symposium also provides a forum for young investigators throughout the state to present their research. In addition, special diabetes-related seminars were conducted in collaboration with AHEC for live programs broadcast across the state and enduring materials available to providers. Additionally, diabetes educational conferences were conducted throughout the state, including the 9th Annual Diabetes/Heart Disease & Stroke Winter Symposium. DSC continues delivery of very successful
programs to train more Certified Diabetes Educators in the state of South Carolina and also maintains several websites which highlight recent developments in diabetes research and care for health professionals.

The Surveillance Council’s efforts have identified positive results from interventions and programs, as well as provided data feedback to clinicians to aid in the management of diabetes. Significant increases were detected in the frequency of diabetes-related monitoring, including blood glucose, hemoglobin A1c, lipids, blood pressure, foot examination and eye examination from health professionals. In addition, treatment rates of associated factors, including hypertension and elevated blood lipids, have dramatically improved. These trends have coincided with the downward trends in lower extremity amputations and in heart attacks and strokes among people hospitalized with diabetes. These improvements and trends were reported in medical journals including the Journal of the South Carolina Medical Association.

The people of South Carolina continue to have excess physical and financial burden of diabetes and diabetes-related outcomes. However, the maintenance of collaborative efforts of the Diabetes Initiative of South Carolina has functioned as a response to the needs of the public and allowed the implementation of strategies and programs in a fiscally responsible manner. While great strides have been made in reducing the burden of diabetes, the plans to be implemented in 2012 will further lead to a better quality of life for all South Carolinians, and we look forward to presenting those future accomplishments.
HISTORICAL BACKGROUND
HISTORICAL BACKGROUND

In 1991, the Division of Diabetes Translation, Centers for Disease Control, Atlanta, Georgia, published updated trends in diabetes and in diabetic complications in the United States, between 1980 and 1989. Major trends included an increasing prevalence of diabetes and increasing hospitalization rates among diabetic individuals for the serious complications of amputations, end stage renal disease, myocardial infarctions and cardiovascular death. The prevalence of diabetes was doubled in blacks when compared with whites. There was an increase in all major cardiovascular complications among blacks with diabetes. Diabetes was the leading cause of blindness among adults, and women with diabetes were at an increase risk for adverse outcomes of pregnancy.

These issues were magnified in South Carolina, relative to most other states in the United States. Diabetes prevalence was estimated at 6.1%, 5th among 38 states surveyed. Diabetes as a contributor to mortality was increasing in incidence in South Carolina and diabetes accounted for approximately 11% of hospital admissions. Overall, 14% of hospital beds were occupied by people with diabetes. Longitudinal data in the decade of 1980-1990 revealed increases in the prevalence of excess weight, self-reported hypertension and high blood cholesterol in individuals known to have diabetes. Hospitalization rates for renal failure, amputation, and myocardial infarction were increasing and the mortality rate for diabetes as one of the listed causes of death in South Carolina was steadily rising, from 50.7/100,000 population in 1980 to 71.1/100,000 population in 1992.

Shortages of health care professionals involved in care for people with diabetes were recognized. In particular, there were inadequate numbers of primary care physicians, endocrinologists, nephrologists, certified diabetes educators, podiatrists, and pharmacists trained in the care of people with diabetes. Major physician health professional shortages were identified by the Office of Primary Care, S.C. DHEC in 50% of the 48 counties in South Carolina and 74% of the counties in the state were designated by the S.C. State Health and Human Services Commission as medically underserved.

Crude estimates of quality of care for people with diabetes were made. In one survey of type 2 diabetes patients in 1994, 24% had not seen a medical doctor in the past year for diabetes, only 34% reported that they checked blood glucose at least once a day, and a mere 28% had ever heard of HbA1c. Of these, only 18% had an A1C check in the past year. Approximately one quarter of the diabetes individuals reported eye examinations and less than half said they had a foot examination in the past year. It was found that diabetes education had been provided to less than 50% of diabetic individuals.

Evidence was appearing from large scale collaborative clinical trials that the risks of morbidity and mortality from such cardiovascular complications as myocardial infarction and stroke could be substantially reduced by intensive management of lipid profiles and elevated blood pressure. In 1993, the seminal report from the Diabetes Control and Complications Trial (DCCT) established that intensive glycemic regulation in type 1 diabetes would substantially decrease the risks for the progression of retinopathy, nephropathy, and neuropathy. Simple, inexpensive low dose aspirin therapy produced modest risk reductions for myocardial infarction as a secondary prevention strategy. Microalbuminuria was recognized as a risk marker for cardiovascular events and for renal failure, and it was predicted that intervention trials with angiotensin converting enzyme inhibitors (ACEI) would be effective in delaying progression of these serious complications.

Thus, a serious public health problem of diabetes and its complications was recognized in South Carolina and in the United States. An undersupply of qualified health professionals was on hand to deal with the increasing demands of more intensive education and health care for people with diabetes. Ominous upward trends in mortality and morbidity statistics were present, and an increasing incidence of markers of future cardiovascular events (hypertension, cholesterol, over weight/obesity) was occurring. It was evident that an action plan was needed.
10 YEAR STRATEGIC PLAN
The Diabetes Initiative of South Carolina (DSC) was created by legislative action and signed into law by the Governor of South Carolina in July, 1994. The law established a Board of Directors with members appointed by the top officials of key organizations with an interest in diabetes and its complications. The Board has met quarterly since that time and has annually submits this Report. It is referred for progress review by the Legislature and the Governor.

The Organization Chart of the Diabetes Initiative of South Carolina is shown below:

There are three Councils; the Center of Excellence, Outreach, and Surveillance Council. There is a Diabetes Center of Excellence, established in the original legislation, based at the Medical University of South Carolina. This Center is responsible for administering the many activities and programs of DSC and its Board and Councils. It is also responsible for developing and administering professional education programs for health professionals of all varieties in South Carolina, to improve their knowledge and abilities to care for people with diabetes in our state. The Outreach Council is responsible for community interface, with a broad goal of improving diabetes care and education directed at people affected by diabetes. The Surveillance Council is responsible for acquiring, analyzing and distributing epidemiologic information about diabetes including its prevalence costs, morbidity, and mortality. This Council works closely with the Diabetes Prevention and Control Program of SC Department of Health and Environmental Control, and issues regular Burden Reports on the scope and impact of diabetes in South Carolina. A DSC site has been established in the School of Medicine at USC, and provides a critical mechanism for liaison between the two schools and for oversight of programs and activities in the midlands and upstate regions of South Carolina.

We also regularly interact with the American Diabetes Association, Carolinas Center for Medical Excellence, the Hypertension Initiative of South Carolina and the Area Health Education Consortium. Full reports from key components in the DSC structure are included in this Report.
The DSC Board developed a Long Range Strategic Plan in 1998, and has been monitoring results relating to its goals and objectives on a regular basis. The plan has 9 major goals, and The Board expects quantitative evidence of progress towards achieving these goals during the ten year time span of The Plan, 1998 - 2008. These goals are:

**Goal I:** To improve knowledge of diabetes, quality of life, and access to prevention and intervention services for people at risk and those affected by diabetes.

**Goal II:** To increase the utilization of short-term (surrogate) measures which lead to actions that will delay progression of complications of diabetes.

**Goal III:** To address the needs of persons at risk and with diabetes by increasing services and education in health professional shortage areas in South Carolina.

**Goal IV:** To reduce the morbidity rates from diabetes-related complications.

**Goal V:** To reduce the age-adjusted mortality rates from diabetes and its complications.

**Goal VI:** To decrease risks for select groups of people with diabetes where the prevalence and complication rates exceed those of others.

**Goal VII:** To reduce preventable hospital admissions and charges for diabetes.

**Goal VIII:** To reduce preventable visits to the emergency room by people with diabetes.

**Goal IX:** To improve the statistical basis for estimating the prevalence of diabetes in South Carolina.

The mechanisms by which these goals may be achieved are given in the following outline.
In calendar year 2004, we completed a review of 5 years of progress, which concentrated on the first 3 goals of the 10 Year Strategic Plan. We recognized that the legislation had created a uniquely successful statewide collaborative effort. Programs were generally on target and were productive. Examples were community outreach, professional and patient education programs, and surveillance of trends in diabetes care. It was recognized, however, that prevalence of diabetes and obesity was increasing, and that comorbidities such as hypertension and altered blood lipids complicated overall management. Major extramural grant funding for community-based programs and clinical trials had been acquired at MUSC and at USC. Overall, progress with that unique combination of public and private resources (federal, state, regional and local support) had been exciting.

In 2011 the Diabetes Initiative of SC evaluated the 10 Year Strategic Plan for improving diabetes in South Carolina. Programs that have been operative for a sufficient time to see trends in morbidity, mortality, hospitalizations, emergency room visits, and health disparities among people with diabetes in South Carolina were assessed. After this analysis by the Board, Councils, and major partners, we published a monograph “The State of Diabetes in South Carolina: An Evaluation of the First Ten Year Strategic Plan of the Diabetes Initiative of South Carolina.” Areas of defined advances were described as well as issues which require further attention. Since diabetes mellitus is a chronic disease with very long-term complications, it is likely that another decade (or more) of work will be needed to be certain that promising trends are sustained and real.
BUDGET
AND
RESEARCH GENERATED IN PARTNERSHIP WITH DSC
DSC OPERATING BUDGET

**FY 2011 – 2012**

State Appropriation $ 289,088  
Less Cuts 192,782  
Total Budget $ 96,306

RESEARCH GENERATED IN PARTNERSHIP WITH DSC
We are pleased to report major partnership opportunities in diabetes research for fiscal year 2011.

1. **South Carolina Diabetes Prevention and Control Program-DHEC (SC DPCP-DHEC):**
   The Diabetes Prevention and Control Program (DPCP) within the Department of Health and Environmental Control is funded by the Centers for Disease Control and Prevention's Division of Diabetes Translation. This five-year grant, which added an additional one-year cost extension, focuses on strengthening secondary and tertiary prevention of type 2 diabetes through improvements in health communications, health systems, and community interventions. To carry out these aims, the DPCP operates under a systems based approach, working together with partners to create the conditions necessary for people with type 2 diabetes to live healthy lives. The Diabetes Initiative of South Carolina Board of Directors provides clinical oversight to the program whose goals and aims are integrated into and complementary of DSC's Strategic Plan.  
   PI: Mike Byrd, PhD, MPH

2. **LOOK-AHEAD:** This study addresses questions of macronutrient intake in relation to cardiovascular risk factors and clinical events in persons with type 2 diabetes under conditions of either usual care or intensive weight loss intervention. USC holds a subcontract for the study wide dietary assessment and is responsible for the collection, quality control, and analysis of dietary data from the 20 clinical centers nationwide. PI: Michele Nichols

3. **Epidemiology of Diabetes Intervention and Complications (EDIC)** is a follow-up study of the course of patients enrolled in the Diabetes Control and Complications Trial (DCCT) in Charleston. Along with patients from 27 other centers in United States and Canada, this is a study of vascular complications after long-term glycemic control in type 1 diabetes. Another 10 year follow-up (2006 – 2015) is approved. PI: Jeremy B. Soule, MD

4. **REACH US: Center of Excellence for Eliminating Disparities (REACH SeaCEED)** is funded by the Centers for Disease Control and Prevention and focuses on community-based participatory approaches to eliminating disparities in African Americans at risk and with diabetes. Each year, the Center offers Legacy funding for 2/3 counties to address diabetes prevention and control in African Americans. DSC serves as the scientific review group for the Center. PI: Carolyn Jenkins, DrPH

5. **Nutrition and Metabolic Status in Youth with Type 1 DM: SEARCH Ancillary Study (SNAS):** SNAS uses both cross-sectional and longitudinal designs, with the overall study goal being to examine associations of nutritional factors with 1) the progression of insulin secretion defects, and 2) the presence of CVD risk factors in youth with DM. PI: Angela Liese, PhD

6. **Developing Measures of the Built Nutrition Environment:** This project aims to apply and further develop accessibility measures of the built nutritional environment using GIS technology. It will rigorously evaluate the statistical properties of the nutritional accessibility measures and explore their spatial attributes in study area comprising seven rural and one urban county. PI: Angela Liese, PhD

7. **Genetic Contributors to Diabetes and Dyslipidemia in African Americans:** PI: Jyotika Fernandes, MD

8. **Diabetes Reversal by Gastric Bypass – Microbiome, Hepatic and Endocrine Mechanisms:** PI: Leonard Egede, MD; Co-PI: Jyotika Fernandes, MD
9. The HMH Trial: Randomized, Clinical Trial of Subcutaneous Analog Basal Bolus Therapy Versus Sliding Scale Human Regular Insulin in the Hospital Management of Hyperglycemia in Non-Critically Ill Patient without Known History of Diabetes. PI: Kathie Hermayer, MD
10. Basal Plus Trial: Basal Bolus Versus Basal Insulin Regimen for the Treatment of Hospitalized Patients with Type 2 Diabetes Mellitus: A Randomized, Open-Labeled, Non-Inferiority Controlled Study. PI: Kathie Hermayer, MD
11. DEFEND 1: Durable-Response Therapy Evaluation for Early-or New-Onset Type 1 Diabetes. PI: Jeremy B. Soule, MD
12. LEADER Trial: To assess the effect of treatment with liraglutide compared to placebo for at least 3.5 years and up to 5 years on the incidence of cardiovascular events in adults with type 2 diabetes who are at high risk for cardiovascular events. PI: Ali Rizvi, MD
14. Telephone delivered behavioral skills intervention for Blacks with type 2 Diabetes: R01 from National Institutes of Health, NIDDK. Co-PI: Carolyn Jenkins, DrPH
15. Project Impact from AphA Foundation to improve diabetes outcomes, a cooperative project with DSC/O’QUIN, and Eau Claire Health Center.
### SUMMARY OF RESEARCH GENERATED IN PARTNERSHIP WITH DSC

#### (APPROXIMATE SUPPORT)

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>P.I.</th>
<th>YEARLY</th>
<th>TOTAL</th>
<th>YEARS</th>
</tr>
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<tbody>
<tr>
<td>1. SCDCP-DHEC</td>
<td>M. Byrd</td>
<td>689,585</td>
<td>4,137,510</td>
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<td>2. LOOK AHEAD</td>
<td>M. Nichols</td>
<td>57,242</td>
<td>609,298</td>
<td>2002-2013</td>
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<td>3. EDIC</td>
<td>J. Soule</td>
<td>179,750</td>
<td>1,682,227</td>
<td>2006-2015</td>
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<td>4. REACH SeaCEED</td>
<td>C. Jenkins</td>
<td>850,000</td>
<td>4,250,000</td>
<td>2007-2012</td>
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<td>5. SNAS – USC Site</td>
<td>A. Liese</td>
<td>82,780</td>
<td>236,580</td>
<td>2008-2012</td>
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<td>9. HMH Trial</td>
<td>K. Hermayer</td>
<td>40,256</td>
<td>205,105</td>
<td>2010-2011</td>
</tr>
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<td>11. DEFEND 1</td>
<td>J. Soule</td>
<td>67,419</td>
<td>202,258</td>
<td>2008-2011</td>
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<td>12. LEADER Trial</td>
<td>A. Rizvi</td>
<td>69,665</td>
<td>348,325</td>
<td>2010-2015</td>
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<td>13. SPRINT</td>
<td>A. Rizvi</td>
<td>87,720</td>
<td>789,477</td>
<td>2009-2017</td>
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<td>14. Telephone Inter</td>
<td>C. Jenkins (Co-PI)</td>
<td>603,235</td>
<td>2,412,941</td>
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<tr>
<td>15. Project Impact</td>
<td>C. Jenkins</td>
<td>25,000</td>
<td>25,000</td>
<td>2011-2011</td>
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<tr>
<td>16. LEADER Trial</td>
<td>K. Hermayer</td>
<td>67,491</td>
<td>404,950</td>
<td>2010-2015</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>$3,421,692</td>
<td>$17,060,542</td>
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**Comment**

Yearly funding of programs in education, care, and clinical research focus on improving outcomes for people with diabetes in SC. Total funding is now at $17 million, and yearly funding exceeds $3 million. This yearly extramural funding is more than 11 times our current state budget. Thus, the modest investment that the state has provided for the Diabetes Initiative of South Carolina’s core funding has paid very impressive dividends in attracting extramural support for 16 long-term projects which address a wide variety of issues relating to diabetes and its complications.
DIABETES INITIATIVE OF SOUTH CAROLINA
OUTREACH COUNCIL ANNUAL REPORT
JANUARY 1, 2011 – DECEMBER 31, 2011
Diabetes Initiative of South Carolina  
Outreach Council  
January 1, 2011 – December 31, 2011  
Annual Board Report

Functions
As defined by Section 44-39-50 amendment to 1976 Code of Laws for South Carolina, the Diabetes Outreach Council shall oversee and direct efforts in patient education and primary care including:

1. Promoting adherence to national standards of education and care.
2. Ongoing assessment of patient care, costs, and reimbursement issues for persons with diabetes in South Carolina.
3. Preparing an annual report and budget proposal for submission to the Diabetes Initiative of South Carolina Board.

WEBSITE: [www.musc.edu/diabetes/outreachcouncil](http://www.musc.edu/diabetes/outreachcouncil)

Prominent Activities 2011

Elizabeth Todd-Heckel, MSW, CDE

- Prevention Partners, Employee Insurance Program, SC Budget and Control Board – 150 state employees; Educators: Elizabeth Todd Heckel, MSW, CDE; Sharm Steadman, PharmD, CDE; Ramsey Makhuli, MPH
- Family Practice Diabetes Education Groups; 1st and 3rd Tuesday of every month; Educators: Elizabeth Todd Heckel, MSW, CDE; Sharm Steadman, PharmD, CDE; Ramsey Makhuli, MPH
- “Diabetes Strategies in the 21st Century” – 150 people; Pam Arnold, MSN, CDE; Elizabeth Todd Heckel, MSW, CDE
- Literature Review Committee; reviewed resources and links to patient educational material to be on DSC website: [www.musc.edu](http://www.musc.edu)

Carolyn Jenkins, DrPH, APRN, BC-ADM, RD, LD, FAAN

- Developed Guidelines for Diabetes Care in South Carolina in collaboration with Dr. K. Hermayer and Diabetes Advisory Committee (DAC) presented at 16th Annual Fall Symposium by Ray Greenburg, PhD
- Met with SC Baptist Association Health Leaders to develop plan for improving diabetes in African American Baptist Churches and assisted in preparation of grant.
- Funded 2 South Carolina sites (Eau Claire Cooperative Health Center and South Carolina Active Lifestyles –SCAL) through REACH to improve diabetes in African American communities.
- REACH workshop in Elizabeth City State University to improve healthy eating for diabetes prevention and control.
- Planning Committee for the DHEC Winter Symposium in Myrtle Beach attended by about 200 persons.
- Served as faculty advisor for 10 student projects on improving diabetes.
- Advisor for Academic High Student who focused on a survey of African Americans with Diabetes.
- Diabetes presentations —2 at Southern Nursing Research Society in Jacksonville, Florida
- Project Power Training for ADA—a program for implementing diabetes activities in African American churches.

Kathie Hermayer, MD, MS, FACE

- Attained Advanced In-patient Hospital Diabetes Certification awarded by Joint Commission-ADA on behalf of MUSC (38th hospital in the USA to achieve this distinction) – 8/30/11. Kathie Hermayer, Pam Arnold, Mary-Eliese Merrill, Diabetes Management Service (DMS), Hospital Diabetes Task Force (HDTF), health care employees at MUHA, and patients at MUSC.
• Awarded the R4R Health Care Innovation Challenge Award for In-patient Diabetes Care on behalf of MUSC (1 of 3 award winners from the Association of American Medical Colleges [AAMC], 40 total submissions)-$5,000 award. Presented at the Council of Teaching Hospitals (COTH) luncheon at the AAMC Annual Meeting in Denver, Colorado- 11/7/11. Co-authors for the award: Dr. Pat Cawley, Dr. Kathie Hermayer, Dr. Louis Luttrell, Pam Arnold, RN, and Mary-Eliese Merrill, RN.

Accepted or Published in Peer-Reviewed Journals 2011
Carolyn Jenkins, DrPH, APRN, BC-ADM, RD, CDE

Research/Grants/Outreach
Current Grants:
Ali Rizvi, MD, CDE
• Principal Investigator, LEADER Trial: To assess the effect of treatment with liraglutide compared to placebo for at least 3.5 years and up to 5 years on the incidence of cardiovascular events in adults with type 2 diabetes who are at high risk for cardiovascular events. Sponsor: Novo Nordisk, 2010-2015 ($348,325)
Carolyn Jenkins, DrPH, APRN-BC-ADM, RD, LD, FAAN
• Principal Investigator for Technology Center for Healthful Lifestyles (Co-PI) $6 million with $3 million to MUSC CON from Centers of Economic Excellence and $600,000 from Health Sciences South Carolina. 2009-ongoing.
• Co-Investigator for Telephone delivered behavioral skills intervention for Blacks with type 2 Diabetes ($2,412,941 R01 from National Institutes of Health, NIDDK. 2008-2012.
• Principal Investigator for REACH US: Southeastern African American Diabetes, Hypertension and Stroke REACH US Center of Excellence for Eliminating Disparities (Principal Investigator) $4.25 million from Centers for Disease Control and Prevention $850,000/ year. 2007-2012.
• Project Impact from AphA Foundation to improve diabetes outcomes, a cooperative project with DSC/O’QUIN, and Eau Claire Health Center $25,000/ year for Eau Claire to improve diabetes education.

Kathie Hermayer, MD, MS, FACE
• Randomized Clinical Trial of Subcutaneous Analog Basal Bolus Therapy Versus Sliding Scale Human Regular Insulin in the Hospital Management of hyperglycemia in Non-Critically Ill Patients Without Known History of Diabetes: The HMH Trial. (2010-2011) PI: Kathie Hermayer $205,105
Grants Submitted:
Carolyn Jenkins DrPH, APRN-BC—ADM, RD, FAAN
- Bristol Myers Squibb Foundation—Sweet Sister Support Network to improve diabetes in African American women who are hospitalized with diabetes. (not funded)
- BEACON (Clark PI for Grant) Care Coordination with a focus on Diabetes and CVD (Jenkins-CoPI for Care Coordination) (finalist but not funded)
- NIH/NIDDK R34 Coordinated Action for Transitional Care from Hospital to Home (CATCHH) for patients with diabetes. Jenkins and Hermayer—Dual PIs (in review)
- NIH/NIMHD P60 CREST (Egede PI for Center) Community Outreach and Engagement CORE Jenkins---PI with a focus on diabetes and CVD prevention and interventions. (in review and JIT requested)

SC Vocational Rehabilitation:
- Total number of clients served: 1,342 with 516 new referrals and 348 rehabilitated.

REACH U.S. (Carolyn Jenkins):
- Georgetown Diabetes Core Group developed and presented a Dinner Theater/Play focused on diabetes----It’s Just a Touch of Sugar. Funds generated will be used to provide monitoring strips, medications and other services for diabetes.
- 2 diabetes self-management programs received certification from AADE and another is in preparation. Ongoing diabetes classes in 5 sites throughout Charleston and Georgetown counties.
- REACH team provided screening of A1c, BP, Lipids and Waist Circumference for State Legislature on behalf of DSC on March 29, 30, 31, 2011.
- Coalitions continue to generate funding for diabetes medications, strips and other services for those unable to afford medications.
- REACH U.S. worked with REACH Stroke and we obtained funding to test methods for increasing stroke awareness and early intervention in Georgetown County. The project will be implemented in 2012.
- Legacy projects funded for Columbia College, Mississippi, Elizabeth City State University, and NC Public Health Foundation Project DIRECT. All focus on improving diabetes outcomes through healthy gardening, healthy eating, increasing physical activity and improving diabetes awareness and education. All will be implemented during late 2011 and 2012.
- The Coalitions worked with National REACH Coalition for continued funding for health disparities. Senator Graham and the Senate Appropriations Committee included REACH funding in the Senate budget proposal that has been approved for 2012.
- Bus campaign in Charleston promoted Stop, Slow, Go---focused on healthy eating and physical activities. The campaign was conducted in collaboration with Trident Urban League.
- The focus on REACH for 2012 is retrospective program evaluation through key leader interviews, focus groups, and chart audits, and epidemiological data evaluation to determine progress on decreasing or eliminating disparities.
- For persons participating in diabetes self management education classes, the average A1C dropped from around 10% to 7%. We will evaluate further effects during the chart audit.
- REACH continues to work toward implementing SC Guidelines for Diabetes Care across clinical and community sites.
- The challenge for REACH is sustainability of grant activities as funding decreases.
Functions
As defined by Section 44-39-70. (A) A Diabetes Center of Excellence is established at the Medical University of South Carolina. The center shall develop and implement programs of professional education, specialized care and clinical research in diabetes and its complications, in accordance with priorities established by the Diabetes Initiative of South Carolina Board.

The activities of the Center are overseen and directed by the Center of Excellence Advisory Council. The Council’s purpose is to:

- Review programs in professional education, specialized care, and clinical research developed by the center.
- Assist in the development of proposals for grant funding for the center’s activities.
- Prepare an annual report and budget proposal for submission to the Diabetes Initiative of South Carolina Board.

Professional Education Activities:

- Completed:
  2. 17th Annual Diabetes Fall Symposium for Primary Health Care Professionals, September 22 & 23, 2011, North Charleston Convention Center, North Charleston, SC – Attendance: Day 1 = 283; Day 2 = 212

- Planned:
  2. 18th Annual Diabetes Fall Symposium for Primary Health Care Professionals; September 20 and 21, 2012, North Charleston Convention Center, North Charleston, SC

Professional Presentations:

- Case Studies: Inpatient and Outpatient 2/24/2011
- Self-Management Education and the “AADE 7” 2/25/2011
- Diabetes Care in the Hospital, Beaufort, SC, 11/3/11
- Diabetes Care in Nursing Homes, Charleston, SC, 11/10/11

Meetings:

- MUSC Hospital Diabetes Task Force
- Hospital Quality Committee
- JC Inpatient Diabetes Certification Task Force
- MUSC Diabetes Advisory Committee for Patient Education

Projects:

- Joint Commission Diabetes Inpatient Certification (received certification 8/2011)
- MUSC 4-site ADA Outpatient ERP 1/2009-1/2012 ongoing maintenance
- The Literature Review Committee (professional and patient education materials for DSC website)
- The Guidelines for Diabetes
- MUSC Diabetes Awareness Day
- MUSC Stroke Awareness Health Fair
Clinical:
- MUSC Diabetes Management Service

Abstracts Presented:
- Sora, ND, Marlow, NM, Bandyopadhyay, D, Leite, RS, Slate, EH, Fernandes, JK. Association Between Metabolic Syndrome and the Extent of Severe Periodontitis in Gullah Population. Accepted: AACE Meeting, San Diego, CA April 13-17, 2011
- Sora, ND, Marlow, NM, Bandyopadhyay, D, Leite, RS, Slate, EH, Fernandes, JK. Association Between Metabolic Syndrome and the Extent of Severe Periodontitis in Gullah Population. Accepted: SSCI regional meeting Feb 17-19, 2011. New Orleans, LA
- Wei-Min Chen, Yiqi Hang, Fang Chen, Keith L. Keene, Jasmin Divers, Josyf C. Mychaleckyj, Uma Nayak, Xuanlin Hou, Diane L. Kamen, Kelly J. Hunt, Ida J. Spruill, Jyotika K. Fernandes, Mary Cushman, W. Timothy Garvey, Michele M. Sale. A Genome-Wide Association Scan of Lipids and Lipoprotein subclasses in African Americans Including the Sea Island Gullah
- Ramirez ML+, Hermayer KL. Opiod Induced Adrenal Insufficiency. AACE 20th Annual Meeting and Clinical Congress. San Diego, California. April 13-17, 2011

Publications:
- Gore, A, Hull, BJ. Too much of the good thing? Vitamin D toxicity, Endo Trends, accepted for publication, 2011
- Hull, B.J., Gore, A., Aberrantly Elevated TSH level due to Human Anti-Mouse Antibodies (HAMA) interference with thyrotropin assay, Journal of the South Carolina Medical Society, accepted for publication, 2011
DIABETES INITIATIVE OF SOUTH CAROLINA SURVEILLANCE COUNCIL ANNUAL REPORT JANUARY 1, 2011 – DECEMBER 31, 2011
The Surveillance Council was involved with numerous major achievements during 2011 (year 17). A primary objective was the development of the evaluation plan and report format for the first 10-year strategic plan followed with the development of the second 10-year strategic. Rather, it was proposed that an evaluation plan be ongoing as the objectives and measures change with time. The committee obtained data regarding the aims and objectives from the Strategic Plan and evaluated changes in the measurement parameters. There was a focus on the evaluation of several major activities. In particular, the impact of the release of the new management guidelines on diabetes control. In addition, the Council has assessed the impact of the education programs.

The data and slides are available on the DSC website. These measures will be used to design the second 10-year strategic plan.

Three areas of focus included the surveillance of diabetes-related outcomes trends, clinical practices related to the management of diabetes, and the continued use of the DSC webpage as a source of information and data regarding diabetes in South Carolina. The surveillance activities for outcomes trends identified several key findings focused on amputations, cardiovascular disease hospitalizations, stroke hospitalizations, cardiomyopathy and hypertension identifying significant improvement, particularly in lower extremity amputations and outpatient risk factor control. Equally important, the racial disparity gap for whites and blacks has been narrowing with progress among African Americans with diabetes showing greater improvement than their white counterparts. Similarly, no differences in case-fatality rates between hospitalized white and black individuals were detected indicating similar treatment in hospital settings in South Carolina. Likewise, cardiomyopathy remains a major complication for diabetes with similar trends and racial disparities identified in the South Carolina population. In addition, intensive treatment of diabetes was identified with improvement in peripheral vascular disease. These results were reported in the *Diabetes Care*, *Southern Medical Journal* and *Ethnicity and Disease*.

The assessments co-morbid conditions including hyperlipidemia and hypertension with diabetes have identified significant improvements in the outpatient and inpatient settings. However, disparities in outcomes and control of risk factors remain evident. While the combination of conditions increases the risks of adverse outcomes for all individuals, the risks continue to occur earlier in life for African Americans identifying the need for early diagnosis and aggressive treatment and prevention. Analyses of the outpatient primary care patient data base from The Hypertension Initiative of South Carolina identified some improvements in the hypertension, glycemic and hyperlipidemia control levels of patients with diabetes in South Carolina. However, these analyses also identified a significant racial disparity in the control level with less than 10% of the patients with all three conditions under control.

The Council has worked with the professional education activities to identify gaps in knowledge, behavior, and outcomes regarding the management of diabetes. Evaluations have identified the DSC professional education programs as effective regarding education and behaviors associated with the management of diabetes. Gaps have been identified and used to direct the professional education programs and efforts from DSC. In addition to the traditional education needs regarding the clinical guidelines and best practices associated with the management of diabetes, needs in the patient education and the involvement of providers in the delivery of education materials and information.

The Council continued to coordinate the scientific poster session for the Diabetes Symposium in 2011. This event continues to increase in numbers and quality of research findings, and functions as a forum for
describing diabetes research in South Carolina. Likewise, the DCS webpage continues to be a major resource for information and data regarding diabetes in South Carolina. The number of contacts increases each month and the addition of a dedicated webmaster has increased this use. The major accomplishment of the Surveillance Council for 2011 has been the increase of the collaborative network of investigators and professionals focused on the assessment of diabetes in South Carolina. The Council has initiated an effort to enhance the DSC Webpage and will implement strategies in 2012.
The South Carolina Department of Health and Environmental Control (DHEC) and the Diabetes Division are dedicated to the prevention of chronic disease disparities such as diabetes. The overarching goals of the division and other diabetes efforts at DHEC are to prevent complications, disabilities, and burden associated with diabetes as well as to eliminate diabetes-related health disparities.

Prominent 2011 Diabetes Related Initiatives That Have Assisted Us In Meeting Our Goals

I. State and Federal Updates:

**DHEC’s Diabetes Division – July Employee of the Month Awardee**

The Diabetes Division received DHEC’s Health Services July Employee of the Month Award for their tireless efforts in planning, hosting, and evaluating the 9th Annual Diabetes/Heart Disease and Stroke Winter Symposium; “EVIDENCE-BASED MANAGEMENT Primary Care Systems Change - Moving from Guidelines to Action!” as well as other recent division accomplishments including spearheading the establishment of an action-oriented Statewide Diabetes Advisory Council in collaboration with the Diabetes Initiative of South Carolina and the REACH US SEA-CEED and for their work with local community coalitions and faith-based institutions.

**South Carolina Statewide Diabetes Advisory Council**

The SC Statewide Diabetes Advisory Council (DAC), which was established to serve as the advisory council for DHEC’s Diabetes Division and the REACH US: SEA-CEED Program met three times in 2011 and each of the six sub-committees demonstrated significant activity in furthering the mission and vision. The DAC Guidelines Subcommittee developed the *South Carolina Guidelines for Diabetes Care – 2011* that were approved by the full Council. The Council submitted the Guidelines to the Diabetes Initiative of South Carolina, which subsequently approved and adopted them. The Guidelines represent evidenced-based recommendation for care and reflect the standards of the American Diabetes Association, the American Association of Clinical Endocrinologists and the American Association of Diabetes Educators. The Guidelines may be accessed at [http://www.scdhec.gov/health/chcdp/diabetes/clinical.htm](http://www.scdhec.gov/health/chcdp/diabetes/clinical.htm) and at [http://www.musc.edu/diabetes](http://www.musc.edu/diabetes). Planning is underway for statewide dissemination of the guidelines. The next DAC meeting is scheduled for January 25, 2012.

**Evaluating Diabetes Group Education (EDGE) Program – Conversation Maps**

The Conversation Map tools have offered educators a visual guide in the way they deliver DSME. Clients have a colorful visual to accompany the teaching, which has given them a voice in the classroom to share information as well as learn from other participants. Partners have been impressed with the comprehensiveness of the tool and patient satisfaction ratings. It is estimated that the EDGE Conversation Map Program served over 500 people. The Conversation Maps will continue to be used in our State as long as we have the professionals to deliver the information. In addition, an abstract was submitted and won first place at the 17th Annual Diabetes Fall Symposium for Primary Health Care Professionals. This provided an opportunity to capture what was accomplished and identifies best practices attained over time.

**The South Carolina Quality Improvement Process For A Health Care Systems Change In Chronic Disease Management: Adoption, Implementation, And Sustainability Plan**

The Diabetes Division has been designing a multiyear plan tailored for the characteristics of South Carolina Federally Qualified Health Centers. The goal of this initiative is to sustain health systems that support good chronic care management to people living with chronic diseases, through the institutionalization of Quality Improvement (QI) in clinics across the state. By reaching this goal the Diabetes Division and key partners uphold the philosophy that creating an environmental change in the health care system that makes the delivery of high quality chronic disease care the “easy choice” for health care providers. This change in the...
environment will be reflected in chronic disease indicators. Improvements in such indicators are known to reduce the complications, burden, and disability of diabetes and other chronic diseases. The program evaluator has received a scholarship to attend the Institute for Healthcare Improvement (IHI) (December 2011). The IHI is the international leader in QI in health care. Further collaboration with partners around the state will be sought.

Prevention and Public Health Fund Coordinated Chronic Disease and Health Promotion Program

DHEC was awarded a grant from the Prevention and Public Health Fund Coordinated Chronic Disease and Health Promotion Program whose overarching purpose is to address the top five leading chronic disease causes of death and disability (heart disease, cancer, stroke, diabetes, and arthritis) and their associated risk factors. With this funding, the Bureau of Community Health and Chronic Disease Prevention proposes to enhance the infrastructure and capacity of the state Chronic Disease Prevention and Health Promotion Program by strengthening the areas of epidemiology and evaluation, building staff capacity, developing stronger collaboration and integration of categorical programs to eliminate redundancy, and improve efficiency and effectiveness of public health interventions, thus producing improved health outcomes for South Carolinians.

To further strengthen infrastructure and capacity, critical staff positions will be added to assist in facilitating the work of the collaborative process to integrate public health policy development, media and health communication messaging, integrated partnership development or enhancement at the state and local level, and integrated professional development initiatives for public health professionals, and health care providers, including primary care centers, Community Health Centers and the Federally Qualified Health Centers (FQHCs). The expected overall outcome is increased staff competencies for public health practice and chronic disease management to impact improvement in health outcomes.

CDC Community Transformation Grant program

DHEC was awarded one of the CDC Community Transformation Grants, which proposed statewide implementation of quality evidence- and practice-based policy, environmental, programmatic, and infrastructure changes that will help prevent heart attack, stroke, cancer, and other leading causes of death across the state. The strategies chosen will focus on tobacco-use prevention, increasing levels of physical activity, and promoting proper nutrition through policy, systems and environmental change efforts as outlined in the CDC’s Guide to Community Preventive Services and the Guide to Clinical Preventive Services. The grant is designed to meet the following long-term outcomes:

- Reduce death and disability due to tobacco use by 5 percent in SC;
- Reduce the rate of obesity through nutrition and physical activity interventions by 5 percent in SC; and
- Reduce death and disability due to heart disease and stroke by 5 percent in SC.

Led by DHEC, the project will engage two statewide coalitions, Eat Smart Move More SC and the SC Tobacco Collaborative as well as the Outpatient Quality Improvement Network.

II. Diabetes Surveillance Systems:

Goal: Monitor the statewide diabetes burden and identify gaps to assist with planning, decision-making, and evaluation

SC Stroke Belt Project

American Health Care (AHC) and the Heart Disease and Stroke Prevention Division (HDSP) are actively involved in the continued planning of recruiting partners and worksites for the SC Stroke Belt Project, which is funded through non-recurring funds through the Diabetes Division.

To Date:

- The project has been implemented within two of the eight public health regions.
- AHC has submitted six-month clinical analysis, which continues to indicate decreases in key clinical data.
Teresa Robinson and Dan Garrett presented on the SC Stroke Belt Project at the Annual CDC HDSP Practitioners Training 2011, held in Atlanta September 12-15, 2011. The topic was entitled “Building Connections for Health Care Systems and Communities through Community Pharmacists and Community Health Workers the SC Asheville Project replication worksite intervention.” Funded states, CDC project officers and CDC’s Division of Diabetes Translation were in attendance.

The SC Stroke Belt Project was published in the American Health and Drug Benefits Journal. The article and corresponding commentary highlights CDC’s celebration of the model replica within SC worksites through the collaborative partnership of HDSP, the Diabetes Division, and the contracted vendor, American Health Care. This project is now implemented in PH regions 5 & 7.

Outpatient Quality Improvement Network (O’QUIN)! Partnership
The Hypertension Initiative has changed its name to the Outpatient Quality Improvement Network (OQUIN) and DHEC’s Diabetes and the Tobacco Prevention and Control Division’s have put together a new contract, which includes the Heart Disease and Stroke Prevention Division (HDSP) that will go through March 2013. HDSP’s added scope of service will classify cholesterol in adults according to NCEP/ATP III criteria and assess hypertension control among patients seen by American Society of Hypertension certified Clinical Hypertension Specialists and non-Specialists.

III. Health Systems Improvement:
Goal: To increase the number of health care providers engaged in professional education on recommended standards of care.

South Carolina Primary Health Care Association (SCPHCA)
Information on best practices is provided to the SCPHCA during the Quarterly Clinical-Medical-Pharmacy Network Meetings and at the Annual Clinical Network Retreat. Staff from DHEC’s Health Services programs routinely shares updates, groundbreaking reports and best-practice developments at the quarterly meetings.

The Diabetes Division provided financial support for the SCPHCA 2011 Clinical Network Retreat June 10-12 in Myrtle Beach. In attendance were 137 providers and clinical support staff. Division staff participated on the retreat planning committee and facilitated two of the sessions. The first was the June 10 preconference session on “Immunization Policy Updates” presented by Leanne S. Bailey, RN, BSN. The second was the June 12 session on “Diabetes and Cardiovascular Disease” presented by Daniel T. Lackland, DrPH. The NDEP provider tool, “Feet Can Last a Lifetime, A Health Care Provider’s Guide to Preventing Diabetes Foot Problems” was distributed to medical providers in attendance.

SC DHEC’s "Don’t Guess- Get Answers" Diabetes Self-Management Education (DSME) Program
DHEC’s Diabetes Self-Management Education (DSME) Program maintains its recognition from the American Association of Diabetes Educators. The program is offered at four sites in Region 8, one each in Colleton and Jasper Counties and two sites in Hampton County. During 2011, 203 assessments were completed with 93 of those in Hampton County, 56 in Colleton County and 54 in Jasper County. DSME staff in Region 8 consists of one RD/CDE. Previously there also had been an RD/CDE but that position was lost due to resignation and not filled. In addition to the local DSME programs, a diabetes support group meets monthly under the direction of the RD/CDE. The DSME program in Region 7 was discontinued June of 2011 due to the loss of funding.

The 9th Annual Diabetes/Heart Disease & Stroke Winter Symposium – “Primary Care Systems Change-Moving from Guidelines to Action!”
The Symposium was held March 11-12, 2011 at the Sheraton Myrtle Beach Convention Center Hotel, Myrtle Beach, SC. DHEC’s Divisions of Diabetes and Heart Disease & Stroke Prevention jointly sponsor the symposium. Co-sponsors include the Medical University of South Carolina, the South Carolina
College of Pharmacy, the Diabetes Initiative of SC and the SC Diabetes Today Advisory Council. The 219 participants, with representation from 35 South Carolina counties and five additional states, included primary health care providers - physicians, pharmacists, physician assistants, doctors of osteopathy, diabetes educators, pharmacists, registered nurses, nurse practitioners, licensed practical nurses, podiatrists, social workers, and registered dietitians. The symposium was approved for pharmacy hours for the first time with a record 28 pharmacists participating.

The 2011 annual recognition awards recipients were:
- Certified Diabetes Educator of the Year: Anita Longan, MS, RD, CDE, BC-ADM, McLeod Diabetes Center, Florence, SC
- Diabetes Champion of the Year Award: Sharon Kelly, BSN, RN MSS, CDE, Ralph H. Johnson VA Medical Center, Charleston, SC
- American Hospital Association/American Stroke Association – Get with the Guidelines Hospital of the Year: Coastal Carolina Medical Center, Hardeeville, SC

IV. Community Awareness and Outreach:
Goal: Increase diabetes knowledge and awareness across disparate and hard to reach communities.

The Diabetes 101 Curriculum Evaluation
In February 2011 Dr. Shelly-Ann Bowen and Ms. Sheena Cretella completed the evaluation for the Diabetes 101 Curriculum. Based on findings the curriculum significantly increases knowledge among participants and the most used setting for program delivery was the church. Presenters find the information easy to deliver and the program well supported by the Diabetes Division. However, we also find that there are challenges to implementation of the curriculum. Many participants that are attending the sessions are not completing both pre and posttests and presenters would like to have some basic tools to help deliver the curriculum message.

IMARA Woman Partnership (Media Campaign)
The March/April 2011 issue of IMARA Woman featured an article and health advertisement on the link between diabetes and kidney disease. March was National Kidney Month and March 10th was World Kidney Day and March 22nd was Diabetes Alert Day, thus we highlighted the two diseases and their link. According to the National Kidney Foundation, approximately 546,000 South Carolinians have Chronic Kidney Disease and we are third in the nation of patients on dialysis. The November/December issue’s article and health advertisement was about supporting your loved one with their diabetes.

IMARA Woman Magazine held their 10th Annual Health Ministry Empowerment Tour, and DHEC’s Diabetes Division provided a session on the ABC’s of Diabetes. Nine hundred forty eight (Kickoff 370, Dillon184, Summerville128, Summerton 266) participants attended the tour this year. This year’s theme was “Mind, Body, and Spirit: Bringing the Good News”, which featured three TV News Anchors as keynote speakers during the following dates: October 15th in Dillon with Ms. Kimberly Gill: October 22nd in Summerville with Ms. Carolyn Murray: and October 29th in Summerton with Ms. Judi Gatson.

The room filled up fast during Chef Kimberly Brock-Brown’s workshop, “Now You’re Cooking with WIC”, sponsored by the WIC program at DHEC. Chef Brock-Brown, provided a healthy cooking demonstration that included a taste test for the participants. IMARA Woman also hosted its second Health Ministry Empowerment Tour Kick off Dinner on Thursday, October 6th at Brookland Baptist Conference and Banquet Center. The dinner featured gospel-recording artist Ms. Ce Ce Winans and several local performers.

Community Partnerships
- The Diabetes Division funded two coalitions for the 2011-2012 funding cycle. Taw Caw Missionary Baptist Church Diabetes Coalition and St. John Baptist Church Wellness Ministry will use their mini-grant funds to expand their health ministries within their congregations.
• The Diabetes Division and REACH US SEA-CEED (South Eastern African American Center of Excellence in the Elimination of Disparities in Diabetes) held their first Joint Partnership Meeting on Wednesday, September 14, 2011 in Mount Pleasant, SC. There were 61 participants representing eight community groups from SC, NC, TN, and MS. There were community presentations, partner updates, and professional development presentations on evaluation, environmental, policy and system changes, and DHEC’s Office of Minority Health gave an overview on their Flu Toolkit. The eight groups entered their work into the 11th Annual Scientific Poster Session during the Fall Diabetes Symposium and the Diabetes Initiative of South Carolina awarded a certificate and monetary award to 1st Place – Hampton County Healthcare Consortium, 2nd Place – Sumter County Active Lifestyles, and 3rd Place – Taw Caw Missionary Baptist Diabetes Coalition. In addition, St. John Wellness Center received an Honorable Mention for their faith-based weight loss initiative and community garden.

• DHEC’s Diabetes Tobacco Divisions continue their joint partnership with South Carolina Commission for Minority Affairs (SCCMA) to reach disparate members of our population regarding tobacco and diabetes prevention and control. SCCMA is in the process of collecting data on health conditions from the African American population. They are seeking to obtain a minimum of 385 to 400 completed surveys. One hundred face-to-face surveys have been completed, gathering information pertaining to diagnosis of prediabetes and diabetes, smoking, and tobacco use by type were completed. Additional surveys will be administered using survey Monkey and follow up through December will ensure that the remaining surveys are collected and analyzed. The Assessment Tool will be targeted through SC historical black colleges and universities (Benedict, Allen University, Clinton Junior College in Rock Hill, SC), as well as other communities throughout the state.

The 2009 African American Conference on Diabetes Evaluation
In March 2011 Dr. Shelly-Ann Bowen and Ms. Sheena Cretella completed the evaluation of the African American Conference on Diabetes. This conference was held in November of 2009 and consenting participants were followed up to one year after the conference. Our findings after following participants over a 12-month period were that participants are changing their behaviors based on information. The results demonstrate conference effectiveness in increasing diabetes knowledge and awareness that translates into behavior change. The ability to sustain change overtime however becomes dependent on the participant’s enablers and barriers in the environment. Participants cited lack of social support, environmental and climate issues as barriers to maintain change.

The 2011 South Carolina Conference on Diabetes
The Diabetes Today Advisory Council’s 15th Annual South Carolina Conference on Diabetes was held on Monday, Nov. 7, 2011. There were 696 attendees and 43 vendors to include Walmart, this years’ primary financial sponsor. Representatives from Walmart stated they were extremely honored and excited to come on board as the major sponsor of the conference as well as provided licensed opticians to conduct free vision screenings and pharmacists to conduct free blood pressure checks. The keynote speaker for the conference was Ms. Anton Gunn from the Southern Region of the Dept. of Health and Human Services with an update on Affordable Health Care. Plenary sessions included: The Link Between Diabetes and Kidney Disease; HELP! I Have Pre-diabetes/Diabetes, What Can I Eat?; as well as Diabetes and Heart Disease: The Connection. The attendees also thoroughly enjoyed a modified Zumba session after a healthy lunch. Overall, the attendees had another enjoyable yet educational experience this year. Data from the overall evaluation of the 2011 conference should be ready in late January.

Project POWER Ambassador Training
The SC Diabetes Division in partnership with REACH US SEA-CEED, and the American Diabetes Association (ADA) hosted a Project POWER Ambassador Training on Saturday, March 26, 2011 in Columbia. Nineteen participants representing 13 faith-based organizations and one community based organization from across SC took part in six educational modules which laid a foundation for integrating diabetes awareness messages and healthy living tips into the life of the family and church members through six educational modules. All 19 were trained as Project Power Ambassadors. Project POWER is a free,
faith-based program consisting of six educational modules, which provides churches with a foundation for integrating diabetes awareness messages and healthy living tips. As a result of the initial training, TAW CAW Missionary Baptist Diabetes Coalition has completed implementing the Project POWER Program. Evaluation results will be available one they are analyzed. In addition to successfully implementing the Project Power Program, Taw Caw also sponsored Project POWER Ambassador Training were twenty-five participants representing eight faith-based and one community based organization from Clarendon County were trained as Project Power Ambassadors.

National and Local Presentations, Articles, and Awards

- DPCP Staff had four posters accepted for presentation at the CDC/DDT Conference held April 11-14, 2011 in Minneapolis, MN
  - Khosrow Heidari, Patsy Myers, Rhonda Hill and Kelly Johnson, Retrospective curative Impact of Bariatric Surgery on Diabetes in South Carolina in the “Advancing Science” category
  - Susan Frost, What’s Cooking?: A Grocery Store Initiative to Encourage Vegetable and Fruit Consumption in the “Exploring Innovations” category
  - Shelly-Ann Bowen and Sheena Cretella, Getting Creative with Data Collection-Measuring Behavioral Outcomes, in the “Improving Practice” category
  - Patsy Myers, An Evaluation of the First Ten Years of the Diabetes Initiative of South Carolina in the “Improving Practice” category
- At the Diabetes Fall Symposium for Primary Health Care Professionals held September 15-16, 2011 in North Charleston:
  - Susan Frost, What’s Cooking?: A Grocery Store Initiative to Encourage Vegetable and Fruit Consumption

Other Recent Presentations

- Cretella, S (November 2011). How To Use Instrumental Variable Estimators for Measuring Intervention Effects In The Presence of Non Adherence. Oral Presentation for the Program Implementation Course (HPEB 802), Department of Health Promotion Behavior and Education, Arnold School of Public Health, University of South Carolina Columbia SC.
- Cretella, S (October 2011). Data Linkage for Epidemiology: Strengths, Limitations, and Statistical Considerations. Co lead epidemiology doctoral seminar at the Arnold School for Public Health, University of South Carolina, Columbia SC.
- Cretella, S (September 2011). Every Day Program Evaluation. Oral Presentation at the Joint Partnership Meeting for the South Eastern Racial and Ethical Approaches to Community Health (REACHUS) and South Carolina Diabetes Prevention and Control Program (SCDPCP) in Charleston, SC.
- Cretella, S (September 2011). A Retrospective Cohort Study on the Timing of Anxiety and Depression Diagnosis and the Onset of Hypertensive Syndromes In Pregnancy. Oral Presentation for Epi Seminar at the South Carolina Department of Health and Environmental Control, Columbia, SC.
- Cretella, S (July 2011). 2011 Diabetes Winter Symposium Evaluation: Where We Were and Where We Can Go. Oral Presentation for the Winter Symposium planning committee meeting at the South Carolina Department of Health and Environmental Control (DHEC), Columbia SC.
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<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
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<td>Sheena Cretella, MSPH</td>
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<td>Barbara Wright Downs</td>
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