Diabetes Initiative of South Carolina

2002 Annual Report

John A. Colwell, MD, PhD
Chairman, Board of Directors
Diabetes Initiative of South Carolina
January, 2003

To Governor Hodges and the General Assembly:

On behalf of the Board of Directors of the Diabetes Initiative of South Carolina, I am pleased to present our seventh annual report. This report was requested in Chapter 39, Section 44-39 of the Diabetes Initiative of South Carolina Act.

Recent data about diabetes in South Carolina are sobering. We rank 2nd in the United States in prevalence of known diabetes in adults (8.5% = 240,000). There are at least 120,000 more adults who have diabetes but do not know it. There is increasing recognition that a condition called impaired glucose tolerance (IGT) places an individual at high risk to develop diabetes and, especially, cardiovascular complications. Nationally, 15.6% of adults have IGT; for S.C. this would mean 460,000 people. Therefore it is estimated that a total of 820,000 adults in S. C. (27% of the population) have diabetes or are at very high risk for the disease and its vascular complications. The rates of major complications of diabetes (heart attacks, amputations, end stage renal disease) are increasing in our state at rates of 20 - 27% since 1994. Total yearly cost of diabetes is in excess of $850 million in South Carolina.

In recognition of this major health problem, the DSC Board has developed a long range Strategic Plan, which defines 9 major goals and specific steps to be taken to combat this devastating disease. Ongoing surveillance is documenting the impact of the many programs we have developed. We are seeing encouraging trends in many areas since The Diabetes Initiative was started. Specific risk markers and guidelines for care are receiving new attention, and we are implementing a statewide program that has attracted the attention of health care providers and people with diabetes. We are confident that this Initiative will eventually reduce costs of care, result in fewer complications and establish an improved quality of life for people with diabetes in our state. These changes will occur gradually in this chronic disease, predictably over the next 2-3 decades.

We are pleased to report that this Initiative has had extraordinary success in helping to develop proposals which have generated substantial extramural support directed at problems associated with diabetes. For 2001, this outside support is more than 11 times the yearly allocation by the state for The Diabetes Initiative of South Carolina.

We are enthusiastic that the Diabetes Initiative of South Carolina will be successful in combating this serious disease by its innovative programs of community outreach, education, and surveillance. We are grateful to the General Assembly for establishing this Initiative and sincerely hope that you will find that this report is responding to the needs of the people in South Carolina.

John A. Colwell, MD, PhD
Chair, Diabetes Initiative of South Carolina Board
Table of Contents

Executive Summary.....................................................................................................................1
Board of Directors Annual Report..............................................................................................2
Budget and Supplemental Support...............................................................................................8
Outreach Council Annual Report...............................................................................................12
Diabetes Center Council Annual Report.....................................................................................15
Surveillance Council Annual Report...........................................................................................18
Diabetes Initiative of South Carolina USC Site..........................................................................21
S.C. Diabetes Control Program, DHEC Annual Report .............................................................23
Board of Directors and Council Members..................................................................................33
EXECUTIVE SUMMARY
Executive Summary

In calendar year 2001, The Diabetes Initiative of South Carolina (DSC) had major accomplishments in three areas:

1. We have finished an updated version of The Burden of Diabetes in South Carolina, in collaboration with The S.C. Diabetes Control Program, DHEC. This report highlights the importance of diabetes and its complications as a major public health problem in South Carolina. Some of the critical statistics are:
   - 8.5% of our adult population has known diabetes
   - 2.5% are undiagnosed, and over 15% a very high risk for diabetes and its vascular complications.
   - This means that over 25% of our adult population in S.C. have diabetes or are at very high risk to develop it.
   - 55% are overweight and 60% are inactive.
   - Prevalence and vascular complications are increased at least twofold among African-Americans.
   - Hospitalizations for end stage renal disease, amputations, and heart attacks are increasing among diabetic individuals.

2. We are widely disseminating major advances in the care for people with diabetes.
   - DSC has an Internet Home Page which includes the latest information on diabetes care and education (http://www.musc.edu/diabetes).
   - We have offered over 25 statewide continuing education programs to over 700 health professionals.
   - DSC has collaborated with over 50 agencies and organizations with programs for an estimated 2,150 persons with diabetes.
   - We have completed an updated second version of “Office-Based Diabetes Management for Primary Care Providers”, and will deliver this around the state by organized programs directed at physicians and other health professionals in 2002.
   - Our DSC/USC Site has led in the organization and implementation of Camp Adam Fisher, a summer camp for over 200 campers with diabetes.
   - Though its Model Diabetes Education Program, DSC has assisted hospitals, clinics, and home health agencies in meeting national standards for patient education. We have recognized 21 programs and 53 others are working towards recognition. There are 29 sites in S.C. who have achieved recognition by The American Diabetes Association.

3. The Diabetes Initiative has regularly collaborated with and supported the excellent S.C. Diabetes Control Program, DHEC in its many activities:
   - Development of 4 statewide coalitions: Coastal, Pee Dee, Midlands, and Upstate, with 16 affiliated chapters.
   - Establishment of The Diabetes Electronic Monitoring System (DEMS) at three Community Health Centers. This system provides a computerized method
to assess quality improvements in diabetes care. Improvements in eye examinations and in diabetic control are apparent.

- Development of County-specific epidemiologic data on diabetes. This information, as well as descriptions of S.C. Diabetes Control Program’s many activities are found at http://www.scdhec.net/diabetes.

4. Faculty members from MUSC and USC continue to be successful in obtaining extramural support for proposals that directly impact on diabetes care.

- Present yearly support:

  - Education and Care: $3,650,113
  - Clinical Research: $2,206,301
  - Professional Education Programs $ 73,130

  $5,929,544
The Diabetes Initiative of South Carolina (DSC), its Surveillance Council, and The S.C. Diabetes Control Program, Department of Health and Environmental Control (S.C. DCP-DHEC) have regularly collaborated to issue updated reports on the burden of diabetes in South Carolina. The findings were updated in 2001, reviewed by The Board of Directors, and have been placed on our website for public scrutiny. The figures are supplemented by national data in The Medical Literature and by The 2000 Census. Here are some of the telling statistics about diabetes and its complications in South Carolina in 2001:

- Prevalence = 8.5% of adults (over age 18)
- #2 in the U.S. (Mississippi: 8.6%)
- Approximately 240,000 adults with known diabetes
- At least an additional 120,000 not diagnosed
- About 15.6% at high risk for diabetes (impaired glucose tolerance) = 460,000
- Total: 820,000 adults in S.C. who have diabetes or are at very high risk for developing it
- This = 27% of our adult population
- Prevalence and complications are approximately doubled among African-Americans
- 55% of our adults are overweight, 60% inactive
- Hypertension is 3x more prevalent in diabetes than in non diabetes
- Increased cholesterol is 2x more prevalent

The DSC Board has recognized these issues and has developed a Long Range Strategic Plan to address them. The Plan has nine major goals.

**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.
For each goal, we have defined the major issues that are presently recognized, and have indicated major quantifiable objectives. Specific tasks and programs of the DSC Outreach, Diabetes Center of Excellence, and Surveillance Councils are defined, and integration of the programs with the S.C. DCP - DHEC, and with the activities of the American Diabetes Association, South Carolina office is described. Oversight is provided by the Diabetes Initiative of South Carolina Board.

The Strategic Plan recognizes that all of the late stage complications of diabetes mellitus can be prevented or their progression slowed down by early recognition and institution of intensive, well defined, preventative strategies. The 2001 Burden Report shows progress in many areas, since the inception of our programs. Over 2/3 of people with diabetes have had their eyes and feet examined in the last year. These two simple procedures will slow down the rate of visual loss or lower extremity amputation, respectively. Recent data from Carolina Medical Review shows that our Medicare supported diabetic patients have good rates for determination of HbA1c, lipids, and for eye examinations. Longitudinal data from a newly computerized system in 3 community health centers show marked increases in eye and foot examinations and a fall in HbA1c levels to below 8%. Encouraging trends are occurring with pregnancy and diabetes, presumably reflecting improved blood glucose control. Rates of congenital malformations have fallen 25% in the past 6 years, and infant mortality has declined from 12.8 to 9.8/1000 births between 1991 and 1997. Finally, after a steady rise in mortality from diabetes and its complications from 1980 to 1995, mortality rates have started to decline in the past 3 years, and are projected to continue to fall in future years.

Although health professional shortages are still recognized in many South Carolina counties, DSC is the prime mover in creating a rapid growth in the number of certified diabetes educators, pharmacists specially trained in diabetes education, preclinical students who are learning about diabetes, and medical students who are rotating in rural communities and are using diabetes as the prototype disease to study, understand, and to develop community programs. DSC has created an unprecedented professional education program for practicing physicians and for those in training. This includes multiple seminars and educational material, including a manual for the management of diabetes, which has been distributed to every primary care physician in South Carolina. This manual has now been updated and will be widely presented and distributed in 2002.

Major new community efforts are underway, often supported by extramural funding catalyzed by the support of The Diabetes Initiative of South Carolina. The S.C. DCP-DHEC has developed a statewide coalition program, which now has 4 major coalitions and 16 chapters. All of these meet regularly and define and develop community-based strategies to combat diabetes and its complications. A major new program REACH-2010 is introducing innovative community-based efforts in Charleston and Georgetown Counties.

The specific details of many of these programs are given in this yearly report. Although the Board recognizes that we have a long term task ahead of us, we are encouraged that The Diabetes Initiative and its many partners are is making a real impact in diabetes and its complications in South Carolina.
Major Goals of Strategic Plan

Diabetes Initiative of South Carolina

People at Risk or with Diabetes

- Expand HMO/Insurance Coverage for Diabetes Care, Supplies and Education
- Improve Public Awareness through Media Channels

Improve Knowledge and Access to Prevention, and Intervention Services for Diabetes

- Health Professional
- Community-Based and Patient Education

Utilization of Measures and Actions that Decrease Risks and Complications

- Unnecessary Hospital Admissions
- ER Visits for Preventable Complications

- Costs for Complications
- Morbidities & Disabilities

- Premature Deaths

Improve Quality of Life
BUDGET AND SUPPLEMENTAL SUPPORT
Budget and Supplemental Support

BUDGET

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Fiscal Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001-2002</td>
<td>2002-2003 (Requested)</td>
</tr>
<tr>
<td>State Appropriation</td>
<td>$405,759</td>
</tr>
<tr>
<td>2.161% Internal Reduction</td>
<td>- 8,768</td>
</tr>
<tr>
<td>8% Mid Yr State Reduction</td>
<td>- 31,759</td>
</tr>
</tbody>
</table>

We are requesting a return to our previously approved budget of $407,000 for FY 2002-2003. In the present fiscal year, this has been subject to a 10% cut, due to shortfalls in state revenue. Emergency one year support has been provided by the hospital, but is not certain in future years. We have functioned well at $407,000/year in the past, and return to this core funding will allow our Initiative offices and programs to function properly.

SUPPLEMENTAL SUPPORT

The establishment of the Diabetes Initiative of South Carolina has had a major objective to at least match state funding with outside grant support. We have each year consistently exceeded state support, each year since The Diabetes Initiative was created in 1994. We are pleased to report major success in this area in 2001-2002.

Education and Care

South Carolina Diabetes Control Program-DHEC: This is a 5-year (07/01/1999-06/30/2004) grant continuation from the Centers for Disease Control and Prevention (CDC) for a statewide diabetes control. Its goal and objectives are to integrate and complement the Strategic Plan of the Diabetes Initiative of South Carolina. The DSC Board of Directors provides oversight. Third year was funded for $388,853 from 07/01/2001-06/31/2002. PI: Dr. Lisa Waddell at DHEC.

The Charleston and Georgetown Diabetes Coalition--Racial and Ethnic Approaches to Community Health 2010, funded by the Centers for Disease Control and Prevention (CDC), is working with Charleston and Georgetown communities to reduce disparities of diabetes awareness, health care access, diabetes education, and complications of diabetes complications in African Americans. It is 5-year grant (09/30/1999-09/29/2004), with $948,808 in fiscal year 09/30/2001-09/29/2002. PI: Dr. Carolyn Jenkins at MUSC.

EXCEED, a program project aiming at understanding and eliminating health disparities in blacks in South Carolina funded by the Agency for Healthcare Research and Quality (AHRQ), the U.S. Department of Health and Human Services, is designed to reduce racial disparity in cardiovascular disease through better blood pressure control, to implement healthcare delivery models in African Americans with diabetes, and to provide concordant care to African Americans with diabetes and depression. Under the grant, a multi-disciplinary team will analyze contributing factors for inequalities related to the delivery and practice of health care, and identifies and implements strategies to improve the process. Drs. Leonard Egede and Dawn Clancy serve as pilots of diabetes care research. Dr. John A. Colwell and Dr. Carolyn Jenkins serve as consultant to the program project. Total funding (10/01/2000-08/31/2005) will be $10.1 million, with $1,850,472 for fiscal year 09/01/2001-08/31/2002. PI: Dr. Barbara Tilley at MUSC.

The Deans Rural Primary Care Clerkship: a continuous-improvement, community-oriented primary care clerkship, serving rural, underserved populations. It is designed for third year medical students.
at MUSC and USC to develop a community-based training program of diabetes education and care. The Diabetes Initiative participated in preparation of curricular material and interacts with faculty and students of the program. The program started in 1997. Currently, funding from Health Resources and Services Administration (HRSA) Bureau of Health Professions Division of Medicine for $168,480 for fiscal year 07/01/2001-06/30/2002. PI: Dr. Alec Chessman at MUSC.

Dietary Education for Rural, Black Persons with Diabetes, funded by the NIH’s National Institute for Nursing Research with $144,500 between 06/01/2001 and 05/31/2003, is to focus on dietary self-management to combat type 2 diabetes in Winnsboro, SC. PI: Dr. Wanda Anderson-Loftin, at USC College of Nursing.

Partners in Wellness is funded by the Duke Endowment with approved a $149,000 grant for year 2002 and expected a continued funding for 2003. Partners in Wellness is a semester-long college course of diabetes and hypertension developed by MUSC doctors and staff for the six historically black colleges and universities (S.C. State, Claflin College, Voorhees College, Benedict College, Morris College, Allen University) in South Carolina. In the process, MUSC professionals hope to gather research data from diabetes and hypertension screening’s on campus to test whether low birth weight leads to a slow metabolism, and greater risk of disease among blacks. Initial funding for year 1998-2000 came out of the Healthy South Carolina Initiative. The Duke Endowment has committed the funding for years 2001 and 2002 and expects for 2003 funding. PI: W.T. Garvey/William Robinson at MUSC.

Clinical Research

Markers and Mechanisms of Macrovascular Disease in Diabetes is funded by the NIH’s National, Heart, Long and Blood Institute from 09/01/2001 to 08/31/2006 with estimated funding of $7,330,932 and $1,380,029 for fiscal year 09/01/2001-08/31/2006. The research includes lipoproteins and oxidation, autoimmunity, insulin resistance, and genetics in development of vascular disease in type 1 and type 2 diabetes. PI: Dr. W.T. Garvey at MUSC.

Collaborative Management of Diabetes in Blacks, funded by Agency for Health Care Policy and Research (AHCPR) for 07/01/2001-06/30/2006, focuses on diabetes management and improve health outcomes in minority population. Funding for fiscal year 07/01/2001-06/30/2002 is $126,028. PI: Dr. Leonard Egede at MUSC.

Improving Diabetes Outcomes in Poor Blacks: A Socio Cultural Approach is funded by the American Diabetes Association (ADA) for three years from 01/01/2001 to 12/31/2004. The project targets blacks for improving diabetes care. The first year 01/01/2001-12/31/2002 funding is $100,000. PI: Dr. Leonard Egede at MUSC.

Testing a Managed Care Approach, Group Visits in Disadvantaged Patients with Type 2 Diabetes is funded by the Robert Wood Johnson Foundation for $266,913 between 03/01/2001-02/28/2002. PI: Dr. Dennis Cope of MUSC.

Uniform Population - Based Approach and Research on Childhood Diabetes is funded by the Centers for Disease Control and Prevention (CDCP). This is a five-year (09/30/2000-09/29/2005) project of total $2.3 million. The first year’s funding was $204,816. The second
The grant is part of multi-site national studies in collaboration with researchers at some of the nation's most prestigious institutions to conduct research on type 2 diabetes in youth. PI: Dr. Elizabeth Mayer-Davis at USC.

Epidemiology of Diabetes Intervention and Complications (EDIC) is a follow-up study of the course of patients enrolled in the DCCT in Charleston. Along with patients from 27 other centers in US and Canada, this study aims at prevention of complications for long-term glycemic control in type 1 diabetes. Fiscal year 03/01/2001-02/28/2002 funding is $128,515. PI: Dr. John A Colwell and Dr. Ronald K. Mayfield at MUSC.

**Total Education & Care Supplemental Support**

<table>
<thead>
<tr>
<th>Grant</th>
<th>FY 2000-2001</th>
<th>P.I.</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.C. DCP-DHEC</td>
<td>$ 388,853</td>
<td>Dr. Lisa Waddell</td>
<td>CDCP</td>
</tr>
<tr>
<td>REACH 2010</td>
<td>$ 948,808</td>
<td>Dr. Carolyn Jenkins</td>
<td>CDCP</td>
</tr>
<tr>
<td>EXCEED</td>
<td>$1,850,472</td>
<td>Dr. Barbara Tilley</td>
<td>AARQ</td>
</tr>
<tr>
<td>Deans Rural PCC</td>
<td>$ 168,480</td>
<td>Dr. Alec Chessman</td>
<td>HRSA</td>
</tr>
<tr>
<td>Dietary Ed.Rural DM</td>
<td>$ 144,500</td>
<td>Dr. Wanda Anderson-Loftin (USC)</td>
<td>NIH-NINR</td>
</tr>
<tr>
<td>Partners in Wellness</td>
<td>$ 149,000</td>
<td>Dr. W.T. Garvey/W. Robinson</td>
<td>Duke Endow.</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>$3,650,113</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Clinical Research Supplemental Support**

<table>
<thead>
<tr>
<th>Grant</th>
<th>FY2000-2001</th>
<th>P.I.</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markers/Mech Macro Dis.DM</td>
<td>$1,380,029</td>
<td>Dr. W.T. Garvey</td>
<td>NIH-NHLBI</td>
</tr>
<tr>
<td>Collab.Mge DM in Blacks</td>
<td>$ 126,028</td>
<td>Dr. D.L. Egede</td>
<td>AHCPR</td>
</tr>
<tr>
<td>Imp.DM Outcomes in Poor Blacks</td>
<td>$ 100,000</td>
<td>Dr. D.L. Egede</td>
<td>ADA</td>
</tr>
<tr>
<td>Mge. Care/Grp Visits-DM2</td>
<td>$ 266,913</td>
<td>Dr. D. Cope</td>
<td>RWJ</td>
</tr>
<tr>
<td>Pop.Based Appt&amp;Res.-Childhood</td>
<td>$ 204,816</td>
<td>Dr. Eliz. Mayer-Davis</td>
<td>CDCP</td>
</tr>
<tr>
<td>EDIC</td>
<td>$ 128,515</td>
<td>Drs. Colwell/R Mayfield</td>
<td>NIH-NIDDK</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,206,301</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Professional Education Programs**

These programs are supported by minimal registration fees and by generous corporate donations. Our balance for Year 07 in this account is $73,130.00.
Summary:

Supplemental Funding

<table>
<thead>
<tr>
<th>Category</th>
<th>Year 07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education &amp; Care</td>
<td>$ 3,650,113</td>
</tr>
<tr>
<td>Clinical Research</td>
<td>$ 2,206,301</td>
</tr>
<tr>
<td>Prof. Ed. Programs</td>
<td>$ 73,130</td>
</tr>
<tr>
<td>Totals:</td>
<td>$ 5,929,544</td>
</tr>
</tbody>
</table>

Comment:

Outside yearly funding is now over 11 times our current request for FY2001-2002 support for the Diabetes Initiative of South Carolina. We have created the infrastructure, epidemiologic data, and administrative support to materially aid in this success. We are proud to have contributed to this outstanding and impressive growth of programs in education, care, and clinical research in diabetes in South Carolina.
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:

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

**Major Accomplishments (related to promoting adherence to national standards of education and care):**

- **The DSC Internet Home Page** is updated routinely to include the latest recommendations for diabetes care and education. Statistics related to diabetes in South Carolina, current educational programs, all publication, and information on improving diabetes care and education can be obtained from the DSC Home page. There have been a total of 1,150 “hits” or persons accessing this information. The address is http://www.musc.edu/diabetes

- Over 25 statewide **Continuing Education Programs** have been offered by the Diabetes Initiative to health professional to improve adherence to national guidelines for care and education to more than 700 different health professionals. Additionally, more than 30 programs have been presented to about 1,000 different health professional students.

- DSC has collaborated with more than 50 different agencies and programs to provide **Programs to Persons with Diabetes** to an estimated 2,150 persons with diabetes to improve self-management education and care. Programs included REACH 2010, South Carolina DHEC Diabetes Control Program, SC Alliance for Managed Care, Georgetown Diabetes CORE Group, Vocational Rehabilitation, Commun-I-Care, State Prevention Partners, and others.

- Regional and Statewide Coalitions to improve collaboration and implement activities for people with diabetes have been developed throughout the state. Four regional coalitions meet at least quarterly and the Statewide Coalition meets annually. Currently, Coalition activities are coordinated through the SC Diabetes Control Program.

- “Partners in Wellness, A Collaborative Program of South Carolina’s Historically Black Colleges and Universities, South Carolina Area Health Education Consortium, and the Medical University of South Carolina to Document and Reduce Risks for Hypertension and Diabetes through Student Research, Teaching, and Service to Communities” which began in Fall, 1998, continues to offer a wellness course that focuses on diabetes and hypertension for students enrolled in HBCUs. During 2001, 127 students from Carolina State University, Voorhees College, Allen University, Benedict College, Morris College, and Claflin University participated in the semester long program.

- DSC collaborated with the American Diabetes Association to present a Diabetes Awareness
and Screening Day at the South Carolina Legislature for legislators and staff. Approximately 41% of those screened were at increased risk for developing diabetes.

- Materials developed to promote improved care and education include:
  
  **Diabetes in the Summer booklet** to assist persons with diabetes to stay healthy during summer activities.

  **My Guide to Sugar Diabetes** was produced and printed by the South Carolina Diabetes Control Program. Staff from REACH 2010 co-authored the publication, which focuses on helping people with diabetes improve self-management. Almost 20,000 copies have been distributed.

  **Body Checks for People with Diabetes** is a program to train lay persons to assist with improving diabetes self-management and care. Currently, 6 full-time community health advisors are being trained to implement the program. Plans are underway to implement the program in other areas such as the AME Church network.

**Major Accomplishments (for ongoing assessment and interventions related to patient care costs/reimbursement/education issues for persons with diabetes):**

- **Charleston’s Enterprise Community**: The Hypertension and Diabetes Management and Education Program and the Enterprise/MUSC Neighborhood Health Program opened a 4,200 square foot clinic with 5 exam rooms on November 2, 2001. The focus is on interdisciplinary education and care related to diabetes and hypertension. An interdisciplinary team provides education and case management for persons with diabetes and hypertension.

- **REACH 2010: Charleston and Georgetown County Diabetes Coalition** was funded by the Centers for Disease Control and Prevention to reduce disparities related to diabetes in African Americans. DSC is responsible for program management. Currently, the program is providing community education to more than 12,000 African Americans with diagnosed diabetes. The program is also working with health systems to improve education and care for diabetes. To evaluate the program an annual survey of people with diabetes, patient chart audits, and health provider interviews are conducted. Funding for the program is almost one million dollars annually from September 2000 through 2004.

- **REACH 2010: LowCountry Diabetes Initiative** conducted a 1 year needs assessment related to diabetes in Hampton, Allendale, Beaufort, and Jasper counties. A plan has been developed and funding to implement the plan is being sought.

- **Vocational Rehabilitation**: Collaboration with South Carolina Department of Vocational Rehabilitation continues. Vocational Rehabilitation provides services for persons with diabetes who are at risk for complications of diabetes affecting their ability to work.
• **5th Annual African American Diabetes Program** is co-sponsored by the Diabetes Today Advisory Council (DTAC) and SC DHEC 830 persons attended the one-day program. DSC and REACH 2010 provided workshops on foot care and on nutrition.

• **Partnerships** have been developed with BI-LO and their pharmacists to offer diabetes education in the area BI-LO stores in the Low Country.

• Through Commun-I-Care and REACH 2010, a masters-prepared social worker has been employed to serve as a **Resource Coordinator** to link persons in need of care and education with agencies that can provide support and care. The program is operational in Charleston and Georgetown counties.

• Linkages with local libraries to provide updated information on diabetes are being tested through “**Hands on Health**”. The program provides resource materials and computerized linkages for local libraries to better serve the educational and care needs of persons with diabetes.
DIABETES INITIATIVE OF SOUTH CAROLINA
DIABETES CENTER COUNCIL ANNUAL REPORT
JANUARY 1, 2002 - DECEMBER 31, 2002 (YEAR 08)
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.

Major Accomplishments

1. Conducted the following professional education programs:

<table>
<thead>
<tr>
<th>Program</th>
<th>No. Courses</th>
<th>No. Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eighth Annual Diabetes Symposium</td>
<td>1</td>
<td>246</td>
</tr>
<tr>
<td>Certified Diabetes Educator Programs</td>
<td>2</td>
<td>238</td>
</tr>
<tr>
<td>Foot Care Courses</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>School Nurse Programs on Diabetes</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>Diabetes In Women</td>
<td>1</td>
<td>65</td>
</tr>
<tr>
<td>Primary Care Office Based Management with PCP Manual</td>
<td>28</td>
<td>1000</td>
</tr>
<tr>
<td>Diabetes in the Older Adult</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

2. Established the following materials for professional education:

   Pharmaceutical support ($39,000) was solicited as non-restricted educational grant support for professional education programs.

3. Coordinated ongoing programs in specialized patient education and care:

   • Intensive Diabetes Education, Awareness, and Lifestyle (IDEAL) Program: Type 1 and Type 2 patients.


   • The Model Diabetes Patient Education Program: to assist hospitals, clinics, and home health agencies in meeting national standards for patient education. Twenty-four programs are recognized since 1997. They are:
     Anderson Area Medical Center, Anderson
     DHEC Home Health District- Trident
Ten individual site consultations

Twenty-eight of thirty-five ADA Programs (80%) were initially DSC recognized programs or programs that attended DSC workshops.

4. Presented the following Academic programs:

- Diabetes curriculum for third year BSN nursing students.
- Diabetes management in underserved communities for MSN nursing students.
- Third Year Medical Student Program: Third year medical students are rotated into defined communities, with monthly assignments in the offices of carefully chosen primary care physicians. They concentrate on diabetic patients in the assigned practice. They develop community projects directed at people with diabetes as part of the rotation. In 2002 all 3rd year students in South Carolina received this experience.
- Diabetes Management Curriculum for Nurse Practitioners.
- Dietetic Interns Diabetes Curriculum.

5. Developed new programs in specialized patient education and care:

- Assisted with Check Yourself to Protect Yourself. Diabetes Modules (#12) Lay Curriculum.

Other accomplishments:
• Developed and coordinated the implementation of the revised Primary Care Provider office-based manual on Diabetes Management.
• Updated Protocols for Advanced Nursing Practice.
• Assisted Palmetto Community Health Network with professional training and implementation of their Duke Endowment Grant activities for Diabetes in Chesterfield, Marlboro, Darlington, Dillon, Marion, Florence, and Horry counties.
• Participated clinical research proposals, explained in Supplemental Support.
• Presented the goals and programs of the Diabetes Initiative of South Carolina at professional meetings.
• Developed or assisted in the development of proposals for grant funding for outreach activities.
• Assisted Vocational Rehabilitation with Diabetes Management Programs for clients.
• Assisted State Health Partners with Diabetes Management Programs for state employees.
• Assisted REACH 2010 grant with the implementation of their CDC Grant activities in Charleston, Georgetown, Beaufort, Jasper, Hampton and Allendale counties.
• Coordinated all CEU paperwork for MDs, RNs, RDs, RPhs, Counselors, AAFP and Health Educators.
• Negotiated Medicaid Contract (State Health and Human Services Finance Commission) with MUSC Diabetes Center for $20,000 for 2001 - 2002.
• Negotiated BCBS HMO Diabetes Education Contract with MUSC Diabetes Center and assisted other programs in the state in this process.
Functions
The Surveillance Council was established in 1995 to develop and implement a state-of-the-art system for the assessment of diabetes in South Carolina, and to provide a mechanism to evaluate interventions and control programs. The Council consists of diabetes care providers, epidemiologist, program specialist and researchers, and is staffed by data specialists at the South Carolina Department of Health and Environmental Control and the Medical University of South Carolina. The Council operates with formal meetings and communications.

The Council has established the following objectives:
- Develop, implement and evaluate surveillance protocols and methodologies to assess diabetes awareness and knowledge, prevalence of diabetes, access to primary care, quality of diabetes self-management, and utilization of monitoring guidelines.
- Evaluate patient and professional education programs.
- Develop and maintain a mechanism to analyze mortality, morbidity, hospitalization and survey data in production of reports to describe the burden of diabetes in South Carolina.
- Develop, establish and maintain a registry of blind South Carolinians that identify diabetic individuals.
- Analyze the effects of co-morbidities with diabetes.
- Establish and maintain an ongoing evaluation of the role of insurance and managed care companies in control of diabetes.
- Function as a central unit composed of multiple organizations and disciplines involved in the surveillance of diabetes in South Carolina.
- Function as a data and information resource for DSC and DCP and other organizations involved in diabetes control.
- Develop and maintain an Internet Website for distribution of information regarding diabetes in South Carolina.
- Establish a scientific forum to showcase diabetes research and projects in South Carolina.
- Establish a methodology to estimate the prevalence of diabetes in South Carolina based on clinical data.
- Establish a methodology to assess trends in diabetes-related outcomes and clinical practices.

Major Accomplishments
The summary of the major accomplishments is:
- Completion and distribution of the second Burden of Diabetes in South Carolina report and updated data which is distributed in hard copy and through the webpage.
- Development and maintenance of a diverse group of investigators in South Carolina who focus their work on the study of diabetes.
- Development and maintenance of an Internet Webpage.
- Production and distribution of data slides which are distributed in hard copy and can be downloaded from the webpage.
- Coordination of the second scientific poster session in conjunction with the 2001 Diabetes
Symposium. Forty-two posters were presented with three SC students receiving cash awards.

- Establishment of a working committee to identify a methodology to assess trends in clinical practices, patient behaviors and outcomes related to diabetes.
- Establishment of a working committee to use clinical data bases to estimate the prevalence of diabetes in South Carolina.
- Establishment of a working committee to study Type 2 diabetes in young adults.

Specific accomplishments related to the DSC 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.**
- Working with Carolina Medical Review, the Council has identified baseline estimates of clinical practices regarding HbA1c, microalbumin, eye examinations, foot examinations and lipid profiles.
- Utilization of primary care was identified from the Medicaid database.

**Goal II. To increase the utilization of short-term measures which lead to actions that will delay progression of complications of diabetes.**
- Working with Carolina Medical Review, the Council has identified baseline estimates of clinical practices regarding HbA1c, microalbumin, eye examinations, foot examinations and lipid profiles.
- Diabetes data and information was reported to providers through the distribution of the second Burden report as well as via the Website.
- Information regarding diabetes in South Carolina was also distributed via Diabetes Centers of Excellence, Carolina Medical Review, DCP, and through HMOs.

**Goal III: To address the needs of people’ at-risk and those with diabetes by increasing services and education in health professional shortage area in South Carolina.**
- The Council worked with the Office of research and Statistics and Carolina Medical Review to identify areas of shortages based on providers per population.
- Areas of shortage were also identified by area of underutilization based on Medicaid and similar databases.

**Goal IV: To reduce the mortality and disability rates from diabetes-related complications.**
- The Council membership was expanded to include clinical specialists such as nephrology and ophthalmology in order to develop a comprehensive assessment system.
- The Council has established access to a variety of data sources including vital records, Medicaid, Medicare, hospital billing, insurance claims, and the Southeastern Kidney Council in order to establish a comprehensive data system for diabetes.
- The Council has helped establish an inventory of diabetes researchers and projects in South Carolina. The various investigators and projects will be listed on the Webpage. The annual Symposium will also function as a forum for the investigators to meet and exchange ideas regarding diabetes in South Carolina.

**Goal V: To reduce the age-adjusted mortality rates from diabetes and its complications.**
- The Council has identified and plotted trends in mortality associated with diabetes in a manner that can be monitored and used to predict outcomes.

**Goal VI: To decrease risks for select groups of people with diabetes where the prevalence and complication rates exceed those of others.**
- Maps have been generated to identify areas of excess risks of diabetes based on self-report,
hospitalizations, and Medicaid.

Goal VII: To reduce preventable hospital admissions and charges for diabetes.
- The Council has developed a system of measures based on hospital billing data that assesses costs associated with hospitalizations associated with diabetes.

Goal VIII: To reduce preventable visits to the emergency room by people with diabetes.
- The Council has developed a system of measures based on hospital billing data that assesses costs associated with emergency room use due to conditions associated with diabetes.

Goal IX: To improve the statistical basis for estimating the prevalence of diabetes and diabetes-related complications in South Carolina.
- Trends in hospitalizations for cardiovascular disease with and without diabetes has been identified to estimate the burden of diabetes.
- A committee was established to identify measures that estimate prevalence based on clinical values. The committee will assess Medicare, Medicaid, insurance claims, and hospital discharges to refine the estimates currently based on self-report.
- The Council has recruited a podiatrist to serve and quantify the impact of foot complications as a result of diabetes.
- The Council has established a working relationship with the Southeastern Kidney Council to quantify the impact of diabetes on end-stage renal disease.
- The Council continues to work with Carolina Medical Review, Office of Research and Statistics and the Commission for the Blind to quantify the impact of blindness as a result of diabetes.
The University of South Carolina Site was created in August 1998. The focus and mission is the continuing creation, identification and integration of programs of the Diabetes Initiative of SC in the Midlands area. The Governing Committee continues to develop and implement collaborative diabetes grant opportunities in the USC/Midlands area.

DSC/USC Governing Committee:
- 2 additional members added to 12 member USC Governing Committee: Steve Barnette, MD, Family Practioner, Winnsboro; Sharm Steadman, PharmD, Assistant Professor, USC School of Medicine, Department of Family/Preventive Medicine.

Ongoing Activities:
- Leadership for Camp Adam Fisher, SC’s camp for children/adolescents with diabetes. 200 campers June 3-10, 2001! Volunteer MD’s, nurses, dietitians and PharmD’s from USC School of Medicine staff the camp. No child with diabetes in SC is denied attendance because of inability to pay.
- Further integration of USC Faculty into DSC Councils.
- 3rd year Medical Student Experiential Practicum. Medical students, in 2 hour Practicum take off shoes and socks to examine feet testing with monofilaments for potential nerve damage, stick fingers to test blood sugar; and draw up salt solution to give themselves a shot.
- 3rd year Family Practice Residents, 2 hour interactive discussion on “Psychosocial Aspects of Diabetes”.
- “Diabetes: Not a Family Tradition “, South Carolina African American Conference on Diabetes, 5th year, estimated 830 in attendance.
- Participation in Certified Diabetes Educator Review Course (CDE) offered twice a year (250 participants).
- Participation in 40 programs on diabetes education. (1000 people).
- Co-leadership participant in development of Midlands Area Diabetes Coalition. Primary leadership under auspices of Diabetes Control Project, DHEC.

Newest Projects:
- USC Site Web page include MD’s nurses, CDE’s dietitians and pharmacists in the 46 counties of SC. www.med.sc.edu/diabetesinitiative currently updating.
- USC Web page on Nutrition and Therapeutics by Lynn Thomas, RD, DrPH and Sharm Steadman, PharmD, faculty for the USC Department of Family/Preventive Medicine. Web address: www.med.sc.edu/diabetesmanagement
- Continue to provide assistance for development of $2.3 million Centers for Disease Control grant, Principal Investigator: Beth Mayer-Davis, PhD, Associate Professor, School of Public Health, and USC entitled “South Carolina Diabetes Child and Adolescent Registry”.
SOUTH CAROLINA DIABETES CONTROL PROGRAM ANNUAL REPORT
DIVISION OF COMMUNITY HEALTH
DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
JANUARY 1, 2002 - DECEMBER 31, 2002 (YEAR 08)
South Carolina Diabetes Control Program Annual Report
Department of Health and Environmental Control
January 1, 2001 – December 31, 2001

The South Carolina Diabetes Control Program (SCDCP) is housed and managed within the South Carolina Department of Health and Environmental Control’s (SCDHEC), Bureau of Community Health, Chronic Disease and Prevention and Control Branch. A core staff comprised of the Program Coordinator, Community Education Manager, Health Communication Manager, Health Systems Manager, Epidemiologist, and an Administrative Assistant administers the DCP. It is a part of the Centers for Disease Control and Prevention’s (CDC) National Diabetes Control Program.

Core Staff:
Bureau Chief: James L. Coleman, Jr., Ed.D, M.S.
Program Coordinator: Rhonda L. Hill, PhD, CHES
Administrative Assistants: Mike Bobo & Freda Burris
Community Education Manager: Barbara Wright-Mallory
Health Communication Manager: Yaw Boateng, MS, MPH, RD
Health Systems Manager: Ellen Babb, MPH, RD
Epidemiologist: Youjie Huang, MD, DrPH
CDC Public Health Advisor: Jacquelyn Houston, MPH, APRN, BC

Program Goals and Objectives:
Program Goal: Reduce disparities in complications and deaths from diabetes in South Carolina.

National Diabetes Objectives:
The three impact objectives of the program are:

83. By 2004, achieve an annual increase in the percentage of persons with diabetes in South Carolina who receives the following preventive measures: comprehensive foot exams, dilated eye exams, HA1C tests, influenza immunizations and pneumonia vaccinations.

84. By 2004, achieve a reduction in health disparities between African American men and women in South Carolina with respect to diabetes prevention and control.

85. By 2004, establish linkages to useful programs for promotion of wellness and physical activity, weight and blood pressure control, and smoking cessation for persons with diabetes in South Carolina.

COMMUNITY EDUCATION

The fifth South Carolina African American Conference on Diabetes was held on November 12, 2001 at the Sheraton Hotel and Convention Center in Columbia, SC. The conference, Diabetes: Not a Family Tradition was co-sponsored by the Diabetes Today Advisory Council (DTAC) and SC DHEC. The conference was a total success with over 830 individuals from people living with diabetes, caretakers, health care professionals and other interested community members present. Both Georgia and North Carolina DCPs sent congratulations on a job well done.
National Diabetes Today Trainer Trainings: Both the Community Education and Health Communication Managers attended the Regional Diabetes Today Training in New York and Utah respectively. Train-the-trainer trainings around the three demonstration sites (community health centers) have been scheduled for December 2001, January and February 2002.

Brochure Development: Developed two brochures, “What is Diabetes?” and “DHEC Diabetes Services” with the Bureau of Home Health. Both brochures are available through DHEC’s Educational Research Center (ERC).

National Diabetes Education Program (NDEP): The DCP distributed “A diabetes Community Partnership Guide” and its accompanying video “Five Communities Reach Out”, Tips for helping a person with diabetes, CDC AT A GLANCE: Diabetes: A Serious Public Health Problem 2001, and Control your Diabetes For Life. Both the Spanish and English versions of these and other materials were distributed to the public. The distribution of these materials served to increase awareness that diabetes is serious, common, and costly, but can be controlled. It encouraged more people to start community intervention activities in several areas in the state.

A number of NDEP educational materials were distributed to the community through coalition members via mail and at meetings, and to the public at conferences, workshops, symposia, health fairs, family reunions, and support group meetings throughout the state.

Juvenile Diabetes Research Foundation: The SC DCP along with the Bureau of Home Health, the Bureau of Finance and DTAC collaborated to raise money for the annual Walk for the Cure Campaign. This collaboration resulted in SC DHEC raising over $2500.00 for the organization.

South Carolina Partners in Wellness Class: Several presentations were made during the past two semesters at Benedict and Claflin Colleges and SC State University. The Program Manager along with the Community Education and Health Communication Managers all presented varying information on diabetes to the students.

**HEALTH COMMUNICATION and COALITION DEVELOPMENT**

Goal number one of South Carolina’s "10 Year Strategic Plan" (1998-2008) for diabetes is to improve knowledge of diabetes, quality of life, and access to prevention and intervention services. To achieve this goal, the South Carolina Diabetes Control Program (SCDCP) and the Diabetes Initiative of South Carolina (DSC) teamed up to form diabetes coalitions in the four DHEC created geographic regions (Coastal, Pee Dee, Midlands, Upstate) of the state.

Since the fall of 1999, four regional coalitions and sixteen coalition chapters within the regions have been formed. Regional and chapter coalition meetings are held quarterly and monthly respectively in several communities around the state. Membership of the coalitions includes community people, health professionals, and people living with diabetes. The goals of the coalitions are to:

- Provide a forum for local communities to discuss diabetes-related activities that are locally driven and controlled,
- Share resources and information with the expectation that all such efforts will support the implementation of the SCDCP/DSC 10 Year Strategic Plan,
• Help create awareness of diabetes and its related issues at the community levels,

• Increase communication and coordination among existing organizations and institutions to reduce unnecessary duplication of diabetes related projects,

• Promote collaboration between organizations,

• Help solicit corporate support.

Through the formation of these coalitions the SCDCP and its collaborators have brought lay people and health professionals together to discuss problems that people with diabetes and their providers face. Coalition members are actively involved in intervention activities in their respective communities and have a common agenda of working together to reduce the burden of diabetes.

Health professionals and people from the communities now have a forum where concerns of mutual interest are expressed and discussed in a non-threatening atmosphere. This has the potential to effectively educate people living with diabetes to understand and appreciate the significance and need of managing, controlling, and preventing diabetes and its complications.

For the reporting year 2001, the SCDCP organized and held the first annual statewide coalition meeting and eleven regional meetings. Coalition chapters of the regional coalitions held several meetings during the course of the year. The majority of the chapters met on monthly basis to organize and carry out several activities in their respective communities.

The First Annual Statewide Diabetes Coalition Meeting

The first annual statewide diabetes coalition meeting was held in Charleston on September 26, 2001, and was attended by 53 members from all over the state. A goal for next year, "to decrease incidence rate of diabetes and its consequences in South Carolina through the development of healthy meal plans and increased physical activity at the local level" was set. Regional and chapter coalitions were encouraged to set their goals based on the statewide goal and plan their community activities accordingly. A committee made up of two members from each region will draft bylaws to be considered at the next statewide meeting in Columbia in March of 2002.

The Coastal Regional Diabetes Coalition

The Coastal Regional Diabetes Coalition held it’s meeting in Georgetown on July 14, 2001, and was attended by representatives from all the five chapters in the region to share their experiences by reporting on their chapter activities.

1. **Georgetown Diabetes Core Group (contact: Florine Linnen.)**

   The Core Group conducted several activities in the rural area communities and churches. These activities usually involved screening for cholesterol, blood sugar, blood pressure and nutrition education. The annual diabetes banquet was held in March to raise funds for the chapter. This was followed up with the annual walk and health fair, which was attended by more than 300 people. The local hospital, Police Department, Sheriff’s office, and several organizations and associations in the county provided support for the community activities. The Diabetes Core Group is currently partnering with the SC Primary Healthcare Association to convert an old school into a diabetes clinic.
2. **Low Country Diabetes Initiative (LDI), (Beaufort/Jasper/ Hampton Comprehensive Health Services REACH 2010) (contact: Valerie Muehleman.)**

The LDI is made up of 4 counties, Beaufort, Jasper, Hampton, and Colleton. The group conducted 10 focus groups and submitted REACH grant application for phase II of the REACH project. The chapter placed kids diabetes books in the local libraries for families with children who have diabetes. It also worked with the Spanish population in the area through local churches. In addition, the chapter plans to implement “The Slim Down Sister Program; Diabetes Sundays in local Churches; and to form support groups in several local congregations next year. The LDI collaborates with the Beaufort/Jasper Diabetes Coalition in several arenas.

3. **REACH 2010 Charleston Coalition (contact: Ida Spruill)**

The Charleston REACH 2010 Diabetes Coalition has been in existence for over a year. It meets on the 2nd Tuesday of each month. About 20 people have been very faithful to the coalition and attend all meetings. A presentation on a topic of interest is presented to the group. The chapter conducted Diabetes Sunday and Diabetes Alert in some of the local churches earlier this year. It has an ongoing weight management/weight lose program for its members.

4. **Beaufort Jasper Diabetes Coalition (contact: Cindy Coburn Smith)**

This chapter produced a “Diabetes Resource Guide For Beaufort & Jasper Counties”. It is made up of three sub-chapters, the Hilton Head/Bluffton, Jasper County, and Beaufort North. The chapter meets twice a year, usually in October and May, but the sub-chapters meet more frequently. The Hilton Head/Bluffton and Jasper chapters have been working on community-based diabetes education. The Beaufort North chapter has been working on developing a resource directory to highlight economic assistance in the area.

5. **The Pro Hampton County Diabetes Connection (contact: Diane Kennedy)**

The Pro Hampton County, through the Diabetes Connection has been involved with diabetes-related activities in the area since 1997. Projects conducted and/or ongoing include; radio PSAs, support groups that meet on the first Tuesday of every month, Diabetes Risk Assessment Intervention done yearly for the last 4 years, placed books on diabetes in local libraries, and conducted cooking classes. The coalition enjoys excellent support from the community establishments, e.g., the Hampton Regional Medical Center.

### The Upstate Regional Diabetes Coalition

The Upstate Regional Diabetes Coalition is at its embryonic stages. It held its first meeting on June 30, 2001, with a follow-up meeting on September 22, 2001. Representatives from all over the region attended both meetings. Several organizations, diabetes support groups, churches, and educational institutions were also represented. At the September meeting, the group set a goal of working with local Parent Teacher Associations to improve school nutrition and physical activity to reduce the prevalence of obesity and children with type 2 diabetes.

1. **Anderson**

They have developed a foot clinic for the indigent and are working on Community outreach. The group is focusing on prevention (children in particular) and is developing programs for PTAs.

2. **Spartanburg Diabetes Coalition (contact: Jerry Allen)**
This coalition chapter is in the developmental stages. The first meeting was held on November 7, 2001, and was well attended. Those in attendance were assigned responsibilities to do before the next meeting in December 2001. Members agreed to meet on bi-monthly basis to build a solid structure for the coalition.

3. The Oconee Chapter (contact: Judy Lilly)
The Oconee diabetes coalition has developed a diabetes support group. It is a group of Professionals talking about concerns related to diabetes. This group has developed a vision statement and have identified needs which are: 1) overcoming community apathy about diabetes, 2) increasing access to care and information, 3) increasing knowledge of professionals about diabetes care and the Spartanburg diabetes Coalition (contact: Jelly Allen) is the two main chapters that have been formed under the umbrella of the regional coalition.

The Pee Dee Regional Diabetes Coalition

The Pee Dee Regional Coalition held four meetings this year. At the October 2001 meeting, it was decided that chapters in the region will plan and implement nutrition and physical activity related project in their respective communities. The following are the region’s chapter reports:

Chesterfield Chapter (contact: Teresa Canipe):

This chapter meets on the 2nd Monday of every month. Dr. Olajide Balogum, MD. who is the Medical Director of the Sandhills Medical Foundation have been a very strong member and supporter of this chapter. So far, this chapter has compiled a list of the county diabetes-related resources and needs, set up an agenda to meet some of the needs of the county, and conducted grocery store tours with clients living with diabetes. It plans to obtain diabetes medication and supplies for indigent patients, and plans to solicit funds from funding agencies through grants so that a coordinator can be hired to coordinate coalition activities in the County.

6. Florence Chapter (contact: Lori Creech)

The Florence Chapter has formed a committee known as “Community Diabetes Awareness Committee” charged with the responsibility of initiating activities to create awareness about diabetes in the County. They have been recruiting more community members to the chapter and have plans to form several chapters due to the size of the county.

7. Marion Chapter (contact: Angela Howell)
The Marion Chapter organized two diabetes fairs, one workshop and several coalition meetings during this reporting period. The focus of the diabetes fairs was on type 1 in children. Children from the area schools and some of their parents and teachers attended the fairs. Topics addressed at the November 14, 2001 workshop included, exercise, eye care, foot care, nutrition and medications. Speakers included a MD, a PharmD, a DPM, a RD, a RN, and a Health Educator.

8. The Catawba Diabetes Coalition –[CDC](York/Lancaster/Chester) (contact: Lynn Hubbard)

The CDC met several times during the year and invited guest speakers to their meetings. The chapter is putting together a resource list and directory for the Counties, and is in the process of soliciting the help and involvement of the area businesses and industries.

The Midlands Regional Diabetes Coalition

The Midlands Regional Diabetes Coalition met four times this year. Speakers were invited to speak on various topics such as; Introduction to the National Diabetes Education Program’s handbook, “A Diabetes Community Partnership Guide”, Healthy Lifestyle Changes: Eating to Live or Living to Eat, and psychosocial issues related to diabetes. There are currently three chapters underdevelopment in the region, namely, Lexington county, Richland county, and Elgin/Lugoff. Some members of the regional coalition mobilized several congregations in the area to participate in “Diabetes Sunday” activities throughout the year.

SCDCP Listserver and Website

Subscription to the SCDCP Listserv is currently 273 individuals. This service was created to enable the diabetes community and stakeholders to have access to and exchange of the most current and accurate information on diabetes care, management, control and prevention. Information related to state and national policies that affect people living with diabetes is also shared on the listserv. The SCDCP website is now up and running. The address is: www.scdhec.net/diabetes.
The South Carolina Diabetes Control Program (DCP) continues to work in close partnership with three Community Health Centers to improve diabetes care. Beaufort-Jasper Comprehensive Health Services now has seven sites; Black River Healthcare has five sites and Sandhills Medical Foundation now has three sites. Significant quality improvements have been made at the initial intervention sites (one per center)—see Chart 1. All three sites are spreading their quality improvements, including the DEMS (Diabetes Electronic Monitoring Systems—computerized patient clinical data system) to other sites at their center. DCP is focusing on the five clinical areas in their CDC grant, to demonstrate success in achieving an increase in the percentage of persons with diabetes at the three demonstration sites in SC who receive recommended foot exams, eye exams, flu and pneumonia vaccines, and dilated eye exams.

Pilot sites and spread sites are as follows:

<table>
<thead>
<tr>
<th>Center</th>
<th>Pilot Site (No. of patients)</th>
<th>Spread Sites (No. of patients)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black River Healthcare, Inc.</td>
<td>Greeleyville (206)</td>
<td>Kingstree (92)</td>
</tr>
<tr>
<td>Sandhills Medical Foundation, Inc.</td>
<td>Jefferson</td>
<td>McBee</td>
</tr>
<tr>
<td>Beaufort-Jasper- Hampton Comprehensive Health Services, Inc.</td>
<td>Sheldon (162)</td>
<td>Ridgeland (116)</td>
</tr>
</tbody>
</table>

The DCP is developing a method to perform multiple queries of the electronic medical records at each site and print out quarterly reminder letters for patients who have not had recommended tests, shots or visits in the five areas of CDC focus. DCP is also planning quarterly comprehensive site visits to each center to discuss team needs and concerns review progress on measures and implementation of reminder systems, and view educational sessions.

Resource and training needs assessment forms were completed by staff at each center in June and July. Results will be used to assess barriers and help find solutions to assist centers in sustaining and accelerating positive changes and in spreading these changes and the Collaborative system to other sites at their Centers. The following activities are planned to meet needs identified in the surveys: A statewide training for all centers, possible on-site in-services, educational materials,
assistance in obtaining other free resources (e.g. monofilaments), and helping Centers identify grants to meet resource needs.

DCP is planning a one-day training session in February for Community Health Centers in South Carolina participating in the Diabetes Health Disparities Collaborative. Planned topics include medical nutrition therapy, physical activity, self-management, resources, electronic patient database, reimbursement, ADA standards of care, Diabetes Today and coalitions information, and sharing/networking opportunities to reduce disparities and improve access and quality of care.

DCP also coordinated a survey of patients and staff to determine the effectiveness of reminder systems at the centers. Out of 82 patients receiving reminder calls, 78% kept their appointments. Of 16 patients not receiving reminder calls, 81% kept their appointments. Out of 63 patients responding to the survey who received reminder calls, 62 said that they would have come even if they did not receive a reminder call.

Beaufort-Jasper received a REACH planning grant last year and has been starting community interventions in the Beaufort, Jasper, Hampton and Allendale counties. They are also working on becoming ADA recognized. (Note: Until recently, a Community Health Center could not receive additional reimbursement for being ADA recognized because this was a service they are supposed to provide as part of their comprehensive health care. However, HCFA recently made a provision for Medicare to provide additional reimbursement for ADA recognized Centers).

Physical activity interventions are in place at all three sites. Centers are providing education on physical activity, providing physical activity (PA) prescriptions, and are using PA prescription handouts provided by the DCP, along with other handouts. A definition was established to provide inform baseline data on level of physical activity among CHC patients, and data will be collected via the DEMS program, on how many patients are performing the defined type and amount of physical activity at least three times a week.

All three centers have made significant quality improvements. Aggregate data for care indicators from DEMS through June 2001 (for patients who had been in the system at least one year) were
recently compared with 1999 chart audit data at the three DCP-Community Health Center intervention sites. Results may be seen in Chart 1 (attached).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Chart Audits 1999 (Pilot sites)</th>
<th>N (99)</th>
<th>N (01)</th>
<th>DEMS Registries June 2001 (Pilot sites)</th>
<th>% Change 99-2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation of Annual Dilated Retinal Exam</td>
<td>13%</td>
<td>62</td>
<td>262</td>
<td>42%</td>
<td>+233%</td>
</tr>
<tr>
<td>At least 2 HbA1cs ≥ 3 months apart</td>
<td>46%</td>
<td>68</td>
<td>262</td>
<td>66%</td>
<td>+44%</td>
</tr>
<tr>
<td>At least 1 HbA1c in past year</td>
<td>82%</td>
<td>68</td>
<td>263</td>
<td>94%</td>
<td>+15%</td>
</tr>
<tr>
<td>Pneumonia vaccine (one in past 10 years)</td>
<td>16%</td>
<td>68</td>
<td>262</td>
<td>56%</td>
<td>+250%</td>
</tr>
<tr>
<td>Foot exam</td>
<td>36%</td>
<td>61</td>
<td>262</td>
<td>71%</td>
<td>+97%</td>
</tr>
<tr>
<td>Flu shot in past year</td>
<td>19%</td>
<td>68</td>
<td>262</td>
<td>52%</td>
<td>+174%</td>
</tr>
<tr>
<td>Self-Management goals set</td>
<td></td>
<td></td>
<td>262</td>
<td>62%</td>
<td></td>
</tr>
<tr>
<td>HbA1c &lt; 8% (last test)</td>
<td>41%</td>
<td>54</td>
<td>206</td>
<td>94%</td>
<td>+75%</td>
</tr>
<tr>
<td>HbA1c ≥ 9.5% (last test)</td>
<td>28%</td>
<td>54</td>
<td>206</td>
<td>25%</td>
<td>-10%</td>
</tr>
<tr>
<td>Average HbA1c</td>
<td>8.2</td>
<td>54</td>
<td>253</td>
<td>7.9</td>
<td>+4%</td>
</tr>
</tbody>
</table>

**PUBLICATIONS/PRESENTATIONS**


- Boateng, Y. *Personal Prevention - Nutrition as it relates to weight gain, exercise, diabetes, and Syndrome X.* Morris College in Sumter, SC.


**SURVEILLANCE**

- The “**Burden of Diabetes in South Carolina, 1999**” was awarded “The Notable State Document Award” by the South Carolina State Library on March 20, 2001. This report was one of ten publications awarded this year. At the award meeting, Dr. Youjie Huang emphasized that the Report was a continuing joint effort of SC DCP, SC DHEC, and DSC.

- The “**Burden of Diabetes in South Carolina, 2001**” has been placed on the Internet web sites of SC DHEC and DSC.
Diabetes Initiative of South Carolina
Board of Directors and Council Members

Board of Directors

Members
John A. Colwell, MD, PhD, CDE (Chair)  Director, Diabetes Center, MUSC
Pamela Arnold, MSN, APRN, BC-ADM, CDE  Diabetes Center, MUSC
Elizabeth Todd Heckel, MSW, CDE  USC/DSC Site, University of SC
Ira Horton, MD  SC HHS Finance Comm.
Carolyn Jenkins, DrPH, APRN, BC-ADM, CDE  Outreach Council, MUSC
David Keisler, MD (Co-Chair)  SC Academy of Family Physicians
Daniel Lackland, DrPH  Epidemiology/Biometry, MUSC
Billy Lance, MD  Governor’s Office
Usah Lilavivat, MD  Internal Medicine
Robert Lindemann, MD  SC Medical Association
Elizabeth Mayer-Davis, PhD  USC School of Public Health
Ronald K. Mayfield, MD  Endocrinology, MUSC
Edi McNinch, RN, CDE  AADE
Anthony Meyer, CFRE  Greenville Hospital System Foundation
Al Pakalnis, MD  University of SC, Ophthalmology
William Price, MD  Internal Medicine
George Rosebrock, MD, CDE  ADA - Southern Region
Gardenia Ruff, MSW, LISW  SC DHEC - Office of Minority Health
Kenneth Trogdon  Commun-I-Care
Lisa Waddell, MD, MPH/Rhonda Hill, PhD, CHES  SC DHEC
Professor Eldon Wedlock, Jr.  Esq. USC School of Law

Advisory Members
Stoney Abercrombie, MD  SC AHEC
Edwin Bransome, MD  Diabetes Treatment Center, Aiken, SC.
Brent Egan, MD  Hypertension Initiative of S.C.
Nelson Gunter, MD, MPH  Carolina Medical Review
Bryon Jackson, DPM  Diagnostic & Comprehensive Foot Care
John Little, MD  Companion, HMO

Ex-Officio
Yaw Boateng, RD, MS  SC DCP-DHEC
James B. Edwards, DMD  MUSC
Ed Owen  ADA - Southern Region
Stephen Smith  ADA - Past Chair of the Board
# Diabetes Center Council

## Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>John A. Colwell, MD, PhD, CDE (Chair)</td>
<td>Director, Diabetes Center, MUSC</td>
</tr>
<tr>
<td>Pamela Arnold, RN, MSN, CDE (Co-Chair)</td>
<td>Diabetes Center, MUSC</td>
</tr>
<tr>
<td>Ellen Babb, MPH, RD</td>
<td>SC DCP-DHEC</td>
</tr>
<tr>
<td>Deborah Carson, PharmD, BCPS</td>
<td>Community Pharmacy Practice, MUSC</td>
</tr>
<tr>
<td>David Garr, MD</td>
<td>Family Medicine, MUSC</td>
</tr>
<tr>
<td>W. Timothy Garvey, MD</td>
<td>Endocrinology, MUSC</td>
</tr>
<tr>
<td>Barry Hainer, MD</td>
<td>Family Medicine, MUSC</td>
</tr>
<tr>
<td>Elizabeth Todd Heckel, MSW, CDE</td>
<td>USC/DSC Site, USC</td>
</tr>
<tr>
<td>Kathie Hermayer, MD</td>
<td>Endocrinology, MUSC</td>
</tr>
<tr>
<td>Carolyn Jenkins, RD, RN, CDE, DrPH</td>
<td>Outreach Council, MUSC</td>
</tr>
<tr>
<td>Ronald Mayfield, MD</td>
<td>Endocrinology, MUSC</td>
</tr>
<tr>
<td>Jane Parker, RN, MN, CDE, PNP</td>
<td>EDIC/IDEAL, MUSC</td>
</tr>
<tr>
<td>George Rosebrock, MD</td>
<td>Roper Hospital Diabetes Center</td>
</tr>
<tr>
<td>Sabra Slaughter, PhD</td>
<td>SC AHEC</td>
</tr>
<tr>
<td>Maria Szpeich, MD</td>
<td>Endocrinology, MUSC</td>
</tr>
<tr>
<td>Steve Willi, MD, CDE</td>
<td>Pediatric Endocrinology, MUSC</td>
</tr>
<tr>
<td>Denise Wood, RN, MSN, CDE</td>
<td>EDIC/IDEAL, MUSC</td>
</tr>
<tr>
<td>Deyi Zheng, MD, PhD</td>
<td>Biometry /Epidemiology, MUSC</td>
</tr>
</tbody>
</table>
Surveillance Council

Members

Daniel Lackland, DrPH (Chair)  Biometry/Epidemiology, MUSC
Pamela Arnold, RN, MSN, CDE, CCM  Diabetes Center, MUSC
Ellen Babb, MPH, RD  SC DCP-DHEC
Walter P. Bailey, MPH  SC Office of Research and Statistics
Yaw Boateng, RD, MS, MPH  SC DCP-DHEC
David Bradford, PharmD  Medical University of South Carolina
Edwin Bransome, MD  Diabetes Treatment Center, Aiken, GA.
Sandra Carnesale, MD  SC DHEC
Tina Coctacou  USC, School of Public Health
John Colwell, MD, PhD, CDE  Diabetes Center, MUSC
Beth Corley, MA  SC Office of Research & Statistics
Stacey Eison, MSPH  University of South Carolina
Jim Ferguson, DrPH  SC DHEC
Pamela Floyd  Palmetto Government Benefits Administrators, LLC
W. Timothy Garvey, MD  Endocrinology, MUSC
Nelson Gunter, MD, MPH  Carolina Medical Review
K. Sue Haddock, PhD, RN, CNNA  University of South Carolina
Ihab Hajjar, MD  UCS School of Medicine
Elizabeth Todd Heckel, MSW, CDE  USC/DSC Site, University of SC
Youjie Huang, MD, DrPH  S.C. DCP-DHEC
Florence Hutchinson, MD  Nephrology, MUSC
Carolyn Jenkins, RD, RN, CDE, DrPH  Outreach Council, MUSC
Arch (Chip) Mainous, PhD  Family Medicine, MUSC
Elizabeth H. Majors  Palmetto Government Benefits Administrators, LLC
Elizabeth Mayer-Davis, PhD  USC School of Public Health
Jamalidden Moloo  Richland Medical Center
Al Pakalnis, MD  Ophthalmology, University of SC
Thomas Pinner, DPM  Private Practice, Lexington, SC
Cheryl Stepka-Tracey, RN, MA, CDE  Medical University of South Carolina
Blake Williams  Carolina Medical Review
Deyi Zheng, MD, PhD  Biometry/Epidemiology, MUSC

Outreach Council
<table>
<thead>
<tr>
<th>Members</th>
<th>College of Nursing, MUSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolyn Jenkins, RD, RN, CDE, DrPH (Chair)</td>
<td>SC, ADA</td>
</tr>
<tr>
<td>Brigitte Adley</td>
<td>School of Public Health, USC</td>
</tr>
<tr>
<td>Angela D’ Antonio</td>
<td>Diabetes Center, MUSC</td>
</tr>
<tr>
<td>Pamela Arnold, RN, MSN, CDE</td>
<td>Companion Health Care</td>
</tr>
<tr>
<td>Ellen Babb, MPH, RD</td>
<td>Medicaid Program Supervisor</td>
</tr>
<tr>
<td>Rosalyn Bennett</td>
<td></td>
</tr>
<tr>
<td>Yaw Boateng, RD, MS, MPH</td>
<td>SC DCP-DHEC</td>
</tr>
<tr>
<td>Geri Charlesworth, RN, CDE</td>
<td>Beaufort Memorial Hospital</td>
</tr>
<tr>
<td>James Coleman, EDD</td>
<td>SC DHEC</td>
</tr>
<tr>
<td>John Colwell, MD, PhD, CDE</td>
<td>Diabetes Center, MUSC</td>
</tr>
<tr>
<td>Esther Forti, PhD</td>
<td>College of Health Professions, MUSC</td>
</tr>
<tr>
<td>Patricia Glover</td>
<td>SC Primary Care Association</td>
</tr>
<tr>
<td>Nelson Gunter, MD, MPH</td>
<td>Carolina Medical Review</td>
</tr>
<tr>
<td>Mary B. Harlee</td>
<td>Florence, SC</td>
</tr>
<tr>
<td>Elizabeth Todd Heckel, MSW, CDE</td>
<td>USC/DSC Site, University of SC</td>
</tr>
<tr>
<td>Rebecca Herman</td>
<td>Select Health of SC, Inc.</td>
</tr>
<tr>
<td>Rhonda Hill, EdD</td>
<td>SC DCP-DHEC</td>
</tr>
<tr>
<td>Barbara Holder, PhD</td>
<td>School of Nursing, Clemson University</td>
</tr>
<tr>
<td>Diane Kennedy, MS, MT (ASCP)SH</td>
<td>Low Country AHEC</td>
</tr>
<tr>
<td>Daniel Lackland, DrPH</td>
<td>Biometry/Epidemiology, MUSC</td>
</tr>
<tr>
<td>Wanda Loftin, PhD</td>
<td>College of Nursing, USC</td>
</tr>
<tr>
<td>Barbara Wright-Mallory</td>
<td>Bureau of Community Health</td>
</tr>
<tr>
<td>Edi McNinch, RN, CDE</td>
<td>Spartanburg Regional Medical Center</td>
</tr>
<tr>
<td>William S. Robinson MA</td>
<td>Partners in Wellness, MUSC</td>
</tr>
<tr>
<td>Laura Spears</td>
<td>SC Vocational Rehabilitation</td>
</tr>
<tr>
<td>Ida Spruill, RN, MSN</td>
<td>Project Sugar, MUSC</td>
</tr>
<tr>
<td>Wendy Taylor</td>
<td>Florence, SC</td>
</tr>
<tr>
<td>Kenneth Trogdon</td>
<td>Commun-I-Care</td>
</tr>
<tr>
<td>Ken Watkins, PhD</td>
<td>USC School of Public Health</td>
</tr>
<tr>
<td>Deyi Zheng, MD, PhD</td>
<td>Biometry/Epidemiology, MUSC</td>
</tr>
</tbody>
</table>