Diabetes Initiative of South Carolina

Annual Report

January 1, 1995-December 31, 1995 (Year 01)

John A. Colwell, MD, PhD
Chairman, Board of Directors
Diabetes Initiative of South Carolina
To Governor David Beasley and the General Assembly:

December, 1995

On behalf of the Board of Directors of the Diabetes Initiative of South Carolina, I am pleased to present our first annual report. This report was requested in Chapter 39, Section 44-39-30 of the Diabetes Initiative of South Carolina Act.

In accordance with the provisions of the act, we have established the Diabetes Initiative of South Carolina Board and the Diabetes Center, Outreach and Surveillance Councils. Close liaisons have been developed between our Initiative and the Diabetes Control Program of the Department of Health and Environmental Control and the American Diabetes Association, South Carolina Affiliate.

Recent data from our surveillance efforts reveal that diabetes in South Carolina:

- Affects 6% of population (diagnosed) and 6% (undiagnosed)—over 360,000 persons.
- Contributes to over 3,000 deaths yearly and to 44% of deaths due to diseases of the circulatory system.
- Leads to hospitalization charges of about $600 million yearly.
- Accounts for one of every 6 dollars in billed hospital charges and 16% of all inpatient hospital charges.
- Is a major contributor to cardiovascular disease:
  - 33% of hospitalizations for circulatory system disease ($217 million).
  - 25% of hospitalizations for heart attack ($45 million).
  - 60% of hospitalizations for amputation ($32 million).
- Leads to end-stage renal disease and dialysis for 1,200 South Carolinians on the Medicare program.

We have had a busy and challenging year. The report describes a number of programs which are now in operation which are directed at the devastating problems of diabetes and its complications.

We are enthusiastic that the Diabetes Initiative of South Carolina will be successful in combatting this serious disease by its innovative programs of community outreach, education, and surveillance. We wish to thank 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 of South Carolina.

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

*An equal opportunity employer*
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Executive Summary

Diabetes mellitus is a chronic disease resulting from the body's inability to produce and use insulin. Diabetes mellitus affects over 350,000 people in South Carolina, 50% of whom do not know it. Complications from diabetes includes blindness, cardiovascular disease, amputations, kidney disease, fetal mortality and morbidity, and more. Severe complications will develop without proper self-management and access to health care professionals with up-to-date training in diabetes management.

The purpose of the Diabetes Initiative is to develop and implement a comprehensive statewide plan of community outreach programs, health professional education and diabetes surveillance. The goal is to provide the tools for management of the disease in order to reduce severe complications and cost burdens for South Carolinians who suffer from diabetes mellitus. The Initiative represents a unique melding of private, state and federal resources and agencies toward this common goal. Nationally, South Carolina has a leading program which coordinates public efforts in the identification and management of this incurable chronic disease.

The major accomplishment of The Diabetes Initiative of South Carolina in its first year is the establishment of an infrastructure for all diabetes professional health care training and management under one, coordinated, cost-effective statewide system. Other major accomplishments for each of the three councils are listed below:

Outreach Council
- Conducted three diabetes screening and assessment pilot programs and follow-up in five counties.
- Surveyed 800 South Carolina primary care physicians to determine adherence to national standards of education and care, factors affecting care and continuing education needs.
- Developed and submitted eight proposals to assist with center activities. These proposals will provide training for lay health workers, assist pregnant women with diabetes to obtain prenatal care, assist Rural Health Services to provide quality diabetes care, create support groups and training, as well as an educational brochure for persons with diabetes, develop and disseminate a Patient Education Program for Primary Care Physicians Offices and initiate a Medicaid Surveillance Project for diabetes.
- Established with the SC Affiliate-ADA a Diabetes Information and Action Line toll free number that received more than 6000 calls in 10 months requesting information and resources.
- Surveyed community health centers to identify diabetes-related needs.
- Completed training and initial plans for launching the African American Diabetes Program in three communities in South Carolina, including Charleston and Columbia.
- Collaborated with the South Carolina Department of Vocational Rehabilitation to finance/provide services related to diabetes management/care/education for persons with diabetes.

Diabetes Center Council
- Conducted four programs of continuing education which have reached 400 health care professionals.
- Increased the pool of Certified Diabetes Educators (CDE's) from 27 to 67.
- Negotiated contract for $44,000 for Medicaid-supported diabetes patient education at MUSC.
- Submitted request for ADA Recognition of MUSC Diabetes Education Programs.
- Developed protocols for diabetes management and standards of diabetes care.

Surveillance Council
- Compiled data from the Behavioral Risk Factor Surveillance Survey, the SC Office of Health and Demographic Statistics, Southeastern Kidney Council, Medicare and Medicaid.
- Updated SC statistics on prevalence, mortality, morbidity, and costs of diabetes and its complications.
Diabetes Initiative of South Carolina

Board of Directors Annual Report

January 1, 1995 - December 31, 1995 (Year 01)

Functions:

Section 44-39-20. (A) There is established within the Medical University of South Carolina the Diabetes Initiative of South Carolina Board. The purpose of this board is to establish a statewide program of education, surveillance, clinical research, and translation of new diabetes treatment methods to serve the needs of South Carolina residents with diabetes mellitus. The provisions of this chapter and the initiatives undertaken by the board supplement and do not supplant existing programs and services provided to this population.

Major Accomplishments:

- The Diabetes Initiative of South Carolina Board was established. Membership on the Board consisted of officials or their designees as stated in the act.
- The Board met quarterly on the following dates:
  - [Dates]
- The Board elected a chair (John A. Colwell, MD, PhD) from its members and a vice-chair (David Keisler, MD) at the October 7, 1995 meeting.
- A structure for the Diabetes Initiative of South Carolina was approved.
- The Surveillance Council was created.
- Policies and procedures were established and approved.
- Committees were appointed as follows:
  - Executive/Finance
  - Legislative Action
  - Bylaws
  - Long Range Planning
- Minutes of the Board and Council meetings are on file at the Diabetes Center Office.
- The actions described in the enclosed Council Annual Reports were discussed, taken as information, or were approved.
Diabetes Initiative of South Carolina

Outreach Council Annual Report

January 1, 1995 - December 31, 1995 (Year 01)

Functions:

As defined by Section 44-39-50 amendment to 1976 Code on 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.

Outreach Council Staff (as of 8/1/95):

Sandra Johnson 1.0 FTE*
Community Educator
Diabetes Control Program, DHEC

Elizabeth Todd 0.75 FTE †
Director of Professional Development
SC-ADA

* DHEC:DCP funds
† DSC funds

Major accomplishments related to promoting adherence to national standards of education and care:

- Survey of South Carolina primary care physicians to determine adherence to national standards of education and care, factors affecting care and continuing education needs.
  
  1. Grant for $12,000 funded by DHEC.
  
  2. Survey designed and mailed to 800 randomly-selected physicians (general practitioners, internists and family practice physicians).
  
  3. Response rate was 56%.
  
  4. Data analysis in process.

- Medical records audit by Companion HMO to determine adherence to national standards.

- Diabetes educator (funded by CDC/DCP-DHEC) currently working with Companion HMO to promote adherence to national standards of education and care, and to develop model education program for Managed Care.
• Collaboration with AHEC to promote adherence to national standards of education and care through:

1. Continuing education programs for health professionals (see Diabetes Center Report for listing of continuing education programs)

2. Submissions of grant to Rural Health Services Administration for a Rural Health Diabetes Outreach Program for Beaufort, Jasper, Hampton and Colleton counties to develop a model community program for hospitals, health care providers, diabetes educators, the community and persons with diabetes. Approved, not funded. Plans to resubmit with changes in 1996.

• Collaboration between MUSC Diabetes Center, DCP-DHEC, and USC Department of Community and Preventive Medicine, (Dr. Ernest McCutcheon) to identify continuing education needs of physicians, pharmacists, and other health providers in South Carolina.

• Presentations to Professional groups focusing on collaborative efforts to improve adherence to standards.

1. American Association of Diabetes Educators Trident Chapter.

2. DHEC Health District Directors of Nutrition.

3. DHEC Expanded Community Family Planning Coordinators.

4. Trident Black Nurses Association (selected diabetes as priority focus for 1996).

5. South Carolina Nurses in Business Association.

6. South Carolina Department of Vocational Rehabilitation.

Major accomplishments for ongoing assessment of patient care costs/reimbursement issues for persons with diabetes.

• SC Affiliate -ADA established DIAL (Diabetes Information and Action Line) a toll free (800) number for information and resources about diabetes. More than 6000 calls were received in 10 months and major concerns/needs included:

1. Nutrition information and education related to diabetes.

2. Financial resources for health care and diabetes management education/supplies.

3. Clinical guidelines for care and management.

4. Access to needed services (especially in rural areas).

• Diabetes screening and assessment pilot programs conducted:

1. Arthur Town (a community outside Columbia) by ADA, Eli Lilly and Diabetes Initiative of South Carolina and other volunteers with 12 persons with diabetes interviewed to determine needs (11 referred for follow-up).
2. Jasper County at Low Country Hospital by Diabetes Initiative, Low Country AHEC, MUSC, Hoechst Roussel, and ADA with 47 persons interviewed to determine risks and educational needs and assessed for peripheral vascular disease and other complications of diabetes (30 referred for follow-up).

- Community educator/MSW (funded by CDC/DHEC-DCP) currently working with SC-ADA to provide ongoing community assessment and assessment of needs of persons at risk and persons with diabetes, as well as barriers to diabetes management and control.

- Collaboration with South Carolina Department of Vocational Rehabilitation to finance/provide services related to diabetes management/care/education for persons with diabetes (who meet established eligibility criteria).

- Training and initial plans for launching African American Diabetes Program in three communities in South Carolina, including Charleston and Columbia.

- Funding through Enterprise Community Planning for Health grant to assess needs of persons living in 22 inner-city neighborhoods in Charleston and to train lay health volunteers to assist in improving community health problems ($252,000 -five year grant with approximately $84,000 for diabetes-related component).

- March of Dimes Grant: 12 AmeriCorp workers for City of Charleston to assist with helping pregnant women obtain prenatal care. One component will focus on education about importance of screening for gestational diabetes.

- Grant request to establish Support Group training and Diabetes Education Materials submitted to Heritage Foundation ($23,400 for Year 1 funding).

- Grant request submitted to National Library of Medicine to establish a Consumer Health Information Center at MUSC Library - One of the grant components would create computerized support and access to diabetes guidelines for care and evaluation for health professionals.
Diabetes Initiative of South Carolina

Diabetes Center Council Annual Report

January 1, 1995 - December 31, 1995 (Year 01)

Functions:

Section 44-39-40. (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 Center of Excellence must submit an annual report to the Diabetes Initiative of South Carolina Board.

The activities of the center must be overseen and directed by the Center of Excellence Advisory Council. The Council consists of members appointed by the president of the Medical University of South Carolina.

1. Reviewing programs in professional education, specialized care, and clinical research developed by the Center.

2. Assisting in the development of proposals for grant funding for the center’s activities.

3. Preparing an annual report and budget proposal for submission to the Diabetes Initiative of South Carolina Board.

Major Accomplishments

• The Diabetes Center of Excellence was established at the Medical University of South Carolina.

• The Diabetes Center of Excellence Advisory Council was formed.

• MUSC Diabetes Center Staff were hired:

  Pamela Arnold 1.0 FTE Clinical Director
  Teresa Byars 1.0 FTE Administrative Assistant
  Carolyn Jenkins .25 FTE Outreach Director

Dr. John Colwell served as Medical Director.

• Established the following professional education programs and materials in specialized care:


  2. In collaboration with the ADA, SC-Affiliate Upstate Diabetes Day for Professionals and Lay Public, November 4-5, 1994.

  3. Foot Care Course: Four two-day offerings in Charleston.


8. Insulin pump course, September 8, 1995 in Charleston.

9. 12 Case reports on challenging problems in diabetic management.


11. Standards of Care (24-page handout).

12. Three extended role nursing protocols for Nurse Practitioners.

- The 1995-1996 Budget was established, presented and approved by the board.

- Provided the following consultations:
  1. Preceptorships for Certified Diabetes Educators
  2. Foot care clinic/Florence
  3. ADA certification/Myrtle Beach
  4. Quality assurance and professional education: Companion Health Care/Columbia

- Presented the Diabetes Initiative of South Carolina at professional meetings:
  1. Southeastern Regional Meeting, American Diabetes Association
  2. Annual Scientific Meeting, American Diabetes Association

- Submitted application for national recognition of the MUSC Diabetes Education Program to the ADA, August 1, 1995

- Developed or assisted in the development of five proposals for grant funding to assist with outreach activities.
  1. Enterprise Community Grant. Diabetes as the Chronic Disease Model. The PI of this grant is Carolyn Jenkins ($84,000). Awarded.
  2. Eli Lilly and Company: Computerization network for the Diabetes Initiative throughout the state ($40,000). Awarded.
  3. Rural Health Services Diabetes Outreach Grant with Low Country AHEC. Carolyn Jenkins and Pam Arnold ($201,917). Approved, not
funded; plans to resubmit in 1996.


6. Hoechst-Roussel, Inc. for support for major patient education program. Pending.

Functions:

The Surveillance Council was organized 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 intervention and control programs. The Council consists of diabetes professionals in South Carolina and is staffed by data specialists from the South Carolina Department of Health and Environmental Control. The group was organized in January, 1995 and operates with formal meetings and communications.

The Council consists of a geographic diverse group representing the leaders in diabetes research, clinical practice and public health.

Major Accomplishments:

- Conducted two formal meetings of Council and five meetings of smaller work groups.
- Assessed existing data and variables that might be incorporated in a diabetes surveillance system.
- Reviewed the components of the S.C. Vital Records system, hospital discharge and billing system, Medicare data base, and Medicaid data base.
- Identified need to develop a system which incorporates the needs of the Diabetes Project sponsored by the Centers for Disease Control.
- Recommended that initial data gathering focus on diabetes-related mortality and hospitalization and other indicators and variables which can better assess and monitor the burden of diabetes in South Carolina. (For instance, the use of the Medicaid data base may be a valuable assessment resource).
- Planned future activities which include complete review of the different data bases and resources, as well as the planned data collection activities.
- Identified the major challenge as a cost-effective statewide report and surveillance system which is responsive to all the data needs in SC that can be maintained at minimal costs.
- Reviewed preliminary data on prevalence, morbidity, mortality and costs of diabetes care in SC.
South Carolina Diabetes Control Program  
Center for Health Promotion  
Division of Cardiovascular Health  
Department of Health and Environmental Control Annual Report  
January 1, 1995 - December 31, 1995 (Year 01)

Functions:

The South Carolina Diabetes Control Program (SCDCP) is run by the South Carolina Department of Health and Environmental Control (SC DHEC), Center for Health Promotion (CHP):

1. Defining and monitoring the burden of diabetes (surveillance).
2. Developing new approaches to reduce the burden of diabetes mellitus.
3. Implementing specific approaches to reduce the burden.
4. Coordinating and integrating efforts to reduce the burden.

Major Accomplishments:

- Hired the core DHEC staff comprising the Program Coordinator, Biostatistician, Community Educator, Professional Educator, and Administrative Specialist.
- Signed two contracts: one with the Medical University of South Carolina (MUSC) to provide various services including professional education and survey of primary health care physicians, and one with the South Carolina Budget and Control Board to provide health statistics data and data consultation on special studies as appropriate.
- Signed two Cooperative Agreements: one with Companion Health Care (CHC) to provide diabetes education to its professionals, and one with American Diabetes Association-South Carolina Affiliate (ADA-SC Affiliate) to assist in performing community assessments and/or community capacity mapping.
- Agreed that the Board of the Diabetes Initiative of South Carolina would serve as the Advisory Board to the DCP.
- Negotiated with various agencies and institutions for data from various sources: vital records data, hospital discharge data, end-stage renal disease data, prevalence data, and risk factor data.
- Compiled the mortality data for 1993 for underlying and contributory diabetes-related deaths.
- Obtained hospital discharge data for 1993 from the SC Office of Health and Demographic Statistics.
- Received a database from the Southeastern Kidney Council.
- Obtained natality data from the SC Office of Health and Demographic Statistics on complications of labor and delivery, type of delivery and charges.
- Compiled data from 1988-1994 (each year) from the Behavior Risk Factor Surveillance Survey (BRFSS) for comparison of prevalence estimates on hypertension, smoking.
sedentary lifestyle, cholesterol, and body mass index among people with diabetes.

- Analyzed prevalence data by year, age, and race-gender.
- Compiled mortality data for 1993 and performed an overall analysis.
- Wrote the Introduction and Prevalence Chapters of the proposed first preliminary version of the annual report, *Diabetes in SC*, and developed an outline of the full report.
- Initiated two surveys to assess primary care physicians and the community health centers.
- Established linkages with five of the eight key sectors of the diabetes control community: government, professional organizations, academic institutions, voluntary health agencies, and organizations representing at-risk populations.
Diabetes Initiative of South Carolina
Board of Directors and Council Members

Board of Directors

Members

- John A. Colwell, MD, PhD
- Pamela Arnold, RN, MSN, CDE
- Delores Barth
- Frank Bowyer, III, MD
- James D. Bradford, MD
- Carolyn Jenkins, RD, RN, MSN, CDE
- David Keisler, MD
- Eugene Laurent, PhD
- Kay McFarland, MD
- Pat Pelletier, RN, MSN, CDE
- William Putnam
- George Rosebrock, MD, CDE
- Gardenia Ruff, MSW, LISW
- Fran Wheeler, PhD

Chair, Diabetes Center, MUSC
Diabetes Center, MUSC
At Large
SC Medical Association
Governor’s Office
Outreach Council, MUSC
SC Academy of Family Physicians
SC HHS Finance Comm.
SC American College of Physicians
American Association of Diabetes Educators
At Large
American Diabetes Association, SC Affiliate
SC Dept. of Health and Environ. Control
SC Dept. of Health and Environ. Control

Advisory Members

- Juanita White
- Jerry Beasley
- Edwin Bransome, MD
- Mark Schiefer, R.Ph

Joint Leg. Health Care Comm.
Textile Industry
Academic Center
Pharmaceutical Industry

Ex-Officio

- Walker Coleman
- Leslie Cronin
- James B. Edwards, DMD
- Stephen Smith

MUSC
American Diabetes Association, SC Affiliate
President, MUSC
American Diabetes Association, SC Affiliate

Outreach Council

Members:

- Carolyn Jenkins, RD, RN, MSN, CDE
- Pamela Arnold, RN, MSN, CDE
- Yaw Boateng, RD, MS, MPH
- Frank Bowyer, MD
- Marti Chitwood, RD, CDE
- John Colwell, MD, PhD, CDE
- Joan Creel
- Leslie Cronin
- Sandra Johnson, MSW
- Leonard Lichtenstein, MD
- Ernest McCutcheon, MD
- Mark Schiefer, Rph
- Cathy Therrell, RN, MSN
- Elizabeth Todd, MSW
- Julie Thurmond

Chair, Outreach Council, MUSC
Diabetes Center, MUSC
DCP-DHEC
Endocrinology, USC
Private Practice, Charleston
Diabetes Center, MUSC
Vocational Rehabilitation
SC-ADA
DCP-DHEC
Internal Medicine, UDC
Dept. of Family & Preventive Med., USC
Eli Lilly and Company
Bon Secours Home Health Agency
SC-ADA
Public Member
Diabetes Center Council

Members:

- John A. Colwell, MD, PhD, CDE
- Pamela Arnold, RN, MSN, CDE
- C. Dean Cleghorn Ed.D
- Howard Evert, MD
- David Garr, MD
- W. Timothy Garvey, MD
- Barry Hainer, MD
- Kathie Hermayer, MD
- Carolyn Jenkins, RD, RN, MSN, CDE
- Ronald Mayfield, MD
- Roger Newman, MD
- George Rosebrock, MD, CDE
- James Thomas, MD
- Steve Willi, MD, CDE
- Denise Wood, RN, MSN, CDE

Chair, Diabetes Center, MUSC
Diabetes Center, MUSC
SC AHEC
Primary Care Medicine, MUSC
Family Medicine, MUSC
Endocrinology, MUSC
Family Medicine, MUSC
Endocrinology, MUSC
Outreach Council, MUSC
Endocrinology, MUSC
OB/GYN, MUSC
Roper Hospital Diabetes Center
Internal Medicine, UDC
Pediatric Endocrinology, MUSC
EDIC/IDEAL, MUSC

Surveillance Council

Members:

- Daniel Lackland, DrPH
- Walter P. Bailey, MPH
- T. Edwin Bransome, MD
- Sandra Carnesale, MD
- John Colwell, MD
- Jim Ferguson, MD
- W. Timothy Garvey, MD
- Nelson Gunter, MD
- Ernest McCutcheon, MD
- Kay McFarland, MD
- David Sheridan, MD

Chair, Biometry/Epidemiology, MUSC
SC Office of Research and Stat.
Medical College of Georgia
SC DHEC
Diabetes Center, MUSC
SC DHEC
Endocrinology, MUSC
Carolina Medical Review
Family & Preventive Medicine, USC
School of Medicine, USC
Medicare Operations, BC/BS SC