



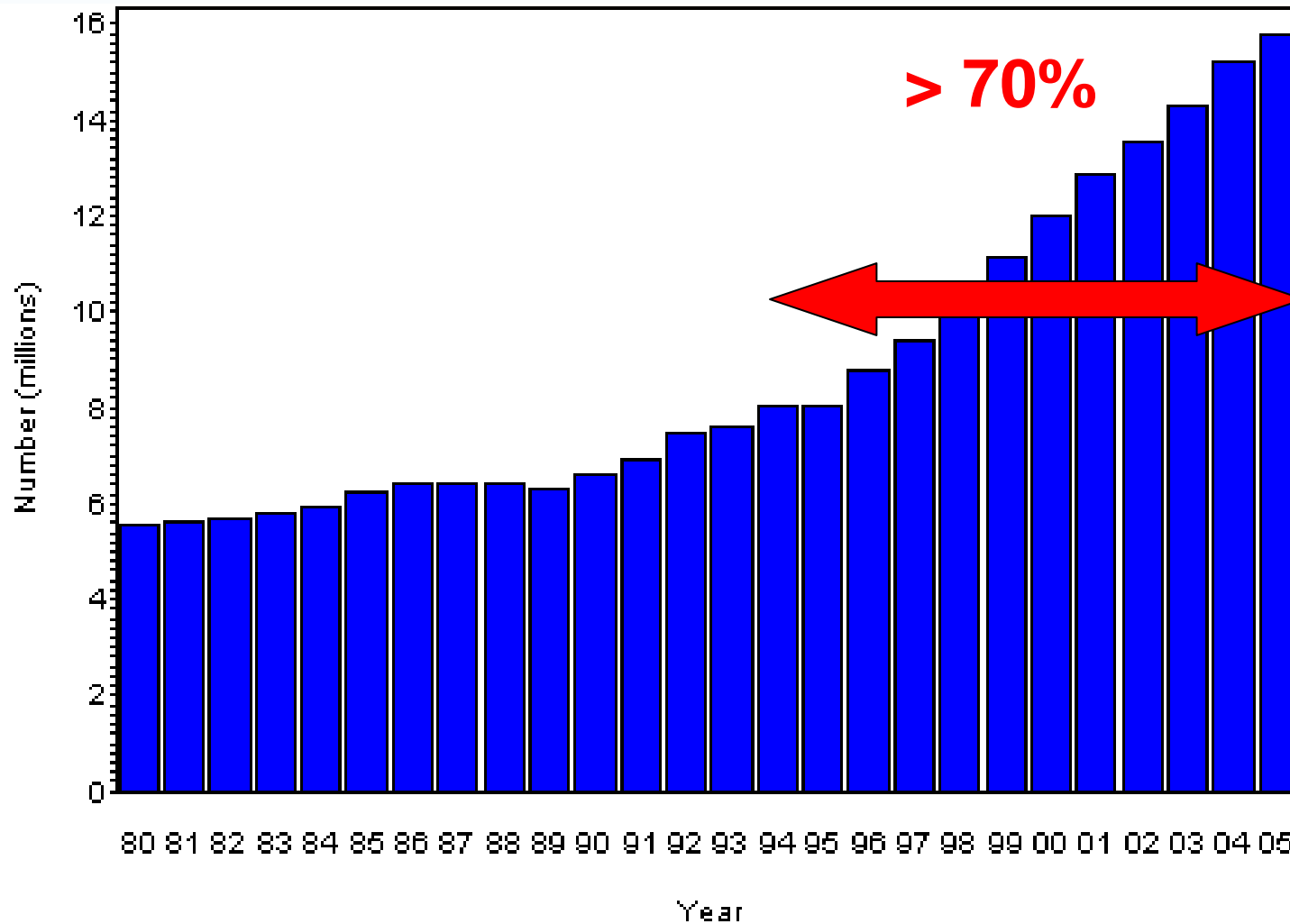
# *Diabetes Quality of Life in University Internal Medicine Clinic*

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PGY 1 Resident

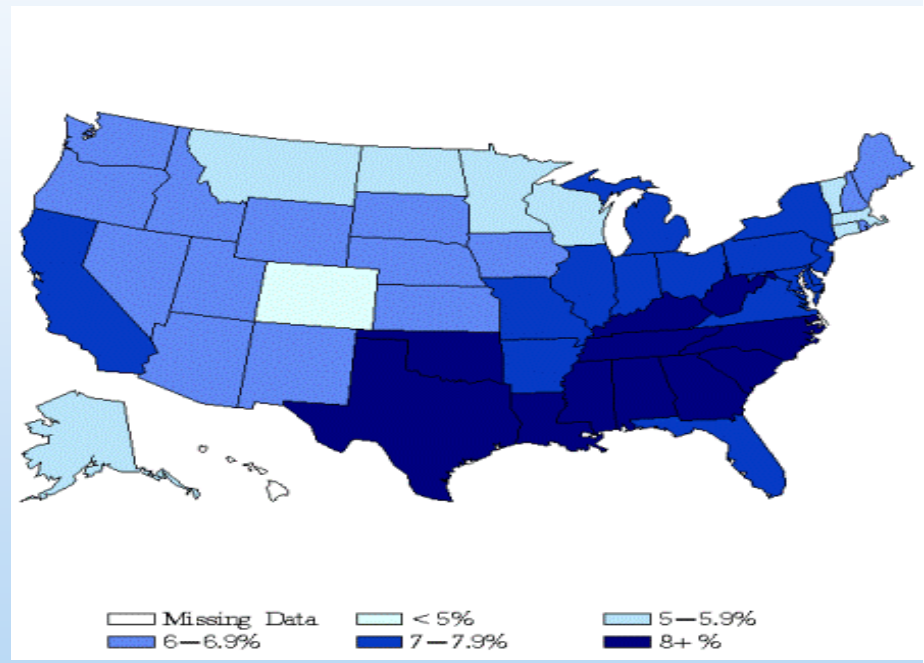
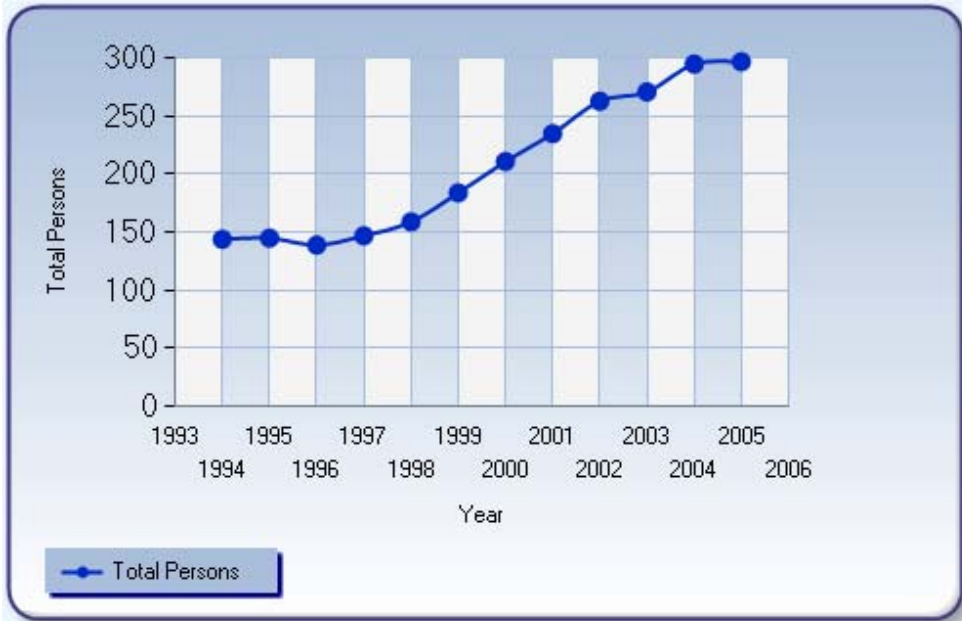
MUSC Medical Center and College of Pharmacy Residency Program

# Background



www.cdc.gov [accessed 04/21/08]

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- Healthy People 2010 Goal
  - “...improve quality of life for all persons who have or are at risk for diabetes”
- Health-Related Quality of Life (HRQOL)
  - Personal sense of physical and mental health
  - Ability to react to factors in the physical and social environment
- Why is this important?
  - Low quality of life associated with increased morbidity and mortality
  - Associated with complications in diabetes

# Goal

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*Increase the involvement of clinical pharmacists in the care of patients with diabetes in University Internal Medicine (UIM) Clinic*

# Objectives

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- Evaluate the diabetes HRQOL of patients being followed by **physicians** at UIM Clinic at Medical University of South Carolina
- Determine if any correlation exists between the diabetes related quality of life and clinical outcomes

- Electronic medical record used to identify patients with a diagnosis of diabetes at UIM
- 200 patients randomly selected from patient population
- Telephone survey to assess diabetes-related quality of life using a modified version of a validated assessment tool
- Retrospective review of the electronic medical record to identify demographic data, most recent clinic blood pressure, and laboratory values
- Qualitative statistics performed

- **Satisfaction**

- Very satisfied
- Somewhat satisfied
- Neither
- Somewhat dissatisfied
- Very dissatisfied

## How satisfied are you with...

- The amount of time it takes to manage your diabetes?
- The amount of time you spend getting checkups?
- The time it takes to determine your sugar level?
- Your current treatment?
- The flexibility you have in your diet?
- The burden your diabetes is placing on your family?
- Your knowledge about your diabetes?
- Your sleep?
- Your social relationships and friendships?
- Your sex life?
- Your work, school, and household activities?
- The appearance of your body?
- The time you spend exercising?
- Your leisure time?
- Life in general?

- **Impact**
- **Worry**
  - Never
  - Rarely
  - Sometimes
  - Often
  - Always

## How often do you...

- Feel pain associated with the treatment for your diabetes?
- Feel embarrassed by having to deal with your diabetes in public?
- Have low blood sugar?
- Feel physically ill?
- Find your diabetes interfering with your family life?
- Feel good about yourself?
- Feel interference with your ability to drive or use a machine?
- Miss work, school or household duties because of your diabetes?
- Find yourself explaining what it means to have diabetes?
- Tell others about your diabetes?
- Find that because of your diabetes you go to the bathroom more than others?
- Find that you eat something that you shouldn't rather than tell someone that you have diabetes?
- Hide from others the fact that you are having an insulin reaction?

## How often do you worry...

- About whether you will pass out?
- That your body looks different because you have diabetes?
- That you will get complications from your diabetes?
- About whether someone will not go out with you because you have diabetes?

Diabetes Care.1996.19:195-202.

# Preliminary Results

| <b>Demographics</b>               |           |
|-----------------------------------|-----------|
| <b>N=22</b>                       |           |
| Age (SD)                          | 66 (8)    |
| Female                            | 93%       |
| Type-2 Diabetes Mellitus          | 100%      |
| <b>Clinical Measurements (SD)</b> |           |
| Hemoglobin A1C                    | 7.4 (2.9) |
| Low Density Lipoprotein           | 91(47)    |
| High Density Lipoprotein          | 46 (16)   |
| Triglycerides                     | 95 (63)   |
| Total Cholesterol                 | 156 (54)  |
| Systolic Blood Pressure           | 143 (24)  |
| Diastolic Blood Pressure          | 72 (10)   |
| Number of Medications             | 9 (4)     |

| <b>Percent of Population at Goal for Clinical Outcomes</b> |      |
|--|------|
| Documented Aspirin Use                                     | 64%  |
| ACE Inhibitor or Angiotensin Receptor Blocker Use          | 100% |
| Hemoglobin A1C <7%   | 64%  |
| Blood Pressure <130/80                                     | 21%  |
| Low Density Lipoprotein < 100mg/dL                         | 70%  |
| Annual Microalbuminuria Screening                          | 43%  |

# Preliminary Results

| <b>Diabetes HRQOL Survey</b> |                     |               |              |
|------------------------------|---------------------|---------------|--------------|
| <b>Score</b>                 | <b>Satisfaction</b> | <b>Impact</b> | <b>Worry</b> |
| <b>1</b>                     | 70%                 | 48%           | 62%          |
| <b>2</b>                     | 14%                 | 12%           | 10%          |
| <b>3</b>                     | 6%                  | 22%           | 15%          |
| <b>4</b>                     | 8%                  | 7%            | 0%           |
| <b>5</b>                     | 2%                  | 11%           | 13%          |

# Limitations

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- Small sample size
- Survey
  - Long- 32 questions
  - Difficult to administer over the phone
  - Addresses use of insulin, but not oral medications
  - Not commonly used in trials, so unable to compare results
- Patients in better states of health may be more willing to talk about their conditions

# Conclusions

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- Preliminary results indicate an overall good quality of life in patients at UIM
- A majority of patients are meeting American Diabetes Association recommended guidelines; however, there is room for improvement
- Results further reinforce correlation between quality of life and clinical outcomes

# Future Directions

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- Complete data collection and analysis
- Pharmacists have been shown to increase adherence to guidelines, and may have a role in providing additional patient care
- Follow-up survey after a clinical pharmacist has been seeing patients for 1 year to assess quality of life

# Acknowledgements

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Amy Thompson, PharmD, BCPS

Assistant Professor-Ambulatory Care

South Carolina College of Pharmacy-MUSC Campus



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