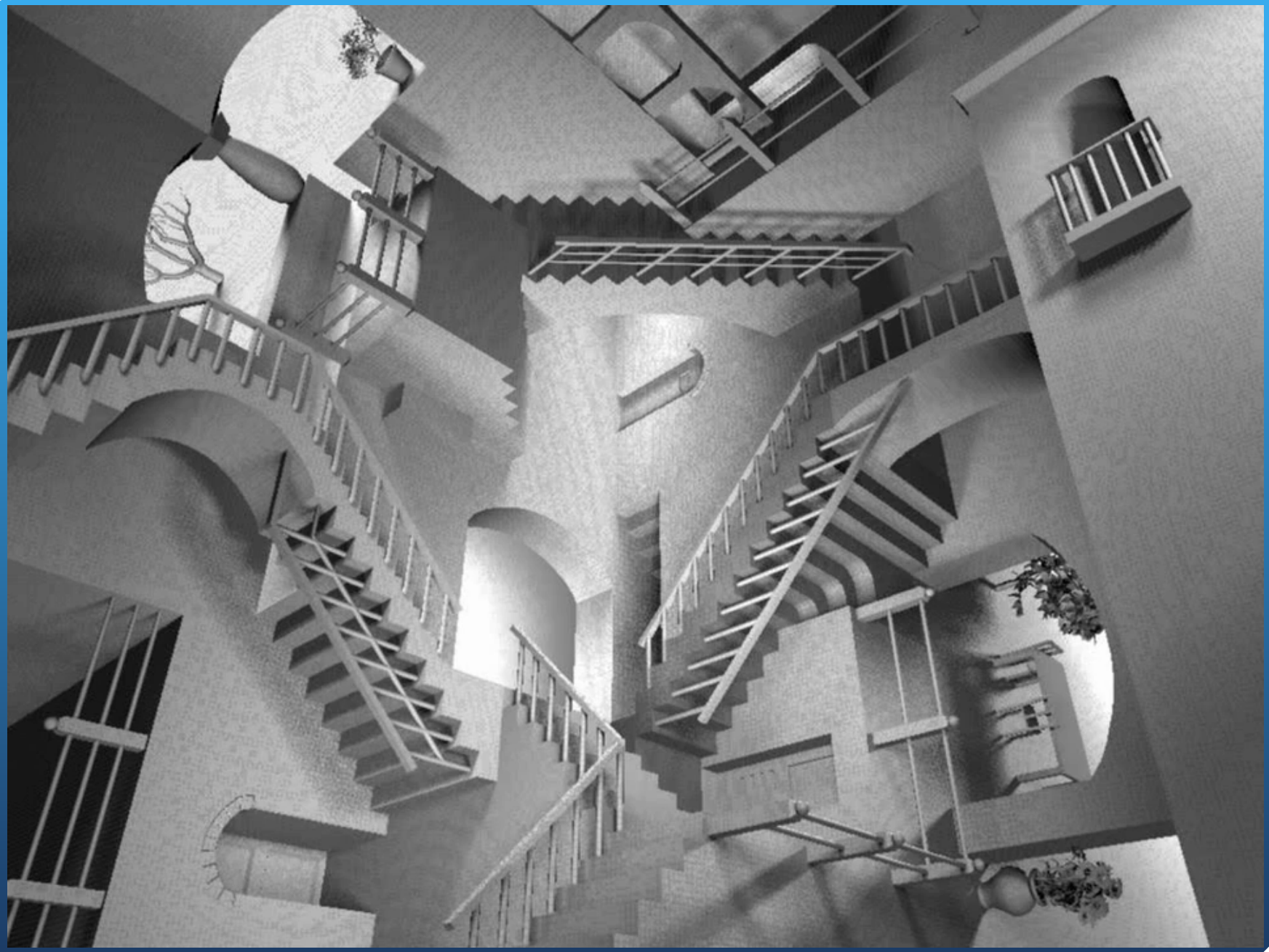


TeamCare: Building A Model for Today's Healthcare Team

The Patient, The Providers, and Integrated Care

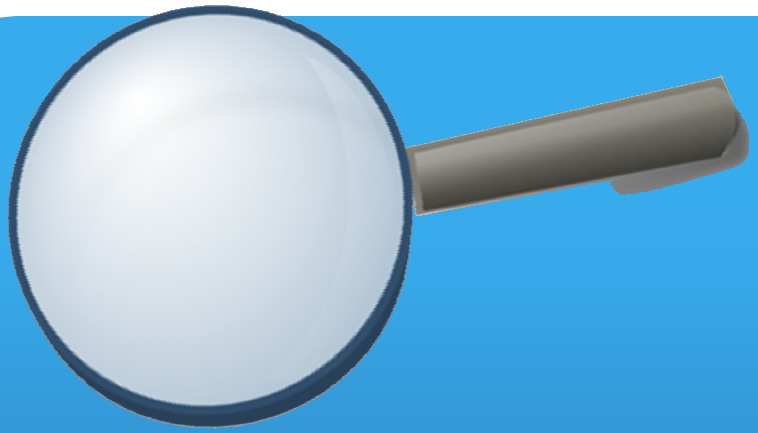
Dennis C. Russo, Ph.D., ABPP
Department of Family Medicine
Brody School of Medicine and East Carolina University

Web-Ex Conference, Greenville, NC

October 31, 2014

"You can observe a lot just by watchin'"

Yogi Berra



A System of Healthcare Where....

- Services are far more expensive than anywhere else, but those who use them get generally worse outcomes.

From the standpoint of behavioral economics, this is not at all surprising. In this system of health care, providers are incentivized do the wrong thing.

- Those who provide services are not paid for their outcomes, they are paid for how many services they provide.

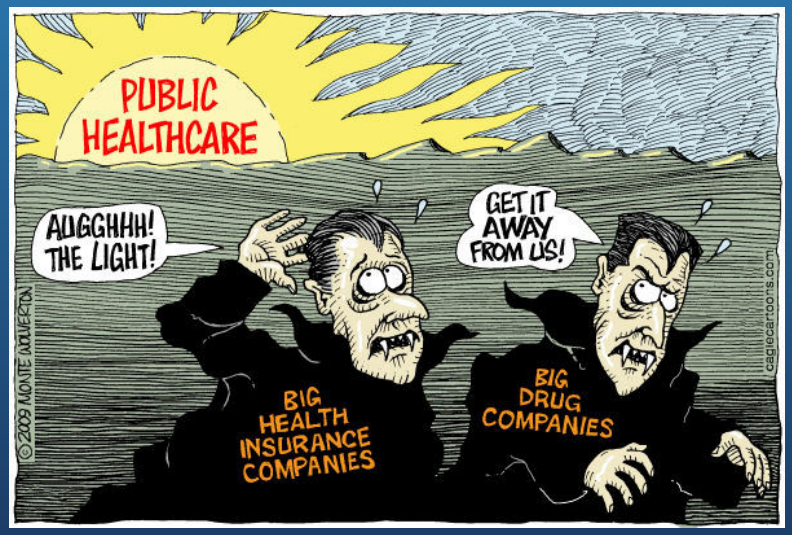
Consequently, patients with poor outcomes can become profit centers, because they require additional follow-up care.

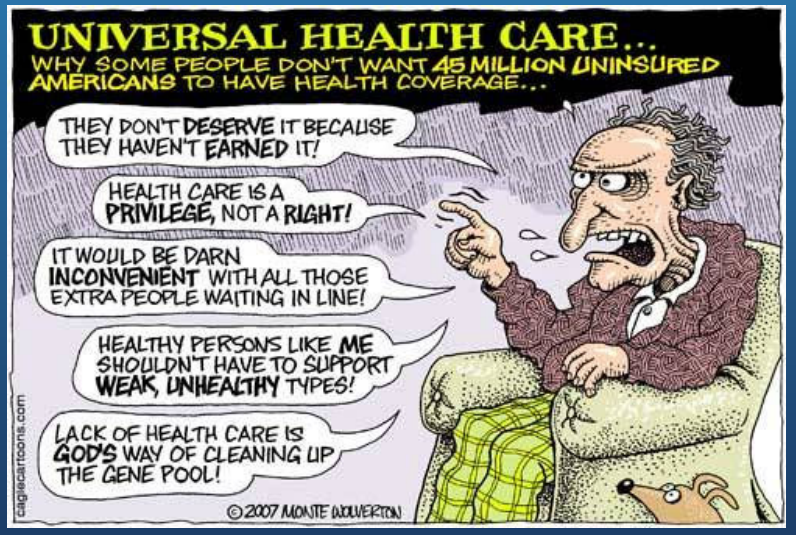
- The inflation rate in healthcare costs is unsustainable.

Each year we fall further and further behind in our ability to pay for our healthcare.

Source: The Patient Protection and Affordable Care Act
A Nonpartisan Primer for Psychologists

Welcome to Healthcare in the US....





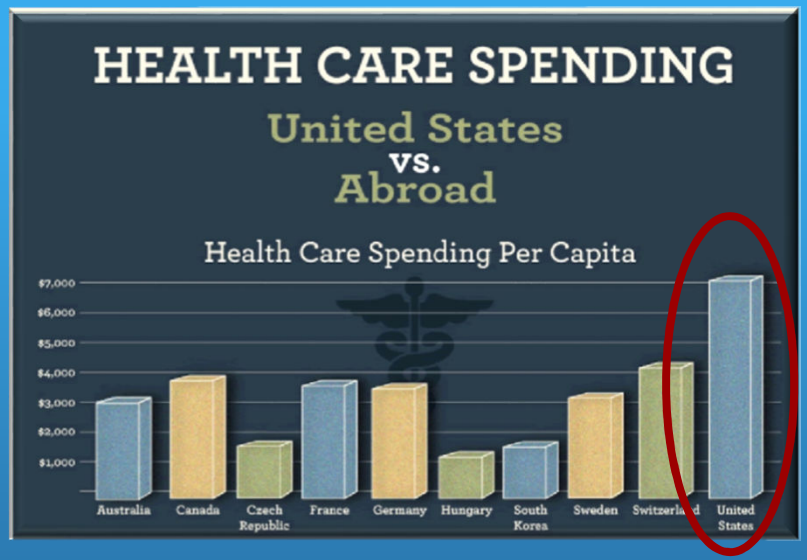
US HEALTHCARE

WHAT'S NOT WORKING?

Cost to our Country

- The US spends more of it's GDP for healthcare
- US Health Care Quality keeps dropping despite the cost
- Premature Mortality

Per Capita Health Cost



Life Expectancy

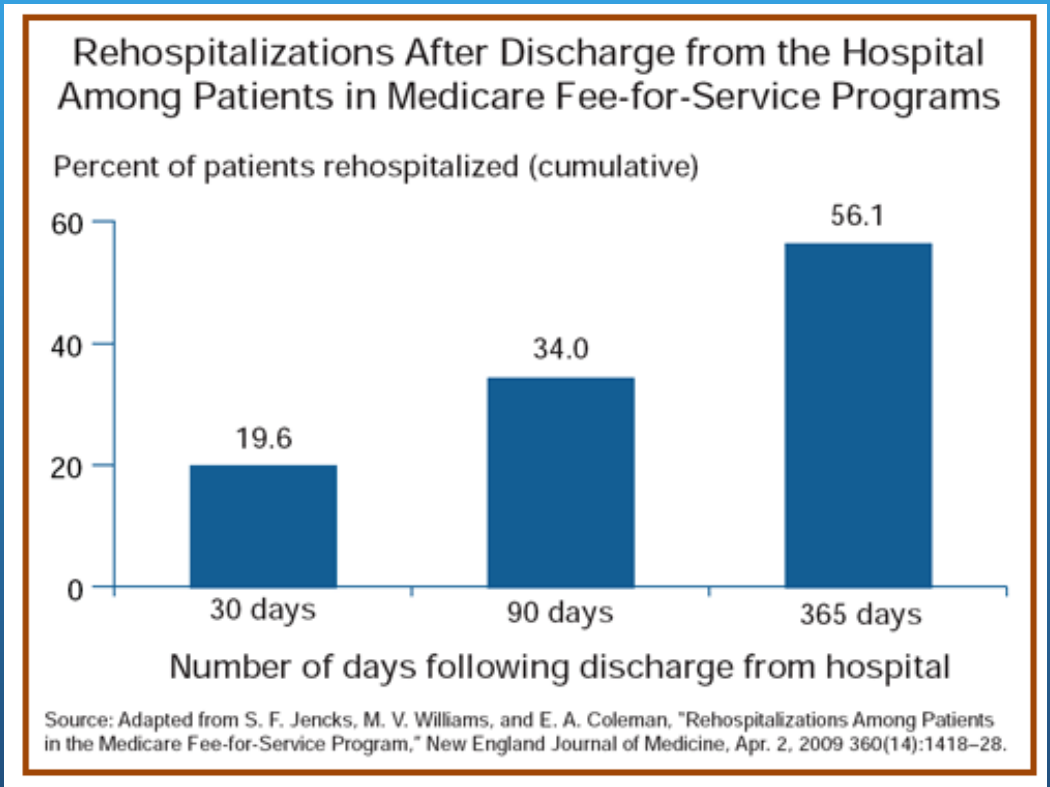
Country	Health Care Spending Per Capita	% of GDP Spent on Health	Life Expectancy
Australia	$3,137	8.7	81.63
Canada	$3,895	10.1	81.23
Czech Republic	$1,626	6.8	76.81
France	$3,601	11	80.98
Germany	$3,588	10.4	79.26
Hungary	$1,388	7.4	73.44
South Korea	$1,688	6.8	78.72
Sweden	$3,323	9.1	80.86
[illegible]	[illegible]	[illegible]	80.85
United States	$7,290	16	78.11

2007 numbers, the latest OECD health spending data available

Source: K. Davis, et. al, Slowing the Growth of U.S. Health Care Expenditures: What Are the Options?, The Commonwealth Fund, January 2007

RE-Hospitalizations among Patients in the Medicare Fee-for-Service Program

- Almost one fifth (19.6%) of the 11,855,702 Medicare beneficiaries who had been discharged from a hospital were rehospitalized within 30 days and 34.0% were rehospitalized within 90 days
- Half of nonsurgical patients were rehospitalized without having seen an outpatient doctor in follow-up
- The average stay of re-hospitalized patients was 0.6 day longer
- Estimate of cost to Medicare of unplanned rehospitalizations in 2004 was $17.4 billion.



Stephen F. Jencks, M.D., M.P.H., Mark V. Williams, M.D., and Eric A. Coleman, M.D., M.P.H. N Engl J Med 2009; 360:1418-1428

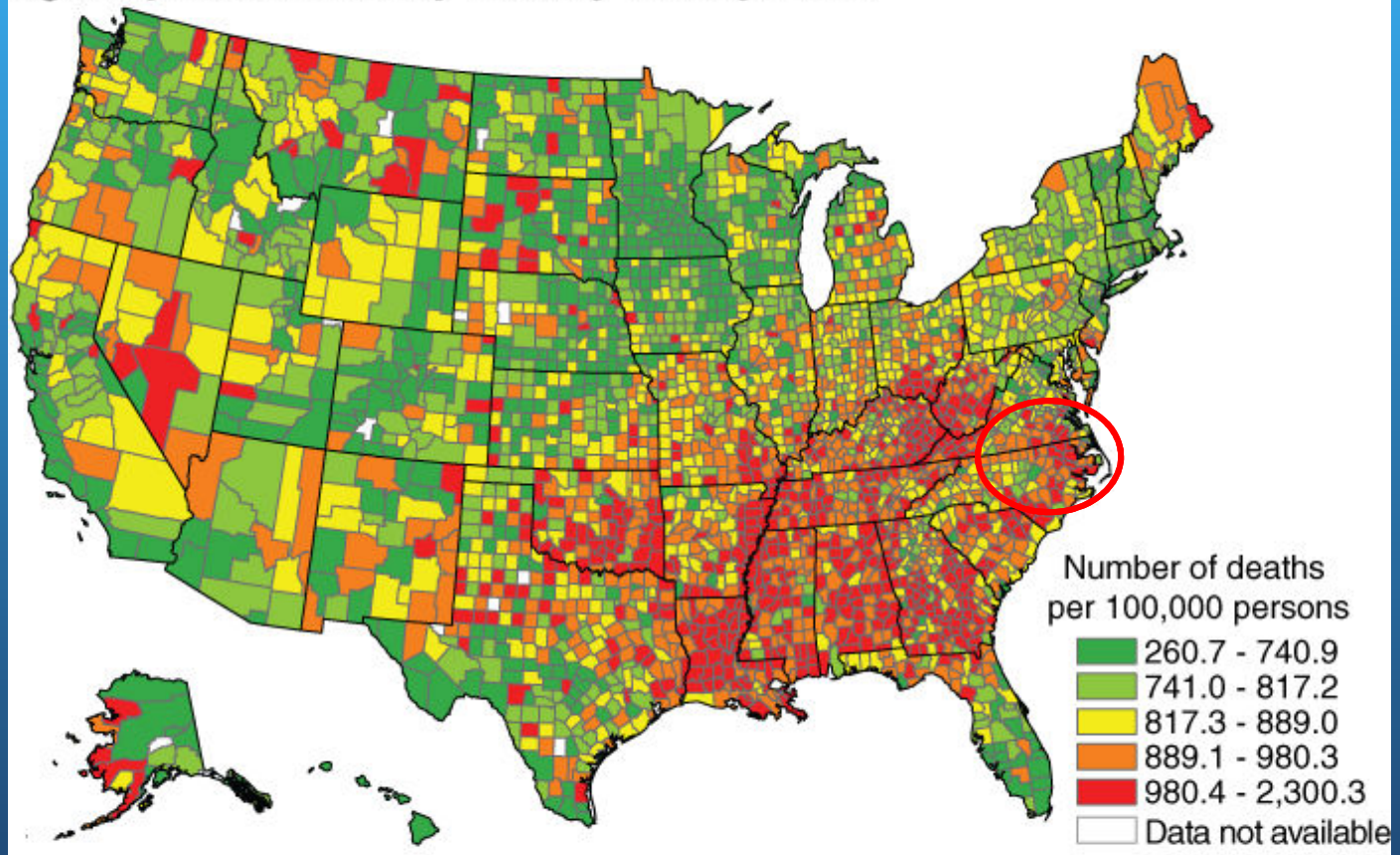
What about Healthcare in North Carolina?

Who are my patients?

A Higher Death Rate in Rural America

Figure 3.2

Age-adjusted mortality rate, by county, 2005



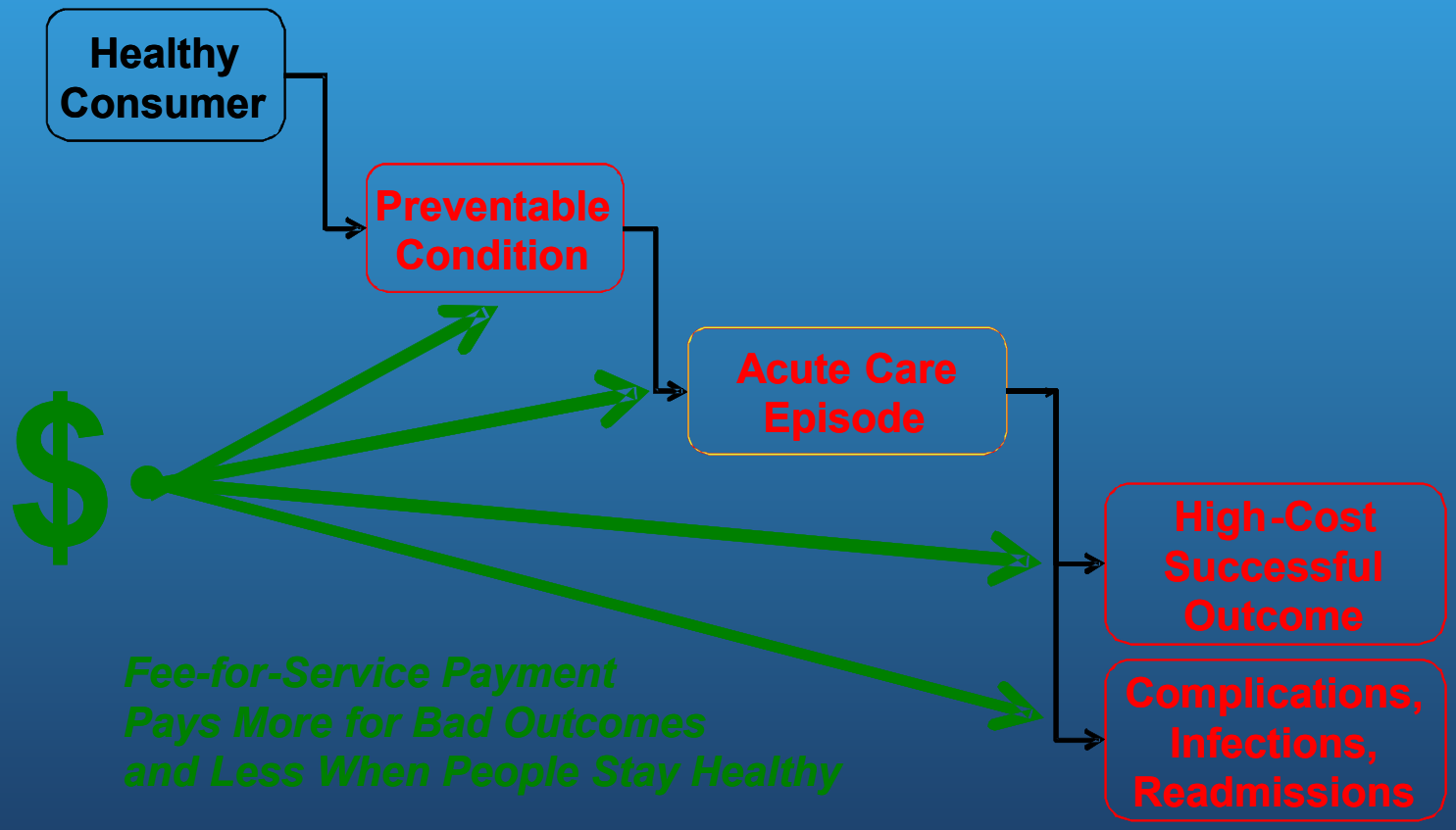
Source: USDA, Economic Research Service using data from the National Center for Health Statistics, Compressed Mortality File, 1999-2005.

Who are our patients?

Chronic Illness in Rural Americans

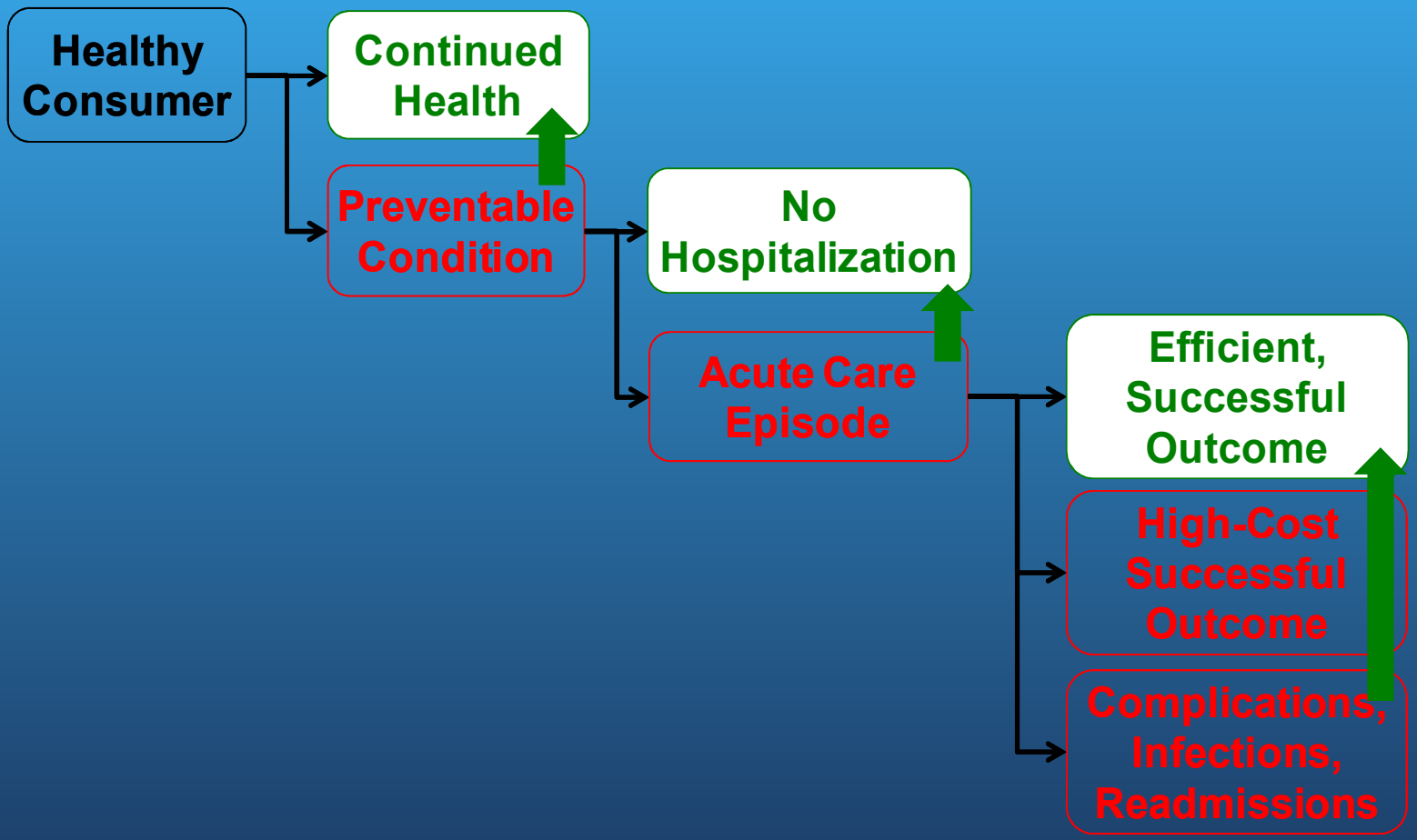
- *Chronic diseases cause 7 of 10 deaths*
- *Heart disease, cancer and stroke account for >50% of all deaths*
- *Almost 1 out of every 2 adults has at least one chronic illness*
- *1 in every 3 adults is obese*
- *1 in 5 youths, between the ages of 6 and 19, is obese*
- *Stress, depression and anxiety are major rural health issues*
- *Suicide is the second leading cause of death in states with a primarily rural population*
- *A higher proportion of people in rural areas are at risk for mental and behavioral health problems, especially the elderly and the chronically ill*
- *Rural residents have an equal or even greater incidence of substance abuse*

Current payment systems reward downstream cost and penalize quality, prevention, and primary care.



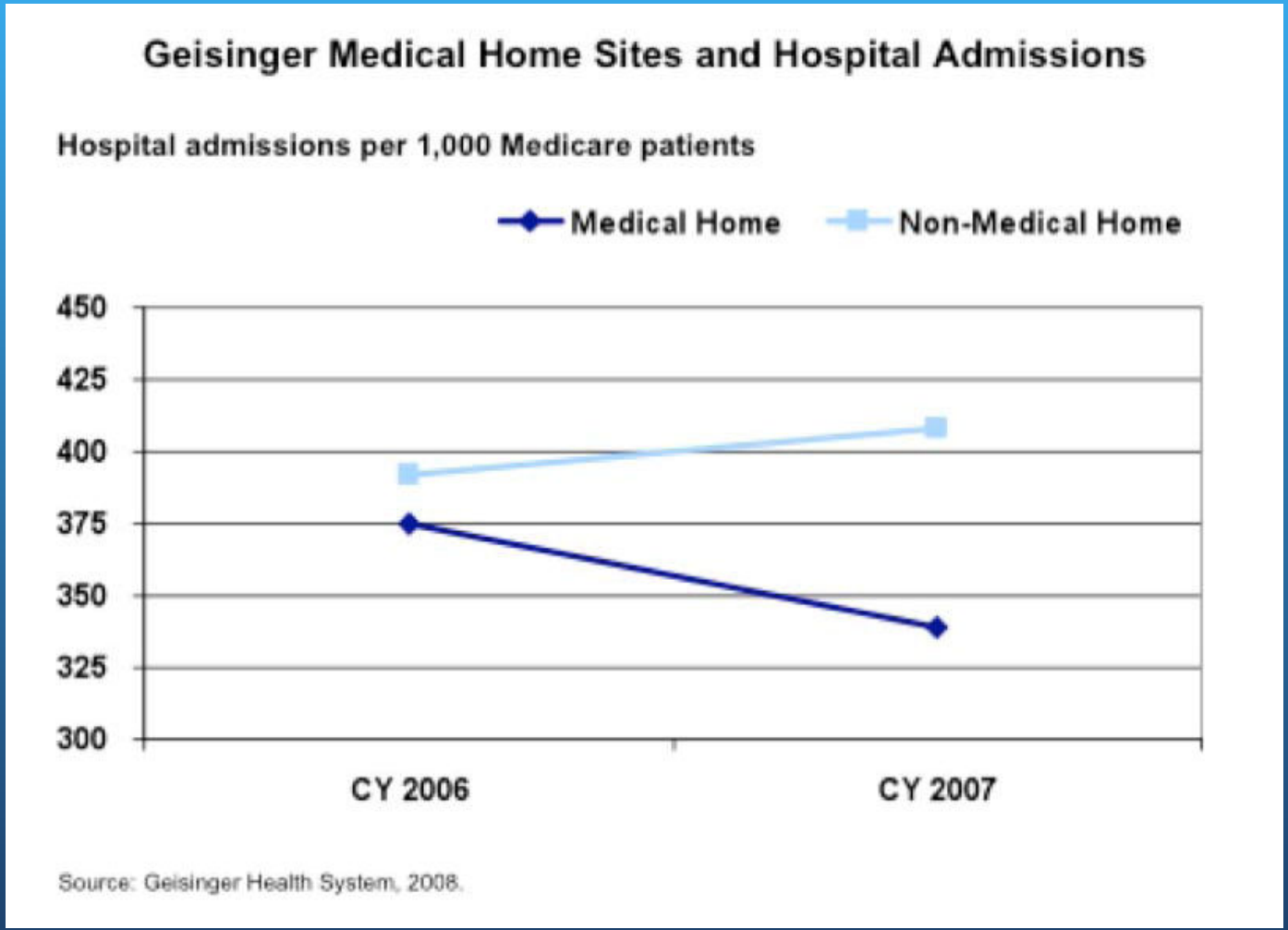
Grundy, P. Address to annual meeting of Society Of Teachers of Family Medicine, April 2011

Healthcare costs can be reduced by focusing care upstream to decrease downstream cost.



Grundy, P. Address to annual meeting of Society Of Teachers of Family Medicine, April 2011

Decreased Hospital Admissions



It’s Health…..

*Not just Mental Health, Stupid.**

* My apologies to Bill Clinton

Family Medicine

The Primary Care Environment

Primary Care –
the first Stop for mental health issues

- 25 to 30% of patients seen by primary care physicians have depression, anxiety, alcohol abuse, and somatoform disorders
- 60%–70% of the psychotropic medications prescribed in the United States comes from Primary Care Practices
- Of people who commit suicide, 45% have had contact with a primary care medical professional in the last month of their life -- *only 20% had contact with a psychologist*

Source: Gunn, W.B and Blount, A. Primary Care Mental Health: A New Frontier for Psychology. J Clin Psychol. 65:235–252, 2009.

Integrated Care…..

It's all about the patient…..

The Need for Inter-professional Education and Competencies

- Integrated behavioral healthcare cannot move forward without a healthcare work force that is trained in and embraces inter-professional collaboration
- Our current healthcare system operates predominantly in professional silos
- Education of healthcare professionals is also done in silos - few students have an opportunity to work together and are not prepared to function as part of a team in an integrated approach to care

Our Integrated Care Team

NP's PA's

Pharmacists

Family Physicians

Family Medicine Residents

Nutritionists

Patients & Families
"Consumers"

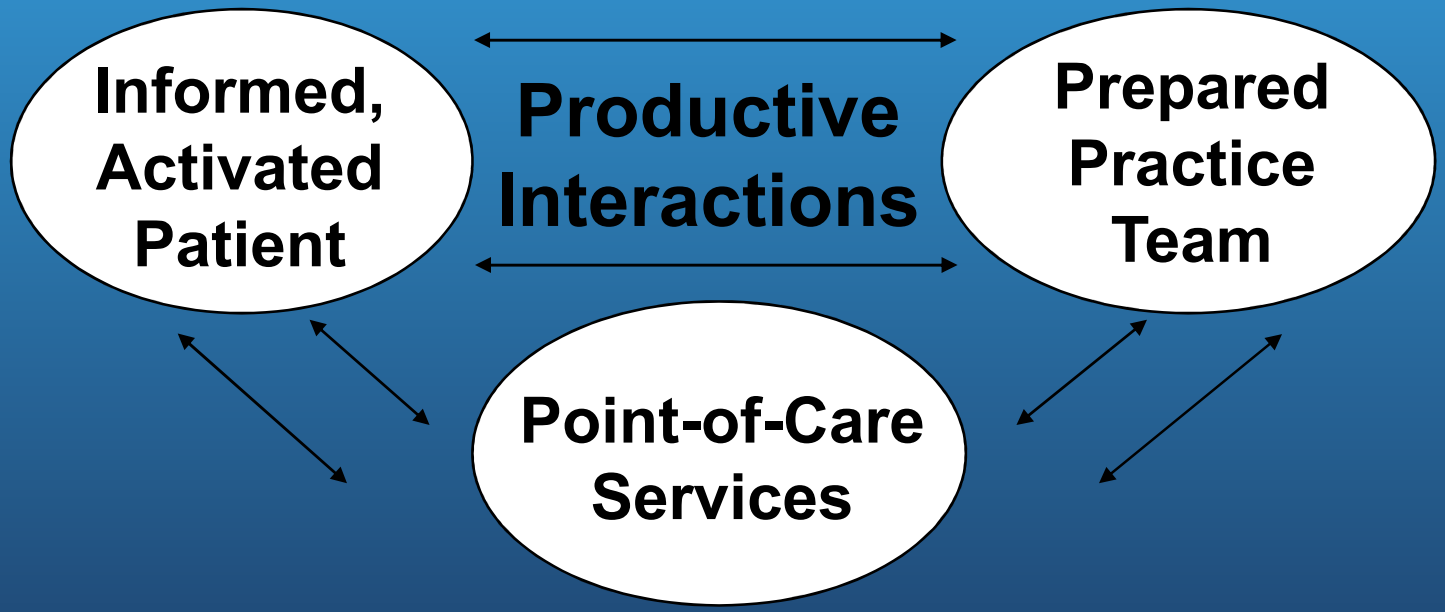
Nurses and medical assistants

Behavioral Medicine Therapists (Psychology, MedFT, & Social Work)

Medical Records

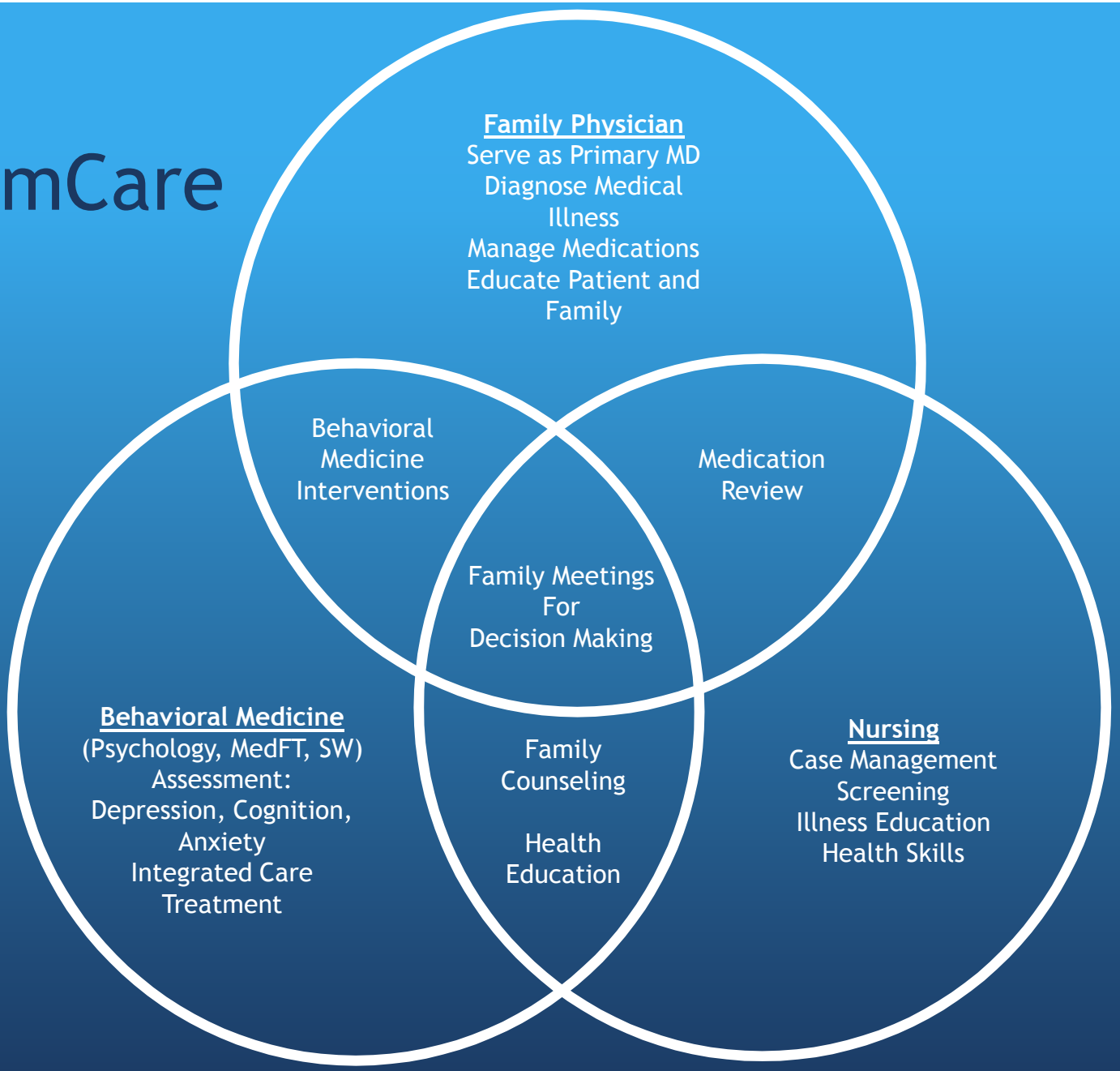
All supported by common chart, documentation standards, billing procedures, and clinic management system

Essential Elements of Good Chronic Illness Care



After www.improvingchroniccare.org

TeamCare


Family Physician
Serve as Primary MD
Diagnose Medical Illness
Manage Medications
Educate Patient and Family
Behavioral Medicine Interventions
Medication Review
Family Meetings For Decision Making
Behavioral Medicine
(Psychology, MedFT, SW)
Assessment:
Depression, Cognition, Anxiety
Integrated Care
Treatment
Family Counseling
Health Education
Nursing
Case Management
Screening
Illness Education
Health Skills

Integrated Care and Behavioral Health—*It's not Psychotherapy*!

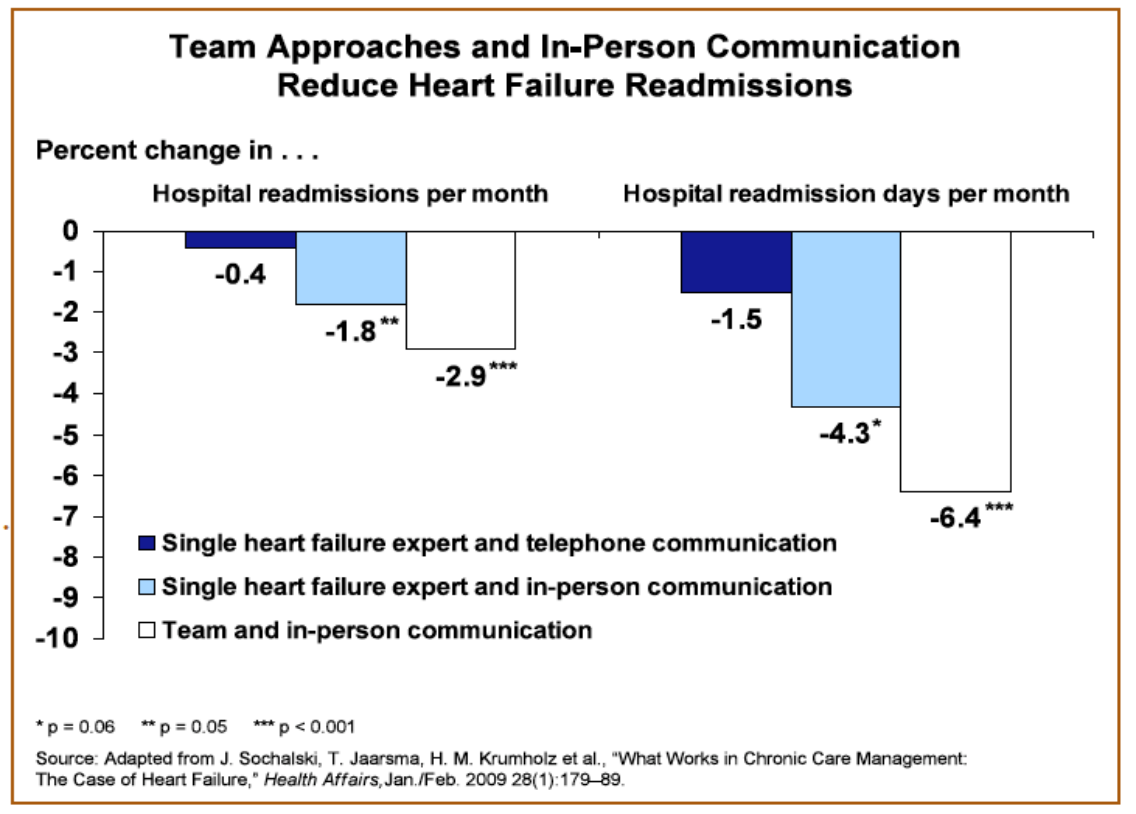
- Focus is NOT on mental health but bio-psychosocial factors relating to physical health
- Focus is on improving patient's health and well being
- Focus on utilizing evidence-based strategies, behavioral observations, health oriented questionnaires
- Focus on reduction of disease-related problems
- Focus on developing patient-centered care
- Focus on treatment adherence
- Focus on the Patient!

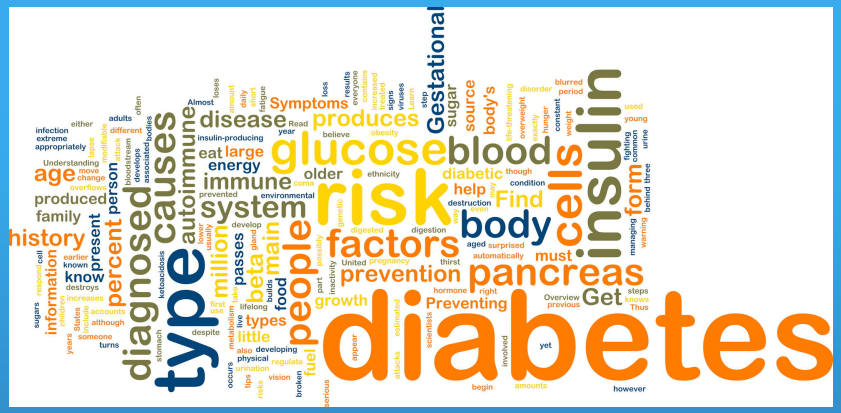
Benefits of "The Team" in Integrated Care

Meta-analysis reexamined data from 10 clinical trials of care management programs for heart failure patients

found that …..

multidisciplinary teams and in-person communications led to fewer hospital readmissions and readmission days



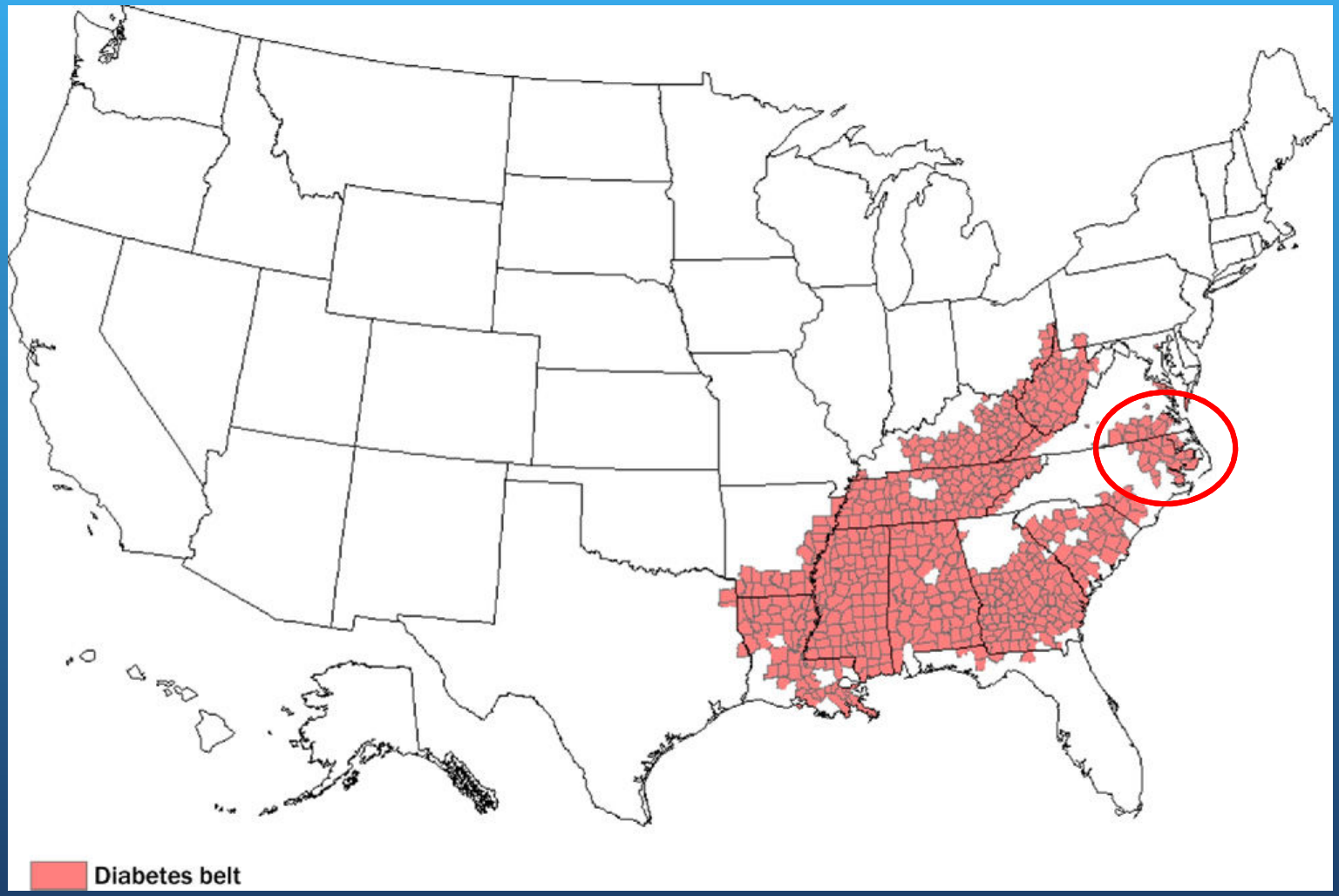


DIABETES:

A look at behavior and disease

East Carolina University
Brody School of Medicine

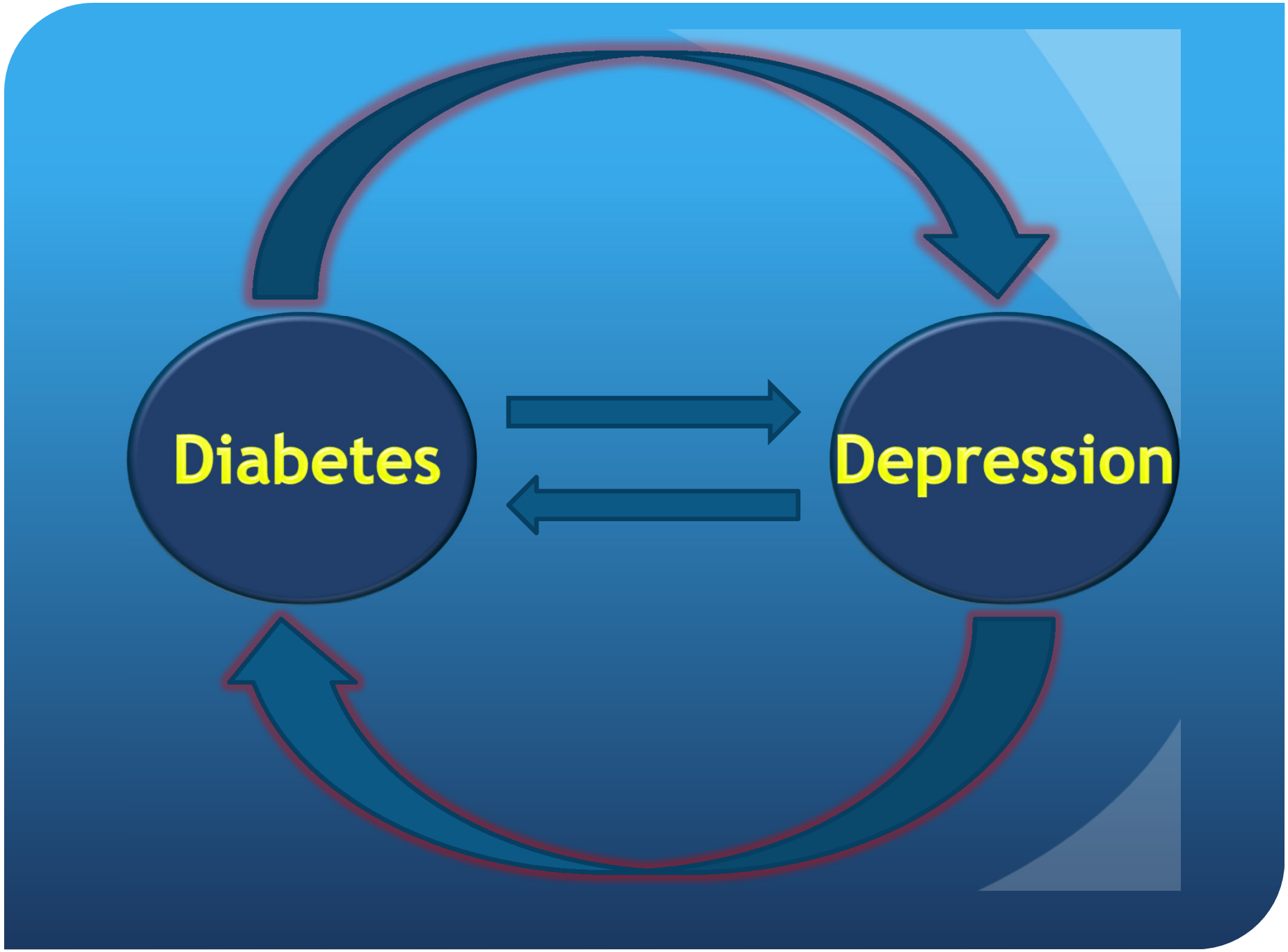
It is Common:
A “Diabetes Belt” in the US?



Diabetes Risk in North Carolina

- *From 1994 to 2007, individuals diagnosed with diabetes increased from 4.4% to 9.1%*

- *Lifetime risk for Diabetes in those born in 2000: 1 in 3 is expected to develop the disease*


Diabetes
Depression

What we now *know* about Depression and Diabetes

- Each disease is a risk factor for developing the other, that the two disorders may share similar pathophysiological mechanisms (Ajilore et al 2007)
- Depression may indicate particularly severe underlying diabetic illness (Black et al 2003)
- Those with diabetes are at least twice as likely to be depressed as those without diabetes (Anderson et al 2001; Gavard et al 1993; Knol et al 2006)
- The presence of depression appears to significantly increase the likelihood of later developing Type 2 diabetes (Carnethon et al 2003; Mezuk et al 2008)
- Major depression in diabetics is associated with a 50% higher risk of premature mortality than in non-depressed (Lin et al, 2009, Zhang et al 2005)
- Major depression in diabetics is a major risk factor for poor adherence to medications (Katon et al, 2009, Lin et al., 2004) and poor self-care behaviors (Miranda et al., 2001; Van Tilburg, 2001)

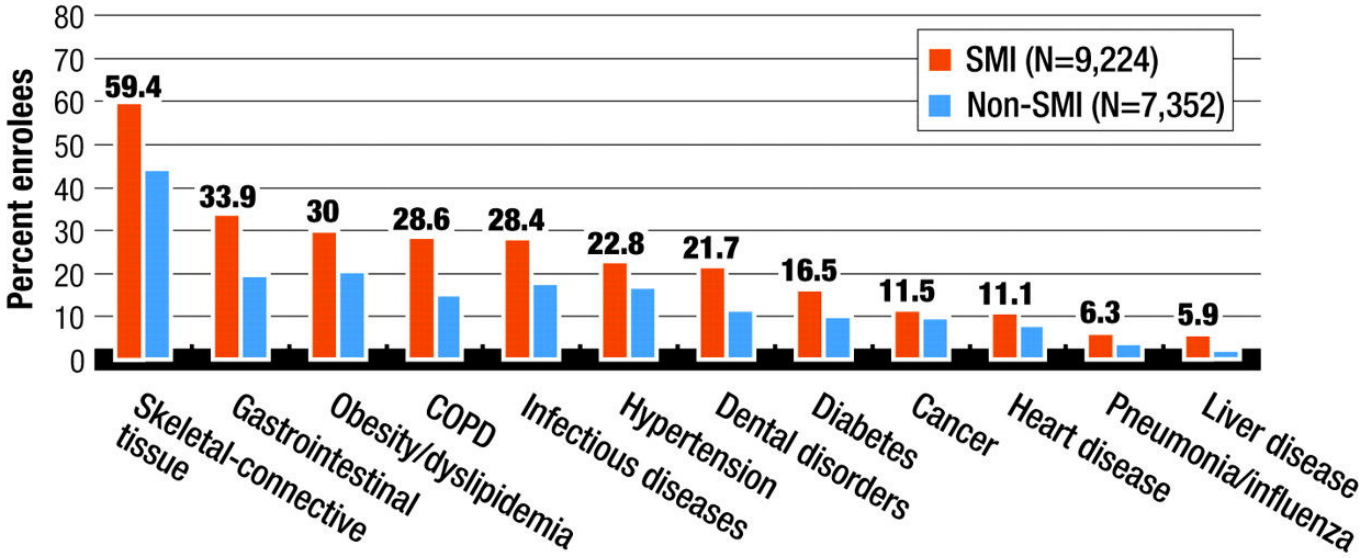
Adults living with serious mental illness die 25 years earlier than other Americans

….largely due to treatable medical conditions.

Manderscheid, R., Druss, B., & Freeman, E . (2007). Data to manage the mortality crisis: Recommendations to the Substance Abuse and Mental Health Services Administration. Washington, D.C

Comorbidity High in Seriously Mentally Ill

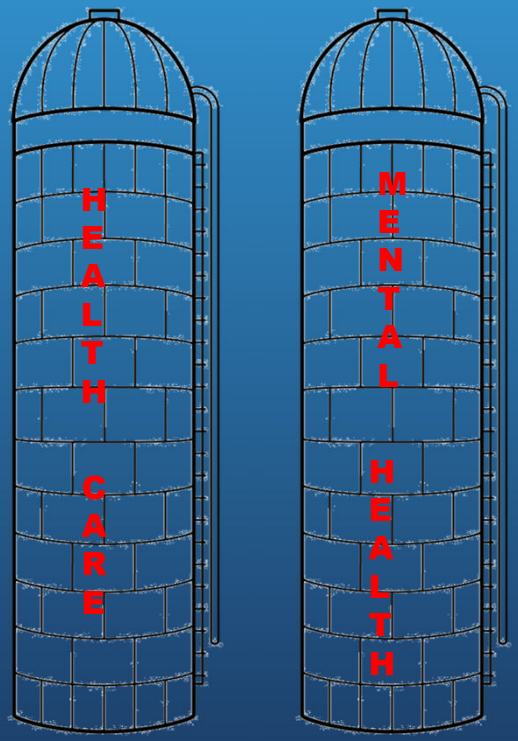
A study in Maine comparing an age-matched sample of Medicaid enrollees with and without serious mental illness (SMI) found that the disease rates for the SMI group exceeded those of the non-SMI group in every disease category and that the SMI group had a higher rate of multiple medical conditions.



Source: "Morbidity and Mortality in People With Serious Mental Illness," NASMHPD, October 2006

Psychiatric News January 5, 2007 vol. 42 no. 1, 5-28

"The complex "medical-only" patient is rare among complex patients with medical illness.... and the physically healthy person with SMI is equally rare."



Alexander Blount, Ed.D.

SAMHSA-HRSA Center for Integrated Health Solutions

University of Massachusetts Medical Center

January 10, 2011

Why wait till this happens?

Let's move upstream!

- Identify Patients at Risk through screenings
- Develop brief point-of-care interventions for reducing depression
- Regular tracking of patients in risk pool
  - Measure diabetes status
  - Measure depression status
- Measure and Improve Health Behaviors
  - Diet and food choices
  - Increased physical activity
  - Adherence to care prescription
  - Ongoing care for depression control

Improved Outcomes and Reduced Disparities in Diabetes Care For Rural African Americans

Paul Bray, MA., LMFT
Doyle M. Cummings, Pharm.D, FCP, FCCP
Debra Thompson, DNP, FNP
Department of Family Medicine, Brody School of Medicine, and Bertie Memorial Hospital/ University Health Systems

Study Design

- **3 intervention sites/5 control sites**
- **720 African-American patients studied**
  - 360 African American, Type 2 diabetes
  - 360 randomly selected similar control patients receiving usual car

Patients were tracked for up to 5 years of care

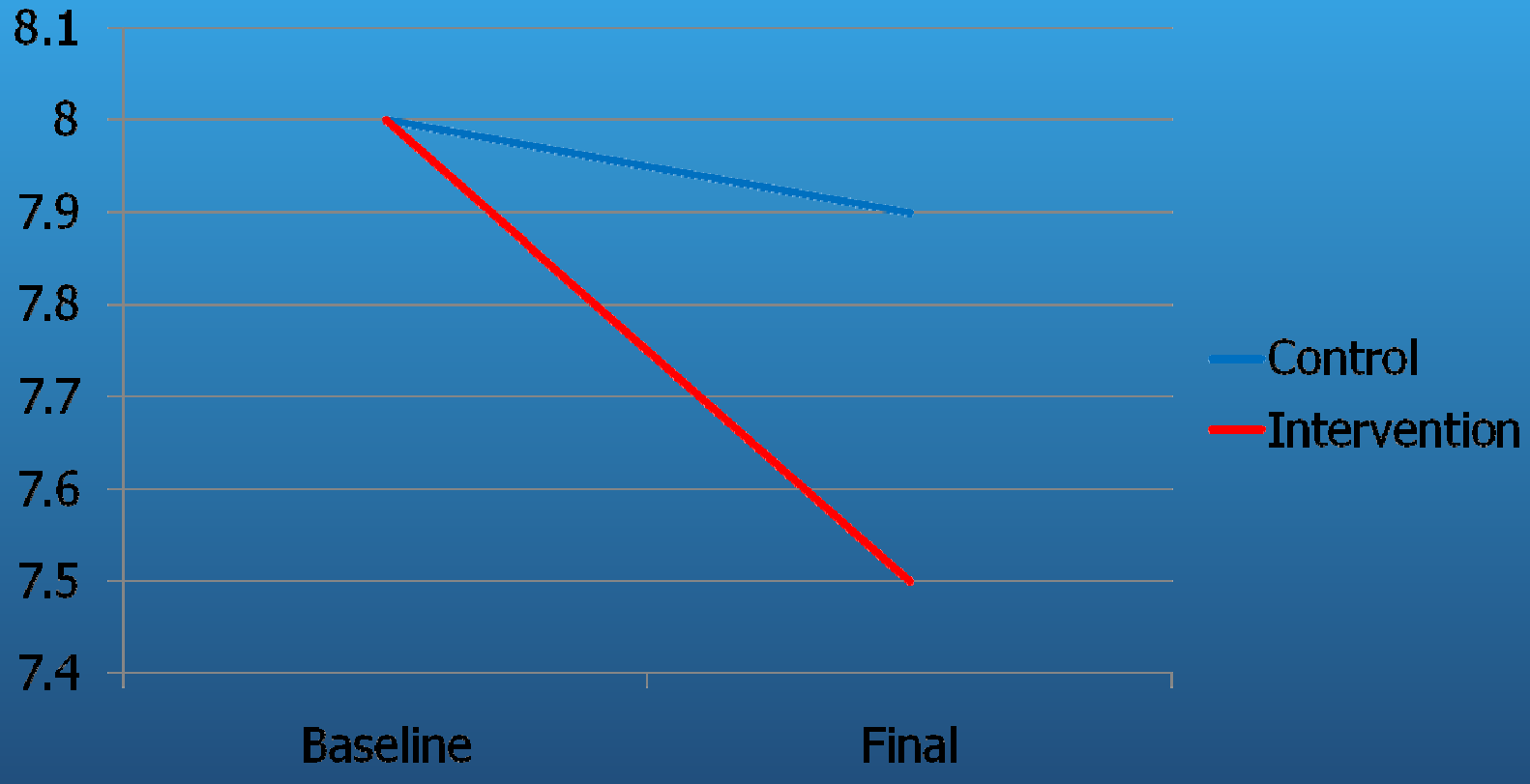
Keys to Delivery Design

- Primary Intervention: Education and Counseling at the point of care in the community regarding diabetes care, lifestyle, diet, and stress management
- Team approach/expanded roles
- E-C --delivered during (primary care provider) PCP visit
- Physician's leadership critical

Outcome Measures: HbA1c, BP, Lipids, at Baseline & long-term follow-up

With grateful acknowledgment of financial support from: Robert Wood Johnson Foundation, Kate B. Reynolds Charitable Trust, Roanoke Chowan Foundation; and the work of our research staff

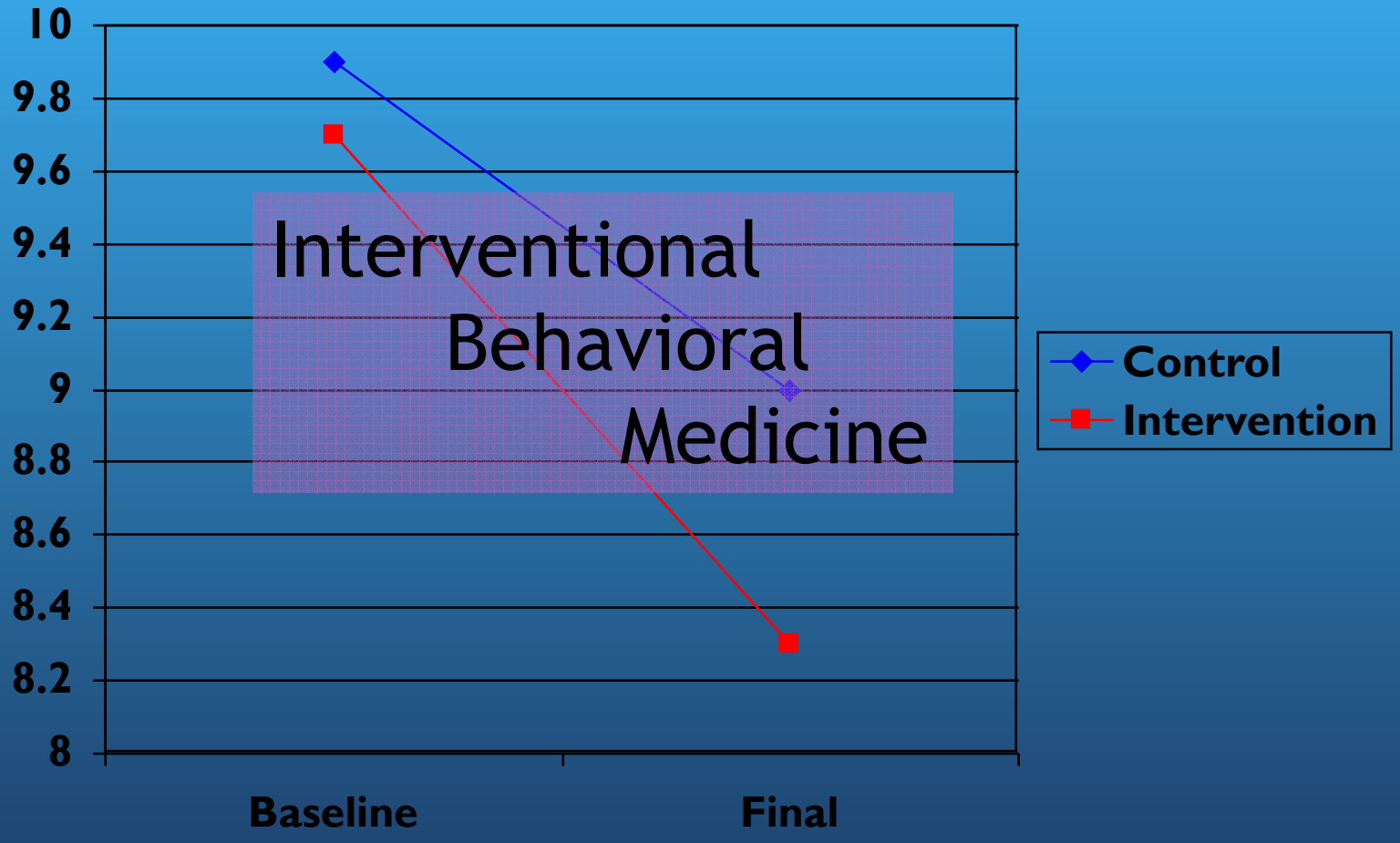
Overall Group Preliminary Results – HbA1c decline in intervention group



$p < 0.05$

720 Type 2 Diabetes patients

A more significant decline in subset with HbA1c >7.5

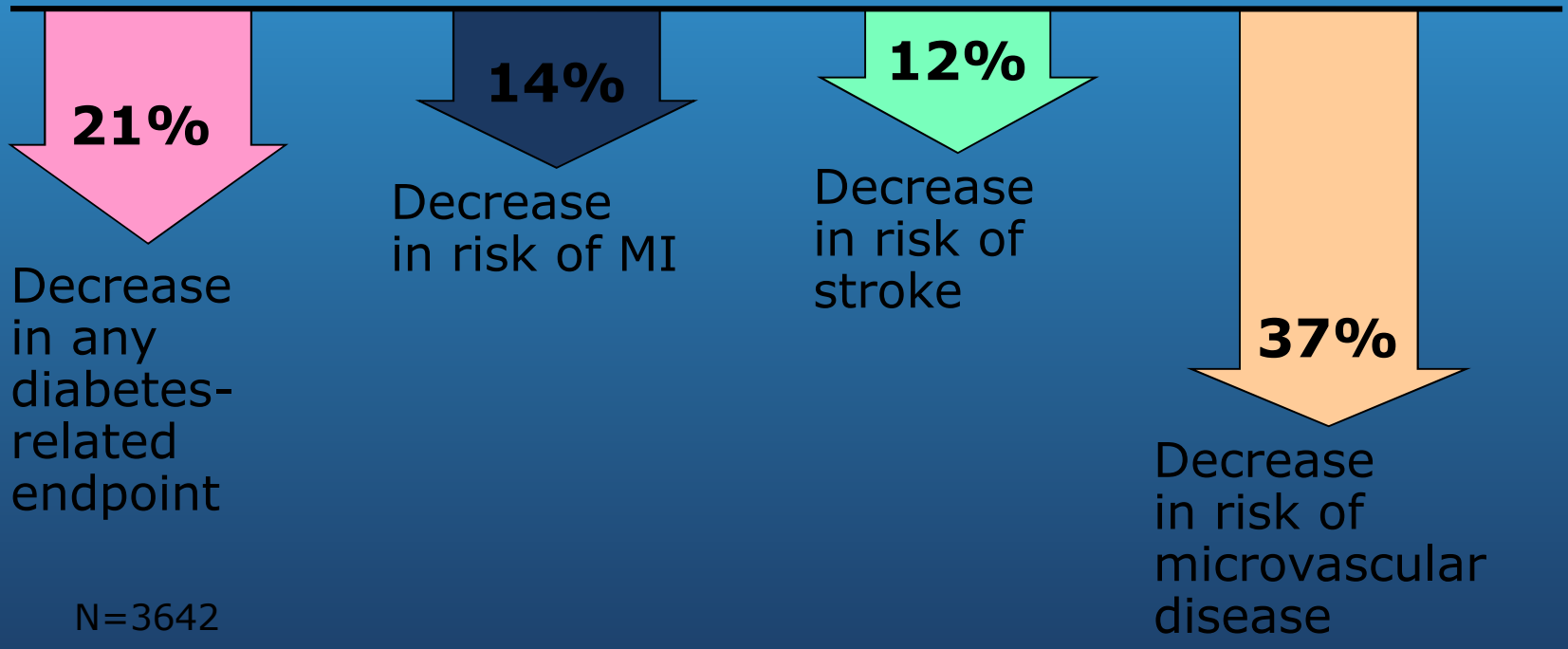


$p < 0.05$

Improved Glycemic Control Prevents Complications

UK Prospective Diabetes Study (UKPDS 35)

Getting HbA1c below or near 7% leads to:



N=3642

Stratton IM et al. *BMJ*. 2000;321:405-412.

Depression and Illness

The rate for depression occurring with other medical illnesses is quite high:

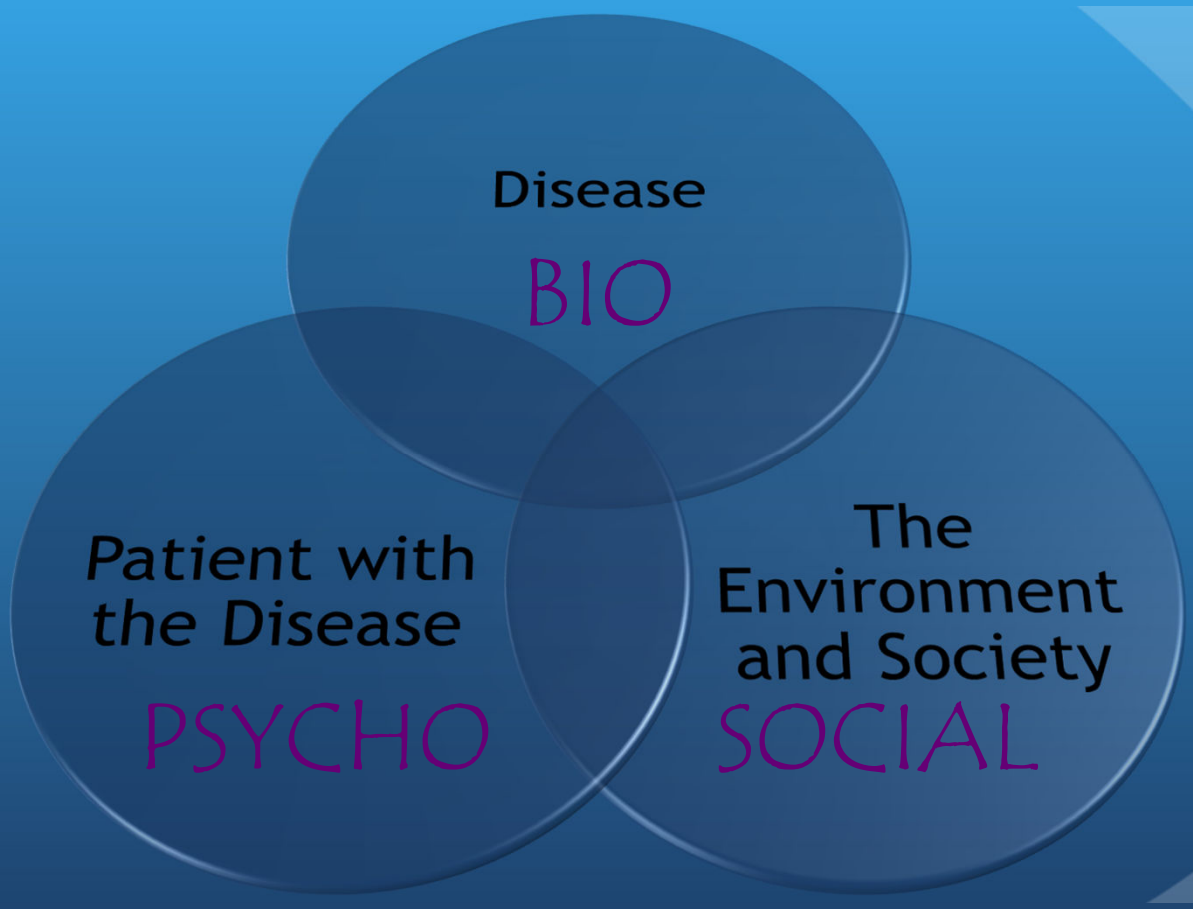
- Heart attack: 40%-65%
- Coronary artery disease (without heart attack): 18%-20%
- Parkinson's disease: 40%
- Multiple sclerosis: 40%
- Stroke: 10%-27%
- Cancer: 25%
- Diabetes: 25%

http://my.clevelandclinic.org/disorders/depression/hic_chronic_illness_and_depression.aspx

Building A Model for Integrated Behavioral Healthcare

Redesigning the role of Practitioners in Primary Care?

What we're dealing with…..



U.S. Department of Health and Human Services www.hhs.gov

HRSA Health Resources and Services Administration

Center for Integrated Care Delivery

Funded by a grant from Health Resources and Services Administration to The Department of Family Medicine, Brody School of Medicine, East Carolina University

- To establish a Center focusing on training strategies for integrated care management of behavioral issues in chronic disease
- To build, test, and evaluate new curricula for medical students and residents on integrated care for concurrent depression/behavioral problems and chronic disease in primary care settings
- To evaluate and improve care outcomes in underserved populations with chronic diseases and behavioral problems by establishing an integrated care management training program

Challenges Which Define Our Roles

- Creating Better Patients: Supporting Patient Skills Development
  - Reducing disease onset and morbidity
  - Managing the psychological sequelae of chronic illness
- Creating Better Physicians: Addressing Burnout and Resiliency
  - Create a Wellness Curriculum
  - Give learners the tools to manage personal behavioral health issues
  - Identify problems early and provide intervention
- Reducing Disease-Related Endpoints
  - Preventing Hospitalization
  - Reducing Hospital Readmissions
  - Improve lifestyle and behavior management
- Preventing and Treating Traditional Mental Health Disorders

Competencies for Integrated Healthcare

- Understanding primary care environment
- Collaborative mind-set
- Understanding of mental health/illness interplay
- Knowledge of medications
- Consultation skills
- Brief interventions at the time and place of care
- Screening/quick assessment tools

Speak the language…Walk the Walk!

- Huddles, Screeners, Warm Handoff, Curbside Consults and a team approach to patient care
- Partners at the Point-of-Care
  - Primary care clinician-Physician, NP, PA
  - Nursing care management/assessment,
  - Behavioral Health Consultants-Psychology, MFT, Social Work

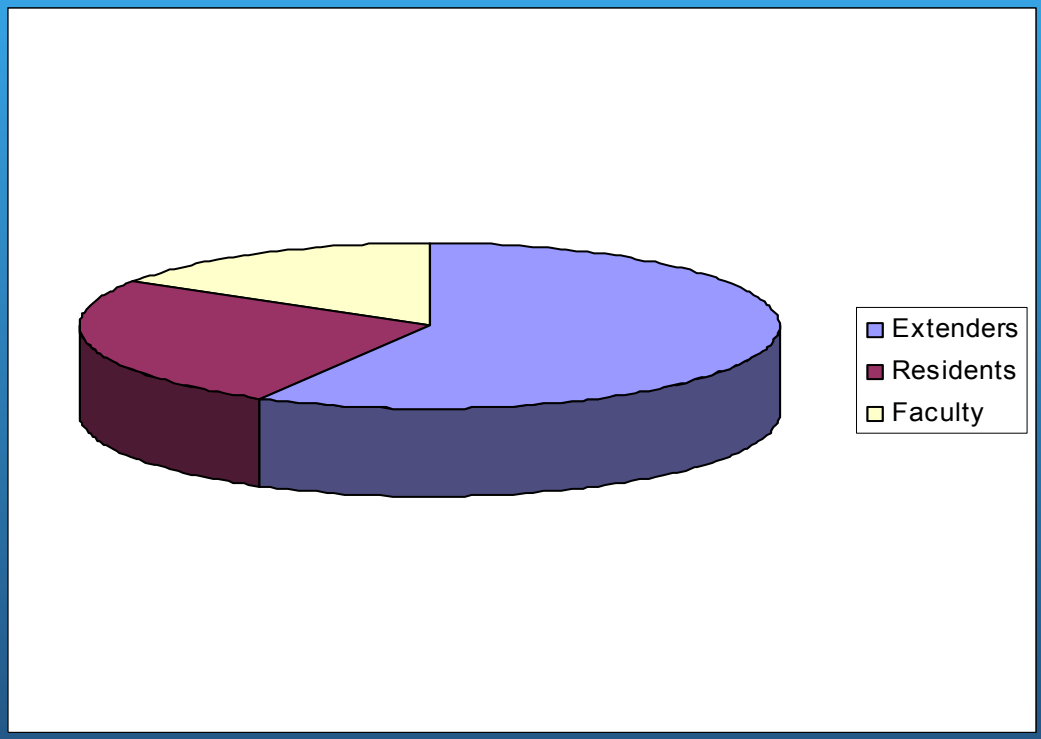
Partners at the Point-of-Care:

- Screening
- Assessment
- Brief supportive counseling
- Therapy
- Case management
- Medication monitoring
- Coordinated team care
- Learners teaching Learners

The presence of an Integrated Behavioral Health Service greatly enhances our ability to care for our patients

Who accessed our services?

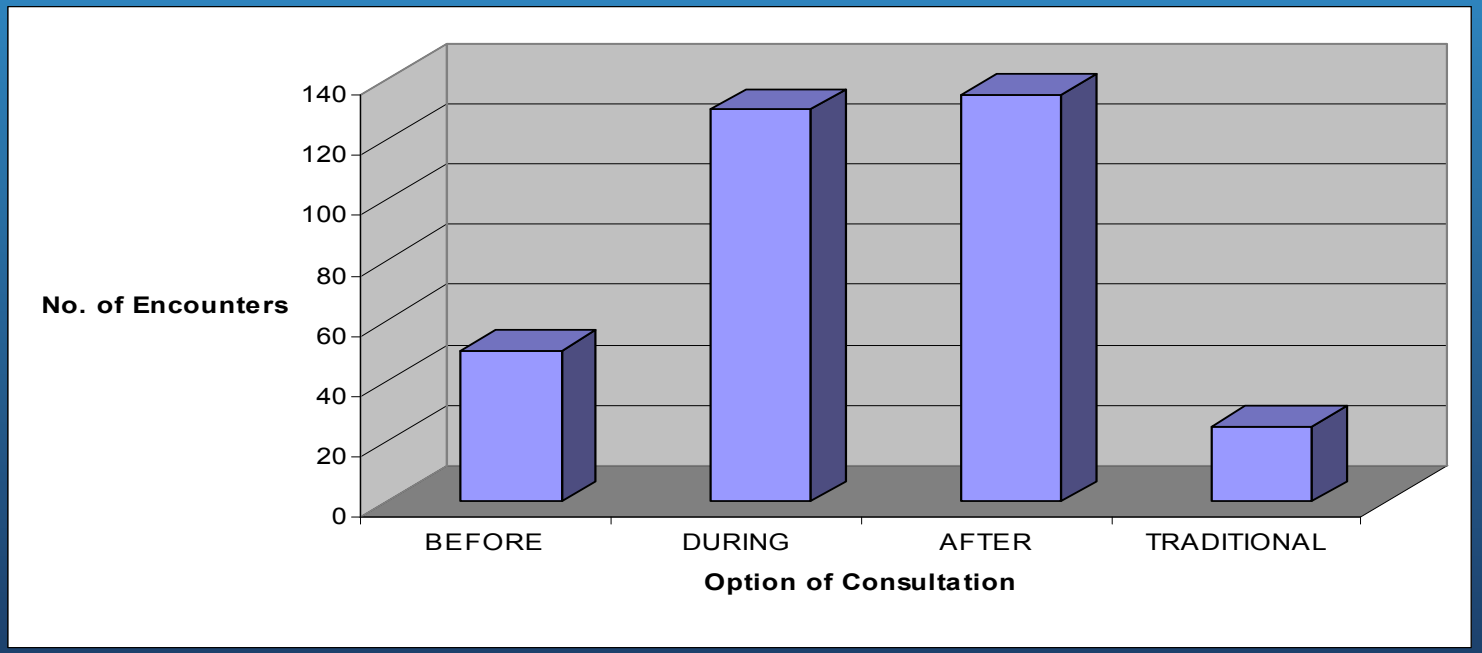
- 58% Physician Extenders
- 26% Residents
- 16% Faculty



* 1st 9 months of implementing the new service

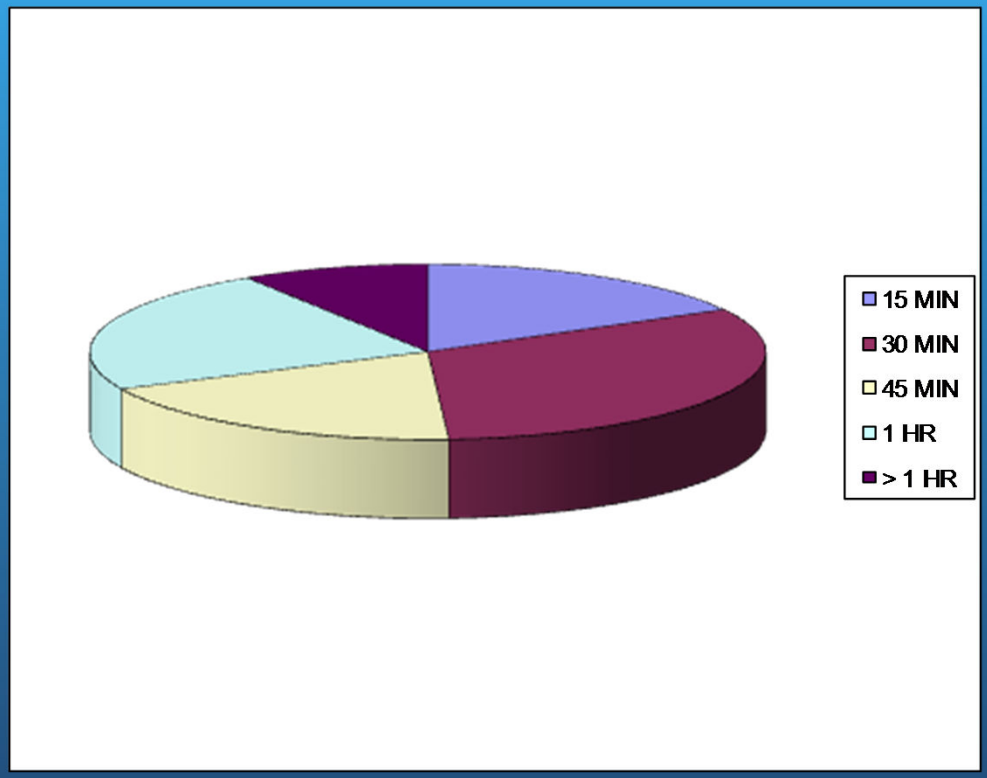
When were we brought into the Integrated Care process?

- 50 x Therapist **BEFORE** PCP
- 130 x Therapist **WITH/DURING** PCP
- 135 x Therapist **AFTER** PCP
- 25 x Traditional Session (45 min - 1 hour)



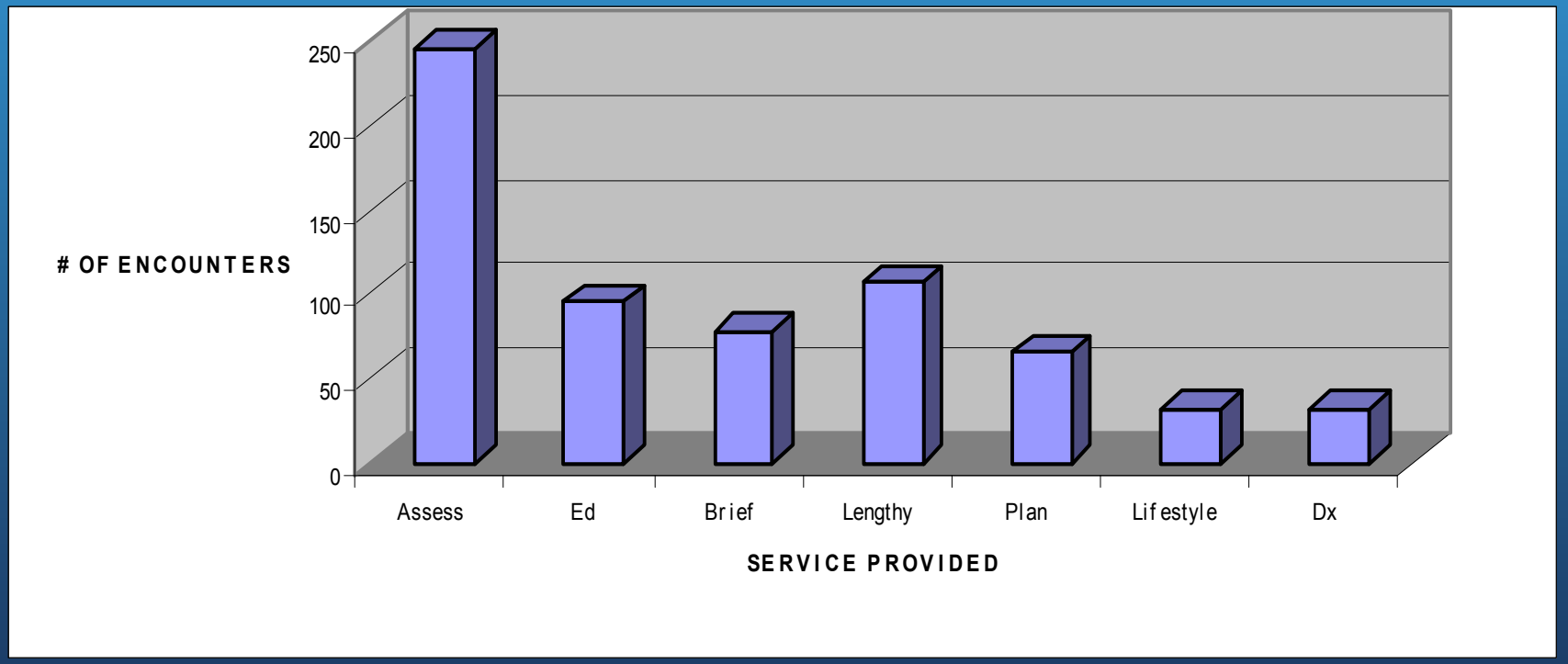
Length of Encounters

- 17% @ 15 minutes
- 32% @ 30 minutes
- 19% @ 45 minutes
- 23% @ 1 hour
- 9% @ > 1 hour



Services Provided

- 245 x Joining or Assessing
- 95 x Psychoeducation
- 78 x Brief Therapy
- 107 x Lengthy Therapy
- 66 x Assist with Treatment Plan
- 32 x Lifestyle Change Consultation
- 32 x Psychological or Relational Diagnosis

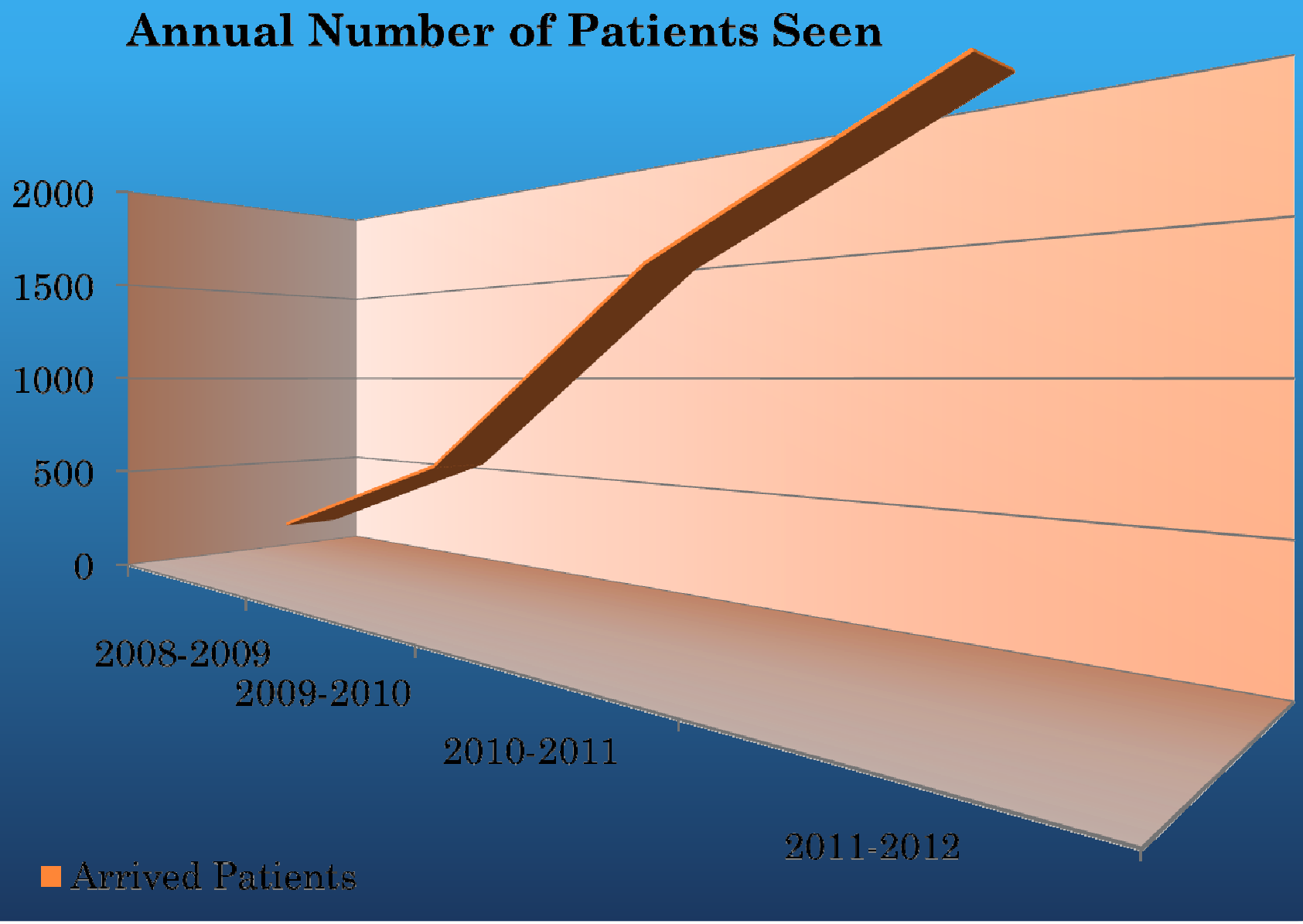


Some Common Diagnoses/Symptoms Addressed

(neither exhaustive nor in a particular order)

- Depression/Mood Disorders
- Suicidal/Homicidal Ideations
- Anxiety/Phobias
- Relational Issues
- Overweight
- Diabetes
- PTSD
- ADHD
- Chronic Pain/Illness
- Substance Abuse Assessment
- Domestic Violence
- End of Life
- Personality Disorders
- New Diagnosis
- Fertility/Infertility
- Bereavement
- Stress Reduction
- Lifestyle Change
- Challenges and Issues of Adherence
- Dementia

Growth of Patient Care



PHQ-9

A Nine-item multipurpose instrument for screening, diagnosing, monitoring and measuring the severity of depression

Scoring the PHQ-9

PHQ-9 Score	Provisional Diagnosis
5-9	Minimal Symptoms
10-14	Minor Depression
	Dysthymia
	Major Depression, Mild
15-19	Major Depression, Moderately Severe
≥ 20	Major Depression, Severe

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME:_____ DATE:_____

Over the last *2 weeks*, how often have you been bothered by any of the following problems?
(use "√" to indicate your answer)

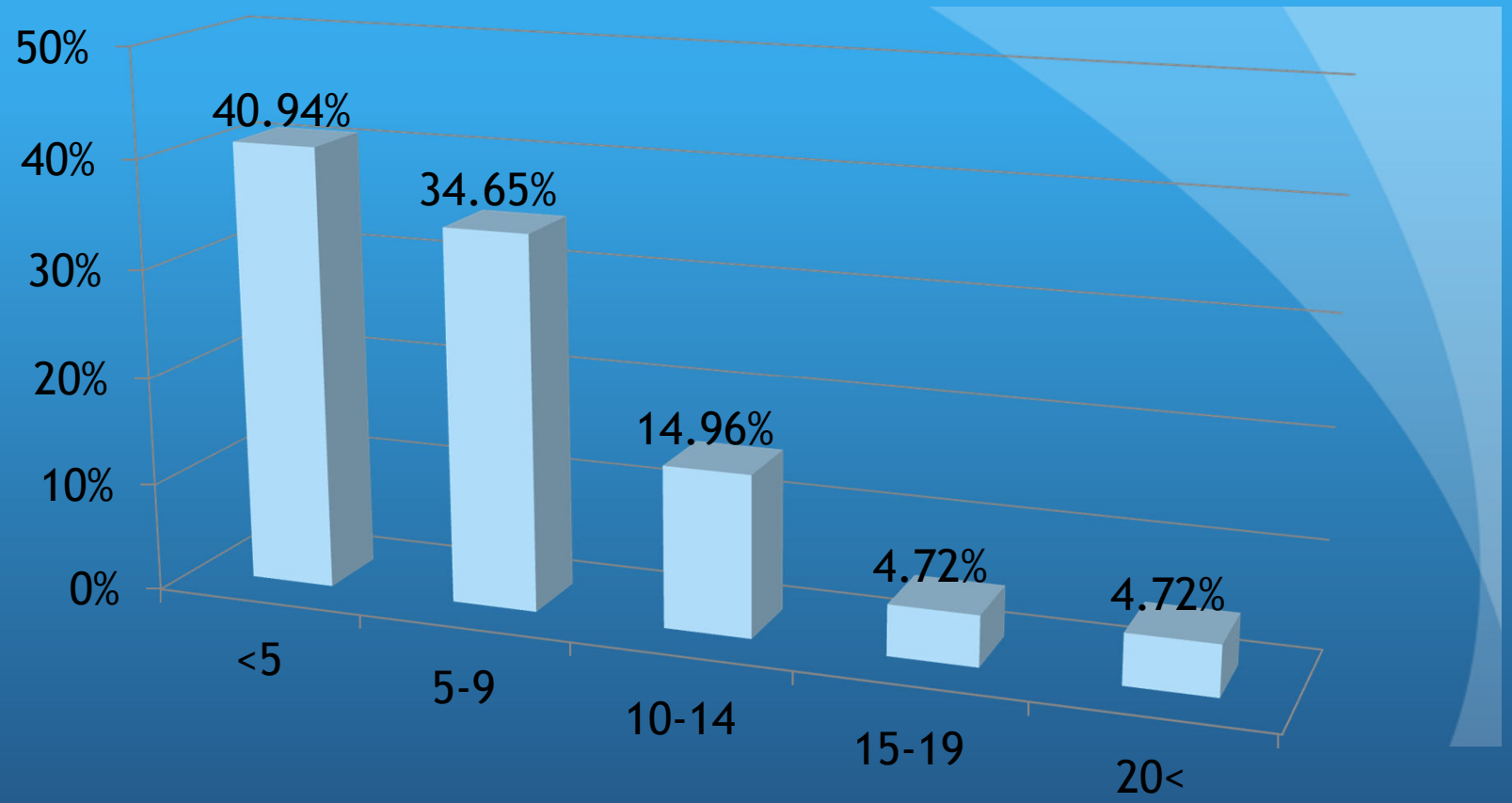
	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
add columns		+	+	
(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card).	TOTAL:			

10. If you checked off *any problems*, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all _____
- Somewhat difficult _____
- Very difficult _____
- Extremely difficult _____

A2663B 10-04-2005

PHQ-9 baseline



- Mean value = 6.96, standard deviation = 5.57
- 31 patients (24.4%) received a score of at least 10
- 10 patients endorsed suicidal ideation

Morisky Medication Adherence Scale (MMAS-8)

- Eight-item tool that estimates the risk of medication non-adherence
- Scores for the scale can range from 0 to 8 with higher scores indicating a higher adherence to medication regimens.

Morisky Score	Medication Adherence Category
<6	Low Adherence
6-<8	Medium Adherence
8	High Adherence

Question	Patient Answer (Yes/No)	Score Y=1; N=0
Do you sometimes forget to take your medicine?		
People sometimes miss taking their medicines for reasons other than forgetting. Thinking over the past 2 weeks, were there any days when you did not take your medicine?		
Have you ever cut back or stopped taking your medicine without telling your doctor because you felt worse when you took it?		
When you travel or leave home, do you sometimes forget to bring along your medicine?		
Did you take all your medicines yesterday?		
When you feel like your symptoms are under control, do you sometimes stop taking your medicine?		
Taking medicine every day is a real inconvenience for some people. Do you ever feel hassled about sticking to your treatment plan?		
How often do you have difficulty remembering to take all your medicine? __ A. Never/rarely __ B. Once in a while __ C. Sometimes __ D. Usually __ E. All the time		A = 0; B-E = 1
	Total score	

Scores: >2 = low adherence
1 or 2 = medium adherence
0 = high adherence

Morisky DE, Green LW, Levine DM. Concurrent and predictive validity of a self-reported measure of medication adherence.
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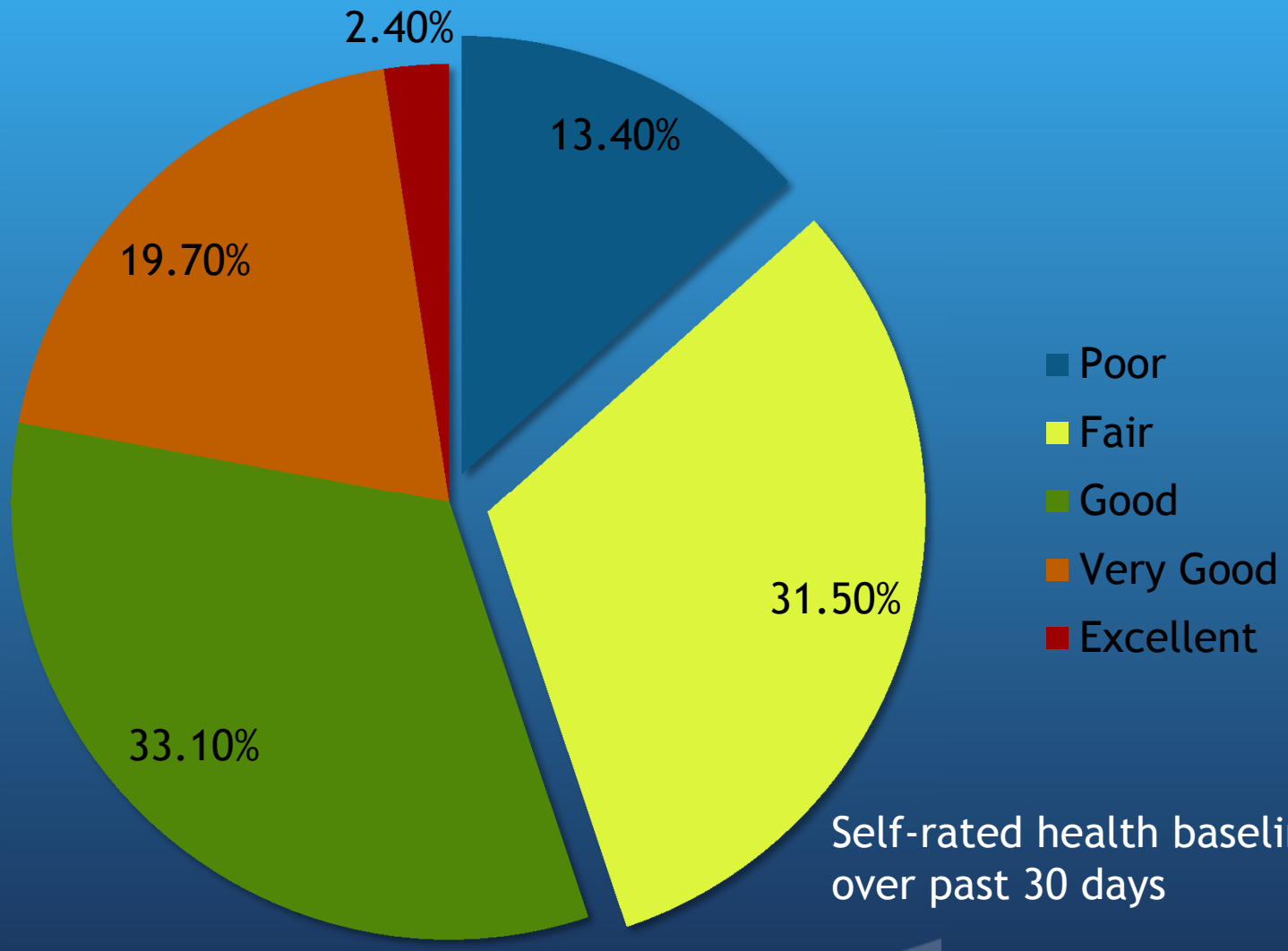
MMAS-8 baseline

	Count	Percent
Low Adherence	65	54.2
Medium Adherence	55	45.8
High Adherence	0	0
Total	120	100.0

- Mean = 5.22, standard deviation = 1.62
- 53% reported taking their diabetes medication orally only, 27% injection only and 20% both orally and injection

HRQOL-4

CDC's Health Related Quality of Life Measure



Self-rated health baseline over past 30 days

PHQ-9/MMAS-8 Comparisons

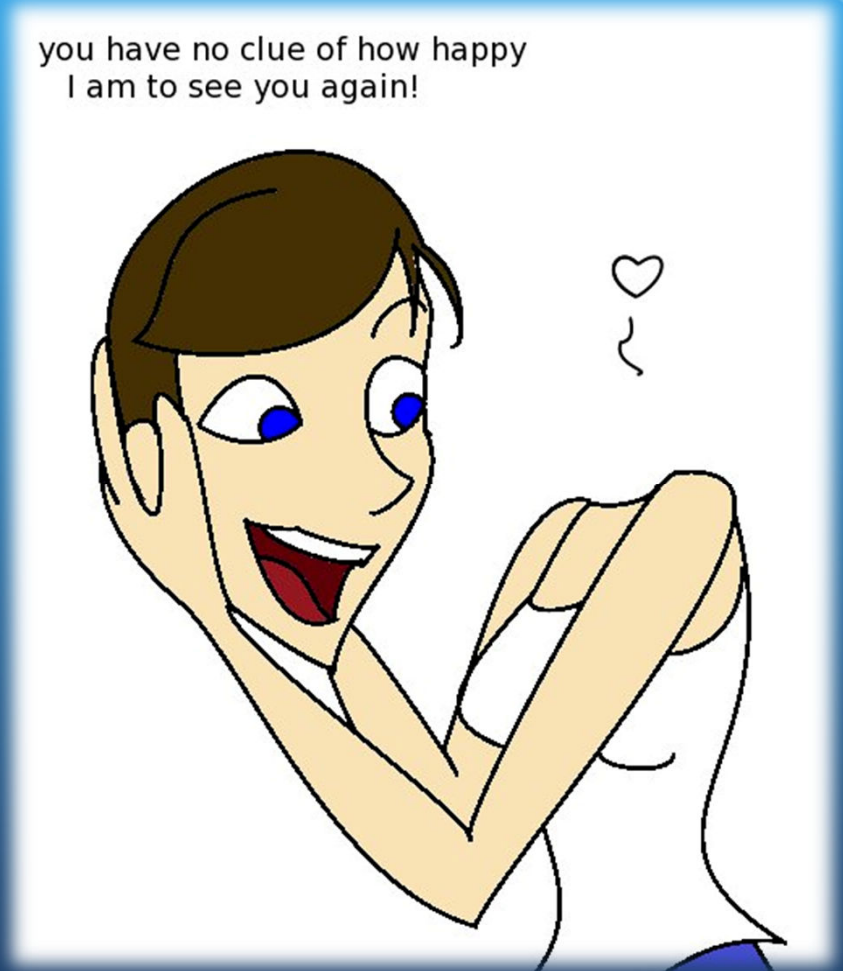
		PHQ-9 ≥ 10	PHQ-9 < 10
Percent HbA1c >9*		34.5%	15.8%
MMAS-8	Mean**	4.41	5.46
	Percent low-adherence*	75.9%	47.3%
Self-health rating of poor or fair**		74.2%	35.4%
Days of poor physical health**		16.05	7.22
Days of poor mental health**		14.81	4.14
Days of limited activity**		13.79	2.31

*Significant at $p<0.05$ **Significant at $p<0.001$

- 4/5 (80%) uninsured patients scored above 10 on the PHQ-9
  - Medicaid - 35%; Medicare – 25%; private insurance – 5.1%
- 10.6% of patients who were currently married scored above 10 on the PHQ-9; 32.5% of unmarried patients scored above 10

Our Goal:

Reconnecting the Head to the Body!



"It has often been pointed out that in healthcare it is 20 years after the proven effectiveness of a treatment before it is fully adopted. In this point of view, it will be 10 more years before integrated care is mainstream."

Cummings, O'Donohue, & Cummings, 2009