Integrating Behavioral Healthcare with Primary Care Management in Rural North Carolina

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Family Medicine at The Brody School of Medicine

East Carolina University

Invited Presentation to North Carolina Institute of Medicine, October 16, 2015

Incoming call on the Beeper!!

SHEILA

A 54 YEAR OLD AFRICAN AMERICAN SINGLE MOTHER OF 3 GROWN CHILDREN

Referral Problem:

Uncontrolled Diabetes

Case Vignette

•Sheila, a 54-year-old AA woman with diabetes and hypertension, was referred to the Behavioral Health Consultant by her PCP for evaluation of Depressed Mood. She has been a patient of the Family Medicine Center since 1998, with a Diabetes diagnosis in 1999. She subsequently withdrew from the health system with the exception of acute visits for Pain: Neck (2000), R. Shoulder (2004), L. Shoulder (2005), L Ankle (2005), Joint (2006), Hip (2007). Sheila lives about 20 miles from the FMC.

During the interview, Sheila rated her mood as "poor." She describes multiple losses: the sudden death of her mother whom she cared for, was very close to, and lived with (2007), she lost her job that she very much enjoyed when a change in shift conflicted with the time she cared for her 4 grandchildren, ages 2-14, 5-7 days per week (2009), and her dog was stolen (2010).

Initial assessment for Depressed Mood showed Little Energy, Poor Concentration, Guilt about health, Overeating, Sleep problems (sleeps too much, difficulty falling and staying asleep), and Anhedonia (Loss of interest/enjoyment). Her initial PHQ-9 was 27 and she stated her depression made it extremely difficulty to manage her own self care, get along with others, and care for her house.

Questions

- What do you think might be going on in this patient?
- How would you go about evaluating her?
- What would be your approach to management?

HbA1c	**11.4**	**Total cholesterol = 230mg/dL**
BMI	**34.6**	**LDL = 138**
BP	**158/96**	**HDL = 53**

Triglycerides = 174

Sleep Apnea
Positive family history of early coronary heart disease
Father suffering a fatal MI at age 53
Brother undergoing coronary revascularization at age 54

Medical Problems List

- Hypercholestrolemia, Pure
- Obesity NOS
- Diabetes Mellitus, Type II
- Sleep Apnea, W/Hypersomnia
- Eczema
- Asthma, mild intermittent
- Gastroesophageal Reflux, No Esophagitis
- Fibrocystic Disease, Breast
- Hypertension
- Caries, Dental, Unspecified
- Obesity, Morbid
- Depression

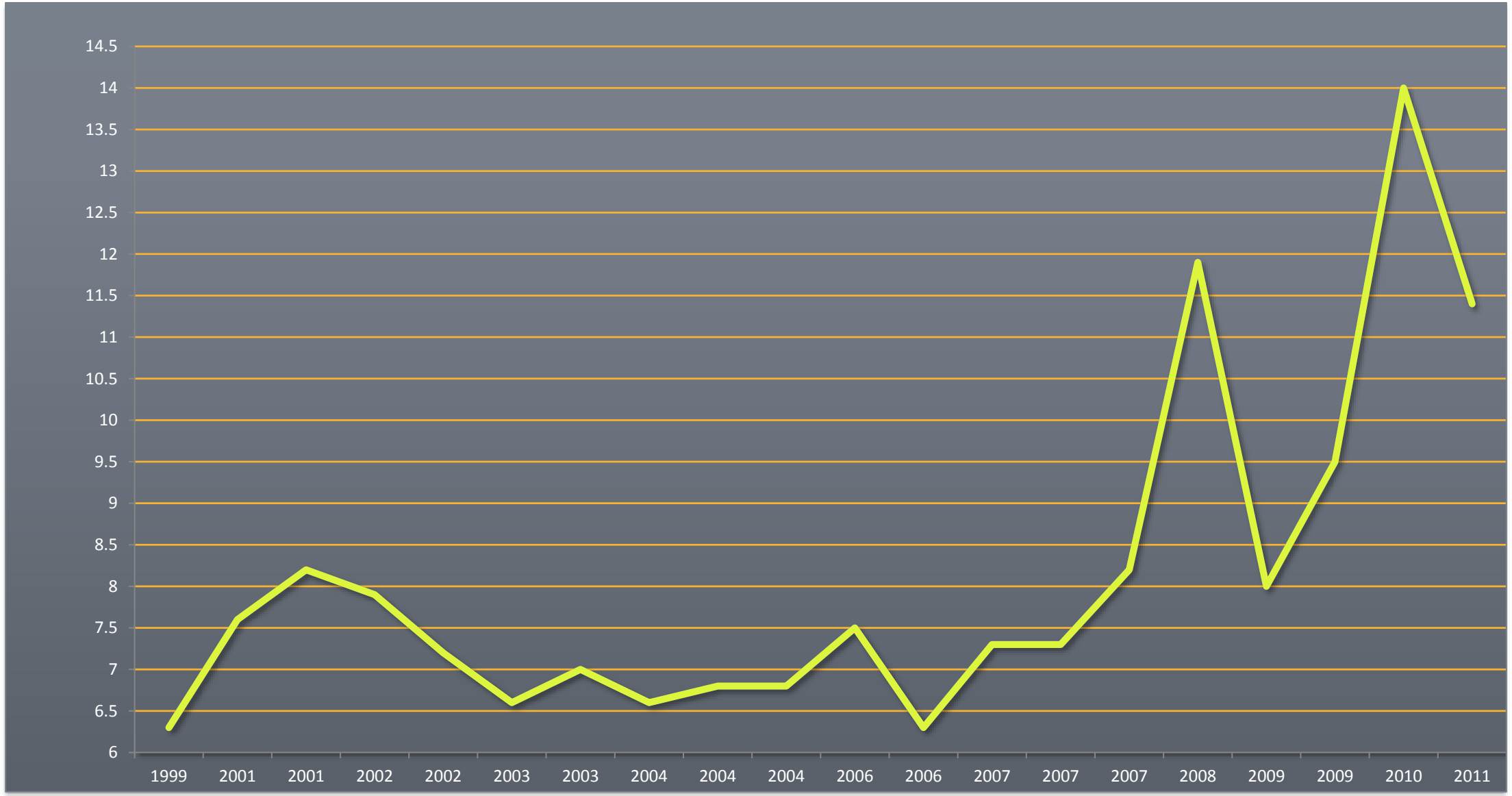
Last problem listed in EMR

Referral to Behavioral Medicine for Self-Reported Depressive Symptoms

- Initial PHQ-9 = 27
  - Depressed mood
  - Loss of Energy
  - Poor Concentration
  - Guilt about health
  - Overeating
  - Following diet recommendations and diabetes testing
  - Sleep problems (sleeps too much, difficulty falling and staying asleep)
  - Anhedonia - Loss of interest/enjoyment
- Current problems reportedly made it extremely difficulty to do activities of daily living, get along with others, and care for her house.

Summary: Health Care Utilization and Care Avoidance

- *10 YEAR HISTORY OF EPISODIC ATTENDANCE:*
  - No shows and cancellations (*N* =78) with primary providers, nutritionist, social worker, and specialty clinics
- *DIFFICULTIES WITH CONTINUITY OF CARE:*
  - Referred to Social Work and established Medicaid, but patient had failed to get Re-certified causing her Medicaid to run out one year later (2007)
- *HEALTHCARE USED FOR ACUTE DISTRESS:*
  - Sheila most often scheduled appointments when she had a rash or was in pain and did not return for follow-up.



Sheila's HbA1c Over Time


Diabetes and
Depression

Depression and Diabetes…

- Depression is two times more prevalent in people with diabetes (Anderson, Freedland, Clouse, & Lustman, 2001)
- A bi-directional association has been reported (Golden et al., 2008; Pan et al., 2010)
- ≥1 complication increases Beck Depression scores (Gendelman et al., 2009)
- Major depression in patients with diabetes is associated with more complications and a 50% higher risk of premature mortality (Lin et al, 2009, Zhang et al 2005)
- Major depression in patients with diabetes is associated with poor medication adherence (Katon et al, 2009, Lin et al., 2004) and self-care behaviors (Miranda et al., 2001; Van Tilburg, 2001)

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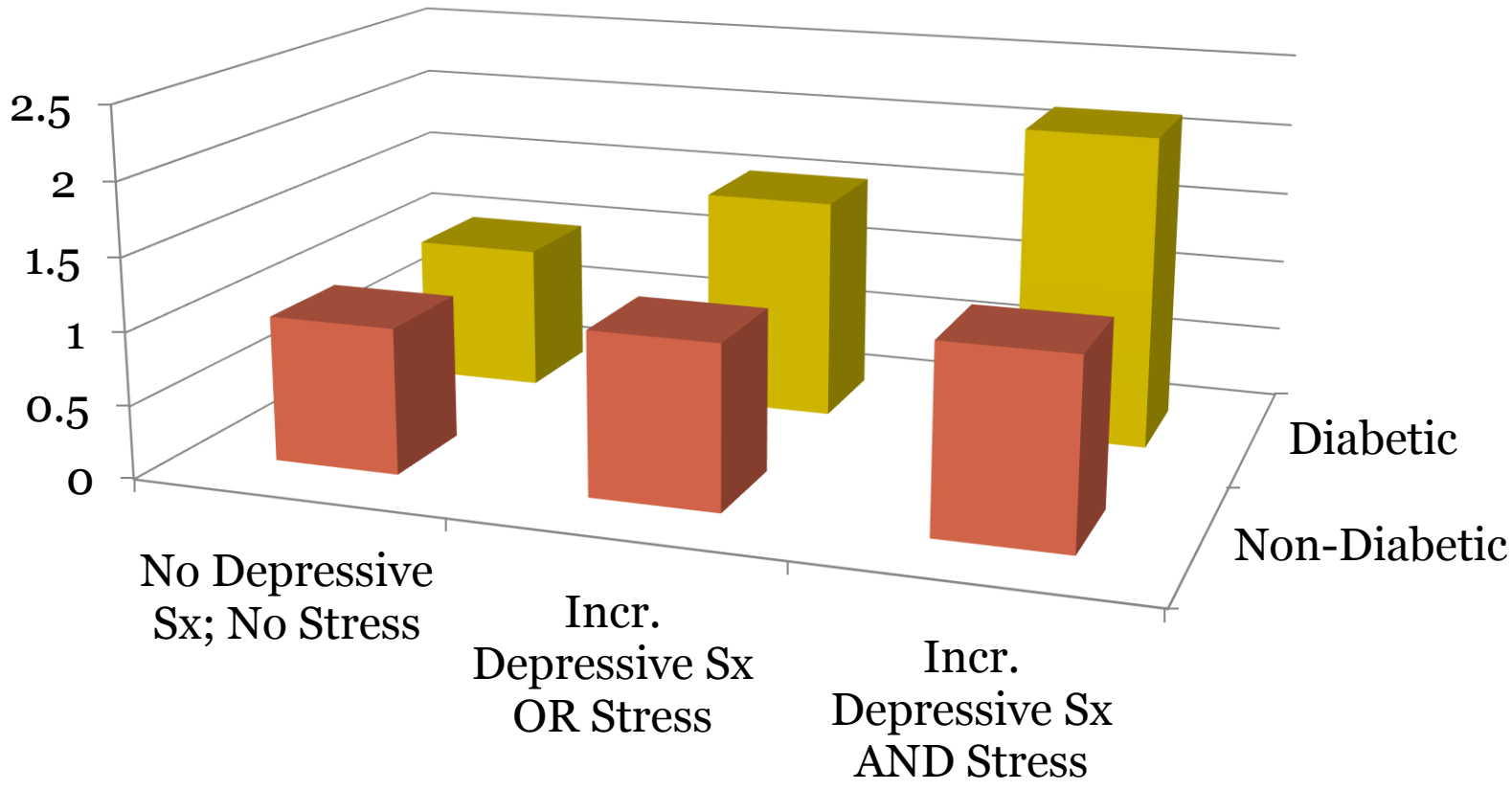
Consequences of Co-Morbid Diabetes and Depression/Stress on **Cardiovascular Death**: REGARDS Study (n = 22,003)



What the PCP Focuses On:

Medical Management Issues

Type 2 diabetes medical management involves:

- Glycemic control
- Lipid management
- Blood pressure control
- Weight management
- Surveillance for complications
- Management of other cardiovascular risks

What the PCP often needs
…Someone Else to Help Manage

<u>Behavior Modification</u>

- Dietary changes
- Physical Activity
- Medication taking behavior
- Stop smoking
- Therapy/Counseling

<u>Insurance/access to care</u>

<u>Complications</u>

Psychological Problems in Diabetes

Group with diabetes	Psychological problem
Children and adolescents at onset of diabetes (little known about adults with recent-onset diabetes)	Temporary adjustment disorder – somatic complaints, social withdrawal, sleeping disorder, anxiety, depression
Older adults with established diabetes, especially when hospitalized, in females and those with past psychopathology	Higher frequency of depression (but comparable to other chronic illnesses)
Patients with macrovascular disease, chronic foot ulceration and proliferative retinopathy	Depression, poor quality of life, psychological distress
Children with repeated hypoglycaemia (especially when onset of diabetes is <5 years of age)	Mild impairment of cognitive functioning – visuospatial/ verbal defects, etc.
Later-onset children and adolescents	Verbal IQ and academic achievement lowered
Adults with chronic hyperglycaemia	Defects in psychomotor tasks, attention, learning and memory

Diabetes challenges social relationships

- Family stress related to poor family conflict resolution in diabetes was a significant predictor of depression (Fisher et al., 2001).
- Greater family support and low levels of conflict are associated with improved adaptation to diabetes (Trief et al., 2002) such as increased glucose monitoring (Rosland et al., 2008)
- A higher Diabetes Quality of Life is correlated with higher marital satisfaction and intimacy levels (Trief et al., 2002)
- Higher marital stress and lower marital satisfaction have been correlated with poorer blood glucose control, as well as increased depression related to diabetes (Trief et al., 2006)
- Changing food-related behaviors has been found to be easier when coupled with positive spousal support (Tang et al., 2008)

It's Health.....

*Not just Mental Health, Stupid.**

** Apologies to Bill Clinton*

Primary Care –
first stop for most behavioral health issues

Let's move upstream!

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 care
  - Patients were tracked for up to 5 years of care

Keys to Delivery Design

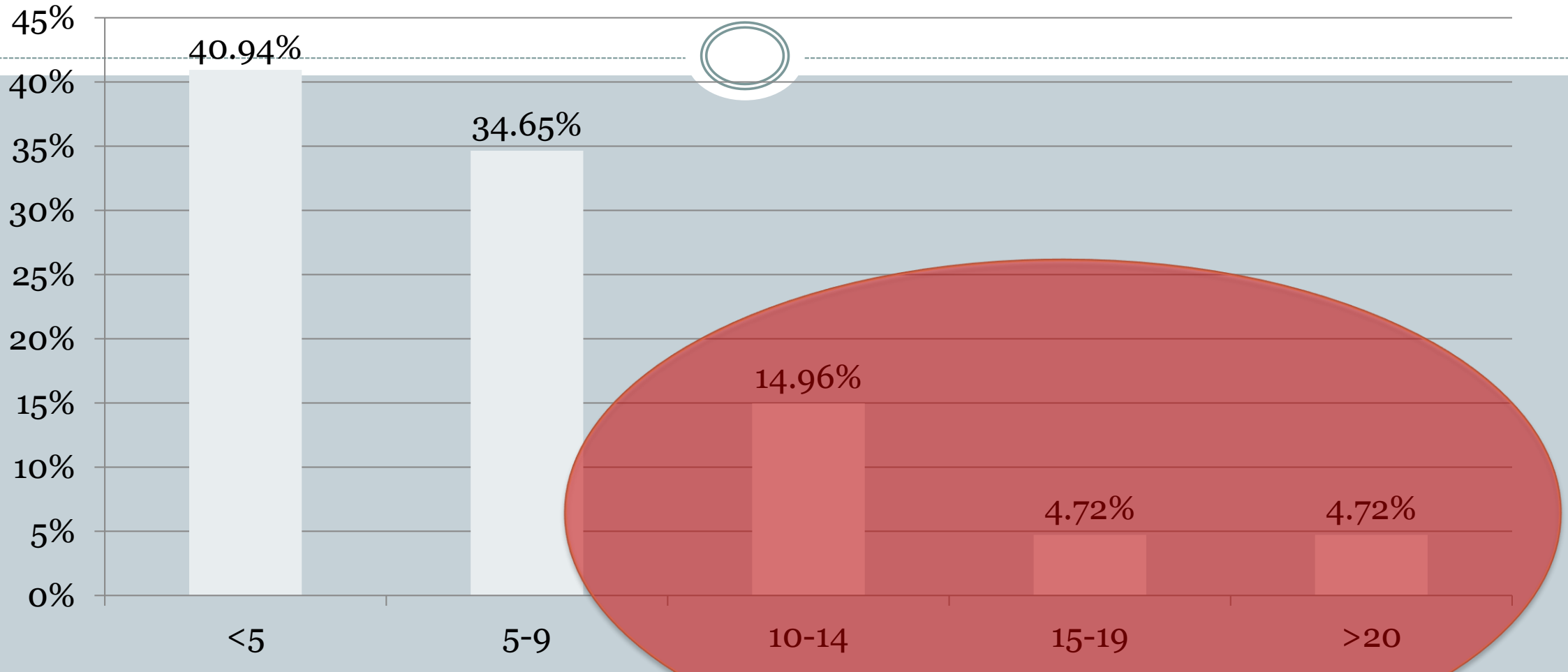
- Primary Intervention: Education and Counseling at the point of care in the community regarding diabetes care, lifestyle, diet, and stress management
- Team approach/expanded roles
- E-C --delivered during (primary care provider) PCP visit
- Physician's leadership critical

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, Duke Endowment, Blue Cross Blue Shield of North Carolina Foundation, Office of Rural Health and Human Services Staff

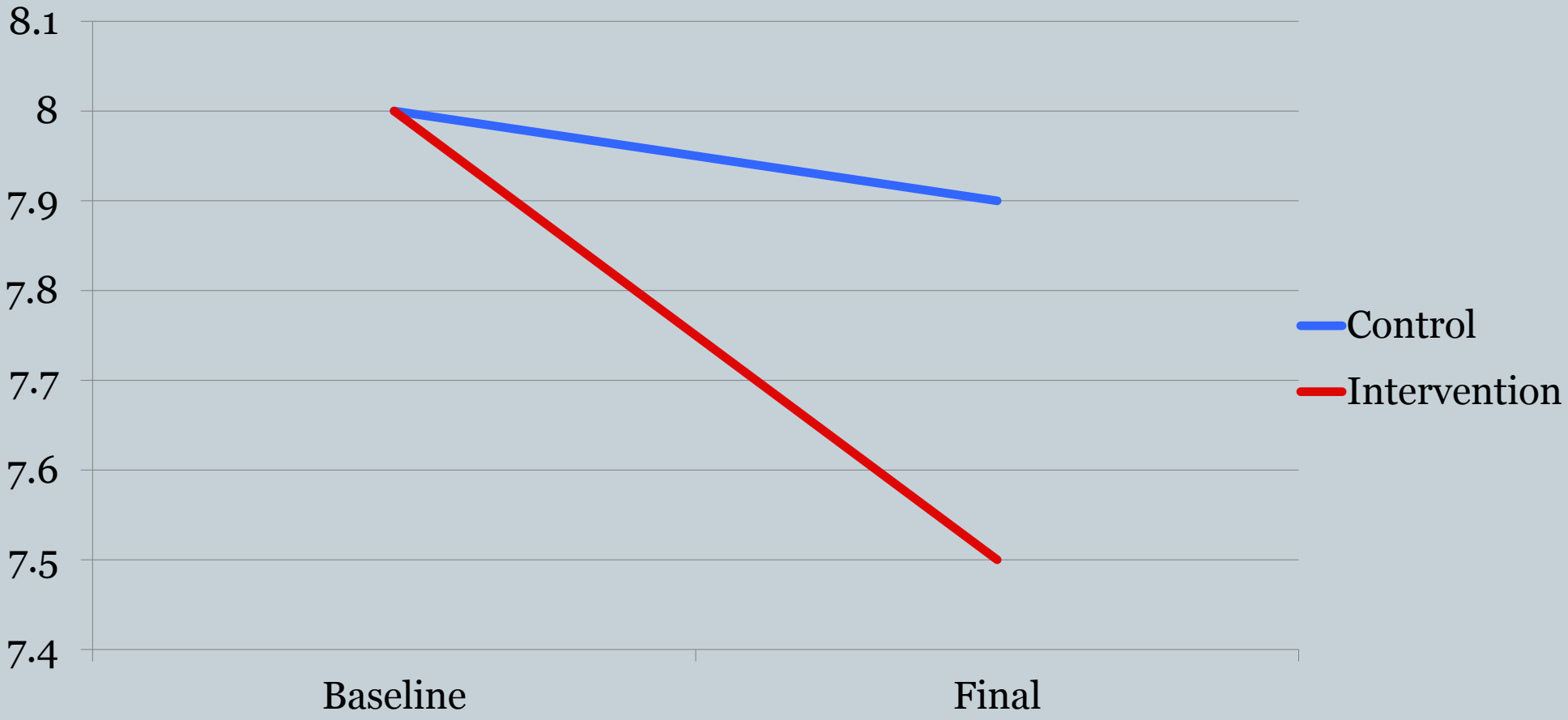
*See Bray and Cummings: Annals of Family Medicine 2013;*11(2):145-150

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

Overall Group Preliminary Results – HbA1c decline in intervention group



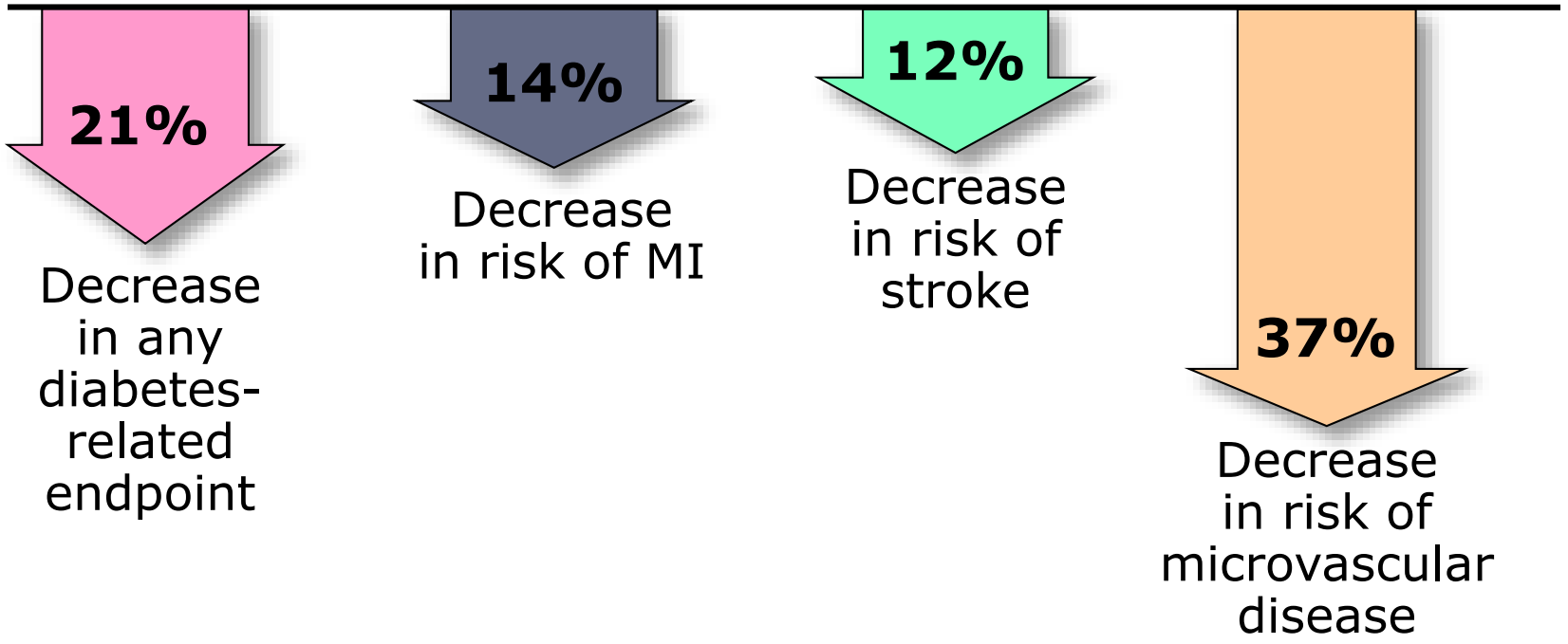
720 Type 2 Diabetes patients

$p < 0.05$

Improved Glycemic Control Prevents Complications

UK Prospective Diabetes Study (UKPDS 35)

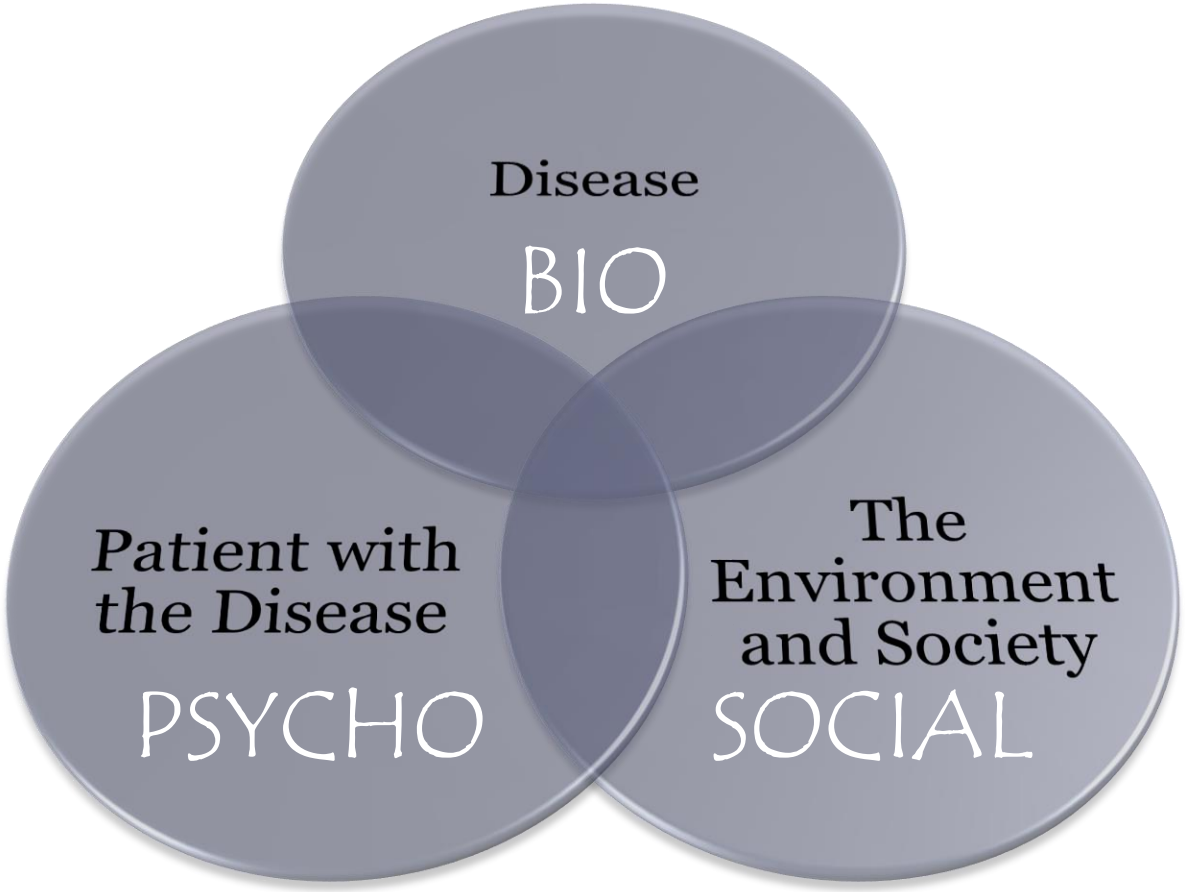
Getting HbA1c below or near 7% leads to:



N=3642

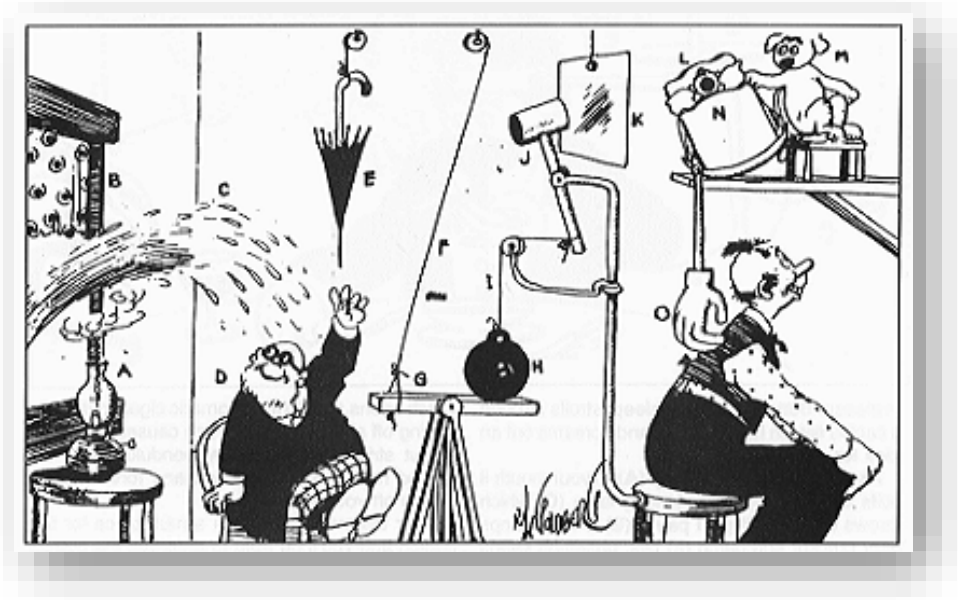
Stratton IM et al. *BMJ*. 2000;321:405-412.

What We're Dealing With



Building A Model for Integrated Care

The role of Behavioral Health Practitioners in Primary Care?



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

HRSA *Health Resources and Services Administration*

Center for Integrated Care Delivery

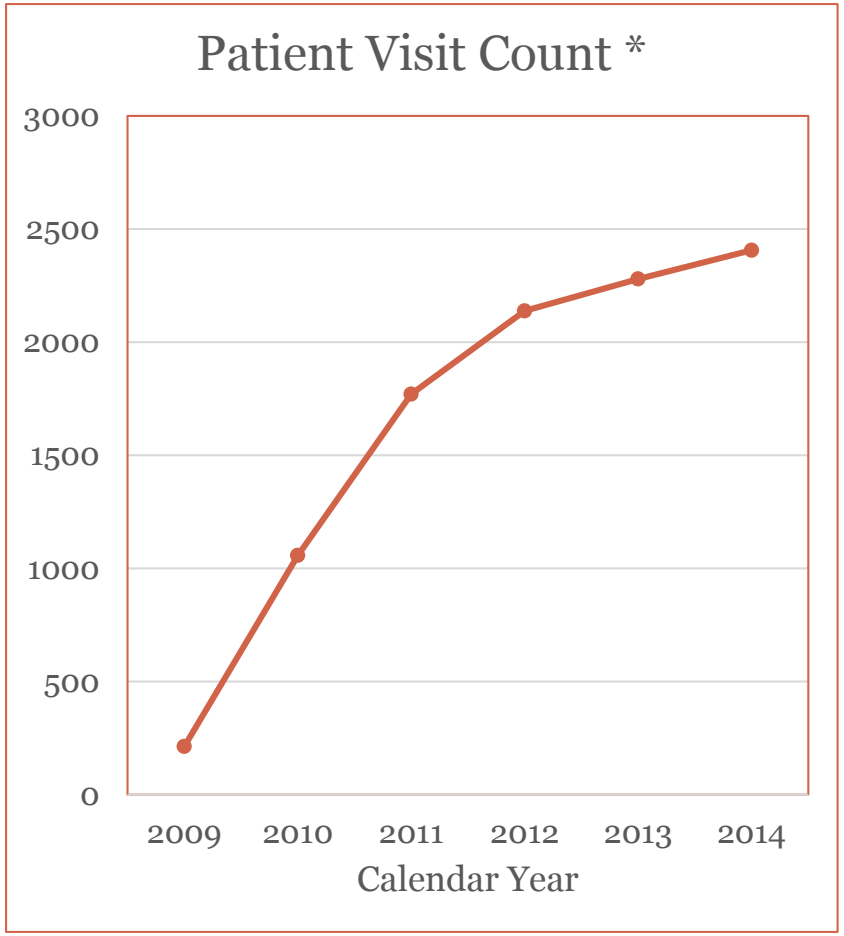
Funded by a grant from Health Resources and Services Administration to The Department of Family Medicine, Brody School of Medicine, East Carolina University

- 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

Focusing Department Attention on Integrated Care

Focus on Growth & Team Education

- Video Precepting
- Grand Rounds
- The Behavioral Science Base of Integrated Care
- Academic Afternoons
- Learners teaching Learners



*Source: Behavioral Health Billing Data 2009-2014

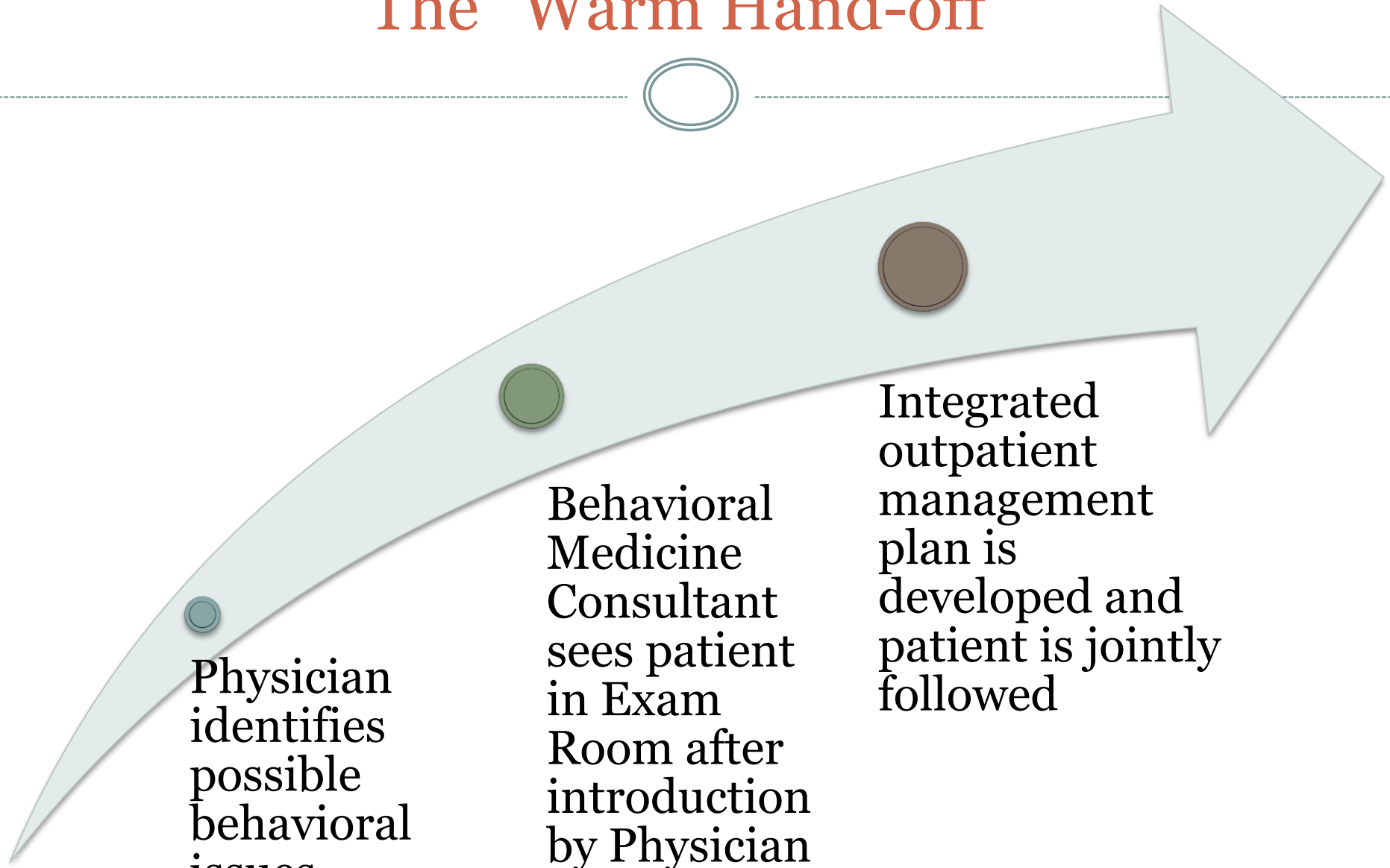
Practitioner Competencies for Integrated Behavioral Healthcare

- 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
- Program evaluation

Most Common Diagnoses/Symptoms Addressed
(neither exhaustive nor in a particular order)

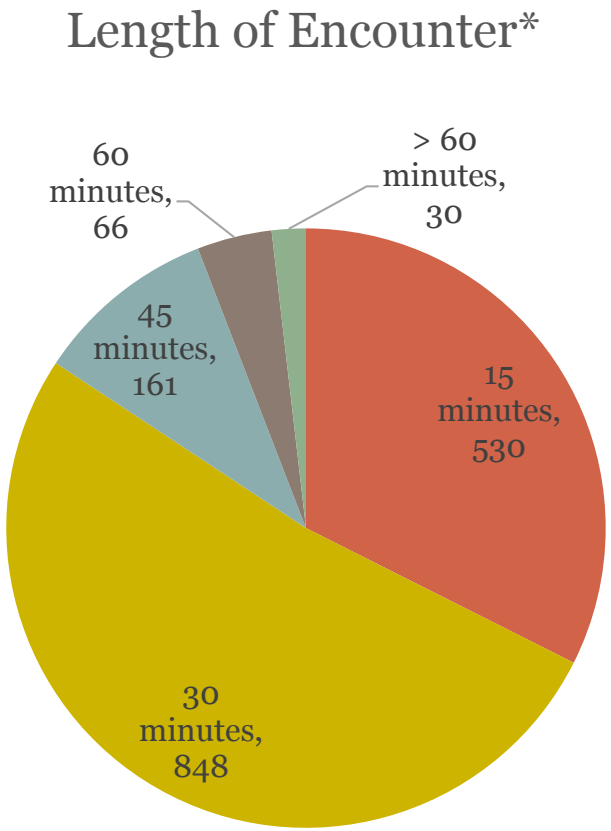
- Depression/Mood Disorders
- Suicidal/Homicidal Ideations
- Anxiety/Phobias
- Relational Issues
- Overweight
- Diabetes
- PTSD
- ADHD
- Chronic Pain/Illness
- Substance Abuse Assessment
- Domestic Violence
- End of Life
- Personality Disorders
- New Diagnosis
- Fertility/Infertility
- Bereavement
-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

The “Warm Hand-off”

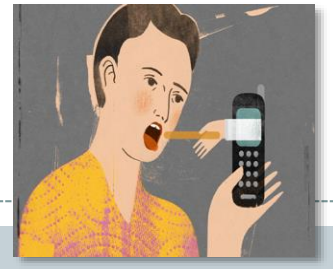


Length of Encounter

- 32.4% @ 1-15 minutes
- 51.9% @ 16-30 minutes
- 9.8% @ 31-45 minutes
- 4.0% @ 45-60 minutes
- 1.8% @ > 60 minutes



*Data thru 01/12/15



Next Step: TeleTEAM Care

……*at the Family Doctor's Office or at Home*

- Now serving patients in 13 Family Practices in rural NC
- The TeleTEAM Project offers brief integrated care from Nutrition, Behavioral Medicine, and Pharmacy providing support to patients when they come for an appointment with their local doctor.
- Our goal is to improve health, provide patient with support, and teach skills such as cooking healthy meals.
- Over 800 patient visits thus far.

Thanks to Kate B. Reynolds Charitable Trust & federal ORHP for their investment in new strategies to improve care outcomes for the disadvantaged!

Meet the TeleTEAM

ECU

Gloria L. Jones, Telemed Center

Elizabeth Banks, Ph.D., LMFT/Dennis Russo, Ph.D.

Skip Cummings, Pharm.D., Ann Marie Nye, Pharm.D.

Jill Jennings, RD, LDN/Jessica Sisneros, RD
Lisa Rodebaugh, BSN, RN – Project Coordinator
Shiv Patil, M.D., MPH - Diabetologist

COMMUNITY PARTNERS

Vidant Family Medicine – Aurora,
Pinetops, Tarboro, Wallace, Windsor
Goshen Med Center – Faison & Wallace
Kinston Community Health Center
OIC Family Medical Center, Rocky Mt.
Roanoke Chowan CHC – Ahoskie, Colerain, and
Murfreesboro
Robeson Health Care Corp - Pembroke

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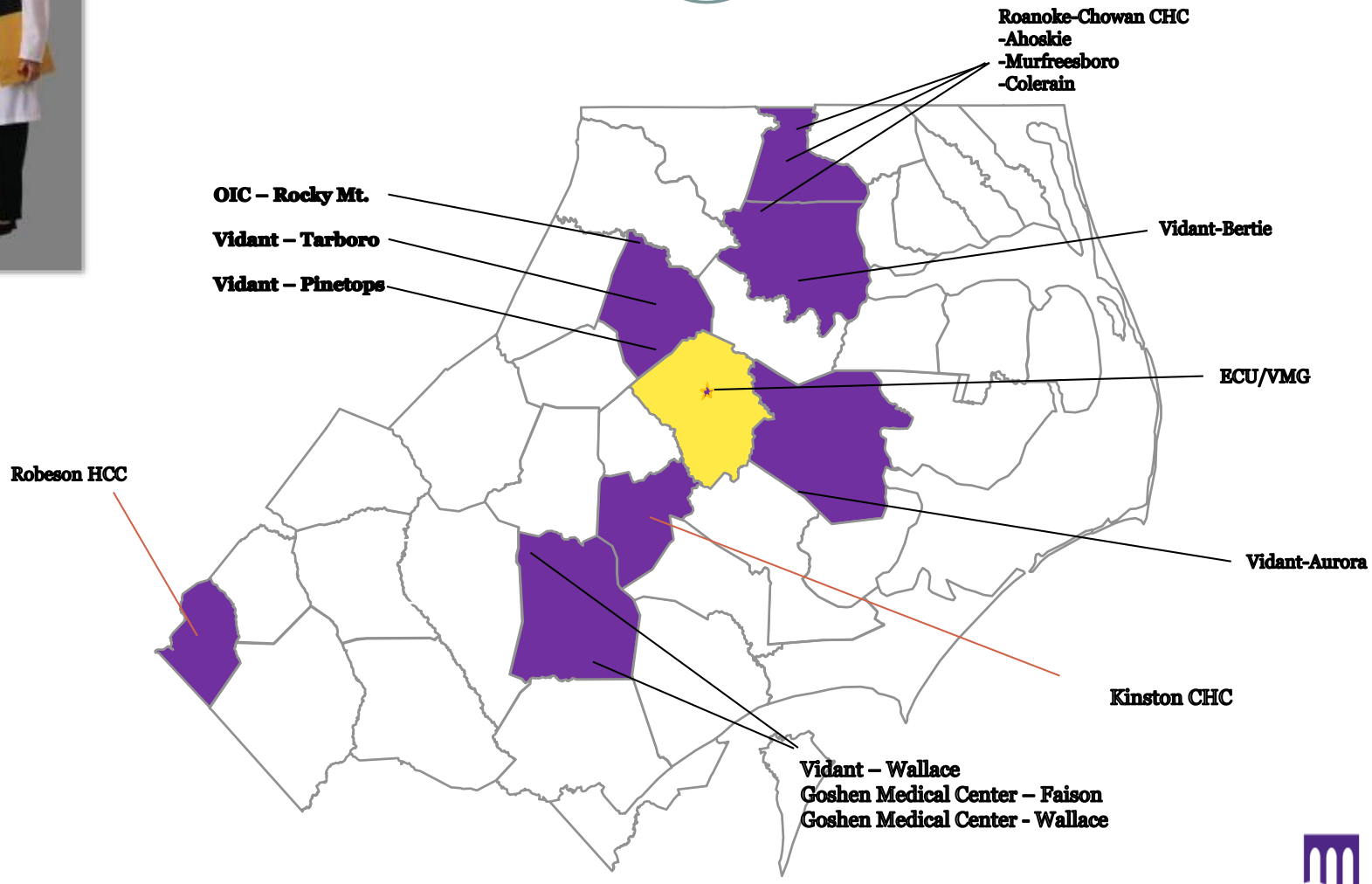
Current Tele-TEAM Care Sites



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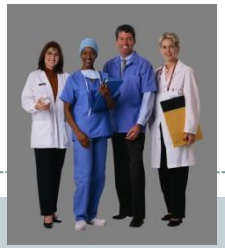

Current Tele-TEAM care Design

- Changing the culture in Fam. Med./Primary Care
- Care delivered by a **team – PCMH!**
- Pre-diabetes/diabetes team (**behaviorist, nutritionist, pharmacist, diabetologist**) available **via telemedicine at the point of care** in primary care practices
- Potential for active screening of all diabetes patients (PHQ-2/ etc)
- **Brief intervention** by one or more provider as needed
- Schedule f/u to continue & evaluate progress
- Impact 30-40% highest risk diabetics/pre-diabetics in primary care
- Preliminary evidence suggests benefit; consistent with transition to quality of care
- **Plans for adding at-home care** via HIPPA-compliant software

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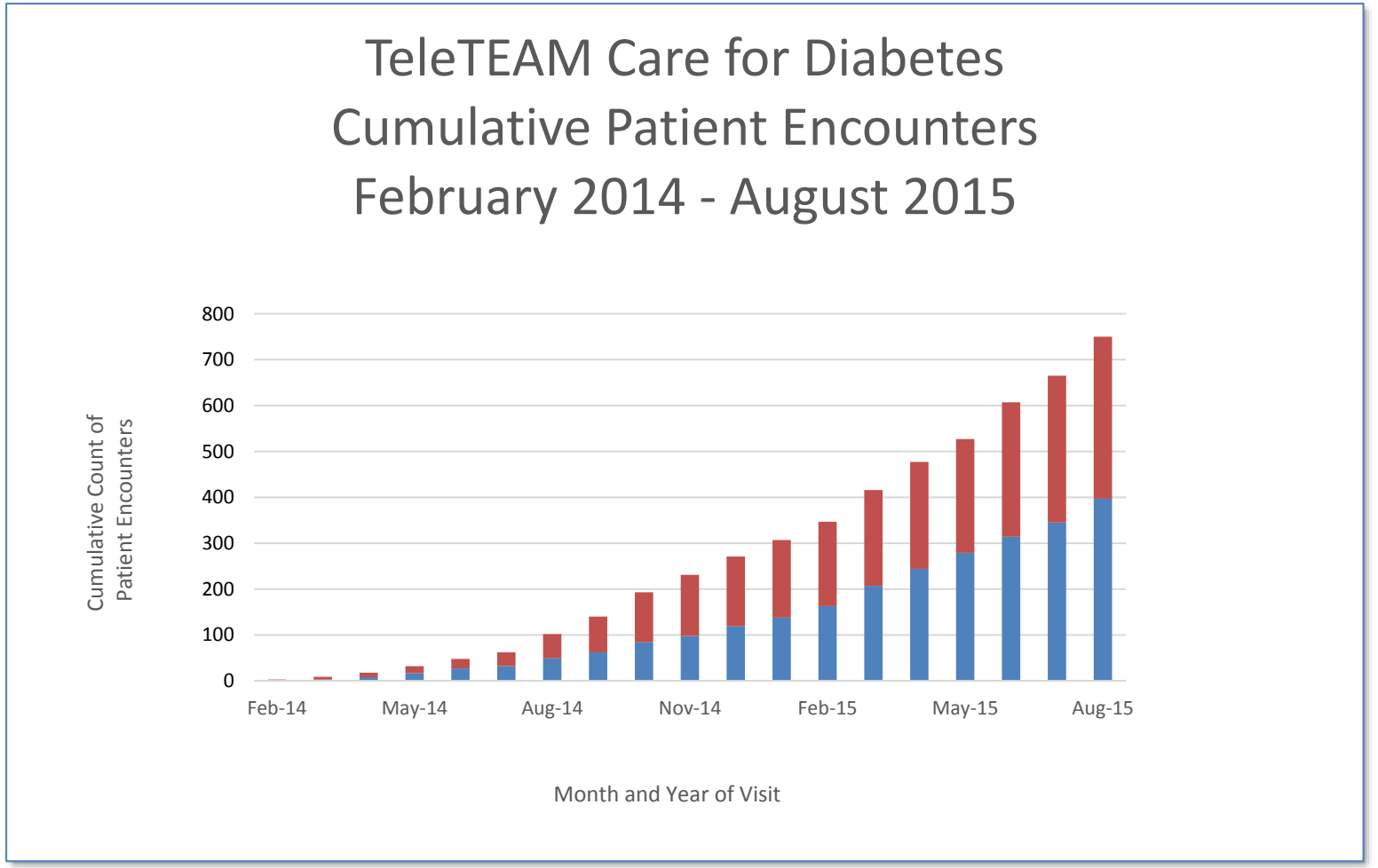
Growth of Our Services



TeleHealth: Early Collective Experience

ACCESS TO CARE
> 823 tele-delivered visits/follow-up in rural NC
Strong patient satisfaction

DEPRESSION
PHQ-8 score down 2.8 points at f/u

Diabetes Related Distress
DDS Sub score down .8 points at f/u

HbA1c
Mean HbA1c down 1.1 at 3 mo f/u

WEIGHT
Mean weight down 5 lbs at 3mo f/u
(57% of patients lost weight at 3 months)

Hospital/ER Utilization planned

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Expanding the capability of local Healthcare Sites to deliver care to Complex Patients through Office and At-home Monitoring/Intervention

- Working with your team to identify at-risk Patients and patients with complex multiple medical and behavioral comorbidities and helping to complement and extend the services which can be provided in the Family Doctor's Office
- Working in concert with Physicians, Nurses, Health Coaches, etc. to provide real-time, point-of-care services not locally available.
- Additional linkage of Nutritionist, Behavioral Specialist, and/or Pharmacist via Telemedicine in Primary Care Practices or in hospital or public health settings for Integrated Time-of-Care visits.
- Using new software, potential exists to link to patients via telemedicine in other settings including **work or home settings** provided HIPPA requirements are met
- Share notes with Provider and follow-up with patient and health coach
- Implement plan and follow patient at home

TeleTeamCare! It's why we're here…

- Trained to work with local medical providers in an integrated, shared system
- Behavioral health Consultants Function as part of healthcare team for *all* patients
- Available for consultation and interventions with physicians and patients at the time and place of care
- Offer behavioral interventions for primary medical diagnoses such as diabetes, asthma, chronic infectious disease, and heart disease
- Contribute to one integrated treatment plan to cover the spectrum of patient's needs

Hunter, Goodie, Oordt, & Dobmeyer, 2009

Our Integrated Health Care Team working side-by-side with LOCAL DOCTORS greatly enhances the ability to care for patients with Diabetes

Our Goal:

Reconnecting the Head to the Body!