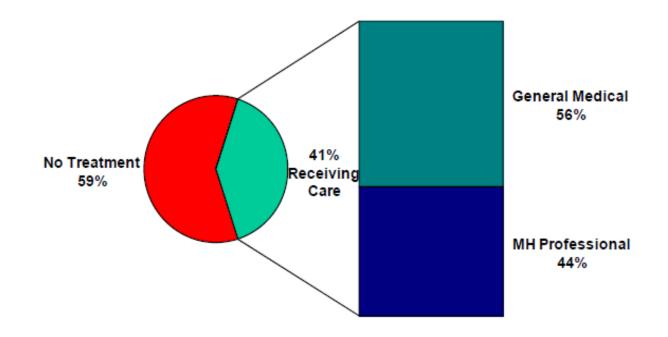
## Addressing Challenges in Providing Rural Behavioral Health Services

MARVIN SWARTZ, MD
PROFESSOR AND HEAD
SOCIAL AND COMMUNITY PSYCHIATRY
DIRECTOR, DUKE AHEC PROGRAM
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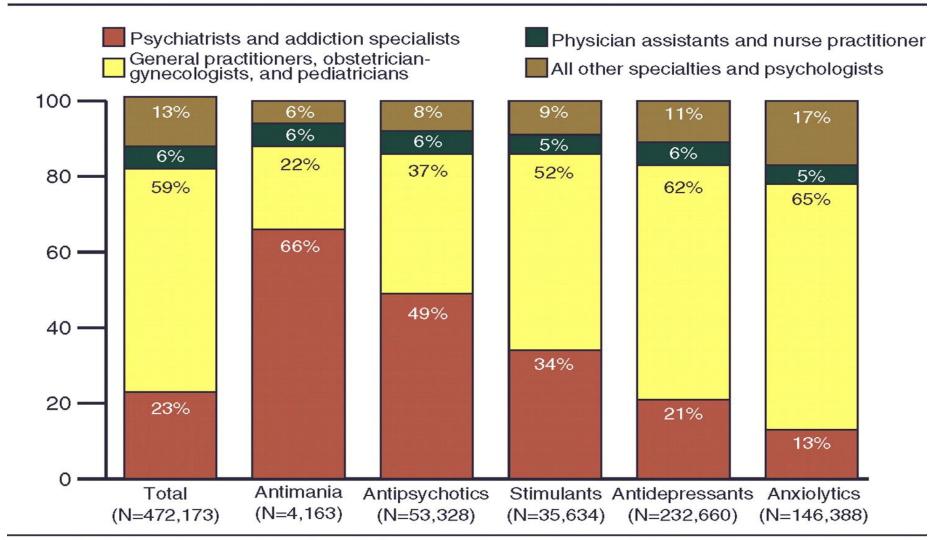


## National Comorbidity Survey Replication Provision of Behavioral Health Care: Setting of Service



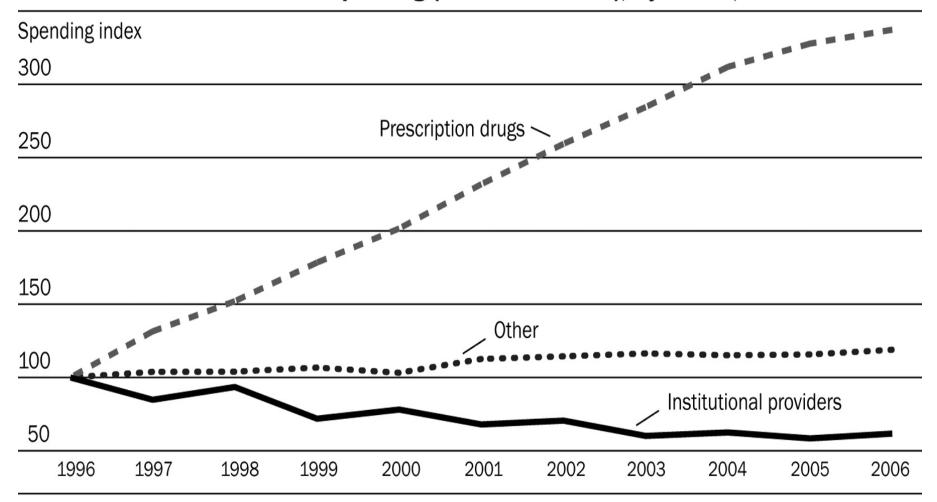
Wang P, et al., Twelve-Month Use of Mental Health Services in the United States, *Arch Gen Psychiatry*, 62, June 2005

**Figure 1**Percentage of U.S. retail psychotropic prescriptions written from August 2006 to July 2007, by type of provider<sup>a</sup>



<sup>&</sup>lt;sup>a</sup> Ns represent prescriptions in thousands

EXHIBIT 6
Growth In U.S. Mental Health Spending (Indexed To 1996), By Sector, 1996–2006

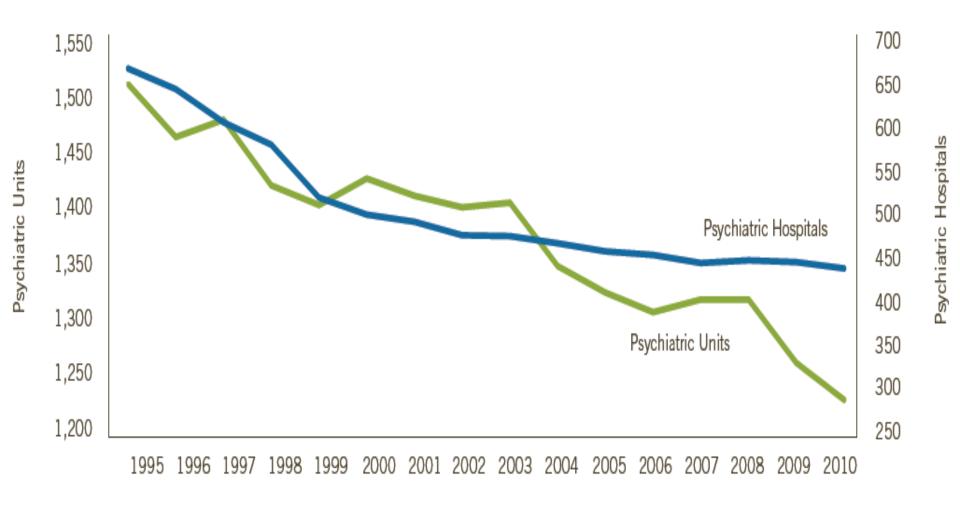


**SOURCE:** Medical Expenditure Panel Surveys, 1996–2006.

**NOTES:** Spending index constructed through regression analysis, available in the online appendix at http://content.healthaffairs .org/cgi/content/full/28/3/649/DC1. 100 represents mean spending in 1996 for each group. For regression details, see Exhibit 3 notes.

#### The health care system's capacity to deliver mental health services has been shrinking.

Chart 5: Total Number of Psychiatric Units<sup>(1)</sup> in U.S. Hospitals and Total Number of Freestanding Psychiatric Hospitals<sup>(2)</sup> in U.S., 1995-2010



Note: Includes all registered and non-registered hospitals in the U.S.

Source: Health Forum, AHA Annual Survey of Hospitals, 1995-2010.

<sup>(1)</sup> Hospitals with a psychiatric unit are registered community hospitals that reported having a hospital-based inpatient psychiatric care unit for that year.

<sup>(2)</sup> Freestanding psychiatric hospitals also include children's psychiatric hospitals and alcoholism/chemical dependency hospitals.



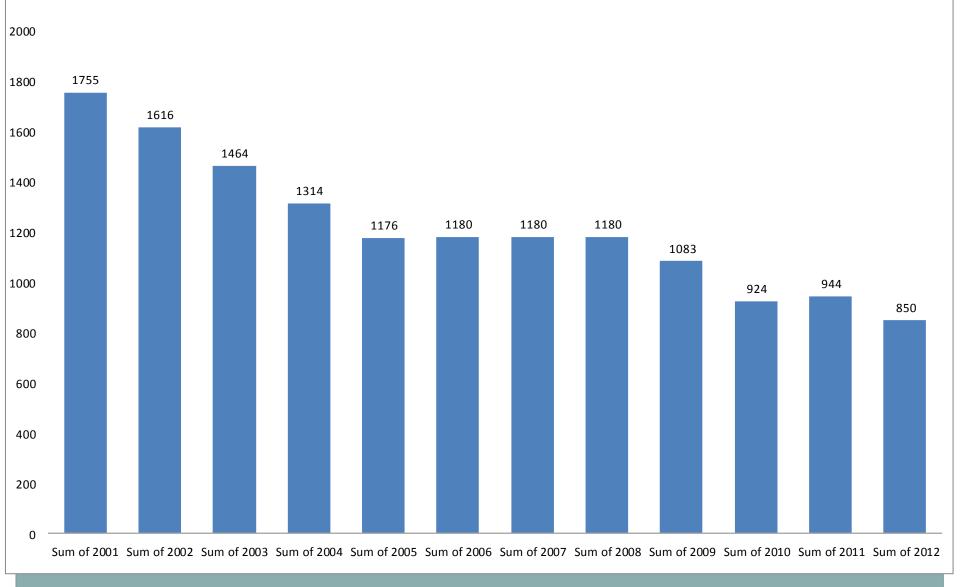
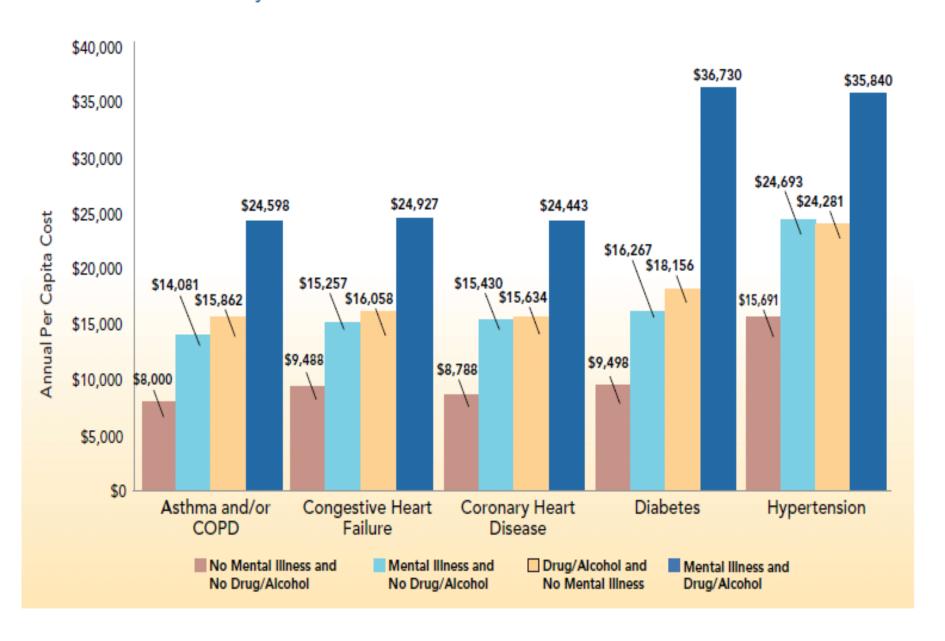


Figure 3 Impact of Behavioral Health Comorbidities on Per Capita Costs among Medicaid-Only Beneficiaries with Disabilities



## Are Mental Disorders More Prevalent in Rural Areas?

- Few community/epidemiologic studies have compared rural and urban rates of disorder.
- Extent of urbanicity and rurality varies greatly and is on a continuum.
- I Ideal epidemiologic studies would contrast contiguous but distinct highly rural and urban areas.

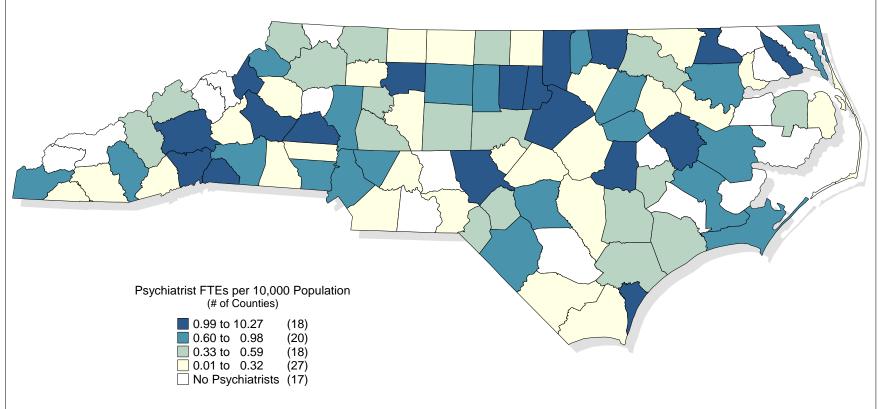
### Summary of Epidemiologic Evidence

- No major rural/urban differences in lifetime prevalence of aggregate mental disorder.
- Prevalence differences not a major factor in urban/rural studies.
- Suicide higher in rural areas.
- Access to services bigger issue than prevalence.

#### **Rural Mental Health Services**

- Originally believed that rural attitudes/acceptance of mental health services was lower.
- Differences in attitudes toward treatment not likely to be different in rural vs urban areas.
- Strains of rural life may be different but are unique to types of rural communities (eg. farming vs other economies, poverty, migration, etc.)
- Clear differences are evident in mental health services -- resources and services stretched thinner in rural areas.

### Psychiatrist Full-Time Equivalents per 10,000 Population North Carolina, 2004



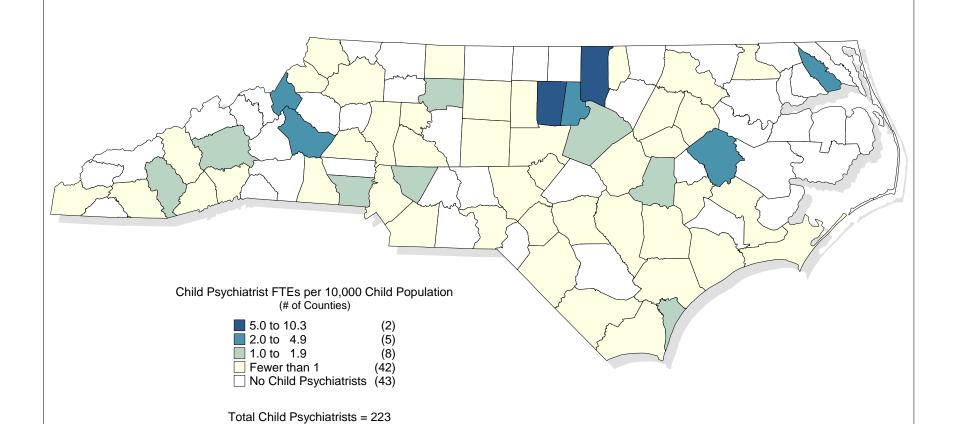
Total Psychiatrists = 1,061

Source: North Carolina Health Professions Data System, with data derived from the North Carolina Medical Board, 2004; LINC, 2005.

Produced by: North Carolina Health Professions Data System and the Southeast Regional Center for Health Workforce Studies, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

\*Psychiatrists include active (or unknown activity status), instate, nonfederal, non-resident-in-training physicians who indicate a primary specialty of psychiatry, child psychiatry, psychoanalysis, psychosomatic med, addiction/chemical dependency, forensic psychiatry, or geriatric psychiatry, and secondary specialties in psychiatry, child psychiatry and forensic psychiatry.

### Child Psychiatrist Full-Time Equivalents per 10,000 Child Population North Carolina, 2004



Source: North Carolina Health Professions Data System, with data derived from the North Carolina Medical Board, 2004; LINC, 2005. Produced by: North Carolina Health Professions Data System and the Southeast Regional Center for Health Workforce Studies, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

\*Child psychiatrists include active (or have unknown activity status), instate, nonfederal, non-resident-in-training physicians who indicate a primary or secondary specialty of child psychiatry. Child population includes children 18 and under.

### Implications for Rural Mental Centers

- New models of treatment needed.
- Challenges of cultural diversity emerging (especially Latino migration).
- Reliance and use of primary care and other human services and resources needed.

#### Can NC Grow it's Way Out of Psychiatry Shortages?

- Most of the counties with psychiatry shortages are also primary care shortages!
- Need different models of care
- Calls for task-shifting and collaborative care type models.

# "Trying harder will not work, changing systems of care will."

Don Berwick
Former Administrator CMS
CEO Institute for Healthcare Improvement

### Potential Approaches

- Telepsychiatry
- Internet based counseling and follow-up
- Telephone based counseling and follow-up
- Education/Self-help/natural supports
- Collaborative Care/Integrated Care models

## Need to Apply Unified Approach within a Public Health Model

- Unified approach that recognizes mental health workforce shortages
- Adopt a Public Health Model
- Develop shared treatment protocols for specific conditions,
- Screen, follow outcome measures, treat to target
- Use mental health counselors and Advance Practice Professionals
- Reserve 1:1 time with psychiatrists for complex cases

## Example: Collaborative Care/Integrated Care

- We are beyond the 'tipping point' of needing more data to prove that these new models have promise
- Examples:
  - 25 years of NIMH research on collaborative care <u>www.nimh.nih.gov</u>
  - California Endowment: Integrated Beh. Health Proj. <u>www.ibhp.org</u>
  - MacArthur Initiative on Depression and Primary Care <u>www.depression-primarycare.org</u>
  - Patient Centered Primary Care Collaborative: <u>www.pcpcc.net</u>
  - John A Hartford Foundation: IMPACT Program: <a href="http://impact-uw.org">http://impact-uw.org</a>

## Depression is the most studied

- 37 trials of collaborative care for depression in primary care (US and Europe)
  - Meta-analysis by Gilbody et al, Archives of Internal Medicine; 2006
- Consistently more effective than usual care
  - Unutzer et al, Report to President's Commission on Mental Health; *Psychiatric Services*; 2006.

#### PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

ME: John Q. Sample			DATE:			
Over the last 2 weeks, how often have you been bothered by any of the following problems? (use "" to indicate your answer)	Wel wall	Septem limb	Hare the Lare	Hearty transplant		
1. Little interest or pleasure in doing things	0	1	1	3		
2. Feeling down, depressed, or hopeless	0	1	2	3		
Trouble falling or staying asleep, or sleeping too much	0	1	1	3		
4. Feeling tired or having little energy	0	1	2	1		
5. Poor appetite or overeating	0	1	2	3		
Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	V			
<ol> <li>Trouble concentrating on things, such as reading the newspaper or watching television</li> </ol>	0	1	V	3		
8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	Ö	1	1			
<ol><li>Thoughts that you would be better off dead, or of hurting yourself in some way</li></ol>	1		2	3		
	add columns:	2	10	3		
(Healthcare professional. For interpretation please refer to accompanying scoring card			15			
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?		Se	ot difficult at ali omewhat difficu ery difficult dremely difficu	It		

#### PHQ-9 SCORING CARD FOR SEVERITY DETERMINATION

for healthcare professional use only

#### Scoring—add up all checked boxes on PHQ-9

For every ✓: Not at all = 0; Several days = 1; More than half the days = 2; Nearly every day = 3

#### Interpretation of Total Score

#### Total Score Depression Severity

- 1-4 Minimal depression
- 5-9 Mild depression
- 10-14 Moderate depression
- 15-19 Moderately severe depression
- 20-27 Severe depression

#### Effectiveness Studies of Depression in Primary Care

	Tx Guidelines	Case ID/ Screening	Patient Ed.	Physician Ed.	Tracking Systems	Tx Coord.	MH Spec.	Effective
Schulberg	+	+	+	+	+	+	++++	Yes
Mynors-Wallis	+	+	+	+	+	+	+++	Yes
Katon	+	+	+	+	+	+	++	Yes
Wells	+	+	+	+	+	+	++	Yes
Katzelnick	+	+	+	+	+	+	++	Yes
Rost	+	+	+	+	+	+	+/-	Yes
Hunkeler	+	+	+	+	+	+	+/-	Yes
Dietrich	+	+	+	+	+	+	+	Yes
Unutzer	+	+	+	+	+	+	+	Yes
Simon	+	+	+	+	+	+	-	Yes
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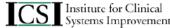
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### What happens to utilization costs?



## Lower long-term (4 year) healthcare costs



Cost Category	Overall cost in \$ (mean)	Intervention group cost in \$	Usual care group cost in \$	Difference in \$
IMPACT Intervention cost	NA	522	0	522
Outpatient mental health costs	661	558	767	-210
Pharmacy costs	7284	6,942	7,636	-694
Other outpatient costs	14306	14,160	14,456	-296
Total outpatient cost	22516	22,182	22,859	-677
Inpatient medical costs	8452	7,179	9,757	-2578
Inpatient mental health / substance abuse costs	114	61	169	-108
Total health care cost over 4 years	31082	29,422	32,785	-3363

Unutzer et al, Am J Managed Care 2008

### The DIAMOND Model

#### Consistent with evidence on collaborative care:

#### Four Processes:

- 1. Consistent method for assessment/monitoring (PHQ-9)
- 2. Presence of tracking system (registry)
- 3. Stepped care approach to intensify/modify treatment
- 4. Relapse prevention

#### Two Roles:

- 1. Care manager for follow up, support, coordination
- 2. Consulting psychiatrist for caseload review and recommendations

## Patient/Provider perspective

- Any patient meeting criteria
  - Age ≥ 18
  - PCP diagnosed dysthymia or major depression
  - Score on PHQ-9 of 10 or more
- Introduced to DIAMOND care manager
  - Screened for alcoholism, anxiety, bipolar disorder
  - Clinical scenario gathered along with past history
  - Presented weekly to psychiatrist for recommendations.
- PCP writes all prescriptions, patient management

## New role for psychiatry

- Traditional consultation/liaison role is seeing patients identified by primary care providers.
  - One patient at a time
  - Patients can wait 2-3 months to be seen
  - Many "no shows"
  - Frustrating to patients, PCPs and psychiatrists
- New model
  - Review patients with care manager
    - Many more patients addressed in same time frame
    - Patient problems are addressed within days of intake
    - Can focus on those needing attention

## Care Manager Coordination with Psychiatrist

- Weekly review with psychiatrist:
  - All newly enrolled patients
  - Patients the Care Manager or PCP has concerns about
  - Patients who are not improving
  - Any PCP requests for treatment recommendations
- Consult with covering Psychiatrist at any time to discuss acute concerns, patients needing hospitalization, or PCP requests

## How many care managers do I need?

- I FTE care manager to about 12-14 FTE of PCP's.
- Based on several assumptions:
  - PCP panel size for full time provider of 1200-1400 (excluding those < 18 yrs old)
  - Assuming a adult depression prevalence in primary care of roughly 10%
  - Assuming roughly half of those eligible patients will be eligible and willing to enroll in care management
  - Averages out to be about a 120-140 case load for each care manager (full time
     FTE with both active and graduated patients to monitor)
- Also included in the model is 2 hours of Psychiatry supervision per week per full time care manager

### Other Disorders

- Practice can address other disorders
  - Alcohol & Substance use
  - PTSD
  - Anxiety Disorders
- Use same protocol and principles and treat to target

## Questions?? THANK YOU!

Contact information

- Marvin Swartz
  - marvin.swartz@duke.edu

