Integrating Mental Health and Primary Care

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Outline

- HIV/AIDS: A Model for Treatment Integration
- Integrating Treatment of Depression into Primary Care
  - Evidence for effectiveness
  - MetroHealth experience
- Integrating Psychiatric & Medical Treatment of SPMI
  - Morbidity and Mortality in Severe & Persistent Mental Illness (SPMI)
  - MetroHealth experience

Integrating Treatment for Depression into Primary Care

Translation: Integrating the Treatment of Multiple Chronic Illnesses

Collaborative Care for Patients with Depression and Chronic Illnesses

- Care of patients with multiple chronic diseases accounts for the majority of health care costs.
- A possible approach to organizing services for patients with multiple conditions is to identify clusters of coexisting illnesses with compatible management guidelines.
- Major depression (MDD) is prevalent among patients with diabetes (DM) and coronary heart disease (CHD).
- MDD is risk factor for poor self-care, complications & death in patients with DM and CHD.

Collaborative Care for Patients with Depression and Chronic Illnesses

- Single-blind, randomized, controlled trial in 14 primary care clinics in a health care system in Washington State
- A 12-month intervention to manage depression and improve glycemic, blood-pressure, and lipid control by integrating a program for diabetes and coronary heart disease with collaborative care for depression.
- Combined support for self-care with pharmacotherapy:
  - depression
  - hyperglycemia
  - hypertension
  - hyperlipidemia

Katon et.al. *N Engl J Med* 2010;363:2611-20.

Collaborative Care for Patients with Depression and Chronic Illnesses

- Structured visits every 2-3 weeks; RNs monitored progress on depression (PHQ-9), medical condition, self-care activities
- Treatment protocols guided med adjustments for pts who did not meet treatment goals
- RNs used motivational and encouraging coaching, helped pts solve problems & set goals for improved medication adherence self-care, e.g. exercise, self-monitoring of BP & glucose levels
- self-care materials (*The Depression Helpbook &* other disease management material), self-monitoring devices (BP, blood-glucose meters)

Table 1. Characteristics of the Patients.*

Characteristic	Intervention Group (N=106)	Usual-Care Group (N=108)
Age — yr	57.4±10.5	56.3±12.1
Female sex — %	48	56
≥1 yr of college — %	61	56
Minority race or ethnic group (non-white or Hispanic) — %	25	22
Employment — %		
Part-time or full-time	53	59
Retired	34	26
Unemployed or disabled	10	13
Homemaker	3	2
≥1 Antidepressant prescription filled in previous 12 mo — no. (%)	61 (57)	57 (53)
PHQ-9		
Score	14.7±3.8	13.9±3.1
Range	10.0 to 26.0	10.0 to 23.0
Depression for ≥2 yr — %	72	76
SCL-20		
Score	1.7±0.6	1.7±0.6
Range	0.2 to 3.25	0.3 to 2.95
Glycated hemoglobin — %	8.1±2.0	8.0±1.9
LDL cholesterol — mg/dl	106.5±35.3	109.0±36.5
Systolic blood pressure — mm Hg	136±18.4	132±17.2
Diabetes (with or without coronary heart disease) — %	89	82
Coronary heart disease — %	23	30
Body-mass index	36.9±8.3	36.6±8.5

Collaborative Care for Patients with Depression and Chronic Illnesses

Table 2. Differences in Outcomes in Control of the Primary Disease.*

Outcome	Unadjusted Estimate				Estimated Between-Group Difference (95% CI)	P Value†	
	Intervention Group (N=105)	*change‡*	Usual-Care Group (N=106)	*change‡*		Four-Outcome Composite	SCL-20 Alone and Three-Disease Composite
SCL-20 score§							
Baseline	1.74±0.59	0.91	1.65±0.60	0.51	−0.41 (−0.56 to −0.26)¶	<0.001	<0.001¶
6 mo	0.84±0.68		1.26±0.72				
12 mo	0.83±0.68		1.14±0.66				
Glycated hemoglobin — %							
Baseline	8.14±2.03	0.81	8.04±1.87	0.23	−0.56 (−0.85 to −0.27)¶		<0.001
6 mo	7.42±1.32		7.87±1.93				
12 mo	7.33±1.21		7.81±1.90				
LDL cholesterol — mg/dl							
Baseline	106.8±35.4	14.9	109.4±36.7	8.0	−9.1 (−17.5 to −0.8)‖		
12 mo	91.9±36.7		101.4±36.6				
Systolic blood pressure — mm Hg							
Baseline	135.7±18.4	4.7	131.9±17.0	−0.4	−3.4 (−6.9 to 0.1)¶		
6 mo	131.9±15.2		133.5±20.4				
12 mo	131.0±18.2		132.3±17.4				

Collaborative Care for Patients with Depression and Chronic Illnesses

Table 3. Clinical and Quality-of-Life Measures.*

Outcome	Intervention Group	Usual-Care Group	P Value
Improvement on Patient Global Improvement Scale — no./total no. (%)†			
6 mo	64/96 (67)	15/91 (16)	<0.001‡
12 mo	41/92 (45)	16/91 (18)	
≥50% decrease in SCL-20 score — no./total no. (%)			
6 mo	57/97 (59)	22/96 (23)	<0.001‡
12 mo	56/94 (60)	28/92 (30)	
All three medical measures below guidelines or showing clinically significant change at 12 mo — no./total no. (%)§	36/97 (37)	19/87 (22)	0.024¶
≥1.0 percentage point decrease in glycated hemoglobin level from baseline at 12 mo — no./total no. (%)	37/102 (36)	18/96 (19)	0.006¶
≥10 mm Hg decrease in systolic blood pressure from baseline at 12 mo — no./total no. (%)	41/101 (41)	25/101 (25)	0.016¶
Satisfaction with care of depression — no./total no. (%)‖			
Baseline	47/92 (51)	43/92 (47)	<0.001¶
6 mo	84/97 (87)	53/86 (62)	
12 mo	81/90 (90)	46/84 (55)	
Satisfaction with care of diabetes, heart disease, or both — no./total no. (%)‖			
Baseline	73/104 (70)	65/95 (68)	<0.001¶
6 mo	87/97 (90)	65/95 (68)	
12 mo	79/92 (86)	62/88 (70)	
Quality-of-life score**			
Baseline	4.2±1.9	4.6±1.8	<0.001
6 mo	5.8±2.4	5.2±1.8	
12 mo	6.0±2.2	5.2±1.9	

Better Health, Greater Cleveland

- RWJF Aligning Forces for Quality Initiative – 2007
- 500 physicians in 48 safety net practice sites
  - MetroHealth, UH, CCF
  - FQHCs serving the homeless
- Project focuses on providing tools for those practices interested in PCMH transformation
  - effective use of EHR in optimizing patient health
  - committee of behavioral health professionals to recommend protocols for improved MH care in primary care practices

Better Health, Greater Cleveland

- Behavioral Health Committee (MH & PC professionals)
  - Psychologist , Tom Swales, Chaired the BH Committee
  - Developed protocols/tools for improving mental health care in primary care practices
- Depression screening in primary care practices endorsed by BHGC Steering Committee
  - Toolkit: PDQ-2 and PDQ-9
  - Screening patients with diabetes, CHF and HTN
  - Each primary care site will decide plan implementation

MetroHealth System: Depression Screening

- PCPs: concerns about screening
  - Already stretched too thin (eg. screening for pain, domestic violence, etc.)
  - Identify depression – then what?
  - Lack of support from and access to specialty mental health care
- Will start at one location: MH Broadway Clinic
  - Broadway already has BH Clinic
  - Existing relationship between MH & PC staff
- One target group: patients with DM

MetroHealth System: Depression Screening

- Woodruff Foundation Grant
  - Toni Johnson, MD – leader
- Survey educational needs of :
  - primary care social workers
  - prescribing providers (physicians and nurse practitioners
- Provide education & training for the primary care SW team members in the following:
  - Identification and tracking of patients with diabetes and depression with PHQ-2 and PHQ-9

MetroHealth System: Depression Screening

- Provide education on the following:
- Diagnosis and evidence-based treatment of depression:
  - psychopharmacology for prescribing providers
  - emphasis on brief therapy for primary care SW
  - psychoeducation of patients on depression
- Process for follow-up & tracking of progress (using PHQ-9)
- Provide education and consultation to primary care team:
  - Recognition and treatment of bipolar disorder
  - Management of comorbid disorders: anxiety, etc.
  - Management of antidepressant adverse effects and treatment resistant depression

Indications for Specialty Mental Health Consultation or Referral

- Patients who endorse current suicidal or homicidal thoughts or behaviors (emergency care may be necessary)
- Patients with non-response to 2 trials of antidepressants at adequate doses for adequate period (as outlined in the educational series)
- Patients who have bipolar depression (MDQ positive screen)
- Patients who have psychotic symptoms
- Patients with severe personality disorders or high risk behaviors complicating the treatment of depression
- Depressed women who are pregnant, planning pregnancy, post-partum or nursing an infant
- Patients with co-morbid medical conditions that complicate the use of antidepressant medication

Integrating Psychiatric & Medical Treatment of Severely & Persistently Mentally Ill (SPMI)

Translation: Integrating Two Separate Systems of Care

Morbidity and Mortality in People with Serious Mental Illness

National Association of State Mental Health Program Directors

Medical Directors Council

July 2006

Overview- THE PROBLEM

- Increased Morbidity and Mortality Associated with Serious Mental Illness (SMI)
- Increased Morbidity and Mortality Largely Due to Preventable Medical Conditions
  - Metabolic Disorders, Cardiovascular Disease, Diabetes Mellitus
  - High Prevalence of Modifiable Risk Factors (Obesity, Smoking)
  - Epidemics within Epidemics (e.g., Diabetes, Obesity)
- Some Psychiatric Medications Contribute to Risk
- Established Monitoring and Treatment Guidelines to Lower Risk Are Underutilized in SMI Populations

Why Should we be Concerned About Morbidity and Mortality?

- **Recent data from several states have found that people with serious mental illness served by our public mental health systems die, on average, at least 25 years earlier that the general population.**

Recent Multi-State Study Mortality Data: Years of Potential Life Lost

Year	AZ	MO	OK	RI	TX	UT	VA (IP only)
1997		26.3	25.1		28.5		
1998		27.3	25.1		28.8	29.3	15.5
1999	32.2	26.8	26.3		29.3	26.9	14.0
2000	31.8	27.9		24.9			13.5

- Compared to the general population, persons with major mental illness typically lose more than 25 years of normal life span

Lutterman, T; Ganju, V; Schacht, L; Monihan, K; et.al. Sixteen State Study on Mental Health Performance Measures. DHHS Publication No. (SMA) 03-3835. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 2003.

Ohio Study-1998-2002

Mean Years of Potential Life lost

20,018 persons discharged, 608 deaths

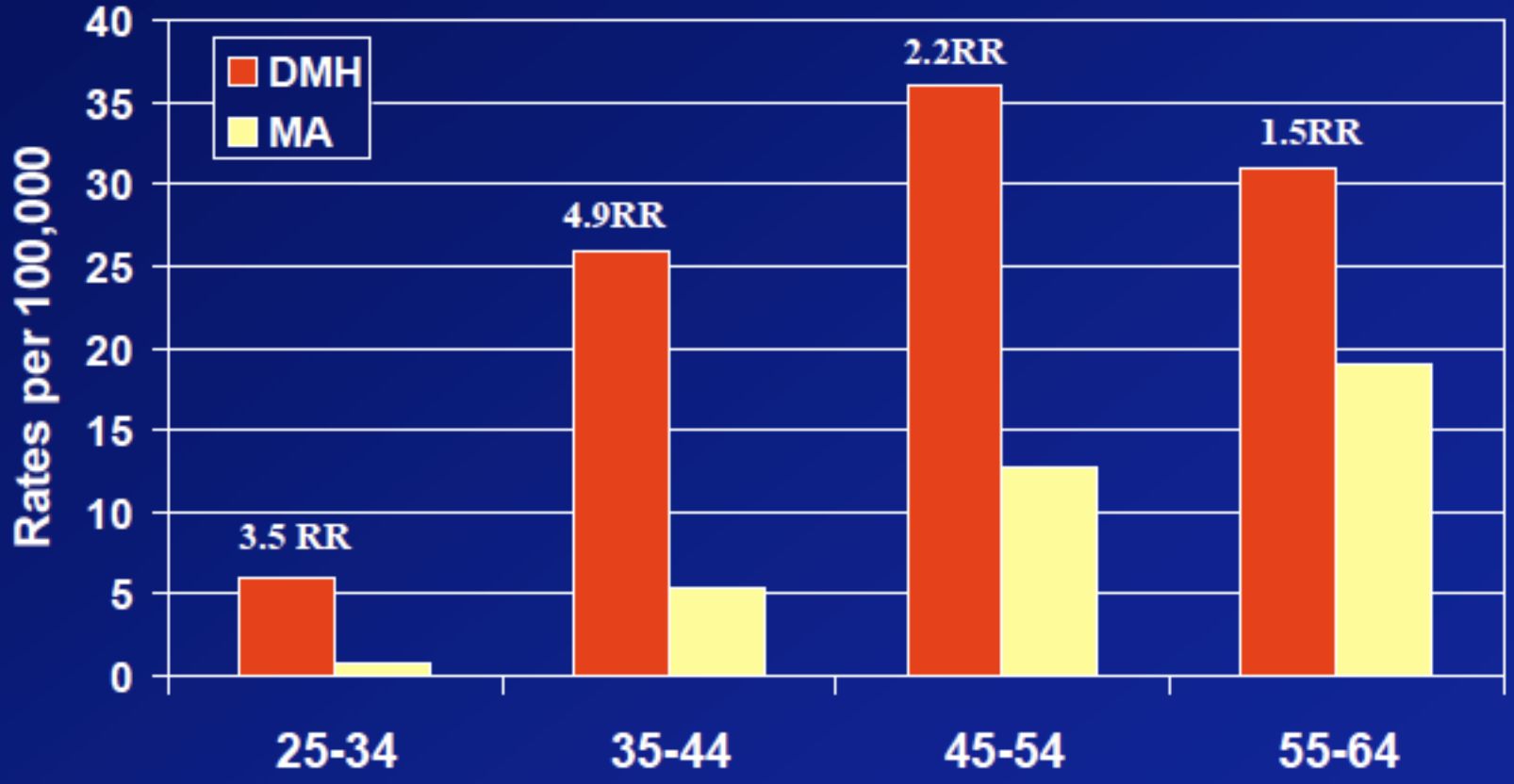
Cause	M	F	N
All	31.8	32.5	32.0
Intentional self-harm (suicide)	41.4	42.7	41.7
Assault (homicide)	42.3	35.8	41.6
Accidents (unintentional injuries)	39.5	43.1	40.4
Symptoms, signs, & abnormal clinical & laboratory findings, NEC	32.8	35.0	33.4
Diabetes mellitus	25.8	37.2	30.2
Pneumonia & Influenza	29.4	25.0	28.3
Diseases of heart	27.7	26.6	27.3
Cerebrovascular diseases	20.7	32.8	25.5
Malignant neoplasms (cancers)	24.3	26.9	25.3
Chronic lower respiratory diseases	18.6	24.1	21.1

Ohio Study
Standardized Mortality Ratios

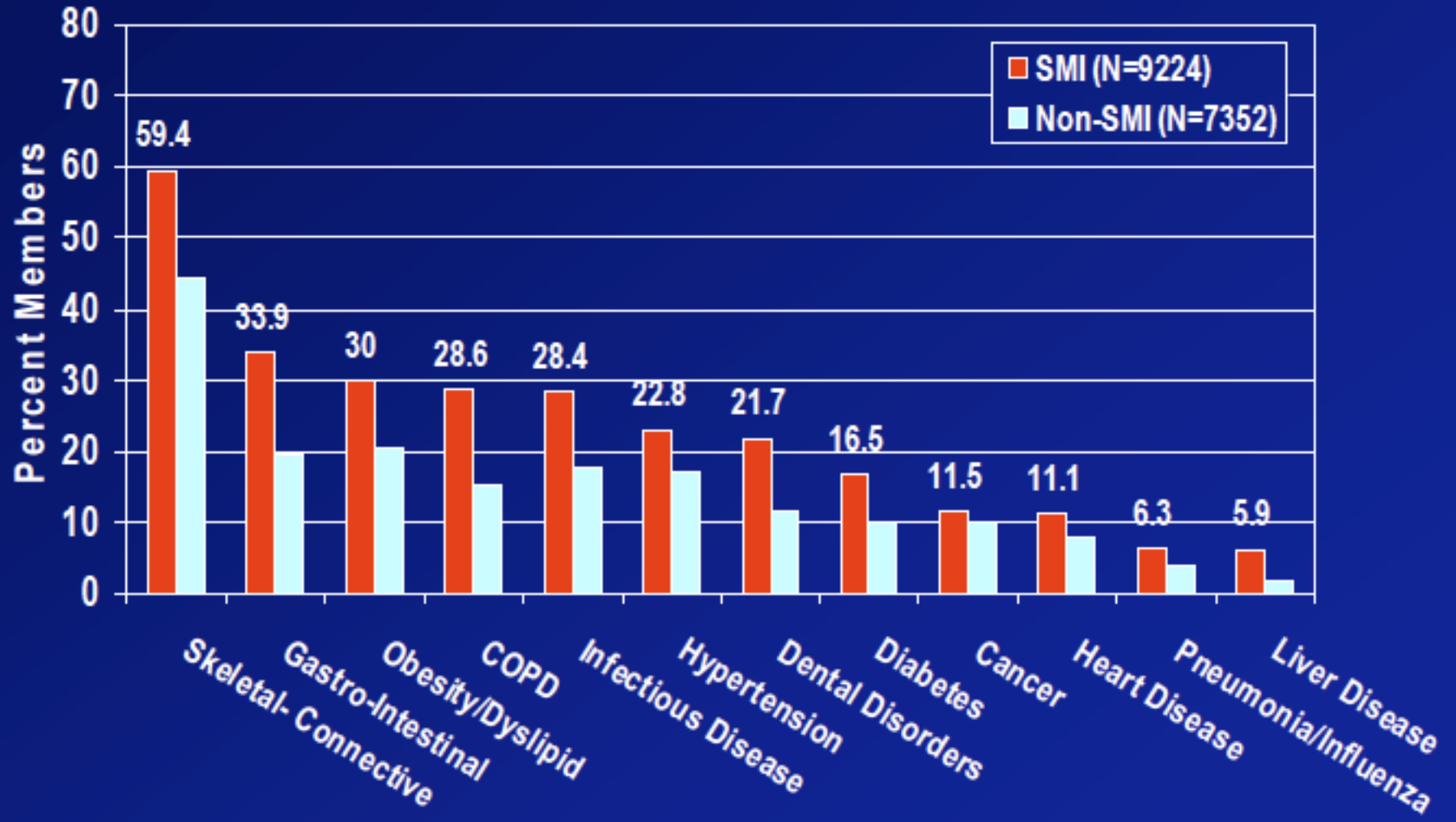
Cause	Overall	
	N	SMR
All causes of death	608	3.2†
Intentional self-harm (suicide)	108	12.6†
Symptoms, signs, & abnormal clinical & laboratory findings, NEC	32	9.7†
Pneumonia & Influenza	16	6.6†
Chronic lower respiratory diseases	31	5.5†
Accidents (unintentional injuries)	83	3.8†
Diseases of heart	126	3.4†
Diabetes mellitus	18	3.4†
Assault (homicide)	10	1.7
Cerebrovascular diseases	10	1.5
Malignant neoplasms (cancers)	44	0.9

† P<0.001

Massachusetts Study: Deaths from Heart Disease by Age Group/DMH Enrollees with SMI Compared to Massachusetts 1998-2000



Maine Study Results: Comparison of Health Disorders Between SMI & Non-SMI Groups



What are the Causes of Morbidity and Mortality in People with Serious Mental Illness?

- *While suicide and injury account for about 30-40% of excess mortality, about 60% of premature deaths in persons with schizophrenia are due to "natural causes"*
  - Cardiovascular disease
  - Diabetes
  - Respiratory diseases
  - Infectious diseases

Cardiovascular Disease (CVD) Risk Factors

Modifiable Risk Factors	Estimated Prevalence and Relative Risk (RR)	
	Schizophrenia	**Bipolar Disorder**
Obesity	45–55%, 1.5-2X RR[1]	26%[5]
Smoking	50–80%, 2-3X RR[2]	55%[6]
Diabetes	10–14%, 2X RR[3]	10%[7]
Hypertension	≥18%[4]	15%[5]
Dyslipidemia	Up to 5X RR[8]	

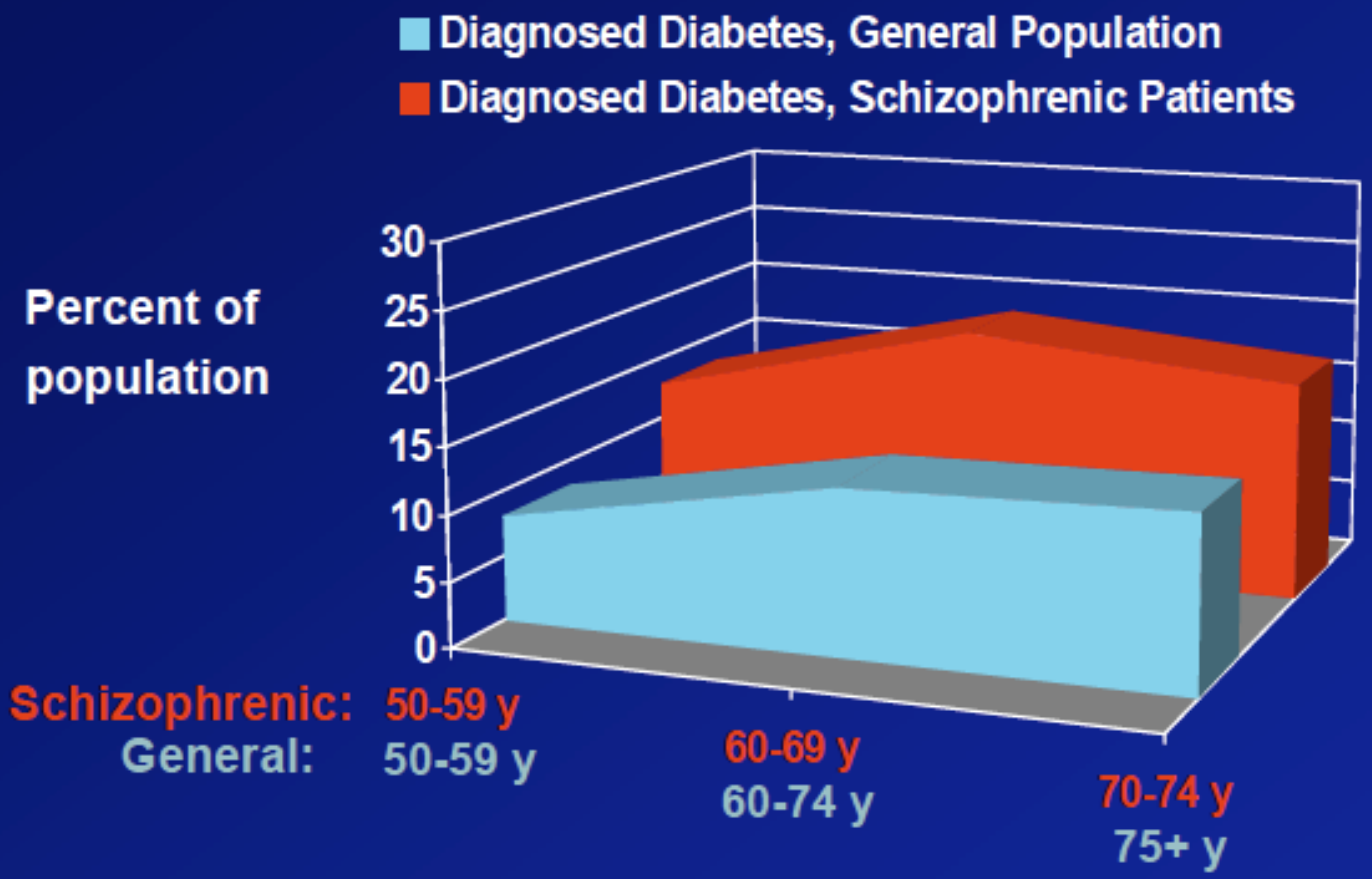
1. Davidson S, et al. *Aust N Z J Psychiatry*. 2001;35:196-202. 2. Allison DB, et al. *J Clin Psychiatry*. 1999; 60:215-220. 3. Dixon L, et al. *J Nerv Ment Dis*. 1999;187:496-502. 4. Herran A, et al. *Schizophr Res*. 2000;41:373-381. 5. MeElroy SL, et al. *J Clin Psychiatry*. 2002;63:207-213. 6. Ucok A, et al. Psychiatry Clin Neurosci. 2004;58:434-437. 7. Cassidy F, et al. *Am J Psychiatry*. 1999;156:1417-1420. 8. Allebeck. Schizophr Bull. 1999;15(1)81-89.

Mental Disorders and Smoking

- Higher prevalence (56-88% for patients with schizophrenia) of cigarette smoking (overall U.S. prevalence 25%)
- More toxic exposure for patients who smoke (more cigarettes, larger portion consumed)
- Smoking is associated with increased insulin resistance
- Similar prevalence in bipolar disorder

George TP et al. Nicotine and tobacco use in schizophrenia. In: Meyer JM, Nasrallah HA, eds. Medical Illness and Schizophrenia. American Psychiatric Publishing, Inc. 2003; Ziedonis D, Williams JM, Smelson D. Am J Med Sci. 2003(Oct);326(4):223-330

Prevalence of Diagnosed Diabetes in General Population Versus Schizophrenic Population



Harris et al. *Diabetes Care*. 1998; 21:518.
Mukherjee et al. *Compr Psychiatry*. 1996; 37(1):68-73.

Access and Quality of Care

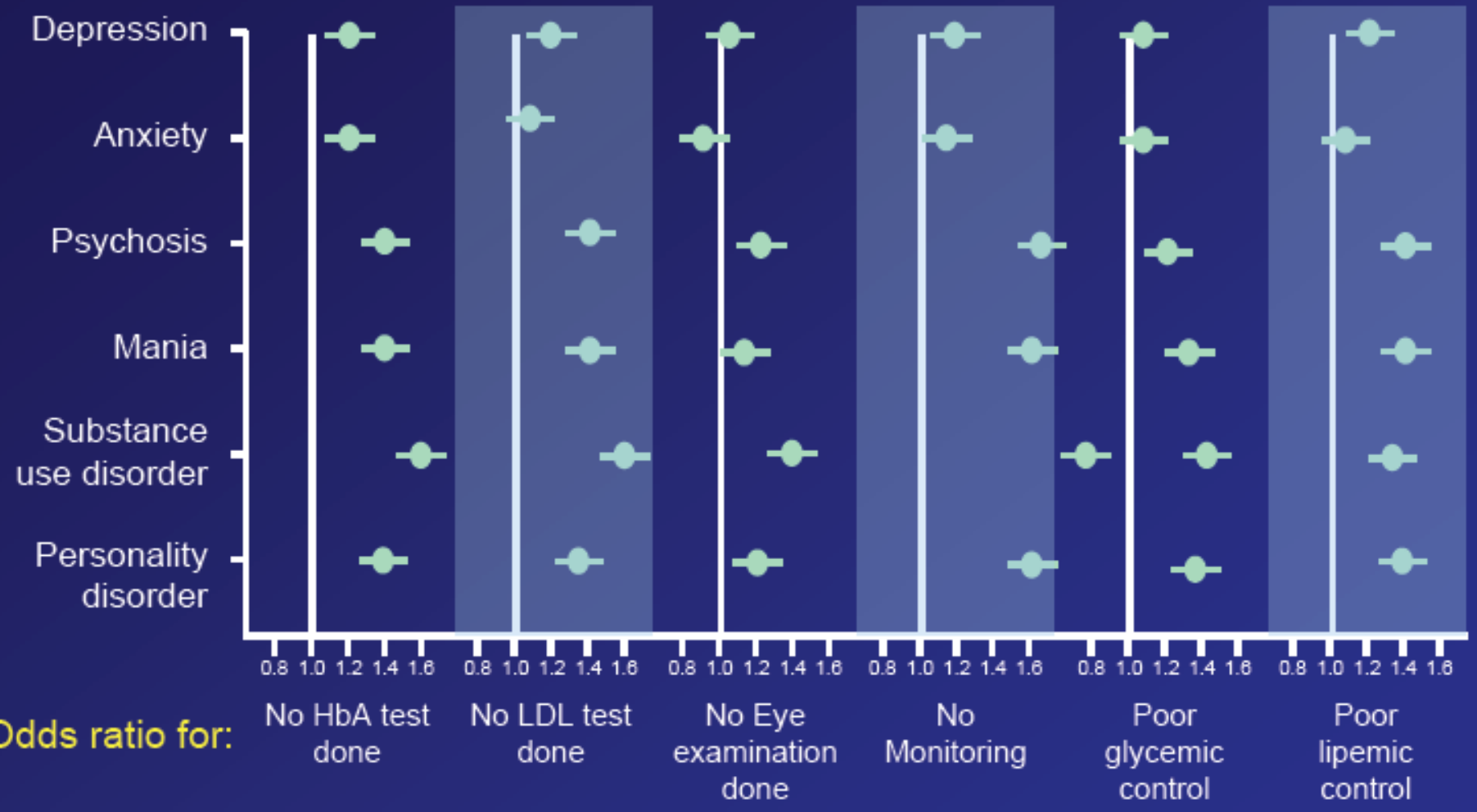
- SMI may be a health risk factor because of:
  - Patient factors, e.g.: amotivation, fearfulness, homelessness, victimization/trauma, resources, advocacy, unemployment, incarceration, social instability, IV drug use, etc
  - Provider factors: Comfort level and attitude of healthcare providers, coordination between mental health and general health care, stigma,
  - System factors: Funding, fragmentation

SMI: Reduced Access and Quality of Medical Services

Problem:

- Fewer routine preventive services (Druss 2002)
- Worse diabetes care (Desai 2002, Frayne 2006)
- Lower rates of cardiovascular procedures (Druss 2000)
- Lower quality of cardiovascular care post-MI (Druss 2001)

Disparities in care: impact of mental illness on diabetes management



313,586 Veteran Health Authority patients with diabetes
76,799 (25%) had mental health conditions (1999)

Frayne et al. *Arch Intern Med*. 2005;165:2631-2638

Survival Following Myocardial Infarction

- 88,241 Medicare patients, 65 years of age and older, hospitalized for MI
- Mortality increased by
  - 19%: any mental disorder
  - 34%: schizophrenia
- Increased mortality explained by measures of quality of care

Druss BG et al. *Arch Gen Psychiatry*. 2001;58:565-572.

Improved access to primary care for SMI

- MetroHealth System working with CMHCs
- Access to primary care clinics of MetroHealth Centers for Community Health: Broadway Clinic
- "Niche clinic" for SMI
  - Support from MetroHealth & CCH leadership
  - Start with ½ day per week
  - Recruit primary care staff with an interest & commitment to SMI
  - Provide training in mental health & psychopharmacology
  - CMHCs will provide case manager to accompany & transportation
- Working with MetroHealth Development Office for grant applications to Kresge , Margaret Clark Morgan and Woodruff Foundations

Affordable Care Act 2703

State Option to Provide Health Homes for Enrollees with Chronic Conditions

Supports enhanced integration and coordination of:

- Primary
- Acute
- Behavioral
- Long-term services and supports for persons across the lifespan with chronic illness

Funding & Roll-Out Options

- Funding is a federal-state match for Medicaid Health Home Services
  - States contribute 10% - Feds contribute 90% of Health Home Services costs for 8 quarters; then regular match after 8 quarters

Who Can Receive Medicaid Health Home Services?

- Medicaid consumers with:
  - Two or more of the following chronic conditions
    - mental health
    - substance abuse
    - asthma
    - diabetes
    - heart disease
    - being overweight (BMI >25)
  - One chronic condition and at risk for a second; or
  - Serious and persistent mental illness (SPMI)

Health Home Qualifying Core Elements

- BH/PH Integration
- NCQA* PCMH Recognition
- Nurse* Care Manger
- Team of Health Care Professionals
- Transitions
- MCP/ Administrator
- Electronic Health Record Requirement

BH/PH Integration

- Just as important in PH care settings as BH care settings
- Ideal to have pharmacy and psychiatry services on site

- Criteria to determine that a Health Home site has achieved integration:

Examples are as follows:

- Participation of both disciplines in care treatment plan meetings
- Single, shared care treatment plan
- Coordination of medications

BH/PH Integration

- Criteria to determine that a Health Home site has achieved integration. (Continued)

– Providers should be working from the same (electronic) medical record
– Established disease/patient registry
– Physical co-location.

If co-location is not possible, then the collaborating entities must demonstrate:

- Ability for providers to have a face-to-face interaction when there are clinical handoffs.
- All provider-patient interactions face-to-face (could be video-conference)
- Transportation arrangement exists between the sites

Summary

- There is good evidence that collaborative treatment for depression and diabetes or coronary heart disease is more effective than usual care.
- People with SPMI have substantially increased risk for obesity, diabetes, CHD and premature death. Efforts to improve delivery of medical care to SPMI have the potential for significant public health impact in SPMI.