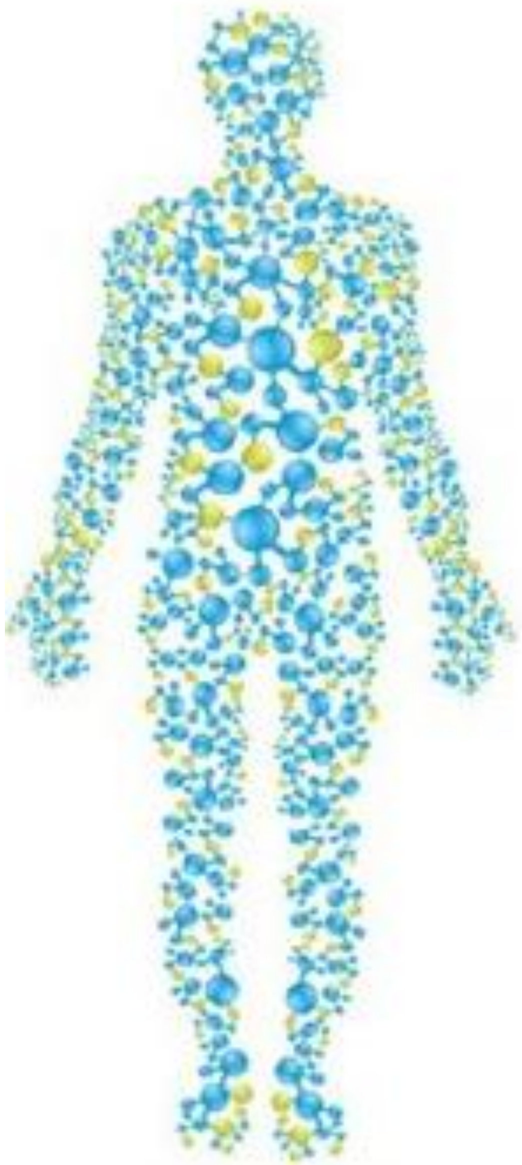

The Brain and the Body: Medical Comorbidities in Psychiatric Illness

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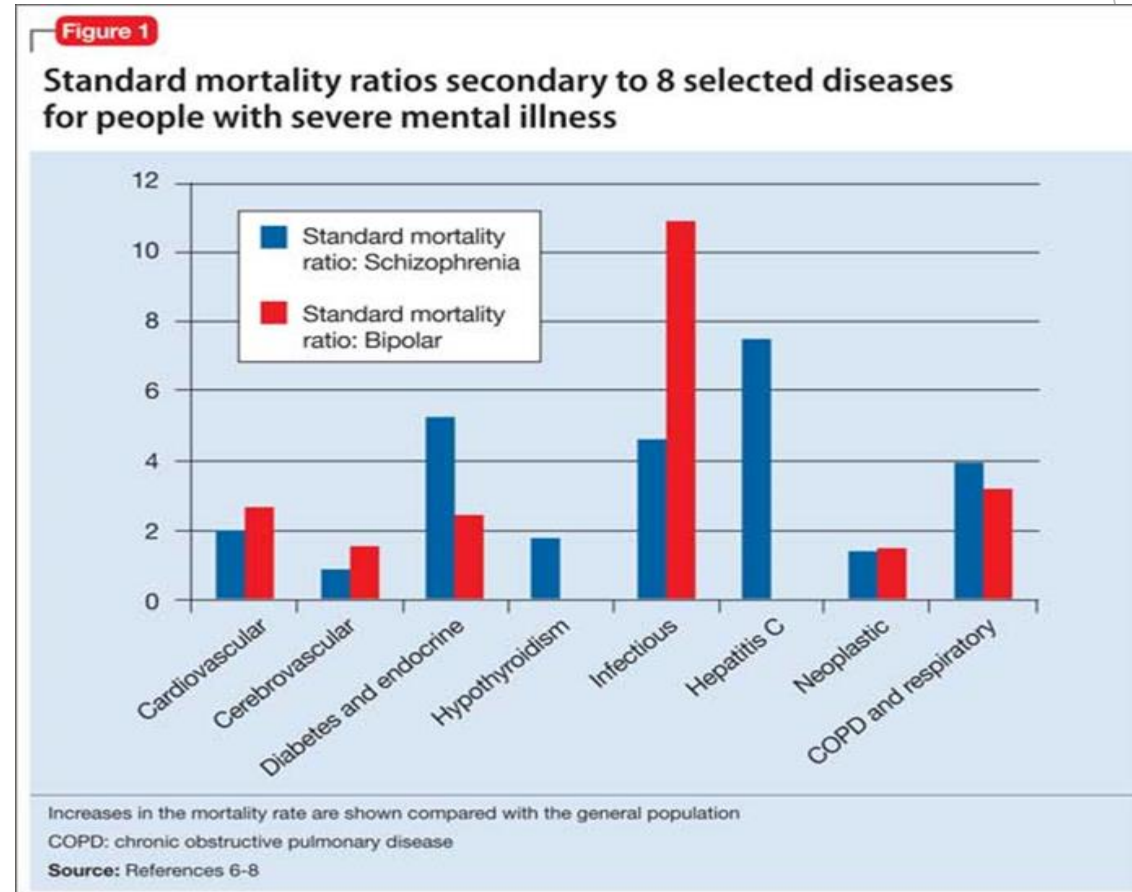
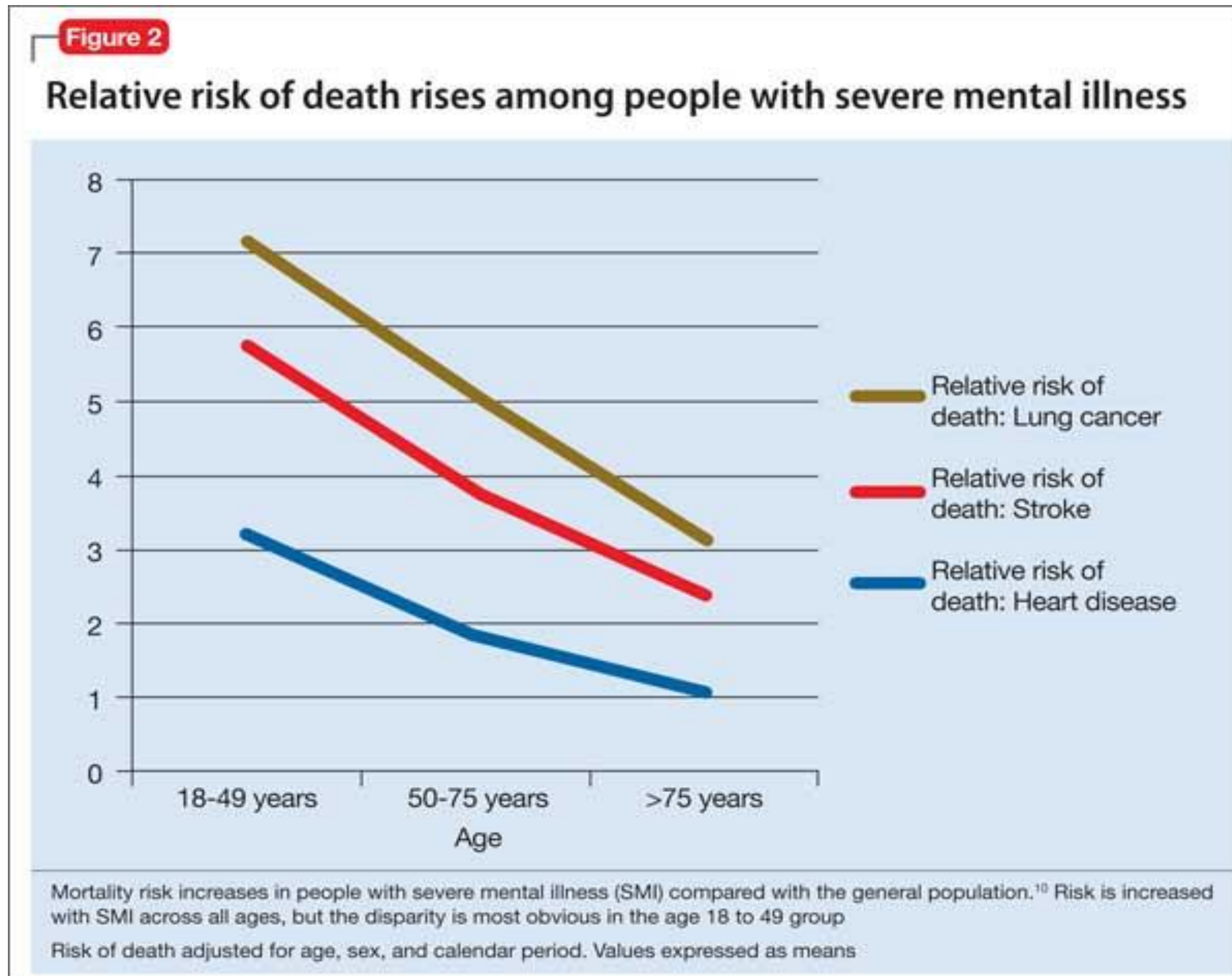
The Problem: Health Disparities in SMI

- Life expectancy is up to 25 years shorter
- 60% of increased mortality is due to cardiovascular disease, diabetes, respiratory disease, and infection



(Roa et al, 2015)

The Problem: Health Disparities in SMI



(Roa et al, 2015)

The Problem: Health Disparities in SMI

- Persons with SMI are **50%** more likely to be **obese**
- **Metabolic Syndrome** is up to **30%** more prevalent in bipolar disorder and **42%** more prevalent in schizophrenia
- Prevalence of **diabetes** is **2-3x higher** in schizophrenia and bipolar disorder and **1.2 - 2.6 x higher** in depression vs the general population
- **50-80%** of people with SMI **smoke tobacco** and **44% of all cigarettes** are smoked by individuals with a mental disorder
- **Cardiovascular Disease** is the leading cause of death in SMI, with a **2-3 fold increased risk** compared to the general population

…Yet, the SMI population is not designated as a health disparity population

(Hert et al., 2011)

Why the disparity?

- Clinical Risk factors
- Socioeconomic factors
- Health system factors

Why the disparity?

Clinical risk factors

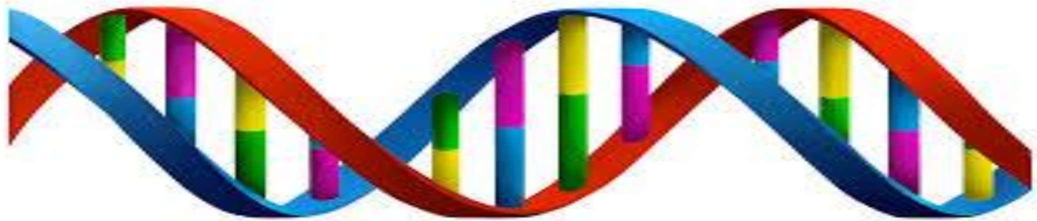
- Modifiable health risk behaviors
  - Smoking, lack of exercise, poor nutrition, alcohol and drug use
- Iatrogenic effects of medications

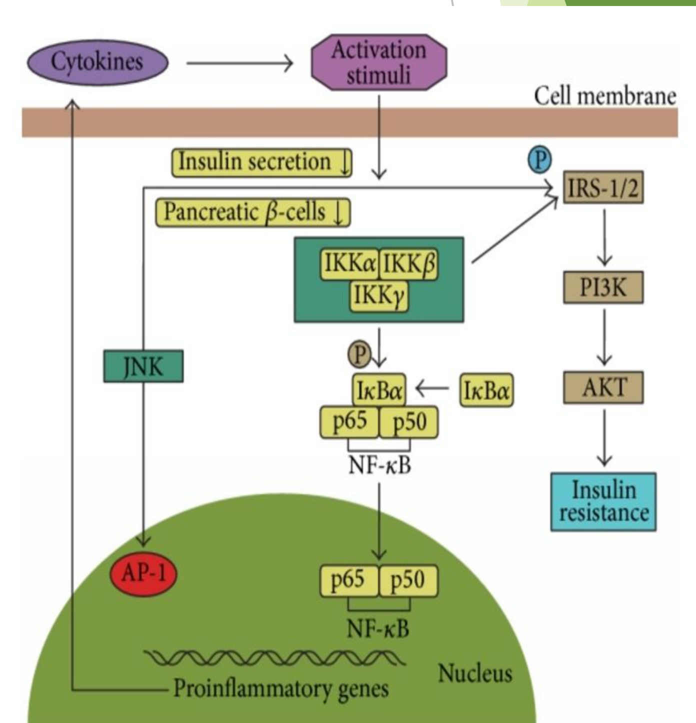
(Hert et al, 2011; Roa et al 2015)

Why the disparity?

Clinical risk factors: Shared disease pathways

- Potential shared genetic roots of CV and metabolic disease and SMI
- Increased risk of insulin resistance in drug naïve, first episode psychosis patients found in 2016 meta analysis
- Inflammatory pathways





(Lopresti & Drummond, 2013; Perry et al, 2016)

Why the disparity?

Socioeconomic factors

- Low income
- Poor educational attainment
- Environmental and neighborhood conditions
- Access to care

(Goodell et al, 2011)

Why the disparity?

Health systems factors: barriers to care

- Many preventable chronic conditions are not screened for, diagnosed, or managed effectively
- 3x more likely to be noncompliant with medical treatment
- Due to premature aging and dying, screening and intervention must occur sooner

Table

Preventive services that people with severe mental illness are less likely to receive[a]

Blood pressure monitoring
Lipid monitoring
Mammography
Osteoporosis screening
Vaccination

[a]Compared with the general population

(Rao et al, 2015)

Why the disparity?

Health systems factors: Mental health stigma study

- 2014 study of 166 primary care and mental health providers in the VA
- Participants who endorsed stigmatizing characteristics of the patient were more likely to believe the patient would be nonadherent and provider was less likely to prescribe or refer

(Corrigan et al, 2014)

Why the disparity?

Health systems factors: Swedish National Cohort Study

- Found higher risk of mortality in schizophrenia from ischemic heart disease and cancer
- Schizophrenia patients had 2x more contacts with healthcare system
- Schizophrenia patients were significantly less likely to be diagnosed
- **Among people previously diagnosed, the difference in mortality rates was no longer significant**

(Crump et al, 2013)

Be the change

Monitoring guidelines: ADA-APA

	Baseline	4 weeks	8 weeks	12 weeks	Quarterly	Annually	Every 5 years
Personal/family history	X					X	
Weight (BMI)	X	X	X	X	X		
Waist circumference	X					X	
Blood pressure	X			X		X	
Fasting plasma glucose	X			X		X	
Fasting lipid profile***	X			X			X

***APA recommendations for lipid monitoring are every 2 years or more often in normal range, q6 months if LDL > 130 mg/dl
***NICE guidelines recommend lipid monitoring annually

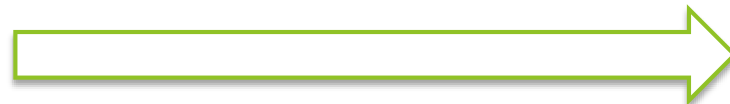
(American Diabetes Assocation, 2004; Kuipers et al, 2014)

Be the change

Prescribing of psychiatric medications

- When possible, start with lower CVD/MetS risk medications
- Assess personal and family history of CVD, diabetes, obesity and incorporate this into decision making
- If individual gains >5% of initial weight or develops hyperglycemia or hyperlipidemia, consider changing medications if clinically appropriate
    - Manage the SE with another medication (metformin, topiramate)

Ziprasidone Aripiprazole	Risperidone Seroquel Paliperidone	Olanzapine Clozapine



(Hert et al., 2011; McGinty et al, 2015; Rothschild 2010)

Be the change

Prescribing of psychiatric medications

Drug	Weight Gain	Elevated Lipids	Glucose Abnormalities
Ziprasidone	0	0	0
Aripiprazole	0	0	0
Haloperidal	1+	0	0
Perphenazine	1+	?1+	?1+
Quetiapine	2+	2+	2+
Risperidone	2+	2+	2+
Olanzapine	3+	3+	3+
Clozapine	3+	3+	3+

0 = no risk or rare effect; 1+ = mild or occasional at therapeutic doses; 2+ = moderate risk at therapeutic doses; 3+ = high risk at therapeutic doses

(Rothschild 2010)

Be the change

Interventions that work

- No need to reinvent the wheel
- Smoking cessation – offer to every patient!
  - Bupropion and varenicline have strongest evidence
- Diet and exercise recommendations
  - High level of evidence for behavioral interventions and metformin use; medium strength for topirimate
- Standard treatment by PCPs

Lifestyle modification education and interventions should be part of standard mental health treatment

(Liu et al, 2017; McGinty et al, 2015)

Be the change

Interventions that work

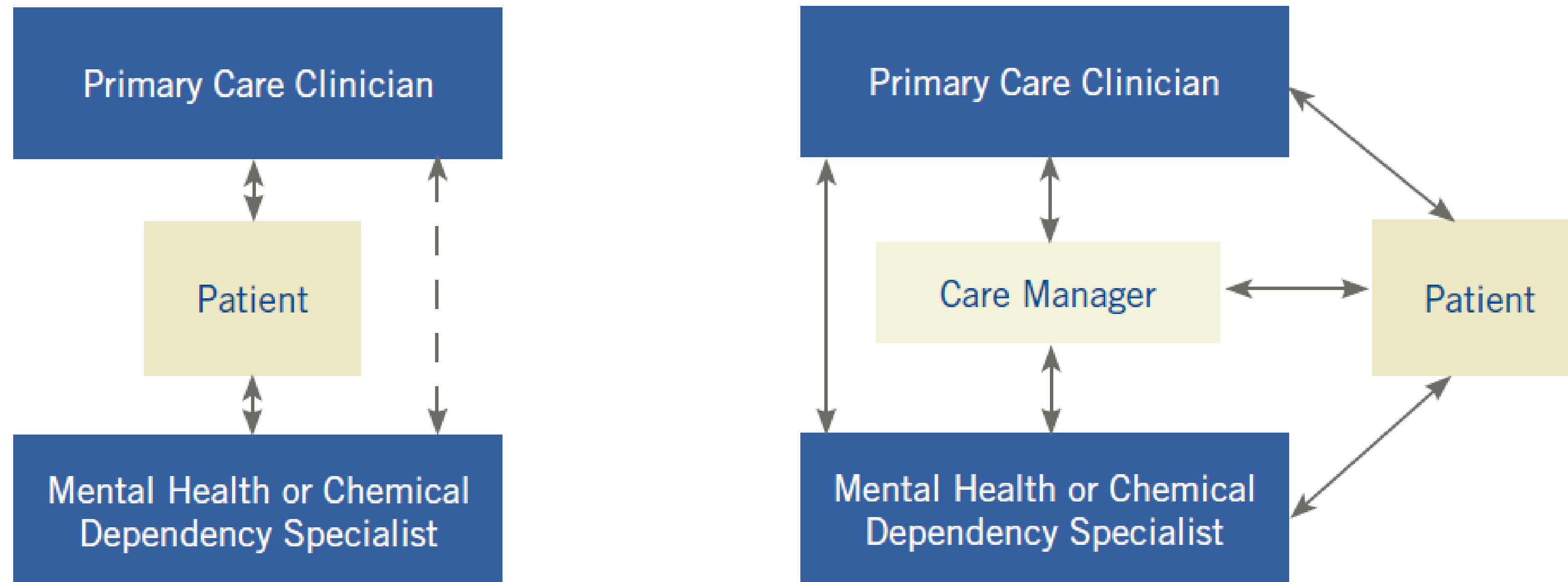
- **Modifications may include**
  - Strategies to address cognitive and motivational issues
  - Increased frequency of contact and length of intervention
    - Edin et. Al (2014) – smoking cessation success rates significantly higher in 40 week maintenance treatment with Varenicline after 12 week abstinence
  - Social support

(McGinty et al, 2015)

Be the change

Models that work: Integrating Primary Care into Behavioral Health

Figure 2. Unstructured Patient Care (left) and Coordinated Care Using a Care Manager (right).*



*Line density represents the frequency and degree of structure in the communication. Adapted from figures by Oxman[28] and Rubenstein.[29]

(Gerrity et al, 2014)

Be the change

Models that work: Defragmenting care

- Milbank Report: Integrating Primary Care into Behavioral Health Settings
  - Fully integrated care is gold standard
  - Use of Care Managers to enhance coordination and collaboration
  - Co-located care without collaboration falls short
  - **Improves mental health outcomes and use of preventative services**

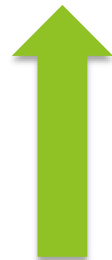
- SAMHSA funded Primary and Behavioral Health Care Integration (PBHCI) program
  - Initial results are mixed, with improvements in glucose, cholesterol and BP
  - More research needed on standardization of care

(Gerrity et al, 2014; Sharf et al, 2014)

Summary: Medical Comorbidities in Psychiatric Illness

The Problem:
People with SMI die earlier and suffer from more chronic health conditions

The Solution:
Care integration
Screening and treatment
Safe prescribing



The Future:
Health equality
Quality of Life
Lifespan

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