



# Promoting Improvements in Health Co-morbidities Among Individuals in Recovery

Lisa A. Razzano, Ph.D., CPRP

Associate Professor of Psychiatry

Director of Education & Training Programs

UIC Center on Mental Health Services Research & Policy

Department of Psychiatry

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Madden Mental Health Center

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# High Rates of Morbidity & Mortality Among People with Mental Illness

- **Mortality** – On average, people with SMI die **25 years** earlier than the general population and this excess mortality has increased in recent years
  - While suicide and injury account for 30-40% of these deaths, **60% are due to preventable and treatable** medical conditions such as cardiovascular disease, diabetes, and high blood pressure.

# Focal Areas of Vulnerability for People with MI: The “Big 6”

1. Diabetes
2. Cardiovascular Diseases & effects
3. Liver Diseases (non-hepatitis)
4. Renal Diseases
5. Infectious diseases – HIV, Hepatitis B & C, TB
6. Respiratory Conditions - COPD, consequences of smoking

# High Rates of Morbidity and Mortality Among People with MI

- **Morbidity** – People with SMI have significantly poorer physical health and greater incidence of co-morbid conditions than the general population
  - Sokal et al. studied 200 psychiatric outpatients with schizophrenia and affective disorders; compared to matched subsets from the general population, odds of **diabetes, lung diseases, and liver problems** were significantly elevated among those with psychiatric illness.

# Impact of Substance Use

Those with mental health & substance use disorders had the highest risk for 5 of 8 physical impairments measured:

- **heart disease ✓**
- **asthma ✓**
- **gastrointestinal disorders ✓**
- **acute respiratory disorders ✓**
- **skin infections**

**✓ = largely preventable, generally treatable, managed**

*Dickey, Normand, Weiss et al.*

The fact that elevated morbidity and mortality of people with SMI is largely due to preventable and mostly treatable conditions (e.g., smoking, obesity, hypertension, hypercholesterolemia) suggests failures in screening/detection, early intervention, and combined treatment efforts

## Attribute failures to four major factors:

1. **Patient factors** e.g., low motivation for treatment, fearfulness, poor education and knowledge about physical health, unemployment, and incarceration
2. **Clinical factors** e.g., association of psychotropic medication use with poor medical outcomes due to side-effects
3. **Provider factors** e.g., health care professionals' discomfort with patients with SMI, poor coordination with MH providers, and stigma
4. **System factors** such as bifurcation of health and mental health systems, cumbersome funding policies, and system fragmentation



# Overarching Conclusions

- Series of health conditions that differentially affect physical health of people with SMI – HIV among them
- Some are basic health risks related to all, including general population
- Others are related to aspects of mental health treatment itself (e.g., diabetes), as well as lifestyle factors (e.g., substance use)
- Increased awareness of impact of **depression** & schizophrenia on physical health, emergence of other subgroup issues

# Focal Areas of Health Vulnerability for People with MI: Infectious Diseases

- **HIV**
- Hepatitis B & C
- All other STDs
- TB

# HIV Infection Among People with SMI

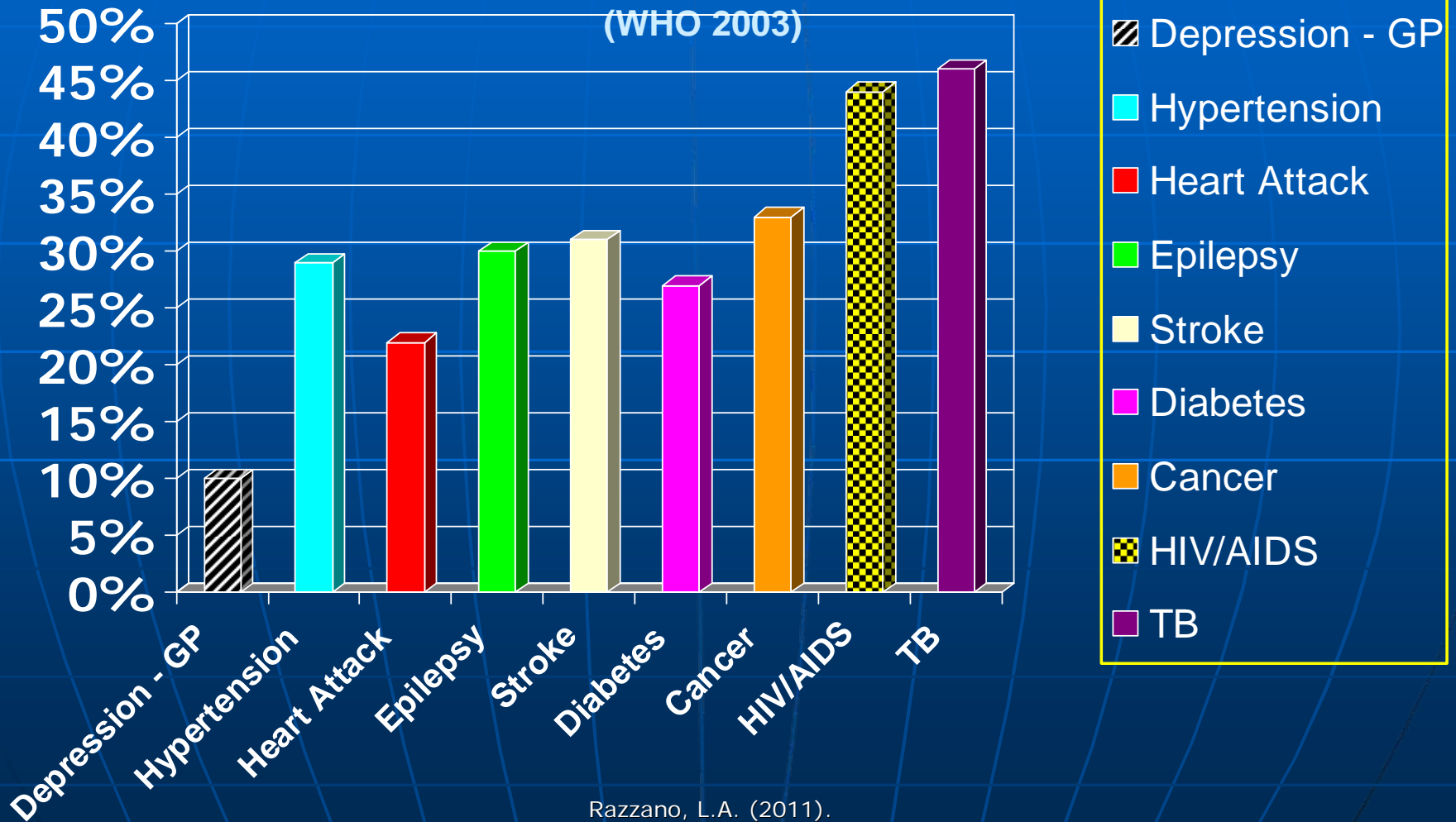
Study Team	N	Sample/Population	HIV+
Cournos et al., '91	451	Inpatients - public hospital	5.5%
Volavka et al., '91	515	Inpatients - public hospital	8.9%
Sacks et al., '92	350	Inpatients - private hospital	7.1%
Susser et al., '93	62	Homeless MISA outpatients	19.4%
Cook, Razzano et al., '94	794	PSR, ACT Program clients	3%
Krakow et al., '98	147	MISA outpatients	19%
Rosenberg et al., '01	931	In- & outpatient clients	3.1%
Carey et al., '95; '09	2,345	Research/Study Reviews	8%

Rates are 8-70 times that of general population now estimated at .03% by the CDC; rates persist

# What are some of the factors in relationship between mental health and HIV/AIDS?

- MH Pre-morbid or subsequent to HIV infection?
  - Specific mental health symptoms affect participation in high risk behaviors: **depression, anxiety, mania, AOD**
- Symptoms affect course of illness in multiple ways – similar to effects among **other chronic health impairments**, especially depression;
- ***Symptoms*** are directly related to morbidity and mortality among people with HIV/AIDS;
- Among those with living with mental illnesses and HIV, symptoms of HIV-illness progression often are “masked” as reoccurrence of mental health concerns;

# Most Common Co-Morbidity Among Chronic Illnesses? Depression



# According to WHO.....Worldwide

- Depression is the leading cause of disability as measured by years of living with disability (YLDs) – about 121 million people
- **Today**, depression is the 2<sup>nd</sup> cause of global burden of disease (DALYs) only among those 15-44 years, both sexes combined
- **By 2020**, depression is projected to reach 2<sup>nd</sup> place of DALYs calculated for **all ages**, both **sexes** - worldwide

# Depressive Disorder in U.S.

- **In any given 1-year period:**
  - **9.5%** of the population, or **about 18.8 million** American adults, live with a depressive illness
- 10% of all men, 20% of all women at some time in their lives report symptoms
- Depressive disorders are not passing blue moods; not a sign of personal weakness or conditions that can be willed or wished away.
- People with a depressive illness cannot merely "pull themselves together" and get better.
- Without treatment, symptoms can last for weeks, months, or years.

# Common Physical Symptoms Overlap Between Depression & HIV/AIDS

- Persistent sad, anxious, guilt, or "empty" mood
- Hopelessness, pessimism, worthlessness, helplessness
- Loss of interest/pleasure in hobbies & activities once enjoyed, including sex
- Persistent physical symptoms unresponsive to treatment (e.g., chronic pain, headaches, digestive disorders)
- Decreased energy, fatigue, being "slowed down"
- Difficulty concentrating, remembering, making decisions
- Insomnia, early-morning awakening, oversleeping
- Weight loss; weight gain; overeating
- Restlessness, irritability
- Thoughts of death or suicide; suicide attempts



# Impact of Depression on HIV

Studies have demonstrated, that symptoms of **depression** – even “psychosocial” depression (symptoms below threshold for formal diagnosis) not only Major Depressive Disorders – directly affect the two most widely monitored biological markers of HIV-illness progression:

**viral load & CD4 count**

Similar findings have been reported for those with symptoms of **anxiety**

# Mental health *symptoms* = **↑ morbidity & mortality** among people with HIV/AIDS

- People with untreated mental health progress to AIDS faster, report more symptoms of HIV (morbidity), and ultimately die sooner (mortality)
- By providing mental health treatment, reduce harmful effects of HIV/AIDS, reduce substance use, promote better adherence = **MH & HIV RECOVERY**

# Do services & treatment follow theory?

## An Empirical Example

Cook et al. (2004)

National Multisite Study: HIV+ women

Even when **MEDICALLY INDICATED** by CD4 and vRNA indicators, *those still **NOT** prescribed HAART were:*

- African American
- Less than High School Education
- Lower SES (poverty or 200% below poverty)
- **Past/Current Treatment for Depression**

Razzano, L.A. (2011).

# Depression Symptoms in Population? RCT on Medication Adherence in Chicago

Chicago House & Social Service Agency & UIC CMHSRP Collaboration

<i><b>DASS-21 Subscale Indicator</b></i>	<i><b>Depression</b></i>	<i><b>Anxiety</b></i>	<i><b>Stress</b></i>	<i><b>Total DASS-21</b></i>
Mean (s.d.)	12.9 (11.0)	11.3 (8.4)	14.9 (8.0)	39.3 (23.1)
Percentile Rank	97 <sup>th</sup>	97 <sup>th</sup>	97 <sup>th</sup>	98 <sup>th</sup>
Median (Rank)	9.0 (92 <sup>nd</sup> )	11.0 (97 <sup>th</sup> )	14.0 (96 <sup>th</sup> )	37.0 (97 <sup>th</sup> )

Compared to non-clinical samples, individuals with HIV/AIDS continue to experience symptoms & **ENTER HIV treatment & care** with substantially higher levels of symptoms for depression, anxiety, stress, and their combined effects.

# Wait a minute. . . . .

- Health services research tells us that among non-White ethnic groups, women are **significantly more** likely to receive pharmacological interventions (medication-driven) for all physical & mental health conditions . . . . .

. . . what's happening here?

# “Medicines will not work if you do not take them...”

(. . . even less so if not prescribed . . . .)

- In developed countries only 50% of patients with chronic diseases adhere to treatment recommendations - lower in other nations
- Patients with co-morbid depression are less likely to adhere to medical treatment or health recommendations
- Depressed patients are 3 times as likely not to comply with medication regimens than non-depressed patients
- Adherence to HIV regimens is a primary determinant of treatment success

# Other Issues in Treatment

- Depression can delay treatment initiation overall
- Diverse groups have less access to, and availability of, evidence-based MH services and are less likely to receive needed MH services
- These groups, which include women of color, represent large numbers of new HIV infections

# Evidence-Based Treatment

- Medications + Psychotherapy are EBM/EBP
- Antidepressant medications and brief, structured forms of psychotherapy are effective for **60-80%** of those affected
- Services can be delivered through **primary care**
- However, fewer than 25% of those affected (some countries <10 %) receive such treatments.
- Barriers to effective care include the lack of resources, lack of trained providers, and the social stigma associated with mental disorders, including depression.



# EBM/EMP: Medication + Psychotherapy

- **Depression:** *selective serotonin reuptake inhibitors (SSRIs)*;
  - SSRIs generally better than tricyclics; carefully monitored lithium or anticonvulsants;
  - Try to avoid: tricyclics if possible, MAOIs;
- **Alternative therapies:** St. John's wort = contraindicated, esp. regimens w/ PIs

# EBM - Pharmacology

- Few **medication** studies conducted in HIV infected patients
- Significant interaction between non-SSRI agents & regimens containing Norvir (ritonavir); used with caution in patients on Norvir-boosted PIs or Kaletra.
- St. John's wort while shown to be effective for mild depression, negatively interacts with indinavir (Crixivan), making regimens containing indinavir less effective.

# EBM - Pharmacology

- Psychostimulants, methylphenidate (Ritalin), can help patients with depressed mood, fatigue and cognitive impairment - onset action is more rapid than SSRIs, tricyclics, and other antidepressants;
  - higher abuse potential, developing tolerance is typical;
  - Side effects include overstimulation, insomnia;
- Those who are concerned about maintaining weight or lipodystrophy, amphetamines suppress appetite;
- Amphetamines work for AIDS patients with end-stage disease - symptoms can be difficult to distinguish from chronic anxiety disorder & depression

# Evidence-Based Medicine

- **Primary care based programs** for depression have been shown to improve:
  - quality of care for all co-morbidities
  - health outcomes in multiple areas
  - functioning in multiple areas
  - economic productivity (return to work)
  - household finances &
  - satisfaction with care = better engagement.
- All at reasonable costs compared to later intervention when illnesses have progressed

# Common Medication Contraindications

Ex. HIV Class	Ex. Psychotropic Class
NRTIs - Retrovir, Combivir, Truvda, Others	Depakote, Dilantin
NNRTIs - Sustiva, Viramune, Others	Xanax, St. John's Wort, carbamazepine (Tegretol), Trazodone, Dilatin, Midazolam
PIs- Crixivan, Invirase, Kaletra, Norvir, Viracept, Others	Migraine tx, carbamazepine, Dilantin, Midazolam, Paxil, St. John's Wort, Trazodone, Zoloft

# Improving Comprehensive & Recovery-Focused Health Care

- Increase public awareness of effective treatments
- Overall quality of life improves tremendously when a mental disorder is diagnosed early and treated appropriately
- Parity in service provision
- Community-based approaches
- Culturally competent physicians
- Facilitate entry into treatment
- Reduce financial barriers to treatment
- Tailor treatments to age, gender, race & culture

# Promoting Mental Health & HIV/AIDS services integration:

- Shift initial focus from diagnosis to screening
- Collaborate with non-medical/physician providers to consider the **severity and duration** (or course) and effects on HIV/AIDS illness & treatment
- Better understand, and often anticipate, the effects of mental health with lens on chronic nature of illness
- Manage Interactions Among Antiretrovirals & Psychotropics

# Value of Health Screening

- Health screening positively affects health beliefs (HBM), including feelings of control over one's health (self-efficacy)
- Screening also serves as a “cue to action” for participants – from HBM
- Screening provides epidemiologic data; in a health screening event for outpatients with schizophrenia or bipolar disorder, results demonstrated:
  - 75% had one abnormal result
  - 60% had 2 or more abnormal readings, &
  - 75 clinically significant abnormal illness findings were identified
- Screening can lead to better linkage to collateral treatment and services



# Integrating MH & HIV/AIDS Care

- Be (& train!) more HIV-savvy, regimen-smart primary care docs & psychiatrists
- Initiate regular screening and assessment for mental health symptoms especially **depression:**
  - CES-D, DASS-21, Beck, MOS-HIV Scale
- Integrate behavioral interventions (e.g., individual/group therapy) along with all pharmacological treatments (EBM)

# Assess Health Risks

- How do past or current behaviors increase vulnerability to illness up front (prevention)
- How do past/current behaviors impact *progression* or severity of illness? (harm reduction)
  - Conducted at intake and on-going
  - Mental health symptoms can affect ability to provide accurate information
  - Include assessment and identification of health protective as well as health risk behaviors
  - Prepare people for on-going nature of these discussions, normalizing focus on health and health behaviors.

# Barriers to **Personal** Risk Awareness

- Denial, Stereotypes, Stigma of HIV
- Symptoms – e.g., difficulty understanding or processing information
  - Symptoms can make it difficult to concentrate, retain information, forming loose associations
  - delusions of invulnerability
- Technical material can be complex
- Difficult to understand relevance of long-term consequences/insight

# Strategies to Encourage Personalized Risk Awareness

- Consistent, ongoing risk assessments = normalizing health promotion interest, behaviors
- Targeted Health Education on “Big 6”, especially HIV other infectious diseases
- Relevant HIV Screening, Testing – co-locate at mental health centers whenever possible
- Include peer education/peer support components
  - Peers are people with similar experiences
  - Think about long-term consequences (insight)
  - Normalize less risky behaviors

# “Make it Safer” Game

- ***Which is safer?***

***A. Giving Blood or***

***B. Getting Blood Transfusion?***

***A. Heterosexual vaginal intercourse with HIV+ woman or***

***B. Anal intercourse between men who are not HIV+***

***How can you make this safer?***

***A. Unprotected sexual intercourse with a lesbian***

***B. Unprotected sexual intercourse with a bisexual man***

***How can you make this safer?***

# When is Health Screening/Testing Appropriate?

Same as general population!

A person:

- asks for a screening or health test
  - e.g., HIV, cholesterol, etc.
- has relevant family history of illness
- has engaged in risky behaviors
- exhibits physical signs or symptoms of an illness
- Others?

# Develop Health Skills & Identify Resources for Support Changes

- Learning behavioral skills = behavior change = reduce risks
  - Negotiation skills, regarding sex, drug use, role-play situations with PIR, peer educators
  - Help PIR learn prevention and harm reduction methods – healthy alternatives, making behaviors safer, demonstrations, practice, “Hands-on” experiences
  - Planning ahead (carrying medication, condoms)
  - Identify & understand trigger situations; planning for them (problem-solve)

“I think the big thing for me is the myth that people in the AIDS service delivery system believe that all the mental health concerns are taken care of and vice versa. There’s a big gap between the two systems... So people fall through the cracks that way... I guess the major point is that both systems need to know each other better in order to help people access services on either side.”

- *A 39-year old individual living with bipolar disorder & HIV*





Lisa A. Razzano, PhD. CPRP

Associate Professor of Psychiatry

[Razzano@psych.uic.edu](mailto:Razzano@psych.uic.edu)

UIC Center on Mental Health Services Research & Policy

1601 W. Taylor Street, M/C 912

Chicago, IL 60612

(312) 413-0323