



# Managing Cardiovascular and Metabolic Risk for People with Serious Mental Illness

Welcome! We will begin at 3:02 EST

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# Training Logistics

- Training length: 1 hour
- Microphones are muted
- You may use the CHAT feature for questions or comments
- No CE Credit or Certification
- Attendees will receive a copy of the slide deck & link to view webinar recording via email within 24-hours



# Agenda / Contents

**1** Definitions, Prevalence, and Risk Factors

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**2** Managing Chronic Disease and SMI

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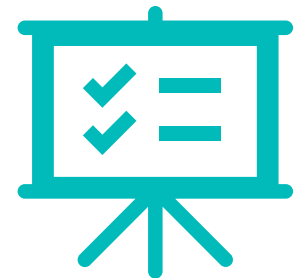
**3** Conclusion and Resources

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# Learning Objectives

- Define Serious Mental Illness (SMI), Cardiovascular Disease (CVD), and Metabolic Disorders
- Explore prevalence and risk factors for CVD and Diabetes in SMI clients
- Discuss the value of screening protocols and coordinated care
- Apply skills to support clients in disease self-management and risk mitigation





# Chapter 1

## Definitions, Prevalence, & Risk Factors

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# Defining Serious Mental Illness (SMI)

- Mental illnesses effect a person's thinking, mood, and / or behavior
- Mental illness can range from mild – severe impact
- **SMI** = mental illness that results in serious functional impairment, limits life activities

## About 5-6% of U.S. adults live with a SMI.

- Examples of SMI include
  - Major Depressive Disorder
  - Bipolar Disorder
  - Schizophrenia

People with SMI die 10–20 years earlier than those without SMI.  
Chronic conditions contribute substantially to the mortality gap.



# Defining Cardiovascular Disease (CVD)

- CVD is an umbrella term for conditions affecting the heart or blood vessels.
- Various CVDs can lead to heart attack, stroke, and organ failure



## Atherosclerosis

- Plaque formation narrows or blocks arteries of heart and blood vessels supplying vital organs

## Cerebrovascular disease

- Narrowing or blocking of blood vessels supplying blood and oxygen to and from the brain

## Peripheral arterial disease

- Narrowing or blocking of blood vessels supplying blood and oxygen to / from the arms and legs

## Congenital heart disease

- Malformed heart structure present at birth

## Deep vein thrombosis and pulmonary embolism

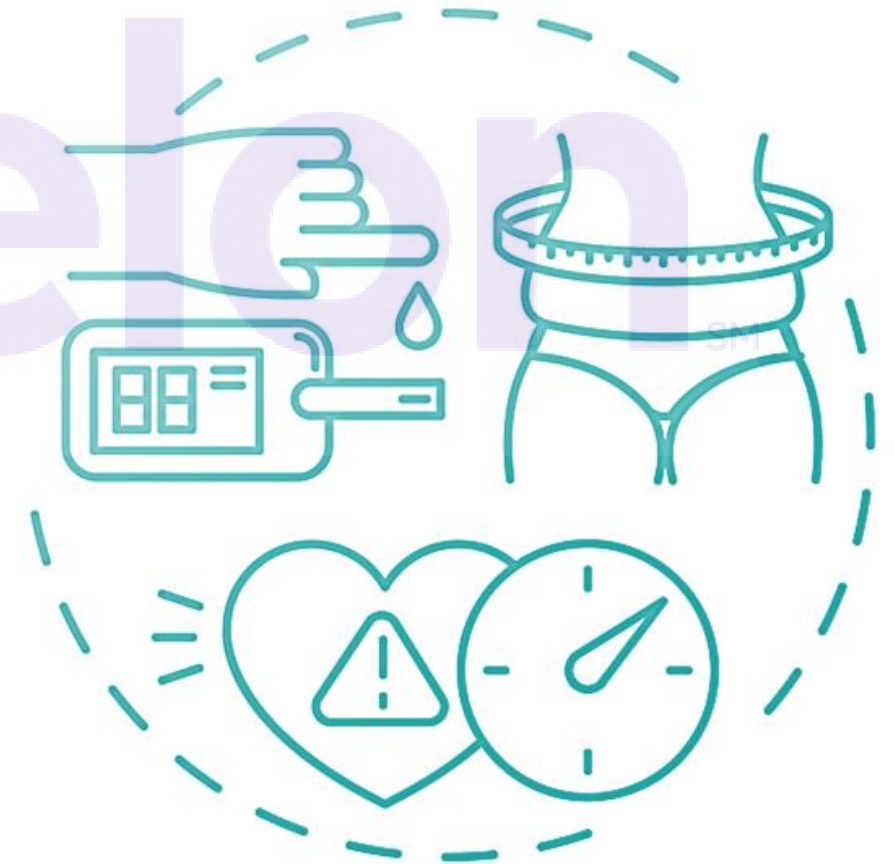
- Blood clots that dislodge from veins in the leg and move to the heart or lungs



# Defining Metabolic Disorders

- Metabolism is the process your body uses to get or make energy from the food you eat.
- A metabolic disorder occurs when abnormal chemical reactions in your body disrupt this process.
- Metabolic disorders are diverse and can affect many aspects of bodily functioning.
- Common symptoms include:
  - tiredness
  - muscle weakness
  - unexpected weight gain or loss
  - changes in skin color
  - stomach pain
  - nausea or vomiting
  - reduced appetite
  - developmental problems in babies and infants

There are  
approximately  
1,450 different  
metabolic  
disorders *(ICD-10)*






# Diabetes

- Diabetes is a metabolic disorder related to trouble creating or using Insulin
- Insulin helps turn food into energy and control blood sugar levels

## Types of Diabetes

### Type 1


- An autoimmune disease
- Requires insulin to live
- Not preventable, but some research shows that avoiding exposure to viruses can help reduce your risk
- Regular vaccinations and wellness visits are important

An illustration of a woman with dark skin and curly hair, wearing a light blue shirt, holding a syringe and injecting insulin into her arm. The background is a solid blue color.

**verywell**


### Type 2

- Insulin resistance can lead to elevated blood sugars
- Many people that have type 2 suffer from underlying health problems
- Can be prevented by eating healthy and staying active

An illustration of an older man with white hair, wearing an orange polo shirt, eating a red apple. The background is a solid orange color.

### Gestational

- Occurs during pregnancy
- Caused by a combination of genetic and environmental risk factors
- Blood sugar typically returns to normal after birth

An illustration of a pregnant woman with dark hair, wearing a pink cardigan over a dark top, holding her belly. The background is a solid red color.



# Risk Factors

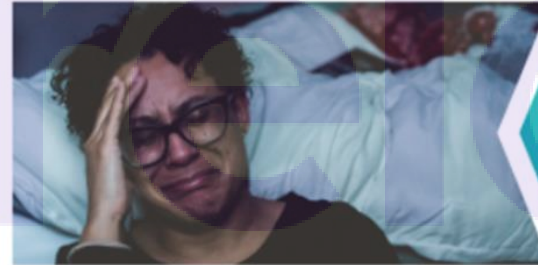
## HAVING A CHRONIC HEALTH CONDITION CAN MAKE YOU MORE LIKELY TO HAVE A MENTAL HEALTH CONDITION

THIS MAY BE DUE TO:

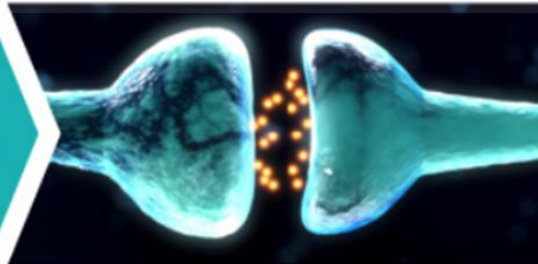
HOSPITALIZATION  
OR REDUCED MOBILITY  
RESULTING IN  
ISOLATION



EXCESSIVE WORRY  
ABOUT MANAGING A  
CHRONIC HEALTH  
CONDITION



CHEMICAL AND  
HORMONAL CHANGES



INFLAMMATION FROM  
LONG-TERM STRESS



Source: [Mental Health America](#)



## Risk Factors *continued*

**Having a SMI can increase risk of development or worsening of cardiac or metabolic disorders.**

This may be due to:



Chronic stress



Physical inactivity



Sleep disturbance



Psychiatric medications



Physiological symptoms



Healthcare disparities



# Statistical Considerations

## 2022 leading causes of death, U.S.

1. Heart Disease	2. Cancer
3. Accidents	4. COVID-19
5. Stroke	6. Chronic respiratory diseases
7. Alzheimer's Disease	8. Diabetes mellitus
9. Kidney Disease	10. Liver Disease

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System

Diabetes is 2-3x more common in people with SMI

Those with SMI are at higher risk of Diabetic complications

People with Major Depressive Disorder have twice the risk of a cardiac event

People with severe Anxiety disorders are up to 3x more likely to die of heart disease





# Chapter 2

## Managing Chronic Disease and SMI

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# The Role of the Behavioral Health Provider

## **Co-existing behavioral health disorders and chronic medical conditions result in:**

- Poorer overall health outcomes for clients
- Increased mortality rates
- Increased cost to clients and healthcare systems

## **Behavioral Health providers have a responsibility to:**

- Be knowledgeable about the linkages between behavioral health disorders and chronic diseases
- Work collaboratively with a client's physical health provider
- Help clients manage risk factors
- Be aware of the physiological impacts of medications



# Supporting Whole Health

Assessing  
Risk

Coordinated  
Care

Medication  
Considerations

Lifestyle  
Change



# Screening Protocols

Assessing  
Risk

- People with SMI often lack consistent, high-quality healthcare
- Those with SMI should be screened for signs of cardiovascular and metabolic conditions
  - At intake
  - At standard intervals thereafter
  - Any time a psychiatric medication is started / change
- Allows identification, support, and referral of at-risk clients





# Risk Assessment Questions

Assessing  
Risk

Your assessment should gather the following information:

- ✓ If the client is aware of their cardiovascular and metabolic risk factors
- ✓ If the client engages in behaviors known to increase risk and understands the potential health consequences
- ✓ If the client has been diagnosed with CVD, diabetes, high blood pressure, or high cholesterol
- ✓ How confident the client is of their capabilities to manage their health or risk factors
- ✓ What would make the client feel more confident about their condition or ability to manage their risk factors
- ✓ If the client has a family history of CVD, cardiac events, diabetes, high blood pressure, or high cholesterol
- ✓ If the client has a current primary health provider and health insurance

Information pertinent to specific risk factors, such as:

- ✓ How often they exercise and what kind of exercise they enjoy
- ✓ What a typical weekly meal plan looks like for them
- ✓ If they smoke and, if so, how much tobacco they use in a day/week
- ✓ On a scale of 1-10, how stressful they would rate their job, home life, health situation, etc.



# Screening for Symptoms

Assessing  
Risk

- Chest pain or tightness \*
- Rapid or irregular heartbeats (palpitations)
- Shortness of breath with activity
- Shortness of breath with lying down
- Swelling in their legs
- Bad muscle pain or cramps in their legs with walking

## Cardiac

\*women are less likely to experience chest pain when having a heart attack – dizziness, nausea, and pressure in shoulder, neck and abdomen are more common

## Metabolic

- Needing to urinate very often, especially at night
- Feeling thirsty regularly
- Feeling more tired than usual
- Losing weight without trying to
- Wounds that take longer than usual to heal
- Blurred vision



# Coordinating Care is Key

Coordinated  
Care

Coordinated care involves deliberately organizing activities and sharing information among all participants involved with a client's care to achieve safer and more effective outcomes (*Agency for Healthcare Research and Quality, 2018*).

- Clients may work with a multitude of providers, each with a different focus
- Important to share information between providers, but true **collaboration** requires
  - Ongoing communication
  - Joint treatment planning



## Video: The Value of Integrated / Coordinated Care



# Coordinated Care: Battling Barriers

Coordinated  
Care

- Help clients develop strategies for keeping their own medical record
  - Medications
  - Diagnoses (medical & psychiatric)
  - Provider's names and contact information
  - Pertinent medical documentation
- Assist in setting medical appointments and overcoming attendance barriers
  - Identify transportation supports
  - Address appointment anxiety or ambivalence
  - Develop strategies for remembering and planning for appointments





# Medication Interactions & Considerations

## Medication Considerations

- Certain psychiatric medications can
  - Increase blood pressure
  - Cause weight gain
  - Have sedative effects
  - Cause metabolic changes in the body
- Substance use can alter effectiveness of both psychiatric and medical drugs
- Medication side-effects can cause or worsen poor health habits
  - Sedentary lifestyle
  - Smoking
    - Certain antipsychotics can increase cravings



## Case Example: Ginny

Diagnosed with severe Bipolar 1, Hypertension, and Pre-Diabetes

Recently started a new anti-psychotic medication causing sedation and weight gain

Her Primary Care Physician (PCP) recommends weight loss and exercise

Started smoking cigarettes again after quitting 10 years ago due to stress & low energy



# How Can We Help Ginny?

- Ongoing treatment for Bipolar
- Ongoing screening for physical symptoms
- Self-management planning for her diabetes
- Careful monitoring of medication side-effects & interactions
- Help developing healthy eating habits
- Help building an exercise regimen
- Smoking cessation assistance
- Stress management





# Modifiable Risk Factors

Lifestyle  
Change

Generally, research shows that people living with SMI...

- Often have unhealthy lifestyle behaviors including
  - physical inactivity
  - poor diet
- Tend to be heavier smokers than the general population
  - 44% of all cigarettes consumed in the United States are consumed by those with a mental illness
- Are more likely to have
  - High blood pressure
  - High Cholesterol
  - Pre-Diabetes



# Tobacco Use

Lifestyle  
Change

Smoking is much more common in people with mental illnesses.

- Why?
  - Mood-changing effects that feel good in the short-term
  - High stress levels = more tobacco use
  - Anti-psychotic medications can increase cravings
  - Nicotine can ease some symptoms of Schizophrenia
- Negative effects
  - Tobacco can interfere with levels and effectiveness of medications
  - Damages blood vessels, blood cells
  - Increases blood pressure
  - Leads to worsening mental & physical health symptoms
- Benefits of quitting
  - Physical health improvements (blood pressure, lung function, etc)
  - 1-year smoke-free cuts risk of heart disease in half
  - Increased ability to engage in physical activity



# Alcohol and Drug Use

Lifestyle  
Change

- **Higher prevalence of Substance Use Disorders (SUD) in those with SMI**

- Risks of heavy drug / alcohol use in people with diabetes:

- Increased insulin resistance
- Increased risk of contracting HIV, Hep C, etc.
- Liver damage
- Worsening blood glucose control

- Risks of heavy drug / alcohol use in people with CVD\*:

- Increased risk of hemorrhages in brain
- High blood pressure
- Opioids and stimulants: disruptions in neurotransmitter balance in body and brain, leading to
  - Abnormal heart rhythms
  - Increased blood clotting
  - Increased arterial plaque formation

\*Some studies suggest that *low-to-moderate* alcohol consumption may promote HDL proteins in the blood, which *positively* effects cardiovascular health

Low risk alcohol limits (National Institute on Alcoholism and Alcohol Abuse)

Men	Women
	
No more than <b>4</b> drinks a day most days	No more than <b>3</b> drinks a day most days
No more than <b>14</b> drinks in any given week	No more than <b>7</b> drinks in any given week



# Reducing Substance Use – Therapeutic Methods

Lifestyle  
Change

## Motivational Interviewing

- Help clients find their own motivations to change
- Explore ambivalence
- Pros/cons of smoking, drinking, drug use
- Enhance “change talk”

## Addiction therapy

- Identify triggers
- Build skills to manage stress and cravings
- Psychoeducation

## Goal setting

- SMART goals (specific, measurable, attainable, relevant, time-based)
- Start small



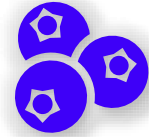
# Diet & Nutrition

Lifestyle  
Change

- Effects of poor diet / nutrition
  - Excess weight / obesity
  - High blood pressure, high cholesterol, hyperlipidemia, metabolic syndrome
  - Excess fat around waist directly effects heart structure and function

## Methods to help improve eating habits

- Promote fresh vegetables and fruit, lean protein, whole grains, healthy fats
- Emphasize mind-body connection
- Motivational interviewing
- Exploring reasons for unhealthy eating habits (Stress? Access? Finances?)
- Goal setting, starting small
- Food diary / tracking app
- Mindful eating practices



# Physical Activity

Lifestyle  
Change

- **Benefits of regular exercise**
  - Helps prevent unhealthy weight gain & encourage weight loss
  - Reduces the risk of many chronic diseases, such as heart disease, cancer, and type 2 diabetes
  - Helps reduce some symptoms of mental illness & improve sleep
- **Barriers faced by people with chronic disease / SMI**
  - Low energy / stamina
  - Chronic pain
  - Lack of access to gyms or safe spaces to exercise
  - Low motivation





# Increasing Physical Activity

Lifestyle  
Change

Address barriers

Consult with  
medical providers  
for targeted  
exercise

Psychoeducation  
on importance of  
physical activity

Find an activity  
they enjoy

Start small,  
build the habit

Keep an exercise  
journal

- Therapeutic interventions may include
  - Motivational interviewing
  - Cognitive therapy



# Stress

Lifestyle  
Change

- Common concerns among those with a chronic disease
  - Feeling powerless and out of control
  - Grief around loss of lifestyle, mobility, health, etc.
  - Worrying about their ability to manage their disease
  - Feeling scared about long-term health complications
  - Worry about decisions that need to be made regarding their disease
- Common concerns among those with a SMI
  - Feeling powerless and out of control
  - Worrying about their ability to manage their condition
  - Feeling stigmatized or discriminated against

**Stress negatively affects mental and physical health in many ways.**





# Support, Stress Relief, and Self-Care

Lifestyle  
Change

- “Hold space” for your client
- Strengthen relationships and support system
- Build coping skills
  - Meditation
  - Journaling
  - Art
  - Music
  - Any activity healthy for mind / body
- Find new meaning in life following diagnosis
  - Fundraising
  - Advocacy
  - “Wake-up call”



# Additional Tips for Behavior / Lifestyle Change

Lifestyle  
Change

Meet them  
where  
they are

- Consider stages of change
- The client must be ready, or they are unlikely to succeed

One thing  
at a time

- Prioritize / focus on one behavior at a time
- Try not to overwhelm client

Progress,  
not  
perfection

- Any positive change is good
- Improvement over cure





# Chapter 3

## Resources & Conclusion

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# Resources

[Mental Health America: Chronic Conditions and Mental Health Infographic](#)

[NAMI: Heart & Minds Program](#)

[CDC: Living Well With a Chronic Condition](#)

[NIH: Chronic Illness and Mental Health: Recognizing and Treating Depression](#)

[SAMHSA Advisory: Diabetes Care for Clients in Behavioral Health Treatment](#)



# Key Takeaways

- People living with SMI are at significantly higher risk for CVD, Diabetes, and more
- Unique risk factors interact with each other creating a negative cycle
- Behavioral health professionals are in a unique position to help
- Screening for risk and symptoms is key
- Coordinated / integrated care promotes better outcomes
- Awareness of medication interactions can save a life
- People with SMI are more likely to have unhealthy behaviors, so behavior modification efforts are vital



# Thank You!



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