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Physical/Behavioral Health Integration: Scaling Up Evidence-based Cardiovascular Risk Reduction Programs for People with Serious Mental Illness:

Gail L. Daumit, MD, MHS
Samsung Professor of Medicine
Director, Johns Hopkins NIMH ALACRITY Center
Vice Dean for Clinical Investigation
Johns Hopkins University School of Medicine

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Let's talk about:

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- Health disparities in cardiovascular risk factors and mortality in persons with serious mental illness
- Evidence-based interventions –what has shown to work and what does it take to decrease risk
- The need to scale-up and disseminate evidence-based practices –physical/behavioral health integration

Marked Excess Mortality for Persons with Serious Mental Illness

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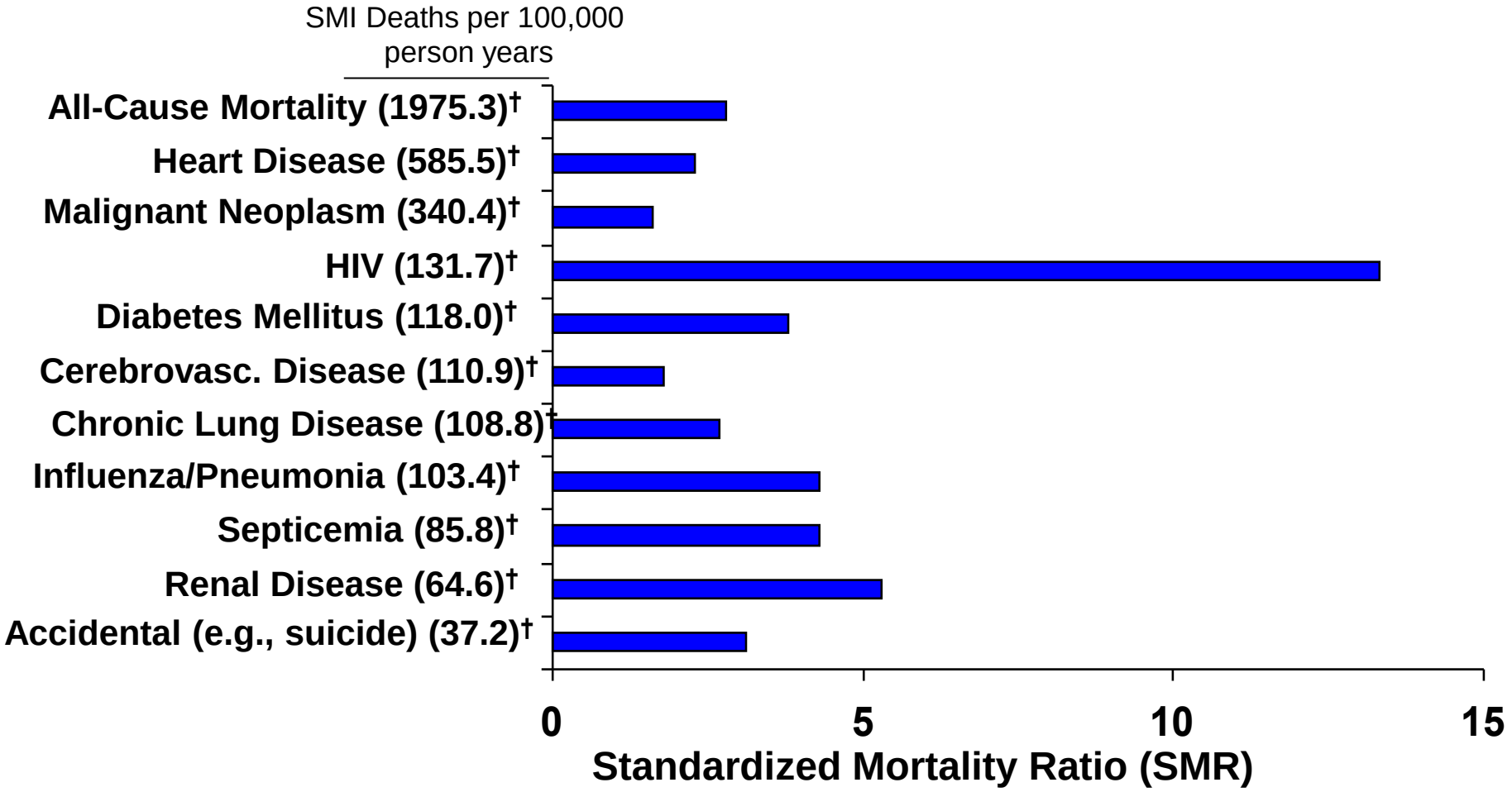

SMI = severe mental illness.

*Adjusted for age, gender, and race; †death rate per 100,000 persons in Maryland Medicaid SMI.

Daumit GL et al., *Psychiatric Research*, 2010

Contributors to Premature Mortality

- Cardiovascular disease risk factors
  - –Health risk behaviors: obesity, physical inactivity, tobacco smoking
  - –Health risk factors: diabetes and glucose control, hypertension, hyperlipidemia
- Cancer, Chronic Lung Disease, Liver Disease, HIV
- Health care quality

World Health Organization Guidelines

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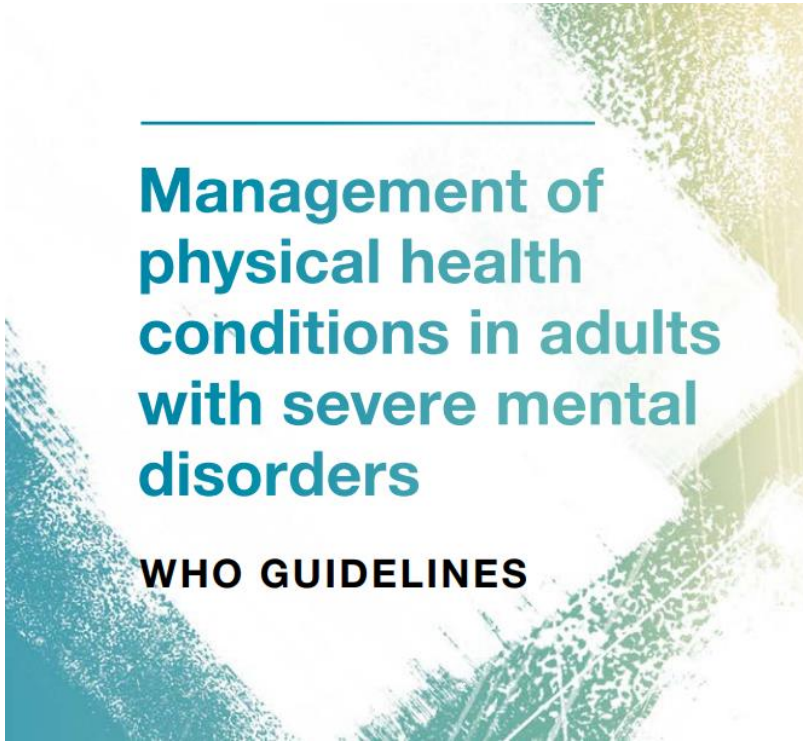
- 2018 World Health Organization Guideline Development Group



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Excess mortality in persons with severe mental disorders: a multilevel intervention framework and priorities for clinical practice, policy and research agendas

Nancy H Liu [1 2], Gail L Daumit [3], Tarun Dua [1], Ralph Aquila [4], Fiona Charlson [5], Pim Cuijpers [6], Benjamin Druss [7], Kenn Dudek [4], Melvyn Freeman [8], Chiyo Fujii [9], Wolfgang Gaebel [10], Ulrich Hegerl [11], Itzhak Levav [12], Thomas Munk Laursen [13], Hong Ma [14], Mario Maj [15], Maria Elena Medina-Mora [16], Merete Nordentoft [17], Dorairaj Prabhakaran [18], Karen Pratt [4], Martin Prince [19], Thara Rangaswamy [20], David Shiers [21], Ezra Susser [22], Graham Thornicroft [19], Kristian Wahlbeck [23], Abe Fekadu Wassie [24], Harvey Whiteford [5], Shekhar Saxena [1]

Affiliations + expand

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Free PMC article

Abstract

Excess mortality in persons with severe mental disorders (SMD) is a major public health challenge that warrants action. The number and scope of truly tested interventions in this area remain limited, and strategies for implementation and scaling up of programmes with a strong evidence base are scarce. Furthermore, the majority of available interventions focus on a single or an otherwise limited number of risk factors. Here we present a multilevel model highlighting risk factors for excess mortality in persons with SMD at the individual, health system and socio-environmental levels. Informed by that model, we describe a comprehensive framework that may be useful for designing, implementing and evaluating interventions and programmes to reduce excess mortality in persons with SMD. This framework includes individual-focused, health system-focused, and community level and policy-focused interventions. Incorporating lessons learned from the multilevel model of risk and the comprehensive intervention framework, we identify priorities for clinical practice, policy and research agendas.

Considerations for Effective Lifestyle Loss Interventions in Persons with SMI

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- Cognitive impairment and persistent psychiatric symptoms
  →frequent challenges in everyday functioning
- Disparities population – socioeconomic / environmental risk factors
- Lifestyle interventions for this group need tailoring

On the positive side:

- Consider opportunities for lifestyle interventions
  - Frequent contacts with health care system?
  - Space for Physical activity classes?
  - Meals served on-site, in group housing or with caretaker?
- Fewer resources for choices, persistence can be used in favor of healthy behavior change

ACHiEVE
HEALTHY LIFESTYLES TRIAL
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But persons with serious mental illness often have multiple CVD risk factors

Recent proliferation of integrated care programs has not shown improvement in CVD risk factors

Behavioral Health Homes

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- Associated with increased utilization of primary care
- Improved disease screening but very limited evidence that they improve health outcomes
- Few studies report on quality of CVD care, patient-reported outcomes and costs

- Significant variation in implementation
  - Co-location of physical health care services
  - Health IT
  - Providers (physician, nurse, peers) and training needed

Murphy et al Int Rev Psychiatry 2018

Comprehensive Cardiovascular Risk Reduction Trial in Persons with Serious Mental Illness (IDEAL)

NCT02127671, R01HL112299

IDEAL Trial showed overall reduction in CVD risk and tobacco smoking with intervention that could fit into health homes

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JAMA Network | Open

RCT Effect of a Comprehensive Cardiovascular Risk Reduction Intervention in Persons With Serious Mental Illness

POPULATION

128 Men
141 Women

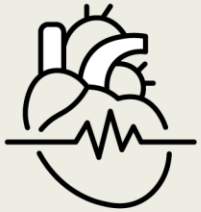
Adults with serious mental illness and at least 1 cardiovascular risk factor

Mean (SD), 48.8 (11.9) y

SETTINGS / LOCATIONS

Four community mental health outpatient programs, Maryland

INTERVENTION



269 Patients randomized

132 Intervention

Cardiovascular risk reduction via individual behavioral counseling and care coordination (weekly for 6 mo, then at least biweekly)

137 Control

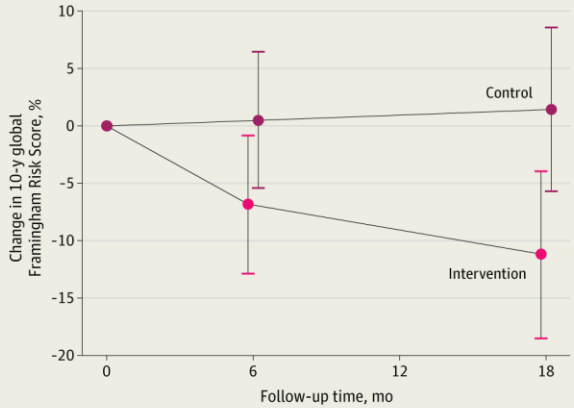
Usual care including exposure to health-promoting activity at program sites (eg, group physical activity classes)

PRIMARY OUTCOME

Change in the global Framingham Risk Score (FRS) from baseline to 18 mo, expressed as percentage change for intervention vs control. The FRS estimates 10-y probability of a cardiovascular disease event

FINDINGS

Compared with control, the intervention group experienced a 12.7% (95% CI, 2.5%-22.9%; *P* =.02) relative reduction in the 10-y probability of a cardiovascular event



Daumit GL, Dalcin AT, Dickerson FB, et al. Effect of a comprehensive cardiovascular risk reduction intervention in persons with serious mental illness: a randomized clinical trial. *JAMA Netw Open*. 2020;3(6):e207247. doi:10.1001/jamanetworkopen.2020.7247

IDEAL Intervention

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- Individual level, by health coach and nurse
- CVD risk reduction education and counseling sessions (weekly for 6 mo. then bi-wkly)
- Collaboration with physicians for evidenced-based management of CVD risk factors
- Coordination with mental health program staff and social supports to advocate for/encourage reaching health goals

IDEAL Intervention

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CVD risk factor focused health education and counseling

- Approach: Motivational interviewing to increase readiness for behavior change, target risk behaviors simultaneously or sequentially
- Content: Sessions based on risk factor # and severity, participant need and interest (e.g. quit smoking, reducing sugar beverages if obesity/DM)

Care coordination/ care management

- Share CVD risk factor profile with PCP
- Provide guidelines to MDs and advocate for evidenced-based monitoring and Tx for dyslipidemia, HTN, DM, and smoking
- Coordination with mental health staff and providers, caregivers, MDs and/or office staff (e.g., facilitation of appts, lab tests, obtaining meds)
- Track CVD risks: review needed screening, monitoring and Tx for panel

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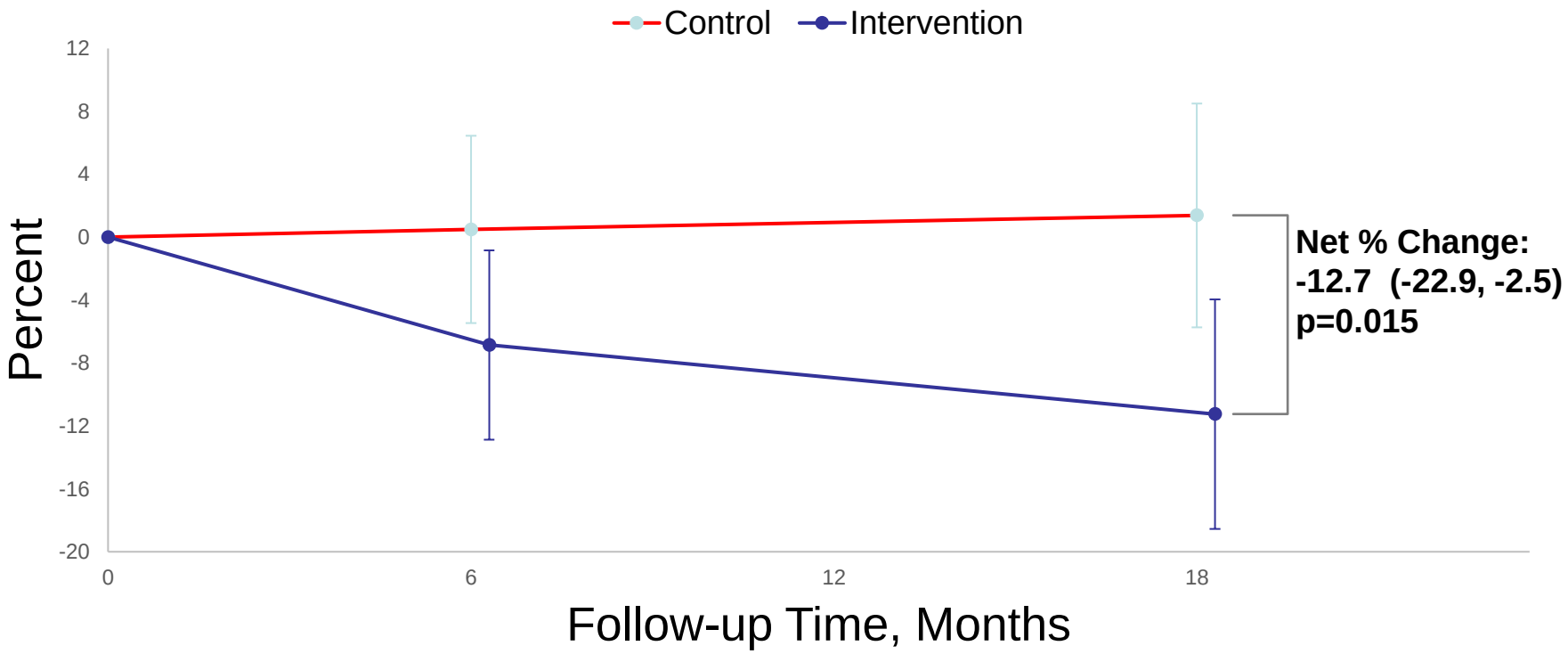
Percent Change of 10-year Global Framingham Risk Score over Time from Baseline by Study Group



% change within intervention group -11.2% (95% CI -3.9, -18.5), control group 1.4% (-5.7,8.6)

Tobacco smoking cessation in IDEAL

Change in smoking prevalence over 18 months:

Intervention group −11.8% (95% CI, −18.3% to −5.3%; *P* = .004)

Controls −1.3% (95% CI, −5.8% to 3.1%; *P* = .64)

Net change **−10.5%** (95% CI, −18.4% to −2.6%; *P* = .009)

This translates to a **21% relative reduction in smoking prevalence** over 18 months (ratio of prevalence ratios [intervention to control] = 0.79; 95% CI, 0.67 to 0.95; *P* = .01).

Ok, but we need these interventions to be delivered by mental health staff and clinicians and widely implemented

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RHYTHM-CVD Care Coordination

Using an innovative quality improvement process to increase delivery of evidence-based CVD risk factor care in community mental health organizations

NIMH P50115842

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CVD Care Coordination

STUDY OVERVIEW:

Goals: Pilot test an adapted Comprehensive Unit Based Safety Program (CUSP) implementation strategy to improve mental health providers coordination of evidence-based CVD risk factor care – hypertension, dyslipidemia, diabetes mellitus

Design: Pre/post observational study

Participants: 4 Maryland psychiatric rehabilitation programs implementing Medicaid Health Homes

What is in the RHYTHM Evidence-Based Bundle?

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Clinical Bundle

- Protocol for care of risk factors for heart disease
  - High blood pressure
  - High cholesterol
  - Diabetes
- Tailored to persons with SMI

Care Coordination Bundle

- Protocol to improve delivery of care
  - Care coordination
  - Care management
  - Population health
- Tools to support how to conduct these activities

Evidenced-Based Practice Bundle

Cross Cutting Care Processes examples

- Use database to track and prioritize screening, monitoring and treatment of hypertension, diabetes and dyslipidemia
- Communication between health home staff & PCPs:
  - Clinical testing and results sharing (e.g. lipids, A1c)
  - Pharmacotherapy (e.g., initiate statin, blood pressure medication intensification)
- Intra-team communication (e.g., assisting w/transportation, filling prescriptions)
- Use motivational interviewing techniques to engage consumers in their CVD risk factor care (e.g. medication adherence, resolving ambivalence around starting medication to treat blood pressure, self-management strategies for diabetes)

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MARYLAND and MICHIGAN
DECIPHeR
PROJECT

Achieving Cardiovascular Health Equity in Community Mental Health: Optimizing Implementation Strategies (DECIPHeR)

Gail Daumit, MD, MHS

Amy Kilbourne, PhD, MPH

UG3HL154280

DECIPHeR

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- Goal: Adapt and test different implementation strategies to support evidenced-based practices to reduce heart disease risk for persons with mental illness in Michigan and Maryland health homes

- Combine and adapt two evidence-based practices: **IDEAL** and **Life Goals**
  - Physical health self-management and lifestyle support
  - Behavioral counseling for heart disease risks (e.g., tobacco cessation)
  - Care management (e.g., for blood pressure)

- Two-phase project
  - UG3 2-3 year planning phase with community engagement -12 MD and 12 MI health homes, stakeholders including policy makers, fit into health home services
  - UH3 4-year implementation phase with training, testing which additional supports are most beneficial

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Achieving Cardiovascular Health Equity in Community Mental Health: Optimizing Implementation Strategies

- UG3 Phase 1: Input and engagement from community organizations
  - Community Working Groups and Community Advisory Board
- UH3 Phase 2: Unrestricted SMART trial to compare effectiveness of implementation strategy augmentations to REP, (Coaching and Facilitation) on uptake and delivery of IDEAL/Life Goals at 18-months
  - Replicating Effective Programs : Package, training, technical assistance
  - Coaching: Provider self-efficacy and skill development through clinical support, feedback to mainly address inner setting barriers
  - Facilitation: provider strategic thinking, coalition-building, leadership skills to mainly address outer setting barriers
  - Measures and Outcomes
    - *Primary* : Uptake / Adoption of IDEAL Goals (# of sessions delivered)
    - *Key Secondary Outcomes*: Fidelity to IDEAL Goals and Implementation Strategies, CVD risk factors (blood pressure, weight, smoking, cholesterol); Quality of care for CVD risk factors

"IDEAL Goals" Overview

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- **Evidence-based intervention** based on principles of the Life Goals Collaborative Care Model and the IDEAL trial
- Combines best practices in **self-management education, health coaching, and care management**
- Delivered
  - by providers identified by the site (e.g., RN, care manager, MSW, BSW, etc.)
  - to community mental health patients with one or more cardiovascular risk factors
  - As core and flexible modules and care management contacts

Summary

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- Health disparities in cardiovascular risk factors and mortality in persons with serious mental illness
  - *Disparities are large*
- Evidence-based interventions – scale-up in real world integrated care settings critical
- Current studies provide paths for scale-up, more work is needed

Thank you!
Please join us in ALACRITY & DECIPHeR

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Website: https://www.jhsph.edu/alacrity
Twitter: @HopkinsALACRITY
Email: alacritycenter@jhmi.edu
Phone: 410-955-0510

Gail Daumit, gdaumit@jhmi.edu