

Million Hearts® Partner Call

Priority Populations II

April 17, 2018
1:00pm ET



Welcome and Overview



Robin Rinker, MPH
Health Communications Specialist
Division for Heart Disease and Stroke Prevention
Centers for Disease Control and Prevention



Agenda

Welcome and Overview	Robin Rinker Health Communications Specialist Division for Heart Disease & Stroke Prevention Centers for Disease Control and Prevention
Priority Populations in Million Hearts®	Janet Wright, MD, FACC Executive Director Million Hearts® CDC and CMS



Agenda continued

Presentation: Air Pollution and Heart Disease Discuss the science and policy implications behind AHA's scientific statement update that focuses on the link between particulate matter and cardiovascular disease.	Aruni Bhatnagar, Ph.D., FAHA Director of the Diabetes and Obesity Center at the University of Louisville and Director of the American Heart Association Tobacco Regulation and Addiction Center
	Laurie Whitsetl, Ph.D., FAHA Director of Policy Research, American Heart Association



Agenda continued

Presentation: Addressing Tobacco Use Among Persons with Mental or Substance Use Disorders	Doug Tipperman, MSW Tobacco Policy Liaison, SAMHSA
Q&A	All
Million Hearts® Partner Share	Linda Murakami, RN, BSN, MSHA, Senior Program Manager, Quality Improvement American Medical Association Jennifer Cooper, DNP, RN, APHN-BC Association of Public Health Nurses



Agenda continued

Updates from CDC	Judy Hannan, RN, MPH Senior Advisor Million Hearts® Centers for Disease Control and Prevention
Closing and Adjourn	April Wallace Program Initiatives Manager Million Hearts Collaboration American Heart® Association



Priority Populations in Million Hearts®



Janet S. Wright, MD, FACC
Executive Director
Million Hearts®
CDC and CMS



Million Hearts® 2022 Priorities and Goals

Keeping People Healthy	Optimizing Care
Reduce Sodium Intake	Improve ABCS*
Decrease Tobacco Use	Increase Use of Cardiac Rehab
Increase Physical Activity	Engage Patients in Heart-healthy Behaviors

Improving Outcomes for Priority Populations
Blacks/African-Americans with Hypertension
35-64 year olds due to rising event rates
People who have had a heart attack or stroke
People with mental and/or substance use disorders who smoke

*Aspirin, Blood pressure control, Cholesterol management, Smoking cessation



2022 Targets: 20% improvement in sodium, tobacco, physical activity; 80% on the ABCS; 70% participation in cardiac rehab

Improving Outcomes for Priority Populations

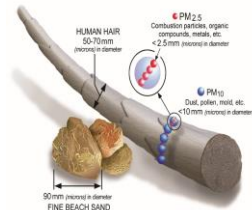
Priority Population	Intervention Needs	Strategies
People who have had a heart attack or stroke	<ul style="list-style-type: none"> Increasing cardiac rehab referral and participation Avoiding exposure to particulates 	<ul style="list-style-type: none"> Use opt-out referral and CR liaison visits at discharge; ensure timely enrollment Increase use of Air Quality Index
People with mental and/or substance abuse disorders who smoke	<ul style="list-style-type: none"> Reducing tobacco use 	<ul style="list-style-type: none"> Integrate tobacco cessation into behavioral health treatment Institute tobacco-free policy at treatment facilities Tailored quitline protocols



- ✓ Disparate outcome
- ✓ Effective interventions
- ✓ Well-positioned partners

Particle Pollution

- PM_{2.5} refers to particulate matter of 2.5 micrometers or less in diameter
- Exposure is linked to an increase in risk of heart attacks, strokes, and rhythm disorders
- Particle pollution info on Million Hearts [website](#)



Million Hearts® PM_{2.5} Priority Actions

- Raise awareness of mitigation behaviors among those at-risk, their families, and the clinicians who care for them
- Encourage health professionals to take EPA's web-based course: [Particle Pollution and Your Patients' Health](#)
- Incorporate air quality messages into cardiac rehab program curricula
- Encourage hospitals, employers, health systems, and others to adopt EPA's Air Quality Flag Program
- Disseminate particulate info via Million Hearts® channels



Tobacco Users with Mental and/or Substance Use Disorders

- Current smoking rate among adults (cigarettes) is 17%
- People with mental and/or substance use disorders account for 40% of all cigarettes smoked in the U.S.
- Interventions for this population include:
 - Integrate tobacco dependence treatment into behavioral health treatment
 - Implement tobacco-free campus policies in mental health and substance use treatment facilities
 - Specialized quitlines



Particulate Matter and Cardiovascular Disease



Aruni Bhatnagar, Ph.D., F.A.H.A., Director of the Diabetes and Obesity Center at the University of Louisville and Director of the American Heart Association Tobacco Regulation and Addiction Center



AIR POLLUTION AND HEART DISEASE

Aruni Bhatnagar, PhD, FAHA
University of Louisville



POLLUTION

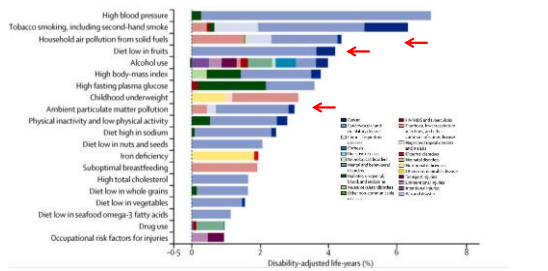
Nearly 150,000 cardiovascular deaths in the US



Globally, air pollution kills 7 million people annually

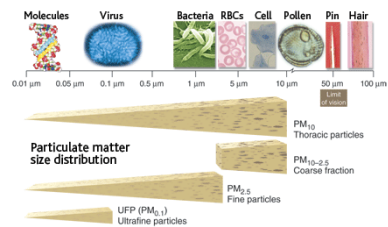


Global Burden of Disease

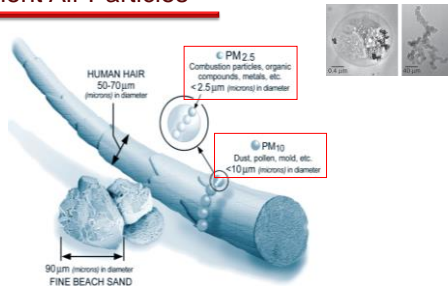


Lancet 380, 2224-60, 2012

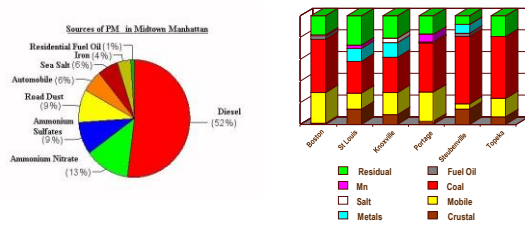
Ambient Air Particles



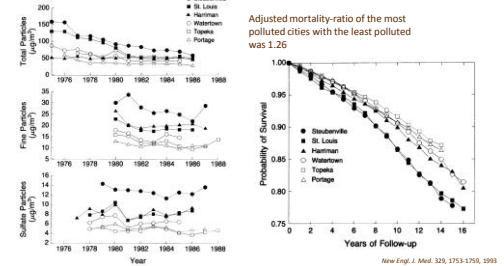
Ambient Air Particles



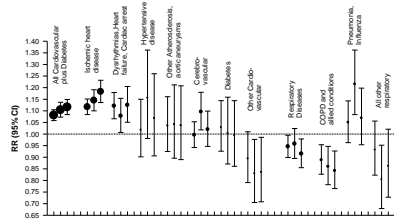
PM sources vary by geographic location



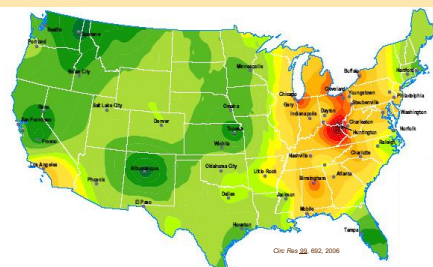
A Tale of Six Cities



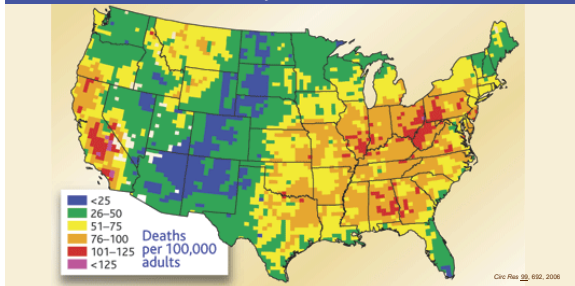
Excessive Mortality Associated with PM Exposure



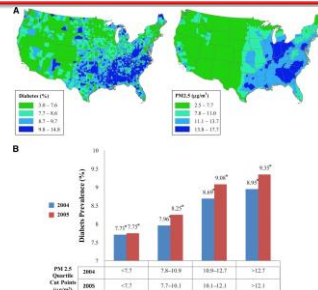
GEOGRAPHIC DISTRIBUTION OF PM



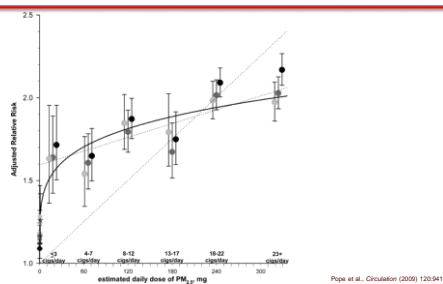
Premature mortality risk attributable to PM



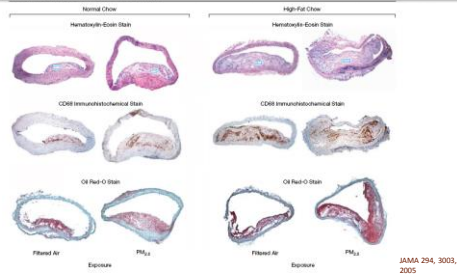
Diabetes Prevalence and PM_{2.5} for US Counties



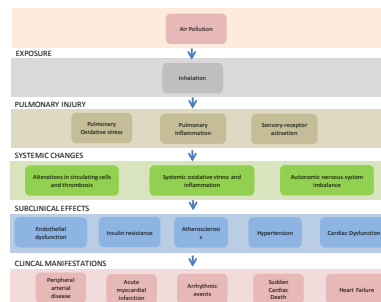
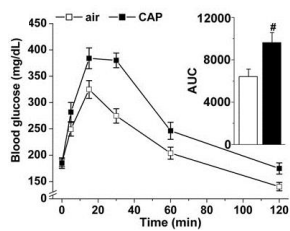
Non-Linear Effects of Air Pollution



PM Exposure Accelerates Atherogenesis



PM increase insulin resistance



Particulate Matter and Cardiovascular Disease



Laurie Whitsel, Ph.D., FAHA,
Director of Policy
American Heart Association



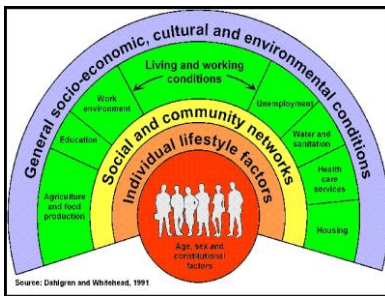
The AHA's Strategic Policy Checklist: A rigorous process for choosing our priorities

- Evidence Assessment
- Strategic Alignment
- Health Impact
- Ability to address SDOH
- Feasibility
- Positioning
- Grassroots/Vol Engagement
- Level of Risk
- Internal Will
- Resource Commitment
- Likelihood of Success



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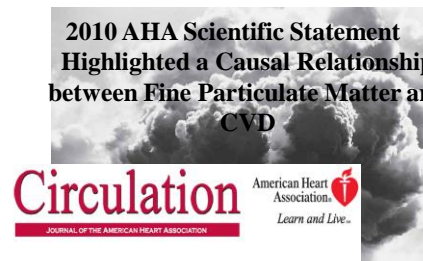
Social Determinants of Health And Equity First Policy Making



The conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.



Air Pollution



Particulate Matter Air Pollution and Cardiovascular Disease: An Update to the Scientific Statement From the American Heart Association



Where we have weighed in AHA Advocacy

- Federal Level (Sign-on letters with national partners)
 - Support EPA Standards for:
 - Clean Air
 - Greenhouse gas emissions for cars
 - Methane and dangerous volatile organic compounds
 - Ozone
 - Monitored White House Report on Climate Change
 - Working with EPA on co-branded materials in English and Spanish and a briefing on the relationship between fine particulate matter and CVD
- State Level
 - Completed an environmental scan of policy opportunities



Potential State and Local Level Policy Opportunities

- Some examples:
- Consumer Incentives
 - Car/Diesel Emissions
 - Reduce Consumer Energy Use
 - Utility Company Mandates
 - Renewable Energy Subsidies
 - Building Codes for Energy Conservation
 - Reducing Emissions from Power Plants
 - Traffic Abatement/Public Transportation



Tobacco's Adverse Impact on Behavioral Health

- Heavy smoking is a significant risk factor for major depression.
- Tobacco use is associated with increased suicidal ideations, suicide attempts, and completed suicides.
- People who continued smoking following treatment for a substance related disorder have greater likelihood of relapse to drugs or alcohol.
- Smoking is a strong predictor of risk for nonmedical use of prescription opioids.

Sources: Compton, W. *The American Journal of Addictions*, 2018; Evans, AS, et al., *Psychological Medicine*, 2017; Joon, JH, et al., *Journal of Pain & Palliative Care Pharmacotherapy*, 2015



Myths: Smoking and Behavioral Health

- **They are not interested in quitting**
 - As likely as the general population to want to quit smoking (about 70%).
- **They can't quit**
 - Can quit and benefit from integrated tailored interventions.
- **Tobacco is necessary self-medication**
 - Industry has supported this myth. Smoking is certainly not an effective treatment. Relief from withdrawal symptoms is often misinterpreted for feeling better.
- **It is a low priority problem**
 - Smoking is the biggest killer for those with mental or substance use disorders.
- **Quitting worsens recovery**
 - Not the case. Cessation is associated with improved mental health and addiction recovery outcomes.

Source: Prochaska, NEJM, July 21, 2011.



Cessation Improves Mental Health

- A 2014 meta-analysis of 26 studies found that smoking cessation is associated with decreased depression, anxiety, and stress and improved positive mood and quality of life compared with continuing to smoke.

"The effect size seems as large for those with psychiatric disorders as those without. The effect sizes are equal or larger than those of antidepressant treatment for mood and anxiety disorders."

Interview with the researchers:
<https://www.youtube.com/watch?v=H2gaBwimjst>



Source: Taylor et al., *BMJ*, 2014



Cessation Improves Addiction Recovery

- A 2017 nationally representative, prospective longitudinal study of long-term outcomes for substance use disorder (SUD) found that **continued smoking and smoking initiation among nonsmokers were associated with significantly greater odds of SUD relapse.**
- A 2012 study analyzing 9 years of prospective data from 1,185 adults in a SUD program at a private health care setting, found that **stopping smoking during the first year after substance use treatment intake predicted better long-term substance use outcomes through 9 years after intake.**
- A 2004 meta-analysis of 19 studies found that **smoking cessation interventions provided during addictions treatment were associated with a 25% increased likelihood of long-term abstinence from alcohol and illicit drugs.**

Sources: Weinberger et al., *J Clin Psychiatry*, 2017; Toth et al., *Drug and Alcohol Dependence*, 2012; Prochaska et al., *Counseling and Clinical Psychology*, 2004.



Effective Tobacco Cessation Practices

- Routinely screening patients for tobacco use and encouraging every smoking patient willing to make a quit attempt to use evidence-based cessation counseling treatments and medications.
- Counseling and medication are effective when used by themselves for treating tobacco dependence. The combination of counseling and medication, however, is more effective than either alone.
- Many may benefit from additional counseling and longer use of cessation medications as well as combination use of medications.
- Using peer-driven approaches such as peer specialists trained in smoking cessation.
- Adopting and implementing a tobacco-free facility/grounds policy.

Sources: Fiore MC, Jahn CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline*. Rockville, MD: McFall, M., et al (2010). *Integrating Tobacco Cessation Into Mental Health Care for Posttraumatic Stress Disorder*. JAMA; McKay, C.E., et al. (2012). *Peer Supports for Tobacco Cessation for Adults with Serious Mental Illness: A Review of the Literature*. *Journal of Dual Diagnosis*.



Effectiveness of First Line Smoking Cessation Medications

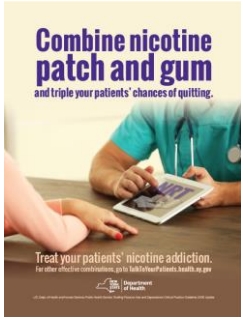
Results from meta-analyses comparing to placebo at 6-month postquit:

Medication	No. of Studies	OR	95% CI
Nic. Patch (6-14 wks)	32	1.9	1.7-2.2
Nic. Gum (6-14 wks)	15	1.5	1.2-1.7
Nic. Inhaler	6	2.1	1.5-2.9
Nic. Spray	4	2.3	1.7-3.0
Bupropion	26	2.0	1.8-2.2
Varenicline (1 mg/day)	3	2.1	1.5-3.0
→ Varenicline (2 mg/day)	5	3.1	2.5-3.8
→ Patch (>14 wks) + ad lib NRT (gum or spray)	3	3.6	2.5-5.2

Sources: Fiore MC, Jahn CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline*. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. May 2008



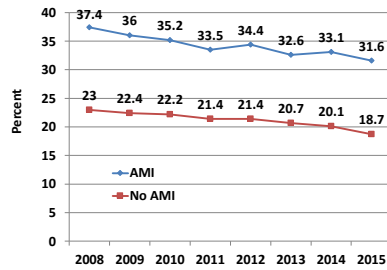
Effectiveness of First Line Smoking Cessation Medication



FDA December 2016 statement: "...As a result of our review of the large clinical trial, we are removing the *Boxed Warning*, FDA's most prominent warning, for serious mental health side effects from the Chantix drug label..."



Current Smoking Among Adults (age ≥ 18) With Past Year Any Mental Illness (AMI): NSDUH, 2008-2015



Current Smoking is defined as any cigarette use in the 30 days prior to the interview date. Any Mental Illness is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, based on the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).



Q & A

Do you have a question for one of the panelist?

Please submit your questions in writing using the Q&A Panel located at the bottom right of your screen.



Million Hearts® Partners Share

This is an opportunity for Million Hearts® Partners to provide an update on your organization's Million Hearts® actions.

Please submit your update in writing using the Q&A Panel located at the bottom right of your screen.



Updates from CDC

❖ **Judy Hannan, RN, MPH**
Senior Advisor, Million Hearts®
Centers for Disease Control and Prevention



Thank You!

Next Partner Call: July 31, 2018, 1 p.m. EST

Please submit any comments or feedback to Robin Rinker at vqb2@cdc.gov

