# Niche to Norm: *Progress Made and Progress Needed*

Active Living Research Conference

March 10, 2014

Jonathan E. Fielding, MD, MPH
Director and Health Officer
Los Angeles County Department of Public Health
Distinguished Professor of Health Services and Pediatrics
Schools of Public Health and Medicine, UCLA





#### **Discussion Game Plan**

- ✓ Era of Shifting Focus: *Individual behavior to healthy Environments*
- ✓ Working to improve physical activity in Los Angeles County
- ✓ The value of evidence and healthy policies
- ✓ Engaging non-traditional partners
- ✓ Pushing for progress

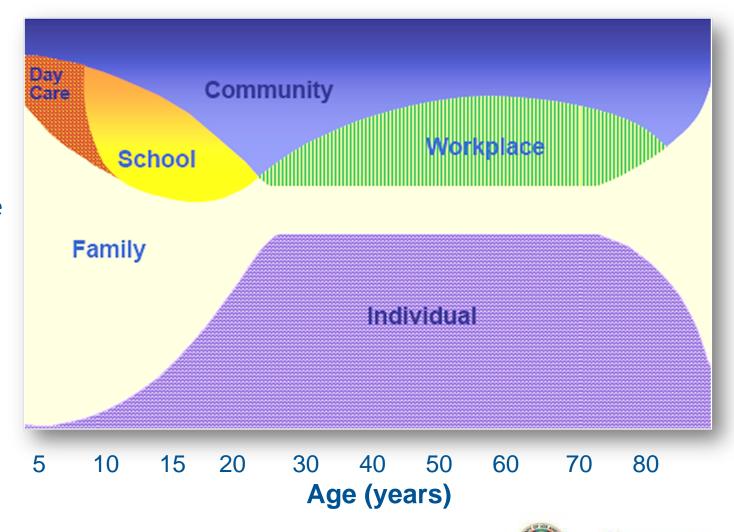




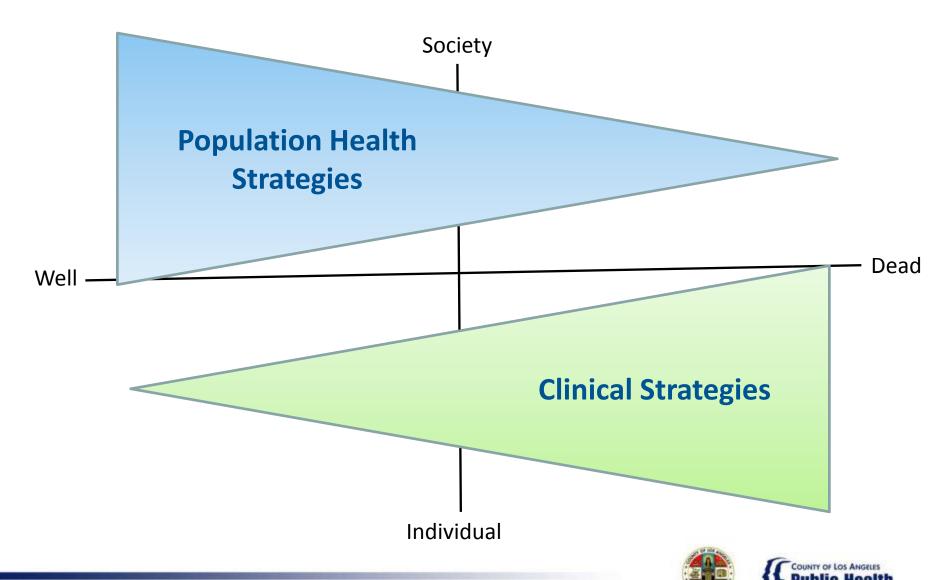
# ✓ ERA OF SHIFTING FOCUS: INDIVIDUAL BEHAVIOR TO HEALTHY ENVIRONMENTS

#### **Health Influences Over the Lifetime**

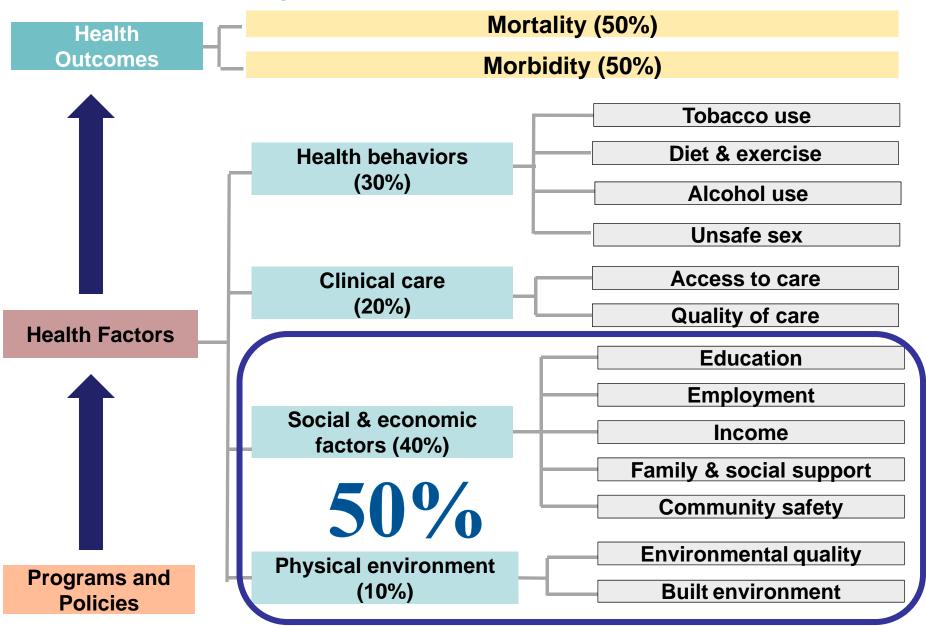
Relative magnitude of influence



#### **Spectrum of Health & Improvement Strategies**



#### **Primary Determinants of Health**



#### MEDICAL CENTER

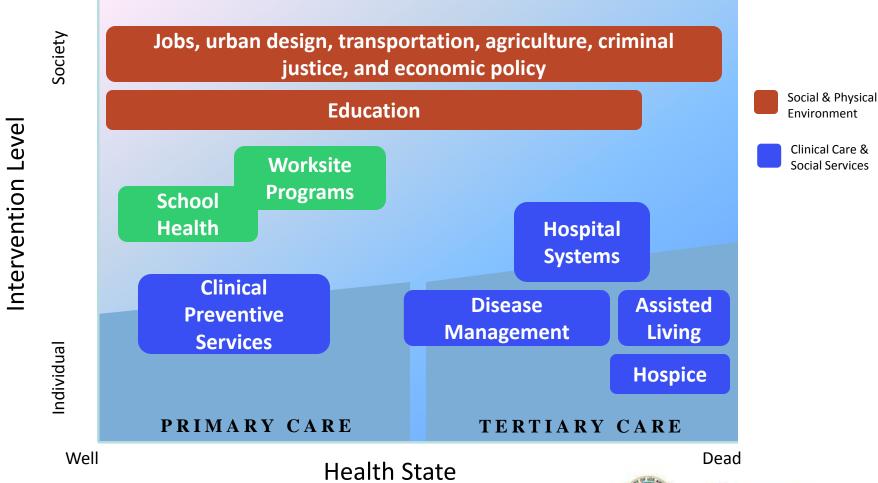
NAME \_\_\_\_\_\_ AGE \_\_\_\_\_ ADDRESS \_\_\_\_\_ DATE \_\_\_\_\_



To improve health, we must remedy ills in the social, economic and physical environments

CLABEL SIGNATURE
REFILL 0 1 2 3 4 5 PRN NR

# Framework for Action: General Model of Health & Improvement Strategies







## **A Healthy Community**

- 1. Meets basic needs of all
- Provides quality and sustainable environment
- Maintains adequate levels of economic and social development
- 4. Promotes health
- Fosters social relationships that are supportive and respectful







## **How Healthy is Your Community?**

- Meets basic needs of all
- 2. Provides quality and sustainable environments
- Maintains adequate levels of economic and social development
- 4. Promotes health
- 5. Fosters social relationships that are supportive and respectful

Rate each element on a scale of 1 to 5



1=worst



5=best





#### Question:

What impacts could a poorly designed community have on your health?









## **Adverse Health Impacts From Poor Community Design**



- traffic safety
- water quality & quantity
- social capital

- obesity & chronic disease
- 个 crime & violence
- ↑ health disparities
- air pollution





# How Would You Rate This Road for Being "Pedestrian-Friendly"?







# Physical Activity Guidelines for Adults (PAGA)

At least 2 hours and 30 minutes of moderate-intensity aerobic activity/week *and* muscle-strengthening activities on 2 or more days/week

OR

1 hour and 15 minutes of vigorous-intensity aerobic activity/week and 2 or more days/week with muscle strengthening

OR

an equivalent mix of moderate- and vigorous-intensity aerobic activity and muscle strengthening





# Physical Activity Guidelines for Americans (PAGA) Study

2011 study assessed self-reported vs. objectively measured physical activity among U.S. adults (n=4,773) using accelerometer data

Percentage of adults meeting the PAGA:

Self reported: **62%** 

Objectively measured: 9.6%







## Self Reported Levels of Physical Activity Among Adults in LA County, 2011



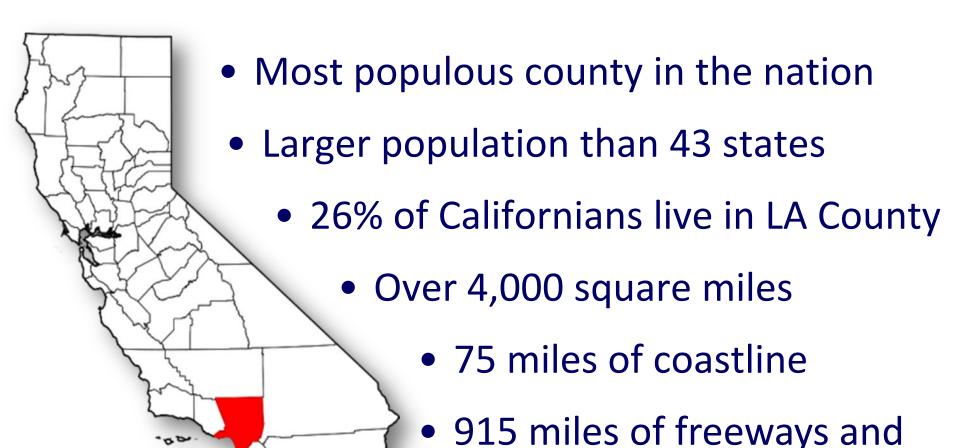




# ✓ WORKING TO IMPROVE PHYSICAL ACTIVITY IN LOS ANGELES COUNTY



### **Los Angeles County**



highways





## Complexities

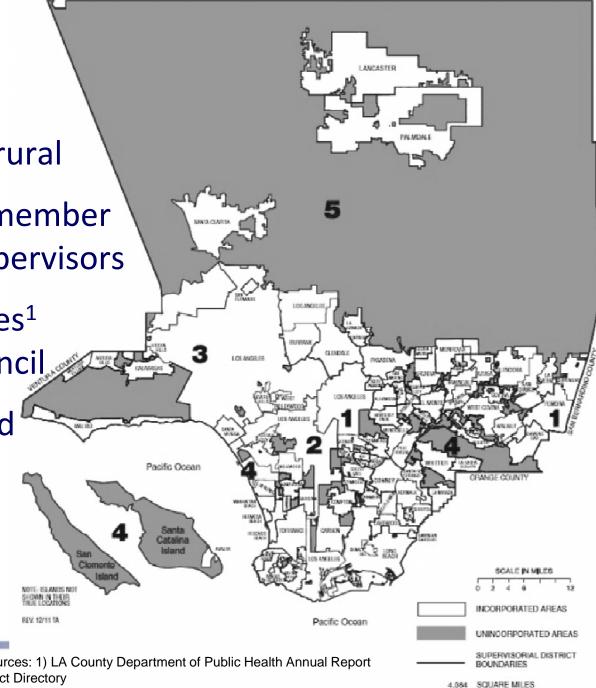
Urban, suburban & rural

Governing body: 5-member elected Board of Supervisors

 88 incorporated cities<sup>1</sup> each with a city council

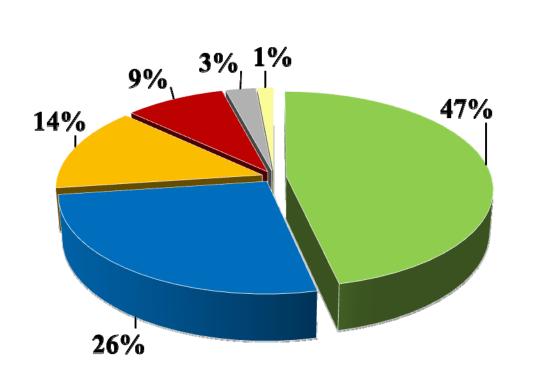
• ≈140 unincorporated areas<sup>1</sup>

• 80 school districts<sup>2</sup>



KERN COUNTY

# Los Angeles County Residents, by Race/ Ethnicity, 2012



- Hispanic or Latino origin
- White, not Hispanic
- Asian
- Black
- Two or more races
- American Indian & Alaska Native





## Some Challenges of Health Suppressing Environments in LA County

#### **Social Environment**

- Economic disparities
- High school drop out rates
- Gang activity
   Over 1,400 criminal street gangs
   exist in LA County.<sup>1</sup>

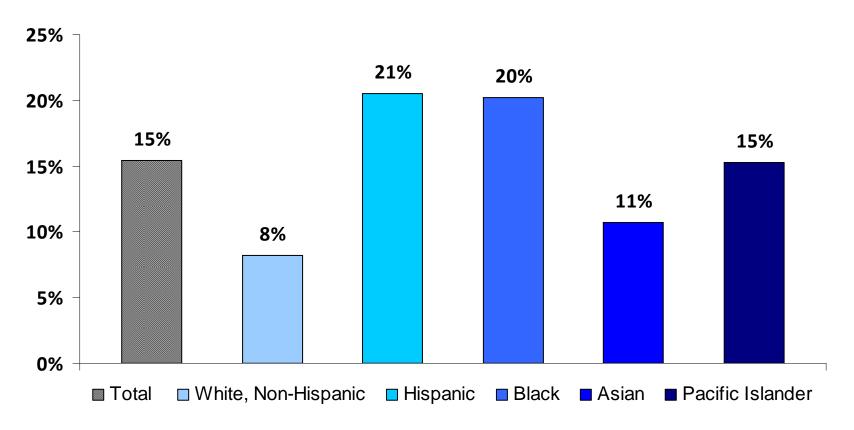


- > Largest homeless population in the country
  - -Nearly 40,000 people sleep on the street or in homeless shelters.<sup>2</sup>





# Percent of Persons Living Below the Federal Poverty Level, by Race/Ethnicity, LAC



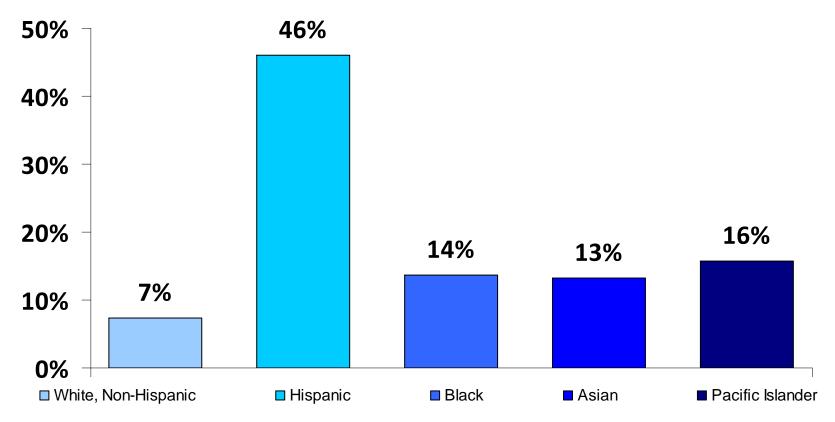
<100% FPL = Percent of persons less than 100% of Federal Poverty Level





<sup>\*&</sup>lt;200%FPL not available by race/ethnicity

# Percent of Adults with Less than a High School Diploma, by Race/Ethnicity, LA County



Note: African American, Asian, Pacific Islander, and American Indian Alaska Native categories include persons reporting both Hispanic and non-Hispanic Origin, therefore categories are not mutually exclusive





## Some Challenges of Health Suppressing Environments in LA County

#### **Physical Environment**

- Limited green space
- > Sprawl
- > Traffic/ travel times
- ➤ Unsafe neighborhoods



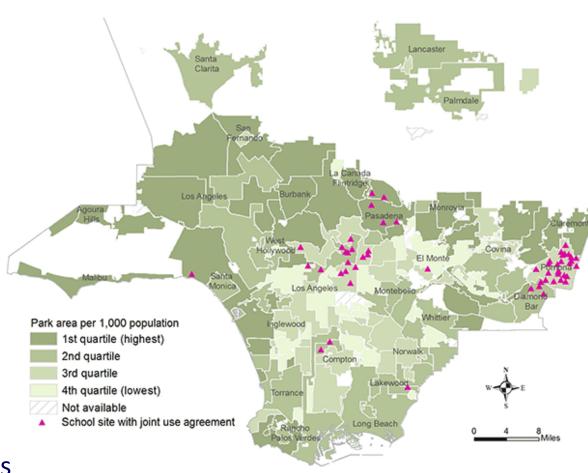






## **Limited Green Space**

- Park density differs across the County
- 14% of adults report their neighborhood does not have walking paths, parks, or public playgrounds<sup>1</sup>
- The City of LA has 6.1 park acres per 1,000 residents<sup>2</sup>
  - Only NY, Chicago and Miami have less









## **Health and Sprawl**

#### People living in counties marked by sprawling development:

- ✓ Walk less in their leisure time
- ✓ Are more likely to have high blood pressure
- ✓ Have higher body mass indexes
- ✓ Are more likely to be overweight (average 6 pound difference)









### **Commuting**

- Average 1-way commute is 29 minutes
- 12% of workers commute 1 hour or more just 1-way to work
- According to national statistics, Los Angeles is among the top 10 U.S. cities with the most long-distance commuters.







## **Neighborhood Safety**

 Nearly 16% of adults in LA County do not perceive their neighborhood to be safe from crime



 24% of adults living below FPL in LA County do not perceive their neighborhood to be safe from crime



#### **Choose Health LA!**

Initiative working on improving opportunities for physical activity by supporting:

- School administrators in the creation of written action plans for compliance with state physical education laws;
- Teachers in providing evidence-based physical education in schools with high levels of childhood obesity







# Legal Requirements for P.E. in California Public Schools

 California law requires public schools to provide 200 to 400 minutes of physical education each 10 school days

 Yet, widespread noncompliance has been documented.









# Working to Get Schools into Compliance

- Los Angeles County Department of Public Health (DPH)
   provides technical assistance to school districts to implement
   strategies to comply with physical education laws and best
   practices
- Strategies include:
  - ✓ School Wellness Policy
  - Physical Education Resolution
  - ✓ Physical Education Board Policy
  - ✓ Adoption of District-wide Physical Education Curriculum





# Past and Present Physical Education Work

#### **Past**

- Supported capacity building using a train-the-trainer model with ongoing techinical asistance for the delivery of high-quality physical education by elmentary, middle and high school teachers across seven school districts
- Contributed health data for LAUSD's Physical Education Compliance Action Plan and related Resolution

#### **Present**

- Continued support of capacity building for physical education
- Funding the development of stengthened physical education policy in 4 school districts







# Physical Education Tools for School Districts

#### P.E. Assessment Checklist-

 Allows districts to assess current compliance with state laws, best practices and related federal/state civil rights laws

#### Model P.E. Compliance Action Plan-

 Provides concrete, prioritized steps and a timeline to bring the district into compliance



#### Model P.E. Resolution-

 Provides documentation that a physical education compliance action plan is in place

#### Model P.E. Board Policy-

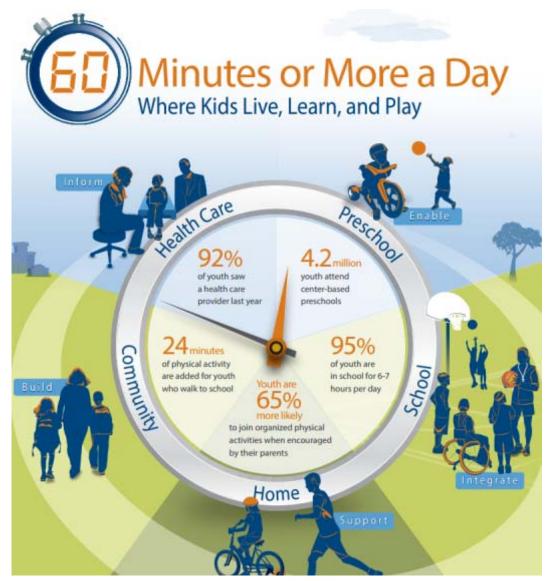
Establishes the district's long-term physical education policies





Many settings impact how often kids (and adults) are physically active.

DPH is working on improving opportunities for physical activity in communities across the County.









## Plan for a Healthy Los Angeles

- New Health and Wellness Element of the City of Los Angeles' General Plan
  - General Plan is the blueprint for how and where the city will grow and develop
- Elevates health as a priority in the city's future growth and development
- Establishes a policy framework to make Los Angeles a healthier place to live, work and play

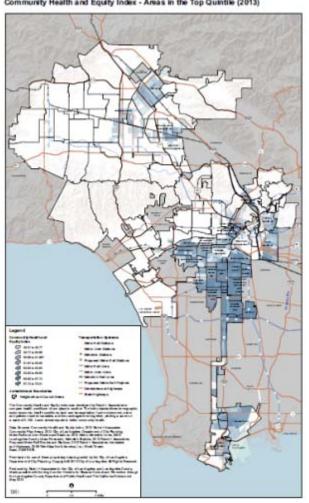






### Los Angeles Health Atlas

Map 115 Community Health and Equity Index - Areas in the Top Quintile (2013)



- Data-informed analysis of health issues and outcomes
- Highlights the geographic concentration of health disparities throughout Los Angeles
- Inform the goals and policies in the Plan for a Healthy Los Angeles
- Data is interactive on the web







# Percentage of the Population within One-Half Mile Walking Distance of a Park

COLOR KEY

City Average: 61%

#### healthyplan.la

- People can view different data indicators by neighborhood in the city limits
- Engages residents in a new way
- Can help foster political will with specific audiences



#### DEMOGRAPHIC AND SOCIAL CHARACTERISTICS

**ECONOMIC CONDITIONS** 



😭 EDUCATION



4 HEALTH



△A LAND USE

- + Walkability Index
- + Land Use Mix
- + Land Use Diversity
- + Intersection Density
- + Park Level of Service

#### Percentage of the Population within One-Half Mile Walking Distance of a Park



- + Population per Square Mile
- + Employment Density

#### **TRANSPORTATION**

- + Percentage of Households without Access to a Vehicle
- + Percentage of Commuters Driving Alone to Work
- + Percentage of Commuters Carpooling to Work
- + Percentage of Commuters Taking Public Transportation to Work
- + Percentage of Commuters Walking to Work
- + Percentage of Commuters Biking to Work
- + Rate of Motor Vehicle Collisions with Pedestrians per 10,000 Residents
- + Rate of Motor Vehicle Collisions with Bicyclists per 10,000 Residents







#### Increasing Funding for Active Transportation

- SCAG Regional Transportation Plan
  - Estimating the cost of bike/ped infrastructure
- L.A. County Transportation
   Finance 101 Memo
- Active Transportation
   Coalition









#### **Special Events: CicLAvia**



Streets closed to cars form temporary linear parks through the County Open to pedestrians, bikes, skates, strollers, pets, etc.

7 CicLAvia's held since 2010 – each drawing over 100,000 people





# Joint Use Agreements - RENEW School Districts

- ABC Unified
- El Monte City
- Compton Unified
- Los Angeles Unified
- Mountain View
- Pasadena Unified
- Pomona Unified















#### 1

#### **Joint-Use Agreements Successes**

- Aerobics classes now held at ABC Unified
- Regular walking clubs at Miramonte Elementary School
- Community/School parks open at Trinity Elementary School and Vine Elementary

 Fremont High Wellness Center and Community Garden now open









# THE VALUE OF EVIDENCE AND HEALTHY POLICIES

#### Why Evidence is Essential

- Provides access to more and higher-quality information on what works (e.g., systematic reviews)
- Provides a higher likelihood of successful programs and policies being implemented (opportunity cost of using non-EB strategies can be very high)
- Increases accountability by supporting more efficient use of public and private resources







# **Key Characteristics of Evidence-Based Practice**

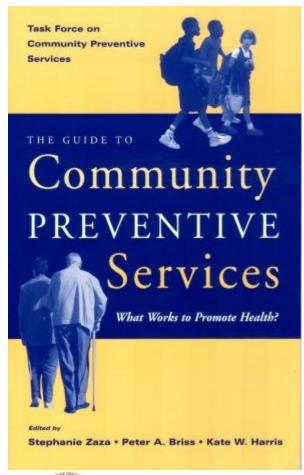
- ✓ Making decisions using the best available peerreviewed evidence (both quantitative and qualitative research)
- ✓ Systematically using data and information systems
- ✓ Conducting sound evaluation
- ✓ Disseminating findings to key stakeholders and decision makers





# The Guide to Community Preventive Services ("The Community Guide")

- Congressionally mandated, ever expanding resource for recommendations on evidence-based interventions to improve public health
  - Established 1996
- Directed by a 15 member independent volunteer Task Force on Community Preventive Services
- CDC provides scientific support
- Liaisons with key organizations support the science and dissemination







#### The Guide: Selecting Interventions for Systematic Review

- Over 1,000 single and multi-component interventions to evaluate
- Those evaluated were selected on their potential to:
  - burden of disease and injury
  - healthy behaviors and reduce unhealthy behaviors
  - $oldsymbol{\uparrow}$  implementation of effective interventions that are not widely used
  - level of interest among providers and decision makers consistent with resource constraints

#### www.thecommunityguide.org

Asthma

Cancer

Birth Defects

Cardiovascular Disease

 Single best resource for evidence on interventions to improve population health

 Systematic reviews of available evidence leads to recommendations based on standardized methods



Health Communication

HIV/AIDS, STIs, Pregnancy

Health Equity

Mental Health



Obesity

Oral Health

Physical Activity



Vaccines

Violence

Worksite

#### **Community Guide Topics**

- Adolescent Health
- Alcohol
- Asthma
- Birth Defects
- Cancer
- Cardiovascular Disease
- Diabetes
- Health Communication
- Health Equity
- HIV/AIDS, STIs, & Pregnancy

- Mental Health
- Motor Vehicle
- Nutrition
- Obesity
- Oral Health
- Physical Activity
- Social Environment
- Tobacco Use
- Vaccines
- Violence
- Worksite





#### **Limits of Rules Evidence**

- An intervention may have several small effects
- Alone evidence for each outcome may not be sufficient
- Significant increase usually requires multiple interventions
- Applicability to populations, time and place may differ
- Time frame for effect can vary widely



#### **Examples of Community Guide Interventions**

#### Media

- Mass media campaigns to reduce alcohol impaired driving Education/Information
- Education programs to increase use of child safety seats
   Counseling/skill-building
- School-based programs to prevent violent behavior
   Incentives
  - Reward workers for participating in smoking cessation programs

#### Law Enforcement

Sobriety checkpoints





# More Examples of Community Guide Interventions

#### **Built Environment**

 Urban design and land use policies and practices that support physical activity

#### Social Environment

Early childhood home visitation programs

#### Healthcare System Change

Provider reminder systems to increase delivery of preventive services

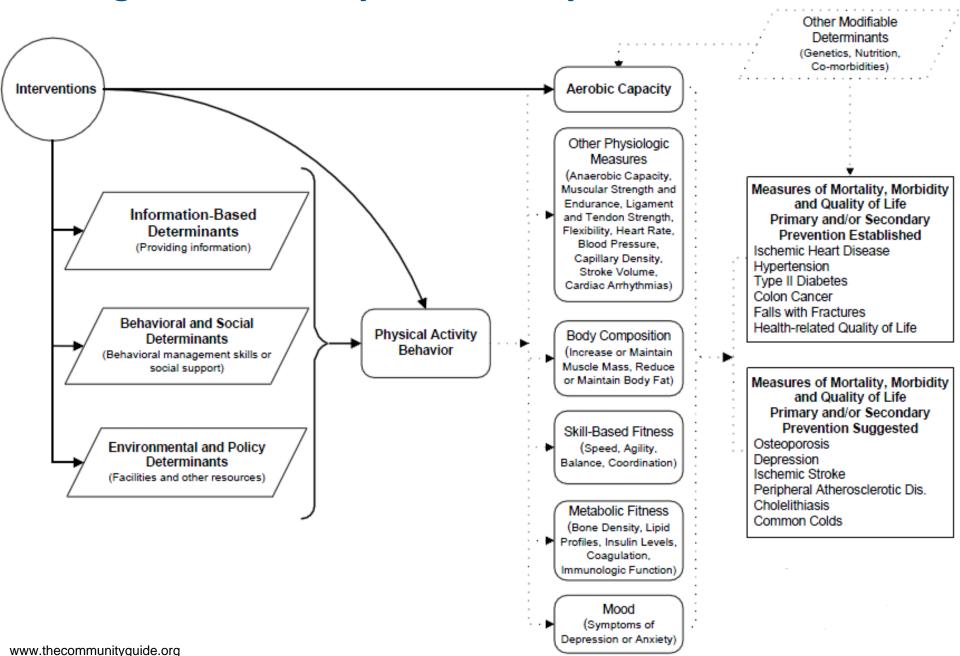
#### **Policy**

Safety belt regulations





#### **Logic Model – Physical Activity Evidence Reviews**





### **Environmental and Policy Approaches to Increase Physical Activity**



- Task Force recommended:
   Creating or improving access to places for physical activity
- Background on interventions:
  - Involve worksites, coalitions, agencies, communities to change the local environment
  - Examples of changes: creating walking trails, building exercise facilities, providing access to existing facilities nearby

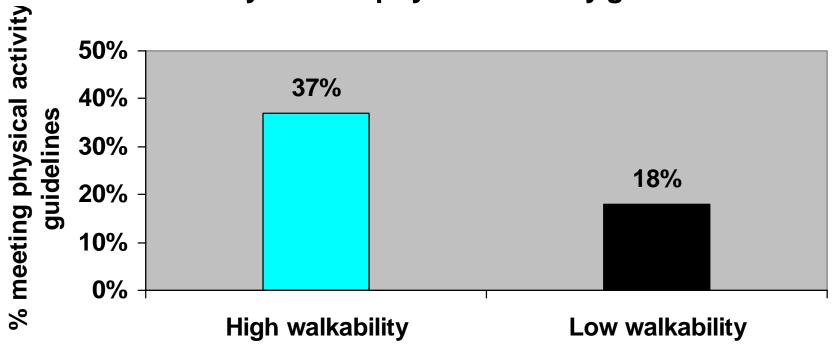






#### Walkable Neighborhoods = More Physical Activity

#### Residents of walkable neighborhoods were more likely to meet physical activity guidelines





#### $\left\{ \left\| \right\| \right\}$

#### **Transit Use Increases Physical Activity**

- Americans who use transit walk an average of 24
   minutes per day going to and from transit stops (Besser et al.,
   2005)
- The use of light rail transit to commute to work is associated with 81% reduced odds of becoming obese over time (MacDonald et al., 2010).
- Living within 400 meters of a transit stop is associated with getting recommended levels of physical activity (Hoehner et al., 2005)
- Rail users, minorities, low income people, and people in high density areas are more likely to spend 30 minutes walking to and from transit daily (Besser et al., 2005)







#### Policies Can Work on Multiple Levels



Health of physical, social & economic environments



Burden of disease and injury



Risk factors for disease



Protective factors





#### **Policies As Levers of Change**

Policies can improve physical and social

environments

- Create safe places for physical activity
  - Joint use agreements
  - Walkable/bikable community design
  - Pocket park development
- Improve access to early childhood development programs, particularly for low-income children



#### **Policies As Levers of Change**

(continued)

- Fund youth apprenticeship programs and vocational training for at-risk youth
- Expand tenant based rental assistance programs
- Find permanent housing solutions for homeless individuals and families
- Strengthen programs that effectively teach parenting skills
- Ensure all eligible families receive economic supportive services
  - Supplemental Nutrition Assistance Program
  - Earned Income Tax Credit





#### **Policies As Levers of Change**

(continued)

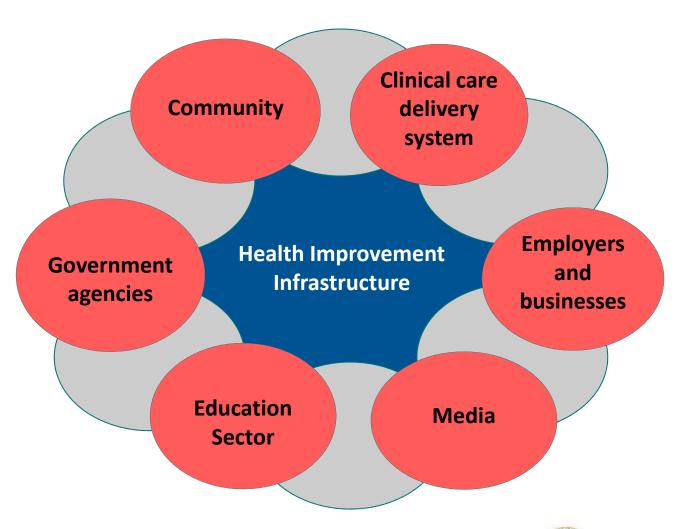
#### Policies can increase protective factors

- Support community efforts to build social connectedness (e.g. community gardens)
- Address potentially harmful environmental exposures
   (e.g. siting schools away from freeways to reduce asthma burden)
- Create environments geared toward prevention (e.g. baby-friendly hospitals)



# ✓ ENGAGING NON-TRADITIONAL PARTNERS

#### Who Has a Role?







#### **Health in All Policies**

"An innovative strategy that introduces improved population health outcomes and closing the health gap as goals to be shared across all parts of government. Health in All Policies seeks to address complex health challenges through an integrated policy response across sectors."





# Federal Effort to Integrate Health in All Policies

National Prevention, Health Promotion and Public Health Council

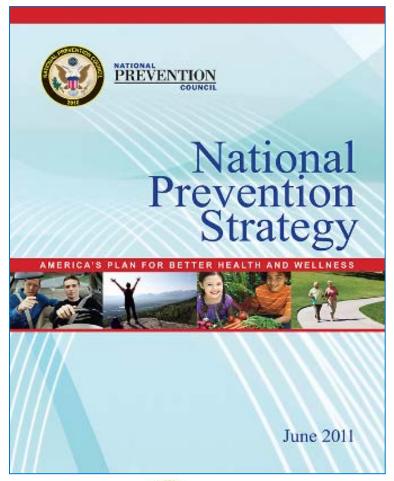
- Established by Presidential Executive Order (June 2010)
- Purpose: Provide coordination and leadership among all Federal agencies, regarding:
  - prevention, wellness and health promotion practices
  - the public health system
  - integrative health care in the United States





# National Prevention, Health Promotion & Public Health Council Duties

- ✓ Develop a national prevention and health promotion strategy
- ✓ Make recommendations to the President and Congress on pressing health issues and changes in Federal policy to achieve national wellness
- ✓ Consider and propose evidencebased models, policies, innovative approaches for promoting transformative models of prevention, integrative health and public health









# National Prevention, Health Promotion and Public Health Council Members

Bureau of Indian Affairs	Department of Labor
Corporation for National and Community Service	Department of Transportation
Department of Agriculture	Department of Veterans Affairs
Department of Defense	Environmental Protection Agency
Department of Education	Federal Trade Commission
Department of Health and Human Services	Office of Management and Budget
Department of Homeland Security	Office of National Drug Control Policy
Department of Housing and Urban Development	White House Domestic Policy Council
Department of Justice	



# **Examples of Sector-based Policy Opportunities for Health**



Direct agricultural subsidies toward more nutritious food (e.g. away from corn/corn syrup, to fresh fruits and vegetables)



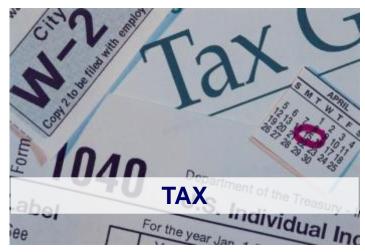
Support environmental policies to improve air quality (e.g. cleaner energy sources, land use regulations)







# More Examples of Sector-based Policy Opportunities

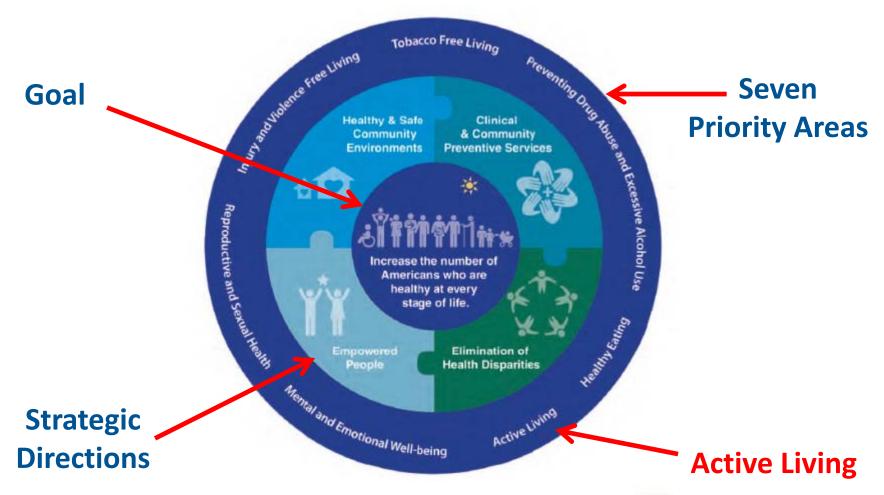




- Use tax policy to reduce percentage in poverty (e.g. increase proportion of eligible residents claiming EITC)
- Increase development and utilization of mass transit: less driving → more walking → better air and weight loss
- Advocate for complete streets initiatives (bike lanes, marked crosswalks)



#### **National Prevention Strategy**







#### National Prevention Strategy Recommendations for Active Living

- Encourage community design and development that supports physical activity.
- Promote and strengthen school and early learning policies and programs that increase physical activity.
- Facilitate access to safe, accessible, and affordable places for physical activity.
- Support workplace policies and programs that increase physical activity.
- Assess physical activity levels and provide education, counseling, and referrals.





# Sampling of Active Living Recommendations for Various Sectors

#### **Businesses and Employers**

- Promote walking, bicycling, and use of public transportation (e.g., provide bicycle racks, walking paths, and changing facilities with showers).
- Sponsor a new or existing park, playground, or trail, recreation or scholastic program, or beautification or maintenance project.

#### Early Learning Centers, Schools, Colleges, and Universities

- Provide daily physical education and recess that focuses on maximizing time physically active.
- Limit passive screen time.
- Make physical activity facilities available to the local community.

#### Community, Non-Profit, and Faith-Based Organizations

- Offer low or no-cost physical activity programs (e.g., intramural sports, physical activity clubs).
- Offer opportunities for physical activity across the lifespan (e.g., aerobic and muscle strengthening exercise classes for seniors)

# What is Your Role? Influencing Decision Makers

- ✓ Show anticipated impacts on health outcomes

  (use the evidence-base!)
- ✓ Show impact of non-action
- ✓ Show cross sector benefits
- ✓ Show feasibility, costs and acceptability
- ✓ Point to successes
- ✓ Help them be the hero give them the next steps

#### **Speak Their Language**

### Example: Economic Benefits of Open Spaces and Walkable Community Design

- Open spaces and recreation areas can positively affect property values
  - ✓ benefits homeowners
  - ✓ higher property tax revenue for local governments
- Compact, walkable developments = economic benefits to developers
  - ✓ higher home sale prices
  - √ enhanced marketability
  - √ faster sales or leases
- Other direct and indirect benefits
  - √ reducing air pollution
  - √ flood control
  - √ improved water quality
  - √ facilitating healthy lifestyles





#### **✓ PUSHING FOR PROGRESS**

#### What is Active Living?

- Does it equate to physically active life?
  - Is it primarily cardiovascular fitness?
  - Do needs and priorities change over the lifecourse?
    - √ Children
    - √ Younger adults
    - ✓ Older adults



#### **Mental Activity**

- Lifelong learning (including about physical activity)
  - Early childhood learning language
  - Older children cognitive skills, functional literacy, numeracy
  - Adults new knowledge and skills
  - Older adults retaining cognitive capacity



#### **Social Activity**

- Socialization key learned behavior/skill
- Major determinant
  - Mental health
  - Quality of life
  - Longevity





#### **Call to Action**

- Health, safety and well-being are affected by an interplay of factors
- Improving physical activity and health outcomes requires various stakeholders to strategically work together with an eye toward creating healthy communities and environments for our residents





#### **Your Role**

- Become an expert in the available evidence
- Frame discussions and posit decisions in the lens of health equity, particularly as they relate to underlying determinants of health
- Establish new relationships with non-traditional partners
- Advocate strongly for better physical activity indicators in the national metrics
- Partner with your local public health department





#### **To Convince Our Partners**

 Need to become well versed in the goals of other sectors and find win-wins

Learn their language

 Must build relationship where we are sought as experts in what works - use the evidence base to our advantage





#### **THANK YOU!**