

Public Health and Parks

Parks Forward Commission

February 12, 2014



Public Health Work Group

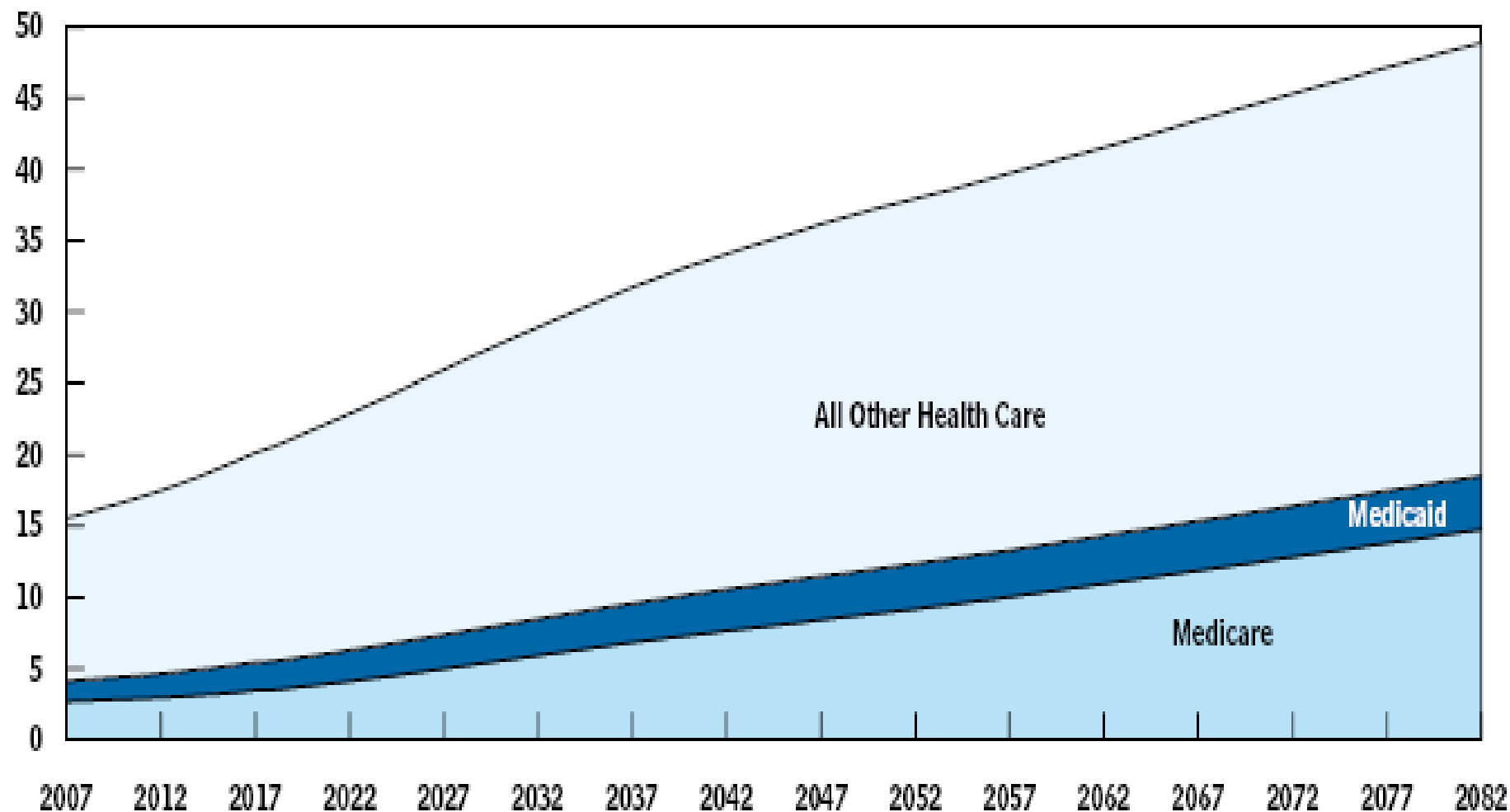
- January 2014 in Berkeley
- Attendees
 - Parks Forward Commissioners – Dr. Stephen Lockhart and Dr. Caryl Hart
 - Department of Parks and Recreation – Danita Rodriguez (Superintendent, Marin/Sonoma/Contra Costa) and Steven Treanor (retired annuitant)
- Agenda
 - Parks and Health: Bridging the Gap – Dr. Michael Suk (Geisinger Healthcare)
 - Health of Communities: Impact on Healthcare Systems – Dr. Walter Stewart (Sutter Healthcare Systems)
 - Health-Nature Collaborations: Vision for the Future – Dr. Daphne Miller (UCSF)

Agenda for Today

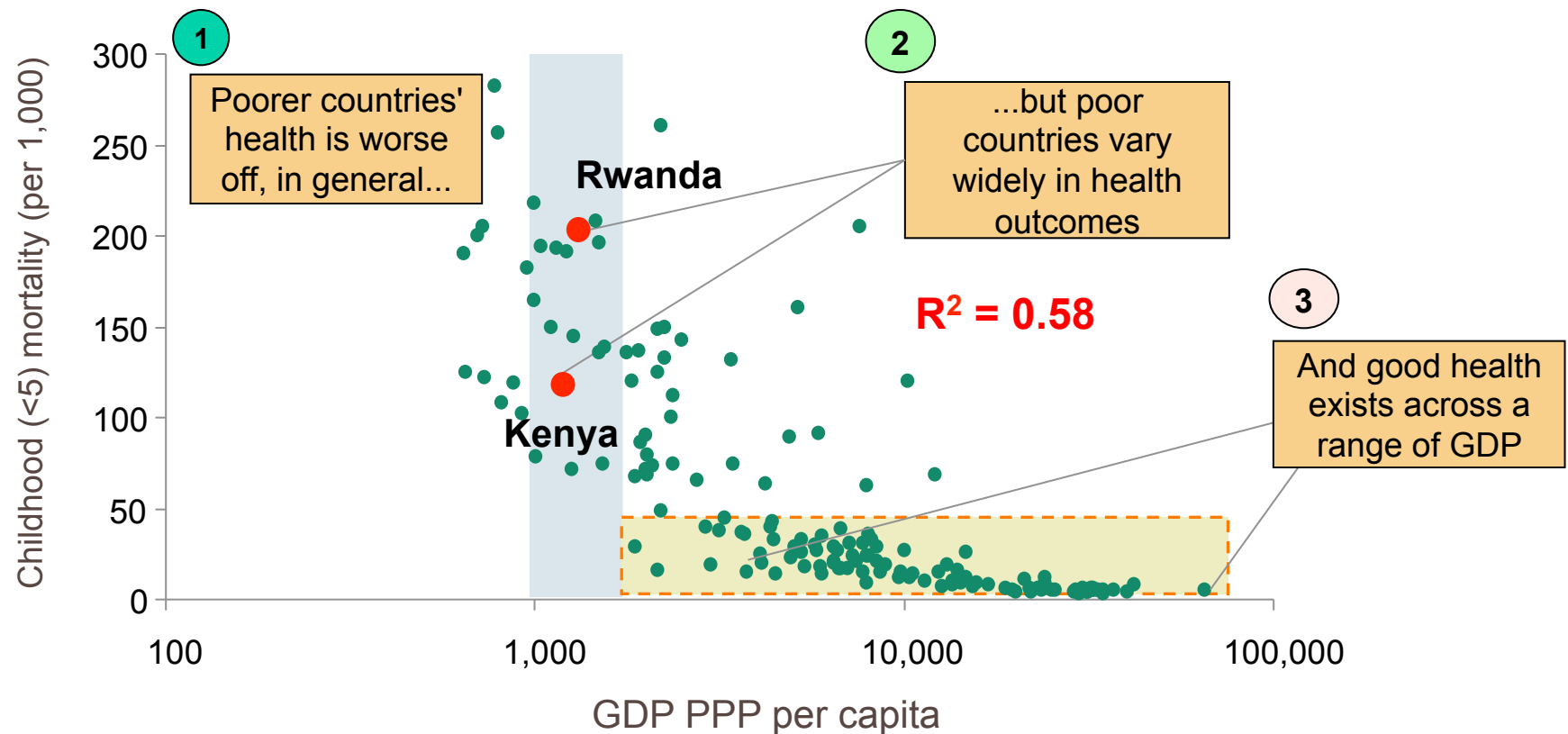
- State of Modern Healthcare
- Connection of Parks to Health
- Solutions

Projected U.S. Health Care Spending

(Percent)



...BUT COUNTRIES WITH SIMILAR SPENDING HAVE A RANGE OF HEALTH OUTCOMES



**Similar health outcomes at different levels of wealth:
*what matters is not total spending, but how it is used***

Why We Buy So Much

- Wealth
 - The more we have, the more we spend on health
- Insurance
 - Greater coverage makes us indiscriminating consumers
- Aging population
 - Aging equals more health problems and more demand
- Heroics
 - Make every effort possible, even if there is no chance of a good outcome

Why We Sell So Much

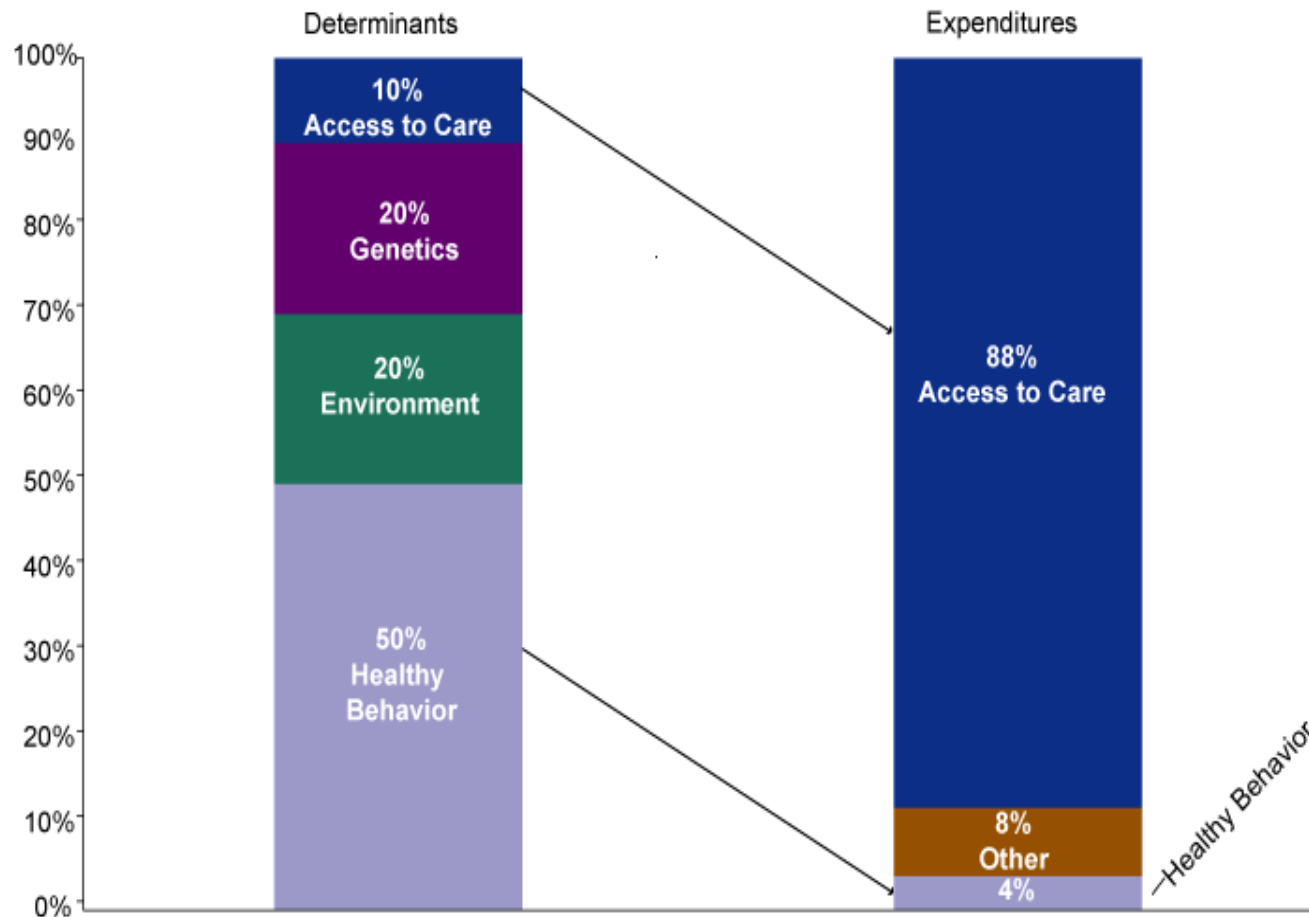
- Business model
 - Volume based model promotes unnecessary services
- Technology
 - The more we have to sell, the more we sell
- Guideline-based care paradigm
 - Evidence based guidelines for only 30% of clinical decisions. The rest is opinion
- High prices
 - No price competition

One View of Excess Costs (2009)

- Unnecessary services (\$210B)
- Inefficiently delivered services (\$130B)
- Excess administrative costs (\$190B)
- Prices that are too high (\$105B)
- Fraud (\$75B)
- Missed prevention opportunities (\$55B)

Health Care vs. Determinants of Health

Mismatch: Health Determinants vs. Health Expenditures

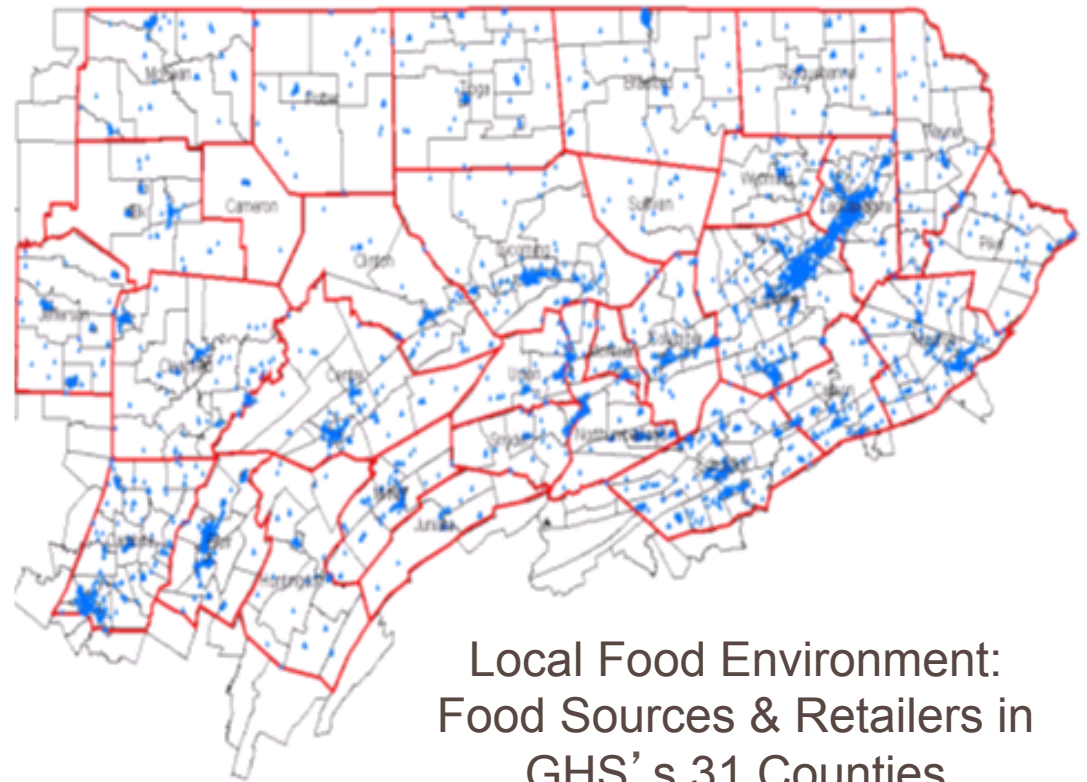


Source: New England Healthcare Institute.
* Total US Personal Health Care Expenditure 2005

Healthy People in a Healthy Economy

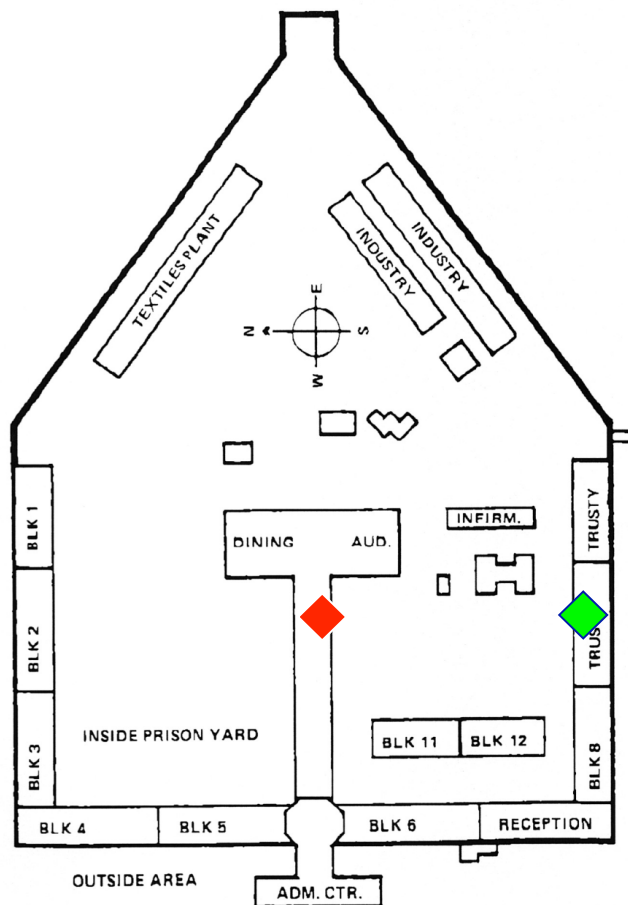
Challenges and Opportunities

- Patients are on their own 99%+ of the time
- Local factors influence diet, activity, & stress levels
- The best health care may have little impact on patient outcomes



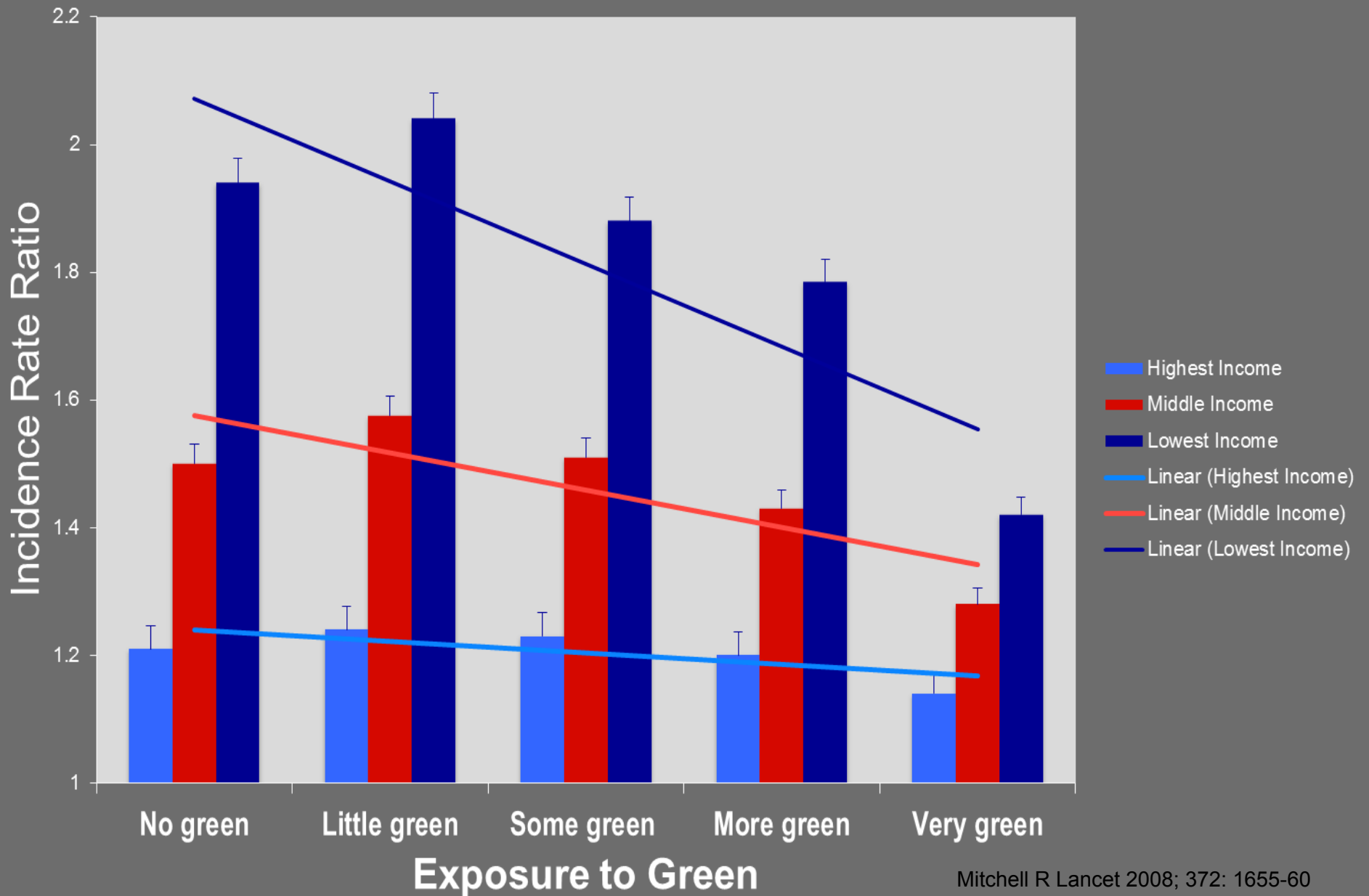
Access to Nature is Important

- Sick calls in Michigan prison 24% higher for internal cells



Courtesy of Howard Lumkin MD

Mortality related to nature exposure and SES



Importance of Unstructured Play to Kids

- Fewer injuries
- Smarter with better concentration/
language/observation skills
- Stronger, with better balance and agility
- Reduces bullying

Communications Gap

- Need to better communicate public health impacts of recreation
 - Stress fun, not just competitive sports – then will last a lifetime
 - Public lands and water as gateway to better health
 - 90% of adult recreators started between ages of 5 and 18
 - City dwellers higher incidence of mental health disorders – create more green sections in cities

Diseases of Indoor Living

- Obesity
- Heart Disease
- Stroke
- Vitamin D Deficiency
- Allergies and Asthma
- ADD
- Diabetes Type 2
- Myopia
- Insomnia
- Sleep Apnea

Street Trees and Childhood Asthma

Short report

Children living in areas with more street trees have lower prevalence of asthma

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ABSTRACT

Background: The prevalence of childhood asthma in the USA increased by 50% from 1980 to 2000, with especially high prevalence in poor urban communities.

Methods: Data on the prevalence of asthma among children aged 4–5 years and on hospitalisations for asthma among children less than 15 years old were available for 42 health service catchment areas within New York City. Street tree counts were provided by the New York City Department of Parks and Recreation. The proximity to pollution sources, sociodemographic characteristics and population density for each area were also measured.

Results: Controlling for potential confounders, an increase in tree density of 1 standard deviation (SD) 343

source of pollen and may exacerbate asthma among children with atopic asthma.²¹

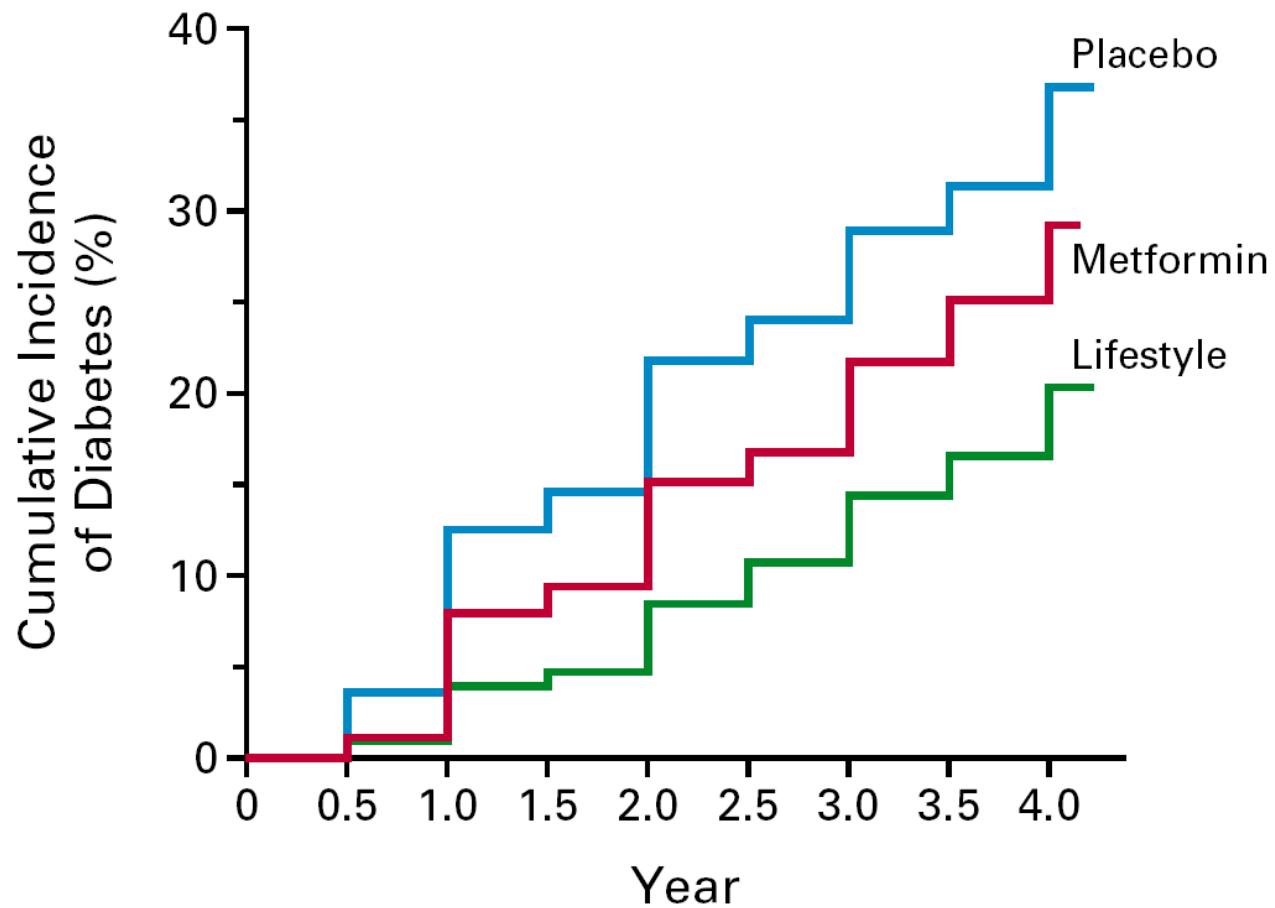
We conducted an ecological study in New York City with the objective of describing the direction and magnitude of any association between street trees and childhood asthma.

METHODS

The unit of analysis is the United Hospital Fund (UHF) area, originally designed to represent hospital catchment areas and still used for health statistics reports. The 42 UHF areas range in size from 3 to 67 km².

Lifestyle vs. Medical: DPP

Lifestyle or metformin to prevent DM (N=3234)



Connecting Parks and Health

- Medical Mile – Little Rock, Arkansas
 - Cost \$2.1 million
 - Links to Arkansas River trail
 - Economic benefit to city
 - Used by thousands each day



Park Prescriptions

South East Heath Center

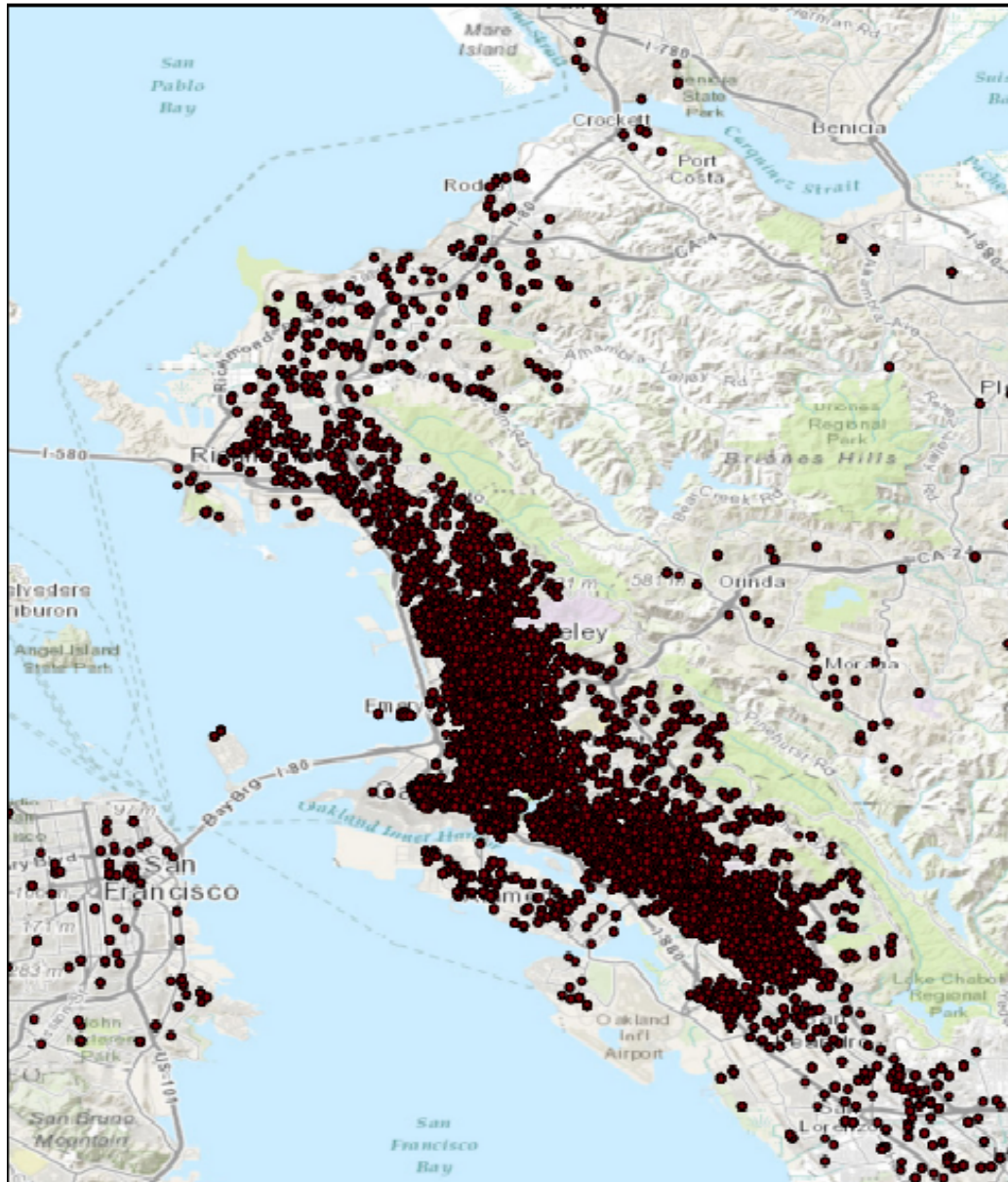


Green Schoolyards
www.educationoutside.org



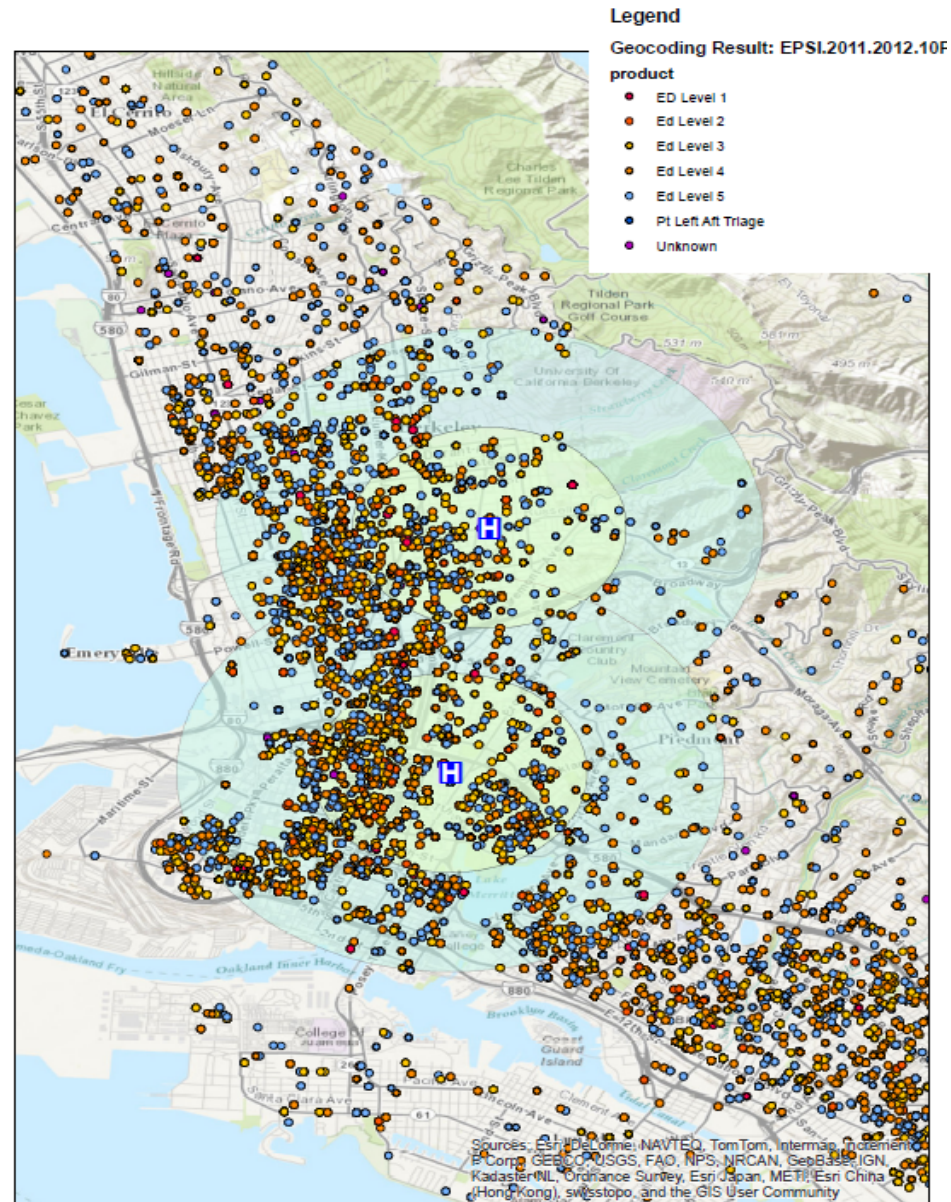
Alice Fung Yu Elementary School, San Francisco

Encounters for Patients in the Top 10 % of Cost

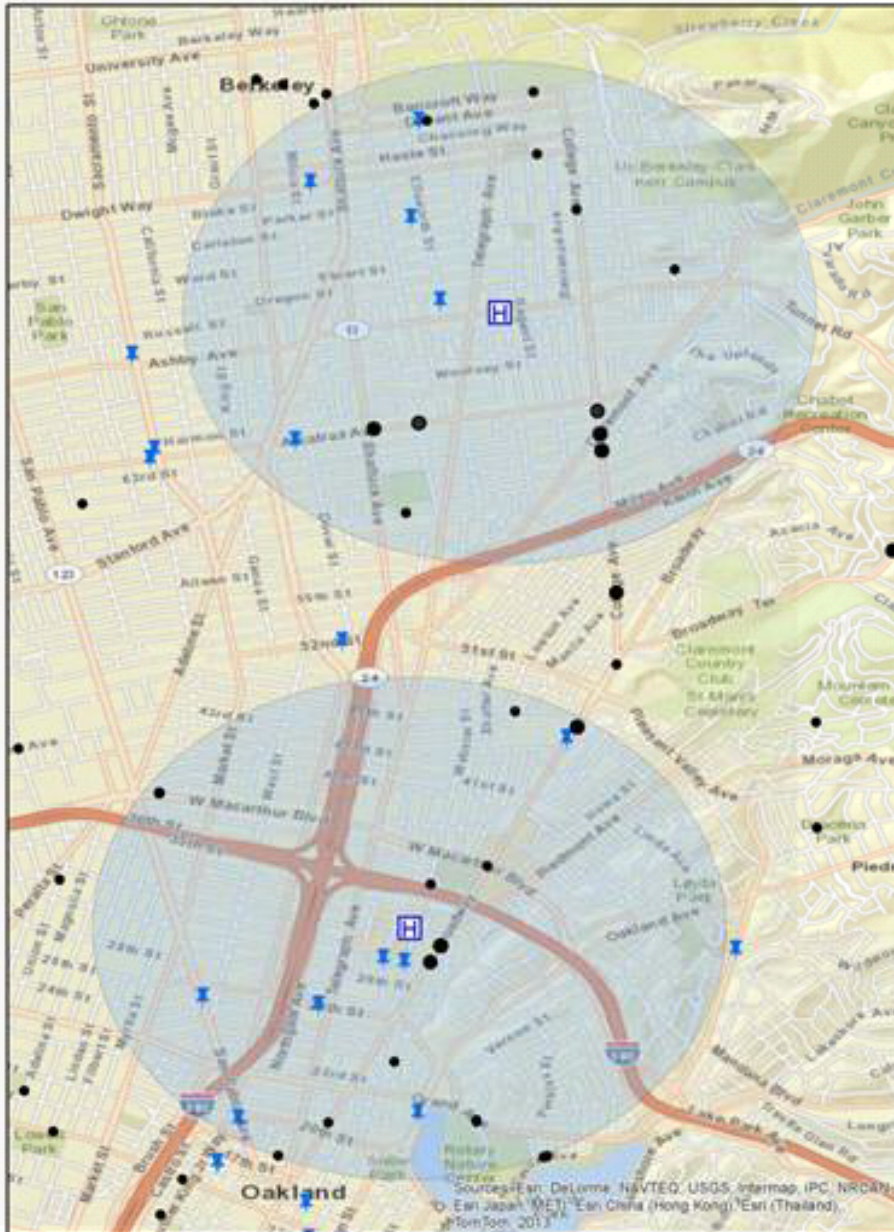


- Approximately 40 Million of 100 million dollars of emergency department care at Alta Bates Summit Medical Center is attributed to the top 10% of patients

Encounters for Patients in the Top 10 % of Cost



Example of GIS Capabilities



Legend

- Dummy Patient Address
- Community Clinics