

**The Nexus Between  
Transportation & Obesity  
Prevention**

**Weight of the Nation Conference  
Washington, D.C.  
July 2009**

Produced by the Alabama Department of Public Health  
Video Communications and Distance Learning Division

**The Unintended Consequences  
Are Told By The Story Of:**

**4**

**Order of Magnitude of Annual  
Pedestrian Deaths in America**

**4,000**

**Order of Magnitude of Annual  
Deaths in Motor Vehicle Crashes**

**40,000**

**Order of Magnitude of Annual  
Deaths Due to Sedentary Living  
and Poor Nutrition**

**400,000\***

\*Rounded up from corrected 365,000.  
Mokdad, A.H., et al. 2004. *Actual causes  
of death in the US.* JAMA 291: 1238-45.

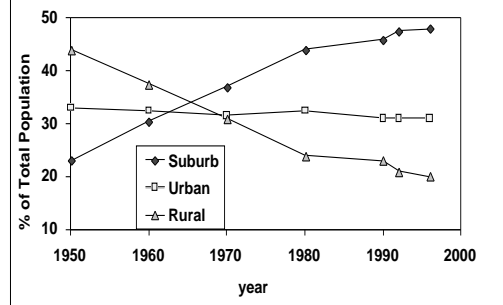
**40,000,000,000**

Order of magnitude direct annual medical expenditures due to inactivity & poor nutrition, borne by taxpayers.

[www.cdc.gov/nccdphp/dnpa/](http://www.cdc.gov/nccdphp/dnpa/)  
(*Obesity Research, Finkelstein et.al., Jan, '04*)

**\$40,000,000,000**

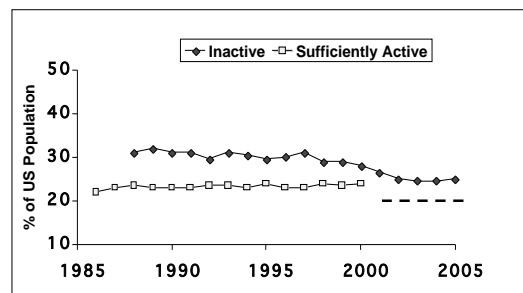
### Suburbanization of America US population shift, 1950-1996



Many agree we must begin affecting the shape of development *before it's done!*



### Leisure Time Physical Activity in the US



### Transport, Land Use, & Nutrition

- Community gardens (near schools, parks, senior housing)
- Conserving farmlands
- Community supported agriculture

Olathe, KS



### Transport, Land Use, & Nutrition

- Farmer's markets

Largo, FL



## Transport, Land Use, & Nutrition

- Regulating fast food drive-through locations



## Transportation Nexus Panel

- Brian Saelens, Assoc. Prof. of Pediatrics, Seattle Children's Hospital, Univ. of Washington
- Deb Hubsmith, Dir., Safe Routes to School National Partnership ([www.saferoutespartnership.org](http://www.saferoutespartnership.org))

## Transportation Nexus Panel

- Dr. Angie Craddock, Dep. Dir. Harvard Prevention Research Center, School of Public Health
- Larry Cohen, Founder & Exec. Dir., Prevention Institute ([www.preventioninstitute.org](http://www.preventioninstitute.org))

Reference	Sampling frame and process	Mean distance walked from home to light rail station	Longest distance
Beimborn <sup>40</sup>	Portland regional travel diaries	~.24 miles	Longest was 1.14 mi.
Dill <sup>35</sup>	Portland residents near LRT stations	~.33 miles	Longest was ~.93 mi.
Olszewski & Wibowo <sup>39</sup>	Interviews at Singapore LRT stations	.40 miles	Upper quartile walked >.5 mi.
O'Sullivan & Morral <sup>38</sup>	Interviews at Calgary LRT stations	.40 miles	N/A
Stringham <sup>41</sup>	Toronto residents near LRT stations	.57 miles	Upper quartile walked >.67 mi.
Weinstein <sup>42</sup>	Interviews at San Francisco & Portland LRT stations	.58 miles	Upper quartile walked >.69 mi.

Total trips per commute day = 4 minimum (to/from home; to/from destination)

## Active Transportation Lessons

- No loopholes – consider the whole system
- Evaluate the true costs & who is paying
- Balance of incentives and disincentives
  - Similar to the individual balance of time/cost
- Planning for the future
  - Is this what prior planners did to/for



Vibrancy: 40%  
Equity: 35%  
Corridor function: 25%

< High Priority Areas

[www.seattle.gov/mostwalkablecity.htm](http://www.seattle.gov/mostwalkablecity.htm)

## A Reaction to Recently Opened Light Rail Line in Seattle

- “Why would you invest so much taxpayer money into public transit and take away parking?”
  - Commuter, regarding new permit-only parking zones around light rail stations

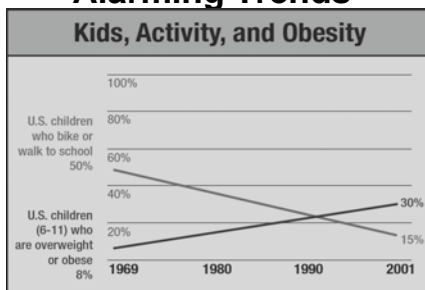
## A Reaction to Recently Opened Light Rail Line in Seattle

- “Light rail was meant to be fed by people taking the bus, walking, or biking. It was not meant to be fed by cars.”

- Rick Sheridan,  
Spokesman for Seattle DOT

## Alarming Trends

### Kids, Activity, and Obesity



Children living within 2 miles of school > 1969: ~50% Now: ~33%

## Why the Change?

- Lack of sidewalks, bike paths, and safe crossings paired with increased auto traffic make it unsafe
- Schools are being sited further from homes = large travel distances
- Policies within most cities and schools have not supported active transportation

## Why the Change?

- Parents are concerned about personal safety
- Habits of students and parents

## How Safe Routes to School Can Help

- Infrastructure improvements for walking and bicycling
- Policy changes to support community-centered schools, complete streets, etc.
- Driver safety campaigns and law enforcement

### How Safe Routes to School Can Help

- Teaching bike/ped safety to children
- Supervised "walking school buses"
- Encouragement campaigns to change habits
- Addressing state policies such as how transportation funds are allocated, school siting, and attention to vulnerable communities

### How To Get Schools Involved

- Measure what we want to change
  - Schools reporting on youth BMI to parents, administrators?
  - Measure and report travel mode share at every elementary school in America with a national show-of-hands survey?

Mode	%
Driven	21.5
Bus	18.7
Taxi	1.4
Walk	48.3
Cycle	2.8
Scooter	0.7
Park/walk	6.1
Other	0.5

### Key Findings: Federal Transportation Funding for Bicycle & Pedestrian Projects

- From 1992-2004
- Over 10,000 bicycle and pedestrian projects funded through ISTEA, TEA-21
  - \$3.17 billion for ISTEA and TEA-21 combined
  - \$450 million in year of highest funding

### Key Findings: Federal Transportation Funding for Bicycle & Pedestrian Projects

- Supported under multiple FHWA programs (TE, CMAQ, STP)
- Differences in per capita implementation by state
- Bicycle and pedestrian project implementation *less likely* in areas of persistent poverty and lower education

### Policy Strategies: Promoting Safe, Physically Active Transportation Choices

- Improve data access and quality
  - Improve data tracking & monitoring systems; promote access to data on bike & ped. project implementation
- Recognize the role of transportation policy in public health outcomes

### Policy Strategies: Promoting Safe, Physically Active Transportation Choices

- Create formal linkages between public health goals and transportation funding guidelines
- Target transportation funding to underserved communities

### Policy Strategies: Promoting Safe, Physically Active Transportation Choices

- Lower barriers to implementing bicycle and pedestrian projects, particularly in underserved communities

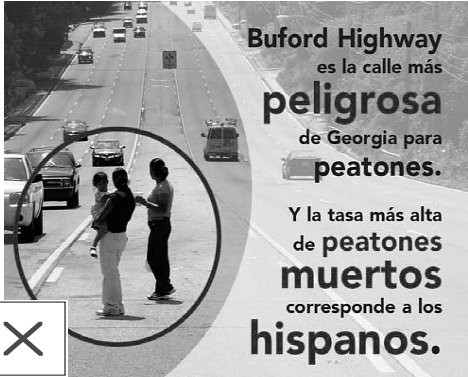
### Would you *require* a Complete Streets approach on every road project that receives any federal transportation \$?

- All new road construction & maintenance must account for pedestrians, bicycles, transit, & motor vehicles
- Match physical design to intended speed

### Would you *require* a Complete Streets approach on every road project that receives any federal transportation \$?

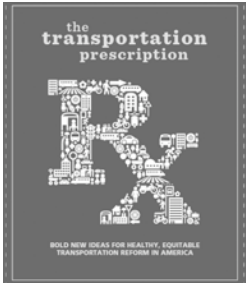
- Establish hierarchy from trails, alleys to parkways & boulevards
- Start implementing cheap—with paint!!!

[www.completestreets.org](http://www.completestreets.org)



Buford Highway es la calle más **peligrosa** de Georgia para **peatones**.

Y la tasa más alta de **peatones muertos** corresponde a los **hispanos**.



the **transportation** prescription

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Healthy People, Healthy Places

Prevention **institute**  
Putting prevention at the center of community well-being

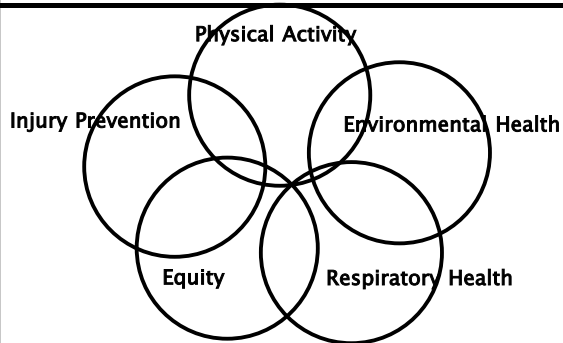
## Roadmap to 21<sup>st</sup> Century Transportation Policies

- Ensure transportation plans account for health & safety
- Shift the fundamental focus of transportation from mobility and congestion relief to accessibility
- Prioritize equity through targeted investment in vulnerable communities and increased access to transportation jobs and training

## Roadmap to 21<sup>st</sup> Century Transportation Policies

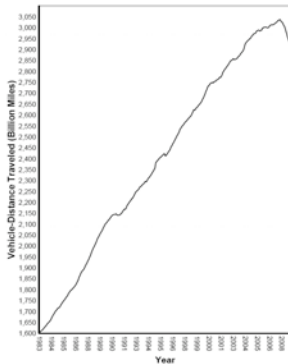
- Increase investment in public transit, walking, and bicycling infrastructure
- Advance safety for all travelers
- Support innovation of greener energy sources

## Converging Solutions



## Answer

It's the big reason over 80% of Americans now average at least 150 min./week of physical activity, much of it *without* specifically exercising.



**US Total Vehicle Miles Traveled (VMT); moving 12-month total, by year**  
**2007-2008**  
**VMT: - 3.6%**  
**Transit use: + 4%**

[www.fhwa.dot.gov](http://www.fhwa.dot.gov) [www.apta.com](http://www.apta.com)

## Important Resources

- [www.completestreets.org](http://www.completestreets.org)
- [www.saferoutesinfo.org](http://www.saferoutesinfo.org)
- [www.physicalactivityplan.org](http://www.physicalactivityplan.org)
- [www.T4America.org](http://www.T4America.org)