

# Building Community Health with Sticky Design

—

Bennington County  
Regional Commission

Bennington, VT  
Oct. 2013



# The common questions:

- Isn't health a result of **personal decisions & habits**?
- If we build it, **will they come?** (Humans are just lazy . . .)
- Shouldn't the **free market** dictate how we build our cities & towns?
- What is the **prescription** for healthy design (& how do we **get there**)?



Get a dog?



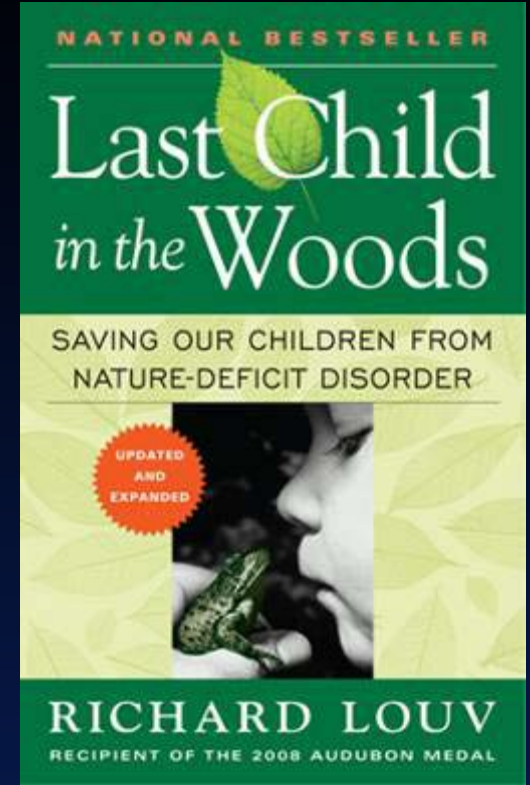
# Youthful recollections





30-Nov-2009

Not just my idea . . .



# Kids held back with 'over-organised' play, says Shane Gould

Pia Akerman

OLYMPIC golden girl Shane Gould has blasted children's sports programs as "over-organised" and holding back the natural development of physical skills, contributing to physical and social problems down the track.



Gould

The swimmer, who won five individual medals at the 1972 Munich Olympics, yesterday took aim against children as young as five being pushed into team sports rather than recreating.

— 5, 6, 7, 8 — that is really too young for kids to be involved in organised sport, even though it is modified," she said at the Australian Institute of Public Management annual conference in Adelaide.

"I believe that children are over-organised and they don't have enough opportunity and freedom to play naturally."

coined the term "nature deficit disorder" — it's not actually a brain disorder but we are going to start to see problems in children like concentration, best ability to regulate their emotions."

Currently working on a master's degree in social geography at the University of Tasmania, Gould will publish her thoughts on children's physical activity in the December issue of the *Child* publication in state capitals.

The Matter: the loss of traditional Australian backyards and the "erosion" of public playgrounds is factors reducing child-

ren's ability to play naturally.

"Public liability seems to be the main focus for the design of new children's playgrounds and all of us need to take some responsibility for this," Gould writes.

"The race to blame someone for a child's fall from a piece of playground equipment has had the appalling knock-on effect of almost eliminating child's play and led to this devastating impact on our public spaces.

"Children prefer a log and a stick to play structures"

Speaking after her address,

Gould said home-improvement TV shows emphasising aesthetically pleasing courtyards had encouraged people to ditch traditional backyards.

"Kids need backyards — they need to dig dirt and pull up plants and see the roots. They need to find worms and beetles and make tracks and build cubbies and pull them down again," she said.

A mother of four, Gould raised her children on a property at Margaret River in Western Australia, where outdoor activity was an important part of everyday life. In her article, Gould argues the

Howard government's focus on after-school sports to address childhood obesity was "well-meaning" but failed to attract most children who often had a "can't do" attitude to sports.

"Children, particularly under eight, do not in my opinion, need to be involved in organised sports," she writes.

Gould said children today were "stagnant" due to "lack of movement experiences" such as reaching, climbing, hopping and spinning.

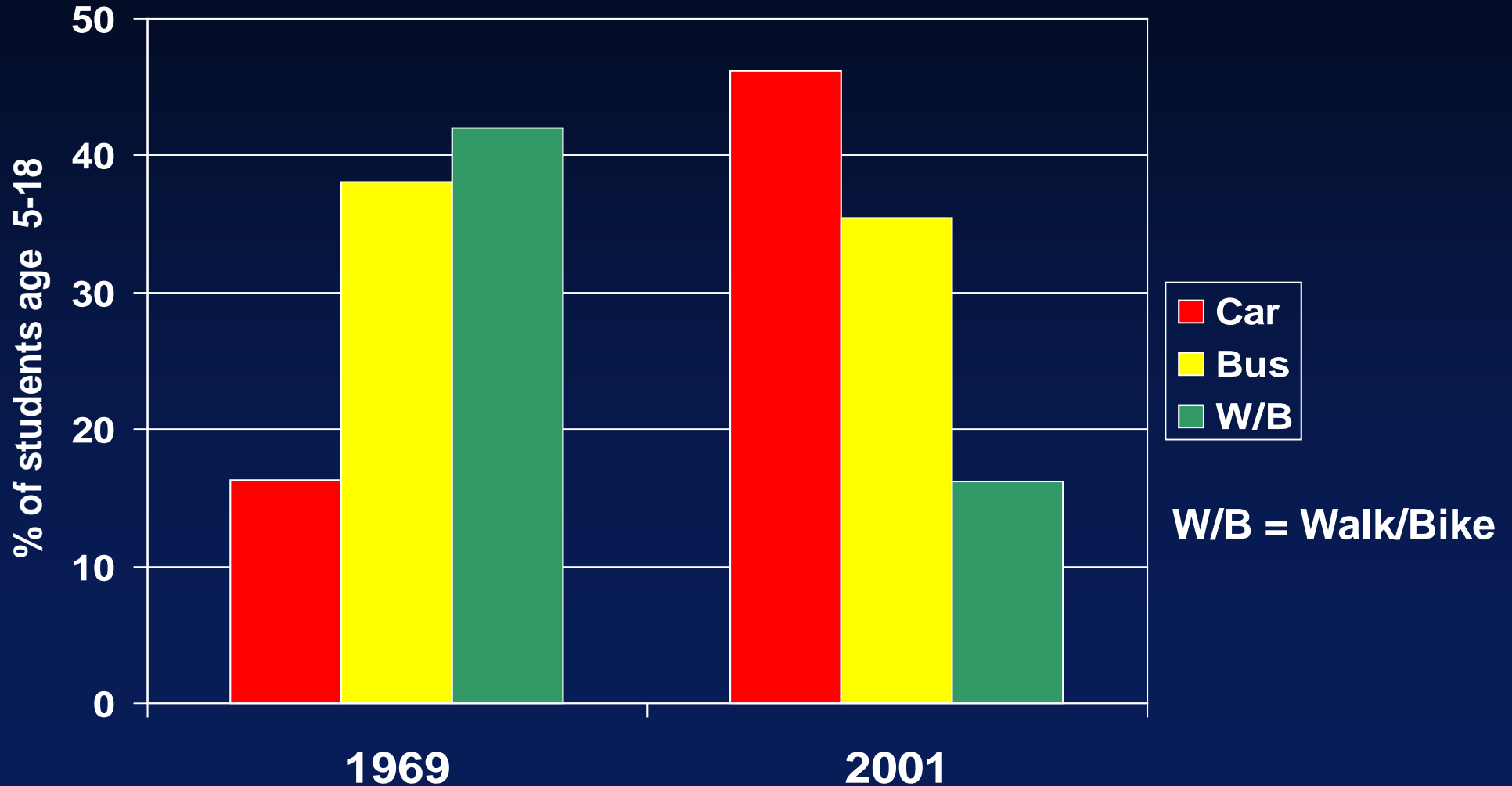


Have your say at [thematriller.com.au](http://thematriller.com.au)

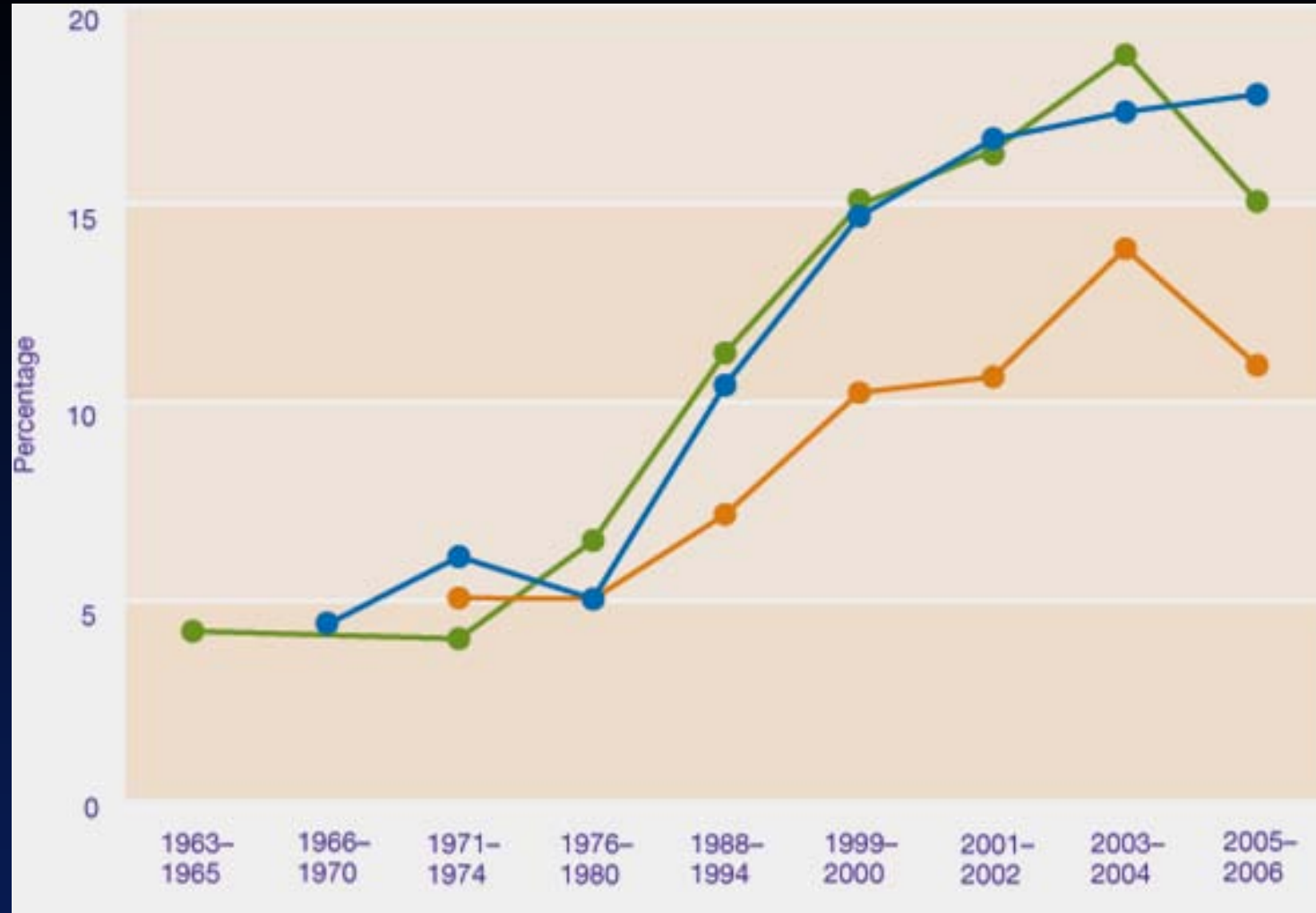
The Australian, 14-Oct-2009

# Changes in Walking & Cycling to School, 1969 to 2001

Ham et.al., *Jour. of Physical Activity & Health*, 2008, 5, 205-215



# Trends in Childhood Obesity & Overweight



CDC, National Center for Health Statistics. *National Health Examination Surveys (NHANES) II (ages 6–11) and III (ages 12–17), and NHANES I, II and III, and 1999–2006.*

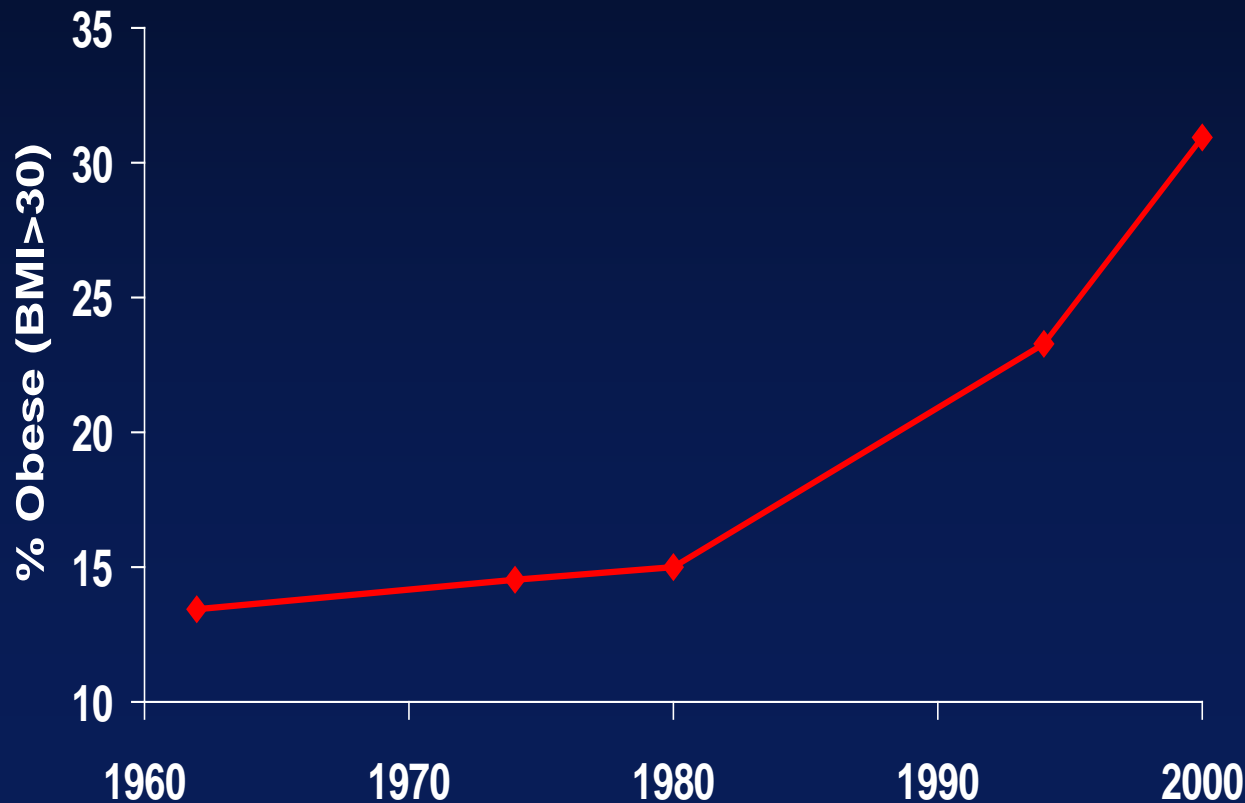
[www.rwjf.org/files/publications/annual/2008/year-in-review/](http://www.rwjf.org/files/publications/annual/2008/year-in-review/)

[www.markfenton.com](http://www.markfenton.com)

# America's looming chronic disease apocalypse . . .

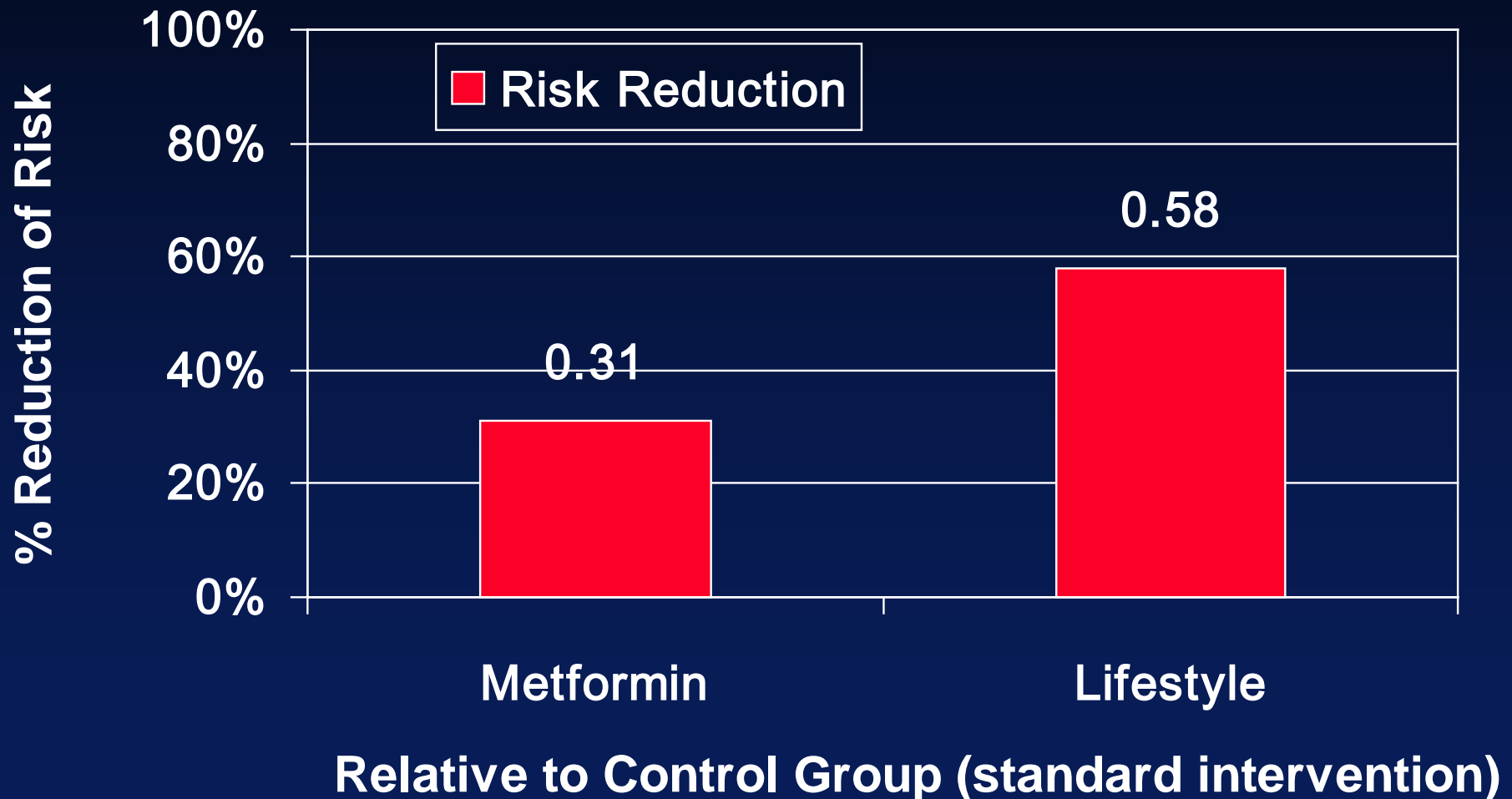
## US "Obesity Epidemic"

Ogden et. al. (JAMA 288, 14; Oct. 2002)



# Diabetes Risk Reduction

(Diabetes Prevention Program; *NEJM*, Feb. 2002)





## The Rant:

Change our thinking. It's *not* just an obesity epidemic. It's twin epidemics of **physical inactivity** and **poor nutrition**.\*

\* Two of the three biggest drivers of skyrocketing healthcare costs.

**But in the end . . .**

**It's a matter of personal  
choice, isn't it?**

# The bad news in just three numbers:

**30** Minutes of daily physical activity recommended (**60** min. for youth).

**20** % of American adults actually meet these recommendation (thru LTPA).

**365,000** Estimated annual deaths in America due to physical inactivity & poor nutrition. (2<sup>nd</sup> only to tobacco.)

# Surgeon General's Report 1996 Physical Activity Guidelines 2008

[www.health.gov/paguidelines](http://www.health.gov/paguidelines)

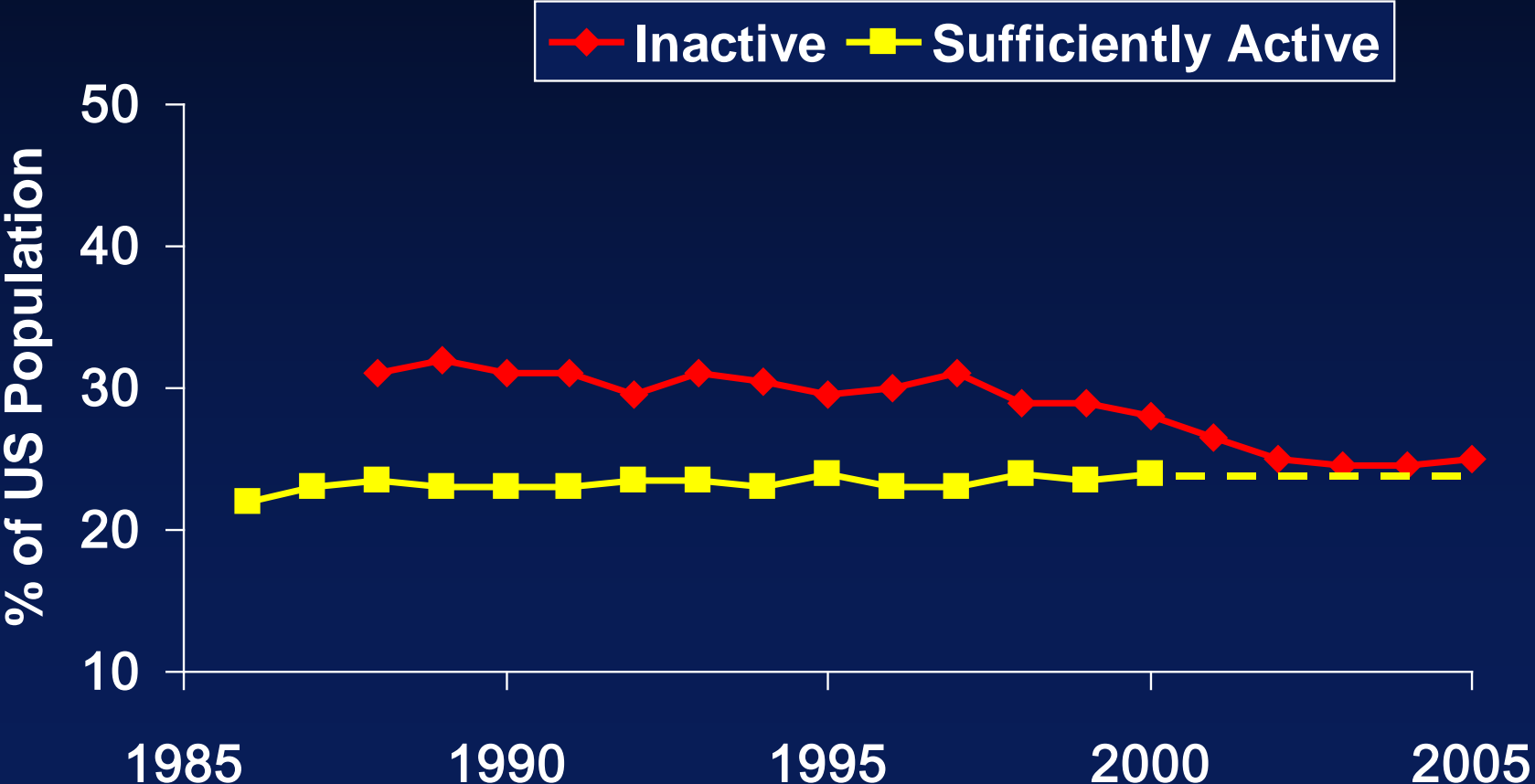
- **150 minutes/week** of moderate **physical activity**; more is better.
- Any activity is better than none.
- Can be **broken up**.
- **300 min/week** for children.
- Reduced risk for CVD, diabetes, osteoporosis, obesity, dementia in old age, clinical depression, a growing list of cancers . . .



**This counts!**

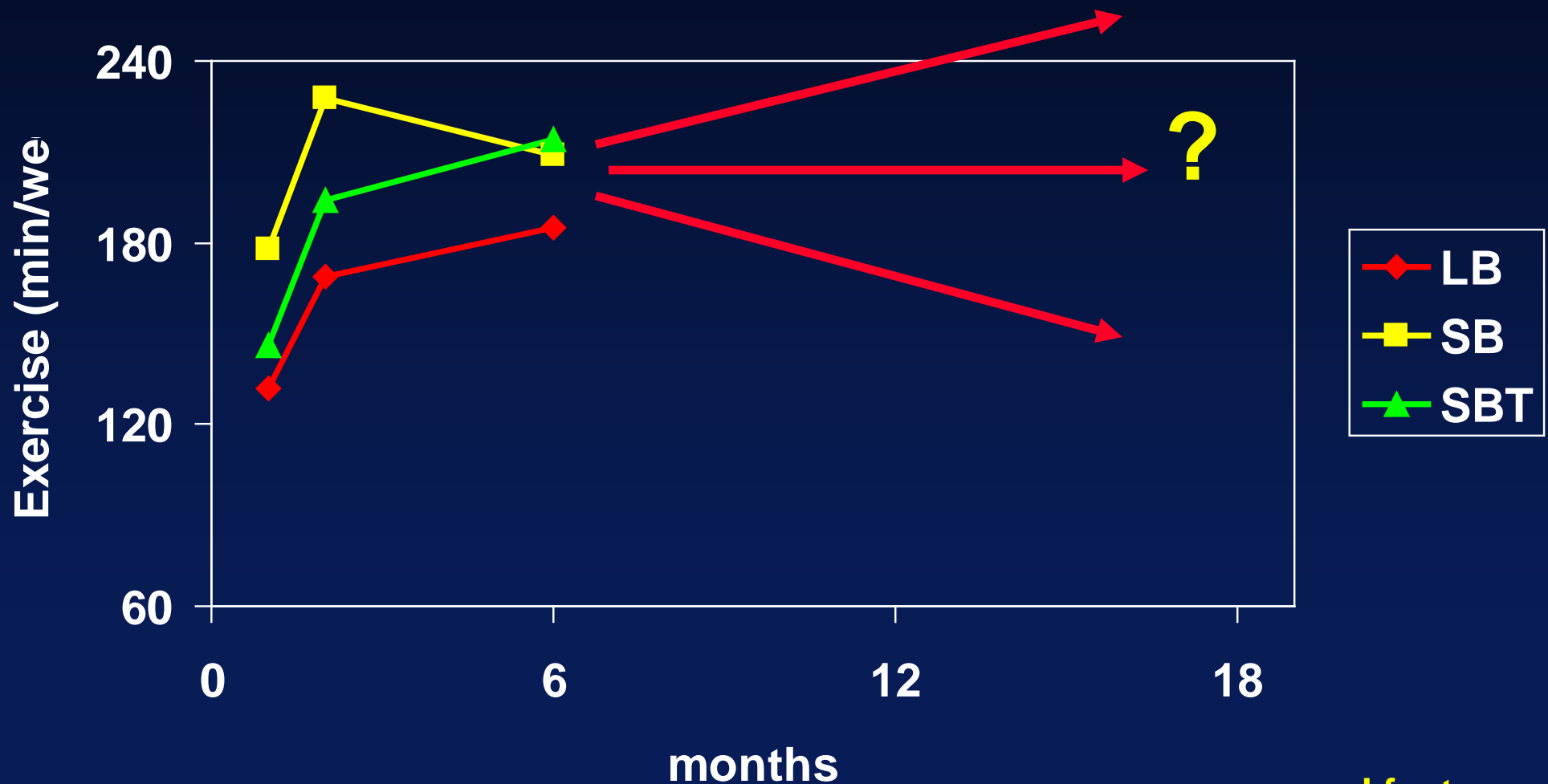
# Leisure Time Physical Activity in the US

(MMWR: 50(09), 166-9; 54(39), 991-4)



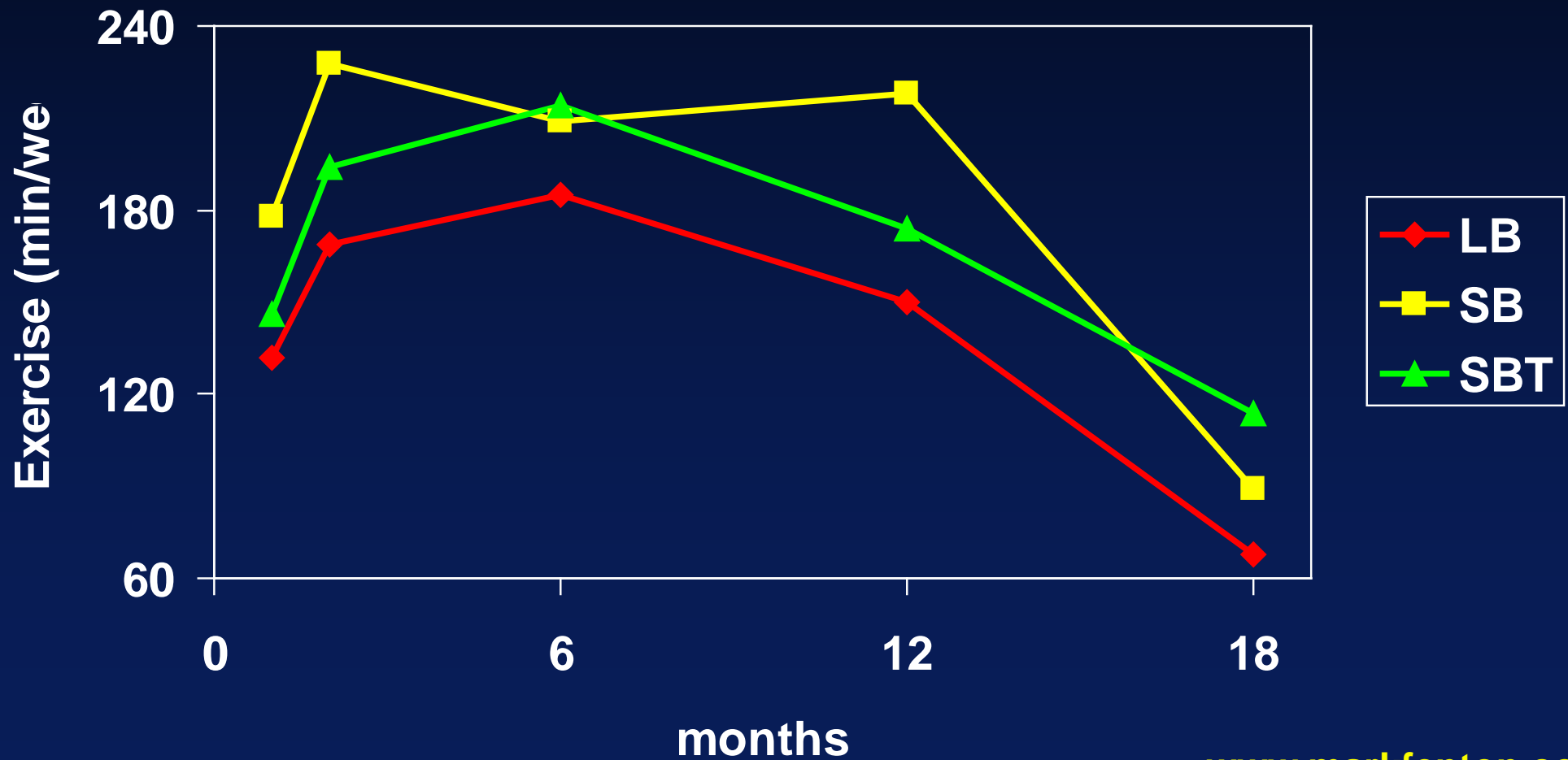
# Exercise Participation

Effect of Short Bouts, Home Treadmills  
(Jakicic et.al., *J. Amer. Med. Assoc.*, 282, 16)



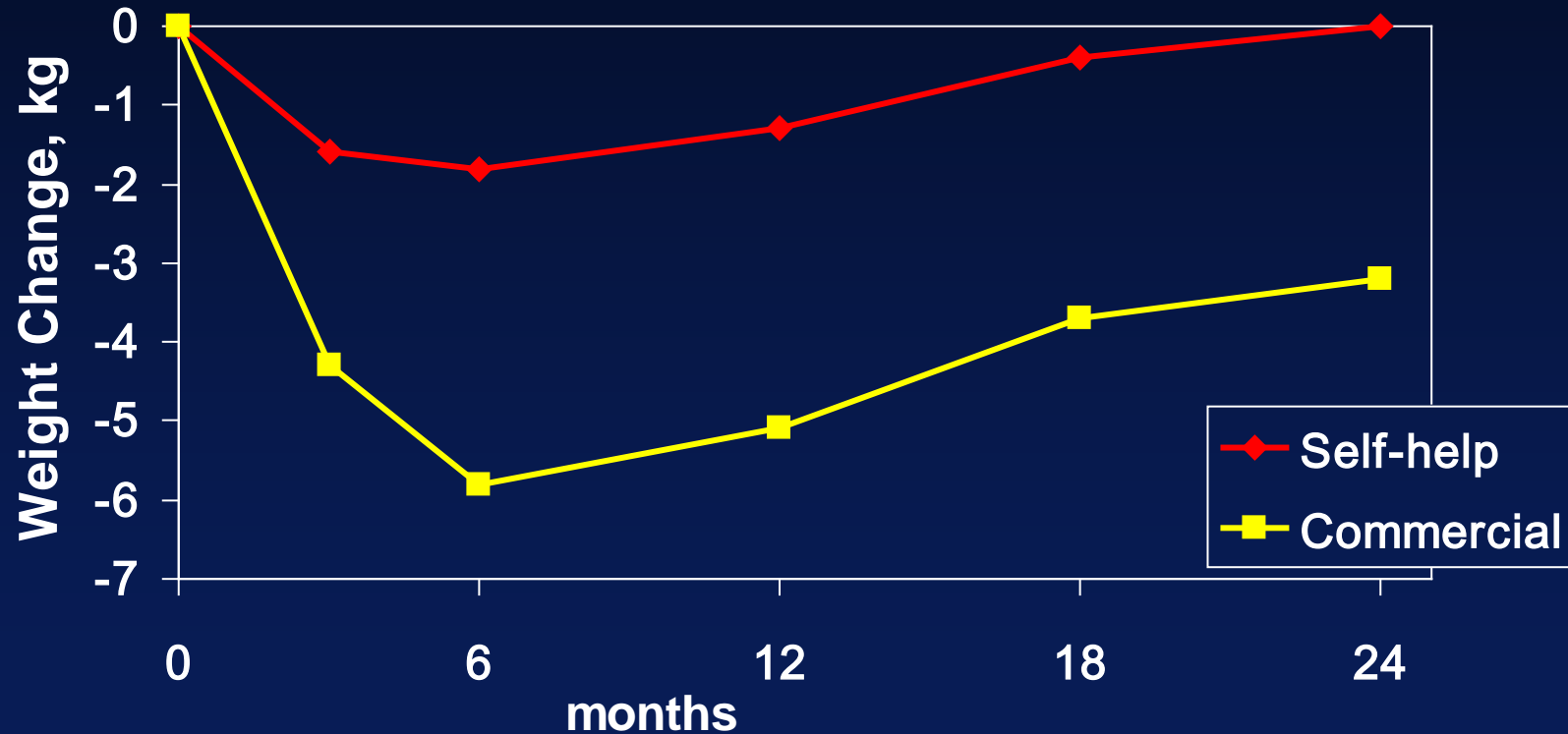
# Exercise Participation

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# Self-help vs. Commercial Weight Loss Programs

(Heshka et.al., *J. Amer. Med. Assoc.*, 289, 14; Apr. 2003)





## **A realization:**

Simply telling people to “exercise” & “get on a diet” is not enough. We need to support increases in **routine, daily physical activity & healthy food systems** for everyone.

# Social Ecology Model

Sallis & Owen,  
*Physical Activity & Behavioral Medicine.*

Determinants  
of behavior  
change

**Individual**  
motivation, skills

**Interpersonal** - family,  
friends, colleagues

**Institutional** - school, work,  
health care & service providers

**Community** - networks, facilities

**Public Policy** - laws, ordinances,  
permitting practices & procedures

**Easier to Implement**

**Individual**  
motivation, skills

**Interpersonal** - family,  
friends, colleagues

**Institutional** - school, work,  
health care & service providers

**Community** - networks, facilities

**Public Policy** - laws, ordinances,  
permitting practices & procedures

**Greater Impact**

# Socio-ecological successes?



Tobacco Use  
is Prohibited on  
Marlborough Hospital  
Property

**Tobacco  
use**

**Seatbelts,  
child safety  
restraints**



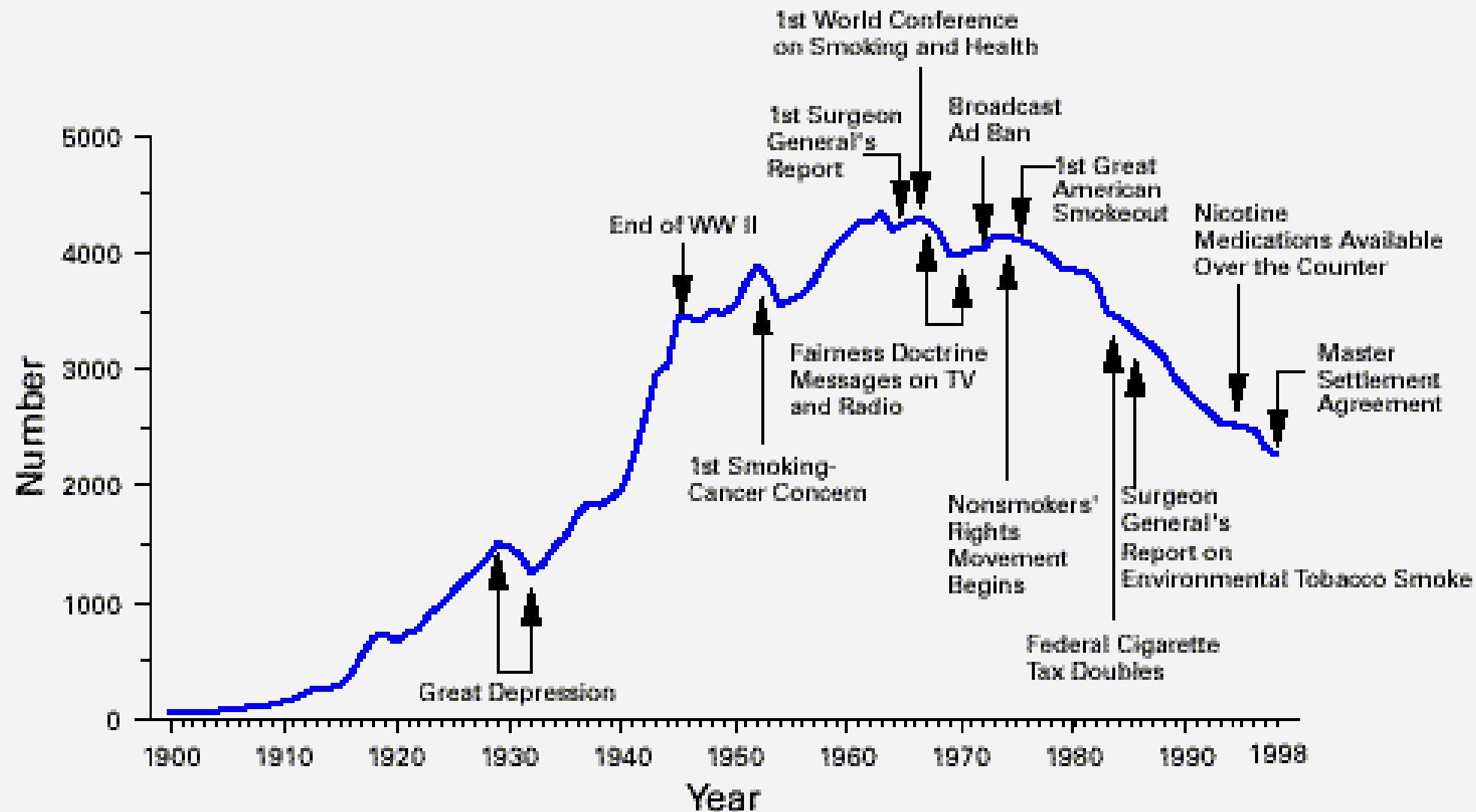
**Water-borne disease**

**(Haiti)**

**Recycling**



**FIGURE 1. Annual adult per capita cigarette consumption and major smoking and health events — United States, 1900–1998**



Sources: United States Department of Agriculture; 1986 Surgeon General's Report.

Thanks to Prof. Ross Brownson, Wash. Univ., St. Louis

[www.markfenton.com](http://www.markfenton.com)



**vs.**



**Necessary and  
important,  
but not enough. >**



**< We must build  
communities  
where people are  
*intrinsically*  
more active.**



**If we build it, will  
they come?**



# YES! Four elements:

1. Variety of uses within walk, bike, & transit distance.
2. Connecting facilities: trails, sidewalks, bike lanes, transit.
3. Destinations are functional & inviting for pedestrians, bicyclists, & transit users.
4. Safe & accessible for all ages, incomes, abilities



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

CDC Guide to Community Preventive Services

[www.markfenton.com](http://www.markfenton.com)

# In planner language:

- Mix of land uses; varied destinations.
- Network of bicycle, pedestrian, & transit facilities.
- Functional site designs & details.
- Universal safety & access.



Core re-development



# 1. Land use.

Live, work, shop, play, learn, pray.



E.g. post office,  
grocery, schools

Compact neighborhoods  
& shared open space.

Housing  
above,  
retail  
below.



## 2. Network of facilities:



- Presence of bike lanes, sidewalks, pathways.
- Shorter blocks, more intersections.
- Access to trail, park.
- Affordable transit.



# Bicycle network options:



Shar-row  
(shared  
use arrow)



# Comfortable setting for drivers and pedestrians?



Bennington



But how far back?

# Preferred sidewalk setback:



**Even a bike lane  
adds buffer**

**1.0 Fenton minimum**

**Impressed to see almost 3.0 Fentons here!**



**2.8 Fentons**



### 3. Site Design:



Which setting is more inviting for travel on foot and by bicycle?

# Site design? Research & practice suggest:



- Buildings near the sidewalk, not set back; parking on street or behind.
- Trees, benches, lighting, awnings, “human” scale.
- Details: bike parking, open space, plants, art, materials.



## Possible incentives:

- Decrease, share parking (include bike racks).
- Build-to lines.
- Mixed-use, multi-story; residential density bonus!
- Expedite permits.



Neenah WI



Appleton WI

**Elected, appointed officials & staff must be supported if expected to act courageously!**

# 4. Safety & access.

- Engineering can markedly improve safety.
- Increasing pedestrian and bike trips *decreases* overall accident & fatality rates.



Median islands



Roundabout (Neenah, WI)



Curb extensions

(Jacobsen P, *Injury Prevention*, 2003; 9:205-209.)

# Lane re-alignments

- Often called road diets, being seen more often.



Urbana, IL; before & after.



- Can reduce collisions & severity.
- Dramatically improves performance for pedestrians & cyclists.

# E.g. intersection of Rt. 7 & Kocher

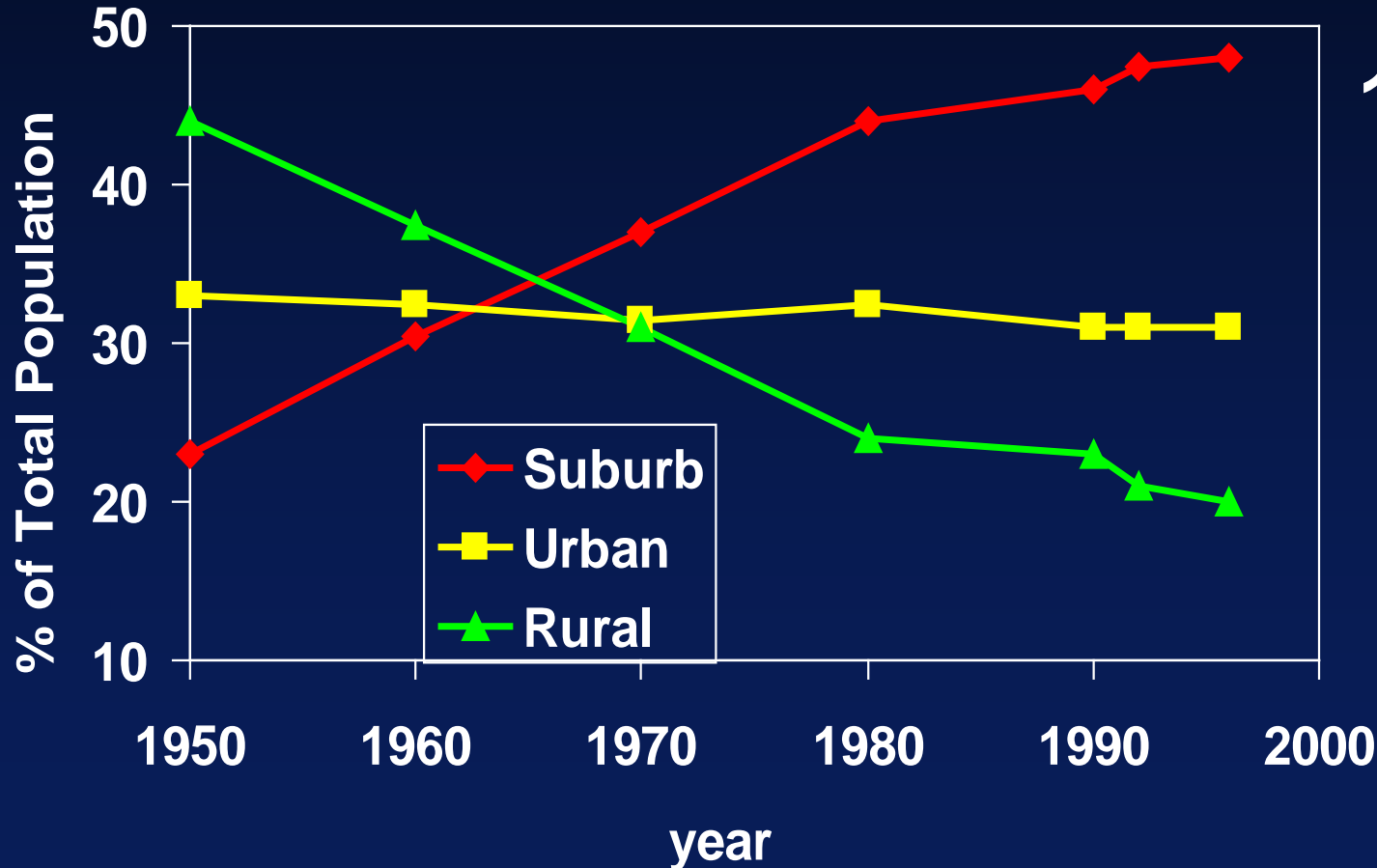


# “But what about rural areas . . . ?”

## Suburbanization of America

### US population shift, 1950-1996

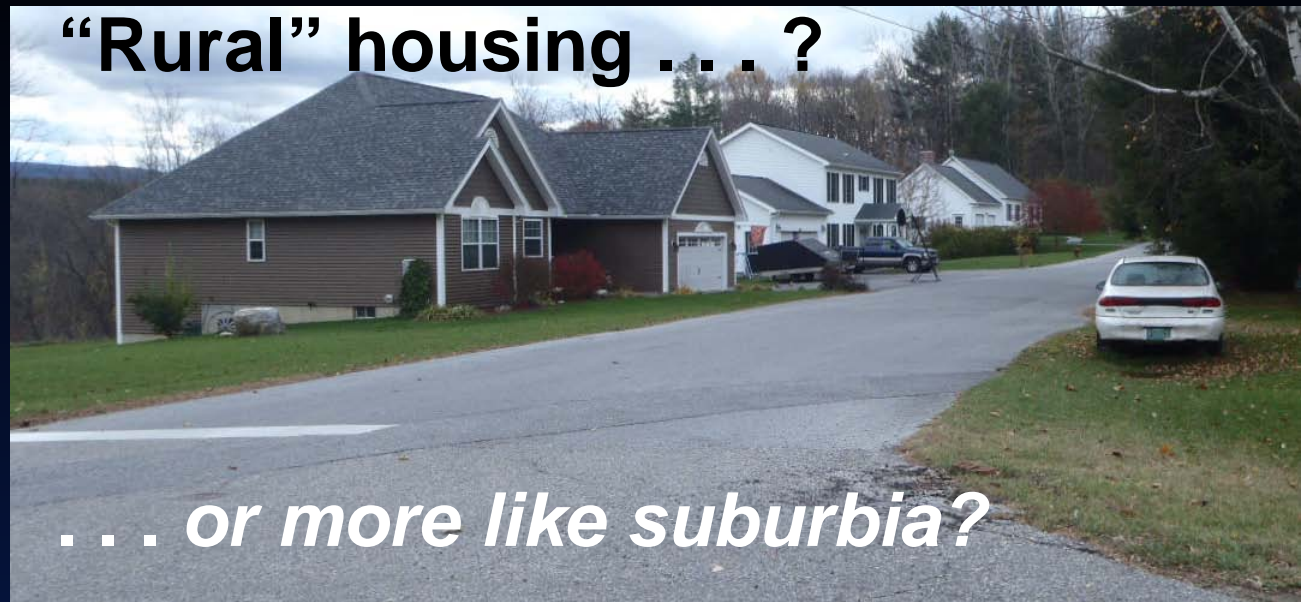
(after *Bowling Alone*, R. Putnam, 2000)



1. Suburbia is steadily consuming the landscape . . .

2. Rural areas are  
where we can  
affect the shape of  
development  
*before it's done!*

“Rural” housing . . . ?



. . . or more like suburbia?





# 5. Community design & food systems?

- Community gardens (near schools, parks, senior housing)
- Zoning for urban farming; chickens, bees, composting . . .



- Regulate fast food, drive-through locations.



- Farmer's markets
- Green grocers.
- Neighborhood stores.



# Five Elements of Healthy Community Design:



Mix of destinations

Ped, bike, & transit network



Site design

Safety & access



Healthy affordable food



**Shouldn't the free market  
dictate how we build our  
cities & towns?**

# Economics. *Walking the Walk:* *How Walkability Raises Housing Values* *in U.S. Cities.* (CEOs for Cities report)\*



Higher score = ↑ \$4,000-\$34,000 home value

\*[www.ceosforcities.org/work/walkingthewalk](http://www.ceosforcities.org/work/walkingthewalk)  
[www.walkscore.com](http://www.walkscore.com)

# *On Common Ground*

Nat'l Assoc. of Realtors pub.; Summer 2010

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

## The Next Generation of Home Buyers:

- Taste for urban living.
- Appetite for public transportation.
- Strong green streak.
- Plus, Americans are driving less overall!



# Housing is moving back into our cities!

USA Today May 16, 2012

Home Buyers seeking:

- Easy access to schools, shopping, amenities.
- Don't want to be forced to drive for everything.
- Dead malls, brown-fields redeveloping with *residential component.*



Photo by Stephanie Daniel for USA TODAY

Best of both worlds: Maurice Turner and Preet Bassi wanted urban amenities with a homey feel.

## The new look — and location — of housing

Neighborhoods with suburban feel spring up in unused city sites

By Haya El Nasser  
USA TODAY

Townhouses and single-family homes are sprouting on old industrial sites in the heart of Southern California cities. In Florida, developers are coveting foreclosed golf courses in urban centers to put up new subdivisions. Builders in Texas are going after available land even near landfills for residential and retail development.



**Colony Park** Has more than 500 homes in Anaheim's Historic District on a site that once housed industrial warehouses.

verse 60-year-old trends. They're shifting from giant communities on wide-open "greenfields" to compact "infill" housing in already-developed

[www.markfenton.com](http://www.markfenton.com)

# What's happening?

- 1<sup>st</sup> & 2<sup>nd</sup> generation malls & big boxes are struggling.
- Employers seek livable communities, for employee health, satisfaction, retention.



**More simply:**  
Which generates more tax revenue per square foot, a dying mall or thriving downtown?

# So how to get there?



Walk audits



Implementation



Work sessions



# Three requests:

- **Speak up:** To family & friends, students, colleagues, the media, especially community leaders.
- **Act up:** Help improve the built & policy environments for P.A.
- **Step up:** Be a role model—build lifestyle activity into your day!

# Speak up:

- Not just an obesity epidemic; twin epidemics of **physical inactivity** & poor nutrition.
- Suggest, prescribe **physical activity** to family, friends, colleagues, strangers – everyone you can.
- Be a vocal advocate, and build a team supporting more **walkable, bicycle-, & transit-friendly** designs!

# Build a compact, focused, interdisciplinary leadership team targeting healthy design:

- Education, schools
- Planning & Zoning
- Engineering, DPW
- Parks, Recreation
- Public Health & Safety
- Historical preservation
- Social justice & equity
- Chamber of Commerce
- Developers, Lenders, Realtors
- Neighborhood Assoc., Church & Service Groups
- Environment, Conservation

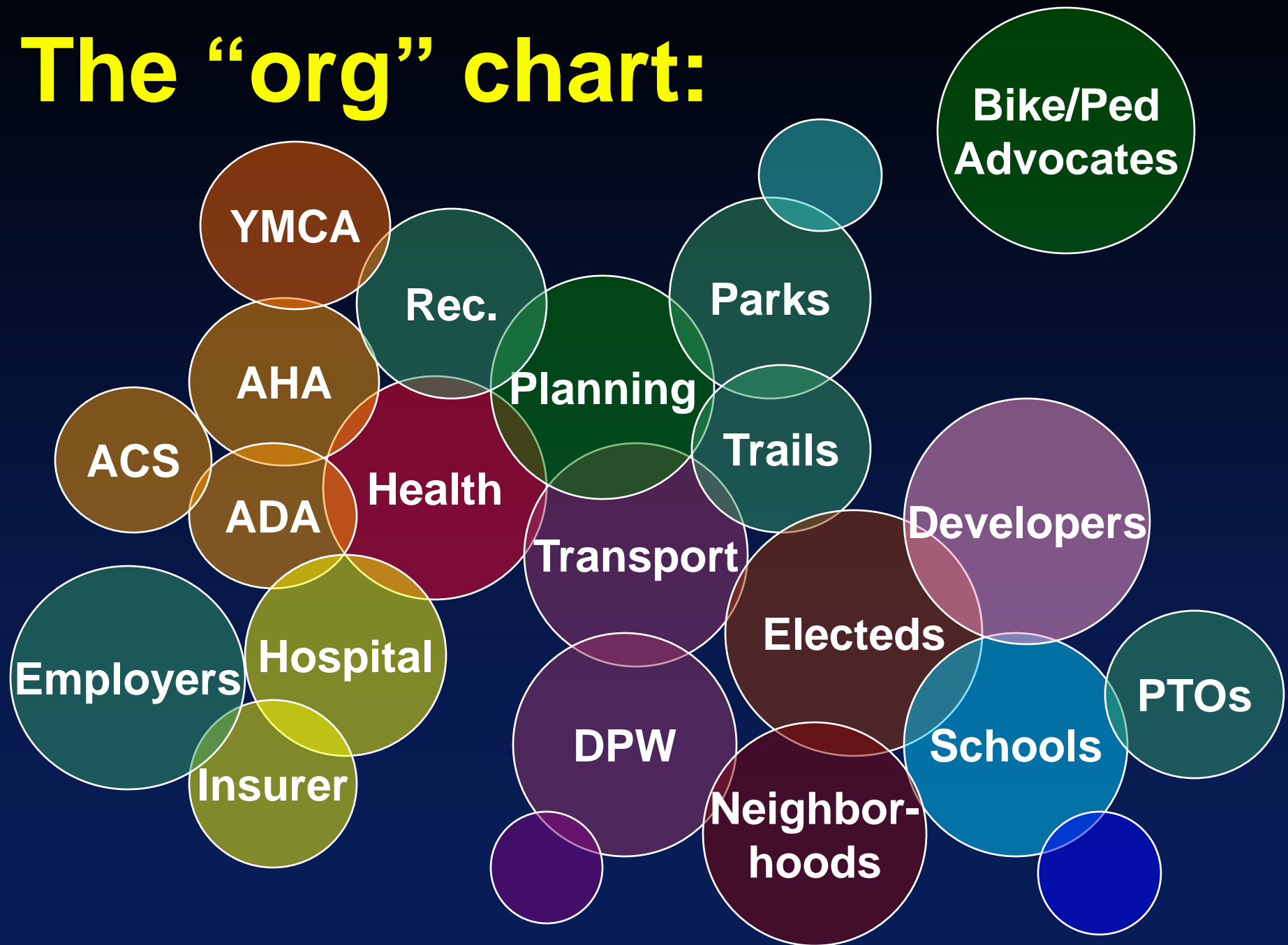


## Policy information:

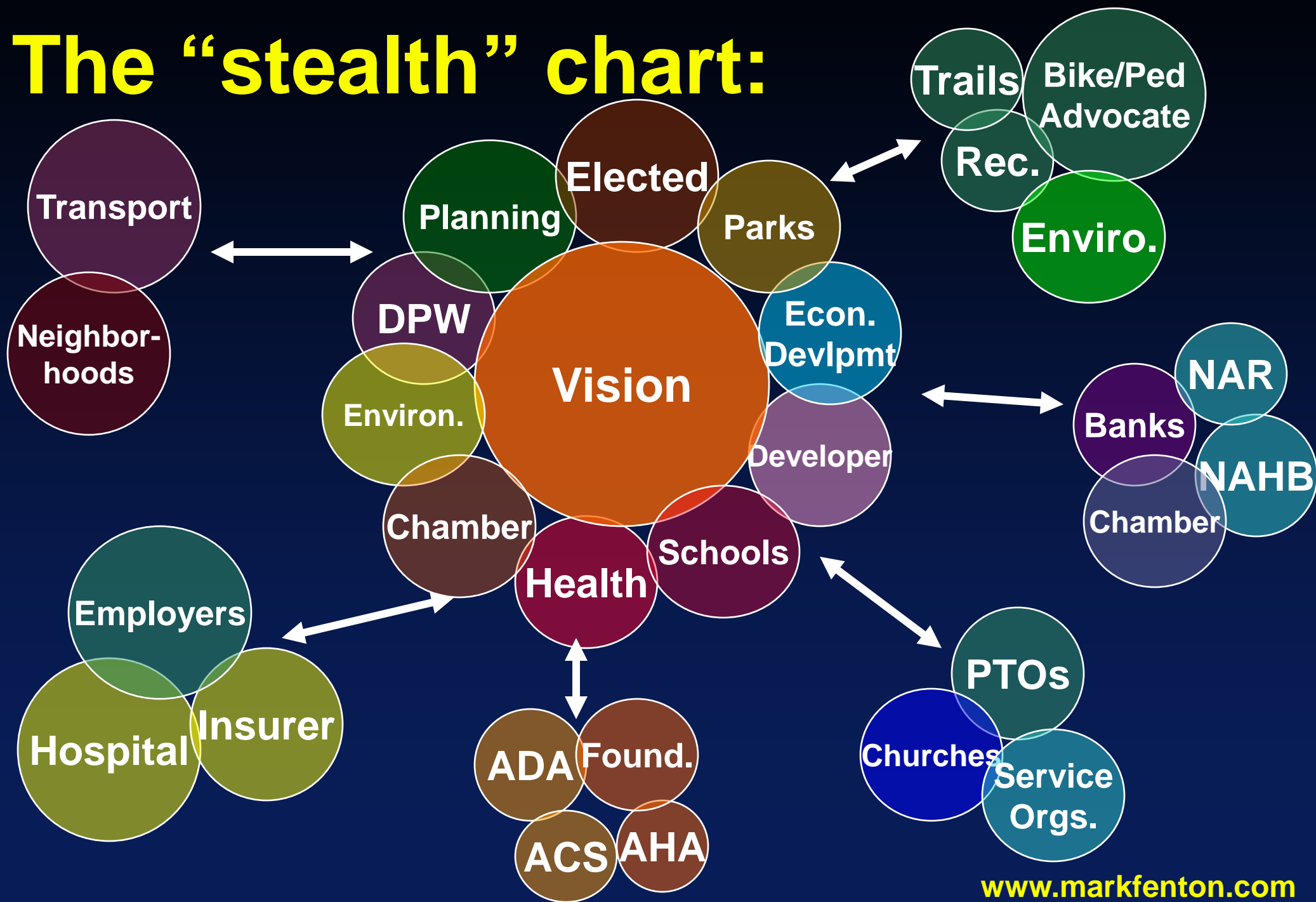
[www.lgc.org](http://www.lgc.org)

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

# The “org” chart:



# The "stealth" chart:



# To be on the stealth leadership team people must:

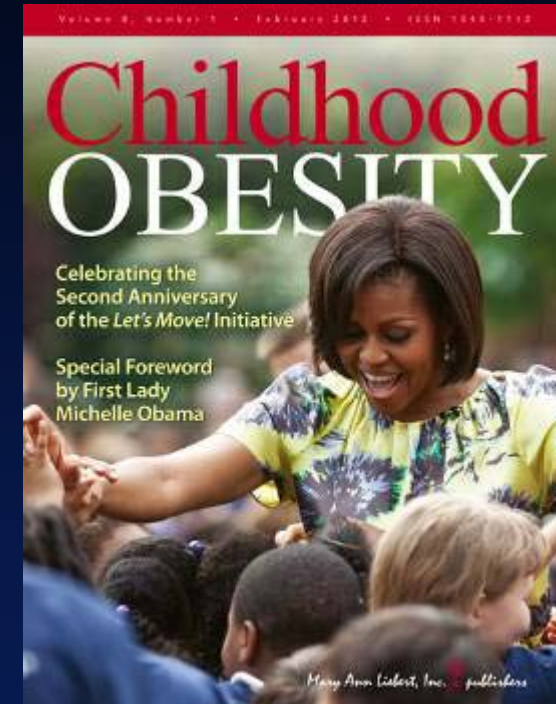
- Embrace the **vision** of active, healthy community design.
- Able to spend time on this as part of **job responsibilities**; not just volunteers.
- Have **community influence** and are able to **reach** critical partners.



# Act up: Support five national movements changing the physical activity landscape.

(Fenton, Community Design & Policies for Free Range Children, *Childhood Obesity* 8(1), Feb 2012)

1. Healthy planning & zoning.
2. Complete Streets.
3. Transportation trail networks.
4. Transit- & bicycle-friendly policies.
5. Comprehensive Safe Routes to School.



# 1. Engage selectmen & planning boards; E.g. update & implement comprehensive plan.

- “Plan development to maintain town’s historic settlement pattern of a well-defined urban growth center surrounded by rural countryside.”



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

[www.markfenton.com](http://www.markfenton.com)



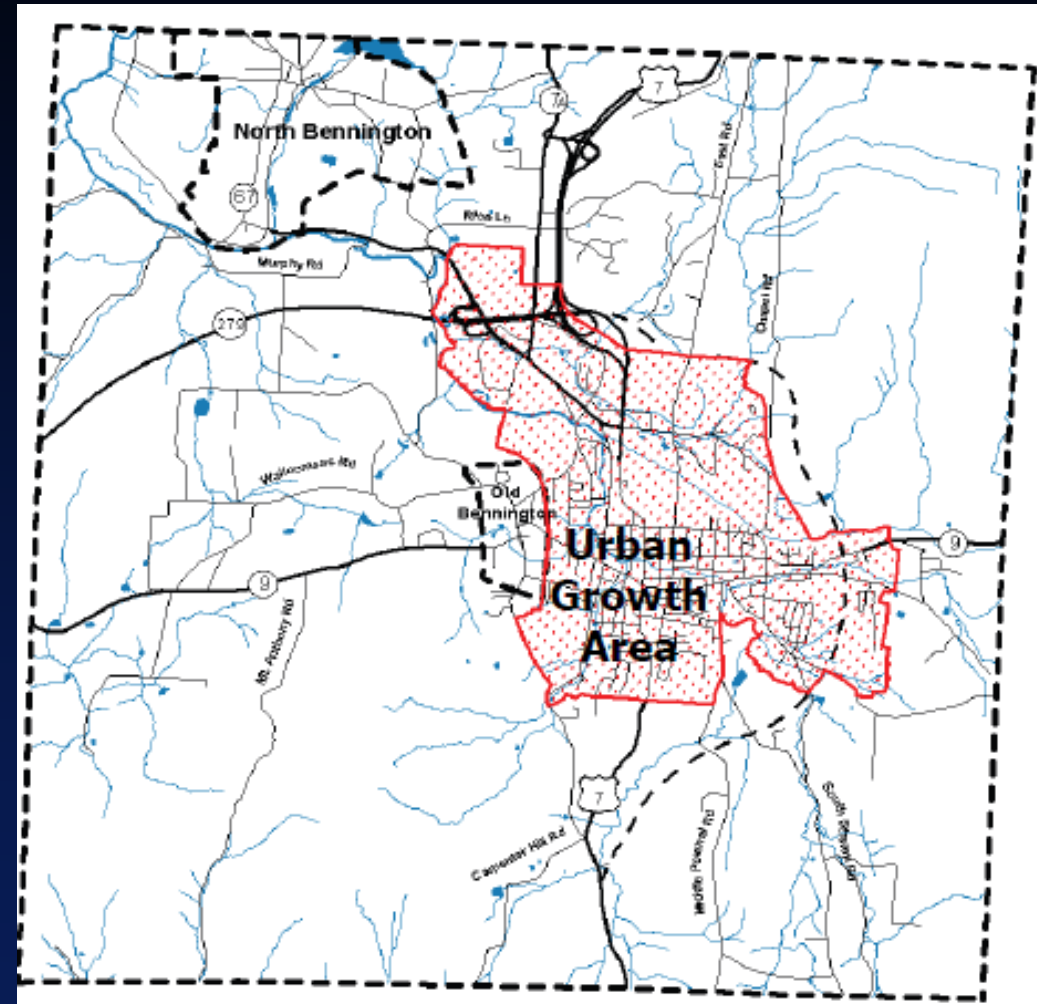
# Bennington Town Plan



**Adopted: October 11, 2010**

Prepared by the  
**Bennington Planning Commission**

Approved by the Planning Commission: August 4, 2010





**Create walkable clusters.**

## 2. Implement Complete Streets

- **Complete Streets:** All users (pedestrians, cyclists, transit riders, & drivers) of all ages & abilities considered in every road project (new, repair, maintenance).
- **Start w/ paint!**



# Benmont Road: “No one walks there, anyway . . .”



# Complete Streets

a guide for Vermont communities



# Bennington College entrance at Madison Rd.





### 3. Support a comprehensive network of *transportation* trails.

- **Connect** to other parts of network (sidewalks, bike lanes, transit).
- Focus on **destinations** (schools, shopping, parks, senior housing)
- Balance the cries of the **NIMBY, BANANA, & CAVE** people.

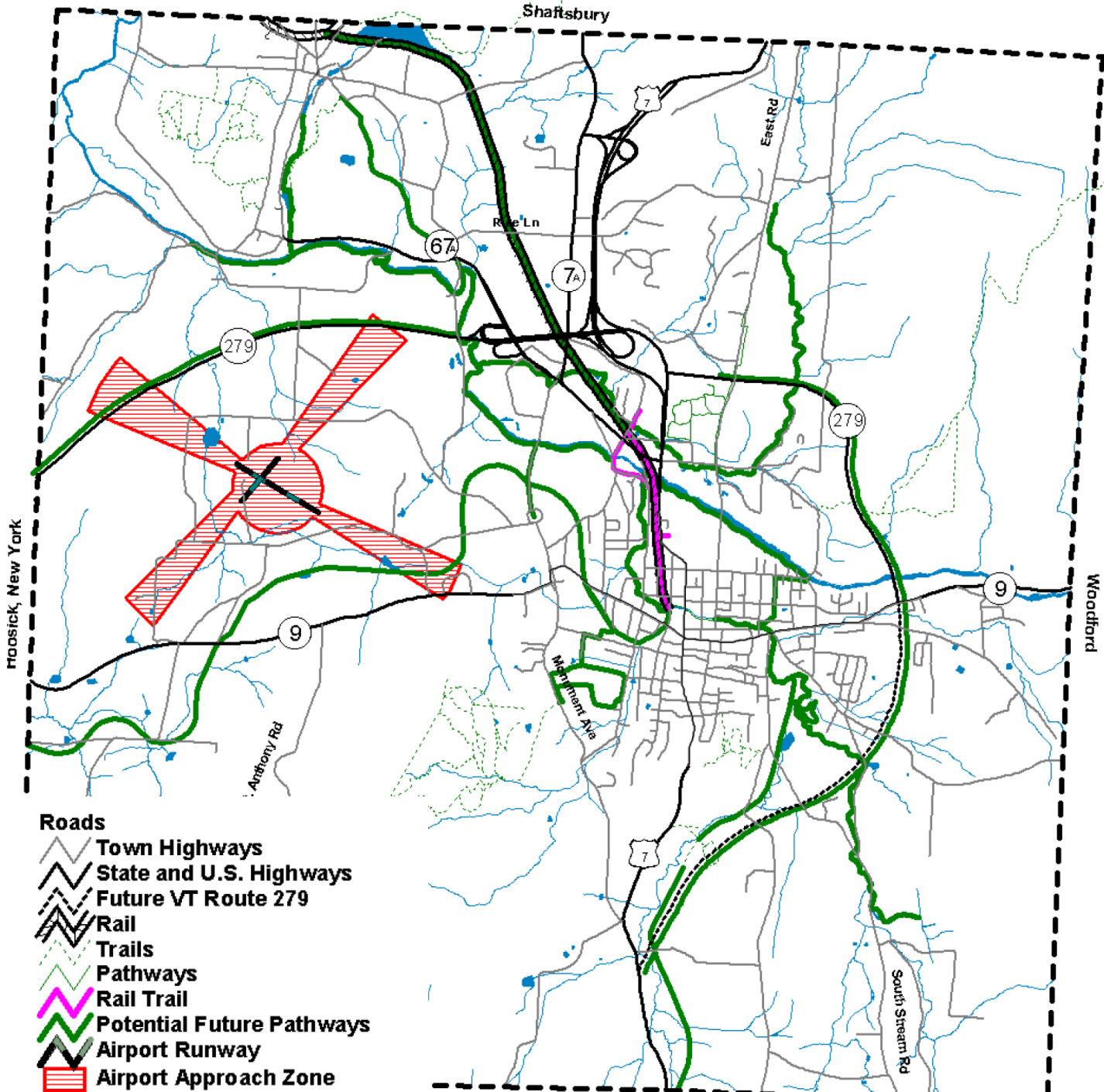




# Corkscrew Rail corridor?



# Huge trail potential in Bennington & the region!



- Roads**
- Town Highways
- State and U.S. Highways
- Future VT Route 279
- Rail
- Trails
- Pathways
- Rail Trail
- Potential Future Pathways
- Airport Runway
- Airport Approach Zone

# Short links too! Rt. 7/Kocher crossing



**New Ulm, MN**



# Willowbrook & Applegate apts.





## 4. Work for a bicycle-friendly community.

- **Bike Friendly Community, Business, or Campus** rating (bronze to platinum).
- Community “buy a bike rack” program.
- Teach bicycle skills, safety, repair in your school. **v**



Blue  
Island, IL.

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

[www.markfenton.com](http://www.markfenton.com)

# Blue Island, IL [bibc.us](http://bibc.us)

Classroom,  
on-bike,  
build &  
maintain.



# 5. Safe Routes to School – more than just an encouragement program!

- All 5 E's: **Engineer** bike lanes, racks, sidewalks; **educate** & **encourage** walk/bike groups; **enforce** proper speeds.
- Measure BMI? Must **evaluate** how kids get to school (walk, bike, bus, car) and why . . . !



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

[www.markfenton.com](http://www.markfenton.com)







## Recommendations:

- Do this all the time, not just as an “event.”
- Improve the trail through the park.
- Plant a garden, trees along the way.
- **5 minute safety delay** on cars at dismissal.

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

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

[www.markfenton.com](http://www.markfenton.com)

# Step up: Be an active role model.



Leave the car behind at least one trip per week; walk, bike, or take transit instead. And take a child along.

# Why care about stickiness & active community design?

- The **inactivity** epidemic; **our kids may pay!**
- **Quality of life**; safety & comfort; **social equity.**
- **~4,000** pedestrian, **~40,000** motor vehicle, **~400,000** sedentary-related deaths/year.
- **Greenhouse gasses**, over an hour of average commute time/day, traffic congestion and costs.
- OPEC; drilling in **ANWR**; **oil wars** in Mid-east.
- More eyes on the street, **less crime.**
- Shopping locally, healthier **housing values.**
- Higher employee retention, higher productivity, **lower health care costs.**



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

**Olshansky et.al., “A Potential Decline in Life Expectancy . . .”**  
***New Eng. J. of Med.,***  
**March 17, 2005**



[www.markfenton.com](http://www.markfenton.com)