

Winning Battles but Losing the War; Time for a Turning Point.

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**Kansas Health Summit
2008**

**Wichita, KS
May 2008**



**Old Town Wichita –
Great place for a walk!**

Topics for today:

- Your **personal perspective**.
- Of Valley Forge and creating a **turning point**.
- The logic of **healthy communities**, via:
 - Health = **Physical Activity**.
 - PA = overcoming the **stickiness** problem.
 - OS = **stickier communities**.
 - SC = **4 elements** for active living.
 - Health = PA = OS = SC = AL = **the 3Ps!**
- What we'd be talking about if we were running for **President**, and an editorial comment.

First a thought exercise:

- Think of one of your earliest *fond* memories of physical activity from your youth.
- Pair up for just a moment and share your recollections.



A lesson from Valley Forge N.H.P.



Valley Forge NHP

Winter 1777

The stereotype:
Miserable, sick
colonial troops on
the edge of collapse.



The reality: Typical hardships for the era, troops in regular training (von Steuben), Washington in it for the long haul. Even while **losing** battles.



Realization:
We can lose
battles & still
win the war.

The tragic converse:
You can win battles,
and very much lose the
war—as we're doing
now in public health!



Valley Forge Rd.

No connectivity into the community



**How often do
we repair 20
acres . . .**



**. . . even as we lose
another 200 (or 2,000)
acres to sprawl?**

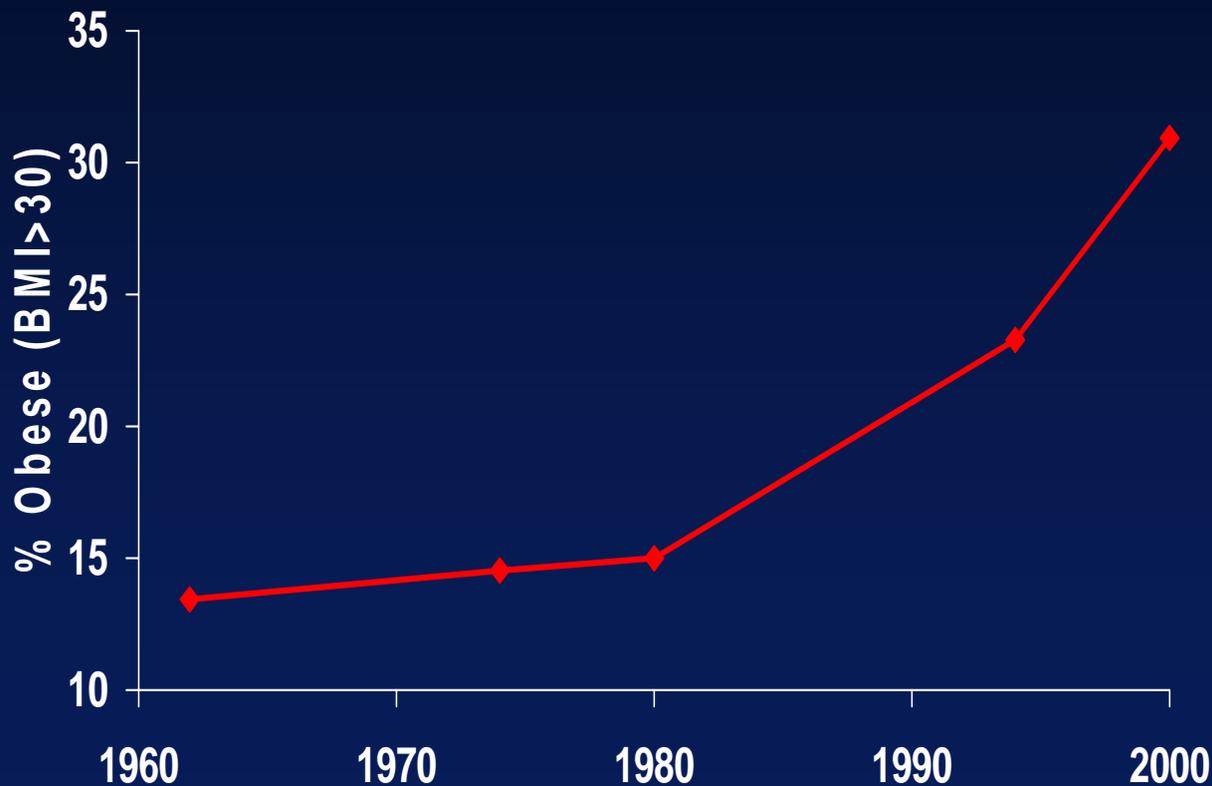
**We need a
turning point!**

Health = Physical Activity

America's chronic disease apocalypse:

US "Obesity Epidemic"

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



Diabetes Prevention Program

(DPP; New.Eng.J.Med., Feb. 7, 2002)

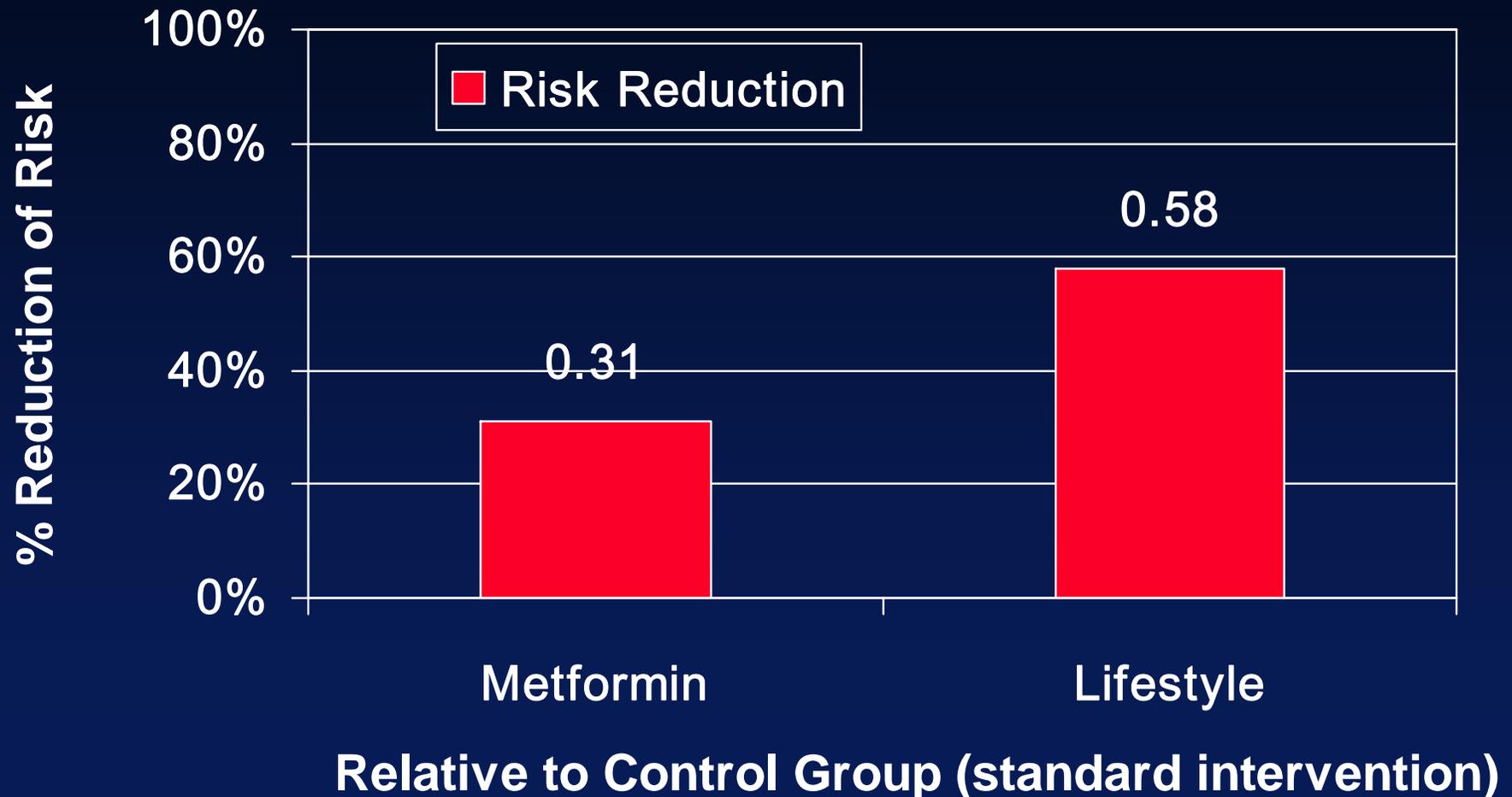
Compared three treatments for nationwide cohort (3,000+) at risk for developing diabetes (elevated fasting glucose).

1. Control: Standard exercise and nutrition counseling; placebo.
2. Standard plus drug treatment: Metformin.
3. Intensive lifestyle change: Nutritional training, **150 min./week physical activity.**



Diabetes Risk Reduction

(Diabetes Prevention Program; NEJM, Feb. 7, 2002)



A thought:

**Change the conversation. It's
not just an obesity epidemic.**

**It's an epidemic of **physical
inactivity** and poor nutrition.**



**My admittedly
unique
perspective . . .**



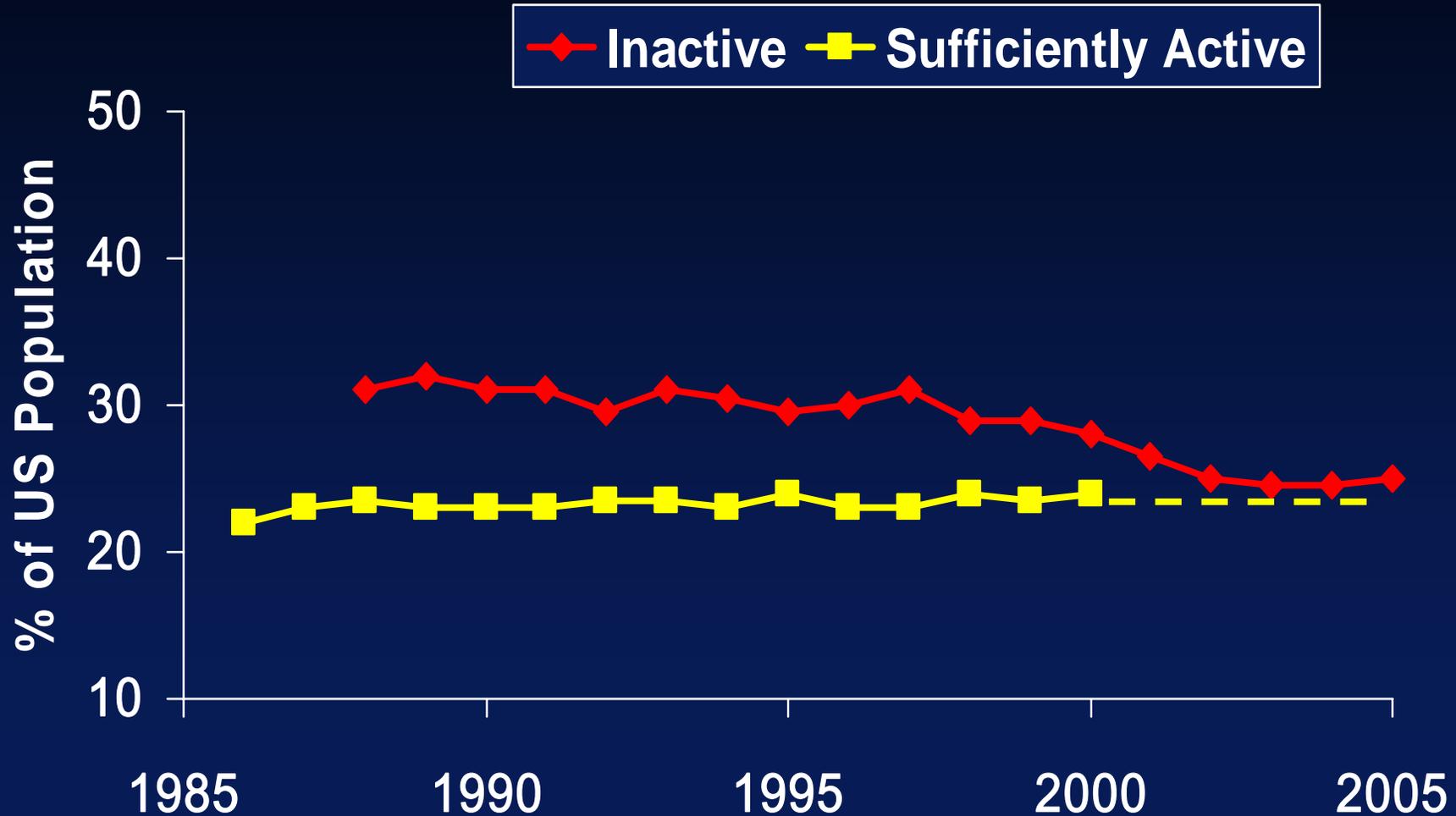
Surgeon General's Report on Physical Activity & *Health*, 1996

- **30 minutes** of moderately vigorous **physical activity**.
- Most (all) days of the week.
- **Can be broken up**.
- Reduced risk for CVD, diabetes, osteoporosis, obesity, dementia in old age, clinical depression, a growing list of cancers.



Leisure Time Physical Activity in the US

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



Why . . . ?

PA = OS

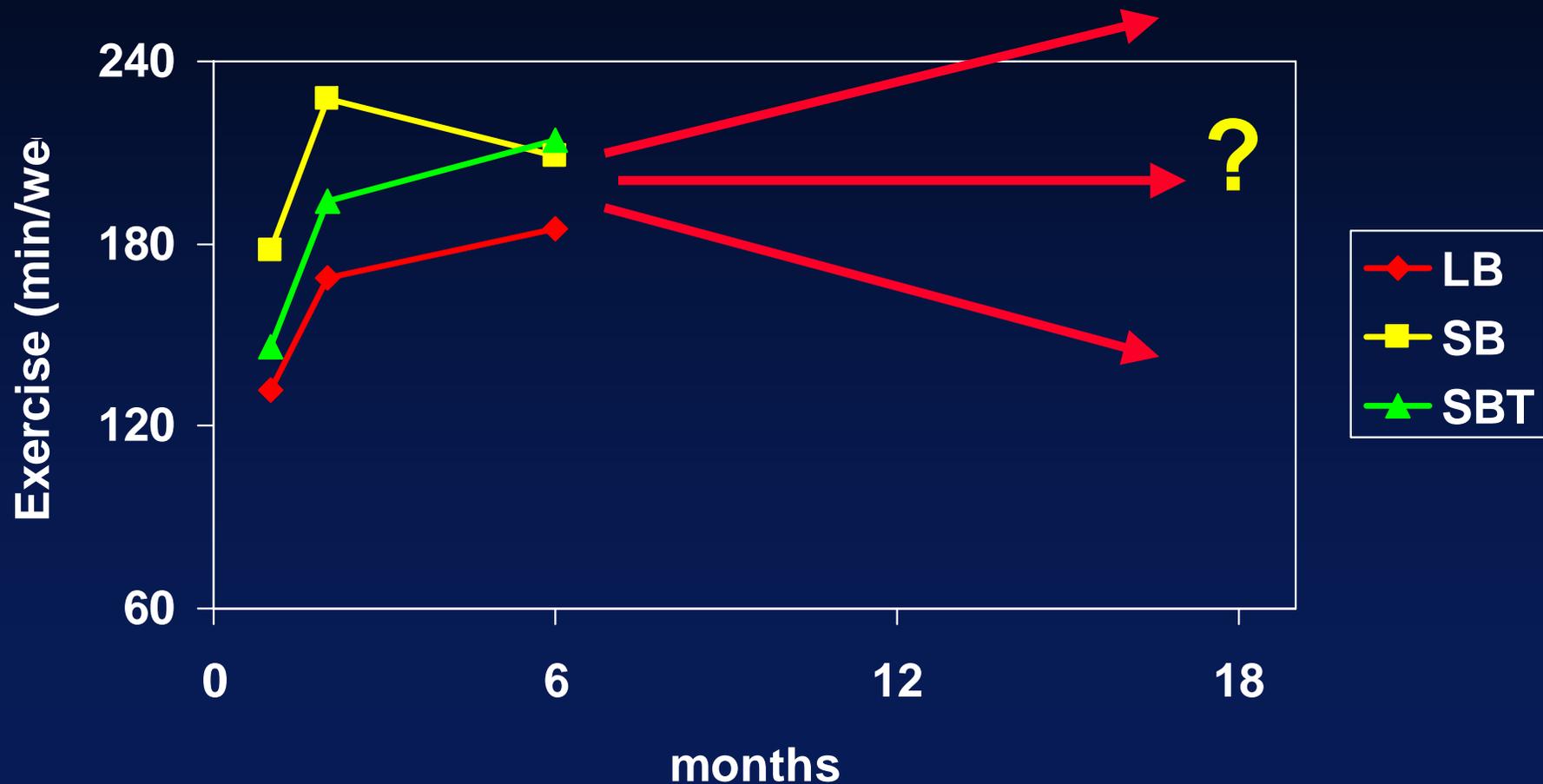
**physical
activity**

**overcoming
stickiness**

Exercise Participation

Effect of Short Bouts, Home Treadmills

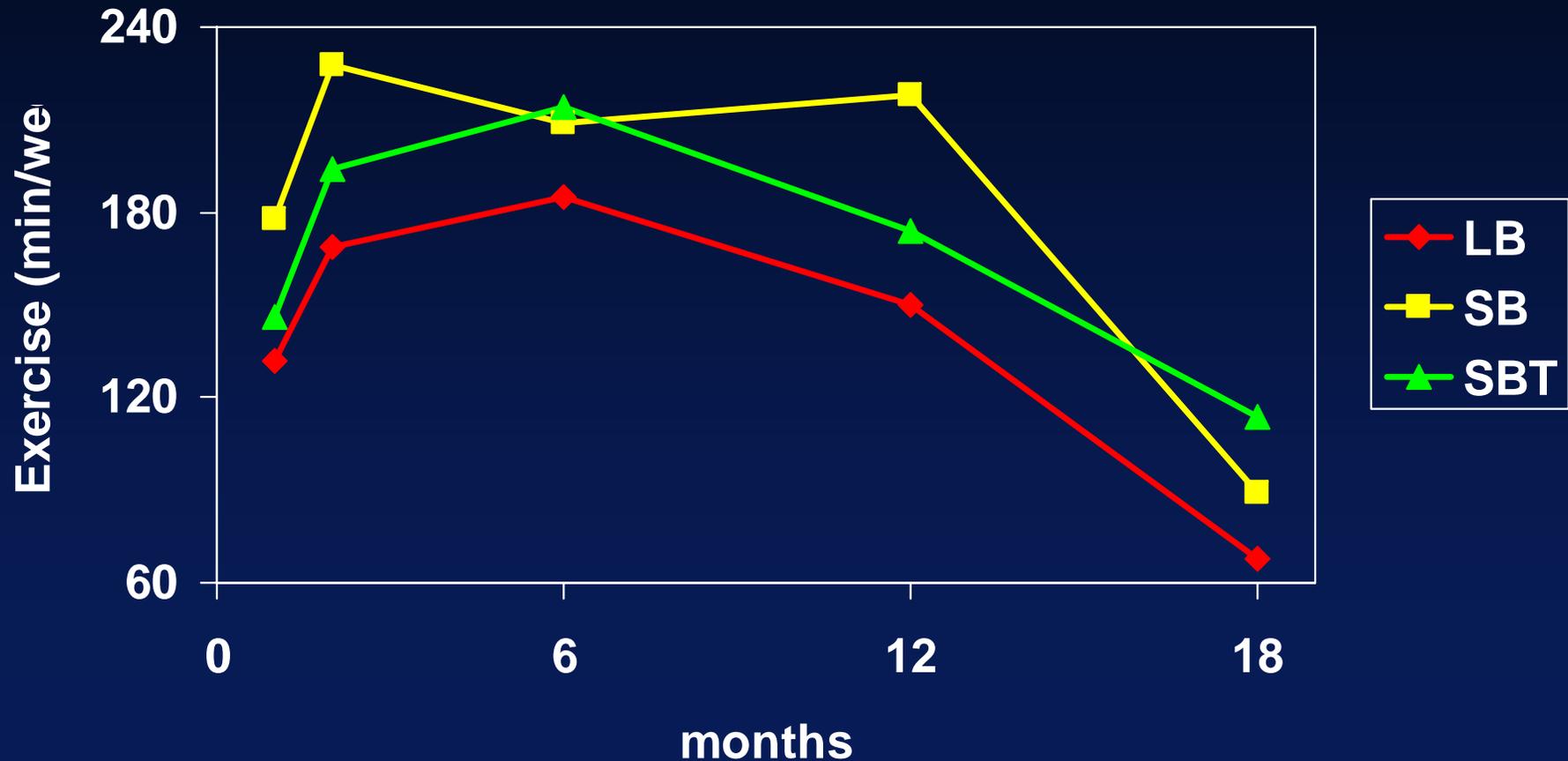
(Jakicic et.al., JAMA 282, 16)



Exercise Participation

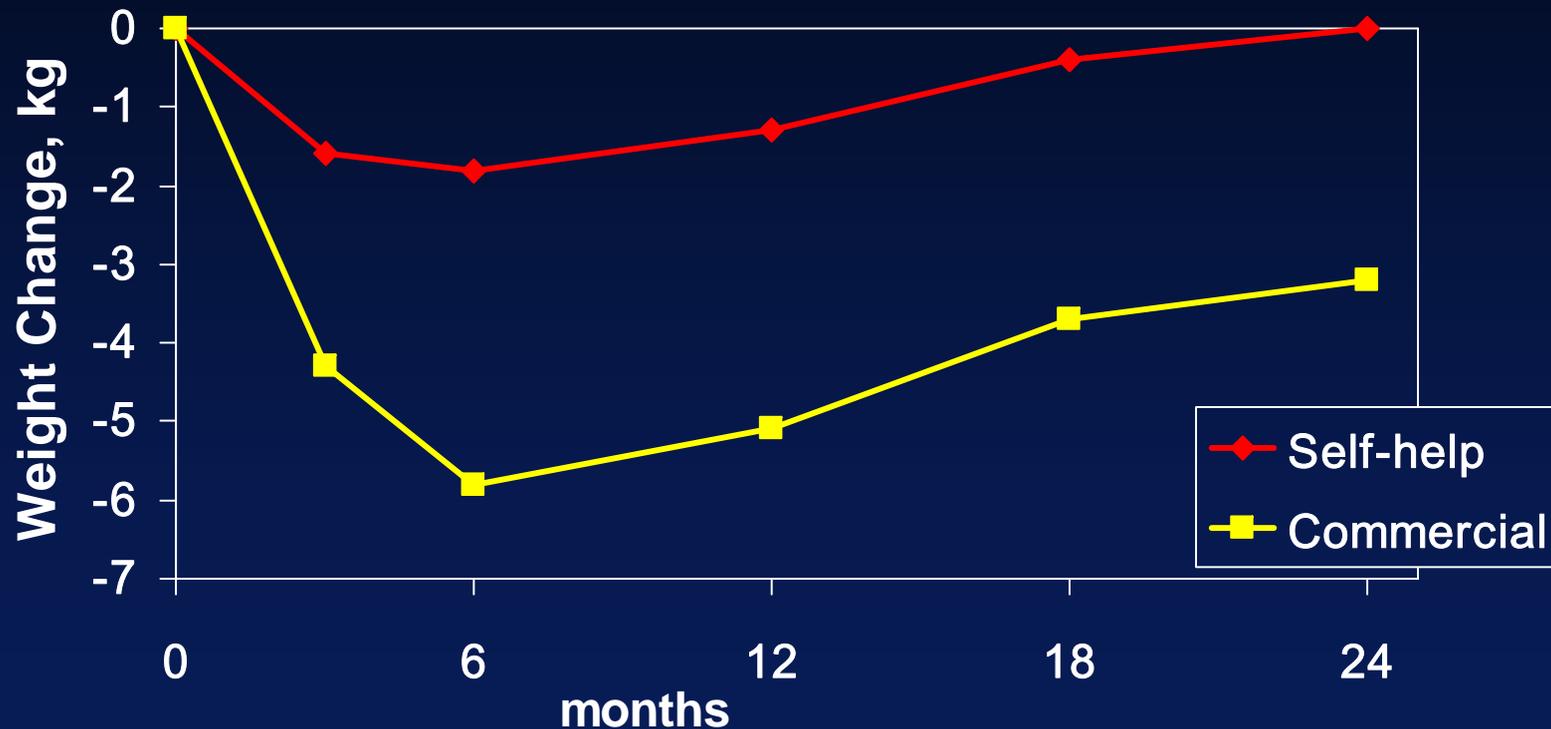
Effect of Short Bouts, Home Treadmills

(Jakicic et.al., JAMA 282, 16)



Self-help vs. Commercial Weight Loss Programs

(Heshka et.al., JAMA 289, 14; April 9, 2003)



Did these people “exercise?”

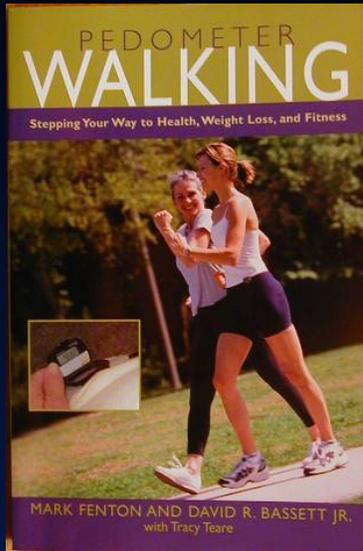
Plimouth Plantation, MA
(1600's)



Lowell Nat'l Historic Park, Lowell, MA
(1800-1900's)

**It's about dramatic decreases in
routine, daily physical activity!**

Pedometer-based “lifestyle” activity promotion:

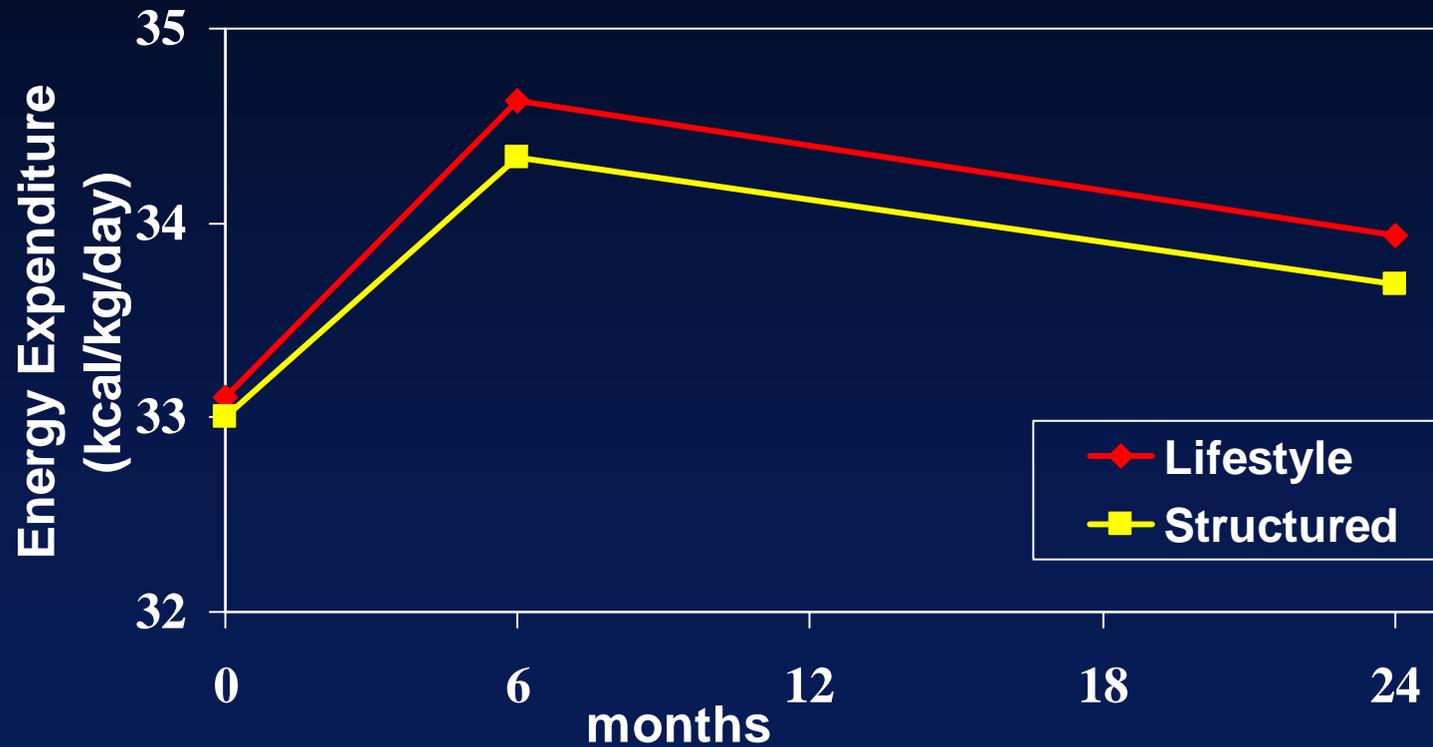


- Measure steps all day.
- Determine your average daily steps.
- Increase by only 10%-20% a week.
- Keep gradually increasing . . .

Key to Success: Keep a record!

Energy Expenditure Lifestyle vs. Structured Activity

(Dunn et.al., JAMA 281, 4)



Social Ecology Model

Determinants of behavior change

Sallis, Owen, "Physical Activity and Behavioral Medicine."

- Individual (readiness, efficacy)
- Interpersonal (family, friends)
- Institutional (school, work, HMO)
- Community (networks, local gov't)
- Public Policy (transport, land use)

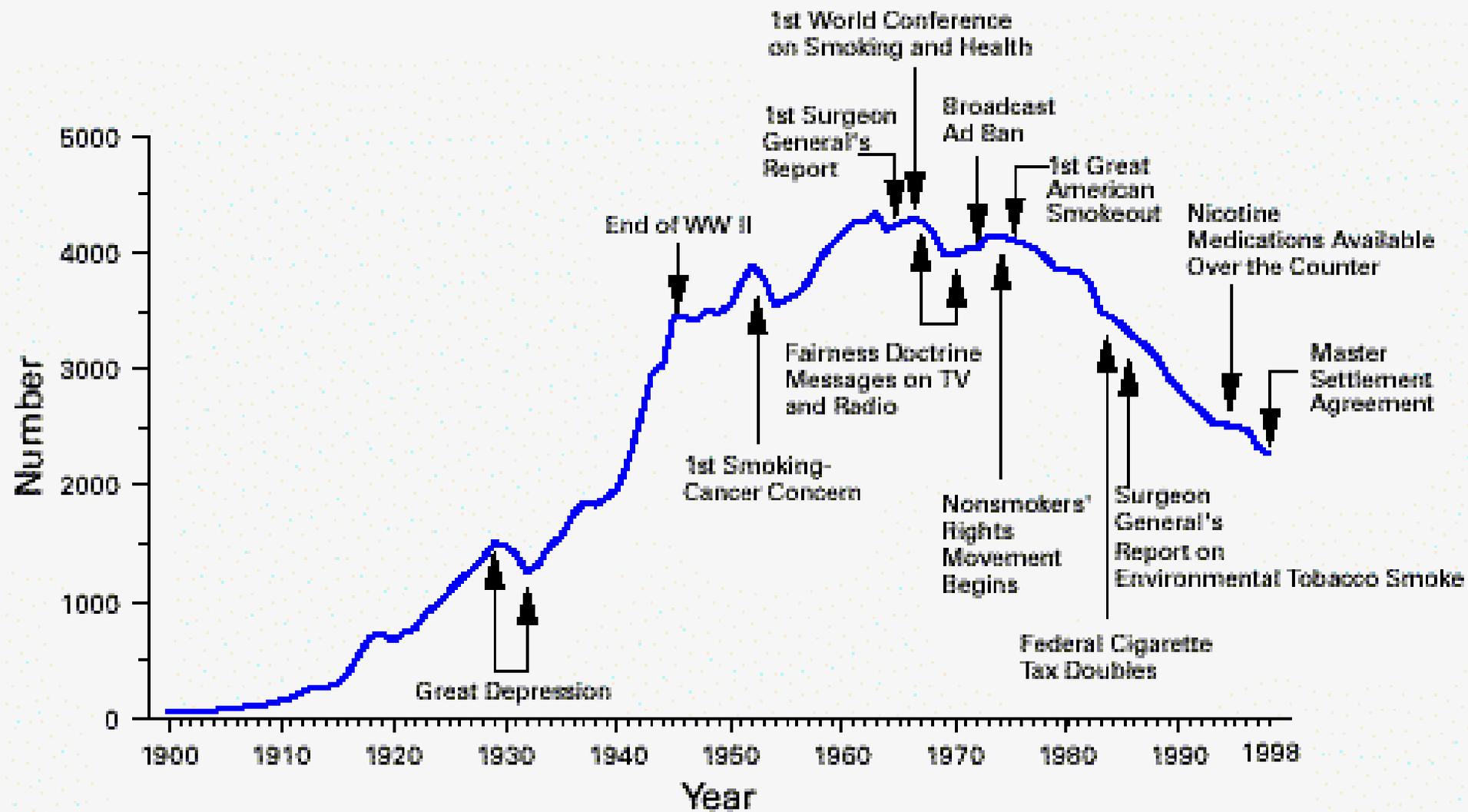
Arkansas River
path



Socio-ecological success: tobacco

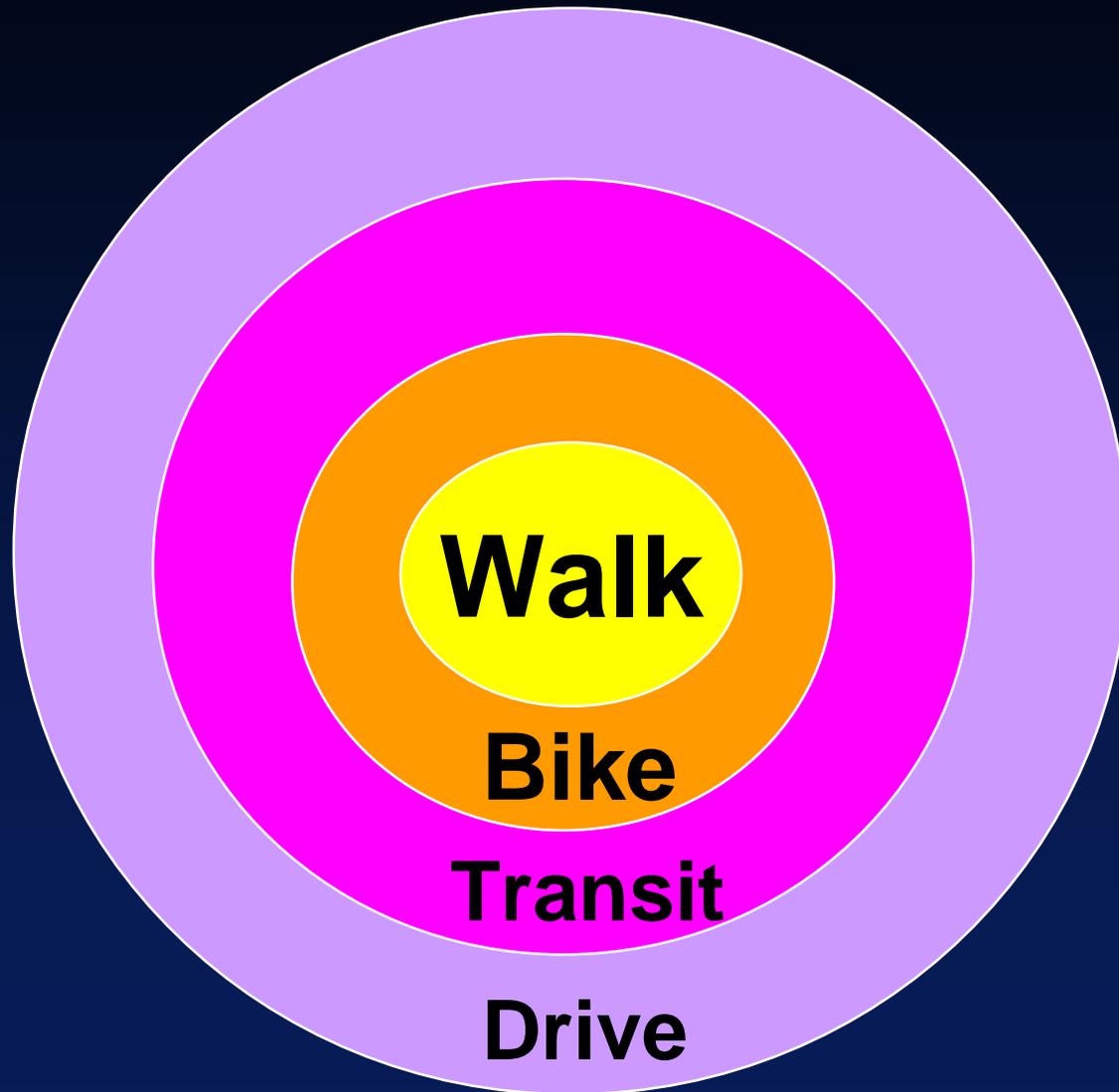
- **Individual – education, medication**
- **Interpersonal – 2nd hand smoke, kids**
- **Institutional – work place bans**
- **Community – smoke free policies**
- **Public Policy – taxes, enforcement, advertising bans, SG's warning label.**

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.

The ideal “trip” decision hierarchy*:



***Nearly 25% of trips are less than or equal to one mile.
(1995, Nat'l Personal Transport. Survey)**

So . . .

OS = SC

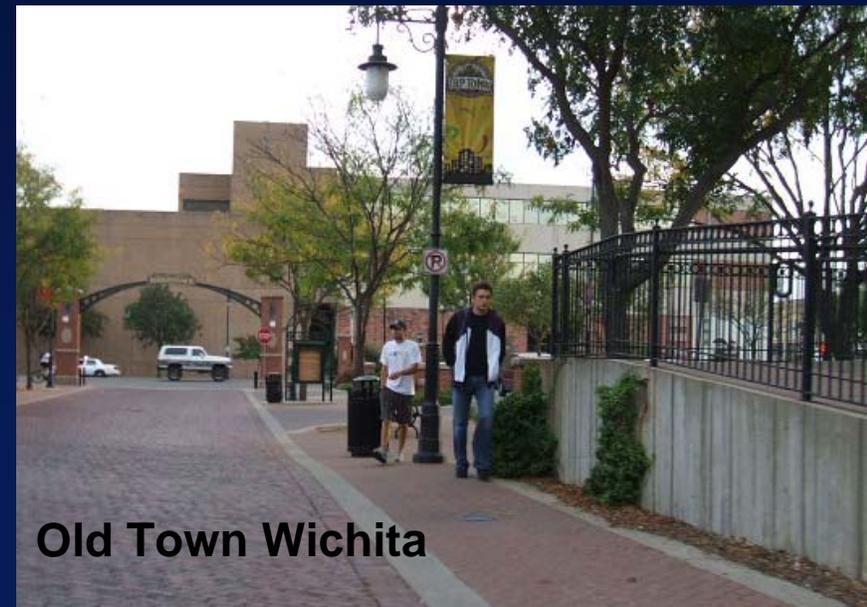
**overcoming
stickiness**

**stickier
communities**

What makes stickier places?

“Yes” to four questions:

- Destinations within walk & bike distance?
- Sidewalks, trails, bike lanes, crossings?
- Inviting settings for routine activity?
- Is it safe?



Land use.

Compact residential . . .



. . . shared open space.



Civic anchors in town.

Schools, post offices, libraries.



Multi-family, mixed-use.





Convenience of Destinations and Walking for Older Women

King et.al., AJHP 18(1) Sep. 2003.



* Park or trail was one of the most frequently cited destinations.



Proximal destinations matter!

Network is more complete with:



- Presence of sidewalks, paths.
- Shorter blocks, cul-de-sac cut-throughs, more intersections.
- Access to trail, park, greenway, *transit*.



Transit riders are physically active.

Besser, Dannenberg, Amer. J. Prev. Med., 29 (4), Nov. 2005.

Just during the daily walk to transit:

- Half of transit riders walk at least 19 mins.
- 29% get at least 30 mins. of activity.
- Minorities, poor (income <\$15k/yr.), denser urban dwellers more likely to get 30+ mins./day due to transit trips.



Lessons from RWJF funded trail study

(Summarized in Mar. 2008 *Planning* magazine)

- Far more users in areas with **lots of connections**; streets, transit stops, other trails.
- Trail alignment has to go **close to destinations** (shops, restaurants, libraries, civic institutions).
- Design trail to be an **integral part of community life**, not an escape from it.

www.activelivingresearch.org



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Users -

Recreation only: 58%

Both rec & transport: 38%

Transport only: 4%

Trails aren't just recreation,
transport corridors; they're
“social venues.”



Ratio of men:women

Isolated areas – 6:1

Connected – 2:1

Bicycle network options:

Sacramento, CA



Site design:



Where would you find it more appealing to shop on foot or by bike?

Site design? Research suggests:

- Pedestrian friendly architecture is near the street, not set back.
- Trees, benches, water, aesthetics, lighting, scale.
- Details: bike parking, open space, plantings, materials.



Safety.

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



Shoulders, bike lanes



Marked, raised crossings



Median islands



Lawrence

Neighborhood mini-circles replace 4-way stops.

Slow traffic, maintain flow on residential streets.

Narrowing crossings, increasing visibility, slowing traffic all decrease risk.



Wichita

My mental checklist for planning board:

- Proximal mix of land uses?
- Improved network of bike, pedestrian facilities?
- Inviting, functional site design and details?
- Safe & accessible?

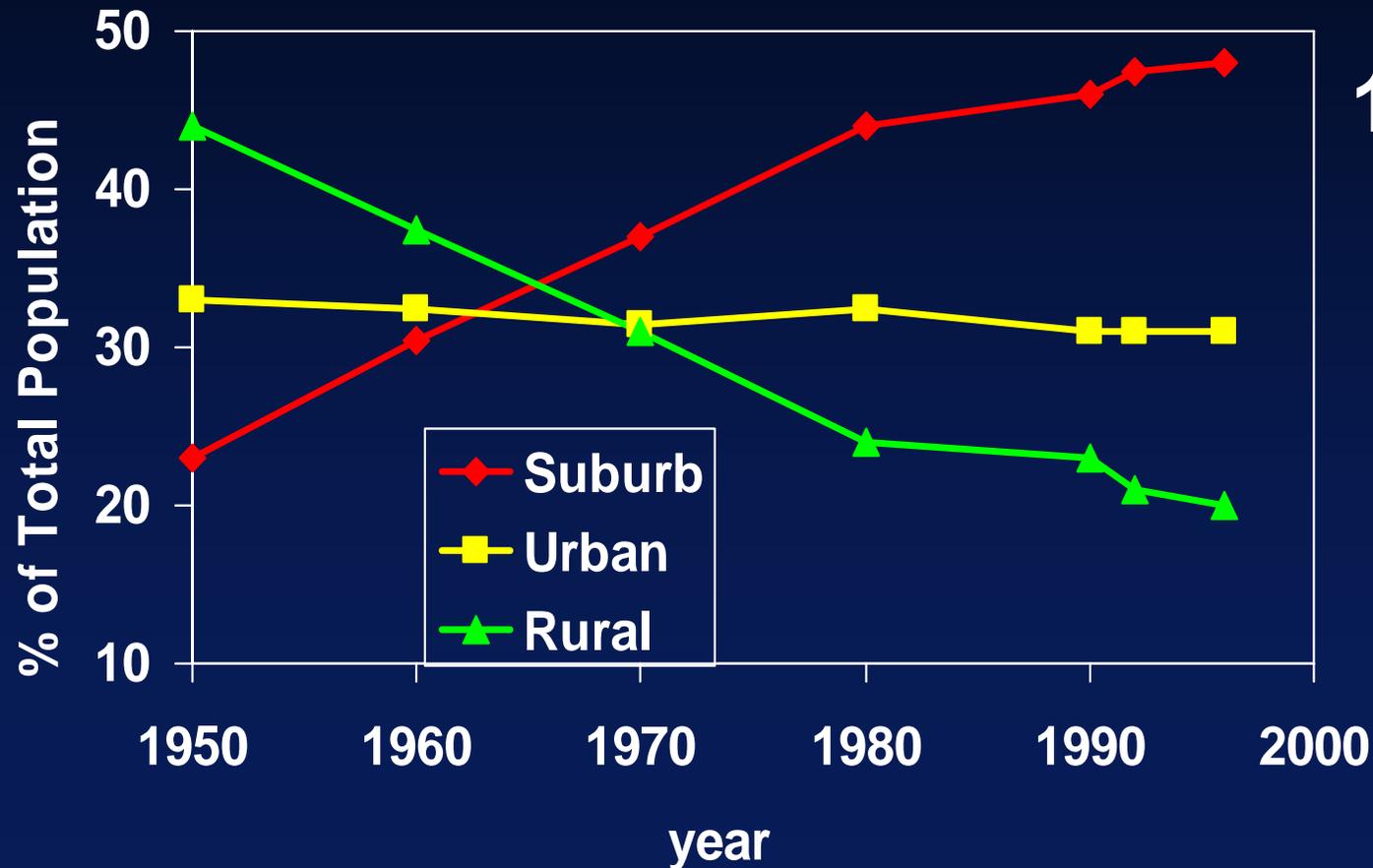


“But what about rural areas . . . ?”

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!



**So how to
get there?**



Three P's for sticky change:

- **Programs:** Build awareness, support, skills; encourage behavior change.
- **Projects:** Improve the infrastructure, built environment for *routine* activity.
- **Policies:** Rewrite the rules so the changes stick and new stuff is built the right way in the first place.

Programs:

Media,
community
workshops,
& activism
training.



Walking School Bus &
Safe Routes to School.

www.saferoutesinfo.org



Municipal,
shared
bike fleet.



Active-
commute
incentives;
E.g., eliminate
free parking,
health benefit
discount.

Pedometer promotions

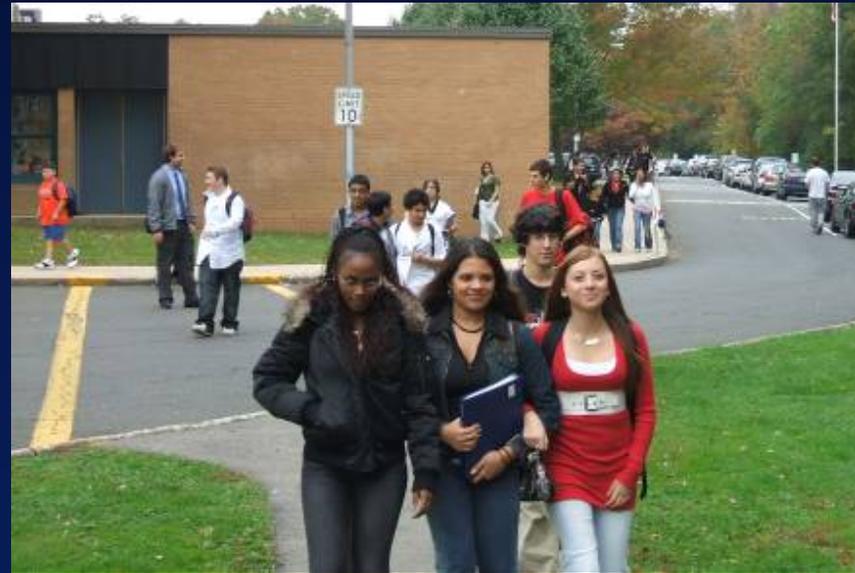
E.g. Add 2,000 steps a day.

www.americaonthemove.org

mark.fenton@verizon.net

E.g. Safe Routes to School programs.

- Comprehensive local plans.
- Determine & **engineer** preferred routes.
- **Educate** & **encourage** safe behavior (drivers & kids).
- **Enforce** proper speeds, etc.
- **Evaluate** where children come from, how--bike, walk, bus, car--and why! (Show of hands, parent surveys . . .)



Work site programs:

- Flex time, scheduled physical activity breaks.
- Walking loops *at* and *to* worksite; paths & sidewalks; bike access.
- Transit discounts; secure bike parking, lockers, showers
- Real rewards for active travel: \$ discounts on health care, earned vacation days!



Projects

Parks & rec:
Open space,
rec. facilities,
greenways &
trails.



**Schools: PE &
play space, bike
racks, access.**



www.completestreets.org



Work sites:
Bike parking,
lockers,
showers;
walking paths.

Municipality: Traffic calming, mixed use,
sidewalks, improved crossings.

Not all “projects” are costly . . .





Schools: Siting, district lines, transport policies.



Systemic thinking:
Join land use & transport planning;
pro- vs. re-active.

Policies

Sites: Mixed use, setbacks, open space, access (bike, car, transit).



Planning:
Jurisdictions must cooperate on growth plan; e.g. sale/transfer of development rights, protecting ag lands.



E.g. Complete Streets Policy

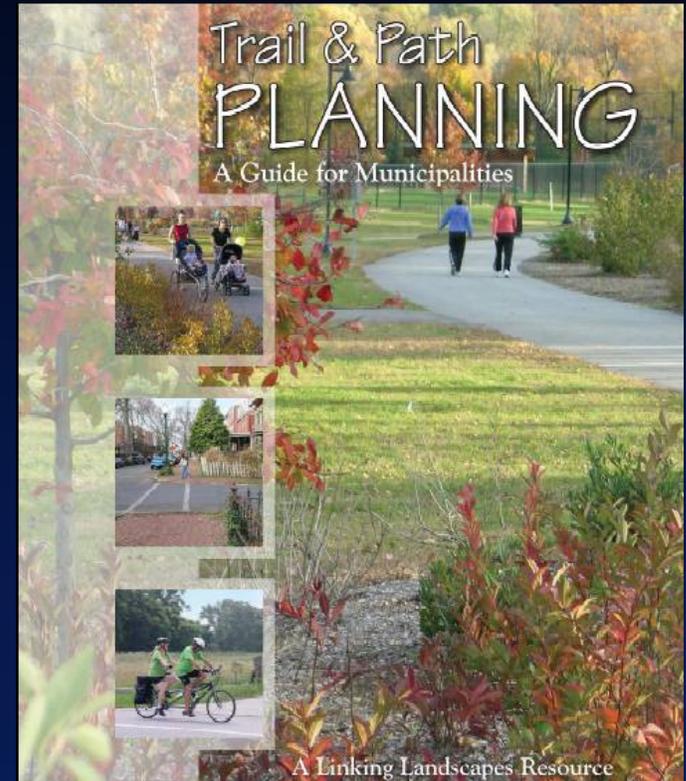
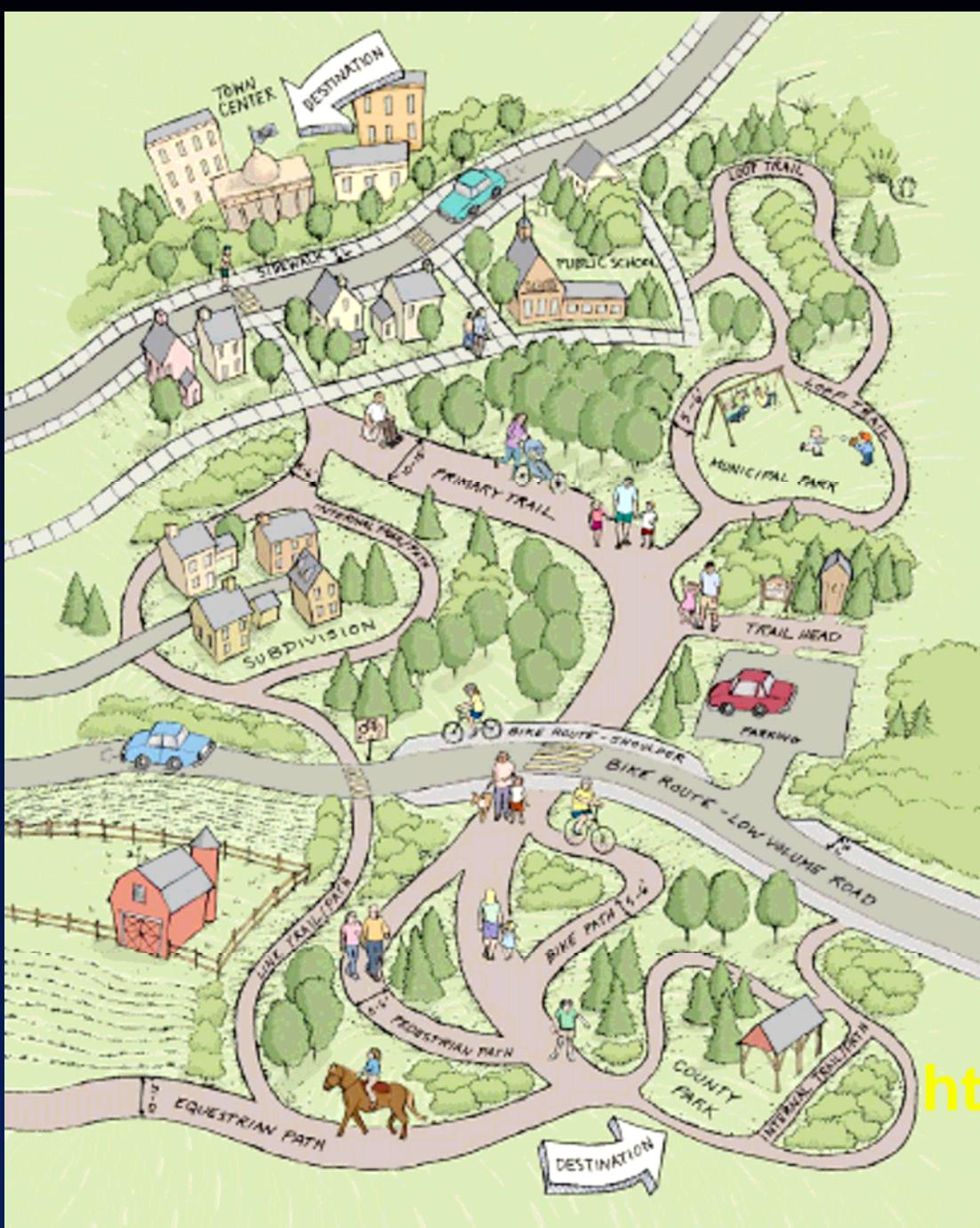


1. All users (pedestrians, cyclists, transit riders, & drivers) of all ages & abilities considered whenever we touch a road.
2. Roadway design = intended speed.

www.completestreets.org

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Chester County PA: Trail & Path Planning Guide for Municipalities



<http://dsf.chesco.org/planning>

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“Routine” policy decisions are anything but routine.



COMING SOON

 Sedgewick County...
working for you

— Sporting events,
concerts,
family shows
& other
entertainment

...COMING TO DOWNTOWN WICHITA!

**Event center
or downtown
residential?**

**Which travel mode
do you want to
“subsidize?”**



**Transit center or
downtown
parking garage?**



Which infrastructure supports active living?



**Extend the trail system
or widen highways?**

The presidential campaign . . .

Topics for the top candidates:

Health care costs & the so-called obesity epidemic.

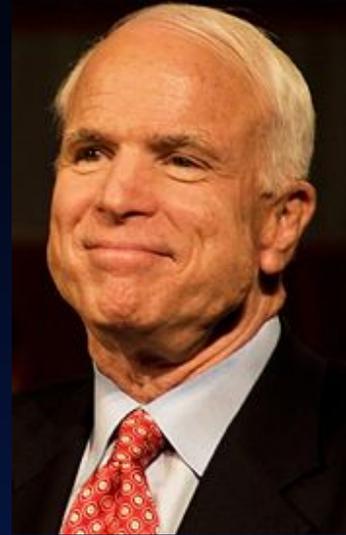
Global warming & environmental degradation.

Foreign policy, oil dependence.

Aging transport infrastructure.

Growing local issues:

- Education cost vs. performance.
- Traffic congestion.
- Local economic development.
- Community life.



Amazingly, one thing actually does help with all of these issues:

Health care costs & the so-called obesity epidemic.

Global warming & environmental degradation.

Foreign policy, oil dependence.

Aging transport infrastructure.

Growing local issues:

- Education cost vs. performance.
- Traffic congestion.
- Local economic development.
- Community life.



More walkable,
bicycle-friendly
communities.

Why care about active community design?

- The **inactivity** epidemic; **our kids may pay!**
- **~4,000** pedestrian, **~40,000** motor vehicle, **~400,000** sedentary-related deaths/year.
- **Smog alerts**, 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**.