



A CRYSTAL BALL ON PHYSICAL ACTIVITY AND HEALTH

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Physical Inactivity—Should We Care?

- 200,000 deaths attributed to inactivity in the US (Hahn, 1990)
 - Smoking causes about 435,000 deaths
 - Alcohol causes about 100,000 deaths
- 2 million deaths attributed to inactivity worldwide (WHO, 2002)
- \$76 million annually in direct costs in US (Pratt, 2000)
 - 6 % of medical costs in Canada, Australia, Switzerland, Netherlands, US
 - comparable to costs due to tobacco (Katzmartzyk 2004)
- Inactivity is playing a role in the obesity epidemic and promoting PA can contribute to solutions

The Economist

DECEMBER 13TH-19TH 2003

www.economist.com

Russia's broken democracy

PAGES 22-24

Europe's constitutional squabble

PAGES 27 AND 31

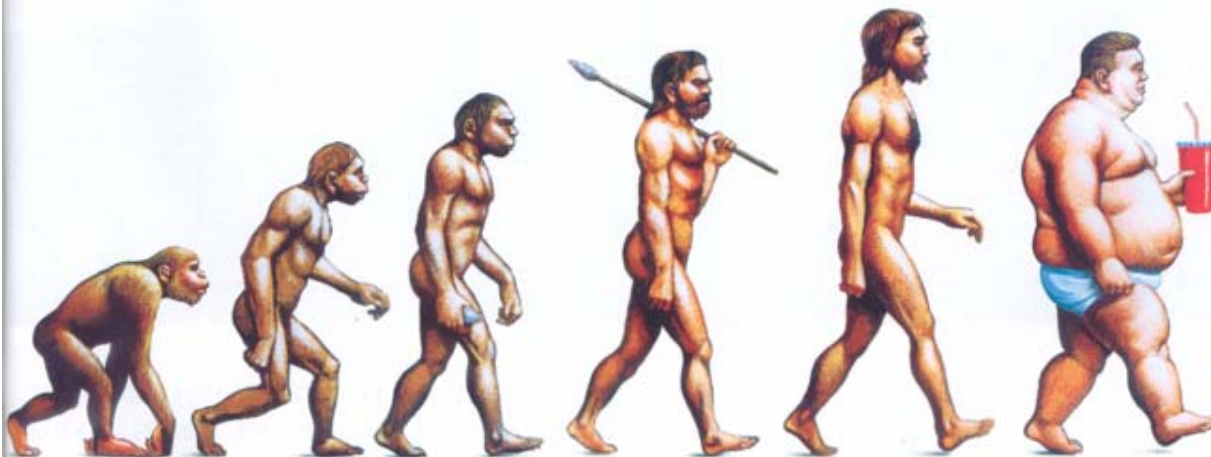
The future of flight

PAGES 75-77

A SURVEY OF FOOD

AFTER PAGE 50

The shape of things to come

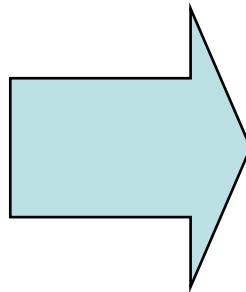


**The worldwide obesity
Epidemic creates a higher
Priority for increasing
Physical activity**

Tim Armstrong, WHO

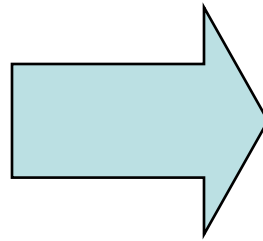
**WHO expects the problem of inactivity to get much worse as
Economic development continues**

**The nature of transportation
has changed dramatically**



Tim Armstrong, WHO

Work is no longer physical “work”



Tim Armstrong, WHO

Physical Activity and Health

A Report of the Surgeon General

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion
The President's Council on Physical Fitness and Sports



The President's
Council on
Physical Fitness
and Sports

The 1996 release of the Surgeon General's Report Was a landmark for the Physical Activity field.

Let's begin by reviewing What has happened since The report.

Then we will look into the Crystal Ball to see What the future may hold.

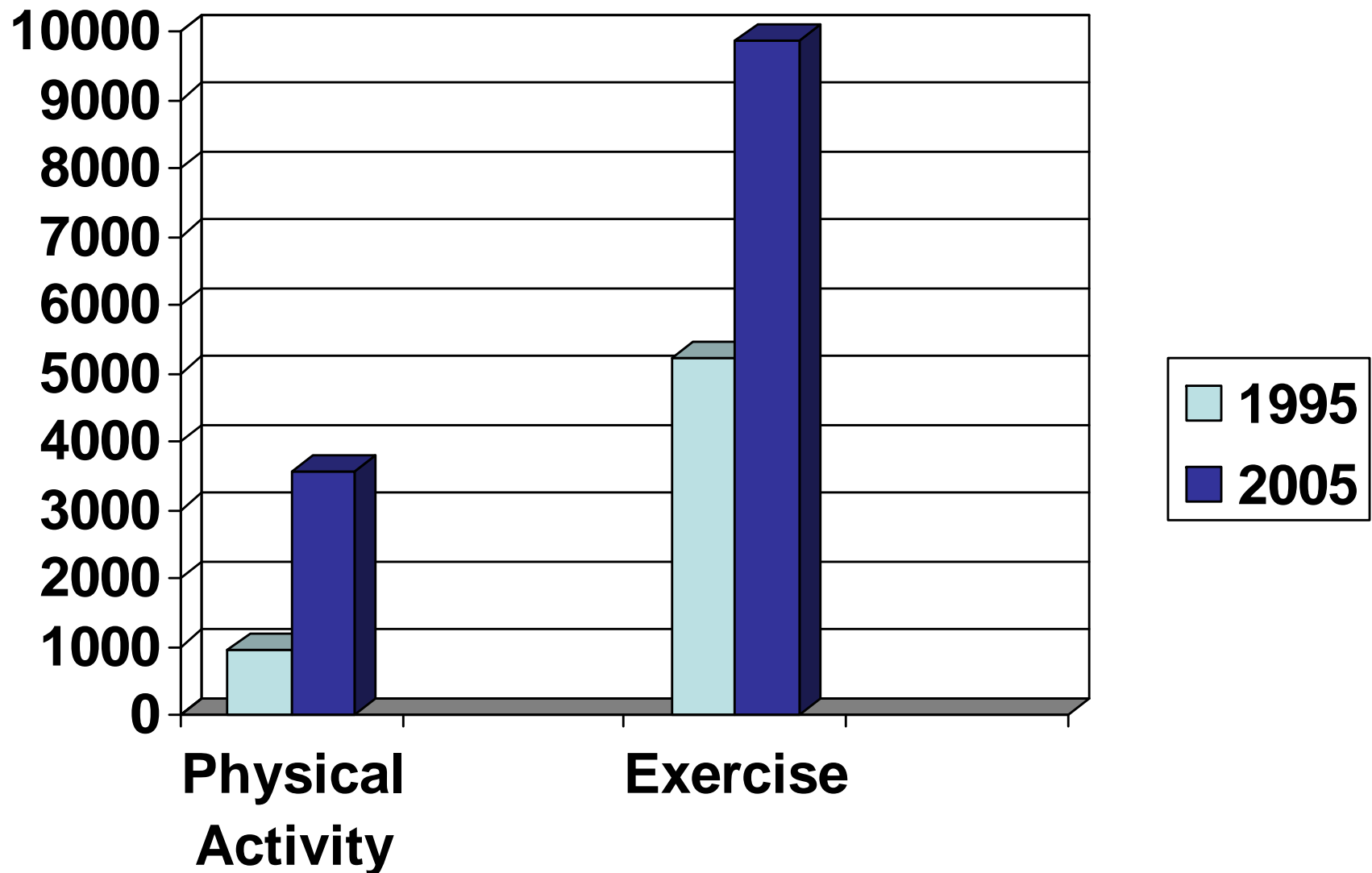
Signs of Progress: Building Infrastructure for PA Promotion

- PA Branch instituted at CDC in 1996
 - Approx 26 staff currently
- PA Coordinators in all US states
- 2 PA experts at WHO Geneva office
- PA & Public Health courses in US and internationally
- Thecommunityguide.org identifies effective PA interventions
- Carol White PEP programs funds PE improvements

Signs of Progress: Measurement & Surveillance

- PA in CDC-sponsored surveillance systems
- International PA Questionnaire (IPAQ) tested in 12 countries
- IPAQ used in over 20 countries for first PA prevalence study with comparable measures, with 25 additional countries using GPAQ
- Fitness measures & accelerometers used for first time with US population sample (NHANES)

**Number of Scientific Articles Found in “Web of Science”
Searches for “Physical Activity” and “Exercise” for 1995 and 2005**





National Coalition
for Promoting
Physical Activity

www.ncppa.org

Coalition of organizations



*Federal program to fund communities to Prevent obesity, diabetes, & asthma.

*Since 2003, about \$50 million has been Invested.



Robert Wood Johnson Foundation

Since 2000, has invested more than \$80 million to promote active living. Supports research, community programs, And organizations.

Active Living Approach

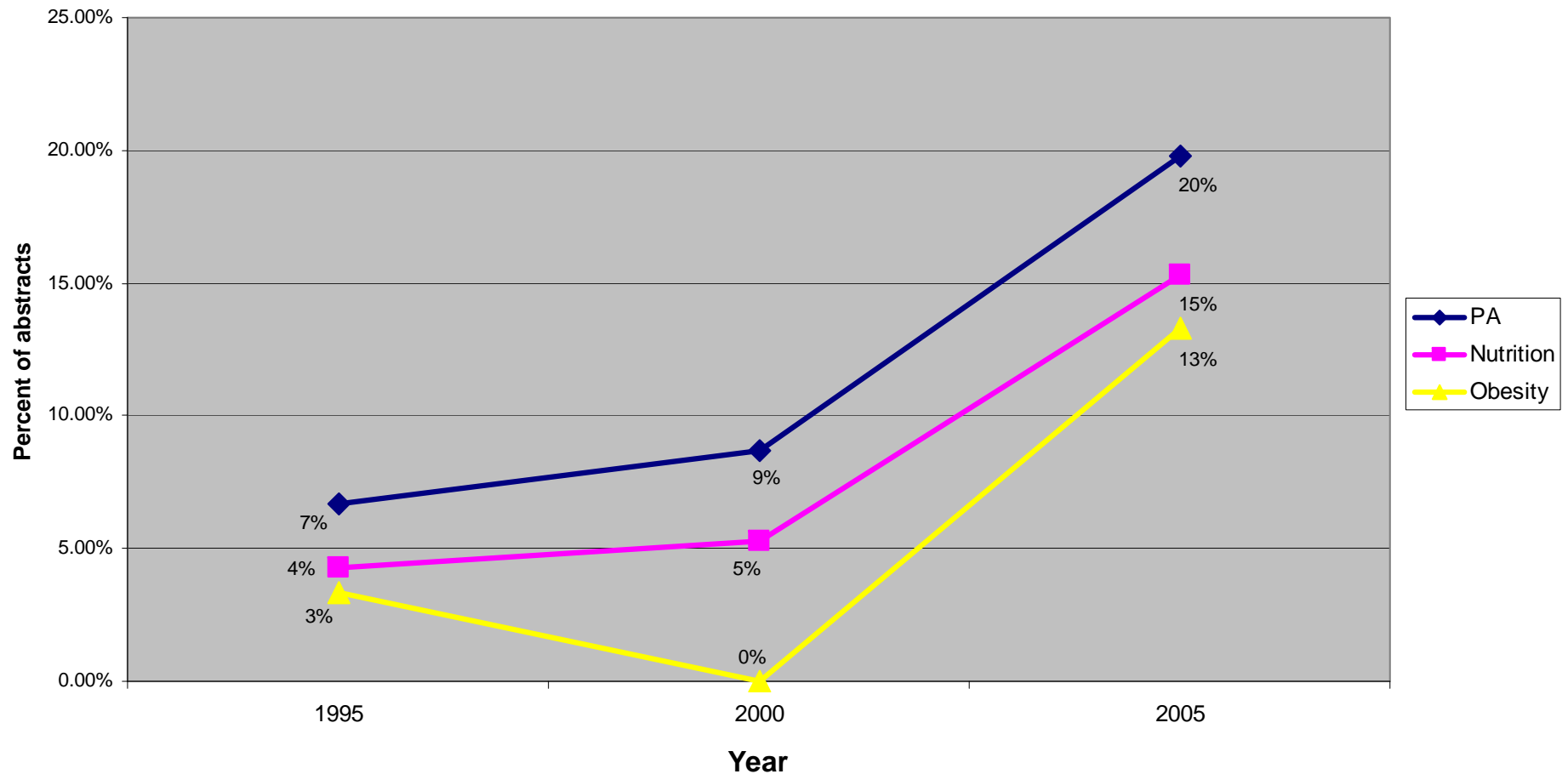
- Surgeon General's Report identified the need to promote PA by environmental & policy changes, but little was known
- CDC and Robert Wood Johnson Foundation prioritized the active living approach of integrating PA into daily routines by creating activity-friendly environments
- Brought in partners from planning, transportation, recreation, law, economics, policy, architecture, environmental psychology, criminology . . .

Active Living Approach

- Others have adopted the approach of making it easier for people to be active
 - Steps to Healthier US
 - California Endowment
 - Kaiser-Permanente
 - state health departments
 - health ministries in several countries
- Places to start
 - www.activeliving.org
 - www.activelivingresearch.org
 - www.activelivingbydesign.org

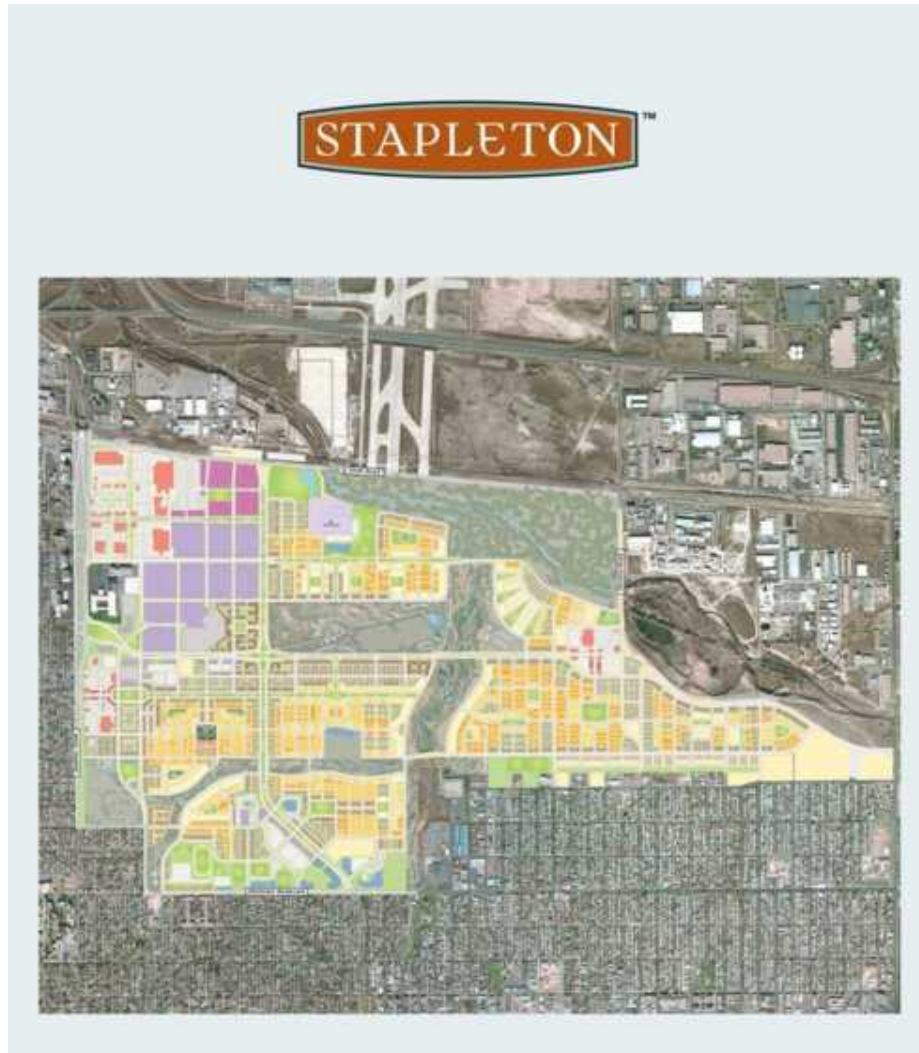
Percent of Society of Behavioral Medicine Abstracts Within 3 Topic Areas with Environment/Policy Content in 1995, 2000, 2005

Environment/Policy SBM Abstracts



Commercialization of Active Living

From home page: “Stapleton, the nation’s largest urban development, is an urban tapestry of homes, shops, offices, parks, and schools in a walkable community of classic city architecture”



A Great Trend: Companies Promoting PA



The harder you pedal,
The better you play

PA tips on back,
To avoid
“Lazy Town”



You have to move
To play

DIA MUNDIAL DA ATIVIDADE FÍSICA



AGITA MUNDO

2 DE ABRIL, DIA MUNDIAL DA ATIVIDADE FÍSICA. Venha Participar de um Grande Caminhado - Pedalada ou de Skate! Traga a Sua Família!

ATIVIDADE FÍSICA E SAÚDE: ACUMULE PELA MENOR JORNADA POR DIA

Mais informações: www.agitasp.org.br - Fone: 4229-8980 e 4229-9643

ATIVIDADE FÍSICA COMO RESPONSABILIDADE SOCIAL

2 DE ABRIL – CAMINHADA DO AGITA MUNDO

CELEBRAÇÕES DOS 10 ANOS DO AGITA SÃO PAULO

Participe caminhando, pedalando, andando de skate ou com os grupos especiais de cadeirantes, idosos e crianças.

TRAGA A SUA FAMÍLIA

Concentração: 9h00 no MASP – Avenida Paulista Chegada no Parque do Ibirapuera

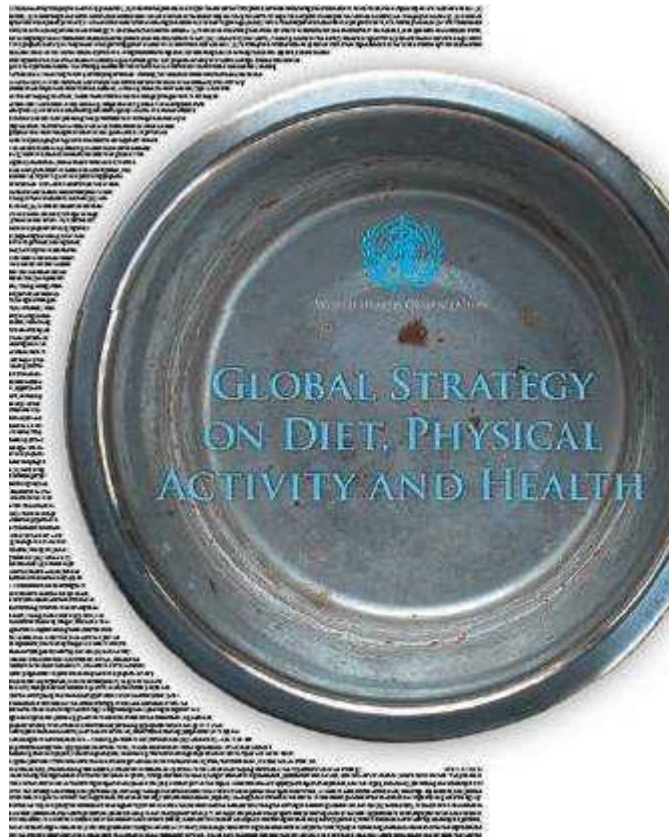
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www.agitasp.com.br/



**WHO's Global Strategy
Encourages countries
To motivate people
To make change, but
The emphasis is on
Policy and
Environmental
Change throughout
Society**



THE ACTION PLAN ON PHYSICAL ACTIVITY 2005-2009

Working together for physical activity




DEPARTEMENT
Ministries

Norway has a national plan to Promote PA that has an Environmental & policy emphasis.

All countries need comprehensive plans, along with budgets to achieve the goals.

VERB—The Good News

- National campaign started in 2002 by CDC
- Paid media targeting 9-13 year olds, coordinated with events & programs
- **\$125 million** budget for first year
- High “brand” awareness: 74% after 1 year
- Exposure to media associated with PA change
- Indicates that substantial media investments can compete with “sedentary” industries
- Huhman et al. Pediatrics, August 2005.



www.cdc.gov/youthcampaign/

From VERB home page:

Nothing replaces the rush and exhilaration of physical activity.
Yellowball ignites desire for physical activity freeing kids to play
out their dreams — I can't NOT play!



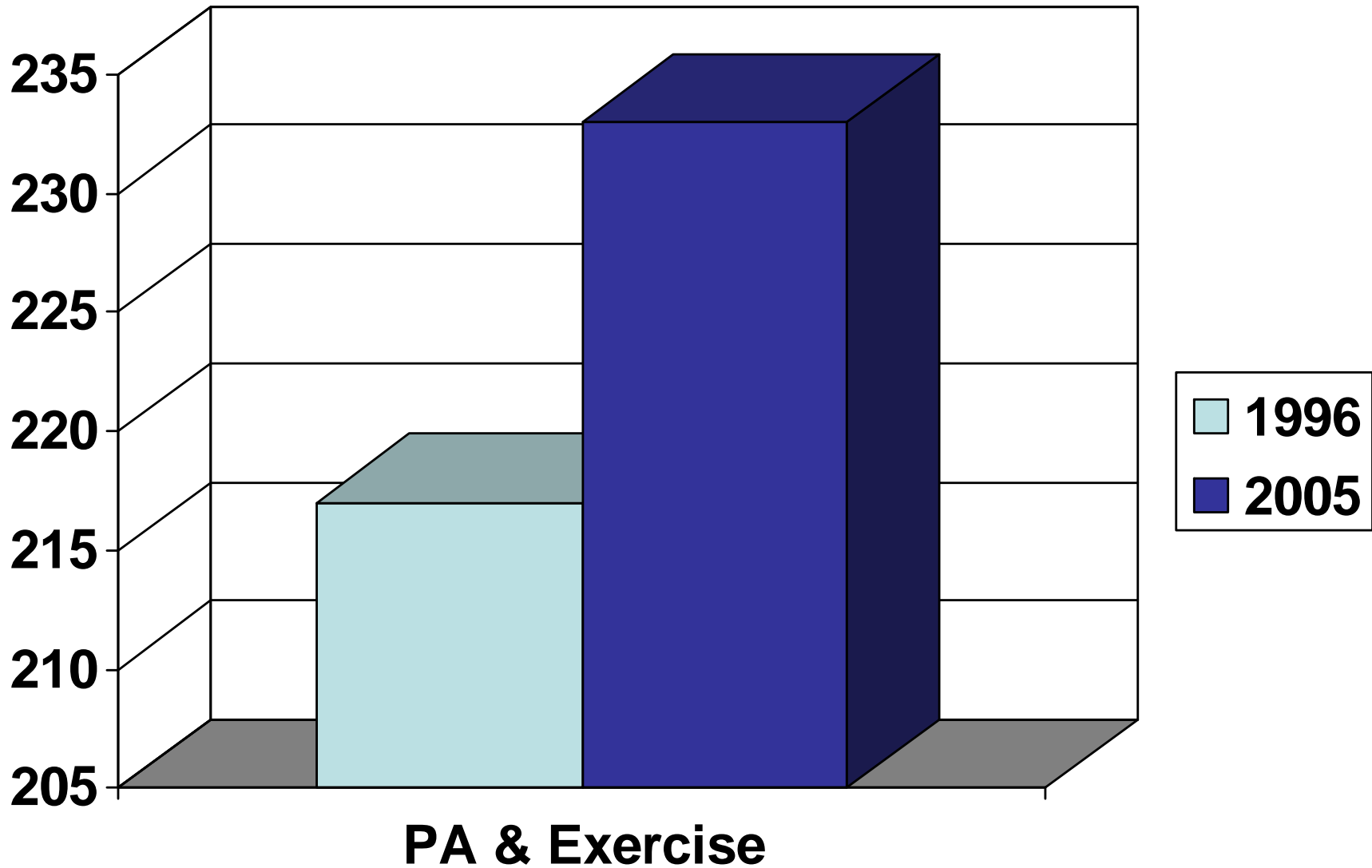
VERB—The Bad News

- Funding stopped
 - Staff has dispersed
-
- Why was the largest PA promotion effort in the US discontinued when it was shown to work?
 - Where was the outcry from the PA community?

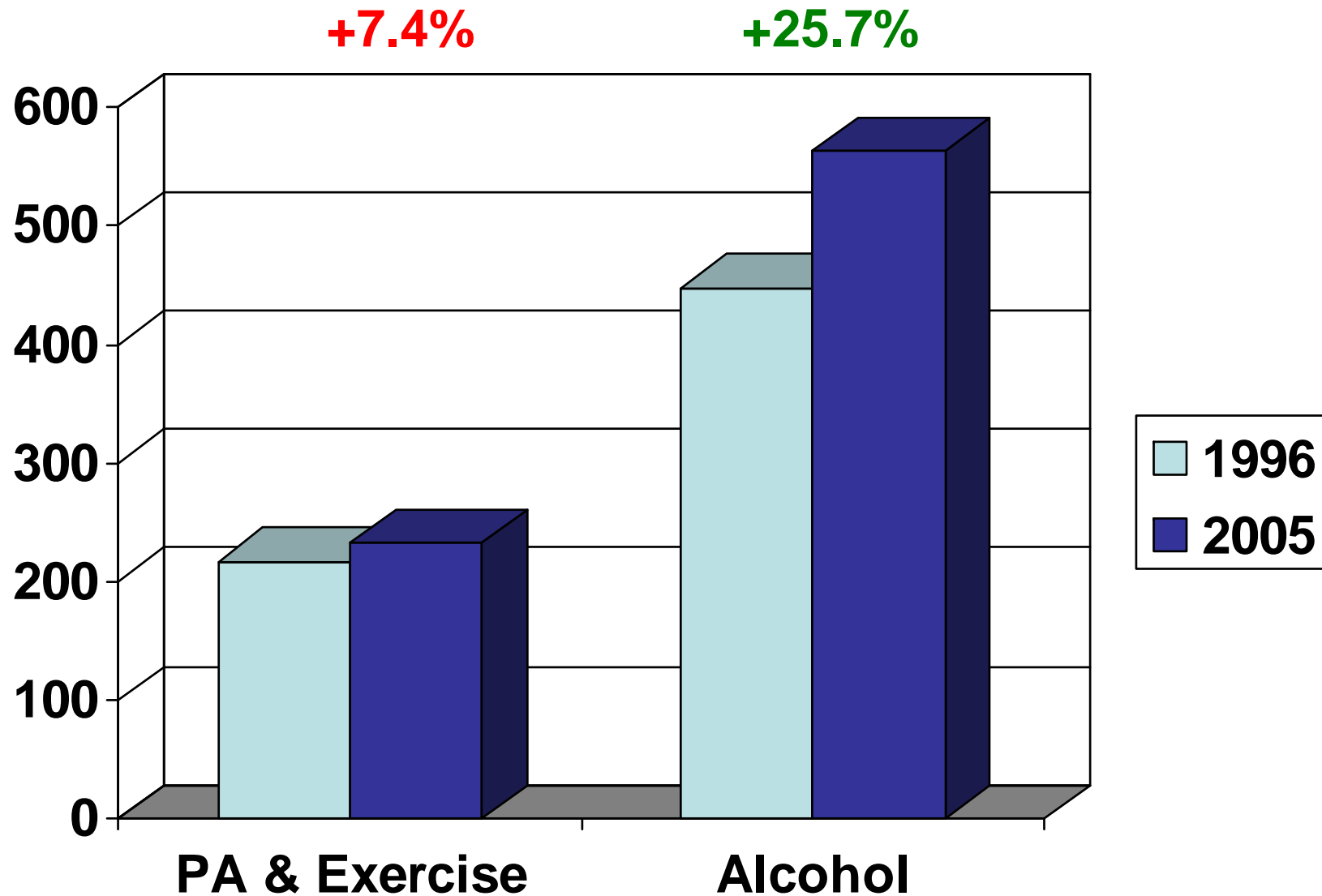
There is Much More Bad News

- There is no infrastructure for PA at NIH, only an occasional working group
- There are only 5 PA experts at WHO headquarters
- “Active Australia” national campaign was stopped after a few years
- Most U.S. states have only 1 person working on PA
- Progress on implementing evidence-based programs seems very slow

**Number of NIH Grants in 1996 and 2005 with “Physical Activity/Exercise”
in titles. Results of a CRISP search.**



**Number of NIH Grants in 1996 and 2005 with “Physical Activity/Exercise”
or “Alcohol” in titles. Results of a CRISP search.**



PAPH Courses at U.S. Universities

- 61 Kinesiology & PE departments with doctoral programs
 - From Thomas & Reeve, Quest, 2006, p.176
- We examined online course descriptions for undergrad through doctoral levels
- 18% had courses clearly related to PAPH
- 49% had courses related to PA promotion & behavior change interventions
- 34% had courses related to personal fitness

Economic Forces Work Against PA

- There are huge economic interests that would suffer if people became more active.
- They work hard to promote their products, and PA promoters do not have equivalent budgets.

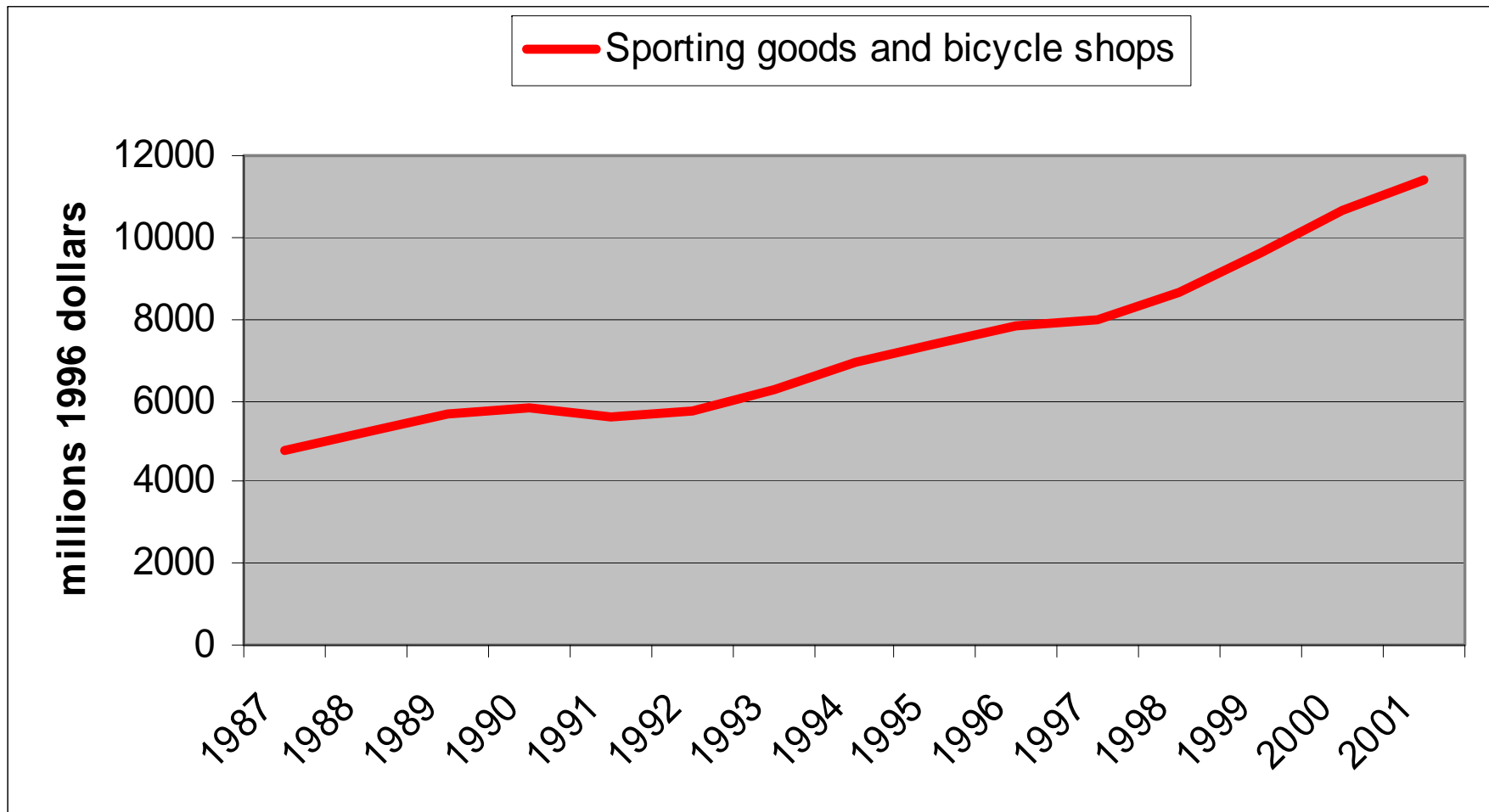
Top Advertisers by Industry--2004

1. Automotive	\$20.5B
2. Retail	17.2B
4. Medicines	8.1B
6. Food, beverages, candy	6.8B
9. Movies, DVD, music	5.3B
16. Computers, software	2.5B
25. Sporting goods	0.5B

www.advertisingage.com

- Compare to VERB's \$0.125B that was cancelled

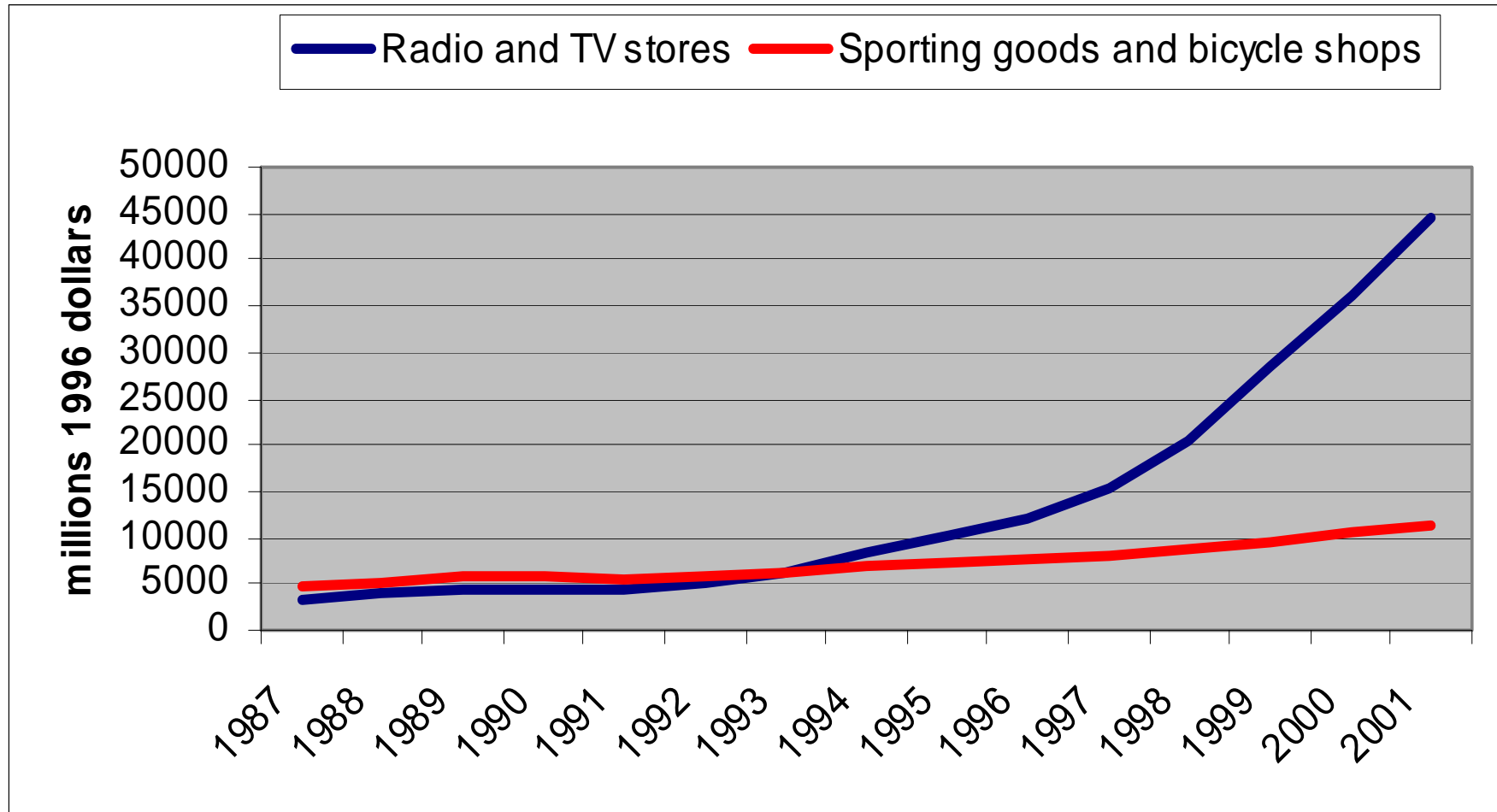
Retail: Sporting Goods Doubled, While Real GDP Increased 50%



Source: Bureau of Economic Activity, Gross Domestic Product By Industry.

Roland Sturm, RAND

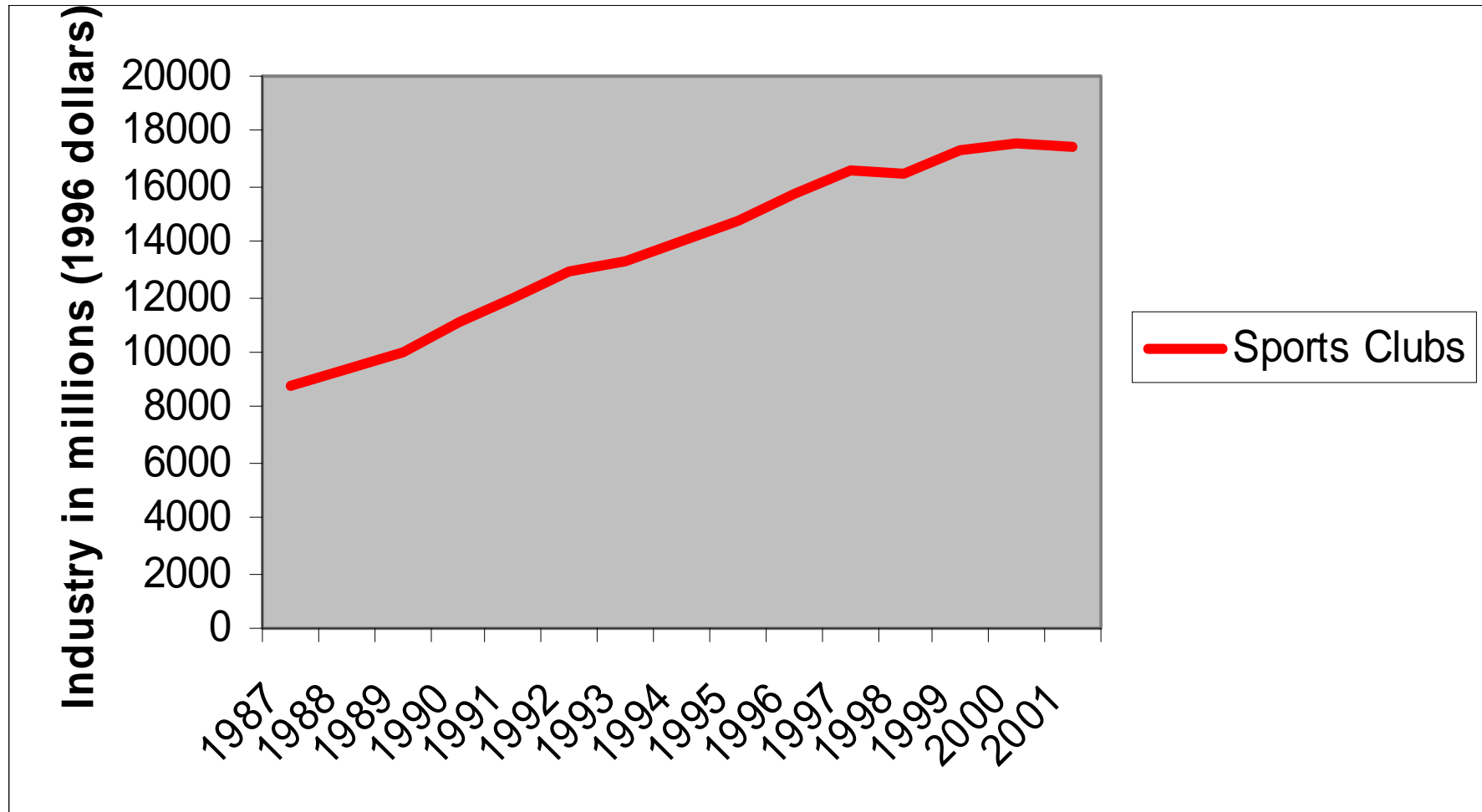
But Dwarfed By Growth of Home Electronics (TV, DVD)



Source: Bureau of Economic Activity, Gross Domestic Product By Industry.

Roland Sturm, RAND

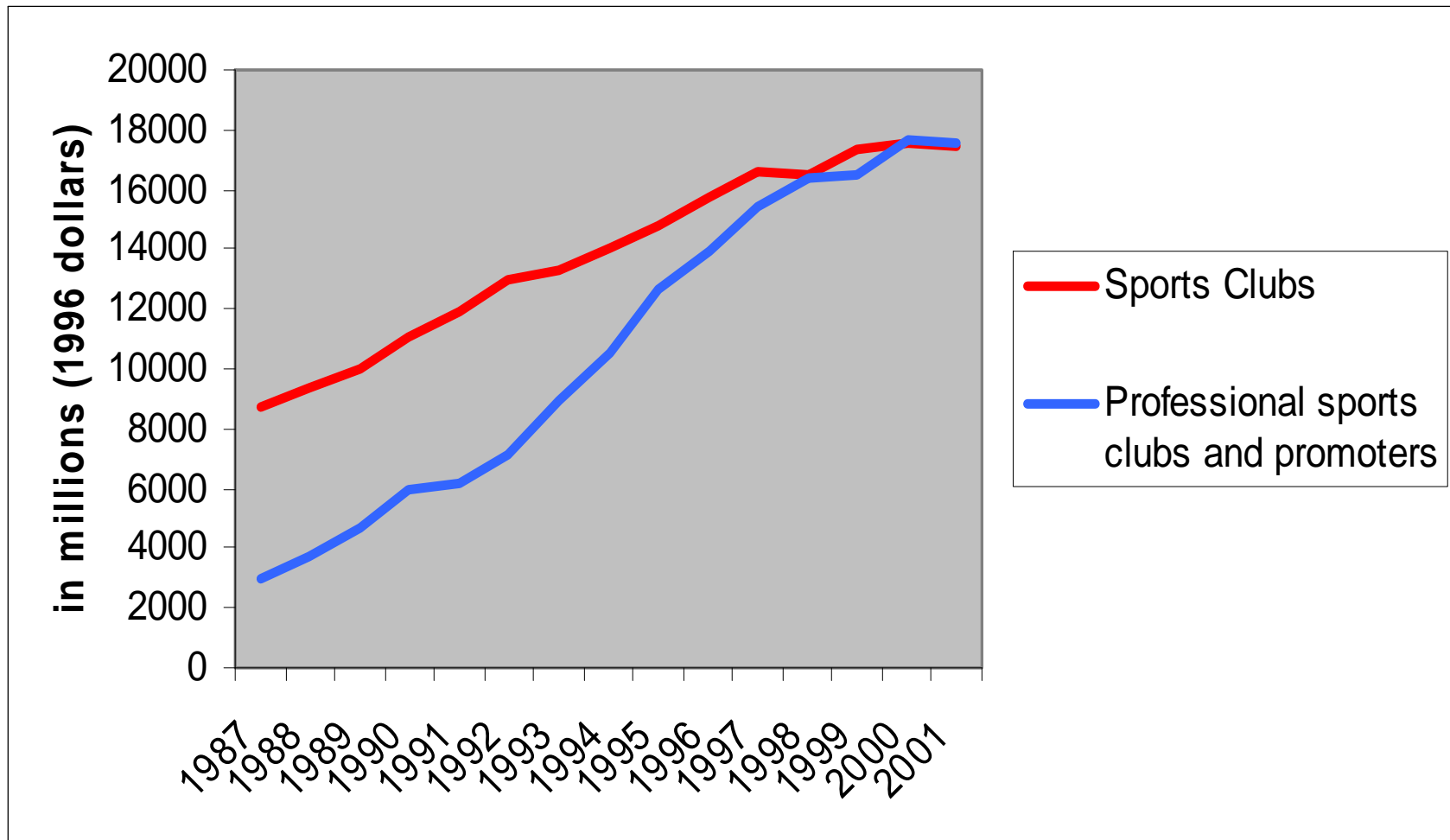
Sports Clubs Doubled ...



Source: Bureau of Economic Activity, Gross Domestic Product By Industry.

Roland Sturm, RAND

... But Sedentary Spectator Sports Grew Faster ...

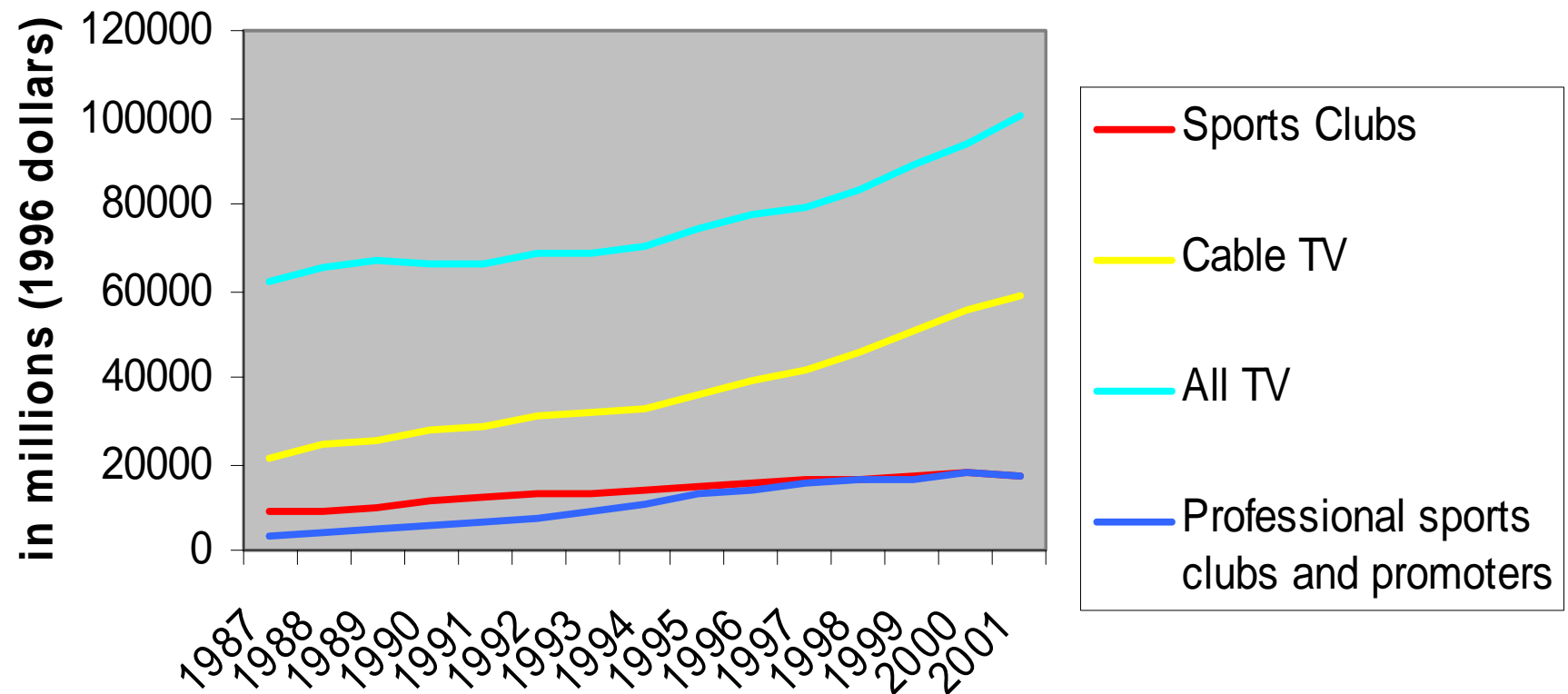


Source: Bureau of Economic Activity, Gross Domestic Product By Industry

Roland Sturm, RAND

... As Did Cable TV

Sports Clubs and Television



Source: Bureau of Economic Activity, Gross Domestic Product By Industry.

Roland Sturm, RAND



Affordable.
Durable.
Low maintenance.



Affordable.
Durable.
Low maintenance.
No pedaling

<<telling us that
pedaling is bad



Look what you're missing...



...if you don't own a FORD!



**Who advertises the
Benefits of
Walking & cycling?**

**Video games are a bigger industry than movies.
They market heavily to children.**



They market to girls



And to very young children



Which player is about to hit the jackpot?

Think quick. This two-fisted Kangaroo is a ring-er for the one in the arcade. So don't pull your punches. Like the player on the right, he'll only score 100 points for punching a thrown apple. But the player on the left will score twice as many for punching a falling apple.

Only Atari makes Kangaroo for the ATARI® 2600™ Game, Sears Video Arcade systems, and a version exclusively for the ATARI 5200™ SuperSystem.

So get Kangaroo. It's a knockout.

Here comes Kangaroo from Atari.

A Warner Communications Company

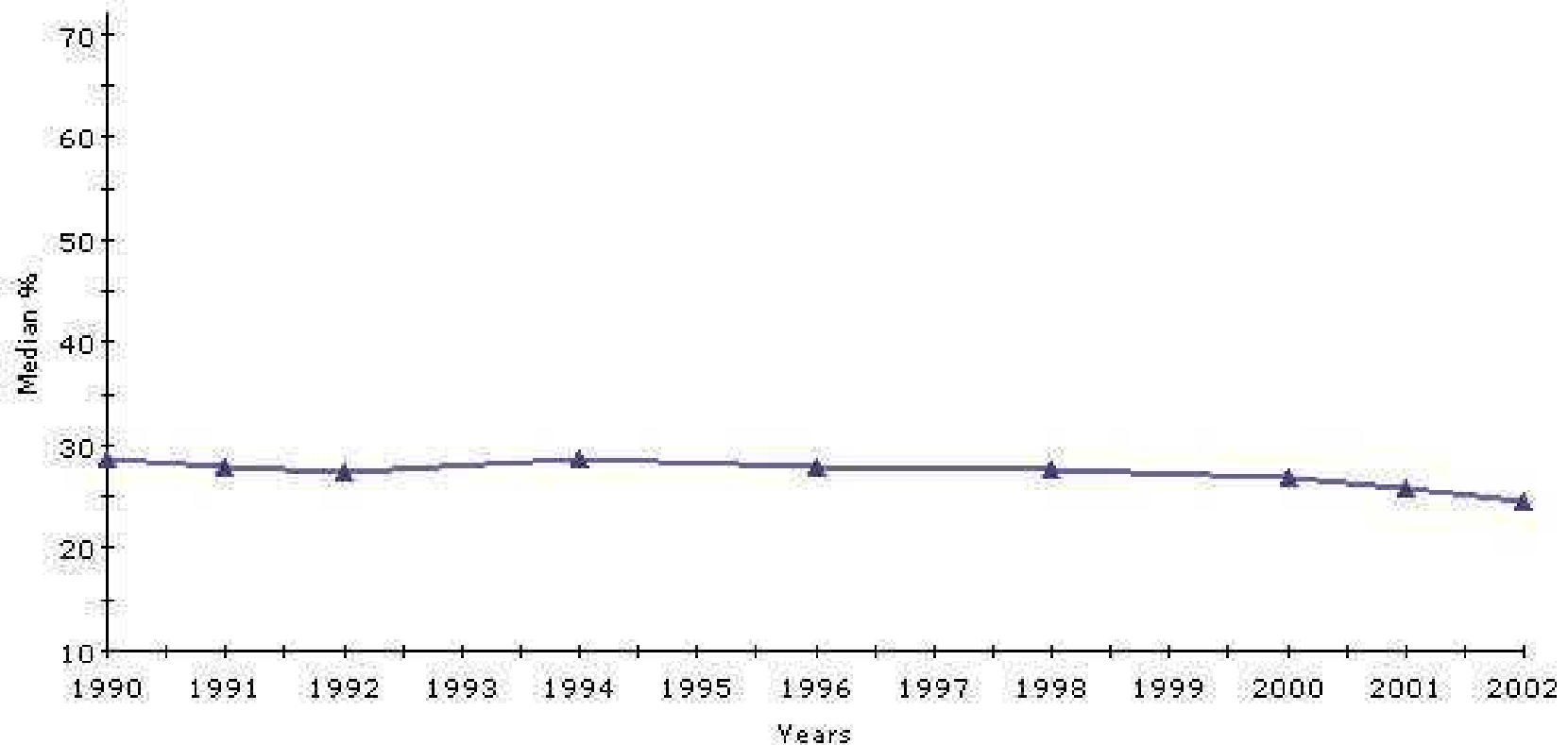
FEEL THE EXCITEMENT

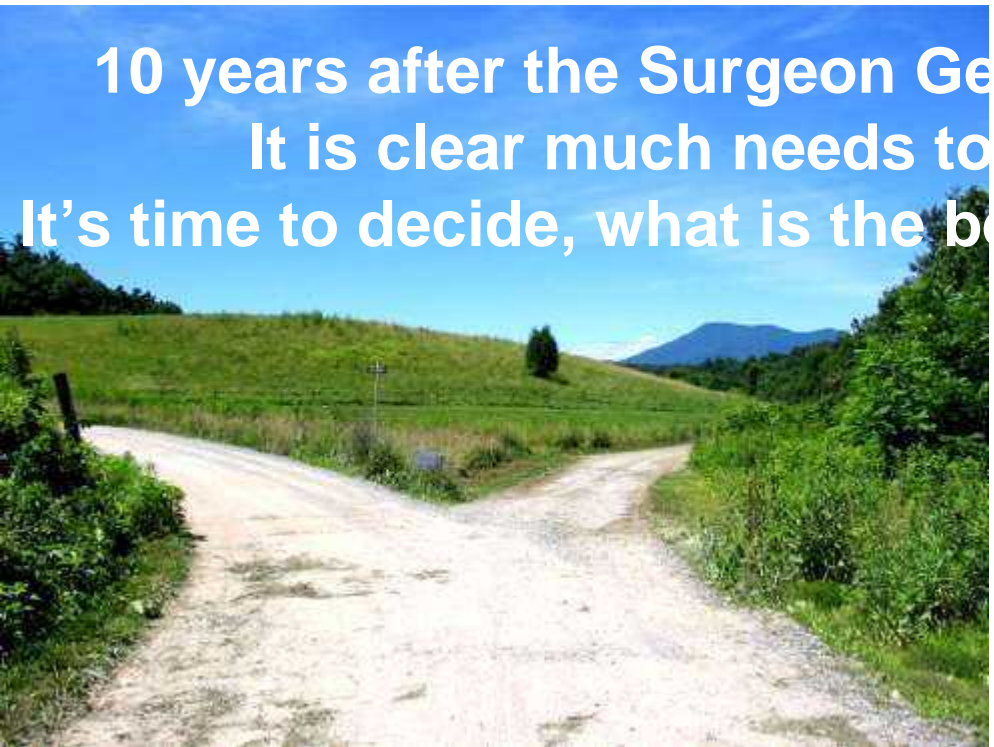


Just what we need—another labor saving device that is heavily promoted. Other ads inform us that walking is “drudgery” and not very modern.

The Ultimate Progress Report. Is This Adequate Progress?

No Leisure Time Physical Activity
Nationwide (States, DC, and Territories)





10 years after the Surgeon General's report
It is clear much needs to be done
It's time to decide, what is the best way forward?

**In each of our countries, which road will we take
For physical activity promotion?**



IF WE TAKE THE WRONG ROAD
THE FUTURE LOOKS DARK AND STORMY

The Low Road

- Research is excellent and continues to improve, but little is put into practice
- There is little or no infrastructure for PA promotion
- Only 3% of WHO budget is spent on non-communicable diseases; little of that for PA
- Physicians learn nothing about PA in med school & are not reimbursed for PA counseling
- Drug companies advertise that “diet and physical activity are not enough”

The Low Road

- PE is not part of “No Child Left Behind”
- 99% of US transportation budgets are spent on roads, not pedestrian & cycling infrastructure
- Media are dominated by ads promoting sedentariness; few ads for PA
- There are no economic incentives for people to be active
- Building walkable communities is illegal in most communities in the US
- This is the road we are on now

The Consequences of Inaction on Inactivity













We are being warned that a train wreck is coming that could overwhelm health care systems. The obesity epidemic is part of the warning that our lifestyles and society need to change **IF health is to be improved.**



If we expect the future to be bright,
we need to take a different road

The High Road: We Must Multiply Examples of Bold Action

- In Norway, the education ministry declared all schools must provide 1 hour of PA daily
- Incoming president of Costa Rica wants to spend 5% of health care budget on prevention. US spends less than 1%
- 25 years ago, Portland, Oregon decided that all land use & transportation policies had to make pedestrians the #1 priority
- Colorado uses lottery money for recreation facilities

The High Road: We Must Multiply Examples of Bold Action

- Coalitions throughout Latin America are dedicated to Agita Mundo
- Australian premiers (governors) lead “whole of government” approach to PA promotion that involves all government departments
- Japan provides teachers, training, time, and equipment needed for quality PE

Brisbane, Australia has invested in pedestrian facilities



- *Beautiful pedestrian bridge
- *Walkways along the river
- *Pleasing aesthetics

Bogota, Colombia has invested heavily in walking, cycling, & PA events



Bergen, Norway



Special streets designed for children's play



**Pedestrian streets,
Like most European cities**



Amsterdam is a model for being friendly to pedestrians & cyclists



The Incredible Bicycle Parking Structure At the Train Station

Apply Lessons from Tobacco Control

Derek Yach, BMJ, 2005

- Individual responsibility **AND** environment change
- Fully implement evidence-based interventions
- The more comprehensive the approach, the greater the impact
- Broad-based, vertical & horizontal coalitions are key
- Media savvy & political leadership needed
- Modest well-spent funds can have massive impact

More Lessons from Tobacco Control: ASSIST

Stillman. JNCI, 2003

- Interventions in 17 states to change social, cultural, economic, & environmental factors to decrease smoking
- Approx \$1.1Mill per yr per state to develop tobacco control infrastructure
- Focus on tobacco prices, access to minors, countering tobacco promotion, smoke free environments—not education or cessation

Lesson from ASSIST:

Resources for Policy Change

- Stillman. JNCI, 2003
- After 8 years, smoking prevalence was lower in ASSIST states
- Best predictor of change was Strength of Tobacco Control
 - Budget & personnel
 - Staff experience & interagency relationships
 - Strength of statewide coalitions
 - % of effort focused on environment & policy change

Framework for Effective Physical Activity Promotion

- Where will resources come from?
 - Government health agencies, private partners, grassroots, fees, taxes?
- Strong coalitions are required
 - Broad--from many sectors & disciplines
 - Deep--from grassroots to professionals
- Focus on policy & environmental change
 - We need training & organization to advocate effectively
- Who will lead this movement?

Let this conference launch a new era in which physical activity professionals

- Conduct research that will inform us how to reach physical activity goals in each country
- Join with other groups to build a movement for physical activity promotion
- Become vocal & persistent advocates for effective PA interventions
- SPEAK UP AND DEMAND ACTION!

Contributors

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