

Priorities for Improved Survival: ICPD Beyond 2014

Promoting Healthy Lifestyles: What Works?

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Health Promotion

“the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behavior towards a wide range of social and environmental interventions.”

WHO

Types of Health Promotion

1. Information, education, communication
2. Regulatory actions
3. Environmental/engineering/structural
4. Incentive-based policies

In the ...

...community, school, workplace, population

Domains and Sources of NCD Health Risk

- Tobacco: smoking, chewing
- Alcohol: binge drinking, low quality liquor
- Diet: salt, transfats, satfats, sugar, low F&V, low coarse grains and nuts, low diet diversity
- Physical Activity: less than 30 minutes per day of moderate activity at least 5 days per week

What's Effective for Tobacco?

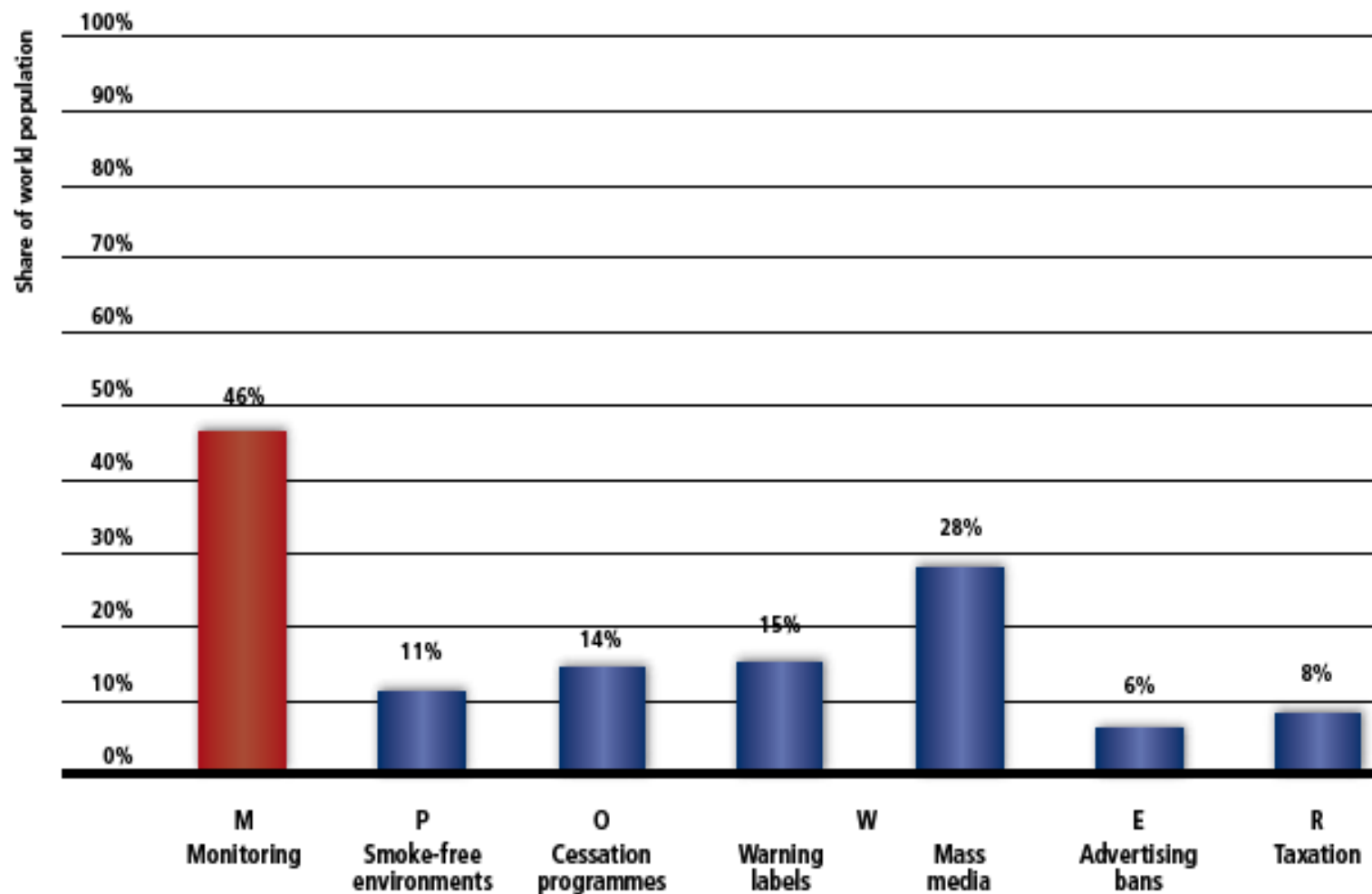


- Taxes
- Subsidies for cessation
- Bans
- Marketing restrictions

Strong Evidence to Reduce Tobacco Consumption

Interventions	Effectiveness
Large, regular increases in excise taxes, adjusted for inflation and affordability	10% higher price reduces consumption ~4% (2% quit, 2% reduce amount smoked)
Complete bans on tobacco advertising and promotion	Reduces consumption by ~15% in LMICs
Complete ban on smoking in public places	Reduces consumption by 3-14%
Cessation support for smokers, brief medical advice, pharmacotherapy	At 6 months, brief medical advice doubles quit rates (from 2% unaided to 4%); drugs triple quit rates (to about 8-10%)
Anti-smuggling technologies	10% higher spending on anti-smuggling efforts reduces smuggling by 5% and consumption by 2%

SHARE OF THE WORLD POPULATION COVERED BY SELECTED TOBACCO CONTROL POLICIES, 2010



Note: The tobacco control policies depicted here correspond to the highest level of achievement at the national level; for the definitions of these highest categories refer to Technical Note I.

Plain packaging (Australia) and pictorial warning labels (Canada)



WARNING
TOBACCO USE
CAN MAKE YOU
IMPOTENT

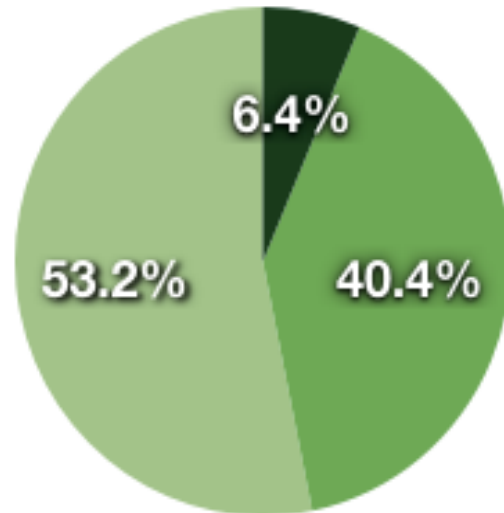
Cigarettes may cause sexual impotence due to decreased blood flow to the penis. This can prevent you from having an erection.

Health Canada

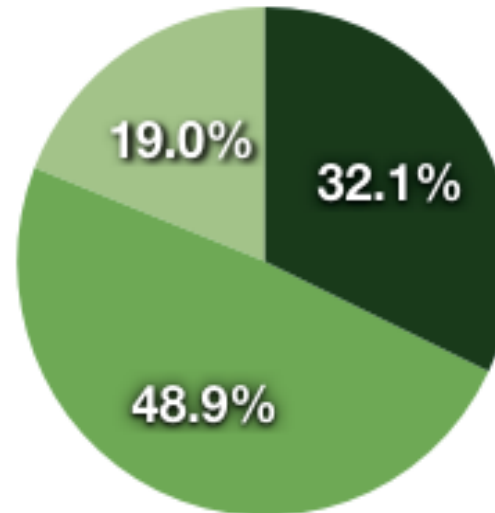
People's Republic of China

Distribution of marginal taxes and health benefits by SES group

Marginal taxes paid by SES



Deaths averted by SES



● Low ● Middle ● High

Low SES group:

Pays **6.4%** of increased taxes but receives **32.1%** of health benefits: hence, health/tax ratio: **5.02**

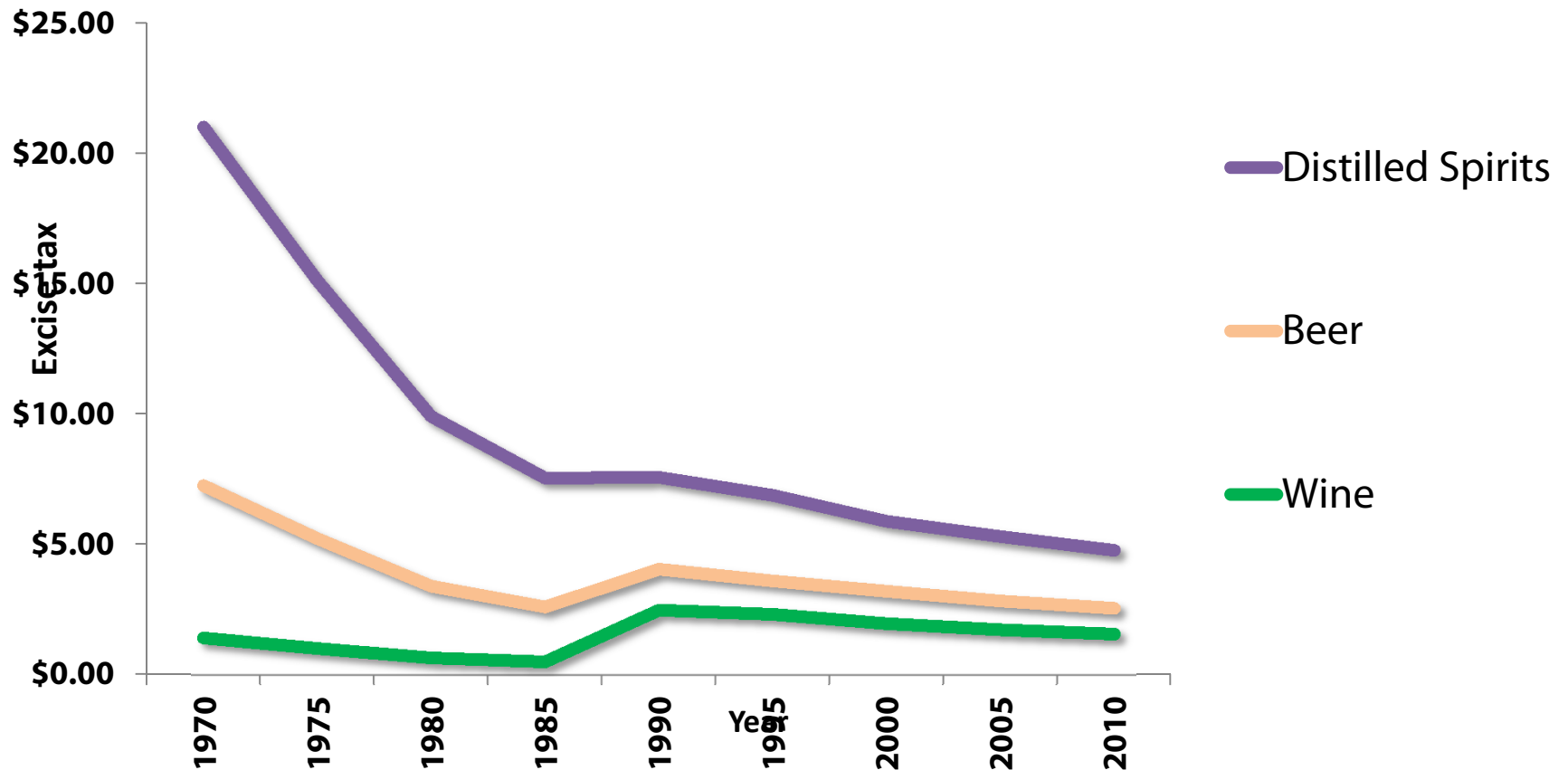
% of income: Net gain for lowest 2 quintiles, net loss for highest 3 quintiles

What's Effective for Alcohol?

1. Restrictions on use
2. Restrictions on driving and drinking
3. Restrictions on advertising and sponsorships
4. Taxation



Federal Excise Tax Rates Per Gallon Absolute Alcohol, 1970–2010



Data from Ramanan Laxminarayan, July 2013

What's Effective for Diet?



1. Sustained, community-based information coupled with labeling and regulation
2. Marketing regulations for children
3. School campaigns

Media and Education	<ul style="list-style-type: none"> • Sustained, multi-mode campaigns focused on specific foods/drinks, either alone (IIa B) or as part of larger multi-component strategies. (I B) †‡§
Labeling and Information	<ul style="list-style-type: none"> • Mandated nutrition facts, front-of-pack labels/icons, or menu labeling to influence <i>industry</i> behavior and product formulations. (IIa B) †
Schools	<ul style="list-style-type: none"> • Multicomponent diet and activity program including classes, teacher training, supportive policies, environmental changes, family components. (I A) † • School garden programs (IIa A) †; fresh fruit & vegetable programs. (IIa A) †
Workplaces	<ul style="list-style-type: none"> • Comprehensive worksite wellness programs for diet, activity, tobacco. (IIa A) † • Increased availability of healthier options and/or strong nutrition standards, combined with on-site prompts, labels, or icons. (IIa B) †
Economic Incentives	<ul style="list-style-type: none"> • Subsidy strategies to lower prices of more healthful foods/drinks. (I A) † • Tax strategies to increase prices of less healthful foods/drinks. (IIa B) † • Long-term agricultural and related policy changes on infrastructure to facilitate production, transportation, marketing of healthier foods. (IIa B) †
Bans and Mandates	<ul style="list-style-type: none"> • Restrictions on marketing of less healthy foods/drinks to youth on TV (I B) †, near schools and public places (IIa B) †, and on packages (IIa B) †. • Direct bans (e.g., sodium, trans fat) or mandates (e.g., vegetable oils). (I B) †§

Mozaffarian et al, AHA Scientific Statement, Circulation 2012

What NOT to do (unless, perhaps, it's free)

Media and Education	<ul style="list-style-type: none">• Shorter-term, community media/education efforts that target multiple CVD behaviors and risk factors simultaneously. (IIb B)
Labeling Information	<ul style="list-style-type: none">• Detailed nutrition facts panels, front of pack labels, or menu labelling as a means to influence consumer behavior. (III B)
Schools	<ul style="list-style-type: none">• School-based education alone, without other components. (IIb A)• Restricted accessibility (times, locations) to vending machines. (IIb B)• Promotion of water use alone. (IIb B)
Workplaces	<ul style="list-style-type: none">• Worksite cafeteria or vending machine labels or prompts alone. (IIb B)

What's Effective for PA?



1. Community-based and multi-component
2. School-based
3. Structural and environmental

EFFECTIVE/PROMISING CAMPAIGNS AND INFORMATIONAL

Community-wide Campaigns

- Involve many community sectors
- Include highly visible, broad-based, multicomponent strategies
- May also address other chronic disease risk factors, particularly diet and smoking

Examples:

- Wheeling Walks
- Agita Sao Paulo
- Stanford Heart Disease Prevention Program



Credit: Tom Schmidt, CDC, 2013

OVERVIEW OF EFFECTIVE, PROMISING, AND EMERGING STRATEGIES TO PROMOTE PHYSICAL ACTIVITY IN COMMUNITIES

Approaches	Strategy	Classification
Campaigns and Informational	Point-of-decision Prompts	EFFECTIVE
	Community-wide Campaigns	EFFECTIVE/ PROMISING
	Mass media Campaigns	PROMISING
	Short Informational Messages	EMERGING
Behavioral and Social	School-based Strategies	EFFECTIVE
	Social Support in Communities	EFFECTIVE
	Provider-based Counseling	PROMISING
	Community PA Classes	PROMISING
Policy and Environmental	Community-scale Urban Design	EFFECTIVE
	Street-scale Urban Design/Land use	EFFECTIVE
	Transportation Policies and Practice	EMERGING
	Community-wide Planning and Policies	EMERGING

Source: Tom Schmidt, CDC, July 2013

What do we know about Cost-Effectiveness for PA?

- Very few CEA of PA interventions have been completed, fewer still using the most widely accepted methods (Cost / QALY)
- Cost / QALY of PA interventions are consistently in “CE” range
- Most studies have focused on high risk or older populations or work sites
- Indirect cost benefits of PA are generally greater than direct medical benefits, but are even less well studied

The Frontiers

- Built environment
- E-technology
- “Crowding-in” multiple sectors
- Private sector involvement and investment

Implications

- Economic incentives are well supported, perhaps especially effective in developing countries, but they are under-utilized. However, need some enabling conditions (ex Vitality).
- Culture matters. Community-based campaigns work well in community-oriented societies without major barriers (crime, low accessibility).
- Importance of targeting: youth programs different from geriatric programs, etc.
- At the population level, even modest shifts in risk behaviors and risk factors substantially alter health outcomes and disease risk.

Conclusions

- Health promotion for NCD control is generally low-cost (regulation, taxation, IEC), except for structural change.
- However, often ineffective unless multi-component and sustained. Dx the problem: lack of information or behavioral choice?
- Need to better evaluate benefits and costs of large-scale change.
- Need a coherent social agenda to change norms, supported by enabling physical environment, and alignment of policies across sectors.

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THANK YOU

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Examples of Strategies with Less Evidence

Environment	<ul style="list-style-type: none">• Greater availability of supermarkets near homes. (IIa B)^{††}• Greater availability of grocery stores near homes. (IIb B)• Reduced availability of convenience stores near homes. (IIb B)• Reduced availability of fast food restaurants near homes (IIb B) or schools (IIb B).• Greater availability of local farmers' markets (IIb B) or community gardens. (IIb C)
Economic Incentives	<ul style="list-style-type: none">• Changes in agricultural subsidies alone to either encourage crops or reduce crops as a means to alter consumption. (IIb C)• Sustained individual financial disincentives for adiposity or poor diets (e.g., higher insurance premiums) or other individual financial incentives to lose weight or improve diet. (IIb C)• Nonsustained individual financial disincentives or incentives related to obesity or diet. (IIb A)
Bans and Mandates	<ul style="list-style-type: none">• Mandates to support production of healthier foods. (IIa C).

EFFECTIVE — POLICY & ENVIRONMENTAL APPROACHES

Community-scale Urban Design

- Urban design and land-use regulations, policies, and practices
- Walking and biking trails
- Exercise facilities

Examples: Bike and Pedestrian Corridors in Portland, Oregon, USA; Ciclovias in Bogotá, CO



EFFECTIVE — POLICY & ENVIRONMENTAL APPROACHES

Street-scale Urban Design Strategies

- Pedestrian/bike friendly environments
- Improved access
- Aesthetics
- Safety

Examples:

- Sidewalks
- Continuity of pavement
- Lighting and traffic calming effects



School-based physical education programs in Latin America

- US Community Guide review process conducted on school programs in Brazil, Chile and the US/Mexico border.(GUIA)
- Consistent positive increases in PA levels for all outcomes (PE and transport to school) in 3 randomized trials
- Except for one cohort non-randomized studies showed positive intervention effects

Source: Ribeiro et al 2010, Glb Hth Prom

Academia da Cidade, (ACP) Recife, Brazil

- Community-level, professionally supervised and publicly available programs such as ACP are effective in increasing levels of leisure-time PA.
- Offering opportunities for transportation physical activity should be considered as a strategy to Increase PA among the poor

Source: Simoes et al, AJPB,2009