in focus
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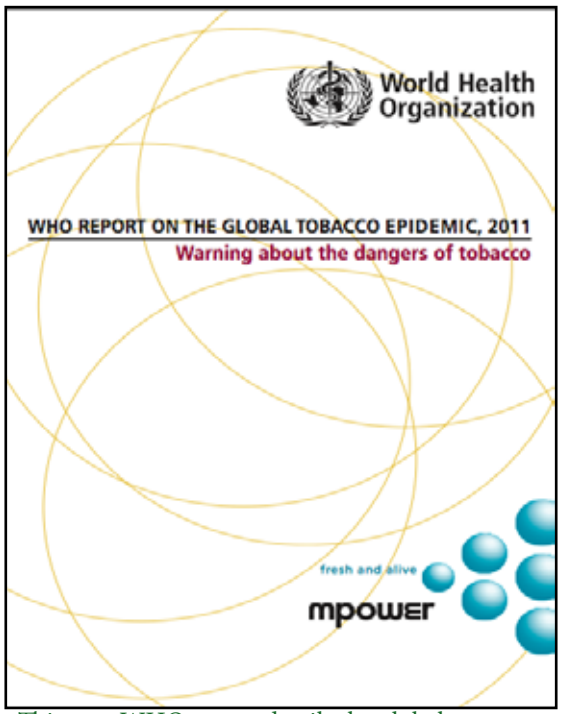
TARGETED ANTI-TOBACCO PROGRAMS, POLICY AND MEDIA MESSAGES EXPECTED TO SAVE MILLIONS WORLDWIDE

New WHO Report Projects Hope and Help in Global Tobacco Offensive

What if we could save the lives of more than 5 million people every year?

We can...Simply by reducing tobacco use, which takes that many annually worldwide.



This new WHO report details the global response to tobacco and its regulation.
(Source: *WHO Report on the Global Tobacco Epidemic, 2011*)

So emphasizes the *WHO Report on the Global Tobacco Epidemic, 2011*, the third in a series of periodic World Health Organization (WHO) assessments on the status of the global tobacco scourge and measures to curtail it.

Subtitled "Warning about the dangers of tobacco," the report posits that tobacco knows – and shows – no mercy. The world's most lethal consumer product, it was responsible for 100 million preventable deaths during the 20th century, WHO asserts; and left unheeded, it could kill up to 1 billion people worldwide over the course of the 21st.

Most of the millions who die tobacco-related deaths each year are working-age adults who are users or ex-users, but 17 percent – a substantial 600,000 people – are non-users condemned via second-hand smoke. Meanwhile, tobacco use is the second-biggest contributor to the global surge of noncommunicable diseases such as heart attack, stroke, cancer and emphysema, and children of pregnant smokers risk as much as a 20 percent higher chance of heart disease and stroke during their lifetimes, according to a University of Sydney study released in summer 2011.

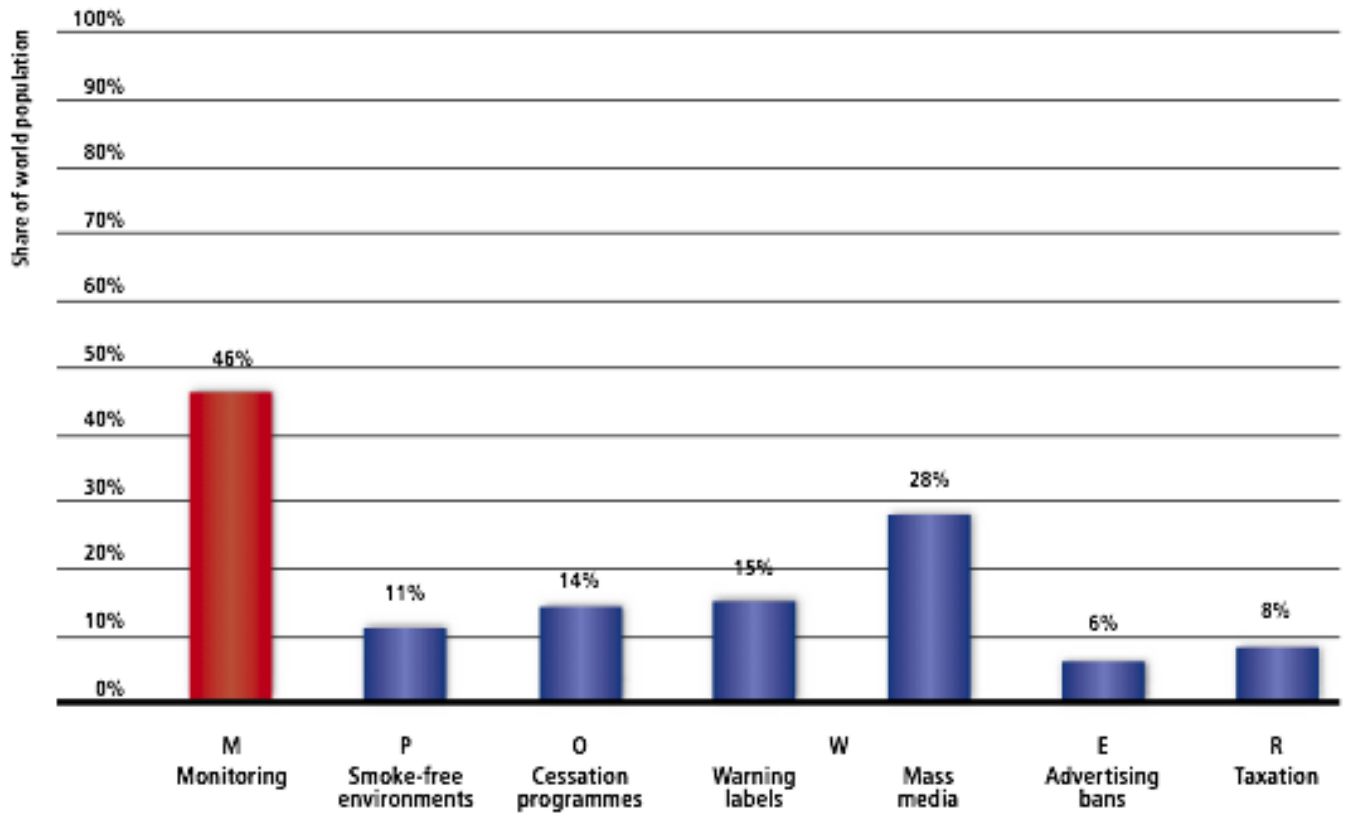
Tobacco use and impact is growing fastest in low- and middle-income countries, due to population growth

and tobacco industry targeting. By 2030, more than 80 percent of the world's predicted 8 million tobacco-related deaths will be in these countries. At the same time, tobacco's devastating economic and health consequences contribute to the burden of poverty in these nations, making tobacco control both a public health priority and a significant development issue, according to WHO.

While the path to preventable tobacco-related mortality is decidedly clear, trailblazing a new course is undeniably difficult and opaque. Today's tobacco-control programs tend to operate on their own, in self-contained local, regional or national "vacuums," and are no match for the brute force of the global tobacco epidemic, and the formidable power, reach and resources of the transnational tobacco industry. Meanwhile, traditional public health methods for reducing tobacco use, such as individual interventions by health-care professionals, are proving ineffective.

Going forward, the goal is to globalize tobacco-control approaches and initiatives to capitalize on the influence of a universally standard, united and informed front. Actions are underway to make this happen, from the unprecedented WHO Framework Convention on Tobacco Control (FCTC) to developments in countries like Venezuela, where an Intergovernmental Commission for Tobacco Control has been created to coordinate tobacco-control programs across all arms of government and to work closely with regional and international organizations.

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.

(Source: *WHO report on the Global Tobacco Epidemic, 2011)*

The Promise of MPOWER

The *WHO Report on the Global Tobacco Epidemic, 2011* details such successes, including policies and actions that deliver a global response to this worldwide public health problem.

The report champions the WHO FCTC, a "new approach in international health cooperation" and legally binding global treaty that provides necessary tobacco-control tools and "a comprehensive direction for implementing tobacco control policy at all levels of government" to reduce tobacco use and save lives. Adopted in 2003 in response to the globalization of the tobacco epidemic, as of January 2012, the WHO FCTC has 174 parties covering 87 percent of the world's population, making it one of the most rapidly embraced treaties in United Nations history.

To help countries fulfill their WHO FCTC obligations, in 2008, WHO unveiled MPOWER, a package of six proven tobacco-control measures that urge nations to:

Monitor tobacco use and prevention policies

Protect people from tobacco smoke

Offer help to quit tobacco use

Warn about the dangers of tobacco

Enforce bans on tobacco advertising, promotion and sponsorship

Raise taxes on tobacco.

The 2011 WHO report examines the impact of the MPOWER measures and the progress that continues to be made in applying them globally and nationally.

"Gains were made in all areas" over the past two years, the report reveals, and roughly 3.8 billion people – 55 percent of the world's population – are now covered by at least one MPOWER measure at the highest level of achievement, including 1.1 billion people covered by new policies in the 30 countries that enacted them since 2008. Meanwhile, more than 1 billion people (17 percent of the world's population) live in countries that have adopted two or more MPOWER measures at the highest level.

Warning Labels Proliferate

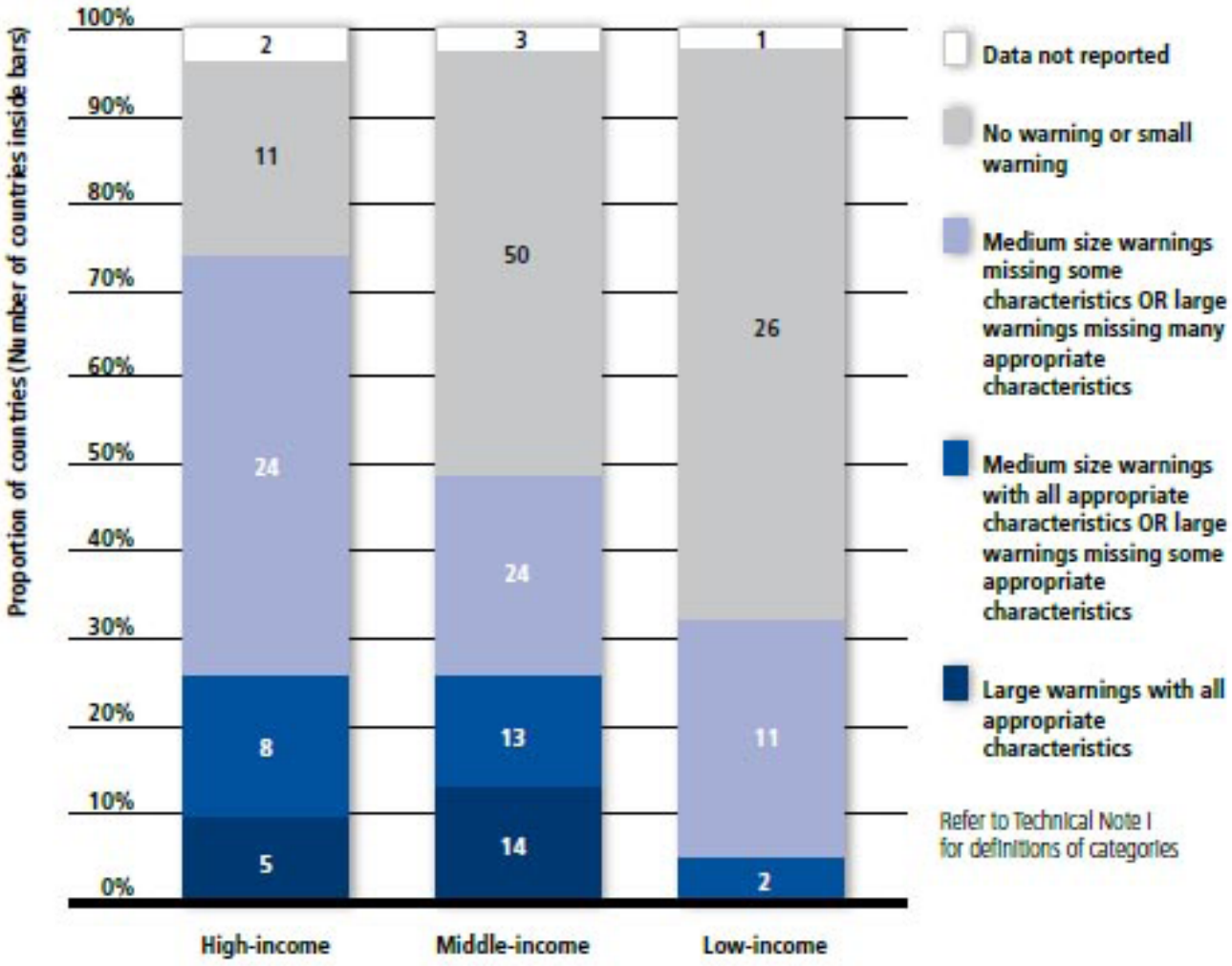
As its subtitle suggests, the 2011 WHO report places particular emphasis on alerting people to the dangers of tobacco through such methods as large, graphic health warnings on tobacco packages and anti-tobacco mass media campaigns – two primary, cost-effective health alert strategies proven to promote awareness of tobacco's harmful effects, reduce tobacco use and save lives.

According to the report, the provision of health warning labels accounted for one of the greatest gains based on population coverage in the areas of tobacco control over the past two years, as three more countries with nearly half a billion people (Mexico, Peru and the United States) enacted pack labeling laws at the best-practice level. Today, 15 percent of the world's population – more than 1 billon people in 19 countries – are covered by this policy, a 7 percent increase in the number of people worldwide exposed to strong graphic health warnings since 2008. And several countries have taken big steps, with commensurate impact.

New U.S. warning labels, such as the one above, are hard-hitting, but may never make it onto cigarette packs due to legal action.

In 2009, for example, Uruguay increased the size of its graphic warning labels from 50 to 80 percent of primary

WARNING LABELS



Warning labels make a difference and are gaining traction across the globe.
(Source: *WHO Report on the Global Tobacco Epidemic, 2011)*

pack surface areas, a bold move that resulted in nearly half of the country's smokers considering quitting, according to findings from the Global Adult Tobacco survey. That same year, Djibouti mandated pictorial labels covering 50 percent of both the front and back of packages, and health messages on the sides; within the first year, sales of tobacco products incorporating "strong" images on warning labels were substantially lower than sales of products containing "softer" images. Attempting to follow in these nations' sizable footsteps, the United States is slated to move from very weak warning label requirements to among the world's strongest in September 2012, but is now facing indefinite delays due to legal action by a number of cigarette companies. (See "In the Spotlight.") Meanwhile, only seven countries (Chile, Egypt, Iran, Mexico, Panama, Peru and Uruguay) have adopted the strongest level of regulations for smokeless tobacco warnings, including warning labels that cover at least 50 percent of the packaging.

Campaigns and Cessation

Together, health warning labels and anti-tobacco mass media campaigns are the most widely embraced MPOWER measures, based on population coverage.

Assessed for the first time by WHO in the 2011 report, comprehensive national mass media campaigns were

conducted in 23 countries covering 1.9 billion people, or 28 percent of the world's population. Able to reach large populations quickly and efficiently, often as part of a national tobacco-control program, such campaigns traditionally have relied on television's powerful graphic imagery, but social media is increasing in importance.

This poster is part of Turkey's move to mandate more free airtime for anti-tobacco advertising.
(Source: *WHO Report on the Global Tobacco Epidemic, 2011*)

Currently, Turkey, which has mandated a minimum of 90 minutes of free air time every month for anti-tobacco educational programming and advertising since 1996, now requires radio and television stations to broadcast such programming during daytime, primetime and early evening hours so that messaging will reach increased numbers of adults and be more likely seen by children. And the Government of India, which allocates approximately US$5 million annually to anti-tobacco mass media campaigns, recently used its resources to run a year-long graphic, multi-dialectal, multi-phase campaign to warn the public about the dangers of smokeless tobacco. Generating press coverage and national awareness, the campaign aired hard-hitting footage of patients with tobacco-related cancers and vivid descriptions by respected physicians on television and radio; it also employed a Web site and innovative mobile technology, including text messaging, as advocacy platforms.

With warning labels and mass media campaigns fueling awareness and health concerns, tobacco dependence treatment and cessation services have increased in significance. Between 2008 and 2010, one additional country, Turkey, began providing comprehensive tobacco dependence treatment that includes a national quit line and coverage of costs for nicotine replacement therapy. Now, 19 countries comprising 980 million people (about 14 percent of the world's population) provide the highest level of tobacco-cessation services, an increase of 76 million individuals since 2008.

New Zealand offers a wide range of free cessation services, including a national, government-funded quit line that assists more than 50,000 people a year.
(Source: *WHO Report on the Global Tobacco Epidemic, 2011*)

According to the 2011 WHO report, high-income countries, like New Zealand, which offers a wide range of free cessation services and has subsequently seen adult smoking prevalence drop about one-third over two decades to 21 percent in 2009, were most likely to provide and fund a full range of cessation services, although less than 30 percent of countries in this income classification currently do so. Meanwhile, no low-income country yet offers a national quit line or

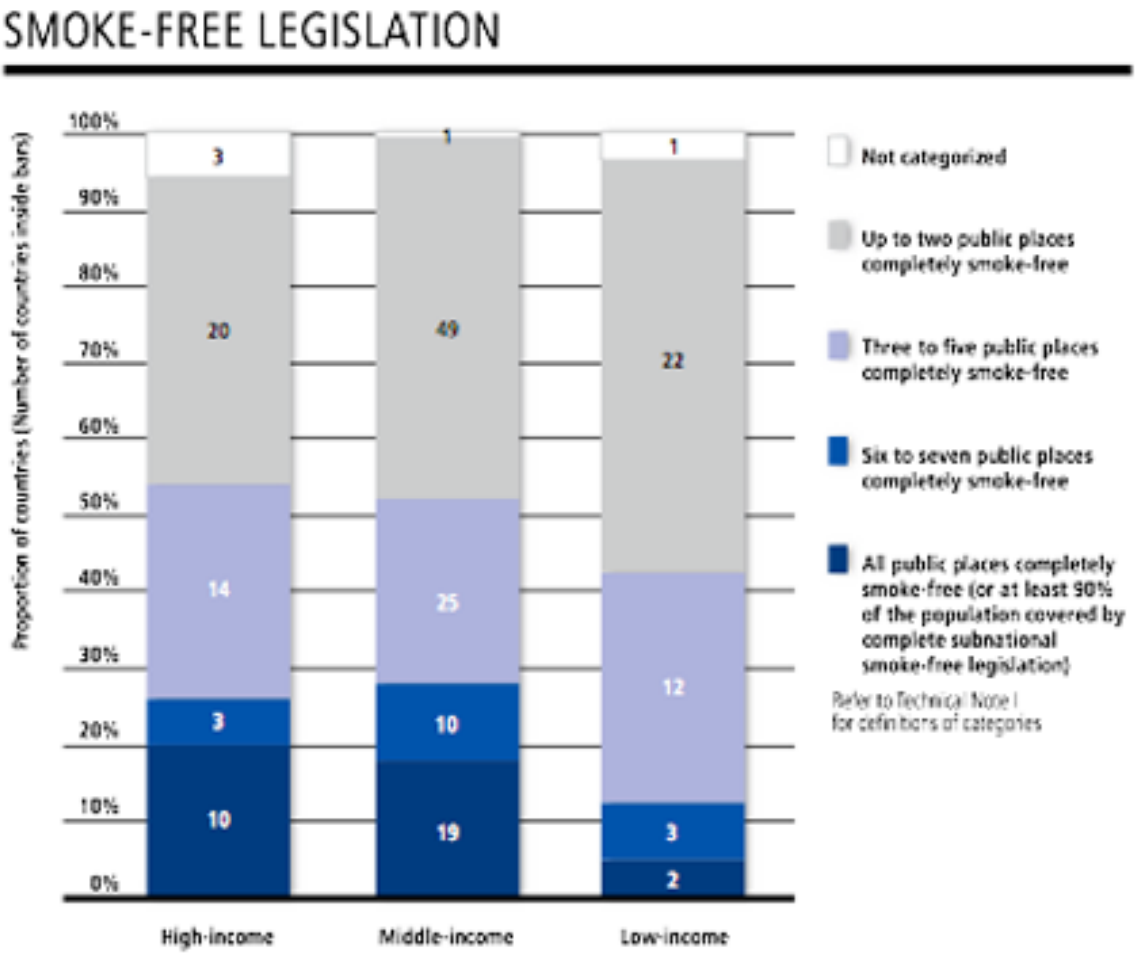
cost-covered cessation services, and only one in eight currently covers any costs of cessation services.

Breathe No Evil, See No Evil

Other great gains made in the tobacco-control arena over the past two years involve protecting people through smoke-free environments, with the share of the world's population covered by this policy more than doubling, from 5 percent, or 354 million people, in 2008, to almost 11 percent, or 739 million, in 2010.

(which increases the risk of coronary heart disease by 25 to 30 percent in non-smokers, according to the U.S. National Academy of Sciences' Institute of Medicine). An additional 100 million people are also now protected by comprehensive smoke-free legislation at the subnational level, bringing that total to 210 million, or 3 percent of the world's population.

Notable gains were made in Brazil, which now protects 77 million people (representing nearly 40 percent of its population) by subnational smoke-free laws passed since 2008, and in the United States, which added 21 million more people at the subnational level, the report details. Meanwhile, the Seychelles' Tobacco Control Act of August 2009 created completely smoke-free environments in all enclosed public places and workplaces, on all transport, and in select outdoor premises, including all health and educational facilities and stadiums, continuing this nation's pivotal role in tobacco control, including being the first country in the African Region to ratify the WHO FCTC.



Making public places smoke-free is gaining in popularity.
(Source: *WHO Report on the Global Tobacco Epidemic, 2011*)

National-level smoke-free laws covering all public places and workplaces are popular with the public, finds the 2011 WHO report, and were newly enacted by 16 countries since 2008, increasing to 31 the number of nations that provide the highest level of protection against exposure to second-hand tobacco smoke

The Seychelles also have completely banned tobacco advertising, promotion and sponsorship, including all forms of direct and indirect advertising, a move that, independent of other tobacco-control interventions, could decrease tobacco consumption by about 7 percent and as much as 16 percent, according to the 2009

WHO report on the global tobacco epidemic.

Because of strong laws in the Seychelles, enclosed public spaces and workplaces, as well as all public transport, are completely smoke-free.
(Source: WHO Report on the Global Tobacco Epidemic, 2011)

Currently, 19 countries with 425 million people, representing 6 percent of the world's population, are fully protected against tobacco industry marketing tactics, 80 million more than in 2008 owing to the comprehensive bans enacted by Chad, Colombia and Syria over the past two years, reveals 2011 WHO report data. Of these 19 nations, nine are classified as middle-income, six as low-income, and four as high-income, with Norway the only country in Europe and North America to enact and enforce a complete ban on all forms of direct and indirect tobacco advertising. An additional 101 countries throughout the world ban national television, radio and print tobacco advertising, as well as some other forms of direct and/or indirect advertising, but studies reveal that partial bans such as these have little or no effect. Meanwhile, 74 countries, or 38 percent of all nations, currently do not have any restrictions on tobacco advertising, promotion and sponsorship, or have very minimal ones.

Tracking and Taxes

On the brighter side, the recent WHO report finds that 3.2 billion people in 59 countries – 46 percent of the world's population – are covered by high-level monitoring policies, which form the backbone of tobacco-control efforts and provide the accurate data necessary for their success. Between 2008 and 2010, 23 additional countries strengthened their tobacco use monitoring to include recent and representative data for both adults and youth, and also conducted ongoing periodic surveys that collect these data at least every five years. Despite such progress, however, more than 100 countries lack representative data for adults and youth, or have no data at all – and an additional 30 countries do not have periodic data, making it difficult to accurately track tobacco-use trends.

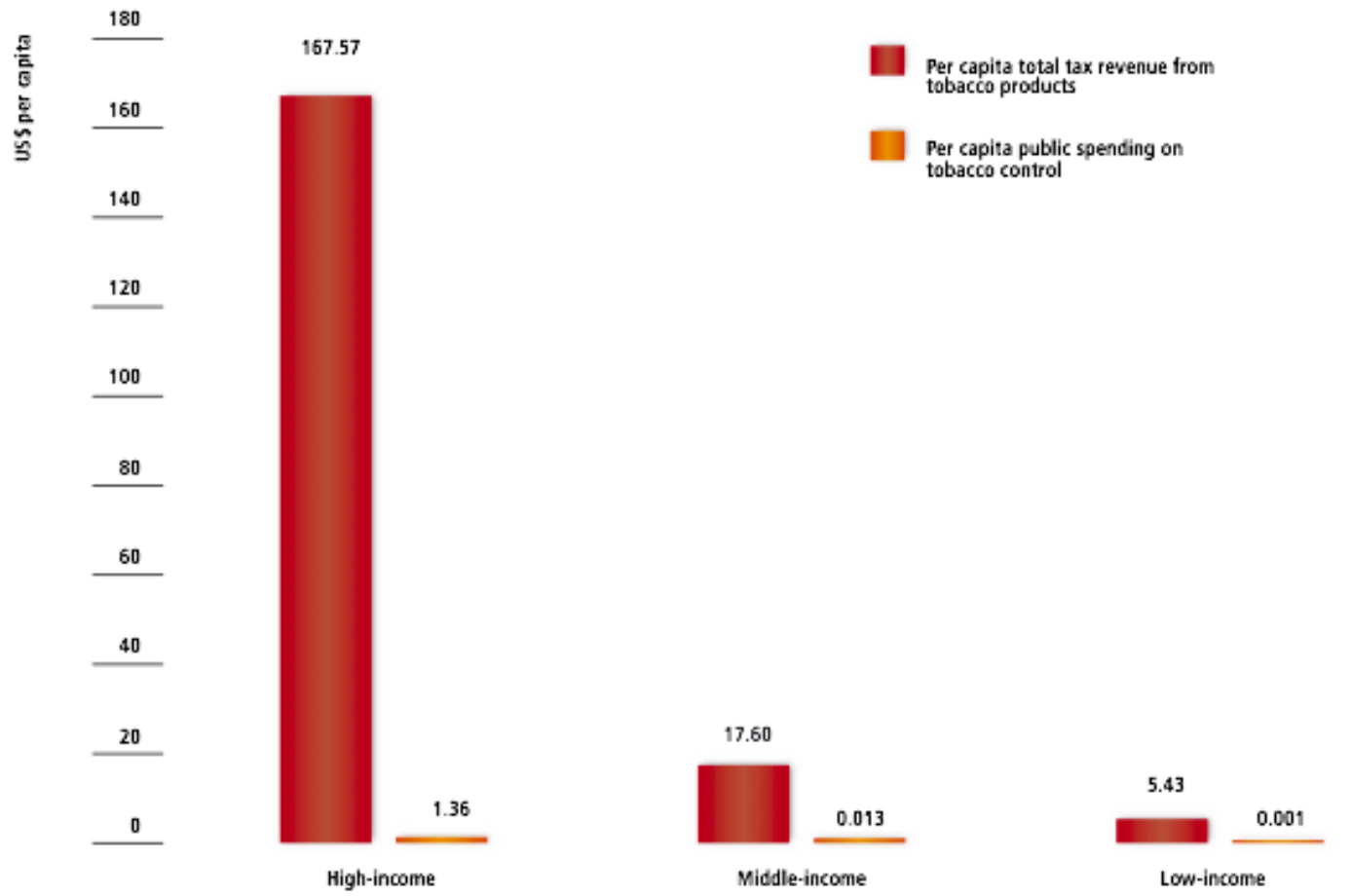
Monitoring provides the foundation for effective tobacco control, but "[i]ncreasing taxes is the best way to reduce tobacco use," contends the 2011 WHO report. In fact, according to 2008 WHO MPOWER data, each 10 percent increase in retail price reduces consumption by about 4 percent in high-income countries and up to 8 percent in low- and middle-income countries, with smoking prevalence reduced by about half those rates. Based on the new WHO tobacco report, 539 million people in 26 countries and one territory, including Argentina, Latvia and the West Bank and Gaza strip, now have taxes constituting the recommended minimum of 75 percent of retail price, an additional 115 million people than in 2008. Only one low-income country, Madagascar, and less than 10 percent of middle-income countries currently levy taxes at this recommended level, and six countries that had taxed tobacco at that level in 2008 saw their share of taxes as a proportion of retail price fall below the 75 percent benchmark by 2010. In a somewhat surprising move, Japan, a country with relatively few anti-smoking laws, levied that country's biggest cigarette tax increase in October 2010, raising prices nearly 40 percent in a move designed to be both a public health initiative and a source of tax revenue for the government.

At the same time, governments in general are falling short in their funding of tobacco-control activities. In fact, governments collect nearly US$133 billion in tobacco excise tax revenues, but spend less than US$1 billion combined on tobacco control, with 97 percent of this amount spent by high-income countries, details the 2011 WHO report. Yet, WHO asserts, adequate resources, including sufficient staffing, are critical to the success of tobacco-control interventions, most of which are carried out locally but depend on higher-level assistance.

"To Great Effect"

Programming and policy are important components of reducing tobacco use across the globe. But it is national action, supported by civil society and a global

TOBACCO CONTROL IS UNDERFUNDED



Note: Based on 51 countries with available tobacco excise revenue data for 2009; expenditure on tobacco control for several of these countries was estimated from figures reported between 2007 and 2010, adjusting for inflation. Tax revenues are tobacco product (or cigarette) excise revenues in 2009 for included countries. In a departure from the *WHO Report on the Global Tobacco Epidemic, 2009*, revenues here pertain to excises rather than all taxes on tobacco products. Due to this more stringent criterion, fewer countries are represented than in the 2009 report.

(Source: *WHO Report on the Global Tobacco Epidemic, 2011*)

vision, that is imperative and makes a difference on a mass scale.

Most countries have developed tobacco-control programs or strategies, but only 20 percent of high-income countries and 24 percent of middle- and low-income countries have an agency with at least five full-time equivalent staff members – and just three countries (Burundi, Pakistan and Turkey) increased program staffing to this level in the past two years, reveals 2011 report data. Meanwhile, another 30+ countries either do not have a national tobacco-control agency or have not established national objectives for tobacco control, which are critical foundations for complying with WHO FCTC treaty obligations.

Nevertheless, "The status of the MPOWER measures presented in this WHO Report on the Global Tobacco Epidemic, 2011 show that it is possible for any country, regardless of political structure or income level, to implement an effective tobacco control programme to reduce tobacco use," emphasize the authors of the report. Within the past year, for example, the Russian Federation adopted its Concept for State Policy on Actions Against Tobacco use for 2010–2015. This plan establishes a formal tobacco-control operation within the country's Ministry of Health and Social Development with responsibility for implementing a compre-

Some smaller countries stand out as tobacco-control role models, like Uruguay, which has the world's largest pictorial health warning requirements for cigarette packages at 80 percent.
(Source: *WHO Report on the Global Tobacco Epidemic, 2011*)

hensive national strategy that addresses all WHO FCTC requirements, including provisions on tax increases, advertising bans, smoke-free places, warning labels, cessation services and public education activities; it also sets specific program goals for 2015 such as reducing tobacco use prevalence by 10 to 15 percent and halving the number of people exposed to second-hand tobacco smoke.

Many other, smaller, developing countries have taken significant steps to combat tobacco use and can be looked to as MPOWER role models. Case in point: The three countries that currently have the largest pictorial health warning requirements for cigarette packages (as an average of the package front and back) are Uruguay with 80 percent, and Mauritius and Mexico with 65 percent.

"The progress in reaching the highest level of the MPOWER measures is a sign of the growing success of the WHO FCTC and provides strong evidence that there is political will for tobacco control on both national and global levels, which can be harnessed to great effect," concludes the 2011 WHO report.

To "great effect" indeed – millions more lives could be saved and hundreds of billions of dollars a year in avoidable health-care costs and productivity losses averted. But such a considerable impact requires countries to continue to expand and intensify their tobacco-control efforts, ensuring that they have the financial means and political commitment to support effective and sustainable programs, and, most importantly, can transform these dollars and dedication into human action and realizable results.

IN THE SPOTLIGHT

New Graphic Warnings Could Have Great Impact - IF Enacted

In what a June 2011 USA Today labeled "the most sweeping anti-tobacco effort since the surgeon general's warning became mandatory on cigarette packaging in 1965," the United States may require graphic health warnings to appear prominently on every cigarette pack and cigarette advertisement across the nation.

Developed as part of the Family Smoking Prevention and Tobacco Control Act, a national strategy to eliminate tobacco-related death and disease, the new cigarette warnings include nine hard-hitting images of corpses, cancer-ridden lungs and rotting gums designed to prevent children from lighting up, encourage adult users to quit and enhance awareness of the dangers of smoking. The Food and Drug Administration (FDA), which is responsible for the pictorial labels, states that the images were selected based on "their ability to effectively communicate the health risks of smoking," and after reviewing relevant scientific literature, more than 1,700 public comments and results from an 18,000 person study.

The new graphic health warnings are supposed to go into effect in September 2012. At that time, all cigarettes for sale or distribution in America are to be manufactured or advertised with the warnings covering the top 50 percent of both the front and back panels of each cigarette package and at least 20 percent of

The United States is poised to place these, and seven other, graphic health warning labels on cigarette packs and ads nationwide.

the area of each cigarette advertisement. The proposed timeline faces indefinite delays, however, due to legal action by a number of cigarette companies; and now it is unclear when – or even if – the new warning labels will debut.

Persuasive Pix

If enacted, the new U.S. warning labels will resort to revulsion and shock value to deliver a preventive punch. They depict everything from close-ups of rotting teeth and gums, and healthy and diseased lungs to a spiritless sharply dressed man wearing an oxygen mask, to a baby in its mother's arms suspiciously eyeing a cloud of second-hand smoke accompanied by text like, "Cigarettes cause cancer...cause lung disease...cause strokes and heart disease" and "Tobacco smoke can harm your children." They are gruesome, explicit, and designed to dissuade.

Statistics Show...

According to the World Health Organization (WHO), 10 million cigarettes are sold worldwide every minute, more than 2,000 children under the age of 18 start smoking every day, and more than 3 million U.S. adolescents, and about one in five adults, are cigarette smokers.

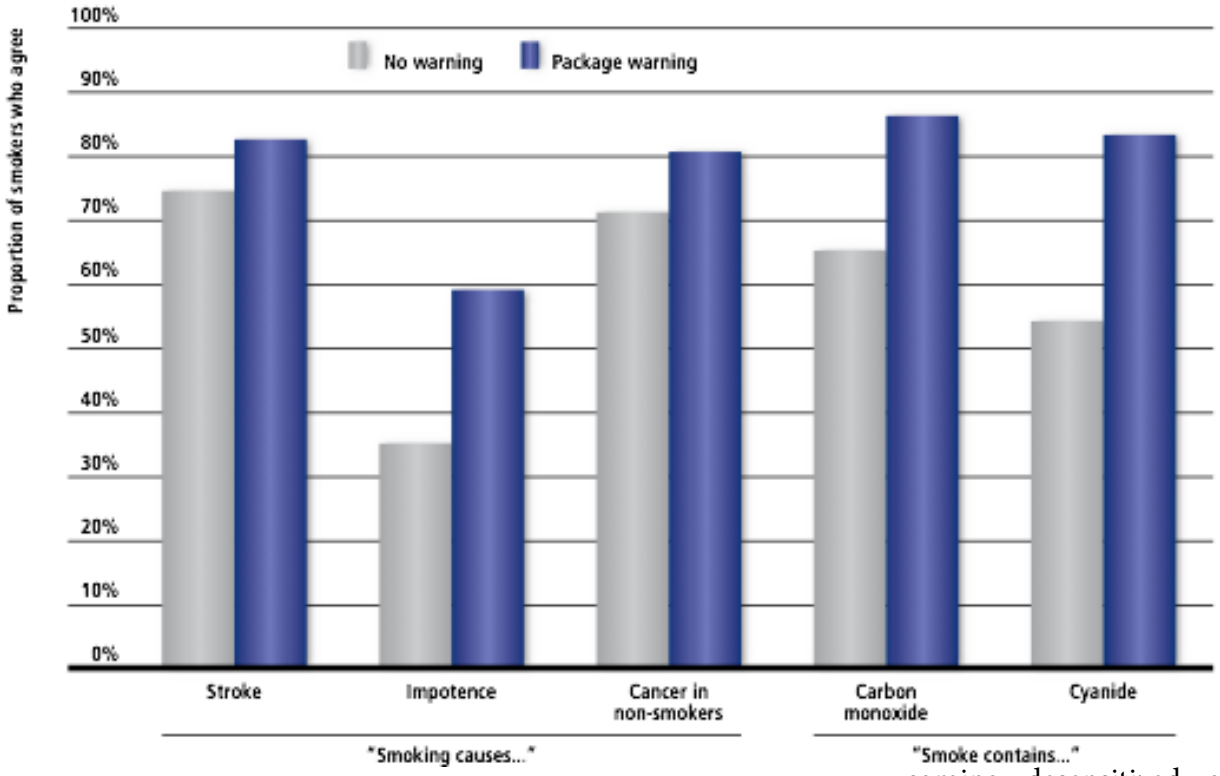
Despite tax increases, $5-a-pack price tags and laws restricting or banning smoking in more than 30 states and 3,000 municipalities, U.S. cigarette consumption has not declined since 2003. It hovers around 21 percent of the population, a steep drop from its 42 percent apex in the mid-1960s, but still high enough to put tens of millions of Americans at risk and precipitate 443,000 tobacco-related deaths a year.

Substantial international research and data collected through WHO indicate that health warnings like the ones proposed in the United States encourage tobacco users to quit and help keep young people from starting; and knowledge about the dangers of tobacco use is higher in countries with package health warnings, according to the WHO Report on the Global Tobacco Epidemic, 2011 (see chart above). A recent international study from the Centers for Disease Control and Prevention found that about 25 percent to more than 50 percent of smokers say graphic health warnings make them more likely to quit, and chart data in the 2011 WHO Report echoed this finding, with the Canadian Journal of Public Health, 2004, reporting that about three in 10 former smokers said that graphic labels had motivated them to quit and more than 25 percent said that labels helped them continue to abstain.

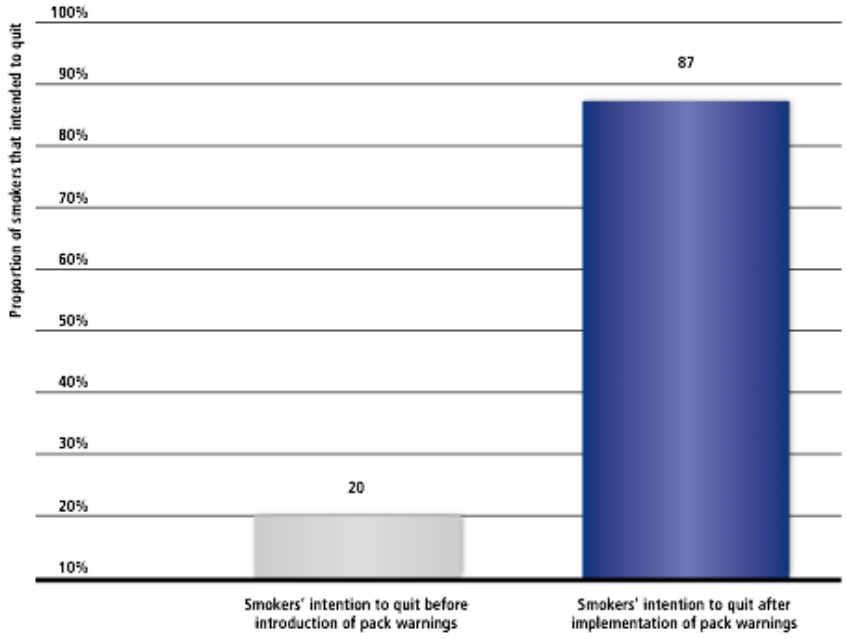
Australia introduced graphic health warning labels in 2006 that caused more than half of smokers to believe that they had an increased risk of dying from smoking-related illness, with 38 percent feeling motivated to quit, according to a research article in the *European Journal of Public Health*, 2009. Other countries with pictorial warning labels, including Brazil, Singapore and Thailand, have reported similar effects on smoking-related behavior, according to the *WHO Report on the Global Tobacco Epidemic, 2011*.

But intentions don't always translate into actions, and some health specialists say graphic health warnings may only temporarily deter, with smokers be-

KNOWLEDGE ABOUT THE HARMS OF TOBACCO IS HIGHER IN COUNTRIES WITH TOBACCO PACKAGE WARNINGS



INTRODUCTION OF GRAPHIC WARNING LABELS IN CANADA INCREASES SMOKERS' INTENTION TO QUIT



(Source: *WHO Report on the Global Tobacco Epidemic, 2011*)

coming desensitized over time. Other experts have noted that the heavy-hitting images on Canada's cigarette packages may have not lowered that nation's smoking rates.

Nevertheless, the U.S. government is hoping such graphic warnings will help cut the percentage of smokers in the United States to 12 percent by 2020, while greatly reducing the number of tobacco-related deaths.

About 40 countries already require graphic labels, including Canada, which was the first country to introduce them on cigarette packages in 2001 and will issue a new round of 16 to cover 75 percent of the front and back of cigarette and little-cigar packaging in June 2012.

Mexico also mandates such labels, as does Mauritius, the first and only African country to require them, and Uruguay, which currently has the world's largest pictorial health warning requirements for cigarette packages at 80 percent (as an average of the package front and back).

This is one of 16 explicit new health warnings that will appear in Canada in June.
(Source: Health Canada)

In general, warning labels are overwhelmingly supported by the public, often at levels of 85 percent or higher, and even most smokers support labeling requirements, according to the *WHO Report on the Global Tobacco Epidemic, 2011*.

Obstacles to Enactment

Cigarette manufacturers, on the other hand, tend to vehemently oppose aggressive labeling requirements. Consequently, America's new large graphic health warnings may never see the light of day – or the face of a cigarette package or advertisement: On November 7, 2011, a federal judge blocked the new FDA labeling requirement, saying that forcing tobacco companies to place such obvious anti-smoking health warnings on cigarette packaging violated their 1st Amendment rights.

The injunction came after a series of challenges in court precipitated by a lawsuit by a group of cigarette companies led by R.J. Reynolds Tobacco Co. and Lorillard Tobacco Co., which increasingly rely on their packaging to build brand loyalty and attract consumers, especially since magazine, billboard and television advertising is off limits.

Appeals are underway, and the ongoing legal struggle could delay the new warning labels for years – or perhaps forever. This is favorable news for the plaintiffs, who will likely save millions of dollars in lost cigarette sales and increased packaging costs.

It is unfortunate news for the nation, however, which will lose thousands upon thousands of lives that might otherwise have been saved. But the combined tenacity of health ministries and tobacco-control advocates can turn the tables for positive results. Such partnerships and determination made a difference in Canada and Australia, as well as in Djibouti, where, within the first year of implementation in 2009, sales of tobacco products with explicit images were substantially lower than those with vague ones, and in Uruguay, where results from the Global Adult Tobacco survey revealed that nearly half of that country's smokers are considering quitting because of enhanced health warnings.

And so the fight continues – with the likelihood of ever more large and explicit labels looming healthfully on the horizon.

U.S. cigarette makers, along with a federal judge, say that the new graphic health warnings, including the one above, are openly anti-smoking and therefore violate the companies' 1st Amendment rights.

E-Cigs Come Under Scrutiny

Electronic cigarettes are the new unknown in the war on tobacco. In the global marketplace for less than a decade and America since about 2007, these hand-held battery-operated products mimic the act of smoking, delivering nicotine, flavor and other chemicals via a vapor inhaled by the user through devices that often resemble cigarettes, cigars and pipes.

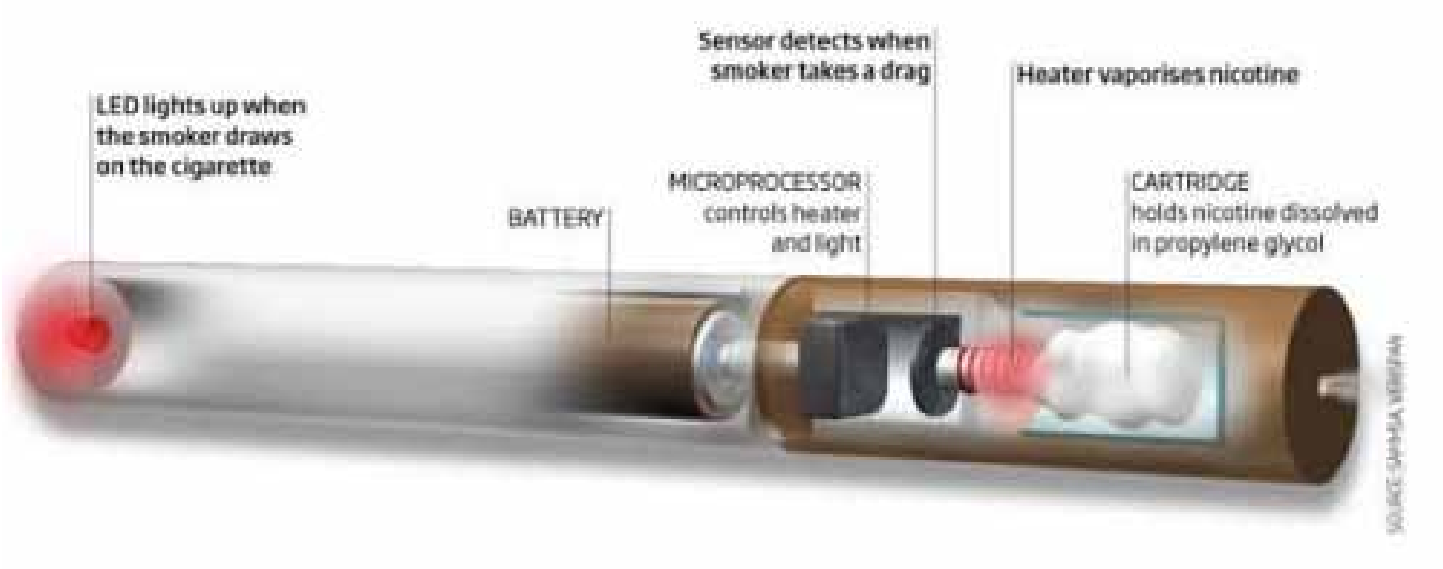
While their nicotine is derived from tobacco, e-cigarettes are not tobacco products, they are not cessation devices, and they are not FDA-approved.* In fact, even though they contain no tobacco, in April 2011, the U.S. Food and Drug Administration (FDA) announced that it will regulate e-cigarettes as tobacco products under the 2009 Family Smoking Prevention and Tobacco Control Act, after the courts blocked the agency from regulating them as drug-delivery devices.

Harmless or Hazardous?

Various sources estimate e-cigarette use to be in the millions worldwide, with approximately 1 million "vapers" in the United States alone. To date, however, no specific FDA action has occurred, and consumers have little way of knowing whether e-cigarettes, currently sold through hundreds of small distributors online and in shopping mall kiosks, are safe for their intended use – and what that intended use is.

In their December 2010 article on the subject in the *Journal of Public Health Policy*, Zachary Cahn and Michael Siegel, M.D., M.P.H., detail 16 studies that have extensively cataloged the ingredients of e-cigarette liquid and vapor. Noting trace amounts of tobacco-specific nitrosamines in two studies and one occurrence of diethylene glycol, they find that "...few, if any, chemicals at levels detected in electronic cigarettes raise serious health concerns...[and] a preponderance of the available evidence shows them to be much safer than tobacco cigarettes and comparable in toxicity to conventional nicotine replacement products." (This last finding being something the FDA has failed to mention, according to the authors.)

More recently, a July 2011 online *ScienceDaily* article reports, "testing of e-cig cartridges reveals poor quality control, variability in nicotine content among brands, and deviations between label claims and cartridge content," not to mention unreliable nicotine delivery. In fact, manufacturers sell e-cigarette cartridges with up to 20 milligrams (mg) of nicotine (the average cigarette



E-cigarettes may be easy to diagram, but experts debate their safety and use.
(Source: e-cigarette-review.net)

contains about 9 mg and the NICOTROL® Inhaler 10 mg), while refill kits enable consumers to load used cartridges with replacement solutions at much higher doses, and with non-nicotine products, such as marijuana hash oil. At the same time, no one has studied the safety in humans of inhaling propylene glycol, the main component of the vaporizing liquid in e-cigarettes, over an extended period of time.

Driving the *ScienceDaily* piece, Nathan K. Cobb, M.D., and David B. Abrams, Ph.D., take a closer look at e-cigs in their article "E-Cigarette or Drug-Delivery Device? Regulating Novel Nicotine Products," published in the July 21, 2011 issue of *The New England Journal of Medicine*. Their findings reveal that, despite marketing claims, the devices tested did not deliver nicotine into the arterial blood as tobacco smoke does, and therefore do not perform like real cigarettes. And this, in conjunction with fluctuating nicotine content and unpredictable delivery, may make them ineffective quitting aids. Instead, the authors contend, e-cigarettes may simply become " 'bridge product[s]' that smokers use in places where traditional tobacco smoking is prohibited, thus perpetuating their addiction and use of real cigarettes...[and] as 'starter' product[s] for young people considering smoking, especially since the cartridges can be purchased over the Internet with tempting flavoring..."

Addiction Aid or Cessation Device?

"Although the use of electronic cigarettes by nonsmokers is a theoretical concern, there is no existing evidence that youths or nonsmokers are using the product," assert Cahn and Siegel, who propose that "... electronic cigarettes could entice smokers who were not otherwise inclined, to attempt to quit."

In their article entitled, "Electronic cigarettes as a harm reduction strategy for tobacco control: A step forward or a repeat of past mistakes?," they offer evidence of two published studies that "suggests that electronic cigarettes are capable of reducing cigarette craving, but that the effect is not due exclusively to nicotine" – and may actually have something to do with smoking-related stimuli, which may give e-cigarettes "an advantage over traditional nicotine delivery devices." In fact, they argue, since e-cigarettes are not tobacco products, "switching to [them] is not an alternative to smoking cessation, but rather a form of smoking cessation akin to long-term use of NRT [nicotine replacement therapy]."

Underlining the murky nature of the debate, Cobb and Abrams point out that, shortly after the FDA's announcement to regulate e-cigarettes, tobacco giants Philip Morris and British American Tobacco purchased nicotine-inhaler technologies that promise arterial/pulmonary delivery. This move, the authors argue, suggests the appearance of future consumer products that could "dramatically increase the risk of addiction and abuse," – or, as critics Cahn and Siegel cynically remark, that "tobacco harm reduction will necessarily benefit the tobacco industry regardless of what else might be achieved."

Ongoing Debate

The current challenge for concerned parties is to determine an effective means of regulating all existing and future refined-nicotine products, including e-cigarettes and other inhaler devices. According to Cobb and Abrams, this would include strict development of and adherence to safety measures, consistent specifications, quality control and functional dose limitations. With a nod to regulations surrounding the sale and marketing of such products to minors, Cahn and Siegel focus on available data, concluding that e-cigarettes in particular are "safer than tobacco cigarettes," "show tremendous promise in the fight against tobacco-related morbidity and mortality" and "may fundamentally alter the tobacco harm reduction debate...[b]y dramatically expanding the potential for harm reduction strategies to achieve substantial health gains."

Until research offers additional, actionable data or government agencies further control and clarify the production and use of such products, however, those looking for nicotine delivery devices may prefer already regulated options, such as patches, gum, lozenges, nasal spray, and the FDA's own nicotine inhalation system.

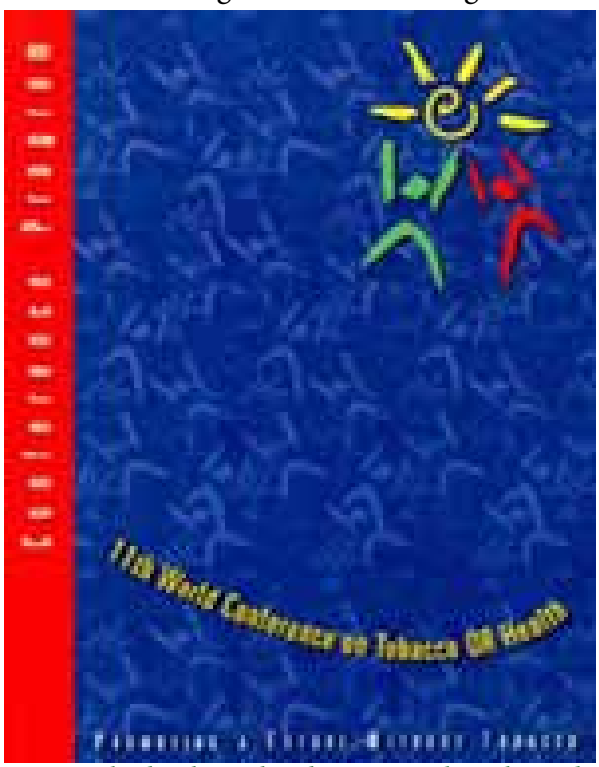
**** With the exception of the FDA-developed NICOTROL® Inhaler***

CECHE Champions Tobacco Control and Intervention Programs Around the World

Over the past two decades, CECHE has conceived, launched and stewarded an immense array of tobacco control and intervention initiatives across the globe. Some of these programs have been entirely devoted to tobacco control, while others have featured tobacco as a key component.

Leading the International Community in Tobacco-Control Legislation

CECHE's leadership on the public policy and international tobacco-control fronts has been particularly notable. Through its Global Tobacco Control Program, it spearheaded an international tobacco-control partnership with the World Health Organization (WHO) and other high-profile groups, and has been the driving and organizing force behind several tobacco-related workshops and symposia. CECHE's U.S. activities have helped raise the profile of international tobacco-control issues among members of Congress, anti-tobacco leaders and the media, while promoting global strategy and action by key anti-tobacco groups such as the American Cancer Society, American Heart Association and Campaign for Tobacco-Free Kids. Since 1997, proposed U.S. legislation by CECHE has, among other things, fought to: bar U.S. government funds from being used to promote American tobacco industry interests abroad; establish an overseas code of conduct for U.S. tobacco companies, their subsidiaries, affiliates and licensees; impose strong anti-smuggling provisions; and establish an American nongovernmental organization (NGO) along the lines of CECHE to assist public health organizations combat the deleterious effects of tobacco in other countries.



CECHE leaders have played an active role in this and other conferences on tobacco.
(Source: NIH, National Institute on Drug Abuse)

In 1998, CECHE convened experts for "Women, Girls and the Threat of Tobacco: An Appeal for Global Action," a co-sponsored and widely endorsed effort to prevent U.S. tobacco companies from marketing to females, especially in developing countries. CECHE Chairman Dr. Sushma Palmer and Vice Chairman Ambassador Mark Palmer also served as workshop hosts and members of the planning committee and several key subcommittees for the 11th World Conference on Tobacco or Health in 2000. In addition, they participated in an international policy conference on children and tobacco in 1999, hosting a symposium on internet-based tobacco control that was attended by more than 4,500 tobacco-control advocates from around the globe.

A Focus on Primary & Secondary Community-Based Intervention

Facilitating mass awareness and change requires focus, interest and time, and CECHE's very first tobacco-control program was a targeted, multi-faceted, multi-year collaboration in the Czech Republic initiated by CECHE and designed to lower the risks of cerebrovascular and cardiovascular disease (CVD). Known as *The Partners in Health Program*, it emphasized community-based and high-risk initiatives to reduce tobacco

The Partners in Health program aimed to curtail tobacco use and instill healthy lifestyle behaviors in the Czech Republic.

use and improve the Czech diet and lifestyle. Supported by USAID and conducted by CECHE and its U.S. partners from 1992 until the project's Czech partners took over in 1998, the program also championed institutional development, program and policy reform, and intensive professional training and public education on a local, regional and national level. To introduce healthy attitudinal and behavioral changes at the grass roots, the consortium initially established a total of four clinics for high-risk populations in Prague and Litomerice, and a community-intervention primary prevention program in Dubec, a rural area east of Prague; mass media was also used extensively, and included specially produced television series, as well as public service announcements (PSAs).

Over the six years that CECHE oversaw it, *The Partners in Health* program generated strong commitments from the Czech population, health professionals and government, and had a positive impact on CVD risk factors, with the initial clinics reporting almost complete cessation of smoking within a year of therapy and a significant decrease in total and non-HDL cholesterol and triglycerides, as well as a measurable drop in the body mass index of patients. Average reductions of 25 percent LDL cholesterol were found in the high-risk groups, and new or recurrent coronary events were estimated to be reduced by approximately 50 percent, with a 15 percent overall reduction in mortality and in patients' coronary risk scores expected to be achieved in the long run.

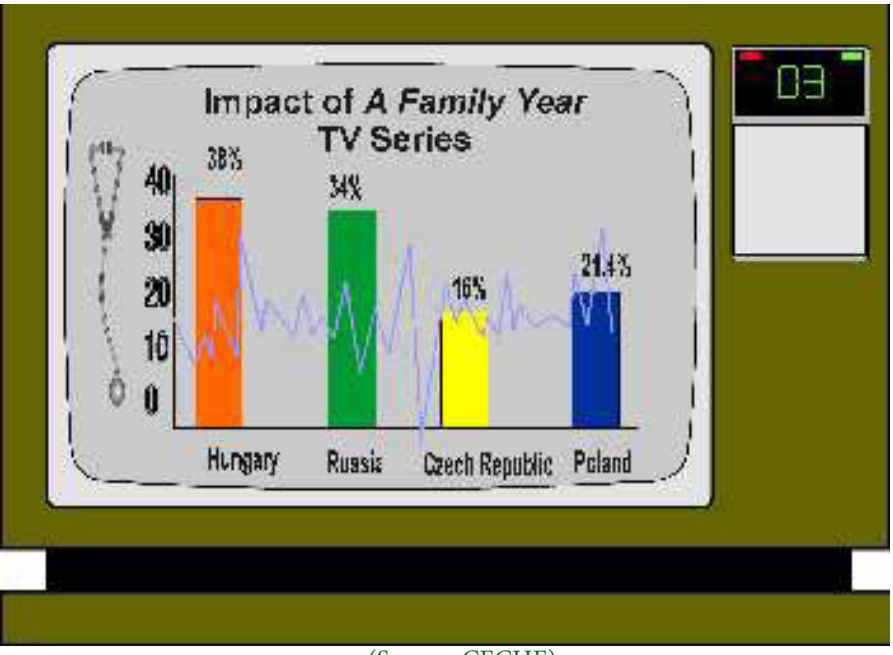
Building on its experience in the Czech Republic, in September 2004, CECHE partnered with the Chennai-based NGO Roshni to implement a two-year Tobacco Control Communications Program in South India to create awareness of the health hazards of smoking and curtail the production and use of small, unfiltered cigarettes called beedis. Centered in Pattur, the CECHE-Roshni initiative organized self-help groups, and offered vocational training, job placement, health classes/camps, and other incentives to refrain from tobacco-related activities. The program also facilitated enforcement of laws against smoking in public places, and it employed mass-media campaigns, competitions and health-education drives to reach its audience and achieve its goals. By 2006, only 250 of the 2,500 families in Pattur were continuing to support themselves by rolling beedis; smoking rates in Pattur had plummeted 60 percent; and more than 220 individuals and 20 families had left beedi production for other professions, including garment design, tailoring and grocery businesses.

A CECHE-supported program in South India helped transition the population of Pattur out of tobacco-related trades and into other professions, including garment design and production.

Using Mass Media to Broadcast the Message

CECHE has also made its mark on the tobacco-control landscape through a variety of effective and far-reaching mass media-based programs, including the television series *A Family Year* and *Elixir of Life* produced under the umbrella of The Partners in Health Program.

A five-part multilingual series developed in 1995, *A Family Year* was among the first to use television for positive health impact in Central Europe and the Newly Independent States (CEE-NIS). The series fol-



(Source: CECHE)

lows four families for six months, one each in Russia, Hungary, Poland and the Czech Republic, and shows them struggling to cope with personal health challenges, like cigarette smoking and alcohol abuse, in an effort to educate viewers and change attitudes and behaviors. The 27-minute episodes were broadcast on national television channels in 17 countries in the CEE-NIS region and reached about 400 million viewers worldwide. Data for viewer response in Hungary alone revealed that more than 1.5 million people tuned in to the series in the winter of 1996, representing roughly one-third of that country's total viewing audience. Meanwhile, analysis of audience interviews across a number of nations had 16 to 38 percent of viewers reporting a positive lifestyle change within six to 12 months of watching the series, noting that 40 percent and 50 percent of the Hungarian and Russian viewers, respectively, had quit smoking, and 85 percent of Russians claimed they were smoking less.

CECHE's Media Fellows Program trained professionals around the world to create and use mass media focused on public health.

An outgrowth of *A Family Year,* the popular 10-part American-style health-magazine show *Elixir of Life*, or "Heart of the Matter," premiered in 1998. Taking its cue from Western game shows, talk fora and music videos, it focuses on modern health issues, bringing them and their solutions to life through quiz segments, discussions with experts and celebrities, and dynamic field reports on a modern, interactive set with a lively studio audience. A survey of Czech viewers, more than half of whom were health professionals, revealed that an overwhelming majority (95.6 percent) found the series to be stimulating or very stimulating educationally. And about 30 percent said the series featured new and practical information – indicating that a high percentage of the respondents in non-health professions were exposed to useful and pertinent health data and tools.

A media-based substance-abuse program in Washington, D.C. worked with youth to create PSAs to deter unhealthy behaviors like smoking.

Educating tobacco-control advocates in the effective use of media has been another CECHE hallmark. Its Media Fellows Program began training Central European and Russian media professionals in public-health PSA and other program production and broadcast in 1994. By 1998, the program spanned seven countries, including India, and had trained more than 100 media professionals. CECHE also implemented a Media-based Substance Abuse Prevention Program in the fall of 1998 at Garfield Elementary School, in one of Washington D.C.'s poorest wards. The program trained 4th grade students to develop a series of PSAs focused on nutrition guidelines and smoking prevention and cessation for repeated broadcast on a local cable channel.

CECHE has been instrumental in creating and disseminating a host of anti-tobacco PSAs across a number of high-use countries.

As early as 1992, CECHE's multifaceted mass media effort was also instrumental in producing a host of tobacco-related PSAs in the Czech Republic, Russia, Ukraine and other high-use countries, including India, to warn of the dangers of tobacco and curtail consumption. The TV spots contributed to a trend of free PSA broadcast and co-production with local partners, with multiple PSA series and national broadcasts taking place in collaboration with Czech TV, the IBS (Internews) Network and Ukrainian TV channels. Evaluation showed tripling to quadrupling of knowledge and awareness among millions in 18 countries, many of them in the tobacco-plagued CEE-NIS region.

Making the Most of Information Technology

CECHE spearheaded the use of information technology to similar effect, launching a World Bank/InfoDev-funded Internet-Based Tobacco Control Program in the Czech Republic in 1999 with partners at the Prague-based Institute of Clinical and Experimental Medicine and National Institute of Public Health. The 18-month effort resulted in a self-sustaining Tobacco-Control Training and Communications Program, and an Internet-Based Tobacco Control Network, a coalition of trained public-health practitioners from Czech district hygiene stations and health-related NGOs using the Web for research and communications on tobacco-control issues. A Web site and Czech-language list-serve also were developed to issue monthly electronic bulletins with nationwide and international circulation, and a comprehensive data collection system was established to assess impact and support program operations. Most importantly, the project led to the creation in 2000 of the Czech Heart Association, a Czech-run grassroots organization that is now a member of the European Heart Network helping to coordinate tobacco-control activities throughout Europe, including Czech ratification of the international convention on tobacco control in 2003.

Professional Training, Communication Key to Public Behavior Modification

CECHE has focused on professional training as a way to foster understanding and encourage change in tobacco usage. From 2003 through 2006, it partnered with the Russian Cancer Research Center (RCRC), Moscow Public Health Department and the Moscow Medical Academy to develop and administer a program to educate, motivate and train Russian physicians to champion smoking cessation among their patients. The comprehensive program included the development, implementation and dissemination of baseline surveys and seminars in smoking-cessation counseling. Under it, nearly 2,000 health professionals participated in approximately 50 educational sessions in 32 outpatient clinics and 10 hospitals in and around Moscow and the Nizhny Novgorod and Altay regions. Twelve one-day training workshops were also conducted, and approxi-

Professional training in Russia and other countries has helped raise awareness and discourage tobacco use.

mately 1,000 copies of smoking-cessation guidelines for physicians were distributed via workshops and medical bookstores. In addition, a Tobacco or Health educational training course, started at the Moscow Medical Academy in 2006 for post-graduate students devoted to treating tobacco use and dependence, continues to impact newcomers to the field. Meanwhile, the number of smokers visiting RCRC's smoking-cessation service following physicians' recommendations has more than doubled, indicating that the program has helped expand the quantity of knowledgeable and skilled tobacco-control clinicians in the Moscow area.

CECHE also actively uses self-developed media and specially released articles and bulletins to communicate important messages and facilitate professional and public education; and its publications have reported on, and routinely continue to cover, tobacco-related topics. Each issue of its online In Focus publication, launched in 2006 and aimed at analyzing key public health and lifestyle issues, including tobacco, is featured on CECHE's Web site and electronically disseminated to more than 3,000 subscribing health professionals and policy-makers in approximately 50 countries. Recent installments have focused on The Tobacco Atlas and America's unprecedented 2009 Family Smoking Prevention and Tobacco Control Act. Previously, from 1993 to 2006, CECHE's biannual *Global Health and Environment MONITOR* reached more than 10,000 health professionals and policy-makers worldwide with expert-written articles on the global health crisis and programs implemented to combat it, with articles on tobacco and tobacco control often featured in its printed (and later, online) pages.


Global Health & Environment
MONITOR
More Than 100 Countries Ratify Tobacco-Control Treaty, But Implementation Poses Multiple Challenges
WHO's Framework Convention on Tobacco Control Positioned to Protect Billions Despite U.S. Failure to Ratify

Into the Future

CECHE continues to support and address tobacco-control issues and initiatives worldwide. It provides seed grants and strategic assistance to catalyze projects (like the Tobacco Control Communications Program in South India and Russian physicians training), which are then managed by its program associates based on the partnership agenda it adopted a decade ago. It also employs media – its own and other outlets – to report and comment on the topic.

With the tobacco epidemic reaching pandemic proportions, CECHE will carry on the fight, building on its extensive experience as it works with cohorts around the world to curtail use and save lives.

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