

Updates from the Field

Protecting Health and Building Capacity Globally

NCDs: A Global Threat to Sustainable Development

Dear Colleagues:

In September 2015, the United Nations General Assembly will set the Sustainable Development Goals (SDGs) for 2030, including the goal of ensuring healthy lives and promoting well-being for everyone at all ages. In low- and middle-income countries (LMICs), noncommunicable diseases (NCDs), including heart disease, stroke, cancer, diabetes and injuries, are increasing rapidly and cannot be ignored.



Tom Frieden, MD, MPH, Director, U.S. Centers for Disease Control and Prevention

In 2013, 60% of global deaths (35 million) were caused by NCDs, and 80% of those deaths (28 million) occurred in LMICs. Most NCD-related deaths (8 million), were among people under 60 years old. NCDs result in tremendous health care costs, lost productivity, and collectively undermine SDGs. For example, in 2001 hypertension cost \$370 billion (10% of annual healthcare expenditures). Over the next decade, if unattended, indirect costs could be as high as \$3.6 trillion annually.

It is important for our relationships with these countries that we partner with them to better prevent and control these leading causes of disease, disability and death. We have a tremendous opportunity to slow the growth of NCDs by continuing to work with Ministries of Health and other partners, and adapting and applying well-tested sustainable approaches to NCD prevention and control.

The World Health Organization has established an NCD Global Monitoring Framework with 9 targets to reduce NCD deaths by 25% by 2025. To meet these targets, the importance of having accurate data cannot be overstated. Efficient monitoring and surveillance are cornerstones to track progress. Systematic monitoring of risk factors and vital records is essential. With accurate data and analysis, countries will be able to prioritize essential resources and make sound policy decisions.

As we have seen with the response to Ebola and other infectious disease outbreaks, having Field Epidemiology Training Programs in countries is critical to disease prevention and control. There are many lessons learned from preventing the spread of infectious diseases and providing treatment and access to health care that are relevant to how we manage NCDs.

CDC will continue to develop and promote technical packages such as [MPOWER](#) for tobacco control and [THRIVES](#) for violence against children; these are good investments that will have a far-reaching impact.

This issue of *Updates from the Field* focuses on NCDs and demonstrates CDC's commitment to working with partners to address this global priority. Together we can make a difference.

Tom Frieden, MD, MPH
Director, U.S. Centers for Disease Control and Prevention

Summer 2015, Issue 19

In this issue:

Director's Message

- ▶ *NCDs: A Global Threat to Sustainable Development*..... 1

Highlights of Investigations

- ▶ *WHO's Global Monitoring Framework Tracks Progress in NCD Prevention and Control*..... 2
- ▶ *Sexual Violence Against Children: A Global Problem*..... 3
- ▶ *Vietnam Field Epidemiology Training Program: Measuring the Impact of Vietnam's Universal Helmet Law in Ho Chi Minh City*..... 4
- ▶ *Brazil Leads the Way to Integrating Tobacco Surveys into their National Surveillance System*..... 5

Partnership Matters

- ▶ *Bloomberg Data for Health Initiative Aims to Impact 1.2 Billion People*..... 6
- ▶ *Promoting Sustainable and Integrated NCD Surveillance*..... 8

Building Capacity

- ▶ *Regional Reference Center and Costing Tool Aim to Increase Capacity for Cancer Registration in the Caribbean*.... 10
- ▶ *Public Health Experts Tackle Major Global Problem: Hypertension*..... 11
- ▶ *Cigarettes and Beyond: Testing Tobacco Products Around the World*..... 12

Publications..... 13

Seeking Submissions:

If you would like your program to be featured in an upcoming issue of *Updates from the Field*, please send a 200-400 word summary of your program's activities and photos to Ruth Cooke Gibbs at icn6@cdc.gov.



WHO's Global Monitoring Framework Tracks Progress in NCD Prevention and Control

Submitted by: Leanne Riley, MSc, Surveillance and Population-Based Prevention Unit, and Douglas Bettcher, MD, PhD, MPH, Director, Prevention of NCDs Department, WHO-Geneva, Switzerland

Noncommunicable Diseases (NCDs) are the leading cause of death in the world. Four NCDs — cardiovascular disease, cancer, chronic lung diseases and diabetes — are responsible for two-thirds of all deaths worldwide. Premature deaths from NCDs can be prevented by appropriate policy changes and active engagement in health and other sectors. Effective action will save millions of lives and avoid countless suffering.

Following the Political Declaration on the Prevention and Control of Noncommunicable Diseases adopted by the United Nations General Assembly in 2011, the World Health Organization (WHO) developed a Global Monitoring Framework (GMF) to enable tracking of progress in preventing and controlling these major NCDs and their key risk factors – tobacco, harmful use of alcohol, unhealthy diets and physical inactivity.

Framework targets and indicators

In May 2013, the 66th World Health Assembly adopted the GMF for tracking the prevention and control of NCDs. The GMF includes a set of 25 indicators to monitor trends and assess progress made by countries and regions in the implementation of their national NCD strategies and plans. These indicators address three areas of focus: 1) mortality and morbidity; 2) risk factors; and 3) national system response. Nine voluntary global targets have been selected from the 25 indicators in the GMF and are aimed at combatting global mortality from the four main NCDs, accelerating action against the leading risk factors for NCDs, and strengthening national health system response (Figure 1). The 9 voluntary global NCD targets include:

- A mortality target – a 25% reduction in premature mortality from NCDs by 2025;

- Six risk factor targets (harmful use of alcohol, physical inactivity, dietary salt/sodium intake, tobacco use, raised blood pressure, diabetes and obesity); and
- Two national systems targets (drug therapy and counselling to prevent heart attacks and strokes), and essential NCD medicines and technologies to treat major NCDs.

These global targets have been set for 2025. They are significant and attainable, and when achieved, they will represent major accomplishments in the reduction of NCD risk factors globally.

Framework goals and guidelines for measuring progress

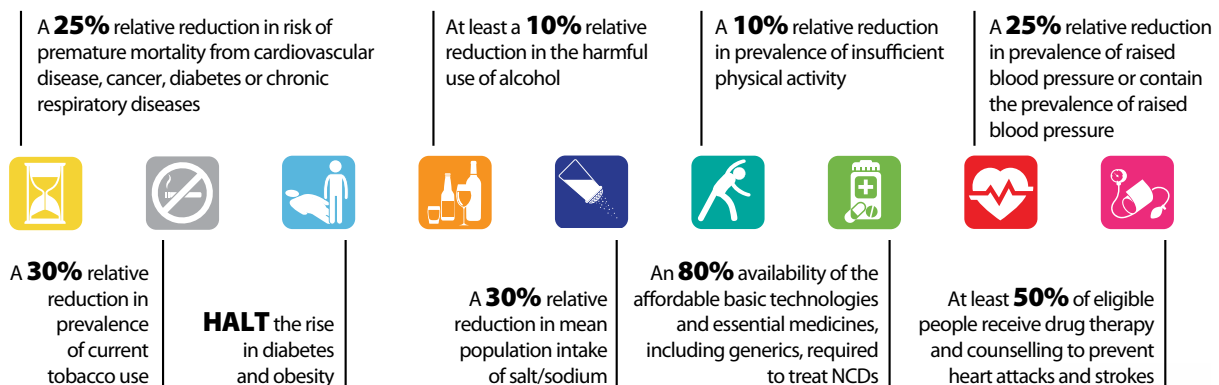
The GMF is expected to facilitate progress and provide the foundation for advocacy, raising awareness, reinforcing political commitment, and promoting global action in preventing and controlling NCDs.

WHO has produced [guidance](#) for countries on how to measure and report on the indicators included in the GMF guidance. WHO is mandated to prepare regular updates on the progress towards achieving the 9 global NCD targets in relation to the 25 indicators included in the GMF. Member States are requested to submit data to WHO on a regular basis to enable analysis of the global status of NCD targets and indicators. WHO will continue to produce estimates for each country that are comparable across all Member States.

For further information on the WHO NCD Global Monitoring Framework please visit http://www.who.int/nmh/global_monitoring_framework/en/ or contact Ms. Leanne Riley at riley@who.int.

Figure 1. Global Monitoring Framework

9 global NCD targets to be attained by 2025 (against a 2010 baseline)



For complete WHO NCD Global Monitoring Framework please visit http://www.who.int/nmh/global_monitoring_framework/2013-11-06-who-dc-c268-whp-gap-ncds-techdoc-def3.pdf?ua=1.

Highlights of Investigations

Sexual Violence Against Children: A Global Problem

Submitted by: Katherine Lean, MPH - CDC

Sexual violence against children is a worldwide problem. Violence against children often hides in the shadows of a community due to the shame and/or fear associated with it. Data help us bring the problem out of the shadows and understand more about which prevention strategies can be sustained in these communities. U.S. Centers for Disease Control and Prevention (CDC) created the Violence Against Children Surveys (VACS) to collect data that measure the extent of physical, sexual, and emotional violence against children.

How VACS works

Through the global public-private partnership called Together for Girls (TfG), CDC and the United Nations Children's Fund (UNICEF) assist host countries in the collection of data from households in their communities. TfG and its members then help the host countries use the information to plan responses and actions that make a difference.

Recent findings

Recent data focus on lifetime childhood sexual violence (before age 18 years) among females and males aged 18-24 in seven countries (Swaziland, Tanzania, Kenya, Zimbabwe, Malawi, Haiti, and Cambodia) between 2007 and 2013.



At least 25% of females experienced some form of childhood sexual violence in the majority of the countries studied.

The data show that at least 1 in 4 females and 1 in 10 males have experienced some form of childhood sexual violence in the majority of countries studied. Swaziland and Zimbabwe reported the highest rates of all kinds of sexual violence among females (38% and 33%, respectively), while Cambodia reported the lowest rates for both females (4%) and males (6%). Among those who reported being a victim of childhood sexual violence, few received healthcare, legal/security aid, or counseling support.

The bigger picture

Preventing sexual violence is an important component of many disease prevention strategies. Being a victim of sexual violence puts a child at risk for HIV, sexually transmitted infections, heart disease, cancer, diabetes, tobacco use, alcoholism and drug addiction, depression, poor social relations, and low self-esteem, among others. CDC, [PEPFAR](#) and others are studying the link between sexual violence and HIV to better understand this relationship.



More than 10% of males experienced sexual violence in most of the countries studied.

Next steps

Country-specific prevention and response initiatives are a necessary next step once the VACS data have been collected.



CDC developed a resource called [THRIVES](#), which includes evidence-based programs and policies for health, education, mental health, social services, and justice systems that countries can use to prevent and respond to violence against children. The programs and policies described in THRIVES are supported by research conducted by CDC, PEPFAR, WHO and UNICEF.

Together for Girls Partnership Members

Centers for Disease Control and Prevention (CDC)	The World Health Organization (WHO)
The United States Agency for International Development (USAID)	The U.S. Department of State
The President's Emergency Plan for AIDS Relief (PEPFAR)	The United Nations Entity for Gender Equality and the Empowerment of Women (UN Women)
The United Nations Children's Fund (UNICEF)	The United Nations Population Fund (UNFPA)
The Joint United Nations Programme on HIV/AIDS (UNAIDS)	Grupo ABC
CDC Foundation	Becton, Dickinson and Company

For the full report and the study details, please visit <http://www.cdc.gov/mmwr>.

For more information about the Violence Against Children Survey, please visit <http://www.cdc.gov/violenceprevention/vacs/index.html>.

For additional information, please contact Dr. Steve Sumner at hvo5@cdc.gov.

Vietnam Field Epidemiology Training Program: Measuring the Impact of Vietnam's Universal Helmet Law in Ho Chi Minh City

Submitted by: Ninh Thi Ha, MPH, MHSP - Vietnam FETP Resident

The world is rapidly motorizing and the need for international road safety is greater than ever before. According to the World Health Organization (WHO), about 1.2 million people die each year as a result of road traffic injuries (RTIs), with 91% of such deaths in low- and middle-income countries despite having only half of the world's vehicles. Globally, RTIs are the eighth leading cause of death and the number one cause of death among persons 15-29 years of age. In Vietnam, traffic crashes have an impact on the younger generation in the same way—traffic crashes are the leading cause of death among Vietnamese 15-29 years of age. Each year, approximately 14,000 people are killed in traffic crashes in Vietnam, with a majority (78%) of fatal crashes involving motorcycles.

Universal helmet law spurs increase in helmet use

Given their portability, affordability and speed, motorcycles have rapidly evolved as the primary mode of transportation in Vietnam. Unfortunately, motorcyclists account for approximately 59% of Vietnam's road traffic injuries. As part of an effort to reduce the impact of RTIs, the Vietnamese Government passed a universal motorcycle helmet law in 2007 mandating helmet use among all motorcycle drivers and passengers. The policy went into effect on December 15, 2007, resulting in increased helmet use (from 40.1% to 92.5%) and a unique opportunity to further evaluate the impact of the policy.



Motorcyclists on a busy street in Ho Chi Minh City.

Data shows significant reduction in injuries and fatalities

Vietnam's Field Epidemiology Training Program (FETP), based in the Ministry of Health, was ready to respond. FETP residents are trained to respond to public health threats, utilizing epidemiological data to analyze health issues and recommend policies. Through a CDC/TEPHINET mini-grant, Vietnam FETP residents at the Institute of



The map of Cu Chi district with the borders to three other provinces, the star is the location of the regional general Cu Chi hospital, located near the intersection of many freeways.

Public health in Ho Chi Minh City (HCMC) are measuring the effect of the helmet law in reducing head injuries and deaths in the HCMC's Cu Chi district. In collaboration with the regional general hospital in Cu Chi, the team developed a data collection tool and has abstracted information from patient records. Of the 18,000 records related to injuries, 12,000 (67%) were due to RTIs. The team also collaborated with the Cu Chi Preventive Medicine Center to identify 500 RTI deaths recorded from 21 commune health stations.

The project is in the data analysis phase, with support provided by injury epidemiologists at the Vietnam Institute of Public Health and the U.S. Centers for Disease Control and Prevention (CDC). Fieldwork to date has demonstrated a significant reduction in motorcycle fatalities and head injuries from 2005 to 2010. However, <3% of the medical charts and death certificates included information on motorcycle helmet use, preventing a full evaluation of the 2007 law. There are also concerns about the proliferation of low-cost, uncertified helmets, thus highlighting the need for improved injury surveillance systems.

This project is a great example of primary field data collection and analysis, highlighting the FETP contribution to policy evaluation and development. It also provides an excellent field research study that could be replicated and scaled up in other countries to address RTIs and other NCDs. Plans are underway to convert this field experience to an FETP case study on using data to evaluate the impact of health policy.



Ms. Van Anh, Co-principle investigator abstracting information from patient records at the regional general Cu Chi Hospital.

For further information, please contact Ninh Thi Ha: hathininh@iph.org.vn or ninh.ha05@gmail.com.

Highlights of Investigations

Brazil Leads the Way to Integrating Tobacco Surveys into its National Surveillance System

Submitted by: Roberta Caixeta, DDS, MHSc - PAHO; Deborah Malta, MD, PhD - MoH Brazil; Maria Lúcia Vieira, Economist - IBGE; Adriana Blanco, MD, MPA - PAHO; Lazarous Mueblo, PhD, Krishna Palipudi, PhD and Samira Asma, DDS, MPH - CDC

In 2008, Brazil implemented the Global Adult Tobacco Survey (GATS), a stand-alone, nationally representative household tobacco survey that uses a consistent, standardized protocol in participating countries. GATS was conducted as a supplement of Brazil's National Household Sample Survey (PNAD) among persons aged 15 years and above. Adding GATS as a supplement to PNAD was a visionary step taken by Brazil, making it one of the first countries to embed a stand-alone topical survey into a general household survey, resulting in increased efficiencies in both time and resources. The integrated survey generated more robust data on tobacco use relative to the determinants of health, noncommunicable diseases (NCDs), and other health metrics.

Impact of expanding National Health Survey

In 2013, Brazil also expanded the scope of its data collection by integrating standard Tobacco Questions for Surveys (TQS) into its National Health Survey (PNS), which is planned to be conducted every 5 years. TQS is a standard set of core questions taken from the GATS survey and is a component of the Global Tobacco Surveillance System (GTSS). It was developed by the World Health Organization (WHO), the U.S. Centers for Disease Control and Prevention (CDC), and other partners to assist countries in establishing tobacco control surveillance and monitoring programs. Brazil's National Health Survey is an ongoing survey which produces national and subnational representative estimates of the health conditions and lifestyle risk factors among the Brazilian adult population. Due to methodological issues, the PNS included the population aged 18 years and older. The integration of the TQS into the framework of Brazil's ongoing national surveys serves as a mechanism to:

- Harmonize and standardize the monitoring of key tobacco control indicators,
- Promote further efficiencies, and
- Ensure sustainable and consistent generation of data on tobacco use and key tobacco control measures.

According to GATS Brazil 2008, 18.2% (24.1 million) adults aged 18 years and older (22.9% men and 13.9% women) reported current tobacco use. In 2013, according to PNS, 14.7% (21.5 million) adults (18.9% men and 11.0% women) reported current tobacco use. Findings from these two surveys indicated that current tobacco smoking among adults in Brazil declined from 18.2% in 2008 to 14.7% in 2013, which translates to a 19.2% relative reduction in current smoking prevalence.

Model for integrated surveillance and tracking

The model implemented by Brazil carves a new path towards integrated surveillance by systematically tracking tobacco use,



Data show that current tobacco smoking among adults in Brazil has declined almost 20% since 2008. Photos courtesy of David Snyder[®].

NCD risk factors, and other relevant health information to develop, implement and evaluate public health interventions. This method will enable countries to track the WHO NCD global voluntary targets. Brazil's model carves a new path towards integrated surveillance by systematically tracking tobacco use, NCD risk factors, and other relevant health information to develop, implement and evaluate public health interventions. Brazil's model is a best practice for other countries to consider and emphasizes the benefit of multiple stakeholders working together toward a common goal and finding innovative ways to simplify standard surveillance systems. Examples of such partnerships include:

- The Instituto Brasileiro de Geografia e Estatística (IBGE), working with the Brazilian Ministry of Health to implement the surveys. This partnership has been an example for other statistics institutes in the region; and
- The Pan American Health Organization (PAHO), WHO and CDC working collaboratively to support Brazil through technical exchange and workshops.

Brazil has been a pioneer in the development of the WHO Framework Convention on Tobacco Control. The decline in tobacco use in Brazil is a result of the country's consistent commitment to implementing comprehensive tobacco control measures.

For further information, please contact Dr. Roberta Caixeta at caixetro@paho.org.

Bloomberg Data for Health Initiative Aims to Impact 1.2 Billion People

Submitted by: Mick Ballesteros, PhD, Shelly Bratton, MPH, Sam Notzon, PhD, and David Sugerman, MD, MPH - CDC

Focused public health action relies on accurate vital statistics which are created when births and deaths are officially reported to the authorities. For deaths, such reporting also includes notification of the cause of death. Despite significant advances in technology and global information systems worldwide, each year 35 million deaths go unreported and therefore uncounted, with no cause of death recorded. Many of these unrecorded deaths occur in low- and middle-income countries, where policymakers and public health officials often lack the essential public health data and training needed to plan and implement public health strategies.

According to the World Health Organization (WHO), “When deaths go uncounted and the causes of death are not documented, governments cannot design effective public health policies or measure their impact.”

Providing tools and assistance

To address this challenge, the U.S. Centers for Disease Control and Prevention (CDC), through the support of Bloomberg Philanthropies and the Australian government, has begun working on the Bloomberg Data for Health initiative. This initiative seeks to partner with governments, aid organizations and public health leaders in 20 low- and middle-income countries by providing tools and systems to improve data collection systems and offering assistance in increasing the use of data to prioritize health issues, provide resources, inform policy decisions, and measure success.

CDC staff serve as scientific and technical experts on the initiative's three projects, which aim to:

1. **Strengthen Birth and Data Registration Systems and Improve Information on Cause of Death** - Many countries do not have adequate systems in place to compile vital statistics. An estimated two-thirds of deaths around the world are never



Village chiefs complete registers in Malawi. This is an example of the work that will be implemented through the Bloomberg Data for Health initiative.



Civil registration officer works with mothers to complete birth notification forms at a maternal child health clinic in East Africa and is an example of the documentation that will be implemented through the Bloomberg Data for Health initiative.



Local civil registration officer teaching a health officer in East Africa how to complete a birth notification form. This illustrates the kind of training that the Bloomberg Data for Health initiative will provide.

registered, and when deaths are registered there are challenges with documenting the causes, including deaths from noncommunicable diseases (NCDs) such as heart disease, cancer, and diabetes. CDC's National Center for Health Statistics will provide technical expertise and help develop a sustainable infrastructure for capturing this information.

2. **Create Best-in-Class Mobile Phone Risk Factor Surveys for Noncommunicable Diseases** - Approximately 75 percent of all deaths worldwide are from NCDs —chronic diseases (such as heart attacks, stroke, cancer and diabetes), injuries and environmental health factors. CDC, in collaboration with governments and other Bloomberg Philanthropies Data for Health partners, will determine the feasibility, quality, validity, and reliability of using mobile phone surveys as an interim and complementary measure to traditional face-to-face household surveys. If found to be valid, this potentially less costly survey methodology would allow Ministries of Health to more frequently assess self-reported risk factors of NCDs, enact responsive policies, and more closely monitor the effectiveness of implementing policies and programmatic interventions.
3. **Improve Capacity to Use Health Data to Inform Policy Development** - Many low- and middle-income countries infrequently use public health data to drive policy decisions, partially due to a shortage of epidemiologists with specialized health policy writing and communication skills, and use of platforms to disseminate scientific findings. CDC's Field Epidemiology Training Program (FETP) and National Public Health Institute (NPHI) will: 1) provide specialized training utilizing case studies; 2) deliver courses on scientific writing and communication for in-country FETP residents; and 3) develop country-level data use committees and national public health bulletins. These strategies will improve the capacity in Ministries of Health to use health data to inform policy development.

Using innovation and data to inform decision-making

Bloomberg Philanthropies' Data for Health initiative demonstrates its data-driven approach and the Australian government's commitment to using innovation to drive government decisions. This project will impact more than 1.2 billion people who live in countries that will have improved capacity to use data to inform critical public health decisions.

In addition to CDC, other partners in the initiative include: The University of Melbourne, Australia; The Union North America; Johns Hopkins Bloomberg School of Public Health; WHO; and the CDC Foundation.

CDC is grateful to Bloomberg Philanthropies and the Australian government for funding this initiative that will gather vital health data, target resources and save lives.

For further information, please contact Cho Ling, Senior Program Officer, CDC Foundation at Cling@cdcfoundation.org.

... continued on page 7

Bloomberg Data for Health Initiative Aims to Impact 1.2 Billion People

... continued from page 6

DATA FOR HEALTH

Bloomberg
Philanthropies

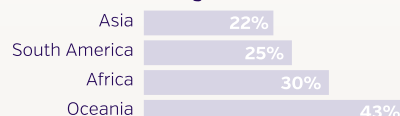
RECORD KEEPING IS NECESSARY TO TACKLE PUBLIC HEALTH PROBLEMS, BUT 150 NATIONS **CANNOT RELIABLY TRACK** WHAT KILLS THEIR CITIZENS. BLOOMBERG PHILANTHROPIES IS COMMITTED TO **SAVING MORE LIVES** BY ENSURING ACCURATE PUBLIC HEALTH INFORMATION.

THE CHALLENGE

35m

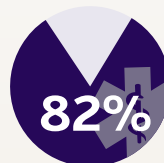
deaths go uncounted worldwide, with no cause of death logged

Share of deaths that go unrecorded



“When deaths go uncounted and the causes of death are not documented, governments cannot design effective public health policies or measure their impact.”

—World Health Organization



of premature deaths from non-communicable diseases (like heart disease) occur in developing countries, where surveillance of these conditions is weakest.

OUR APPROACH

4/5

of the world's population lives in countries that don't collect reliable cause of death statistics.



Create high-quality birth and death registration systems.

Potentially 75%

faster than traditional public health surveys



Augment traditional health surveys with new, faster mobile phone surveys.

In a pilot study, improved data presentation helped boost investment in a public health program by

10%



Ensure policy makers use the data to make decisions.

4-YEAR GOALS

460m

more people living in a country with the highest quality birth and death certificate system

600m

more people living in a country with a rapid, efficient survey to collect risk factor data

1.2b

more people living in a city or country with policymakers that recognize the importance of data

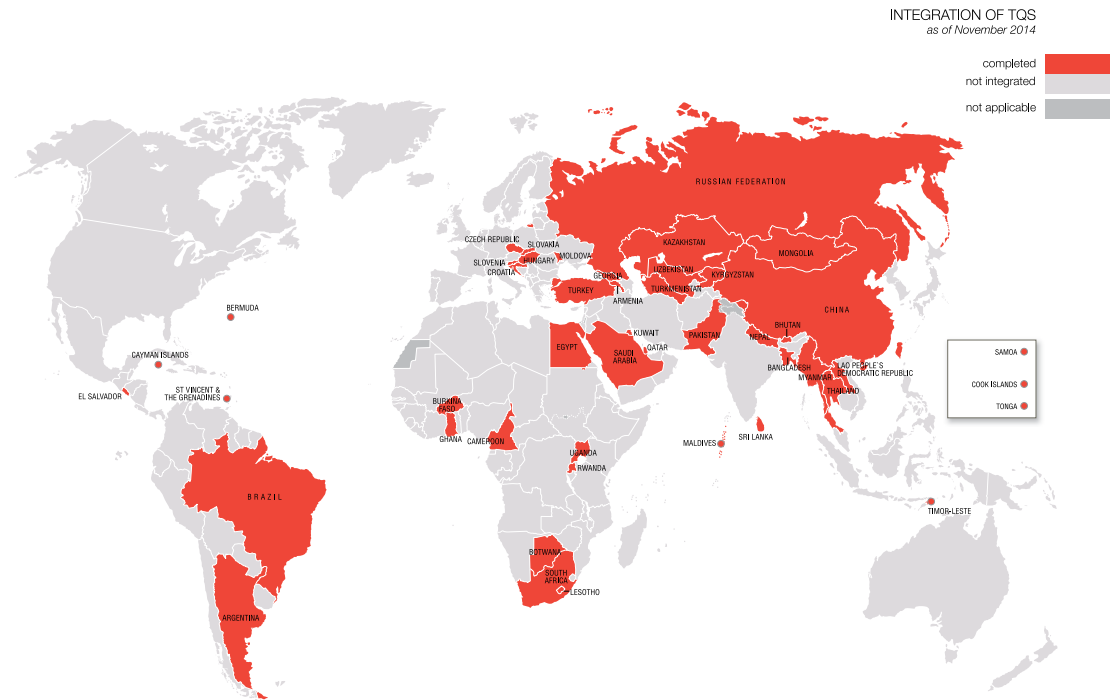
LEARN MORE AT BLOOMBERG.ORG

Promoting Sustainable and Integrated NCD Surveillance

Submitted by: Isabel Garcia de Quevedo, MSPH, Lauren Bartell, MPH, Jeremy Morton, MS - CDC; Edouard Tursan d'Espaignet, PhD - WHO; on behalf of the GTSS collaborative group

Tobacco Questions for Surveys (TQS):

TQS is a cost effective and sustainable option to monitor the tobacco epidemic. As of 2014, 49 countries have integrated TQS. The target is to apply TQS in 70 countries by 2016.



Tobacco use is a leading cause of preventable death in the world and a risk factor for four major NCDs: cancer, cardiovascular disease, diabetes, and chronic respiratory diseases. About 6 million people die annually from tobacco, and if nothing is done to reverse or halt the epidemic, tobacco-related deaths could rise to 8 million by 2030. Additionally, exposure to secondhand smoke currently kills more than 600,000 nonsmokers each year. The burden of tobacco use is high, but there are effective solutions that have been proven to work. Country interventions that align with the [World Health Organization Framework Convention on Tobacco Control \(WHO FCTC\)](#) articles – especially its demand reduction measures that WHO has badged under the acronym (**mPOWER**)— have demonstrated tobacco use declines, resulting in lives saved. Accelerating these evidence-based interventions will only further reductions in tobacco use, which can have implications on other areas of public health including reproductive health, communicable and noncommunicable diseases (NCDs).

Efficiencies of integrating TQS into Surveys

Launched in-partnership with WHO and U.S. Centers for Disease Control and Prevention (CDC), [Tobacco Questions for Surveys \(TQS\)](#)

is a list of 22 survey questions grouped according to the mPOWER classification that ensures consistency in reporting results with the [Global Adult Tobacco Survey](#). TQS offers flexibility through seamless integration into national and international surveys, increasing the pool of reliable results and quality estimates. TQS is a surveillance tool that can help integrate data on tobacco use with data on NCDs and risk factors. Integration can also allow for financial and human resources to be shared, increasing efficiency. Continuous monitoring of tobacco use can assist countries in tracking targets and indicators in accordance with the [WHO Global Monitoring Framework \(GMF\)](#). The GMF has a specific tobacco target of a 30% relative reduction in current tobacco use by 2025 (using 2010 as baseline).

TQS is a component of the [Global Tobacco Surveillance System \(GTSS\)](#), which was launched in 1999 to help countries generate reliable, accurate, and comparable data on the burden of tobacco and measure the progress of efforts over time. GTSS is a set of surveillance tools that have been internationally recognized for their standardization, rigor, and accuracy in systematically monitoring youth and adult tobacco use. This system generates nationally representative data on tobacco use at a global level, which can help to guide policies and programs.

... continued on page 9

Partnership Matters

Promoting Sustainable and Integrated NCD Surveillance

... continued from page 8

TQS features include:

- Provides a sustainable way to collect continuous tobacco use data
- Ensures consistency in reporting results across countries
- Offers flexibility through seamless integration into national and international surveys
- Increases the pool of reliable, high-quality data on tobacco use
- Is cost-effective
- Is currently available in Arabic, Chinese, English, French, Portuguese, Russian, and Spanish

Support of Global Partners

A TQS Global Alliance, which includes partners from various organizations, was established and aims to promote the integration of TQS into surveys. The alliance is made up of representative from various international surveillance systems; research organizations (e.g., Academia and Public Health Institutes); and countries (e.g., National statistical agencies or Ministries of Health) that recognize the value of strengthening systematic monitoring and surveillance of tobacco use and key tobacco control measures. In 2013, a target was set to apply TQS in 70 countries by 2016. TQS was integrated into the WHO STEPwise approach to Surveillance (STEPS) core questionnaire. STEPS is a simple, standardized method for collecting, analyzing and disseminating data in WHO member countries. The Demographic and Health Survey (DHS) also recently included a few TQS questions into their core Man's questionnaire.



Turkey field worker conducting household tobacco use survey.



Bangladeshi field worker collecting data through a handheld mobile phone device.



China TQS training participant testing a handheld device to be used for data collection.



Senegalese field workers preparing to go into the field to collect data with their map.

Successful TQS Integration Examples

Bangladesh	WHO STEPS (NCD Risk Factor Survey), 2010
Brazil	National Health Survey (PNS), 2013
Cameroon	Multiple Indicator Cluster Survey (MICS), 2014
China	Behavioral Risk Factor Surveillance System (BRFSS), 2011
Egypt	WHO STEPS (NCD Risk Factor Survey), 2011
Kazakhstan	Almaty city initiative, 2013
Pakistan	UNODC National Health Behaviour Survey, 2012
Russian Federation	Reproductive Health Survey (RHS), 2011
Thailand	Cigarette Smoking and Alcohol Drinking Behavior Survey (CSAD), 2011
Turkey	National Health Survey (NHS) <ul style="list-style-type: none"> • First country to integrate TQS into a national health survey • Completed 4 rounds, 2008-2014

- M**onitor tobacco use & prevention policies
- P**rotect people from tobacco smoke
- O**ffer help to quit tobacco use
- W**arn about the dangers of tobacco
- E**nforce bans on tobacco advertising, promotion, & sponsorship
- R**aise taxes on tobacco



For more information on global tobacco control and GTSS, please visit <http://www.cdc.gov/tobacco/global/> or contact Isabel Garcia de Quevedo at vpr5@cdc.gov.

Regional Reference Center and Costing Tool Aim to Increase Capacity for Cancer Registration in the Caribbean

Submitted by: Michelle O'Hegarty, PhD, Rachael Joseph, VMD, Mona Saraiya, MD, and Florence Tangka, PhD - CDC

Cancer is a significant public health burden in the Caribbean region, as it is in many other parts of the world. In 2012, there were approximately 91,000 new cancer cases and 53,000 cancer-related deaths in the region ([GLOBOCAN, 2012](#)). Quality population-based cancer registries are the primary source of cancer surveillance data and are essential for planning, monitoring, evaluating and improving cancer prevention and control efforts. Fewer than 10 Caribbean member-states have a population-based cancer registry, and only two of these meet the data quality standards for inclusion in international statistics. As a result, the availability of population-based cancer registry data in the Caribbean is limited.

Establishing a regional reference center

The [Global Initiative for Cancer Registry Development \(GICR\)](#), led by the International Agency for Research on Cancer (IARC) (in partnerships with several international organizations), aims to improve population-based cancer registries worldwide through the establishment of six regional reference centers, termed IARC Hubs. U.S. Centers for Disease Control and Prevention (CDC) and the National Cancer Institute are collaborating with the North American Association of Central Cancer Registries, IARC and the Caribbean Public Health Agency (CARPHA) to develop and implement a regional Hub in the Caribbean. Key activities for the Hub are to:

- Build and sustain Caribbean member states' capacity for cancer registration,
- Provide training and technical support,
- Promote networking among cancer registries, and
- Foster collaborative research within the region.

An Epidemic Intelligence Service Officer assigned to CDC's Office of International Cancer Control will also assist with Hub activities by evaluating cancer registries in the region. The Hub will be located at CARPHA headquarters in Port-of-Spain, Trinidad and Tobago, with an expected launch in the fall of 2015.

Developing a costing tool

Limited knowledge of the cost to establish, operate and improve population-based cancer registries in low- and middle-income countries is a key challenge of GICR. The most comprehensive estimates of the cost of cancer registration activities are available from the economic evaluation of the central cancer registries in the U.S. Cost estimates from established registries in high-income countries cannot be extrapolated to low- and middle-income countries due to differences in the infrastructure available for collecting and reporting data. Building upon experience gained from evaluating U.S. cancer registries, CDC, in collaboration with IARC and RTI International, is developing a standardized



Staff from the Caribbean Public Health Agency, the International Agency for Research on Cancer, U.S. National Cancer Institute, the North American Association of Central Cancer Registries and CDC during the first planning meeting for the Caribbean Hub at the CARPHA Headquarters, Port-of-Spain, Trinidad & Tobago, January 21, 2015.



CDC and the Barbados National Registry staff. From left to right: Mr. Stewart-Andre Wilkinson, Dr. Michelle O'Hegarty, Dr. Florence Tangka, Ms. Karen Greene, Ms. Jacqueline Campbell, Mrs. Shelly-Ann Forde, Dr. Rachael Joseph, Ms. Ashley Henry, Mrs. Tanya Martelly, and Ms. Lauren Maul. Bridgetown, Barbados, May 12, 2015.

International Cancer Registry Costing Tool (InCanRegCosting tool) to assess the cost of cancer registration in low- and middle-income countries, including the Caribbean. Cost assessment pilot testing using the InCanRegCosting tool is currently under way in Barbados, Colombia, Kenya, Uganda and India. Barbados is unique because it has three registries (Heart, Stroke and Cancer). Key questions assessed during the pilot testing include the following:

- What are the funding sources for cancer registries?
- How much does it cost to register a cancer case?
- What is the cost per case for specific registry activities?
- What factors impact the efficiency of operating a registry?

"Establishment of an evidence base for the cost of cancer registration and specific registry activities will give decision makers information to more accurately gauge the budget needs of existing registries, and it will give them the funding that may be necessary to improve data quality, support registry activities and increase efficiency," said Dr. Florence Tangka, Health Economist in the Division of Cancer Prevention and Control, CDC. Cost data collected using the InCanRegCosting tool will provide valuable information to guide decisions and improve cancer registration globally.

For further information, contact: Dr. Michelle O'Hegarty at mohegarty@cdc.gov.

Public Health Experts Tackle Major Global Problem: Hypertension

Submitted by: Pragna Patel, MD, MPH - CDC, and Donald J. DiPette, MD - University of South Carolina School of Medicine, Columbia, SC

Hypertension, a leading cardiovascular disease risk factor, is a global health concern affecting more than one billion people worldwide. The U.S. Centers for Disease Control and Prevention (CDC), joined by leading global experts, confronts this problem by standardizing the medical treatment of hypertension and increasing access and affordability of medications. This approach is inspired by successful treatment models for infectious diseases.



Noncommunicable diseases (NCDs) are responsible for almost three-quarters of all deaths worldwide. Over the past decade, cardiovascular disease has become the single largest cause of death worldwide, representing nearly 30% of all deaths and approximately half of NCD deaths. Hypertension is a leading risk factor for cardiovascular disease and is responsible for over nine million preventable deaths

globally each year. Despite advances in health education and medical treatment, hypertension persists as a major public health issue and significant cause of morbidity and mortality.

While hypertension is an ongoing concern in high-income countries, it is also a major concern in low- and middle-income countries. For example, in sub-Saharan Africa, the percentage of the general adult population affected by hypertension currently ranges from 16-40%, but is projected to increase to approximately 70% by the year 2025 if nothing is done.

Reason for action

If we do nothing to address this problem, the economic impact will be substantial, threatening national and global development agendas. A recent report predicts that the cost of inaction on cardiovascular illness will increase related healthcare expenditure by 22% (US\$1,044 billion) by 2030. Given these sobering statistics, the WHO NCD [Global Monitoring Framework \(GMF\)](#), endorsed at the World Health Assembly in May 2013, included the following global voluntary targets related to the prevention and treatment of hypertension by 2025:

- A 25% reduction in the prevalence of raised blood pressure
- A 30% reduction in salt intake or a reduction of mean population intake of salt to < than 5 grams per day
- At least 50% of eligible people receiving drug therapy and counselling to prevent heart attacks and strokes

Addressing the problem

CDC in collaboration with the Pan American Health Organization (PAHO) and other partners launched the Global Standardized Hypertension Treatment Project (GSHTP) in 2011. This project involves the development and implementation of a framework for standardizing the medical treatment of hypertension and increasing access and affordability of medications. The GSHTP is inspired by successful treatment models for global tuberculosis and HIV management. Central elements include a structured treatment approach with a core set of medications, improving medication procurement, standardized treatment protocols with targets, and patient monitoring. The project design aims are feasible and flexible, can be applied worldwide and complement existing hypertension guidelines. In 2014, a successful pilot was launched in Barbados, with expansion to St. Lucia and Colombia planned for the coming year.

Additionally, CDC is leveraging the current President's Emergency Plan for AIDS Relief ([PEPFAR](#)) infrastructure of US-funded HIV care delivery sites in Malawi to include management of NCDs, specifically hypertension. This approach will increase awareness in African communities about NCDs and provide a platform for NCD management over the long-term.

An [online toolkit](#) that includes a hypertension webinar is available for health care professionals interested in incorporating components of GSHTP to enhance hypertension treatment.

For further information, contact Dr. Pragna Patel at plp3@cdc.gov.



A patient getting his blood pressure checked at the vital signs station in Malawi.

Cigarettes and Beyond: Testing Tobacco Products Around the World

Submitted by: Patricia Richter, PhD, DABT - CDC, and Gemma Vestal, JD, MPH, MBA, RN - WHO

Tobacco use causes 1 in 10 deaths among adults worldwide. The World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC) was adopted in 2003 and fully implemented in 2005. The goal of FCTC is to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke. Article 9 of the FCTC focuses on the regulation of tobacco products and requires laboratory methods to be developed to measure harmful chemicals in tobacco and tobacco smoke.

WHO Tobacco Laboratory Network

To develop the needed laboratory methods, the WHO Tobacco Laboratory Network (TobLabNet) was created. TobLabNet is a global network of more than 30 laboratories, located in all six WHO regions, that work together to create methods to measure harmful chemicals in tobacco and tobacco smoke. Having data on levels of harmful chemicals in tobacco products in their countries helps nations when making decisions on how to regulate tobacco products and protect the health of their citizens. The results of TobLabNet's work are published in the scientific literature, and the laboratory methods are available to researchers and public health decision makers on WHO's website.



June 3-5, 2015 TobLabNet meeting at National Institute for Public Health and the Environment (RIVM), The Netherlands. CDC scientists and colleagues from Burkina Faso, China, France, Japan, Singapore, The Netherlands, and the World Health Organization participated.



Automated cigarette smoking machine generates smoke used to measure toxic and cancer-causing chemicals.

CDC has been a full member of TobLabNet from its beginning. CDC scientists have participated in studies to develop methods to measure nicotine, humectants (chemicals that absorb and retain moisture), and toxic and cancer-causing chemicals like ammonia and benzene. The laboratory work is done with automated smoking machines that puff cigarettes in a consistent manner to create the smoke measured by the scientist. While no person smokes like a machine, information gained from using a common laboratory method and automated smoking machines helps laboratories validate methods and produce results that can be compared to other laboratories.



Electronic cigarette and liquid nicotine.

Increased use of Electronic Nicotine Delivery systems

Initially the focus of TobLabNet was on traditional cigarettes because they are the most common way tobacco products are used, but recent attention has been turned to the other tobacco products that people use to consume nicotine. A class of tobacco products that is increasing in use is "Electronic Nicotine Delivery systems (ENDS)," which include electronic cigarettes, also known as e-cigarettes. Initially e-cigarettes were designed to resemble the size and shape of a cigarette, but newer products resemble cigars or hookahs (water pipes); other ENDS are large and have refillable tanks. ENDS differ from traditional tobacco products by using a battery to produce a cloud of humectant particles. The cloud of particles, or "vapor," usually contains nicotine and flavored chemicals. E-cigarettes are available in most countries. In the United States, CDC surveys have found that the use of e-cigarettes by middle and high school students is rising at a concerning rate. In addition to traditional tobacco products like cigarettes, cigars, and smokeless tobacco, CDC scientists are also studying e-cigarettes and exposure to e-cigarette vapor. CDC scientists and TobLabNet are moving quickly to develop methods that will allow the chemicals in e-cigarette liquid and e-cigarette vapor to be measured and evaluated.

For further information, contact: Dr. Patricia Richter at pir1@cdc.gov.

Publications

Ahuja, J.K., Pehrsson, P.R., Haytowitz, D.B., et al. (2015). Sodium monitoring in commercially processed and restaurant foods. *American Journal of Clinical Nutrition*, 101(3), 622-631. <http://ajcn.nutrition.org/content/early/2015/01/28/ajcn.114.084954.short?rss=1>

Angell, S., De Cock, K., & Frieden, T. (2015). A public health approach to global management of hypertension. *The Lancet*, 385, 825-827. [http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(14\)62256-X.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(14)62256-X.pdf)

Asma, S., MacKay, J., Song, S., et al. (2015, May 29). The GATS Atlas. Retrieved July 8, 2015, from <http://gatsatlas.org/>

Ayala, C., Fang, J., & Yuan, K. (2015). Prevalence of taking actions to control blood pressure among adults with self-reported hypertension in 18 states and the District of Columbia, 2009. *The Journal of Clinical Hypertension J Clin Hypertens*, 17(3), 172-182. <http://onlinelibrary.wiley.com/doi/10.1111/jch.12476/pdf>

Balaban, V. & Sleet, D.A. (2015). Pediatric travel injuries: Risk, prevention, and management. In Kamat, D.M., Fischer, P.R. *American Academy of Pediatrics Textbook of Global Child Health 2nd ed.* Elk Grove Village, IL: American Academy of Pediatrics. <http://shop.aap.org/Textbook-of-Global-Child-Health-2nd-Edition-Hardcover>

Bhat, G., Beck, L., Bergen, G., & Kresnow, M. (2015). Predictors of rear seat belt use among U.S. adults, 2012. *Journal of Safety Research*, 53, 103-106. <http://www.sciencedirect.com/science/article/pii/S0022437515000237>

Chiosi, J., Andes, L., Asma, S., Palipudi, K., & McAfee, T. (2015). Warning about the harms of tobacco use in 22 countries: Findings from a cross-sectional household survey. *Tobacco Control*. Retrieved July 8, 2015, from <http://tobaccocontrol.bmj.com/content/early/2015/05/07/tobaccocontrol-2014-052047.abstract>

Chiqui J., DeLong H., Gourdet C., et al. (2015). Use of tobacco tax stamps to prevent and reduce illicit tobacco trade — United States, 2014. *MMWR Morb Mortal Wkly Rep*, 64, 541-546. <http://www.cdc.gov/mmwr/pdf/wk/mm6420.pdf>

Cogswell, M.E., Gunn, J.P., Yuan, K., et al. (2015). Sodium and sugar in complementary infant and toddler foods sold in the United States. *Pediatrics*, 1355, 416-423. Retrieved July 8, 2015, from <http://pediatrics.aappublications.org/content/early/2015/01/28/peds.2014-3251.abstract>

Cogswell, M.E., Maalouf, J., Elliott, P., et al. (2015). Use of urine biomarkers to assess sodium intake – Challenges and opportunities. *Annual Review of Nutrition*, 35, 7.1-7.39. <http://www.annualreviews.org/doi/abs/10.1146/annurev-nutr-071714-034322>

Duke, J.C., Davis, K.C., Alexander, R.L, et al. (2015). Impact of a US antismoking national media campaign on beliefs, cognitions, and quit intentions. *Health Education Research*, 30(3), 466-483. <http://her.oxfordjournals.org/content/30/3/466.short?rss=1>

Ekwueme, D.U., Saraiya, M. (2015). Early prevention and screening of cervical cancer in a developing country-reply. *American Journal of Preventive Medicine*, 48(3), e2-3. <http://www.ncbi.nlm.nih.gov/pubmed/25701947>

Fang, J., George, M., Gindi, R.M., et al. (2015). Use of low-dose aspirin as secondary prevention of atherosclerotic cardiovascular disease among US adults (From the National Health Interview Survey, 2012). *American Journal of Cardiology*, 115(7), 895-900. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4365416/>

Fang, J., Cogswell, M.E., Park, S., et al. (2015). Sodium intake among U.S. adults - 26 states, the District of Columbia, and Puerto Rico, 2013. *MMWR Morb Mortal Wkly Rep*, 64(25), 695-698. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6425a3.htm>

... continued on page 14

... continued from page 13

Ge, Z., Guo, X., Chen, X., et al. (2015). Association between 24 h urinary sodium and potassium excretion and the metabolic syndrome in Chinese adults: The Shandong and Ministry of Health Action on Salt and Hypertension (SMASH) study. *British Journal of Nutrition*, 113(6), 996-1002. <http://www.ncbi.nlm.nih.gov/pubmed/25743698>

Gillespie, C., Maalouf, J., Yuan, K., et al. (2015). Sodium content of US packaged foods, 2009. *American Journal of Clinical Nutrition*, 101, 344-353. <http://www.ncbi.nlm.nih.gov/pubmed/25646332>

Heymann, D., Chen, L., Takemi, K., et al. (2015). Global health security: The wider lessons from the West African Ebola virus disease epidemic, *The Lancet*, 385(9980), 1884-1901. [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)60858-3/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60858-3/fulltext)

Lee, A., Schieb, L., Yuan, K., Maalouf, J., et al. (2015). Sodium content of packaged foods by census division in the United States, 2009. *Preventing Chronic Disease*, 12, E43. http://www.cdc.gov/pcd/issues/2015/14_0500.htm

Levings, J., Maalouf, J., Tong, X., et al. (2015). Reported use and perceived understanding of sodium information on US nutrition labels. *Preventing Chronic Disease*, 12, E48. http://www.cdc.gov/pcd/issues/2015/14_0522.htm

Maalouf, J., Barron, J., Gunn, J.P., et al. (2015). Iodized salt sales in the United States. *Nutrients*, 7(3), 1691-1695. <http://www.mdpi.com/2072-6643/7/3/1691>

Maalouf, J., Cogswell, M.E., Yuan, K., et al. (2015). Top sources of dietary sodium from birth to 24 months, United States, 2003-2010. *American Journal of Clinical Nutrition*, 101(5):1021-1028. <http://www.ncbi.nlm.nih.gov/pubmed/25762806>

Oettgen, B., Mathur, A., Sleet, D. (2015). The reality of child mortality. In Kamat, D.M., Fischer, P.R. *American Academy of Pediatrics Textbook of Global Child Health 2nd ed.* Elk Grove Village, IL: American Academy of Pediatrics. <http://shop.aap.org/Textbook-of-Global-Child-Health-2nd-Edition-Hardcover>

Patel, P., DiPette, D. (2015). Hypertension-related congestive heart failure in West Africa: A framework for global blood pressure control. *Journal of Clinical Hypertension*, 17(4), 261-262. <http://onlinelibrary.wiley.com/doi/10.1111/jch.12494/full>

Palipudi, K.M, Morton, J., Mbulo, L., et al. (2015). Awareness and current use of electronic cigarettes in Indonesia, Malaysia, Qatar, and Greece: Findings from 2011-2013 Global Adult Tobacco Surveys. *Nicotine & Tobacco Research*, 0, 1-7. <http://ntr.oxfordjournals.org/content/early/2015/04/20/ntr.ntv081.full>

Posner, S.F., Bowman, B.A., Collins, J.L. (2014). Considering trends in sodium, trans fat, and saturated fat as key metrics of cardiometabolic risk reduction. *Preventing Chronic Disease*, 11, E230. http://www.cdc.gov/pcd/issues/2014/14_0561.htm

Ross, H., Husain, M.J, Kostova, D., et al. (2015). Approaches for controlling illicit tobacco trade — Nine countries and the European Union. *MMWR Morb Mortal Wkly Rep*, 64(20), 547- 550. <http://www.cdc.gov/mmwr/pdf/wk/mm6420.pdf>

Sleet, D.A., Ballesteros, M., Ederer, D. (2015). Injuries and Safety. In Arguin, P. & Kozarsky, P. *Health Information for International Travel 2016 (Yellow book)*. New York, NY: Oxford. <http://wwwnc.cdc.gov/travel/page/yellowbook-home>

Stanfill, S.B., Oliveira-Silva, A.L., Lisko, J., et al. (2015). Comprehensive chemical characterization of Rapé tobacco products: Nicotine, un-ionized nicotine, tobacco-specific N'-nitrosamines, polycyclic aromatic hydrocarbons, and flavor constituents. *Food and Chemical Toxicology*, 82, 50-58 <http://www.ncbi.nlm.nih.gov/pubmed/25934468>

... continued on page 15

Publications

... continued from page 14

Stevenson, M., Sleet, D.A., Ferguson, R. (2015). Preventing child pedestrian injury: Guidance for the practitioner. *American Journal of Lifestyle Medicine*, 1-9. <http://ajl.sagepub.com/content/early/2015/02/11/1559827615569699.abstract>

Sumner, S., Mercy, J., Saul, J., et al. (2015). Prevalence of sexual violence against children and use of social services — Seven countries, 2007–2013. *MMWR Morb Mortal Wkly Rep*, 64(21), 565–569. <http://www.cdc.gov/mmwr/pdf/wk/mm6421.pdf>

Wang, B., He, M., Chao, A., et al. (2015). Cervical cancer screening among adult women in China, 2010. *Oncologist*, 20(6), 627–634. <http://www.ncbi.nlm.nih.gov/pubmed/25956407>

Wang, C.Y., Carriquiry, A.L., Chen, T.C., et al. (2015). Estimating the population distribution of usual 24-hour sodium excretion from timed urine void specimens using a statistical approach accounting for measurement errors. *Journal of Nutrition*, 145(5), 1017–24. <http://jn.nutrition.org/content/145/5/1017>

World Health Organization (2015). WHO report on the global tobacco epidemic, 2015. Retrieved July 8, 2015, from http://www.who.int/tobacco/global_report/2015/en/

Xu, Z., Alexander, R.L., Simpson, S.A., et al. (2015). A cost-effectiveness analysis of the first federally funded antismoking campaign. *American Journal of Preventive Medicine*, 48(3), 318–325. [http://www.ajpmonline.org/article/S0749-3797\(14\)00615-1/abstract](http://www.ajpmonline.org/article/S0749-3797(14)00615-1/abstract)

Yoon, S.S., Gu, Q., Nwankwo, T., Wright, J.D., et al. (2015). Trends in blood pressure among adults with hypertension: United States, 2003 to 2012. *Hypertension*, 65(1), 54–61. <http://www.ncbi.nlm.nih.gov/pubmed/25399687>

Did you know? ...

- ▶ **More than 35 million people** die from NCDs each year worldwide. More than 80% of NCD-related deaths are in low- and middle-income countries. Nearly one-third of those deaths are among people under the age of 60.
- ▶ High blood pressure is responsible for over **9 million preventable deaths** globally each year. Of the 1.1 billion people who have hypertension, over 47% are not aware that they have it, and of the 583 million that are aware, only 35% are on treatment.
- ▶ **Approximately 6 million people** die each year from tobacco use. This figure is expected to rise to more than 8 million by 2030.
- ▶ **8.2 million cancer-related deaths** occurred in 2012. The number of new cases is expected to rise by about 70% over the next 2 decades.
- ▶ **About 347 million people worldwide** have diabetes, which can be traced back to rapid increases in overweight, including obesity and physical inactivity.
- ▶ **1.5 billion adults** 20 years of age and older, were overweight in 2008. Nearly **43 million children** under 5 years old were overweight in 2010.
- ▶ **35 million deaths** go uncounted worldwide with no cause of death recorded. Systematic monitoring of vital records and risk factors is essential.
- ▶ Globally, **more than nine people die every minute from injuries or violence** —that's 5.8 million people each year. The three leading causes of injury and violence-related deaths are:
 - Road traffic incidents 600,000
 - Suicides 844,000
 - Homicides 600,000



Working Together to Advance NCD Prevention and Control Globally

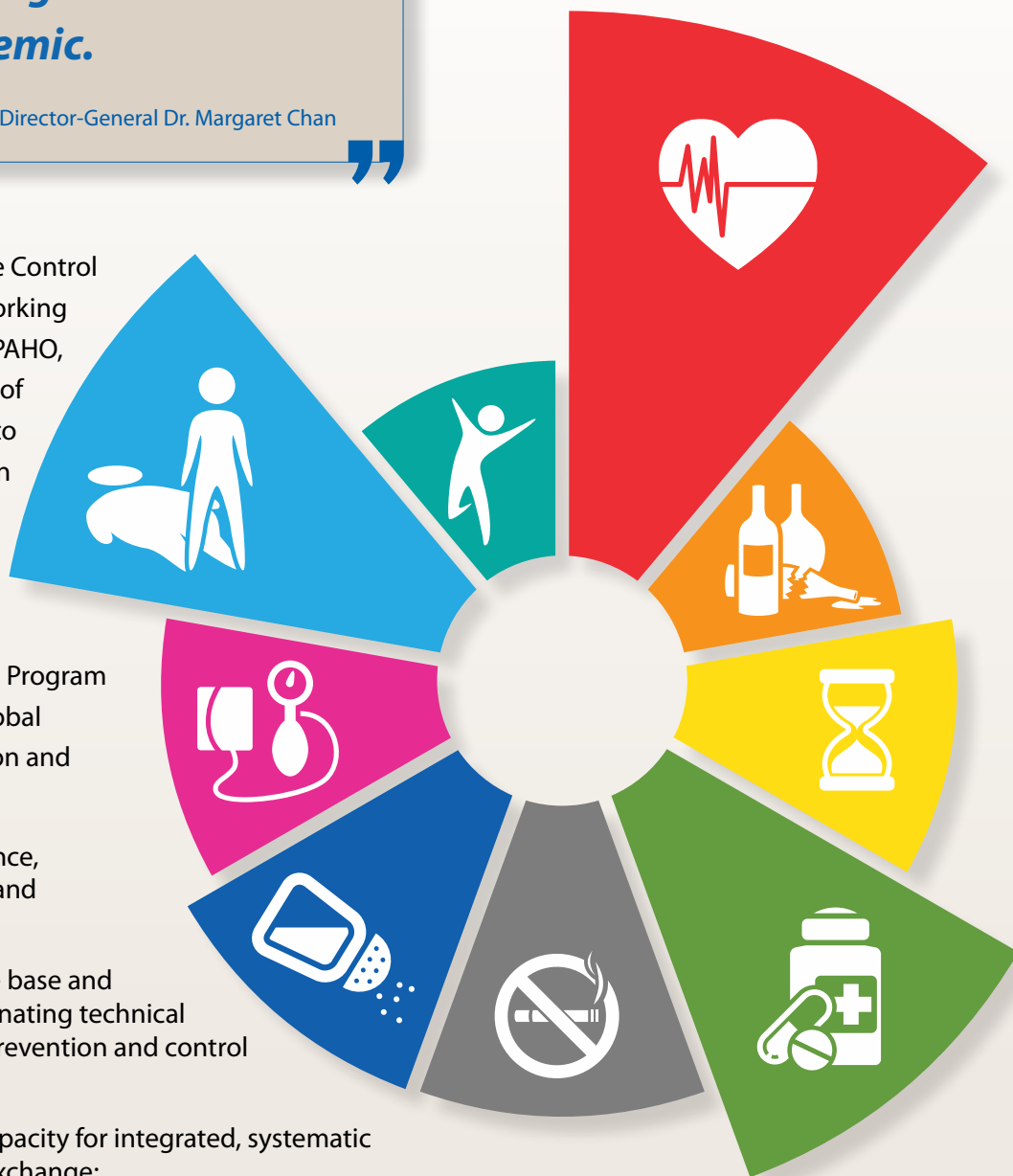
The global community has the chance to change the course of the NCD epidemic.

WHO Director-General Dr. Margaret Chan

The U.S. Centers for Disease Control and Prevention (CDC), is working collaboratively with WHO, PAHO, World Bank, and Ministries of Health and other partners to provide vision and direction in preventing premature deaths and disabilities due to NCDs, injuries, and environmental health hazards. CDC's Global NCD Program advances a coordinated global approach to NCD prevention and control by:

- ▶ Strengthening surveillance, monitoring, evaluation and information systems;
- ▶ Expanding the evidence base and developing and disseminating technical packages for effective prevention and control interventions;
- ▶ Enhancing workforce capacity for integrated, systematic training and technical exchange;
- ▶ Leveraging external partnerships and resources;
- ▶ Coordinating with other CDC offices engaged in global NCD activities; and
- ▶ Increasing NCD awareness and support through strategic communication.

To learn more, please visit: <http://www.cdc.gov/globalhealth/ncd/default.htm> or contact Dr. Samira Asma, Chief, Global NCD Program, CDC sea5@cdc.gov.



Graphic of WHO NCD targets, courtesy of WHO