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In sub-Saharan Africa, NCDs are projected to be the leading cause of death by 2030.

70% of premature deaths in adults result from behaviors

Curbing NCD risk behaviors among young people can temper a costly epidemic in the future. NONCOMMUNICABLE DISEASES IN AFRICA: YOUTH ARE KEY TO CURBING THE EPIDEMIC AND ACHIEVING SUSTAINABLE DEVELOPMENT

Noncommunicable diseases (NCDs), such as cardiovascular diseases, cancers, diabetes, and chronic respiratory diseases, are now the leading cause of death in most regions of the world. Africa, home to 54 low- and middle-income countries, is expected to have the world's largest increase in NCD deaths over the next decade. This will impose a significant burden to the continent, which is also projected to see its population double within the next generation.

In most countries in North Africa, NCDs are already responsible for more than three-quarters

FIGURE 1

Percent of Deaths Due to Noncommunicable Diseases by Country, 2012

Less than 25%
25% to 34%
35% to 49%
50% to 74%*
75% or more
Data not available

of all deaths (see figure).¹ Although communicable diseases and other conditions still predominate in sub-Saharan Africa, NCDs are projected to become the leading cause of death by 2030.² Nearly half of the population in this region already suffers from hypertension (high blood pressure), a well-established precursor to NCDs such as heart attacks and strokes.³ Unless urgent action is taken, the growing NCD epidemic will add tremendous pressure to already overstretched health systems and pose a major challenge to development in Africa.



*Includes only Cape Verde, 69 percent.

Source: World Health Organization (WHO), Noncommunicable Diseases Country Profiles 2014 (Geneva: WHO, 2014).

This brief accompanies the data sheet, *Addressing Risk Factors for Noncommunicable Diseases Among Young People in Africa: Key to Prevention and Sustainable Development*, and its data appendix, which provide all available country-specific data on four key NCD risk factors among young people in Africa since 2004. These publications extend an earlier publication, *Noncommunicable Disease Risk Factors Among Young People in Africa: Data Availability and Sources.* All are available at www.prb.org/Publications/Datasheets/2015/ncd-risk-youth-africa.aspx. The World Health Organization (WHO) has identified four main categories of NCDs: cardiovascular diseases such as heart attacks and strokes; chronic respiratory diseases like chronic obstructive pulmonary disease and asthma; cancers; and diabetes. These diseases share four key risk factors tobacco use, harmful use of alcohol, physical inactivity, and unhealthy diet—all modifiable behaviors typically established during adolescence or young adulthood, and ones that set the stage for NCDs later in life.⁴

Monitoring trends in the four risk factors and scaling up proven, cost-effective interventions to create healthpromoting environments for young people are important strategies for addressing NCDs. These activities are especially critical in Africa, which has the world's youngest population and a rapidly expanding cohort of young people. If risk behaviors can be curbed among Africa's young people, the region stands a chance of tempering a potentially large and costly NCD epidemic in the future.

In recognition of the problem of NCDs, WHO developed a "Global Action Plan for the Prevention and Control of NCDs 2013-2020" that aims to reduce premature death (defined as deaths between ages 30 and 70) from the four main NCDs by 25 percent by 2025. Key targets include a 10 percent reduction in the harmful use of alcohol and the rate of physical inactivity, and a 30 percent reduction in the average sodium/salt intake and the rate of tobacco use.⁵

NCDs' Toll on Society

Africa has made great strides in reducing the burden of communicable diseases. However, the rise in NCDs threatens to undo health and development progress made in various areas, including the Millennium Development Goals for poverty, education, and maternal and child health. The four main types of NCDs, together with mental health conditions, represent significant socioeconomic costs to society, due in part to reductions in productivity (see Box 1, page 3).

Almost 30 percent of NCD deaths in low- and middleincome countries occur among people under age 60 who are at the peak of their economic productivity—compared to only 13 percent in high-income countries.⁶ In sub-Saharan Africa, people who die from cardiovascular disease die on average 10 years earlier than in developed countries.⁷ High rates of poverty and inequality in the region exacerbate the challenges, and research shows that social context particularly living in low-income neighborhoods—is an important precursor for NCD risks.⁸ Poverty and inequality already underlie high rates of communicable diseases, and also give rise to NCD risk factors such as drinking, smoking, and poor diet, driving a double burden of disease, particularly among poor and rural communities.

NCDs exact a huge toll on health, the economy, and human potential. Chronic illnesses can lead to tremendous social and economic burdens due to absenteeism, job loss, and costly medical expenses, as well as increased caregiving responsibilities or even the death of a breadwinner. Such challenges may further prevent those with NCDs or their family members from taking full advantage of educational or productive opportunities. At a broader level, widespread chronic illness translates to decreased labor outputs, lower returns on human capital investments, and increased health care costs. In addition, the rise in NCDs will create a "multiple burden of disease" for already overstretched health systems, particularly in Africa where issues such as HIV/AIDS, infectious diseases, and poor maternal and child health remain a major problem. Treating people with NCDs is complex-involving advanced diagnostics and drugs, as well as intensive disability management and prolonged care. Thus a rising NCD epidemic will require more resources for strengthening and adapting health systems. Given that the rates of social and economic growth in the African region are unlikely to keep pace with the rapid rise of NCDs, taking urgent preventive action now will be far less challenging than waiting to address a costly full-fledged NCD epidemic.

Youth Offer a Critical Opportunity to Curb NCDs in Africa

Together, adolescence and young adulthood represent a period of experimentation and identity formation, and also a time when lifelong behavior patterns are typically initiated or established. WHO estimates that 70 percent of premature deaths in adults worldwide are the result of behaviors begun in adolescence.⁹ Thus, interventions that tackle the social and economic precursors of NCD risks, encourage positive health behaviors, and discourage negative ones in young people can significantly shift the projected trajectory of NCDs in Africa. Positive behaviors established during childhood or adolescence, such as healthy eating and regular exercise, are more likely to be carried through to adulthood. In contrast, the earlier people begin using harmful substances such as alcohol, the greater the risk of abuse and dependence later in life.¹⁰ Typically, when unhealthy behaviors persist into adulthood, they become difficult to change.

The importance of focusing on youth is underscored by the fact that Africa has the youngest population in the world. Today, more than one-third, or about 360 million Africans, are young people between the ages of 10 and 24. By 2050, when they reach middle age or older—the time when NCD risks are highest—the population age 45 and older in Africa will be three times the current size. In the absence of urgent action, this large cohort will be further burdened by NCDs because risk behaviors are on the rise among young people today. These shifts are largely driven by globalization, urbanization, and socioeconomic development.

To realize the potential that young people represent to curb the rising NCD epidemic in Africa, countries must target the following four modifiable risk behaviors (see table, page 6).

TOBACCO USE

Tobacco use is the single most preventable cause of disease, disability, and death in the world. Each year, 6 million people globally die from illnesses such as lung cancer, chronic respiratory disease, and heart disease caused by tobacco use; and the number of tobacco deaths is projected to increase to 8 million by 2030.¹¹ Tobacco use is a risk factor for four of the 10 main causes of deaths in Africa, and its use and dependence among the majority of adult smokers usually begins during adolescence. More than 40 million people smoke in Africa and this number is likely to grow as tobacco companies expand their marketing in the region.¹²

Africans are starting to smoke at younger ages, increasing their exposure to and risk for NCDs.¹³ Although there are substantial variations among countries, about one in 10 adolescents in Africa smokes cigarettes and the same proportion use other tobacco products such as chewing tobacco, snuff, and pipes. One-half of all adolescents in Africa are exposed to secondhand smoke.¹⁴ In many African countries, levels of tobacco use were previously higher among young men than young women; however, girls are now catching up and in some places use tobacco at even higher rates than boys. And it is not uncommon to see that even where rates of cigarette smoking are low, the use of other tobacco products is often high, particularly among girls.¹⁵

- In Zambia, about one-quarter of both girls and boys ages 13 to 15 in secondary schools are current tobacco users defined as using tobacco in the last 30 days. Nearly all of these young people use tobacco products other than cigarettes and about 5 percent also smoke cigarettes.¹⁶
- In South Africa, 24 percent of boys and 19 percent of girls ages 13 to 15 use tobacco. Both cigarette smoking and the use of other tobacco products are common among girls and boys. While 61 percent of current smokers report wanting to quit, 17 percent of those who have never smoked indicate they are likely to initiate smoking in the next year.¹⁷

HARMFUL USE OF ALCOHOL

In 2012, an estimated 3.3 million deaths worldwide were attributable to alcohol—more than half of them were due to NCDs, including heart disease, type 2 diabetes, and some cancers.¹⁸ Drinking also increases the risk of road traffic accidents, unprotected sex, intentional and unintentional injuries, poor mental health, and gender-based violence. The number of alcohol users is primed to increase in Africa as multinational beverage companies seize upon the continent's ideal emerging market conditions, including a large population of young people coming of age and economic growth that is putting disposable income in the hands of more people.

вох 1 Mental Health

Although mental health conditions are not considered one of the four main noncommunicable diseases (NCDs), they represent an important part of the shift from communicable diseases to NCDs as well as the shift from premature death to longer lives lived with a disability. Mental health disorders are also closely linked to key NCD-risk behaviors such as alcohol use, and can also affect adherence to medication for chronic diseases (potentially leading to serious consequences for health and survival). Population growth and aging have driven a 38 percent increase in the worldwide burden of mental health and substance use disorders between 1990 and 2010. These conditions represent the leading cause of years lived with a disability, well above the burden imposed by HIV/AIDS or infectious diseases.

Mental health conditions pose an increasing burden in Africa and represent an area where working with young people can make a big difference. Many mental health conditions emerge during adolescence and can trap people in a cycle of poor educational and professional achievement, limiting their productivity and wage-earning potential. In terms of disability-adjusted life years (DALYs)—a key measure of the number of years of life lost due to premature death or disability—the burden associated with common mental health disorders such as depression and anxiety peaks between ages 10 and 29.

In Africa, as in most low- to middle-income regions, mental health policies and interventions receive low priority and limited resources. Stigma also hampers progress. In a survey of 45 African countries, fewer than one-half reported having a dedicated mental health policy and only one-quarter reported having manuals available for the management and treatment of mental health disorders in the majority of primary health-care settings. Mental health services for young people, however, can play a key role in reducing the burden of mental health disorders and help curb the rise of NCDs.

Sources: Harvey A. Whiteford et al., "Global Burden of Disease Attributable to Mental and Substance Use Disorders: Findings From the Global Burden of Disease Study 2010," *Lancet* 382, no. 9904 (2013): 1575-86; and World Health Organization, *Mental Health Atlas* 2011 (Geneva: UN, 2011).

Alcohol marketing in Africa is often strongly targeted toward adolescents and young adults, with messaging that portrays alcohol as a symbol of heroism, courage, and virility. Noncommercial alcohol such as homebrews, easily accessible to young people, is also common in Africa, where about one-third of the alcohol consumed is unrecorded.¹⁹ Studies show that young people who begin drinking in their early teens are substantially more likely to become dependent on alcohol within 10 years than those who begin drinking in their late teens and early 20s, even when taking into account the family history of alcohol abuse.²⁰

- In Namibia, 26 percent of boys and 21 percent of girls ages 13 to 15 in secondary school are current alcohol users—meaning they have had a drink containing alcohol in the past 30 days.²¹
- In **Mauritius,** 21 percent of boys and 14 percent of girls ages 13 to 15 in secondary school report having been excessively drunk one or more times during their life.²²

UNHEALTHY DIET AND PHYSICAL INACTIVITY

Globally, unhealthy diets and insufficient physical activity contribute to about 12 million NCD deaths annually.²³ Diets in many sub-Saharan African countries lack diversity, meaning that meals often include a limited range of food groups. High salt levels, which elevate blood pressure, are also common as salt is used to preserve foods and add taste. Exacerbating these challenges is the fact that sub-Saharan Africa is urbanizing faster than any other region. Urbanization and increasing access to commercially prepared food are leading to diets that have become low in nutritious fruits, vegetables, proteins, and grains; and high in processed foods that contain excessive amounts of sodium, sugar, and saturated fat. This shift in dietary patterns is particularly pronounced among people with low incomes.

While levels of physical activity have been relatively high in Africa, as an aspect of work or transportation, urbanization is driving people to become more sedentary. This shift also means that some areas lack safe places for children and young people to play outside and exercise. Together, changes in diet and exercise are leading to a rise in the share of Africans who are overweight or obese, and an increase in the prevalence of lifestyle-induced NCDs such as type 2 diabetes, cardiovascular disease, stroke, and certain cancers. Some sub-Saharan African countries are currently undergoing a nutrition transition, whereby obesity is emerging as a critical public health problem, while undernutrition still poses a large burden. In some areas, both conditions can even be found in the same household.

Young people are caught in the changing world around them and face major challenges eating healthfully and getting sufficient exercise. Boys typically have higher rates of physical activity than girls, particularly in North Africa. • **Sierra Leone** is experiencing a nutrition transition. About 22 percent of 15-to-19-year-old girls are overweight or obese, while 16 percent are classified as underweight.²⁴

Among adolescents ages 13 to 15 in secondary school:

- In **Egypt,** 38 percent of boys and 41 percent of girls are overweight or obese.²⁵
- In Ghana, 54 percent of boys and 58 percent of girls usually drink carbonated soft drinks one or more times per day.²⁶
- In **Sudan,** only 11 percent of both boys and girls are physically active 60 minutes per day at least five days a week; the international guideline recommends 60 minutes of physical activity daily.²⁷

Strategies for Action

There are several proven, cost-effective policies and programs for addressing NCDs, and focusing on young people is an important part of the strategy. Young people's health and well-being is influenced by a complex set of family, peer, community, societal, and cultural factors. Healthy behaviors must be encouraged and reinforced in all aspects of their lives. By implementing a smart combination of priority interventions, it is possible to make changes and see progress within a generation.

WHO has identified a broad set of "best buy" interventions for each of the key NCD risk factors, based on the following four criteria: impact, cost effectiveness, feasibility of implementation, and affordability.²⁸ Some of these can be specifically targeted to young people, while others targeted to the general population can also have an impact on young people. Policymakers aiming to tackle NCDs with strategic investments should prioritize these best buys.

TAXES AND LEGISLATION

National-level taxes and legislation are WHO best buys that can create an environment to protect young people from harmful behaviors. Examples include taxing unhealthy substances, raising the age of purchase for alcohol and tobacco, or mandating that schools and other places where young people congregate be 100 percent smoke- and alcohol-free. Despite the effectiveness of such measures, progress in addressing NCDs is constrained by weak regulatory capacity in many African countries, underscoring the importance of supporting governments to improve public outreach, coordination among responsible agencies, and enforcement of laws and regulations.

Several countries around the world have implemented the WHO best-buy interventions with measurable success. In recognition of the growing burden of NCDs, African

nations have also begun to make progress. Some illustrative examples are described below.

- In South Africa, total taxes on cigarettes (including excise and sales taxes) increased from 32 percent to 52 percent of retail price between 1993 and 2009. In that same period, cigarette sales declined 30 percent and the rate of smoking among adults dropped by 25 percent. Meanwhile, government revenue from tobacco taxes increased by 800 percent.²⁹ Taxes like this are effective for young people whose purchasing is particularly sensitive to price increases.
- Several African nations including Botswana, Kenya, The Gambia, Ghana, South Africa, Tanzania, and Zimbabwe have implemented measures to reduce alcohol consumption. Measures vary across countries and include alcohol levies (as high as 45 percent in Botswana), restrictions on trading days and hours, requirements for health warnings in advertisements, and bans on the sale of traditional brews in unregulated places such as homes. Some countries are also pushing for bans on alcohol advertising. In The Gambia, alcohol advertising is banned on national television and radio. Though designed to address the broader population, such measures can work well to curb drinking among young people, who are highly susceptible to alcohol marketing and who often begin drinking in environments where alcohol is easily accessible.
- In March 2013, the Minister of Health in South Africa signed groundbreaking legislation to mandate salt reductions in the food industry. Maximum sodium content limits will gradually decrease in two waves with deadlines in 2016 and 2019.³⁰ Broad-based legislation such as this can significantly reduce sodium consumption among young people who tend to eat convenient, processed foods high in salt, such as snack chips, cereals, and breads.
- In recent years, several African countries have made considerable progress in creating structural changes to address the harmful use of tobacco. Since 2011, 10 countries have enacted legislation to ban smoking in public places and to ban tobacco advertisement, promotion and sponsorship; eight have passed laws requiring health warnings on tobacco packages; and five have implemented tax changes on tobacco products.³¹

INVOLVING YOUTH, FAMILIES, SCHOOLS, AND COMMUNITIES

Beyond policy and structural changes, successful NCD interventions promote protective factors such as a positive sense of self; good decisionmaking skills; and strong, supportive relationships in all aspects of adolescents' lives. Family and peers are particularly influential and can ensure a sense of connectedness and model good health behavior. Since youth spend much of their time at school, the school environment should also promote healthy lifestyles and reduce NCD risk factors, for example, by ensuring that any meals served are nutritious, implementing physical activity programs, and teaching important life skills for a healthy future.

The health community can also address NCDs. Clinicians can screen for tobacco and alcohol use, monitor diet and physical activity, and offer relevant information and counseling to encourage positive behaviors and curb negative ones. Stakeholders from a range of other sectors including civil society, religious organizations, social media, and even industry can also play an important role by sponsoring or hosting programs such as sporting events or campaigns that promote healthy lifestyles.

Many African countries have begun to implement an array of multisectoral responses to address the vast web of factors that influence NCD-risk behaviors among young people. Some examples include:

- In Kampala, Uganda, the Uganda Youth Development Link, a nongovernmental organization, implemented an intervention to curb the use of alcohol and drugs among secondary school students. Using school clubs in 14 secondary schools as a platform, social workers facilitated weekly peer-led activities, including talks at assemblies, quizzes, talk shows, group discussions, and debates. Students were also provided with printed materials including messages about alcohol use and abuse. The project reports success in fostering positive peer learning and influence, and also raising awareness among teachers about the situation of alcohol use and abuse in their schools and the importance of discussing it with their students.³²
- The World Food Programme, in collaboration with Childreach Tanzania supports 10 schools in northern **Tanzania** to set up vegetable gardens. The project serves a traditionally pastoralist Maasai population and involves extensive training in vegetable gardening. The aim is for the students to grow healthy food that can supplement their school meals, and teach students and the wider community about nutrition. One head principal officer reports that "the project is of great success especially because children finally have an opportunity to eat vegetables a few times a week." Although this project was designed to address problems of undernutrition, school vegetable gardens such as this can also affect NCDs as they provide young people with regular access to fresh, healthy, and diverse foods.³³
- A study in three African countries—Senegal, Nigeria, and Kenya—found that certain graphic tobacco-control radio and television advertisements developed in high-income countries were effective in Africa among people ages 18 to 40, and these could be adapted for use with minimal

Continued page 8

Risk Levels for Noncommunicable Disease Risk Factors Among Young People in Africa

		CURRENT TOBACCO USE							CURRENT		
	CIGAF	CIGARETTES		OTHER PRODUCTS		ANY PRODUCTS		J.	LCOHOL USE		
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE		MALE	FEMALE		
NORTHERN AFRIC	CA										
Algeria								-	-	†	
Egypt											
Libya								-	-	+	
Morocco								-	-	<u>†</u>	
Sudan Tunisia								-	-	† †	
	•							-	-		
WESTERN AFRIC	A									_	
Benin											
Burkina Faso							*	-	-	_	
Cape Verde								-	-		
Côte d'Ivoire The Gambia							*	-	-		
Ghana			-	-	-	-	Â	-	-		
Guinea								_	-		
Guinea-Bissau							*	-	-		
Liberia			-	-			*	-	-		
Mali								-	-		
Mauritania								-	-	†	
Niger											
Nigeria							*			5	
Senegal											
Sierra Leone							1	-	-		
Тодо										#	
EASTERN AFRICA	4										
Burundi								-	-		
Comoros								-	-		
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Eritrea				_		_	0."			0 #	
Ethiopia Kenya			-	-	-	-	2,#			2, # #	
Madagascar							π			6	
Malawi											
Mauritius											
Mozambique							*	-	-		
Rwanda								-	-		
Seychelles											
Somalia								-	-		
South Sudan Tanzania	-	-	-	-	-	-	3	-	-	3	
Uganda							5	-	-	5	
Zambia											
Zimbabwe							*	-	-		
MIDDLE AFRICA				•					•	÷	
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Angola Cameroon	-	-	-	-	-	-	4	-	-	+	
Central African Republic							*	-	-	+	
Chad								-	-		
Congo							i	-	-		
Congo, Dem. Rep.							*			7	
Equatorial Guinea								-	-		
Gabon	-	-	-	-				-	-		
Sao Tome and Principe								-	-		
SOUTHERN AFRIC	CA										
Botswana											
Lesotho								-	-		
Namibia			-	-							
South Africa Swaziland											
								-	-		

PH INA	IYSICAL ACTIVITY	OVERWEIGHT OR OBESE ¹⁰			
MALE	FEMALE		MALE	FEMALE	
 -	-				
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Definition of Risk Levels

Medium Risk

High Risk

Low Risk

CURRENT TOBACCO USE

Percent using cigarettes/other tobacco products/ any products in the past 30 days among 13-15-year-old secondary school students¹¹

- 16% or Above
- ___ 7% to 15%
- Below 7%

CURRENT ALCOHOL USE

Percent having any drinks with alcohol in the past 30 days among 13-15-year-old secondary school students¹²

- 40% or Above
- 20% to 39%
- Below 20%

PHYSICAL INACTIVITY

Percent not engaging in physical activity for at least 60 min/day on 5 out of the last 7 days among 13-15-year-old secondary school students¹²

70% or Above
50% to 69%
Below 50%

OVERWEIGHT OR OBESE

Percent who are overweight or obese among 15-19-year-olds¹³

20% or Above
10% to 19%
Below 10%

Notes: When the data described above were not available, alternative data that still enable assessment of risk levels were used. Technical notes and the specific data points for this table are all available in a data sheet, *Addressing Risk Factors for Noncommunicable Diseases Among Young People in Africa: Key to Prevention and Sustainable Development*, and its data appendix accessible at www.prb.org/Publications/Datasheets/2015/ncd-risk-youth-africa.aspx.

Risk levels for the countries with asterisks and footnotes below are based on data from the following cities/regions and are not on nationally representative data.

- * National capital
- 1 Western Area
- 2 Harar Town
- 3 Dar es Salaam
- 4 Central District 5 Ibadan
- 5 Ibadan 6 Six largest urban cities
- 7 All provincial capital cities
- 8 Abeokuta
- 9 Hawassa City
- 10 Proxy for unhealthy diet
- 11 Based on the Global Youth Tobacco Survey and the Global School-Based Student Health Survey
- 12 Based on the Global School-Based Student Health Survey
- 13 Based on the Demographic and Health Survey
- † Countries where Global School-Based Student Health Survey has been conducted but did not collect data on alcohol use
- # Data are not available by sex when the columns are not divided
- (-) Indicates data unavailable or inapplicable

Sources: World Health Organization (WHO) and Centers for Disease Control (CDC), *Global School-Based Student Health Surveys*; WHO and CDC, *Global Youth Tobacco Surveys*; ICF International, *Demographic and Health Surveys*; WHO, *STEPS* surveys; and various other country-specific surveys, which are listed on page 11.

BOX 2

HPV and Cervical Cancer

The World Health Organization classifies most cancers as noncommunicable diseases (NCDs). Cervical cancer—the second most common cancer in women worldwide—is one such cancer, though its cause is actually infectious in origin. Most cervical cancer is caused by the human papillomavirus (HPV), a sexually transmitted infection, for which a vaccine is now available.¹

Young women in many African countries begin having sex during adolescence, increasing their exposure to the risk of HPV infection. Sexual and reproductive health programs that already screen for HPV (as well as seek to delay sexual debut, promote condom use, and reduce the number of sexual partners) could help decrease cases and deaths due to cervical cancer. The synergies between sexual and reproductive health and NCDs suggest that pooled resources and integrated programming could be used to effectively tackle both outcomes.

Source: WHO, "Human Papilloma Virus and Cervical Cancer Factsheet," September 2013, accessed at www.who.int/mediacentre/factsheets/fs380/en/, on Nov. 26, 2014.

Continued from page 5

additional time, cost, and technical expertise. The most effective ads were those showing the harmful effects of secondhand smoke on children and loved ones. Some countries such as Cameroon have already launched mass media campaigns using similar ads.³⁴

In South Africa, Discovery, a large insurance and financial services company, is playing a role in improving the health of young people. The company's core purpose is to "make people healthier and enhance and protect their lives." Toward this aim, they have been implementing the Vitality Schools Program since 2008—a free, curriculum-based initiative to create school environments that promote nutrition and physical activity. The initiative empowers schools, teachers, and students to improve their health by giving them the knowledge, tools, and motivation to set and meet health goals. One key component of this program rewards schools for creating healthier learning environments through policies and interventions that promote healthy eating and exercise.³⁵

• Tobacco Control **Nigeria** is a behavioral change and public health campaign that uses social media to advocate for a comprehensive tobacco control law in a country that has no national restrictions on advertising and promotion of tobacco use. The campaign uses a number of youthfriendly social media platforms like Facebook, Twitter, Google+, and Instagram. To further draw the support of young people, it developed a catchy song and hosts events like dance competitions.³⁶

LEVERAGING THE EXPERIENCE OF SEXUAL AND REPRODUCTIVE HEALTH PROGRAMS

In sub-Saharan Africa, the bulk of health resources in the past few decades have been targeted at the HIV/AIDS epidemic. This region is home to 70 percent of all people living with HIV and 85 percent of the estimated 2.1 million young people ages 10 to 19 in low- and middle-income countries who are living with HIV.³⁷ Given that NCDs and HIV/AIDS unwittingly share many similarities-both are rooted in preventable risk behaviors, require intensive costly treatment, and can dramatically reduce the quality of lifenascent NCD initiatives can build upon the vast experience of HIV/AIDS programs. Over the years, urgent action to address HIV/AIDS has resulted in a wealth of contextually appropriate and effective systems, tools, and interventions that could be adapted to address NCDs. One key lesson learned from the HIV/AIDS experience is that prioritizing prevention, especially among young people, is a critical, cost-effective way to curb a burgeoning epidemic.

Over the years, organizations working to address HIV/AIDS, as well as broader sexual and reproductive health issues, have expanded and refined their approaches for reaching young people with information and services, drawing upon a range of stakeholders including the media, schools, celebrities, religious leaders, and health care workers. NCD programming can adapt many of these strategies and also reach a wider cross section of young people by integrating their messages and services into the extensive sexual and reproductive health care infrastructure that has been built in Africa. Integrated services, for example, might include screening for high blood pressure, tobacco and alcohol use, or obesity, alongside HIV testing or family planning services. Youth-friendly programs offer a strong opportunity for integration since they are often the primary point of interaction between young people and the health sector. Offering a broader range of youth-focused services may also appeal to communities that are resistant to more narrowly focused sexual and reproductive health programs.

Since some of the same risk factors that affect sexual and reproductive health outcomes also affect NCD outcomes in young people, coordinated programming may offer another useful and cost-effective approach (see Box 2). For example, alcohol use is a risk factor for NCDs such as high blood pressure, diabetes, and some cancers, and has also been linked to unintended pregnancies and unsafe sex leading to sexually transmitted infections and HIV.³⁸ Similarly, some protective factors also overlap. Participating in sports can reduce the risk of being overweight or obese and is also associated with lower levels of sexual activity among youth. These synergies suggest the potential utility of jointly developing and measuring the success of NCD and sexual and reproductive health programs.

Strengthening Data Collection

Developing effective NCD risk-factor interventions targeting young people requires up-to-date information on trends and drivers among particular subgroups, but such data are limited across Africa. A recent analysis shows that in about half the countries across Africa, no recent data-data since 2009—exist on any of the four risk factors among young people.³⁹ In the data that are available, whether old or new, substantial variations exist in how the indicators were collected and how samples were drawn across populations, making comparability and learning across countries difficult. To address the challenge of limited and inconsistent data, it is essential to harmonize data collection and build consensus on selecting, defining, and measuring a core set of crossculturally valid, comparable, and appropriate indicators across countries. Countries should also mandate regularly scheduled surveillance of the risk factors among young people and make data widely accessible to ensure that interventions are informed by the latest findings and experiences.

A Way Forward

NCDs represent an increasingly important cause of death and disability among the people of Africa. Already imposing a heavy toll in some subregions, NCDs are on a fast track to be the leading cause of death throughout the continent by 2030. Given that this region is still struggling to improve maternal and child health, as well as combat communicable diseases, NCDs would put a tremendous strain on scarce resources and require strengthening already overstretched health-care systems. Affecting the most productive members of society, NCDs would also limit the potential for economic growth and development. This negative trajectory can be changed, however, if the prevention of NCD risk behaviors is prioritized. These risk behaviors-tobacco use, harmful use of alcohol, unhealthy diet, and insufficient exercise-are typically established during adolescence or young adulthood. Thus, a focus on young people is key.

Proven, cost-effective interventions to address the main NCD risk factors are available. Lessons learned as well as tools, strategies, and systems from the extensive sexual and reproductive health program experience in Africa can be leveraged to facilitate rapid implementation and scale up of NCD education and services. A successful effort to prevent a large NCD epidemic will require a coordinated effort to ensure that comprehensive surveillance of risk factors takes place throughout the continent. Engaging a broad array of people, organizations, and sectors that can promote protective factors and minimize risk factors in all aspects of young people's lives is also critical. Whether through structural laws, taxes, policies, social media campaigns, schoolbased initiatives, or building on synergies among programs, encouraging positive and healthy behaviors among young people will require creative thinking, strong collaboration, and the involvement of young people themselves. African countries now have a window of opportunity to prioritize NCD prevention, to ensure that young people today are active and healthy, and to avoid what could be a costly and debilitating NCD epidemic.

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References

- 1 World Health Organization (WHO), Noncommunicable Diseases Country Profiles 2014 (Geneva: WHO, 2014).
- 2 Patricio V. Marquez and Jill L. Farrington, The Challenge of Non-Communicable Diseases and Road Traffic Injuries in Sub-Saharan Africa: An Overview (Washington, DC: The World Bank, 2013).
- 3 WHO, "Raised Blood Pressure," accessed at www.who.int/gho/ncd/risk_ factors/blood_pressure_prevalence_text/en/, on Dec. 23, 2014.
- 4 WHO, "Noncommunicable Diseases Fact Sheet," updated May 2013, accessed at www.who.int/mediacentre/factsheets/fs355/en/, on Nov. 13, 2014.
- 5 WHO, Global Action Plan for the Prevention and Control of NCDs 2013-2020 (Geneva: WHO, 2013).
- 6 WHO, Global Status Report on Noncommunicable Diseases 2010 (Geneva: WHO, 2011).
- 7 Disease Control Priorities Project, "Noncommunicable Diseases on the Rise in East, Central, and Southern Africa," as cited in Marquez and Farrington, *The Challenge of Non-Communicable Diseases and Road Traffic Injuries in Sub-Saharan Africa*.
- 8 Robert W. Blum, "Distressed Communities as a Breeding Ground for Noncommunicable Conditions," *Journal of Adolescent Health* 55, no. 6 (2014): S4-5.
- 9 WHO, Global Health Risks: Mortality and Burden of Disease Attributable to Selected Major Risks (Geneva: WHO, 2009).
- 10 Bridget F. Grant and Deborah A. Dawson, "Age at Onset of Alcohol Use and Its Association With DSM-IV Alcohol Abuse and Dependence: Results From the National Longitudinal Alcohol Epidemiologic Survey," *Journal of Substance Abuse* 9, no. 9 (1997): 103-10.
- 11 Stephen S. Lim et al., "A Comparative Risk Assessment of Burden of Disease and Injury Attributable to 67 Risk Factors and Risk Factor Clusters in 21 Regions, 1990-2010: A Systematic Analysis for the Global Burden of Disease Study 2010," *Lancet* 380, no. 9859 (2013): 2224-60.
- 12 United Nations, "Note by the Secretary-General Transmitting the Report by the Director-General of the World Health Organization on the Global Status of Non-Communicable Diseases, With a Particular Focus on the Development Challenges Faced by Developing Countries," in *Follow Up to the Outcome of the Millennium Summit* (New York: United Nations, 2010).
- 13 Marquez and Farrington, The Challenge of Non-Communicable Diseases and Road Traffic Injuries in Sub-Saharan Africa.
- 14 Marquez and Farrington, The Challenge of Non-Communicable Diseases and Road Traffic Injuries in Sub-Saharan Africa.
- 15 Randy M. Page and Mallory Danielson, "Multi-Country, Cross-National Comparison of Youth Tobacco Use: Findings from Global School-Based Health Surveys," *Addictive Behaviors* 36, no. 5 (2011): 470-78.
- 16 WHO and CDC, "Zambia Global Youth Tobacco Survey," (2011), accessed at http://nccd.cdc.gov/GTSSData/Ancillary/DataReports.aspx?CAID=1, on Dec. 2, 2014.
- 17 WHO and CDC, "South Africa Global Youth Tobacco Survey," (2011), accessed at http://nccd.cdc.gov/GTSSData/Ancillary/DataReports. aspx?CAID=1, on Dec. 2, 2014.
- 18 WHO, Global Status Report on Noncommunicable Diseases 2010.
- 19 Marquez and Farrington, The Challenge of Non-Communicable Diseases and Road Traffic Injuries in Sub-Saharan Africa.
- 20 Grant and Dawson, "Age at Onset of Alcohol Use and Its Association With DSM-IV Alcohol Abuse and Dependence: Results from the National Longitudinal Alcohol Epidemiologic Survey"; and Bridget F. Grant, "The Impact of a Family History of Alcoholism on the Relationship Between Age at Onset of Alcohol Use and DSM-IV Alcohol Dependence," *Alcohol Health and Research World* 22, no. 2 (1998): 144-48.
- 21 WHO and CDC, "Namibia Global School-Based Student Health Survey," (2013), accessed at www.who.int/chp/gshs/2013_Namibia_Fact_Sheet. pdf, on Dec. 3, 2014.
- 22 WHO and CDC, "Mauritius Global School-Based Student Health Survey," (2011), accessed at www.who.int/chp/gshs/Mauritius-GSHS-Country-Report-2011.pdf?ua=1, on Dec. 4, 2014.

- 23 Lim et al., "A Comparative Risk Assessment of Burden of Disease and Injury."
- 24 Statistics Sierra Leone and Ministry of Health and Sanitation, Sierra Leone Demographic and Health Survey, 2008 (Calverton, MD: ICF Macro, 2009).
- 25 WHO and CDC, "Egypt Global School-Based Student Health Survey," (2011), accessed at www.who.int/chp/gshs/Egypt_GSHS_FS_2011. pdf?ua=1, on Dec. 4, 2014.
- 26 WHO and CDC, "Ghana Global School-Based Student Health Survey," (2012), accessed at www.who.int/chp/gshs/2012_Ghana_junior_high_ fact_sheet.pdf?ua=1, on Dec. 3, 2014.
- 27 WHO and CDC, "Sudan Global School-Based Student Health Survey," (2012), accessed at www.who.int/chp/gshs/2012_Sudan_GSHS_FS.pdf, on Dec. 3, 2014.
- 28 WHO, Global Status Report on Noncommunicable Diseases 2014 (Geneva: WHO, 2014), accessed at http://apps.who.int/iris/ bitstream/10665/148114/1/9789241564854_eng.pdf, on Nov. 10, 2014.
- 29 American Cancer Society, "Tobacco Success Story: South Africa Campaign for Tobacco-Free Kids," (October 2012), accessed at http:// global.tobaccofreekids.org/files/pdfs/en/success_SoAfrica_en.pdf, on Nov. 26, 2014.
- 30 WHO Regional Office for Africa, "Intersectoral Case Study: Successful Sodium Regulation in South Africa," (2013), accessed at hwww.afro.who. int/en/clusters-a-programmes/hpr/social-a-economic-determinants-ofhealth/case-studies/country-experiences-rio/4085-successful-sodiumregulation-in-south-africa-.html, on Nov. 14, 2014.
- 31 WHO, Global Status Report on Noncommunicable Diseases 2014.
- 32 Regiona Kacwamu, "Alcohol Abuse Among Secondary Schools: Mentor Pops in Kampala Schools," paper presented at the Alcohol Epidemiology and Policy Meeting, Nov. 18-20, 2010, Speke Resort Munyonyo, Kampala, Uganda, accessed at www.uydel.org/downloads/Alcohol%20in%20 schools%20paper-20110711-172632.pdf, on Dec. 3, 2014.
- 33 World Food Programme, "School Vegetable Gardens for Healthier Children in Tanzania," March, 18, 2014, accessed at www.wfp.org/stories/schoolvegetable-gardens-healthier-children-tanzania-0, on Nov. 11, 2014.
- 34 Rebecca Perl et al., "Responses to Antismoking Radio and Television Advertisements Among Adult Smokers and Non-Smokers Across Africa: Message-Testing Results from Senegal, Nigeria and Kenya," *Tobacco Control* (2014): PMID 25184685; and World Lung Foundation, "First National Tobacco Control Mass Media Campaign Launches in Cameroon," July 4, 2013, accessed at www.worldlungfoundation.org/ht/display/ ReleaseDetails/i/26765/pid/6858, on Nov. 26, 2014.
- 35 "Discovery Vitality," Vitality Schools Programme, accessed at www. vitalityschools.co.za/schools/index.do, on Nov. 26, 2014.
- 36 Tobacco Control Nigeria website, accessed at http://tobaccoctrl.ng/, on Nov. 12, 2014.
- 37 UNAIDS, "UNAIDS Report on the Global AIDS Epidemic 2013," 2013, accessed at www.unaids.org/sites/default/files/en/media/unaids/ contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_ Report_2013_en.pdf, on Nov. 19, 2015.
- 38 WHO, "Risk and Protective Factors Affecting Adolescent Reproductive Health in Developing Countries" (WHO: Geneva, 2004), accessed at www. who.int/maternal_child_adolescent/documents/9241592273/en/, on Nov. 20, 2014; and Matthew F. Chersich et al., "Enhancing Global Control of Alcohol to Reduce Unsafe Sex and HIV in Sub-Saharan Africa," *Global Health* 5, no. 1 (2009): 16.
- 39 Toshiko Kaneda, Reshma Naik, and Wendy Baldwin, "Noncommunicable Diseases–Risk Factors Among Young People in Africa," (Washington, DC: Population Reference Bureau, 2014).

Data Sources

Hajer Aounallah-Skhiri et al., "Nutritional Status of Tunisian Adolescents: Associated Gender, Environmental, and Socio-Economic Factors," *Public Health Nutrition* 11, no. 12 (2008): 1306-17.

O. Atilola, O. Ayinde, and O. Adeitan, "Beyond Prevalence and Pattern: Problematic Extent of Alcohol and Substance Use Among Adolescents in Ibadan, South-West Nigeria," *African Health Sciences* 13, no. 3 (2013): 777-84.

ICF International, *Demographic and Health Surveys*, accessed at http:// dhsprogram.com/.

Kalambayi Patrick Kayembe et al., "Correlates of Ever Had Sex and of Recent Sex Among Teenagers and Young Unmarried Adults in the Democratic Republic of Congo," *AIDS and Behavior* 12, no. 4 (2008): 585-93.

Stella K. Muthuri et al., "Correlates of Objectively Measured Overweight/Obesity and Physical Activity in Kenyan School Children: Results from ISCOLE-Kenya," *BMC Public Health* 14, no. 1 (2014): 436.

National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA), *Rapid Situation Assessment of the Status of Drug and Substance Abuse in Kenya* (Nairobi: NACADA Authority, 2012).

Noeline Razanamihaja and Marie-Laure B. Befinoana, "Alcohol Consumption by School-Going Adolescents in Madagascar: Prevalence and Associated Risk Factors," *Journal of Alcoholism and Drug Dependence* 2, no. 1 (2013).

Ayalu A. Reda et al., "Determinants of Cigarette Smoking Among School Adolescents in Eastern Ethiopia: A Cross-Sectional Study," *Harm Reduction Journal* 9, no. 39 (2012).

Ayalu A. Reda et al., "Alcohol Drinking Patterns Among High School Students in Ethiopia: A Cross-Sectional Study," *BMC Public Health* 12, no. 1 (2012): 213.

S.P. Reddy et al., *Umthente Uhlaba Usamil –The 3rd South African National Youth Risk Behaviour Survey 2011* (Cape Town: South African Medical Research Council, 2013).

I. O. Senbanjo and K. A. Oshikoya, "Physical Activity and Body Mass Index of School Children and Adolescents in Abeokuta, Southwest Nigeria," *World Journal of Pediatrics* 6, no. 3 (2010): 217-22.

Tesfalem Teshome, Pragya Singh, and Debebe Moges, "Prevalence and Associated Factors of Overweight and Obesity Among High School Adolescents in Urban Communities of Hawassa, Southern Ethiopia," *Current Research in Nutrition and Food Science* 1, no. 1(2013): 23-36.

World Health Organization, STEPwise Approach to Chronic Disease Risk Factor Surveillance (STEPS), accessed at www.who.int/chp/steps/en/.

World Health Organization and U.S. Centers for Disease Control and Prevention, *Global Youth Tobacco Survey (GYTS)*, accessed at www.who.int/tobacco/ surveillance/gyts/en/.

World Health Organization and U.S. Centers for Disease Control and Prevention, *Global School-Based Student Health Survey (GSHS)*, accessed at www.who.int/chp/gshs/en/.

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