PRIORITIZING A PREVENTABLE EPIDEMIC

A Primer for the Media on Noncommunicable Diseases



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WHO Library Cataloguing in Publication Data

Prioritizing a preventable epidemic: a primer for the media on noncommunicable diseases.

1. Chronic diseases - prevention and control. 2. Health promotion. 3. Noncommunicable diseases.

ISBN 978 92 9061 534 7 (NLM Classification: WT 500)

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Message from the Regional Director

Noncommunicable diseases (NCD) – mainly heart disease, cancer, respiratory disease and diabetes – kill nearly 30 000 people in the Western Pacific Region every day.

Four out of every five deaths in the Region are now due to noncommunicable diseases.

NCDs are driven by risk factors – tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol – all of which are highly preventable. The poor are exposed to more risk factors and often do not have access to early detection and effective treatments. Many of these deaths are in young people. Their premature deaths deprive families of their loved ones and of income.

Normally, an epidemic of this size would be on the front page of every newspaper. But this disease epidemic does not get that kind of attention.

This needs to change. Epidemics that do not get noticed do not get stopped.

The United Nations General Assembly High Level Meeting on NCD Prevention and Control in September 2011 in New York has significantly increased the awareness of the global community on the health and economic threat that NCDs pose.

Heads of state from around the world called for an all-out effort to tackle NCD and to reduce their risk factors. We know what works and what is needed is to implement the actions. The news media has an important role to play. That is why WHO Western Pacific Regional Office has prepared this Media Primer.

News media can help inform people of the actions they can take to protect themselves and their families. Accurate reporting on these diseases and the risk factors can also help to promote good public health responses.

Many cost effective things can be done to prevent NCD and reduce their impact. NCD need not – and must not – continue to languish in obscurity. I hope that you will join us in working to tackle this epidemic and that this Primer will be useful to you in generating interest – and action – on this topic.

Shin Young-soo, MD, PhD Regional Director

Overview

AN ESCALATING EPIDEMIC

In hospitals and homes across the globe, NCD is making an alarming presence. Today, the major NCD – cardiovascular disease (including heart disease and stroke), diabetes, cancer and chronic respiratory disease – are the leading causes of death and disability in almost all countries. These are not "diseases of affluence" plaguing wealthy nations, but an escalating crisis for Low- and Middle-Income Countries (LMIC).

NCD caused 36 million deaths globally in 2008. They are projected to cause almost three fourths as many deaths as communicable, maternal, perinatal and nutritional diseases by 2020, and to almost equal them as the most common causes of death by 2030.

In the Western Pacific Region, 10 million deaths were attributed to NCD in 2008. By 2020, 12.3 million deaths are projected in the Region, making it one of the regions to have the greatest total number of NCD deaths, along with South-East Asia (10.4 million deaths).¹

UNSUSTAINABLE BURDEN

Such trends do not bode well for the future. NCD devastate not just the sick but their families, societies and health care systems. Costs can run into trillions. WHO estimates that by 2015, the cumulative lost economic output for 10 years from diabetes, stroke and heart disease alone in China, India and Russia will total more than US\$ 1 trillion. This includes nearly US\$ 560 billion in China.





Urgent action is needed now. Otherwise, we condemn millions to die – an estimated 44 million globally in 2020.

Cash-strapped health systems in low- and middle-income countries simply may be unable to cope with the deluge of cases. Even in rich nations, the burden is unsustainable. In the United States, NCD consume 75% of health care costs, or US\$ 1.5 trillion, reports the Centers for Disease Control and Prevention in the United States of America. Disturbingly, all the key risk factors are rising. Obesity, a key risk factor, now affects a billion people – or one in ten adults.



TIME FOR ACTION

Fortunately, we can do something. The primary NCD are driven by four powerful causal factors – tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol – all of which are highly preventable. Many tools exist for this, some proven successful in high-income nations.

Governments must recognize their key role and act proactively. Much can be done. Measures such as tobacco control, salt restriction and compulsory food labeling can have a far-reaching impact. Fiscal policies include taxing unhealthy foods and removing subsidies on items such as sugar. Children, in particular, need protection from the marketing of tobacco, unhealthy foods and sugary drinks. In addition, the poor need to be prioritized. However, governments alone cannot address the enormity of this epidemic. Partnerships with the food industry and consumer groups are important.

Urgent action is needed now. Otherwise, we condemn millions to die – an estimated 44 million globally in 2020. We also owe it to the next generation.

Myths about NCD

One of the great tragedies of NCD is that all too often people assume that not much can be done to prevent or control them. The underlying belief is that these diseases are inevitable, a natural part of ageing and, after all, "Don't people have to die of something"?

Ageing and death are inevitable, but living with a protracted, painful illness is not. NCD often advance slowly, rather than result in sudden death. Uncontrolled diabetes, for example, leads to the breakdown of nearly every system in the body, resulting in blindness, foot amputation and kidney failure. These diseases increasingly appear in middle age or even earlier, causing premature death. Yet many measures are available to prevent such unnecessary suffering.



CHALLENGING THE MYTHS

The many myths surrounding NCD must be challenged because they can reinforce the global neglect of these diseases. Some common myths about NCD are:

- They affect mainly high-income nations

 The bulk of the burden of disease is now borne by LMIC, where four of every five NCD deaths occur.
- They mainly affect rich people The poor are much more likely to contract these diseases, incur complications and die of NCD as well as suffer the biggest impact financially.
- They mainly affect elderly people Almost half of NCD deaths occur prematurely, in people under 70 years old. These diseases also are emerging at younger ages.
- They are caused by "unhealthy lifestyles"

 Many people might blame those with NCD for their unhealthy lifestyles. But there must be equitable access to a healthy life. Poor people may lack awareness and choices to healthy foods. Governments must protect their citizens, especially children, who are vulnerable to the marketing of unhealthy foods and tobacco.
- Prevention and control of NCD is too expensive and difficult – A full range of cost-effective interventions are available. Simple measures, such as removing sugar subsidies, can go a long way. Medication for heart disease complications can cost as little as US\$ 1 a month.

Noncommunicable Disease The Big Four Killers

The major NCD are outlined below. They are chronic, as they progress slowly, but often are preventable and controllable with early diagnosis and care. Unfortunately, they often are diagnosed and treated late. When complications are severe, treatment is more costly and quality of life suffers.



CARDIOVASCULAR DISEASE

Cardiovascular disease (CVD) is a group of disorders of the heart and blood vessels. It is the No. 1 cause of death globally, mainly from heart disease and stroke. It resulted in 17 million deaths – almost one third of all deaths – in 2008. CVDs are likewise responsible for the largest proportion (39%) of NCD deaths under the age of 70, followed by cancers (27%). The age of breadwinners dying of CVD falls every year in Asia and the Pacific, posing an economic issue.

Heart disease

Although known for centuries, heart disease became common in the last century. In 2008, an estimated 7.3 million deaths were due to coronary heart disease. A heart attack is often the first sign of underlying disease. Heart attacks and strokes chiefly are caused by a blockage of blood flow to the heart or brain. This is commonly due to arteriosclerosis, a build-up of fat and hard cholesterol (plaques) on the walls of blood vessels supplying the heart or brain.

Strokes

Strokes are also the result of a block in blood supply, but sometimes from a burst blood vessel or blood clots. Common symptoms are sudden weakness of the face or limbs, especially on one side, confusion, difficulty speaking or a loss of coordination. Stroke is the main cardiovascular condition in many East Asian countries.

CANCER

Cancer is a common term for a group of diseases in which abnormal cells grow beyond their usual boundaries. Other terms used are malignant tumours and neoplasms. Cancer can begin in any part of the body and then spread to invade other organs, a process known as metastasis. It can be triggered by environmental or genetic factors. Lung cancer leads as the No. 1 killer among cancers. It is nearly always due to smoking. Smoking also causes many other cancers. Liver cancer is particularly prominent in the Region. By 2030, between 10 and 11 million cancers will be diagnosed annually in the lowand lower-middle-income countries.



DIABETES

Diabetes is a chronic disease that occurs from a lack of insulin, a hormone regulating blood sugar, or from the body's inability to effectively use insulin. Symptoms include excessive urination, thirst, constant hunger, weight loss, vision changes and fatigue. The result is hyperglycaemia, or high glucose (sugar) in the blood, which damages nerves and blood vessels. Over time, this leads to an onslaught of complications, including kidney failure, stroke, blindness and decaying limbs and heart disease. Diabetes is the leading cause of kidney failure and foot amputations. There are two types of diabetes.

Type 1, (previously called childhood-onset diabetes), occurs in childhood from unknown causes. It is not preventable and requires daily doses of insulin. Type 2 largely is due to excess weight and physical inactivity and accounts for 90% of diabetes cases globally. It can be prevented. Once a disease of older people, it is emerging at younger ages. It even has appeared in children, something unheard of a decade ago. The global diabetes epidemic has hit Asia and the Pacific hard; with prevalence in some countries roughly double that in Europe. Diabetes has skyrocketed in Pacific island nations, with prevalence of 30%-40%. The overall risk of dying among people with diabetes is at least double the risk of their peers without diabetes.

CHRONIC RESPIRATORY DISEASES

The global diabetes epidemic has hit Asia and the Pacific hard; with prevalence in some countries roughly double that in Europe These diseases include chronic obstructive respiratory disease (COPD) and asthma. Both can cause life-threatening breathing difficulties. COPD permanently blocks airflow in the lung's airways while, with asthma, the blockage is reversible. It is often diagnosed in people aged 40 or older. COPD is a general term that includes chronic bronchitis and emphysema, which can coexist, sometimes with asthma, too. Symptoms include breathlessness, abnormal sputum and a chronic cough. In the later stages, daily activities such as walking up a flight of stairs can be difficult. COPD is preventable - the key cause is smoking. Air pollution, occupational dusts and chemicals are other causes. Without action to control tobacco, COPD will become the third leading cause of death globally by 2030.



Risk factors for NCD The Big Four Risks

"Today's risk factors are tomorrow's diseases".

The main modifiable risk factors for the major NCD are tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol. All are on an upward trend. Other less significant factors include air pollution, inadequate health care and the nonmodifiable risk factors of age and heredity.

TOBACCO:

The Biggest Killer

Tobacco use is the single most preventable cause of NCD deaths today. Tobacco kills up to half its users. It is estimated that there are 6 million people who die of tobacco use each year: more than 5 million are users or exusers and 600 000 are nonsmokers exposed to second-hand smoke. Unchecked, it will kill 1 billion people prematurely this century. Tobacco is linked to all major NCD but sharply raises the risk for ischaemic heart disease, chronic lung diseases and several cancers. Lung cancer epidemics are growing in China and the Republic of Korea.

One in four adults smoke. The 1.2 billion smokers are mostly from LMIC. While tobacco use is falling in high-income countries, it is rising in LMIC by 3% per year. Tobacco marketing targets young people. Of the six WHO regions, the Western Pacific has the greatest number of smokers, the highest rates of smoking in men and the fastest increase in tobacco use by women and young people. The prevalence of smoking is generally inversely related to socioeconomic status – that is, it is higher among the poor. Awareness is a problem. A 2009 survey in China revealed only one third of smokers knew that smoking causes heart disease.

More work on tobacco control should be conducted by countries on raising prices and taxes, protecting people from secondhand smoke, creating smoke-free areas, putting health warnings on cigarette packs, offering help to quit and comprehensive bans on tobacco advertising, promotions and sponsorship. The World Bank has estimated that a 10% price hike on cigarettes in East Asia and the Pacific would cut the number of smokers by 16 million people.

The countries that have signed WHO Framework Convention on Tobacco Control (FCTC) have agreed to a set of minimum standards to reduce harm from tobacco. The FCTC comprises measures to reduce tobacco consumption, protect people from second-hand smoke, and regulate tobacco products and to ban tobacco advertising and promotion. Its success will depend on countries creating and enforcing national legislation that is consistent with the FCTC.



UNHEALTHY DIET: The Nutrition Transition

In all but the poorest countries, traditional diets rich in whole grain cereals, pulses, vegetables and fruits are being rapidly replaced by diets high in sugar, salt and saturated fats, particularly animal fat, and low in complex carbohydrates. Processed foods are replacing natural, wholesome foods due to convenience. Consumption of meat, eggs and milk rose by 50% per person on average from 1973 to 1996 for all LMIC combined.²

Ideally, the intake of vegetables and fruits should be at least 400g a day. Legumes and foods of plant and marine origin should be selected over energy-dense foods (high in fat, sugar or starch). Importantly, the energy consumed should match energy expenditure each day. The quality of fats and oil consumed, and the type of carbohydrates, makes a major difference. Of the total energy intake, sugars should be less than 10% and saturated fat less than 10%; transfat should be eliminated. Currently in Europe and North America, fat and sugar make up more than half the calorie intake.

The dramatic shifts in diet have been described as "the nutrition transition". The shift is particularly striking in Asia. Entire communities are abandoning traditional diets for refined foods, sugars and fats. What is alarming is how rapidly this is occurring.

Socioeconomic class influences diet, with the poor tending to eat less healthy foods.

Food prices count. Unhealthy food often is cheaper than fruits and vegetables, which may be considered less filling. In Malaysia, the government's sugar subsidy was criticized for fuelling diabetes. Disturbingly, the global fast food and soft drinks market has penetrated the poorest countries. Imports of sweet drinks rose by more than 2000% over the last five years in Cambodia, Myanmar and Viet Nam.³

High blood pressure is responsible for 13% of deaths globally. The risk of death from high blood pressure in low- and middle-income countries is more than double than that in high-income countries. The amount of dietary salt consumed is an important determinant of blood pressure levels and hypertension risk. This relationship is direct and progressive with no apparent threshold, and salt reduction in individuals is an important intervention in reducing blood pressure, increasing the efficacy of pharmacological therapies and reducing the global risk of cardiovascular disease.



INSUFFICIENT PHYSICAL ACTIVITY: The Potential of Policy

The lack of physical activity causes or intensifies a broad scope of health problems. It is the fourth leading risk factor for death worldwide and a chief cause in about one fourth of breast cancer and diabetes cases. It also increases the risk of falling and hip fractures. Physical inactivity varies widely across the Region, with prevalence rates ranging from 7% in Mongolia to 75% in the Cook Islands.

Urbanization has led to a decline of physical activity. People use motorized transport rather than walk or ride a bicycle, while a typical leisure activity is watching television. Unsafe, polluted, high-traffic areas that lack sidewalks discourage walking. Governments need to provide safe spaces for physical activity such as parks, cycling paths and playgrounds.

Vigorous physical activity – or exercise – has clear benefits, but 30 minutes of moderateintensity activity five times a week can help maintain adult health. The activity can be accumulated in bouts at least 10 minutes long – say, household chores, a brisk 10-minute walk and dancing for 20 minutes. Children need more activity for cardiovascular and bone health. Regrettably, many schools have trimmed physical activity periods.

The lack of physical activity is the fourth leading risk factor for death worldwide

HARMFUL USE OF ALCOHOL: A Growing Problem

Harmful alcohol use is a major contributor to premature deaths worldwide, causing roughly 2.5 million deaths a year, which includes injuries. Alcohol ranks as the third largest risk factor to the burden of disease and the leading risk factor in the Western Pacific Region. Alcohol can damage nearly every organ and system in the body. It is linked to more than 60 diseases and conditions. Worldwide, the most rapid rise in alcohol consumption is in Africa and Asia.

The relationship of alcohol and NCD is complex. Harmful drinking can result in liver cirrhosis (damage to liver cells), cardiovascular disease and various cancers, including cancer of the liver, mouth, throat, larynx and esophagus. The impact of alcohol consumption depends on the volume consumed as well as the pattern of drinking. There are a number of policy options for national action, including raising taxes, restricting sales and availability, drunk-driving policies, banning advertising and promoting alcoholism treatment programmes.

Alcohol ranks as the third largest risk factor to the burden of disease and the leading risk factor in the Western Pacific Region

WHO's recommendations for physical activity depends on age:

5-17 years

At least 60 minutes of moderate to vigorous-intensity physical activity daily

18-64 years

At least 150 minutes of moderate-intensity aerobic physical activity throughout the week or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week or an equivalent combination of moderate- and vigorous-intensity activity.

65 years and above

Same as for 18-64 years. When older adults cannot do the recommended amounts of physical activity due to health conditions, they should be as physically active as their abilities and conditions allow.

Metabolic/Physiologic Risk Factors

Behavioural risk factors lead to metabolic/ physiological risk factors, which include overweight and obesity, raised blood pressure, raised blood glucose and raised blood cholesterol. These are effectively red flags, predisposing individuals to the "fatal four" diseases. Unfortunately, these markers often go undiagnosed, particularly in this Region, because of inadequate health services.

Obesity nearly has doubled since 1980. Globally, more than half a billion adults – or one in every ten – were obese in 2008. About 1 billion adults were overweight. That number will rise to 1.5 billion by 2015 if nothing is done. Excess weight raises the risk of heart disease, diabetes and certain cancers. Overweight is defined as having a body mass index (BMI) of 25kg/m² or more and obesity at 30kg/m² or more. BMIs have grown in almost all countries, with the Pacific islands uppermost with BMIs of 35 kg/ m² on average. Childhood obesity is worse in urban than in rural areas. In East Asia, they were highest among the high-income countries such as Japan, the Republic of Korea and Malaysia.

In Asia, NCD appear at lower BMIs. Waist-tohip ratio is a better barometer for disease risk. The "thrifty gene" theory hypothesizes that some people who have a genotype that ensures metabolic thrift during famine are more at risk if they overeat or are physically inactive.⁴

The Causes of Causes

Behind the main risk factors are major social and environmental trends sweeping the planet. These trends, or "causes of the causes", are globalization, urbanization and population ageing. Government policy and poverty are also deeply interconnected to the epidemic (see article on poverty).

Globalization has broadened exposure to the mass media and the marketing of tobacco, sugary drinks and fatty, salty and sweet foods. Urbanization intensifies the problem because it exposes people to the aggressive promotion of processed and fast foods. It also may reduce access to fresh fruit and vegetables but increase access to tobacco and alcohol. It also leads to more lives that are sedentary. Also, elderly populations (of 70 years old or more) are burgeoning rapidly, increasing NCD cases. Finally, government policy on food, agriculture, trade, advertising, transport and urban design is critical to enable people to make healthy choices.

A VICIOUS SPIRAL OF POVERTY

NCD are intricately related to poverty. In almost all countries, the poor are more likely to contract an NCD. Once sick, they are more likely to suffer complications and die prematurely. This triggers a spiral of worsening poverty.

The poor are more susceptible to the risk factors for disease. They are more likely to smoke, misuse alcohol and consume unhealthy food. In urban areas, there may be fewer opportunities for outdoor activities. And, significantly, they lack access to quality health care so are less likely to get diagnosed and treated for ill-health. The impact of NCD can be devastating for a poor household. Typically, the poor in LMIC have limited savings and pay for health care from their own pockets. Expenses over a long period can dig deep into savings or send a household into debt. Plus, families may lose a breadwinner – or even two, as one may care for the sick. Thus, the cycle of poverty is intensified.

Figure 1: The causation pathway for chronic non-communicable disease

Globalisation Urbanisation Poverty Low education Stress	Tobacco use Unhealthy diet Physical inactivity	High blood glucose High blood pressure Abnormal serum lipids Highwaist-hip ratio Abnormal lung function	Heart disease Stroke Cancer Chronic lung disease
Environmental risk factors	Behavioural risk factors	Biological risk factors	Chronic non-communicable disease

HIGH COSTS OF CARE

The human and financial toll of NCD is enormous and far-reaching. The sick not only have to suffer ill-health but crippling health care costs. In high-income nations, health insurance schemes or social security systems provide a safety net to absorb costs. However, in the LMIC, especially in much of Asia, such schemes are limited and out-of-pocket payments are common. This is the case for more than half of all health spending in Cambodia, China, the Philippines and Viet Nam. An acute event such as a heart attack or a stroke can mean catastrophic costs.

There are also indirect costs such as loss of income (for the sick or a caregiver) and the sale of assets to pay for care. With the long treatment periods and disease complications, living with these diseases can run up huge expenses. The sick face a terrible choice – to 90% of all prescriptions filled and 76% of all physician visits.⁵

An analysis of health care costs in the Western Pacific Region found 16% of hospital expenditure went towards diabetes care. In China, diabetes consumes 13% of all medical expenses, some US\$ 7 billion. These numbers will explode in a decade or two when 50 million Chinese with undiagnosed diabetes need medical care.

The high costs impact economies. Economic productivity falls with poor performance, increased absenteeism and other losses. In 2010, diabetes alone cost the world economy nearly US\$ 400 billion.⁶ This figure will rise to US\$ 100 billion more within a generation.

Ultimately, NCD lead to serious social and economic consequences, in addition to being a major cause of death and disability.

forego treatment and risk death or to push the family into poverty.

An NCD epidemic can overwhelm already strained health services. In the United States of America, people with NCD conditions are the most frequent users of health care. They account for 81% of hospital admissions,



Planning for Prevention

ACTION FROM ALL

The NCD crisis is deeply rooted in everyday life – in what we consume, how active we are, how we raise children and other aspects. Thus, the battle plan against NCD needs a whole-of-society approach with a whole-ofgovernment response. Action is needed at all levels and from various sectors, from the food industry to the finance ministry. The plan must be integrated so it cuts across the diseases to focus on the common risk factors. The policy levers for reducing risk factors are in non-health sectors such as agriculture, trade, industry, food processing, education, urban planning, etc. Therefore, interventions have to be crosscutting to get the maximum synergy. This is the cornerstone of NCD prevention. Risk factor control needs multiple government agencies, with supporting policies, laws, regulations and

fiscal measures. Health impact assessments of public policy (such as urban planning and transport) bring health issues to all policies.

In addition, an affordable and cost-effective package is needed to manage the diseases within the health care system. Also important are advocacy, surveillance and research. A broad national framework helps ensure initiatives are synergized. A good platform for interventions is the Healthy Cities initiative, which was created to improve health and quality of life through multisectoral action from local governments and civil societies. Because surveillance is critical to evaluate the effectiveness of programmes, WHO created the STEPwise Surveillance approach that uses standardized methods to track emerging patterns and trends in NCD risk factors. This common approach has enabled data comparison among countries.



STRATEGIES FOR SUCCESS:

What Interventions?

It may seem that the solution to lifestyle diseases is people adopting healthier lifestyles. People must take personal responsibility for their health. However, given the potential devastation of an NCD pandemic, a wider, faster, multifaceted strategy is needed. Interventions targeting populations can achieve major and rapid health gains in an entire population. These should be complemented with interventions for individuals, which are needed to reduce disease risk, slow disease progression and treat complications – all of which cut costs and improves the quality of life.

Two population-wide strategies are tobacco control and restriction of salt, which is linked to high blood pressure. Achieving small reductions could save 14 million lives over 10 years. The cost? As little as US\$ 0.40 per person a year.

Taxes can also work well. A tax-induced price hike on cigarettes can be one of the most cost-effective measures to reduce smoking prevalence. Improving diet and increasing physical activity can yield benefits swiftly. Providing safe spaces for recreational activity helps promote physical activity. Healthy city planning should involve urban design and transport.

A multipronged strategy for diet would include a health information campaign, taxes on unhealthy foods (or subsidies for healthy foods such as vegetables), regulation of advertising to children and a compulsory food-labelling scheme. Labels with nutritional information help deter people from choosing unhealthy foods. Programmes in schools and workplaces yield good results for minimal cost.

There is a need to work with the food industry to develop healthier foods, such as replacing saturated fats with polyunsaturated fat and eliminating transfats. Some major food companies have made pledges to market food and drinks responsibly to children.

Treating people with low-cost drugs that lower blood pressure and cholesterol could avert a further 18 million deaths over a decade. Lowering cholesterol can have rapid and powerful benefits. For men aged 40, a 10% drop in cholesterol cuts the risk of heart disease by half. All three interventions would cost about US\$ 6 billion a year – about half the annual cost for HIV/AIDS drugs.

A good platform for interventions is the Healthy Cities initiative, which was created to improve health and quality of life through multisectoral action from local governments and civil societies

EXAMPLES OF NCD INTERVENTIONS

- One of the most cost-effective strategies to prevent cardiovascular diseases is salt restriction. The successful campaign by the United Kingdom of Great Britain and Northern Ireland led to a 0.9g drop in the population's salt intake, which yields annual benefits of US\$ 2.5 billion.⁷ The major source of salt in the United Kingdom is in processed foods, so working with the food industry was critical. In Asia, salt added during cooking and at the table is an important source. One strategy used in China is to get people to use a calibrated salt spoon when cooking at home.
- The type of cooking oil used makes a big difference. Cutting animal fat led to a dramatic decline in heart disease death rates in Poland in the 1990s. The loss of subsidies on butter and the availability of cheaper vegetable oils such as rapeseed and soybean products helped drive this trend. Also, fruit intake was increased and smoking reduced (in men).
- The Fruit in Schools initiative in New Zealand aims to address the low fruit and vegetable intake of children. It involves giving children in some schools a piece of fruit each day and getting schools to support healthy eating and physical activity.
- Singapore's low smoking rate is the result of a number of strict legislative measures. These include a ban on all tobacco advertising and promotion, restrictions on the sale of

cigarettes, bold health warnings on cigarette packs, restrictions on smoking in public places and a ban on smoking for people under 18 years old.

 Four large cities in the Region have made great strides towards becoming smokefree: Sydney and Melbourne in Australia, Hong Kong (China) and Singapore. In the Philippines, youth smoking groups declared campuses smoke-free in 2003, levying penalties for smoking. This led to a significant drop in the number of smokers as well as those likely to initiate smoking.



WHO Global and Regional Response

WHO has responded to the global NCD epidemic through the formulation of appropriate strategies and guidance at the global and regional levels. Some of these include:

- A strategy to track disease trends through surveillance (STEPS), which has been critical in getting countries to recognize the scale of the NCD epidemic.
- Global and regional action plans that outline steps to address the NCD epidemic.
- A framework for tobacco control with legislation, policies and taxes that countries can adopt
- A global strategy on diet, physical activity and health with recommendations on how to promote healthier diets and increase physical activity.
- A regional and global strategy to reduce harmful use of alcohol, which offers measures to protect people from harmful alcohol use.
- The regional Healthy Cities and Healthy Islands initiatives, which seek to create environments supporting health in hospitals, schools, marketplaces and workplaces through social activities.

For further information, please follow web references given at the end.



Story Ideas for Journalists

We have all heard the basic public message on NCD prevention: stop smoking, eat right, be more active. That message is as valid as ever, but that does not make a good news story. In reality, the true picture of NCD is more complicated than that basic message. Inadequate government policies and over-commercialization in a nearly unregulated market lie at the root of the epidemic. A wealth of potential stories may be found here.

Assessing a country's state of NCD health, in terms of the magnitude of the four major diseases and current trends, offers a general picture of a local epidemic. The outlook is usually grim. Stroke is the main cause of death in many East Asian countries. Diabetes is exploding in some countries due to changes in lifestyles. Comparisons over time can be revealing. The "thrifty gene theory" hypothesizes that Asians may be more at risk to diabetes.

It is important to look beyond – or, more accurately, behind – the diseases to the risk factors. There are many stories here that relate to the daily lives of ordinary people. Are diets of the young becoming unhealthier? How fast is obesity rising? How affordable and available are fruits and vegetables? Studies, policies, behaviour and awareness about food consumption or smoking can provide a good news hook. Events, of course, serve as good focal points for news reporting, and there is a major event in the historical timeline of NCD coming up in 2011. From 19 to 20 September 2011, there will be a United Nations General Assembly High-level Meeting in New York on the prevention and control of NCD. The meeting – which heads of state are expected to attend – should generate a global strategy that calls for governments to prioritize NCD in national health plans. How this will translate into action at the country level is a key question.

As curtain raisers for this high-level meeting, journalists can examine how governments are meeting some target goals and responding. Do government programmes sufficiently support health? Consider, for example, food subsidies or school meals. The trends in risk factors can offer clues to the main drivers of health problems. Many countries have assessed risk factors in surveys conducted with the WHO STEPS. (See references at end for a link to these surveys.)

Money matters in health. So, too, does location. And social status. Are poor communities in certain areas more vulnerable to the onset of certain diseases, and why? Are urban residents less healthy than rural ones, and why? How do living or working conditions impact health? For example, are some parts of cities not safe for walking?

Inadequate government policies and over-commercialization in a nearly unregulated market lie at the root of the epidemic Another major area to focus on is the health care system. Are hospitals overloaded with NCD cases? How will they cope in future (with current projections)? Are there plans to expand budgets? Can governments afford to treat all of the sick? What does this cost the country?

Do all communities have access to the system or do the poor lack adequate health care, making them more vulnerable? Can all of those sick afford treatment? Are they able to get drugs (particularly less costly generic drugs) to prevent heart disease? For example, can they all pay for dialysis treatment?

This brings up prevention. Diabetes, for example, is expensive to treat, so prevention efforts make good economic sense. How much is being done to prevent diabetes? Is it adequate?

Public awareness is essential for NCD prevention. How aware are the public? What about their general consciousness about eating saturated fats and sugar or the link between heart disease and smoking? What about other innovative programmes to prevent NCD. Do they work? If so, why, and can they be expanded? Tobacco control measures are essential in NCD prevention. Has tobacco advertising and marketing been banned? Are there programmes to help people guit smoking? Are taxes on tobacco enough to act as a deterrent? What are the trends of the young when it comes to smoking? The Global Youth Tobacco Survey, conducted in many countries, can help provide data.

Then there is the food industry. Where is there a need for greater regulation? What controls are there on salt, fat, transfat, sugar – if any? What about regulation of products for children, including marketing aimed at children? Are the so-called "healthy" children's foods really healthy? Do quick checks on food labels of these products show a high fat or salt or sugar content? And are the labels on food packaging adequate? What does the law require?

What about government policy? Is there a national plan, what does it cover and does it cut across sectors? Is the government meeting its own targets on NCD control and prevention? Does the government even prioritize the problem?



Resources and References

Chronic Diseases Media Page (Includes links to recent press releases and key documents for media.) http://www.who.int/chp/media/en/

General information on NCDs http://www.who.int/nmh/en/ http://www.who.int/topics/chronic_diseases/en/index.html

Links to various web pages related to NCD http://www.who.int/chp/topics/en/

United Nations High-Level Meeting on NCD in September 2011 (With links to press releases and many other related pages.) http://www.who.int/nmh/events/un_ncd_summit2011/en/index.html

Western Pacific Regional Office Main NCD page http://www.wpro.who.int/sites/ncd/main.htm

Advocacy Pack

(Includes pages on salt and alcohol reduction, tobacco control, fruit and vegetable consumption, obesity and promoting physical activity.)

http://www.wpro.who.int/sites/ncd/advocacy.htm

WHO STEPwise Approach to Surveillance (STEPS) http://www.who.int/chp/steps/en/index.html

Diet

(with links to related pages, including on salt intake and fruits and vegetables)

http://www.who.int/dietphysicalactivity/diet/en/

Joint WHO/ FAO expert consultation report: Diet Nutrition and the Prevention of Chronic Diseases

http://www.who.int/hpr/NPH/docs/who_fao_expert_report.pdf Summary: http://www.who.int/dietphysicalactivity/publications/ trs916/summary/en/

Link to WHO publications on Chronic Diseases http://www.who.int/chp/knowledge/publications/en/index.html

Speech on Chronic Diseases and Obesity by WHO Director-General in Mexico (February 2011) http://www.who.int/dg/speeches/2011/NCDs_20110225/en/

Healthy Settings (Cities and Islands) initiative http://www.wpro.who.int/health_topics/healthy_settings/general_ info.htm Speech by Western Pacific Regional Office Regional Director in Seoul on Scaling-up NCD Prevention and Control (March 2011) http://www.wpro.who.int/regional_director/speeches/ speech_20110324.htm

Data sources

All data is sourced from WHO material unless otherwise stated.

- 1 WHO Global Status Report on Noncommunicable Diseases, 2010.
- 2 Chopra, Mickey, Sarah Galbraith, and Ian Darnton-Hill. "A Global Response to a Global Problem: The Epidemic of Overnutrition". Bulletin of the World Health Organization 80, no. 12 (2002): 952-58.
- 3 Dans A, Ng N, Varghese C, Tai ES, Firestone R, Bonita R. The rise of chronic non-communicable diseases in southeast Asia: time for action. Lancet. 19 February 2011;377(9766):680-9. Epub 25 January 2011.
- 4 Cockram, Clive S. Diabetes mellitus: perspective from the Asia– Pacific region. Diabetes Research and Clinical Practice 50 Suppl. 2 (2000) S3–S7.
- 5 Partnership for Solutions. Chronic Conditions: Making the Case for Ongoing Care. September 2004 Update. Available at: http://www.rwjf.org/files/research/Chronic%20Conditions%20 Chartbook%209-2004.ppt. Accessed: March 2011.
- 6 Diabetes Atlas, 4th Edition, International Diabetes Federation. Available at: http://www.diabetesatlas.org/content/economicimpacts-diabetes. Accessed: March 2011.
- 7 Food Standards Agency, United Kingdom. Agency publishes 2012 salt reduction targets. Press release, 18 May 2009. http:// www.food.gov.uk/news/pressreleases/2009/may/salttargets. Accessed March 2011

NCD surveillance data from WHO STEPS reports on countries (Includes considerable data on risk factors and diseases from 58 countries, including Cambodia, Malaysia, Mongolia and Viet Nam.) http://www.who.int/chp/steps/reports/en/index.html

Country information sheets (data on the impact of NCDs for selected countries, including China and India as well as for WHO regions and for countries by income groups).

http://www.who.int/chp/chronic_disease_report/media/impact/en/ index.html

NCD surveillance data from WHO STEPS reports from Pacific islands (Samoa, Fiji, Kiribati, the Federated States of Micronesia, Nauru, Solomon Islands and Tokelau) http://www.wpro.who.int/southpacific/sites/bhcp/ncd/overview.htm

Global Infobase (Data warehouse on NCD and risk factors such as diet and smoking for individual countries.) https://apps.who.int/infobase/

International Diabetes Federation's Diabetes Atlas (provides data on global burden and individual countries) http://www.diabetesatlas.org/content/global-burden

NCD risk factors and their link to socioeconomic status (An analysis of survey data from China, Fiji, Malaysia, Nauru and the Philippines.)

http://www.wpro.who.int/NR/rdonlyres/B4056C24-188E-4935-82E6-864D95803D47/0/WHOSESFINALforupload.pdf

NCD and Poverty: A Review (from the Western Pacific Region) http://www.wpro.who.int/NR/rdonlyres/1FC8050D-36F2-40D4-88A4-45E819EEF0FB/0/poverty_ncd.pdf

Global Youth Tobacco Survey (Provides country data on smoking and youth.) http://www.cdc.gov/tobacco/global/gyts/results.htm

WHO/United States of America Centers for Disease Control Atlas of Heart Disease and Stroke (includes data and background information)

http://www.who.int/cardiovascular_diseases/resources/atlas/en/

Global Status Report on Alcohol (includes country profiles) http://www.who.int/substance_abuse/publications/global_alcohol_ report/en/index.html

Factsheets

WHO Chronic Disease Information Sheets (On risk factors, myths, prevention, economic impact.) http://www.who.int/chp/chronic_disease_report/information_sheets/ en/index.html

Cardiovascular diseases http://www.who.int/mediacentre/factsheets/fs317/en/index.html Diabetes

http://www.who.int/mediacentre/factsheets/fs312/en/index.html

Cancer

http://www.who.int/mediacentre/factsheets/fs297/en/index.html

Chronic obstructive pulmonary disease http://www.who.int/mediacentre/factsheets/fs315/en/index.html

Tobacco http://www.who.int/mediacentre/factsheets/fs339/en/index.html

Obesity and Overweight http://www.who.int/mediacentre/factsheets/fs311/en/index.html

Surveillance NCD Risk Factors http://www.who.int/mediacentre/factsheets/fs273/en/index.html

Top 10 Causes of Death http://www.who.int/mediacentre/factsheets/fs310/en/index.html

Journal Papers

The Lancet series on Chronic Diseases and Development (includes links to several key papers and comments; site requires registration) http://www.lancet.com/series/chronic-diseases-anddevelopment

Center for Global Development: Chronic Diseases in Developing Countries; Health and Economic Burdens http://www.cgdev.org/doc/expert%20pages/nugent/Nugent_ Annals_article.pdf

WHO Bulletin: A Global Response to a Global Problem: The Epidemic of Overnutrition http://www.who.int/bulletin/archives/80(12)952.pdf

WHO: Estimation of Economic Impact on NCD in Selected Countries http://www.who.int/chp/working_paper_growth%20model29may. pdf

Lancet: The rise of Chronic NCD in SoutheastAsia; Time for Action (Free upon registration) http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)61506-1/fulltext?_eventId=login

Lancet: Asia-Pacific faces diabetes challenge http://www.lancet.com/journals/lancet/article/PIIS0140-6736(10)61014-8/fulltext

WHO: Review of Best Practices on Physical Activity in Developing Countries http://www.who.int/dietphysicalactivity/bestpracticePA2008.pdf

Strategies

WHO Framework Convention on Tobacco Control http://www.who.int/fctc/en/

WHO Global Strategy on Diet, Physical Activity and Health http:// www.who.int/dietphysicalactivity/goals/en/index.html

WHO Global Strategy to Reduce the Harmful Use of Alcohol http://www.who.int/substance_abuse/activities/globalstrategy/en/index.html

Guidelines (also in Chinese) for recommended levels of physical activity http://www.who.int/dietphysicalactivity/factsheet_recommendations/ en/index.html

Action Plans

2008-2013 Action Plan for Global Strategy for the prevention and control of NCDs http://www.who.int/nmh/publications/9789241597418/en/index. html

WHO Western Pacific Regional Action Plan (with section on public health impact of NCDs in Region) http://www.wpro.who.int/sites/ncd/action_plan.htm

NCD Information from other organizations

World Economic Forum on Chronic Diseases http://www.weforum.org/issues/chronic-diseases-and-well-being

United States of America Centers for Disease Control and Prevention – chronic disease overview and resources pages http://www.cdc.gov/chronicdisease/overview/index.htm http://www.cdc.gov/chronicdisease/resources/index.htm

Food and Agricultural Organization - Nutrition and Development http://www.fao.org/docrep/U9920t/u9920t07.htm



