

Preventing
CHRONIC DISEASES
a vital investment



**World Health
Organization**



PUBLIC HEALTH AGENCY of CANADA
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OVER



Luciano dos Santos, like 250 million others, suffers from disabling hearing loss. How will we ensure a healthy future for children like Luciano and the millions of others facing chronic diseases?

VIEW

This report shows that the impact of chronic diseases in many low and middle income countries is steadily growing. It is vital that the increasing importance of chronic disease is anticipated, understood and acted upon urgently. This requires a new approach by national leaders who are in a position to strengthen chronic disease prevention and control efforts, and by the international public health community. As a first step, it is essential to communicate the latest and most accurate knowledge and information to front-line health professionals and the public at large.

THE PROBLEM

- » 80% of chronic disease deaths occur in low and middle income countries and these deaths occur in equal numbers among men and women
- » The threat is growing – the number of people, families and communities afflicted is increasing
- » This growing threat is an under-appreciated cause of poverty and hinders the economic development of many countries

THE SOLUTION

- » The chronic disease threat can be overcome using existing knowledge
- » The solutions are effective – and highly cost-effective
- » Comprehensive and integrated action at country level, led by governments, is the means to achieve success

THE GOAL

- » An additional 2% reduction in chronic disease death rates worldwide, per year, over the next 10 years
- » This will prevent 36 million premature deaths by 2015
- » The scientific knowledge to achieve this goal already exists

CHRONIC DISEASES ARE THE LEADING CAUSE OF DEATH IN ALMOST ALL COUNTRIES

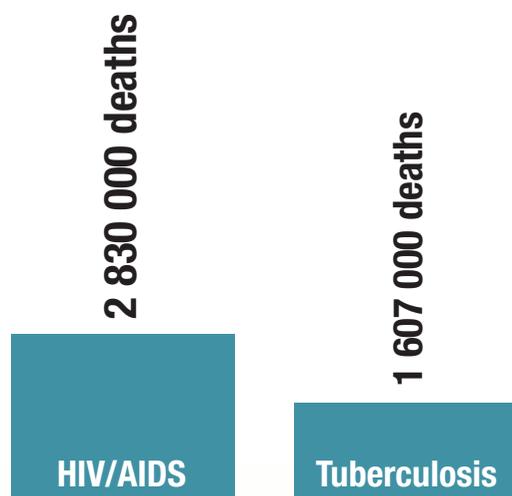
Chronic diseases include heart disease, stroke, cancer, chronic respiratory diseases and diabetes. Visual impairment and blindness, hearing impairment and deafness, oral diseases and genetic disorders are other chronic conditions that account for a substantial portion of the global burden of disease.

From a projected total of 58 million deaths from all causes in 2005,¹ it is estimated that chronic diseases will account for 35 million, which is double the number of deaths from all infectious diseases (including HIV/AIDS, tuberculosis and malaria), maternal and perinatal conditions, and nutritional deficiencies combined.

¹ The data presented in this overview were estimated by WHO using standard methods to maximize cross-country comparability. They are not necessarily the official statistics of Member States.

35 000 000
people will die from
chronic diseases
in 2005

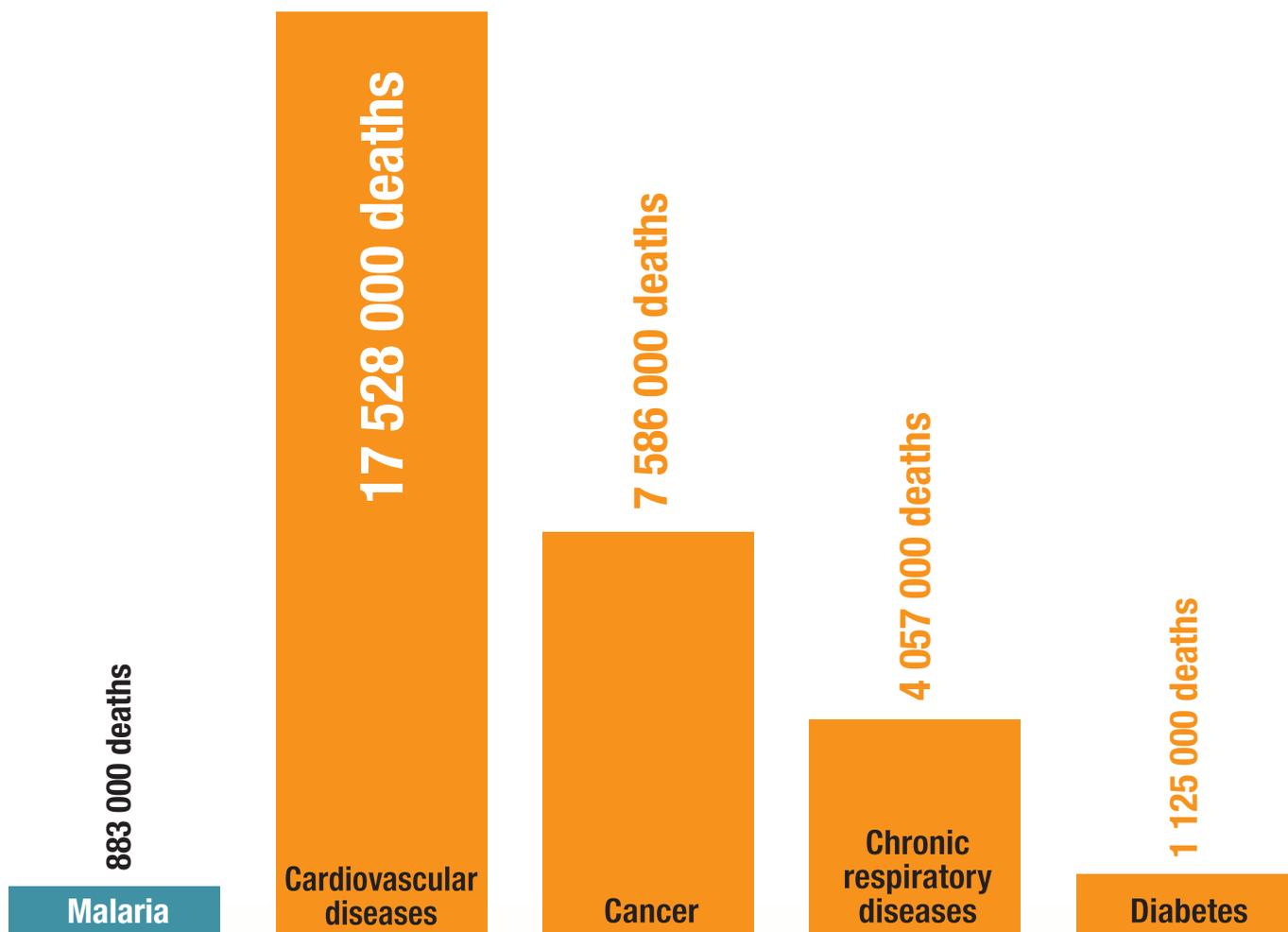
Projected global deaths
 all ages, 2005



60%

THE MAJOR CAUSE OF DEATH

Global deaths by cause,



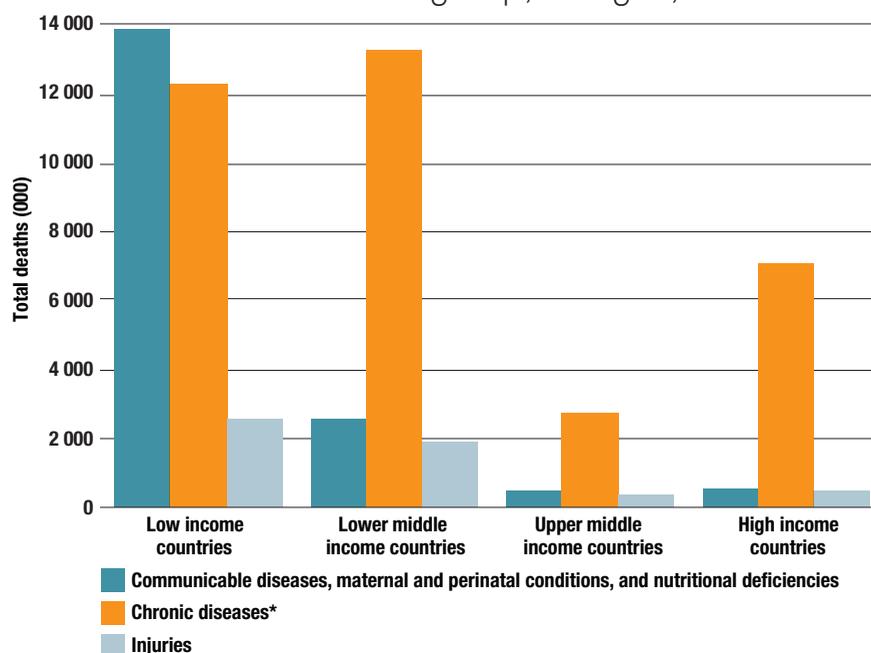
of all deaths are due to chronic diseases

THE POOREST COUNTRIES ARE THE WORST AFFECTED

Only 20% of chronic disease deaths occur in high income countries – while 80% occur in low and middle income countries, where most of the world's population lives.

As this report will show, even least developed countries such as the United Republic of Tanzania are not immune to the growing problem.

Projected deaths by major cause and World Bank income group, all ages, 2005

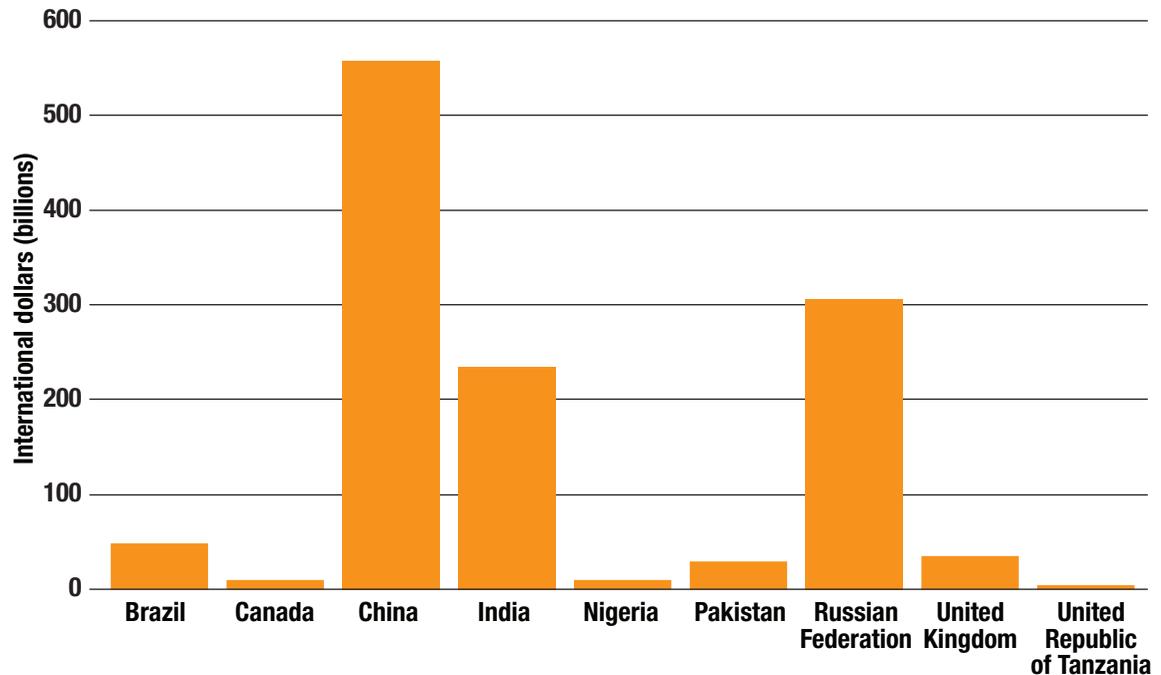


* Chronic diseases include cardiovascular diseases, cancers, chronic respiratory disorders, diabetes, neuropsychiatric and sense organ disorders, musculoskeletal and oral disorders, digestive diseases, genito-urinary diseases, congenital abnormalities and skin diseases.

80% of chronic disease deaths occur in low and middle income countries

Projected foregone national income

due to heart disease, stroke and diabetes
in selected countries, 2005–2015



THE PROBLEM HAS SERIOUS IMPACT

The burden of chronic disease:

- » has major adverse effects on the quality of life of affected individuals;
- » causes premature death;
- » creates large adverse – and underappreciated – economic effects on families, communities and societies in general.

\$558 billion

The estimated amount China will forego in national income over the next 10 years as a result of premature deaths caused by heart disease, stroke and diabetes

THE RISK FACTORS ARE WIDESPREAD

Common, modifiable risk factors underlie the major chronic diseases. These risk factors explain the vast majority of chronic disease deaths at all ages, in men and women, and in all parts of the world. They include:

- » unhealthy diet;
- » physical inactivity;
- » tobacco use.

Each year at least:

- » 4.9 million people die as a result of tobacco use;
- » 2.6 million people die as a result of being overweight or obese;
- » 4.4 million people die as a result of raised total cholesterol levels;
- » 7.1 million people die as a result of raised blood pressure.

THE THREAT IS GROWING

Deaths from infectious diseases, maternal and perinatal conditions, and nutritional deficiencies combined are projected to decline by 3% over the next 10 years. In the same period, deaths due to chronic diseases are projected to increase by 17%.

This means that of the projected 64 million people who will die in 2015, 41 million will die of a chronic disease – unless urgent action is taken.

1 000 000 000 people are overweight

THE GLOBAL RESPONSE IS INADEQUATE

Despite global successes, such as the WHO Framework Convention on Tobacco Control, the first legal instrument designed to reduce tobacco-related deaths and disease around the world, chronic diseases have generally been neglected in international health and development work.

Furthermore, chronic diseases – the major cause of adult illness and death in all regions of the world – have not been included within the global Millennium Development Goal (MDG) targets; although as a recent WHO publication on health and the MDGs has recognized, there is scope for doing so within Goal 6 (Combat HIV/AIDS, malaria and other diseases). Health more broadly, including chronic disease prevention, contributes to poverty reduction and hence Goal 1 (Eradicate extreme poverty and hunger).¹ In response to their needs, several countries have already adapted their MDG tar-

gets and indicators to include chronic diseases and/or their risk factors; a selection of these countries is featured in Part Two.

This report will demonstrate that chronic diseases hinder economic growth and reduce the development potential of countries, and this is especially true for countries experiencing rapid economic growth, such as China and India. However, it is important that prevention is addressed within the context of international health and development work even in least developed countries such as the United Republic of Tanzania, which are already undergoing an upsurge in chronic disease risks and deaths.

¹ *Health and the Millennium Development Goals*. Geneva, World Health Organization, 2005.

388 000 000
people will die in the next 10 years
of a chronic disease

10 WIDESPREAD MIS

ABOUT CHRONIC DISEASE – AND THE REALITY

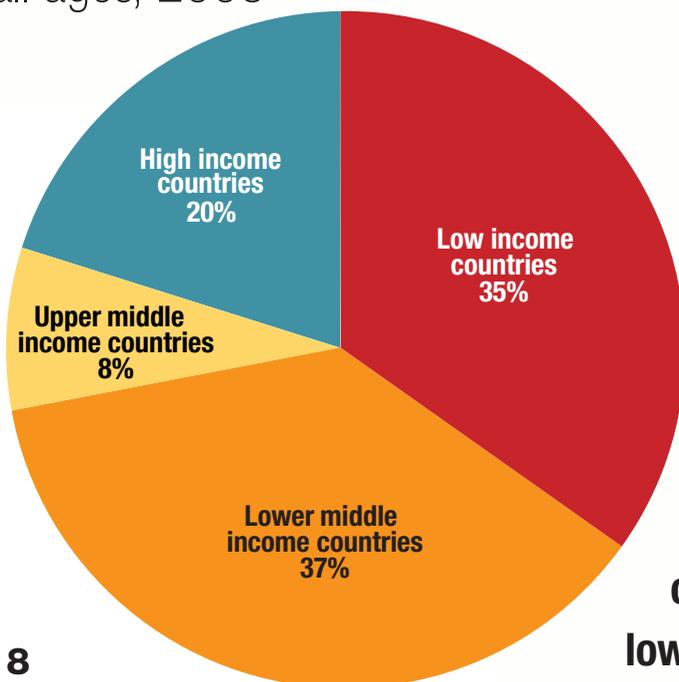
Several misunderstandings have contributed to the neglect of chronic disease. Notions that chronic diseases are a distant threat and are less important and serious than some

infectious diseases can be dispelled by the strongest evidence. Ten of the most common misunderstandings are presented below.

10

Projected global distribution of chronic disease deaths

by World Bank income group, all ages, 2005

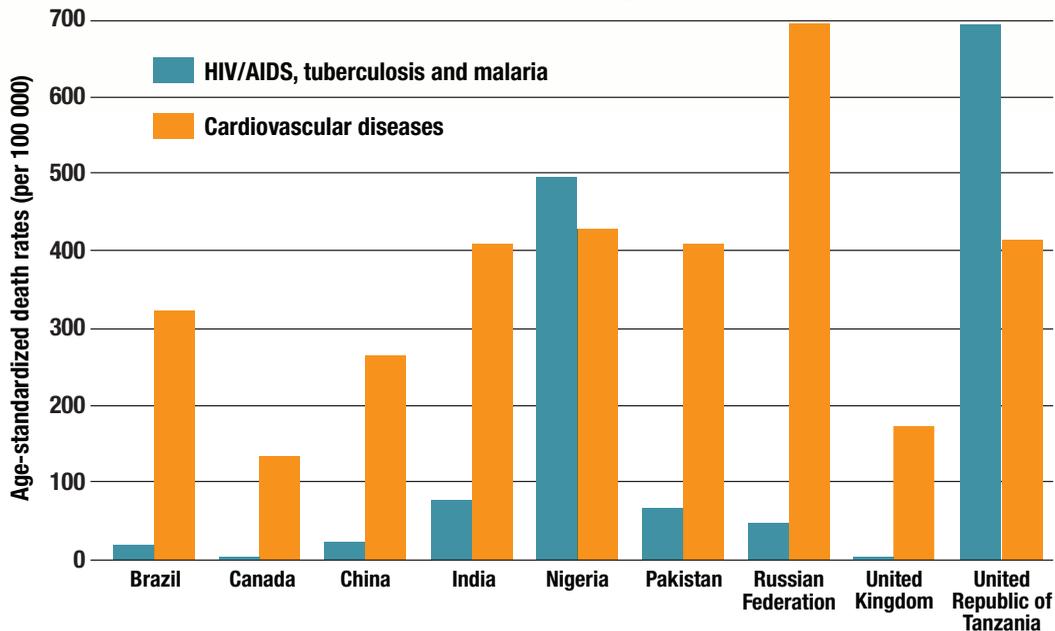


MISUNDERSTANDING CHRONIC DISEASES MAINLY AFFECT HIGH INCOME COUNTRIES

Whereas the common notion is that chronic diseases mainly affect high income countries, the reality is that **four out of five chronic disease deaths are in low and middle income countries.**

UNDERSTANDINGS

Projected death rates by specific cause for selected countries, all ages, 2005



MISUNDERSTANDING LOW AND MIDDLE INCOME COUNTRIES SHOULD CONTROL INFECTIOUS DISEASES BEFORE CHRONIC DISEASES

Many people believe that low and middle income countries should control infectious diseases before they tackle chronic diseases. In reality, **low and middle income countries are at the centre of both old and new public health challenges.** While they continue to deal with the problems of infectious diseases, they are in many cases experiencing a rapid upsurge in chronic disease risk factors and deaths, especially in urban settings. These risk levels foretell a devastating future burden of chronic diseases in these countries.



MISUNDERSTANDING

CHRONIC DISEASES MAINLY AFFECT RICH PEOPLE

Many people think that chronic diseases mainly affect rich people. The truth is that **in all but the least developed countries of the world, poor people are much more likely than the wealthy to develop chronic diseases, and everywhere are more likely to die as a result.** Moreover, chronic diseases cause substantial financial burden, and can push individuals and households into poverty.

ROBERTO SEVERINO CAMPOS

FACING ILLNESS AND DEEPENING POVERTY

Roberto Severino Campos lives in a shanty town in the outskirts of São Paulo with his seven children and 16 grandchildren. Roberto never paid attention to his high blood pressure, nor to his drinking and smoking habits. “He was so stubborn,” his 31-year-old daughter Noemia recalls, “that we couldn’t talk about his health”.

Roberto had his first stroke six years ago at the age of 46 – it paralysed his legs. He then lost his ability to speak after two consecutive strokes four years later. Roberto used to work as a public transport agent, but now depends entirely on his family to survive.





People who are already poor are the most likely to suffer financially from chronic diseases, which often deepen poverty and damage long-term economic prospects.

BRAZIL



face to face
WITH **CHRONIC DISEASE:**
STROKE

Since Roberto's first stroke, his wife has been working long hours as a cleaner to earn money for the family. Their eldest son is also helping with expenses. Much of the family's income is used to buy the special diapers that Roberto needs. "Fortunately his medication and check-ups are free of charge but sometimes we just don't have the money for the bus to take us to the local medical centre," Noemia continues. But the burden is even greater: this family not only lost its breadwinner, but also a devoted

father and grandfather, in whom each family member could confide.

Roberto is now trapped in his own body and always needs someone to feed him and see to his most basic needs. Noemia carries him in and out of the house so he can take a breath of air from time to time. "We all wish we could get him a wheelchair," she says.

Noemia and four of her brothers and sisters also suffer from high blood pressure.

Name	Roberto Severino Campos
Age	52
Country	Brazil
Diagnosis	Stroke

MISUNDERSTANDING CHRONIC DISEASES MAINLY AFFECT OLD PEOPLE

Chronic diseases are often viewed as primarily affecting old people. We now know that **almost half of chronic disease deaths occur prematurely, in people under 70 years of age**. One quarter of all chronic disease deaths occur in people under 60 years of age.

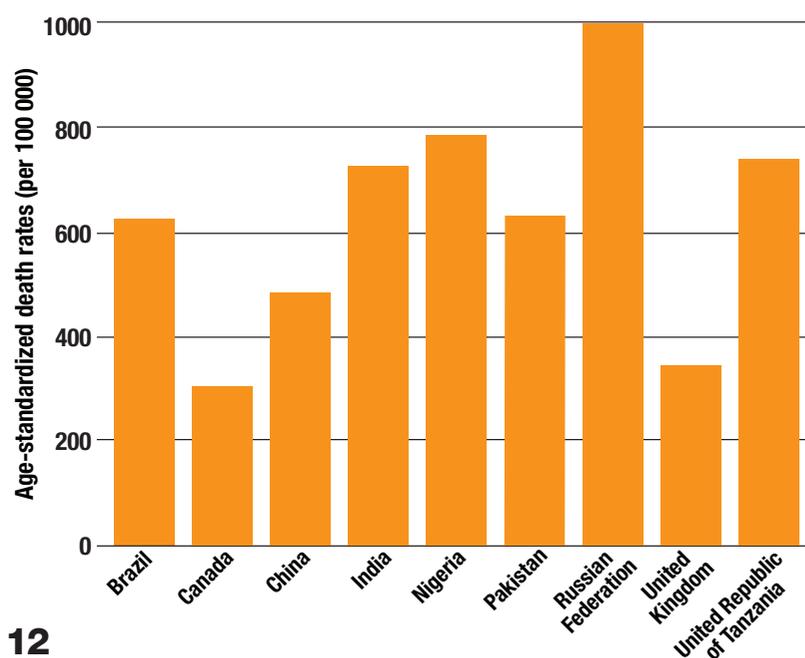
In low and middle income countries, middle-aged adults are especially vulnerable to chronic disease. People in these countries tend to develop disease at younger ages, suffer longer – often with preventable complications – and die sooner than those in high income countries.

Childhood overweight and obesity is a rising global problem. About 22 million children aged under five years are overweight. In the United Kingdom, the prevalence of overweight in children aged two to

10 years rose from 23% to 28% between 1995 and 2003. In urban areas of China, overweight and obesity among children aged two to six years increased substantially from 1989 to 1997. Reports of type 2 diabetes in children and adolescents – previously unheard of – have begun to mount worldwide.

Projected chronic disease death rates

for selected countries, aged 30–69 years, 2005



MALRI TWALIB

THE NEXT GENERATION

MALRI TWALIB IS A FIVE-YEAR-OLD BOY living in a poor rural area of the Kilimanjaro District of the

Name	Malri Twalib
Age	5
Country	United Republic of Tanzania
Diagnosis	Obesity

United Republic of Tanzania. Health workers from a nearby medical centre spotted his weight problem last year during a routine community outreach activity. The diagnosis was clear: childhood obesity.

One year later, Malri's health condition hasn't changed for the better and neither has his excessive consumption of porridge and animal fat. His fruit and vegetable intake also remains seriously insufficient – “it is just too hard to find reasonably priced products during the dry season, so I can't manage his diet,” his mother Fadhila complains.

The community health workers who recently visited Malri for a follow-up also noticed that he was holding the same flat football as before – the word “Health” stamped on it couldn't pass unnoticed. Malri's neighbourhood is littered with sharp and rusted construction debris and the courtyard is too small for him to be able to play ball games. In fact, he rarely plays outside. “It is simply too hazardous. He could get hurt,” his mother says.



Fadhila, who is herself obese, believes that there are no risks attached to her son's obesity and that his weight will naturally go down one day. “Rounded forms run in the family and there's no history of chronic diseases, so why make a big fuss of all this,” she argues with a smile on her face. In fact, Malri and Fadhila are at risk of developing a chronic disease as a result of their obesity.

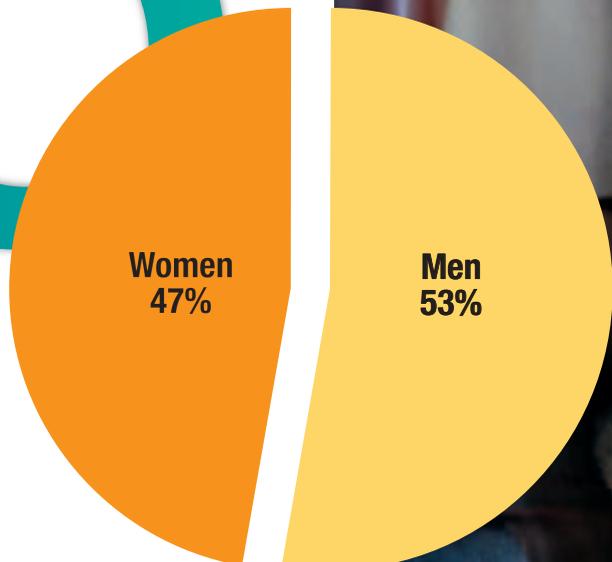
Children like Malri cannot choose the environment in which they live nor what they eat. They also have a limited ability to understand the long-term consequences of their behaviour.

MISUNDERSTANDING

CHRONIC DISEASES AFFECT PRIMARILY MEN

Certain chronic diseases, especially heart disease, are often viewed as primarily affecting men. The truth is that **chronic diseases, including heart disease, affect women and men almost equally.**

Projected global coronary heart disease deaths by sex, all ages, 2005



Some 3.6 million women will die from coronary heart disease in 2005. More than eight out of 10 of these deaths will occur in low and middle income countries.

MENAKA SENI GETTING BACK ON TRACK

face to face
WITH **CHRONIC DISEASE:**
**HEART DISEASE
AND DIABETES**

Menaka Seni had bypass surgery following a heart attack last year – exactly a year after her husband died from one – and survived the tsunami which devastated her neighbourhood in December 2004. Despite these ordeals, she has been able to “get back on track”, she says, and to make positive changes to her life.

Shortly after her husband’s death, Menaka started taking daily walks to the temple, but



Name	Menaka Seni
Age	60
Country	India
Diagnosis	Heart disease and diabetes

was still eating unhealthily at the time of her heart attack. “I may be one of the privileged who could seek the best medical treatment, but what really matters from now on is how I behave,” she argues. Menaka has been eating more fish, fruit and vegetables since the surgery.

Related to her heart disease and diabetes, Menaka is overweight and suffers from high blood pressure. “Taking medication for my heart and diabetes helps but it takes more than that. You also need to change behaviour to lower your health risks,” she explains.

Menaka recently turned 60 and is successfully managing both her diet and daily physical activity. The medical staff who took care of her while she was recovering in hospital played a key role in convincing her of the benefits of eating well and exercising regularly.

**80% OF PREMATURE HEART DISEASE,
STROKE AND DIABETES CAN BE PREVENTED**

MISUNDERSTANDING CHRONIC DISEASES ARE THE RESULT OF UNHEALTHY “LIFESTYLES”

Many people believe that if individuals develop chronic disease as a result of unhealthy “lifestyles”, they have no one to blame but themselves. The truth is that **individual responsibility can have its full effect only where individuals have equitable access to a healthy life, and are supported to make healthy choices.** Governments have a crucial role to play in improving the health and well-being of populations, and in providing special protection for vulnerable groups.

This is especially true for children, who cannot choose the environment in which they live, their diet and their passive exposure to tobacco smoke. They also have a limited ability to understand the long-term consequences of their behaviour.

Poor people also have limited choices about the food they eat, their living conditions, and access to education and health care. Supporting healthy choices, especially for those who could not otherwise afford them, reduces risks and social inequalities.

PAKISTAN



FAIZ MOHAMMAD “PEOPLE DON’T UNDERSTAND WHY I BECAME ILL”

FOR THE PAST 20 YEARS, Faiz Mohammad has been a victim of the misunderstandings surrounding his

condition. He married two years after being diagnosed with diabetes, and remembers the difficulty he had in obtaining the blessing of his future parents-in-law. “They were quite reluctant to give their daughter to someone with diabetes. They didn’t trust me. They thought I couldn’t support a family,” Faiz explains.

A hard-working livestock keeper and a father of three boys, Faiz considers that at 48 he’s living a normal life. However, even after all this time, he still encounters all sorts of obstacles that he finds difficult to overcome. “People don’t understand why I suddenly became ill. They think I have done something wrong and that I’m being punished.”

Faiz himself has misunderstandings about his disease. He wrongly believes that diabetes is contagious and that he could transmit it sexually to his wife. “I’m afraid of contaminating her because people keep telling me that I will,” he says.

Faiz has a check-up and buys insulin every two months at a local clinic. He claims that he is not receiving clear information about his disease and wishes he knew where to find answers to all his questions.

Name	Faiz Mohammad
Age	48
Country	Pakistan
Diagnosis	Diabetes

face to face
WITH **CHRONIC DISEASE:
DIABETES**



More than three quarters of diabetes-related deaths occur in low and middle income countries.

**MISUNDERSTANDING****CHRONIC DISEASES
CAN'T BE PREVENTED**

Adopting a pessimistic attitude, some people believe that there is nothing that can be done, anyway. In reality, **the major causes of chronic diseases are known, and if these risk factors were eliminated, at least 80% of all heart disease, stroke and type 2 diabetes would be prevented; over 40% of cancer would be prevented.**

MISUNDERSTANDING

CHRONIC DISEASE PREVENTION AND CONTROL IS TOO EXPENSIVE

Some people believe that the solutions for chronic disease prevention and control are too expensive to be feasible for low and middle income countries. In reality, **a full range of chronic disease interventions are very cost-effective for all regions of the world, including sub-Saharan Africa. Many of these solutions are also inexpensive to implement.** The ideal components of a medication to prevent complications in people with heart disease, for example, are no longer covered by patent restrictions and could be produced for little more than one dollar a month.



HALF-TRUTHS Another set of misunderstandings arises from kernels of truth. In these cases, the kernels of truth are distorted to become sweeping statements that are not true. Because they are based on the truth, such half-truths are among the most ubiquitous and persistent misunderstandings. Two principal half-truths are refuted below.

HALF-TRUTH

“My grandfather smoked and was overweight – and he lived to 96”

In any population, there will be a certain number of people who do not demonstrate the typical patterns seen in the vast majority.

For chronic diseases, there are two major types:

- » people with many chronic disease risk factors, who nonetheless live a healthy and long life;
- » people with no or few chronic disease risk factors, who nonetheless develop chronic disease and/or die from complications at a young age.

These people undeniably exist, but they are rare. The vast majority of chronic disease can be traced back to the common risk factors, and can be prevented by eliminating these risks.

“

HALF-TRUTH

Everyone
has to die of
something

”

Certainly everyone has to die of something, but death does not need to be slow, painful, or premature.

Most chronic diseases do not result in sudden death. Rather, they are likely to cause people to become progressively ill and debilitated, especially if their illness is not managed correctly.

Death is inevitable, but a life of protracted ill-health is not. Chronic disease prevention and control helps people to live longer and healthier lives.

JONAS JUSTO KASSA DYING SLOWLY, PAINFULLY AND PREMATURELY

Name	Jonas Justo Kassa
Age	65
Country	United Republic of Tanzania
Diagnosis	Diabetes

BEFORE RETIRING as a mathematics teacher, Jonas Justo Kassa worked on his land after school hours and remembers that he was feeling very tired and constantly urinating. “I just

assumed that I was working too hard, I wish I would have known better,” he says with regret, 13 years down the road.

Despite these symptoms, Jonas waited several years before seeking help. “I first went to the traditional healer, but after months of taking the herb treatment he prescribed I wasn’t feeling any better,” he recalls. “So a friend drove me to the hospital – a 90 minute drive from here. I was diagnosed with diabetes in 1997.”

The next couple of years were an immense relief as Jonas underwent medical treatment to stabilize his blood glucose levels. He also changed his diet and stopped drinking under his doctor’s recommendations. But Jonas didn’t stick to his healthier ways for long, and it led to health repercussions. “My legs started to hurt in 2001. I couldn’t measure my blood sugar and from the remote slopes of Kilimanjaro, it’s difficult to reach a doctor,” he explains.

The pain became much worse and complications that could have been avoided unfortunately appeared. Jonas had his right and left legs amputated in 2003 and 2004. “I now feel doomed and lonely. My friends have left me. I am of no use to them and my family anymore,” he said with resignation before dying in his home, on 21 May 2005. Jonas was 65 years old.





A VISION FOR REDUCING DEATHS A

CHRONIC DISEASES CAN BE PREVENTED AND CONTROLLED

The rapid changes that threaten global health require a rapid response that must above all be forward-looking. The great epidemics of tomorrow are unlikely to resemble those that have previously swept the world, thanks to progress in infectious disease control. While the risk of outbreaks, such as a new influenza pandemic, will require constant vigilance, it is the “invisible” epidemics of heart disease, stroke, diabetes, cancer and other chronic diseases that for the foreseeable future will take the greatest toll in deaths and disability.

However, it is by no means a future without hope. For another of today’s realities, equally well supported by the evidence, is that the means to prevent and treat chronic diseases, and to avoid millions of premature deaths and an immense burden of disability, already exist.

In several countries, the application of existing knowledge has led to major improvements in the

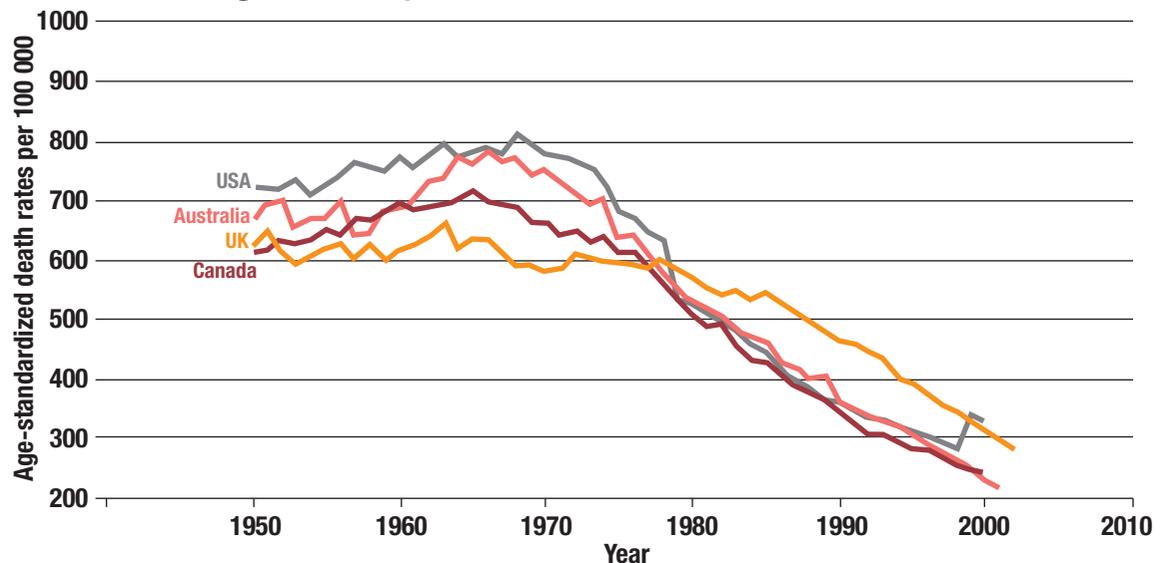
life expectancy and quality of life of middle-aged and older people. For example, heart disease death rates have fallen by up to 70% in the last three decades in Australia, Canada, the United Kingdom and the United States. Middle income countries, such as Poland, have also been able to make substantial improvements in recent years. Such

THE FUTURE: AND IMPROVING LIVES

gains have been realized largely as a result of the implementation of comprehensive and integrated approaches that encompass interventions directed at both the whole population and individuals, and that focus on the common underlying risk factors, cutting across specific diseases.

The cumulative total of lives saved through these reductions is impressive. From 1970 to 2000, WHO has estimated that 14 million cardiovascular disease deaths were averted in the United States alone. The United Kingdom saved 3 million people during the same period.

Heart disease death rates among men aged 30 years or more, 1950–2002



THE CHALLENGE IS NOW FOR OTHER COUNTRIES TO FOLLOW SUIT

2005 PREVENTING C 2006 THE GLOBAL

2007
2008
2009
2010
2011
2012
2013
2014
2015

ENCOURAGED BY ACHIEVEMENTS in countries such as Australia, Canada, Poland, the United Kingdom and the United States, this report anticipates more such gains in the years ahead. But realistically, how much is possible by the year 2015? After carefully weighing all the available evidence, the report offers the health community a new global goal: to reduce death rates from all chronic diseases by 2% per year over and above existing trends during the next 10 years. This bold goal is thus in addition to the declines in age-specific death rates already projected for many chronic diseases, and would result in the prevention of 36 million chronic disease deaths by 2015, most of these being in low and middle income countries. Achievement of the global goal would also result in appreciable economic dividends for countries.

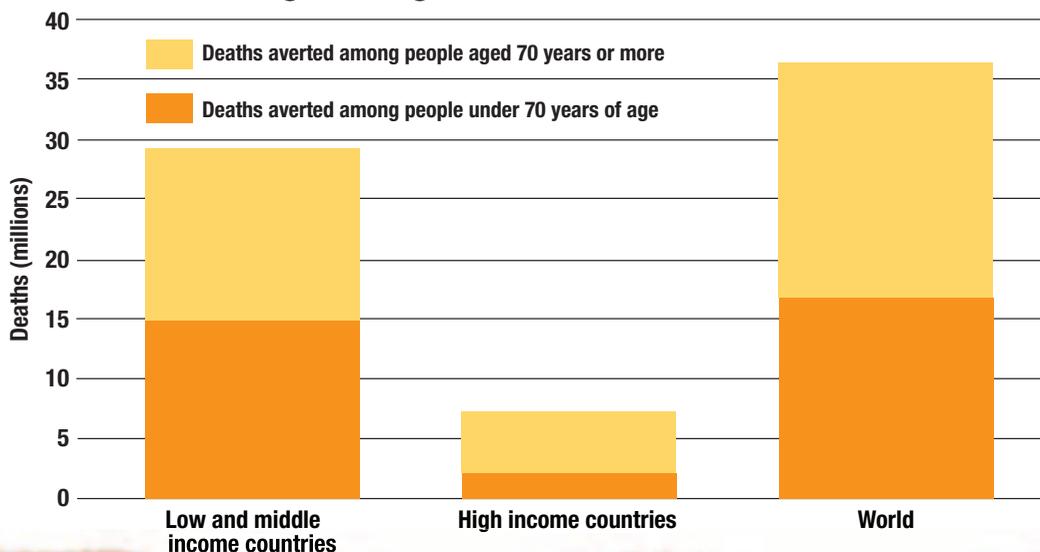
36 000 000 live

CHRONIC DISEASES: GOAL FOR 2015

Every death averted is a bonus, but the goal contains an additional positive feature: almost half of these averted deaths would be in men and women under 70 years of age and almost nine out of 10 of these would be in low and middle income countries. Extending these lives for the benefit of the individuals concerned, their families and communities is in itself the worthiest of goals.

This global goal is ambitious and adventurous, but it is neither extravagant nor unrealistic. The means to achieve it, based on evidence and best practices from countries that have made improvements, are outlined in Parts Three and Four of this report.

Estimated global deaths averted under the global goal scenario



s can be saved

taking

THE FIRS

Every country, regardless of the level of its resources, has the potential to make significant improvements in chronic disease prevention and control, and to take steps towards achieving the global goal. Resources are necessary, but a large amount can be achieved for little cost, and the

benefits far outweigh the costs. Leadership is essential, and will have far more impact than simply adding capital to already overloaded health systems.

The **stepwise** framework

1

PLANNING STEP 1

Estimate population need and advocate for action

2

PLANNING STEP 2

Formulate and adopt policy

3

PLANNING STEP 3

Identify policy implementation steps

Policy implementation steps	Population-wide interventions		Interventions for individuals
	National level	Sub-national level	
Implementation step 1 CORE	Interventions that are feasible to implement with existing resources in the short term.		
Implementation step 2 EXPANDED	Interventions that are possible to implement with a realistically projected increase in or reallocation of resources in the medium term.		
Implementation step 3 DESIRABLE	Evidence-based interventions which are beyond the reach of existing resources.		

T STEPS

There is important work to be done in countries at all stages of development. In the poorest countries, many of which are experiencing upsurges in chronic disease risks, it is vital that supportive policies are in place to reduce risks and curb the epidemics before they take hold. In countries with established chronic disease problems, additional measures will be required, not only to prevent disease, but also to manage illness and disability.

Part Four of this report details the stepwise framework for implementing recommended measures. The framework offers a flexible and practical public health approach to assist ministries of health to balance diverse needs and priorities while implementing evidence-based interventions.

While there cannot be a “one size fits all” prescription for implementation – each country must consider a range of factors in establishing priorities – using the stepwise framework will make a major contribution to the prevention and control of chronic disease, and will assist countries in their efforts to achieve the global goal by 2015.

a final word

In many ways, we are the heirs of the choices that were made by previous generations: politicians, business leaders, financiers and ordinary people. Future generations will in turn be affected by the decisions that we make today.

Each of us has a choice: whether to continue with the status quo, or to take up the challenge and invest now in chronic disease prevention.



STATUS QUO

Without action, an estimated 388 million people will die from chronic diseases in the next 10 years. Many of these deaths will occur prematurely, affecting families, communities and countries.

The macroeconomic impact will be substantial. Countries such as China, India and the Russian Federation could forego between \$200 billion and \$550 billion in national income over the next 10 years as a result of heart disease, stroke and diabetes.

INVEST NOW

With increased investment in chronic disease prevention, as outlined in this report, it will be possible to prevent 36 million premature deaths in the next 10 years. Some 17 million of these prevented deaths would be among people under 70 years of age.

These averted deaths would also translate into substantial gains in countries' economic growth. For example, achievement of the global goal would result in an accumulated economic growth of \$36 billion in China, \$15 billion in India and \$20 billion in the Russian Federation over the next 10 years.

The failure to use available knowledge about chronic disease prevention and control needlessly endangers future generations. There is simply no justification for chronic diseases to continue taking millions of lives prematurely each year while being overlooked on the health development agenda, when the understanding of how to prevent these deaths is available now.

Taking up the challenge of chronic disease prevention and control requires a certain amount of courage and ambition. The agenda is broad and bold, but the way forward is clear.



THE CAUSES
ARE KNOWN.

**THE WAY
FORWARD
IS CLEAR.**

IT'S YOUR
TURN TO TAKE
ACTION.



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http://www.who.int/chp/chronic_disease_report/en/