National Commission For Chronic
Non Communicable Diseases

Battling the hidden enemy

National Commission For Chronic Non Communicable Diseases

TERMS OF REFERENCE

1. To advise the Minister of Health on Chronic Non Communicable Disease (CNCDs) policies and legislation, e.g. in relation to food availability, affordability and importation, environmental and work place issues, measures to increase participation in physical activity, tobacco control and other strategies to promote healthy lifestyles.

2. To broker effective involvement of all relevant sectors in programme implementation, including the private sector, non-governmental organisations and civil society, including faith based organisations.

3. To assist in the mobilisation of resources to facilitate the implementation of prevention and control programmes.

4. To recommend relevant research, especially in relation to behaviour change and prevention of CNCDs.

5. To promote the establishment of collaboration and partnerships with UWI, CAREC, CARICOM, PAHO/WHO, CFNI and other regional and international institutions and organisations, as appropriate for the pursuit of these goals.

6. To review the National Strategic Plan for Health (2000-2012) and determine the applicability of priorities, expected results and activities to Barbados relative to CNCDs.

7. To monitor regional and international trends and provide direction for national responses.

8. To facilitate the commissioning of audit and evaluation of aspects of CNCD programmes.

9. To recommend to the Minister of Health a framework that encourages and promotes behaviour change and the prevention of CNCDs.

Membership of the National Commission for Chronic Non Communicable Diseases.

Professor Trevor Hassell,
Chairman

Professor Henry Fraser,
Deputy Chairman

Mr. David Neilands

Ms. Candace Waldrond

Mr. Orlando Scott

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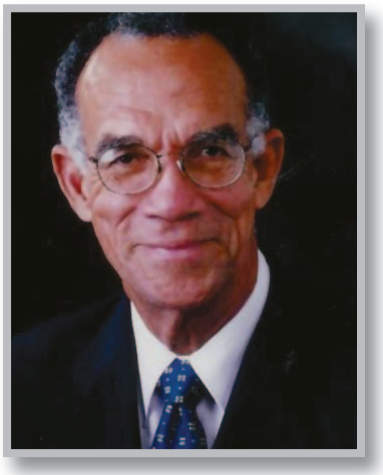
Health Planner

Time to join the fight



Each year, thousands of Barbadians are robbed of good health, and even life, by a handful of diseases that have become chronic – deeply embedded – in our society.

But these are not diseases passed through human contact, such as HIV/AIDS, influenza, or some other virus. They are Chronic Non Communicable Diseases (CNCDs), such as heart disease, stroke, some cancers, diabetes and respiratory disease.

In almost all cases, these CNCDs result from unhealthy eating, exposure to tobacco smoke, and inadequate physical activity. In essence, most cases are entirely preventable.

These behavioral risk factors – poor diet, inadequate physical activity and smoking – together with the risk conditions of diabetes, high blood pressure and obesity, lead to CNCDs that are now alarmingly prevalent in our population. The increasing deaths and prolonged disabilities rob us of colleagues, friends and relatives, and affect our productivity while the cost of treatment places huge burdens on our limited financial resources.

We need to turn things around – to change behaviours, to exchange bad habits for good. We must do it not only as individuals but as an entire people.

So who should be responsible for such a task? Should it be Government? Should it be the medical profession and health care providers? What about the private sector? Can you on your own do anything to help? The answer to all these questions is "yes".

You should know that the battle against CNCDs has already begun, not only in Barbados but across the Caribbean. Here in Barbados, it is being led by the National Commission for Chronic Non Communicable Diseases.

Public awareness and educational campaigns, greater intervention on the part of health care providers, new policies on health care and more will all form the ammunition for our war. But we believe the best way to get all Barbadians quickly involved is to target a single shared enemy that we can all fight against in our own way, while at the same time tackling the other issues that lead to chronic diseases, The enemy we have chosen is common salt – sodium chloride – which mankind has used for centuries to season and preserve food. Problem is, salt is everywhere in today's diet and we are consuming too much.

Salt is the common culprit – the "smoking gun" – found at the scene of many CNCDs. It is time we stop this insidious and quiet killer in our midst; not by total elimination but through intelligent, informed use and control.

Please read on and join us in this fight.

Sincerely,

Prof. Trevor A. Hassell, GCM, MBBS, FRCP, FACC

Chairman, National Commission for Chronic Non Communicable Diseases

The maladies of affluence

Forty five years ago, as we stood on the brink of independence, the major illnesses that affected Barbadians were the communicable diseases. We may have been poorer financially and the country "less developed", but we were far less prone to CNCDs.

Back then, a larger number of us were engaged in vigorous physical labour. Many more of us walked or cycled to work or to school, and the meals we took with us were more often than not home-cooked.

Today, Barbados is one of the most developed small countries in the world. The United Nations Development Programme has ranked Barbados as No. 1 on its Human Development Index in the Caribbean and Latin America.

Clearly, over the past four decades, we have prospered. Tens of thousands of Barbadians, including countless university graduates, now work at desks and drive themselves to and from work.

We buy prepared meals from a variety of fast-food and mobile restaurants. We send our children to school with lunch-boxes filled with conveniently packaged snacks. They can now quench their thirst with carbonated drinks and "juices" that come in myriad flavours.

But in terms of our health, we have been paying a heavy price for all this development and progress. Many of those fast foods carry dangerous levels of trans-fats that contribute to high cholesterol. Those convenient snacks are heavily salted, and those "soft drinks" and juices are laden with sugar.

In essence, the typical daily diet of thousands of Barbadians, combined with lack of sufficient exercise, and exposure to tobacco smoke, is turning brains and hearts into ticking time-bombs; the explosions will come in the form of heart disease, stroke, diabetes or cancer.

The explosions are already loud and clear to anyone willing to listen. Barbados is now displaying all the evidence of what The Economist magazine has called the "Maladies of Affluence".

Regular exercise and a balanced healthy diet are key weapons in the fight against CNCDs. In plain terms, Barbadians need to get moving again, eat more fruit and vegetables and less refined sugars and fats, reduce portion sizes and avoid exposure to cigarette smoke. As a nation, we must cut our consumption of salt; and we need to start that process now.

"Three primary risk factors (tobacco, poor diet and physical inactivity) and three intermediate risk factors (hypertension, obesity and diabetes) lead to three diseases (heart disease, lung disease and cancer) resulting in 50% or more of all deaths".

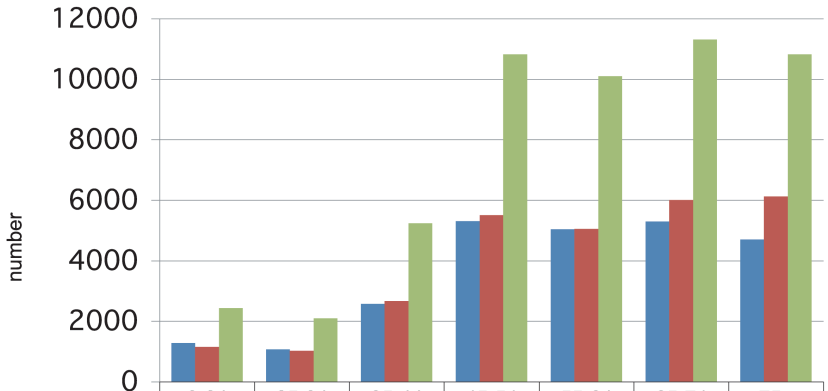
"80% of premature heart disease, stroke and type 2 diabetes and 40% of cancer is preventable."

–World Health Organisation, 2005

- **About 20% of Barbadians suffer from high blood pressure, a leading contributor to heart disease;**
- **Diabetes is the third leading cause of death, after heart disease and cancer, and 17% of the population has been diagnosed with this disease;**
- **More than 55% of Barbadians are obese or overweight;**
- **Approximately one Barbadian suffers a stroke every day;**
- **1000 amputations were performed at the QEH over the past 6 years for complications related to diabetes and other CNCDs;**
- **It cost Barbados approximately 60% of its health budget to treat CNCDs such as heart disease, hypertension, diabetes and stroke.**

Prevalence of hypertension and diabetes

Hypertension (high blood pressure) among Barbadians



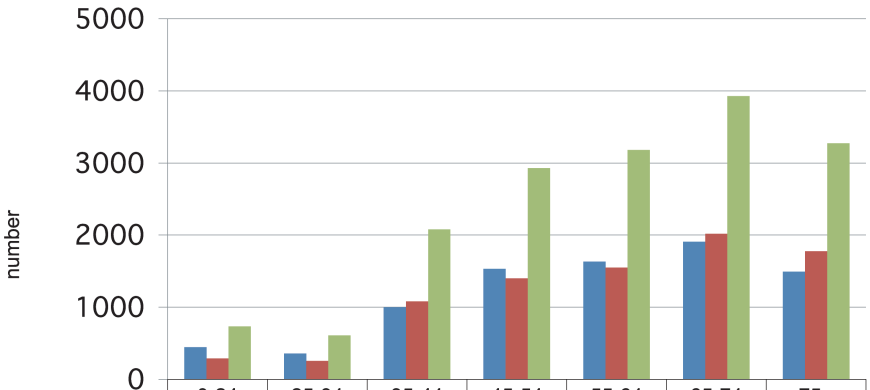
	0-24	25-34	35-44	45-54	55-64	65-74	75+
women	1279	1068	2575	5313	5043	5302	4701
men	1155	1026	2668	5515	5058	6006	6125
both	2434	2094	5243	10828	10101	11308	10826

Age Range ■ women ■ men ■ both

It is estimated that 52,834 Barbadians are hypertensive

Ref. I. Hambleton, personal communication

Diabetes among Barbadians



	0-24	25-34	35-44	45-54	55-64	65-74	75+
women	442	356	1000	1531	1630	1908	1496
men	288	256	1081	1400	1548	2018	1777
both	730	612	2081	2931	3178	3926	3273

Age Range ■ women ■ men ■ both

It is estimated that 16,731 Barbadians suffer with diabetes

Ref. I. Hambleton, personal communication

Given current trends, it is projected that 338 million people will die from chronic disease in the next 10 years. The World Health Organisation estimates that 36 million of these deaths could be averted.

Chronic disease is not simply an issue for older generations: almost half of those people who die from chronic disease are under 70 years of age.

–World Health Organization Department of Measurement and Health Information

An enemy hidden in plain sight

It is the sodium rather than the chloride in salt that causes us problems, and we are eating far too much of it. Sodium has become a commonplace element in our daily diet, and most often we don't realise it is there.

It is estimated that about 75% of the salt we eat is already in foods we buy, including processed foods, snacks, fast foods, many sauces, bread products and biscuits. Some of us may be getting as much as 35% of our daily sodium intake from breakfast cereals and cereal products.

Many of our favourite cheeses are high in salt, and so are ham, bacon, salami and sausages. Even "sweet" baked items such as muffins, cakes, pastries and cookies contain generous amounts of sodium, along with sugar. Some chefs add salt to make sweet foods even "sweeter".

Eating too much salt raises our blood pressure, which makes our hearts work harder to pump blood through our bodies. It can also team up with high cholesterol to cause atherosclerosis, a disease in which blood vessels become narrower and stiffer because of fatty deposits. This further increases high blood pressure and makes our hearts work even harder. Heavy consumption of salt has also been linked to stomach cancer and osteoporosis.

Those of us with high blood pressure are three times more likely to develop heart disease or have a stroke than those with normal blood pressure. And we are twice as likely to die from these diseases.

Eating less sodium can lower blood pressure and reduce the risk of heart disease and stroke. This can save lives. And if entire populations reduce their consumption of sodium those lives can number in the thousands and even tens of thousands.

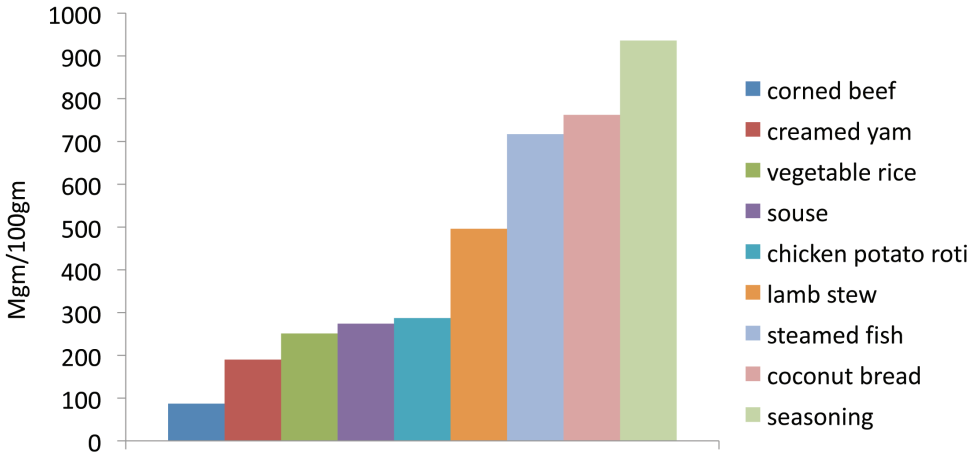
For example, the American Medical Association (AMA) estimates that 150,000 deaths could be prevented in the U.S. every year by halving the amount of salt in American food products. The AMA, together with the American College of Cardiology and other health groups have urged the U.S. food industry to gradually achieve a 50% reduction in salt over a 10-year period.

Table salt (sodium chloride) is the most obvious source of sodium in your diet. Just one teaspoon of salt contains 2,400 milligrams of sodium, which is just a little less than the entire amount you should have in one day.

The food items below are high in salt

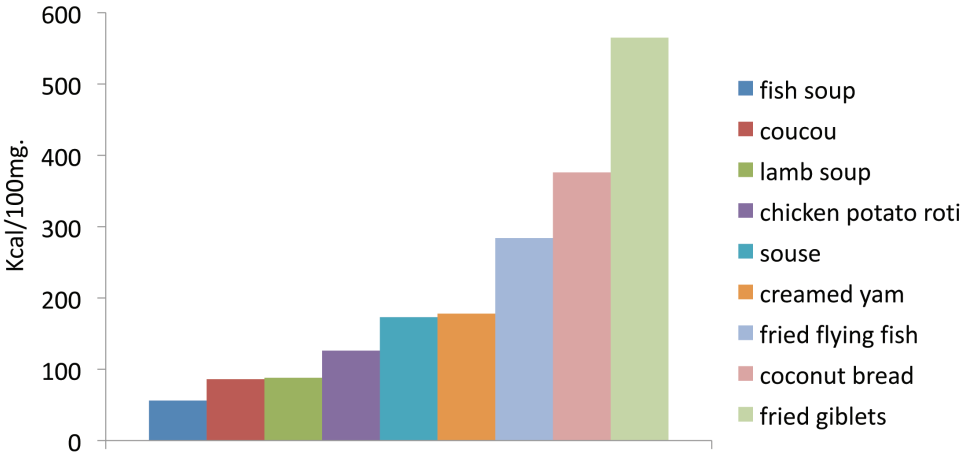
Salt and Sugar content of popular local foods

Salt content of popular local foods



Ref. Sharma S. et al. Int J Food Sci Nutr. 58: 461 – 474, 2007.

Energy (sugar) content of popular local foods



Ref. Sharma S. et al. Int J Food Sci Nutr. 58: 461 – 474, 2007.

Myths and facts about salt

MYTH: I can't be eating too much salt because I don't add it to my food.
FACT; 75% of the salt we eat is already in the food we buy, such as some breakfast cereals, soups, sauces, ready meals and biscuits. It's easy to eat too much salt without adding any yourself. In fact, one or two servings of some foods could contain more than the recommended daily maximum for adults (6 grams).

MYTH: Food has no flavour without salt
FACT: If you're used to foods that are high in salt, or adding lots of salt to your food, you could miss it when you first cut down. This is because our taste buds get used to high levels of salt.

But our taste buds can get used to eating less salt in a few weeks and then we are more likely to enjoy food with less salt or without any salt at all. If a food contains lots of salt this can hide more subtle flavours, so you might prefer some foods with less salt when your taste buds have had time to adjust.

MYTH: You can tell what foods are high in salt because they taste salty.
FACT: Some foods that are high in salt don't taste very salty. Sometimes this is because they have lots of sugar in them, for example some biscuits and breakfast cereals. Also, our taste buds get used to high levels of salt, so you might not notice the saltiness of some foods. When people get used to eating less salt, their taste buds become more sensitive. So sometimes when they eat a food they used to eat all the time, they are surprised to find how salty it tastes.

MYTH: Only old people need to worry about how much salt they eat.
FACT: Eating too much salt can raise your blood pressure at any age. It's true that you have less chance of developing heart disease or stroke in your 20s or 30s than when you're older. But if you have high blood pressure when you're young, you're still at greater risk than someone the same age with normal blood pressure.

MYTH: "Posh" salt is better for you than table salt.
FACT: Salt is also known as sodium chloride. It's the sodium in salt that can raise your blood pressure. It doesn't matter how expensive salt is, where it is from, or whether it comes in grains, crystals or flakes - it still contains sodium.

MYTH: You need more salt in hot climates because you sweat so much.
FACT: We only lose a small amount of salt through sweat, even in extremely hot places.
So there's no need to eat more salt in hot climates. But it's important to drink plenty of water to keep your body hydrated.

MYTH: If I cut down on salt my body won't have enough.
FACT: It's actually very difficult to eat too little salt. This is because it's in so many everyday foods, such as breakfast cereals, ready meals, soups, sauces and biscuits. And people in some countries survive on

"Salt has had an important place in people's imaginations through the centuries. It was thought to drive out evil spirits and was linked to fertility and sexual desire."
(The United Kingdom Food Standards Agency)

Myths and facts about salt (continued)

a fraction of the amount of salt eaten by people in the UK.

MYTH: I would know if I had high blood pressure.
FACT: Many people with high blood pressure have no symptoms, so you can't assume that your blood pressure is normal if you haven't had it tested. In Barbados, a fifth of people (20%) have high blood pressure.

"Like our prehistoric forbears, Bedouin, Masai and Zulus used to consume all the sodium they needed from the animals and fish they ate."
(The United Kingdom Food Standards Agency)

What can we do about salt?

There is a great deal we can do to cut our intake of sodium, as individuals and as an entire nation.

For a start, as individuals we can eat more foods that are low in salt, such as fruits and vegetables. We can avoid prepared foods that tend to be high in sodium, we can avoid adding salt to our meals at the table, and we can cut back on using salt when we cook. We can become "sodium conscious" grocery shoppers and read labels carefully.

As parents and school administrators we can influence our children's diets and we can educate and inform them about the harmful effects of high salt intake. We can ensure that their lunchboxes contain foods and snacks that are low in sodium and ensure that foods high in sodium are not readily available in school canteens and on school compounds.

As restaurateurs, chefs and food vendors, bakers, food processors and packagers we can establish guidelines or limits for the use of salt in our kitchens. We can set reduction targets to cut the use of salt gradually, so that our customers get used to it. We can even let our customers know that we have a "low sodium" policy. We can make the availability of salt difficult during meals.

As importers and retailers of packaged and processed foods we can replace high-sodium products with lower sodium alternatives. We can display and market them prominently.

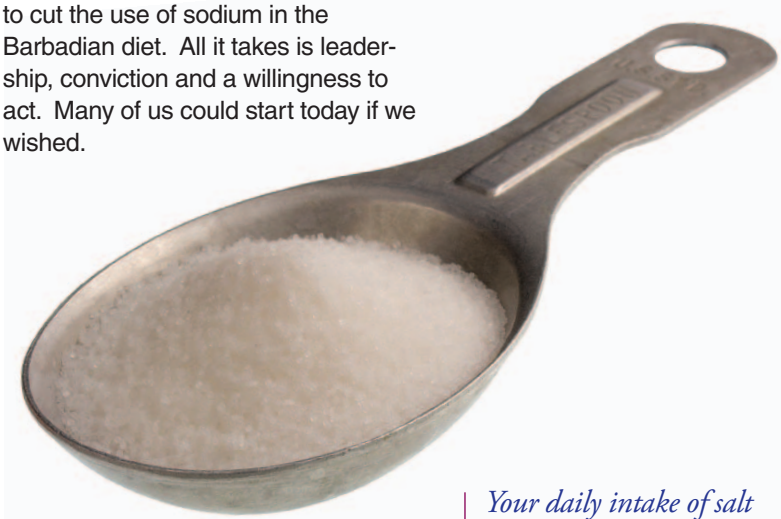
Doctors, nurses, dietitians and all health care providers can inform and educate their patients about the harmful effects of high salt intake and need to limit salt intake to not more than 6 grams daily. Employers and workers representatives can advocate for low-salt food and drink servings in company canteens.

Non Governmental health organisations can educate the public about the harmful effects of high salt intake and advocate for enactment of policies aimed at producing enabling environment to allow Barbadians to reduce salt intake.

Government can provide incentives as well as regulations to kick-start the process and it can establish appropriate policy guidelines and regulations. Working together with representatives of civil society it can also lead the communication and public awareness efforts that will help to motivate Barbadians and encourage behavioural change.

Clearly, there is plenty we can do to cut the use of sodium in the Barbadian diet. All it takes is leadership, conviction and a willingness to act. Many of us could start today if we wished.

High salt intake contributes to the approximately 25 per cent of adult Barbadians who suffer from high blood pressure which is uncontrolled in about 80 per cent of those affected. This uncontrolled hypertension contributes to 54 % of strokes and 47 % of all ill health from heart disease.



Your daily intake of salt should not exceed 6 grams, 1 teaspoon of salt.

Can Barbadians really make this work?

We can, and we don't have to reinvent the wheel to do it. We can learn from the successes of other countries. Finland has led the way in national initiatives to reduce salt consumption. Its salt reduction programme was launched in 1970, and the country can report a 40% drop in average sodium intake since the initiative began. The end benefit is an 80% drop in the number of deaths due to stroke.

In the UK, since 2004 the Food Standards Agency has been waging a major campaign to persuade companies to lower sodium levels and consumers to choose lower sodium products. The FSA is an independent government department that works closely with the food and beverage industry to set reduction targets. Its goal is to lower sodium consumption in Britain by one-third over five years, and the campaign is proving successful.

In October 2008, 194 medical experts from 48 countries joined forces to launch World Action on Salt and Health (WASH), an organisation dedicated to tackling salt reduction on a global scale.

WASH seeks to persuade international food companies to reduce the salt content of their processed foods in every country where they sell products, and by the same percentage amount. It also seeks to ensure that the evidence about the dangers of consuming too much salt is translated into policy by governments around the world.

Barbados has what it takes to launch and sustain its own salt reduction and national nutrition improvement programme. We have the brains, the leadership abilities, and the well developed means to communicate facts and information.

We at the National Commission for Chronic Non-Communicable Diseases believe that our role is to start the ball rolling and to keep it rolling. We will gladly do our part. Help us by doing yours.

"Barbados, by virtue of its size, and the local networks of opinion leaders throughout the island, has an opportunity for rapidly transforming its people's health."

Professor W. Philip James
Chairman, International Obesity Task Force

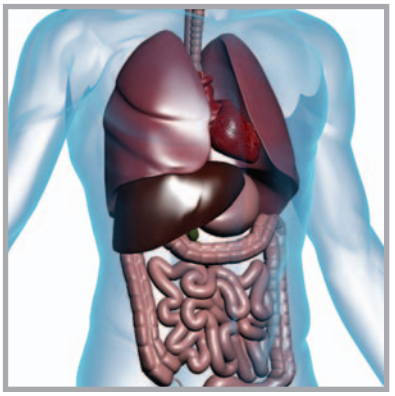
"If we are really going to save lives around the world we need to make sure that food producers make salt reductions in all their markets."

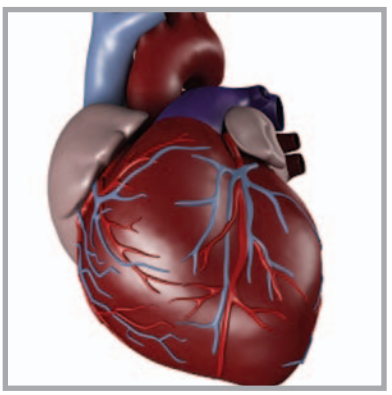
Professor Graham MacGregor,
Chairman, World Action on Salt & Health (WASH)

Eat less

Eat more

Protect





Glossary of Terms

Atherosclerosis: A process of progressive thickening and hardening of the walls of medium-sized and large arteries as a result of fat deposits on their inner lining. In Greek, athere means gruel, and skleros means hard.

Blood pressure: The blood pressure is the pressure of the blood within the arteries. It is produced primarily by the contraction of the heart muscle. Its measurement is recorded by two numbers. The first (systolic pressure) is measured after the heart contracts and is highest. The second (diastolic pressure) is measured before the heart contracts and lowest. A blood pressure cuff is used to measure the pressure. Elevation of blood pressure is called "hypertension".

Cancer: An abnormal growth of cells which tend to proliferate in an uncontrolled way and, in some cases, to metastasize (spread).

Cardiovascular: The circulatory system comprising the heart and blood vessels which carries nutrients and oxygen to the tissues of the body and removes carbon dioxide and other wastes from them.

Cholesterol: is a fatty substance (a lipid) that is an important part of the outer lining (membrane) of cells in the body of animals. Cholesterol is also found in the blood circulation of humans. The cholesterol in a person's blood originates from two major sources, dietary intake and liver production. Dietary cholesterol comes mainly from meat, poultry, fish, and dairy products. Organ meats, such as liver, are especially high in cholesterol content, while foods of plant origin contain no cholesterol

Diabetes mellitus: Better known just as "diabetes" — a chronic disease associated with abnormally high levels of the sugar glucose in the blood. Diabetes is due to one of two mechanisms:

(1) Inadequate production of insulin (which is made by the pancreas and lowers blood glucose) or

(2) Inadequate sensitivity of cells to the action of insulin.

The two main types of diabetes correspond to these two mechanisms and are called insulin dependent (type 1) and non-insulin dependent (type 2) diabetes. In type 1 diabetes there is no insulin or not enough of it. In type 2 diabetes, there is generally enough insulin but the cells upon which it should act are not normally sensitive to its action. The body doesn't produce or properly use insulin.

Heart attack: The death of heart muscle due to the loss of blood supply. The loss of blood supply is usually caused by a complete blockage of a coronary artery, one of the arteries that supplies blood to the heart muscle. Death of the heart muscle, in turn, causes chest pain and electrical instability of the heart muscle tissue.

Hypertension (High Blood Pressure): is defined as a repeatedly elevated blood pressure exceeding 140 over 90 mmHg — a systolic pressure above 140 with a diastolic pressure above 90.

Glossary of Terms (continued)

Osteoporosis: abnormal loss of bony tissue resulting in fragile porous bones attributable to a lack of calcium; most common in postmenopausal women

Respiratory: Having to do with respiration; the exchange of oxygen and carbon dioxide. From the Latin re- (again) + spirare (to breathe) = to breathe again.

Respiratory disease: a disease affecting the respiratory system.

Risk factor: Something that increases a person's chances of developing a disease.

Sodium chloride: also known as common salt, table salt, or halite, is an ionic compound with the formula NACL. Sodium chloride is the salt most responsible for the salinity of the ocean and of the extracellular fluid of many multi-cellular organisms. As the major ingredient inedible salt, it is commonly used as a condiment and food preservative.

Stroke: The sudden death of some brain cells due to a lack of oxygen when the blood flow to the brain is impaired by blockage or rupture of an artery to the brain. A stroke is also called a cerebrovascular accident or, for short, a CVA.

Trans fat: An unhealthy substance, also known as trans fatty acid, made through the chemical process of hydrogenation of oils. Hydrogenation solidifies liquid oils and increases the shelf life and the flavor stability of oils and foods that contain them. Trans fat is found in vegetable shortenings and in some margarines, crackers, cookies, snack foods and other foods. Trans fats are also found in abundance in "French fries." To make vegetable oils suitable for deep frying, the oils are subjected to hydrogenation, which creates trans fats. Trans fats wreak havoc with the body's ability to regulate cholesterol. In the hierarchy of fats, the polyunsaturated fats which are found in vegetables are the good kind: they lower your cholesterol. Saturated fats have been condemned as the bad kind. But trans fats are far worse. They drive up the LDL ("bad") cholesterol which markedly increases the risk of coronary artery heart disease and stroke.

Vascular: Relating to the blood vessels of the body. The blood vessels of the body, as a group, are referred to as the vascular system.

Battling the hidden enemy was produced by the National Commission for Non Communicable Diseases.
It is part of the national nutrition improvement and population salt reduction programme lead by the Commission, with the theme of “Less salt, sugar, size and sickness: more fruit, fiber and physical fitness”.

The Commission would like to thank PricewaterhouseCoopers, Leisel R. Jobity of MG Design Inc., Super Centre Limited, Chickmont Foods Limited and the Healthy Lifestyle Committee for their generous support in producing this brochure.