

DIABETES

FACTS:

- At least 177 million people worldwide suffer from diabetes; this figure is likely to be more than double by 2030.
- Around 4 million deaths every year are attributable to complications of diabetes.
- The top 10 countries, in numbers of sufferers, are India, China, USA, Indonesia, Russia, Japan, UAE, Pakistan, Brazil and Italy.
- Overall, direct health care costs of diabetes range from 2.5% to 15% of annual health care budgets, depending on local diabetes prevalence and the sophistication of the treatment available.
- The costs of lost production may be as much as five times the direct health care cost, according to estimates derived from 25 Latin American countries.
- Recent studies in China, Canada, USA and several European countries have shown that feasible lifestyle interventions can prevent the onset of diabetes in persons at high risk.

THE COST OF DIABETES

A diabetes epidemic is underway. An estimated 30 million people world-wide had diabetes in 1985. A decade later, the global burden of diabetes was estimated to be 135 million. The latest WHO estimate – for the number of people with diabetes, world-wide, in 2000 – is 177 million. This is likely to increase to at least 370 million by 2030. Two major concerns are that much of this increase in diabetes will occur in developing countries, due to population growth, ageing, unhealthy diets, obesity and sedentary lifestyles, and that there is a growing incidence of Type 2 diabetes – which accounts for about 90% of all cases – at a younger age. By 2030, while most people with diabetes in developed countries will be aged 65 years or more, in developing countries the majority will be in the 45-64 year age bracket and affected in their most productive years.

The number of deaths attributed annually to diabetes is estimated at just over 800,000. However, most diabetics die from other chronic conditions, such as cardiovascular disease. Diabetes mellitus is a chronic disease caused by inherited and/or acquired deficiency in production of insulin by the pancreas, or by the ineffectiveness of the insulin produced.



Such a deficiency results in increased concentrations of glucose in the blood, which in turn damage many of the body's systems, in particular the blood vessels and nerves. Subjects with impaired glucose tolerance (IGT) and impaired fasting glycaemia (IFG) are at substantially higher risk of developing diabetes and cardiovascular disease than those with normal glucose tolerance.

THERE ARE TWO PRINCIPLE FORMS OF DIABETES:

Type 1 diabetes (formerly known as insulin-dependent) in which the pancreas fails to produce the insulin which is essential for survival. This form develops most frequently in children and adolescents, but can also occur later in life.

The majority of sufferers have Type 2 diabetes (formerly non-insulin-dependent, or adult-onset), which results from the body's inability to respond properly to the action of insulin produced by the pancreas. Type 2 diabetes occurs most frequently in adults, but is being noted increasingly in children and adolescents.

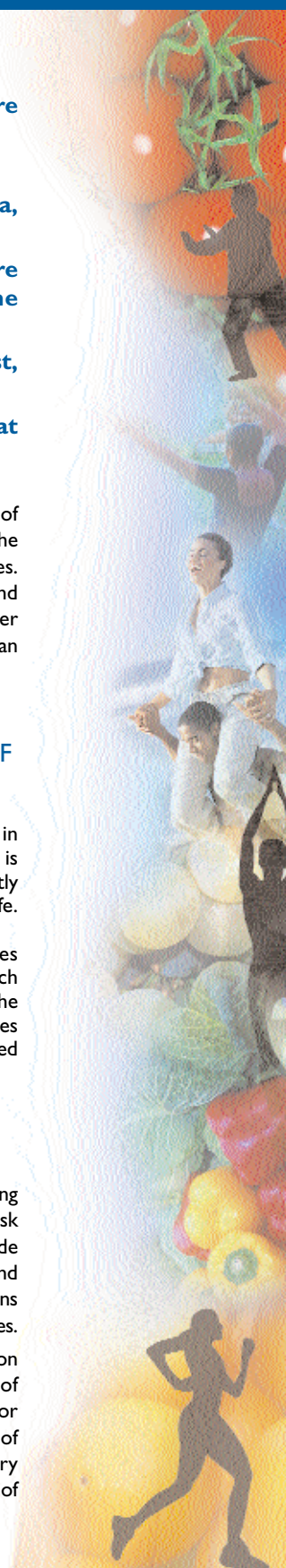
COMPLICATIONS ASSOCIATED WITH DIABETES MELLITUS

- CVD accounts for approximately 50% of all deaths among people with diabetes in industrialized countries. Risk factors for heart disease in people with diabetes include high blood pressure, high serum cholesterol, obesity and smoking. Recognition and management of these conditions may delay or prevent heart disease in people with diabetes.
- Diabetic neuropathy is probably the most common complication. Studies suggest that up to 50% of people with diabetes are affected to some degree. Major risk factors of this condition are the level and duration of elevated blood glucose. Neuropathy can lead to sensory loss and damage to the limbs. It is also a major cause of impotence in diabetic men.



WORLD HEALTH ORGANIZATION

GLOBAL STRATEGY ON DIET, PHYSICAL ACTIVITY AND HEALTH



DIABETES

COUNTRIES WITH THE LARGEST NUMBER OF PERSONS WITH DIABETES

COUNTRY	Estimates 1995		Estimates 2000	
	Prevalence of diabetes (%)	Number persons (millions)	Prevalence of diabetes (%)	Number of persons (millions)
INDIA	3.8	19.4	5.5	31.5
CHINA	2.0	16.0	2.4	20.7
USA	7.8	13.8	7.8	17.5
INDONESIA	4.1	4.5	6.7	8.5

- Diabetic retinopathy is a leading cause of blindness and visual disability. Research findings suggest that, after 15 years of diabetes, approximately 2% of people become blind, while about 10% develop severe visual handicap.
- Diabetes is among the leading causes of kidney failure, but its frequency varies between populations and is also related to the severity and duration of the disease.
- Diabetic foot disease, due to changes in blood vessels and nerves, often leads to ulceration and subsequent limb amputation. Diabetes is the most common cause of non-traumatic amputation of the lower limb.

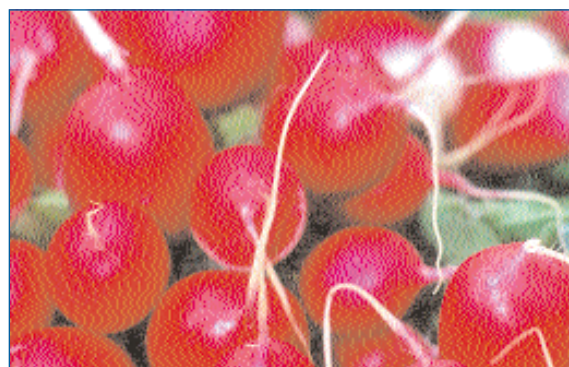
HOW DO WE PREVENT AND TREAT DIABETES?

Primary prevention - healthy diet and regular physical activity - protects susceptible individuals. It has an impact by reducing or delaying both the need for diabetes care and the need to treat diabetes complications. It should be emphasized particularly in the poorest regions of the world where resources are severely limited.

Secondary prevention includes early detection and good treatment. The treatment of high blood pressure and raised blood lipids, as well as the control of blood glucose levels, can substantially reduce the risk of developing complications and slow their progression. Large, population-based studies in China, Canada, USA and several European countries suggest that even moderate reduction in weight and half an hour of walking each day reduced the incidence of diabetes by more than one half in overweight subjects with mild IGT.

Because of its chronic nature, the severity of its complications and the means required to control them, diabetes is a costly disease, not only for the affected individual and his/her family, but also for the health authorities. Studies in India estimate that, for a low-income Indian family with an adult with diabetes, as much as 25% of family income may be devoted to diabetes care. For families in the USA with a child who has diabetes, the corresponding figure is 10%.

In WHO's Western Pacific region a recent analysis of health care expenditure has shown that: 16% of hospital expenditure was on people with diabetes. In the Republic of the Marshall Islands, this figure was 25%. 20% of "offshore expenditure" on health by Fiji was on diabetes-related complications - instances where facilities for care were not available in Fiji, so patients had to travel elsewhere. These represent considerable sums for countries who can ill afford such massive expenditure on preventable conditions.



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