ICN on Obesity: Creating public awareness of a social environmental disease

Obesity is spreading at an alarming rate, not just in industrialised countries but also in developing countries, where it co-exists with malnutrition.

The World Health Organization considers obesity a global epidemic and a serious public health problem. While urbanisation and industrialisation have led to growth in standards of living, these changes have paradoxically affected people’s nutritional habits and lifestyle across the world. Obesity is now reported as the 2nd leading cause of preventable death after smoking.

What is the difference between overweight and obesity?
The terms ‘obesity’ and ‘overweight’ are often used interchangeably, but they are distinct conditions. ‘Obesity’ refers to excess body fat, while ‘overweight’ refers to excess weight for height, which may come from muscle, bone, fat and/or body water.

Methods for measuring body fat include skin fold thickness tests and bioelectrical impedance analysis. The Body Mass Index (BMI) as a direct calculation based on height and weight is currently the most accepted and widely used method to determine overweight and obesity in both men and women. A BMI between 25 and 30 is an indicator of overweight. A BMI over 30 classifies an individual as clinically obese.

Current trends
Obesity is estimated to affect 18% of the global population, an increase of 50% over the past seven years. In the past 10 years the prevalence of obesity has increased by 10-40% in the majority of European countries. The most dramatic increase has been in the United Kingdom where it has almost doubled between 1980 and 1995; from 6% to 15% among men and from 8% to 17% among women.

The growing number of overweight and obese children at the national and international level is a real concern, increasing their risk of cardiovascular disease, hypertension and diabetes later in life.

Obesity in school children approaches 10% in industrialised countries like the United States, Japan and some European countries, and also in rapidly industrialising countries such as Algeria, Argentina, Chile, Egypt, Indonesia,
Iran, Kiribati, Morocco, Peru, South Africa, Thailand and many countries in the Caribbean\(^5\). Obesity, long considered to be a ‘Western disease’, now poses a serious public health threat to developing nations.

### Adults - Facts and Figures

- There are approximately 300 million obese adults worldwide and many more are overweight\(^6\).
- In the United States, 80% of people older than 25 are overweight. This has risen from 71% in 1995, 64% in 1990 and 58% in 1983\(^7\).
- About 15% of the Chinese population is overweight. More than 50% of those aged between 35 and 59 are overweight and these figures are expected to double within a decade\(^8\).
- In Brazil and Colombia, obesity hovers around 40%\(^9\).
- In Sub-Saharan Africa, where most of the world’s hungry live, obesity has reached a level of 30%, an increase especially among urban women\(^10\).
- On some Pacific islands such as Western Samoa and Tonga, the prevalence of obesity has reached levels of more than 65% for men and 77% for women\(^11\).

<table>
<thead>
<tr>
<th>Adults - Facts and Figures</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are approximately 300 million obese adults worldwide and many more are overweight.</td>
</tr>
<tr>
<td>In the United States, 80% of people older than 25 are overweight. This has risen from 71% in 1995, 64% in 1990 and 58% in 1983.</td>
</tr>
<tr>
<td>About 15% of the Chinese population is overweight. More than 50% of those aged between 35 and 59 are overweight and these figures are expected to double within a decade.</td>
</tr>
<tr>
<td>In Brazil and Colombia, obesity hovers around 40%.</td>
</tr>
<tr>
<td>In Sub-Saharan Africa, where most of the world’s hungry live, obesity has reached a level of 30%, an increase especially among urban women.</td>
</tr>
<tr>
<td>On some Pacific islands such as Western Samoa and Tonga, the prevalence of obesity has reached levels of more than 65% for men and 77% for women.</td>
</tr>
</tbody>
</table>

### Children and Adolescents - Facts and Figures

- Obesity among children has reached epidemic proportions.
- WHO has estimated that about 22 million children under 5 years old are overweight.
- In the United States, the percentage of overweight children aged 5-14 has increased over the last 30 years from 15% to 32%.
- One in four children in the United States is overweight while 11% are obese.
- In Beijing 20% of schoolchildren are obese.
- 16% of Saudi schoolboys are considered obese.

(Source: World Heart Federation, Obesity/Nutrition, June 2002)

### Weight Gain and Obesity by Gender

Generally, although men are more likely to be overweight, women are more likely to be obese\(^2\). In men, BMI tends to increase until the age of 50 when it levels off; in women, weight tends to increase until aged 70 before it plateaus. There are three high-risk periods for weight gain in women:

1. At the onset of menstruation, particularly if it is early.
2. After pregnancy, with a higher risk for women who are already overweight.
3. After menopause\(^13\).
Hypertension, diabetes and high cholesterol are between two and six times more prevalent among heavier women. Obesity is often more prevalent in women than men in countries in southern Africa, the Middle East, the Caribbean, Latin America and Asia\(^{14}\).

**Social and environmental impact**

In all regions, obesity seems to grow as income increases. According to the International Obesity Taskforce, Pacific islanders are now the most obese populations on earth. The adoption of the industrialised way of life has created an environmental impact as developing countries become more prosperous. In China, Africa and the Middle East, the image of prosperity and success can be associated with weight gain as people expect to enjoy a high-calorie diet rich in animal protein\(^{15}\).

**Causes of overweight and obesity**

The current epidemic of obesity cannot be explained from a genetic point of view or from a failure in personal discipline or psychological upbringing. It is primarily associated with the adoption of an industrialised way of life that promotes excessive food intake and discourages physical activity\(^ {16}\).

Marketing, aimed at both adults and children, encourages the intake of processed and high-fat snack foods, and rarely depicts consumption of fruit and/or vegetables. Fewer people are working in physically demanding occupations like farming and mining, and the physical exertion required in many types of occupations is declining. Ownership of television and cars has contributed to a sedentary generation of people. Excessive television watching and sedentary activities such as playing videogames and sitting at a computer play a critical role in obesity, especially among children.

**Health risks**

Obesity is associated with increased risk of morbidity and mortality. It is estimated that over 115 million people in low and middle-income countries suffer from obesity-related problems\(^ {17}\). In the United States, obesity could soon kill more Americans than tobacco smoke does. In industrialised nations, obesity is associated with an increased risk for diabetes, cancer, cardiovascular, and digestive diseases\(^ {18}\).

In developing regions, improvements in health and average life expectancies are being stalled by the increasing rates of premature deaths from obesity-related lifestyle diseases such as diabetes\(^ {19}\).

Overweight children are more likely to become overweight adults and to experience chronic health problems associated with adult obesity.
Obesity is a significant risk factor for a range of serious non-communicable diseases.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular disease</td>
<td>Hypertension and stroke</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td></td>
</tr>
<tr>
<td>(type2: non-insulin-dependent)</td>
<td>High blood levels of cholesterol</td>
</tr>
<tr>
<td>Various forms of cancer</td>
<td>Gastrointestinal and liver diseases</td>
</tr>
<tr>
<td>Musculoskeletal problems</td>
<td>Varicose veins</td>
</tr>
<tr>
<td>Gall-bladder disease</td>
<td>Sleep apnea</td>
</tr>
<tr>
<td>Low self-esteem</td>
<td>Depression and accidents</td>
</tr>
</tbody>
</table>

Implications for nurses:

Prevention and healthy lifestyle promotion

Nurses have an ideal opportunity to enhance health-promoting activities in order to reduce the risks of being overweight or obese. To better understand the circumstances affecting people’s dietary habits and lifestyles, health promotion strategies must address the multiple determinants of health.

For effective prevention and treatment, nurses and all health professionals should consider the psychosocial and cultural dynamics that affect health behaviours, as well as the co-morbidities associated with being overweight or obese. Patient motivation and readiness to change are essential for the management of obesity.

Nurses are encouraged to promote healthy family lifestyle patterns across the lifespan. For example, the encouragement of breast-feeding, physical activity, regular meals, and nutrition and weight counselling are important interventions that help reduce the risk of obesity at all stages of human development.

Nurses creating healthy public policy

A strong public health approach by nurses is important to prevent obesity at local, national and international levels. Building alliances with a broad range of sectors helps strengthen community actions that serve to promote healthier lifestyles.

For example, the design of towns, transport systems, workplace initiatives and public recreational facilities should foster physical activity. Forming partnerships with other health professional groups, the media, schools, governmental and non-governmental organisations is an effective approach to the prevention of obesity.
Nurses should help the public understand that obesity is predominantly a social-environmental disease. Nurses can create public awareness of the multiple and changing determinants of health that affect becoming overweight or obese. They can identify, offer and refer to obesity prevention programmes and policies, as well as play a role in programme and policy monitoring and evaluation.

For further information, please contact: icn@icn.ch

The International Council of Nurses (ICN) is a federation of more than 130 national nurses associations representing the millions of nurses worldwide. Operated by nurses and leading nursing internationally, ICN works to ensure quality nursing care for all and sound health policies globally.

PH/2002

References

1 Secretariat of 1st International Conference and World Forum on Technology Transfer of Obesity and Nutrition, Cairo, Egypt 25-28 June 2002.


7 Harris Poll, Harris Interactive Inc., March 5th 2002.


10 Ibid.

11 Ibid.

12 Supra, note 6.


15 Supra, note 5.

16 Supra, note 4.

17 Supra, note 7.


19 Supra, note 7.