

OBESITY AND PHYSICAL ACTIVITY

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Introduction

Obesity and unhealthy weight gain are major risk factors in the development of cardiovascular disease. A decline in daily physical activity levels is clearly a major factor contributing to the current obesity epidemic. Increasing physical activity has become an important part of public health strategies to prevent weight gain. Current public health physical activity guidelines are primarily derived from analyses of the impact of physical activity on cardiovascular health.

In 1995, the US Center for Disease Control and Prevention and the American College of Sports Medicine published public health recommendations for physical activity.¹ The main recommendation was for sedentary adults to accumulate at least 30 minutes of moderate physical activity, preferably every day. This is an adequate level of activity for general health promotion and prevention of cardiovascular disease; however, it may not be sufficient to prevent unhealthy weight gain or regain.²

The Irish situation

Numerous Irish public health strategies have identified diet and exercise as two lifestyle characteristics which can be modified at a population level to reduce the risk of cardiovascular diseases and maintain a level of physical health. The National Health Promotion Strategy 2000-2005³ established targets for the population aged 15 years and over:

- To increase the proportion engaging in an accumulated 30 minutes of light physical exercise most days of the week by 30%.
- A 20% increase in the proportion who engage in moderate exercise for at least 20 minutes three times per week by the year 2000.

The Report of the Cardiovascular Health Strategy Group: Building Healthier Hearts⁴ encourages any form of physical activity for at least 30 minutes per day.

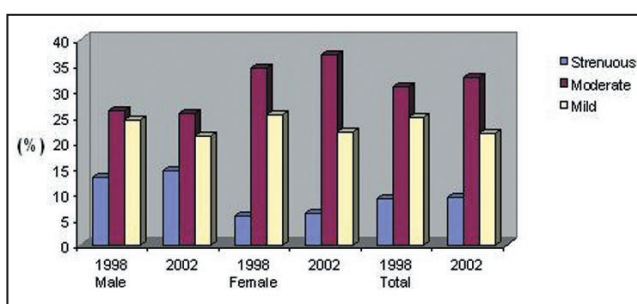


Figure 1. Changes in percentage engaging in physical activity in four years

SLÁN

The variation in physical activity levels over time and in different parts of the country was reported in the recent Survey of Lifestyle, Attitudes and Nutrition (SLÁN).⁵ This survey provides baseline information on a range of lifestyle-related health behaviours in the Irish population and is based on a self-administered questionnaire of 6,539 adults. The 2003 report highlighted the problem of obesity and overweight in Ireland. Obesity rates in men and women have risen by 3% since 1998 (from 11% to 14% and 9% to 12% in men and women respectively).

SLÁN reported a national figure of 50.8% of respondents who engaged in regular physical exercise in a typical week. 'Regular' exercise is defined as moderate or strenuous exercise three or more times per week and mild exercise four or more times per week. The percentage of people engaging in both regular strenuous and moderate exercise has increased by approximately 1% since 1998 (see Figure 1).

Fewer people are engaging in regular mild activity. The number of males and females engaging in strenuous exercise has increased slightly since 1998. While more females are engaging in moderate exercise, the number of males engaging in this type of exercise remains unchanged in four years. Fewer males and females are engaging in mild activity since the last survey. Numbers of those reporting no activity at all have increased among both men (from 21% in 1998 to 30% in 2002) and women (from 20% in 1998 to 25% in 2002).

Regional differences

Significant regional variation in the percentage of respondents who are obese ($p=0.005$) was reported in the Regional Report of SLÁN.⁶ The Northern Area Health Board had the highest rate of obesity (15.7%), while the East Coast Area had the lowest rate at 9.8% (see Figure 2). More

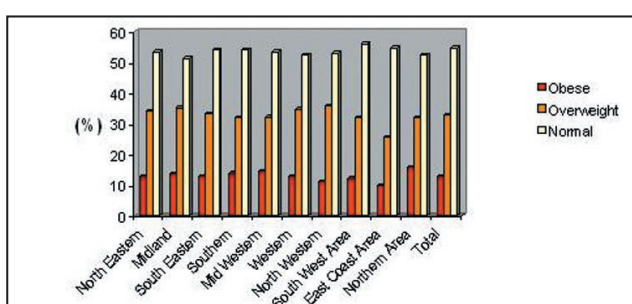


Figure 2. BMI distribution across health boards

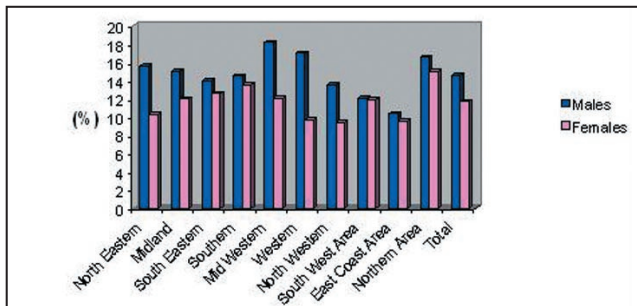


Figure 3. Obesity distribution by health board and gender

males than females were obese in all boards but the difference was only significant in the North Eastern and Western Health Boards (see Figure 3). The highest rate of obesity among males occurred in the Mid Western Health Board (18.2%) and among females it was in the Northern Area Health Board (15.0%). More males than females were overweight in all boards except the Southern Health Board where the rate was 5.3% higher for females (see Figure 4).

The East Coast Area Health Board showed the lowest levels of obesity (9.8%) and overweight (25.5%) and the highest level of regular moderate exercise (39%) and the

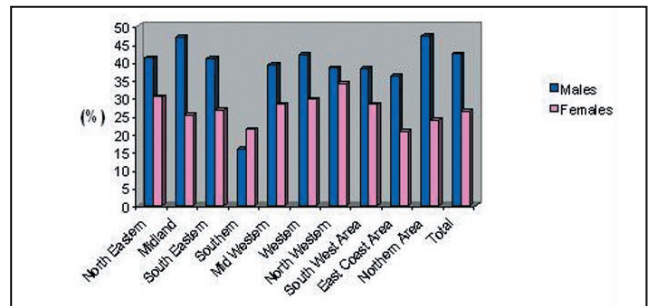


Figure 4. Distribution of overweight people by health board and gender

second highest level of strenuous (10.8%) and mild activity (24%) (see Figure 5).

The Northern Area Health Board showed the highest level of obesity (16.5%) with the percentage of overweight people being similar to other health boards (33.9%). The levels of strenuous and mild activity were similar to other health boards (8.3% and 21.9% respectively) while the level of moderate activity (31.1%) was among the lowest of the health boards.

The highest percentage of people who were overweight was reported in the North Western Health Board (35.7%).

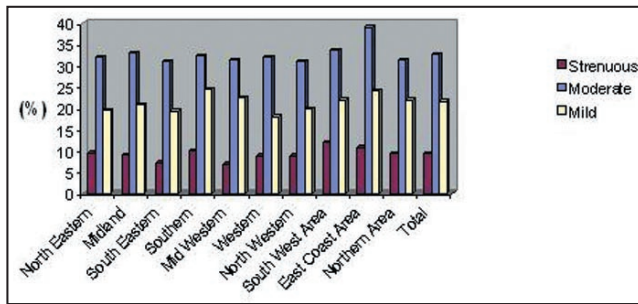


Figure 5. Percentage engaging in exercise across health boards

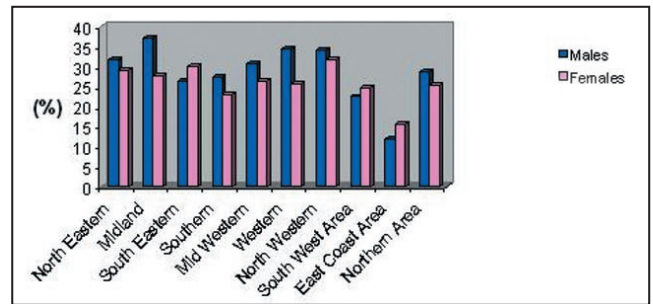


Figure 6. Percentage doing little or no exercise during the week by health board and gender

Nevertheless, the North Western and South Western Area Health Boards have the second (11.2%) and third (12.1%) lowest levels of obesity across the health boards. The level of strenuous exercise carried out by the South Western Area Health Board was the highest across all health boards (12%) while the level of moderate exercise was second (33.5%) to the East Coast Area. The levels of strenuous, moderate and mild exercise carried out by the North Western Health Board were among the lowest rates across the health boards.

The Mid Western Health Board had the second highest level of obesity (14.4%) but the percentage of people who were

overweight was lower than other health boards. The level of strenuous exercise carried out by those in the Mid Western Health Board was the lowest among the health boards (6.9%). The level of moderate and mild exercise was similar to other health boards.

The percentage of males doing little or no exercise during the week was highest in the Midland Health Board (37.2%) while the highest level of females was in the North Western Health Board (31.8%) (see Figure 6). The lowest proportion of non-exercising males and females was found in the East Coast Area Health Board.

Getting the message across

The low participation rate in physical activity may be due to the misconception that, in order to reap health benefits, vigorous, intense exercise is required. Regular, moderate intensity physical activity provides substantial health benefits and has been the basis for public health policy throughout most of the world.

However, while this message is intended to encourage a general level of activity, it may be misinterpreted by the general population as the level of activity required to 'fix all' — improve fitness, reduce cardiovascular disease risk, loose weight and improve muscle tone.

There is ongoing discussion into the understanding of the relationship between frequency, duration and intensity of physical activity and different health outcomes. For preventing weight gain, the guideline may be insufficient for many individuals in the current environment where there is an increase in consumption of energy dense foods, greater access to convenience food and where portions are super sized.

References

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