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Sports and recreation for a healthy life

An outline is given of Sweden's progress in encouraging its people to engage in health-giving exercise through education and financial support for sports clubs and facilities.

In 1986 the Swedish Central Statistical Office adopted a programme aimed at identifying and documenting statistics relating to leisure-time sport and recreational exercise, establishing a system of data presentation, and providing indicators for the evaluation of policy outcomes, with a view to corrective action and the formulation of new goals.

In the mid-1980s some five million adults, 80% of the adult population aged 16–74, were participating in outdoor recreational activities such as skiing, walking and gardening. Nearly half of these people were doing so on a regular basis. Although these forms of activity are important in improving fitness and life-style they are not considered to fall within the category of sport and recreational exercise in the present article.

Some four million people, 48% of the population aged 7–74, participated regularly or otherwise in sports, and 1.8 million in this age range regularly engaged in sport at levels capable of having a positive influence on well-being (Fig. 1). Some 700 000 people aged 15 or over were competing and about 7000 of them were elite performers. About 2.7 million people aged 16–74 and about 250 000 aged 7–15 were completely uninterested in participating in sports.

Some six million people, 94% of the population aged 16-84, rated their overall health status as very good or good in national surveys; 800 000 were physically disabled.

Physical education

Participation in physical education at school is compulsory until completion of the upper secondary level. The time dedicated to this

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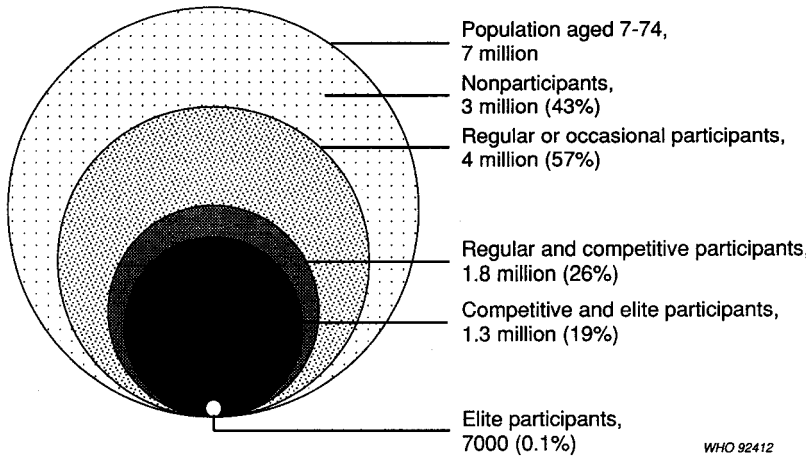
Fig. 1. Participation in sports and recreational exercise in Sweden, mid-1980s



part of the curriculum varies from two to three hours a week. The activities include collective exercise, sports, ergonomics and the dissemination of information relating to health. Lessons are conducted by about 5000 teachers, some 150–200 of whom graduate each year from the country's two physical education teacher training colleges.

The proportion of competitors and elite performers born in the first two quarters of the year is significantly higher than that of those born in the third and fourth quarters; the difference is highly significant in the case of ice hockey players (Fig. 2). Of the top 100 male and female junior players in the International Tennis Federation rankings for 1990, 78% of the boys and 62% of the girls had dates of birth in the first or second quarter. The proportions of riders, swimmers and footballers born in the different quarters are shown in Fig. 3 and 4.

Fig. 2. Distribution, by dates of birth (in quarterly periods), of 15-year-old male ice hockey players (elite and competitive performers) and of the total population of males aged 15, 1990

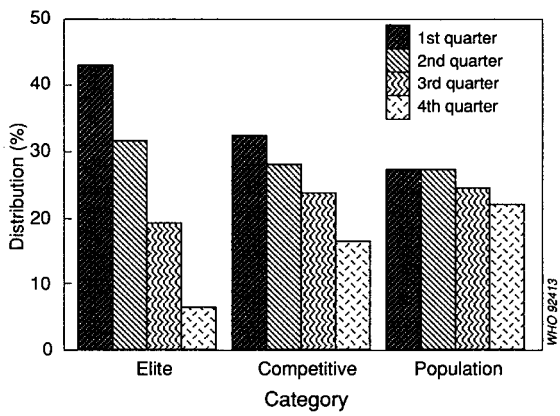


Fig. 3. Differences in quarterly distributions of dates of birth for swimmers aged 12+, riders aged 10+, and the population aged 10+, 1990

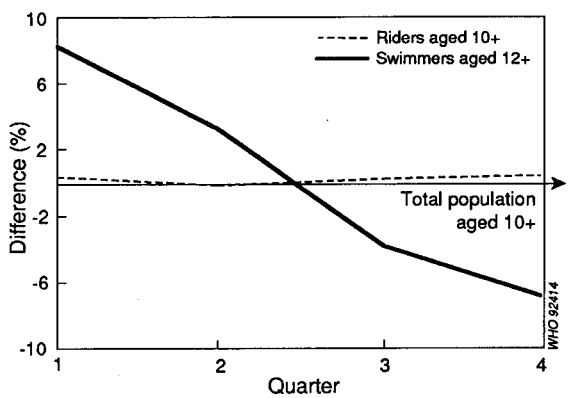
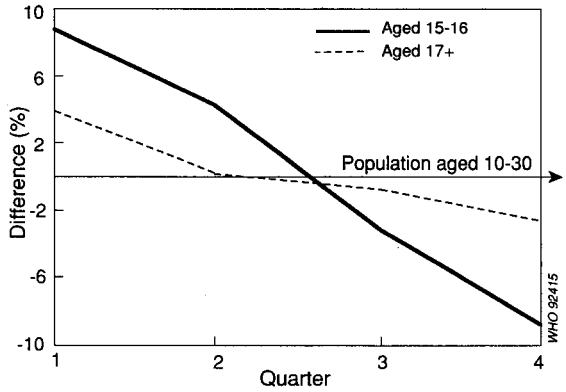


Fig. 4. Differences in quarterly distributions of dates of birth for male competitive football players aged 15–16 and 17+ and the male population aged 10–30, 1990



The proportions of participants born at different times of the year tend to even out at the age of about 17–19 in most sports. This is probably because of a high drop-out rate among youngsters born between January and June when they reach junior rankings, whereas those born in the second half of the year continue to be active at about the same level. The explanation for this is that the physical advantages of being born six months or so ahead of others in the same age group are eliminated when adolescence is reached. The problem is likely to remain unsolved for a long time because early selection largely favours the entry of physically strong and relatively mature youngsters to sports. Those born in the second half of the year and who are initially less talented in sports are discouraged from the very beginning. Age groups are defined on a 12-month basis, and this prevents many children from entering or continuing to participate in sport if they lag behind others in physical development and maturity. The only way to solve this problem would be to introduce six-month age groups.

Comparable data about the maturity status of primary school children in some municipalities have indicated that children with birthdays in the last quarter of the year tend to require supportive teaching. According to school medical officials this is largely associated with maturity status. Children born in January are, for all practical purposes, a year ahead in maturity and physical development compared with those born in December. Clearly there is a need to take account of these differences when the physical education curriculum is being organized. The choice lies between

Fig. 5. Numbers of registered competitive performers per sports facility, 1989

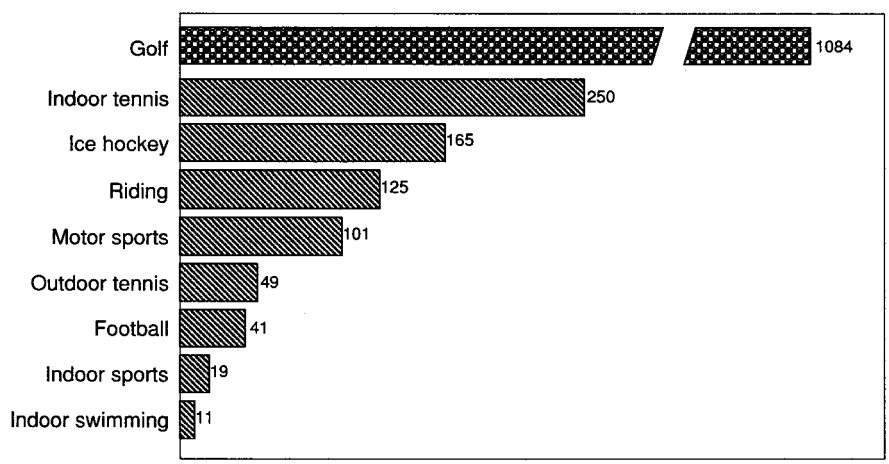


Fig. 6. Participation in outdoor sports, by sex and age group

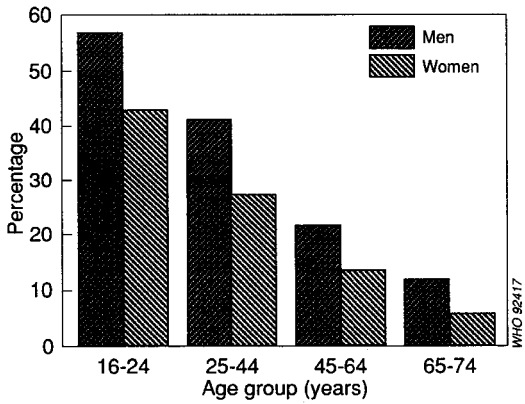
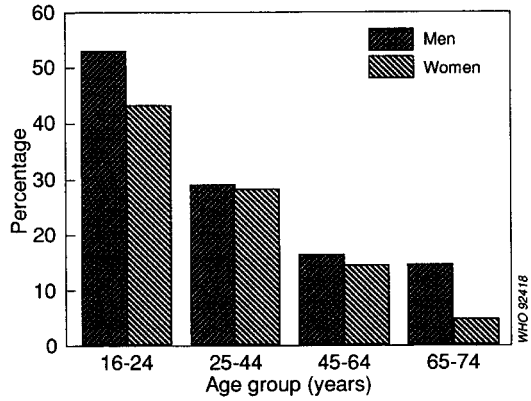


Fig. 7. Participation in indoor sports, by sex and age group



reducing the number of pupils per class or employing two teachers for each lesson.

Clubs and facilities

Sporting activities are organized on a nongovernmental basis and are non-profit-making. Clubs and federations are well integrated vertically and widely located. There are 27 000 sports clubs that organize and encourage people of all ages to participate in training and competition near residential areas; 19 000 company sports clubs organize sport at workplaces for employees outside of working hours; 5000 recreational clubs organize activities for about 1.5 million members of all ages, and several hundred institutions provide facilities for work-outs and aerobics; 1000 district federations organize and coordinate sporting activities on a geographical basis; 100 national federations coordinate efforts to improve the standards of national squads and elite performers.

A comparison of the facilities available for each sport with the numbers of registered participants indicated a favourable situation in swimming, team sports and gymnastics in indoor halls, football, outdoor tennis, riding, track and field events, and water and motor sports, among others. Facilities appeared to be inadequate for golf and indoor tennis despite substantial investment during the 1980s (Fig. 5).

Uneven participation

There has been growing interest in sports and a high overall level of participation. However, the participation is positively correlated with educational level, occupation and income, as are health status, fitness and longevity. In general it is clear that physically active people tend to observe guidelines on food intake, to enjoy good health and to live longer than other people.

The social and class differences that remain in sports are puzzling when considered in relation to the steady increase in the country's living standards that has occurred since the 1950s. The rate of participation is below 50% among adults, except for men aged 16–24 and the academically trained. Of the youngsters aged 7–15, 66% are highly involved in sport outside of school hours. The question arises as to whether sports and recreational exercise for all is a realistic goal in Swedish society.

Fig. 8. Regular participation in sports according to educational level among 16–74-year-olds

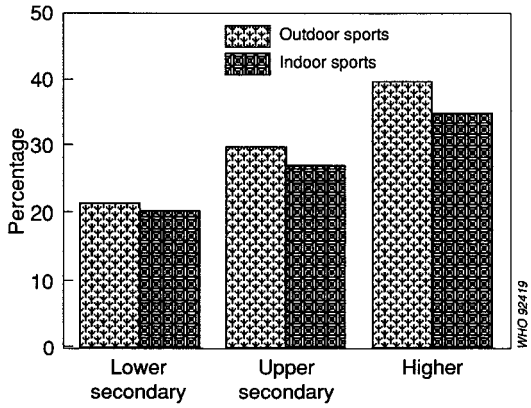
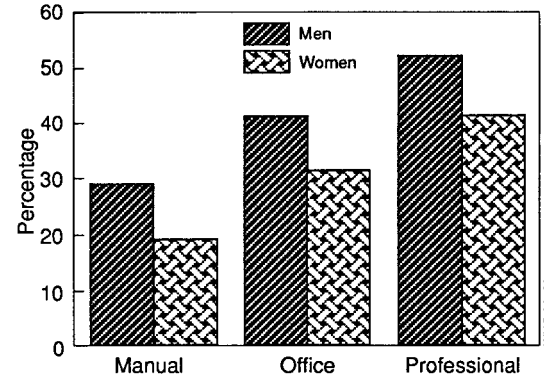


Fig. 9. Regular participation of people aged 16–64 in sports according to type of trade union affiliation and sex



Participation in sport declines with age in both sexes (Fig. 6, 7), mainly for reasons of health. Men outnumber women in outdoor sports in all age groups but in indoor sports the difference is substantial only among the youngest and oldest. In both categories of sports the relative decline in involvement associated with age is greater for men than for women. This may depend on biological differences between the sexes as well as on differences in behaviour and life-style. Women tend to choose sports and exercise forms that are compatible with both their ambitions and their interests in keeping fit over the years, whereas men tend to select sports that demand intensive training and the use of muscular strength, often resulting in injury.

The number of participants in gymnastics, most of them women, increased from about 4000 in 1980 to 105 000 in 1990. Aerobic exercises are increasingly popular among younger females, as many as 25 000 of whom are registered as regular participants. In the late 1970s few women participated in

Fig. 10. Annual average household expenditure (Swedish kronor) on sports and recreational exercise, by occupational status, 1988 (US$ 1.00 = app. 6 kr)

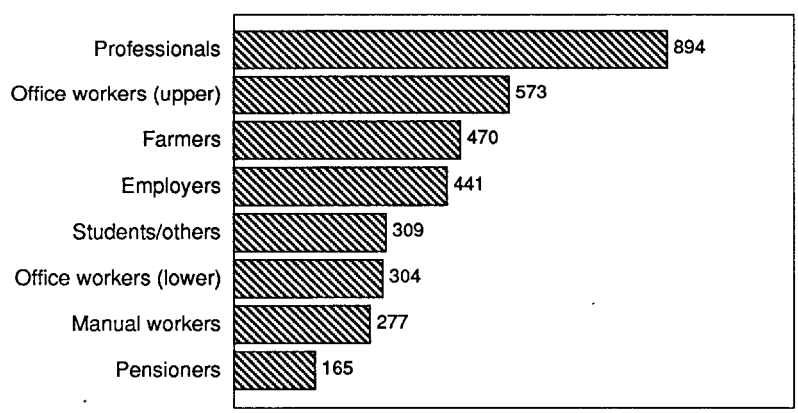
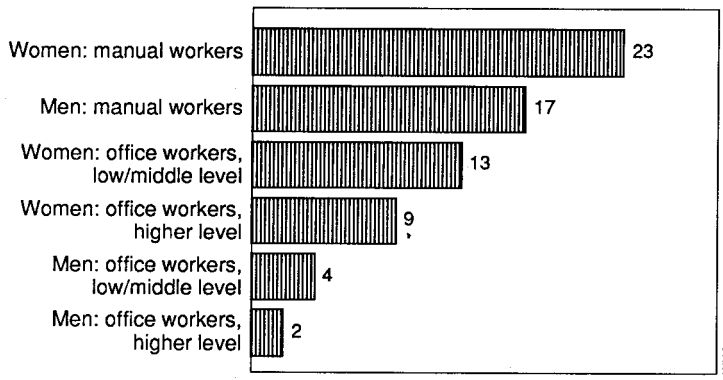


Fig. 11. Percentages of people aged 16–64 with aches and pains, by occupation and sex

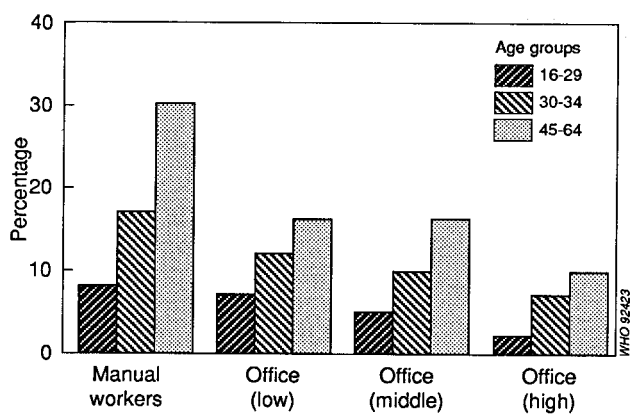


jogging events; in 1990 more than 50 such events were held at national level for women only.

Fig. 8 shows that regular participation in sporting activities increases with educational level, while Fig. 9 indicates that the proportions of both sexes participating in sports increase with occupational status. Uneven participation may largely depend on the nature of the work done and on the working environment. During most of the working day a majority of manual workers are involved in repetitive tasks involving light to heavy physical activity. Office and professional workers are better off in terms of their working environment, income and education. Furthermore, they are better acquainted with the benefits of exercise and have the means and desire to participate in sport and recreational exercise during leisure time.

Fig. 10 shows that expenditure on leisure-time sport and recreational exercise by the highest earners is five times higher than that of the lowest income group. The decline in the burden of heavy work has

Fig. 12. Percentages of people with musculoskeletal diseases, by occupation and age group



apparently had no significant influence on the desire of the people affected to take part in leisure-time sports activities.

Fig. 11 shows that the prevalence of aches and pains is substantially higher among manual workers than among office workers;

In general, physically active people tend to observe guidelines on food intake, to enjoy good health, and to live longer than other people.

Fig. 12 indicates that musculoskeletal diseases are markedly more frequent among manual workers than among office workers and that the frequency of such diseases increases with age.

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The overall goal is to encourage people to participate in sports and recreational exercise and to enjoy a better quality of life. In 1989, public financial support for these purposes amounted to about US$ 1400 million, equivalent to $ 160 per person. Whether this is too little or too much depends on the objectives pursued and the quality of life achieved.

Direct transfers of money are designed to strengthen the capacity of clubs at the grass roots, and of federations at the district and national levels, to organize and coordinate sport and recreational activities. Indirect support in the form of subsidies is intended, through local government involvement, to provide for the maintenance and construction of facilities near residential areas.

A healthy population, a widespread network of vertically integrated clubs and federations, and a well-established system of public support has enabled Sweden to come closer to meeting its 1970 national objective of sport for all. It is now desired to motivate the 2.1 million physically inactive people to take up exercise, and to increase the willingness of another 2.2 million people who exercise occasionally to do so more regularly. The differences in rates of participation increase the need for attention to certain groups, such as those involved in repetitive work while either standing or sitting, and schoolchildren. Changes in the physical education curriculum in schools, e.g., a broadening of the concept of physical education by inclusion of health-related aspects of physical activity, are important because school-leavers should have an adequate understanding of the physical strength needed in different work situations. It is also desirable to achieve recognition of sports and recreational exercise as a route to involvement in health promotion activities. □