

# Sports participation in Denmark 2011

National survey - English version



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Danish Institute for Sports Studies

**IDRÆTTENS  
ANALYSEINSTITUT**

**Title**

Sports participation in Denmark 2011

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**Published**

May 2013

**Price**

DKK 200 (VAT included, shipping not included)

**Cover**

Agnethe Pedersen

**Cover photo**

Colourbox

**Print**

PrinfoDigital

**ISBN**

978-87-92120-68-7

**Publisher**

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**Quotations**

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When quoting larger portions of the report in print, please note: "The study 'Sports participation in Denmark 2011' is carried out by the Danish Institute for Sports Studies with support from The Danish Foundation for Culture and Sports Facilities, the Sports Confederation of Denmark, Danish Gymnastics and Sports Associations, the Danish Federation for Company Sports, the Ministry of Culture and Team Denmark."

# Sports participation in Denmark 2011

## Foreword

This report presents the general results of the study 'Sports participation in Denmark 2011' (Danish: 'Danskernes motions- og sportsvaner 2011'). The data is presented in tables and figures supplemented with further statistical analysis, but the discussion of these findings does not have a particular focus on the political implications of the results. The questionnaire, analytical methods and general results have been discussed and agreed upon among the study's stakeholders.

The study has generated a vast collection of data which will form part of further future analyses and thematic reports to facilitate the spread of knowledge and debate in the field of sports participation and trends in this area.

The data collection and parts of the data processing and presentation in 2012 and 2013 were funded by the four main stakeholders, The Danish Foundation for Culture and Sports Facilities, the Sports Confederation of Denmark, Danish Gymnastics and Sports Associations and the Danish Federation for Company Sports. These main stakeholders have also taken part in the steering committee overseeing the study. The analysis behind this report was mainly funded by the annual grant from the Ministry of Culture to the Danish Institute for Sports Studies. Further, the Ministry of Culture and Team Denmark have supported specific parts of the study. We wish to thank these stakeholders for their economic and professional contributions to the study.

Thanks are also due to the people at the heart of the study: Almost 6,000 Danes aged from 7 to 92 who answered the extensive questionnaire and thereby created new insight into the sports participation of children and adults in Denmark and a great basis for comparisons with a very similar study from 2007. The 2007 study was also published in the form of a report (Pilgaard 2008) and further discussed in the book 'Sport og motion i Danskernes hverdag' (Pilgaard 2009). Both are available for free downloads (in Danish) at [www.idan.dk](http://www.idan.dk).

This report is produced by analyst Trygve Buch Laub in cooperation with Maja Pilgaard on certain chapters. Thank you very much to Maja Pilgaard for the assistance and good cooperation in the process. Thanks also to other colleagues at the Danish Institute for Sports Studies for their much appreciated help with proofreading, layout and general sparring. Thanks in particular to Aline van Bedaf and Rachel Payne with their work on the English translation.

We also owe a big thank you to Professor Bjarne Ibsen and Ph.d. scholar Karsten Østerlund from the Centre for Sports, Health and Civil Society at the University of Southern Denmark for their valuable critiques and comments as the report has taken shape.

Copenhagen, May 2013

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<sup>1</sup> Sport and exercise in Danes' everyday lives.

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## Summary

Since the first study on the subject in 1964, the sports participation rate in Denmark has been on a constant rise. In this study, with data collected in the autumn of 2011, 86 per cent of children (aged 7 to 15) and 64 per cent of adults answered yes to doing sport or exercising.

### Children

The 86 per cent of children participating in sports or exercise constitute a minor (not statistically significant) rise from 84 per cent in 2007. Children aged 7 to 9 are the most active with 89 per cent being active. Among 10-12-year-olds the number is 86 per cent and among 13-15-year-olds it is 81 per cent. Marginally more boys than girls participate in sport or exercise, however, the difference between the sexes is not statistically significant.

Football is (still) the most popular sporting activity among children up to the age of 15 as 46 per cent of them regularly take part in the game. Next is swimming with 38 per cent and gymnastics with 27 per cent. Like most other popular sporting activities among children, football, swimming and gymnastics most frequently take place in local, voluntary associations (sports clubs). Between eight and nine out of every ten children will have participated in sports in a club setting within the last year.

Doing sport or exercise in clubs is most common among younger children, whereas organising sports or exercise independently (alone or with friends) and participating in sports or exercise in commercial centres is more frequent among older children. Boys are active in self-organised settings slightly more often than girls, who in turn favour commercial centres twice as often as boys.

Although there are no major changes on the list of popular sporting activities among children, an interesting trend lies in the number of activities taken on by each active child on average, which dropped from 3.9 activities in 2007 to 3.2 in 2011. With no significant decrease in the time spent on sports or exercise, this is not a sign of diminishing dedication to sports, but it might be an indication of a prevalent tendency in a number of organised sports, such as football and handball, to offer training and competition throughout the year and, thus, undermine the common norm among Danish children to combine typical outdoor sports in the summer with indoor sports in the winter.

Children's sporting activities usually take place in areas and facilities dedicated to sport, such as sports halls, outdoor fields and pitches or special facilities like pools and equestrian facilities. A testament to the fact that children's sports activities primarily take place in clubs, which often serve as gate keepers to these facilities.

Among the relatively few children not participating in sports or exercise, the reason most frequently given is spending time with friends or other spare time activities or, simply, having lost interest in sport and exercise all together.

## Adults

Sports participation among Danish adults has grown significantly since 2007, from 56 per cent to 64 per cent. A number of reservations and methodological questions need to be taken into consideration, and will be in the following report, but the data from 2011 nevertheless leaves the impression of a growing trend toward sports participation among all age groups of the adult population.

Compared to 2007, more people in their twenties, thirties and forties generally participate in sport and exercise. However, the active people in these age groups spend the less time on sport and exercise than other age groups, and it is therefore a topic for debate whether the low degree of sports participation found in the 2007 study among 25-45-year-old Danes is all but gone in this latest study, even with sports participation in Denmark today being roughly equally high in all age groups. Only among people aged 70 or older there is a minor dip to 58 per cent participating in sport or exercise. Men and women are also equally represented in the sports participating population.

Running has grown to become the number one sports activity among Danish adults. Almost one out of three respondents stated that they had done recreational running regularly within the last year. Numbers two and three on the list of sports activities are strength training and walking/hiking (number one in 2007). People in their twenties, thirties and forties have taken a particular liking to running as a flexible and predominantly self-organised activity. The survey results also indicate a tendency among adults in general and the 20-49-year-olds in particular to participate more often in competitions or events, both among club members and non-members.

These results combined point to the fact that a major part of the increased sports participation in the Danish adult population can be explained by the growing number and increased popularity of open sporting events, mainly running races, targeting both experienced and inexperienced athletes in and outside the organised sports clubs.

The majority of adult Danes do sport and exercise on their own in self-organised settings, as it is dubbed in this report. But with 41 per cent of adults taking part in club organised sports, local voluntary sports clubs also play a major role in adults' sport participation. However, the teenage years still represent a challenge to organised sports, as half of club members quit club activities in those years of their lives.

Therefore, when adults are active their sporting activities most often take place in settings that are different from children's sports activities' settings. Instead of choosing specific sports facilities, adults turn to public spaces, such as forests and parks, or roads and pavements in the city. Health clubs, fitness centres and other types of private, commercial facilities for sport and exercise are also preferred by adults far more often than children, and by women far more often than men.

Adults not participating in sports or exercise tend to indicate lack of spare time or bad physical shape as their reasons for inactivity.

## Methodology

Questions about sports participation were first asked on a large scale in Denmark as part of the national 'Cultural Habits Survey' (Danish: Kulturvaneundersøgelse) in 1964. Back then the pivotal question regarding sports participation was: 'Do you do sport?' The wording has only changed slightly over the years to become 'Do you normally do exercise/sport?' in the 2007 study, when the sports questions were separated from the rest of the cultural habits survey and placed as part of a larger sporting habits survey carried out by the Danish Institute for Sports Studies.

The study 'Sports participation in Denmark 2011' presented in this report is also based on a survey focusing exclusively on sport. The data collection was initiated in October 2011 with the SFI Survey consisting of postal questionnaires sent to over 13,000 randomly selected Danes aged 7 and older. Children from 7 to 15 years of age received a 14-page questionnaire, while the adult questionnaire was 20 pages long.

Where telephone numbers were available, respondents were contacted twice by phone reminding them to complete the survey and offering to send them another copy of the questionnaire in the mail. If no telephone number was available, the respondents were sent two postal reminders each containing copies of the questionnaire. The last questionnaires were answered by respondents and registered in the dataset in January 2012.

In total, 13,199 Danes were sent questionnaires. However, 46 of the questionnaires sent out to adults and three sent out to children never reached their addresses, which altered the total number of contacted respondents to 13,150. The outcome of the data collection process is shown here.

**Table 1: Basis for this study's dataset.**

	Total	Children	Adults
Questionnaires sent	13,150	4,076	9,074
Questionnaires answered	5,992	2,035	3,957
Response rate	45.6 per cent	49.9 per cent	43.6 per cent

With roughly 2,000 children and 4,000 adults answering the questionnaires, the total response rate landed between 45 and 46 per cent, slightly lower than the 49 per cent response rate in the 2007 study. A relatively low (by Danish standards) response rate to such a lengthy questionnaire on a narrow topic is, however, to be expected at a time when the general population is becoming increasingly fatigued with the number of surveys they are asked to complete.

### Representativeness of the sample

Appendix 1 and 2 of this report describe in detail how the approximately 6,000 respondents were broken down into gender and age groups and supplementing background variables such as family circumstances, ethnicity and education.



The random sample of child respondents in this study corresponds with the Danish demographics of children aged from 7 to 15 quite well when it comes to gender and age. Among adults, however, there are discrepancies beyond what one would expect to find based on ordinary random noise in data collection. Certain groups being more prone to answering questionnaires is a well known problem when dealing with large scale random sample studies, and like the previous versions the 2011 sports participation survey has registered a slight overrepresentation of women, middle-aged and well-educated people.

Unlike its predecessors, however, this study incorporates weighting of the adult respondents' data, taking the discrepancies in gender and age distribution between sample and population into account. Regrettably, it has not been possible to use weights based on respondents' educational levels, which have been shown to have an effect on sports participation. The data behind the weight used and exact weighting factors can be found in appendix 2 and 3.

## Analysis and presentation of the data

With almost 6,000 completed questionnaires of either 14 or 20 pages received and processed, this investigation of Danes' exercise and sporting habits has produced a very comprehensive dataset. Without exhaustively assessing the knowledge that can be gleaned from the data, this report presents some key results and analyses in two main sections about children's and adults' exercise habits.

The statistical analysis in this report aim at presenting data as simply as possible. Therefore data is primarily presented by use of requery tables and crosstabs, testing mainly for correlation between spots factors and gender and age groups. Chi<sup>2</sup>-significance tests are used, which indicate whether correlations found are based on actual relationship between factors or random noise. In a few simple cross tables, the Chi<sup>2</sup> value has been noted ( $\chi^2$ ), but in more comprehensive tables with several crossings (for instance between multiple sports activities and gender and age) **bold numbers** imply statistical significance. The intersection point for significance in this study is a p-value of 0.05, which means that any given correlation is considered statistically significant when the probability that it is due to random fluctuations in the data is less than 5 per cent.

Each section of the basic report concludes with a comparison of the section's results with results from previous studies, usually from the research of 2007, but sometimes with a longer retrospect. The differences between 2007 and 2011 are tested for statistical significance based on 95 per cent confidence intervals.

For some tables and figures in this report, statistical tests are not attached. This is primarily the case when there is a graphical representation of basic frequencies (where the relationship between gender and age has already been described and statistically tested in the preceding text) or tables containing different types of variables or more than two different years and therefore cannot be tested in a simple and transparent manner. Also in these cases, the data will be described in more detail in the preceding text.

In the many tables and figures in the basic report, only whole numbers without decimals are given in order to avoid giving a misleading impression of excessive precision in the estimates. Columns and lines

in the figures are, however, based on the study's exact data. In short, the data is reflected as accurately as possible, while it is presented as methodologically justifiably as possible. Therefore, the columns and lines in the individual figures may have small variations in height, even though they represent the same rounded numbers.

### **Can we trust the numbers?**

Despite the large sample, the use of statistical test and the adult sample weighting, it is still relevant to ask whether the numbers are to be trusted. There are pitfalls in all types of studies, and the methodological caveats in the introductory part of this report are a reflection of the effort to present the data as honestly as possible without dismissing alternative interpretations or criticism of the methodological premise.

There are various reservations and assumptions one should consider while conducting quantitative research. Because we examined a behavioural trait, physical activity, that is nowadays generally seen as positive and desirable, it is imaginable that the people who participated in this study tended to indicate a more positive - in this case a more physically active – impression of their behaviour than is indicative of their everyday behaviour (Bille et al. 2005:42-43).

Even without considering that personal 'truths' indicated by the sample group might be embellished, the data may still misrepresent the population (in this case children and adults in the Danish population). This can happen because of systematic differences in who responds and who does not respond to the questionnaire. Therefore a self selection of the physically active can occur, simply because the physically active part of the population might be more likely to respond to a questionnaire on sports and exercise habits.

We can not know with certainty whether the respondents in this study have angled their responses towards more 'desirable' behavioural traits than they actually have, or whether it is predominantly physically active people who have chosen to respond to the questionnaire. However, there are methods to evaluate and validate data, which are also used in this context.

There is no data on physical activity in the central register that this study's data can be weighed against to illustrate a possible bias. The next best things are estimated total membership numbers<sup>2</sup> from sports federations and fitness centres, and based on these we can conclude that the total number of children and adults who are active in clubs and the number of adults that indicated they are active in private/commercial centres in the sample are not far off. In other words, data paint a plausible image of the adult Danish population when finding that 41 per cent<sup>3</sup> of the adult respondents in this study stated that they were regularly active in a voluntary sports club within the last year, although it may be at the high end of what is realistic.

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<sup>2</sup> Which are in themselves uncertain numbers because of the possible overlapping in memberships and the varying age categorisation of the registered members.

<sup>3</sup> Weighted number.

Whether the study overestimates the level of sports within the population because self selection was examined in a separate dropout analysis conducted from a random sample of respondents who did not reply to the questionnaire. A total of 330 adults not originally answering the survey were approached to be part of the dropout analysis, and among the 241 respondents, 55 per cent were 'normally physically active'. That proportion is somewhat lower than the 64 per cent<sup>3</sup> found in the study. Although conducting a dropout analysis of only 241 people is itself an insecure measurement method, it does indicate that the study on sports participation in Denmark has the slight tendency to overestimate the proportion of physically active adult Danes, which one should keep in mind while reading this basic report.

The study of sport and exercise habits among Danes depends, like all surveys, on the respondents' willingness to answer and their subjective interpretation of their own actions and attitudes, and it is in this light the results should be interpreted. We cannot evaluate the responses in terms of 'objective truth', even though the questions aim as much as possible to inquire into concrete and comparable figures. As mentioned, there is also a moderate overrepresentation of well-educated respondents, which weighing of the data can not take into account.

With these considerations in mind, one can expect that the *overall* proportion of physically active people is probably a bit higher in this study than is actually the case in the general population. Therefore, caution should be taken when, for instance, referring to an estimated proportion in the study as representing a precise number of people in the Danish population, since a statistical uncertainty in the material of just one per cent is equivalent to almost 50,000 Danes.

However, the study gives a qualified estimate of the sports participation of the population which is comparable with earlier identical or similar studies in Denmark and internationally. Also, it is interesting to look at the systematic *differences* in the responses between different groups in the population and thereby identify differences in who and how many people see *themselves* as being part of a sports and exercise culture, and how their habits are reflected<sup>4</sup>. Through its direct comparability with previous Danish studies using the exact same wordings of questions (and facing the same representativeness related challenges), this study provides a solid picture of how sports habits have developed in Denmark since 1964 and particularly in the years from 2007, when the research was similar to this study in terms of the amount of data collected.

Apart from minor changes to the questionnaire, the only difference from the 2007 study is that the current study is weighted to adjust to the the adult Danish population's gender and age distribution. Such weighting also to some extent compensates for the somewhat inaccurate representation of different educational levels in the dataset. As Appendix 3 shows, mainly women and people in their thirties and forties that are weighed down, and these groups contain a relatively large proportion of the well-educated sub-group<sup>5</sup>.

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<sup>4</sup> Read more about the methodological considerations about the quantitative method in relation to the population's sports participation in Pilgaard (2010, 2012).

<sup>5</sup> The actual difference between the unweighted and weighted figures of the main parameters of this study, however, is not large, and the comparability with previous, unweighted studies is therefore intact.

## More ways than one to measure sports activities

Sports and exercise are complex research objects which cover many different activities and can be perceived differently from one person to another. The study of sport and exercise among Danes asks about sports activities in more ways than one, thus attempting to target the uncertainties associated with the fact that people may interpret particular words in different ways<sup>6</sup>. That gives considerable nuances to the analysis, but it does not make it easier to report the data. Instead of one single measure, the study makes use of several different expressions for Danes' sports activities, briefly introduced below.

The conceptualisation of physical activity is a study in itself and contains interesting theoretical discussions (Bøje & Eichberg 1994; Storm & Brandt 2008:34f) which this more general and practical report will not discuss in further depth. Here, it should be noted that 'exercise/sports' is a key phrase in light of which the basic report deals with Danes' sporting habits. The questionnaire asks about issues related to 'exercise/sports', a term also used throughout this report. At times, also, it is referred to simply as 'sports', often in contracted forms such as 'sport participation' and 'sports activity'.

'Do you normally do exercise/sports?' is the basic introductory question about sports activity in the questionnaire. People who answered 'yes' are classified as 'sports active' or just active.

The questionnaire also presented the respondents (both children and adults) with a wide range of specific sports activities they could tick if they had participated in them 'regularly within the past 12 months'. These included 33 activities for the children's questionnaire and 43 for the adults'. When we look at how many people participated in at least one activity on a regular basis within the past year, we have another measure for sports participation.

The difference between the basic question, if one normally does exercise/sports, and the question about having done one or more specific sports activities regularly within the past year is the indication of time and the fact that in the latter a list of concrete activities is mentioned, which may remind the individual that they actually have been active in an activity that 'counts' as exercise/sports in this study, including hunting, fishing and winter bathing. In addition, 'regularly within the past 12 months' is likely to be a sufficiently broad definition for some respondents to identify themselves as having been regularly active, even without being so at the time of responding to the questionnaire<sup>7</sup>.

Therefore, the proportion of respondents who have regularly been active in at least one activity within the past year is typically larger than the proportion of sports active people (those who answer 'yes' to normally doing exercise/sports). In the questionnaire, the terms 'normally' or 'regularly' are not defined explicitly, and therefore it is up to the individual's own assessment as to whether they belong to the group called 'normally active' or 'regularly active within the past 12 months'.

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<sup>6</sup> For this reason, the questionnaire wording is consistently 'exercise/sports' in order not to discard respondents who consider their activities one or the other.

<sup>7</sup> The basic question ('Do you normally do exercise/sports?') avoids this problem by adding the response category: 'Yes, but not currently'. Respondents answering this are not counted as sports active.

Basically, the question 'Do you normally do exercise/sports?' is in this report used as a measure for the proportion of sports active Danes in general, whereas the question 'What kind(s) of exercise/sports have you been doing regularly within the last 12 months?' is used as a measure of the popularity of specific sports activities among Danes, but not in itself a measure of sports activity versus sports inactivity.

In addition, the study also indicates how often people participate in sports, and how much time they spend on sports per week. These questions help to define what 'normally' means for those who 'normally' do exercise/sports. Independently, these questions can also be considered overall measurements of sports active versus sports inactive Danes among children and adults. However, this also implies methodological uncertainties and considerations, which will be presented and discussed further as the answers to the respective questions are presented.

## Children’s sports participation

A total of 2,035 children aged from 7 to 15 years completed the questionnaire for the study of ‘Sports participation in Denmark 2011’. The number of boys and girls are equal and they are distributed evenly in the age groups 7-9 years, 10-12 years and 13-15 years. As such, they can be seen as representative of children of the same age in the Danish population as a whole<sup>8</sup>.

Children’s sports participation is the focus of this section, with particular attention paid to the proportion of children who participate in sports by various measurements. It is also interesting to look at how often and which sports activities the active children participate in and whether these take place in clubs or in other contexts. Finally, we will take a closer look at the differences existing between the three different age groups and genders.

**Table 2: Do you normally do exercise/sports? (Percentages)**

N = 2,021	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
Yes	86	84	87	89	86	81
Yes, but not currently	8	9	7	5	7	12
No	6	7	6	6	7	7
$\chi^2$ -test <sup>9</sup>		p > 0.05		p < 0.05		

86 per cent of the 7-15-year-old children replied ‘yes’ to normally participating in exercise/sports. Eight per cent answered ‘yes, but not currently’, while the remaining six per cent answered ‘no’. The distribution of girls and boys and in the various age groups is shown in the table below.

There are no big differences in the general sports participation of girls and boys but notable differences are found between the age groups, showing that the youngest children are the most active. The proportion of active children decreases as early as among the 10-12 year age group, although it is still relatively large with more than eight out of ten children being active.

Another parallel tendency can be seen where the older children are more likely to respond that they participate in sport, but are not currently active. This might be an indication that in the early teenage years, children are busy with other activities such as school and social life, pushing sport to the background but not thinking of themselves as downright sports inactive. Every eighth child aged between 13 and 15 does not participate in sports, but by their own assessment that status is only temporary. The

<sup>8</sup> A more detailed review of the children’s background characteristics, including family relations and ethnicity, can be found in appendix 1.

<sup>9</sup> The P-value of the  $\chi^2$ -test expresses whether there is a statistically significant correlation between two variables. In this case, whether sports participation varies significantly with children’s gender and age. With a p-value exceeding 0.05, it is generally recognised that one rejects the given relationship (so children’s answers to this question do not relate statistically significantly with their gender), while a value below 0.05 indicates a correlation (the child’s age plays a role in their sports participation).

question is how many of them will actually resume their sports activities. When we look at sports participation among adults in the following section, it becomes clear that the dropout rate in sports accelerates precisely in this age group.

We can also look closer at how many children indicate that they have participated in at least one activity on a regular basis within the past year. The proportion of active children by this measure is considerably larger.

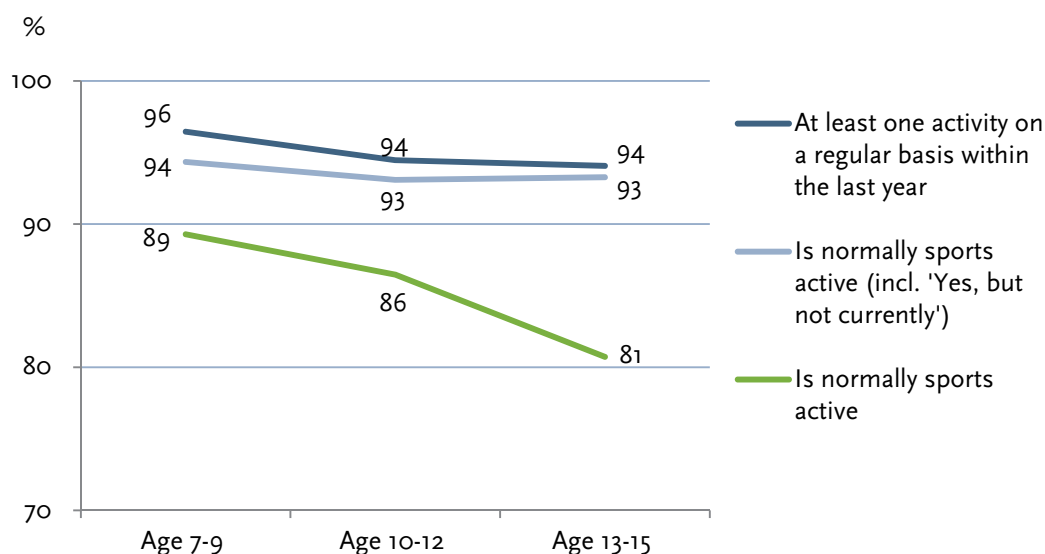
**Table 3: Participation in at least one activity on a regular basis within the past year? (Percentages)**

N = 2,035	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
At least one activity	95	95	95	96	94	94
No activities	5	5	5	4	6	6
$\chi^2$ -test		p > 0.05		p > 0.05		

Around 95 per cent of all children ticked at least one activity on a list of 33 different activities, indicating that they have participated in this activity on a regular basis within the past year. As opposed to general participation question above, there are no significant differences in the responses between the gender and age groups here, and this is confirmed by the statistical tests.

As the proportion here is somewhat higher than for the question on whether the respondent normally does exercise/sports, it can, as mentioned in the introduction, relate to the fact that 'regularly active in the past year' is a broader criteria that might give respondents who are not currently active the opportunity to identify themselves as being active by ticking an activity they did earlier in the year (e.g. during spring or summer, whereas this research was conducted in the autumn).

**Figure 1: Different measures for the proportion of active children. (Percentages)**



Almost all 'not currently active' respondents (92 per cent) ticked at least one activity they participated in regularly within the past year, which makes the group participating in at least one activity within the past year appear larger, as the figure above illustrates. A certain proportion of those who responded that they participated in specific sports activities within the past year is therefore likely to participate in sport, 'but not currently'. When we talk about the proportion that is active in sports in general, we look first at those who replied 'yes' to normally doing exercise/sports, indicated by the green line in the figure.

### Time spent on sports

The majority of children participate in sports three to four times a week. Here it should be noted that this refers to all kinds of activities, not necessarily traditional sports requiring the child to go back and forth to a club to attend training and matches. But if the child does participate, like many children do, in football, swimming or gymnastics in a local club, their participation in training a few times a week and a match or tournament at the weekend will soon account for a great deal of activities.

**Table 4: How often do you normally do exercise/sports? (Percentages)**

N = 2,002	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
At least 5 times a week	21	17	26	15	23	26
3-4 times a week	41	38	44	38	43	42
1-2 times a week	34	41	26	44	30	26
1-3 times a month	1	2	1	1	1	2
Less often	2	1	2	1	2	2
Never	1	1	1	1	1	2
$\chi^2$ -test		p < 0.05		p < 0.05		

Approximately one out of five children is active five or more times a week, and two out of five are active between three and four times a week. A total of 96 per cent state they are active at least once a week, and only one to two per cent answer that they are active one to three times a month, less often or never. These numbers are based on all of the child respondents and not only those who are normally active according to their own assessment. It therefore provides an image of how high the activity rate is among children in general and not only amongst the physically active, although they make up a large majority of the Danish children.

If this question was used instead of the other two discussed above to illustrate sports participation among Danish children, it could be concluded that only one per cent of Danish children never participate in sports. All of the children who answered 'yes' to normally participating in exercise/sports responded that they are active at least once a week, suggesting that 'normally' in this case can be interpreted to mean at least once a week.

There is a correlation between how often children are active and their gender and age. Boys participate in sports more often during a single week than girls, and the oldest children are more active than the youngest.



There is also a slight tendency of polarisation in terms of how often an individual is active. From 13 to 15 years of age there are more children who are active at least five times a week, but at the same time there is a small increase in the proportion that is active less than once a week.

The children who spend time on exercise/sports<sup>10</sup> spend on average four hours and 45 minutes a week on being active, excluding time used for transport. Boys spend more time on exercise/sports than girls. On average, the active boys spend about five hours and 20 minutes on exercise/sports, whereas girls spend approximately four hours and ten minutes.

**Table 5: How much time do you usually spend on exercise/sports per week (excl. transport)? (Percentages)**

N = 1,941	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
6 hours or more	30	24	37	17	33	41
4:00 - 5:59	25	23	26	24	28	22
2:00 - 3:59	30	35	26	40	28	23
1:00 - 1:59	12	14	9	14	10	11
Less than one hour	3	4	2	5	1	3
$\chi^2$ -test		p < 0.05		p < 0.05		

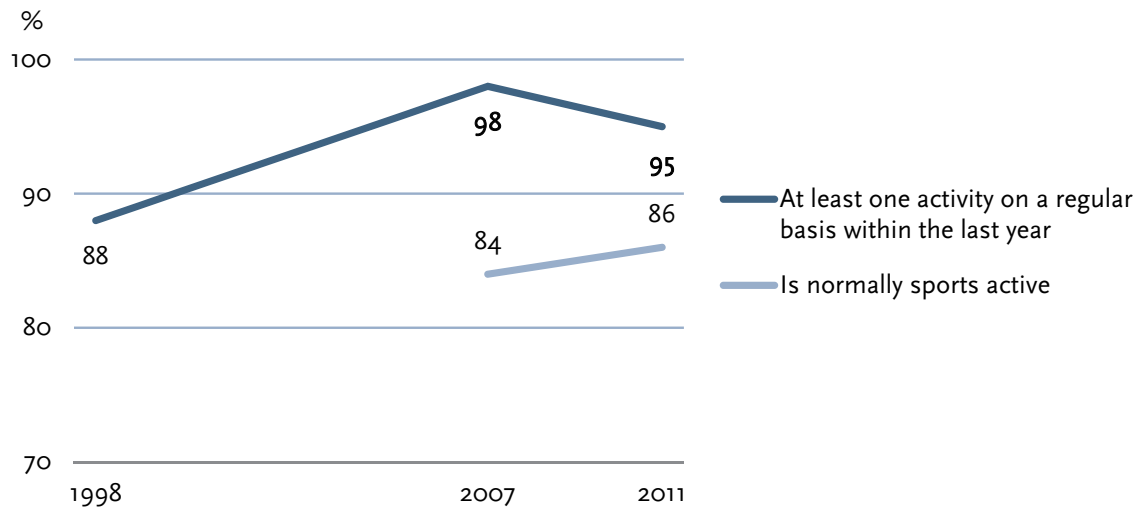
Nearly one out of three children do exercise/sports six hours a week or more, and more than half of those who indicated they spent time on sports, spend at least four hours a week on sports. The most active athletes are, as a general rule, boys and older children.

#### *Comparison with 2007 and 1998*

In 2007, 84 per cent of the children were sports active, so there was just a small rise when 86 per cent said in 2011 that they normally do exercise/sports. In 1998, the children were not asked the same question, so for that year there it is only possible to compare the proportion of children indicating that they were active in at least one activity on a regular basis.

<sup>10</sup> That is, all children who have indicated a number of minutes and/or a number of hours that they spend on exercise/sports on a weekly basis. However, the very few children who indicated they spent more than 37 hours a week on exercise/sports are disregarded in this analysis.

**Figure 2: Development of proportions of sports active children. (Percentages)**

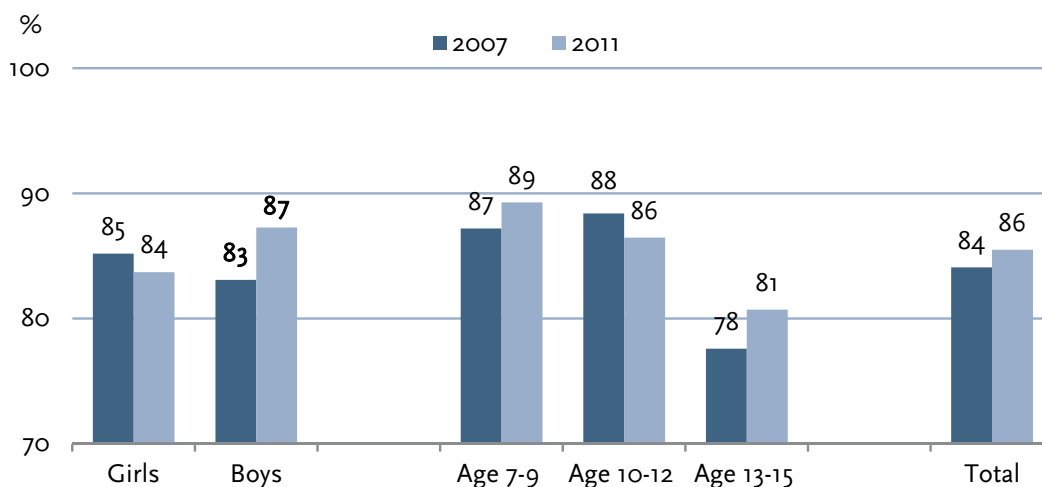


*Significant differences between 2007 and 2011 within the two definitions of activity are marked in **bold**,  $p < 0.05$ .*

The proportion of children who reported being active in at least one activity on a regular basis within the past year was greatest in the 2007 survey, when it had reached 98 per cent of all children, against 88 per cent nine years earlier in 1998. Since then, the numbers levelled out, but the proportion is still high with 95 per cent of all children being active in at least one activity on a regular basis in 2011.

Thus, one measure ('At least one activity on a regular basis within the last year') reveals a small decrease in proportion of active children, whereas the other measure ('Normally do exercise/sports') suggests a slight increase of the same. The overall picture indicates small differences and an overall stable development of the proportion of active children in recent years. There are however few, minor variations when looking closer at the age groups and differences between boys and girls.

**Figure 3: Sports active children within gender and age groups in 2007 and 2011. (Percentages)**

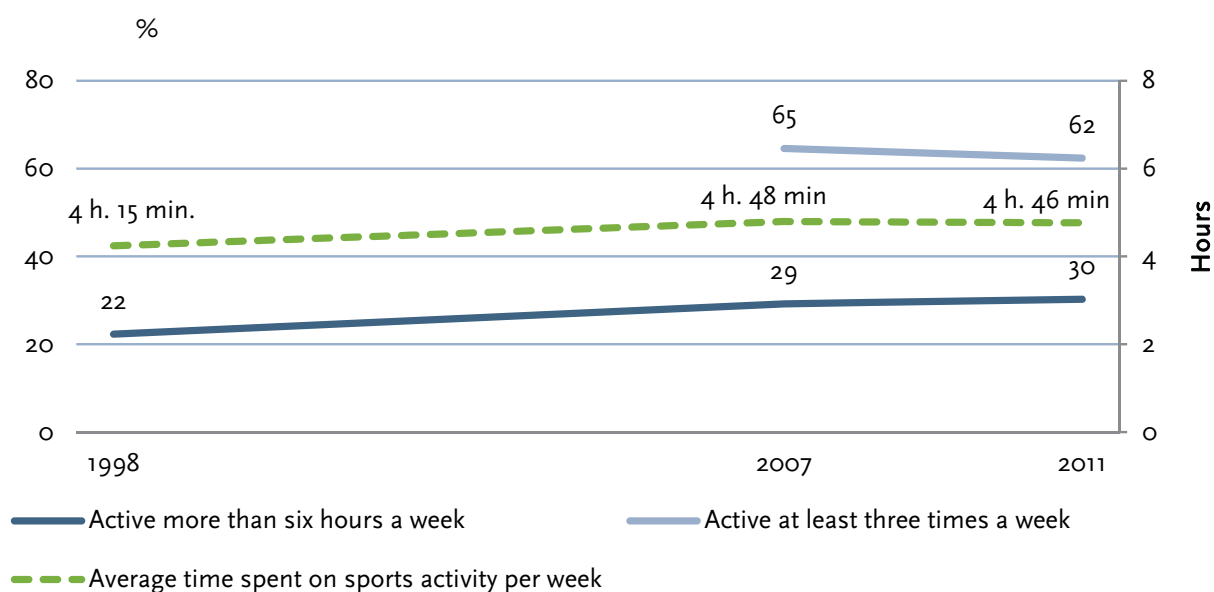


*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .*

Whereas in 2007 the largest largest proportion of sports active children was found among the 10-12 year olds, in the latest survey it is the youngest group, 7-9 years old, in which most are active. Hereafter a large decline in the proportion of active occurs, which continues into adulthood. All together, it is only among the boys (regardless of age), that a significant difference can be found between 2007 and 2011, suggesting a growin number of sports active boys in Denmark.

If we look at how often and how much the active children are active in sports, the overall conclusion is the same. There are no major differences between the numbers in the last 13 years and the 2007 and 2011 surveys in particular. The small differences in the data do not point in any one specific direction.

**Figure 4: Development of frequency and time spent on sports.**



*Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$  (no significant differences in this figure).*

As the figure shows, there are no significant differences in the proportions of children who are active more than six hours a week or at least three times a week. The slight decrease in the proportion of children indicating that they are active at least three times a week, from 65 per cent in 2007 to 62 per cent in 2011, is not significant. The question was not asked in 1998.

Overall, the time spent on sports has also been stable in recent years, and the proportion of children who are active more than six hours a week has actually increased slightly from 22 per cent in 1998 to 29 per cent in 2007 and 30 per cent in 2011, but again the differences between 2007 and 2011 are not significant.

The average time spent on sports has also been stable, as shown with the dotted line in the figure above, where the values can be read on the axis on the right side of the figure. It shows that the sports active

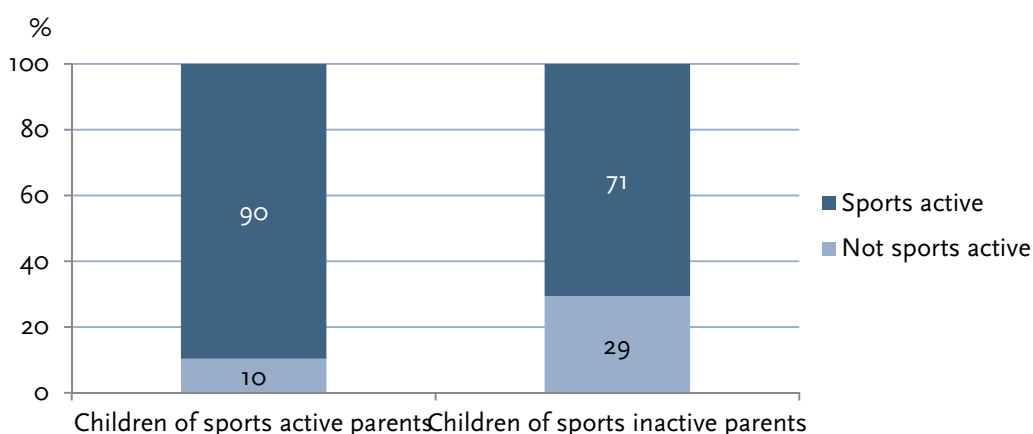
children in 1998 were active for four hours and 15 minutes a week on average, while in 2007 and 2011 they were active for approximately four hours and 45 minutes a week<sup>11</sup>.

## The influence of parents

Factors that play a major role in children’s lifestyles are often the traditions and example behaviours found in their immediate environments. Previous studies (Holstein & Madsen 2003; Pilgaard 2009:296) have stressed that the family background and parents’ exercise habits can have a large impact on whether children are active in sports.

In this study, the majority of children, nearly eight out of ten, have an active parent, either their mother, father or both, according to the children themselves. In contrast, around 22 per cent, or slightly more than two out of ten, come from a home with sports inactive parents (or parent in the case that they live with a single parent).

**Figure 5: Children of inactive parents are more often inactive themselves. (Percentages)**



*Proportion of sports active and inactive (incl. ‘Yes, but not currently’) among children of sports active parents and children of sports inactive parents;  $p < 0.05$ .*

When the mother and/or father is not active in sports, the probability that the child is not active is considerably larger. Although the children of inactive parents are most likely to be active and participate in sports, the proportion that does not participate is three times larger than it is among children of active parents. Only one out of ten children of active parents is sports inactive, while the same counts for three out of ten children of sports inactive parents.

### Comparison with 2007

Neither in 2007 nor 1998 the children were asked to what extent their parents participated in sports. However with the integration of the data of the parents and children, where both answered the questionnaire, a correlation between the parents’ and children’s sports activities was found.

<sup>11</sup> In the calculation of the average time spent on sports during a week, the very few children who stated they were active more than 37 hours a week have been disregarded in the analysis.

## Choice of activities

Based on a list of 33 different activities, the children were asked to note the activities they participated in on a regular basis within the past year, and in which organisational context they had been active.

**Table 6: What type of exercise/sports have you participated in regularly within the past year? By gender and age. (Percentages)**

N = 2,035	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
Football	46	30	63	50	45	44
Swimming	38	38	38	58	39	17
Gymnastics	27	37	18	39	25	18
Jogging/running	20	19	20	15	16	27
Handball	20	20	19	20	21	18
Rollerskating/skateboard <sup>12</sup>	17	16	17	21	18	10
Badminton	16	13	19	13	16	19
Dancing (all forms)	13	23	3	14	13	12
Equestrian	10	18	2	10	10	9
Walking/hiking	10	10	9	11	10	8
Strength training	9	6	11	1	6	20
Other sports	9	9	9	6	10	11
Table tennis	9	5	13	9	9	7
Martial arts <sup>13</sup>	6	6	7	5	7	7
Tennis	6	5	7	4	7	8
Other ball game, team	5	4	6	7	5	4
Basketball	5	3	7	3	5	7
Fishing	5	2	8	5	5	4
Volleyball/beachvolleyball	4	4	3	3	3	5
Road cycling <sup>14</sup>	4	2	5	2	3	6
Aerobics/Zumba <sup>15</sup>	4	7	1	2	3	6
Role playing (not card games)	3	2	5	4	4	2
Athletics	3	3	3	3	3	3
Golf	3	2	4	2	3	3
Skating (ice)	3	3	3	3	4	2
Parkour	3	1	5	2	3	4
Mountain biking	2	1	4	1	3	3
Other individual ball game	2	1	2	3	1	2

<sup>12</sup> Incl. waveboard/scooters.

<sup>13</sup> Boxing, karate, aikido, taekwondo, judo, wrestling, etc.

<sup>14</sup> Not as transportation.

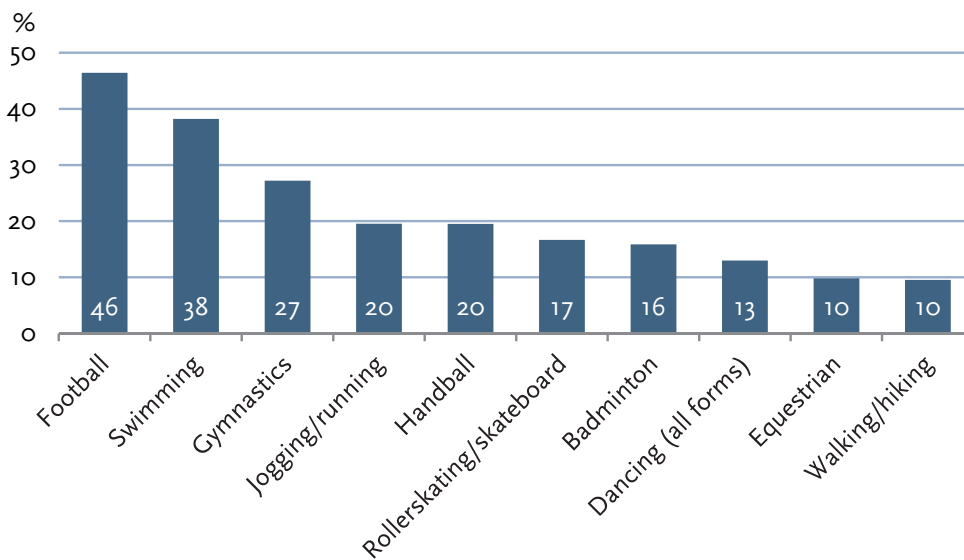
<sup>15</sup> Incl. step/pump and such team based exercises.

Sailing/surfing	2	1	2	1	2	2
Spinning/bicycle exercise	2	1	2	0	1	4
Canoe/kayak/rowing	1	1	2	<1	1	2
Other water sports	1	1	1	1	1	1
Disabled athletics	<1	<1	<1	<1	1	<1

Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .

This overview focuses on sports that take place in all kinds of organisational contexts, not necessarily in clubs. It could just as well refer to badminton in the garden or swimming at the beach when an individual child has indicated that they have participated in such activities. The guiding factor here is that the respondents consider themselves to have been active on a regular basis within the past year.

**Figure 6: The ten most popular sports for children. (Percentages)**



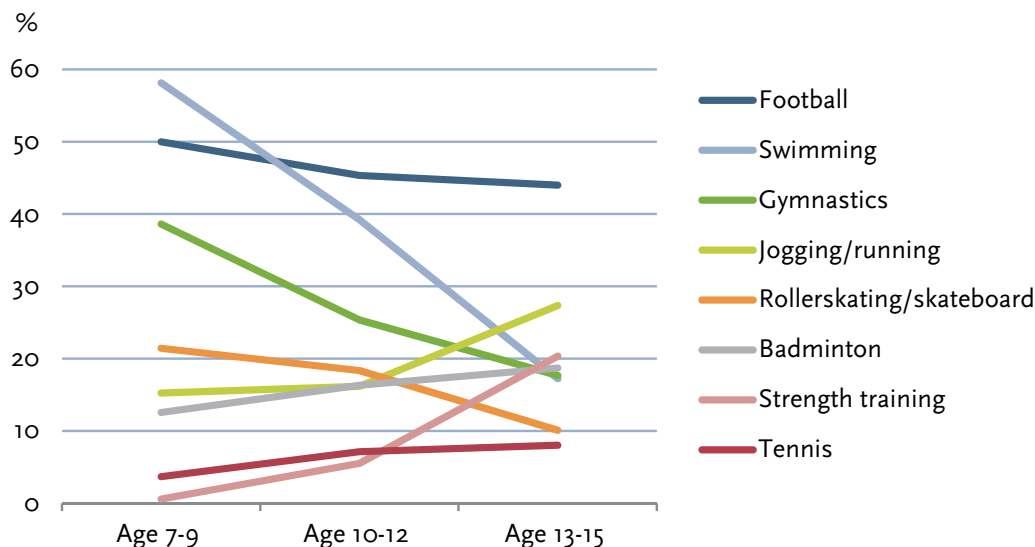
Football is the most popular sport among children between 7 and 15 years old, and in particular among boys as the previous table illustrated. After football, swimming and gymnastics are most popular, with just over one third and slightly more than one out of four children participating in these sports respectively.

Most of the sports above decrease in popularity with rising age of the children. Swimming, gymnastics and skating are apparent examples of this trend. Swimming is the biggest sport among the 7-9-year-olds, with 58 per cent participating in this activity, but this picture changes significantly in the proceeding age groups. The percentage of swimmers drops considerably to 39 among the 10-12-year-olds, and it drops even further among the oldest children, between 13 and 15 years old, to 17 per cent. Thus, swimming plummets from a first place ranking among the youngest age group to seventh place among the oldest children.

In contrast, a number of other sport activities gain in popularity as children grow older. For example, only one per cent of the 7-9-year-olds is active in strength training, whereas one out of five 13-15-year-olds said

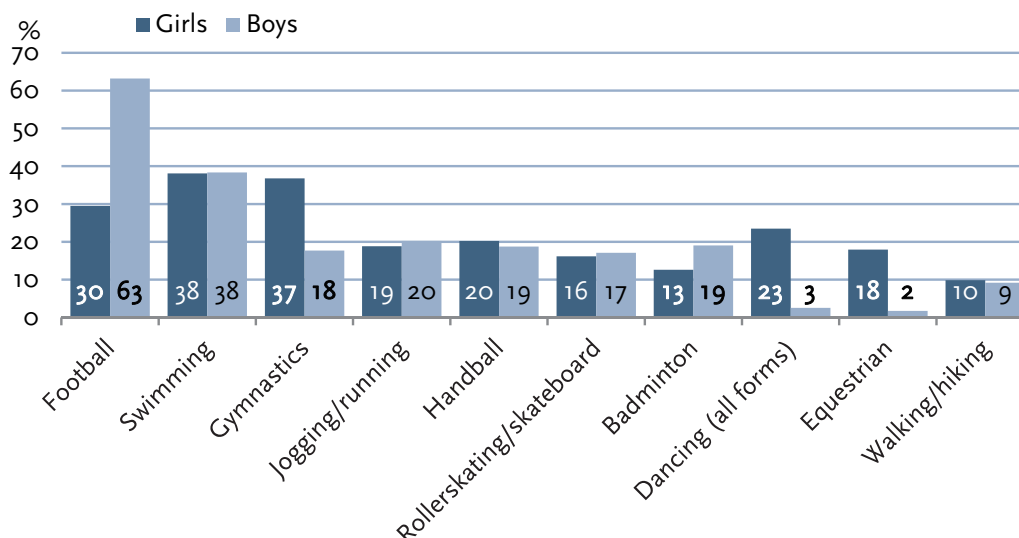
they participated in this activity on a regular basis within the past year. The popularity of badminton, tennis and running also tends to rise when children reach this age, but at a less explosive rate.

**Figure 7: Distribution of selected sports activities by age. (Percentages)**



There is no single way to define ‘children’s sport’, as there are large differences between the relatively small age groups’ selection of sports activities. The 7-15-year-olds are in a life phase in which it is common to switch between sports and leisure activities with great frequency. When children enter their teenage years, their habits often change as they become more independent and start constructing their own everyday lives, which have traditionally been determined by or dependent on their parents (Kulturministeriet 2009:151f).

**Figure 8: Differences between girls and boys. (Percentages)**



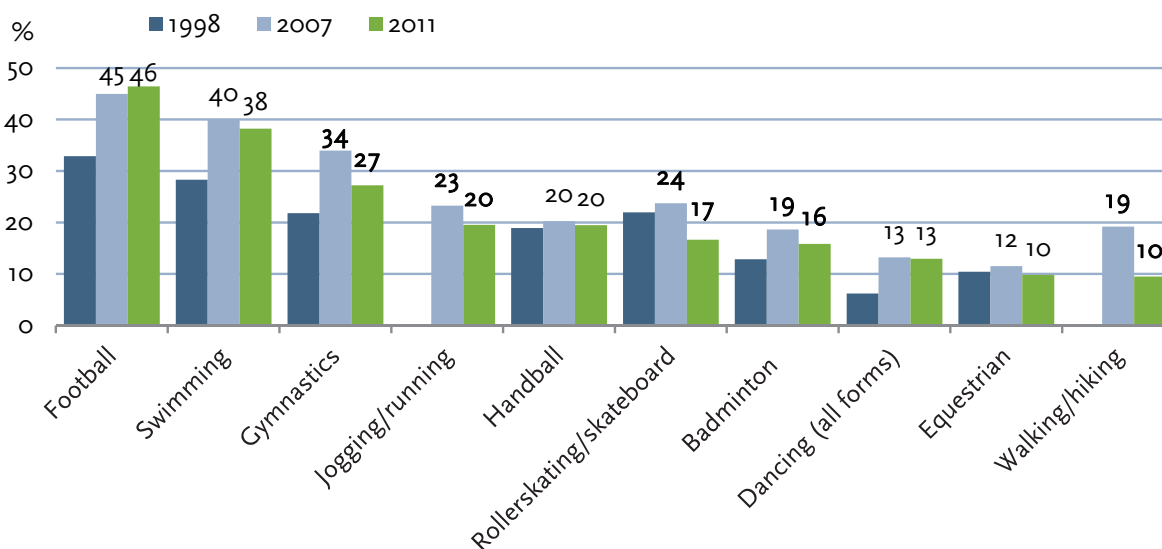
Significant differences between the genders are marked in **bold**;  $p < 0.05$ .

A number of the most popular children’s sports are popular among both girls and boys. There is basically gender equality among children who participate in swimming, running, handball, rollerskating/skateboarding and walking/hiking. More boys than girls play badminton and football, but a considerable proportion of girls still play both sports. The opposite is the case for gymnastics. In fact, only two out of the ten most popular children’s sports are dominated by one gender, dance and equestrian, where there are almost ten times as many active girls as boys.

*Comparison with 2007 and 1998*

Compared with the previous studies, the children’s top ten list of popular sports was not significantly different in 2011. Over the past 15 years, football, swimming and gymnastics have consistently been the most popular sports among children between 7 and 15 years of age. Since the survey first asked children in 2007 whether they participated in jogging/running and walking/hiking, it has also become clear that these activities are relatively popular among children.

**Figure 9: Development of the ten most popular children’s sports. (Percentages)**



*Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .*

The figure above suggests that there has only been an increase in the number of children playing football in recent years. The difference between 2007 and 2011, however, is not great enough to be considered statistically significant. The same is true for swimming, handball, dancing and equestrian. But the proportion of children active in gymnastics, jogging/running, rollerskating/skateboarding, badminton and walking/hiking has declined so much that there are significant differences between 2007 and 2011 in these sports.

This development should be interpreted in the light of an opposing trend, which occurred between 1998 and 2007, in which the proportion of active children increased across all sports. Overall, it can be noted there is a degree of changeability associated with children’s choice of sports that takes place alongside the constant trend that the most popular children’s sports remain basically the same year after year.



The changeability of sports is also reflected in the lists of activities used in the different years' surveys on which the children were asked to tick specific sports activities. In 1998, the list was limited to only 16 activities, where otherwise popular sports like basketball and volleyball were merged into a single category of 'other team ball games'. The list of activities was extended but otherwise replicated with minor changes for the larger and more comprehensive studies in 2007 and 2011. In the 2011 survey, the children could select a total of 33 activities, but scouting, trampoline and singing/music, which are otherwise very popular among children, were left out<sup>16</sup>. This was done to give the study a more distinctive sport and exercise profile and to avoid the inclusion of activities that lie in the boundaries of play, hobbies and other cultural activities.

Why most children's sports activities decline a bit in popularity despite children's generally high sports participation, is the very simple fact that children are more active in fewer sports. On average, an active child participated in 3.9 activities in 2007, while that number in 2011 declined to 3.2 – that is a difference of almost one sport per child.

In other words, there are clear signs that children are including fewer sports in their leisure activities, without spending less time on sports during a single week, as shown in figure 4. A reason for this might be, that a popular children's activities like football, that has traditionallt been taking place mainly in summer months, with the introduction of new technology (astro turf is now a common sight in the Danish sporting landscape) and tournament structures presents itself as a all year activity. Other popular children's sports have developed similar initiatives to maintain the level of activity and interest throughout the entire or greater part of the year. Thus, sports are increasingly competing against each other in order to capture the active children's interest, which in turn leads to a sharper focus on fewer sports for the individual child. Detailed analysis of children's choices of sports in various combinations (including a decrease in selection) over the years, is necessary to describe this trend further.

## **The organisation of children's sport**

In addition to presenting the children with a long list of sports activities on which they could indicate their participation, the survey also asked in which context they participated in each activity – ore specifically, if they were active 'in a club', 'private centre', 'after school childcare', 'on their own'<sup>17</sup> or in 'another context'. For each sport it was possible to choose more than one option (for example, if the respondent played football in a club as well as together with friends in a park, i.e. self organised). This way, it is possible to look at the organisational framework that characterises specific sports, and which organisational frameworks are most common amongst children, regardless of activity.

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<sup>16</sup> Also chess and cardio training, which were asked (but very rarely ticked) in 2007, are excluded from the 2011-survey.

<sup>17</sup> 'On their own' is to be understood as self-organised activities that can be done alone or with others.

**Table 7: In what context do you do exercise/sports? By gender and age. (Percentages)**

N = 2,035	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
Sports club	86	85	87	<b>90</b>	<b>85</b>	<b>82</b>
Self organised	46	<b>39</b>	<b>52</b>	<b>44</b>	<b>43</b>	<b>51</b>
After school childcare	21	<b>16</b>	<b>26</b>	<b>38</b>	<b>18</b>	<b>7</b>
Private centre	9	<b>12</b>	<b>6</b>	<b>8</b>	<b>8</b>	<b>12</b>
Other context	20	<b>18</b>	<b>23</b>	<b>19</b>	<b>24</b>	<b>19</b>

*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .*

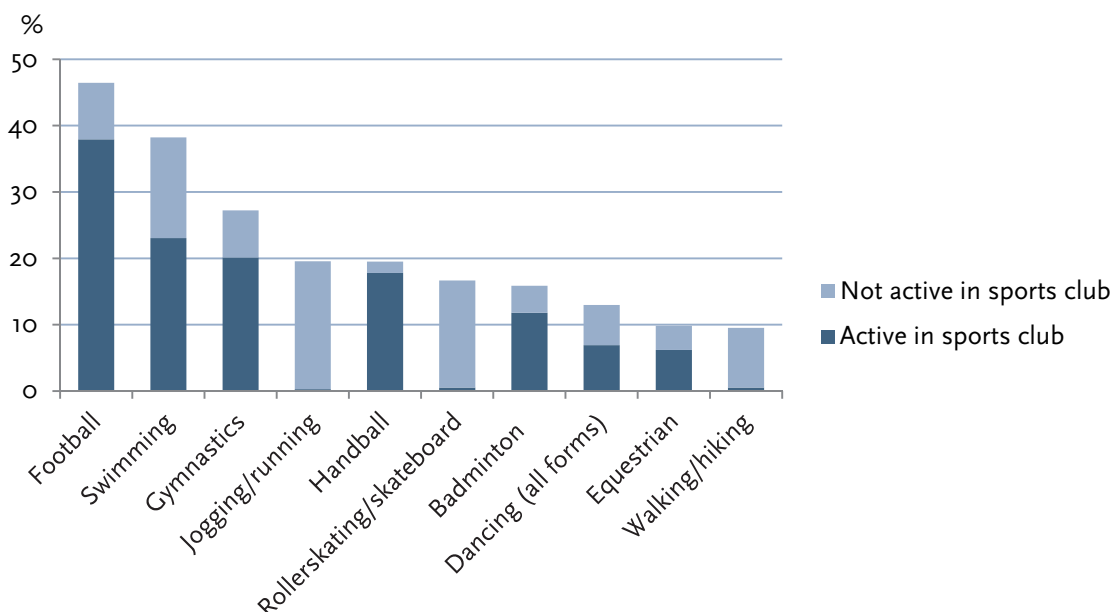
Club based sport is the top scorer amongst children, with 86 per cent of all children having participated in at least one club organised sports activity regularly within the past year. Nearly half of the children are active in self organised settings, 21 per cent participate in sports in association with a leisure club, and approximately 9 per cent are active in private centres. Finally, every fifth child is active in other contexts than the ones mentioned.

It is not necessarily all active children who participate in clubs, even though the 86 per cent recur here and in table 2, which showed how many children said ‘yes’ to normally doing exercise/sports. As mentioned, there is a broader criterium for sports activity (‘on a regular basis within the past year’) for the questions where the organisational context is also included, which can prompt more children to tick activities. In short, there are a few more children who have marked at least one sport and the related organisational context than there are ‘normally sports active’ children.

It is also conceivable that some children participated (or within the past year had participated on a regular basis) in sports in a club without being a member. There is a small disparity between the 86 per cent who were active in club activities, and the proportion that at a later question answered that they were a member of a club (80 per cent). A second explanation for this discrepancy might be that some have been active in club sports on a regular basis within the past year, but at the moment of answering were no longer club members.

As shown in the table above, clubs are roughly equally popular among girls and boys (85 and 87 per cent), while there is a tendency that fewer older children are active in club settings. Nevertheless, 82 per cent of the oldest children participate in clubs, underlining that these are the preferred organisational context when children do exercise/sports. This is also evident when looking at how specific popular children’s sports are most often organised.

**Figure 10: Proportion of club organisation in the ten most popular children’s sports. (Percentages)**



The majority of popular children’s sports are highly club organised. However, there are large differences in the extent to which the ten most popular children’s sports are organised in clubs. As mentioned earlier, 46 per cent of all children play football, and the first dark blue column in the figure shows that 38 per cent of all children play football in a club. In other words 82 per cent of all football playing children play football in a club.

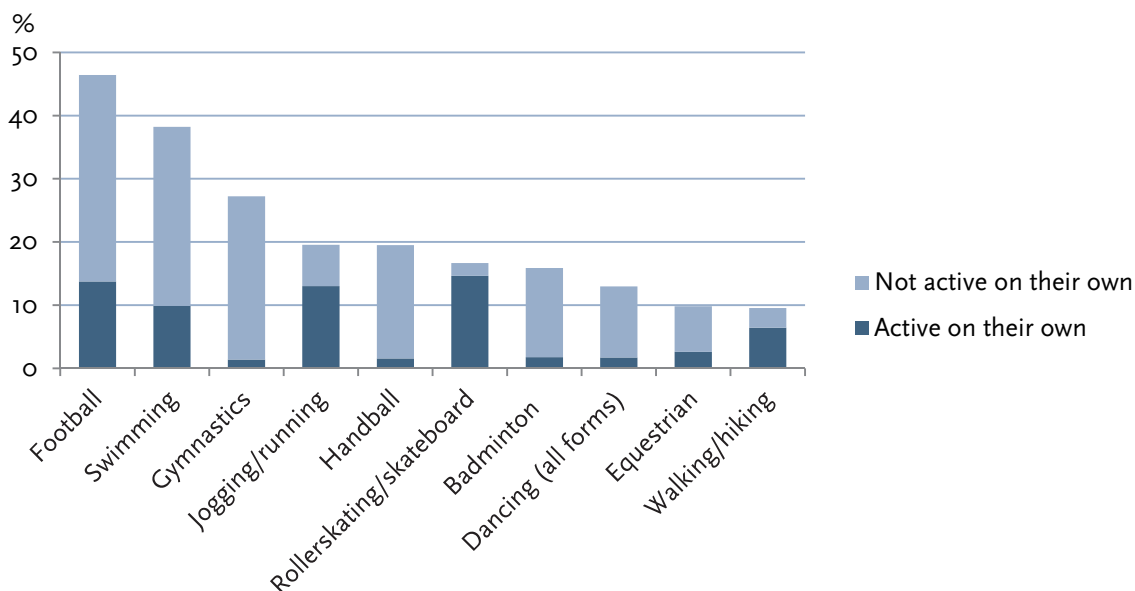
Playing football in a club does not prevent one from playing football in other organisational contexts, and therefore, the total distribution of specific sports’ on different organisational setting can not be illustrated in a meaningful way. Instead, table 8 will give a comprehensive overview of the organisation of the 15 most popular children’s sports.

Number two and three in the figure above are also to a large extent club based sports among children. More than 60 per cent of all swimmers swim in a club, and almost three out of four (74 per cent) gymnasts participate in a club setting. And as many as 91 per cent of all handball players play handball in a club. More than half of the children taking part in badminton, dancing and equestrian are also active in clubs.

Over three quarters (76 per cent) of all children are members of a club doing at least one of the seven major organised children’s sports: football, swimming, gymnastics, handball, badminton, dancing and equestrian. There are also strong club organised sports among the sports activities that do not belong to the children’s top ten, like martial arts, where 86 per cent of the participants are active in clubs, and tennis, where seven out of ten children play in a club.

As shown in the figure above, there are also popular children’s sports activities in which clubs play only a minor role, such as jogging/running, rollerskating/skateboarding and walking/hiking. In stead, these activities very often take place in informal and self organised settings.

**Figure 11: Proportion of self-organisation in the ten most popular children’s sports. (Percentages)**



Especially children who do jogging/running, rollerskates/skateboard or walking/hiking do so on their own, in a setting they organize themselves (or their do). But also when it comes to football and swimming, a significant part of the active children are self-organised. The majority of self-organised football playing children are also active in football clubs, while it is opposite for swimming where those who choose to arrange swimming at the beach in the summer, in the pool in the garden or purchase access to the swimmingpool seem to do that instead of participating in club based swimming. Only just over one out of four children swimming on their own, also swim in a club, while this is the case for nearly three out of four self-organised football players.

Self-organised activity is also common among children in cycling. 80 per cent road race cyclists are self-organised and nearly 70 per cent of the mountain bikers are, likewise, active on their own.

Football is generally a sport many children participate in, and often in a variety of different organisational settings. Every tenth child plays football in afterschool childcare on a regular basis, often combined with football in other contexts. After school childcare is otherwise not at place where many children do specific sports regularly, but certain activities such as role playing (not card games), table tennis and basketball often take place in after school childcare settings.

Participating in sport in private and commercial centres is not very common among children, aside from a few activities such as dancing, where one out of four is active in a private centre, and equestrian, where

the same is true for every sixth child. The proportion of children using private centres to participate in strength training and spinning/bicycle exercise is roughly the same.

In a comprehensive table of the most popular children's sports, it becomes visible that while some sports are dominated by one type of organisation, the active children participating in other sports find different organisational frameworks in which to be active. The following table is extended to the 15 most popular children's sports to give a broader view, but it does not contain all 33 activities from the children's questionnaire, as the organisational distribution of the less popular activities depends on few responses and is therefore statistically uncertain<sup>18</sup>.

**Table 8: The organisation of the 15 most popular children's sports. (Percentages)**

N = 2,035	Total share of active children	Organisational context				
		Club	On their own	After school childcare	Private center	Other context
Football	46	82	30	22	<1	10
Swimming	38	60	26	10	2	16
Gymnastics	27	74	5	9	1	17
Jogging/running	20	2	67	11	2	26
Handball	20	91	8	5	1	3
Rolerskating/skateboard <sup>19</sup>	17	3	88	12	1	8
Badminton	16	74	11	7	2	9
Dancing (all forms)	13	53	13	11	25	8
Equestrian	10	63	27	3	17	6
Walking/hiking	10	6	68	10	3	25
Strength training	9	29	48	2	22	10
Table tennis	9	21	37	49	1	12
Martial arts <sup>20</sup>	6	86	8	5	3	3
Tennis	6	71	25	3	1	6
Cycling sports <sup>21</sup>	5	15	78	5	1	12

Football is a very common sports activity among children in Denmark, which is emphasised and perhaps somewhat explained by the table above. It illustrates an interesting point: A relatively large proportion of football players are active in several organisational settings, in clubs, on their own and in after school childcare, and playing football is therefore not confined to one single sports arena. More than 30 per cent of the football players are active in more than one organisational framework in their everyday participation. Among handball players it is less than 10 per cent and among badminton players it is less than five per cent.

<sup>18</sup> The activity 'other sport' is actually in the top 15 as number 12, but is not included in this context.

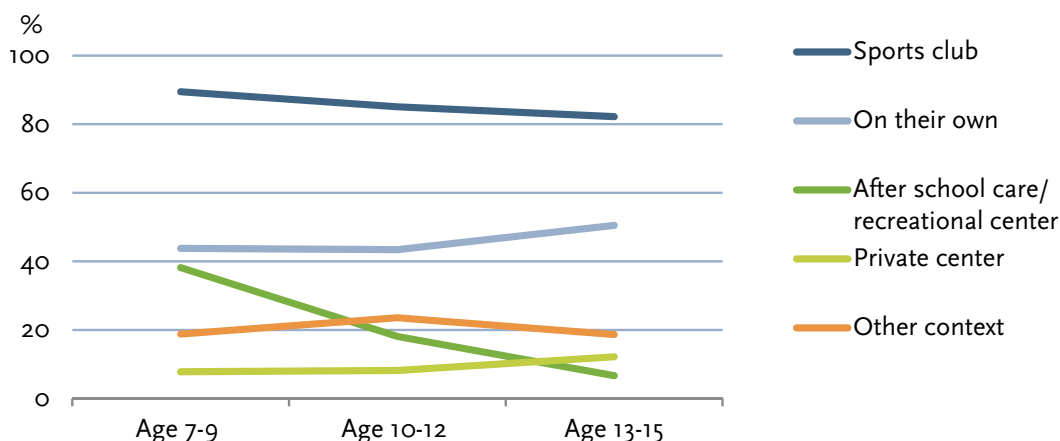
<sup>19</sup> Incl. waveboard/scooter.

<sup>20</sup> Boxing, karate, aikido, taekwondo, judo, wrestling, etc.

<sup>21</sup> An collective category of road cycling (not transportation) and mountain biking.

To conclude the overview of the organisation of children’s sports activities, we can look again at table 7 showing how the organisation of children’s sports activities vary with their gender and age. This is naturally due to the fact that the children’s choice of sports changes with age and that the typical club-organised sports, especially swimming and gymnastics, are deselected as the children get older in favour of strength training and running where clubs play a minor role. To illustrate the development even further, the figures from the previous table 7 are presented in the figure below.

**Figure 12: Organisation of sport depends on age. (Percentage)**



Clubs are the paramount and primary arena for children’s sports activities, and even though the proportion of those active in clubs is more than 80 per cent, there is a significant decrease amongst the youngest and oldest children. An even clearer decline can be found in the share that is active in a after school childcare, which has its natural explanation in the fact that children between 10 and 15 years of age gradually step out of those types of after school care centres.

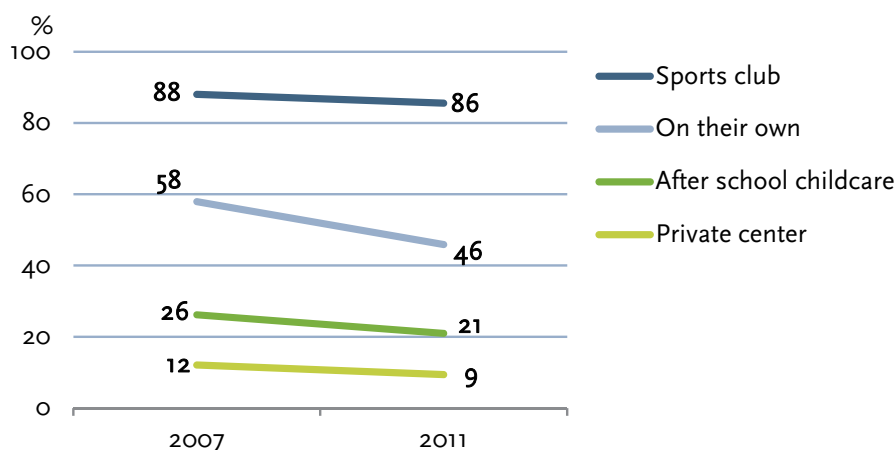
Conversely, an increase can be found in the proportion that is active in self-organised sports and among those who are active in private centres, especially in the group of 10-12-year-olds and 13-15-year-olds. It is these organisational frameworks that appeal to a high extent to the young teenagers.

Girls and boys are roughly equally active in clubs across the various age groups, but boys are more often active on their own within after school childcare than girls. Here the age related difference is reduced. In contrast, girls are more active than boys in private centres, and this difference become slightly more evident with increasing age.

*Comparison with 2007 and 1998*

As mentioned in connection to the specific sports, there is a tendency in 2011 that children are more selective in their choice of sport. Whereas in 2007 they were typically active in approximately four sports each, in 2011 they were, on average, only active in just over three sports each. When the children participate in fewer sports, it also has a logical effect on the different forms of organisation of sports and the activities each take up less space.

**Figure 13: Development of the organisation of children's sports. (Percentages)**



*Significant differences between 2007 and 2009 are marked in **bold**;  $p < 0.05$ .*

In 2007, all four forms of organisation were more common among children than they are in the 2011 survey. The proportion of children indicating that they participated in at least one sport in a club has fallen from 88 per cent to 86 per cent. The largest decrease can be found within the self-organised sports. Whereas 58 per cent of the children in 2007 were active in at least one self-organised sports activity, this applies to only 46 per cent in 2011. Finally, sports organised in after school childcare has dropped from 26 to 21 per cent, and the proportion of children participating in private/commercial centres has fallen from 12 to 9 per cent. All differences between 2007 and 2011 are statistically significant.

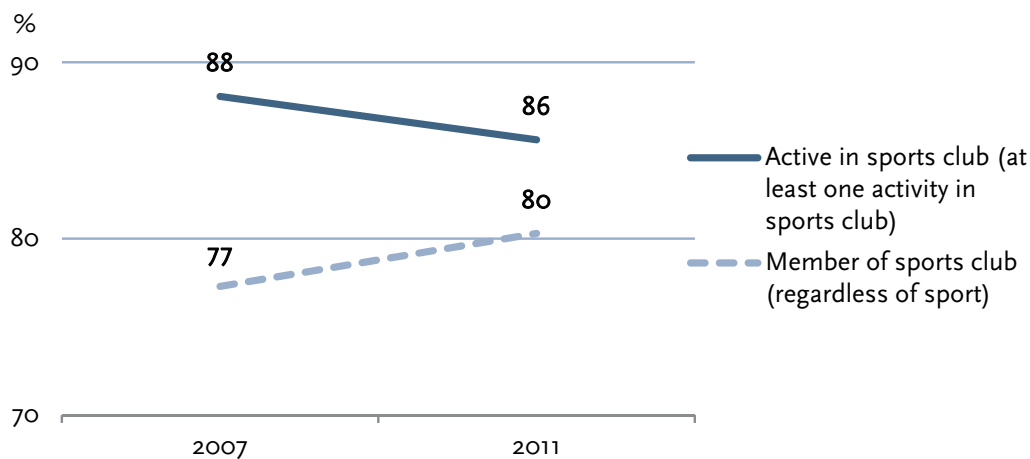
Overall, the results indicate a decline in all organisational contexts in which sport can take place. The largest reduction can be found in the proportion of children who play sport on their own<sup>22</sup>.

There is, as mentioned, a question in the children's questionnaire that specifically asks whether one is a member of a club. This question is independent from the list on which the children can tick many different sports, and is about membership regardless of the sport – and in principle also regardless of whether one is being active in the club or not. Nothing in the analysis of children's exercise habits suggests, however, that there are children who are club members without being active in a club.

There is an opportunity to look more closely at the participation in clubs among children from two angles: Club activity, measured as at least one sports activity in a club, and club membership, measured as actual membership of a club (regardless of the sport). This prompts a more complex interpretation of figure 13, suggesting that club participation (and maybe also the participation within the other organisational contexts) is on a downward trend.

<sup>22</sup> The 2007 survey presented the activity 'Trampoline', which was chosen by many children doing so on their own. As a borderline hobby activity, 'Trampoline' was not part of the 2011 survey. Just like in the overview of specific sports, trampoline, scouting, singing/music, cardio training and chess are excluded from this analysis of the organisation of children's sports because these activities were not part of the 2011 study.

Figure 14: Different measures for club participation. (Percentages)



Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

In 2007, 88 per cent of the children were active in clubs according to their own statements, but only 77 per cent were a member of one (or more) clubs. The proportion of the club-active children fell slightly in 2011 to 86 per cent, but on the other hand the proportion of club members increased to 80 per cent. The imbalance between the two different but very similar questions is smaller in 2011, suggesting greater accuracy in the 2011 data.

Although the figures from 1998 are not based on a study equivalent in scope, they do help to balance the numbers when looking at the development over the years. In the 1998 study, the proportion of children that were active in at least one sport in a club was 72 per cent, which in turn challenges the interpretation of the development over the years. All together, it points in the direction of a stable development that for methodological reasons varies a bit between different studies.

The number of children active in clubs in the most popular sports has also been fairly stable over the years between 1998 and 2011.



**Table 9: Development of the 15 largest children's sports' degrees of club-organisation. (Percentages)<sup>23</sup>**

	2011 (N = 2,035)			2007 (N = 1,987)			1998 (N = 660)		
	Total share of active	Active in club, share	Level of organisation <sup>24</sup>	Total share of active	Active in club, share	Level of organisation	Total share of active	Active in club, share	Level of organisation
Football	46	38	82	45	38	84	32	26	81
Swimming	38	23	60	40	23	58	28	13	46
Gymnastics	27	20	74	34	24	71	22	13	59
Jogging /running	20	<1	2	23	2	9	-	-	-
Handball	20	18	91	20	19	95	18	16	89
Rollerskating/ skateboard <sup>25</sup>	17	1	3	22	<1	1	22	<1	1
Badminton	16	12	74	19	14	74	13	10	77
Dancing (all forms)	13	7	53	13	6	46	6	4	67
Equestrian	10	6	63	12	6	50	10	7	70
Walking/ hiking	10	1	6	19	1	5	-	-	-
Strength training <sup>26</sup>	9	3	29	10	3	30	2	1	5
Table tennis	9	2	21	10	2	20	-	-	-
Martial arts <sup>27</sup>	6	6	86	6	5	85	5	4	80
Tennis	6	4	71	7	4	57	3	2	67
Cycling sports <sup>28</sup>	5	1	15	11	1	9	4	<1	4

The largest children's sports have not become less club-dominated since 1998. Football and handball, which have the highest degree of club organisation, are stable with eight and nine out of ten participants being active in a club. The levels of organisation within swimming and gymnastics seem to have increased slightly since 1998, and badminton, dancing, equestrian, martial arts and tennis have also been stable in their high degrees of organisation from 1998 to 2011.

<sup>23</sup> Note that the degree of organisation in 2011 is calculated based on the study's exact numbers (with decimals), but it is, as mentioned in the introduction, only presented as whole numbers with no decimals. Therefore, there might be slight variations between the exact degree of organisation in 2011 in the table above, and the imprecise, simplistic numbers one can find by calculating the number of club activities among all active people within the certain sport based on the rounded figures in the tables.

<sup>24</sup> Degree of organisation for clubs, ie. the proportion of active people who play sport in a club.

<sup>25</sup> Incl. waveboard/scooter.

<sup>26</sup> In 1998 called 'Weight training'.

<sup>27</sup> Boxing, karate, aikido, taekwondo, judo, wrestling, etc.

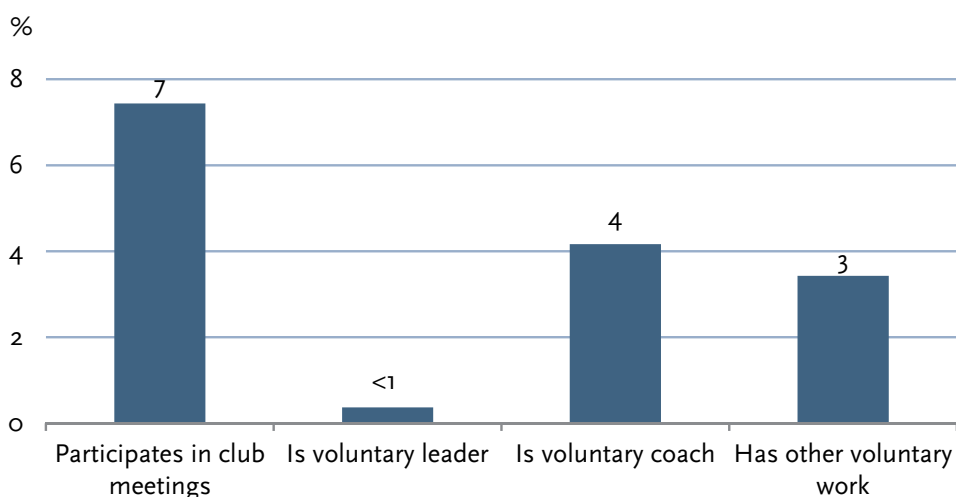
<sup>28</sup> An overall category of road cycling (not as transportation) and mountain biking.

At the same time, the traditionally less club-organised sports are showing signs of development in different directions. Running is increasingly something children participate in outside of clubs. Rollerskating and other skating activities are also largely self-organised or organised in contexts other than clubs. But these activities do account for a small increase in the degree of organisation from less than one to three per cent of the active participants being active in a club. Walking/hiking is more often organised in clubs, because the proportion of children that walk is declining, while the proportion of children that walk in a club context is stable at approximately one per cent. The same counts for cycling, where the proportion of club-active children is stable at one per cent, despite the fact that the total number of active children in cycling has halved between 2007 and 2011.

### Voluntary work in clubs

For some people, being a member of a club does not only mean that they participate in that sport together with other children. A key livelihood for clubs is voluntary work, which is also to some extent carried out by children and young members from the ages of 7-15 years.

**Figure 15: Children’s voluntary work in clubs. (Percentages)**



Seven per cent of all children participate in member meetings, four per cent work as voluntary coaches or instructors and three per cent help out with other tasks in their clubs. Almost none of the 7-15-year-olds work as voluntary leaders or board members, which is perhaps not so surprising given their age. In general, it is clear that age plays a role in children’s propensity to participate in voluntary club work.

**Table 10: Children’s work in voluntary clubs. Divided by gender and age. (Percentages)**

N = 1,913	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
Is a club member	80	<b>76</b>	<b>84</b>	<b>85</b>	<b>84</b>	<b>72</b>
Participates in club meetings	7	8	7	2	7	<b>14</b>
Is voluntary leader	<1	1	<1	<1	0	1
Is voluntary coach	4	4	4	<1	3	<b>9</b>
Has other voluntary work	3	<b>4</b>	<b>2</b>	1	3	<b>6</b>

*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .*

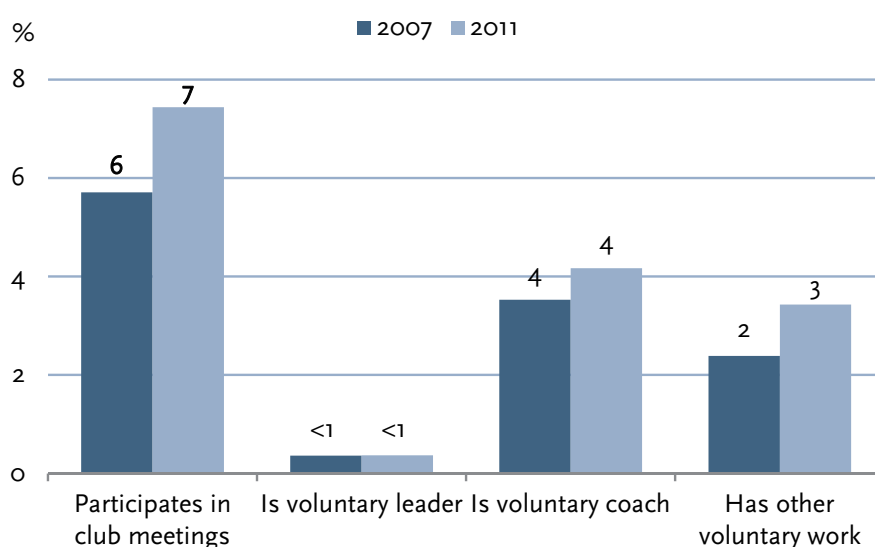
A little less than one out of ten 13-15-year-olds work voluntarily as a coach or instructor in a sports club, and approximately one out of seven participate in member meetings. In general, all forms of participation in club activities (with the exception of the sporting activities themselves) are more prevalent among older children than the youngest. However, the leadership positions requiring more responsibility are not often filled by 13-15-year-olds.

It appears that girls are slightly more likely to engage in meetings and voluntary work in sports clubs than boys, but only when looking at the proportions doing other voluntary work in sports clubs are the differences between boys and girls statistically significant.

It is worth noting that in regard to the separate question about club membership, there are significantly more boys than girls among club members. The proportion of club actives among girls and boys, as illustrated in table 7, points in the same direction, although without a significant correlation. But some differences between boys and girls are also evident in reponse to the question specifically about club membership and not only about activities done in a club within the last year.

Comparison with 2007

Figure 16: Development of children’s voluntary work in clubs. (Percentages)<sup>29</sup>



Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

There are no large shifts in children’s voluntary work in clubs, since this question was asked for the first time in 2007. There are small differences that indicate a slightly higher participation in the various voluntary tasks in clubs, but only the proportion participating in membership meetings is significantly higher in 2011 compared to 2007.

Competition sports

The majority of the children taking part in the study are not only active in sports, but have also participated in one or more sports competitions within the past year.

Table 11: Have you participated in competitions, tournaments, events, etc, within the past year? By gender and age. (Percentages)

N = 1,943	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
Yes	71	65	77	67	75	71
No	29	35	23	33	25	29
$\chi^2$ -test		p < 0.05		p < 0.05		

71 per cent of all children participate in competitions, tournaments, etc. Most widespread is the participation in competitions amongst boys, with more than three out of four participating, and approximately two out of three (65 per cent) girls participate in competitions. Competitive sports are

<sup>29</sup> While the columns reflect the exact proportions, the numbers are rounded to whole percentage points. This is in order to not give the impression of excessive precision in the estimates, and means that columns with slightly different heights can illustrate the same percentage in percentage points.

most popular among the 10-12-year-olds, of which 75 per cent has participated in competitions, events, tournaments, etc., within the past year.

Whether one participates in competitions is related to, but does not imply, membership of a sports club. Among the children who are members of sports clubs, 80 per cent participates in competitions, but competition also takes places outside of club sports. Among non-club members, 37 per cent participates in competitions, events, etc. This shows that competitive activities can also take place outside clubs (i.e. at schools or institutions), but it might also be a sign that clubs are increasingly helping to organise activities and competitions, which are also open to non-existing members.

#### *Comparison with 2007*

The participation among non-club members represents a small but not significant increase from 2007, when 34 per cent of the children who were not a member of a club participated in competitions, events, etc., within the past year. There have been no major developments in the children's participation in competitions when looking closely at the gender and age groups. 71 per cent of all children were also active in competitions in 2007, and even then the boys were slightly more active than girls, and the 10-12-year-olds were more active than the other age groups.

## Adults' sports participation

The study of adult Danes' exercise and sports habits is based on a total of 3,597 respondents aged 16 to 92 years. There are a few small imbalances in the respondents' distribution by gender and age compared to the Danish population as a whole, and these are compensated for by weighting the data, so that the analyses in the following describe the sports participation and exercise and sports habits as accurately as possible for the adult Danish population in 2011<sup>30</sup>.

As in the case of the children's survey results, there is more than one measure for the sports activity in the adult population. The adults were asked whether they 'normally do exercise/sport' and in which specific sports they had been 'active on a regular basis within the past 12 months' by selecting their choices from a list of 43 different activities.

**Table 12: Do you normally do exercise/sports? By gender. (Percentages)**

N = 3,797	Total	Gender	
		Women	Men
Yes	64	65	63
Yes, but not currently	14	15	13
No	22	20	25
$\chi^2$ -test <sup>31</sup>		p < 0.05	

Just under two out of three adult Danes (64 per cent) answered 'yes' to normally doing exercise/sports, 14 per cent replied 'yes, but not currently', and 22 per cent were not active in sports. Slightly more women than men said they were active, but the difference between the distributions in gender is only significant when also looking at the answer 'yes but not currently', as more women than men chose this answer. When only assessing whether people answered 'yes' or 'no' (where 'yes, but not currently' belongs to 'no'), there is no significant difference in the proportion of women and men who are active in sports.

The difference lies therefore in the fact that men more often answer 'no', while women more often answer 'yes, but not currently' to the question of whether they are active in sports. It could be an indication that women often opt out of doing exercise/sports when the time is not right, for instance because of child birth, without feeling inactive for this reason. Other possible causes for the respondents (both men and women) to reply 'yes, but not currently' might be that they are active in seasonal sports, or have suffered an injury that temporarily ends their sports activity. The section 'Barriers for sport and exercise', which follows later in this report, examines the various causes of physical inactivity.

<sup>30</sup> See Appendix 2 and 3 for more detailed background data of the study among adult respondents and the weighting of data.

<sup>31</sup> The P-value based on the  $\chi^2$ -test expresses, whether there is a statistical significant correlation between two variables. In this case, sports participation varies significantly with adults' gender and age. With a p-value above 0.05 it is generally recognised to reject such a correlation, whereas a value below 0.05 indicates a relationship (the adults' gender plays thus a role in the sports participation, when also taking the 'not currently active' into account as is the case in the table above).

On the list of specific sports, however, far more than 64 per cent indicated they were active or had been active in at least one sports activity on a regular basis within the past 12 months. Therefore, the overall proportion of active people among adult Danes is somewhat larger by use of this measure.

**Table 13: At least one activity on a regular basis within the past 12 months? By gender. (Percentages)**

N = 3,957	Total	Gender	
		Women	Men
At least one activity	82	83	81
No activities	18	17	19
$\chi^2$ -test		p > 0.05	

The answers to this question suggest that women and men are equally active and in fact significantly more active than is indicated in the responses to the previous question. It could be that the list of 43 different activities reminds some respondents that they have been active in particular activities, counting as sports. A large part of the explanation lies in that a large majority (86 per cent) of the group that answered 'yes, but not currently' to the question of whether they normally do exercise/sport, claimed to be active in at least one activity on a regular basis within the past year. To be active on a regular basis within the past 12 months is by many seen as a broad definition, so even if the respondent have recently stopped or is taking a temporary break from sports, they might feel having been active on a regular basis within the past 12 months still applies to them.

The more conservative measure of physical activity through the question 'Do you normally do exercise/sports', which explicitly discards people not currently active, has so far been used as the key measure for sports participation in the population, and will therefore also be the primary measure for 'sports active' in the following, just as it is the case in the section on sports participation among children. With that measure, the proportion of active adult Danes lies at 64 per cent, with a fairly even distribution between women and men.

The proportion of sports active Danes does in fact not fluctuate in a large extent between the age groups from 16-19-year-olds to people aged 70 and over.

**Table 14: Do you normally do exercise/sports? By age. (Percentages)**

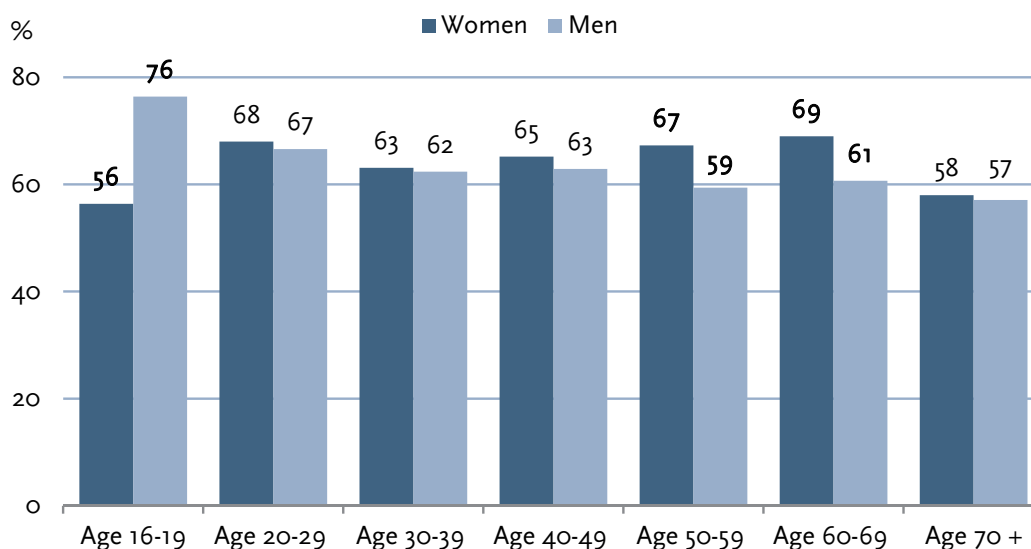
N = 3,797	Total	Age						
		16-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70 years +
Yes	64	67	67	63	64	63	65	58
Yes, but not currently	14	21	18	21	14	12	8	8
No	22	12	15	17	22	25	27	35
$\chi^2$ -test		p < 0.05						

The largest proportion of sports active can be found among the youngest respondents. 67 per cent of the 16-19 years and 20-29 years age groups answered that they normally do exercise/sports. In the following age groups, people in their thirties to people in their sixties, the proportion of active is fairly stable at 63 to 65 per cent, and more than half (58 per cent) of the oldest age group, 70 years and over, are active.

In fact, the differences in the proportion of active respondents between the different age groups are so small that there is only a significant relationship between sports participation and age, when including the not currently active in the equation. Among the youngest adults, and especially the age groups 16-19 years and 30-39 years, there is a greater propensity to reply 'yes, but not currently', which means that there is a significant correlation between participating in sports activities and age.

Looking solely at sports participation or non-participation among the adult Danes, there is no significant relationship between either gender or age. But this does not mean that gender and age are irrelevant. It is obvious, when looking at gender and age at the same time, that men and women in different age groups are active to varying degrees.

**Figure 17: Proportion of active adults. By gender and age. (Percentages)**



*Significant differences between the genders within the separate age groups are marked in **bold**;  $p < 0.05$ .*

Among the 16-19-year-olds, the proportion of active men is significantly higher than the proportion of active women. Three out of four men in that age group normally do exercise/sports, compared to only 56 per cent of the women. In the following age groups, no large differences are found between the proportions of active women and active men, but a difference appears again later in life when more women than men are active in their fifties to seventies. Among people over 70 years, women and men are equally likely to be active in sports.

As described above, women are slightly more likely to answer 'yes, but not currently' to the question of whether they normally do exercise/sport. This is particularly apparent among the youngest women in the

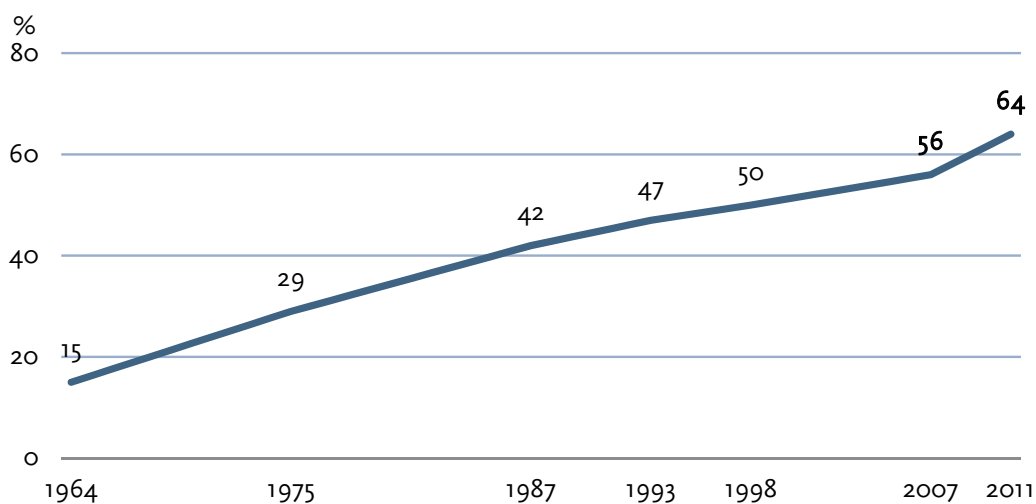


age group 16-19 years (31 per cent). Similarly, only 12 per cent of the men in that age group gave that answer.

#### *Comparisons with 2007 and 1998 (and 1964)*

The proportion of sports active adult Danes has risen steadily over the past several years. Ever since the surveys on sports participation, were conducted for the first time in 1964, the proportion of adult Danes normally doing exercise/sports, according to their own statements, has been on the rise.

**Figure 18: Adult Danes' sports participation since 1964. (Percentages)**



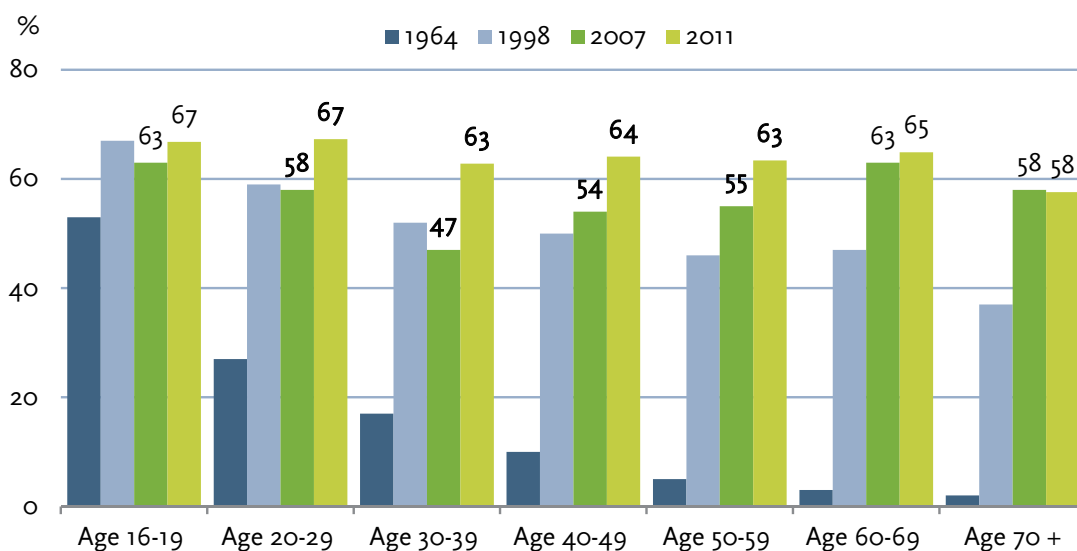
*The difference between 2007 and 2011 is statistically significant;  $p < 0.05$ .*

Over the range of approximately 50 years, the proportion of sports active adult Danes has grown steadily from 15 to 64 per cent. It should be kept in mind that in 1964 the question was 'Do you do sports?' and therefore the respondents who would have answered 'yes' to the exercise component were left out.

From 1975 onwards, various studies directed at adult Danes' sport and exercise habits were conducted using almost identical formulations of questions, and the period from that year to the latest survey in 2011 shows a clear trend of a constantly increasing share of sports active adults in the population.

Sport has not only become more prevalent in the adult Danish population over the last 50 years, it has also become more democratic in the sense that sport today is not only something that belongs to a particular gender or age group in the population.

**Figure 19: Broader sports participation in the population. By age.(Percentages)**



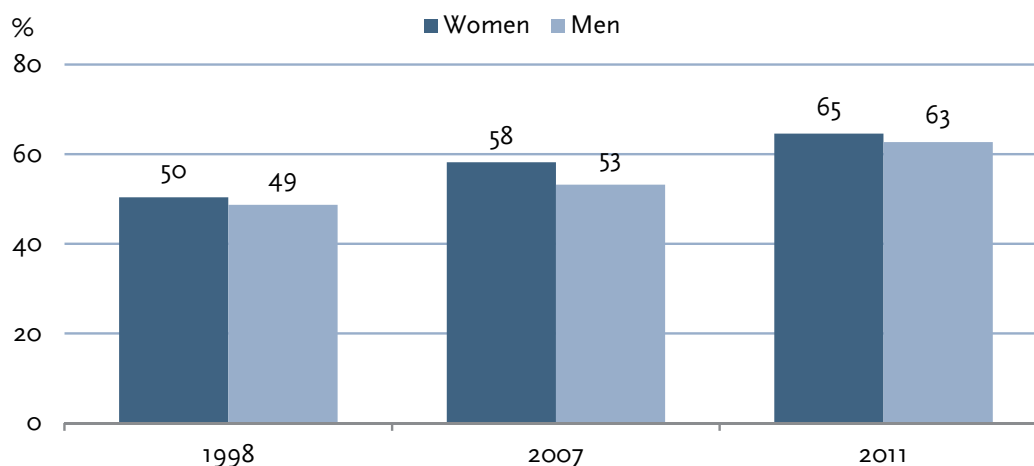
*Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .*

In 1964, there was a clear relationship between age and sports participation, in that a higher age was associated with a much lower propensity to be active in sports. This correlation can also be seen in the data from the 1998 survey, although less clearly as sports participation in the 34 years between the 1964 and 1998 surveys increased significantly among Danes in general and especially in the oldest age groups.

In 2007 an interesting development appeared, by which the share of the ‘sports active’ within some age groups decreased slightly, and in particular among people between the ages of 30 and 39 who were the age group with the lowest proportion active in sports. The bright green columns in figure 19 show this ‘hammock tendency’, thus representing the sports participation among adult Danes in the most recent study in this area.

The increase, as reflected in the sports participation in 2011, occurred amongst both men and women, with the exception being that the proportion of active 16-19-year-old women was a bit lower in 2011 than it was in 2007. In addition, only men and women aged 70 years and older were active ‘only’ to the same extent as they were in 2007, and for women the same is also the case for the 60-69-year-olds.

**Figure 20: Development of sports participation. By gender. (Percentages)**



Overall, men have taken up sports to a greater extent than women since 2007, and the (in an international context rather unique) 'reversed gender inequality in sports where a larger share of women than men are active has begun to decrease. However, it is only statistically significant when the proportion who replied that they are active in sports, but not currently, are included (see table 12).

The figures from 2011 represent a comprehensive overview of adult Danes' sports participation, where the 'hammock' is flattened out and the participation is almost equal among men and women and in all age groups, with a slight dip among the oldest. The largest difference from 2007 can be found among Danes in their thirties, with a rise of 16 percentage points from 2007, but also surrounding age groups are somewhat more active in the latest survey.

Although the shifts between the different surveys should be seen in light of the initially described methodological uncertainties, the current survey marks an increase in sports participation, particularly among people in their thirties. As will be illustrated later in this report, this rise in participation coincides with the continued and growing popularity of jogging/running and also with a rise in number of adult Danes who do competitive sports. Together this serves as an illustration of what might have led to an increase in sports participation in this group and the surrounding age groups.

The results of the survey on sports participation in Denmark give rise to a modern interpretation of the 'hammocks tendency' found in 2007 and its flattening in 2011. Generally it is clear that the older part of the population follows suit, and that life phases appear to play a significant role in whether a person is active, how they are active (which the following section on the choice of activities and organisation forms looks closer into) and how much they are active, which will be examined below.

### **Time spent on sports**

When we look closer at the time spent on sports, the focus is on frequency (the number of times the respondent participates in exercise/sports a week) and the average time spent on sports (excluding transportation). In this context, it is interesting to look beyond sports participation and examine how

often and how long the various adult Danes are active. Here the numbers imply that the ‘hammock tendency’ cannot yet be disregarded entirely.

**Table 15: How often do you do exercise/sports? By gender and age. (Percentages)**

N = 3,760	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70+
At least 5 times a week	13	13	14	23	13	8	10	13	17	18
3-4 times a week	33	34	32	35	37	35	37	33	30	19
1-2 times a week	33	37	30	31	29	37	31	33	32	41
1-3 times a month	6	4	7	5	8	8	6	5	4	2
Less often	6	5	7	6	8	7	7	6	4	4
Never	9	7	10	<1	5	5	9	10	13	16
$\chi^2$ -test		p < 0.05		p < 0.05						

13 per cent of the respondents indicated that they participate in sports five times a week or more, while one third is active three or four times a week and another third is active once or twice a week. Overall, this means that nearly eight out of ten adults indicated that they participate in sports at least once a week. Only slightly fewer than one out of ten responded ‘never’ to the question about how often one does exercise/sport.

Women are typically more active than men. 84 per cent of the women said they were active at least once a week compared to 76 per cent of the men. Between the different age groups, there is no great variation in the proportion that plays sports at least once a week. The differences are at the extreme ends of the scale. Among the oldest group, there is a large tendency to be inactive, while in the groups of 30-39-year-olds and 40-49-year-olds, who in 2007 constituted the bottom of the ‘hammock’, the fewest very active are to be found.

The 79 per cent of adults who are active on a weekly basis are a somewhat higher proportion than the 64 per cent who indicate that they normally do exercise/sports. This emphasises that using different measures gives varying impressions of sports participation in the population, and still it would be difficult to conclude that 79 per cent, or even 91 per cent (when excluding the ‘never active’ respondents), is an accurate estimate of sports participation rates in the entire adult Danish population. A large part of the ‘not currently’ active indicated that they participate in sports one or more times a week, although they suggested that this was not the case when they answered the questionnaire. For some adults, it appears that the indication of how often one participates in sports is a subjective assessment of one’s own level of activity outside of (again according to their own statement) the temporary period in which they were inactive. Therefore, the question ‘Do you normally do exercise/sport?’, as mentioned earlier, is used as the central measure for the overall sports participation among adult Danes.

When looking only at how often the sports active respondents are physically active (those who answered ‘yes’ to normally doing exercise/sports), a consideration of how the word ‘normally’ is interpreted by the

Danes in this context must be taken into account. Among the sports active adults, 99 per cent are active at least once a week, and the majority is active three to four times a week. So when referring to the 64 per cent 'normally active' Danes, we refer almost exclusively to people who are active once a week or more. This suggest that the growth in sports participation among the population in recent years is not solely based on a dilution of the understanding of what being active or doing sports mean.

When we look closer at how much time adult Danes spend on sports during a regular week, we only examine those who actually spend time on sports<sup>32</sup>, and thus it is an image of the active Danes rather than an image of the Danish population as a whole, which is reflected in the following table showing the average time spent on sports.

**Table 16: How much time do you normally spend on exercise/sports in a week (excl. transport time). By gender and age. (Percentages)**

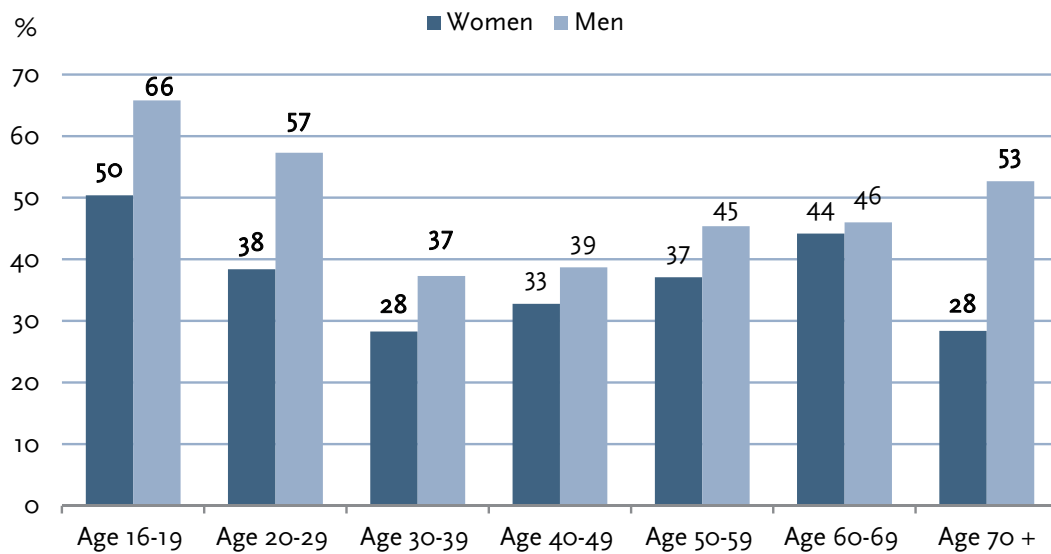
N = 3,145	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70+
6 hours and more	22	17	28	36	28	16	17	20	25	20
4:00 - 5:59	19	19	19	22	20	17	19	21	20	19
2:00 - 3:59	36	40	31	25	32	39	40	37	31	37
1:00 - 1:59	18	19	16	13	15	19	19	17	19	18
Less than one hour	6	5	6	4	5	9	5	5	5	6
$\chi^2$ -test		p < 0.05		p < 0.05						

It is most common among active adult Danes to do exercise/sports between two and four hours a week, but slightly more than one out of five is active for more than six hours a week. The active men spend typically more time on sports than women. Evert fourth active man participates in sports for more than six hours a week, and almost half are active at least four hours in a normal week.

Age also has a clear effect on the time spent on sports, as people over 60 and 70 years of age are more often active for a shorter period of time a week. Interestingly, also people in their thirties and forties also use significantly fewer hours on sports on a weekly basis.

<sup>32</sup> That is, all adults who have indicated a number of minutes and/or a number of hours that they spend on exercise/sports on a weekly basis. However, the very few adults who have indicated that they spend more than 37 hours a week on exercise/sports are not counted here.

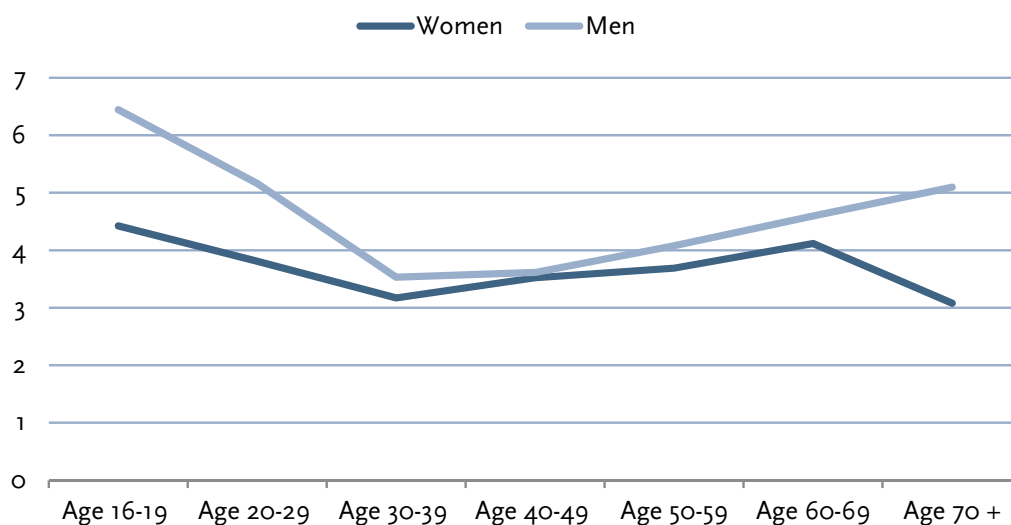
**Figure 21: Proportion of the physically active that use more than four hours on sports per week. By gender and age. (Percentages)**



Significant differences between the genders within the separate age groups are marked in **bold**;  $p < 0.05$ .

The least active group, in terms of time spent on sports, are the 30-39-year-olds. Overall, less than one third of this age group do exercise/sports for more than four hours per week, and the time spent on sport is even lower among women, as the figure above illustrates. The figure also illustrates that it is especially in the early adult years up to the age of 40 that there is a large and significant difference between the amount of time men and women spend on sports. Significantly fewer women than men in the age groups 16-19 years, 20-29 years and 30-39 years are active for at least four hours a week. There is also a large difference between men and women amongst the oldest participants in the survey (70+) also.

**Figure 22: Average time spent on sports. By gender and age. (Number of hours)**

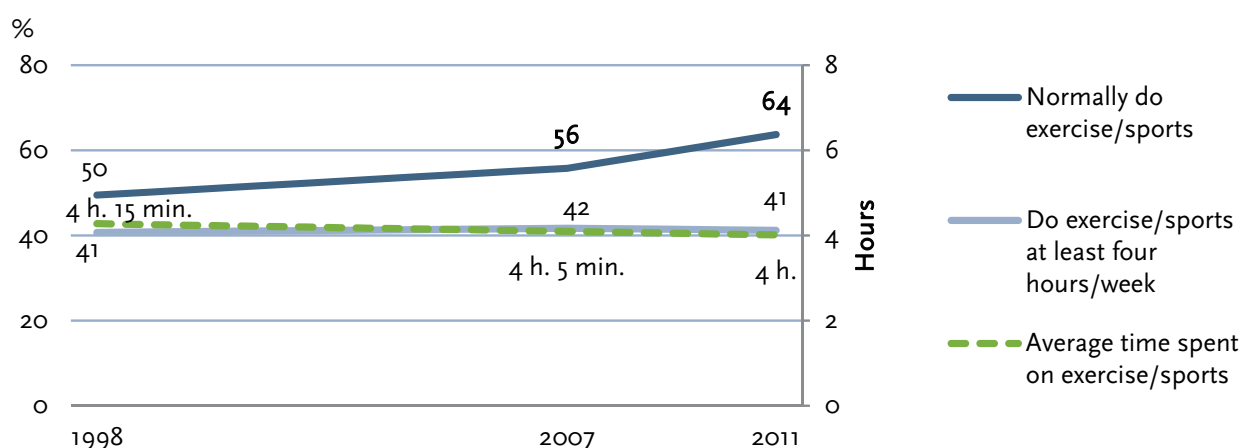


Active adult Danes spend an average of approximately four hours a week on sports. Men are active for approximately four hours and 25 minutes, whereas women are active for approximately three hours and 40 minutes. As the previous figure showed, and the above figure emphasises, there is also a clear correlation between age and time spent on sports, particularly singling out people in their thirties and forties as less active than other age groups. In these age group, men use on average just over three hours and 30 minutes a week on sports, while women are down to between three hours and 10 minutes and three hours and 30 minutes.

### Comparison with 2007 and 1998

As opposed to the general participation number, the amount of time spent on exercise/sports has been very stable among adult Danes in recent years. This is illustrated in the figure below, using the dotted line to indicate the average time spent on sports among active adults.

**Figur 23: Development of the time spent on sports.**



Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

The proportion of respondents that are active for at least four hours a week did not increase, even though there has been an increase in the number of sports active Danes. The time adults spend on exercise/sports during a week on average has not changed significantly: from approximately four hours and 15 minutes in 1998 to four hours and five minutes in 2007 and finally to four hours in 2011.

No major shifts in time spent in exercise/sports occur, either, when looking into the different genders or age groups. Women's average time spent on sports increased slightly from 1998 to 2007, followed by a slight decrease between 2007 and 2011. In 2007, the gender disparity in time spent on exercise/sports was down to about 20 minutes, but this has since increased. In 2011 the active men used on average 45 minutes more on sports per week than women.

### Sports and social background

Table 14 illustrated that doing exercise/sports is common in almost all adult age groups, from the 16-19-year-olds to people over 60 and 70 years. This development could be termed the democratisation of sports in the context that in earlier times sport was largely seen as a leisure activity for the youngest part

of the population. When referring to the democratisation of sports, though, it is important to keep in mind that there are still social inequalities in the Danish population's sports participation. Social variables such as education (highest completed education level), employment and income play an important role in Danes' sports participation.

**Table 17: Do you normally do exercise/sports? By education. (Percentages)**

N = 2,875	Total	Education <sup>33</sup>				
		Elementary School	High School/vocational education <sup>34</sup>	Higher education (< 3 years)	Higher education (3-4 years)	Higher education (> 4 years)
Yes	64	47	59	67	70	72
Yes, but not currently	14	13	13	15	13	12
No	22	40	28	18	17	16
$\chi^2$ -test		p < 0.05				

Among adult Danes there is a clear connection between educational level and propensity to normally do exercise/sports. Less than half of the adult Danes who have only completed elementary school participate in sports. The proportion increases steadily and significantly in line with the increasing length of the respondents' education. Just over 70 per cent of the people with higher education of three years or longer do exercise/sports.

But the highly educated active Danes spend significantly less time on sports on average than the active Danes with shorter educations. The active Danes with higher education on average spend less than three hours and 30 minutes a week on sports, while the active with elementary or high school as their highest education spend just over four hours a week on exercise/sports. This tendency can be explained by the fact that men are overrepresented among the least educated, and that men, when they are active, are typically more active than women, which is illustrated in table 16 and the following figures. But gender differences in sports frequency are far from being the only explanation for the differences between the various educational groups. Another observation when looking at men's and women's participation separately is that there is a clear and significant relationship between education and sports participation, as well as level of activity.

An overview of the frequency of sports participation within the various categories of education can be found in table 20.

The effect of length of education on sports participation is not only a one-way effect. The length of the education people have is closely related to their employment and their annual income. The respondents'

<sup>33</sup> People currently studying are not included in this analysis. See Appendix 2 about the adult respondents' background data for a more detailed review of the categorisation of education and the distribution of respondents among these.

<sup>34</sup> Including business schools, vocational educations (shop assistant, craftsman, hairdresser, etc.), skilled worker educations and semi-skilled worker education.



employment status and number of weekly working hours are in particular factors that come into play when they allocate time to sports. In this sense, a high level of education has a negative effect on the time one spends on sports. But on the other hand, those with a higher level of education are more likely to be active to begin with, and this effect is also evident in other social variables that linked to education.

**Table 18: Do you normally do exercise/sports? By other social variables. (Percentages)**

	Total	Annual household income, kr. (N = 3,255)				Employment, categorised (N = 3,710)			
		Under 300.000	300.001-500.000	500.001-700.000	Above 700.000	Student	Unemployed /on leave	Work	Retired
Yes	64	58	59	66	75	70	48	65	60
Yes, but not currently	14	14	15	16	11	20	26	15	9
No	22	28	26	18	14	10	26	20	31
$\chi^2$ -test		p < 0.05				p < 0.05			

As the table shows, there is also a clear connection between income and employment and sports participation, which is no surprise when considering how these are largely related to an individual's education.

When looking closer at the specific education groups, and thus verifying whether the effect of income and employment on sports participation is present regardless of education, there are clear signs that the unemployed and low income earners are less likely to be active. These correlations are, however, less statistically significant, which underlines that education as a social background variable in itself is a big part factor in the respondents' various sporting habits.

Just over half of the adults from households with less than 300,000 kr in annual income participate in sports, whereas the number is three out of four for households with an annual income higher than 700.000 kr.

When taking a closer look at employment and sports, it appears that people taking part in education programmes are amongst the most active Danes. 70 per cent of the students are active, while less than half of the unemployed and people on leave are active. Working people make up the majority of adult Danes, and also the majority of the database, and therefore these numbers and the total population's participation numbers are largely alike. 65 per cent are active in sports, 15 per cent are active 'but not currently' and 20 percent are not active at all. Finally, there is a small decline in the proportion of active when looking at the retired respondents, of whom six out of ten are active and more than three out of ten are not. People in this group seem less likely to expect to turn back to doing exercise/sports, as the 'not currently active' represents the smallest proportion of only 10 per cent.

The above overview of the relationship between employment and sports participation is simplified through categorisations. There are also variances among people who work, depending on their type of

work, and unemployment and leave do not have the same impact on sports participation. All of which is illustrated in the table below.

**Table 19: Do you normally do exercise/sports? By employment. (Percentages)**

(N = 3,710)	Total	Employment									
		Study- ing	Unemployed/on leave			Work				Retired	
			On leave	Unemp. (with benefits)	Unemp. (social assis- tance)	Office work	Self- emp	Skilled worker	Unskil- led worker	Retiree (early)	Retiree
Yes	64	70	47	49	50	71	66	60	46	41	63
Yes, but not cur- rently	14	20	33	25	14	14	10	16	18	18	7
No	22	10	20	26	36	15	24	24	36	41	30
$\chi^2$ -test		p < 0.05									

The more detailed picture of sports participation within various occupational groups reveals that people on leave are among the least active Danes. However, one third of this group state that they are active, but ‘not currently’, which is almost certainly related to the fact that maternity leave constitutes a large proportion of leave and that it is difficult for women on maternity leave to take part in regular sporting activity.

Office workers are the most active at just over 70 per cent, while less than half of the unskilled workers normally participate in sports. The least active are early retirees, of whom only four in ten replied ‘yes’ to normally doing exercise/sports. On the other hand, the proportion of active retirees is almost as large as the proportion of active Danes in general, which again reflects that a high age does not necessarily imply an inactive lifestyle.

Sports participation is therefore clearly related to a number of social background factors. Sports participation is most common among the highly educated, and this is also reflected when employment and income are taken into account. An exception here is the students who are the most active but do not (yet) earn high wages and are not employed full time.

**Table 20: Level of activity and frequency among the active. By education and employment.**

	Total	Education (N = 2,875)					Employment (N = 3,710)			
		Elementary School	High School	Higher edd. (<3 yrs)	Higher edd. (3-4 yrs)	Higher edd. (>4 yrs)	Student	Unemployed/on leave	Working	Retired
Average time on sports (weekly)	4 h.	4 h. 2 min.	4 h. 5 min.	3 h. 48 min.	3 h. 40 min.	3 h. 27 min.	4 h. 37 min.	3 h. 56 min.	3 h. 38 min.	4 h. 19 min.
Proportion active three times a week	50 %	42 %	48 %	54 %	55 %	49 %	55 %	52 %	49 %	52 %

The average time per week spent on sports for each individual is higher among less educated than among highly educated, and is higher among skilled and unskilled workers, who on average participate in sports nearly four hours a week, than among the self-employed and office workers who use around three hours and 30 minutes. The difference is larger among men than women, but is present for both genders. This might be related to the fact that the number of working hours a week is often higher among office workers and the self-employed compared to skilled and unskilled workers. In general, the active unemployed and retirees are typically active for more hours a week than people who work and are active.

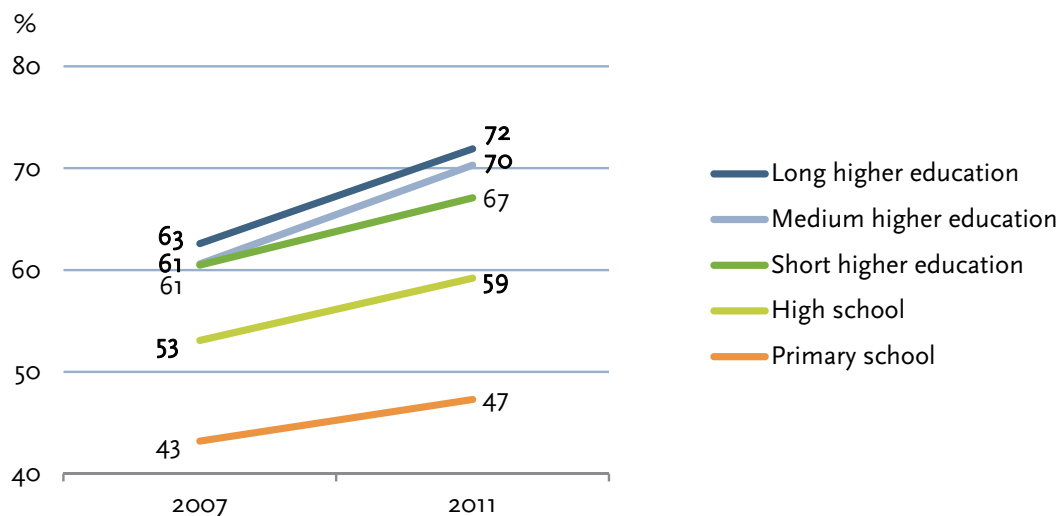
The barrier for sports participation is apparently quite simply getting started with a physically active lifestyle, as more than half of the unemployed and early retirees are sports inactive. There is no evidence that the degree of sports participation among active adults is socially imbalanced. Rather, it points to the consideration that the amount of free time in everyday life does not in itself influence *whether* one plays sports – the busiest full-time employees are often active. But when looking only at the active respondents, there is also a clear tendency for people without full-time employment (students, unemployed, retirees and people with less working hours) to use their extra time for more physical activity.

Whether and how social background is related to the specific sports activities and organisational contexts will be discussed later in this report, after the next general section about selecting activities and the organisation of sports.

#### *Comparison with 2007*

Also in the 2007 study, the relationship between the social background, especially education, and sports was a little contradictory, whereas short education (and low income) corresponded to lower sports participation, but a relatively high level of activity among the active.

**Figure 24: Development of the proportion of active within the different education groups<sup>35</sup>. (Percentages)**



*Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .*

The general increase in sports participation (see figure 22) among the Danes from 2007 to 2011 has taken place among all education groups. The proportion of active adults with an elementary school education has risen from 43 to 47 per cent, which is not a significant difference. The same applies to people with a higher education of less than three years, where the sports active share has risen from 61 to 67 per cent. In the other educational groups the differences between 2007 and 2011 are significant, where the increase is between six and nine per cent.

The figure above does not include people who are still taking part in education programmes. As mentioned earlier, students are a very active group and that was also the case in 2007. But there has also been a statistically significant increase in the proportion of active students from 62 per cent in 2007 to 70 per cent in 2011.

### Choice of activities

Adult Danes' favourite sports activities are significantly different from the children's. The list of specific activities in the questionnaire for the adults is slightly longer than the children's, offering 43 different activity types alongside which the adults could identify as activities they are taken part in regularly within the past year.

<sup>35</sup> People still taking part in education programmes are not included.

**Table 21: What types of exercise/sports have you participated in on a regular basis within the past 12 months? By gender and age. (Percentages)**

N = 3,957	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70+
Jogging/running	31	33	30	40	46	46	42	28	13	3
Strenght training	24	23	24	44	40	25	22	18	15	11
Walking/hiking	23	27	19	11	15	18	20	31	35	26
Aerobics/Zumba <sup>36</sup>	12	23	1	14	20	15	15	13	7	3
Gymnastics	12	19	5	16	4	6	7	10	20	26
Swimming	12	14	10	14	16	13	11	9	9	11
Spinning	11	10	12	9	15	11	13	12	7	6
Football	9	3	16	28	22	12	7	5	1	<1
Road cycling <sup>37</sup>	8	6	11	6	5	7	10	10	14	5
Badminton	6	4	9	6	7	5	7	10	6	3
Yoga <sup>38</sup>	6	11	2	4	9	8	7	6	5	5
Golf	5	3	8	6	4	3	4	8	8	6
Dancing (all forms)	5	8	2	10	6	3	3	6	5	7
Other sports	4	4	4	6	4	6	4	3	5	2
Mountain bike	4	1	7	3	3	6	6	6	1	<1
Fishing	4	<1	7	3	5	4	4	4	4	3
Bowling <sup>39</sup>	4	3	5	6	6	1	2	3	4	5
Hunting	3	<1	6	2	3	3	4	4	3	3
Handball	3	2	3	15	6	4	2	1	<1	0
Tennis	3	2	3	3	1	3	4	4	2	2
Martial arts <sup>40</sup>	2	1	3	8	5	3	2	1	0	<1
Rollerskating/skate	2	2	2	6	6	3	1	2	<1	0
Other watersports	2	4	<1	<1	1	1	1	3	4	5
Nordic walking	2	3	1	0	1	<1	1	2	5	5
Billiards/pool	2	1	3	4	5	2	<1	1	1	2
Equestrian	2	3	1	4	2	3	3	1	1	1
Canoe/cayak	2	1	2	3	3	1	2	2	1	0
Shooting	2	<1	3	2	4	1	1	1	1	1
Sailing/surfing	2	1	2	2	2	2	1	2	1	1
Table tennis	1	<1	2	6	4	1	1	1	<1	<1
Petanque/boule	1	1	1	0	2	0	<1	1	2	4
Volleyball/beach	1	1	1	7	2	1	1	1	<1	<1
Other ball sports, team	1	1	2	7	3	1	1	<1	<1	<1

<sup>36</sup> Incl. step/pump and such team based exercises.

<sup>37</sup> Not as transportation.

<sup>38</sup> Incl. détente or meditation.

<sup>39</sup> Incl. game of skittles

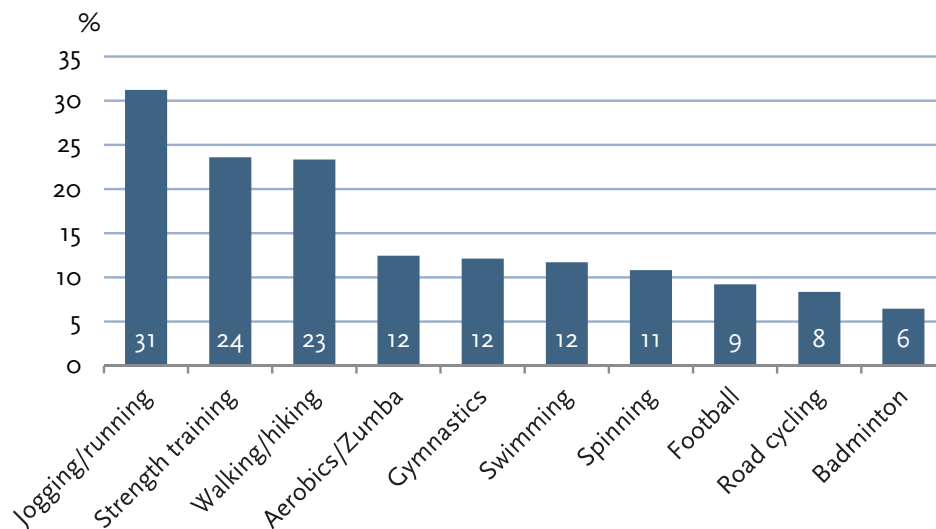
<sup>40</sup> Boxing, karate, aikido, taekwondo, judo, wrestling, etc.

Other ball sports, individual	1	<1	2	3	2	1	<1	<1	1	<1
Basketball	1	<1	1	5	4	<1	<1	<1	0	0
Winter bathing	1	1	1	<1	1	<1	1	1	1	1
Rowing	1	1	1	1	1	<1	1	<1	1	1
Orienteering	1	<1	1	3	1	<1	1	1	<1	<1
Skating (ice)	1	1	1	2	2	<1	<1	1	<1	0
Triathlon/duathlon	<1	<1	1	<1	1	1	1	<1	0	0
Athletics	<1	<1	1	2	1	<1	<1	<1	<1	0
Disables athletics	<1	<1	<1	0	0	0	<1	0	<1	1
Parkour	<1	<1	<1	1	1	<1	<1	<1	0	0

Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .

The table shows that in the majority of adult sports one gender usually participates more than the other. There are also only few activities in which there is no significant difference in the proportion of active adults between the difference age groups; these include hobby or recreational activities such as fishing, hunting and boating in addition to a number of very small sports, where the age effect is difficult to detect among the relatively few active participants.

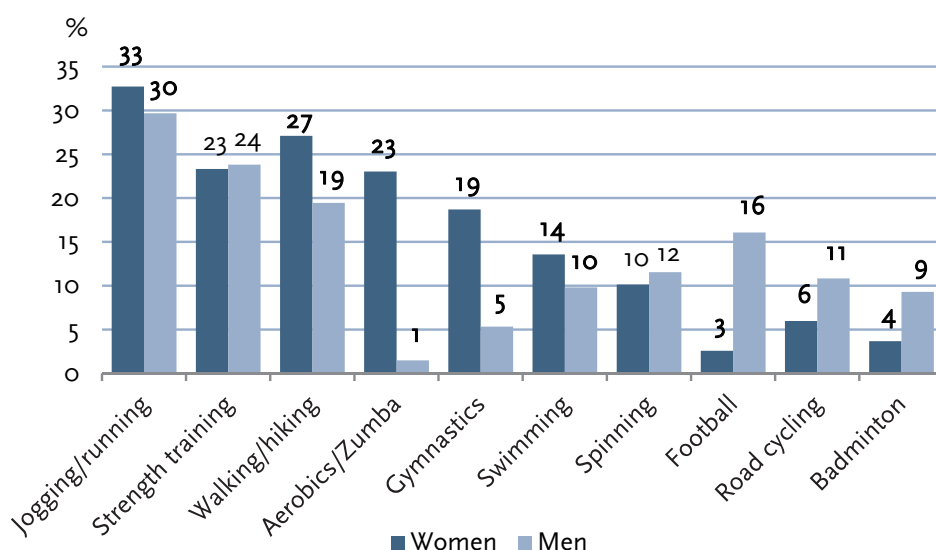
Figure 25: The ten most popular adult sports. (Percentages)



The most popular sport among adult Danes is running. Almost one out of three adult Danes (31 per cent) stated that they went running regularly within the past year. Subsequent sports in the adults' top ten are: strength training (almost one out of four adult Danes), walking/hiking (23 per cent), aerobics/Zumba/step/pump and such team based exercises (12 per cent), gymnastics (12 per cent), swimming (12 per cent), spinning/bicycle exercise (11 per cent), football (9 per cent), roadcycling (not as a mode of transport) (8 per cent) and badminton (6 per cent).

Compared to the children, the adult Danes' top ten is clearly influenced by fitness and flexible sports that are possible to do on individual terms, in non-binding framework. Sports requiring more than one person to participate are placed down the list at numbers eight and ten respectively. This does not necessarily mean that the majority of the active adult Danes participate in their activities individually. In the following, we will look closer at the different forms of organisation of sports, but first we look at how gender and age relate to the selection of activities.

**Figure 26: The ten most popular adult sports. By gender. (Percentages)**



*Significant differences between gender within the different sports are marked in **bold**;  $p < 0.05$ .*

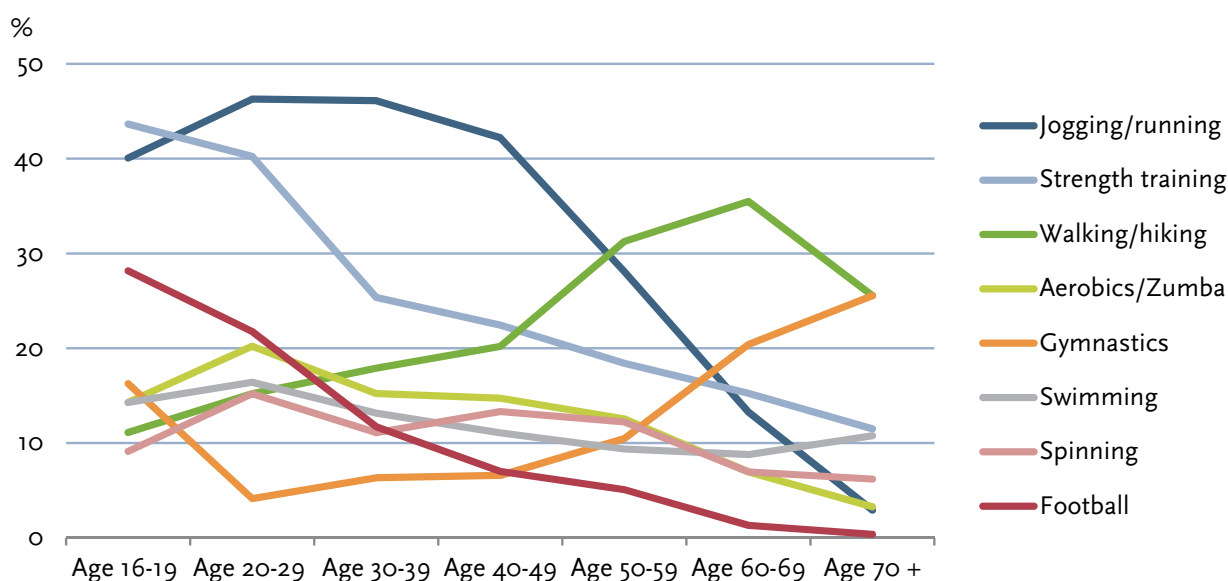
There are only two sports among the ten most popular where there is no significant difference between the proportion of active men and women. By comparison, there is an equal share of participants, gender wise, in half of the ten most popular children's sports. Therefore it would appear that women and men increasingly find their own paths in sports after their teens.

Although there is a significant gender difference, running is the most popular sport among both women and men. One out of three women and 30 per cent of men participate in running. The second most popular sport among adults, strength training, is roughly equally popular among women and men with nearly one out of four being active for both genders. Walking/hiking, aerobics/Zumba, gymnastics and swimming are fitness activities and sports that are dominated by women. Conversely, football is dominated by men, and there is a similar bias in road cycling and badminton.

As mentioned, in almost all sports there are large differences between the different age groups, from the 16-19-year-olds to the 70+ year-olds. Activities that fall within the periphery of 'classic sports', such as walking/hiking, fishing and hunting, are particularly popular among the older Danes, while running, strength training and traditional team sports such as football and handball are mostly played by younger adults.

When reading table 21, it should be kept in mind that the significant relationship between age and activity (numbers marked in **bold**) is not indicative of emerging trends in either direction. For example, there is a trend of lower participation in running and higher participation in walking/hiking among the elderly, but the older and younger age groups usually participate more in walking/hiking than the age groups in between. This is also the case for gymnastics and, to some extent, dance. The level of activity within a certain sport can correspond significantly with age, because some activities are more popular within a certain age group than others. Aerobics/zumba, for example, is popular among people in their twenties, badminton among people in their fifties and road cycling among people in their sixties.

**Figure 27: The eight most popular activities among adults. By age. (Percentages)**



Jogging/running emerges as the dominant sports activity among Danes between 20 and 50 years of age, ranging from 40 percent of 16-19-year-olds who run, to 46 per cent of the people in their twenties and thirties and 42 per cent of people in their forties. After these age groups, however, the proportion of runners goes rapidly downhill to 28 per cent, 13 per cent and 3 per cent respectively among people in their fifties, sixties and over 70 years of age. Walking/hiking is the most popular activity among these age groups, with between one out of three or four people over 50 years of age regularly participating.

The figure also shows that football as a sports activity clearly loses the Danes in the oldest age groups. From 28 per cent amongst the 16-19-year-olds, the proportion declines to approximately 1 per cent among the 60-69-year-olds and 70+. Football thus shifts from being the third most popular activity to being a very peripheral activity among the oldest Danes. The same counts to some extent for strength training, which is in fact the most popular activity among 16-19-year-olds with 44 per cent participating. This percentage drops steadily in the subsequent age groups, particularly from people in their twenties to people in their thirties there is a large decrease in the proportions participating in strength training, from 40 to 25 per cent.



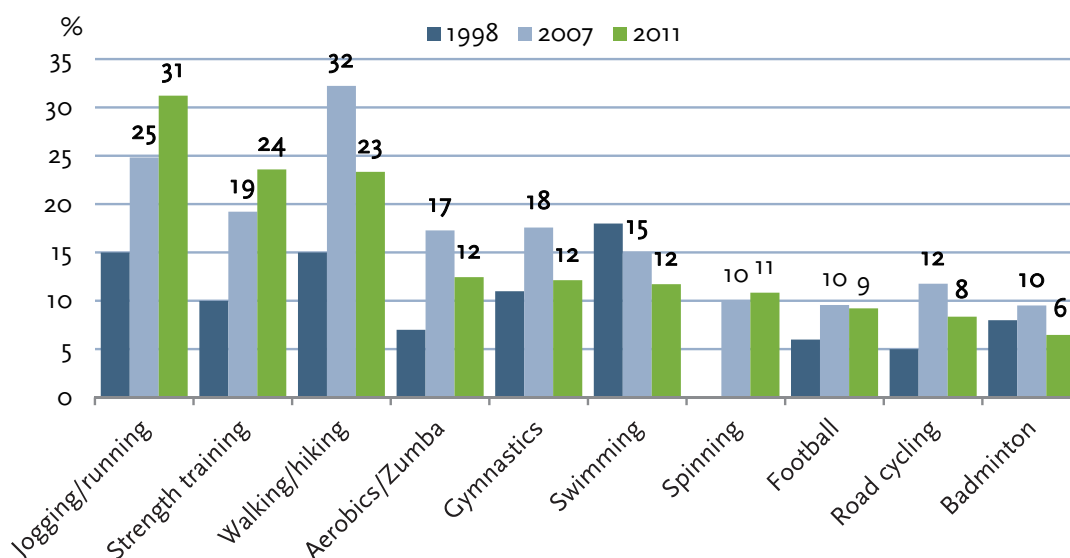
The lines illustrating the proportion of active participants in aerobics/Zumba and gymnastics roughly mirror each other. In other words, this is an indication that there is a shift from gymnastics in childhood and adolescence towards dance-like forms of exercise such as aerobics/Zumba and similar team based exercise, which are particularly popular among people in their twenties. In the older age groups, the movement goes in the opposite direction and gymnastics grows steadily and ends at a shared first place with 26 per cent of people older than 70 years - the same proportion that participates in walking/hiking - participating.

There are large differences in which sports are the most popular across different life phases. Among children, it is first swimming and later football. The oldest teenagers prefer strength training, and people in their twenties, thirties and forties are primarily runners. Walking/hiking is the most popular sports activity among the next age groups, and gymnastics attracts a large proportion of people over 70.

### Comparison with 2007 and 1998

As with the overall sports participation (the response to the question ‘Do you normally do exercise/sports?’), there has been an increase connected to the most specific sports activities over the past several years. But there has been no notable progress from 2007 in relation to most of the activities.

**Figure 28: Development of the ten most popular adult sports. (Percentages)**



Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

The proportion of adult Danes participating in running and strength training has increased since 2007, but there have otherwise been decreases in participation in a majority of activities over the same period. In particular, the number of walkers/hikers has reduced, and walking/hiking has gone from being a regular activity for 32 per cent of the adult Danes in 2007 to 23 per cent in 2011. It has thus been superseded by both running and strength training, which now rank as numbers one and two on the list of adult sports in Denmark.

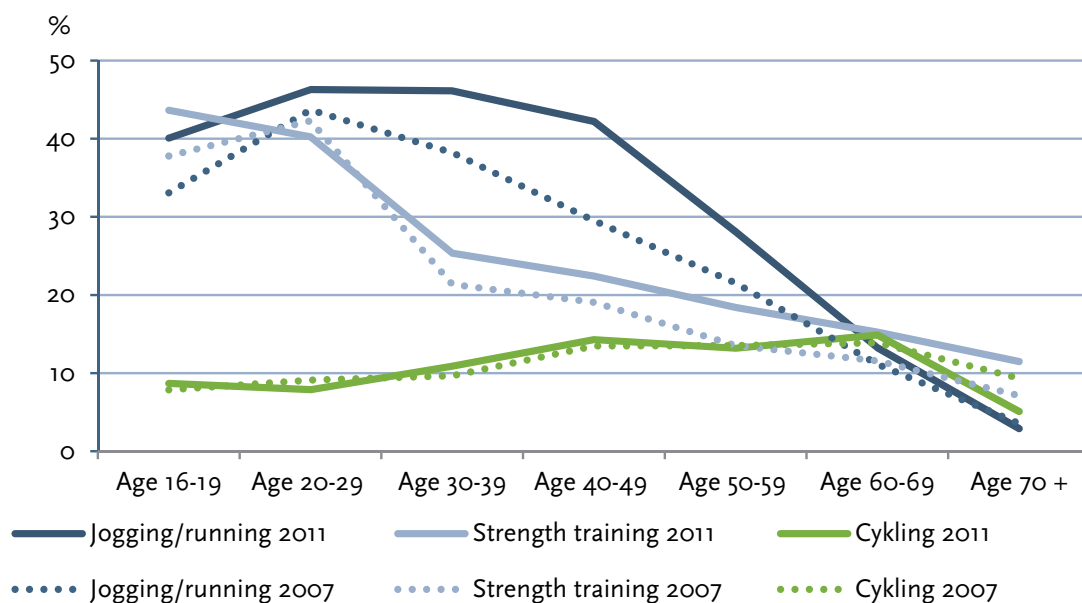
Aerobics/Zumba has also lost ground from 17 per cent to 12 per cent in 2011. The formulation has however been changed in the years from 'Aerobics/workout' in 2007 (and 1998) to 'Aerobics/step/pump/Zumba or similar team based exercise' in 2011, which makes a direct comparison between the two less certain.

It should be noted that the numbers for road cycling in 2007 (and 1998) are based on the slightly broader category 'cycling sports (not as transportation)'. This formulation is likely to include both road cyclists and mountain bikers, which were separated in the 2011 survey. If these two groups are combined (without counting the people who participate in both cycling sports twice, of course), the proportion in 2011 is 11 per cent, and does not significantly differ from the 12 per cent found in 2007.

The decline shown in most activities does not correlate with the initial description of a general increase in sports participation among Danes, from 58 per cent answering 'yes' to 'normally doing exercise/sports' in 2007 to 64 per cent in 2011. But when only looking at how many people have identified themselves as being regularly active in at least one sport on the list of 43 different sports, then the total proportion of active people within specific sports was slightly larger in 2007 than it was in 2011. As table 13 illustrated, 82 per cent indicated at they were active in at least one activity on a regular basis within the past year. That number was slightly higher in 2007 at 86 per cent.

In light of the fact that the increase of the sports participation in the adult population especially occurs among the 30-49-year-olds, it is interesting to look closer at the types of sports these age groups have embraced. It is not possible to single out newcomers to sports participation among respondents, and the contradictory factors described above obscure the picture a little, but some activities still stand out when comparisons between the 2007 and 2011 results are shown by age group.

Figure 29: Development in selected sports<sup>41</sup>. By age. (Percentages)



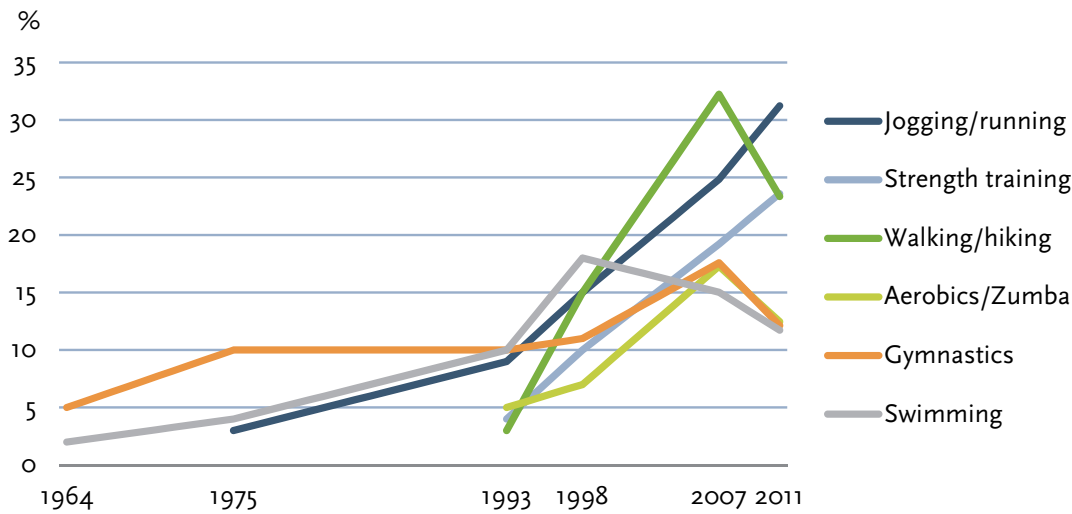
The figure emphasises that the increase that has taken place in jogging/running among adults in general has particularly occurred among people from 30 to 59 years of age. In 2007, people in their thirties, forties and fifties participated in running at 38, 30 and 22 per cent respectively. The corresponding figures in 2011 are 46, 42 and 28 per cent, so increases within these age groups are between 6 and 12 percentage points. Strength training and cycling are also activities that have increased in the middle age groups, although not statistically significantly in regard to the cyclists.

All together, the results point in the direction that jogging/running and strength training constitute a major part of the increase in sports participation, and that jogging/running in particular has been the path towards a more sports active leisure time for many Danes between 30 and 60 years old.

A longer historical perspective shows that jogging/running (and other activities) has gradually found its way among the adult population. The surveys on sports participation, which in the first editions from 1964 to 1998 were part of larger studies on Danes' cultural habits, have reflected a contemporary overview of sports. The evolution of the survey has also taken contemporary developments in sport into account. Therefore, not all popular modern adult sports were listed in the 1964 and 1975 surveys, as the graph below shows.

<sup>41</sup> Note that 'cycling' in this figure refers to cycling in broad terms and therefore the numbers for 2011 include both road cyclists and mountain bikers.

**Figure 30: Development of the largest adult sports since 1964. (Percentages)**

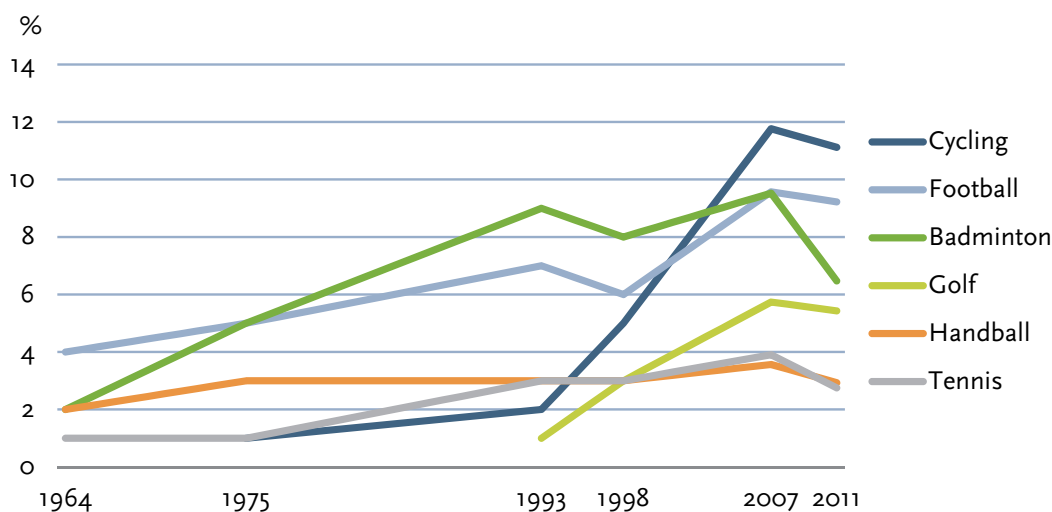


A general upward trend in most sports is visible over the decades, which is a natural reflection of the upward trend in sports participation among the population during the same period. However, the latest survey shows that this trend was interrupted in a majority of the sports, which is illustrated and discussed in more detail above.

The historical perspective shows that gymnastics and swimming grew steadily over a long period, and both have been adult Danes' favourite sport in the past. However, in the recent surveys, the proportion of people active in gymnastics and swimming has stagnated and declined. On the other hand, there has been an explosive increase in walking/hiking and aerobics/Zumba since these sports were first introduced to the survey in 1993, but again with a decline in the latest surveys (the development of aerobics/Zumba between 2007 and 2011 is difficult to see in the figure above because it is completely parallel with gymnastics and therefore hidden behind the orange line).

Running and strength training have both grown in popularity continuously since 1975 and 1993, when they were first part of the questionnaire, and these activities have gone from being intermittent sports activities to being number one and two in the adult Danes' top ten list in the recent study.

Figure 31: Development in the largest ball sports, plus golf and cycling<sup>42</sup>. (Percentages)



Another sport that has grown markedly in the recent years is cycling, where the overall proportion of active participants in 2011 was 11 per cent. Golf and football have also grown in popularity since 1993 and in 2011 included roughly the same proportion of active adult Danes as in 2007. Other traditional ball sports such as badminton, handball and tennis underwent a relatively stable upward development until they were interrupted by a decrease between 2007 and 2011 in the share of active participants, especially in badminton.

### The organisation of sports

The above trend in the share of active participants in the individual sports can sometimes be difficult to compare to the development of these sports under the Sports Confederation of Denmark (DIF) or the figures represented in DGI's membership numbers. However, the numbers above are estimates of the proportion of active participants within a particular sport, *regardless* of organisational form, while the membership numbers are only able to capture the development of club-organised activities<sup>43</sup>.

Therefore, we will look more into detail at how adult Danes organise their sports activities, and if there is a difference in the organisation of the different activities. As with the children, the adults were not only asked whether they participated in one or more sports on a regular basis within the past year, but also in which organisational context the particular activities took place. The only difference was that the children could answer after school childcare, whereas the adults could answer that the activity took place in the realm of the 'workplace' or in 'evening classes' in addition to 'sports club', 'private/commercial centre', 'self-organised'<sup>44</sup> and 'other organisational context'.

<sup>42</sup> Note that 'cycling' in this figure refers to cycling in broad terms and therefore the numbers for 2011 both include road cyclists and mountain bikers.

<sup>43</sup> Even here the numbers are not entirely precise because of the risk of double registration (if clubs are a member of both unions) and differences in guidelines for member registration from the past.

<sup>44</sup> 'On their own' can be understood as self-organised activities that can be done alone or with others.

**Table 22: In what organisational context do you do exercise/sports? By gender and age. (Percentages)**

N = 3,957	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70 +
On their own	58	59	58	<b>58</b>	<b>68</b>	<b>67</b>	<b>63</b>	<b>58</b>	<b>54</b>	<b>38</b>
Sports club	41	<b>37</b>	<b>45</b>	<b>58</b>	<b>44</b>	<b>43</b>	<b>39</b>	<b>39</b>	<b>38</b>	<b>33</b>
Private center	20	<b>22</b>	<b>17</b>	<b>23</b>	<b>32</b>	<b>20</b>	<b>19</b>	<b>19</b>	<b>15</b>	<b>12</b>
Workplace	5	<b>4</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>10</b>	<b>7</b>	<b>7</b>	<b>2</b>	<b>&lt;1</b>
Evening classes	3	<b>5</b>	<b>&lt;1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Other context	11	<b>11</b>	<b>11</b>	<b>25</b>	<b>14</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>11</b>	<b>13</b>

*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .*

The majority of adult Danes are active on their own, and in this organisational context there is no difference between women and men. Between 58 and 59 per cent are active on a regular basis in a self-organised context. Differences in gender can, however, be found in all other organisational contexts for sports activities. More than 40 per cent are active in sports clubs, but men (45 per cent) are significantly more active in sports clubs than women (37 per cent). The opposite can be said for the private centres, where every fifth adult is active and women (22 per cent) are active to a somewhat greater extent than men (17 per cent). Finally, workplaces and evening classes are not widely used with five and three per cent of adult Danes being active within these organisational contexts respectively. Men are more often active via their work (seven per cent), while it is almost exclusively women who are active within the context of an evening school.

As the category concerning sports activities organised via the workplace is only relevant for people in employment, the table below looks solely at people in employment, showing that the proportion of people active in the workplace increases towards eight per cent, which is a more accurate picture of the percentage of Danes who participate in sports through their workplace.

**Table 23: Proportion of employed people active through their workplace. By gender and age. (Percentages)**

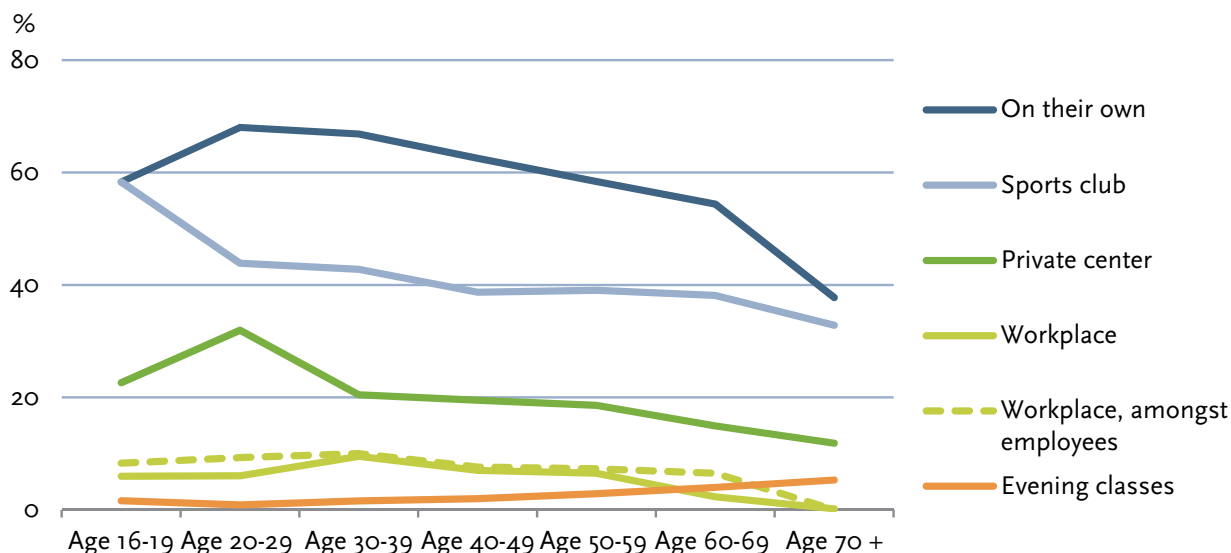
N = 2,217	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70 +
Workplace	8	7	9	8	9	10	8	7	7	0

*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$  (no significant differences in this table).*

The most active employees who participate in sporting activities through their workplace can be found among women and people in their thirties. Differences between the age groups are, however, substantially smaller, and when looking at the lower number of respondents there is less statistical certainty and the significant differences between both gender and age, which were present in the previous table, disappear. In figures 32 and 36, which both also illustrate the prevalence of workplace based sports,

the share that participates in sports through their work place but only amongst employees, is presented in a separate, dotted line.

**Figure 32: In what organisational context do you do exercise/sports? By age groups. (Percentages)**



The 16-19-years olds are at the turning point where the tendency of high club organisation of children’s sports disappears and the self-organised activities become the dominant way to be sports-active. The proportion of club-active participants falls from 58 per cent among 16-19-year-olds to 44 per cent among 20-29-year-olds, and thereafter stays relatively stable in the following age groups, though with a slight decline that grows more evident after 70 years of age.

Self-organised activities conducted on one’s own or together with others is the most common organisational framework for sports activities among adults of all ages, even though there is a stronger downward trend after 20-29 years of age, where 68 per cent have participated in at least one sport on their own on a regular basis within the past year. This percentage drops to 54 per cent among 60-69-year-olds and dives to 38 per cent in the age group 70 years and older.

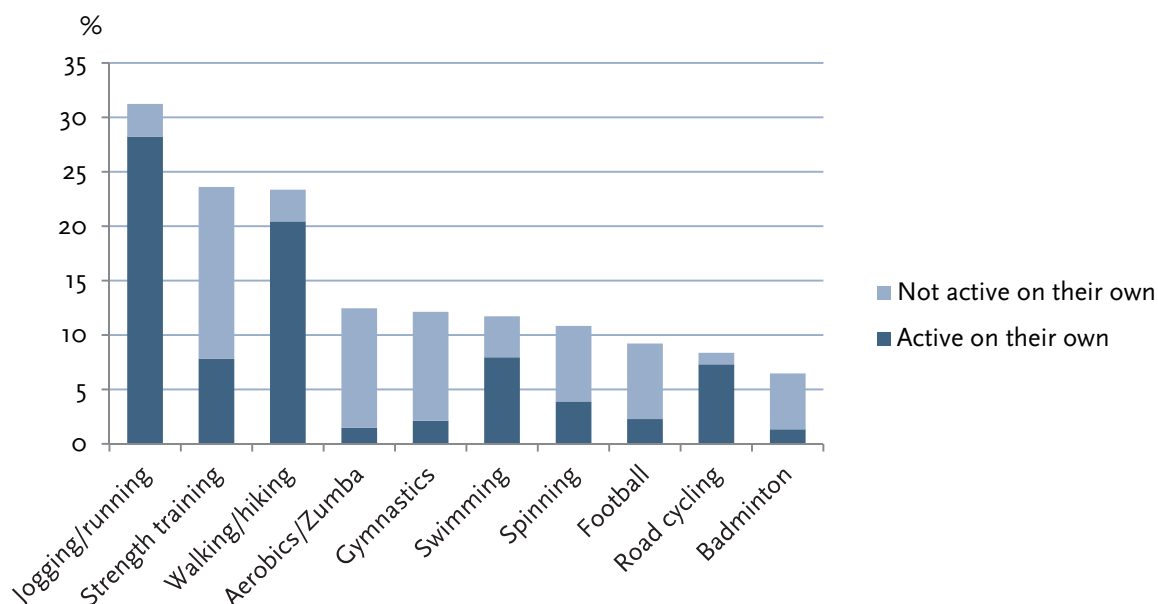
Private/commercial frameworks, such as fitness centres, are the third major form of organisation, and are an obvious top choice among the 20-29-year-olds where almost one out of three is active in a private centre. In the surrounding age groups, every fifth 16-19-year-old and 30-39-year-old is active in this context. The proportion of active 30-60-year-olds in private centres is also fairly stable, but decreases to 12 per cent among people over 70 years of age.

The workplace is a way to be active for just under one out of ten in all age groups up to 70 years of age, when looking only at people in employment. Looking at all adults, it is natural in the most work-active groups, people in their thirties, forties and fifties, where the greatest degree of workplace-organised sports is found.

Evening schools are the least common organisational context for sports activities. Evening schools cater almost exclusively to people over 50 years of age, and the oldest group aged 70 and over are predominant in evening schools. But no more than 5 per cent are active within this organisational context.

Naturally, the propensity for adult Danes to do sports on their own shines through in the way, that the most popular sports are most often organised.

**Figure 33: Proportion of self-organisation in the most popular sports among adults. (Percentages)**



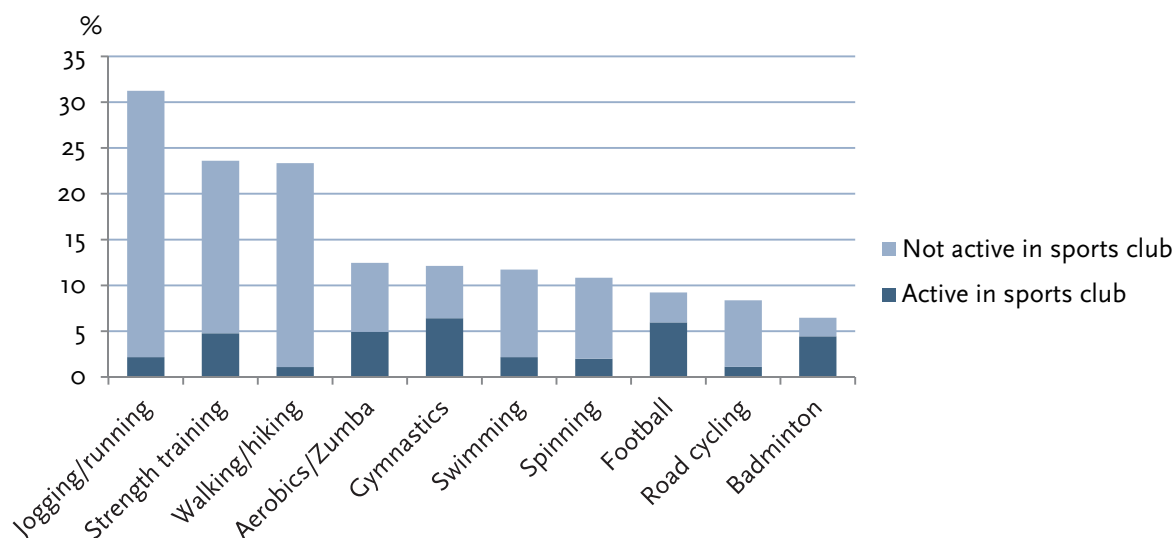
Running is predominantly a self-organised sport among adult Danes. Nine out of ten runners run self-organised. This is to say they are active alone or with others (e.g. in an informal group of friends). This does not mean that they cannot also run in a sports club or other organisational contexts, but as we can see in the following graphs, only a few people do so.

With approximately one out of three participating in a self-organised context, strength training is to a lesser degree a self-organised sport. By contrast, walking/hiking is almost exclusively something that is self-organised. A relatively high degree of self-organisation can also be found for swimming and road cycling, where 68 and 87 per cent of the active participants are active in self-organised contexts respectively.

Conversely, the degree of self-organisation is low in aerobics/Zumba, gymnastics, spinning, football and badminton. Within these activities however, there are other dominant organisational frameworks.



**Figure 34: Proportion of sports club organisation in the most popular sports among adults. (Percentages)**

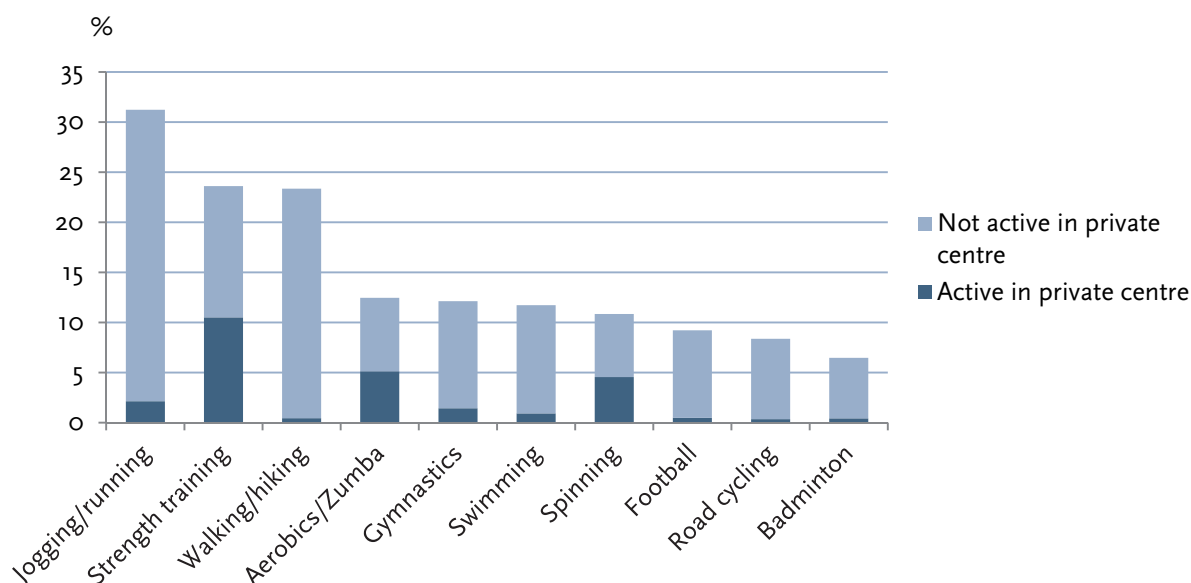


Adult Danes often participate in gymnastics, football and badminton in particular in sports clubs. Six per cent of all people over 16 years of age indicated that they participated in gymnastics within a sports club, which means that just over half of all gymnasts are active in sports clubs. This occurs to an even larger degree in football and badminton, where 65 and 69 per cent are active in sports clubs respectively. Aerobics/zumba and strength training are also activities which, to a certain extent, take place in sports clubs, although they take place more often outside of the sports clubs.

Golf and handball lie outside the top ten list. Both are very club-dominated activities due to the fact that participation requires access to certain facilities and some practical organisation. Just over three out of four golfers and 86 per cent of handball players are active in a sports club.

In general, the largest adult sports are not typically club activities. Running, strength training and walking typically do not require sports club membership. Only seven of the 31 per cent of Danish adults who run do so as part of a club. In contrast, less than one per cent of the children run in a club, even though running is the children's fourth most popular activity. So the degree of club organisation among runners actually increases with age, even though the clubs' total share in the large market of runners is miniscule (Forsberg 2012). The opposite trend occurs in swimming, where 60 per cent of the children swim in a club compared to under 20 per cent of the adults who swim.

**Figure 35: Proportion of private organisation in the ten most popular sports among adults. (Percentages)**



Three sports stand out when looking at the proportion of active adults who are active in private/commercial centres. These are strength training (with 45 percent of active strength trainers doing so in private centres), aerobics/Zumba (41 per cent) and spinning (42 per cent). Yoga, which is just outside the top ten, also often takes place within a private/commercial framework; 32 per cent of the active yoga participants in the survey use private centres.

Activities in private/commercial centres are in turn almost non-existent in sports like badminton, road cycling, football and walking/hiking, while a small proportion of runners (7 per cent), gymnasts (11 per cent) and swimmers (8 per cent) are active in this organisational context.

The following table provides an overview of the distribution of the active people within the different organisational contexts. The table is extended to the 15 most popular adult sports to give a broader view, but it does not contain all 43 activities from the adult questionnaire as the distribution of the less popular activities depends on fewer responses and is therefore more statistically uncertain<sup>45</sup>.

<sup>45</sup> The activity 'other sport' is actually in the top 15 as number 12, but is not included in this context.

**Table 24: The organisation of the 15 most popular sports among adults. (Percentages)**

N = 3,957	Total share active	Organisational contexts					
		On their own	Sports club	Private centre	Workplace	Evening classes	Other context
Jogging/running	31	90	7	7	4	0	4
Strength training	24	33	20	45	5	<1	5
Walking/hiking	23	88	5	2	1	<1	7
Aerobics/Zumba <sup>46</sup>	12	12	40	41	5	3	4
Gymnastics	12	18	53	12	4	7	13
Swimming	12	68	19	8	2	<1	7
Spinning	11	36	18	42	5	0	3
Football	9	25	65	5	11	0	17
Road cycling <sup>47</sup>	8	87	13	4	4	0	3
Badminton	6	21	69	7	5	0	8
Yoga <sup>48</sup>	6	35	17	32	2	12	7
Golf	5	28	76	7	2	0	3
Dancing (all forms)	5	17	52	19	1	4	11
Mountainbike	4	85	17	3	1	0	8
Fishing	4	83	10	5	3	0	11

The table shows that there is no large overlap between organisational contexts across the individual activities. When accumulating the percentages within each sport, the sum is not much more than 100, indicating that adults are rarely active in one sport in different organisational contexts. When choosing how to run (typically self-organised), do strength training (typically in a private centre), play badminton (typically in a club) or something else, it is seldom that one complements that way of doing exercise/sport with other organisational arrangements of the same activity.

In this area football is slightly unusual, as was also the case among children, because nearly one out of five (17 per cent) of the adult football players is active in more than one organisational context, typically both in a club and in a self-organised setting.

#### *Comparison with 2007 and 2008*

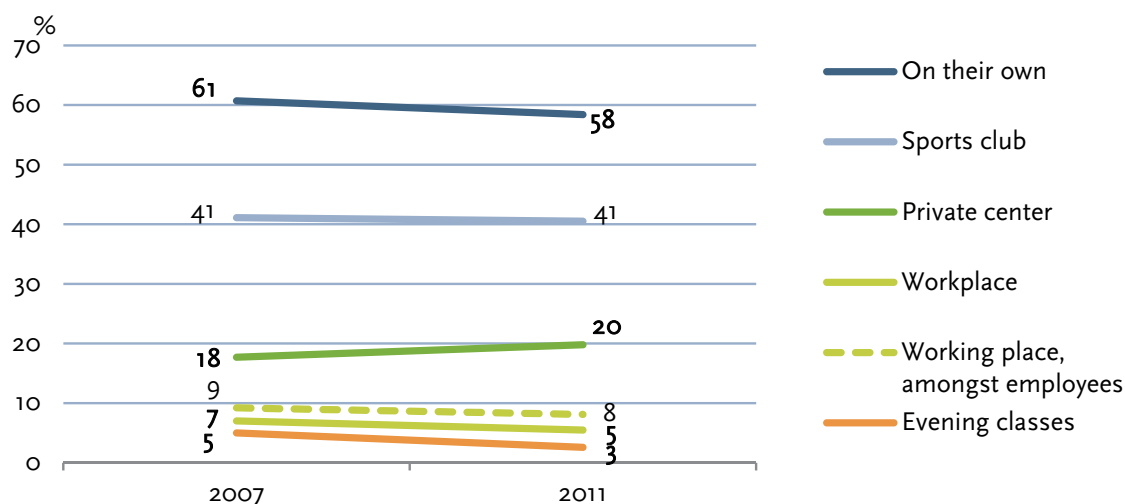
Since 2007 there have been small changes in sports participation and a slight variation in the most popular sports among adult Danes. Even though running, which is primarily self-organised, is now clearly the most popular sport among adults, this is not a sign of a general trend towards a more self-organised sport among adults. Changes between the degrees of organisation within the different contexts are relatively moderate from 2007 to 2011.

<sup>46</sup> Incl. step/pump and such team based activities.

<sup>47</sup> Not as transportation.

<sup>48</sup> Incl. détente or meditation.

Figure 36: Development of the organisation of adults' sports. (Percentages)<sup>49</sup>



Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

Although self-organisation is still the most frequent means by which to organise sports, there is a small decrease in the proportion of adult Danes who regularly participate in sport on a self-organised basis or 'on their own'<sup>50</sup>, as it was defined in the questionnaire, from 61 per cent in 2007 to 58 per cent in 2011.

A similar decrease of a few percentage points has taken place in the proportion of people who are active through their workplace or evening schools. But when only looking at employed people in the surveys from 2007 and 2011, there is a slight decrease from nine to eight per cent due to the fact that the number of employed respondents was slightly higher in 2007 than in 2011. The one percentage point difference is not a statistically significant and the proportion of active people through the workplace among employees is thus stable.

The proportion of adults exercising in sports clubs is stable at 41 per cent. Just as among children, it is possible to look at the proportion of club-active adults using two different parameters. There is the results from the responses that indicated how many adults had been regularly active within the past year in at least one activity in a club, as was used in the tables and figures above, and there is, as in the children's survey, a question specifically directed at club membership: 'Are you a member of a sports club?'<sup>51</sup>. In 2007, both the proportion of club-active adults and the proportion of club members were 41 per cent, while in 2011 the proportion of club members was slightly higher at 43 per cent, which is described in more detail in the following section.

<sup>49</sup> While the rows reflect the exact proportions, the numbers are rounded off to whole percentage points. This is in order to not give the impression of excessive precision in the estimates, and means that a line that goes from 41 to 41 is not necessarily completely straight, as is the case in the figure.

<sup>50</sup> Alone or with others.

<sup>51</sup> The questions formulation is: 'Are you a member of a sports club, and do you participate actively in the clubs meetings and/or work?'. In this context it is only interesting to look closer at the proportion of club members. The participation in voluntary work is the focus of the following section.

The only form of organisation which has directly gained ground between 2007 and 2011 are the private/commercial centres, which to a great extent are fitness centres. The majority of the active adults in private/commercial centres are active in strength training, aerobics/Zumba<sup>52</sup> and spinning, which usually take place in fitness centres. Here, there has been a small but significant increase from 18 per cent in 2007 to 20 per cent in 2011.

Within the different age groups, no major development in the spread of various organisational contexts was found. Figure 30 would therefore not be much different if it were to reflect figures from 2007. The small differences give the impression that the decline in the proportion of self-organisation mainly occurs among the youngest adults, and the increase in private/commercial organisation, consisting of only a few percentage points, occurs among the 50-59-year-olds. Overall, no significant shifts can be found in the number of club-active adult Danes between the different age groups.

However, in the individual sports, some changes in the degree of organisation can be found, as illustrated in the table below.

**Table 25: Development of club organisation of the 15 most popular sports among adults. (Percentages)**

	2011 (N = 3,957)			2007 (N = 4,147)			1998 (N = 1,364)		
	Total share of active	Active in club, share	Level of organisation <sup>53</sup>	Total share of active	Active in club, share	Level of organisation	Total share of active	Active in club, share	Level of organisation
Jogging/running	31	2	7	25	2	8	15	2	13
Strength training	24	5	20	19	4	21	11	5	45
Walking/hiking	23	1	5	32	1	3	15	1	7
Aerobics/Zumba <sup>54</sup>	12	5	40	17	2	12	7	4	57
Gymnastics	12	6	53	18	8	44	11	5	45
Swimming	12	2	19	15	3	20	18	3	17
Spinning	11	2	18	10	2	20	-	-	-
Football	9	6	65	10	6	60	6	5	83
Road cycling <sup>55</sup>	8	1	13	(12)	(1)	(8)	(5)	(1)	(20)
Badminton	6	4	69	10	6	60	8	5	63
Yoga <sup>56</sup>	6	1	17	6	1	16	2	<1	16
Golf	5	4	76	6	4	66	3	2	67

<sup>52</sup> Incl. step/pump and such team based exercise.

<sup>53</sup> Degree of organisation for clubs, ie. the proportion of active people that do the exercise/sport in a club

<sup>54</sup> Incl. step/pump and such team based exercise. Was called 'Aerobics/Workout' in 2007 and 1998.

<sup>55</sup> Not as transportation. Was called 'cycling (not as a mode of transport)' in 2007 and 1998 and therefore consistet of both road racing and mountain biking.

<sup>56</sup> Incl. detente or meditation.

Dancing (all forms)	5	3	52	7	3	43	5	2	40
Mountain bike	4	1	17	-	-	-	-	-	-
Fishing	4	<1	10	6	1	10	8	1	12

From 1998 to 2011, the proportion of adult runners in clubs remained steady at 2 per cent, while the total ‘runners’ market’ has grown a lot in the same period. The proportion of runners in the population (regardless of form of organisation) has gone from 15 per cent in 1998 to 31 per cent in 2011, and the 2 per cent of runners that are club members shifts therefore from 15 per cent in 1998 to seven per cent in 2011.

The same can generally be said for strength training, where there has been a slight increase between 2007 and 2011 in both the proportion of active participants and the proportion of those who are active in clubs. The share of club-active walkers/hikers has also been stable at around 1 per cent, even though the total proportion of walkers/hikers varied somewhat, both up and down, between 1998 and 2011.

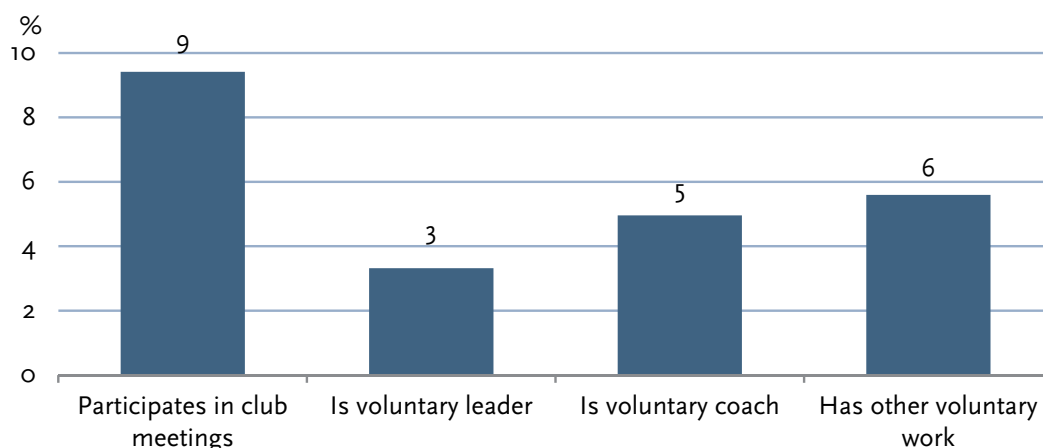
Within aerobics/Zumba, the proportion of club-active participants increased from two to five per cent between 2007 and 2011, even though the total number of active people has declined in the same period from 17 to 12 per cent. It could be a sign that gymnastics clubs are open to offering new activities that may be organised under the auspices of the clubs without necessarily being traditional gymnastics, for example aerobics/Zumba.

Finally, it is worth noting that the numbers for road cycling are not fully comparable over the years, and therefore the numbers for 2007 and 1998 are put between brackets. In 2007 and 1998, the term ‘cycling sports’ was used in the questionnaire covering both road cycling and mountain biking, which were two separate activities in the 2011 survey.

### **Sports club membership and voluntary work in sports clubs.**

Denmark is a club-focused country with (viewed internationally) high voluntary involvement in the population, which to a great extent takes place in cultural, recreational and sports clubs (Ibsen et al. 2008; Bak et al. 2012:122f). Adult volunteers in particular help with club operations and organising club activities. The majority of sports clubs use voluntary labour exclusively (Laub 2012). The study on Danes’ sports participation also provides an insight into how many adult Danes lend a hand to sports clubs and participate in member meetings.

**Figure 37: Voluntary work in sports clubs among adults. (Percentages)**



The numbers above are only two to three percentage points higher than the proportion of children that participate in club work, as was illustrated in table 10. But this must be seen in light of the fact that approximately twice as many children as adults indicated that they played sport in a club, and the proportion of club-active adults helping with voluntary work or participating in meetings is therefore significantly higher.

About one tenth of all adult Danes participate in membership meetings in clubs; three per cent have leader or board positions, five per cent are coaches and six per cent carry out other work at the club. Among club members alone, this is equivalent to between every fourth or fifth adult member participating in membership meetings. Every twelfth member is active as a leader or board member, and around every eighth club member is a coach and a similar share does other work in the club.

When combining the number of voluntary leaders, coaches and those taking on other voluntary tasks, 11 per cent of the adults work voluntarily in sports clubs. This is equivalent to every fourth club member contributing to club work on a voluntary basis.

**Table 26: Voluntary club work among adults. By gender and age. (Percentages)**

N = 2,983	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70 +
Is club member	43	<b>38</b>	<b>48</b>	51	35	42	45	<b>48</b>	43	39
Participates in member meetings	9	7	12	11	6	8	9	14	12	5
Is leader/has confidence post	3	2	4	1	1	4	6	5	3	2
Is trainer/instructor	5	3	7	12	6	6	7	3	2	1
Has other work in sports club	6	4	7	7	4	6	6	6	5	5

*Significant differences between gender and age groups are marked in bold; p < 0.05.*

There are two ways to look further into the total proportion of adult Danes in sports clubs (activity participation and membership) and it seems that there is a small incongruence between the two when using the same method of calculation as in 2007. At the specific question concerning membership, 43 per cent of the respondents over 16 years of age answered that they are a member of a sports club. The difference between 41 per cent of club-active adults and 43 per cent of club members among adults is, however, not large enough to be statistically significant and can be explained by differences in calculations.

The difference between club activity and club membership emerges in different ways within the different age groups, which becomes visible when viewing table 26 together with table 22. In short, the youngest adults are more often 'club-active' than they are club members. For instance, 58 and 44 per cent of the 16-19-year-olds and 20-29-year-olds respectively stated that they had been active in at least one sport on a regular base within a club, but only 51 and 35 per cent in the same age groups stated that they are club members.

In these age groups there is an incongruence of nearly ten percentage points that could refer to a regular activity that they had taken part in in a club earlier in the year, although the respondent was not a member at the time of the questionnaire. It could also be related to the fact that some clubs organise activities, for example training for large running events, which are open for non-members.

The opposite inconsistency can be found among adults over 40 years of age, where a larger proportion stated that they are a club member than the proportion of club-active. This can be related to the fact that it is possible to hold a club membership, and possibly participate in membership meetings and help with club operations, without necessarily participating in sporting activities in the club on a regular basis.

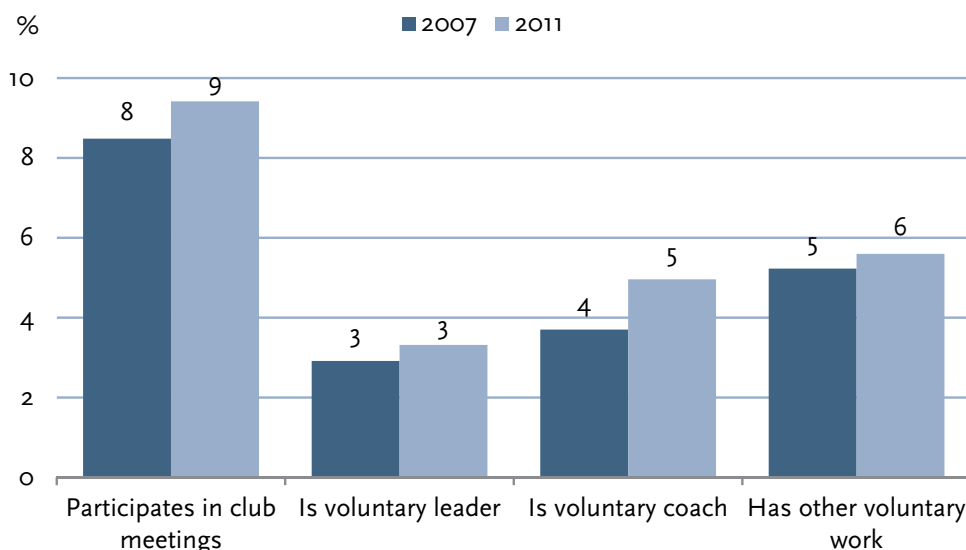
When looking past club memberships and focusing instead on club work in the form of membership meetings and voluntary work, there is a clear gender and age effect to be found. Men participate more often in membership meetings and are active as volunteers in clubs than women, and the younger adults are more often coaches, while the older adults are more often leaders. The gender difference in voluntary work is not just the result of the fact that men are more often sports active in clubs. When looking at the club-active adults alone, the proportion of leaders, coaches, meeting attendees and volunteers is also slightly lower among women than men.

#### *Comparison with 2007*

Since 2007, the proportion of adults who attend meetings and volunteer in sports clubs has increased slightly, especially voluntary coaches. This development corresponds with the numbers in the report 'The future of voluntary sports clubs' (Laub 2012:8) which generally show a slight increase in the number of volunteers in Danish sports clubs over the same period of time.



Figure 38: The development of adults' voluntary club work. (Percentages)<sup>57</sup>

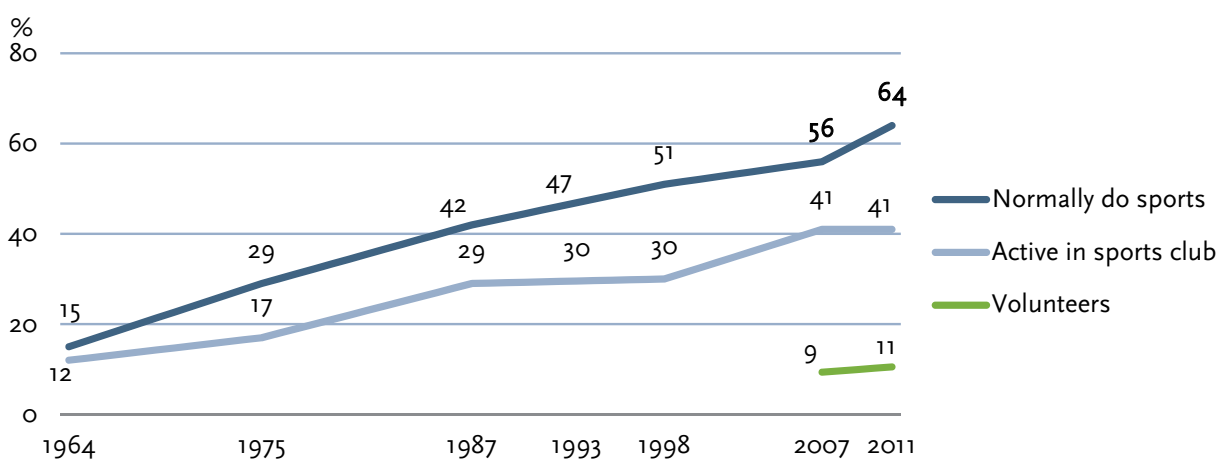


Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

The proportion of all adults participating in meetings and working voluntarily in sports clubs in various ways in general higher in 2011 than it was in 2007, but only the proportion voluntary coaches was significantly larger in 2011 (five per cent) than it was in 2007 (four per cent).

In 2007, the total number of volunteers (regardless of their function) among adults was nine per cent, but the increase of two percentage points to 11 per cent in 2011 is not a statistically significant difference, as can be seen in the figure below.

Figure 39: Adult Danes' sports participation, club activity and voluntary work since 1964. (Percentages)



Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

<sup>57</sup> While the columns reflect the exact proportions, the numbers are rounded off to whole percentage points. This is in order to not give the impression of excessive precision in the estimates, and means that columns with slightly different heights can illustrate the same percentage in percentage points.

Both the general sports participation and the proportion of adults being active in clubs have increased over the past 50 years. Again, one should keep in mind that in 1964 the respondents were only asked to indicate their participation in 'sport', which changed the perspective of the survey a little and therefore mostly captured the club-active Danes.

As the figure shows, the increase from 2007 to 2011 in adult Danes' sports participation primarily took place outside the clubs that otherwise have a steady share of the population at 41 per cent. Looking further back to 1975<sup>58</sup>, the development of the proportion of sports-active adults and the proportion of club-active adults is relatively similar. Both groups more than doubled in the 36 years between 1975 and 2011. At the same time this means that the difference between the number of club-active adults and the number of sports-active adults has also doubled, and this underlines that a large part of the increasing number of adults doing exercise/sports in Denmark can be found outside the clubs, even though clubs are still central for many adults' sports participation. 'Sports' in regard to adult Danes is thus a diverse construct which now spreads across activities and organisational contexts and has grown to capture two third of the population.

### Competitive sports

The tendency to participate in competitive sports or matches compared to other forms of sports is not as widespread among adults as it is among children.

**Table 27: Have you participated in competitions, tournaments, events, etc. within the last year? By gender and age. (Percentages)**

N = 3,244	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70+
Yes	29	22	37	49	34	37	32	28	18	9
No	71	78	63	51	66	63	68	72	82	91
$\chi^2$ -test		p < 0.05		p < 0.05						

29 per cent of the adults participated in competitions, tournaments, events, etc., and men participated to a much higher degree than women. Whereas 22 per cent of the women participated in competitions/tournaments within the last year, at 37 per cent almost double as many men did the same. As shown in table 21 and figure 26, there is a clear tendency that women are more active in sports where the competitive element is less evident, such as walking/hiking, aerobics/Zumba and yoga, whereas men are most likely to be active in more competitive activities such as football, badminton and golf.

The youngest adults between 16 and 19 years of age are particularly active in competitive/tournament sports. Within this group, almost half (49 per cent) participated in competitions, tournaments, events, etc. within the past year. More than one out of three is active in competitions among people in their twenties (34 per cent) and thirties (37 per cent), while the share drops to 32 per cent among people in their forties and drops even further in the following age groups.

<sup>58</sup> The study's key questions remained nearly identical since 1975.

**Table 28: Participation in competitions among the sports active, club-active and not club-active. By age and gender. (Percentages)**

(N = 3,957)	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70+
Sports active	35	<b>27</b>	<b>44</b>	<b>57</b>	<b>40</b>	<b>45</b>	<b>38</b>	<b>35</b>	<b>22</b>	<b>11</b>
Club-active	49	<b>39</b>	<b>57</b>	<b>68</b>	<b>60</b>	<b>56</b>	<b>49</b>	<b>51</b>	<b>33</b>	<b>18</b>
Not club-active	18	<b>15</b>	<b>23</b>	<b>23</b>	<b>17</b>	<b>32</b>	<b>25</b>	<b>16</b>	<b>9</b>	<b>3</b>

*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .*

When looking only at the sports active (people who answered ‘yes’ to normally doing exercise/sports), slightly more than one third (35 per cent) do exercise/sports in competitions with others or is active in tournaments, events, etc. Men and young adults, again, are most active in competitions.

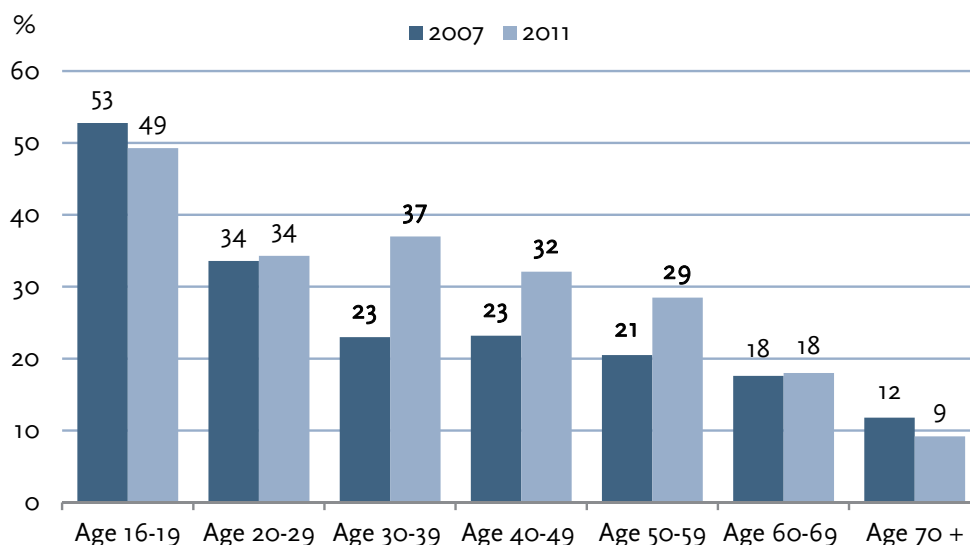
When digging a little deeper and comparing those who do exercise/sports in clubs (the club-active) with the sports-active who are not active in clubs, there is a strong tendency among both adults and children for sport as a competitive activity to go hand in hand with club sports. Among club-active adults, 49 per cent participated in competitions, tournaments, events, etc, while the same accounted for only 18 per cent of those who were not club-active (but were sports-active).

Among those who are not club-active (but are sports-active) it is notable that the age group with the most participants in competitive sports is not the youngest, but the 30-39-year-olds with 32 per cent and the 40-49-year-olds with 25 per cent. At the same time, these age groups had the largest increase in general sports participation between 2007 and 2011, as shown in figure 19, and therefore it is interesting to see whether a part of the increase could be related to the higher participation in competition among the 30 to 49 year olds.

#### *Comparison with 2007 and 1998*

In 2007, a total of 24 per cent of the adults participated in competitions, tournaments, events, etc. within the past year. Among women it was 17 per cent and among men it was 31 per cent, so a general increase in the competitive appetite among adult Danes is visible, both among men and women, which is perfectly in line with the increase in sports participation in the same period.

**Figure 40: Development of the proportion of competition-active. By gender and age. (Percentages)**



*Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .*

The increase in competition/tournament participation has, as the figure above shows, only taken place among the 30-59-year-olds – precisely in the age groups where the proportion of sports active has also increased substantially: from 23 to 37 per cent active in competitions among the 30-39-year-olds, from 23 to 32 per cent among the 40-49-year-olds and finally from 21 to 29 per cent among the 50-59-year-olds.

The high competitive activity in the three middle-age groups is not simply caused by the rise in sports participation in those age groups. When looking at the sports-active in 2007 and 2011, there is also an increase in the adult population’s participation in competitions in general and especially among the 30-59-year-olds. Nine percentage points more sports-active 30-39-year-olds participated in competition, tournaments, events, etc. in 2011 compared to 2007, and at the same time an increase was visible among people in their forties and fifties with two and four per cent respectively. This increase in participation in competitions has mainly occurred among adults outside of club organised sports.

Altogether, it points in the direction that the increased competitive activity among the adult population, and the 30-50-year-olds in particular, is not only a result of this group’s increased sports participation. The causality may go both ways, meaning that a greater participation in competitive activities, particularly among the self-organised sports-active participants, may help to explain the increase of sports activity among people in their thirties, forties and fifties. These groups are, as shown in figure 29, increasingly active in running, which in recent years has appealed to the general public interest in an increasingly broad range of running events and competitions which are open to all regardless of talent and club membership and can serve as a target for regular running exercises (Forsberg 2012).

### **Social differences in choice of activities and organising of sport**

In table 17, a difference in adult Danes’ sports participation based on social variables such as education, income and employment was shown. Although the increase in sports participation from 2007 to 2011 has

taken place among all education groups, the proportion of sports-active is still significantly less among Danes with a short education and low income.

Social background variables (in this section we primarily look at the parameter 'education'), do not only influence the tendency to participate sports to begin with. They also help to forecast *how* one participates in sport with different choices of activities and organisational forms.

We take up the subject of education here because education to some extent helps to define income and employment – not completely, but to such an extent that the different social variables co-vary and it is therefore meaningful, and at the same time more manageable, to start with education and complement with other social variables that might be relevant to use in the analysis.

Education, in this context, means the highest completed educational level, and therefore people who are still studying are not included in the following analysis and tables.

**Table 29: Choice of activities. By education. (Percentages)**

N = 2,949	Total	Education				
		Primary school	High school/vocational education <sup>59</sup>	Higher education (<3 years)	Higher education (3-4 years)	Higher education (>4 years)
Jogging/running	31	11	<b>26</b>	<b>35</b>	<b>38</b>	<b>47</b>
Walking/hiking <sup>60</sup>	25	<b>22</b>	<b>23</b>	<b>27</b>	<b>29</b>	<b>25</b>
Strength training <sup>60</sup>	22	<b>15</b>	<b>20</b>	<b>21</b>	<b>25</b>	<b>25</b>
Gymnastics <sup>60</sup>	12	<b>11</b>	<b>11</b>	<b>12</b>	<b>17</b>	<b>10</b>
Aerobics/Zumba	12	<b>6</b>	<b>11</b>	<b>13</b>	<b>17</b>	<b>13</b>
Swimming	11	<b>7</b>	<b>9</b>	<b>11</b>	<b>15</b>	<b>15</b>
Spinning <sup>60</sup>	10	<b>7</b>	<b>10</b>	<b>12</b>	<b>10</b>	<b>14</b>
Road cycling <sup>60</sup>	9	<b>7</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>14</b>
Football	7	<b>3</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>8</b>
Badminton	7	<b>3</b>	<b>7</b>	<b>10</b>	<b>5</b>	<b>8</b>
Yoga	6	<b>3</b>	<b>4</b>	<b>5</b>	<b>9</b>	<b>9</b>
Golf	6	<b>4</b>	<b>5</b>	<b>9</b>	<b>5</b>	<b>7</b>
Dancing (all forms)	5	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>3</b>
Mountain bike <sup>60</sup>	4	<b>2</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>7</b>
Fishing	4	<b>3</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>2</b>

*Significant differences between education categories are marked in **bold**;  $p < 0.05$ .*

<sup>59</sup> Including business schools, vocational educations (shop, craftsman, hairdresser, etc.), skilled worker education and semi-skilled worker education.

<sup>60</sup> No significant differences between the education categories when accounting for education related differences in general sports participation. See the explanation in the text below the table.

The most popular sports activity in Denmark, running, is far more common among the highly educated than among people with a shorter education. The same counts for all other popular, individual, exercise-related activities, from walking/hiking to road cycling.

Significant differences between the activities based on the education categories do not necessarily mean that one activity is more common among the highly educated than the lower educated or vice versa. It can also be said that one specific education category is particularly active in a sport (such as gymnastics, where people with a medium-higher education stand out), or the opposite (such as football, where people with primary education are significantly less active).

The figures in the tables above are based on all persons in the various categories of education. It is therefore natural that in most of the sports there are more active people with higher educations, because this group is more sports-active in general. It is therefore worth mentioning that when taking the differences in sports participation into account, there are no longer significant differences for walking/hiking, strength training, gymnastics, spinning, road cycling and mountain biking, in addition to golf and dance which were not significant to begin with.

In this context, it is interesting that a sport like golf, which has a reputation for being an upper-class activity, is one of the few activities that are roughly equally common among people with different educational backgrounds. Here, the income parameter plays a role which cuts across education. This is reflected in the proportion of the sports-active playing golf, which is significantly larger among people in households with more than 700,000 DKK in annual income (11 per cent) than in households with a lower annual income of less than 300,000 DKK (four per cent).

**Table 30: Organisation of sport. By education. (Percentages)**

N = 2,949	Total	Education				
		Primary school	High school/vocational education	Higher education (<3 years)	Higher education (3-4 years)	Higher education (>4 years)
On their own	59	<b>41</b>	<b>54</b>	<b>62</b>	<b>68</b>	<b>70</b>
Sports club	40	<b>26</b>	<b>41</b>	<b>45</b>	<b>44</b>	<b>41</b>
Private centre	19	<b>14</b>	<b>16</b>	<b>17</b>	<b>24</b>	<b>24</b>
Workplace	6	<b>2</b>	<b>6</b>	<b>7</b>	<b>5</b>	<b>9</b>
Evening classes	3	2	2	3	4	2
Other context	9	<b>9</b>	<b>7</b>	<b>10</b>	<b>12</b>	<b>9</b>

*Significant differences between education categories are marked in **bold**;  $p < 0.05$ .*

A higher education corresponds with a greater tendency to organise sports activities on one's own, in private centres or through the workplace. This is true even when accounting for differences in general participation.

People in the middle categories of education seem to be the most club-active. This is particularly evident when looking at the sports-active people alone. Among this group, it is in fact people with high school or vocational education who are the most club-active (60 per cent of the sports-active are also club-active), followed by the higher educated of up to three years (58 per cent) and the higher educated of three-four years (54 per cent). The people with primary school education and with higher education of over four years are the least club-active at 44 and 50 percent respectively.

**Table 31: Club membership and voluntary work. Divided by education. (Percentages)**

N = 2,232	Total	Education				
		Primary school	High school/vocational education	Higher education (<3 years)	Higher education (3-4 years)	Higher education (>4 years)
Is club member	44	<b>33</b>	<b>47</b>	<b>47</b>	<b>41</b>	<b>46</b>
Participates in club meetings	10	<b>4</b>	<b>11</b>	<b>8</b>	<b>11</b>	<b>10</b>
Is voluntary leader	4	2	5	4	4	6
Is voluntary coach	5	3	5	3	6	5
Has other voluntary work	6	<b>2</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>3</b>

*Significant differences between education categories are marked in **bold**;  $p < 0.05$ .*

When looking at the specific question on club membership, people with high school/vocational educations and higher education of up to three years stand out as the groups with the most participation in clubs with 47 per cent being club members. The highly educated are also well represented here with 46 per cent, whereas only one out of three among the less educated are club members. The income variable points in the same direction and shows a relationship between a higher income and a larger tendency to club membership.

Taking into account that there are more club members in certain education categories, there are no significant differences between the proportion participating in member meetings, being leaders or coaches. Only difference is that people with a high school/vocational education and higher education of up to three years and three-four years (with respectively 17, 15 and 17 per cent) take part in other voluntary work significantly more often than the primary school-educated (seven per cent) and people with higher education of more than four years (five per cent).

#### *Comparison with 2007*

The statements above will not surprise the connoisseurs of the latest survey on sports participation in Denmark from 2007. In that report, a connection between the background variable education and income and the dependent variable, choice of sport and level of organisation, was also made.

Running was to a high extent, despite its easily accessible nature, a sport for the educated and wealthy, even when taking into account that these groups are generally more active in sports than the average.

In 2007, there were also signs that the proportion of club participants was largest among the middle education categories, but without the shares being statistically significant from each other. The variable concerning income showed the same tendency towards a higher club membership among people with a high income. All together, it indicates a stable development of club sports, both in terms of how many Danes are active as well as the social composition in club sports. Notable shifts in the social parameters are not evident in relation to voluntary work either.



## Barriers to sport and exercise

Few children and adolescents (slightly more than one out of ten) and between one out of four adults do not participate in sports or exercise. The following section examines this minority, where the respondents themselves define the reasons why they don't participate in sports or exercise at the moment.

Barriers and motives for sports and exercise are often studied in surveys using a large number of statements, where respondents have the possibility to tick them as perceived barriers or motives. Such an approach relies on individual's beliefs and convictions without considering that external, social and, for the individual, often hidden structures might also be crucial for the actions taking place.

This basic report will not go into further detail about the sociological reservations when asking individuals about their motives and barriers. Many might not have reflected on, or made an active choice not to do sports or exercise. There could also be some deeper meanings behind the choice of the individual statements. An example is the statement 'I do not have enough time'. Many would argue that this does not represent a limitation in time in a quantitative sense, but is more a matter of prioritisation. This prioritisation is rarely random but is related to socio-cultural structures, where individuals with more resources and higher education use a relatively high number of hours at work, and are more often active in sports and culture and generally more involved in voluntary work in different contexts in everyday life than individuals with less education.

Despite the interpretational reservations one should make when examining the perceived motives and barriers from a set of statements in a questionnaire, there might still be interesting information to find in the material. For instance, it is interesting to examine the systematic differences between the answers of the various population groups, and at the same time it is interesting to examine the development of the answers where the questions are almost identically formulated in 2007 and 2011. The results for children between 7 and 15 years and adults aged 16 and older are presented separately below.

### Children and young people

'Not-active' children and young people experience first and foremost that they spend more time with friends and doing other leisure activities, and a large proportion of them simply do not bother with sports and exercise. An overview of perceived barriers is shown in table 32 below, where gender and age distributions are also shown.

**Table 32: What has kept you from doing exercise/sports on a regular basis within the past year? By gender and age. (Percentages)**

N = 208	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
Use time on friends	41	49	32	31	41	47
Use time on other leisure activities	39	39	40	35	44	39
Do not bother	31	31	31	27	28	35
Paused, plan to start again	28	29	27	33	16	33
Not interested	22	21	24	16	21	26

Missing someone to accompany	21	25	16	15	20	25
Poor shape	15	<b>23</b>	<b>6</b>	<b>9</b>	<b>12</b>	<b>22</b>
Limited opportunities to participate in the right sports/ exercise	14	14	14	11	23	11
No appropriate facilities in area	12	13	10	11	15	10
Too expensive	10	12	8	13	15	5
Use time on side job	9	9	8	<b>0</b>	<b>2</b>	<b>19</b>
Use time on family/ partner	8	10	6	11	5	9
Limited knowledge about sports/ exercise	8	10	6	4	8	11
Poor health	7	8	6	<b>0</b>	<b>7</b>	<b>12</b>
Friends are not regularly physically active either	7	<b>11</b>	<b>3</b>	4	5	11
Physical/psychological handicap	3	1	5	<1	7	2
Parents do not approve	2	1	3	2	2	2
Other reasons	19	21	18	24	13	21
Don't know	9	10	7	11	8	8

*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .*

The same three barriers were numbers one, two and three in the list of 2007, and generally speaking the distribution of responses has only changed minimally between 2007 and 2011 for children and young people.

In addition to the most prominent barriers that directly relate to a lack of interest, 28 per cent indicated that they are taking a break from sport but plan to start again. This is an increase, as figure 41 shows, compared to 20 per cent in 2007, which borders on being statistically significant because the analysis is based on relatively few inactive children and young adults. This applies to both boys and girls, as well as for the very young children and the youngest teenagers. It helps to confirm the general image that emerges from the current population's sports participation, where sport and exercise can be described as a changeable affair that is increasingly changing in nature in relation to both the content and how often and when people are involved. One does not necessarily participate in the same activity steadily over one or more years, but tries different things, choosing different options constantly during a continuous process. This trend continues into adulthood, as shown in the following tables and figures of the experienced barriers for adults.

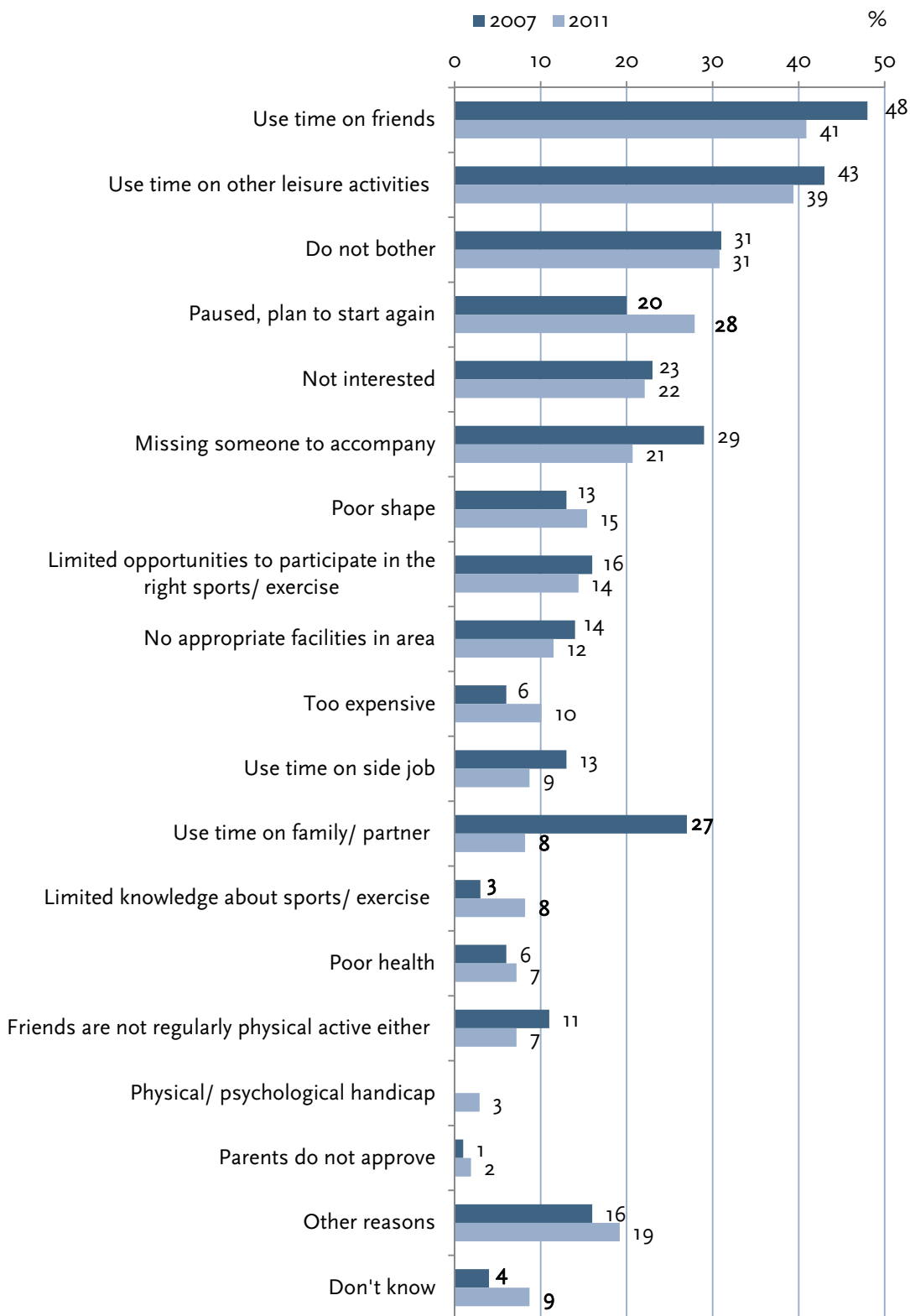
The statement 'missing someone to accompany' is also worth noting, as it stresses the importance of social relationships and communities in relation to sport and exercise. This suggests that the social relationship for someone should exist *prior* to their involvement in a sports community, and it might be difficult to find a sports activity one can participate in together with others because of varying physical skills/sporting level and ambitions concerning the goal and content of the activity. This is a particular factor among the older girls aged between 13 and 15 years. This statement has received a lot of attention since the 2007 survey, when even more respondents (29 per cent) lacked someone to participate with, and it is positive that this tendency is on the decline. In the field of conceptual development, more and more recreational activities have gained ground in recent years, taking into account the various young people's physical skills and thereby not necessarily focusing on the development of talents.

The teenage girls also often indicated that they were in bad shape (22 per cent of the inactive girls between the age of 13 and 15), but the 2011 figure did not represent a decline from 2007. This suggests that many of the inactive respondents have the idea that one should be able to accomplish something in advance to play sports or to exercise.

Few inactive people experience barriers related to sports being too expensive, a lack of facilities or a lack of possibilities to participate in the appropriate activity - with the exception of the 10-12-year-olds, of whom 23 per cent stated they lacked the opportunity to participate in the appropriate activity.

In addition, 19 per cent state 'other reasons' for not doing sports or exercise, which this study cannot comment on further.

Figure 41: Development of the barriers for sports activities among children. (Percentages)



Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

## Adults

The most significant reason why adults do not play sports or do exercise is a lack of time for it (which is instead spent on work, family or other interests), as table 33 below illustrates.

Age means a lot in relation to the perceived barriers. The younger age groups lack time, to a greater extent than the elderly, have other leisure interests, are on a break, are in bad shape, lack someone to accompany them, can not afford it, or lack the opportunity/appropriate facilities. The middle-aged groups use a lot of time on family and have difficulty finding someone to look after their children, while the older groups indicate having a poor health or that they feel too old as barriers.

As also mentioned in the section on barriers perceived by children and young people, it is interesting that relatively many - especially the young adults - indicate that being in bad shape is the reason not to participate in sports and exercise. Again, it suggests the idea among the inactive people that sport and exercise are about being able to perform in advance.

At the same time, economic factors ('I can not afford it', which is mentioned by only nine percent as a barrier), actually play a role in one age group, the 20-29-year-olds (22 per cent). This group could consist of students who were used to youth discounts and in this period leave home and must attend to other major expenses in their everyday lives. But this age group is most likely to train in commercial centres, where membership is often more expensive than it is in many sports clubs.

Men are more likely than women to indicate time related barriers for sports and exercise, while women more often indicate personal reasons such as poor health and bad shape, taking a break, or lack of someone to accompany them as barriers to their participation.

**Table 33: What has kept you from doing exercise/sport on a regular basis within the past year? By gender and age. (Percentages)**

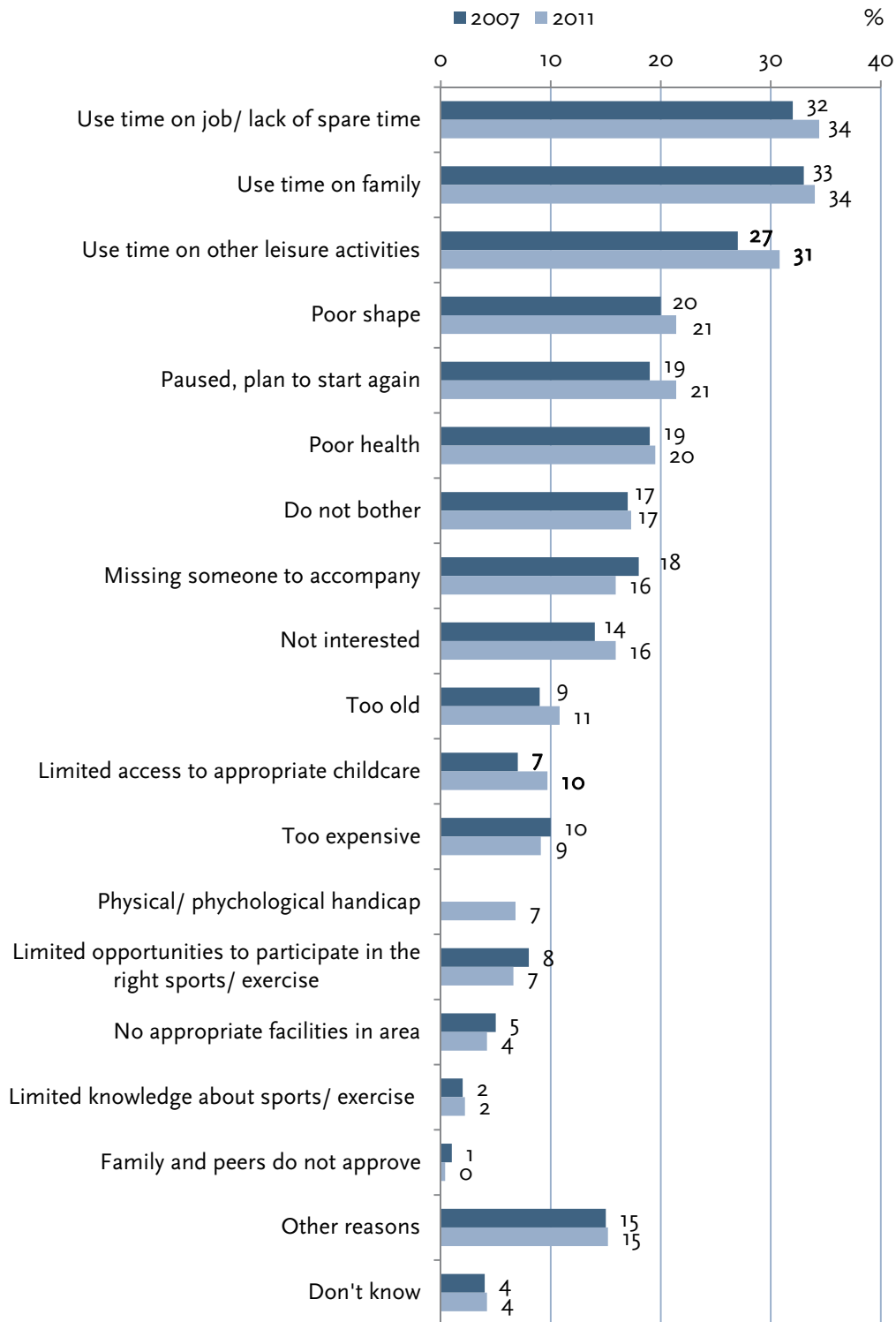
N = 1,091	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70+
Use time on job/ lack of spare time	35	30	39	59	48	52	41	36	17	2
Use time on family	34	36	32	10	29	61	51	31	18	13
Use time on other leisure activities	31	25	37	51	34	27	26	33	40	21
Poor shape	21	23	19	31	24	18	26	24	18	15
Paused, plan to start again	21	24	19	31	31	31	25	19	12	5
Poor health	20	24	15	12	5	7	18	31	27	32
Do not bother	17	15	20	10	31	14	16	20	16	12
Missing someone to accompany	16	20	12	23	30	18	14	14	14	5
Not interested	16	14	18	14	18	11	15	19	22	13
Too old	11	11	11	0	0	0	1	5	12	54
Limited access to	10	13	7	0	0	10	31	15	1	0

appropriate childcare										
Too expensive	9	<b>14</b>	<b>5</b>	<b>12</b>	<b>22</b>	<b>7</b>	<b>9</b>	<b>8</b>	<b>6</b>	<b>3</b>
Physical/ psychological handicap	7	8	6	<b>10</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>12</b>	<b>11</b>	<b>10</b>
Limited opportunities to participate in the right sports/ exercise	7	<b>8</b>	<b>5</b>	<b>14</b>	<b>11</b>	<b>6</b>	<b>9</b>	<b>4</b>	<b>5</b>	<b>3</b>
No appropriate facilities in area	4	<b>6</b>	<b>3</b>	10	4	4	6	4	4	1
Limited knowledge about sports/ exercise	2	2	2	2	3	1	1	1	3	4
Family and peers do not approve	<1	1	<1	0	0	1	1	0	1	0
Other reasons	15	<b>18</b>	<b>13</b>	<b>19</b>	<b>20</b>	<b>20</b>	<b>15</b>	<b>11</b>	<b>16</b>	<b>8</b>
Don't know	4	3	5	<b>8</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>5</b>	<b>5</b>	<b>9</b>

*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .*

In general the adults' perceived barriers did not change noticeably compared to 2007, as shown in figure 42. A slight increase is visible in the proportion indicating that they spent time on other leisure activities (in particular men) and the proportion experiencing difficulties in getting the children looked after (in particular women).

Figure 42: Development of the barriers for sports activities among adults. (Percentages)



Significant differences between 2007 and 2011 are marked in **d**;  $p < 0.05$ .

## **Reasons for ending club participation**

As mentioned in the previous paragraph, sport and exercise are often dynamic concepts which can change a lot over a lifetime. Most people will start new activities, stop again and take up new ones many times in their lives, partly because people's interests and preferences change with age and their body and physical abilities also change. People also face different everyday conditions in different life phases which often require compromises concerning leisure activities. Therefore, many of the inactive individuals, particularly among adolescents and young adults, indicated that 'taking a break' was their reason for not being currently active.

It has been a challenge for sports clubs to retain their young members for many years now. Many club sports experience a decrease among young members, but in recent years - and especially in light of the results of the sports participation survey in 2007 - it became clear that the decrease does not necessarily lead to the cessation of sports and exercise. Rather, it leads to greater competition from other sports providers, as many adolescents and adults can relate better to more contemporary models of sport and exercise than to the traditional activities and organisational contexts that club sports are based on.

### **Children and young people**

In 2007, 22 per cent of all children between 7 and 15 years of age and 11 per cent of all adults indicated that they had stopped playing sports in a club within the past year. A majority of the 66 per cent of the children and young people who stopped, as well as 46 per cent of the adults who had stopped, were still active in sport or exercise, either in another club, self-organised setting or in a commercial centre.

In 2011, a slight increase is visible in the proportion of the population who had stopped participating in a club within the past year, although it is not statistically significant, at 26 per cent among children and 15 per cent among adults, as shown in table 34. The increase takes place in all gender and age groups and indicates a trend that has certainly not declined in recent years. Children and young people, who were most active club participants, are also more likely to drop out of the clubs compared to the older age groups.

Among those who stopped participating in a club in 2011, 76 per cent of the children and young people, as well as 56 per cent of the adults still participate in sports or exercise. It is not possible to clearly state where their current activities are located; the organisational frameworks indicated by the respondents refer to their sports activity in the past year and not to the activities in which they are currently active. But the activities could be self-organised or take place in private/commercial centres or in other clubs the participant might have switched to from their original club.



**Table 34: Development of the proportion club leavers. By gender and age. (Percentages)**

		Total		Age									
		Children	Adults	7-9	10-12	13-15	16-19	20-29	30-39	40-49	50-59	60-69	70+
2011	♂	25	14	24	26	27	27	22	17	11	7	11	9
	♀	26	16	28	26	23	28	22	16	16	13	8	12
	Total	26	15	26	26	25	28	22	17	14	10	9	10
2007	♂	22	9	15	21	28	20	9	11	8	6	9	10
	♀	22	12	18	23	24	25	20	13	9	9	8	13
	Total	22	11	17	22	26	23	15	12	9	7	9	12

$N_{\text{children, 2011}} = 497$ ,  $N_{\text{adults, 2011}} = 519$ ,  $N_{\text{children, 2007}} = 428$ ,  $N_{\text{adults, 2007}} = 413$

When children and young people stop participating in a sports club it is often due to the fact that they have lost interest in the activity or it became too boring. These reasons decrease markedly from the 7-9-year-olds to the 13-15-year-olds. In the earlier teenage years in particular, there is an increase in the tendency for young people to lack time, to not like the coach, to believe that the club does not offer appropriate activities, to be injured, or to state ‘other reasons’ for not participating.

All together, it can be concluded that the youngest stop of their ‘own free will’ when they are no longer interested in an activity, while the tendency to stop because of external ‘forced’ causes are more prevalent in the older age groups.

The statement ‘I chose to play sport/exercise somewhere else’ was included in the questionnaire for the first time in 2011. It turns out that this is the fifth largest cause for stopping in a sports club (19 per cent stated this). This helps to confirm that many do not go from a sports club to an inactive life, but instead choose to switch from sports clubs to other ways to be physically active, or find other sports clubs that better match their expectations for sports and exercise.

**Table 35: Children’s reasons to end club activities. By gender and age. (Percentages)**

N = 497	Total	Gender		Age		
		Girls	Boys	7-9 years	10-12 years	13-15 years
Lost interest	45	43	46	45	53	35
Got other hobbies/interests	42	42	42	48	43	35
Got too boring	38	35	41	43	43	27
Training schedule did not fit everyday life	21	21	21	21	21	21
Chose to become physically active somewhere else	19	18	19	18	17	21
Lacked time	17	19	15	10	19	23
Did not like the coach	10	9	11	8	7	16
Got everything out of the sport as wanted	10	10	10	9	13	8

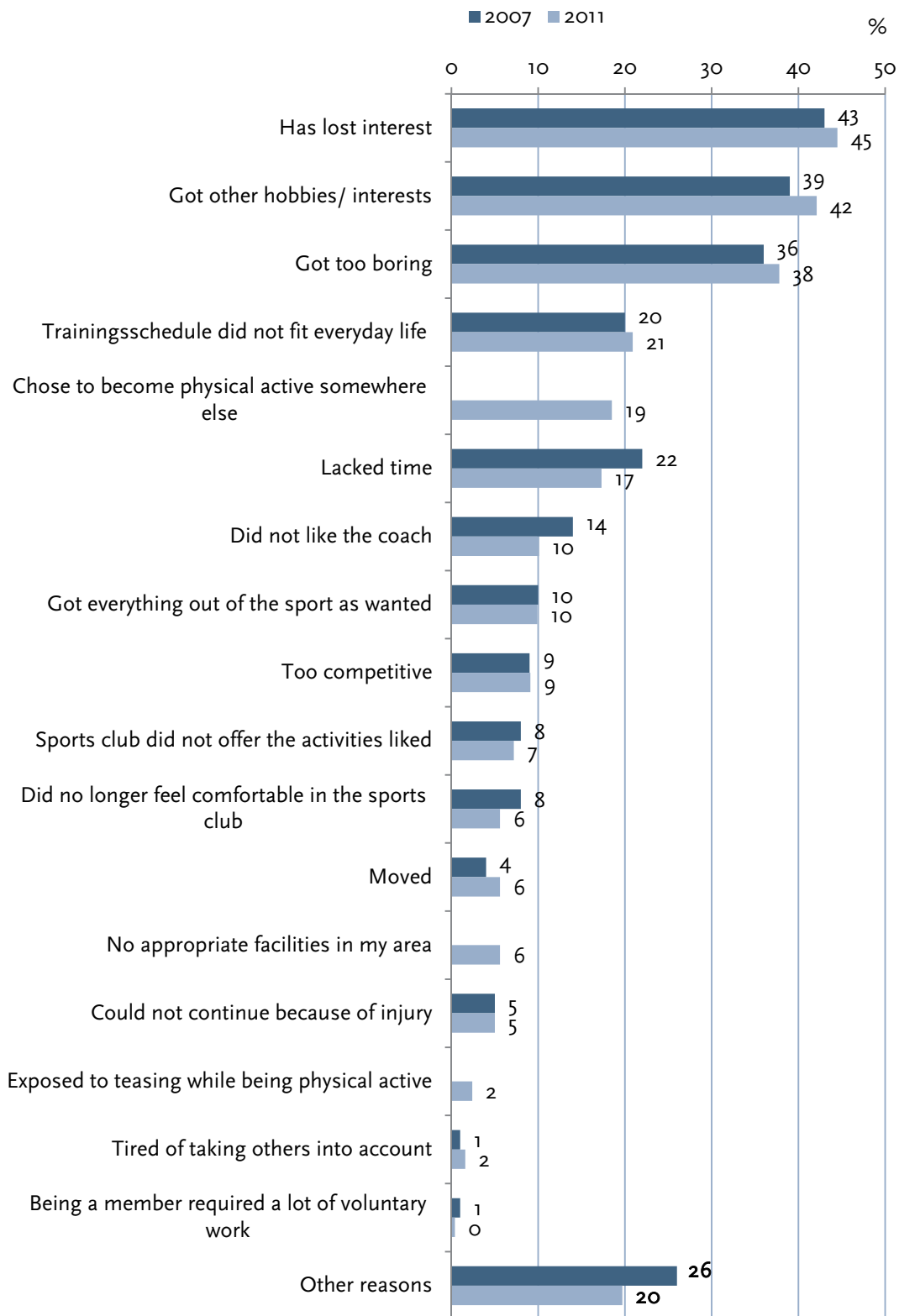
Too competitive	9	9	9	5	12	11
Sports club did not offer the activities liked	7	7	8	<b>4</b>	<b>6</b>	<b>12</b>
No longer felt comfortable in the sports club	6	6	6	3	6	8
Moved to different place	6	6	5	5	4	8
No appropriate facilities in my area	6	4	7	5	7	6
Could not continue because of injury	5	4	6	<b>1</b>	<b>3</b>	<b>12</b>
Exposed to teasing while being physically active	2	2	2	2	2	3
Tired of taking others into account	2	1	2	2	1	2
Being a member required a lot of voluntary work	<1	<1	<1	0	1	1
Other reasons	20	23	17	<b>11</b>	<b>18</b>	<b>30</b>

*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .*

The only significant change in childrens' and young people's reasons to stop participating in a sports club between 2007 and 2011 can be found in a slightly reduced tendency to indicate 'other reasons'. Maybe the new statement used in the 2011 survey 'I chose to play sport/exercise somewhere else' absorbed some of the respondents who would normally choose the 'other' category.

At the same time, very small increases are visible among the four most stated reasons, which do not reflect significant changes, so overall can children's and young adults' reasons to stop playing club sports can be categorised as unchanged over the recent years.

Figure 43: Development of children's reasons to end club activities. (Percentages)



Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

## Adults

Among adults, time is the most important reason to stop participating in a club. A total of 54 per cent of the 30-39-year-olds stops because they lack time in their everyday lives. Next, it is interesting that many - especially people in their fifties - are not able to continue because of an injury. Only a few sports clubs have alternative offers for members who cannot continue on the same terms as the other members, and there is rarely a tradition of cooperation across departments in order to handle members who require special attention. The possibilities are increasing these years with the expansion of, for example, club-based fitness or targeted gymnastics training, in relation to rehabilitation or treating the specific sports injuries.

Adults often stop because of causes that can be characterised as 'external' or 'forced' in the sense that there are some physical limitations as well as time and organisational factors in everyday life, that more or less 'force' people to stop playing club sports. In addition to lack of time, many (especially adolescents and younger adults) indicated that they had moved, that the training schedule fit poorly into their everyday life, or that they had started a family.

After time, the main cause for children to stop participating in a club is that they have chosen to do sports or exercise somewhere else. This confirms the pattern in different organisational forms, which differs over different age groups, where the activity particularly seems to move from a club-based activity to self-organised or commercial organised activities. Women are more prone to this change than men, and even though there were just a few who indicated so, there are significantly more women than men who believe that their sports club could not offer the activities they wanted, that they did not like their coach, and that the club could not meet their requirements for effective training.

Conversely, men state to a great extent (in addition to a lack of time) that they cannot continue in a club because of an injury. Therefore, the attitudes and motives for women and men to quit seem fundamentally different: women choose to go somewhere else, while men are forced to stop because of an injury.

On the one hand, it can be argued that both groups feel compelled to bypass club sports because they cannot accommodate the special needs that arise in adulthood. Among the six most mentioned reasons, only one statement expresses that the cessation is due to reasons concerning interest 'Has lost interest/did not want to participate anymore', while the other statements are about lack of time, injuries, alternative activities, relocation and the standard training schedules. Nevertheless, only relatively few stop with club sports because they did not offer the activities the individual wanted. It seems that it is more the form and the location of the activity that cause cessation, rather than the content of the activity.

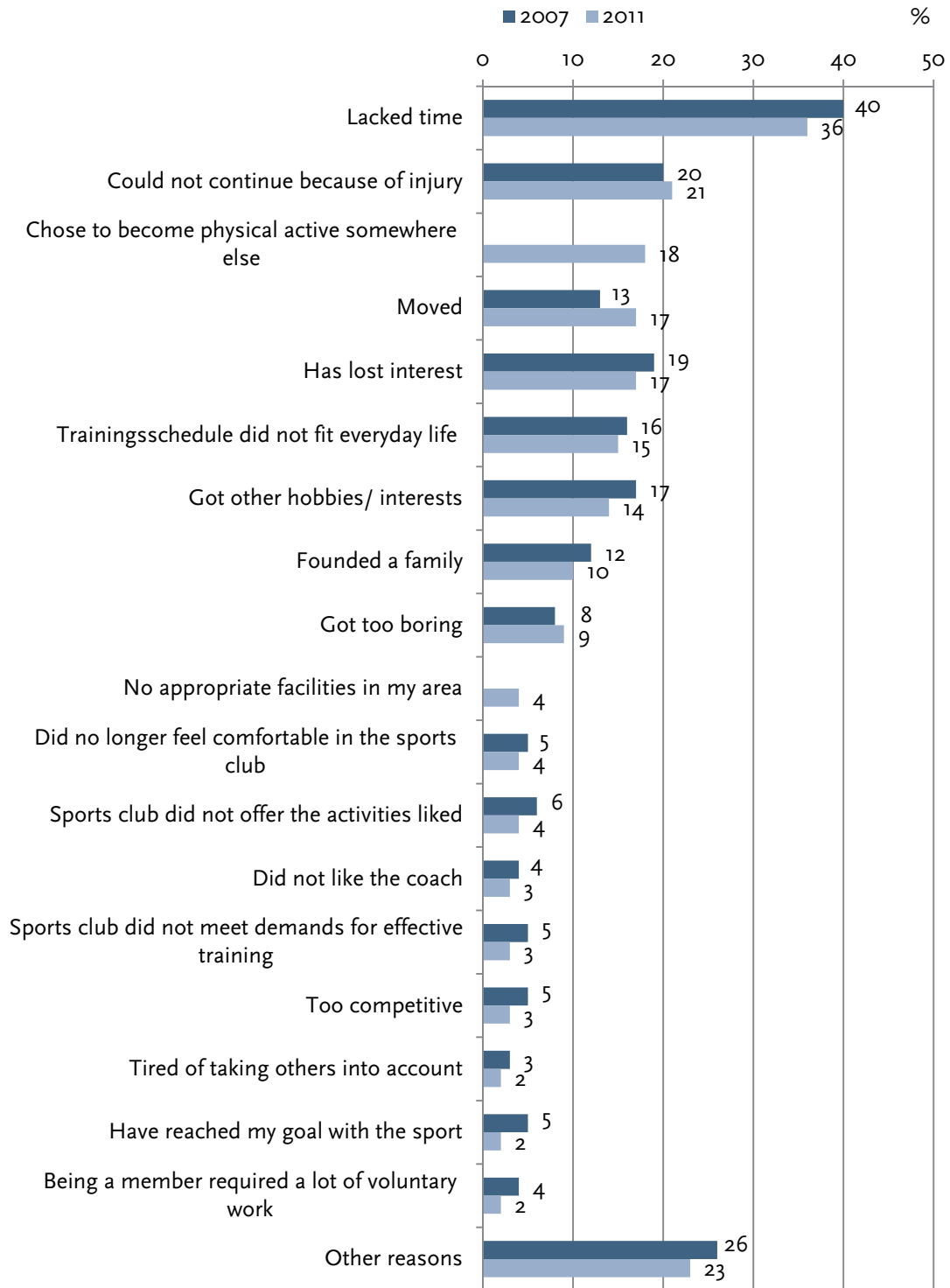
**Table 36: Causes to stop at a club among adults. Divided by gender and age. (Percentages)**

N = 519	Total	Gender		Age						
		Women	Men	16-19	20-29	30-39	40-49	50-59	60-69	70+
Lacked time	36	<b>30</b>	<b>42</b>	<b>41</b>	<b>42</b>	<b>54</b>	<b>37</b>	<b>16</b>	<b>13</b>	<b>3</b>
Could not continue because of injury	21	<b>18</b>	<b>25</b>	<b>10</b>	<b>16</b>	<b>16</b>	<b>27</b>	<b>39</b>	<b>26</b>	<b>24</b>
Chose to become physically active somewhere else	18	<b>21</b>	<b>14</b>	11	27	17	17	14	9	18
Moved	17	15	20	<b>23</b>	<b>36</b>	11	<b>9</b>	<b>2</b>	<b>11</b>	<b>18</b>
Has lost interest	17	16	18	21	25	18	13	14	9	11
Training schedule did not fit everyday life	15	15	14	<b>22</b>	<b>24</b>	<b>16</b>	<b>13</b>	<b>5</b>	<b>4</b>	<b>0</b>
Got other hobbies/interests	14	<b>11</b>	<b>17</b>	19	21	12	8	11	16	9
Started a family	10	10	9	<b>0</b>	<b>12</b>	<b>26</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>9</b>
Got too boring	9	10	8	15	14	8	8	5	2	3
No appropriate facilities in my area	4	4	4	8	3	4	4	2	2	3
No longer felt comfortable in the sports club	4	4	4	9	5	1	4	4	4	0
Sports club did not offer the activities liked	4	<b>6</b>	<b>2</b>	3	3	8	4	4	2	3
Did not like the coach	3	4	2	6	4	3	1	0	2	0
Sports club did not meet demands for effective training	3	<b>5</b>	<b>1</b>	<b>11</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>
Too competitive	3	<b>2</b>	<b>5</b>	8	6	1	1	2	7	0
Tired of taking others into account	2	2	3	0	6	1	1	2	4	0
Have reached my goal with the sport	2	1	3	3	0	1	4	4	4	0
Being a member required a lot of voluntary work	2	<b>1</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>3</b>
Other reasons	23	23	23	27	20	18	20	28	33	32

*Significant differences between gender and age groups are marked in **bold**;  $p < 0.05$ .*

A comparison of the reasons to stop participating in a club in 2007 and 2011, as illustrated in the figure below, does not reveal remarkable changes among adults. The responses to the the individual statements have not changed significantly, but many chose one particular statement ‘chose to play sport/exercise somewhere else’, which was not included in the survey in 2007.

Figure 44: Development of adult's reasons to end club activities. (Percentages)



Significant changes between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

## Facilities

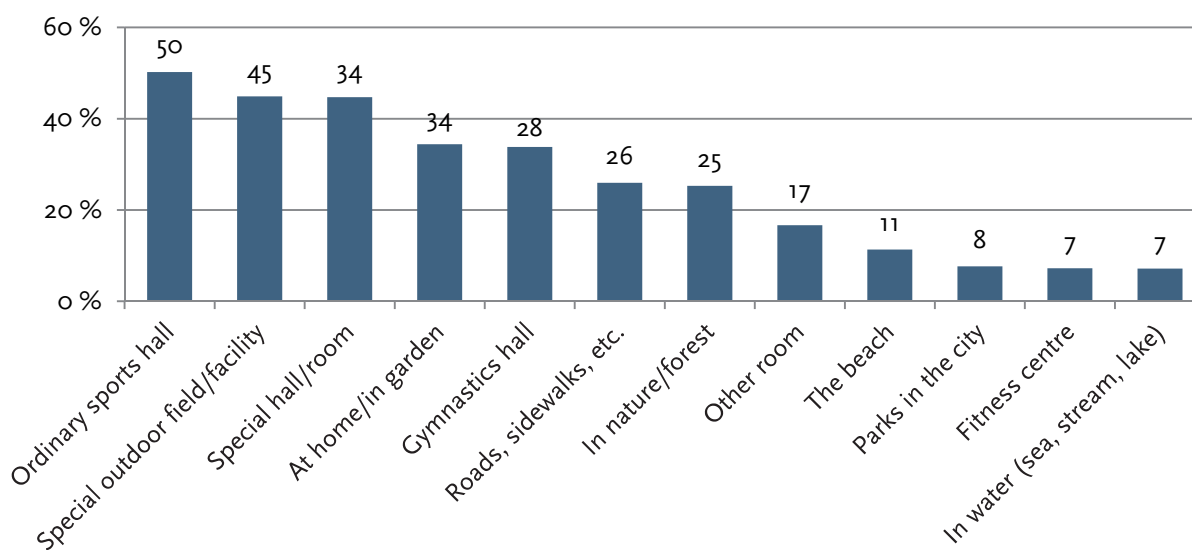
This section provides an overview of children's and adults' use of various facilities, as well as their satisfaction with the sports facilities nearby.

Where a person chooses to play sports depends to some extent, naturally, on what kinds of sports activities they are engaging in. As children play organised sports in clubs more than adults, it is natural that children's activities more frequently take place in actual sports facilities, such as gymnastics halls, ordinary sports halls and special fields or facilities. Badminton or swimming (and almost every other sport), however, do not necessarily have to take place in the appropriate halls or facilities.

In light of the data from the 2011 survey, there is possibility to look closer at where Danes do exercise/sports, both when children are active in and outside the clubs' traditional facilities and not at least where the many adults, who often self-organise their sports, find their own facilities for physical activity. As in the rest of the basic report, there will also here be a comparison with numbers from 2007, when a similar series of questions directed at the use of facilities for spots/exercise was asked<sup>61</sup>.

### Where children do exercise/sports

Figure 45: Where do you do exercise/sports? (Percentages)



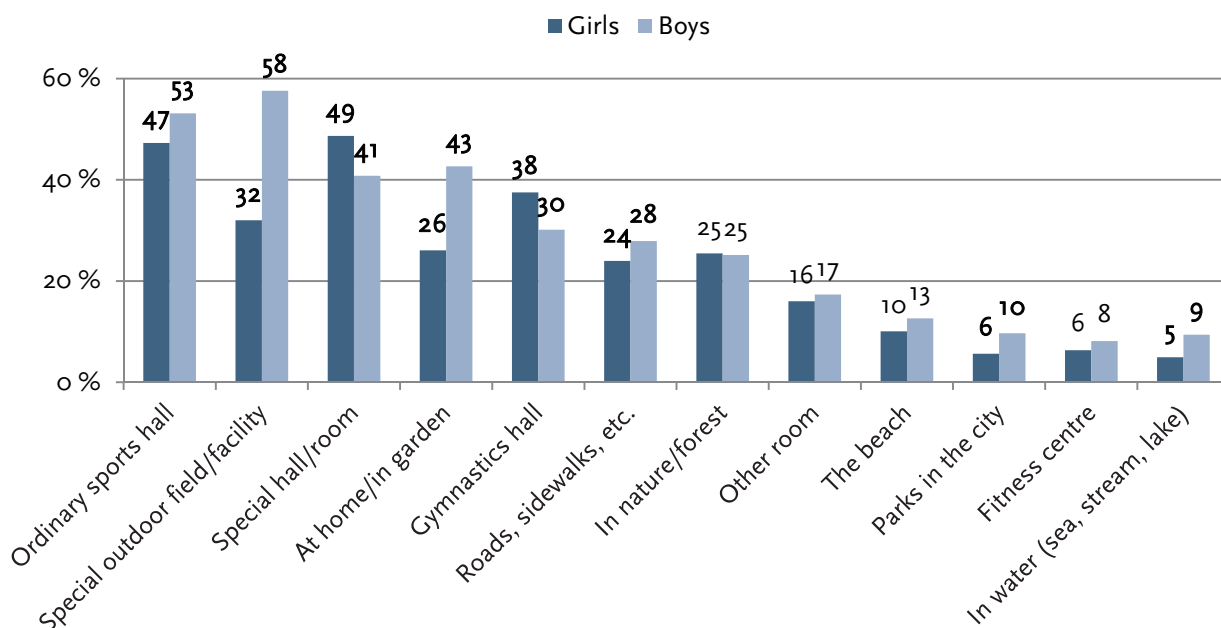
*Proportion of all children that use the mentioned facilities for sports (N = 2.035).*

When disregarding the home/garden as a place for sports activity, it is clear that the most common sports facilities among children are halls, fields and facilities that are designed for sports. Half of all children are physically active in sports halls all over the country. Special outdoor fields/facilities (for

<sup>61</sup> There are some methodological considerations and decisions underlying the overall number representing the use of facilities in 2011 and particularly for the comparison with 2007. See Appendix 4 for a detailed description of how the figures in this section are found.

football, tennis and golf, for example) and special hall/rooms for certain sports (equestrian and swimming, for example) are used by almost half of all children, and approximately a third are active in gymnastics halls. A similar proportion of children state that they do exercise/sports at home or in the garden. Finally, roads, nature and forests are places where approximately one out of four children do exercise/sports in one form or another.

**Figure 46: Where do you do exercise/sports? By gender. (Percentages)**



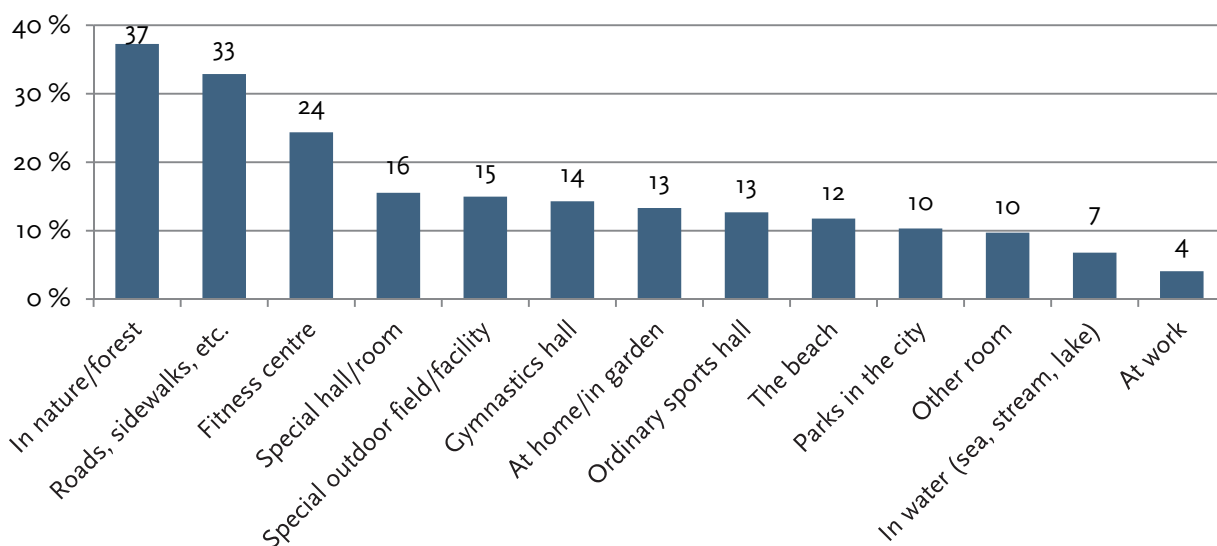
*Significant differences between girls and boys are marked in **bold**;  $p < 0.05$ .*

Boys use ordinary sports halls, special outdoor fields/facilities and the home/garden to a higher extent than girls. A factor to consider here is football, which more boys than girls play, and which usually takes place on a pitch (that is, a 'special outdoor fields/facility') and possibly also at home. On the other hand, a larger proportion of girls than boys are active in special hall/rooms, gymnastics halls and other facilities used for sports such as equestrian and dancing that are typically dominated by girls' participation.



## Where adults do exercise/sports

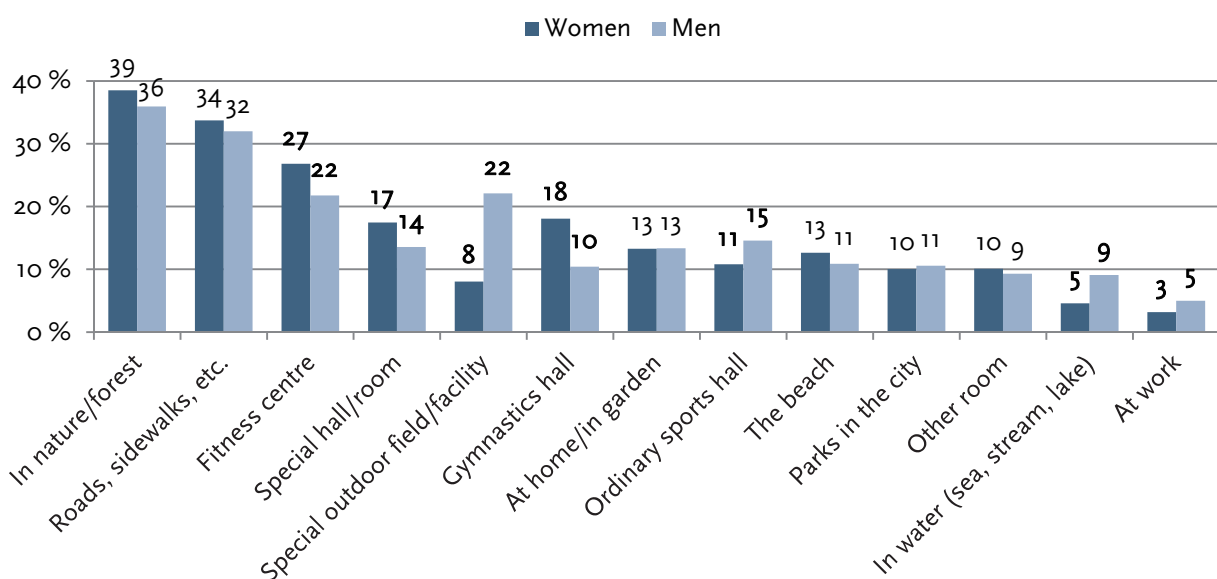
Figure 47: Where do you do exercise/sports? (Percentages)



Proportion of all adults that use the mentioned facilities for sports ( $N = 3.957$ ).

Nature is the most popular arena for sports activities among adults. More than one third of the adult Danes indicated that they do one or more forms of sports in nature (for example, forests). Approximately one third are active on roads, sidewalks, etc., whereas one out of four are active in fitness centres. Specific facilities such as special halls/rooms for sports, special outdoor fields/facilities or other specific facilities for sports, gymnastics hall or ordinary sports halls, are used by between 13 and 16 per cent of the adult Danes.

Figure 48: Where do you do exercise/sports? By gender. (Percentages)

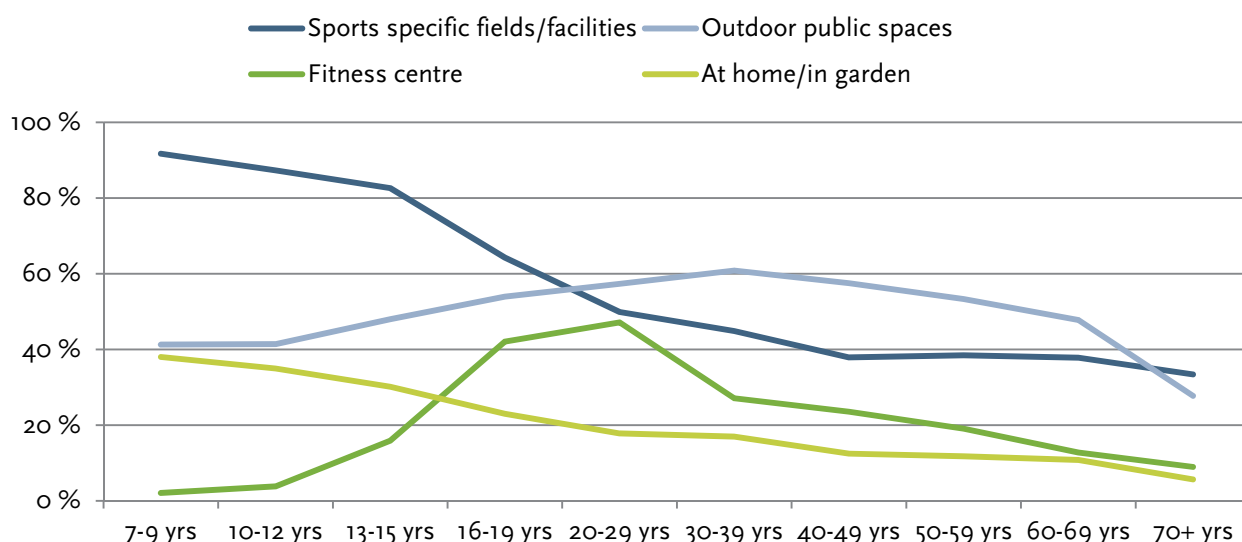


Significant differences between girls and boys are marked in **bold**;  $p < 0.05$ .

The most used facilities for adult sports, nature, roads and sidewalks, are approximately just as popular among women and men, while a larger proportion of women than men are active in fitness centers, special halls/rooms and gymnastics halls. This is a result of sports like aerobics/Zumba, equestrian, swimming and gymnastics being more popular among women than men. Men are, in turn, more often to be found in the ordinary sports halls and particularly on special outdoor fields/facilities. The graph above shows that while children's sports are typically to be found in definite 'sports infrastructure', such as halls, gymnasias and specific courts and facilities, the activities often move to other places later in life. For simplicity, if we view some of the mentioned sports facilities and/or environments together, we can take a closer look at this trend.

'Sports specific fields/facilities' include: 'ordinary sports hall', 'special hall/room', 'gymnastics hall' and 'special outdoor field/facility'. 'Outdoor public spaces' are: 'in nature/forest', 'roads, sidewalks', etc.', 'the beach', 'parks in the city' and 'in water (sea, stream, lake)'. The two other facilities in the figure below are not collective categories<sup>62</sup>.

**Figure 49: Where Danes do exercise/sports. By age. (Percentage)**



Sports specific fields/facilities are heavily used by children and young adults, but after the age of 16 a major portion of the sports activities start to take place elsewhere. Sports at home or in the garden also become less popular with increasing age. Fitness centres are popular from the late teenage years to the mid-thirties. And especially the outdoor public spaces host the adults' sporting activities. Public spaces and the nature attract most active people among all age groups from 20 years and above, however with the exception that people aged 70 and over are more likely to be active in sports buildings, especially gymnastics halls.

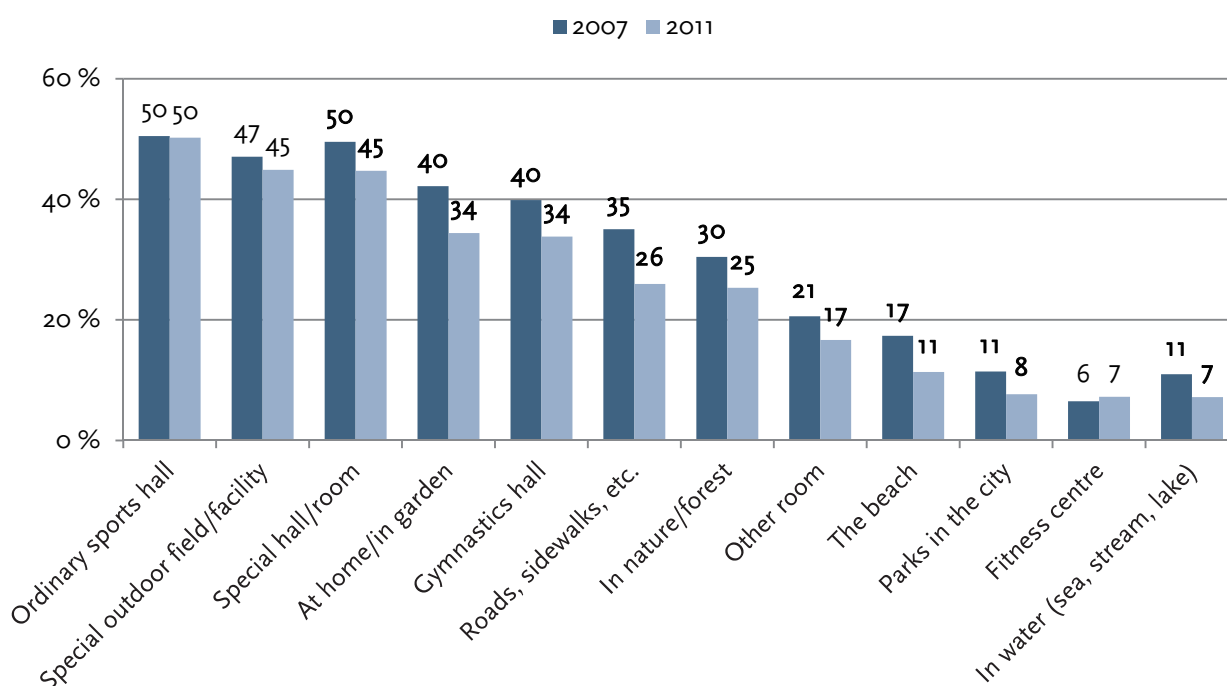
<sup>62</sup> Excluded from the figure are: 'other room/facility' and 'work place'.

The graph broadly summarises the Danes' use of sports facilities: children use fields and facilities that are designed for specific sports, where most activities are organised by local clubs. A substantial proportion of young people from 15 to 30 years of age are active in fitness centres and the like, but the most popular arenas for adult Danes' sports activities are the freely accessible areas in the city and in the nature. From the age of 16 up to people in their mid sixties, at least half of the Danish population is in some way active outdoors and in public spaces.

### Comparison with 2007

Compared to the 2007 survey, the 2011 results show an ongoing tendency towards fewer people being active in almost all listed facilities. As mentioned in the sections on the choice of activities, the same is true when looking at the kinds of activities people participate in. This could indicate that the population from 2007 to 2011 has become more likely to participate in the same activity and therefore participate in fewer activities throughout the year, while people in 2007 participated in several activities during the year and therefore used several different facilities<sup>63</sup>.

Figure 50: Development of children's choice of facilities. (Percentages)



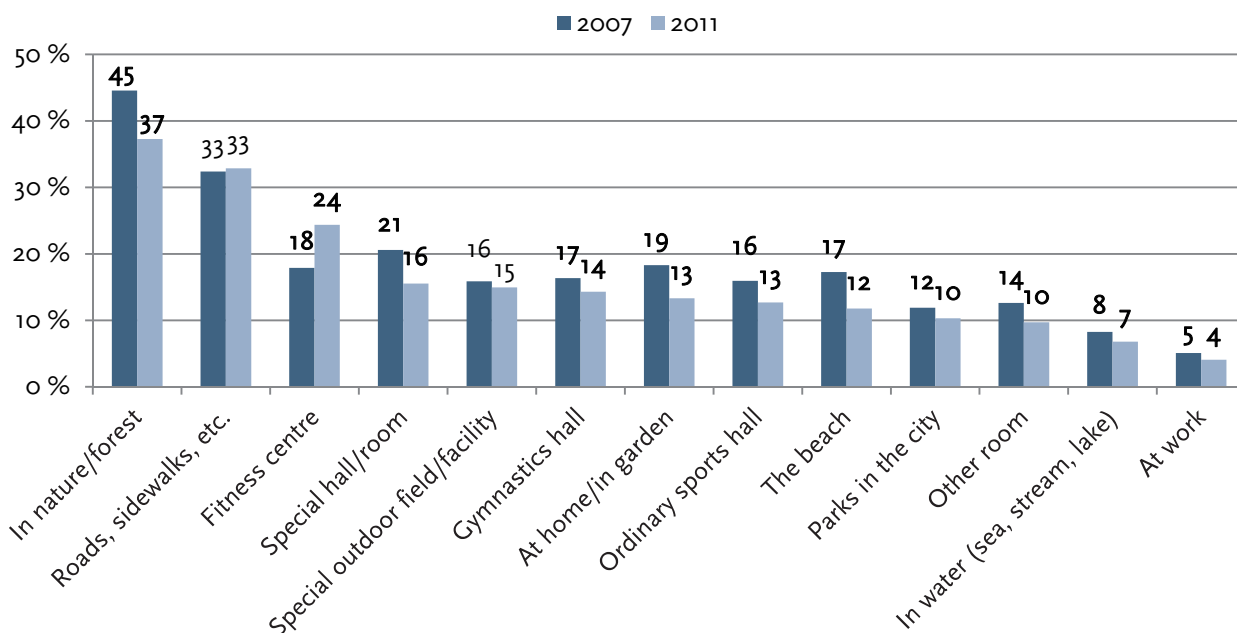
Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

The same facilities topped the list relating to the children's sports activities in 2011 and 2007. Ordinary sports halls, special outdoor fields/facilities and special halls and rooms (for example, for swimming or equestrian) are the most popular. In general, there is a slight decrease in the use of most facilities in 2011

<sup>63</sup> Part of the explanation might also have a methodological nature and lie in the coding of the returned questionnaires, conducted by Capacent Epinion in 2007 and SFI in 2011. Appendix 4 describes how the numbers behind this section are found and compared across studies.

compared to 2007, which to some extent can be attributed to slightly lower sports activity in 2011 in the sense that the number of sports in which a child was active was somewhat lower in 2011 than in 2007.

**Figure 51: Development of adults' choice of facilities. (Percentages)**

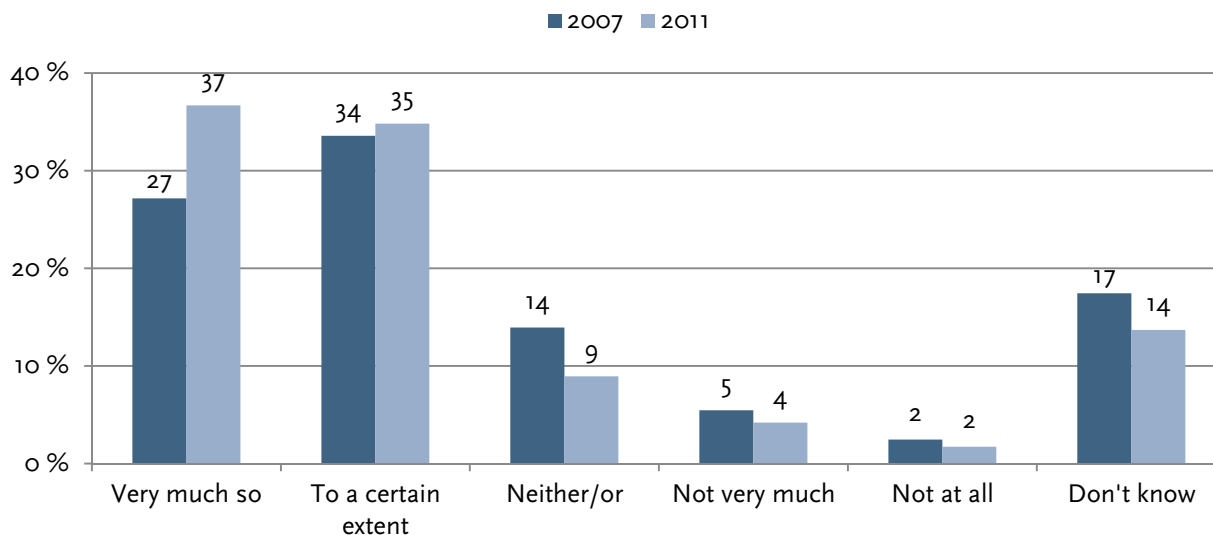


Significant differences between 2007 and 2011 are marked in **bold**;  $p < 0.05$ .

The two most popular sports facilities among adults were the same in 2007 and 2011, 'nature/forest', and 'roads, sidewalks, etc.'. The use of nature/forest did, however, decline a little in the latest survey, with 37 per cent of all adult Danes stating that they are active in this setting. New in the top three are fitness centres, which stand out as being the only facility that was used by significantly more adult Danes in 2011 compared to 2007. In the most other facilities, the relative distribution is almost similar, i.e. the relative ranking between each resembles the ranking from 2007, although the figures for 2011 are somewhat lower.

## Satisfaction with sports facilities

Figure 52: Are you satisfied with the sports facilities in your neighbourhood? Among all adults. (Percentage)



Generally, the adult population expressed greater satisfaction with facilities in 2011 than in 2007. This is due to more 'indecisive' respondents in 2007, answering 'neither/or' and 'don't know', whereas in the 2011 survey these responses were adjusted in the direction of satisfaction with the local facilities. But there is also an overall greater level of satisfaction in that in the 2011 survey more than one third of the adults were very much satisfied with the local facilities. This tendency applies to both men and women in all age groups. In total, seven per cent of the adults stated that they are more or less dissatisfied by answering 'not very much' or 'not at all' to the question on overall satisfaction with local sports facilities.

## Bibliography

- Agergaard, S. (2008). Unges idrætsdeltagelse og integration i idrætsforeninger i Aahus Vest. Copenhagen: Danish Institute for Sports Studies.
- Bak, L., Madsen, A. S., Henrichsen, B. & Troldborg, S. (2012). Danskernes kulturvaner 2012. Copenhagen: Schultz Boghandel.
- Bille, T., Fridberg, T., Storgaard, S. & Wulff, E. (2005). Danskernes kultur- og fritidsvaner 2004. Copenhagen: Danish Institute of Governmental Research.
- Bøje, C. & Eichberg, H. (1994). Idrættens tredje vej – om idrætten i kulturpolitikken. Aarhus: Klim.
- Forsberg, P. (2012). Motionsløbere i Danmark – portræt af danske motionsløbere. Copenhagen: Danish Institute for Sports Studies.
- Holstein, B. & Madsen, M. (2003). Social arv og børns sundhed. Copenhagen: The Danish National Centre for Social Research.
- Ibsen, B. (2004). Idrætsdeltagelse hos børn med anden kulturel baggrund end dansk, i *FOCUS – tidsskrift for idræt*, 28/4, s. 20-24. Auning: Bogforlaget DUO.
- Ibsen B., Boje, T. P. & Fridberg, T. (2008). Det frivillige Danmark. Odense: University Press of Southern Denmark.
- Ibsen, B., Fehsenfeld, M., Bæk Nielsen, L., Boye, A. M., Malling, R., Guldbæk Andersen, L., Lebech Jørgensen, I. M., Davidsen, R. & Sørensen, L. (2012). Idræt i udsatte boligområder. Odense: University Press of Southern Denmark.
- Kulturministeriet (2009). Idræt for alle: Breddeidrætsudvalgets rapport – baggrund og analyse. Copenhagen: Sangill.
- Laub, T. (2012). Fremtidens frivillige foreningsliv i idrætten. Copenhagen: Danish Institute for Sports Studies.
- Nielsen, G. & Ibsen, B. (2008). Kommunale forskelle på børns idrætsdeltagelse – En undersøgelse af fire kommuner. Copenhagen: Danish Institute for Sports Studies.
- Pilgaard, M. (2008). Danskernes motions- og sportsvaner 2007. Copenhagen: Danish Institute for Sports Studies.
- Pilgaard, M. (2009). Sport og motion i danskernes hverdag. Copenhagen: Danish Institute for Sports Studies.
- Pilgaard, M. (2010). Når sport og motion bliver et spørgsmål om fysisk aktivitet, i *Forum for Idræt*, 2010/2, s. 113-128. Frederiksberg: Forum for idræt, historie og samfund.
- Pilgaard, M. (2012). Flexible sports participation in late-modern everyday life. Odense: University Press of Southern Denmark.
- Storm, R. K. & Brandt H. H. (2008). Idræt og sport i den danske oplevelsesøkonomi – mellem forening og forretning. Frederiksberg: Samfundslitteratur.

## Appendix 1: Background data – children

In total, the questionnaire was sent to 4,079 children aged 7-15 years. Three of them were never received by the children, while 2,035 children answered the survey. That brings the total response rate for children up to 49.9.

The background data for these 2,035 children will now be briefly presented and compared with data on the total Danish population (in the same age groups) from Statistics Denmark<sup>64</sup>.

### Gender, age and geography

The children in the study are divided almost evenly by gender, and the small difference in the proportion fits well with the fact there are slightly more boys than girls in the population of 7-15-year-olds.

Gender	Per cent in the study	Per cent in the population
Boys	50.2	51.2
Girls	49.8	48.8

The children are also evenly distributed in terms of age, with one third falling within each three-year-interval from 7 to 15 years of age. Again, this distribution fits well with the way in which children between 7 and 15 years of age in the total population are distributed between the three age groups.

Age group	Per cent in the study	Per cent in the population
7-9 years	33.2	32.4
10-12 years	33.7	33.3
13-15 years	33.1	34.3

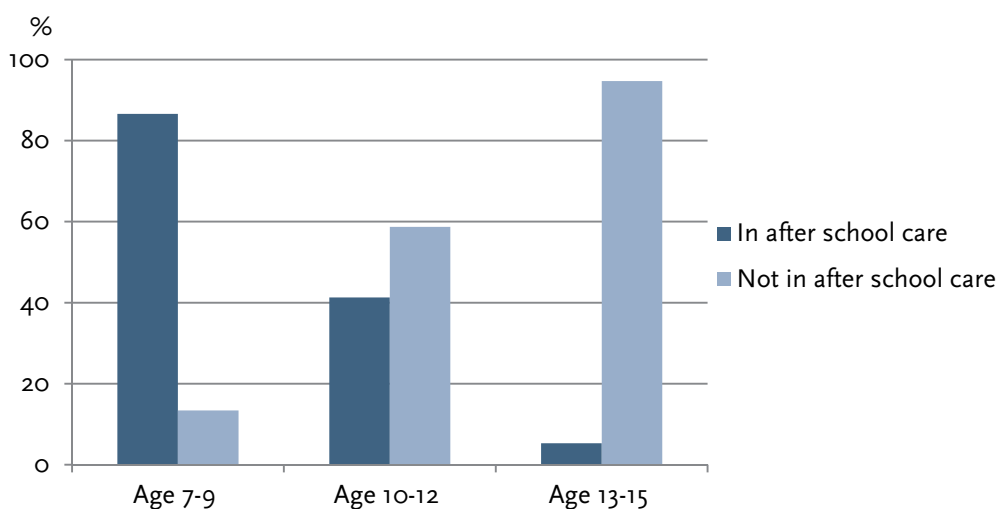
In data from the civil registration system we can also see where children live, and here the geographical distribution of the youngest respondents in the research matches the population's distribution over the different regions quite well.

Region	Per cent in the study	Per cent in the population
Capital	26.1	28.4
Zealand	14.8	15.4
Southern Denmark	23.7	22.2
Central Denmark	23.8	23.7
North Denmark	11.6	10.3

<sup>64</sup> Based on data from Statistics Denmark's 'FOLK1': 2011K4.

### Other covariates

Nearly half of the children in the study use afterschool childcare or similar after school programs. Nearly nine out of ten 7-9-year-olds go to afterschool childcare, but the opposite is the case for little over nine out of ten 13-15-year-olds who do not go to afterschool childcare.



The vast majority of the children in the research were born in Denmark, and this also applies to the children's parents. Only just under four per cent indicated that they were not born in Denmark, while three per cent were born in Denmark as descendants of parents born abroad. The few children that were not born in Denmark were most often born in China, USA, Afghanistan and Iraq. Parents who did not from Denmark were most often born in Turkey, Iran, Iraq or Germany.

Origin	Per cent in the study	Per cent in the population
Denmark	93.2	89.5
Denmark, descendant	3.1	7.9
Foreign	3.7	2.6

In the population as a whole (as it was at the time of the data collection in the autumn of 2011), three per cent of the children between 7 and 5 years were immigrants and eight per cent were descendants of immigrants, which as such is a small underrepresentation of respondents with another ethnic background than Danish. This is a problem often found in connection with surveys, and in some studies it gives rise to special attention to these groups. All together, the small underrepresentation of descendants of immigrants is the only disparity in the data and it is not of a size that gives ground to manipulate data by using weighting to improve the image of the sample so it matches the true distribution of the population.



## Appendix 2: Background data – adults

In total, 9,120 questionnaires were sent to adult Danes over 16 years. Of these, 46 were never received by the addressee, while 3,957 responded to the survey. That brings the total response rate for adults up to 43.6.

The background data for these 3,957 respondents will be briefly presented and compared with data on the total Danish population (in the same age group) from Statistics Denmark<sup>65</sup>.

### Gender, age and geography

There are a lot more women than men among the survey respondents, even when taking the random disparities into account and the fact that there are slightly more women in the Danish population as a whole.

Gender	Per cent in the study	Per cent in the population
Men	45.7	49.2
Women	54.3	50.8

The distribution of age among the adults is also slightly distorted compared to the distribution in the Danish population. There is an underrepresentation of the youngest and the oldest, while the 40-45-year-olds comprise a larger part of the research sample than in the population as a whole.

Age group	Per cent in the study	Per cent in the population
16-19 years	5.4	6.4
20-29 years	8.8	14.6
30-39 years	14.7	15.9
40-49 years	25.1	18.0
50-59 years	18.1	15.9
60-69 years	17.2	15.2
70 years+	10.7	13.8

On the other hand, the distribution of respondents over the country's five regions is almost exactly the same as the population's real distribution.

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<sup>65</sup> Based on data from Statistics Denmark's 'FOLK1': 2011K4.

Region	Per cent in the study	Per cent in the population
Capital	30.2	30.9
Zealand	13.5	14.7
Southern Denmark	21.8	21.4
Central Denmark	23.6	22.5
North Denmark	10.9	10.5

### Other covariates

The level of education (highest completed education) among adult respondents is shown below. It is not possible to directly compare these figures with numbers from Statistics Denmark, because they use other categories and only have data on the education levels of people up to the age of 69 and therefore (as the table above illustrates) cannot provide a precise picture of nearly 14 per cent of the population.

As experiences from other representative studies also show, there is a tendency for people with a higher education to respond more than others and therefore this group is slightly overrepresented in the data.

Education	Per cent
Primary school <sup>66</sup>	14.2
High school/ vocational education <sup>67</sup>	32.1
Higher education (<3 years) <sup>68</sup>	9.1
Higher education (3-4 years) <sup>69</sup>	21.5
Higher education (>4 years) <sup>70</sup>	13.6
Other education	3.5
Unknown	6.1

As was the case among the children in this research, there was also an underrepresentation of persons with another origin than Danish among the adult respondents. 95 per cent of the respondents to the survey on adult Danes' sporting habits are born in Denmark of Danish parents, while this demographic only applies to about 90 per cent of the actual Danish population.

<sup>66</sup> Final three classes of primary education.

<sup>67</sup> Clustering of high school, vocational education and skilled worker education/semi-skilled worker education.

<sup>68</sup> For example pharmacy assistant, electrician, etc.

<sup>69</sup> For example nurse, teacher, journalist, etc.

<sup>70</sup> For example bachelor and university education, doctor.

Origin	Per cent in the study	Per cent in the population
Denmark	95.2	89.6
Denmark, descendant	0.4	1.1
Foreign	4.4	9.3

The imbalance in ethnicity among respondents is difficult to make up using a weighting of data, especially because there are many missing answers to the question about country of origin. It can therefore be stated that an ethnic disparity is present in this study, as it is in many others, and that one therefore can more or less surmise the sporting habits of ethnic Danes when looking at the general numbers in the analysis.

The Ministry of Culture has declared that it will aim to delve behind the ethnic deficit in the study of Danes' cultural habits, which will give researchers the opportunity to look closer at a variety of sporting habits among ethnic minorities on a statistically stable basis (Bak et al. 2012). During 2013, Idan will also use this statistical basis for a closer analysis of the link between sports habits and cultural habits among ethnic Danes, immigrants and their descendants.

### Appendix 3: Weighting – adults

Inequalities in relation to gender and age distribution should be addressed to make sure they do not tilt the analysis in a misleading direction. As mentioned, women in their forties were considerably more responsive to the questionnaire than men in their twenties, and this led to an overrepresentation of this age and gender group in the database even though the questionnaire had been sent to nearly 10,000 randomly selected Danes.

In order to use weighting to balance out these inequalities, the adults' answers to the known parameters gender and age were weighted in order to (for example) make the responses from the men in their twenties fill up the share they should have had overall. This also applied to all other gender and age groups. The true distribution in the Danish population at the time of data collection is found using Statistics Denmark and the weighting factors for the gender and age groups in this analysis on adult Danes' sports participation is based on this data.

Weight	Men	Women
16-19 years	1.14360	1.24260
20-29 years	1.96759	1.42828
30-39 years	1.23020	0.97178
40-49 years	0.80411	0.64668
50-59 years	0.99067	0.78787
60-69 years	0.93594	0.84190
70 years+	1.13847	1.44891

The different weights are calculated by dividing a given gender or age group's share in the population with the same group's share in the sample. For example, men aged 30-39 comprise eight per cent of all Danes, whereas they only make up six and a half per cent of the respondents in this research. When these numbers (including some decimals) are divided, the weight that is attributed to the 30-39-year-old men appears which is used in the analysis: 1.23020

In the weighting of the data, the relationship between the other parameters in the population and the sample, like level of education and residence, also come to mind. However, we have chosen not to include level of education in the weighting, partly because the small distortion towards an overrepresentation of the highly educated is somewhat balanced when giving the younger and older respondents a greater weight, as was done above. Other reasons are because there is no data showing exact levels of education among the Danish population (Statistics Denmark only have data on Danes aged 15-69), and that the research sample (241 people did not answer the question about education and 138 chose 'other education') makes it impossible to include all respondents.

In relation to the respondents' place of residence, the sample in this study (both before and after weighting for gender and age) matches the actual situation in Denmark, and therefore there is no reason to make the weighting more complicated by using this parameter.

## Appendix 4: Method used in the facility section

In the questionnaire for 'Sports participation in Denmark 2011' and in the 2007 survey, children and adults were asked which sports they had played on a regular basis within the past year. For each of these sports it was also asked to note the facilities (preferably more than one) they used. Each respondent, both child and adult, is recorded as a user of, for instance, city parks when they have noted that they used city parks for at least one sporting activity listed. This means that the different sporting activities one person takes part in could use a number of different facilities, or the same facility could be used for several different sports.

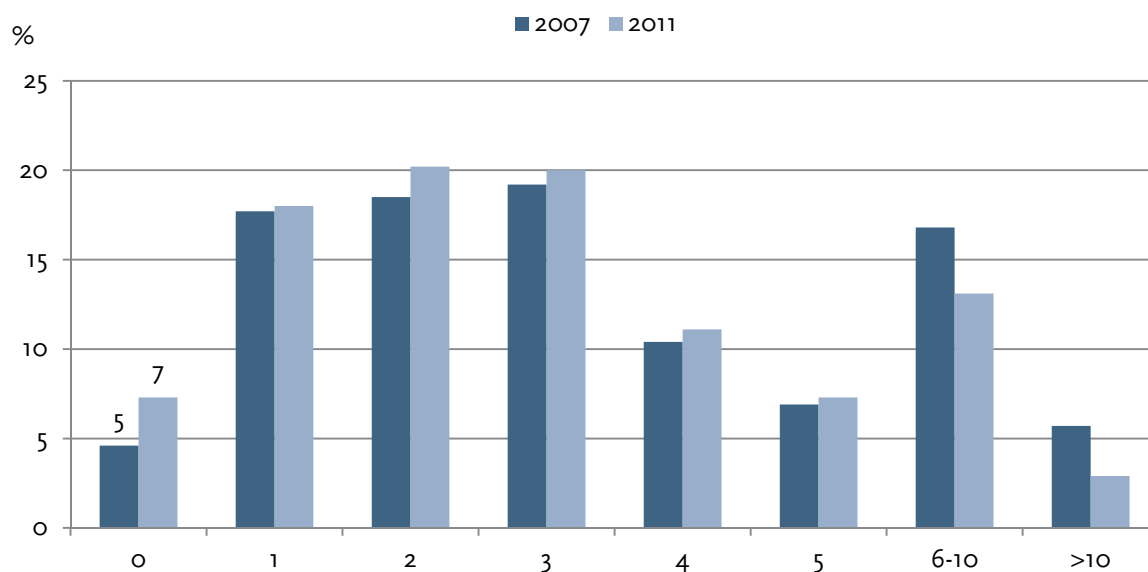
There are some methodological/technical challenges when comparing the absolute percentages between 2007 and 2011, rooted in the coding of the returned questionnaires, conducted by Capacent Epinion in 2007 and SFI Survey in 2011.

In 2007, the respondent's answers were only registered as first, second and third priorities of facilities, while the adults in 2011 used both numbers and crosses. There is therefore a possibility that many of the respondents in 2011 might have had difficulties understanding how to fill in the question scheme, marking the facilities they used instead of showing their priorities using the numbers one to three. It is no longer possible to research whether that was also the case in 2007, where the data received from Capacent Epinion only provided the numbers one to three. Capacent Epinion can only inform that they did not experience any 'problems' when processing the data. But it is unlikely that all respondents answered without facing problems in 2007, and that four years later 'incorrect' answers using crosses instead of the number ranking suddenly appeared, as the question is formulated identically in both years' questionnaires.

Without getting closer to an explanation to this methodological mystery, it appears that a comparison of the use of facilities between 2007 and 2011 is possible when looking at the aggregate share that uses a facility. In other words, a statement about the proportion of respondents who use a facility for a certain activity can be made without considering whether it was the first, second or third priority or marked with a simple 'x'.

Such an assessment shows only minor differences in the use of facilities between 2007 and 2011, as shown in the figure below.

## Number of facilities per sports active adult (with all priorities and 'x' instead of numbers)



*Proportion of sports-active people in 2007 and 2011 who use a different number of facilities ( $n^{2007} = 3,549$  and  $n^{2011} = 3,248$ ).*

Most of the sports-active people in both 2007 and 2011 indicated using between one and three facilities. There was also a greater tendency to choose many facilities (6-10 or more than 10) among the active people in 2007 than in 2011. In general, the numbers from 2007 are slightly higher than those from 2011 due to the lower level of non-response (5 per cent in 2007 compared to 7 per cent in 2011) and a slightly greater tendency to choose a higher number of facilities among the sports-active people.

The abovementioned reservations about comparing the use of facilities between 2007 and 2011 are based on adult's responses. The same trends are repeated among the children, but these will not be illustrated here.

To further strengthen the basis for comparison between 2007 and 2011, the use of facilities is excluded for the sports that were only mentioned in the 2007 survey. For children these are: 'trampoline', 'cardio training', 'scouting', 'chess' and 'singing/music'. The only real effect this had could almost exclusively be found in the slightly lower use of 'home/garden' as a sports 'facility', due to the high use of trampolines in gardens by children. For the adults 'pause gymnastics' and 'cardio training' were left out of the 2011 study. When these were excluded from the calculations from 2007, no noticeable differences were found, because only few indicated they did pause gymnastics, and cardio training is an umbrella term for many other activities.