

APPENDIX

The data

The following is an introduction of the data used in this book. The presentation will begin with the three sets of survey data collected in Finland in 1971, 1992 and 1999. In the case of the 1999 data, there will be a detailed analysis of how the lower response rate – a result of the mail-in survey method – influenced the results of the study and the comparability of the data with the earlier surveys.

Next, the data sets collected in Sweden, St. Petersburg and Estonia will be presented, including a discussion of their comparability with the Finnish surveys. For three of the areas, data only exists for one year. The survey results can be used to compare the situation in these regions to that in Finland. Changes that have occurred in sexual behavior at a national level, however, can only be analyzed in the case of Finland, with the exception of certain retrospective data.

The 1971 Finnish study

In 1971, the first study on sexual behavior among Finnish adults was conducted through interviews and a survey. The team of researchers was comprised of Kai Sievers, Osmo Koskelainen and Kimmo Leppo. At that point, it was only the second sexuality study in the world that was based on a representative national population sample. Results from the 1971 study will be used here to analyze the changes that have occurred in the sexual lives of Finnish people over an extended period (nearly 30 years).

The data were compiled in 1971 through individual interview visits. Following the interview, each interviewee was given a written questionnaire, which included all the questions that were considered more sensitive. The respondent filled out the questionnaire in the presence of the interviewer, who did not see the responses. The respondent then placed the completed questionnaire in an envelope and sealed it. In the presence of the interviewee, the interview form and the envelope containing the questionnaire were in turn placed in a second envelope, which was mailed as registered mail directly to the researchers. None of the forms used in the study were identified by name, and once placed in the envelope, there was no way to identify them.

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The interviews were conducted by 1 000 midwives and (public-health) nurses. The interviewers wore their professional uniform when conducting the interviews. The researchers designed the organization of the field work together with the National Board of Health and state midwives and nurses. The interviewees were trained by members of the research team in 28 training seminars held around the country. The interviewers also received detailed, written instructions. A significant effort was made to shield the field work from public attention.

Prior to the interview, the people who had been selected as respondents were mailed a letter informing them that they would soon be contacted for a medical and sociological study. The subject matter was not revealed to respondents before the interview. The letter also did not state any time schedule, and people were not contacted by telephone prior to the home visit. This method was used to minimize the possibility of refusal to participate, and it was very successful.

The study cohort was selected through regular interval sampling from among 18–54 year olds in the population register. The net sample was defined as the 18–54-year-old Finnish population that was not institutionalized and was living in Finland in November and December of 1971, spoke one of the two official languages, and did not suffer from a severe psychological or physiological illness that would make interviewing impossible. People who did not match this definition were included in the oversampling. Their proportion was 5,5 %.

In conjunction with the study on the sexual lives of Finns, also a separate study was conducted on fertility and family planning. For this purpose, women of fertile age (18–44 years) were included in the random sampling at a rate twice as high as that of men in the same age group. The original cohort thus included 902 men and 1 590 women.

Study sample and attrition (missing data):

Original sample	2 492	%
Oversampling:		
- deceased, out of the country, institutionalized, unable to participate because of illness	138	
Net sample	2 354	100,0
Declined	81	3,4
Unreachable	73	3,1
Other reason	0,5	
Total attrition	166	7,1
Responded	2 188	92,9

The widely dispersed organizational structure allowed the entire data collection process to be completed within three weeks during November and December of

1971. Approximately one-tenth of the interviews were conducted at the interviewer's place of work. Men's interviews lasted on average 1,4 hours and women's an average of 1,7 hours.

Thirty-six respondents did not fully complete the self-administered questionnaire. Thus, the final sample of the study comprised 2 152 responses, which represented 91,4 % of the net sample. Of those, 744 were male (89,2 %) and 1 408 female (92,7 %). The study's response rate was extraordinarily high in 1971. The highest attrition occurred among women aged 30–44 years (6,2 %) and the highest among men over 45 (16,1 %). Gender and age thus had very little impact on the study response rate.

The 1992 Finnish study

Because one of the most important aims of the 1992 study was to run chronological comparisons with the 1971 study, the 1992 study naturally used a research method that emulated the research methods used in 1971 as closely as possible. The method that was chosen, then, was a dual-stage interview that, whenever possible, was conducted in the homes of the interviewees.

The research method still included two forms. The first form was used when interviewing respondents, and the second was filled out by the respondents themselves without the interviewer being able to see the responses. These forms were enclosed in envelopes in the same manner as in 1971. Absolute confidentiality of the responses was emphasized at every stage of the process.

In 1971 the respondents' age varied between 18–54 years. In the 1992 study, it was decided that the cohort should include people in the 18–74 age range. The reason for the decision that the maximum age of respondents would be 74 was that in the 1971 study, those who had been in the age cohort of 55 years and under were now, 20 years later, 75 years and under. This made it possible to follow the changes in all age cohorts of the 1971 study 20 years down the line.

When preparations for the 1992 study were under way in 1990 and 1991, the researchers looked into the possibility of using the assistance of public health nurses again in collecting the data, as had been done in 1971. Negotiations with the National Board of Health (later the National Agency for Welfare and Health) revealed, however, that this would not be possible. Midwives and nurses could not be obligated to perform the task, even for a separate compensation, and the idea had to be abandoned.

When considering the practical arrangements for the interviews, it was concluded that interviewers from Statistics Finland were best suited to replace the health-care professionals used in the 1971 study. The researchers therefore agreed that data collection for the study would take place in cooperation with Statistics Finland in late 1991 and early 1992. From Statistics Finland, 164 interviewers

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participated in the collection of the data. The interviewers were trained at a total of 23 events around the country, and each interviewer also received detailed, written instructions.

The actual interviews for the study were conducted between November 1991 and February 1992. Each interviewer interviewed 20 respondents on average.

Unlike in the case of the 1971 study, a press conference was arranged in early November 1991 about the 1992 study and a press release was issued. The press conference was thought necessary because of the long duration of the field work. Informing the public coincided with the start-up phase of the field work.

The press release stated unequivocally that the study aimed to study sexual behavior among Finns. People who were selected as subjects were also informed of the topic of the study in a letter that they received before being contacted by the interviewer. The official name of the study was *A national study on human relationships, sexual attitudes and sexual life styles*. The prepress and the preliminary letter made contacting the subjects easier. On the other hand, this information occasionally resulted in respondents declining to participate in the study.

In most cases, the interviewers contacted the individuals in the sample via telephone and made an appointment to meet with them. The majority of the interviews occurred in people's homes. Additionally, the researchers had made an agreement with the National Agency for Social Welfare and Health that interviews could also be conducted in public health-care centers. Approximately one interview in ten was conducted in a health-care center or outside the home of the interviewee. In this sense, the arrangements closely resembled the 1971 study.

For the sake of comparability, about one-third of the questions in the questionnaire were identical to with those in the 1971 survey. In 1992, the interview and filling out the form took an average of 78 minutes, in other words, slightly less than in 1971. Time spent with the interviewee ranged from half an hour to a high of six hours.

The cohort for the study was selected through random sampling from the central population register. It was a nationally representative sample of Finnish population aged 18–74 years. The sample was limited in the same way as in the 1971 study.

Respondents consisted of 1 146 women and 1 104 men. Women's response rate was 77,7 % and men's 74,2 %. Among different age groups, the highest response rate (83,3 %) occurred in the 25-years-and-under group and the lowest (71,8 %) in the 35–44 years group. Contrary to expectations, young people and the ageing responded more actively than anticipated (65 years and older at a rate of 77,0 %). Overall, however, age had fairly little impact on response rates.

Regionally, the highest response rates occurred in the provinces of Pohjois-Karjala (88,2 %) and Mikkeli (84,3 %). The lowest response rates were in Uusimaa (capital area), where the rate was 70,3 %. Based on marital status, the response

rate was highest among widows (82,6 %) and lowest among the divorced (72,3 %). Unmarried persons responded somewhat more actively than those who were married.

Study sample and attrition:

Original sample	3 049	%
Oversampling:		
- deceased, out of the country, institutionalized, unable to participate because of illness	138	85
Net sample	2 964	100,0
Declined		
- as a matter of course	397	13,4
- because of the subject matter	98	3,3
- lack of time	75	2,5
- on principle	66	2,2
Unreachable		
- traveling, abroad	56	1,9
- other reason, address unknown	.22	0,7
Total attrition	714	24,1
Responded	2 250	75,9

The number of respondents (2 250) indicates the number of people interviewed. The self-administered questionnaire used in the study was obtained from 2 196 subjects (74,1 % of the sample). Because of difficulties having to do with filling out the form, information for the questions included in the questionnaire was obtained through an interview in seven cases. Twenty-eight interviewees declined to fill out the questionnaire and 16 were unable to do so. Six did not fully complete it.

The significantly higher number of respondents in 1992 who declined to participate can largely be explained by the fact that response rates have declined in different studies over the last 20 years. A second reason is probably connected to the interviewers; taking into account the subject matter of the study, the status of a uniformed midwife or nurse was probably higher in people's eyes than that of an interviewer from Statistics Finland. When the request to participate was made by a midwife or nurse, people were more likely to agree to be interviewed.

The subject matter of the study did not have a significant impact on the rate of attrition. Only 3 % of those in the sample directly explained their negative decision to participate in the study as a result of its content. The same Statistics Finland interviewers had conducted two other large-scale interview studies during the preceding two years, where attrition rates were comparable to the 1992 sex study. In a study on free-time use the drop-out rate was 21,0 %, and in a study about voting in elections it was 25,9 %. The significant decline in the response

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rate compared with the 1971 study was therefore not an indication that the topic was more difficult to study now than 20 years earlier.

The 1999 Finnish study

Unlike in 1971 and 1992, the 1999 study was administered as a mail-in survey for economic reasons. As in 1992, the researchers again commissioned Statistics Finland to organize the mail-in survey. This was done partly to increase the comparability of the results. This time, the study focused on 18–81-year-old Finns. The highest age was set at 81 years, because that way the oldest cohort in the 1971 study, 54-year-olds, could still be included in the comparison. The 3 300-person sample was selected through random sampling from the central population register. Approximately 6 %, or 191, of people in the sample were Swedish-speakers.

The questionnaire was mailed to the selected participants on October 27, 1998. The first page of the questionnaire contained a so-called target letter that introduced the study to the respondents. This time, no interviewers were available to contact the subjects by telephone and to be present while they filled out the questionnaire, as had been the case in the previous studies. This made it significantly easier to decline to participate in the study.

The respondents were asked to return the questionnaire without identifying themselves by name, but the return cards were numbered consecutively in order to distinguish those who had responded from those who had not. This number was not marked on the response form. Respondents were not identified in any way.

A postcard was mailed to all selected participants on November 3, 1998 with a reminder to respond. During the first return phase, 35 % of the sample either returned the questionnaire or relayed some kind of message to Statistics Finland (for example, stating that they declined to participate).

Non-respondents were sent a second questionnaire on December 7, 1998, which had a new layout and cover letter. The cover pages were now printed on orange instead of white paper, and the cover page featured an illustration by Erkki Tanttü. At this point, the questionnaire was sent to 2 165 people. During this second response cycle, 8 % of the sample returned either the completed questionnaire or another message.

The questionnaire was resent one more time on January 7, 1999 to the 1 902 individuals who had not returned the questionnaire or otherwise contacted Statistics Finland to inform of their decision not to participate. This time, the numbering was removed even from the response envelope to make the anonymity of the respondents complete. It was hoped that this would encourage those who strictly guarded their privacy to respond. During this third response period, 9 % of the sample either returned the questionnaire or otherwise contacted Statistics Finland. The last responses that were included in the study were received in late February.

Study sample and attrition:

Original sample	3 300	%
Oversampling:		
- deceased, out of the country institutionalized, unable to participate because of illness	31	
Net sample	3 269	100,0
Declined	102	3,1
Returned blank questionnaire	62	1,9
Post office could not locate	27	0,8
Other reason	14	0,4
Reason for attrition unknown	1 568	48,0
Total attrition	1 773	54,2
Responded	1 496	45,8

The 1999 survey was returned by 1 496 persons, making the response rate 45,8 %. Women (N = 872; 52, %) responded more actively than men (N = 624; 38,4 %). These figures were clearly lower than in 1992, when the survey had been completed in conjunction with interview visits. The response rate then was 75,9 % – 77,7 % for women and 74,2 % for men.

Women in the 18–24 years age group deviated favorably from other groups in the 1999 survey. Their response rate was 75, %. The lowest rate was among women aged 65 and over (32 %). Unlike in previous studies, age in this case had a significant impact on women's response rate. This indicates in part a variation in the interest and motivation toward sexual matters among women of different generations. In other age groups, too, the response rate declined with age among women, hovering either slightly above or below 50 %. The impact of age was not significant among men.

In calculating the response rate according to age and gender, the researchers used the age and gender that respondents had entered on the form, because a code number was not available to link each respondent to the data set.

When the numbering on response envelopes (N = 1 279) was compared with the data set, it became apparent that the response rate among women did not significantly vary by geographic region. The response rate among men living in Western Finland (provinces, see Question 4 in the Questionnaire in the Appendix: 4, 5, 6, 7, 13, 14, 15, 16, i.e., western and southern Ostrobothnia and Central Finland), was several points lower than in the rest of Finland.

Marital status did not cause significant attrition in men's response rates. The low response rate among men does, however, indicate that regardless of age,

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many men need the personal motivation provided by a (female) interviewer to participate in a study that concerns sexual matters.

Among women, the response rates were nearly equal among the unmarried and married groups. The response rate of divorced women was somewhat lower, and was lowest among widowers. Female widowers' response rate was only approximately half of that of women who were married or single. In the 1992 study, on the contrary, female widowers responded particularly actively. The fact that the interviewer contacted them and was present at the survey provided the motivation for these women to participate, whereas they often left the questionnaire uncompleted when personal contact with a representative of the researchers was missing.

A central aim of the 1999 study was to analyze the changes that had occurred in the sex lives of Finnish people in the 1990s, and to compare this data to the 1971 data. In this type of situation it is especially important to evaluate and compare the representativeness of the data. In the context at hand, the evaluation is no less than essential, because, as a result of the different data collection methods, the difference in response rates was as much as 30 percentage points in the 1990s alone.

If the sexual activity or attitudes toward sexual matters were to have a significant impact on response rate among respondents, the different findings could be a result merely of a different selection of respondents. For this reason, a closer analysis will be provided at the end of this Appendix regarding the representativeness and comparability of the 1999 data compared to the preceding studies.

The Swedish data for 1996

The Swedish study was commissioned by Folkhälsoinstitutet (the Swedish Institute of Public Health). In practise, the interviews were conducted by the research institute SIFO. The name adopted for the study was *Lifestyle, sexuality and health*. The questionnaire was designed by a team of researchers headed by Uppsala University sociology lecturer Bo Lewin. Other members included Sven-Axel Månsson, professor of social work at the University of Gothenburg, Ann Lalos, university instructor from the women's clinic at the Norrland University Hospital in Umeå, and Kerstin Fugl-Meyer, lecturer at the Sexology Unit of the Uppsala Academic Hospital. This team analyzed the data and published a report thereon, authored by the above-mentioned team as well as Gisela Helmius from the Uppsala University's Department of Sociology (Lewin et al., 1998).

For the purposes of the study, 5 200 persons aged 18–74 were selected from the population register (Statens Person- och Adressregister, SPAR). Of them, 469 were not included in the population being studied oversampling, making the actual net sample 4781 persons. Of these, 2 810, or 58,8 % participated in the study. According to the researchers, attrition was unusually high and corresponded to the attrition common to mail-in surveys. According to the missing data analyses,

older people, in particular older women, are underrepresented in the study. In other respects the demographic characteristics of the entire population and of the data are quite similar. No systematic differences were found in questions concerning sexuality regardless of whether the questionnaire arrived early or late. Nor did analyses of the rate of attrition give any indication that study participants were sexually active to a lesser or greater extent than people who did not participate in the study.

The interviews were conducted one-on-one. There were a number of different forms and a high number of questions. Interviewees entered their responses to questions regarding sexuality by marking an 'x' in boxes, so that the interviewers did not know how each person answered. As compensation for participating in the study, respondents had the choice of three lottery tickets or the option of donating the same amount of money (75 Swedish crowns) to one of the following organizations: Save the Children, The Red Cross, or a children's cancer fund.

The St. Petersburg data for 1996

Between December 1995 and March 1996, St. Petersburg residents aged 18–74 who were registered as eligible to vote were interviewed. The survey was part of a project entitled *Cultural inertia and social change in Russia* that was funded by the Academy of Finland and conducted by the University of Helsinki's Department of Sociology and Department of Social Policy. The questions concerning sexuality and families were only part of a more extensive questionnaire, which analyzed demographic background, work environment, economic position, social networks, social participation, lifestyle, health and consumption.

The St. Petersburg Gallup picked a 3 500-person sample from the voting register that was representative of St. Petersburg, of whom 2 085 or 61,0 % were interviewed. Most of the attrition consisted of people who declined to participate in the study or whose address was unknown, as indicated below.

The St. Petersburg data is comparable in terms of gender and age to a sample that is representative of the entire registered-voter population. Men accounted for 44,9 % of the entire sample, but only 41,8 % in the study. Not only men in general, but also the oldest women were underrepresented, whereas the response rate of women aged 45–64 was higher than their proportion of the population would have one expect.

Interviewers comprised students and middle-aged women. The general questions in the first part of the questionnaire were asked orally. In the case of the questions at the end of the questionnaire concerning sex life, the respondents themselves marked their answers directly on the form. Interviewees were rewarded for their efforts with a 100 gram Fazer chocolate bar (valued at half of an Euro).

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Sample and attrition in the St. Petersburg study:

Original sample	3 500	%
Oversampling:		
- deceased	34	
- long-term absence	47	
Net sample	3 419	100,0
Declined to participate – total reason for declining	532	15,6
- did not want to respond	457	13,4
- subject matter of the study	38	1,1
- did not have the time	21	0,6
- on principle	16	0,5
No-one was at home on any of three visits	372	10,9
Respondent does not live at address provided in the register	240	7,0
Had moved elsewhere	138	4,0
Incorrect address	52	1,5
Responded	2 085	61,0

On average, the interviews lasted between one and one and a half hours. The oral portion of the interview took longer (between $\frac{3}{4}$ h and $1\frac{1}{2}$ h) than the written responses to the questions about sex, which approximately 85 % of respondents completed in less than 30 minutes.

In 15 % of the interviews of male respondents, there were other people present, while this was the case in only 10 % of women's interviews. The interviewer filled out the confidential sex questionnaire on behalf of the respondent for 5 % of the men and 8 % of the women. Of sex questionnaires filled out by men, 15 %, and of women 13 %, were filled out incompletely. Also incomplete and only partly finished questionnaires are included in the data. The St. Petersburg material indeed contains somewhat more missing data than data collected in other areas.

The Estonian data for 2000

In order to complement the Finnish, Swedish and St. Petersburg studies, Elina Haavio-Mannila commissioned a study in Estonia. She wanted to find out the ways in which the sexual behavior of that country's Estonian and Russian populations differed and how it compares to sexual behavior in Finland and St. Petersburg. In this book, however, the Estonian data are treated as a single data set.

In addition to Haavio-Mannila, the questionnaire was designed by Osmo Kontula and Anna Rotkirch, who had been involved in the sex studies in Finland and St. Petersburg. Krista Papp, M.D., verified that the questions, which had been translated

into Estonian, corresponded to the original Finnish. The form was much shorter (70 questions) than the one used in Finland in 1999, which had had 123 questions. The designers of the questionnaire made an effort to include as many questions as possible from the form used in St. Petersburg on the form intended for Estonia.

In Estonia, the populations of the Omnibus-type surveys, carried out by the market research organization Emor twice a month, were formed of the permanent residents of the Republic of Estonia aged 15–74 years (1,1 million people as of January 1, 1999). Each time, the sample size was 500 persons. The sex survey was repeated five times in May–August 2000. In practice, the data collection took place in the following way: The interviewers took the questionnaires to the respondents, who completed and returned them to Emor. Of the selected persons 1 031, that is, 41,2% returned the questionnaire.

Emor forms the samples using a two-stage, stratified sampling method. First, the universe is divided by territorial domicile into six strata. Then, a two-stage selection is conducted in each stratum. The primary sampling units are settlements. In each primary sampling unit the secondary sampling units – individuals – are chosen. Eight persons are interviewed at each sampling point. In towns, starting addresses are selected at random from the population register. After the apartment or private house is chosen by means of random route method, the youngest male at home, and if not present, the youngest female aged 18–74, is interviewed. In rural areas, the addresses are selected at random from a list of residents provided by the local parish administration. Also here, the so-called young-men-rule is used to select individuals in selected households.

Among our respondents, there were more people living in the capital, Tallinn, and in rural areas than in the other towns and cities; the proportion of men was lower; there were more 25–34-year-olds and fewer 55–74-year-olds, and more ethnic Estonians than in the population at large. Error provided us with weights which correct the sample so that it represents the whole population in these respects.

Presentation method of the findings

Different characteristics related to sexual life will be presented in tables and graphs. The frequency of the phenomena will be presented either as a percentage distribution or mean/average according to gender and the study in question (region and year). Frequently, the values are also provided according to age group and generation (birth year). The six data sets do not always contain the same data on the expressions of sexuality that are the subject of a given analysis. The researchers will make every effort to present the data from as many studies as possible.

In addition to presenting distributions and means, the data have been analyzed by using Multiple Classification Analysis (MCA), a type of regression analysis in which the dependent variable has to be an interval scale but the independent

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variables can be non-parametric, that is, ordinary scales or qualitative response alternatives. In this book, we will not present the MCA results in tables, but will instead describe the results in text form. The tables have been previously published in Finnish (Haavio-Mannila & Kontula, 2001).

Representativeness of the 1999 data set

The 1999 study allows for several different possibilities for evaluating the representativeness of the results and the selection of the respondents. In terms of the response rate, the strength of the study lay in that the response rate among women under 25 (75 %) was approximately the same as in the prior study. In the case of young women, then, evaluating the changes that occurred in the 1990s is fairly reliable and representative. When the changes that have occurred in this group appear in similar proportions in other age groups and among men, the results concerning these changes can be considered highly reliable.

Another option for evaluating the representativeness of the results derives from the fact that many birth cohorts have now been asked the same retrospective questions already three times, in 1971, 1992 and 1999. These questions concerned in particular the first dating and sexual experiences. In each birth cohort, the data obtained from these responses should be almost identical, if the selection of the respondents was the same. A factor that may confuse this somewhat is that, with age, errors regarding memories about one's youth become more common.

Conclusions concerning representativeness may also be made when the same birth cohorts are asked about certain experiences or events that occurred in their life course. If the representativeness of the results remains the same with later surveys, the frequency of the experiences should be at least equal or even more frequent in later studies. The reason, naturally, is that experiences generally cumulate with age. An example is the question about the number of lifetime sexual partners. If there is significant variation in one direction or another between studies and between birth cohorts, the representativeness of the data must be called into question.

A third way to assess the representativeness of the results is through demographic data. They reveal, for instance, whether the distribution of respondents is equal in different parts of the country, among different social groups, and among different types of couple relationships. This data has special significance when these background factors are known to affect the formation of experiences and opinions.

Demographics, lifestyle and couple relationships

The 1999 material will be compared here primarily with the 1992 study. Compared with 1992, the demographic characteristics of the 1999 respondents had changed

somewhat. For example, the 1999 respondents were more urban, probably a result of the general migration that occurred in the 1990s. The level of basic and vocational education among the middle-aged and those 55 years and over was approximately 15 percentage points higher than in the earlier survey. Some of this difference can be explained by the growth of continuing education, and part of it as a result of the better-educated being apparently more easily able to respond to the mail-in survey. These differences may affect the results to some extent: on the basis of earlier studies, the better-educated frequently begin their sexual lives slightly later.

Employment among males hardly deviated in the two latest samples. Employment among young women was somewhat less frequent than earlier because of increased rates of studying and unemployment. The proportion of the retired was smaller among both genders. In 1999, respondents' incomes were somewhat higher than previously. As a whole, however, there was no significant change from one study to the next in terms of the respondents' social position.

In valuing religion, which has previously been noted as an important factor with regard to sexual lifestyle, no differences between the studies were found. With the exception of those who were 55 and over, the group that considered sexual life very important in the happiness of the couple relationship underwent a ten-percentage-point increase. This may have had a slight motivating effect on willingness to respond to the survey.

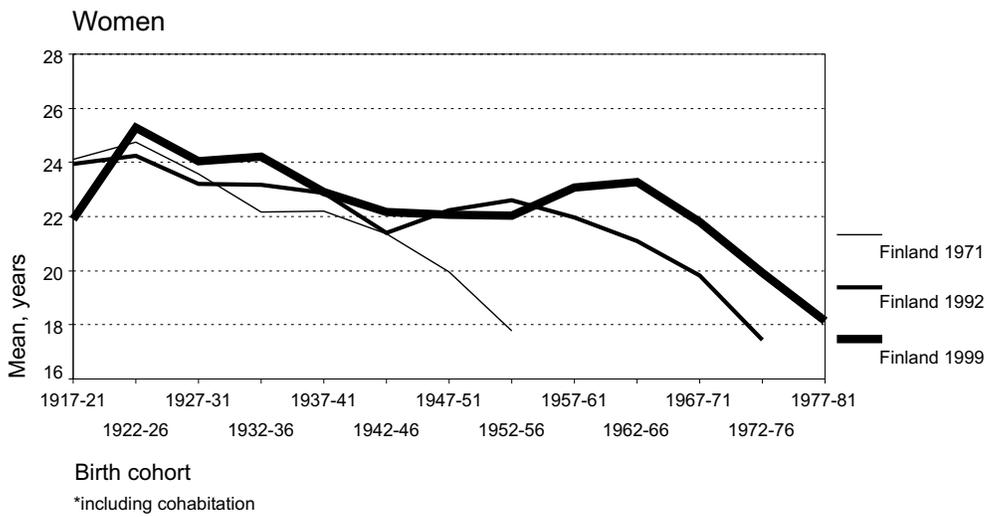
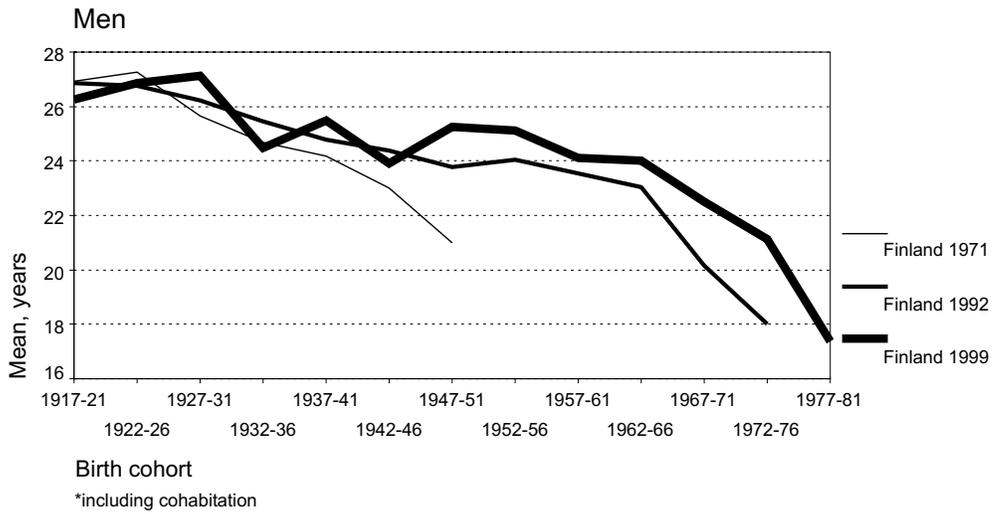
With regard to lifestyle, the most significant change was that the proportion of men who had never smoked was approximately eight percentage points higher in 1999 than it had been in 1992. No corresponding difference was found among women. On the basis of earlier studies, non-smoking may be a factor that influences the selection of respondents toward those who start their sex lives slightly later and are sexually somewhat less active.

In terms of state of health, psychological symptoms among men had become more common in 1999. This could be seen in all age categories, especially as over-exertion and fatigue. Such changes in health, though less visible among women, were nonetheless significant, particularly in the form of sleeplessness and anxiety. The increase in such symptoms may indicate a greater than average selection of men and women who had encountered various sexual problems. It may also indicate that life in the late 1990s had become increasingly stressful.

The respondents in the 1999 study did not greatly differ from the earlier one in terms of motives or experiences connected to forming a couple relationship. In the two surveys, there was very little deviation between different cohorts in terms of the proportion of those in a couple relationship in different age groups, age at first cohabitation or marriage (Appendix Figure 1.1), or number of children. Neither did the duration of the couple relationship differ in different groups between 1992 and 1999. Hence, the 1999 male and female respondents were just as representative of people in couple relationships as earlier respondents.

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Appendix Figure 1.1 Age at first marriage*



Men assessed the quality of their couple relationships as lower in 1999 than before. The proportion of men who did not consider their couple relationship happy increased by nearly 10 percentage points by 1999. Nearly as many men also considered themselves lonelier than before. These changes were much less significant among women.

In 1999, both men and women experienced discussing sexual matters with a partner as more difficult than before – the proportion of those who felt it was open and easy had dropped by over 15 % units. About as many were more likely to believe that their couple relationship did not contain enough touching or physical closeness. These results may indicate that the 1999 respondents included more people who were dissatisfied with the sexual aspect of their couple relationship than had been the case previously. Another possibility is that the level of demands set on sex in a couple relationship rose during the 1990s, in which case the degree of discussing and touching of previous times is no longer considered sufficient. The results do not permit us to say what the primary cause for this change was.

Data from retrospective questions

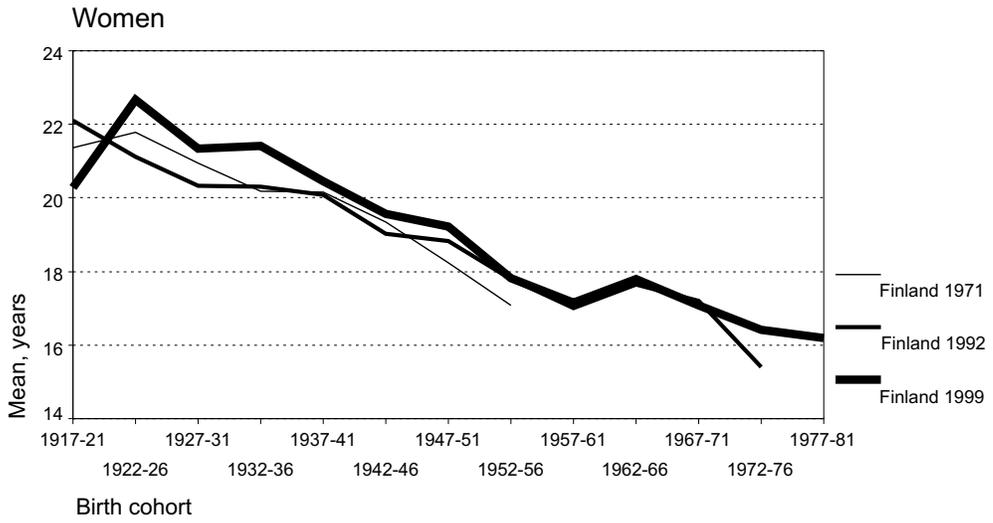
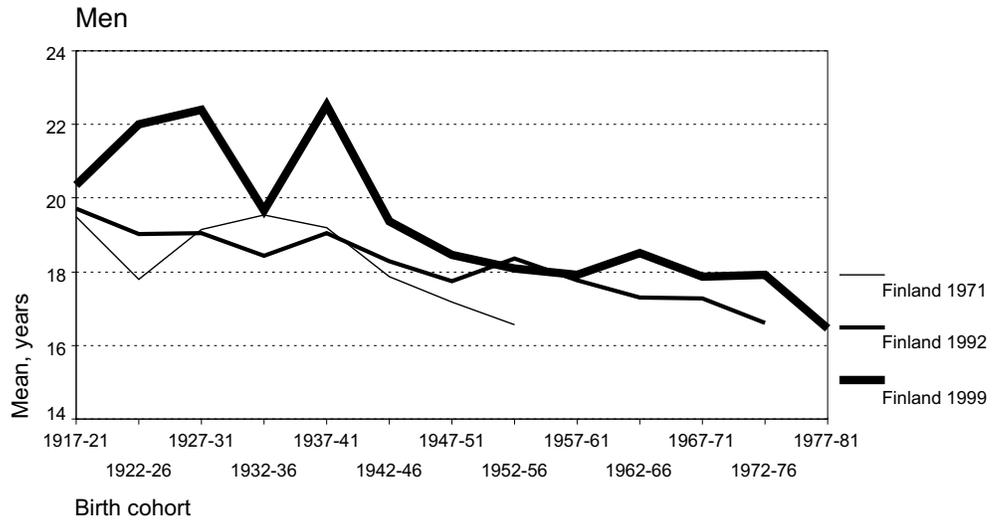
Based on answers to retrospective questions that measured certain events in childhood and youth, the representativeness of the 1999 data was quite good. An exception was the result that indicated that 1999 male and female respondents were less likely than earlier to recall receiving sufficient information about matters relating to sexuality in their childhood home. The significant deviation (approx. 15 % units) occurred among 30-year-old respondents, in the group that had the best comparability in the study, i.e., women under 25 years of age. The difference should not be a result of the selection of respondents. It seems that young people had raised the criteria concerning the kind of discussions they would have considered sufficient in their childhood home.

In terms of school sex education, the recollections of different age cohorts corresponded well in 1992 and 1999, and also in 1971. In other words, the 1999 respondents seemed to be representative on the basis of sex education received in school. Their criteria regarding the quality of sex education in school had not changed in the same way as the evaluations concerning sex education in the childhood home.

In terms of first-time dating and sexual experiences, the 1999 respondents were very representative compared with earlier surveys. Age at first dating relationship, sexual intercourse (Appendix Figure 1.2) and orgasm corresponded well in different birth cohorts, for both sexes, and in each study. Men 55 years and over formed an exception – an above-average proportion of men who had begun their sex lives later had been selected for the 1999 study.

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Appendix Figure 1.2 Age at first intercourse



The recollections of both genders in all birth cohorts concerning the use of a condom during first intercourse were very similar in each study (Appendix Figures 1.3). Condom use at first intercourse did not seem to indicate a selection of respondents with regard to risk-taking and pregnancy.

In 1999, older men reported that they had begun dating and having sexual intercourse an average two years later than claimed by the same cohort in 1971 and 1992, which were a good representation of the entire population. What made the extent of the difference concrete was the fact that the proportion of men in the 55-years-and-over group, who had experienced sexual intercourse only after their 20th birthday, increased from 36 % in 1992 to 62 % in 1999. Older men who had begun their sex lives at a later age were for some reason more motivated and better able to respond to the survey than others in their age group.

This observation concerning older men was tangential also with other results of the study. Compared with earlier surveys, older men had experienced their first sexual intercourse with an older and more steady partner, their first orgasm an average two years later, were more likely to have been in love with their first partner, and more likely, by a difference of about 20 percentage points (a total of 41 % of their generation), to have married their first partner. Older male respondents in the 1999 study were, then, significantly more monogamous in behavior and morals than the rest of their generation on average. This difference was also visible in attitudes – attitudes among older men in the 1999 study were noticeably more negative toward casual relationships than in the same birth cohort in earlier studies.

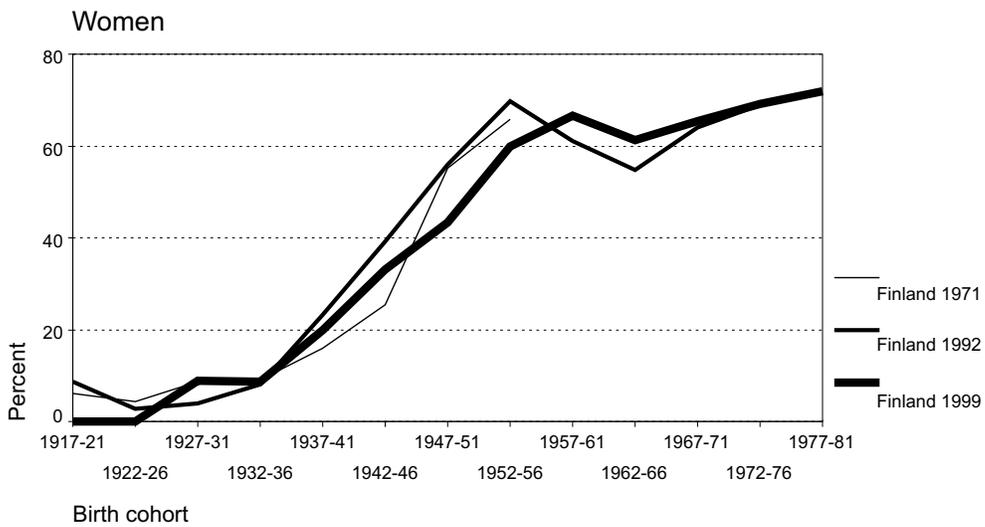
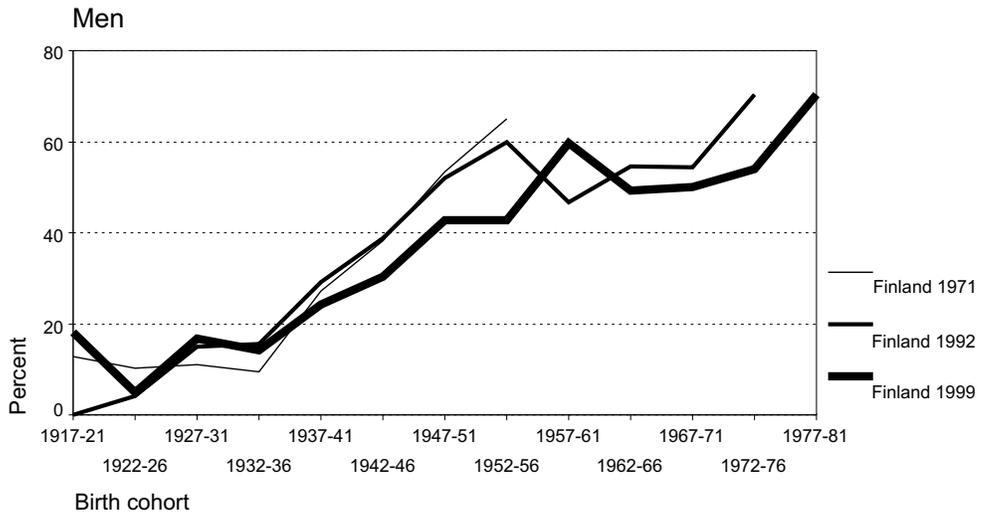
Entire life course data

Above, reference was already made to the possibility that the representativeness of the 1999 data could be evaluated on the basis of the responses of people in different cohorts in each study concerning cumulative questions that address a person's entire life course. An example of a question such as this asked about the total number of life-time sexual partners.

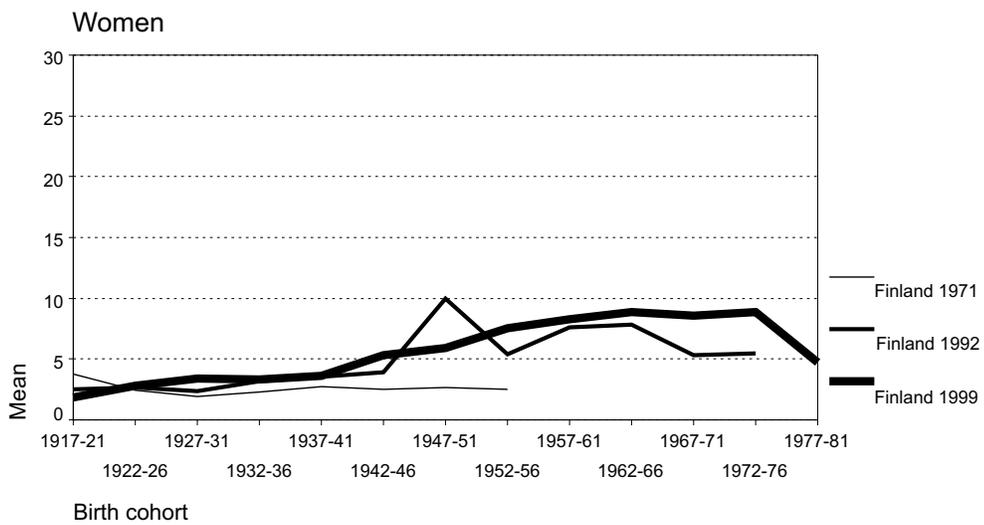
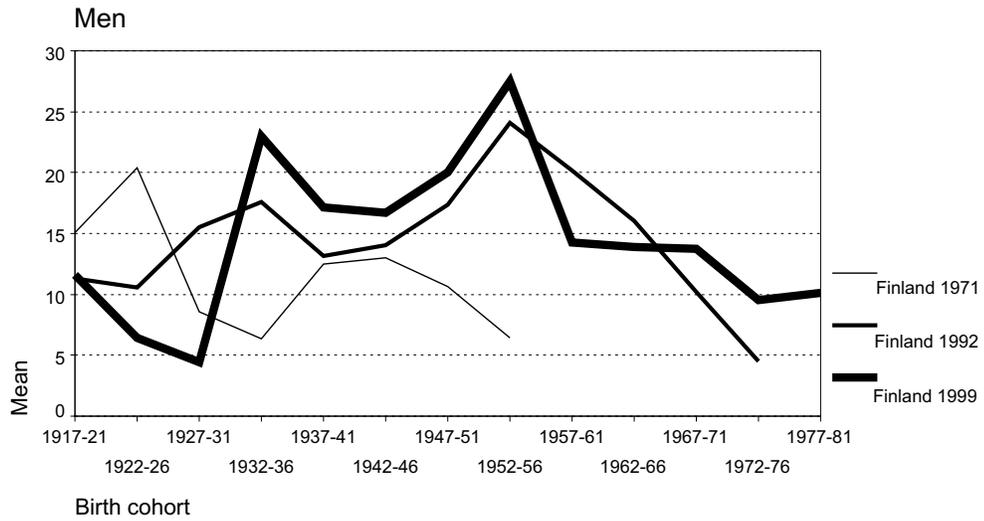
On the basis of number of sexual partners, female respondents were well representative of their age cohorts (Appendix Figure 1.4). By 1999, as expected, the number of partners they had had exceeded somewhat the same number in 1992, by one partner on average. Corresponding results also seemed to be representative in the cohorts of young and middle-aged men. Male respondents aged 55 and over in 1999 had had on average three partners fewer (they had had 10 partners) than in 1992. This age group now contained more monogamous men, whose proportion had increased by 12 percentage points (26 %), who only had had one sexual partner during their entire life course and whom they had married. This too reinforces the conception that monogamous, sexually relatively inexperienced older men were more inclined than others to respond to the study in 1999.

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Appendix Figure 1.3 Used condom in first intercourse



Appendix Figure 1.4 Number of sexual partners



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A similar question enquired whether respondents had had one or more parallel relationships during their lifetime, simultaneously with a steady couple relationship. In 1999, the proportion of men in different age groups who reported such relationships was 10 percentage points smaller than in 1992. The 1999 male respondents had been selected from among men who were on average slightly more faithful. Women's responses by cohort corresponded very well, on this point too, with the previous studies' data.

Men's responses concerning use of prostitution services (offering money in exchange for sexual intercourse) corresponded very well with the data from the previous study cohorts. Young men, however, were somewhat more likely to have had such experiences than before (accumulation of experiences). Information provided by women as to whether men had used money to persuade them too have sexual intercourse corresponded well with 1992 survey. In other words, the selection of respondents had not changed much with regard to experiences connected to the sex trade.

A small number of respondents had not yet experienced sexual intercourse. In 1999, the proportion of men under 35 who had not yet done so was five percentage points higher than previously (11 %). Among older women the proportion of sexually inexperienced persons had decreased somewhat.

There were also questions concerning lifetime sexual experiences with same-sex partners. The proportion of men with one or more homosexual experiences was approximately three percentage points higher in 1999 than in 1992. In other words, men with such experiences were somewhat better represented in the 1999 sample. A similar difference was not found among women.

Information about lifetime abortions was also included. In the 1999 sample, abortions were approximately equally prevalent among young and middle-aged women as in 1992. Among women aged 55 and over, the proportion of those who had experienced abortions (20 %) was now 14 percentage points higher. Women who had had an abortion were, then, somewhat overrepresented in this group of oldest women. The difference may be a result of the lower willingness among aging female widowers to respond to the study.

Conclusions regarding the representativeness of the 1999 data

Based on the study's retrospective and cumulative questions (first-time experiences, partners, abortions), female respondents in the 1999 study were very representative of their birth cohorts. Women representing different age groups provided similar answers in different years to questions concerning their youth or their entire life course. This makes it possible to claim that women's responses to other questions in the study are also very representative of women's average situation

and experiences. It follows that in the case of women, the results from the 1999 study can be reliably compared with the 1992 survey.

The background information women provided had changed in some ways. In 1999, respondents' educational levels were somewhat higher; the age group of young women contained slightly higher proportion of students; and older women were somewhat more likely to be working. These differences should not particularly affect the results of the study. Some results – for example, information concerning abortions – offer the impression that older female respondents were possibly more sexually active than average.

The increase in psychological symptoms invites questions. Is it merely a sign that psychological pressures grew during the 1990s, or does it reveal a certain selectivity of female respondents? If selection had occurred, it would be reflected in the study's results mainly as an increase in problems connected to sexual performance.

Certain results prompted challenging questions regarding the study's representativeness. One example was the increased proportion of people of both sexes who reported feeling that there was not a sufficient amount of physical touching or openness in discussing sexual matters in their relationship. These results were contrary to expectations and deviated from the responses of the same birth cohorts in 1971 and 1992. Also, men did not consider their couple relationships as happy as they had in the 1992 survey. In a comparison of cohorts, there was an increase in the proportion of people who now felt that information about sexual matters had not been as readily available in their childhood home as they would have wanted.

When the results are viewed as a whole, one may ask whether they really point to higher expectations with regard to the quality criteria that are applied to sexual matters, or to the selection of respondents in accordance with altered characteristics. Support for the former interpretation can be found in the fact that in 1999 both sexes considered sex life more important for the happiness of their relationship than previously. One might think that this kind of change in values would also be reflected in the criteria for quality that are imposed on sexual matters. Sexual aspects would come with higher expectations, and therefore there would also be more reasons for discontent. This strain of thought is also fed by the media publicity surrounding sexual issues, with constant offers of new 'recipes' for a good sex life in a couple relationship. When one's own relationship does not seem to measure up to the promoted criteria, dissatisfaction with the relationship may grow.

There was at least one result of the study that did not defend the view that the criteria that we set for the quality of our sex lives have changed: school sex education in childhood. Respondents did not re-evaluate or renew the criteria for its sufficiency, and in different cohorts, assessed school sexual education in the same

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way as they had in previous surveys. Is it possible that the criteria that respondents now required were higher only in the case of sexual discussions in the parental home?

It is conceivable that the 1999 study included more men and women whose parents had been secretive about sexual matters and who therefore found it more difficult to communicate about sex with their partners and to show tenderness toward them. Had such a selection occurred for both sexes, the study's results would indicate a decrease in sexual activity and openness, as well as lessened variety in sexual behavior.

This assumption is challenged by the fact that, in retrospective comparisons among women, there were no systematic differences between the different surveys. Presumably, that type of selection would have at least had an impact on the sexual initiation age.

When looked at as a whole, women's responses seemed quite representative in light of the analyses described above. The situation is more complicated for men, among whom the proportion of respondents in every age group approached the 1992 proportions.

Retrospective comparisons mainly revealed that, compared with the earlier surveys, the latest survey did not indicate a notable change in responses of young or middle-aged male cohorts. There were no significant differences that would have indicated a lack of representativeness, in sexual initiation, number of sexual partners, prevalence or duration of couple relationships, or use of prostitution. Responses within these groups were therefore quite representative and could be compared with earlier surveys. The representativeness of men aged 55 and over, however, was not as effective.

As opposed to the earlier surveys, the 1999 study contained a disproportionate group of men who had begun their sexual experiences relatively late in life. These men were more monogamous than before in the sense that they were more likely to report that they had married their first partner and remained faithful to her. Older men had had fewer partners and increasingly many reported only one partner during their life course. All of these factors may be expected to have had an impact on the various data on sexual trends for this generation. The level of sexual activity among older men appears less in terms of frequency and variety than it ought to be in this age group, on the basis of average results. This selection has presumably also had an effect on attitudes – they were less liberal in 1999 than previously. These problems of representativeness must be kept in mind when presenting and interpreting the results of the study.

Other comparisons of the men's representativeness also support the view that, regardless of age group, men with less sexual experience than average were somewhat more motivated to participate in the 1999 mail-in survey. The sample included a greater proportion of young men with no experience of sexual inter-

course; men reported a lower rate of parallel relationships compared with previous responses from their cohort; and they were less satisfied with the sex in their couple relationship.

It is possible that these differences are reflected a somewhat lower sexual activity when comparing men's sexual trends. An exception was the slight increase in the frequency of homosexual experiences among men. Men with such experiences were more willing than average to respond to the 1999 survey. A similar difference was not found among women.

In a cohort comparison, the men's results reflected both an increase in the proportion of men who did not smoke and a significant increase in their education levels, and in particular, an increase in symptoms that indicate mental problems. All of these factors may have had an impact on the selection of male respondents who were less sexually active than average. In themselves, these demographic factors do not add anything to what was already stated about the representativeness of men. Rather, they provide an explanation for why older men in particular represented a group that, in trend comparisons, was somewhat less sexually active than other people in their age group.

