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National health interview surveys in Europe: an Overview

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ABSTRACT

In order to study the value of national health interview surveys for national and international research and policy activities, this paper examines the existence and content of recent and future health interview surveys in the 15 member states of the European Union (EU), Norway, Iceland and Switzerland. National health interview surveys are performed in most countries, but not in Greece (only regional surveys), Luxembourg, Ireland and Iceland (only multi-purpose surveys). The health interview surveys in the other 14 countries provide regular data on the main health topics. Of the 14 health topics that are examined in this inventory seven are measured in all countries. Questions on health status (e.g. self-assessed health, long-term physical disability, and height and weight) and medical consumption (e.g. consultations with the general practitioner, GP) are often included. Lifestyle topics are less often included, except smoking habits, information about which is sought in all countries. Topics like diet and drugs:narcotics are more often included in special surveys than in general health interview surveys. Despite differences in the content, frequency and methodology of national health interview surveys in different countries, these surveys are a valuable source of information on the health of Europeans.

1. INTRODUCTION

The requirements of three influential organisations (WHO, OECD and the EU¹) give an extra impetus for national governments of European countries to produce reliable and comparable health statistics. These statistics encompass the health status of the population (life-expectancy, morbidity and mortality), the supply and utilisation of health services, and health care costs and financing. More specifically, the WHO wants to monitor the success or

failure of its 'Health for All for the Year 2000' programme, in which governments committed themselves to reduce health hazards and to improve the health of their populations considerably over a period of almost 25 years (1977–2000) [1]. The OECD collects and publishes for its member states² a broad set of health and health care indicators and has put considerable efforts into improving the completeness and comparability of its indicators. The set serves two purposes: (1) as a monitoring instrument of this section of predominantly public spending, and (2) as a basis for comparative policy research and benchmarking. New developments will be the establishment of a set of generic health indicators on the one hand and of intervention sensitive indicators on the other.

With respect to efforts at the level of the EU, the Maastricht Treaty [2] and the Amsterdam Treaty [3] give a boost to community actions on public health. In their respective Articles 129 and 152 these treaties mentioned health information and education as key areas for community action. In order to fulfil this task the European Council and the European Parliament, on a proposal of the European Community (EC), adopted a programme of Community action on health monitoring 1997–2001 [4].

The WHO, the OECD and the EU use health data that are derived from health interview surveys and statistical records. The present paper focuses on health interview surveys: it examines whether surveys are a valuable source of national health indicators. More specifically, the paper explores which European countries have national health interview surveys, and whether these surveys cover the main topics that are being monitored. This paper is based on a study carried out for the EC on the existence and content of recent and future health interview surveys (conducted between 1994 and 2000) in the 15 EU member states and three neighbouring countries.

In addition, the results of this inventory are compared with the results of a WHO-initiated inventory on national health surveys in the period 1980–1990, performed by Evers [5]. The aim of that study was to establish if and how the 33 Health for All indicators were included in national surveys in 26 countries. There appeared to be large variations in the coverage of Health for All indicators varying from the inclusion of many indicators in one or more surveys (e.g. Italy, The Netherlands and the UK) to the inclusion of just a few indicators (e.g. Turkey, Ireland and Germany). Generally, indicators related to health status were included most often, followed by indicators on healthy lifestyles. Self-assessed health status, smoking habits, long-term disability, activities of daily living, long-term incapacity for work and the consumption of alcohol were measured in at least 20 countries.

Indicators on healthy environment (like access to drinking water) and on appropriate care (e.g. access to family planning) were covered least often. Evers [5] concluded that for some countries and for some indicators insufficient information is available to monitor progress.

Before we describe the method and results of our study, we dwell upon the pros and cons of health interview surveys as a source of national health indicators.

1.1. Pros and cons of health interview surveys

Health interview surveys are especially relevant for health indicators that cannot be collected by means of statistical records, like indicators on health status (e.g. the prevalence of chronic conditions, and self-assessed health as a measure for people's well-being), lifestyles (like smoking habits and alcohol consumption) and medical consumption (e.g. the use of medicines). Also modern health indicators like health expectancies and disability-adjusted life years (DALYs) can only be calculated with help of survey data. An advantage of health survey data over statistical records is that they allow associations between different health variables to be studied, e.g.

between smoking habits and self-assessed health [6]. Moreover, health survey data can be used to analyse health variables according to a larger set of background variables like marital status, occupation and education than the age–sex divisions in the official health statistics [1]. Thus, health interview surveys are useful to detect high-risk groups.

A possible disadvantage of survey data is that they rely on the respondents' judgements. This may affect, for example, the validity of prevalence rates of certain diseases. Generally, for many survey data the validity is not determined. Moreover, health surveys do not offer the opportunity to study causal relationships between lifestyles and health, as the information collected is generally cross-sectional.

Finally, the possibility to generalise data of national health interview surveys to the population at large is restricted if the non-response rates are high. Despite these limitations, national health survey data are considered to be useful for national and international research activities and policies [7,8].

1.2. Research questions

The present paper is based on an inventory of health surveys in the 15 member states of the EU, Norway, Iceland and Switzerland in 1996, that was initiated by the Statistical Office of the European Communities (Eurostat). The inventory addressed the existence, content and comparability of national health interview surveys in the period 1994–2000. The Eurostat Task Force on Health and Healthrelated Survey Data has discussed each stage of this inventory. The final report on the inventory [9] was presented to the Eurostat Working Group on Public Health Statistics in November 1997.

The present paper focuses on the availability of recent and future national health surveys in each country and on the coverage of health indicators by these surveys.

The comparability of the survey questions is described in a separate paper.

The present study focuses on 14 health topics considered in the health monitoring programme [10]. These topics can be classified according to the following three categories:

1. Health status (six topics): disease specific morbidity, chronic conditions, self-assessed health, long-term physical disability, activity limitations and height and weight.
2. Lifestyle and health habits (five topics): smoking habits, alcohol consumption, use of drugs/narcotics, physical activities and diet.
3. Medical consumption (three topics): hospitalisations, general practitioner (GP) consultations and use of medicines.

Examples of survey questions for each topic are presented in Table 1.

In addition, developments in the number of health interview surveys and in the topics they cover since the WHO inventory by Evers [5] are described. In a comparison of these two inventories it should be noted that they examine different topics. The Eurostat inventory addresses topics defined by the Health monitoring programme, whereas the WHO inventory focuses on Health for All topics. Yet, there is a considerable overlap: ten of the 14 topics included in the Eurostat inventory are also included in the WHO inventory. Only disease specific morbidity and the three topics on medical consumption are not included in the WHO inventory. In addition, all the 18 countries included in the Eurostat inventory are also included in the WHO inventory.

[TABLE 1]

2. METHODS

In order to generate a comprehensive overview of national health interview surveys Eurostat contacted national statistical institutes, ministries of health and research institutes in the 15 EU member states, Norway, Iceland and Switzerland in August 1996. The institutes were asked to provide questionnaires of national health interview surveys, surveys on impairments, disabilities and handicaps, multi-purpose surveys, standard of living surveys and other surveys with a health-related component that had been conducted since 1994. Information on plans for future surveys was also requested. For each reported survey the

institutes were requested to forward information on the methodology (e.g. mode of data collection, sample size and non-response) and the questionnaire in the original language(s) and in English (if available).

Table 2 shows that 43 of the 45 institutes contacted replied and that the majority (33) reported health-related surveys. The institutes provided information on 78 surveys. Thirty-five studies were excluded from the analysis:

- . Nine surveys that were conducted before 1994.
- . Six future surveys for which no questionnaires were available.
- . Eleven surveys that focused on one specific subject, e.g. family planning.

[TABLE 2]

. Nine surveys that addressed only a part of the population such as children, adolescents or prisoners.

The remaining 43 questionnaires were analysed. We first made an overview of the national health surveys in each country. Secondly, for those countries that have at least one national health interview survey we studied the coverage of 14 health topics.

3. RESULTS

3.1. Availability of health surveys

Appendix A presents an overview of the 43 national surveys. The majority of the countries have at least one regular health interview survey. Four countries, however, do not have specific health interview surveys: Greece, Luxembourg, Iceland and Ireland. The most recent national health survey in Greece was the 'Survey on health and social determinants in Greece', dating from 1978. More recent health surveys cover only part of the country. The 10-yearly Greek population census inquires after long-term disability. In Luxembourg a panel study titled 'Living in Luxembourg' is conducted twice a year and incorporates many themes including health. In Iceland a multi-purpose survey (the 'Omnibus survey') is reported: the 1994 and 1996 surveys include questions on health promotion. The Irish 'Living in Ireland survey' focuses on living conditions. In addition, two national health-related surveys are currently in preparation in Ireland. The Department of Health intends to carry out a 'national lifestyle survey' every 2 or 3 years, covering a wide range of lifestyles like nutrition, exercise and alcohol consumption. The Central Statistics Office started a quarterly multi-purpose household survey, the 'Quarterly labour force:social survey' in 1997. This survey incorporates the contents of the existing annual Labour Force Survey, and from 1998 on other social topics like health, leisure, social contacts, housing and work environment will be added on a modular basis. For the 14 countries that have at least one national health interview survey, a description of the surveys is presented in Appendix B.

Appendix A shows the methodological aspects of these surveys. The majority of the surveys use a face-to-face interview (26 surveys; 60%). About one-third of the surveys (13) combine a face-to-face interview with a self-administered and/or a telephone questionnaire. Three surveys collect data entirely by means of telephone interviews, and one survey uses a self-administered questionnaire. Regarding the frequency of the surveys, health interview surveys are carried out annually in three countries (Finland, France, Sweden) and continuously in another three (Germany, The Netherlands, UK). In the other countries health surveys are conducted less often (every 2 years in Belgium, every 4 years in Italy and Norway, every 5 years in Switzerland, every 6 or 7 years in Denmark and every 10 years in Austria). In Spain and Portugal health surveys are carried out irregularly.

With regard to the age groups of the samples that are addressed, 18 surveys (42%) include people of all ages, 14 surveys (33%) use a minimum age level, and 11 surveys (25%) use both minimum and maximum age levels. Non-response rates range from 5% to 48%. Most rates vary between 10% and 30%. The Icelandic survey has the smallest number of

respondents (1050; about 0.4% of the national population), while the German microcensus has the largest number (400,000; about 0.5% of the population).

3.2. Coverage of health topics

For the 14 countries that have national health interview surveys the coverage of 14 health topics was studied. We examined whether the main national survey (A1 in Austria, B1 in Belgium, etc.) included these topics, and if not, whether another survey covered these. Table 3 gives an overview of the topics that are measured in each country.

The bottom row in Table 3 shows the number of topics that are measured by national health interview surveys in each country. All countries have national survey data on the majority of the 14 health topics. The fewest number of topics is measured in Austria (ten topics). The surveys in Finland, the UK and Switzerland cover all topics.

The penultimate column in Table 3 indicates for each topic the number of countries that measure it. Seven topics are surveyed in all countries: namely, self-assessed health, long-term physical disability, height and weight, smoking habits, alcohol consumption, physical activity and consultations with the GP. The last column demonstrates how many of the 43 surveys analysed include these topics.

Self-assessed health is included most often (32 surveys), followed by smoking habits (31) and long-term physical disability (28). Questions on the use of drugs: narcotics and on diet are included least often in national health surveys: these topics are measured in eight and nine countries (nine and 11 surveys) respectively.

Table 3 also shows which topics are included in the main national surveys, and which topics are included in other surveys. In Austria, for example, the Microcensus on health provides data on seven topics. The Austrian survey on the consumption of alcohol and psychoactive substances supplements the Microcensus data, as it provides data on alcohol consumption, use of drugs and/or narcotics and physical activities. Generally, topics on health status and medical consumption are predominantly covered by the main national health interview surveys, while topics on lifestyles and health habits are often included in other surveys.

[TABLE 3]

4. DISCUSSION

This discussion addresses four issues in turn: first, the completeness of the present inventory, and then the availability of national health interview surveys since the WHO inventory [5]. Thirdly, developments in the coverage of health topics will be clarified. Finally, the value of national health interview surveys for research and policy purposes will be described.

Does the present inventory give a complete picture of the national health surveys in each country? The employees of the national statistical institutes, ministries of health and research institutes, who collaborated, have an overall view of the health surveys in their country. Nearly all employees whom we contacted replied (96%). In addition, when they referred to surveys that were conducted by other institutes, these surveys were also included in the inventory. Moreover, the present inventory covered all health surveys that were collected by Evers [5] and by the Centers for Disease Control and Prevention of the US Department of Health and Human Services [11]. Finally, the completeness of the inventory was also discussed with members of the Task Force on Health and Health-related Survey Data and with members of the Working Group on Public Health Statistics. Therefore, we conclude that the present inventory is exhaustive.

In order to examine the development of the availability of national health interview surveys, the results of the present inventory on surveys in the period 1994–2000 were

compared with those of the WHO inventory on surveys that were conducted between 1980 and 1990. The comparison shows that the number of national health interview surveys in the 18 countries that were examined has increased. Since 1990 regular national health interview surveys have been introduced in Belgium, Germany and Switzerland. As a result, the number of topics covered by surveys in these countries has increased. Whereas in the WHO inventory Belgian and German surveys included only a few health topics, the present inventory shows that these countries nowadays measure nearly all topics.

National health interview surveys were initiated in France, Finland and Norway in the 1960s, in the UK, Austria and Sweden in the 1970s, and in Italy, The Netherlands, Denmark, Spain and Portugal in the 1980s. Generally, both inventories reported the same surveys for most countries. In Spain, Finland, France and the UK the number of regular surveys has increased in the 1990s. In addition to the existing health surveys the Spanish Household survey on drug use, the Finnish FinRisk, the French health barometer, the health survey for England, the Scottish health survey and the English health education monitoring survey have been initiated. The present inventory shows that even more health-related surveys will be initiated in the near future. To give some examples: in Finland preparations are being made for a study on the health of the Finns in the year 2000 (Terveys 2000) and in Ireland a national lifestyle survey that covers health-related questions will be initiated in 1998. Thus, the number of national health interview surveys is rising.

To have a complete overview of the availability of health surveys in a particular year, the frequency of the surveys should be taken into account. In six countries health interview surveys are conducted annually or continuously. In the other countries health surveys are carried out less often (varying from 2-yearly to 10-yearly surveys) or irregularly. Thus, in order to have comparable health data, not only the contents of the questionnaires but also the periodicity of the surveys should be attuned.

The comparability of the survey data also depends on the correspondence of the methodological aspects between the surveys. Differences in health outcomes between surveys may be induced by differences in sample frames, data collection methods and/or non-response figures. With regard to the latter, the larger the non-response, the larger the possibility that the respondents represent a particular selection of the original sample. For example, if healthy individuals are more willing to cooperate than unhealthy persons, unhealthy individuals will be underrepresented in the sample. Therefore, methodological differences should be taken into account when the results of different surveys are compared—e.g. by weighting the results according to sex, age and/or other background variables.

The results on the coverage of health topics of the present inventory are in line with the findings of the WHO inventory [5]. Both inventories show that indicators related to health status are included most often, followed by indicators on healthy lifestyles (indicators related to medical consumption were not included in the WHO inventory). Self-assessed health status, smoking habits, long-term disability, activities of daily living, long-term incapacity for work and the consumption of alcohol are covered most often in both inventories. Questions on diet and drugs are included least often in health interview surveys. These two topics require extensive questionnaires, and therefore they are more often included in special surveys.

In conclusion, as most countries have national health interview surveys that provide data on most of the examined topics, national health interview surveys are an important source of information on the health status, lifestyles and medical consumption in these countries. The abundance of national health interview survey data makes these data valuable for studying the diversity in health of Europeans, which may advance the understanding of the determinants of health and disease.

These surveys can also be used to study the effects of different health policy measures in these countries.

Yet, the value of these survey data for international comparisons depends on the comparability of the survey questions, frequency and methodology of the surveys (like type of survey, sample frame and interview method). Therefore, the WHO, the OECD and the European Commission (Eurostat) advance the comparability of survey data by promoting common methods and instruments. These harmonisation efforts are a prerequisite to increase the comparability. Given the large number of national health interview surveys, harmonisation may be a long, but also a promising endeavour.

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Appendix A. Overview of national health surveys in Europe

[TABLE A1]

Appendix B. Description of national health interview surveys in 14 European countries

The Central Statistical Office in Austria has performed a Microcensus since 1967.

This multi-purpose survey is conducted continuously and it includes all kinds of social statistics. The questionnaire includes a compulsory core part and a supplementary voluntary part. The topic of the latter part varies and it includes questionnaires on health (Fragen zur Gesundheit), physical disabilities (Personen mit körperlichen Beeinträchtigungen) and smoking (Rauchgewohnheiten) [12].

In addition, two Austrian research institutes (Ludwig Boltzmann-Institut für Suchtforschung and Institut für Markt- und Sozialanalysen) conducted a survey on the consumption of alcohol and psychoactive substances ('Konsum von Alkohol und psychoaktiven Stoffen') in 1993:94. For this survey nationwide quota samples were used, consisting of about 1000 abstainers and moderate drinkers and about 1000 heavy alcohol consumers [13].

In Belgium a national health interview survey (Enquête de sante) was conducted in 1997. This survey addresses a variety of health-related domains: general health perception, morbidity and functional status, use of health services, lifestyle and socio-economic characteristics. As far as possible, questions were developed according to the recommendations of the WHO. If no recommendations were available, questions that were used in foreign national health surveys or in other Belgian surveys were adopted. As a result, only a few questions have been newly developed.

This survey was conducted in three languages: Dutch (Flemish), French (Walloon) and German. In order to monitor trends it is intended to repeat this survey every 2 years [14,15].

The main national health interview survey in Germany is the continuous 'Bundes Gesundheitssurvey' that started in 1997. This survey is based on two former health surveys: the national German Cardiovascular Prevention study performed in West Germany between 1984 and 1991 [16], and a comparable health survey that was carried out in former East Germany in 1991:1992.

As in Austria, the National Statistical Institute conducts a Microcensus continuously.

This census regularly covers a health interview survey (Fragen zur Gesundheit): until 1995 every 3 years, and from 1995 onwards every 4 years. The 1999 health questionnaire will probably cover more areas than before [17].

In addition, two German research institutes (Epidemiologische Forschung Berlin and Infratest) carried out a survey on prevention and health promotion (Umwelt, Gesundheit und

Gesundheitsversorgung) in 1995 [18]. Finally, the Federal Institute for Population Research (Bundesinstitut für Bevölkerungsforschung) has prepared a health survey that would be conducted in 1997:1998 titled 'Living situation, environment and health'.

The Danish Institute for Clinical Epidemiology conducts a health interview survey every 6 or 7 years to obtain comparable time series of health indicators. So far this survey was conducted in 1987 and 1994. It gives a broad picture of the distribution of health and morbidity in the adult population, like health status, morbidity, health behaviour, health risks and resources and consequences of disease [19].

In Spain a national health survey is conducted irregularly by the Ministry of Health. The most recent survey dates from 1995 [20]. In that year the Ministry of Health and a governmental committee started a 2-yearly household survey on drug use [21]. This survey inquires after health, lifestyles and the use of psychoactive substances, like tobacco, alcohol, medicines and drugs. Respondents who report to use drugs are asked to complete a self-administered questionnaire. Finally, the National Statistical Institute performed a survey on impairments, disabilities and handicaps in 1986. A new survey is being planned for 1999, provided that this plan is not affected by budgetary restrictions.

In Finland four national institutes carry out a large number of health-related surveys, often in close collaboration: Statistics Finland, the Social Insurance Institution (abbreviated KELA in Finnish), the National Public Health Institute (KTL) and the National Research and Development Centre for Welfare and Health (STAKES). The major nationally representative health interview survey in Finland is the 'Interview survey on health care'. This survey was initiated by the Social Insurance Institution with the introduction of sickness insurance in 1964. Currently, this survey is organised jointly by the four institutes mentioned above and is co-ordinated by KELA and STAKES.

Since the early 1970s the National Public Health Institute has conducted an annual postal survey on health behaviour. Its main emphasis is on cardiovascular disease and health behaviour, but it also collects data on chronic diseases and health care use. The National Public Health Institute also carries out a risk factor survey, which is repeated every 5 years. This survey started in 1972, and it has been part of the WHO-Monica project (FinMonica). Since 1992 it has been named the FinRisk survey. The basic programme contains risk factor and health behaviour components and a dietary survey. A complementary study among the elderly (aged 65–74 years) combines health interview and health examination methods to examine chronic conditions, functional limitations and disabilities. Currently, the National Public Health Institute is planning a new health survey for the year 2000: Health 2000. Like the FinRisk study (which is a pilot project for Health 2000), this survey also combines a health interview survey with a health examination study.

Statistics Finland has been carrying out household surveys on living conditions at irregular intervals since the 1970s. This survey includes a modest part dealing with health, disability and health care utilisation.

In co-operation with Statistics Finland, STAKES conducted a nationwide survey on health services based on computer-assisted telephone interviews in 1994.

STAKES also performs an eight-yearly study on Finnish drinking habits.

In France there are three health interview surveys that are conducted regularly: the decennial health and medical care survey (Enquête sur la santé et les soins médicaux), the annual survey on health care and social insurance (Enquête sur la santé et la protection sociale mise à jour) and the 3-yearly health barometer (Baromètre santé grand public).

The health and medical care survey (also named the French health survey) has been implemented by the Institut National de la Statistique et des Etudes Economiques (INSEE) and the Centre de Recherche, d'Etude et de Documentation en Economie de la Santé (CREDES) since 1960 [22,23]. In addition, CREDES has conducted the survey on health care and social insurance since 1988 in order to examine the structure and evolution of medical consumption [24].

The health barometer is administered by the Comité Français d'Éducation pour la Santé (CFES). This survey inquires after opinions, attitudes and health behaviour, including smoking and drinking habits, accidents, medication, vaccinations and sexually transmitted diseases [25].

INSEE is also responsible for a survey on living conditions (Etude sur les conditions de vie). This survey especially focuses on people in deprived situations: disadvantaged areas are overrepresented in the sample. The Centre de Recherche pour l'Étude et l'Observation des Conditions de Vie (CREDOC) conducts an annual survey on living conditions and aspirations of the French (Enquête conditions de vie et aspirations des Français). This survey also incorporates a few questions on health.

As reliable statistics relating to disabilities of the general French population is lacking, INSEE initiated the French national survey of handicaps, disabilities and dependency (Handicaps, incapacités, dépendance). This survey aims to determine the number of handicapped and dependant persons in France, to estimate transition rates in and out of disability, to describe the nature, quantity and current providers of aid, and to estimate the extent of unmet service needs. The survey will be carried out in three phases between 1997 and 1999 [26].

The National Statistical Institute in Italy conducts a yearly multi-purpose household survey. This survey covers a questionnaire on aspects of daily life each year and a questionnaire on health conditions and recourse to health services every 4 years. Data are collected by means of oral interviews and self-administered questionnaires [27].

The National Statistical Institute in The Netherlands (Statistics Netherlands) started a 3-yearly standard of living survey in 1974. Since 1989 this survey has been conducted continuously, including, for example, housing conditions, environmental issues, job satisfaction and health and health-related life styles [28]. In order to follow the developments in health, life styles and medical consumption of the Dutch population, Statistics Netherlands initiated a continuous health interview survey in 1981 [29]. Since 1997 both surveys have been integrated into the Permanent survey of living conditions (Permanent onderzoek leefsituatie, POLS). One of the advantages of this survey is that it allows one to study relations between health and aspects of living conditions.

The Portuguese Ministry of Health is responsible for the national health survey.

This survey has been conducted irregularly since 1987. The most recent survey dates from 1995:96, when about 50,000 persons from 17,400 households were interviewed.

The National Statistical Institute (INE) performs a survey on disabilities and handicaps. This survey is also carried out at irregular intervals, most recently in 1994.

Since 1975 Statistics Sweden has carried out the yearly survey of living conditions.

This multi-purpose survey includes health-related questions, like the occurrence of illnesses and health behaviour. The surveys conducted in 1988 and in 1996 included more questions on health than surveys in other years. Data are collected primarily through face-to-face interviews. Moreover, as personal interviews and interviews by phone appeared to yield comparable kinds of responses, about 15% of the respondents are questioned by telephone [30].

In the UK a large number of health-related surveys are performed. Appendix A includes the most relevant surveys. The University of Cambridge School of Clinical Medicine initiated the health and lifestyle survey in 1984:85 in order to examine how people's behaviour and the circumstances in which they live affect their physical and mental health. The random sample included more than 9000 adults living in England, Scotland and Wales. Respondents were re-surveyed in 1991, and if sufficient funds are obtained, a further survey will be carried out in 1998:99 [31].

Commissioned by the Department of Health, the Joint Health Surveys Unit of Social and Community Planning Research (SCPR) and the Department of Epidemiology and Public Health of the University College London (UCL) carry out the yearly health survey for England [32] and the 3-yearly Scottish health survey.

The Office for National Statistics (ONS) has conducted the continuous general household survey since 1971. This survey aims to gain insight into the main variables with which social policy is concerned and in particular into changes over time. On behalf of the Health Education Authority the ONS conducts the health education monitoring survey, which monitors trends in health-related knowledge, attitudes and behaviour of adults in England. To examine the association between intentions expressed in the initial interview in 1995 and subsequent changes in behaviour, follow-up interviews were conducted in 1996, 1997 and 1998 [33]. The ONS also performs the Disability survey. This survey is a follow-up of the family resources survey, and it is conducted irregularly on behalf of the Department of Health. The survey of psychiatric morbidity is also carried out on behalf of the Department of Health.

Statistics Norway conducts a health interview survey every 10 years, most recently in 1995. From 1998 onwards this survey will be part of the 4-yearly standard of living survey.

The Federal Office of Statistics in Switzerland carries out a national health survey (Schweizerische Gesundheitsbefragung) every 5 years. The most recent survey was conducted in 1997 and about 12,500 non-institutionalised persons participated. A complementary survey will probably be conducted in homes for elderly, nursing homes and prisons.

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TABLES

Table 1
Examples of survey questions regarding 14 health topics

Health topics	Examples of survey questions
<i>Health status</i>	
Disease specific morbidity	I am going to read for you a list of conditions/diseases. Please tell me for every disease/condition whether you suffer from it
Chronic conditions	Do you have any long-standing illness, disability or infirmity?
Self-assessed health	How is your health in general?
Long-term physical disability	Can you wash your hands and face on your own?
Activity limitations	Think about the 2 weeks ending yesterday. Have you cut down on any of the things you usually do about the house, at work or in your free time because of illness or injury?
Height and weight	What is your height without shoes? How much do you weigh without clothes and shoes?
<i>Lifestyle and health habits</i>	
Smoking habits	Do you smoke? How many cigarettes do you usually smoke on average each day?
Alcohol consumption	During the past week on how many days did you drink alcohol, such as wine, spirits and beer?
Use of drugs/narcotics	Have you ever taken cannabis (marijuana, dope, pot, etc.) even it was a long time ago?
Physical activities	What describes best your leisure time activities during the last year?
Diet	How often do you eat any fruit, vegetables or salad?
<i>Medical consumption</i>	
Hospitalisations	Have you been admitted to a hospital or clinic during the past 12 months?
GP consultations	How often have you consulted your GP during the past 2 weeks ending yesterday?
Use of medicines	Have you taken any prescribed medicine during the past 14 days?

Table 2
Response on the inventory of national health interview surveys

	Country	Number of institutes			Number of surveys	
		Contacted	Response	Report surveys ^a	Received	Analysed
A	Austria	3	3	2	5	4
B	Belgium	2	2	1	1	1
D	Germany	5	5	4	8	3
DK	Denmark	3	3	1	2	1
EL	Greece	2	1	1	1	1
E	Spain	2	2	2	5	3
FIN	Finland	3	3	3	13	6
F	France	4	4	3	13	5
IRL	Ireland	2	2	2	6	1
I	Italy	3	2	1	2	2
L	Luxembourg	3	3	2	3	1
NL	The Netherlands	1	1	1	2	2
P	Portugal	2	2	2	2	2
S	Sweden	2	2	1	1	1
UK	United Kingdom	5	5	4	10	7
N	Norway	1	1	1	2	1
IS	Iceland	1	1	1	1	1
CH	Switzerland	1	1	1	1	1
	All	45	43	33	78	43

^a Number of institutes that reported health and health-related surveys.

- Nine surveys that addressed only a part of the population such as children, adolescents or prisoners.

The remaining 43 questionnaires were analysed. We first made an overview of the national health surveys in each country. Secondly, for those countries that have at least one national health interview survey we studied the coverage of 14 health topics.

Table 3
Coverage of topics by health surveys in 14 countries

Topics	A	B	D	DK	E	FIN	F	I	NL	P	S	UK	N	CH	Countries	Surveys
<i>Health status</i>																
Disease specific morbidity	**	*	*	*	*	FIN2 ^b	*	*	*	*	*	*	*	*	13	21
Chronic conditions	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11	20
Self-assessed health	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14	32
Long-term physical disability	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14	28
Activity limitations	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13	25
Height and weight	*	*	D3	*	*	*	*	*	*	*	*	*	*	*	14	23
<i>Lifestyle and health habits</i>																
Smoking habits	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14	31
Alcohol consumption	A4	*	*	*	*	*	*	I2	*	*	*	*	*	*	14	26
Use of drugs/narcotics	A4	*	*	*	E2	FIN6	F3	*	*	*	*	UK5	*	*	8	9
Physical activities	A4	*	*	*	*	*	*	*	NL2	*	*	*	*	*	14	22
Diet	*	*	*	*	*	FIN2	*	I2	*	*	*	*	*	*	9	11
<i>Medical consumption</i>																
Hospitalisations	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12	25
GP consultations	*	*	*	*	*	FIN2	*	*	*	*	*	*	*	*	14	25
Use of medicines	*	*	D3	*	*	*	*	*	*	*	*	UK2	*	*	13	24
Number of topics	10	13	13	13	13	14	12	13	12	12	11	14	13	14		

^a * indicates main national health interview survey: A1, B1, D1, etc.

^b Topic is not included in the main survey, but in another survey (see Appendix A for the survey codes).

Table A1

Survey	Institute	HIS ^a	Name	Frequency, first year and following years	Data collection ^b	Age (years)	Number of respondents	Number of households	% non-response
A1	Österreichisches Statistisches Zentralamt (NSI) ^c	*	Mikrozensus: Fragen zur Gesundheit	~ 10-Yearly since 1973; 1983; 1991	FF	All	60,000	30,000	18
A2	Österreichisches Statistisches Zentralamt (NSI)		Mikrozensus: Personen mit körperlichen Beeinträchtigungen	~ 10-Yearly since 1976; 1986; 1995	FF	All	60,000	30,000	7
A3	Österreichisches Statistisches Zentralamt (NSI)		Mikrozensus: Rauchgewohnheiten	~ 10-Yearly since 1972; 1979; 1986; 1997	FF	16+	60,000	30,000	5
A4	Ludwig Boltzmann-Institut für Suchtforsch. +IMAS		Konsum von Alkohol und psychoaktiven Stoffen	Once: 1993/94	FF/SA	16+	2015	-	Quota
B B1	IHE Institut d'Hygiène et d'Epidémiologie	*	Enquête de santé/Gezondheidsenquête	2-Yearly since 1997	FF/SA	All	10,000	~4500	~40
D D1	RKI Robert Koch-Institut	*	Bundes Gesundheitsurvey	Continuous since 1997	FF/SA	18-79	~7500	-	~30
D D2	Statistisches Bundesamt (NSI)	*	Mikrozensus: Fragen zur Gesundheit	Irregular since 1963; 3-4 yearly since 1986	FF	All	400,000	-	10

Table A1 (Continued)

Survey	Institute	HIS ^a	Name	Frequency, first year and following years	Data collection ^b	Age (years)	Number of respondents	Number of households	% non-response
D3	EFB Epidemiologische Forschung Berlin + Infratest		Umwelt, Gesundheit und Gesundheitsversorgung	Once: 1995	FF	14+	5000	-	32
DK DK1	DIKE (Danish Institute for clinical Epidemiology)	*	Sundhed og sygelighed i Danmark (Health interview survey in Denmark)	6-7-Yearly since 1986/87; 1994	FF/SA	16+	4668	-	22
EL EL1	National Statistical Service of Greece (NSI)		Population census	10-Yearly; 1991	FF	All	-	100%	-
E E1	Ministerio de Sanidad y Consumo (Ministry of Health)	*	Encuesta nacional de salud (National health survey)	Irregular since 1987; 1993; 1995	FF	All	8400	-	-
E E2	Ministerio + Delagacion Plan Nacional Sobre Drogas		Encuesta domiciliaria sobre uso de drogas (Household survey on drug use)	2-Yearly since 1995	FF/SA	15+	10,000	-	-

Table A1 (Continued)

Survey	Institute	HIS ^a	Name	Frequency, first year and following years	Data collection ^b	Age (years)	Number of respondents	Number of households	% non-response
E3	INE Instituto Nacional de Estadística (NSI)		Discapidades, deficiencias y minusvalías (Handicaps, disabilities and impairments)	Irregular since 1986; 1999 (probably)	FF/SA	All	270,000	75,000	–
FIN	FIN1	*	STAKES, KELA, KTL + Tilastokeskus	Terveysdenhuollon väestötutkimus (Interview survey on health care)	FF	All	–	4218	13
	FIN2	*	KTL Kansanterveyslaitos (National Public Health Institute)	Aikuisväestön terveyskäyttäytymistutkimus (Survey on health behaviour)	SA	15–64	3600	–	25
	FIN3	*	KTL Kansanterveyslaitos (National Public Health Institute)	FinRisk	FF/SA	25–74	~12,500	–	–

Table A1 (Continued)

Survey	Institute	HIS ^a	Name	Frequency, first year and following years	Data collection ^b	Age (years)	Number of respondents	Number of households	% non-response
FIN4	Tilastokeskus (NSI)		Elinolotutkimus (Living conditions survey)	Irregular since early 1970s	FF	15+	23,158	8650	27
FIN5	STAKES + Tilastokeskus		Aikuisväestön terveyspalvelujen käyttö ja terveydentila (Survey on health services)	Once: 1993/94	T	25–79	3250	–	29
FIN6	STAKES		Finnish drinking habits survey	8-Yearly; 1992	FF	15–69	3624	–	13
F	F1	*	INSEE+ CREDES	Enquête sur la santé et les soins médicaux	FF	All	21,500	8000	6
	F2	*	CREDES	Enquête sur la santé et la protection sociale mise à jour	FF/T	All	9934	3386	12
	F3	*	CFES Comité Français d'Education pour la Santé	Baromètre santé grand public	T	18–75	1993	–	25

Table A1 (Continued)

Survey	Institute	HIS ^a	Name	Frequency, first year and following years	Data collection ^b	Age (years)	Number of respondents	Number of households	% non-response
F4	INSEE		Etude sur les conditions de vie (situations défavorisées)	8-Yearly since 1978/79; 1986/87; 1993/94	FF	18+	13,280	13,280	–
F5	CREDOC		Enquête conditions de vie et aspirations des Français	Yearly; 1994/95	FF	15+	2005	–	Quota
IRL	IRL1		Economic and Social Research Institute Living in Ireland survey	Yearly; 1996	FF	All	9905	4048	38
I	I1	*	Condizioni di salute e ricorso ai servizi sanitari (Health conditions and services)	3-4-Yearly since 1980; 1983; 1986; 1990; 1994	FF	All	60,000	20,000	10
	I2		Aspetti della vita quotidiana (Aspects of daily life)	Yearly; 1995	FF/SA	All	60,000	20,000	10
L	L1		CEPS/IN-STEAD Panel socio-économique Liewen zu Letzebuerg (Panel Living in Luxembourg)	Twice a year since 1984	FF	All	8192	2978	48

Table A1 (Continued)

Survey	Institute	HIS ^a	Name	Frequency, first year and following years	Data collection ^b	Age (years)	Number of respondents	Number of households	% non-response
NL	NL1	*	Gezondheidsenquête (Health interview survey)	Continuous since 1981	FF/SA	All	9000	3500	42
	NL2		Doorlopend leefsituatie onderzoek (Standard of living survey)	3-Yearly since 1974; continuous since 1989	FF	18+	4000	4000	46
P	P1	*	Inquérito nacional de saúde (National health survey)	Irregular since 1987; 1995/96	FF	All	50,000	17,400	27
	P2		INE Instituto Nacional de Estatística (NSI) Inquérito nacional à deficiência (National survey on disabilities)	Irregular; 1994	FF	All	–	–	–
S	S1	*	Undersökningen av levnadsförhållanden (Living conditions survey)	Yearly since 1975	FF	16-84	5500	–	20

Table A1 (Continued)

Survey	Institute	HIS ^a	Name	Frequency, first year and following years	Data collection ^b	Age (years)	Number of respondents	Number of households	% non-response	
UK	UK1	SCPR + University of Cambridge Clinical School	*	Health and lifestyle survey	7-Yearly since 1984/85; 1991; 1998/99	FF	25+	5352	5352	14
	UK2	SCPR + University College London	*	Health survey for England	Continuous since 1990	FF/SA	2+	16,055	9084	22
	UK3	SCPR + University College London	*	Scottish health survey	3-Yearly; 1995	FF	16-64	7932	-	19
	UK4	ONS Office for National Statistics (NSI)		General household survey	Continuous since 1971	FF	16+	18,000	9700	15
	UK5	ONS Office for National Statistics (NSI)		Health education monitoring survey	Yearly since 1995	FF	16-74	4700	-	24
	UK6	Department of Health + ONS		Disability survey (follow-up of Family resources survey)	Irregular; 1996/97	FF	16+	~ 7000	-	-

Table A1 (Continued)

Survey	Institute	HIS ^a	Name	Frequency, first year and following years	Data collection ^b	Age (years)	Number of respondents	Number of households	% non-response	
	UK7	Department of Health + ONS		Survey of psychiatric morbidity	Irregular; 1993/94	FF	16-64	12,500	-	20
N	NI	Statistik Sentralbyrå (NSI)	*	Helseundersøkelsen (Health interview survey)	1968; 1975; 1985; 1995; 4-yearly since 1998	FF/SA	All	10,248	~ 5200	24
IS	ISI	Social Science Research Institute, University of Iceland		Þjóðmálakönnun (Omnibus survey)	Irregular; 1996	T	18-75	1053	-	28
CH	CH1	Bundesamt für Statistik (NSI)	*	Schweizerische Gesundheitsbefragung	5-Yearly; 1992; 1997	FF/T/SA	15+	~ 12,500	~ 12,500	28

^a * Indicates HIS (health interview survey).

^b FF, face-to-face; SA, self-administered; T, telephone.

^c National statistical institute.