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Occupational Diseases in Europe in 2001

Statistics in focus

POPULATION AND SOCIAL CONDITIONS

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Work

Authors
*Antti Karjalainen,
Elodie Niederlaender*

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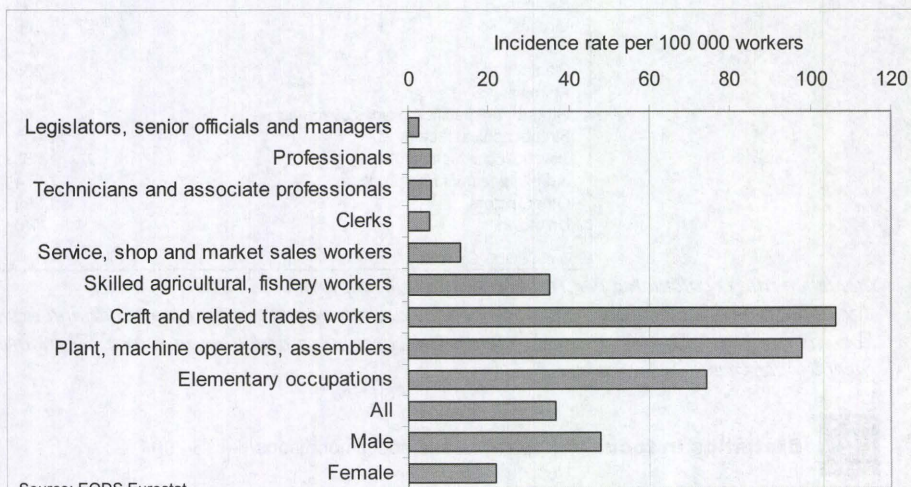
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European Schedule of
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Based on the experiences of a pilot data collection performed in 1998 (data of 1995) Eurostat has collected the first statistical data on recognised occupational diseases (EODS) for the reference year 2001. Recognition practices and social security arrangements for occupational diseases differ between the Member States, and the core data includes only those 68 occupational disease items which are covered by all national systems. For these entities there were 31 945 new cases of occupational disease recognised by the national authorities in the 12 Member States (Belgium, Denmark, Spain, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Sweden and the United Kingdom) providing EODS data for the reference years 2001. If extrapolated to EU15 in the ratio of the current workforce this would mean an estimated 52 884 cases in EU15.

- The incidence rate per 100 000 workers was higher among men (48) than among women (22). This is mainly because the workforce is predominantly male in those occupations in which some occupational diseases are common (e.g. asbestos-related diseases, noise-induced hearing-loss). The incidence rate increased with age (Table 1).
- The incidence rate was about 40 times higher among craft and related trade workers as compared to legislators, senior officials and managers (Figure 1). By economic activity, the incidence rate was the highest in mining, manufacturing and construction (Table 1).
- The ten most common occupational diseases in the 12 Member States were hand or wrist tenosynovitis (5 379 cases), epicondylitis of the elbow (4 585), contact dermatitis (4 457), noise-induced hearing loss (4 068), Raynaud's syndrome or vibration white-finger (3 120), carpal tunnel syndrome (2 483), mesothelioma (1 168), asthma (1 075), asbestosis (738) and coal worker's pneumoconiosis (547) (Table 2).
- According to the European Schedule of Occupational Diseases the majority of the cases fell in the main categories of diseases caused by physical agents (20 937 cases), diseases caused by inhalation of substances (5 535) and skin diseases (4 357) (Table 3).

Figure 1: Incidence rate of occupational diseases by occupation



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Occupational diseases of the obligatory list of the EODS data collection

Table 1 describes the number of cases and the incidence rate of occupational diseases by gender, age, economic activity, occupation and causative agent. Manufacturing was the most common economic activity and craft and related trades workers the most common occupation. Biomechanical factors, physical factors and industrial factors and products were the most common causative agents. The latter group includes cases for which only the industrial use purpose of the harmful agent was known (e.g. solvent, paint, etc.).

The incidence rate was calculated per workers in employment in 2001 while information on the economic activity or occupation

of the patient refers to the time of the harmful exposure. It is important to notice that some occupational diseases, e.g. cancer, develop over a long period of time. For such diseases the cases occurring in 2001 result from exposures some 10-40 years ago. For some categories given in table 1, the incidence rates are therefore biased or not calculated at all, e.g. the activity Mining and carrying or age group > 64 years. In these categories there are cases of occupational disease resulting from exposures earlier on, but very few workers currently in employment. The incidence rates can't be calculated for the causative agent groups as there is no information available on numbers of workers currently being exposed in the EU15.

Table 1: Number and incidence rate of occupational diseases by sex, age, economic activity, occupation and causative agent

	EU-12		EU-15	
	Persons in Employment (1000)	Number	Incidence rate	Extrapolated number
All	86 342	31 945	37,0	52 884
Men	49 649	23 743	47,8	39 306
Women	36 694	8 061	22,0	13 345
15-17 years	1 447	120	8,3	199
18-24 years	9 730	2 212	22,7	3 662
25-34 years	23 812	5 323	22,4	8 812
35-44 years	23 771	7 387	31,1	12 229
45-54 years	18 759	7 354	39,2	12 174
55-64 years	7 969	5 511	69,2	9 123
over 64 years	:	3 506	:	5 804
Economic activity				
Agriculture, hunting and forestry	2 973	1 035	34,8	1 713
Fishing	123	25	20,4	41
Mining and quarrying	293	5 066	1 726,8	8 387
Manufacturing	17 311	12 242	70,7	20 266
Electricity, gas and water supply	657	216	32,9	358
Construction	6 543	3 937	60,2	6 518
Wholesale and retail trade, repair...	12 672	1 932	15,2	3 198
Hotels and restaurants	3 587	610	17,0	1 010
Transport, storage and communication	5 606	564	10,1	934
Financial intermediation	3 158	94	3,0	156
Real estate, renting and business	7 779	1 441	18,5	2 386
Public administration and defence	6 532	693	10,6	1 147
Education	6 084	179	2,9	296
Health and social work	8 450	1 087	12,9	1 800
Other community, social and personal	3 591	692	19,3	1 146
Private households with employed persons	513	7	1,4	12
Occupation				
Legislators, senior officials and managers	5 946	163	2,7	270
Professionals	10 891	639	5,9	1 058
Technicians and associate professionals	12 108	684	5,6	1 132
Clerks	12 034	657	5,5	1 088
Service, shop and market sales workers	13 468	1 752	13,0	2 900
Skilled agricultural, fishery workers	2 095	737	35,2	1 220
Craft and related trades workers	11 813	12 555	106,3	20 784
Plant, machine operators, assemblers	7 724	7 567	98,0	12 527
Elementary occupations	9 416	6 998	74,3	11 585
Causative agent group				
Inorganic chemicals	:	421	:	697
Organic chemicals	:	320	:	530
Other or unspecified chemicals	:	514	:	851
Physical factors	:	7 206	:	11 929
Bacteria	:	194	:	321
Viruses	:	166	:	275
Fungi	:	81	:	134
Plants	:	385	:	637
Animals	:	232	:	384
Other or unspecified biological agents	:	69	:	114
Biomechanical factors	:	12 485	:	20 669
Psychosocial factors	:	763	:	1 263
Industrial factors and products	:	7 074	:	11 711
Other factors	:	1 295	:	2 144
Unknown	:	740	:	1 225

Source: EODS Eurostat

Incidence rate is calculated per 100 000 workers in employment in 2001.

Age at the time of recognition, economic activity and occupation at the time of harmful exposure.

For each of the variables a certain number of cases were coded as unknown. Therefore the total does not correspond to the sum of the specific categories.

Table 2 gives the distribution of cases by diagnosis and in the following chapters more details are given for the most numerous disease entities.

Table 2: Number of occupational diseases by diagnosis

Diagnosis	EU-12 Number	EU-15 Extrapolated number
All	31 945	52 884
Infections	436	722
Tuberculosis	83	137
Brucellosis	149	247
Hepatitis A	40	66
Hepatitis B	10	17
Hepatitis C	146	242
Other infections	8	13
Malignant diseases	1 499	2 481
Nasal cancer	28	46
Sinus cancer	16	26
Lung cancer	208	344
Mesothelioma	1 168	1 934
Bladder cancer	56	93
Leukaemia	11	18
Other cancers	12	20
Neurological diseases	2 542	4 208
Carpal tunnel syndrome	2 483	4 111
Toxic encephalopathy	52	86
Other neurological diseases	7	11
Diseases of the sensory organs	4 077	6 749
Noise-induced hearing loss	4 068	6 734
Other diseases of the sensory system	9	15
Respiratory diseases	4 507	7 463
Allergic rhinitis	248	411
Chronic bronchitis	497	823
Asthma	1 075	1 780
Coal worker's pneumoconiosis	547	905
Asbestosis	738	1 222
Silicosis	485	803
Other pneumoconioses	76	126
Allergic alveolitis	189	313
Acute chemical bronchitis	42	69
Upper respiratory inflammation	85	141
Reactive Airways Dysfunction Syndrome	13	22
Lung fibrosis	15	25
Pleural plaques	186	308
Diffuse pleural thickening	291	482
Other respiratory diseases	20	33
Skin diseases	4 569	7 563
Contact dermatitis	4 457	7 378
Contact urticaria	110	182
Musculo-skeletal diseases	11 169	18 490
Arthrosis of the elbow	12	20
Meniscal lesions	334	553
Hand or wrist tenosynovitis	5 379	8 905
Bursitis of elbow	183	303
Bursitis of knee	422	699
Epicondylitis of the elbow	4 585	7 590
Arthrosis of the wrist	254	420
Other diseases	3 145	5 208
Raynaud's syndrome	3 120	5 165
Colic etc symptoms	25	41

Source: EODS Eurostat

Categories with less than 4 cases are not shown.

Therefore the totals differ from the sum of categories.

Infectious diseases

Altogether 436 cases were recognised. The most numerous ones were brucellosis (149 cases), hepatitis C (146), tuberculosis (83), hepatitis A (40) and hepatitis B (10). About 46% of the cases of brucellosis were from manufacturing followed by agriculture (27%). Health and social work and

public administration covered the majority of cases of hepatitis C (97%), hepatitis A (88%), tuberculosis (88%) and hepatitis B (60%).

Malignant diseases

Altogether 1 499 cases of 7 different malignant diseases were recognised in EU-12 in 2001: mesothelioma (1 168), lung cancer (208), bladder cancer (56), nasal and sinus cancer (44), leukaemia (11), cancer of the larynx (7), skin cancer (5). The majority of cases occurred among men (95%). The economic activity sector of the employer at the time of the harmful exposure was coded unknown for 24% of the cases. This is probably because it is difficult to know exactly which employment, several decades ago, was responsible for the disease. Among cases with a known sector of economic activity, manufacturing (38%) and construction (37%) accounted for the largest percentage of all cases.

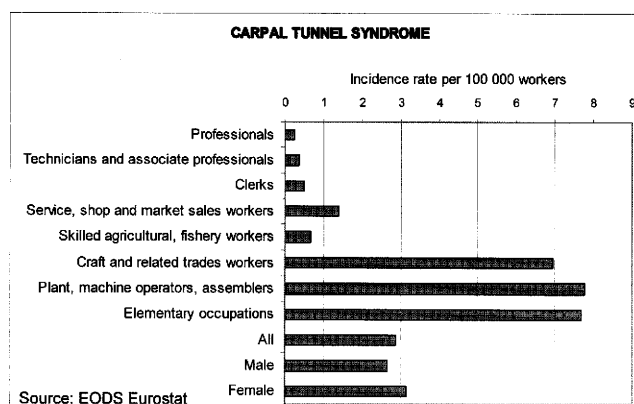
For the four most common occupational cancers the causative agents were the following:

- Mesothelioma: asbestos (98%), unknown or poorly specified (2%).
- Lung cancer: asbestos (51%), unknown or poorly specified (37%), chromium (3%), hydrocarbons (2%), others (7%).
- Bladder cancer: unknown (54%), aromatic amines (23%), most of the rest were defined according to the industrial use (paints, dyes, plastics, etc.).
- Nasal and sinus cancer: wood dusts (80%), animal products (14%), unknown (6%).

Carpal tunnel syndrome

Cases of carpal tunnel syndrome were recognised in all but three of the 12 Member States and there were 2 483 cases in total. Carpal tunnel syndrome was the sixth most common occupational disease recognised in 2001. The incidence rate was the highest in plant, machine operators etc., elementary occupations and craft and related workers. About 53% of the cases occurred in men and 42% in the manufacturing sector, but cases occur in all sectors. The cases with known exposures had been coded either as due to work postures or movements (72%) or mechanical vibration (28%).

Figure 2: Incidence rate of carpal tunnel syndrome by occupation



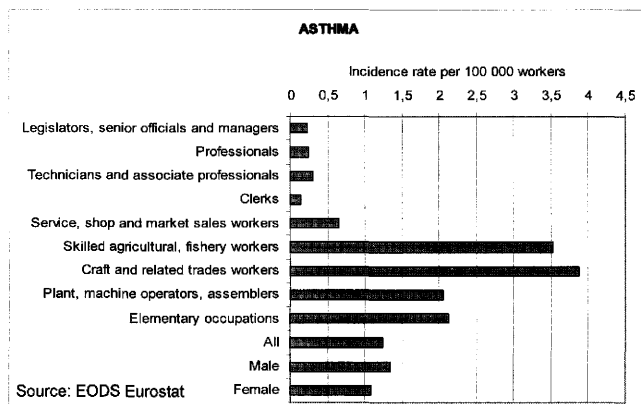
Noise-induced hearing-loss

Cases of noise-induced hearing loss were recognised in all but two of the 12 Member States and there were 4 068 cases in total. Noise-induced hearing loss was the fourth most common occupational disease recognised in 2001. The incidence rate was 4.7 per 100 000 current workers. About 97% of the cases occurred in men. Of the cases with known economic activity of the employer, 51% were reported in the manufacturing sector, followed by construction (17%), but cases occur in all sectors.

Asthma

Cases of asthma were recognised in all the 12 Member States and there were 1 075 cases in total. The incidence rate varied greatly according to economic activity. The rate was the highest in agriculture and in manufacturing where it was more than 10 times higher than in public administration or education. Of the occupational groups, the incidence rate was the highest among crafts and related trade workers and skilled agricultural and fishery workers. The incidence rate was slightly higher among men than among women. There were 107 different causative agents reported, but many of the agents were defined by their industrial use, e.g. solvent, paint, cosmetic chemical etc., and not by their chemical or biological compositions. The most common causative agents specified were inorganic dusts (12%), flour dust (10%), isocyanates (4%), dusts from mammals (4%) and wood dusts (3%).

Figure 3: Incidence rate of asthma by occupation



Asbestos-related non-malignant diseases

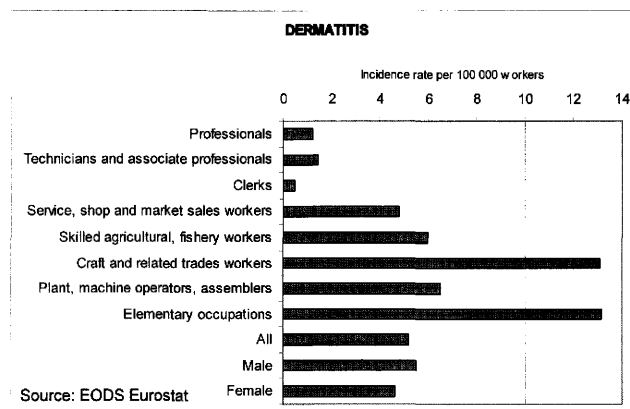
There were 738 cases of asbestosis, 291 cases of diffuse pleural thickening and 186 cases of pleural plaques recognised as occupational disease. Yet, one has to note that cases of asbestosis were recognised only in 9 and cases of pleural disease in 6 of the 12 Member States. Most cases of asbestosis occurred in men (98%) and the most common sectors of economic activity were manufacturing (40%) and construction (26%).

Dermatitis

There were 4 457 cases of allergic, irritant or unspecified contact dermatitis altogether. Such cases were recognised in all the 12 Member States. The incidence rate varied greatly according to economic activity. The rate was the highest in mining, manufacturing, construction, and in community social

and personal services. Of the occupational groups, the incidence rate was the highest among crafts and related trade workers and elementary occupations which had an incidence rate nearly 30 times higher than among clerks. The incidence rate was slightly higher among men than among women. There were 230 different causative agents reported, but most of the factors (59%) were defined according to their industrial use purpose and not by their chemical or biological structure.

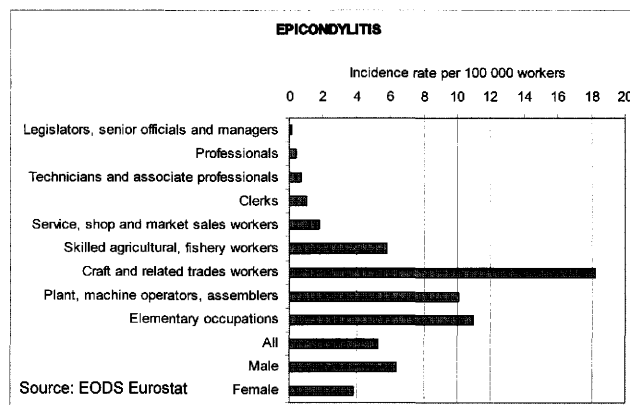
Figure 4: Incidence rate of dermatitis by occupation



Epicondylitis of the elbow

Cases of epicondylitis of the elbow were recognised in 7 Member States and there were 4 157 cases of lateral and 428 cases of medial epicondylitis. Epicondylitis of the elbow was the second most common occupational disease recognised in 2001. About 69% of the cases occurred in men. According to economic activity the incidence rate was the highest in manufacturing, construction and mining and of the occupational groups among craft and related trades workers. The cases had been mostly coded either as due to repetitive work (90%) or biomechanical factors in general (7%).

Figure 5: Incidence rate of epicondylitis by occupation

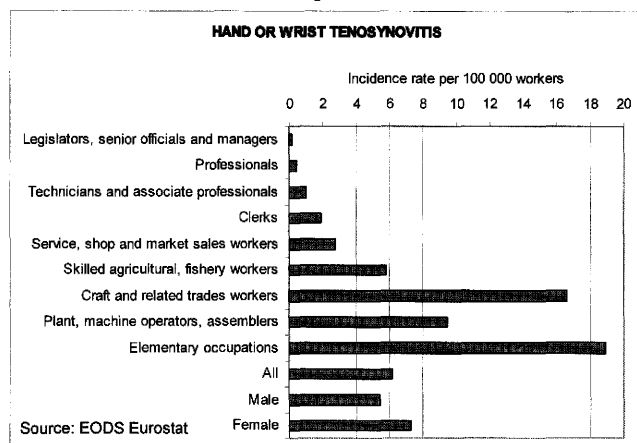


Tenosynovitis of the hand or wrist

Cases of tenosynovitis of the hand or wrist were recognised in all but three of the 12 Member States and there were 5 379 cases in total which made it the most common occupational disease in the EODS 2001 data. About 50% of the cases occurred in women and 57% in the manufacturing sector, followed by construction and trade (8% both). The incidence rate was the highest in manufacturing, being 30-fold as

compared to education. Of the occupational groups the incidence rate was the highest in elementary occupations. The cases had been coded either as due to repetitive work (91%), work postures (1%), mechanical vibration (1%), or just with the general code of biomechanical factors (6%).

Figure 6: Incidence rate of hand or wrist tenosynovitis by occupation



Raynaud's syndrome (vibration white finger)

Cases of Raynaud's syndrome were recognised in six Member States but the total number of 3 120 cases ranks fifth on the list of the most common occupational diseases recognised in 2001. The incidence rate was 3.6 per 100 000 current workers. More than 99% of the cases occurred in men and 81% in the mining and quarrying sector, followed by manufacturing (8%) and construction (6%). The cases with known exposures had been coded as due to mechanical vibration.

Occupational diseases of the voluntary list of the EODS data collection.

The EODS specifications included 41 diagnostic entities which could be included in an optional way (see methodological notes). These diseases are not covered by the reporting system in all the participating countries and therefore the data are incomplete. Of the 12 Member States providing EODS 2001 data, 10 had included cases from this optional list. The number of cases of occupational disease was clearly lower than for the obligatory list of diseases. There were 386 cases and they represented 15 infectious disease entities and 8 other disease entities. For most of the entities, the number of cases was below 10. The most common entities were conjunctivitis (121 cases), ulnar nerve syndrome (99), median nerve syndrome (39), radial nerve syndrome (25), varicella (21), dermatophytosis (20), borreliosis (13) and malaria (9). Many of the diseases of the voluntary list belong to the infectious disease categories of the European Schedule of Occupational Diseases. Therefore they are included in table 3 even though the data are not as complete as for diseases of the obligatory list. Instead, they are not included in the other tables or chapters of this publication.

European Schedule of Occupational Diseases

Commission Recommendation 90/326/EEC of 22 May 1990 concerns the adoption of a European Schedule of Occupational Diseases. This Recommendation was recently updated by the Commission Recommendation 3297/2003 of 19 September 2003. The Recommendation states that the Member States should ensure that all cases of occupational diseases are reported. Also the Member States should progressively make their statistics on occupational diseases compatible with the European Schedule in Annex I of the Recommendation and ensure that information on the causative agent or factor, the medical diagnosis and the sex of the patient is available in each case of occupational disease.

Table 3 gives the distribution of cases recognised in 2001 and reported in the EODS data collection according to the European Schedule of Occupational Diseases and by gender. The most common entities were diseases caused by physical agents (65% of all), diseases caused by inhalation of substances (17%) and skin diseases (13%). In the interpretation of table 3 it is to be noticed again that the 2001 EODS data cover only those disease entities which are already included in the occupational disease recognition systems in all the Member States and in addition the 41 items of the voluntary list. Therefore various diseases recognised only in some Member States are not covered by the EODS data. Furthermore the updated European Schedule was adopted only after the EODS 2001 data collection and therefore the codes have been converted afterwards based on the diagnosis and the causative agent (some cases had to be coded as unknown because a detailed conversion was not possible afterwards). The distribution reflects the gender distribution of the workforce. Occupational diseases typical to construction, mining and heavy industries are more common among men than among women, while some occupational diseases typical to health and social work (e.g. tuberculosis) are more common in women. The most common occupational disease, "Diseases due to overstraining of tendon sheaths" is about equally common in both genders.

Deaths due to occupational diseases

The EODS specifications defined data to be provided for deaths due to occupational disease during the reference year, regardless of when the occupational disease had been recognised for the first time. Only 6 Member States could provide data on such fatal cases of occupational disease. There were 1 362 deaths due to occupational diseases included in the EODS data collection. In the ratio of the current workforce this would mean 5 950 fatalities extrapolated to EU15. In the 6 Member States with data the most common fatal occupational diseases were coal worker's pneumoconiosis (595 cases), mesothelioma (328), lung cancer due to asbestos (127), asbestosis (101) and silicosis (50). The majority of the deaths occurred in men (97%) and in people aged 65 years or more (79%). The distribution of fatal cases according to the European Schedule of Occupational Diseases is given in Table 3. All deaths were due to diseases of the obligatory list of EODS data collection.

Deaths due to occupational disease are easily underdiagnosed because it is difficult to assess the work-related causality if the assessment was not made already when the person was living. For most Member States providing data on fatal occupational diseases detailed data were also available on causes of death statistics. If fatalities due to mesothelioma in men are compared for these

countries, deaths reported as due to occupational disease were only about 25% of all mesothelioma deaths, while epidemiologic estimates indicate that about 80-90% of male mesotheliomas would be due to occupational asbestos exposure. In conclusion mesothelioma seems to be clearly under-reported as a fatal occupational disease.

Table 3: Number of incident non fatal occupational diseases and deaths due to occupational diseases according to the European Schedule of Occupational Diseases

Disease	Non-fatal				Fatal	
	EU-12		EU-15	EU-6	EU-15	
	All	Men	Women	Extrapolated number	Number	Extrapolated number
All	32 331	23 937	8 253	53 527	1362	5 950
1 Diseases caused by the following chemical agents	360	268	92	599	22	97
10100: Arsenic or compounds thereof	:	:	:	:	7	31
10301: Carbon monoxide	7	:	:	12	:	:
10403: Isocyanates	11	:	:	18	:	:
10600: Chromium or compounds thereof	115	100	15	190	5	22
10700: Mercury or compounds thereof	4	:	:	7	:	:
11000: Nickel or compounds thereof	68	:	:	113	:	:
11100: Phosphorus or compounds thereof	20	28	40	33	:	:
11501: Chlorine	6	:	:	10	:	:
12400: Formaldehyde	28	12	16	46	:	:
12601: Benzene or counterparts thereof	5	:	:	8	:	:
12901: "Aromatic amines, hydrazines and their derivatives (halogenated, etc)"	30	22	8	50	7	31
13500: "Encephalopathies due to organic solvents not under other headings"	44	:	:	73	:	:
13600: "Polyneuropathies due to organic solvents not under other headings"	6	:	:	10	:	:
Other group 1 items	16	:	:	29	:	:
2 Skin diseases caused by substances and agents not included under other headings	4 357	2 624	1 699	7 213	:	:
20200: "Occupational skin ailments not included under other headings"	4 357	2 624	1 699	7 213	:	:
3 Diseases caused by the inhalation of substances and agents not included under other headings	5 535	4 862	652	9 165	1239	5 413
30111: Silicosis	485	472	13	803	50	218
30112: Silicosis combined with pulmonary tuberculosis	4	:	:	7	:	:
30121: Asbestosis	738	718	14	1 222	101	441
30122: Mesothelioma following the inhalation of asbestos dust	1 168	1 109	53	1 934	328	1433
30131: Pneumoconioses caused by dusts of silicates	35	:	:	58	:	:
30401: Extrinsic allergic alveolites	189	128	60	313	7	31
30402: "Lung diseases caused by cotton, flax, hemp, jute, sisal & bagasse"	7	:	:	12	:	:
30406: "Allergic asthmas caused by substances inherent to the type of work"	1 049	656	387	1 737	10	44
30407: "Allergic rhinitis caused substances inherent to the type of work"	244	139	105	404	:	:
30501: "Cancers of the upper respiratory tract caused by dust from wood"	35	:	:	58	16	70
30600: "Pleural fibrosis, with respiratory restriction, caused by asbestos"	469	455	14	776	:	:
30700: "COPD or emphysema in miners working in underground coal mines"	996	:	:	1 649	595	2 599
30800: Lung cancer following the inhalation of asbestos dust	111	:	:	184	127	555
Other group 3 items	5	:	:	8	5	22
4 Infectious and parasitic diseases	526	337	189	870	:	:
40100: "Infectious diseases transmitted by animals or remains of animals"	26	18	8	43	:	:
40300: Brucellosis	149	133	16	247	:	:
40400: Viral hepatitis	202	138	64	334	:	:
40500: Tuberculosis	83	19	64	137	:	:
40700: "Other infectious diseases caused by work in disease prevention, etc"	64	27	37	106	:	:
5 Diseases caused by the following physical agents	20 937	15 427	5 455	34 660	7	31
50300: Hypoacusis or deafness caused by noise	4 068	3 947	104	6 734	:	:
50501: "Osteoarticular diseases of the hands & wrists caused by vibration"	253	246	7	419	:	:
50502: Angioneurotic diseases caused by mechanical vibration	3 087	3 077	10	5 110	:	:
50611: Pre-patellar and sub-patellar bursitis	422	399	17	699	:	:
50612: Olecranon bursitis	183	175	8	303	:	:
50621: Diseases due to overstraining of the tendon sheaths	5 378	2 698	2 680	8 903	:	:
50623: Diseases due to overstraining of the muscular and tendonous insertions	4 585	3 165	1 398	7 590	:	:
50630: "Meniscus lesions following work in a kneeling or squatting position"	316	312	4	523	:	:
50640: Paralysis of the nerves due to pressure	147	82	65	243	:	:
50645: Carpal tunnel syndrome	2 483	1 314	1 159	4 111	:	:
50800: Diseases caused by ionising radiation	12	:	:	20	5	22
: Unknown	616	419	166	1 020	90	392

Source: EODS Eurostat

The total number of non-fatal cases differs from tables 1 and 2 because diseases of the voluntary list are included in table 3. The original titles of some of the items of the European Schedule have been shortened. These are indicated by quotation marks. Categories with less than 4 cases are not shown. Therefore the totals differ from the sum of categories. The sum of the two genders differs from the totals because of some cases with unknown gender.

➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

Statistical data on occupational diseases recognised in 2001 was collected. For incident non-fatal cases data were provided by 12 Member States (BE, DK, ES, IE, IT, LU, NL, AT, PT, FI, SE, UK). The abbreviation EU-12 is used for these countries. For deaths due to occupational disease data were submitted by 6 Member States (BE, DK, IT, LU, AT, FI). The abbreviation EU-6 is used for these countries. This data collection was the first one under the new annual European Occupational Diseases Statistics (EODS), which is currently being implemented in the new Member States as well.

The EODS Phase 1 specifications cover 68 disease entities in a compulsory way. The specifications were meant to include only diseases which are covered by all or by most national recognition schemes. In addition 41 entities are included in an optional way. These include some infectious diseases that may occur in the occupational setting but are not usually specifically mentioned in the national lists of occupational diseases as well as some relatively rare occupational diseases. Of the 12 Member States providing EODS 2001 data, 10 had recognised cases of this optional list. In the 12 Member States there were no cases or less than four cases for the following entities of the obligatory list: Erysipeloid, Leptospirosis, Hepatitis E, HIV, Ancylostomiasis, Liver cancer, Precancerous skin lesions, Haemolytic anaemia, Anaemia, Secondary thrombocytopenia, Agranulocytosis and neutropenia, Nasal ulceration, Nasal perforation, Lung oedema, Toxic liver disease, Tubulo-intestinal kidney disease, Chronic renal failure. For the optional list, no cases occurred for the following diseases: Cholera, Shigellosis, Tetanus, Diphtheria, Poliomyelitis, Rabies, Measles, Rubella, Mumps, Secondary parkinsonism, Amyotrophic lateral sclerosis, Intentional tremor, Aluminosis, Bauxite fibrosis of the lung, Berylliosis, Graphite fibrosis of the lung. In addition there were less than four cases for 13 entities. For these diseases with less than 4 cases, no details are given in this publication.

An occupational disease was defined as a case that was recognised (accepted) as an occupational disease by the national compensation or other competent authorities. Only incident cases were included, i.e. cases that were for the first time recognised during the reference year (2001). Cases that had been recognised already earlier were excluded even if there was an aggravation of the disease during the reference year. However, in fatal occupational diseases were included all cases in which the death occurred during 2001 and was due to an occupational disease, whenever the cases had been recognised (accepted) for the first time.

The national data collection systems used for EODS (insurance or labour inspection) do not cover all workers. The reference population used in the calculation of incidence rates was extracted from the 2001 Labour Force Survey database. Those sectors of economic activity and categories of professional status which were not covered by the EODS data were also excluded from the reference population. The incidence rates were calculated as numbers of cases of occupational disease in 2001 per 100 000 workers in employment in 2001. For diseases which develop long time after the exposure (e.g. occupational cancer, pneumoconiosis, hearing loss) such a calculation of the incidence rate is biased as the correct denominator would be the number of workers some 10-40 years ago. This causes problems especially in sectors with significant changes in the workforce during the past decades in Europe, e.g. mining.

The number of occupational diseases in EU-15 was estimated in the ratio of the employed population in 2001 in the countries providing EODS data and in EU-15.

The main variables for which data were collected were age at the time of recognition, gender, occupation at the time of the harmful exposure (ISCO, International Standard Classification of Occupations), economic activity of the employer at the time of the harmful exposure (NACE, Statistical Classification of Economic Activities of the European Community), diagnosis (ICD-10 of WHO), severity of the disease and exposure. In addition, the reference number of the 2003 European Schedule of Occupational Diseases (Commission Recommendation C(2003) 3297 of 19.9.2003, OJ L 238 of 25.9.2003) was coded afterwards based on the diagnosis and exposure variables. The classification of the exposure is described in *Eurostat Working Papers, Population and social conditions 3/2000/E/n 18* and the detailed EODS Phase 1 methodology in *Eurostat Working Papers, Population and social conditions 3/2000/E/n 19*.

There are differences between the national systems in the recognition of occupational diseases of a temporary nature. Such diseases were included in the data sets of BE, AT, ES, FI, IT, and LU. It is known that the comparability between the systems would be better for permanent diseases with incapacity of at least 10% (a value used by most Member States for a minimum permanent incapacity). Yet, it was difficult for several Member States to provide the exact severity level, and this variable was unknown for an important proportion of cases. Consequently only total EU level figures are given and the only separation as regards severity is made between fatal and non-fatal cases.

The main remaining weakness for the comparability of the EODS Phase 1 data is that recognised occupational diseases reflect not only the occurrence of such diseases, but inevitably also the way in which the concept of an occupational disease has been integrated into the social security systems. This integration determines the (legal and financial) motivation of the patient, the physician, and the employer to notify cases and the motivation of social security authorities and respective bodies to allocate them under the coverage of the normal social security or to define them as occupational diseases. Even for severe diseases, e.g. mesothelioma or asthma, the reporting rate is likely to be low, if the level of social security benefits is not at all or is only slightly affected by the decision. It is obvious that differences in the reporting level and national compensation practice have had an impact also in the EODS data and the figures observed are influenced not only by the real incidence of these diseases, but also by other factors.

Further information:

➤ Databases

NewCronos, Theme 3, Domain: health

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For information on methodology

Antti Karjalainen, Elodie Niederlaender, Eurostat / D6, L-2920 Luxembourg, Tel. (352) 4301 32693, 34416, Fax (352) 4301 35399, E-mail: Antti.Karjalainen@cec.eu.int, Elodie.Niederlaender@cec.eu.int

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