



Orienteering

ACCIDENTAL DEATHS

At first sight it might seem disturbing that accidental deaths are contributing an increasing proportion of the total mortality amongst young people in the UK. In 1932, for example, approximately 6 per cent of all deaths in England and Wales in the 1-4 years old age group were due to accidents. By 1972 the proportion was 24 per cent. For the 5-14 age group the rise was from 12 per cent to 37 per cent and in the 15-24 year old age group 48 per cent of all deaths in 1972 were due to accidents compared with only 12 per cent in 1932 (Figure 1). Yet in reality the picture is much more encouraging. The actual number of accidental deaths among these age groups has dropped by one fifth over the period. The differences in proportion can, to a large extent, be explained by the elimination of the major common causes of death in childhood and early adulthood, such as diphtheria and tuberculosis. Furthermore, the underlying trend appears to continue downwards.

Today the United Kingdom death rate due to accidental causes (including transport accidents, accidental poisonings, accidental falls, accidents due to fires and accidents due to natural and environmental factors) is amongst the lowest in the world. An international comparison study¹ of 27 countries in Europe, North America and Australasia during the years 1969 to 1971 shows that in 1971 deaths due to accidental causes accounted for 3.0 per cent of all deaths in England and Wales, 3.7 per cent of those in Scotland and 3.8 per cent of those in Northern Ireland - the three lowest proportions among the 25 countries with available data for the year. Proportions over twice as high were recorded in some countries (Canada - 7.6 per cent, France - 7.2 per cent, Switzerland - 6.8 per cent), the mean proportion being 5.2 per cent (Figure 2A).

An analysis of the data in terms of death rates/100,000 population reveals that England and Wales had the lowest accidental death rate in 1971 (35.1) and that the other United Kingdom countries were among the lowest third of the countries studied. Again rates over twice as high were recorded by some countries (Austria 82.7, France 77.2), the mean rate being 52.3 (Figure 2B).

In fact, as Table 1 shows, mortality in the United Kingdom from accidental causes has remained relatively low throughout the past two decades, particularly amongst the working population. In the 15-44 years old age group (Figures 3A and 3B) accidents were the leading cause of death in 1971 for all countries except England and Wales. Malignant neoplasms took second place for all but two countries while in England and Wales the position of these two causes of death were reversed.

The relatively low accidental death rate in the United Kingdom may to some extent be explained by the efficiency of the ambulance and hospital services in the 'life and death' situation. However, national variations in the types of accident occurring and in factors such as the proximity of the hospital to the place of accident, the development of occupational health schemes, employer and trade union attitudes, government inspectorates and the effect of organisations such as ROSPA upon safety awareness should not be disregarded. And the figures should be no cause for complacency. HM Chief Inspector of Factories wrote in his annual report² 'there is still an extraordinary and discouraging history of accidents that should not happen'.

The major cause of accidental fatalities in the United Kingdom are now motor vehicle traffic accidents (accounting for over 8,000 deaths in 1972). The England and Wales death rate has risen

Table 1 *Accidental death rates*

Country		1954-56	1960	1961	1962	1963	1964	1965	1966	1969	1970	1971
England & Wales	Death rate/ 100,000 pop.	36.0	38.7	38.6	38.6	39.5	39.5	39.3	39.7	35.3	35.3	35.1
	percentage of total deaths	3.1	3.4	3.2	3.2	3.2	3.5	3.4	3.4	3.0	3.0	3.0
Scotland	Death rate/ 100,000 pop.	45.7	46.8	47.8	48.7	48.7	49.7	47.5	48.1	43.9	43.3	43.7
	percentage of total deaths	3.8	3.9	3.9	4.0	3.9	4.2	3.9	3.9	3.6	3.5	3.7
Northern Ireland	Death rate/ 100,000 pop.	32.1	36.4	34.2	35.3	35.3	35.3	35.5	38.2	34.8	39.3	39.8
	percentage of total deaths	2.9	3.4	3.0	3.3	3.2	3.4	3.4	3.4	3.2	3.6	3.8

Source: World Health Statistics Reports – various years

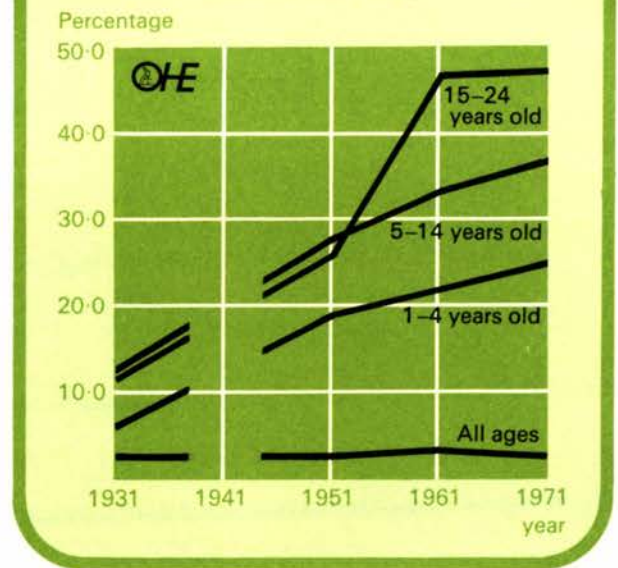
spasmodically since the war, reaching a peak in 1965 (155 deaths/million population). By 1972 it had fallen to 140 per million (Figure 4).

International trends in motor vehicle traffic accidents over the period 1960 to 1970 reveal that England, Wales and Switzerland are the only countries whose traffic accident death rate for men has fallen while the female rate rose rather less than in other comparable nations. Scotland and Northern Ireland rates also increased less than the average (Table 2). There is evidence that the road traffic accident death rate in England and Wales declined still further during the oil emergencies and has since continued to fall. In the first two-quarters of 1974 there were reductions of 7 per cent and 14 per cent respectively in the number of deaths compared with the same periods in 1973.³

The other major cause of fatality is accidental falls, the death rate for which, after reaching a peak in 1956, has shown a slight downward trend (Figure 4). For industrial accidents to employees, fatal accidents reported to various agencies have continued to decline (Figure 5), the most noticeable drop being amongst mineworkers (although this can be partly explained by a reduction in the work force). International comparisons of fatal industrial accident death rates in various industries for 1972 also show the United Kingdom to have a low incidence of such deaths.⁴ In all five industries considered (mining and quarrying, coal mining, manufacturing, construction and railways) the UK had a below average death rate amongst countries providing comparable data and in two industries – mining and quarrying and railways – had the lowest death rate. However, the usefulness of these comparisons is necessarily limited due to the fact that only accidents reported to the various recording agencies are considered.

In addition, the number of days lost due to industrial injuries have again decreased. During the year ending June 1973 16.6 million working days were recorded as lost in Great Britain due to industrial accidents the lowest total since 1960/61. New claims for injury benefit also fell (Figure 6).

Figure 1 *Accidental deaths as proportion of all deaths – various age groups – England and Wales (Three-year moving average used)*



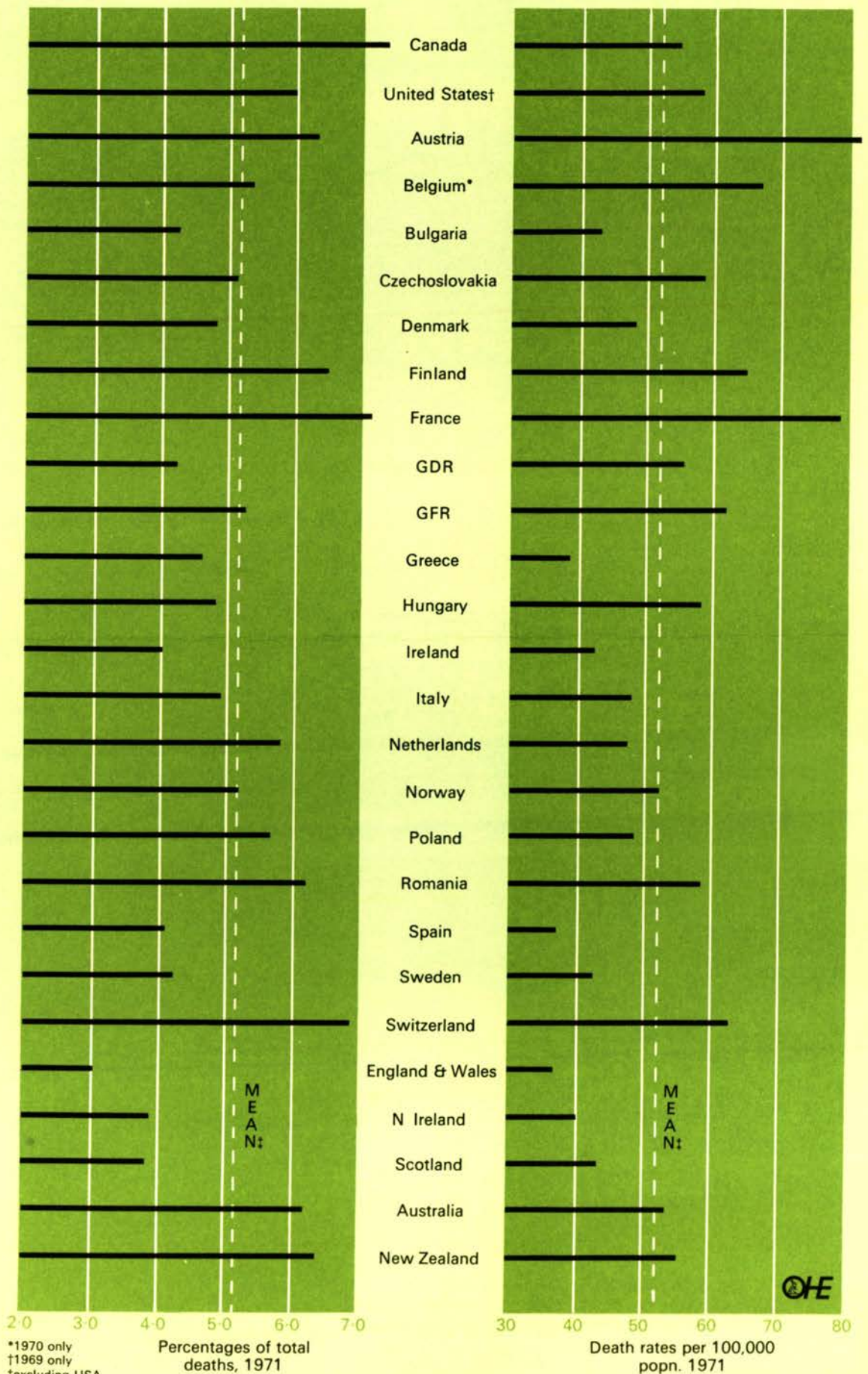
References

- 1 World Health Statistics Report, vol. 27, September 1974
- 2 Annual Report of HM Chief Inspector of Factories, 1973.
- 3 Registrar-General's Quarterly Returns, March and June 1974.
- 4 Year Book of Labour Statistics, 1973.

Accidental deaths – rates and proportions of total deaths. All ages

Figure 2A

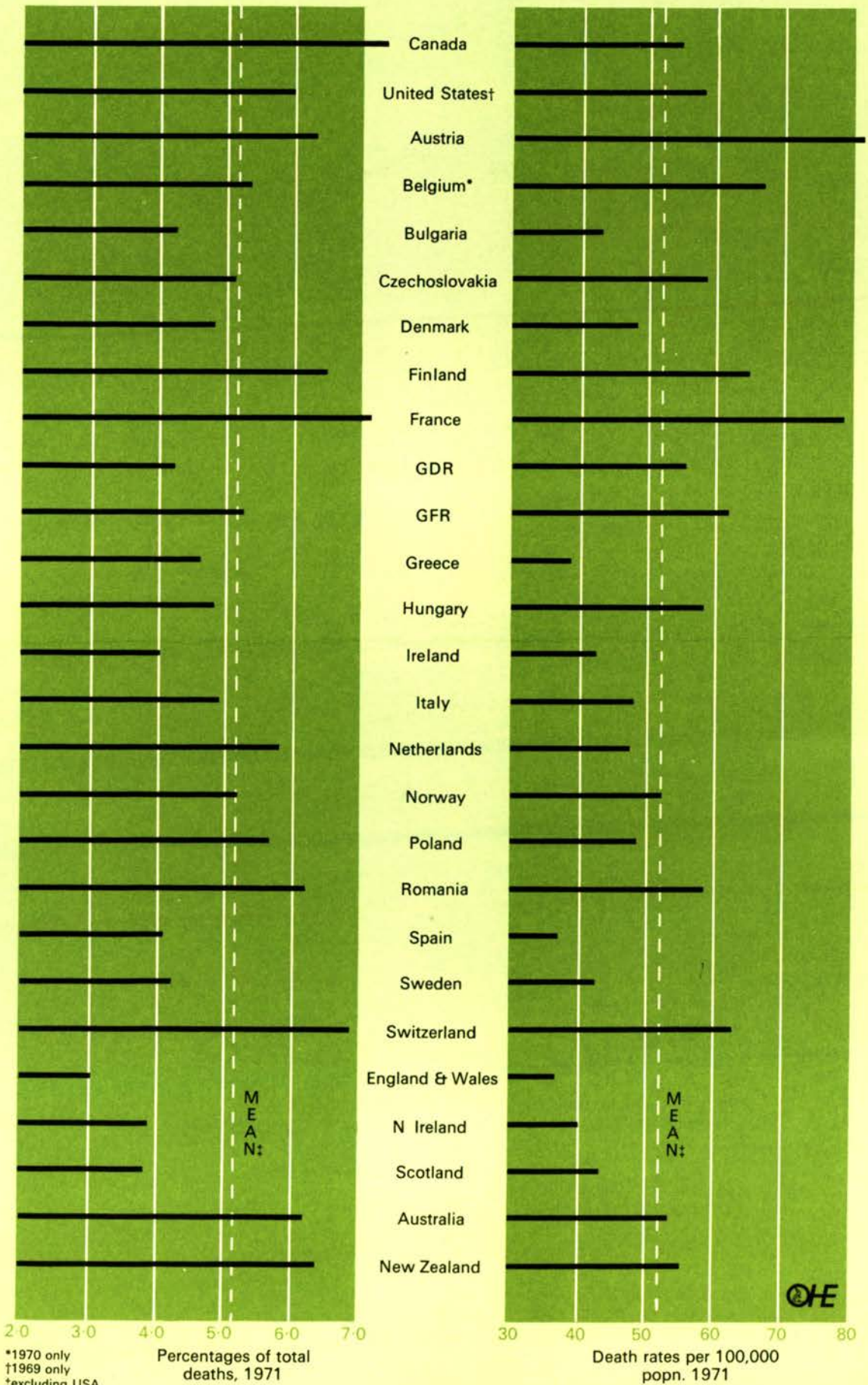
Figure 2B



*1970 only
 †1969 only
 ‡excluding USA and Belgium

Figure 2A

Figure 2B



*1970 only
 †1969 only
 ‡excluding USA and Belgium



Figure 3A

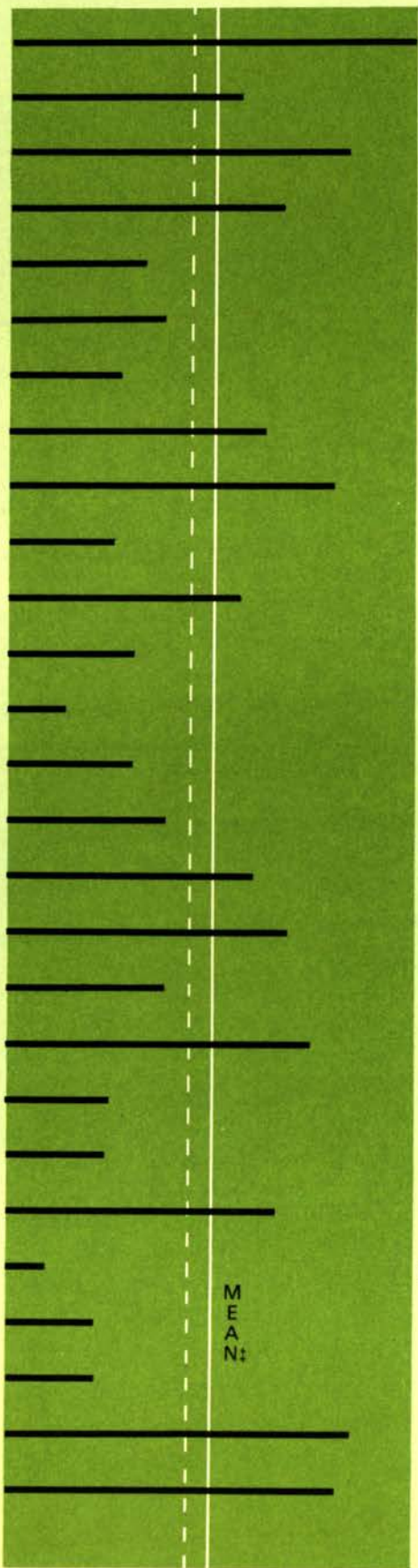
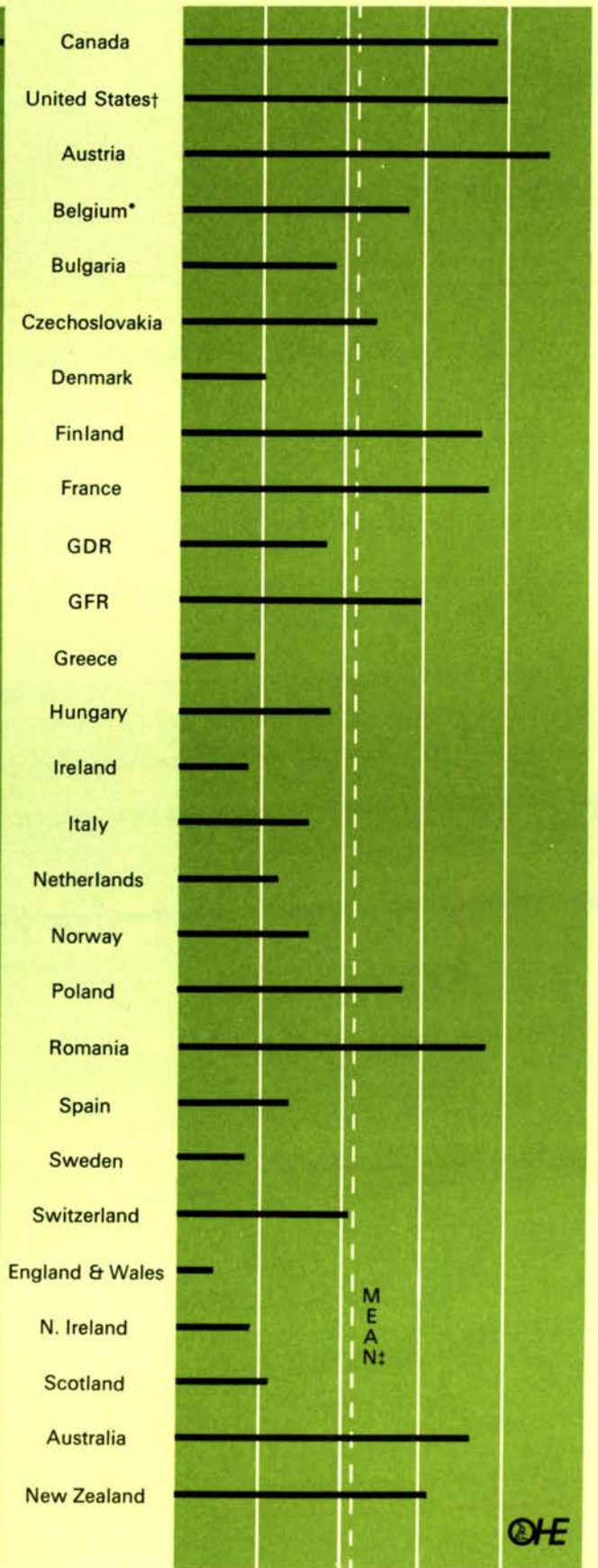


Figure 3B



20
 *1969 only
 †1970 only
 ‡excluding USA and Belgium

20 30 40 50 60 70
 Death rates per 100,000 popn. 1971



Table 2 Road traffic accident death rates

Country	Male		Female	
	Death rate 1969/70	Per cent change since 1960/61	Death rate 1969/70	Per cent change since 1960/61
United States	43.0	26	14.7	34
Canada	40.0	20	13.7	28
Denmark	32.7	33	13.3	64
Norway	20.8	44	6.3	42
Sweden	22.0	4	9.1	40
Netherlands	34.6	33	12.5	87
United Kingdom				
England & Wales	19.4	-11	6.7	5
Northern Ireland	23.1	13	7.5	44
Scotland	24.6	22	8.1	25
Ireland	23.0	52	7.9	103
Belgium	39.3	31	13.1	85
France	33.8	11	11.2	33
Germany, Fed. Republic	45.6	10	13.5	47
Switzerland	35.4	-3	10.7	27

Source: Metropolitan Life Statistical Bulletin, Vol. 54, 10

Figure 4 Crude death rates per million population (England & Wales) 1945-73

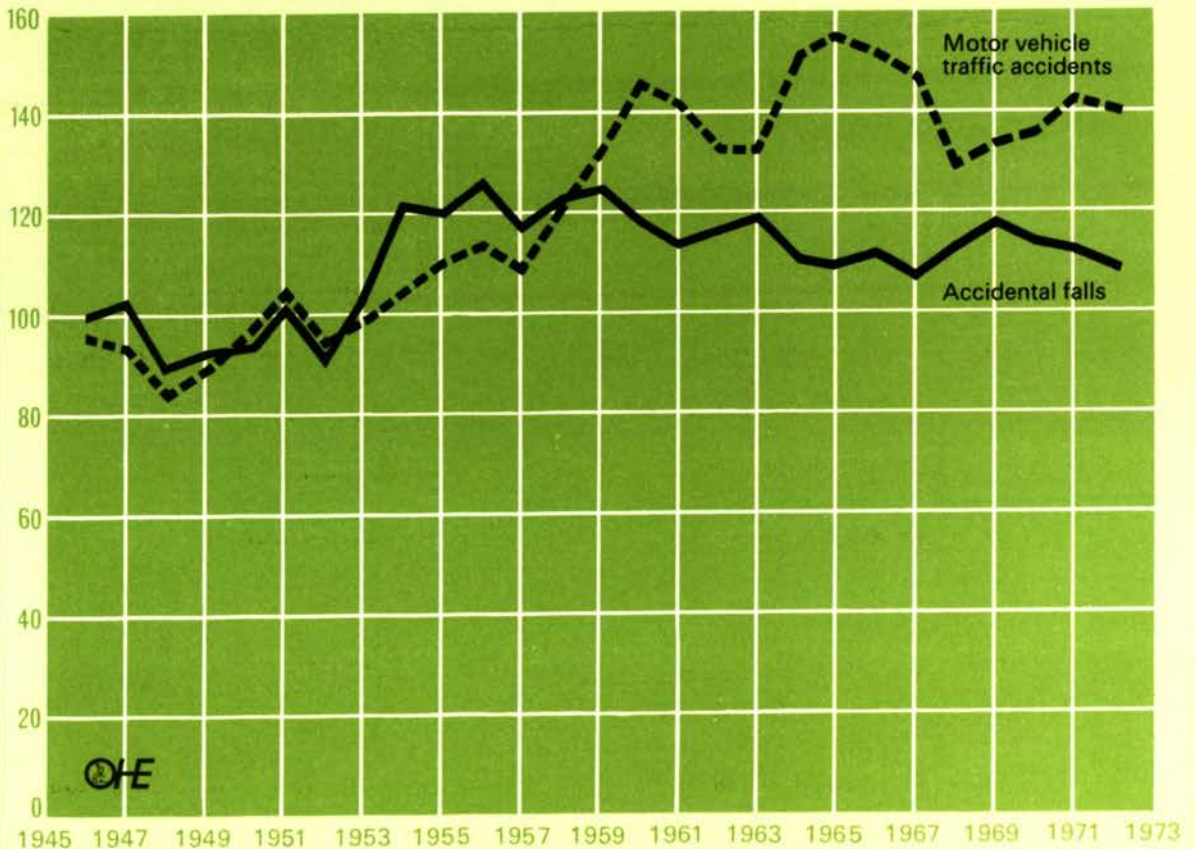


Figure 5 Fatal accidents to employees in Britain (1961-73)

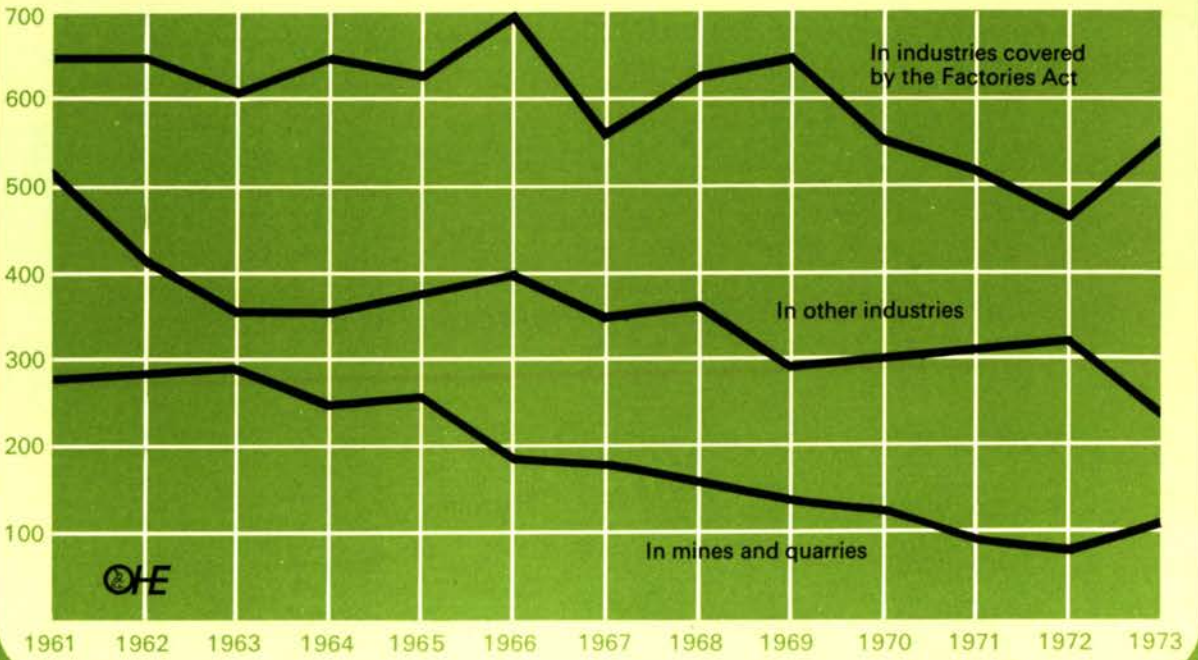
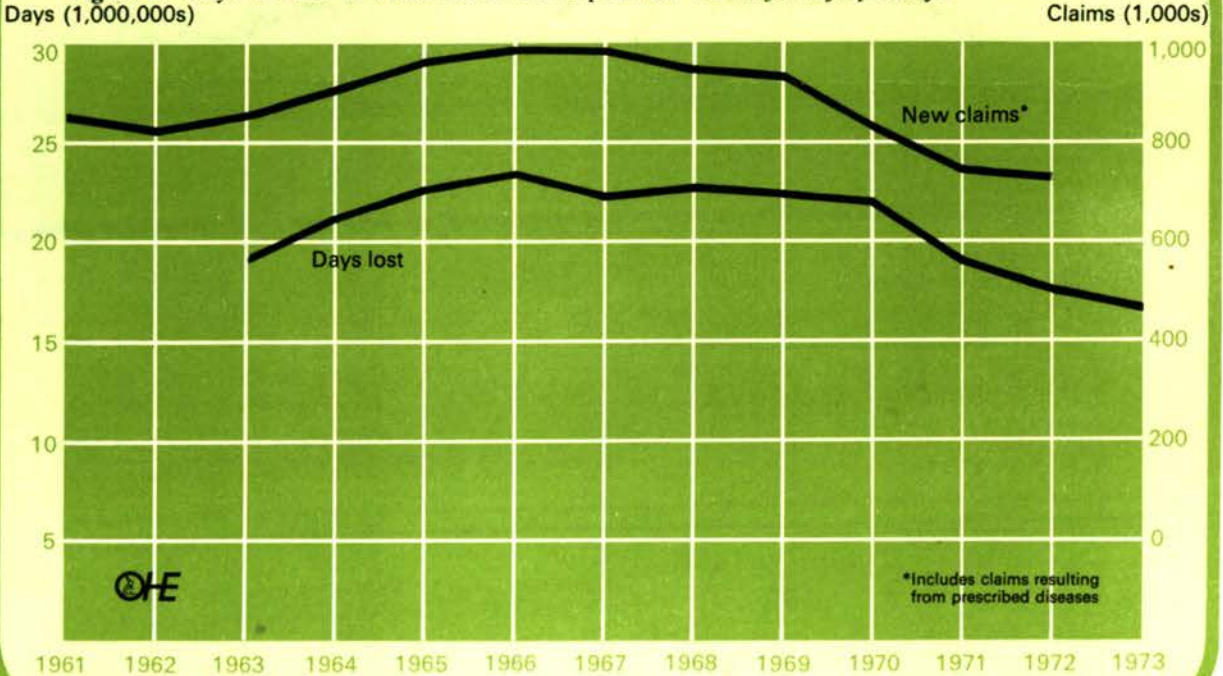


Figure 6 Days lost due to industrial accidents plus new claims for injury benefit



Source: Social Security Statistics and DHSS

Office of Health Economics

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- To collect data from other countries.
- To publish results, data and conclusions relevant to the above.

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