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SICKNESS ABSENCE-A REVIEW

Absence from work stems from a variety of sources including industrial action, lateness and ill-health. Of these the latter is by far the most significant cause of lost working time: in 1978/79 there were 371 million days of absence due to certified incapacity, contrasting sharply with the contemporaneous loss of just over 15 million days arising from industrial injuries or prescribed diseases and the 9.4 million working days absorbed by industrial stoppages in the calendar year 1978. The volume of sickness absence in 1978/79 was in fact the highest yet recorded and, succeeding the relatively stable levels experienced in the first half of the 1970s it raises once again important questions concerning the economic impact of such absence on individuals, companies and the nation as a whole. These issues will be examined in this Briefing following a review of recent trends and a discussion of the factors underpinning sickness absence from work.

Recent trends

The amount of working time lost through sickness and other causes and the means by which it might be reduced have been a source of concern at least since medieval times when the craft trades were flourishing. In the present century individual companies have intensified the amount of attention given to the problem but the almost complete lack of uniformity in measurement criteria has facilitated few meaningful comparative studies. It is in fact only in the post Second World War era, with the extension of the social security system, that it has become possible to investigate the phenomenon on a national scale. Since the early 1950s payment of national insurance contributions by employees and their employers has conferred upon individuals the right to claim state benefit payments to compensate for any loss of or drop in earnings during sickness.¹ Entitlement to claim is dependent upon the acquisition and submission of a National Insurance certificate signed by a doctor confirming incapacity for work. Each year a sample of the claimant population has been selected and analysed by the Department of Health and Social Security (DHSS) and detailed information relating to spells and days of absence published.²

From these data it is possible to construct a reasonably comprehensive picture of sickness absence. There are, however, a number of important limitations. For example, spells of absence lasting 3 days or less are generally excluded from the statistics since benefits are not normally available for such short term absences.³ The available evidence suggests that the magnitude of unrecorded absence of short duration is probably equivalent to less than 10 per cent of the total days lost appearing in the official statistics. (Legislation enacted in September 1980 – Social Security No 2 Act 1980 – means that a spell of incapacity must now last for at least four consecutive days to generate title to benefit.)

Shortfalls also stem from two other sources. First, approximately half of married women exercise their right to opt out of the national insurance system and so their spells of absence are not recorded. With similar effect, a number of other groups such as non-industrial civil servants, employees of the Post Office and members of the Armed Forces - together totalling nearly one and a half million individuals - are partly or wholly outside the scheme. The second source of understatement of lost working time derives from the unknown number of absences which fail to be recorded because the right to claim benefit is not exercised. Conversely, the DHSS data are based on a 6-day week (that is a 312-day year) and include spells of absence attributable to permanently sick or disabled individuals under retirement age who are unlikely to work again. These factors act as important counterbalances to the various sources of shortfall noted above.

Absolute levels of sickness absence cannot therefore be accurately estimated but the data are useful for analysing trends over time. Consequently the rest of this section will

3 There were in fact 632,000 spells terminating in 1978/79 (equivalent to 6 per cent of the total) which only lasted between one and three days but nevertheless attracted sickness benefit.

¹ It should perhaps be made clear that the right to claim is not dependent on any actual loss of income; indeed some employers allow full pay on top of sickness benefit entitlement.

² In recent years statistical analyses of certified incapacity have been based on a one per cent sample of claimants whose National Insurance number ends in the digits 14. The sample is continuous throughout a twelve month period, with a year end date in late May or at the beginning of June.

Figure 1 Sickness and/or invalidity benefit: Days and spells of certified incapacity due to all causes except influenza, males and females, Britain, 1954/55 to 1978/79, millions.



describe and explain the principal changes which occurred between 1954/55 and 1978/79, the latest year for which full information had been published at the time of writing.

In 1978/79 there were 371 million days of certified incapacity for work. This represented an increase of 34 per cent over the figure recorded in 1954/55 (or 31 per cent if three year averages are employed and the days lost due to influenza excluded).⁴ All of the growth is attributable to the proliferation of male incapacity days which out-numbered females by 3.5 to 1 in 1978/79 compared to 2 to 1 at the beginning of the period (Figure 1). To obtain a meaningful assessment of the significance of trends in certified incapacity it is, of course, necessary to take account of changes occurring in the size and age structure of the population at risk over a given period.⁵ Thus by retaining the demographic structure of 1954/55 (and excluding once again absence attributable to influenza) it may be calculated that for males aged 20 to 64 years, 20 per cent of the increase in days lost resulted from population shifts. For females aged 20-59 years the picture is radically different. Applying the 1978/79 rates of non-flu absence to the 1954/55 population would have implied an increase in total days lost of about 26 million days. In actual fact declines in the population at risk restricted this growth to just 1.6 million days over the period.

It is therefore clear that there have been substantial changes in age specific rates of certified incapacity for work and these are shown in Table 1. Focussing on males, the number of days of certified non-flu absence per person per annum increased by 54 per cent over the period. Excluding those of or above retirement age increases of a greater order of magnitude were only recorded for persons aged between 40 and 50 years. Among women, however, greater-than-mean rises were found for all age groups between 30 and 54 years.

The search for the explanations for the observed trends in both the absolute levels and per capita rates of days of certified incapacity requires first of all an examination of developments in spells of absence. There is little evidence to suggest that the increased incapacity rates have resulted primarily from a raised tendency towards protracted spells of absence. Indeed between 1954/55 and 1978/79 the median length of (terminating) spell for men fell from 11 to 9 days and that for women from 13 to 8 days.

However, the data above are expressed at a relatively high level of aggregation and therefore disguise some important changes in durational pattern. Most notably, as shown in Table 2, there has been a substantial increase in the number of short spells: 23 per cent of male and 19 per cent of female spells terminating in 1954/55 lasted for a week or less compared with 34 per cent and 40 per cent respectively in 1978/79. At the same time there has been an increase in the number of very long term spells of incapacity. The latter make a significant contribution to

4 Absence attributable to influenza is frequently omitted from analyses of certified incapacity at specific points in time because the occurrence of irregular epidemics may lead to some distortion in trends.

5 Since 1973/74 no data showing the population at risk for sickness and invalidity benefit have been available. For the purposes of this paper estimates for 1978/79 have been derived by applying the proportion of the home population in specific age groups at risk in 1973 to the corresponding home populations in 1978.

Table 1	Days per person at risk and spells per 100 persons at risk of certified incapacity
(excludin	ig influenza) in 1954/55 and 1978/79, Britain.

Age group	Days				Spells					
	Males		Females		Males		Females			
	1954/55	1978/79	1954/55	1978/79	1954/55	1978/79	1954/55	1978/79		
16-19	4.9*	6.8	6.4*	6.9	26.6*	50.2	33.3*	55.1		
20-24	6.3	8.2	9.7	11.2	27.6	55.5	35.2	71.9		
25-29	6.3	8.1	12.7	14.4	25.5	47.3	29.8	67.2		
30-34	7.0	9.0	16.5	20.0	25.7	44.1	31.1	80.2		
35-39	7.8	11.2	17.0	27.9	25.9	42.2	31.1	94.2		
40-44	8.8	14.6	19.4	32.9	25.4	42.4	30.4	104.4		
45-49	10.8	17.0	22.8	34.5	26.9	42.1	30.4	75.7		
50-54	15.4	21.6	28.4	-39.3	30.5	39.7	31.0	64.5		
55-59	24.4	36.1	38.6	46:3	34.7	45.0	29.5	47.2		
60-64	37.6	54.4	13.7	39.4	37.3	36.9	22.3	23.1		
65-69	21.4	68.7	_	-	39.4	19.4	-	-		
All ages	12.2	18.8	15.9	19.2	28.5	44.2	31.7	68.1		

*In 1954/55, this age grouping included 15 year olds.

Source: DHSS

Table 2 Duration of certified spells of incapacity forsickness and invalidity terminating in 1954/55 and1978/79, Britain.

	Percentage of all spells						
	Males		Females				
Duration of Spells in days	1954/55	1978/79	1954/55	1978/79			
Less than 4	3.7	6.1	2.4	5.9			
4-6	19.2	27.6	16.3	34.7			
7-12	29.8	28.5	29.3	29.6			
13-18	16.6	13.2	17.8	11.4			
19-24	8.4	6.2	9.6	4.9			
25-48	12.1	9.8	13.9	7.3			
49-78	4.5	3.8	4.5	2.8			
79-156	3.0	2.6	3.2	2.2			
157-312	1.3	1.1	1.3	0.7			
312+	1.4	1.1	1.7	0.5			
	100	100	100	100			
(Total spells 000s)	5006	7302	2075	3207			

Source: DHSS

 Table 3 Days of certified incapacity per individual aged

 15-64 years, males, by standard region, 1971/72 and

 1978/79.

Region	19	971/72	1978/79		
	Days per Man	Index GB = 100	Days per Man	Index GB = 100	
North	20.6	145	25.7	154	
Yorkshire & Humberside	18.2	128	20.1	120	
East Midlands	13.1	94	15.8	95	
East Anglia	10.0	70	9.5	57	
South East	9.4	66	10.9	65	
South West	12.5	88	12.9	77	
West Midlands	12.7	89	16.4	98	
North West	18.0	127	21.2	127	
England	13.3	94	15.4	92	
Wales	25.3	178	31.7	190	
Scotland	16.9	119	20.4	122	
GB	14.2	100	16.7	100	

Source: DHSS

the annual total of lost days. Thus it may be estimated that approximately 40 per cent of all male days of certified absence in 1978/79 were attributable to claimants whose incapacity lasted through the 12 month period. This proportion may be compared with 35 per cent just seven years earlier.

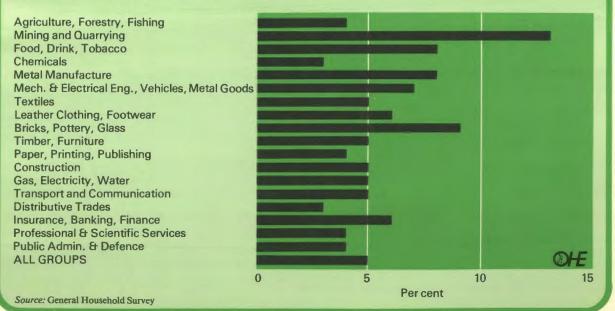
The increase in days of certified incapacity for work over the period can therefore largely be attributed to a greater number of spells of absence. Between 1954/55 and 1978/79 the annual number of new spells (excluding influenza) rose 61 per cent from 4.10 million to 6.61 million for males and by 71 per cent from 1.72 to 2.94 million for females (Figure 1). Table 1 converts these increases to rates expressed per 100 persons at risk for sickness benefit and makes clear that at all pre-retirement ages female rates exceed those for males. It also indicates that for males the magnitude of increase in spell inception rate over the period declined progressively with age; thus the rate doubled for those in their early twenties but grew on average by less than a third for persons in their fifties.

These higher spell inception rates have been brought about in two ways. First there has been an increase in the proportion of the work force claiming incapacity benefit. Focussing on the experience of males, the data show that there were 4.03 million claimants in 1954/55 – equivalent to 28 per cent of the population at risk in that year. By 1978/79 the number of claimants had risen to 5.12 million or 34 per cent of the at-risk population. Second, there has been a growing tendency for claimants to experience more than one spell of absence in a given year. Thus approximately one third of male claimants currently experience two or more spells of certified absence in a specified twelve month period compared to one quarter in the mid-1950s.

Having established the broad patterns of development in sickness absence over the past 25 years it requires emphasis that analyses at relatively high levels of aggregation inevitably disguise important and on occasions somewhat contradictory trends which may emerge when investigation is focussed more acutely. This point is readily apparent from the age/sex data shown in Table 1 and is also illustrated by an examination of changes in certified incapacity by geographical region.

Analysis of regional variations in levels of sickness absence by means of social security statistics is inevitably constrained by the limitations outlined earlier in this *Briefing*. These are compounded by the lack of figures showing persons at risk for sickness/invalidity benefit since 1973/74. As a proxy the population aged 15-64 years

Figure 2 Percentage of interviewees reporting absence from work due to own illness or accident in reference week by industry group, Britain, 1978.



may be employed although this denominator will lead to an overstatement of crude rates because some six per cent of all days are attributable to persons older than the official retirement age. Furthermore trends over time in the true 'at risk' population may not be accurately reflected in contemporaneous movements in the population of working age. These and other considerations clearly imply that little more can be done other than to indicate approximate orders of magnitude and directions of change.

Table 3 shows that over the relatively short period 1971/72 to 1978/79 all regions with the exception of East Anglia have experienced increasing male rates of incapacity. But perhaps the most significant point to emerge from the figures is that the discrepancy between the rates for certain regions and that for Britain as a whole is widening. Thus Wales and the Northern region have both experienced such substantial increases over the period (25 per cent) that the former's rate is now almost twice the national average and the North's is more than one and a half times greater.

These disparities are not readily explained. Superficially it might seem appropriate to link regional absence levels with regional industrial structures. In very broad terms those parts of the country experiencing higher than average incapacity rates tend to have a greater concentration of industries in which absence levels are raised (Figure 2). Yet a large scale study (5 per cent of men and 2.5 per cent of women in employment) carried out in 1962 suggested that regional patterns of absence applied to all and not just selected industrial groups within specified boundaries. More recently, Taylor (1979) has examined the issue in the context of Post Office employees. He too found evidence of significant regional disparities even though his sample was standardised for both age and occupation. Against this background it appears that regional absence rates are influenced by a diverse range of social, economic, industrial and other factors but so far it has not proved possible to derive either a more precise identification of the variables involved or a relative ordering of their importance.

Variations in international sickness absence rates might be expected to be even more pronounced than those found in the regions of Britain given the additional range of potentially significant socio-economic variables to be taken into account. These include, for example, cultural and political considerations, social security provision and entitlement, economic participation rates and the differing contributions of specific sectors to the economy. Focussing on the last, Table 4 shows important variations in the relative significance of agricultural, industrial and service activities in nine EEC countries and Figure 3 draws attention to substantial differences in the participation rates of females.

Unfortunately the effects of distinctions such as these coupled with more specific data problems akin to those noted earlier in the context of the British statistics have inhibited the construction of a comparable data base and Figure 3 Female economic activity rates: by age groups, international comparison, 1977

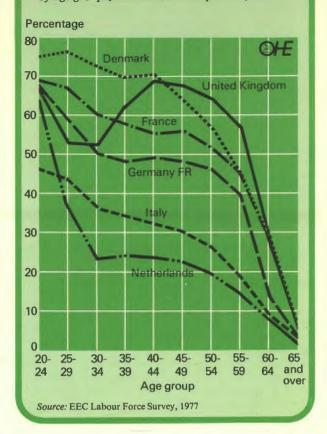


Table 4 Civilian employment by sector in the EEC, percentages, 1979 1000

	Agriculture ¹	griculture ¹ Industry	
United Kingdom	3	39	58
Belgium ²	3	37	60
Denmark ²	9	30	61
France	9	36	55
Germany (Fed. Rep)	6	45	49
Irish Republic ²	22	31	47
Italy	15	38	47
Luxembourg ²	6	44	51
Netherlands ²	6	33	61

l Includes hunting, forestry, and fishing

2 Figures relate to 1978

Source: Department of Employment

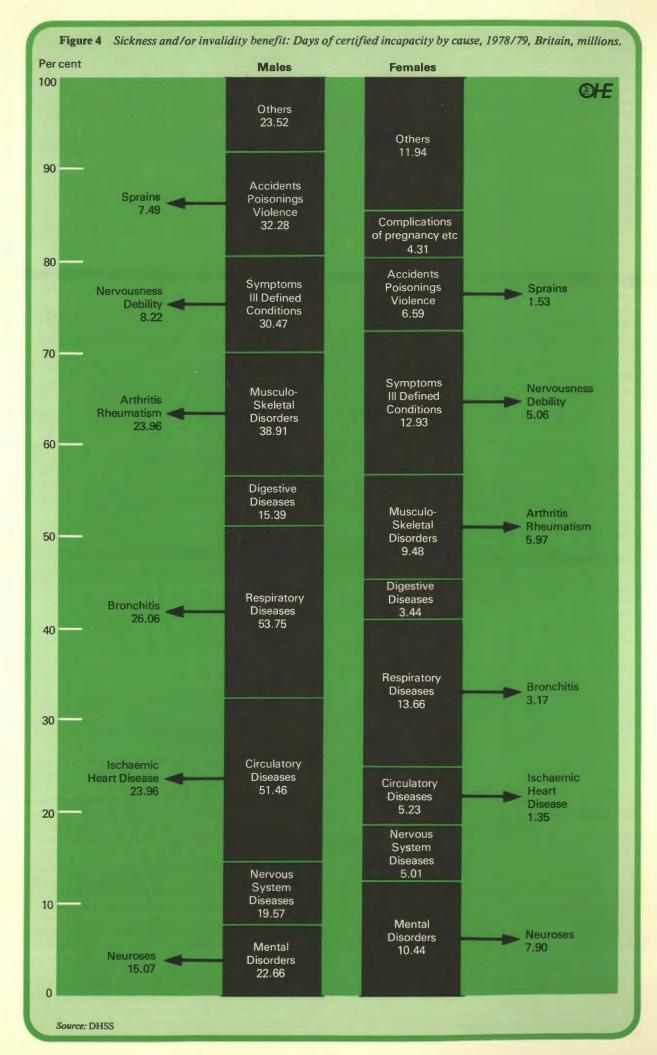
 Table 5
 International sickness absence ratios: per capita rates for 1967, 1968 and 1969 expressed as percentages of mean rates for 1955 and 1956

Country	Frequency (spells)			Severity (days)			Estimated average no. of	
	1967	1968	1968 1969		1968	1969	calendar days of absence per person for 1968	
Great Britain	129	133	138	110 (a)	121 (a)	125 (a)	15	
West Germany	109	130	138	115	129	136	15	
Sweden	205	225	255	140	151	164	18	
Netherlands	121	126	145	135	152	168	21	
Italy	134	146	147	138	195	195	14	
Czechoslovakia	95	105	110	79	76	91	16	
Yugoslavia				93	93	100	12	
Poland	Not availa	able		109	98	115	15	
United States				131 (b)	137 (b)	139 (b)	-	

(a) Years ending in June

(b) Number of persons losing some time in the week surveyed on a weekly sample basis

Source: Taylor 1972



made international comparisons hazardous. One of the initial investigations in this field, for example, attempted to allow for the different rules of national social insurance systems by estimating average daily point prevalence rates (Enterline 1964). The data related to 1956 and it was calculated that the proportion of employed persons absent from work due to illness on an average day varied from 1.1 per cent in Canada and 1.9 per cent in the United States to 5.7 per cent in West Germany, with 4.3 per cent in Britain. The latter figure, however, did not allow for the inclusion until retirement age of the 'unemployable' long term sick in the British data whereas the U.S. estimate was derived from the results of interviews conducted by the Bureau of the Census with persons in employment.

To avoid the inherent incomparability of multi-source data Taylor (1969) confined his attention to the trends in sickness absence experienced by various countries over a consistent time period. He found a long term tendency for sickness absence to rise in most of the nine countries for which it was possible to obtain information. For the four countries supplying data back to 1950 (Britain, W. Germany, Italy and Czechoslovakia) a mean increase in sickness frequency ratios of 34 per cent was calculated for the period 1950/51 to 1966/67. On the other hand the mean severity ratio for the five countries providing appropriate data (W. Germany, Italy, Czechoslovakia, the U.S. and the Netherlands) rose by only 19 per cent over the same period. The most dramatic increases in severity from the early/mid-1950s to the mid/late 1960s were shown by Sweden, Italy and the Netherlands.

Subsequently Taylor (1972) updated his series to the end of the 1960s (Table 5). It is clear that the rising trend in both frequency and severity of reported sickness absence rates continued in most countries. In the same paper Taylor also attempted a direct comparison of European sickness absence levels. By selecting an arbitrary definition⁶ of a sickness absence rate and then adjusting the reported rates as appropriate he obtained the estimated average number of calendar days of absence shown in Table 5. For most countries there was a striking and perhaps surprising similarity in the average amount of incapacity for work per person per year, that is, about 15 calendar days. Assuming that in the 1970s relative sickness absence trends have not departed radically from the patterns established in previous decades it would appear, on the basis of the evidence produced by Taylor, that there is no justification for fears that Britain's 'performance' in this field is worse than that of its European partners.

Factors affecting absence

In spite of the fact that claims to sickness benefit are dependent upon the acquisition of a doctor's certificate there would probably be little dissent with the statement that 'the proportion of spells of sick absence due to unequivocal and total incapacity of the worker is small' (Taylor 1979). A selection of factors shown to have some impact on the incidence of sickness absence has been extracted by Taylor from the rapidly growing body of international research literature and is set out in Table 6. It is noteworthy that only two of the factors included are strictly concerned with ill-health.

Absence from work due to incapacity clearly has a multifactorial aetiology. However it would be misleading to create the impression that ill-health is an insignificant factor. Thus nearly 30 per cent of all male days of certified absence in 1978/79 (equivalent to 84 million days) were attributable to the following four specific diagnoses: hypertensive disease, ischaemic heart disease, chronic bronchitis and arthritis/rheumatism (Figure 4). Furthermore it may be postulated that a significant proportion of these days are occurring in prolonged spells of absence some of which will not terminate before retirement age because fitness to carry out those tasks previously undertaken may never again be achieved.

6 The definition employed was "the average number of calendar days of absence, due to sickness or injury, per person at risk for the year 1968 – the maximum duration of a spell of incapacity being one calendar year."

Table 6 Some factors known to influence sickness absence

Geographical	Organisational	Personal
Climate	Nature	Age
Region	Size	Sex
Ethnic	Industrial Relations	Occupation
Social Insurance	Personnel Policy	Job Satisfaction
Health Services	Sick Pay	Personality
Epidemics	Supervisory Quality	Life Crises
Unemployment	Working Conditions	Medical Conditions
Social Attitudes	Environmental Hazards	Alcohol
Pension Age	Occupational Health	Family Responsibility
	Service	Journey to Work
	Labour Turnover	Social Activities

Source: Taylor 1979

Table 7Certified days of male incapacity per 100 at riskaged 20-64 years by diagnostic group, 1954/55 and1978/79, Britain

	Days per 100 men at ris			
Diagnosis	1954/55	1978/79		
Sprains & Strains	9.4	51.4		
Nervousness, debility, headache	9.5	59.7		
Ill-defined symptoms	36.7	73.8		
Psychoneuroses & psychoses	107.6	160.3 (a)		
Displacement of intervertebral disc	10.3	32.3		
Eczema & dermatitis	12.5	9.1		
Cellulitis	10.7	4.7		
Arteriosclerotic & degenerative				
heart disease	64.4	150.7 (b		
Other forms of heart disease	24.7	34.0		
Hypertensive disease	26.4	59.0		
Varicose veins	7.0	6.8		
Neoplasms	9.1	11.6		
Acute tonsilitis	10.6	4.7		
Pneumonia	11.3	3.1		
Bronchitis	144.3	171.1		
Stomach & duodenal ulcer	42.7	22.0 (c)		
Gastritis & duodenitis	22.1	15.1		
Hernia of abdominal cavity	17.6	22.1		
Diarrhoea & enteritis	9.5	23.3		
Appendicitis	8.5	3.4		
TB of respiratory system	104.8	9.0		
Asthma	20.0	11.8		
Arthritis	43.9	125.8 (d)		
Rheumatism	51.6	30.3 (e)		
All causes	1330	1908		

(a) Mental disorders in 1978/79

(b) Acute myocardial infarct, chronic and other ischaemic heart disease in 1978/79

(c) Stomach, duodenal and peptic ulcer in 1978/79

(d) Osteo, allied conditions, other arthritis and spondylitis in 1978/79
 (e) Rheumatism and lumbago in 1978/79

Source: DHSS

In this respect 37 per cent of the 505,000 males in receipt of benefits payable after 6 months uninterrupted absence at the end of 1978/79 had been issued with certificates stating one or other of these four diagnoses.

An examination of trends by certain diagnostic categories also demonstrates the relevance of the 'medical model' (Table 7). In some instances the data reflect improvements in preventive and therapeutic measures culminating in reductions in both disease incidence and prevalence. The classic example of this type is of course provided by respiratory tuberculosis. In 1978/79 the latter was responsible for only 7.3 per cent of the days of absence attributed to the same disease in 1954/55. In the case of asthma it would seem reasonable to postulate that the development of effective symptom-controlling therapy has been the principal factor in reducing the number of working days lost due to this cause rather than any change in disease incidence. Therapeutic advance has also diminished the volume of certified incapacity stemming from skin disorders and stomach ulcers.

Nevertheless in spite of these specific observations sickness absence data should never be regarded as indicators or measures of morbidity. There are a number of important reasons for this. First, trend changes may be a response to modifications in medical practice rather than altered patterns of incidence or prevalence. The development of more elaborate and sophisticated methods of diagnosis has increasingly facilitated the detection of 'abnormalities' which might have remained unrecognised 25 years ago. This effect is illustrated by the increase in the magnitude of incapacity attributable to certain circulatory and heart disorders. To some extent the increases in absence attributable to mental disorders similarly reflect modifications in diagnostic practice although greater public 'acceptability' of psychiatric ill-health is a further contributory factor.

Second, the medical cause of incapacity recorded on the doctor's certificate is in many cases just a reflection of the information imparted by the patient about his or her symptoms rather than any specific or verifiable diagnosis. Even when there is an identifiable medical component little can be gleaned about severity: the timing of return to work may be influenced by considerations other than the 'termination of ill-health'. Third, there is evidence that people who very rarely fail to attend work experience physical and psychological symptoms which in others might result in episodes of sickness absence. The self-selected certification population is thus unrepresentative of true morbidity levels.⁷

Finally, the rising levels of sickness absence are also a reflection of a more general awareness of the existence and nature of diseases as well as the potential for curative or palliative treatment. Within this broad development one particularly conspicuous change has been the decreasing willingness to tolerate relatively minor, ill-defined complaints. Thus nearly 23 million days of incapacity (6.2 per cent of the total) were attributable to sprains, strains, nervousness, debility or headache in 1978/79. This was almost five times the number recorded in 1954/55 when these diagnoses accounted for just 1.7 per cent of overall absence.

At least part of the increase in the overall burden of absence is therefore due to less serious conditions being increasingly regarded as justification for absence from work and this trend is consistent with the proliferation of absences of short duration noted earlier in this *Briefing*. It is generally agreed that the 'medical component' of these spells of incapacity is relatively insignificant and so a better understanding of recent trends has required investigation in other areas, notably into questions concerned with the motivation to attend work – that is, job satisfaction.

Some insight into the association between this factor and absenteeism can be derived from hitherto unpublished material collected by the Office of Population Censuses and Surveys (OPCS) in the General Household Survey for 1976. Table 8 is derived from these data and provides statistical confirmation of an expected inverse relationship between the two variables. Men expressing a high degree of job satisfaction have a self-reported absence rate which is only three-fifths that reported by those who are rather or very dissatisfied with their employment.

More detailed analysis based on interview responses to the 1978 General Household Survey indicates that degree of satisfaction varies substantially by socio-economic and other status. Thus 1 in 17 semi-skilled manual workers are very dissatisfied with their jobs compared to 1 in 50 managers; 51 per cent of women report a high degree of job satisfaction compared to 40 per cent of men; there is some evidence that dissatisfaction tends to diminish with increasing age; and a high degree of satisfaction is expressed by 60 per cent of those employed on a part time basis compared to 42 per cent by full time workers.

Job satisfaction is a largely abstract concept comprised of a diffuse range of personal, occupational and other factors. Evidence culled from the literature has however highlighted more specifically the size of the working unit, the organisation of production, the status accorded to an employee's position, the general working environment and the quality of management as some of the key variables. Clearly individual responses to prevailing structures, procedures and conditions as well as attitudes to work differ to such an extent that the contribution of job satisfaction to absenteeism cannot be assessed in any objective or overall sense. Similarly it is not possible to generalise on the impact of the many other social and economic constituents of the sickness absence equation or on changes in their relative standing over time.

The costs of absence

Incapacity for work is a heterogeneous phenomenon of profound complexity. It demonstrates wide disparities by age, sex, occupation, geographical location and socioeconomic grouping and has a multi-factorial aetiology embracing medical, social and economic variables each of which in turn assumes differing degrees of significance in specific spells of absence. Generalisations based on highly aggregated national data can therefore be misleading especially when employed as a yardstick by which individual company performances are judged. Consequently perhaps the most useful and indeed tangible measure at this level is the cost generated by sickness absence. The latter may be considered at a number of different levels.

From the point of view of the individual the cost of sickness is the drop in normal earnings resulting from the incapacity to work. However, sustained growth in the membership of occupational sick pay schemes – more than 80 per cent of full time employees are now covered according to General Household Survey data for 1978 – has generally meant that, with a combination of benefits

7 The 1978 General Household Survey found that approximately 75 per cent of men and 82 per cent of women of working age had experienced health problems in the two weeks before interview yet only 5 per cent of both sexes had been absent from work through ill-health or accident in a given reference week.

Table 8 Employees aged 16 and over working more than 10 hours a week by degree of satisfaction with job, 1976,England and Wales

Degree of satisfaction with job	Rates per thousand reporting absence from work due to illness or injury in a two week reference period.			Average number of work days lost per person per year		
	Total	Men	Women	Total	Men	Women
Very or fairly satisfied	63	58	72	8.1	8.1	8.1
Neither satisfied nor dissatisfied	83	71	104	11.1	11.0	11.3
Rather or very dissatisfied	96	98	93	11.2	12.1	9.2
Total	68	63	75	8.6	8.8	8.3

Source: General Household Survey 1976 - unpublished data

from this source and the State scheme, the magnitude of potential earnings loss during sickness had diminished over time. Consequently, in spite of inevitable disparities in the generosity of occupational schemes both between companies and according to duration of absence, it appears that those most severely affected by incapacity for work are groups not in receipt of occupational cover and the long term sick who often have to adjust to permanently lower incomes.

The costs borne by companies, apart from statutory contributions to the National Insurance Fund and expenditure required to run sick pay schemes, are largely dependent upon the nature of the tasks affected by an employee's absence. If for a short period of time they can readily be absorbed by other members of the workforce without disruption to the overall productive effort then few if any extra costs will ensue. If this is not feasible or if absence is prolonged then additional expenditure will result if the deficiency is made good by hiring temporary replacement labour (at the same time as paying the absent employee sick pay) or by extending overtime working. At recent seminars of the Industrial Society these and other related costs (but excluding company sick pay itself) have been estimated at approximately £20 per day (Taylor 1981). Although this figure was shown to be representative in a number of industrial settings the economic impact of absence can in general be expected to show substantial variation both within and between industries and is also likely to be responsive to the economic health of the nation as a whole.

Perhaps the most straightforward cost that can be identified is the expenditure on sickness benefits by the State. In 1978/79, £1,479 million was paid out of Britain's National Insurance Fund in the form of sickness and invalidity benefits. This expenditure was equivalent to a cost of almost exactly £4 per day of recorded absence and represented a 44 per cent growth in real terms since the beginning of the decade. Given that less than two-fifths of the estimated population at risk received benefits during this 12 month period it may be calculated that each claimant incurred an average state expenditure of approximately £200.

These costs, which include neither administration expenditure nor the value of supplementary and other benefits paid to eligible recipients of sickness benefits, have been and continue to be one of the present Government's targets in its policy to reduce public expenditure. In 1980 cost saving measures were effected via several legislative changes. For example, spells of incapacity lasting three days or less no longer count for benefit purposes at all and this is expected to save £2 million in state sickness payments in addition to administrative costs.

A second measure reduced the period in which longer spells of absence can be linked from 13 to 8 weeks. Thus two periods of interruption of employment through sickness cannot link to form one episode if they are separated by more than eight weeks. This measure is estimated to save £20 million by preventing sick pay claimants becoming eligible for the higher rate of invalidity benefit following a series of short periods off work.⁸

A substantially greater reduction in public expenditure was envisaged in the Government's original proposals for new methods of benefit payment during initial sickness (Cmnd 7864). For the first eight weeks of incapacity for work in any tax year national insurance sickness benefit would be replaced by sick pay obligations imposed on the employer. Apart from estimated direct savings of about £400 million per annum in state benefit expenditure the scheme would also eliminate the anomalous non-taxable status of sickness benefits because employers would apply the PAYE system to sick pay as to other earnings and would save some 5,000 administrative civil service jobs.

The proposals attracted widespread criticism – notably from employers' representatives. The Green Paper originally estimated that the scheme would raise employers' wage bills by about £415 million, upon which national insurance contributions and national insurance surcharge would have to be paid. To offset these increased costs it was proposed that employers' contribution liability should be reduced across-the-board by one half of a percentage point. However the Confederation of British Industry (CBI) argued that this level of compensation was insufficient: it calculated that in manufacturing the proposals would involve additional costs ranging from £350 for a small firm employing 15 people to an extra £1 million for companies with 30,000 to 50,000 employees.

Furthermore, the CBI suggested that the scheme would redistribute resources from manufacturing industries, which have higher sickness absence rates, to service industries. As a consequence of the objections raised by the employers' organisations and by community representatives such as the Child Poverty Action Group, the Government decided in February 1981 to postpone the introduction of the scheme.

Subsequently, in June 1981, the DHSS published a document (DHSS 1981) outlining two new strategies for compensating employers for the new role it is proposed they should play in providing sick pay for their employees. Both options would relate compensation more closely to individual employers' statutory sick pay costs than the original proposal⁹ but where one takes greater account of firms' sickness experience the alternative offers significantly less administrative complexity. The Government is currently seeking views on the two options and plans to implement the new sick pay scheme, incorporating the appropriate compensation strategy, in April 1983.

Finally, the cost of sickness absence from work may be considered at a community level in terms of the volume of production foregone. If it is assumed that the latter may be represented by the gross remuneration which would have been received by persons off work through ill-health then multiplying the total number of certified days lost¹⁰ by the average gross earnings per day in manufacturing industry generates a production cost figure in the region of £5.5 billion for 1978/79. This estimate was equivalent to 3.5 per cent of the gross national product and may be compared with government expenditures in that year of £7.8 billion on the National Health Service and £5.4 billion on housing.

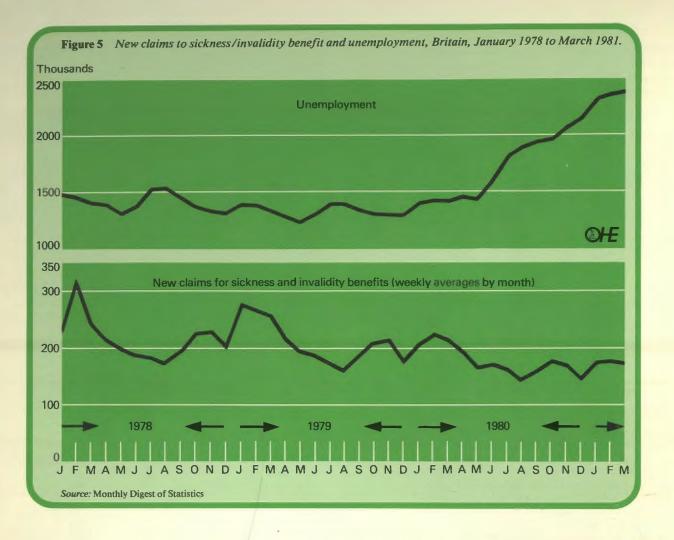
Of course a 'notional' economic cost estimate of this type is open to criticism. Average wage figures disguise a very broad range of earnings and it could also be argued that the value of employment tasks is not universally represented with any degree of accuracy by received income. More theoretically, the usefulness of such estimates is dependent upon their incorporation into a broader economic context. And this in turn would require answers to such questions as would sufficient demand exist to absorb the fruits of the extra productive potential generated by a reduced level or elimination of sickness absence and what would be the implications of the latter for the size of the labour force and its remuneration?

But perhaps the principal shortcoming of estimated production foregone values arises as a consequence of the content of the sickness absence statistics themselves. This *Briefing* has shown that the DHSS data include absences

8 Invalidity benefit, which was introduced in September 1971, replaces sickness benefit if incapacity continues after 168 days in any period of interruption of employment. On 27 November 1980 the standard rate of sickness benefit for a person with one adult and two children dependents stood at £35.90 compared to a figure of £56.60 for an individual in similar circumstances receiving invalidity pension. (A further invalidity allowance is also payable to the latter at rates determined by the age at which invalidity commenced.)

9 The cost to the Exchequer of compensating employers is now calculated (under both options) at £660 million. Setting against this figure the savings in benefit expenditure of over £400 million and the increased revenue from taxation it is estimated that the new sick pay strategy would generate a small net economic gain – a reduction in the Public Sector Borrowing Requirement of around £25 million.

10 That is, 371 million days in 1978/79 which was equivalent to approximately 6 per cent of the potential working days available given the population at risk.



attributable to persons who are unlikely ever to work again and who will continue to receive sickness/invalidity benefit until they attain retirement age. Figures for 1978/79 indicate that persons whose absence lasted throughout the period accounted for 40 per cent of all days lost. These individuals cannot therefore be regarded as members of the work force, suggesting that the estimated value of lost production may be reduced by two-fifths on this account alone.

Future trends

Future trends in certified incapacity for work do not lend themselves to straightforward prediction. Thus during the first half of the 1970s there was little year by year change in the number of certified non-flu days of incapacity in Britain. But between 1976/77 and 1978/79 the total increased suddenly from 315 to 362 million days. This was equivalent to an average annual growth of 7 per cent which, if maintained, would lead to a doubling within ten years of the annual number of days recorded in 1978/79.

Such a development is, however, unlikely to occur. Extrapolations based on a series containing 1978/79 figures would be misleading because of the exceptionally severe and prolonged winter included in that twelve month period. Indeed as yet unpublished data for 1979/80 indicate that the total number of non-flu days of absence fell marginally (2.5 per cent) to 353 million days in that year. Furthermore, the average weekly intake of new claims for sickness/invalidity benefit for the first ten months of 1980/81 was 14 per cent below the corresponding figure for 1979/80 which in turn was 12 per cent less than that for 1978/79.

It would be premature to suggest that the resumption of a rising trend in certified incapacity during the mid/late 1970s has been stemmed or even reversed. It may however be tempting to speculate that the reduction in the volume of claims is in some way linked to, if not a direct function of, the growth in unemployment. The suggestion that people are less likely to absent themselves from work when jobs are scarce was mooted long ago (Florence 1924) and some subsequent studies have lent support to the association (for example, Behrend 1955; Plummer and Hinkle 1955; Enterline 1966). Conversely, both longitudinal and cross section studies by Taylor and Pocock (1969) generated the conclusion that the levels of unemployment experienced in Great Britain during the 1950s and 1960s did not significantly influence the rates of certified incapacity for work.

From the highly aggregated 'volume' data shown in Figure 5 it is not possible to support or reject the hypothesis – additional information relating, for example, to the population at risk and the differing claim durations would be required for an accurate analysis. Nevertheless, it is noteworthy that both winter peaks and summer troughs for the intake of new claims have shown a slight downward shift in recent years. It may be that unemployment has now reached a critical level at which it does begin to have an impact on the level of certified absence from work.¹¹

Although the annual volume of certified incapacity for work is subject to fluctuation and forecasts of future levels are hazardous one trend remains clear: the cost to the exchequer continues to rise. Government expenditure plans, published earlier this year, indicate that spending in the present financial year will be in the region of £1,770 million¹² at 1980 survey prices. This is equivalent to 8.4 per cent of the Social Security budget which in turn is by far the largest public expenditure programme accounting for about one quarter of all public expenditure.

11 If this is the case then fears that under the proposed new sick pay scheme there could be an increase of 10 per cent in the number of people taking short spells off might not be realised.

¹² This includes injury benefits and maternity allowance which together cost £172 million in 1978/79.

References

Behrend H. (1955). Occupt. Psychol., 27, 69. Cmnd 7864 (1980). Income During Initial Sickness: A New Strategy. HMSO.

Department of Health and Social Security (1981). Compensating Employers for Statutory Sick Pay – A Consultative Document.

Enterline P.E. (1964). *Industrial Medicine and Surgery*, 33, 738.

Enterline P.E. (1966). Archs. envir. Hlth., 12, 467. Florence P.S. (1924). Economics of Fatigue and Unrest. London.

Plummer N. and Hinkle L.E. (1955). Archs. ind. Hlth., 11, 218.

Taylor P.J. (1969). British Medical Journal, 4, 705.

Taylor P.J. (1972). Proc. roy. Soc. Med., 65, 577.

Taylor P.J. (1979). Aspects of Sickness Absence. In Current Approaches to Occupational Medicine.

Ed. A. Ward Gardner. John Wright & Sons.

Taylor P.J. (1981). Personal communication.

Taylor P.J. and Pocock S.J. (1969). Lancet, 2, 1120.

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