A COMPARISON OF THE MORBIDITY PATTERNS OF THE ARMY WITH THOSE IN CIVILIAN COMMUNITIES

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SUMMARY. A comparison is presented of inpatient sickness in the Army with certificated sick leave in the non-industrial Civil Service and claims for sickness benefit under the National Insurance Scheme. It is shown that whilst the frequency of such sickness in the Army is much lower than in the two civilian communities, the length of incapacity is appreciably longer. Thus sickness in the Army is associated with relatively greater impact in terms of time lost.

Introduction

The patterns of morbidity in the Army have been the subject of much study and comment over the years, both in regularly published quarterly and annual reports and in special investigations. Consideration has been given to changes over time and to comparisons between groups of individuals and areas of operation. This has resulted in a detailed knowledge of the patterns to be expected under particular circumstances. However, relatively little has been said as to how the experience in the Army compares with that of other populations, particularly of a civilian community.

The extent to which such comparisons can be made depends upon the availability of data and the degree to which such data describe comparable areas of sickness experience. The validity of such an exercise will depend upon the characteristics of the populations under study, upon occupational and general environmental factors and upon the way in and even extent to which sickness is treated in different areas. If only because of its selective nature, differences between the Army and a civilian community are to be expected, so that any comparisons of a general nature might only serve to put the various groups concerned into some sort of perspective. In this paper, summaries of published data for two civilian populations are presented, together with details for the Army. These seem to represent the best bases possible with currently available information.

Sources and definitions

The data quoted relate to sick leave in 1967 amongst civil servants (Civil Service Department 1971) and to claims for benefit under the National Insurance Scheme between June 1968 and May 1969 (Whitehead 1971). Detailed definitions are given in the references. For the Civil Service, the figures are in respect of male, non-industrial civil servants under 45 years of age, excluding Post Office and Diplomatic Service staff, for whom sick leave is certificated or uncertificated according to whether or not it is supported by medical evidence. The latter is allowed for absence of up to five days and for a total of ten days in any twelve months. As regards the general community, the figures relate to males under 45 years of age insured under the National Insurance Acts, so that the principal exclusions are members of Her Majesty's Forces, mariners whilst at sea, most non-industrial civil servants and post office workers. Benefit is not payable for the first three days of sickness unless there is a total of twelve days or more in any period of thirteen weeks.

On the basis of these definitions and the situation in the Army, it is felt that the best available comparisons are between inpatient admissions to all medical units in the Army, certificated sick leave for the Civil Service and all claims for sickness benefit in the general community. The vast majority of minor sickness should then be excluded, whilst the inclusion for the Army of admissions to Medical Reception Stations should take care of most civilian sickness covered under these definitions treated at home.

Results

Table 1 provides details for the Army of admissions to medical units in the United

Table 1
Inpatient admissions of British Army males
in the United Kingdom in 1967

Age (years)	Age groups. Admission rates per 1000						
	0-19	20-24	25-29	30-34	35-39	40-44	All
Age distribution (percentage)	26.4	32.2	17.6	10.0	8.8	5.0	100.0
Influenza, bronchitis, colds etc.	98	25	13	9	5	7	38
Other respiratory diseases	10	9	7	5	5	6	8
Musculoskeletal	11	11	10	9	7	11	10
Injuries	84	57	35	23	11	12	51
Digestive disorders	35	31	27	27	27	28	30
Mental disorders	7	7	4	4	3	4	6
Circulatory disorders	3	4	5	7	7	9	5
Malignant neoplasms	—	—	—	—	2	2	1
Other causes	97	67	47	42	41	39	65
All causes	345	210	148	126	107	117	213
All causes excluding influenza	338	208	147	125	106	117	210
Average duration of stay, all causes (days)	11.5	17.2	18.9	17.4	18.5	18.9	15.1
Non-effective rate per 1000, all causes	10.9	9.9	7.7	6.0	5.4	6.1	9.5

Source: *F Med 14 Records*

Kingdom during 1967 as reported on F Med 14 records. It shows the age distribution of the population at risk, admission rates for broad cause categories, average durations of stay and non-effective rates. Table 2 deals with certificated sick leave terminating in 1967 for the Civil Service, and gives the age distribution of the population at risk, the frequencies of sick leave spells and their average length, together with non-effectiveness. Where sick leave spans a weekend the two days are included. For the general population, no breakdown by cause is available and influenza is excluded. Table 3 gives the composition of the population at risk, and the frequency and average length of spells of incapacity beginning between June 1968 and May 1969. In addition to age-specific quantities and all-ages figures, Tables 2 and 3 give values standardised to the age distribution of the Army. Although the time periods concerned are not identical, it is considered that this will not affect the results to any extent.

It is interesting to note the marked similarity between the overall rates for the general community and the Civil Service, although the former do not include influenza.

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Table II
Certificated sick leave of
Non-industrial male civil servants in 1967

Age (years)	Age groups Rates of periods terminating per 1000							Standardised to Army age distribution
	0-19	20-24	25-29	30-34	35-39	40-44	All	
Age distribution (percentage)	9.0	25.9	13.5	14.0	16.4	21.2	100.0	
Influenza, bronchitis, colds etc.	209	202	165	181	147	131	171	187
Other respiratory diseases	27	27	25	29	25	17	25	26
Musculoskeletal	15	16	10	25	24	29	20	17
Injuries	53	46	28	54	31	25	38	43
Digestive disorders	37	36	38	35	35	22	33	36
Mental disorders	—	4	3	3	7	9	5	3
Circulatory disorders	6	1	3	4	10	8	5	4
Malignant neoplasms	—	—	—	—	1	1	—	—
Other causes	116	117	120	131	125	111	119	119
All causes	461	445	392	474	405	353	417	435
Average length of period, all causes (days)	8.2	10.0	10.5	11.7	13.3	14.3	11.5	10.2
Non-effective rate per 1000, all causes	10.4	12.2	11.3	15.2	14.8	13.8	13.1	12.2

Source: Civil Service Department (1971)

Table III
Claims for National Insurance Sickness Benefit. Males June 1968—May 1969
All causes excluding influenza

Age (years)	Age groups							Standardised to Army age distribution
	0-19	20-24	24-29	30-34	35-39	40-44	All	
Age distribution (percentage)	11.5	19.8	17.4	16.9	16.9	17.5	100.0	
Inception rate per 1000	450	431	413	433	403	390	418	429

Source: Whitehead (1971)

Not unexpectedly, the Army shows much lower frequencies both overall, for which the value is only 50 per cent of the Civil Service figure, and for most individual causes. The effect of excluding influenza admissions in the Army is mainly in the lowest age-groups. The corresponding overall rate is about 50 per cent of the age-standardised inception rate for the general population. In terms of specific causes, differences in rates between the Army and Civil Service are particularly marked for respiratory diseases, whilst the Army shows a higher rate for mental disorders and injuries. There is far greater variation in rates with age in the Army, with a general decline towards the higher ages. Particularly noticeable is the relatively high rate amongst those under 20 years of age, a feature not reflected generally in the other populations.

Average duration of stay for the Army overall is 50 per cent higher than average length of sickness spell for the Civil Service. In the Army it is relatively constant in all

age-groups apart from those aged 19 and under, whereas length of spell in the Civil Service increases uniformly with age. The effect of the appreciably higher averages in the Army is to produce a corresponding non-effective rate only 23 per cent lower than that for the Civil Service. It should also be borne in mind that duration of stay for the Army does not include any subsequent sick leave. Whilst actual figures for this are not available, that portion of sick leave granted or recommended by the medical units and recorded on F Med 14 records amounts to an average of 2.5 days. Adding this to the duration of stay produces a non-effective rate for the Army of about 11 per 1000. Whilst this would certainly include sickness which in the Army would not result in inpatient admission, the extreme is to consider all sick leave in the Civil Service by adding in uncertificated leave. This results in a standardised non-effective rate of about 16 per 1000. On balance it would seem that whilst incidences of non-trivial sickness in the Army are much lower than in the two civilian groups considered, the relative impact of this sickness in terms of time lost is greater.

REFERENCES

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