

# Prevalence of disability observed in an Oxfordshire practice

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**SUMMARY.** A register was compiled of disabled patients in an Oxfordshire practice; patients were considered to be disabled when an impairment appreciably affected their day-to-day life. The rates of disability rose with age. Three-quarters of the disabled patients had one disability, 21% two and 5% three or more disabilities. The most common source of disability was disorders of the nervous system followed by circulatory and musculoskeletal conditions. More than two-thirds of the disabilities were capable of amelioration and 4% could be completely resolved. Most patients had come to terms with their disability, only 8% finding adjustment difficult.

## Introduction

'In nature there's no blemish but the mind  
None can be called deformed but the unkind'

(Shakespeare)

THE disabled are not always well-served in society today because their disabilities are often not recognized and the relevant medical and social services lack coordination and central direction.<sup>1-4</sup> The family doctor, as the point of first contact, is the best person for the role of coordinator but there are few published reports from general practice on the management of the disabled and there is no record of a family doctor keeping a disability register. It was therefore decided to register disabled patients in a practice as part of a preliminary study seeking not to make objective measurements of disability, but trying to identify disabled patients from known data and reviewing the care they received.

The objectives of the study were as follows:

1. To identify those patients in the practice known to be disabled and to analyse their disabilities.
2. To estimate the prevalence of recognized disability.
3. To assess the degree to which the disabilities could be managed.
4. To estimate the degree of adaptation of patients to their disabilities.

## Method

The study practice is situated in Bicester, a market town 12 miles north-east of Oxford. The practice has nearly 11 000 patients looked after by five partners and a trainee. Two-thirds of the patients live in the town and the remainder in the country within seven miles of the health centre. Patients have a 'usual' doctor to ensure continuing personal care.

The main employer in Bicester is the Central Ordnance Depot but during the past 20 years light industry has moved into the town attracting an overspill population which has doubled the size of the practice and completely altered its character. There

are now more young parents and children and members of social classes 4 and 5 than there were previously. However, the author is the senior partner, and therefore has patients who tend to be older than average; 20% are aged 65 years or over compared with the national average of 15% and the practice average of 11%.

The practice takes a special interest in records and research and has computerized age/sex and chronic disease registers and is involved in teaching both undergraduates and postgraduate trainees.

The conventional classification of factors contributing to disability is: congenital or acquired disorders resulting in anatomical loss or abnormality, physical disease or psychological disorder.<sup>5</sup> The interaction of these three problems may exacerbate their effects and they may in turn lead to impairment, disability and handicap, which are defined<sup>5</sup> as follows: impairment — loss or limitation of normal structure or function; disability — restriction of activity, for example, writing, movement, washing, feeding; handicap — the social consequences of disability, that is the individual's loss of a satisfactory social role in work, leisure or domestic life.

The register was begun in 1980. Patients on the author's list were categorized as disabled if it was considered that their underlying disorders impaired their function and restricted their activity to an appreciable extent in their day-to-day activities. If the quality of life of a patient was grossly affected, the patient was held to be significantly disabled.

Disabled patients were identified in the course of routine care by members of the primary care team and occasionally by reports from social workers, friends, or neighbours. The author coordinated these activities and also identified the disabled during consultations, while doing repeat prescriptions and by studying the files of all the patients.

Disabling conditions including rheumatic disease, stroke and other neurological disorders, impaired sight and hearing, severe forms of diabetes and epilepsy were entered into the computer and a register was created which provided the following information on each patient: full name, address, date of birth and sex; the disorders involved; the resultant disabilities recognized. The register is updated regularly when further disabled patients are discovered or when disabled patients leave the practice.

An attempt was made to assess the effect of the disabilities on social behaviour, working capacity, recreational needs and general aspirations taking into account adaptation of the patients to their degree of handicap. In most cases this assessment was based on personal knowledge of the patients but the matter was discussed with 23 patients who were not known well.

## Results

The age/sex breakdown of the patients on the author's list is given in Table 1 and a profile of the 136 disabled patients (that is, 57 per 1000 patient population) is shown in Figure 1. These 136 patients were suffering from 179 disabilities (1.3 per patient). Of this group, 47 patients were significantly disabled (20 per 1000) and suffered from 71 disabilities (1.5 per patient) (Figure 2). Almost all the significantly disabled patients had lost their independence and needed daily help in running their lives and managing their affairs.

The rate per thousand of disabled patients rose with age, the sharpest increase in disability being between the 40-64 years and

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65 years plus age groups. This increase was greater for females than for males, especially among the significantly disabled.

Three-quarters of the 136 disabled patients had only one disability, 21% had two disabilities and 5% three or more. The number of men with one disability was appreciably higher than the number of women with one disability.

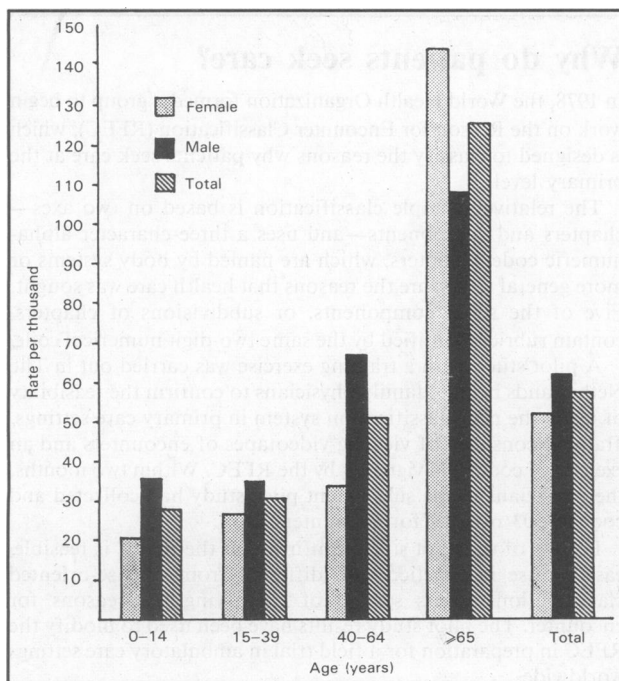
The 191 medical disorders suffered by these patients were categorized as shown in Figure 3. The most common source of disability was disorders of the nervous system and sense organs — 31% of the total (evenly divided between the disabled and the significantly disabled). Circulatory and musculoskeletal disorders followed with 17 and 16% respectively. Mental illness accounted for 12%, respiratory disease 10% and endocrine disorders 7% of the total.

**Table 1.** Age/sex breakdown of the practice population.

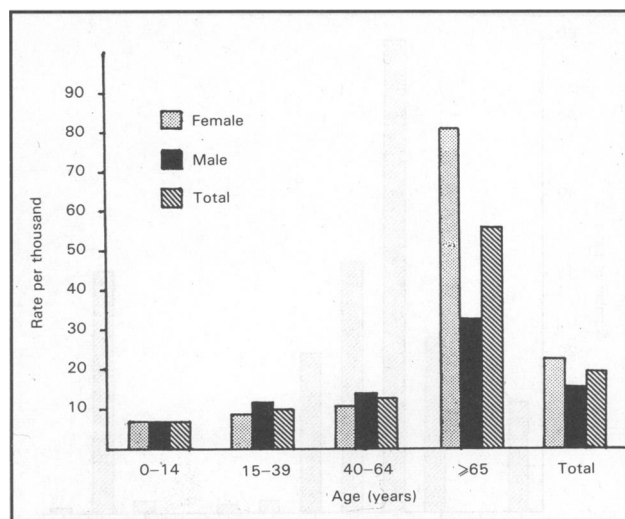
Age (years)	Number of patients				Total (%)
	Female (%)	Male (%)	Female (%)	Male (%)	
0-14	145 (13)	138 (11)	283	(12)	
15-39	330 (28)	345 (28)	675	(28)	
40-64	466 (40)	494 (41)	960	(40)	
≥65	221 (19)	241 (20)	462	(20)	
Total	1162	1218	2380		

The disabilities were untreatable in 26% of cases, capable of treatment in 70% of cases and in 4% of cases could be almost completely resolved (for example by successful hip replacement).

Eight per cent of patients were found to be poorly adapted to their disabilities while 16% showed fair adaptation and 76% were well adapted, that is had made every effort to live their lives as normally as possible within the limits of their disability.



**Figure 1.** Age/sex breakdown, given as the rate per thousand of a certain age and sex, for the 136 disabled patients on the author's list.



**Figure 2.** Age/sex breakdown, given as the rate per thousand of a certain age and sex, for the 47 significantly disabled patients on the author's list.

## Discussion

The prevalence of disability is difficult to measure accurately for a number of reasons. First, there has been no general agreement on the definition of disability and attempts to improve definitions have not been universally accepted.<sup>5,7</sup> Secondly, methods of data collection have varied widely; for example some methods have involved adults only and some have made exclusions not made by others.<sup>6,8</sup> Thirdly, the assessment of underlying disability has not been standardized. Finally, figures are more often based on the subjective impression of the patients than on their objective assessment and many of the patients involved do not regard themselves as disabled. This affects the results of some studies based on postal questionnaires.<sup>9</sup>

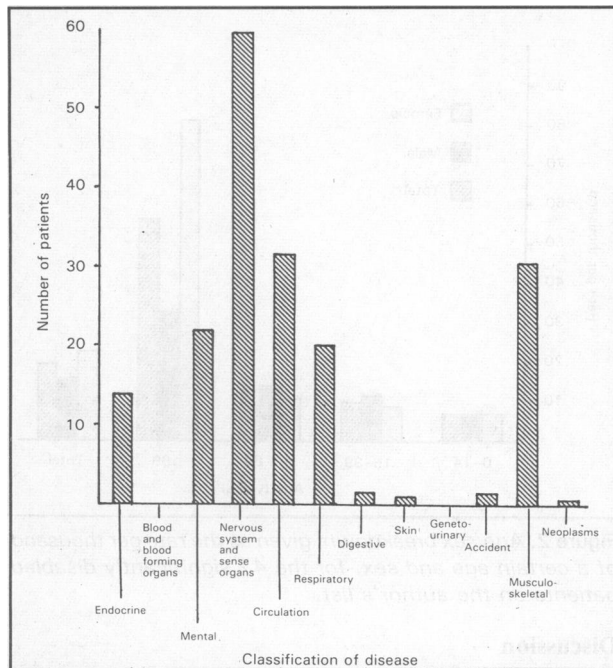
After surveying a number of such reports Knight and Warren reported estimates of the prevalence of disability varying from 40 to 70 per 1000.<sup>8</sup> Such variation of prevalence makes comparison between different studies difficult.

The prevalence of disability in this study is within the range reported by Knight and Warren, as is the proportion of those significantly disabled — one-third to a half is quoted in the same report.<sup>8</sup>

In many ways the general practitioner is the person best placed to review disability and coordinate its management<sup>4</sup> but few papers on the subject have been published by family doctors.<sup>10,11</sup> Williams has, however, shown that family doctors are becoming increasingly interested in the identification of disabled patients and the management of those who need and want support.<sup>12</sup> There is also evidence that general practitioners are not well informed about the disabilities of their patients.<sup>13,14</sup>

Most other reports have cited musculoskeletal disorders as the most common cause of disability<sup>15,16</sup> but in this study nervous and circulatory disorders were the most common cause of disability. This may reflect the poor recognition of the disabling effects of mild to moderate arthritis<sup>17</sup> which may be due partly to under-reporting by patients and partly to under-detection by their doctor.

Although 35% of the disabled patients were considered to be significantly disabled only 20% of disabled patients felt that the quality of their life was greatly impaired in that they



**Figure 3.** Breakdown of the medical disorders suffered by the 136 disabled patients according to the classification of the Royal College of General Practitioners.

could not do things important to them. This seemed to suggest that the majority of disabled patients were well adapted to their problems and indeed only 8% proved to be poorly adapted.

This paper gives a profile of disability recognized by a family doctor in a practice of average size with a slight excess of elderly patients. The method of assembling a disability register described is simple and practical and could help to focus attention on those patients in greatest need.

In 1956 the Piercy Committee reported the need for better education and organization in the fields of disability and rehabilitation.<sup>18</sup> The Tunbridge Committee (1972) felt that these recommendations had been largely ignored which explained why rehabilitation was not part of the young doctor's thinking.<sup>19</sup> Even today there is little sign of a change in this attitude. Medical records rarely describe fully the disabilities of patients or the effect of these disabilities on their day-to-day lives.

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## Why do patients seek care?

In 1978, the World Health Organization formed a group to begin work on the Reason for Encounter Classification (RFEC), which is designed to classify the reasons why patients seek care at the primary level.

The relatively simple classification is based on two axes—chapters and components—and uses a three-character alphanumeric code. Chapters, which are named by body systems or more general terms, are the reasons that health care was sought. Five of the seven components, or subdivisions of chapters, contain rubrics identified by the same two-digit numerical code.

A pilot study with a training exercise was carried out in The Netherlands by nine family physicians to confirm the feasibility of using the new classification system in primary care settings. Training consisted of viewing videotapes of encounters and an exercise of coding 76 vignettes by the RFEC. Within two months, the physicians in the subsequent pilot study had collected and coded 7503 reasons for encounters.

Results of the pilot study confirm that the RFEC is feasible, easy to use in practice, and different from disease-oriented classifications in its system of classifying the reasons for encounter. The pilot study results have been used to modify the RFEC in preparation for a field trial in ambulatory care settings worldwide.

Source: Lamberts H, Meads S, Wood M. Classification of reasons why persons seek primary care: pilot study of a new system. *Public Health Rep* 1984; **99**: 597-605.