

# Consultation rates from the General Practice Research Database

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## SUMMARY

An analysis was undertaken of consultation rates in 226 UK general practices contributing to the General Practice Research Database. Over the period 1992–1998 the mean age-standardised consultation rate per person year at risk was 3.85 (3.01 for males and 4.71 for females). In contrast with younger ages, consultation rates among those aged 65 years and over showed an upward trend over the seven-year period. Consultation rates were higher in areas of low population density as compared with higher density areas.

**Keywords:** consultation rate; population density.

## Introduction

DETAILED information on general practice consultation rates is vital for the planning of primary care services. Comprehensive national data are not routinely available but there are several sources of survey information from widely geographically distributed populations. The Morbidity Statistics from General Practice (MSGP) study gives a figure of 3.2 contacts per person year at risk for 1991–1992,<sup>1</sup> for patients in 60 practices seen by a doctor or nurse in any location (although the nurse contacts were thought to be underestimated). The MSGP data showed an increase in doctor contacts from 2.0 per person per year in 1955–1956 to 2.9 in 1991–1992.<sup>2</sup> The Royal College of General Practitioners Weekly Returns Service data from 26 practices gives a figure of 4.3 contact days per year (3.4 for males and 5.2 for females) for 1998 (including face-to-face and telephone contacts with both general practitioners [GPs] and practice nurses).<sup>3</sup> After comparing these two data sources the Weekly Returns Service report estimated that there had been a real increase of 15 to 20% in consultation frequency since 1992.

## Method

This analysis included 226 UK practices that submitted data to the General Practice Research Database (GPRD) throughout the period 1992–1998, and the data passed GPRD quality checks. There were 1.4 million person years at risk in 1998. Practices participating in the GPRD follow guidelines for recording clinical data and regularly submit anonymised, patient-based clinical records to the database. The doctors agree to record all significant morbidity events, including date of onset of chronic conditions, prescriptions and referrals.<sup>4</sup>

We included all recorded GP–patient or nurse–patient consultations of permanently registered patients, whether face-to-face (in the surgery or at home) or on the telephone. A total of 73 164 medical codes were used to identify records for inclusion. The remaining 27 419 codes were excluded as they concerned administration, pregnancy terminations or deliveries, hospital procedures, tests, and operations. More than one consulting record per day counted as one consultation only; in other words, consultations were defined as contact days.

Population density for electoral wards (districts in Northern Ireland) in which practices were located was obtained from the Office for National Statistics in a manner preserving confidentiality of the practices.

## Results

The overall age-standardised consultation rate per person year at risk over the period 1992–1998 was 3.85 (3.01 for

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**HOW THIS FITS IN**

*What do we know?*

The mean number of patient contacts with a GP or practice nurse is three to four times per year. Consultation rates are highest in the very young and very old and are higher for females in the reproductive age range.



*What does this paper add?*

There has been an increase in consultation rates for both males and females aged 65 years and over during the 1990s. Consultation rates are higher in rural areas than in inner-city and urban areas.

Table 1. Consultations per person year at risk by age and sex, 1998.

Age (years)	Males	Females	Ratio of female-to-male rate
0-4	6.1	5.8	0.94
5-9	2.5	2.6	1.08
10-15	2.0	2.4	1.22
16-19	1.8	4.1	2.29
20-24	1.7	5.0	2.89
25-29	1.8	5.2	2.98
30-34	1.9	5.1	2.76
35-39	2.0	4.6	2.30
40-44	2.2	4.3	1.98
45-49	2.4	4.5	1.87
50-54	2.7	4.9	1.77
55-59	3.4	5.2	1.54
60-64	4.2	5.6	1.32
65-69	4.9	5.8	1.18
70-74	5.6	6.2	1.12
75-79	6.3	6.7	1.07
80-84	6.7	7.1	1.05
85+	6.8	7.0	1.03
Total	3.0	4.9	1.63

males, 4.71 for females). Consultation rates were highest in the very young and very old, and higher for females than for males at all ages except the very young (Table 1). In contrast to younger ages, there was a steady increase over the seven years in the consultation rates of those aged 65 years and over (Figure 1); the rates of the 65 to 74 years and 75 years and over age groups increased by 14% and 12%, respectively. These increases are not accounted for by the aging of these sections of the population. For males and females, all ages combined, and for those aged 16 to 64 years, consultation rates were higher in practices located in less densely populated areas, as compared with those in areas of higher density (Table 2); these differences persisted after adjusting for age.

**Discussion**

The GPRD consultation rates for all ages are similar to the Fourth MSGP (MSGP4) and the Weekly Returns Service figures, despite the fact that, in contrast with the other data sources, GPs contributing to the GPRD are not required to record consultations for minor problems. The GPRD data show no increase in overall consultation rates during the 1990s. This contrasts with the increase seen between the 1950s and 1990s in the MSGP datasets.

GPRD data do show an increase in the consultation rates of older age groups, such that a GP with a list size of 2000, including 300 patients aged 65 years and over, will have provided 210 more consultations to this age group in 1998 as compared with 1992. During the 1990s there has also been a trend towards longer GP appointment times.<sup>5</sup> Consultations with the elderly tend to be longer than with other age groups. These trends will have a major impact on future workload because of the growth in the elderly population.

This study shows that the all-age consultation rate is over

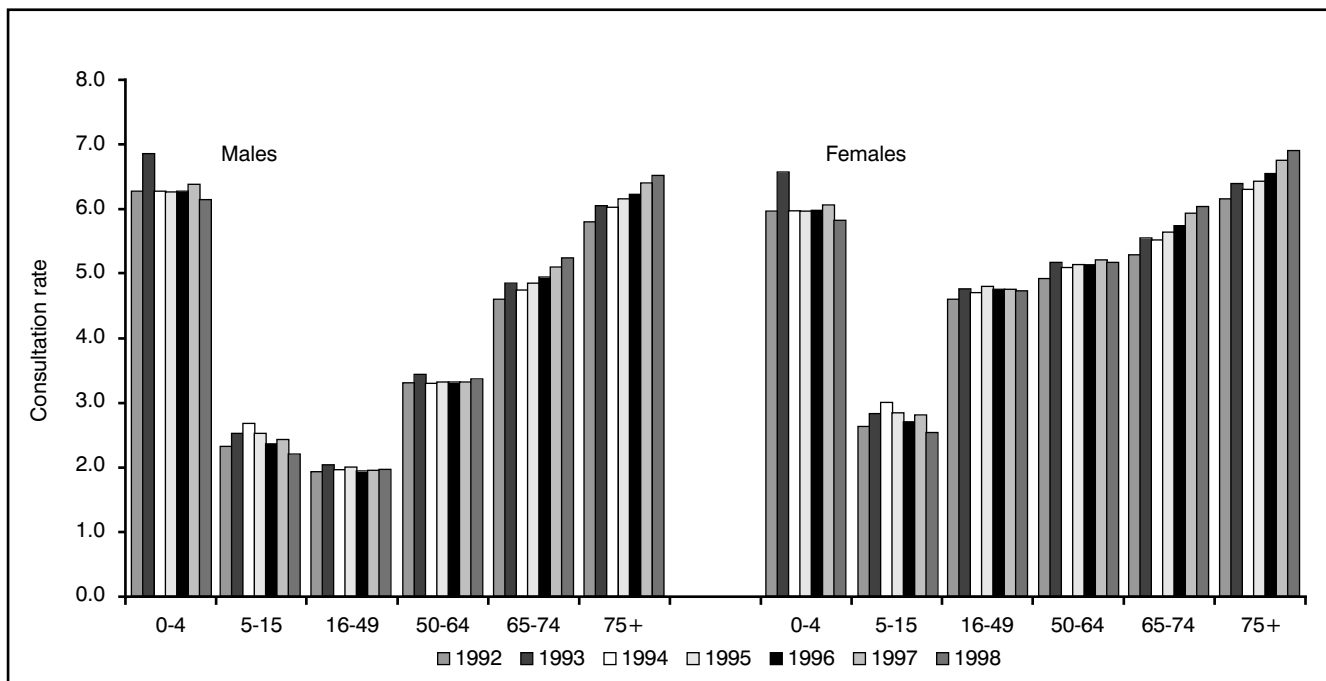


Figure 1. Consultations per person year at risk by age group and sex: 1992-1998.

Table 2. Consultations per person year at risk by population density, 1992–1998.

Population density category (persons/km <sup>2</sup> )	All ages <sup>a</sup>		Ages 16 to 64 years	
	Males	Females	Males	Females
Less than 150 (rural)	3.20	4.96	2.51	5.02
150–2000 (urban and suburban)	3.00	4.70	2.29	4.80
More than 2000 (inner city)	2.99	4.68	2.29	4.79
All	3.01	4.71	2.31	4.81

<sup>a</sup>Age-standardised rate.

5% higher in practices in low population density areas as compared with practices in higher density areas; at ages 16 to 64 years the consultation rate is over 10% greater in low density areas. In contrast, MSGP4 data showed patients aged 16 to 64 years to be 10% less likely to consult if they live in rural rather than urban areas.<sup>1</sup> The MSGP4 used two categories (urban or rural) derived from Department of the Environment indicators. Reasons for the findings of this study may include difficulties that rural populations have in accessing other health service outlets; for instance, accident and emergency departments, pharmacists, counselling, physiotherapy, and family planning clinics. It may be that rural access to these services has changed in the years since the MSGP survey in 1991–1992. Other analyses of GPRD data show that rates of treated disease for a range of chronic conditions are lower in rural and suburban areas than in industrial and more socioeconomically deprived areas.<sup>6</sup>

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