

NHS Direct usage in a GP population of children under 5 years: is NHS Direct used by people with the greatest health need?

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SUMMARY

This study compares health status, demographic and socioeconomic characteristics of users and non-users of NHS Direct in order to establish whether the service is being used by people with the greatest need for healthcare services. It suggests that use of NHS Direct is widespread among carers of children under 5 years old, but there is evidence that it may not be accessed equitably by those from ethnic minorities, lower socioeconomic groups and those with established ill health.

Keywords: child; family practice; health services need and demand; telephone; triage.

Introduction

NHS Direct is a 24-hour nurse-led telephone advice and information service introduced in England and Wales in November 2000. The literature available on NHS Direct is currently limited. A number of studies exploring users' perceptions of, and satisfaction with, NHS Direct, indicate overall approval of the service.¹ The impact of NHS Direct on the demand for NHS services; GP cooperatives, accident and emergency departments and ambulance services has been considered.² Figures show that users of NHS Direct are demographically representative of the patients seen in general practice, except that there is underuse by the elderly.^{3,4} Age and sex of users has been investigated, however, ethnicity and socioeconomic status have not been explored. Importantly we found no estimate of the prevalence of service usage.⁵

There are a number of reasons to suspect that there is inequity of use of NHS Direct. Firstly, it has been found that awareness of NHS Direct differs between populations within the community.⁵ Secondly, there are specific potential barriers to NHS Direct service usage including poor hearing, limited English language skills (despite the availability of interpreting services in NHS Direct) and difficulties accessing a telephone.

This study therefore compares health status, demographic and socioeconomic characteristics of users and non-users of NHS Direct in order to establish whether the service is being used by people with the greatest need for healthcare services. Children under 5 years old and their carers were chosen as they are high users of all health services and are more reliably registered with GPs than other age groups, and are therefore more likely to be representative of the general population.

Method

Setting

The study was set in two general practices in the Edgware and Burnt Oak area of North London. Their list sizes were 11 100 and 11 812, respectively. The Jarman scores (a measure of locality deprivation) for these wards are 4.5 and 33.6 indicating moderate and high deprivation levels. The United Kingdom (UK) average Jarman score is 0. These practices have access to link workers via Barnet Primary Care Trust who are able to translate most commonly spoken languages in the locality. These practices were both members of HARMONI, a local GP cooperative and are close to Edgware NHS walk-in-centre.

Design

This is a cross-sectional, postal questionnaire-based study measuring service awareness, usage, and standard measures

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HOW THIS FITS IN*What do we know?*

NHS Direct is a free 24-hour nurse-led telephone advice and information service in the United Kingdom. It is popular with users and is used by similar groups to primary care (with the exception of the elderly). There is evidence that it has a limited impact on other primary care services. There is no information available on the prevalence of usage of the service and limited information on socioeconomic and ethnic profile of users.

What does this paper add?

Use of NHS Direct by carers of children under 5 years old is widespread (prevalence may be as high as 25% of this population). There is some evidence of inequitable use by ethnic minorities, those with lower socioeconomic status, and those with poorer health status.



(derived from census questions)⁷ of health status, socioeconomic status, and ethnicity and language requiring simple dichotomous answers; for example, does the household own the accommodation (yes/no). The questionnaire had been piloted in a third practice in February 2002 (unpublished). The study was approved by Barnet, Enfield and Haringey Ethics Committee. Non-responders were sent a second questionnaire 5 weeks after the initial mailing. Because of multiple analyses, significance was taken at the $P < 0.01$ level.

Subjects

The subject were 1000 parents or guardians of children registered with two study practices. Data was obtained on all children aged 0–5 years from both practice lists and siblings were removed. The questionnaire was sent to every third child (in alphabetical order) on the subsequent list until it was exhausted. A formal sample calculation could not be performed owing to a lack of published data on prevalence of NHS Direct usage, thus a convenience sample of 1000 was chosen.

Results

The study achieved a 47% (461/976) response rate (24 questionnaires were returned addressee unknown). It was found that 79.6% (367/461) were aware of NHS Direct and 62.7% (289/461) of responders had used NHS Direct at least once (95% confidence interval [CI] = 59 to 68) with 53.5% (247/461) (95% CI = 50 to 60) having contacted NHS Direct about a child aged 0–5 years. The study also shows low usage of NHS Direct among the ethnic minorities and by those whose first language is not English (Table 1). Higher socioeconomic status; for example, in terms of car and house ownership, appears to be associated with greater usage. In addition, the study suggests that those with poorer health status (in terms of hospitalisation or GP contact) do not contact NHS Direct any more frequently than the general population. Only parents of children who have been out-patients within the last 12 months make greater use of the service.

Discussion

This study shows high usage of NHS Direct for children aged 0–5 years. If it is assumed that all non-responders had not used NHS Direct, the figures would still suggest that the service had been accessed on behalf of at least 25% of children aged under 5 years. The findings also provide some evidence of inequity among differing ethnic, lower socioeconomic, and poorer health status groups. As this is a telephone service, access to a telephone (and ownership) may be an issue, although it appears not to be in this study population as 97.2% (448/452) had either a mobile or land line telephone and 83.3% (384/452) had both. However, costs of accessing the service by mobile telephone may be important with the reports of lengthy call times to NHS Direct.⁵

The low response rate was disappointing, but not untypical of studies regarding health service usage.⁶ However, the low response rate was a limitation of the study. As we did not have ethical approval to check records we were unable comment on differences between responders and non-responders. However, when the ethnic make-up of our study

Table 1. Comparison of NHS Direct usage for 0–5-year-olds within different health, socioeconomic and ethnicity groupings.

	NHS Direct users?			P-value
	Yes ^a n (%)	No ^a n (%)	Odds ratio (95% CI)	
Health status				
Inpatient (<12 months)	36/62 (58.1)	210/392 (53.6)	1.2 (0.70 to 2.06)	0.5
Outpatient/A&E (<3 months)	72/116 (62.1)	173/247 (70.0)	1.5 (1.01 to 2.40)	0.04
Contact with doctor (<2 weeks)	59/103 (57.3)	187/355 (52.7)	1.20 (0.77 to 1.88)	0.41
Child receiving regular prescribed medication	36/60 (60)	209/392 (53)	1.33 (0.78 to 2.28)	0.33
Ethnicity and language				
White ethnic groups	153/246 (62.2)	92/209 (44.0)	2.09 (1.44 to 3.01)	<0.001
English as a first language	185/316 (58.5)	59/140 (42.1)	1.41 (1.30 to 2.94)	0.001
Socioeconomic status				
Owner occupier (accommodation status)	169/281 (60.1)	74/168 (44.0)	1.92 (1.30 to 2.82)	<0.001
Car ownership	214/371 (57.7)	32/86 (47.1)	2.30 (1.41 to 3.73)	<0.001
Computer ownership	175/324 (54.0)	71/131 (54.2)	1.01 (0.67 to 1.51)	0.97

^aProportions are NHS Direct users within each cell.

was compared with the overall census data for the London Borough of Barnet,⁷ we had similar proportions of south Asians (13% versus 12.3%), but an over-representation of 'non-whites' as a whole (46.1% versus 26%).

Several factors will have influenced response rate, importantly, people with low levels of reading skills and those who did not have English as first language may find it difficult to complete a questionnaire.

The study results may be representative of metropolitan areas as the practices covered a diverse range of demographic characteristics found in many urban and sub-urban populations. However, these findings may not apply generally to the UK as a whole.

The study would support suggestions that NHS Direct is quite widely used by carers of children under 5 years of age, but is failing to gain usage from those who might benefit most from improved access to the health service, such as the poorer sections of the community, those from ethnic minorities, and those with established ill health.

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