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PREHOSPITAL CARE

Impact of NHS Direct on other services: the characteristics and origins of its nurses

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Objective: To characterise the NHS Direct nurse workforce and estimate the impact of NHS Direct on the staffing of other NHS nursing specialties.

Method: A postal survey of NHS Direct nurses in all 17 NHS Direct call centres operating in June 2000.

Results: The response rate was 74% (682 of 920). In the three months immediately before joining NHS Direct, 20% (134 of 682, 95% confidence intervals 17% to 23%) of respondents had not been working in the NHS. Of the 540 who came from NHS nursing posts, one fifth had come from an accident and emergency department or minor injury unit (110 of 540), and one in seven from practice nursing (75 of 540). One in ten (65 of 681) nurses said that previous illness, injury, or disability had been an important reason for deciding to join NHS Direct. Sixty two per cent (404 of 649) of nurses felt their job satisfaction and work environment had improved since joining NHS Direct.

Conclusion: The NHS Direct nurse workforce currently constitutes a small proportion (about 0.5%) of all qualified nurses in the NHS, although it recruits relatively experienced and well qualified nurses more heavily from some specialties, such as accident and emergency nursing, than others. However, its overall impact on staffing in any one specialty is likely to be small. NHS Direct has succeeded in providing employment for some nurses who might otherwise be unable to continue in nursing because of disability.

NHS Direct, the 24 hour telephone helpline providing information and advice about health problems, was introduced in 1998 and is now available throughout England and Wales, with a Scottish version under development. Callers to the service are triaged by nurses, using computer decision support software, and directed to emergency care, primary care or self care as necessary. From the start NHS Direct was envisaged as a nurse led service, and health ministers suggested that this "new career direction" for nurses would encourage those who had left the profession to return, especially those who were no longer in nursing because of injury or disability,¹ although this claim has been questioned.² Despite early speculation that the eventual nursing requirement of NHS Direct might be up to 15 000 nurses,³ recent indications are that the service currently employs 1200 whole time equivalent nurses and will require 2000 by 2004.⁴ None the less, at a time of substantial nursing shortages across the health service,⁵ this raises an important question about the impact of this new nurse led service on the capacity of other parts of the NHS, such as accident and emergency departments or intensive care units, to provide care.⁶ Although we have previously shown that in its first year NHS Direct had little effect on *demand* for other immediate care services,⁷ little is known about any impact there may have been on the *supply* of health care. We therefore undertook this study to characterise the NHS Direct nurse workforce and their reasons for joining this new service, to identify where nurses had come from, and hence to quantify the "opportunity cost" to the NHS of employing nurses in this way, and to seek the views of NHS Direct nurses on various aspects of their job.

METHODS

During June 2000 we approached the 17 NHS Direct call centres then in operation in England. In 15 centres, with the help of a local coordinator who provided a list of employed nurses, we sent a four page postal questionnaire to each NHS Direct

nurse who had been in post for at least one month. In the remaining two centres, a list of nurses was not provided and the questionnaire was handed out to nurses by centre managers. Nurses who had not responded after two weeks were reminded by the local coordinator. A second questionnaire was sent to non-respondents after four weeks. The questionnaire was developed after face to face meetings with NHS Direct nurses and modified in the light of two pilot studies.

RESULTS

Response rate

In all, 981 nurses were employed by NHS Direct call centres at the time of the survey, ranging from 27 to 101 at each centre. Of those able to reply, 74% (682 of 920) returned a completed questionnaire. In all, 6% (61 of 981) of nurses were unable to return a questionnaire during the survey period: 4% (38 of 981) had left the service, 1% (11 of 981) were on sick leave and 1% (9 of 981) were on maternity leave. The response rate by centre ranged from 75% to 92%, apart from the two in which the questionnaire was handed out by centre managers: in these the response rates were 46% and 61%.

NHS Direct Nursing workforce

Ninety one per cent (606 of 663) of the nurses who replied were female. Ninety four per cent (630 of 673) described themselves as white, 3% as Asian (22 of 673), and 2% (14 of 673) as black. The mean age of respondents was 40 years, ranging from 25 to 64 years, with two thirds (420 of 626) aged between 30 and 44 years. The average duration of nursing experience was 17 years, ranging from 4 to 43 years, with 84% (552 of 656) having 10 or more years experience. The nurses had a diverse range of professional qualifications in addition to their basic nursing qualification, and one fifth were also educated to degree level or above (table 1).

Table 1 Professional and educational qualifications of NHS Direct nurses

	n	%
Professional qualifications		
General nurse	682	100
Midwifery	118	17
Enrolled nurse	85	12
Sick children's nurse	60	9
Health visiting	50	7
District nursing	40	6
Mental health nurse	36	5
School nurse	8	1
Educational qualifications		
English National Board award	297	44
Bachelors degree	144	21
Postgraduate certificate	12	2
Postgraduate diploma	52	8
Masters degree	17	2

Most recent employment

In the three months immediately before joining NHS Direct, 20% (134 of 682, 95% confidence intervals 17% to 23%) of respondents had not been working in the NHS. Fifteen per cent (103 of 682) had been working solely outside the NHS, either abroad or in private hospital settings, or in non-nursing roles and 5% (31 of 682) had not been in paid employment (table 2). Table 3 shows the main reason given, in an open-ended question, for leaving the previous job and moving to NHS Direct. Of the 540 nurses who came from NHS nursing posts, one fifth had come from an accident and emergency department or minor injury unit (110 of 540) and one in seven from practice nursing (75 of 540). Sites differed markedly in their recruitment sources: for example, in one site 40% (17) nurses had come from accident and emergency posts, while in another only 5% (1) had done so. Despite this, recruitment sources were widely spread: of the 81 accident and emergency departments or minor injury units which supplied nurses to NHS Direct, 64 supplied only a single nurse, 10 supplied two nurses, five supplied three nurses, one supplied four, and one supplied seven.

Nurses with a disability or injury

One in ten (65 of 681, 95% confidence intervals 7% to 12%) nurses said that illness, injury, or disability had been an important reason for deciding to join NHS Direct, and a further 6% (41 of 681) that it had been a minor reason. Almost one in five (18%, 130 of 682, 95% confidence intervals 16 to 22%) of respondents considered themselves to have a disability, a work related injury or other injury or illness, of whom two fifths (42%, 54 of 130) had a back or neck problem that had caused difficulty in lifting and moving patients. Five per cent of respondents (35 of 682) said that their condition had made it difficult to work in direct patient care and 3% (20 of 682) had had to leave their job.

Working for NHS Direct

At the time of the survey, when four of the 17 centres surveyed had only been in operation for six months, 14% (85 of 607) of respondents had worked for NHS Direct for six months or less, 39% (235 of 607) for 7 to 12 months, and 47% (287 of 607) for over a year. Fifty six per cent (377 of 675) of nurses were full time (37.5 hours per week or more) and 44% (298/675) part time, with 19% (128 of 675) maintaining at least one other concurrent nursing job while working for NHS Direct. Most nurses (62%, 374 of 599) were employed at G grade, 30% (178 of 599) at F grade, 6% (38 of 599) at H grade, and fewer than 2% (9 of 599) at senior nurse or I grade.

Training and updating in NHS Direct

The amount of training varied considerably among nurses and call centres. The mean length of induction training was four weeks, although 2% of nurses (13 of 667) said they had had no induction training and a further 2% (16 of 667) reported 16 weeks. Seventy seven per cent (523 of 676) felt they had had sufficient training in using the computer decision support system, while 9% (60 of 676) felt they had not. Overall, 77% (403 of 525) of respondents said they had no time set aside for keeping their clinical skills up to date. Although, as noted, almost one in five nurses were also working in another nursing post apart from NHS Direct that may have provided the necessary updating, 60% (329 of 552) of those working *only* for NHS Direct had no time set aside for updating. Almost half of respondents (48%, 232 of 672) were worried about losing their clinical skills.

Table 2 Employment during the three months before joining NHS Direct

Employment	Specialty	NHS Direct nurses		wte NHS Direct nurses*	
		n	%	n	%
NHS nursing	A&E/MIU	110	16	80.1	17
	Practice nursing	75	11	39.5	8
	Community/District	63	9	38.8	8
	Surgical specialties	53	8	43.2	9
	Paediatric	36	5	23.9	5
	Maternity/midwifery	33	5	24.3	5
	Health visitor	33	5	25.0	5
	Medical specialties	30	4	13.8	3
	General acute nursing	28	4	20.0	4
	ITU/CCU	24	4	20.7	4
	Mental health/psychiatry	11	2	9.1	2
	Other	30	4	21.7	5
	Specialty unknown	14	2	10.3	2
Non-NHS nursing		103	15	78.5	17
Previous employer not known		5	<1	-	0
Not employed		31	5	18.9	4
Previous employment status not known		3	<1	-	0
All nurses		682	100	468	100

*The hours worked in their previous employment was not given by 76 nurses.

Table 3 Main reason for leaving previous job to join NHS Direct

Reason given	n	%
Unhappy or frustrated in previous role	157	23
Wanted improvement in grade, conditions or job security	140	21
Wanted to be part of something innovative, challenging or nurse led	112	16
Wanted to use skills or develop new skills	56	8
Needed a break from previous specialty	45	7
Wanted to return to nursing or NHS	15	2
Wanted a safe working environment	11	2
Still in previous job as well as NHS Direct post	76	11
Other	32	5
Missing	38	6
All nurses	682	100

Clinical experience and decision support

At the time of this survey, three distinct computer decision support systems were in use by NHS Direct. Overall, 82% (553 of 675) of nurses found their centre's software easy to use, though 4% (25 of 674) felt it was "always" slow to use, and a further 82% (551 of 674) that it was "often" or "sometimes" slow to use. Almost all nurses found the decision support system helpful in triaging calls: 19% (130 of 675) felt it "always" helped in giving advice, and 80% (541 of 675) that it "often" or "sometimes" helped. However, 39% (266 of 674) noted that there were "always" or "often" problems that the system could not handle. Not surprisingly, therefore, 38% (258 of 674) of nurses said that they "always" relied on their clinical experience in dealing with calls, and a further 61% (413 of 674) "often" or "sometimes" did so. This did not differ by length of nursing experience or type of software.

Job satisfaction

Almost all nurses (95%, 642 of 676) agreed that NHS Direct offered a worthwhile service, though 1% (7 of 676) felt it did not, and 64% (433 of 674) felt their NHS Direct post was good for their career. Excluding those previously unemployed, 62% (404 of 649) felt their job satisfaction and work environment had improved, but 22% (141 of 649) felt their job satisfaction and environment had worsened since joining NHS Direct. About half of nurses (48%, 323 of 675) were rarely or never bored during their NHS Direct shift, but 16% (105 of 675) said they were always or often bored. Fifty six per cent (380 of 678) said they would like to work for NHS Direct for as long as possible. One per cent (10 of 682) of respondents noted that they had conditions that had developed since they joined NHS Direct, including repetitive strain injury, cervical spondylosis, and difficulty sitting at a computer for long.

DISCUSSION

The characteristics of NHS Direct nurses, in terms of age, gender, and ethnicity, were broadly similar to those of qualified nurses as a whole,⁸ though a smaller proportion of the NHS Direct nurse workforce was under 25 or over 50, compared with all registered nurses.⁹ One fifth of NHS Direct nurses had not come directly from other NHS employment. The proportion coming from private sector jobs was similar to the proportion of qualified nurses working in the private sector.⁸ For more than one sixth of nurses, an injury or disability had been a factor in their decision to work for the service, suggesting that NHS Direct may be having some success in "bringing nurses back" to NHS nursing. Our findings on nurse background are comparable with official figures.¹⁰ The introduction of any new health service can clearly have an impact on other services in two distinct ways: firstly, by altering the pattern of patient demand for

existing services; and secondly, if it competes for the same resources, by affecting the ability of existing services to supply care. In this sense NHS Direct may carry an opportunity cost for the NHS, and in particular for alternative uses of the same staff. While the NHS Direct nurse workforce currently constitutes a small proportion (about 0.5%) of all qualified nurses in the NHS, the loss of nurses falls more heavily in some specialties, such as accident and emergency nursing and practice nursing, than in others, and the impact will vary from place to place according to local recruitment practice and the available supply of skilled and experienced nurses. Overall, our results suggest that fewer than 100 whole time equivalent nurses employed by NHS Direct in England have come from accident and emergency departments or minor injury units, which is roughly equivalent to 0.4 whole time equivalents per accident and emergency department in England. As NHS Direct may also have reduced the need for accident and emergency departments to offer telephone advice,^{11, 12} the overall impact of the service on available staff time in accident and emergency has probably been, at worst, neutral. Nurse recruitment from other specialties is lower than this and the impact on any one specialty seems negligible. Of course, as NHS Direct employs more nurses this position may change.⁴ Our results suggest marked variation in the amount of training received by nurses. Although our respondents seem to be more experienced and educated to a higher level than the nursing workforce as a whole, specific training in telephone triage and advice is of central importance to the quality of the service. While there is little evidence available to date on the quality or consistency of advice,^{13, 14} the apparent lack of common training standards is a matter of concern since nurses are unlikely to have experience of all the problems that present to NHS Direct or all the services to which they refer. Challenging in-service training might also help to relieve the boredom reported by a substantial proportion of the nurses. NHS Direct was seen by our respondents as an opportunity to leave unsatisfactory employment, to gain an improvement in pay or conditions, to do something new and challenging, or to get back into nursing. Although many were happy working for NHS Direct, feeling that the service was worthwhile and that their job satisfaction and work environment had improved, others felt their job satisfaction and environment had worsened, found the work boring, or worried about losing clinical skills. Given this, there is a strong argument for ensuring that nursing posts in NHS Direct include elements of face to face nursing as well as telephone triage. Our survey provides a snapshot of the workforce during the early days of a rapidly developing and now national service. As call volumes to NHS Direct rise, the new NHS Clinical Assessment System is introduced and employment and training practices develop, the experience of working for NHS Direct will certainly change. In addition, the growth in nurse led services of all kinds, which tend to recruit experienced and well qualified nurses from particular specialties, may lead to a greater impact on other parts of the NHS than is currently the case. The opportunity costs of these new services in staffing terms should not be ignored by policymakers.

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Contributors

Jane Morrell contributed to designing the questionnaire, analysed the data, and contributed to writing the paper. James Munro contributed to questionnaire design, data analysis, and writing the paper. Alicia O' Cathain contributed to questionnaire design, data analysis, and writing the paper. Kate Warren contributed to designing and piloting the questionnaire and writing the paper. Jon Nicholl designed the

study and contributed to questionnaire design and writing the paper. Jane Morrell is the guarantor for the paper.

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