Primary care teamwork in the Christchurch area

Part 1 - health professionals actual and preferred levels of interdisciplinary contact and collaboration

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ABSTRACT

Aims To determine the existing and preferred levels of interdisciplinary contact and collaboration between primary health care workers in the Christchurch urban area.

Method A questionnaire was sent to 909 primary health care workers in Christchurch. Areas explored included the current and desired levels of communication and collaboration with other professional groups. Barriers to greater collaboration were also canvassed.

Results Overall response rate was 64 per cent, varying between 30 and 100 per cent from the different groups. There was evidence of established and regular communication between many of the disciplines. There was support from all groups for greater collaboration in the future. The widest gaps between actual and preferred levels of collaboration (greater than 50 per cent difference) were reported by GPs and practice nurses in respect to social workers and Plunket nurses. The Plunket nurses also wanted much greater collaboration with social workers, with public health nurses and with GPs. The majority of respondents saw advantages to working from shared premises with at least some other disciplines.

Conclusions There is clearly a strong demand for greater interdisciplinarity and collaboration from primary health care workers. However, there are a number of practical and attitudinal barriers to overcome before true teamwork will flourish. A subsequent paper explores the range and importance of these barriers, as perceived both by primary health care workers and their leaders/representatives (see pages 51-59).

INTRODUCTION

Several authors and recent reports to government in the UK have pointed to the potential benefits of fostering interdisciplinary collaboration between community based primary health care professionals (1-6). The recurring theme in these reports is the increased effectiveness and efficiency to be gained when teams of health care professionals from different disciplines work together with a defined population. Integration of service provision is facilitated, whilst undesirable duplication, fragmentation and omissions are less likely to occur (7). The importance of shared understanding of roles and common objectives is stressed repeatedly.

Despite these apparent advantages it is clear that in Britain and other similar countries such collaboration has been and remains both patchy and difficult to achieve (1-7) or even to measure (8-10).

In New Zealand at least two reports to Government have come out strongly in favour of greater teamwork (11,12). Regional Health Authorities support greater teamwork in primary care.

In practice, however, there have been very few published studies of teamwork in New Zealand primary care. Two of the pilot initiatives identified have shown encouraging results (13,14).

In particular, there seems to be very little published data on the ways and extent to which the many primary health care workers in New Zealand communicate, collaborate

or are formed into functioning teams.

AIMS

The purposes of this project were to:

(1) Identify the current levels of interdisciplinary contact and collaboration between the different community based health care professionals working in the Christchurch urban area. This includes identifying the extent to which professionals are currently sharing premises with other primary care practitioners.

(2) Compare these levels with what the health professionals themselves considered to be their preferred or ideal levels of contact and collaboration, including the sharing of premises.

(3) Explore the main practical, organisational or institutional and professional barriers which these health professionals and their opinion leaders, representatives and employers believe have historically or are currently preventing them from attaining these preferred levels of collaboration.

This paper presents the results of the first two areas, the barriers to greater collaboration are described in a subsequent paper (15).

METHODS

A draft postal survey was pretested with a small group of Christchurch health professionals early in December 1993. Modifications were made after feedback from the group. In its final form, the questionnaire included three questions designed to identify respondents' current levels of patient-related contact with members of 12 different types of community based health care provider groups: community health workers, chiropractors, dental practitioners, dental therapists, dietitian/nutritionists, GPs, district nurses, physiotherapists, occupational therapists, practice nurses, public health nurses, pharmacists, Maori health workers, midwives and social workers.

A further three questions were devoted to identifying respondents' *preferred* levels of patient-related contact with members of these same 12 occupational groups.

To assist respondents, the questionnaire provided short definitions of "isolation", "communication", "partial collaboration" and "full collaboration" derived from concepts described by Pritchard and Pritchard (1).

Isolation: Never meeting, talking or writing to one another about patients.

Communication: Transferring patient information between one another by way of phone calls and letters, but not meeting.

Partial collaboration: Sharing broadly similar objectives and principles and occasionally meeting in person with each other to secure particular outcomes for patients.

Full collaboration: Sharing explicit and clearly agreed objectives and principles, discussed and confirmed at daily or weekly meetings, and working closely together to secure a common goal for patients.

Finally, two questions dealt with barriers to further communication and collaboration. One asked respondents to identify the main barriers preventing them from reaching their preferred levels of collaboration, while another asked them to identify how they thought these barriers could be overcome, if at all.

To assist their thinking, respondents were given a list of 23 potential barriers from which to choose. These were developed and refined by the research team following a brainstorming session and review of previous literature on primary care teamwork.

Between December 1993 and June 1994, after executive or ethical approvals had been obtained from representatives of the various local professional associations and employing bodies involved, the questionnaire was distributed by post to 909 community based primary health care professionals working in the Christchurch city toll-free dialling area.

The following is the full list of the different health care occupational groups included in the survey:

- general practitioners
- community pharmacists
- practice nurses
- registered district nurses employed by the Nurse Maude Association
- physiotherapists in private practice
- Plunket nurses
- independent midwives
- dental practitioners
- dental therapists employed by the local Crown Health Enterprise (Healthlink South)
- public health nurses employed by Healthlink South
- social workers employed by the Children and Young Persons Service (DSW) and Healthlink South
- chiropractors in private practice
- podiatrists in private practice
- osteopaths in private practice
- counsellors and psychologists in private practice.

Quantitative data from all returned questionnaires were entered onto a Paradox database and analysed separately by provider group using the PROC FREQ command in PC SAS.

One question asked respondents to identify the main barriers preventing them from reaching their preferred levels of collaboration

Written comments were compiled into separate Microsoft Word files for each provider group, with a systematic content analysis used to summarise the full range of issues and themes identified by respondents.

Summary data prepared from completed surveys, broken down by occupational groups, were then presented to representatives and managers of relevant local professional associations and employing bodies (eg, Pharmacy Association, Healthlink South) for their comment.

These comments were taken into account when interpreting the data derived from the questionnaires, and were particularly important for judging the veracity of the findings for the three occupational groups which, despite postal reminders and telephone follow-up, yielded a final sample response rate of less than 50 per cent.

In the remainder of this paper we summarise and discuss the results for 10 of these sample groups: GPs, community pharmacists, private physiotherapists, dental practitioners, Healthlink South public health nurses, Nurse Maude Association registered district nurses, Plunket nurses, independent midwives, practice nurses and social workers.

These 10 occupational groups are focused on because they were the groups which a sample of over 500 members of the Christchurch general public (surveyed independently), had ranked as the most appropriate to house together in a single health centre.

In essence, then, the present paper assesses what members of these same 10 health professional groups think about the viability of sharing premises with health professionals from other disciplines, as well as other possible arrangements for fostering interdisciplinary collaboration and teamwork in urban primary care settings.

RESULTS

GPs: Of the 241 practising GPs with offices located within the Christchurch toll-free dialling area, 190 returned a completed questionnaire, a response rate of 79 per cent.

Over 90 per cent of these GPs were in frequent professional contact (once a month or more) with pharmacists and physiotherapists, while over 70 per cent were in frequent contact with other GPs, other GPs' practice nurses and district nurses (Table 1).

Most GPs saw other community based health care professionals, such as public health nurses and Plunket nurses, less frequently. Only 28 per cent saw Plunket nurses more than once or twice a month, and only 20 per cent saw public health nurses this frequently.

A high proportion (two-thirds or more) considered they were already collaborating, either partially or fully, with other GPs, pharmacists, physiotherapists and practice nurses. There were clear indications, though, of GPs' widespread desire for increased collaboration with, in particular, social workers, Plunket nurses and public health nurses (Table 2).

At present Christchurch GPs are most likely to share premises with other GPs (73 per cent), their own and other GPs' practice nurses, and, to a much lesser extent, physiotherapists. However, a sizeable proportion expressed an interest in sharing premises with a wider range of health professionals.

In particular, close to half, more in some cases, wanted to share premises with pharmacists, physiotherapists, other GPs' practice nurses, midwives, district nurses and social workers (Table 3).

Community pharmacists: Of the 116 retail pharmacists based in Christchurch (a figure obtained by cross-checking the Christchurch telephone directory with the Canterbury Pharmaceutical Society's mailing list) 88 replied, a 76 per cent response rate.

Over 80 per cent of these pharmacists were in frequent professional contact (once a month or more) with other pharmacists, general practitioners and practice nurses. Other professional groups were seen much less frequently. Only about a fifth were in frequent contact with dental practitioners, while less than 10 per cent were in monthly contact with social workers, Plunket nurses or public health nurses.

Over two-thirds of pharmacists registered a desire to increase their levels of collaboration with GPs, other pharmacists and practice nurses, while at least 50 per cent wanted partial or full collaboration with Plunket nurses and district nurses.

Currently only a very small proportion of Christchurch pharmacists share premises with other health professionals, apart, that is, from other pharmacists. However, a notable proportion wanted to share premises in future with GPs (90 per cent wanted this), physiotherapists (63 per cent), dentists (51 per cent) and practice nurses (51 per cent).

Private physiotherapists: All 60 community based physiotherapists listed in the Christchurch telephone directory and with rooms situated in the Christchurch urban area

were surveyed. Thirty-seven replied, a response rate of 60 per cent.

Private physiotherapists were most likely to be in frequent professional contact with GPs and practice nurses. Nearly all were in at least monthly contact with GPs, while over half were in at least monthly contact with practice nurses. Other health professionals were seen much less often. A high proportion of physiotherapists, over 60 per cent, wanted to collaborate either partially or fully with GPs in the future. At present half are likely to share premises with other physiotherapists, and to a lesser extent with general practitioners (22 per cent). Over half, though, wanted these arrangements to become more common, with 84 per cent wanting to share premises with GPs and 70 per cent with other physiotherapists.

Table 1: Percentage of respondents who reported communicating with the following health care practitioners once a month or more by phone, in person or in writing

	General Practitioners (n=190)	Pharmacists (n=88)	Physio-therapists (n=37)	Dentists (n=92)	Practice Nurses (n=62)
	All figures below are percentages				
with General practitioners	84	91	97	49	66
with Pharmacists	95	92	14	48	90
with Physiotherapists	91	13	22	4	77
with Dentists	8	22	3	87	13
with Practice Nurses	76[1]	85	60	13	66
with Social Workers	41	9	5	7	40
with Plunket Nurses	28	8	0	0	33
with Midwives	51	11	3	0	51
with Public Health Nurses	20	6	0	0	39
with District Nurses	72	19	13	2	72

	Social Workers (n=16)	Plunket Nurses (n=13)	Independent Midwives (n=32)	Public Hlth Nurses (n=23)	District Nurses (n=32)
	All figures below are percentages				
with General Practitioners	100	84	84	65	97
with Pharmacists	6	46	34	39	81
with Physiotherapists	0	15	25	48	65
with Dentists	6	0	0	9	0
with Practice Nurses	56	77	47	74	94
with Social Workers	100	62	16	61	72
with Plunket Nurses	19	100	78	22	3
with Midwives	0	84	94	17	24
with Public Health Nurses	63	15	3	71	12
with District Nurses	19	23	6	26	88

[1] GPs were asked here to refer only to practice nurses *other than their own*

Dental practitioners: Ninety-two Christchurch dental practitioners provided completed surveys. However, because the survey was distributed confidentially via the Canterbury Branch of the Dental Practitioners Association we have not been able to establish the sample denominator.

Broad estimates based on telephone directory listings suggest that our sample contains at least 60 per cent of professionally active Christchurch dentists.

Of the 10 practitioner groups discussed here, dentists appeared to be the least likely to interact with a wide circle of other primary care practitioners. This situation probably relates to their specialised focus on adult dental care. However, a good proportion did see room for increased professional collaboration with members of two other practitioner groups - GPs and pharmacists. Indeed, over half indicated a willingness to share premises with these practitioners in future.

Practice nurses: Of the 214 Christchurch practice nurses we surveyed, 62 replied, a response rate of 30 per cent. Of course this is not a high return rate and the figures referring to practice nurses in the accompanying tables must be interpreted with caution.

Compared to the nine other practitioner groups, practice nurses were in regular contact with perhaps the widest range of community based health professionals. Over half were

Table 2: Respondents actual and preferred levels of collaboration (partial or full) with other health care professionals

	General Practitioners (n=190)		Pharmacists (n=88)		Physio-therapists (n=37)		Dentists (n=92)		Practice Nurses (n=62)	
	All figures below are percentages									
	Act	Prf	Act	Prf	Act	Prf	Act	Prf	Act	Prf
with General Practitioners	81	88	72	94	65	84	26	57	47	60
with Pharmacists	70	71	68	83	3	11	23	40	64	78
with Physiotherapists	68	82	8	32	81	78	7	17	40	81
with Dentists	8	26	18	41	0	3	77	84	2	10
with Practice Nurses	73	84[1]	48	70	46	43	3	12	65	76
with Social Workers	16	64	6	30	3	40	0	9	19	63
with Plunket Nurses	20	70	1	47	0	5	0	7	27	65
with Midwives	41	72	7	34	3	8	0	1	47	66
with Public Health Nurses	14	57	3	36	0	11	0	9	23	71
with District Nurses	59	82	14	51	11	24	0	10	57	81

	Social Workers (n=16)		Plunket Nurses (n=13)		Independent Midwives (n=32)		Public Hlth Nurses (n=23)		District Nurses (n=32)	
	All figures below are percentages									
	Act	Prf	Act	Prf	Act	Prf	Act	Prf	Act	Prf
with General Practitioners	44	63	54	100	56	78	56	78	78	97
with Pharmacists	6	12	31	38	16	31	57	39	44	56
with Physiotherapists	0	19	23	38	22	38	48	57	53	81
with Dentists	0	0	0	15	0	3	4	9	0	3
with Practice Nurses	31	44	62	94	28	44	56	78	81	97
with Social Workers	69	81	15	85	25	41	56	83	75	100
with Plunket Nurses	25	44	100	87	44	72	39	74	0	31
with Midwives	6	19	69	94	94	82	26	35	19	50
with Public Health Nurses	50	56	23	85	0	9	68	78	6	69
with District Nurses	31	38	0	31	0	16	35	39	84	88

[1] GPs were asked here to refer only to practice nurses *other than their own*
Act - Actual, Prf - Preferred

in regular contact with GPs, pharmacists, physiotherapists, other practice nurses, district nurses and midwives, while at least a third were in regular contact with Plunket nurses, public health nurses and social workers.

At present practice nurses are most likely to share premises with GPs (73 per cent shared with GPs other than their own) and other practice nurses (58 per cent).

In the future, at least 50 per cent would like to share premises with physiotherapists (71 per cent), pharmacists (57 per cent), social workers (53 per cent), district nurses (52 per cent) and midwives (50 per cent). A substantial proportion wanted increased collaboration with physiotherapists, social workers, Plunket nurses and public health nurses.

Social workers: Sixteen of the 24 social workers we surveyed from Healthlink South and the Child and Family Services (Department of Social Welfare) replied, a 67 per cent response rate. All indicated they were in frequent contact with GPs and other social workers, while only half were in frequent contact with practice nurses and two-thirds with public health nurses.

Scope for improved professional collaboration was identified, particularly in relationships with GPs and Plunket nurses. Eighty per cent of social workers wanted to share premises in future with their social worker colleagues, while 44 per cent wanted to share premises with GPs and/or public health nurses.

Plunket nurses: After distribution of reminder notices, 13 of Christchurch's 33 Plunket Nurses replied, a 40 per cent response rate. Because this is not a high response rate it is important to interpret the trends and preferences associated with Plunket nurses in the accompanying tables with caution.

In general, Plunket nurses were most frequently in contact with GPs, practice nurses, other Plunket nurses and midwives. Over 75 per cent contacted members of these occupational groups at least once a month to commu-

nicate about patients. Slightly smaller proportions, between 50 and 75 per cent, identified professional relationships of either partial or full collaboration with members of these practitioner groups.

A very high proportion of the Plunket nurses we surveyed said that, in an ideal world, they wanted relationships of partial or full collaboration with GPs (100 per cent), practice nurses (94 per cent) and midwives (94 per cent), while 85 per cent wanted partial or full collaboration with social workers and public health nurses.

None of the Plunket nurses we surveyed currently shares premises with members of other health professional groups, but in future at least two-thirds wanted to share premises with GPs, practice nurses, other Plunket nurses, social workers and public health nurses.

Notably, a large proportion - 90 per cent - wanted to share premises with midwives.

Independent midwives: Figures supplied by Christchurch based representatives of the College of Independent Midwives indicated there are 51 full time or part time independent midwives based in Christchurch. Thirty-two of these (63 per cent) provided a completed questionnaire.

A high proportion of independent midwives had at least monthly professional contact with GPs, other midwives and Plunket nurses. By contrast, they had relatively little contact with social workers, public health nurses, district nurses or pharmacists.

A large proportion, over 90 per cent, considered they were already collaborating, either fully or partially, with other midwives, while about half considered they were collaborating with GPs and Plunket nurses. There was a widespread desire to develop these collaborative relationships to higher levels, with nearly half the midwives wanting to share premises with social workers and Plunket nurses. At present such arrangements are very rare in the Christchurch area.

Healthlink South public health nurses: All 23 of Healthlink South's contingent of public health nurses responded to the questionnaire.

More than 60 per cent of these public health nurses were in frequent professional contact with practice nurses, other public health nurses, GPs and social workers.

In future, a higher proportion, about three quarters, would prefer to collaborate, either fully or partially, with GPs, practice nurses, social workers, Plunket nurses and other public health nurses.

In certain cases, such as for Plunket nurses and social workers, this represented a significant departure from present levels of collaboration. These same preferences were mirrored in the group's choice of the professionals they would like to share premises with in the future.

Just under 75 per cent wanted to share premises with physiotherapists and social workers, while about half wanted to share premises with GPs, Plunket nurses, practice nurses and other public health nurses.

Only the last arrangement, public health nurses sharing with other public health nurses, appears to be occurring to any great degree in Christchurch at present.

District nurses: The Nurse Maude District Nursing Association's staff list included 55 registered nurses, 33 (60 per cent) of whom completed our questionnaire.

A very high proportion of this group, over 90 per cent, had at least monthly professional contact with GPs and practice nurses.

Over 50 per cent had similar levels of contact with pharmacists, social workers, other district nurses and physiotherapists. Very few, though, were in frequent contact with public health nurses, midwives or Plunket nurses.

A quarter or more wanted to engage in greater collaboration with physiotherapists, social workers, midwives and Plunket nurses, while 60 per cent wanted greater collaboration with public health nurses.

These desires were mirrored to some extent in preferences for sharing premises. Seventy-eight per cent wanted to share premises with physiotherapists, while almost as many wanted to share with social workers and public health nurses. However, the group appeared to have no wish to share premises with midwives or other district nurses to a greater extent than at present.

DISCUSSION

Several of the trends highlighted above are worthy of further consideration.

Firstly it is clear that interdisciplinary alliances are already quite common in some cases, including reasonably extensive collaboration. Physiotherapists with GPs, GPs with practice nurses, GPs with pharmacists and public health nurses with social workers are just some of the professional relationships which, on the whole, appear to be relatively well developed in the Christchurch area.

The reasons why these patterns exist, and

What is most striking about the data is the degree of unanimity that exists about the desirability of closer collaboration in the future

Table 3: Sharing premises with other health care professionals: actual situation and ideal preference

	General Practitioners (n=190)		Pharmacists (n=88)		Physio-therapists (n=37)		Dentists (n=92)		Practice Nurses (n=62)	
	All figures below are percentages									
	Act	Prf	Act	Prf	Act	Prf	Act	Prf	Act	Prf
with General Practitioners	73	75	5	90	22	84	15	74	73	66
with Pharmacists	7	51	21	26	5	24	13	55	8	57
with Physiotherapists	14	69	5	63	49	70	14	20	15	71
with Dentists	5	19	6	59	14	3	57	86	0	16
with Practice Nurses	19	66[1]	1	51	16	46	9	21	58	57
with Social Workers	2	48	2	25	5	27	5	8	0	53
with Plunket Nurses	1	37	0	36	3	0	1	3	8	3
with Midwives	5	51	3	30	3	3	4	2	13	50
with Public Health Nurses	0	25	0	0	11	19	1	1	0	19
with District Nurses	1	49	0	38	3	16	3	7	0	52

	Social Workers (n=16)		Plunket Nurses (n=13)		Independent Midwives (n=32)		Public Health Nurses (n=23)		District Nurses (n=32)	
	Act	Prf	Act	Prf	Act	Prf	Act	Prf	Act	Prf
	All figures below are percentages									
with General Practitioners	0	44	0	69	0	25	22	57	0	44
with Pharmacists	0	6	0	23	0	16	4	35	0	22
with Physiotherapists	6	25	0	31	6	19	52	74	19	78
with Dentists	0	0	0	0	0	3	4	4	0	0
with Practice Nurses	0	31	0	69	0	6	17	44	0	38
with Social Workers	50	81	0	77	3	41	4	74	59	75
with Plunket Nurses	0	25	15	69	0	44	9	48	0	25
with Midwives	0	6	0	92	44	75	4	17	44	38
with Public Health Nurses	25	44	0	69	0	9	52	52	9	59
with District Nurses	13	13	0	31	0	9	13	30	81	72

[1] GPs were asked here to refer only to practice nurses *other than their own*

Act - Actual, Prf - Preferred

not others, undoubtedly are complex. Factors such as growth and maintenance of professional boundaries and New Zealand's past and present systems of managing and funding primary health care services must all be considered.

What is most striking about the data, though, is the degree of unanimity that exists about the desirability of closer collaboration in the future.

For example, a high proportion of Plunket nurses and GPs indicated a wish for greater collaboration with each other, as did physio-therapists and GPs, independent midwives and Plunket nurses, and district nurses and GPs, amongst others. This suggests that a high proportion of community based health professionals currently appreciate the desirability, at least in an ideal world, of better communication and closer interaction with at least some of the diverse range of health professionals from other disciplines who serve their patients. This is no better exemplified than in the data on premises sharing. Sharing offices normally implies a considerable professional and material commitment to regular interchange and cooperation.

Yet the results from our survey suggest that, at least in the Christchurch area, practitioners from some quite diverse disciplines and backgrounds are willing to countenance the possibility of moving in together. By this we mean not just GPs with pharmacists, or physiotherapists with GPs, but less predictable alliances such as those between social workers and public health nurses, district nurses and social workers, and Plunket nurses and midwives.

In conclusion, it is important to stress that the preferences signalled here should not be over interpreted. They are drawn, after all, from a questionnaire that by its very nature encouraged respondents to adopt a visionary stance and to emphasise what they saw as the gaps between the actual and the ideal.

However, these limitations aside, the preferences we have noted do provide some scope for healthy conjecture, in particular prompting the observation that inter-professional collaborative relationships may not be all that they could be in New Zealand's urban primary care settings.

Indeed, there is clearly a great deal of potential for looking at new systems or strategies for enhancing the frequency and quality of the professional dialogue between certain provider groups.

For this reason, in the report of the second part of this study(15) we intend to highlight some of the major impediments which our respondents thought would restrict their capacity to form closer collaborative relationships with practitioners from outside their disciplinary area.

Coupled with this, and perhaps most importantly, we will also summarise the range of solutions that our respondents proposed to overcome at least some of these impediments to greater collaboration.

Acknowledgements

We are grateful to Joanna Campbell, Helen Leonard and Maureen Parkyn for their assistance with the administration of the survey questionnaires and data entry. Our thanks, too, to all the health care providers in the Christchurch area who took the time to respond to our questionnaire. We would particularly like to thank the representatives of the professional associations and employing organisations who generously gave their time to comment on the findings emerging from the study. Of course we take full responsibility for the opinions and interpretations expressed in the paper.

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