

1995 - 1999

research survey

of health professionals in the Sligo General Hospital region of the
North Western Health Board



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Research & Education
Foundation



North Western
Health Board

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Abbreviations

AMO	Area Medical Officers
CAWT	“Cooperation and working together”
CH	Community Hospitals
GP	General Practitioner
NCHD	Non Consultant Hospital Doctors
NWHB	North-Western Health Board
OLM	Our Lady’s Hospital, Manorhamilton, Co. Leitrim
PHD	Public Health Department
PHN	Public Health Nursing
SC	St. Columba’s Hospital, Sligo
SGH	Sligo General Hospital

Executive Summary

In 1999 the Research & Education Foundation, Sligo General Hospital initiated a study on the research interests, experience and activity of health professionals in the Sligo General Hospital catchment area of the North Western Health Board. The study was carried out in October/November 1999 by means of a postal questionnaire to 590 health professionals in the area: Doctors, Nurses, Community Care staff, Public Health Dept., Heads of Service etc.

A total of 276 responded (including 20 that were not part of the original sampling population) which corresponds to a return rate of 43.4%. Approximately three quarters expressed an interest in research. Similarly, when asked to indicate the main barriers to research at the Board, personal interest was not a barrier to the vast majority of respondents. The respondents suggested 269 research projects in various areas of speciality.

There is a large pool of health professionals with research experience in the region: Over half of the respondents have carried out research at some stage in their career and a third were involved in research in the period 1995-99, the latter amounting to a total of 167 research projects. These projects resulted in 37 publications in scientific journals, 72 national and international presentations, 54 third level projects and a number of other publications.

The study also showed that relatively little research funding has been granted health professionals in the region and that most respondents carried out the research partly or fully outside working hours. The research projects have involved collaboration with numerous partners external to the area of research and/or the Health Board. There has been a particularly strong collaborative link with educational institutions and partners within the health care sector.

The main barrier to carrying out research is, overwhelmingly, lack of time. Funding, staff and support are considered fairly important barriers and for respondents with no experience, skills and supervision are also relatively significant barriers.

Based on the findings of the survey, the Research Advisory Committee recommends the following to nurture the development of a research culture at the NWHB: Implementation of a research strategy by the Health Board, sharing of research findings at regular fora, provision of protected research time, availability of research funding, further development of collaboration between researchers within and outside the NWHB and the establishment of an Ethics Committee.

1. Foreword

The Research and Education Foundation at Sligo General Hospital was set up in the early 90's with the primary objective of improving the quality of medical care offered to the general public by supporting programs of research and expanding the education curriculum.



The Foundation and indeed S.G.H. has always been an outward looking institute. Since the birth of the Foundation it has fostered inquiry and scholarship. Previously the emphasis has been on the application of knowledge. However, we are now entering a new era in developing our research capacity. The Research Advisory Committee was set up to aid in the creation of a fertile and accommodating research environment and to encourage a research ethos. The findings of this report are encouraging and it provides a solid base for research development in the future.

On behalf of the Board of the Research and Education Foundation I wish to congratulate Ms. Mette Jensen-Kavanagh (Research Officer), Dr. John Williams, Chairman and his colleagues of our Research Advisory Committee on the production of this significant report.

Signed

Mr. Aleck Crichton
Chairman Research and Education Foundation S.G.H.

2. Introduction

Health care professionals have a responsibility within a modern economy to advance medical knowledge and understanding, to provide critical analysis of current medical theory and views and to transfer this knowledge and understanding into practice.

The Research Advisory Committee intends energetically to seek new opportunities to develop partnerships and strategic alliances to share our research capacity more actively. We intend to be known as a positive, proactive and responsible group, which is closely involved with the community and serving its interests.

Why do we need a research arm at Sligo General Hospital? Through research the “investigator” develops skills that go beyond the achievement of medical knowledge, in observation, comprehension, analytical, communication, critical thinking and hypothesis formulation and testing. “The faculties developed by doing research are those most needed in diagnosis” (Adler F.H. 1966). Research enhances all aspects of medical practice and the Foundation understands that research can no longer be regarded as a luxury but something that is essential.

This report set out to collect and collate information on research activities within the catchment area of the Foundation. Its purpose is to set the framework for action and resource allocation for the development and implementation of research policy and thereby increase the quantum of research undertaken within the NWHB.

Some of the findings are very encouraging and this augurs well for the future. However, a number of shortcomings have come to light and these will have to be actively addressed by the Health Board and the Foundation before real advances can be made in the development of a research strategic plan.

I would like to thank the North Western Health Board and the Research and Education Foundation for their support, both financial and otherwise. I would like to commend the Public Health Department at Ballyshannon and members of the Research Advisory Committee for their energy and expertise but in particular Ms. Mette Jensen-Kavanagh (Research Officer) for her unceasing attention to every little detail. Thank you.

Dr. John Williams
Chairman Research Advisory Committee

3. Aims and Objectives

The overall objective of the survey was to review the research experience and interests of the staff and other health professionals within the Sligo General Hospital catchment area of the NWHB as well as identifying the route to the development of a research culture within the NWHB.

Specifically, the survey aimed at:

a. Prime Objectives:

To create a database on:

- The research carried out by the health professionals working at the NWHB in the period Jan. 1st 1995 – Nov. 1999
- The areas of research interest of the health professionals within the Board

b. Secondary Objectives:

To advise the Foundation, NWHB and Hospital Management on the distribution of research resources and to identify scope for greater research activities by investigating the following:

- Research publications and presentations 1995-99
- Funding and funding sources 1995-99
- Research collaboration partners 1995-99
- Proportion of research activity undertaken within working hours in 1995-99
- Reasons for not publishing research results
- Perceived barriers to individuals carrying out research

4. Definitions

The research included in the scope of this survey must be carried out either by a graduate or supervised by a graduate. Research is defined as “systematic investigation aimed at the discovery of previously unknown theory and its application to new situations and problems”. It includes:

- a. Strategic research, that extends the boundaries of basic knowledge and understanding.
- b. Scholarship, where existing knowledge is re-organised and its implication for our understanding is re-assessed to provide new insights.
- c. Applied research, yielding innovation in the application of more fundamental knowledge and understanding to solve contemporary problems.
- d. Application, where such innovations are implemented to deliver a product.

5. Methodology

The methodology applied was a survey, conducted by means of a postal questionnaire in October/November 1999. It was aimed at all health professionals in the Sligo General Hospital catchment area of the North Western Health Board.

To test the validity of the proposed questionnaire, a pilot study was carried out involving 20 people from a cross-section of the sampling population. The pilot study resulted in minor changes in the design of the final questionnaire (Appendix 1).

Three to four weeks prior to posting the questionnaire, a selection of the survey population (Consultants, Heads of service at SGH, Regional Heads at the NWHB Head Office, Heads of Community Care as well as Ward sisters at all hospitals) were informed in writing about the proposed survey.

Recipients of the questionnaire were given two weeks to return the completed questionnaire. Two postal reminders followed:

- (a) One to all the members of the sampling population one week subsequent to the initial posting of the questionnaire
- (b) One to all non-respondents two days after the deadline for returning the form. Non-responding consultants were also reminded by phone via their secretaries.

Sampling population

The study aimed at all categories of the health professionals employed in the Sligo General Hospital catchment region of the NWHB. Doctors, nurses, support staff, management etc. in the following areas of employment were included:

- Sligo General Hospital
- Our Lady's Hospital, Manorhamilton
- St. Columba's Hospital, Sligo
- Community Hospitals (St. John's, Sligo; St. Patrick's, Carrick-on-Shannon; Sheil Hospital, Ballyshannon)
- Community Care Services, Markievicz House, Sligo
- General Practices
- Public Health Department, Ballyshannon
- NWHB Head Office, Manorhamilton

Groups of less than 80 were generally included in full. A random sample of 50 of the approx. 390 staff nurses at SGH was considered adequate. Other groups, such as support staff (physiotherapy, laboratory, pharmacy, occupational therapy and radiography) were approached via their supervisors, who were encouraged to pass on the questionnaire to personnel with an interest or experience in research. This group has a total of 75 staff members at SGH. Chief Nursing Officers and Ward sisters at Community Hospitals, Our Lady's Hospital and St. Columba's were also requested to identify staff nurses with an interest and facilitate their participation.

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The total sampling population was 590 and the breakdown into the various groups of health professionals as well as the respective response rates are shown in Appendix 2. A summary is given in Table 1.

6. The Study Sample

Response Rates

The overall response rate was 43.4% (Table 1). Nine staff nurses at Community Hospitals and 11 support staff at SGH and Community Hospitals (4 laboratory staff, 4 physiotherapy staff and one staff member from the library, radiology and the dietetic service respectively) volunteered completion and returning of the questionnaire. This voluntary group comprise 3.4% of the total sampling population.

The response rate for each group is listed in Table 1 (for more detail, see Appendix 2).

Group	Number	Returns	Return Rate
Consultants	36	22*	61.1%
Non-consultant Hospital Doctors	77	12	15.6%
General Practitioners	65	26	40.0%
Nurses	148	76	51.4%
Heads of Service	71	30	42.3%
Public Health Department	16	9	56.3%
Community Care	177	81	45.8%
Voluntary** respondents, support staff	(11)	(11)	-
Voluntary** respondents, CH nursing staff	(9)	(9)	-
Total incl. Voluntary respondents	(610)	(276)	(45.2%)
Total excl. Voluntary respondents	590	256	43.4%

* One consultant returned information about her research experience only

** Health professionals encouraged by their supervisor to respond, i.e. not part of the original sample

Table 1: *Sampling population, returns and return rate for the research questionnaire*

The Non-consultant hospital doctors obtained a significantly lower return rate than all other groups.

Non-respondents

In order to obtain information about the relatively large group of non-respondents, a random selection of 10% (or a little more) of the non-respondents in each subgroup were contacted by phone or in person and queried about the main reasons for not returning the questionnaire. A total of 42 were selected, corresponding to 13% of the non-respondents.

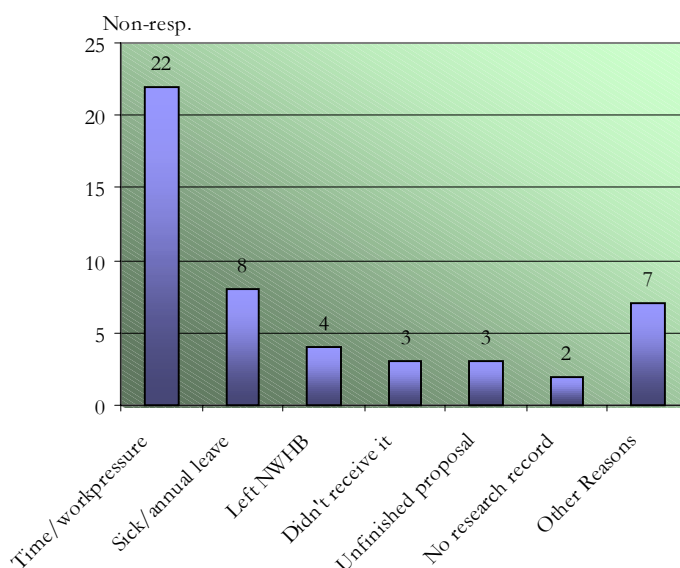


Figure 1: *Reasons for not returning the questionnaire.*

Over half of the non-respondents explained that lack of time/work pressure was the main reason (Figure 1) for not returning the questionnaire, eight were unavailable due to annual leave or illness, four had left the NWHB and three hadn't received the questionnaire nor the reminders. Another three felt that their ideas were somewhat underdeveloped for inclusion in the survey and they therefore never completed the questionnaire. Two explained that the survey was not relevant, as they had no research record. Among the "other" reasons the non-respondents mentioned: Questionnaire lost, reluctance to sharing research ideas, research experience not comprehensive, not relevant due to short stay at SGH, cumbersome to fill out questionnaire, lost in the return post and R & E Foundation only relevant to Hospital Staff. Some non-respondents gave more than one reason.

7. Results

Research Experience and Interests

Over half (54%) of the respondents have some degree of research experience (Figure 2). 33.7% (93 people) have been involved in research in the period Jan. 1st 1995 - Nov. 1999, whereas 40.2% have research experience dating prior to Jan. 1st 1995. 72.8% express an interest in becoming involved in research in the future (Figure 2).

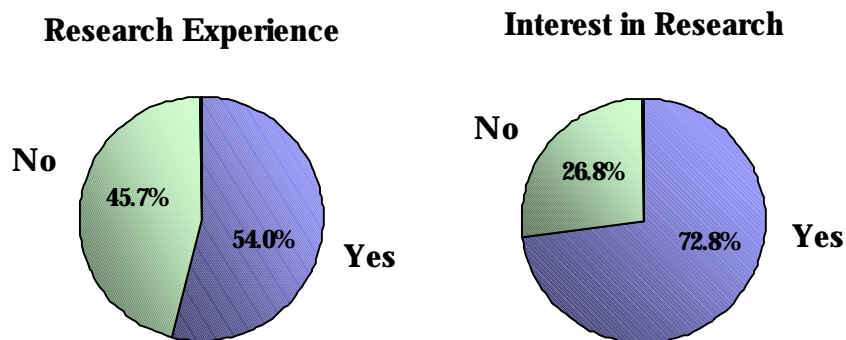


Figure 2: *Proportion of respondents with research experience and research interest.*

There was statistical evidence that a relationship exists between future interest in research and experience ($\chi^2=55.4$, $p<0.0005$, see Appendix 3). A respondent with experience is most likely to express an interest in future participation, whereas a respondent with no desire to become involved in the future, most likely has no research experience.

Doctors

The number of Consultants, Non-consultant Hospital Doctors and General Practitioners with research experience and interest are shown in Figure 3. Almost all responding consultants are experienced and would also like to be involved in the future. Little over half of the NCHDs have experience, however most show an interest in future participation. The sample is very small (Table 1) and does not necessarily represent the large group of NCHD (77) in the area. GPs are proportionally less interested in research. About two thirds of the responding GPs say they are interested in future research and about the same number have research experience.

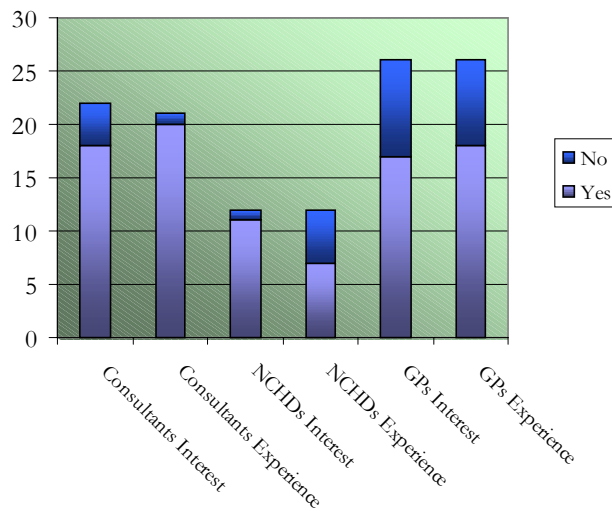


Figure 3: *Research interest and experience among doctors.*

Nursing Staff

There is a significant amount of interest in research among the nursing staff. The results of the random sample of staff nurses at SGH showed that a little less than a third had research experience, whereas two thirds were interested in becoming involved in research in the future (Figure 4). This interest reflects the situation at management level, where less than 50% have experience and two thirds wish to take part in research. There is also a very strong interest in research among responding specialist nurses. The 100% yes-response to research involvement in the future from community hospital nursing staff nurses reflects the voluntary responses from staff (Appendix 2), who were encouraged by their supervisors to express their research experience and/or interest in the questionnaire.

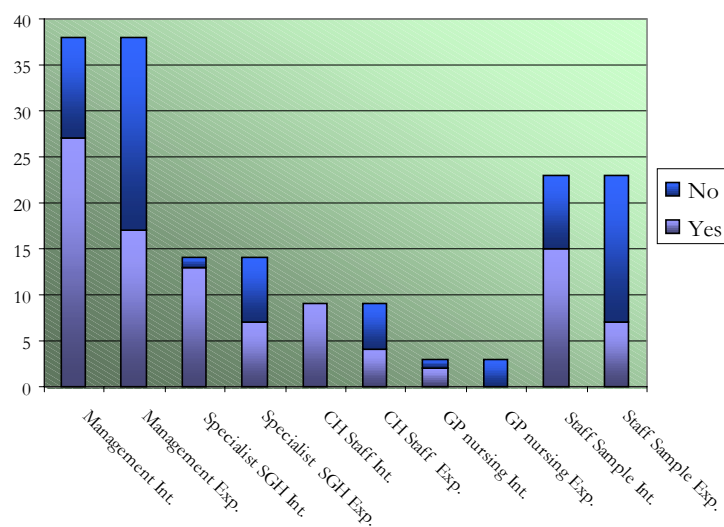


Figure 4: *Research interest and experience among the nursing staff.*

Community Care

The sample of public health nurses included in the survey were generally not as interested in research as their hospital counterparts (Figure 5). Only about one third expressed an interest; which corresponds to the number of people that had research experience. Social workers only constitute a very small sample, and their apparent lack of interest and experience may not be extrapolative. There is considerable research interest in the group, ‘Other Community Care’, which includes psychology, AMO dept., speech therapy, environmental health, community welfare etc. About half of these respondents also have research experience.

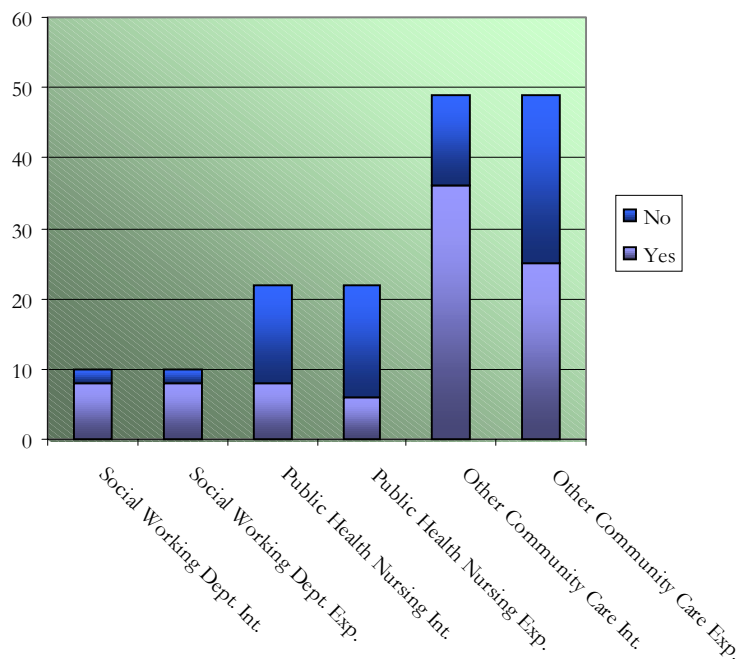


Figure 5: *Research interest and experience among Community Care Staff.*

Other Groups

A little less than half of the responding heads of service have research experience, however about two thirds are interested in future involvement (Figure 6). There is a stronger track record and interest among regional heads of service, and all respondents from the Public Health Department are interested and experienced reflecting the nature of their daily work, which is heavily research orientated. Support staff at SGH and other hospitals also voice a significant research interest, however this group includes 11 voluntary respondents who completed the questionnaire because of their research record or interest.

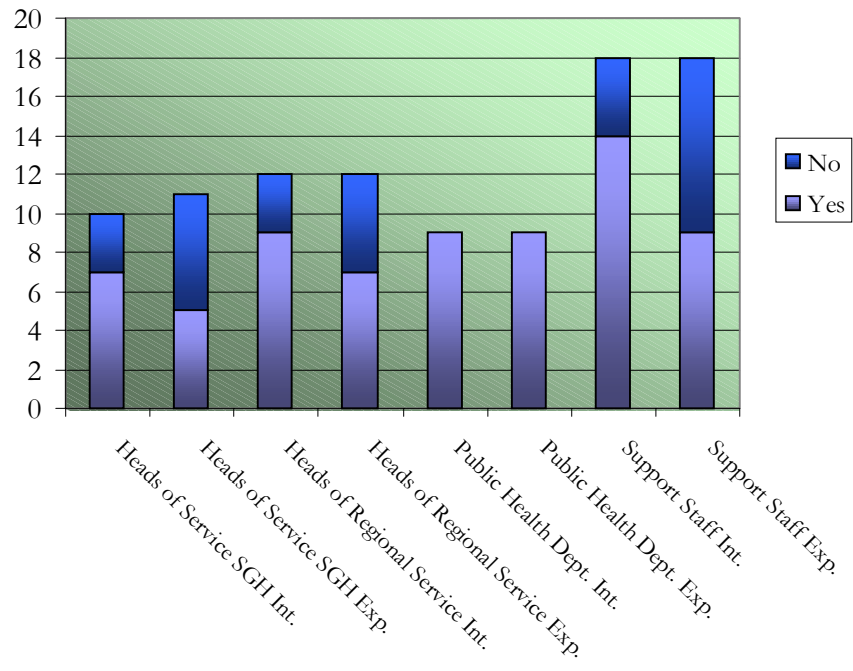


Figure 6: *Research interest and experience among 'other groups'.*

Areas of Research Interests

Approximately three quarters of the respondents (202 people) expressed an interest in participating in research in the future. Of those, about 83% made suggestions for one or more research projects or indicated an area of interest. A total of 269 research projects were suggested and the number of proposed projects for each of the areas of speciality is listed in Table 2.

Area of Research	No. of Projects
Anaesthesia	7
Child Health	33
Clinical Effectiveness	3
Community Services	11
Dental	6
Diagnostic services	12
Disability	12
Environmental Health and Food safety	7
General Practice	7
Health Promotion	11
Information Technology	9
Internal Medicine	28
Management	26
Medicine for the Elderly	14
Mental Health	5
Nursing	32
Obstetrics/Gynaecology	5
Oncology	5
Palliative Care	4
Paramedical	10
Primary Care	5
Public Health	3
Surgery	6
Trauma & Orthopaedics	8
TOTAL	269

Table 2: *Number and areas of proposed research projects.*

There are large number of research proposals within the general areas of Child Health, Nursing, Internal Medicine and Management. Proposals within the areas of Medicine for the Elderly, Health Promotion, Diagnostics, Disability and Community Services also feature prominently. An extensive list of the actual proposals, suggested collaborative partners and the originator of the proposals can be obtained from the Research & Education Foundation, Sligo General Hospital.

Research Experience

54% of the respondents have been involved in research at some stage in their career, whereas 33.7% have been involved in the period 1995-99. This study looked at the type, amount and conditions of the research that has taken place in that period.

The survey covered a total of 167 research projects. The areas of particular strength within the sample population are Trauma & Orthopaedics, Environmental Health &

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Food safety and General Practice. There is also significant experience in the areas of Child Health and Community Services (Table 3).

Area of Research Experience	No. of Projects
Anaesthesia	1
Child Health	14
Community Services	14
Dental	6
Diagnostic services	8
Disability	8
Environmental Health and Food safety	20
General Practice	19
Health Promotion	7
Information Technology	2
Internal Medicine	9
Management	7
Medicine for the Elderly	5
Nursing	9
Obstetrics/Gynaecology	1
Oncology	2
Paramedical	4
Primary Care	4
Surgery	6
Trauma & Orthopaedics	21
TOTAL	167

Table 3: *Areas of research projects carried out Jan 1st 1995 – Nov 1999.*

Research was carried out by a cross section of the various groups of health professionals in the study period. However, the group with the greatest research involvement was Consultants participating in or conducting 26% of the total number of projects (Table 4). The Public Health Department, Support staff, 'Other Community Care' and GPs also took part in a significant number of projects. The large number of projects within the Support staff group is due to two particularly active researchers in the laboratory at SGH.

The Public Health Department and Consultants have participated in the highest number of projects per respondent in 1995-99 (Table 4). The research rate of the support staff is also above the average of 0.6.

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Group		Projects	No. of projects in % of total	Research Rate*
Doctors	Consultants	44	26%	2.0
	NCHDs	5	3%	0.4
	GPs	16	10%	0.6
Nursing	Nursing Management	6	4%	0.2
	Specialist Nursing	2	1%	0.1
	Staff Nurse Sample	4	2%	0.2
	Com. Hosp. Staff Nurses	3	2%	0.3
	General Practice Nursing	0	0%	0.0
Community Care	Social Work Dept.	5	3%	0.5
	Public Health Nursing	9	5%	0.4
	Other Community Care	21	13%	0.4
Other Groups	Regional Heads	7	4%	0.6
	Service Heads SGH	4	2%	0.4
	Support staff	23	14%	1.3
	Public Health Dept.	18	11%	2.0
Grand Total		167	100%	0.6

*no. of research projects per respondent

Table 4: *Research projects and research rate* for sub-groups of the study sample 1995-99.*

Publications and Presentations

The research carried out resulted in a number of publications and presentations. The respondents published a total of 37 scientific papers in the study period (Table 5). They were produced by 15 of the 93 respondents with research experience (15%) in 1995-99.

Journal	Number of articles
British Journal of Surgery	3
Irish Medical Journal	3
Journal of Bone & Joint Surgery, Supplement	3
Journal of Hand Surgery	3
British Journal of General Practice*	2
Irish Journal of Medical Science	2
Medical Education*	2
Ambulance Ireland*	1
Anaesthesia News	1
Annals of Clinical Biochemistry	1
Applied Microbiology	1
Biomedical Society Transactions	1
Electrophoresis	1
European Journal of General Practice	1
Food Science	1
Injury	1
International Journal of Orthopaedic Trauma	1
Irish Pharmacy Journal	1
Journal Irish College of Physicians and Surgeons	1
Journal of Biomedical Science	1
Journal of Emergency Medicine	1
Journal of Fish Disease	1
Modern Medicine of Ireland	1
Nursing Standard	1
Resuscitation*	1
The Irish Scientist	1
Total	37

* Articles published by the 'Donegal pre-hospital emergency care project'.

Table 5: *Publications in scientific journals 1995-99.*

A significant amount of the research experience at NWHB is related to third level education. A total of 54 research projects were a direct result of either a graduate or post-graduate programme (Table 6). A number of these were supervised by NWHB health professionals and carried out by a student not employed or associated with the Board. The MSc dissertations were carried out mainly in the areas of Dentistry, Medical Laboratory Science (microbiology and biochemistry) and General Practice. Two members of staff performed research as part of an MA degree, one in the area of Management and one in Primary Health Care.

“Other 3rd level projects” include primary degree, national certificate and diploma projects. There is a strong link between the laboratory at SGH and Institute of Technology Sligo. Laboratory staff supervised 11 such third level projects in the period

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1995-99. A total of four nurses and six Community Care Staff had also carried out research as part of a third level education programme.

Other publications include unspecified reports, information leaflets, contribution to newsletters and annual reports etc.

	No. of Projects
MSc dissertation	23
MD dissertation	1
MA dissertation	2
Other 3 rd level project	28
Textbook contribution	2
NWHB report	14
Report to professional body	2
Other Publications	10
Total	82

Table 6: *Other research publications in the period 1995-99*

The respondents have given a total of 72 presentations with abstracts in the period 1995-99 (Figure 7), 14 of which were international. The presentations were given by 29 of the 93 respondents with research experience in the five-year period.

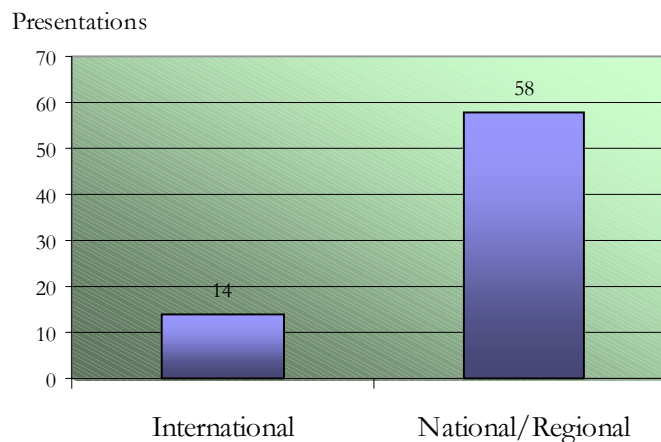


Figure 7: *Number of international and national/regional presentations with abstracts, 1995-99*

A number of respondents with research experience had not published some or all the findings of their research projects. The main reason for not preparing a paper/article/presentation etc. were lack of time, however lack of experience and insufficient research findings were also significant factors (Figure 8). Respondents may have indicated more than one reason.

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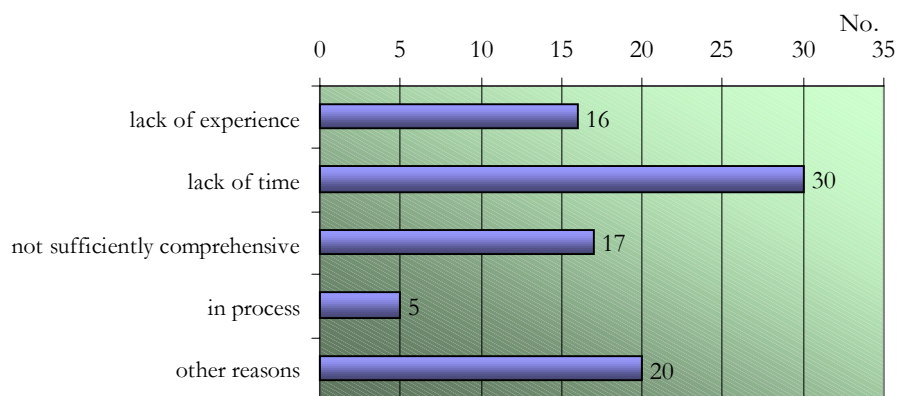


Figure 8: *Reasons for not publishing research findings of projects carried out 1995-99*

Other reasons include research carried out when at college, confidential information and financial limitations.

Funding

The 93 respondents with research experience in the period 1995-99 were asked to indicate the amount of funding for research they had been allocated. A total of 45 (48%) had received no money at all, from neither external sources nor from sources within the NWHB.

A significant number of the respondents did not answer this question (20.4% and 19.4%) (Table 7) and it is reasonable to assume that this group either did not receive any funding, carried out the research when at college or performed the research when employed elsewhere.

	Funding within NWHB		External Funding	
	Frequency	Percentage	Frequency	Percentage
£0	54	58.1%	59	63.4%
£0 - 5,000	12	12.9%	10	10.8%
£5,000 - 10,000	2	2.2%	0	0%
£10,000 - 50,000	1	1.1%	2	2.2%
£50,000 - 100,000	1	1.1%	1	1.1%
> £100,000	0	0%	3	3.2%
University Fee	4	4.3%	-	-
Missing Response	19	20.4%	18	19.4%
Total	93	100%	93	100%

Table 7: *Funding allocated respondents, who participated in research in the period 1995-1999.*

Very few respondents were recipients of dedicated research grants. There are a number of relatively small grants (< £5,000) and only a handful of significant magnitude. The three grants that exceed £100,000 are:

- “ACTION” Project. EU sponsored programme to develop use of information technology for carers in the home.
- Clinical Management Project at Sligo General Hospital.
- Donegal Area Rapid Treatment Study (DARTS). Programme to reduce call-to-needle time for heart attack patients.

The NWHB paid the university fee of four respondents and some research would have taken place during the course of the study period.

Funding Sources

The total number of research funding from external contributors are 16, out of which four were from sources within the industry, three from the Department of Health and Children and the remainder from a range of other institutions and organisations (Table 8).

Funding Source	No. of Projects
Industry	4
Department of Health & Children	3
Voluntary Organisations	2
G.M.S.	1
Irish College of General Practitioners	1
Nursing Board	1
EU	1
Other	3
Total	16

Table 8: *External sources of funding for research 1995-99*

A total of 16 projects were resourced from within the Health Board (Table 9). Eight respondents mentioned the NWHB in general or a number of departments within the Board as the source of their research funding. Five were funded through the GP Unit and two had received financial aid from the Research & Education Foundation. The Foundation has donated a total of five research grants since 1995, however the survey only encompassed two of these recipients.

Funding Source	No. of Projects
NWHB, unspecified dept.	8
GP Unit	5
Research & Education Foundation	2*
Hospital Sources	1
Total	16

* The Research & Education Foundation has donated a total of 5 research grants

Table 9: *Internal sources of funding for research 1995-99*

Collaboration Partners

A number of the research projects carried out in 1995-99 involved collaboration with other researchers, institutions or supervisors. Respondents indicated a total of 83 collaboration partners external to the NWHB out of which 37 were from the educational sector, 21 from the health care sector and 11 were international partners (Figure 9). There are also a number from the voluntary sector, industry and other institutions and bodies.

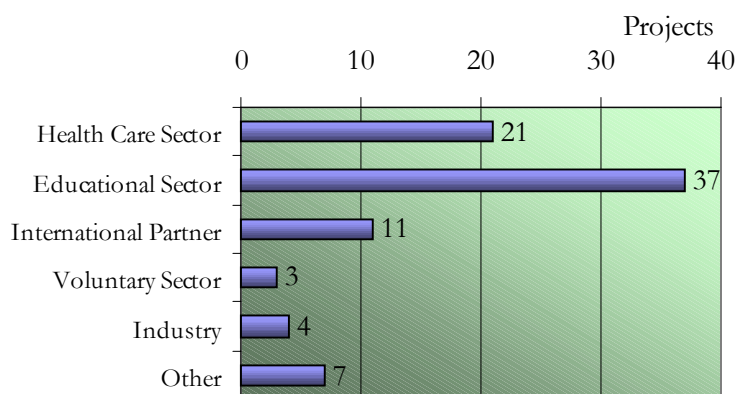


Figure 9: *External collaboration partners 1995-99.*

A similar number of projects involved collaboration with departments within the Health Board (Figure 10). Community Care (excl. Public Health Nursing) took part in 23 projects involving collaboration and GPs 18. The 12 projects involving hospital disciplines include the laboratory, all medical disciplines and various support departments. The 'other' category refers to the Health Promotion Department, multi-disciplinary teams, GP Unit etc.

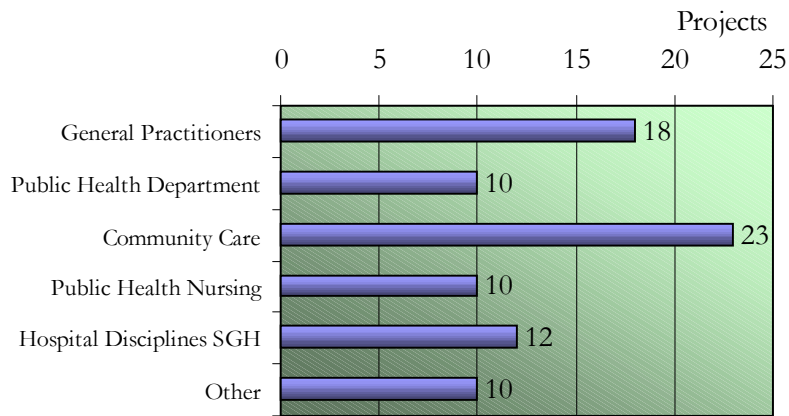


Figure 10: *Number of projects involving partners other than the discipline/department conducting the research within the NWFB 1995-99*

Proportion of research activity undertaken within working hours

Almost one third of the respondents that participated in research 1995-99 (28 out of 90) did it in their own time (Figure 11). Another 27% carried out half of the research during working hours and the other half outside working hours. Only 9 people did all their research within the working day. The ‘other’ category includes research carried out when a full-time student.

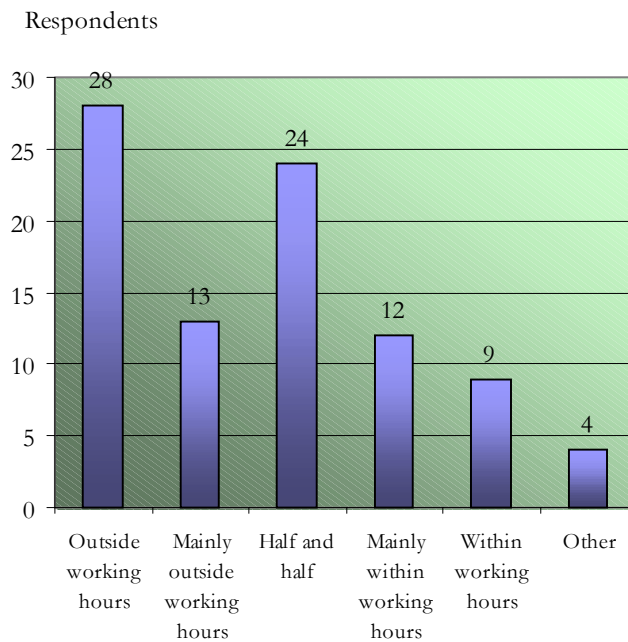


Figure 11: *Number of respondents undertaking research within/outside working hours 1995-99.*

Barriers to performing research

The survey participants were asked what they perceive as the main barriers to them performing research at the NWHB. Overall, time is the most significant barrier and personal interest is generally not a barrier (Figure 12 and 13).

Respondents with research experience indicated, that after time, funding is the most significant barrier followed by research staff and support (Figure 12). Experienced researchers clearly have a strong interest in the area and they are confident about their skills. Supervision does not appear to be a major issue for this group and the research facilities are generally reasonably adequate. Respondents in the 'other' category mention factors such as the lack of an Ethics Committee at SGH, difficulty in motivating others and various personal issues.

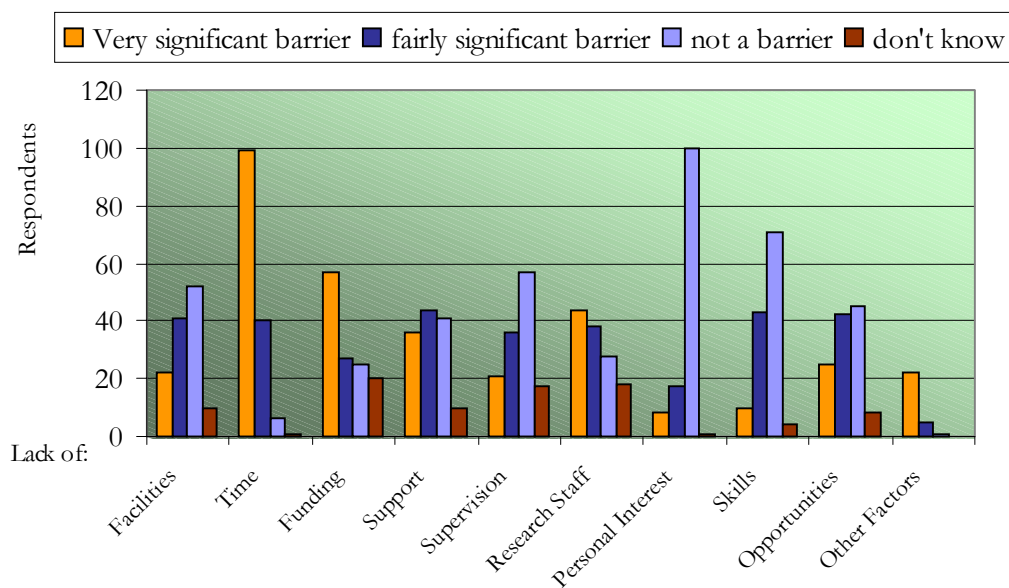


Figure 12: *Barriers to performing research perceived by the 149 respondents with research experience.*

There is also a high level of personal interest in research for the inexperienced group (Figure 13). This group, a total of 126 respondents, vote time as the most significant barrier to carrying out research, with funding as another significant barrier. Barriers such as lack of support, skills, staff and opportunities also play a role. In the category 'Other Factors' respondents mention various personal issues such as being close to retirement age, family commitments, fear of the unknown etc.

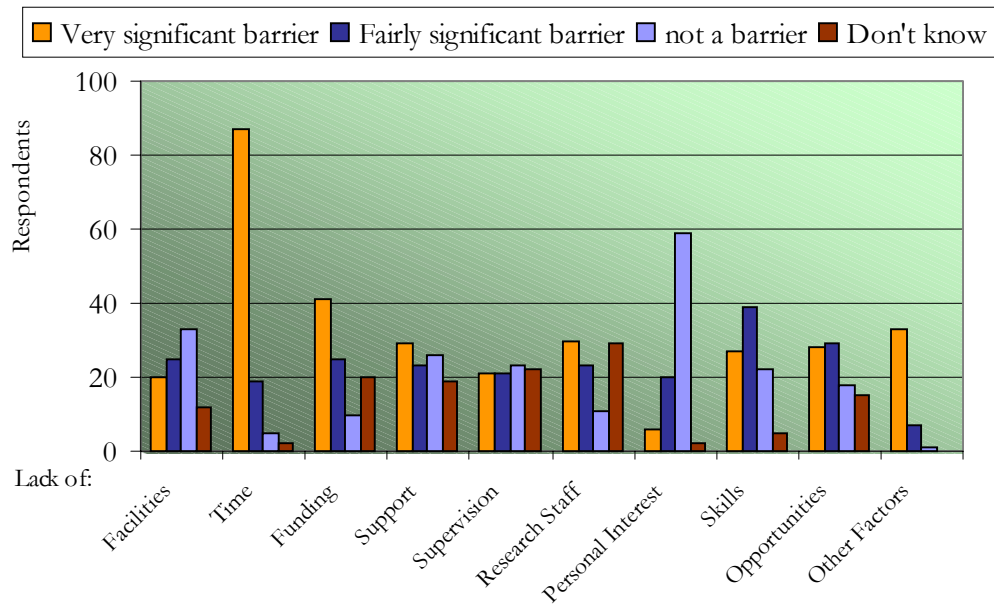


Figure 13: *Barriers to performing research perceived by the 126 respondents with no research experience.*

8. Conclusion

Health professionals in the Sligo Regional Hospital catchment area show a strong interest in research. Almost three quarters of the respondents indicate an interest in future involvement. Correspondingly, the vast majority do not consider personal interest a barrier to performing research at the Health Board. Even the large group of non-respondents do not necessarily represent a feeling of apathy towards research; none of the sample of non-respondents that were contacted in order to investigate the main reasons for not replying, mentioned lack of interest in research.

If apathy and personal interest are not an issue, what are the main reasons for only half of the respondents ever having participated in research and one third having been involved in the past five years? Lack of time is considered by far the most significant barrier for getting involved in research among respondents. Over half of the non-respondents also mention time/work-pressure as the reason for not returning the questionnaire. This issue is reflected in the working conditions of the health professionals who have participated in research in the study period. One third of these respondents have carried out all their research activities outside working hours, and only about 10% did all their research during the working hours. In addition to lack of time, funding is also a significant barrier as well as research staff and support. Respondents with no research experience also consider skills, opportunities and various other factors as barriers.

Most of the research carried out in the study period had been done with no or little funding. About half of the respondents that had been involved in research in 1995-99, had received no funding at all. Few (10) had received sums greater than £5,000 and 22 had accepted funding of less than £5,000. The donors of these research grants were evenly distributed between a variety of external sources and sources within the NWHB.

Collaboration or direct association with educational institutions account for a large amount of the research carried out by respondents. Health professionals have acted as supervisors, advisors, participated in courses while employed or carried out the research while still full-time students. This is reflected in the large number of third level publications (23 MSc's, 1 MD, 2 MAs and 28 other 3rd level publications). There has also been significant collaboration with partners within the national health care sector, international partners and various groups within the NWHB.

The research resulted in a total of 37 publications in scientific journals, 14 reports to the NWHB and 12 other publications. One respondent also had 2 textbook contributions. Fourteen presentations with abstracts were given at international conferences, whereas a total of 58 projects were presented nationally or regionally. The issue of lack of time is a significant reason for not publishing research findings and, to a lesser extent, lack of experience and incomprehensive data material.

9. Recommendations

Based on the findings of this report, the Research Advisory Committee recommends the following in order to nurture a research culture within the region:

- The formulation and implementation by NWHB Management of an overall research strategy for the Board.
- Sharing of research findings at dedicated research fora, where researchers within the Board present their work.
- Setting up of mechanisms that will provide researchers with protected research time.
- Supporting further research activity by making funding available for both experienced and inexperienced research staff.
- Further development of collaborative research within the Health Board as well as with external partners from the public and commercial health care sector and the educational sector.
- Establishment of an Ethics Committee.

Appendix 1

Survey Questionnaire

Thank you for taking the time to complete this form.

Your co-operation is essential to bring about further development of research activities within the NWHB region.

Personal details

1.

Name: _____
Occupation: _____
Work Address: _____
E-mail: _____
Duration of employment
in present position: _____

Research Experience

2. Have you participated in research since Jan 1st 1995?
(for definition of research, see appendix 1). **Yes**
No

*if No, please answer questions 3, 4, 5, 6, and 14 only
if Yes, please answer all questions*

3. Were you at any stage involved in research prior to Jan 1st 1995? **Yes**
No

Research Interests

4. Are you interested in participating in research in the future? **Yes**
No
*If No, go to question 6
If Yes, continue*

5. Please list any ideas for future research projects within your area of speciality that you would like to participate in if given the opportunity, regardless of the scale of the suggested project.

Area of research: _____

Description in 20 words: _____

Suggested partners: _____
(e.g. GP Unit, Public Health Dept. etc.)

Research Survey 1995-99

6. Please indicate the significance of each of the following factors when you consider the main barriers to you performing research at the NWHB (*please tick*):

LACK OF:	Very significant barrier	Fairly significant barrier	Not a barrier	Don't know
Facilities				
Time				
Funding				
Support				
Supervision				
Research staff				
Personal interest				
Skills				
Opportunities				
Other, please specify:				

If you have not been involved in any research activities since Jan 1st 1995, please go to question 14. Otherwise please continue.

7. If you have participated in research since Jan 1st, 1995, please describe the research projects in this table. *Use only one table per project (photocopy if necessary).*

PROJECT NUMBER:

Title:	
Year:	
Project description in 20 words:	
Collaborative partners:	
Publications related to above project: (please indicate number below)	
	Article(s) in journal Name of Journal:
	PhD dissertation
	MSc dissertation
	MD dissertation
	Other 3 rd level project
	Not published
	Other significant publications, please specify: (e.g. text book, report to NWHB etc)
Presentations with abstracts related to the above project: (Please indicate number)	
	International presentations
	National/regional presentations

8. In general, has the research you have carried out taken place

Please tick

Outside regular working hours	
Mainly outside regular working hours	
Half and half outside/inside working hours	
Mainly within working hours	
Within working hours	
Other, please specify:	

Research Survey 1995-99

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9. If you have carried out research, that has not been published, was it due to:

Please tick

Lack of publishing experience	
Lack of time to write up a publication	
Research deemed not sufficiently comprehensive	
Other, please specify:	

10. What is the total amount of research funding you have been granted since Jan 1st, 1995?

Please tick

Please tick

External Funding	Internal Funding (Within NWHB)	
£0	£0	
£0-5,000	£0-5,000	
£5,000-10,000	£5,000-10,000	
£10,000-£50,000	£10,000-£50,000	
£50,000-100,000	£50,000-100,000	
>£100,000	>£100,000	

11. Please list the source(s) of the research grant(s):

External funding: _____

Internal funding: _____

Collaboration

12. Please indicate the number of research projects involving external collaborative partners since Jan 1st 1995:

Number of projects	Collaborative partners
	National partners within the health sector
	Educational sector, nationally
	International partners
	Voluntary sector
	Industry
	Others, please specify:

13. Please indicate the number of research projects involving Internal collaborative partners since Jan 1st 1995:

Number of projects	Collaborative partners
	General Practitioner(s)
	Public Health Department
	Community Care
	Laboratory at SGH
	X-ray department

Research Survey 1995-99

	Others, please specify:
--	-------------------------

List of Publications

14. Please enclose a full list of publications on a separate typed sheet or on a computer disc in word format. If included, the list will be published in full.

Thank you very much for taking the time to complete this questionnaire

Appendix 1

Definition of research

The research included in the scope of this survey must be carried out either by a graduate or supervised by a graduate. Research is defined as “systematic investigation aimed at the discovery of previously unknown theory and its application to new situations and problems”. It includes:

- e. Strategic research, that extends the boundaries of basic knowledge and understanding.
- f. Scholarship, where existing knowledge is re-organised and its implication for our understanding is re-assessed to provide new insights.
- g. Applied research, yielding innovation in the application of more fundamental knowledge and understanding to solve contemporary problems.
- h. Application, where such innovations are implemented to deliver a product.

Appendix 2

Sampling Population, Returns and Return rate

Group	Area	Number	Returns	Return Rate
Consultants	SGH	32	21	65.6%
	Our Lady's	1	1	100.0%
	St. Columba's	3	0	0.0%
	Total	36	22	61.1%
NCHDs	SGH	69	10	14.5%
	Our Lady's	4	2	50.0%
	St. Columba's	4	0	0.0%
	Total	77	12	15.6%
GPs	Sligo	45	19	42.2%
	Leitrim/Donegal	16	7	43.8%
	Trainees	4	0	0.0%
	Total	65	26	40.0%
Nurses	Ward Sisters CH, OLM, SC	22	10	45.5%
	Ward Sisters SGH	32	17	53.1%
	Specialist nurses SGH	18	14	77.8%
	Administration	6	3	50.0%
	UNOM	4	1	25.0%
	Tutors	9	6	66.7%
	Staff nurses SGH	49	22	44.9%
	Staff nurses CH, OLM	9	9	100.0%
	Gen. Practice nurses	8	3	37.5%
	Total	157	85	54.1%
Heads of Service	SGH	34	11	32.4%
	Regional	28	12	42.9%
	Total	62	23	37.1%
Public Health Dept.	Total	16	9	56.3%
Community Care	Social Work Dept.	31	10	32.3%
	Public Health Nursing	61	22	36.1%
	Speech Therapy	10	9	90.0%
	Occupational therapy	3	1	33.3%
	Integrated therapy	1	1	100.0%
	Psychotherapy	1	1	100.0%
	Dietician	1	1	100.0%
	Chiropody	3	1	33.3%
	Psychology	8	6	75.0%
	Area Medicine	5	3	60.0%
	Child Psychiatry	5	0	0.0%

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Group	Area	Number	Returns	Return Rate
	Dental Dept.	12	8	66.7%
	Ophthalmic Dept.	2	2	100.0%
	Special Needs	2	1	50.0%
	Env. Health Dept	15	9	60.0%
	Community Welfare	17	6	35.3%
	Total	177	81	45.8%
Support Staff	Param. Heads CH, OLM	9	7	77.8%
	Laboratory SGH*	4	4	100.0%
	Physiotherapy SGH, CH*	4	4	100.0%
	Radiology SGH*	1	1	100.0%
	Dietician SGH*	1	1	100.0%
	Library*	1	1	100.0%
		9	7	77.8%
		(20)	(18)	90.0%
(TOTAL)		(610)	(276)	(45.2%)
GRAND TOTAL		590	256	43.4%

* Health professionals encouraged by their supervisor to respond, i.e. not part of the original sample
 () includes "voluntary" respondents

Appendix 3

Statistical Analyses

		Research interest in future			Total
		Yes	No		
Research Experience	Yes	Count	136	13	149
		Expected count	108.8	40.2	149.0
	No	Count	64	61	125
		Expected count	91.2	33.8	125.0
Total		Count	200	74	274

Table A3.1: *Cross tabulation of “Research Experience” and “Interest in Future”*

The test statistic (Pearson) of the chi-square test of the cross tabulation shown in table A3.1 is $\chi^2=55.378$ (1 degree of freedom). The p-value for $\chi^2=12.127$ is 0.0005.