



**EDUCATION REVIEW: A TENDER FOR THE
PHARMACEUTICAL SOCIETY OF IRELAND
RESEARCH PROJECT 2008**

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1. Overview of this Tender

This research proposal has been prepared in response to the invitation to tender published by the Pharmaceutical Society of Ireland (PSI) under the title "Education Review". The proposal has been prepared as a single project covering the two reviews outlined in the tender document:

- A root and branch review of the five year programme of education and training required to become a pharmacist within Ireland.
- A review of accreditation models and accreditation criteria.

It is the opinion of the proposers that combination of both reviews into one project will provide economy of scale and in addition will provide enhanced value since the two reviews are closely inter-related. If in consideration of the various tenders, the Pharmaceutical Society of Ireland wish for the two reviews to be separated then separate costs for each can be submitted.

2. Background and Context to this Project

The passing of the Pharmacy Act 2007 is a major development for pharmacy in Ireland. Prior to this, the regulatory powers of the Pharmaceutical Society of Ireland were based upon a number of Acts and regulations, some of them dating back to the end of the nineteenth century. The new Pharmacy Act gives the Society clearly defined regulatory powers over the profession of pharmacy and unambiguous authority over the educational standards appropriate to practice pharmacy. This major change comes at a time when the pharmacy profession is undergoing unprecedented change as it moves from a profession focussed upon supply and products to one focussed upon clinical patient care.

In determining our research strategy we will take account of three main influencing factors for pharmacy undergraduate education in Ireland. The first is this change in the nature of pharmacy practice with the move towards more patient focussed services. The second is the need for an enhanced understanding of the meaning of professional competence and of fitness for practice. High profile cases such as the Bristol Royal Infirmary Enquiry in 2001¹ and the Shipman Enquiry^{2,3} in the UK have highlighted the critical importance of clinical governance and the responsibility of health regulators to set and secure standards of practice. Core to this process is the development of an understanding and definition of the nature of professional work and so a definition of the essential educational basis for practice. Increasingly, education is being viewed not only as a knowledge base but as a complex process involving skills, knowledge and attitudes. The third was the pedagogic research that has shaped teaching and learning in the health professions, most particularly for medicine. These are the context for our study and will provide the philosophical basis for the design of the review of the five-year education and training programme in Ireland. We recognise also the need to take into account the educational policy context both in Ireland and within the EU. Pharmacy education in Europe is subject to the EU directive on pharmacy education which was agreed in 1985 (85/432/EEC)⁴. Pharmacy education is also subject to general educational

requirements such as compliance with the Bologna process and with internal policy and funding mechanisms within Ireland.

This project will be the first comprehensive baseline study of the whole programme of primary training of a pharmacist within a single nation state that has been undertaken in Europe. Our previous study of teaching and learning in the UK Schools of Pharmacy⁵ excluded any consideration of the pre-registration year. The scope of the current study therefore provides the basis for the design of potential future models of pharmacy education in Ireland. In our opinion, it is in this context that combination of the two tender reviews offers the greatest benefits. The project will use data from the reviews as the evidence base to develop proposals for a set of principles for pharmacy education and training and then recommendations in relation to the delivery and regulation of the whole five year period of education and training. These will provide an integrated view of the total five year period prior to registration as a pharmacist in Ireland and will link the recommendations on process to recommendations on regulation including accreditation. We recognise that this is an ambitious programme in a short period of time and that it is of critical importance that the project takes account of the views of all the major stakeholders within Ireland. To achieve this we have built into the project an intensive series of interviews and multiple surveys. It is proposed that a project steering group be formed to monitor progress of the project and the support of the Pharmaceutical Society of Ireland will be critical in establishing this group.

3. Overview of the Proposed Project

The project has been planned in three stages which cover sequentially the major stages of the basic education and training of pharmacists within Ireland:

- A) A comprehensive review of the current five year programme of pharmacy education and training in Ireland.** This stage will focus upon undergraduate education and will involve a review and analysis of the curriculum and teaching and assessment methods in the three Irish Schools of Pharmacy, plus an analysis of the views and experiences of the major stakeholders (including students, past students and staff).
- B) A review of the processes used to accredit professional courses with a focus upon health professional courses.** This review will take an international perspective through published studies and contact with key bodies. It will also be framed by key policy statements and legal requirements both within Ireland and within the EU area.
- C) A review of pharmacy pre-registration training within Ireland.** This will complete the overall review of the five year programme of education within Ireland and will have two main components. Firstly, a review of the various models of practice based education for pharmacy internationally and secondly, a detailed study of the experiences and views of all stakeholders in the Irish pre-registration process.

4. Key Outputs from the Project

- O1 **A draft set of principles for pharmacy education in Ireland.** These will be based upon the findings from Stages A and C of the study and will be submitted to the Pharmaceutical Society of Ireland so that they may undergo consultation with all relevant stakeholders. The draft principles will be submitted in February 2009. It is envisaged that the consultation process should be completed by August 2009 so that the output may be entered into the final stages of the project.
- O2 **A baseline report on the current position of pharmacy education within the university sector in Ireland.** This will cover curriculum, teaching and learning methods, professional and placement education and assessment. It will include a detailed analysis of the views of key stakeholders including students and past students. The review will identify key issues that will be critical to educational policy for pharmacy. This report will form the first section of the final project report and will be submitted by the end of December 2009, with preliminary findings available in September 2009.
- O3 **A review of methods of accreditation with a focus upon health professional education.** This will be based upon Stage B of the project and so will be informed by research on the pharmacy accreditation process in Ireland up to 2008. The findings from this review will be fed into the final project report and will therefore inform the proposals for an integrated model of education and training for Ireland. However, it is understood that a separate preliminary report relating to accreditation may be required earlier than December 2009 and therefore the project has planned a preliminary report on accreditation for September 2009.
- O4 **A quality review of the current pre-registration training programme** drawing upon the experiences and views of tutors, of current pre-registration trainees and of pharmacists with recent experience of the process. This will identify key areas of perceived weakness and strength and make recommendations to inform future policy for the pre-registration programme. Preliminary findings August 2008 and full report September 2008.
- O5 **A proposal for the future development of pharmacy education in Ireland.** This will form the second part of the main project report and will draw upon all three stages of the research programme and upon the literature based studies of models of accreditation and post-graduate practical education (see above).

5. Aims and Objectives

5.1 Aims

- To undertake a comprehensive review of the complete five year education and training process for entry to the pharmacy profession in Ireland and to identify strengths and weaknesses of the current system.
- To identify potential models for future education and training and to explore the ways in which the Pharmaceutical Society of Ireland can regulate (accredit) the education and training programme.
- To draw upon the experiences and views of all the stakeholders informed by international experiences and to make recommendations on a future strategy for pharmacy education and training in Ireland.

The detailed objectives of the project will be as follows:

5.2 STAGE A: A comprehensive review of the current five year programme of pharmacy education and training in Ireland.

- Ai. To document the variations in approach to curriculum design and organisation across the three Schools of Pharmacy in Ireland.
- Aii. To document by sub-discipline the teaching, learning and assessment methods used to deliver the curriculum.
- Aiii. To determine the attitudes and views of key staff responsible for the learning environment on current and potential developments in curriculum and teaching, learning and assessment strategies.
- Aiv. To measure the extent of, and the methods for, multi-professional learning involving pharmacy undergraduate students.
- Av. To measure the extent of, and the variety of approaches to, placement education (formal education in the health professional workplace).
- Avi. To obtain an insight into students experience of key elements of the teaching, learning and assessment strategies identified in (Ai) to (Av) above.
- Avii. To document student views of the value of key elements of the teaching, learning and assessment strategies identified in (Ai) to (Av) above.
- Aviii. To document the views of the academic staff members of the value of the key elements of the teaching learning and assessment practices identified in (Ai) to (Av) above.
- Aix. To document the views of pre-registration students and recently qualified pharmacists on selected elements of teaching learning and assessment practices.
- Ax. To identify examples of good practice and methods to support their introduction for dissemination within the Schools of Pharmacy.

- Axi. To make recommendations for a set of principles for pharmacy education in Ireland for further consultation within the pharmacy profession and other key stakeholders.
- Axii. To make recommendations for a future strategy for primary pharmacy education and training in Ireland and for a framework to guide curriculum and assessment. This will be accompanied by a review of the funding implications.

5.3 STAGE B: A review of the processes used to accredit professional courses with a focus upon health professional courses.

- Bi. To undertake a literature review on methods of accreditation for health professional programmes internationally.
- Bii. To document and explore national (Ireland) and EU policy and law that impinges upon degree education and training and upon pharmacy education and training in particular.
- Biii. To document experiences and views of academic staff of the accreditation process for pharmacy in Ireland since 2000.
- Biv. To document and explore the experiences and views of institutional managers and senior staff of the accreditation process for pharmacy in Ireland since 2000.
- Bv. To document and explore the experiences and views of Pharmaceutical Society of Ireland staff and of accreditation team members of the accreditation process for pharmacy in Ireland since 2000.
- Bvi. To make recommendations on a method for the future regulation of pharmacy education by the Pharmaceutical Society of Ireland that maps to the recommendations for future pharmacy education (see Stage A of the study above).

5.4 STAGE C: A review of pharmacy pre-registration training within Ireland

- Ci. To document the experiences of students during their pre-registration year, including their interactions with their tutor and with employers.
- Cii. To document the personal experiences of pre-registration students including arrangements for accommodation and other lifestyle issues.
- Ciii. To document the education and training experienced by students and how this linked or related to their undergraduate education.
- Civ. To explore students' perceptions of the value of the pre-registration year as a basis for future work
- Cv. To explore the experiences of pre-registration tutors of supervising students and of their interactions with students.
- Cvi. To explore the motivations of pre-registration supervisors for this role and real or perceived barriers to active involvement in the process.

- Cvii. To explore pre-registration tutors' views and experiences of their training and support for the supervisory role.
- Cviii. To explore issues of workload for the supervisors and of reward in the workplace.
- Cix. To explore experiences of interacting with the PSI and with employers in support of the role.
- Cx. To identify good practice and make recommendations on how this may be best captured within a training year
- Cxi. To identify issues that need to be addressed to maximise the benefit to students and tutors including governance issues relevant to the PSI.
- Cxii. To identify training needs of pre-registration supervisors.
- Cxiii. To explore alternative models of implementing the pre-registration year that would maximise benefit.

6. Timescale of the Project

The project has been designed to commence in April 2008. A final report will be submitted to the PSI by the end of December 2009. In addition the following interim reports will be provided:

- September 2008: preliminary quality report in relation to previous operation of the pre-registration training process (Stage C). This will provide initial recommendations for change but the full recommendations in relation to pre-registration training will require completion of the teaching and learning review (Stage A).
- September 2009: a preliminary report of the initial findings from Stage B of the study – the review of the accreditation process.

7. Ethical Approval

It is a requirement of Aston University that all studies involving individual views should be approved by the University Ethics Committee. This study would be submitted for ethical committee approval once funding was agreed. The investigators will be covered by the University general indemnity insurance.

8. Methods

8.1 STAGE A: A comprehensive review of the current five year programme of pharmacy education and training in Ireland.

There will be four main components to this part of the study:

- 1) Analysis of course documentation from each school of pharmacy in relation to teaching, learning and assessment methods. This will include documentation in the public arena (for example, web information, prospectuses, published material, conference presentation, etc) and material supplied by the schools.
- 2) Semi-structured interviews with the head of school, programme director and with the head of pharmacy practice at each School of Pharmacy focussing upon teaching, learning and assessment methods and strategies.
- 3) A survey of all final year students at each School of Pharmacy to explore student experiences of teaching, learning and assessment methods and perceptions of their value.
- 4) A survey of all academic and other teaching staff at each School of Pharmacy to explore experiences of teaching, learning and assessment methods and views of potential future developments and pressures for change.

In addition, a limited set of questions will be incorporated into the survey of pre-registration students and recently registered pharmacists to explore perceptions and views of the interface between their education and practice (see Stage C below).

Detailed Methodology

Two members of the research team will visit each of the three Schools of Pharmacy. During this visit they will:

- Undertake semi-structured interviews with key members of staff. These will include the Head of School, the programme lead for pharmacy (Programme Director) and the professional lead (for example, Head of Pharmacy Practice) where this is a different individual.
- Gather key curriculum documentation. This will include the detailed syllabus, assessment schedules, student handbook and specific information on practice or clinical placements and inter-professional education.
- Administer a self-completion questionnaire to the final year students. It is proposed to do this at a pre-arranged venue and experience of similar projects conducted in the UK suggests that this is the most effective way of ensuring a high completion rate.^{5,6}

As highlighted above, it is proposed that the student survey will be administered to students during the visits to the Schools of Pharmacy. This, in addition to achieving a higher response rate that would be expected by using posted questionnaires, only requires single administration.

120 questionnaires per school	360	
Total Administration	360	(Questionnaire print run of 400)

The findings from the staff interviews will be used to finalise a self-completion questionnaire to be sent to all academic and teaching staff members. This will be administered either by post or electronically with two follow-ups.

Details of the staff survey based upon a 50% response rate to the first mailing and a 50% response rate to the second mailing are shown below. Based upon previous studies in pharmacy these response rates should be achievable. It is estimated that up to 30-35 members of staff within each School of Pharmacy would be sampled.

First Mailing	100
Second Mailing	50
Third Mailing	25
Total Mailing	175 (Questionnaire print run of 200)

8.2 STAGE B: A review of the processes used to accredit professional courses with a focus upon health professional courses.

There will be four main components to this part of the study:

- 1) A systematic research of the background literature covering published work, policy and practice in accreditation of pharmacy and relevant healthcare disciplines, particularly medicine.
- 2) In depth semi-structured interviews with key staff in each of the three Irish Schools of Pharmacy to cover their experiences of the accreditation process and views on its strengths, weaknesses and potential for change. It is planned to interview three or four staff at each school; two from the academic discipline of pharmacy and one or two from the university senior management who had direct experience of the accreditation process. In addition, it is proposed to interview one individual per school of pharmacy from the UK who has been involved in advising an Irish School of Pharmacy on accreditation.
- 3) In depth semi-structured interviews with key staff at the Pharmaceutical Society of Ireland involved with the accreditation process to cover their experiences of the accreditation process and views on its strengths, weaknesses and potential for change.
- 4) A survey of all visitors involved in the accreditation visits to the Irish Schools of Pharmacy to cover their experiences of the accreditation process and views on its strengths, weaknesses and potential for change.

Detailed Methodology

Two members of the research team will visit all Schools of Pharmacy to undertake the series of interviews. These will be arranged in advance and will be separate from interviews linked to the course delivery (see Stage A above). In addition, three interviews with School accreditation advisors will be undertaken within the UK.

It is anticipated that up to five interviews with key members of staff at the Pharmaceutical Society of Ireland will be undertaken over a three day period (by two members of the research team). The survey of all visitors involved in the

accreditation visits will be by self-completion postal questionnaire and the design of the questionnaire will be informed by the outcome of the interviews.

Details of the survey of all visitors involved in the accreditation visits is based upon a 50% response rate to the first mailing and a 50% response rate to the second mailing are shown below. Based upon previous studies in pharmacy these response rates should be achievable. It is estimated that up to 40 individuals would be sampled.

First Mailing	40	
Second Mailing	20	
Third Mailing	10	
Total Mailing	70	Questionnaire print run of 80

8.3 STAGE C: A review of pharmacy pre-registration training within Ireland

There will be three major components to this part of the study:

- 1) Three focus groups with current pre-registration students and with recently qualified pharmacists to explore experiences of pre-registration training and perceptions and views on the pre-registration process.
- 2) A survey to all pharmacists who had completed their pre-registration training within the last 5 years to document experiences of pre-registration training and perceptions and views on the pre-registration process.
- 3) A survey of all tutors registered with the Pharmaceutical Society of Ireland for pre-registration supervision to document experiences of pre-registration training and perceptions and views on the pre-registration process.

Detailed Methodology

Student Study

It is understood that about 400 students have completed the pre-registration year in Ireland over the last 5 years. The methods proposed are as follows:

Focus Groups: Two to be held one with 8 pharmacists who had recently undertaken pre-registration training in Ireland and one with pharmacy graduates currently undertaking pre-registration training. Since the current pre-registration students would be late in their training year, they would have a view of the process. Ideally the groups would include individuals with experience of pre-registration training in community, hospital and industrial pharmacy.

It is planned to hold these focus groups in Dublin and to use the PSI database to identify potential participants. The focus groups will be used to explore the experiences and views of participants and so to inform the design of the quantitative survey. Each focus group will be facilitated by a member of the research team and will be recorded. Records will be transcribed and analysed by thematic analysis.

Survey: By a self-completion postal questionnaire to all 400 former pre-registration students recorded on the PSI database. There will be an initial questionnaire with two follow-ups. The questionnaire will consist mainly of quantitative questions with

a limited number of free-format text responses. The design will draw upon (a) the focus group evaluation (b) the experience and expertise of the project steering group and (c) expertise within the research team on the pre-registration process. Quantitative questions will be coded and the data entered into an SPSS database for subsequent analysis. The initial output will be frequency plots followed by more detailed statistical analysis including cross-tabulations of parameters.

Details of the student survey based upon a 50% response rate to the first mailing and a 50% response rate to the second mailing are shown below. Based upon previous studies in pharmacy these response rates should be achievable.

First Mailing	400	
Second Mailing	200	
Third Mailing	100	
Total Mailing	700	Questionnaire print run of 800

Pre-registration Tutor Study

It is understood that the PSI has the names of around 1000 approved tutors on its database. Not all are active and in any one year around 200 will be involved in supervision. It is proposed to survey all of the registered tutors because this will enable questions to be asked about reasons for involvement or non-involvement in the process. The questionnaires will be informed by the outcomes of the student focus groups, the project steering group and the expert knowledge of the research team.

Details of the student survey based upon a 50% response rate to the first mailing and a 50% response rate to the second mailing. Based upon previous studies in pharmacy these response rates should be achievable.

First Mailing	1000	
Second Mailing	500	
Third Mailing	250	
Total Mailing	1750	Questionnaire print run of 1900

9. Project Management

The project will be undertaken by the Pharmacy Practice Research Group based within Aston Pharmacy School. The project will be managed by Professor Keith Wilson, head of the group. The main project team will be Professor Wilson and Dr Chris Langley. Both are registered pharmacists within Great Britain with a track record in educational research in pharmacy. The project will support one full time research assistant for 18 months who will be recruited specifically for this project.

It is proposed to form a project steering group. This will include representation from the Pharmaceutical Society of Ireland and ideally one or two recent pre-registration students and a one or two pharmacists with recent supervisory experience within Ireland. The steering group will meet regularly to monitor progress on the project and to ensure compliance with the stated objectives.

10. Capability Statement

The project will be lead by Professor Keith Wilson who has over 35 years experience in pharmacy education. He is a former Head of School of Pharmacy, is currently a team leader for accreditation at the Royal Pharmaceutical Society of Great Britain and has been an external advisor to the Pharmaceutical Society of Ireland accreditation teams. He was a subject assessor for pharmacy in the UK Quality Assurance Agency (QAA) reviews in England, Scotland and Wales. He has just been elected as the academic representative of the UK Schools of Pharmacy on the Council of the Royal Pharmaceutical Society of Great Britain.

The applicants have worked together for over 6 years and have specialised upon the evaluation of new pharmacy education and services. The pharmacy practice research group has a long established record for multi-disciplinary, collaborative research and specialist input will be available from established links with the Health Services Research Group in Aston Business School and from the Health Psychology unit within the School of Life and Health Sciences. The team have undertaken a large number of commissioned research projects for the UK Department of Health, health authorities and other public organisations and the Royal Pharmaceutical Society of Great Britain. These include the first national study of teaching, learning and assessment methods used within MPharm level education in the United Kingdom⁵ and a national study on the career motivations and aspirations of UK MPharm and prospective MPharm students⁶. Both of the team members are registered pharmacists within the UK and are actively involved in teaching pharmacy at foundation degree, undergraduate and postgraduate level.

11. Project Outputs

The principal output of the project will be a written report for the Pharmaceutical Society of Ireland. The report will synthesise and contribute to the policy agenda in the area of pharmacy service development. In addition, the project will give rise to publications in academic and professional journals and at relevant research conferences, subject to agreement by the Pharmaceutical Society of Ireland. No explicit reference of individuals or of organisations or companies will be made in publications arising from the study. If required, the lead researchers will be willing to give an oral presentation of the key research findings.

12. Project Costings

The costs of the study have been broken down as follows:

(Costs calculated using €1 = £0.797 – exchange rate correct as at 31st March 2008)

12.1 Questionnaires (costs include printing, postage and reply-paid envelopes)

Teaching, learning and assessment student study (Stage A)

Total number 400 costed at £2 per questionnaire (£800.00) €1,003.76

Teaching, learning and assessment staff study (Stage A)

Total number 200 costed at £2 per questionnaire (£400.00) €501.88

Accreditation study (Stage B)		
Total number 80 costed at £2 per questionnaire (£160.00)		€200.75
Student study (Stage C)		
Total number 800 costed at £2 per questionnaire (£1,600.00)		€2,007.53
Pre-registration tutor study (Stage C)		
Total number 1900 costed at £2 per questionnaire (£3,800.00)		€4,767.88
	SUBTOTAL (£6,760.00)	€8,481.80

12.2 Focus groups (costs include travel and accommodation)

Teaching, learning and assessment stage (Stage A)		
One visit to Ireland per school for two researchers over three days (three nights), costed at £175 per night (£3,150.00)		€3,952.32
Accreditation stage (Stage B)		
One visit to Ireland per school for two researchers over three days (three nights), costed at £175 per night (£3,150.00)		€3,952.32
Visit to the Pharmaceutical Society of Ireland for two researchers over two days (two nights), costed at £175 per night (£700.00)		€878.29
One visit per school for one researcher to UK advisor, costed at £175 per night (£525.00)		€658.72
Pre-registration stage (Stage C)		
One visit to Ireland for one researcher over three days (two nights), costed at £175 per night (£350.00)		€439.15
Steering Group Meetings		
Three visits to Ireland for two researchers over two days (one night), costed at £175 per night (£1,050.00)		€1,317.44
	SUBTOTAL (£8,925.00)	€11,198.24

12.3 Cost of investigators

Professor Keith Wilson (£11,813.92)		€14,822.99
Dr Chris Langley (£7,021.81)		€8,810.30
Research Assistant (Grade 7, point 25) 18 months (£53,447.96)		€67,061.43
Recruitment and relocation costs (Research Assistant) (£2,000)		€2,509.41
	SUBTOTAL (£74,283.69)	€93,204.13

12.4 Costs of support staff

Secretarial support for transcription of all interview recordings		
Cost of 520 hours @ £12.88 per hour (£6,697.60)		€8,403.51
	SUBTOTAL (£6,697.60)	€8,403.51

12.5 Costs of equipment

Laptop computer (£500.00)	€627.35
Desktop computer (£500.00)	€627.35
SUBTOTAL (£1,000.00)	€1,254.70

GRAND TOTAL €122,542.38 (£97,666.29)

13. References

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2. The Shipman Enquiry. 4th Report. The regulation of control drugs in the community. Command paper CM 6249. London: HMSO, 2004.
3. The Shipman Enquiry. 5th Report. Safeguarding patients: lessons from the past proposals for the future. Command paper CM 6394. London: HMSO, 2004.
4. Council Directive. Concerning the coordination of provisions laid down by law, regulation or administrative action in respect of certain activities in the field of pharmacy. *Official Journal of the European Communities* 1985;85/432/EEC.
5. Wilson K, Jesson J, Langley C, Clarke L, Hatfield K. MPharm Programmes: Where are we now? Report commissioned by the Pharmacy Practice Research Trust, 2005.
6. Wilson K, Jesson J, Langley C, Clarke L, Hatfield K. Pharmacy undergraduate students: career choices and expectations across a four-year degree programme. Report commissioned by the Pharmacy Practice Research Trust, 2006.

14. Project Time Plan

A review of the education of pharmacists in Ireland	Quarter (beginning)																
	April 2008		July 2008			October 2008			January 2009			April 2009			July 2009		October 2009
STAGE A: A comprehensive review of the current five year programme of pharmacy education and training in Ireland																	
A1 Documentary collation and analysis.																	
A2(i) Design of staff semi-structured interviews.																	
A2(ii) Administration of staff semi-structured interviews.																	
A2(iii) Analysis of staff semi-structured interviews.																	
A3(i) Design of student self-completion survey.																	
A3(ii) Administration of student self-completion survey.																	
A3(iii) Analysis of student self-completion survey.																	
A4(i) Design of staff self-completion survey.																	
A4(ii) Administration of staff self-completion survey.																	
A4(iii) Analysis of staff self-completion survey.																	
STAGE B: A review of the processes used to accredit professional courses with a focus upon health professional courses																	
B1 Literature review.																	
B2(i) Design of school staff and UK individual semi-structured interviews.																	
B2(ii) Administration of school staff and UK individual semi-structured interviews.																	
B2(iii) Analysis of school staff and UK individual semi-structured interviews.																	
B3(i) Design of PSI staff semi-structured interviews.																	
B3(ii) Administration of PSI staff semi-structured interviews.																	
B3(iii) Analysis of PSI staff semi-structured interviews.																	
B4(i) Design of self-completion survey for individuals involved in the accreditation process.																	

A review of the education of pharmacists in Ireland (continued...)	Quarter (beginning)																			
	April 2008			July 2008			October 2008			January 2009			April 2009			July 2009			October 2009	
B4(ii) Administration of self-completion survey for individuals involved in the accreditation process.																				
B4(iii) Analysis of self-completion survey for individuals involved in the accreditation process.																				
STAGE C: A review of pharmacy pre-registration training within Ireland																				
C1(i) Design of focus group theme plan.																				
C1(ii) Administration of focus groups.																				
C1(iii) Analysis of focus groups.																				
C2(i) Design of self-completion survey for recently qualified pharmacists.																				
C2(ii) Administration of self-completion questionnaire for recently qualified pharmacists.																				
C2(iii) analysis of self completion questionnaire for recently qualified pharmacists.																				
C3(i) Design of self-completion survey for pre-registration tutors.																				
C3(ii) Administration of self-completion questionnaire for pre-registration tutors.																				
C3(iii) analysis of self completion questionnaire for pre-registration tutors.																				
Other activities																				
O1 Steering group meetings.																				
O2 Draft principles (preparation and submission).																				
O3 PSI consultation period of draft principles.																				
O4 Interim reports (preparation and submission).																				
O5 Final project report (preparation and submission).																				