



Maternal care

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Wellcome Witnesses
to Twentieth Century Medicine

MATERNAL CARE

A Witness Seminar held at the
Wellcome Institute for the History of Medicine,
London, on 6 June 2000

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Key

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Miss Friedericke Eben, Dr Irvine Loudon, Mr Elliot Philipp (1915–2010)

Mr Richard Porter, Dame Margaret Wheeler

Professor James Drife, Mr Elliot Philipp (1915–2010)

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INTRODUCTION

A few years ago I gave a talk to a group of midwives and historians at a conference held in Sheffield on the history of midwifery and childbirth. My theme was the delivery of maternity care in The Netherlands. As I spoke cheerfully about the wonderfully low rates of intervention in Holland I noticed some unease and foot-shuffling among the audience. Into question time we got to the heart of the matter. A few of the midwives in the audience had worked with Dutch midwives and found some of their practices disturbing, and what they saw as a reluctance to give pain relief or to withhold information on pain relief as ‘cruel’. I was startled by this. Having spent almost a decade working in The Netherlands as a historian with a particular interest in the formation of Dutch midwifery practice, I was comfortable with the idea that the Dutch midwife was a ‘guardian of normal births’. Home birth was still a viable, safe and happy choice for around a third of Dutch women. Birth without pain relief appeared to be ‘normal’ and accepted both by consumer and providers of care alike, although in recent years more Dutch women have demanded and received epidurals during hospital deliveries. Physiologically, Dutch women cannot be that different from British women, but something in their experience, knowledge and culture prepares many of them to expect normal birth to be bearable without pain relief, just as something in the training and expectations of Dutch midwives teaches them to anticipate that in many cases pain relief will not be required. It is not my role here in writing this brief introduction to add anecdotes to those contained in the following pages. But this example serves, I believe, to show how ‘culturally bound’ ideas of childbirth and maternity care are, how they vary from country to country, and, as the discussion shows, from region to region, from hospital to hospital, between local medical cultures and practitioners – within as well as between professional groupings – over time, and according to experience, the influence of colleagues and mentors, and in some cases chance and individual circumstance.

As concern mounts over the current provision of childbirth services, a shortage of midwives, the rise in Caesarean sections, and the quality of care within maternity units, this Witness Seminar, ‘Maternal Care’, held at the Wellcome Institute for the History of Medicine on 6 June 2000 was also very timely. ‘The Demise of Natural Childbirth’ robbed Lord Archer of his headline position in the *Daily Mail* of 13 June 2001, while a few weeks later *The Sunday Times Magazine* (15 July 2001) published its ‘Good Birth Guide’, investigating hospital-by-hospital standards of care, the rate of elective and emergency Caesarean, induced and instrumental deliveries. History can and does speak to policy, and this Witness Seminar showed just how quickly ideas and practice could change in the delivery of maternal care; the abruptness of the downward descent of the curve showing home deliveries post-Peel is stout evidence of this (Figure 5a). But other changes, including the decline in GP attendance at births, was much steadier, more complex and varied across the country, and was explained by the desire for regular working hours, concerns about tackling technological

procedures, and the fortunes and working relationships of local GP units and groups of community midwives.

The 'big three' issues which have dominated maternity care during the twentieth century were very much in evidence at the seminar: the increase in hospital births; the changed and, in many respects, declining fortunes of midwives; and the stepped-up use of new medical technologies were all addressed. But these were overlaid with other issues concerning the delivery of care and produced a much more refined picture. The discussion opened with the topic of maternal deaths, an issue that was to haunt obstetricians and midwives until rates began to tumble in the late 1930s (see Figure 1). Yet, as the participants reveal, infection was still causing maternal deaths well into the second half of the century in this country and puerperal sepsis remains a deadly problem in many parts of Africa. Different views of what constitutes 'normal' are also expressed in the following pages; and as one participant put it in what other field of human endeavour would one-third of cases be described as 'abnormal' (Dr Jean Donnison, p. 51). Perceptions of normality change over time and nowhere was this more evident than in the evidence presented about what constituted a normal labour: 40 years ago 36 hours of labour was seen as normal, in recent years labour beyond eight hours is considered overlong. Midwives in the 1970s were taught that induction of labour was normal because 50 per cent of women were being induced (Mrs Caroline Flint, p. 46). The 1970s were described as a period of great disillusionment for midwives, a time of being side-lined, and midwives practising at the time describe themselves as feeling 'invisible' as both a professional group and individuals. Yet, midwives were never without their firm supporters, and the view is also put forward that the circle has turned once again, with midwives aiming to provide care of normal cases of pregnancy and birth. The 'decline' of the midwife profession has been a major issue during the second half of the century, and not just in Britain. But, again, the discussion in the following pages shows just how varied the views, experiences and interactions of midwives, GPs and obstetricians were during the twentieth century; in no way can this be seen as a simple division on lines of gender or professional grouping. I was particularly intrigued to hear the voice of the GP, who has often been sidelined in discussions on changing childbirth practices, and who was so well represented at the seminar.

Reading a text is very different from having 'been there' and I have missed the nuances of being a witness to this seminar. The transcript, however, provides a source of riches for the historian, midwifery practitioners and for policy makers, who face the ongoing challenge of providing maternity care that is safe, well organized, and which offers choice to those who work in the health service and to women and their families. The discussion also shows, however, that something that should be so simple and straightforward isn't. Even leaving aside cost considerations and the broader problems racking the NHS, different practitioners have and will continue to have very different ideas about what constitutes good care and practice, particularly as medical students and, to a certain extent, midwives are trained in hospital environments on the

pathology of parturition (Professor Peter Dunn, p. 50). Despite the very different views expressed during the meeting, all those speaking at the seminar showed that what everyone, ultimately, is aiming for is quality of maternity care, and these voices, particularly in recent decades, have been added to by rise of the vocal, informed and, rightly demanding consumer of midwifery care.

Perhaps more than anything else the Witness Seminar revealed the importance of the influence of experience, training and circumstance on the delivery of care. 'Maternal Care' was quite narrowly bounded in the discussion, dealing mainly with the delivery of care to mothers immediately before, during and after delivery, as one participant pointed out leaving out pre- and postpregnancy care, counselling, and family planning (Professor Charles Whitfield, p. 40). The actual process of labour also received less discussion than might have been expected, 'user groups' were not represented at the seminar, although many of the participants had had first-hand experience of maternity care, and many professed to speak on behalf of consumers. The issue of litigation received only the briefest of mentions, antenatal testing, teenage pregnancies, health education, and the status and rights of the fetus as compared with the mother were not discussed at all. Yet the sharp focus on the themes of maternal deaths, levels of intervention, induction, pain relief and GP practice, produced a richness of evidence, backed up by personal reminiscence.

The resulting transcript will be of immense interest to practitioners and historians. It is a captivating read, and its focus on the second half of the twentieth century is of particular value to historians who struggle to find literature on the post-Second World War period. To my great regret I was unable to attend the seminar, but I have learnt much from reading the resulting transcript. I found it interesting on several levels: not least to discover the issues that were actually highlighted during the seminar as being most worthy of discussion, to learn how many of the leading figures in maternity care learnt and practised their procedures, and perhaps, above all, how they reflected back on the way they had worked over the decades. The organizers, Dr Irvine Loudon and Dr Daphne Christie, are to be warmly congratulated for putting such a good idea into such good effect, the Wellcome Trust in London for hosting the event, and Professor James Drife on his expert chairmanship and timely interventions. All the participants – midwives, obstetricians and gynaecologists, GPs and statisticians, including many of the most active and influential figures of the second half of the twentieth century – should be thanked for sharing their experiences and views.

Hilary Marland
University of Warwick

WITNESS SEMINARS: MEETINGS AND PUBLICATIONS¹

In 1990 the Wellcome Trust created a History of Twentieth Century Medicine Group, as part of the Academic Unit of the Wellcome Institute for the History of Medicine, to bring together clinicians, scientists, historians and others interested in contemporary medical history. Among a number of other initiatives the format of Witness Seminars, used by the Institute of Contemporary British History to address issues of recent political history, was adopted, to promote interaction between these different groups, to emphasize the potential of working jointly, and to encourage the creation and deposit of archival sources for present and future use. In June 1999 the Governors of the Wellcome Trust decided that it would be appropriate for the Academic Unit to enjoy a more formal academic affiliation and turned the Unit into the Wellcome Trust Centre for the History of Medicine at University College London from 1 October 2000. The Wellcome Trust continues to fund the Witness Seminar programme via its support for the Centre.

The Witness Seminar is a particularly specialized form of oral history where several people associated with a particular set of circumstances or events are invited to meet together to discuss, debate, and agree or disagree about their memories. To date, the History of Twentieth Century Medicine Group has held over 25 such meetings, most of which have been published, as listed in the table on page vi.

Subjects for such meetings are usually proposed by, or through, members of the Programme Committee of the Group, and once an appropriate topic has been agreed, suitable participants are identified and invited. These inevitably lead to further contacts, and more suggestions of people to invite. As the organization of the meeting progresses, a flexible outline plan for the meeting is devised, usually with assistance from the meeting's chairman, and some participants are invited to 'set the ball rolling' on particular themes, by speaking for a short period of time to initiate and stimulate further discussion.

Each meeting is fully recorded, the tapes are transcribed and the unedited transcript is immediately sent to every participant. Each is asked to check their own contributions and to provide brief biographical details. The editors turn the transcript into readable text, and participants' minor corrections and comments are incorporated into that text, while biographical and bibliographical details are added as footnotes, as are more substantial comments and additional material provided by participants. The final scripts are then sent to every contributor, accompanied by forms assigning copyright to the Wellcome Trust.² Copies of all additional

¹ The following text also appears in the 'Introduction' to recent volumes of *Wellcome Witnesses to Twentieth Century Medicine* published by the Wellcome Trust and the Wellcome Trust Centre for the History of Medicine at University College London.

² For Sir Iain Chalmers: The Crown authorizes the Wellcome Trust to publish his work and to report or reproduce it in any form or media, including offprints, provided that it is understood that the Wellcome Trust's right to do so is nonexclusive.

correspondence received during the editorial process are deposited with the records of each meeting in Archives and Manuscripts, Wellcome Library, London.

As with all our meetings, we hope that even if the precise details of some of the technical sections are not clear to the nonspecialist, the sense and significance of the events are understandable. Our aim is for the volumes that emerge from these meetings to inform those with a general interest in the history of modern medicine and medical science; to provide historians with new insights, fresh material for study, and further themes for research; and to emphasize to the participants that events of the recent past, of their own working lives, are of proper and necessary concern to historians.

Members of the Programme Committee of the History of Twentieth Century Medicine Group

The Group's activities are overseen by the Programme Committee, which includes professional historians of medicine, practising scientists and clinicians. The Programme Committee during 2000–01 comprised:

Dr Tilli Tansey – Historian of Modern Medical Science, Wellcome Trust Centre at UCL, and Chairman

Sir Christopher Booth – Wellcome Trust Centre at UCL, former Director, Clinical Research Centre, Northwick Park Hospital, London

Dr Robert Bud – Head of Life and Environmental Sciences, Science Museum, London

Dr Daphne Christie – Senior Research Assistant, Wellcome Trust Centre at UCL and Organizing Secretary

Dr Gordon Cook – Wellcome Trust Centre at UCL, former consultant, Hospital for Tropical Diseases, London

Professor Hal Cook – Director, Wellcome Trust Centre at UCL

Professor Chris O'Callaghan – Consultant Paediatrician, Leicester

Dr Jon Turney – Head of the Department of Science and Technology Studies, University College London.

HISTORY OF TWENTIETH CENTURY MEDICINE WITNESS SEMINARS, 1993–2001

- 1993** **Monoclonal antibodies¹**
Organizers: Dr E M Tansey and Dr Peter Catterall
- 1994** **The early history of renal transplantation**
Organizer: Dr Stephen Lock
- Pneumoconiosis of coal workers²**
Organizer: Dr E M Tansey
- 1995** **Self and non-self: a history of autoimmunity¹**
Organizers: Sir Christopher Booth and Dr E M Tansey
- Ashes to ashes: the history of smoking and health³**
Organizers: Dr Stephen Lock and Dr E M Tansey
- Oral contraceptives**
Organizers: Dr Lara Marks and Dr E M Tansey
- Endogenous opiates¹**
Organizer: Dr E M Tansey
- 1996** **Committee on Safety of Drugs¹**
Organizers: Dr Stephen Lock and Dr E M Tansey
- Making the body more transparent: the impact of nuclear magnetic resonance and magnetic resonance imaging⁴**
Organizer: Sir Christopher Booth
- 1997** **Research in General Practice⁴**
Organizers: Dr Ian Tait and Dr E M Tansey
- Drugs in psychiatric practice⁴**
Organizers: Dr David Healy and Dr E M Tansey
- The MRC Common Cold Unit⁴**
Organizers: Dr David Tyrrell and Dr E M Tansey
- The first heart transplant in the UK⁵**
Organizer: Professor Tom Treasure
- 1998** **Haemophilia: recent history of clinical management⁶**
Organizers: Professor Christine Lee and Dr E M Tansey

¹ Tansey E M, Catterall P P, Christie D A, Willhoft S V, Reynolds L A. (eds) (1997) *Wellcome Witnesses to Twentieth Century Medicine*, vol. 1. London: The Wellcome Trust, 135pp.

² P D'Arcy Hart, edited and annotated by E M Tansey. (1998) Chronic pulmonary disease in South Wales coalmines: An eye-witness account of the MRC surveys (1937–1942). *Social History of Medicine* 11: 459–468.

³ Lock S P, Reynolds L A, Tansey E M. (eds) (1998) *Ashes to Ashes – The history of smoking and health*. Amsterdam: Rodopi B V, 228pp.

⁴ Tansey E M, Christie D A, Reynolds L A. (eds) (1998) *Wellcome Witnesses to Twentieth Century Medicine*, vol. 2. London: The Wellcome Trust, 282pp.

⁵ Tansey E M, Reynolds L A. (eds) (1999) Early heart transplant surgery in the UK. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 3. London: The Wellcome Trust, 72pp.

⁶ Tansey E M, Christie D A. (eds) (1999) Haemophilia: Recent history of clinical management. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 4. London: The Wellcome Trust, 90pp.

- Obstetric ultrasound: historical perspectives**⁷
Organizers: Dr Malcolm Nicolson, Mr John Fleming and Dr E M Tansey
- Post penicillin antibiotics**⁸
Organizers: Dr Robert Bud and Dr E M Tansey
- Clinical research in Britain, 1950–1980**⁹
Organizers: Dr David Gordon and Dr E M Tansey
- 1999 Intestinal absorption**¹⁰
Organizers: Sir Christopher Booth and Dr E M Tansey
- The MRC Epidemiology Unit (South Wales)**
Organizers: Dr Andy Ness and Dr E M Tansey
- Neonatal intensive care**¹¹
Organizers: Professor Osmund Reynolds and Dr E M Tansey
- British contributions to medicine in Africa after the Second World War**¹²
Organizers: Dr Mary Dobson, Dr Maureen Malowany,
Dr Gordon Cook and Dr E M Tansey
- 2000 Childhood asthma, and beyond**¹³
Organizers: Dr Chris O'Callaghan and Dr Daphne Christie
- Peptic ulcer: rise and fall**
Organizers: Sir Christopher Booth, Professor Roy Pounder and Dr E M Tansey
- Maternal care**¹⁴
Organizers: Dr Irvine Loudon and Dr Daphne Christie
- 2001 Leukemia**
Organizers: Professor Sir David Weatherall, Professor John Goldman,
Sir Christopher Booth and Dr Daphne Christie
- The MRC Applied Psychology Unit**
Organizers: Dr Geoff Bunn and Dr Daphne Christie
- Genetic screening**
Organizers: Professor Doris Zallen and Dr Daphne Christie

⁷ Tansey E M, Christie D A. (eds) (2000) Looking at the unborn: Historical aspects of obstetric ultrasound. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 5. London: The Wellcome Trust, 80pp.

⁸ Tansey E M, Reynolds L A. (eds) (2000) Post penicillin antibiotics: From acceptance to resistance? *Wellcome Witnesses to Twentieth Century Medicine*, vol. 6. London: The Wellcome Trust, 71pp.

⁹ Reynolds L A, Tansey E M. (eds) (2000) Clinical research in Britain, 1950–1980. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 7. London: The Wellcome Trust, 74pp.

¹⁰ Christie D A, Tansey E M. (eds) (2000) Intestinal absorption. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 8. London: The Wellcome Trust, 81pp.

¹¹ Christie D A, Tansey E M. (eds) (2001) Origins of neonatal intensive care in the UK. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 9. London: The Wellcome Trust Centre for the History of Medicine at UCL, 84pp.

¹² Reynolds L A, Tansey E M. (eds) (2001) British contributions to medical research and education in Africa after the second world war. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 10. London: The Wellcome Trust Centre for the History of Medicine at UCL, 93pp.

¹³ Reynolds L A, Tansey E M. (eds) (2001) Childhood asthma and beyond. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 11. London: The Wellcome Trust Centre for the History of Medicine at UCL, 74pp.

¹⁴ Christie D A, Tansey E M. (eds) (2001) Maternal care. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 12. London: The Wellcome Trust Centre for the History of Medicine at UCL, 88pp.

ACKNOWLEDGEMENTS

'Maternal Care' was suggested as a suitable topic for a Witness Seminar by Dr Irvine Loudon. He provided many of the names of individuals to be invited, and assisted us in planning the meeting, and deciding the topics to be discussed. We are very grateful for his input. We are particularly grateful to Dr Hilary Marland for writing such a useful introduction to these published proceedings. We are equally grateful to Professor James Drife for his excellent chairing of the occasion.

As with all our meetings, we depend a great deal on our colleagues at the Wellcome Trust to ensure their smooth running: the Audiovisual Department, the Medical Photographic Library, and Mrs Tracy Tillotson; Ms Julie Wood, who has supervised the design and production of this volume, our indexer, Mrs Liza Furnival, our readers, Ms Lucy Moore and Mr Simon Reynolds and to Mr Mark Krüger for bibliographic research. Mrs Jaqui Carter is our transcriber, and Mrs Wendy Kutner and Mrs Lois Reynolds assist us in running the meetings. Finally we thank the Wellcome Trust for supporting this programme.

Tilli Tansey

Daphne Christie

Wellcome Trust Centre for the History of Medicine at UCL

MATERNAL CARE

The transcript of a Witness Seminar held at the
Wellcome Institute for the History of Medicine,
London, on 6 June 2000

Edited by D A Christie and E M Tansey

PARTICIPANTS

Mrs Janette Allotey	Mrs Rosemary Jenkins
Miss Mary Anderson	Dr David Jewell
Ms Beverley Beech	Dr Irvine Loudon
Sir Christopher Booth	Ms Alison Macfarlane
Dr Michael Bull	Professor Allan Maclean
Dr Sandy Cavenagh	Dame Lorna Muirhead
Dr Iain Chalmers*	Professor Lesley Page
Professor Geoffrey Chamberlain	Mr Roger Peel
Mrs Mary Cronk	Mr Elliot Philipp
Dr Ann Dally	Mr Richard Porter
Dr Jean Donnison	Professor Jean Robinson
Professor James Drife [Chair]	Mrs Wendy Savage
Dr Sheila Duncan	Dr Lindsay Smith
Professor Peter Dunn	Dr Ian Tait
Miss Friedericke Eben	Dr Tilli Tansey
Mrs Jane Evans	Mrs Vicky Tinsley
Ms Chloe Fisher	Dame Margaret Wheeler
Mrs Caroline Flint	Professor Charles Whitfield
Dr Edmund Hey	Dr Luke Zander
Dr Peter Hunter	

Others attending the meeting: Professor Ann Cartwright, Mr Demetrios Economides, Dr Lara Marks, Professor John West

Apologies: Mrs Julia Allison, Sir Anthony Alment, Dr Jeremy Bradbrooke, Professor Sir John Dewhurst, Dr Pamela Fox-Russell, Professor Bryan Hibbard, Dr Hilary Marland, Dr Barbara Morgan, Professor Ann Oakley, Professor Mogens Osler, Professor Christopher Redman, Professor Charles Rodeck, Professor Philip Steer, Dr Anne Summers, Dr Michael de Swiet, Ms Marjorie Tew, Dr Gavin Young

*Now Sir Iain Chalmers

Dr Tilli Tansey:¹ The Wellcome Trust History of Twentieth Century Medicine Group was established by the Wellcome Trust in 1990 to promote interaction between scientists, clinicians and historians and others with an interest in the recent history of medicine and medical science. This Group has devised a number of mechanisms to try to promote that interaction, one of which is this series of Witness Seminars, where we invite people who have been involved in particular events or discoveries or who have seen a lot of changes during their working lives in practice, to get together to discuss, to debate, and to share with us their reminiscences and views of how things were, and how things have changed.

Today we have a meeting on maternal care, a topic suggested by Dr Irvine Loudon, and he and my colleague, Dr Daphne Christie, have worked very hard putting this meeting together. Irvine will give a brief historical introduction to the subject in a few minutes' time. A key part in these meetings is identifying a suitable Chairman, and we are delighted that Professor James Drife has travelled down from Leeds to chair this meeting, and so without further ado, I will hand over to the Chairman.

Professor James Drife:² Thank you very much, Tilli. I don't want to occupy any more time than I need to with my introductory remarks. I think Chairmen ideally should be seen and not heard, but I do want to say thanks very much for the privilege of being asked to come along and to act as Chairman to so many distinguished and, in many cases, senior figures. This is, as you can imagine, quite a daunting challenge, so I will look for your help and cooperation in not requiring me either to ginger up the discussion too much, or to ask people to keep their remarks to a reasonably brief level, so that everyone gets a chance to speak. The idea is, as you have heard, that this will form the basis of a publication, which will also be archived for future generations of historians to look back and find out how it was from our discussion, so the presentations are brief in order to stimulate discussion among yourselves. So without any further ado, I will ask Irvine, who is I think well known to all of us and whose idea the meeting was, to give us a brief historical introduction.

Dr Irvine Loudon:³ Thank you very much. I want you to have a look at this graph (Figure 1),⁴ and see this extraordinary feature of maternal mortality that all too few

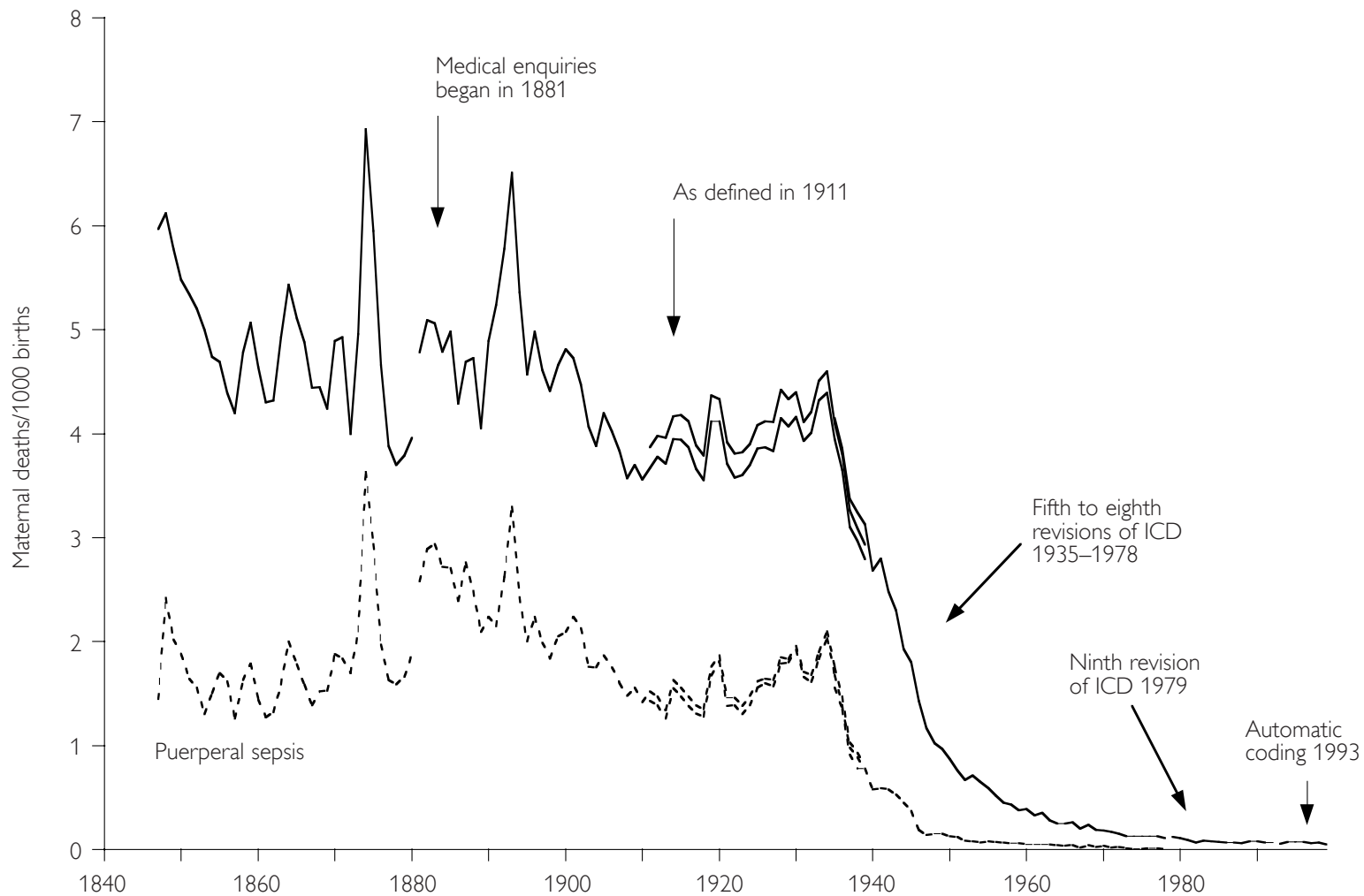
¹ Dr Tilli Tansey is Convenor of the History of Twentieth Century Medicine Group and Reader in the History of Modern Medical Sciences at the Wellcome Trust Centre for the History of Medicine, University College London.

² Professor James Drife MD FRCOG FRCPEd FRCSEd (b. 1947), qualified in Edinburgh in 1971, and worked in Bristol and Leicester before being appointed Professor of Obstetrics and Gynaecology in Leeds in 1990. In 1996 he was appointed Medical Director of the Confidential Enquiry into Maternal Deaths in the UK. In 1998 he was elected Vice-President of the Royal College of Obstetricians and Gynaecologists.

³ Dr Irvine Loudon (b. 1924) graduated in 1951 and worked as a GP for just under 30 years. From 1970 he developed an interest in the history of medicine, and when he was awarded a Wellcome Research Fellowship (in 1981) he resigned from general practice and became a full-time medical historian. One of his special interests has been the history of maternal care and maternal mortality. See, for example, notes 7 and 31.

⁴ Macfarlane A. (2000) Maternal mortality in England and Wales, 1847–1999. Based on data in *Birth Counts* and *Office for National Statistics, Mortality Statistics, Series DHI*.

Figure 1: Maternal mortality, England and Wales, 1847–1998.



Source: ONS, Mortality Statistics, Series DH1 and Birth Counts. Graph by Alison Macfarlane.

ICD: International Classification of Diseases

people know about. That it remained with lots of spikes on a high plateau until 1937, which means that for those of us who were born before that date, the risk of our mothers dying when we were born was as high as it was when Queen Victoria came to the throne, and it hadn't gone down substantially in between. In fact, it rose between 1900 and 1937. What is more, if you were born into the Registrar General's social class 1, that is a professional, your risk of dying was significantly higher than if you were born into Registrar General's group 5, like a labourer.⁵ And then it came down like Niagara Falls, and you will hear more about that from Professor Chamberlain. I simply want to show this extraordinary graph because this was the background in the minds of obstetricians in the 1930s and 1940s. They knew of this awful business. Obstetrics was dominated by maternal mortality, and they never believed in the 1930s that it could fall below a level of one per 1000 births, and yet it came down and down and down, as you can see.

Drife: It's not very often that a brief introduction turns out to be a brief introduction. So thank you very much for that. We will have further contributions after Professor Chamberlain's introduction.

Professor Geoffrey Chamberlain:⁶ I am very honoured to be here with the father and mother of maternal mortality data collection, Dr Loudon and Professor Drife. Dr Loudon's book, *Death in Childbirth*, is absolutely first rate and is something that we have all referred to in our time.⁷ James is the Clinical Director of the Confidential Enquiry into Maternal Deaths in the UK, which in this country is a useful audit.⁸ Now, you may wonder why are we talking about maternal death in a meeting like this. There are surely much more important subjects to talk about, but maternal deaths are still there, 80 a year. I think the real reason that we should pay attention to them, is that in the world 600 000 women die every year of maternal causes. This meeting has been going now for nine minutes, nine women have died in that time in the world, one a minute. This will be going all the way through this meeting, remember that. And we in this country are lucky enough to have a system whereby we can look at

⁵ See, for example, *op. cit.* note 29.

⁶ Professor Geoffrey Chamberlain FRCS FRCOG HonFACOG HonFFFP (b. 1930) qualified from University College London and worked at the Royal Postgraduate Medical School, Great Ormond Street Hospital for Sick Children, and King's College Hospital, London (1963–1970). He performed fetal and placental research there and as a Fulbright Fellow in Washington DC, USA. He was deeply involved with the National Birthday Trust being Director of four national surveys of British obstetrics, the last being *Home Births*, 1994 (*op. cit.* note 205). He was a Consultant at Queen Charlotte's and Chelsea Hospitals (1970–1982) and Professor at St George's Hospital, London (1982–1995); during this time he was President of the Royal College of Obstetricians and Gynaecologists and Editor of the *British Journal of Obstetrics and Gynaecology*. He is now retired and is a Lecturer in the History of Medicine.

⁷ Loudon I. (1992) *Death in Childbirth: An international study of maternal care and maternal mortality 1800–1950*. Oxford: Clarendon Press.

⁸ Professor Geoffrey Chamberlain wrote: 'This is a 50-year ongoing audit of all the maternal deaths in the UK which publishes reports of its findings every three years.' Note on draft transcript, 17 June 2001. See Department of Health, Welsh Office, Scottish Department of Health, Department of Health and Social Services, Northern Ireland. (1998) *Why Mothers Die: Report on confidential enquiries into maternal deaths in the United Kingdom 1994–1996*. London: The Stationery Office.

things in detail. People talk about death being the tip of the iceberg in maternal pathology but it is the same ice that goes through the whole berg. If you can examine the tip properly, you will then be doing good to the women who do not die, but have various degrees of pathology. So it is an ideal chance to look at the subject. Remember that at the time of death the examination of events is better than other times for autopsies and other medical audit enquiries that go on.

To go back to Dr Loudon's talk. He mentioned the upper social classes doing badly.⁹ Six queens of England died in childbirth, out of 46 queens for whom data are available for examination. That is higher than any other maternal mortality rate you can think of. Taking over from where he left off on Figure 1, just before the peak of maternal death rates came down, we know we had sulphonamides from the continent in 1937.¹⁰ I had the pleasure of working as house surgeon to Fred Gibberd from Guy's and at Queen Charlotte's Hospital.¹¹ He used to tell me in the early 1960s, in his last working days, how he had been present in 1937 at the first time chemotherapy was used at Queen Charlotte's Hospital – a maternal fevers hospital as it was then. A woman was dying and going out fast. This woman, in the evening, was given sulphonamide and Gibberd looked in on her at about three o'clock in the morning, some hours after the first dose. She was sitting up in bed, arguing with her attendants, asking them for a cup of tea and toast. He used to tell the story dramatically, and that was within my lifetime, not long ago.

Maternal deaths were a problem. As you see in Figure 1, they kept on along a plateau line there; while all the other causes of death were coming down from about 1890, these did not. Neville Chamberlain was Minister of Health (he was Minister of Health twice) and in 1930 he started the Enquiries into Maternal Deaths. They were not made public until 1951. He was a good Minister of Health, he started the hospital-building programme; he was not a very good Home Secretary, and most of us think he was not a very good Prime Minister either, but certainly at that time he was a very good Minister of Health.

The collection of data by the public health authorities was brought centrally into the Department of Health, and then in 1955, it was published, a terribly important event.¹² If you have data, if you collect data, if you analyse it, you must get it out to the people, either in journals, or in some form of publication. For this, one must but commend the Ministry and then Departments of Health of this country. I am not

⁹ See page 5.

¹⁰ *op. cit.* note 92.

¹¹ George Frederick Gibberd CBE MS FRCS FRCOG (1902–1976) was Obstetric Surgeon to Guy's Hospital and Queen Charlotte's Hospital, London, and Gynaecological Surgeon to the Samaritan Hospital for Women, London. In 1928 he and Arnold Walker became the first two advisers in obstetrics to the Ministry of Health. They investigated the circumstances of 6000 maternal deaths for the Departmental Committee on Mortality and Morbidity that was set up by Mr Neville Chamberlain. In 1938 he succeeded Sir William Fletcher as Honorary Secretary of the Royal College of Obstetricians and Gynaecologists, and remained in this office until 1947. He was a member of the Cranbrook Committee on Maternity Services. See T L T L. (1976) G F Gibberd. *British Medical Journal* **ii**: 821.

¹² Professor Geoffrey Chamberlain wrote: 'Triennial reports were produced containing digested data of virtually all maternal deaths; the latest covering 1994–1996 was published in 1998.' Note on draft transcript, 17 June 2001.

going to go into details about how the enquiry works, but there are some problems, and one of the problems is the amount of time it takes. I think a lot of this time is at the stage between the death and the collection of data of death by the individuals who have looked after them, the midwives and doctors. Afterwards, there is the problem of getting them up to the regional assessors, and I would love to see some way whereby the Confidential Enquiry could hack that down. So at the moment the data is a little out of date, and we want it sooner. The second place where it is slowed up, is sitting on the Minister's desk for too long after it has been produced, and it does not get out to us. I think we ought to speed things up, for it is a good system.

I helped the Saudi Arabian Government with a not dissimilar enquiry into maternal deaths. That is, of course, a country with all its secrecy and where people have to be buried very quickly before the next sunset. The Saudi Arabians got information from each imam who is responsible for looking after the body of the dead. What we did not get, of course, were those who died in hospital of nonobvious causes, like an ectopic pregnancy,¹³ because that would not be seen, unless operated on. But most of it was there and it was a very good way of getting data.

The Sisterhood method used in Africa is also pretty good, but not perfect.¹⁴ There are other methods, but let us return to our own method. I commend the way we are going now, excepting it's too slow, and I recommend that we back it. It is telling us about what is happening in obstetrics. It also helps the women who do not die and therefore we should make sure it goes on.

Drife: Thank you very much, Bodger,¹⁵ for starting us off. I am interested in how the whole process began. I survived and my mother survived the process back in 1947, just before the confidential enquiries, as we know them, started.

Two things I wonder if people have comments on. One is the fact that if standing the test of time is an index of whether a process is good or not, the basic process of the maternal mortality enquiry, which was, I gather, intuitively thought of back in the late 1940s, has remained pretty similar and indeed is spreading itself to other countries. So I would be interested to hear if people have reminiscences of about how they got it right at the time it started.

The other thing that always impresses me about maternal mortality is how short the folk memory is. It was, I imagine, a piece of normal gossip and normal conversation back in the late 1930s that so-and-so knew someone who had died in childbirth. Nowadays, if you talk about somebody dying in childbirth, people think you are a

¹³ A pregnancy arising from implantation of the fertilized ovum outside the cavity of the uterus, usually in one of the fallopian tubes. Bleeding in early pregnancy may occur and endanger the life of the mother.

¹⁴ Professor Geoffrey Chamberlain wrote: 'The collection of data from female family members.' Note on draft transcript, 17 June 2001.

¹⁵ Professor Geoffrey Chamberlain's nickname 'Bodger' was acquired at school and related to his style of playing rugby football.

novelist and it seems to have evaporated from the collective consciousness. So over to you, I am interested to hear what your comments on any matters relating to this remarkable fall in maternal mortality might be.

Dr Jean Donnison:¹⁶ It has been touched on already, but the biggest fall was the fall in puerperal fever¹⁷ which was the principal cause of all maternal death as far back as you trace it; so the advent of sulphonamides from Germany, followed by antibiotics, was the chief single cause of this fall.¹⁸ Better obstetric care, better asepsis and antisepsis were also very important, but without the antibiotics we would still, I think, have a higher maternal mortality rate than we do have.

As for why the rich did worse, as certainly they did, that is because they did not have the careful attendance that was given by local authority midwives in impoverished West Ham, for example, where the rate was half the national rate. And always it was said throughout history, from Soranus¹⁹ onwards, that the rich did worse than the poor. There you have it. As Harvey said, it was the result of too much 'official' attention their attendants felt bound to give.

Drife: Even outside West Ham the rich did worse than the poor, so I am interested in that.

Professor Jean Robinson:²⁰ On this question of the rich doing worse than the poor. In the early days, the Confidential Enquiry into Maternal Deaths gave rates separately by social class, and I do recall that the maternal death rate in social class 1 was higher than the maternal death rate in social class 2 and almost as it is in social class 3. Now, of course, numbers have come down, it's difficult to get the data, but I know that we no longer have maternal death rates by social class.

Could I also comment on your asking about 'how they got it right'. From the consumer point of view, they have not yet got it right, because the confidential enquiries are based on data from professionals and what is in the case notes, and that may or may not be accurate or comprehensive. One of the things that we have done when we have dealt with maternal deaths, is to encourage the family to write their own

¹⁶ Dr Jean Donnison (b. 1925) taught social policy and administration at the University of East London, from 1972 to 1990. Her main interest has been in the development of the profession of midwife. See Donnison J. (1988) *Midwives and Medical Men: A history of the struggle for the control of childbirth*. London: Historical Publications.

¹⁷ Infection of the uterus just before, during or just after delivery, which can lead both to local sepsis in the genital tract and septicaemia. While deaths from puerperal sepsis do still occasionally occur, they are very rare. It was later known as puerperal sepsis.

¹⁸ op. cit. note 92. See also Tansey E M, Reynolds L A. (eds) (2000) Post penicillin antibiotics: From acceptance to resistance? *Wellcome Witnesses to Twentieth Century Medicine*, vol. 6. London: The Wellcome Trust.

¹⁹ Soranus of Ephesus (AD 98–138) one of the leading authorities on gynaecology and obstetrics of antiquity. See Soranus (1956). *Gynecology*. Translated with an introduction by Owsei Temkin. Baltimore: Johns Hopkins Press.

²⁰ Professor Jean Robinson was Chair of the Patients Association from 1973 to 1975 and has been Honorary Research Officer, Association for Improvements in the Maternity Services since 1989 and Visiting Professor, School of Health Sciences, University of Ulster, since 1997.

account of what happened, and often, I may say, this is extremely relevant in identifying causes, which otherwise might be missed. They feel greatly comforted by feeling that they are making a contribution and the same goes for perinatal mortality, where, of course, the mother who gave birth is usually still alive.

Mr Elliot Philipp:²¹ I think one of the reasons why social class 1 did so badly was because the doctors took over and applied the forceps wrongly and prematurely before full dilatation. I think that the doctors, the GPs and the gynaecologists, were partly responsible for the very bad mortality in social class 1.

Loudon: I am sure that is right.

Mrs Wendy Savage:²² I thought there was some evidence that the streptococcus was less virulent in the 1930s and it coincided with the introduction of M&B,²³ but even without M&B there might have been a fall. Also I believe that Semmelweis²⁴ reduced maternal mortality from puerperal sepsis to virtually nil, by antiseptics and using carbolic acid to scrub your hands and wash the vulva. So I think it's not just the M&B, although obviously that had a big contribution. I do think that today, when you look at the high rates of infection following Caesarean section²⁵ despite the use of prophylactic antibiotics, and observe the way that people do vaginal examinations – having not made any attempt to clean – that we seem to have forgotten about the importance of cleaning before we incise the skin or do a vaginal examination.

Drife: Certainly I felt somewhat uncomfortable being told by my up-to-date registrars that there wasn't any evidence that using antiseptic made a difference to the cleanliness of the examination. It didn't somehow seem right to me. But let's ask Bodger.

²¹ Mr Elliot Philipp MA FRCS FRCOG (b. 1915) graduated in 1939 in London. After six years in the Royal Air Force he trained in gynaecology at the Middlesex Hospital, University College Hospital, London, the Royal Free Hospital, London, and Addenbrooke's Hospital, Cambridge. His main professional interest has been in pain relief in obstetrics and gynaecology. He has been closely associated with the National Birthday Trust Fund and was Chairman of its Scientific Advisory Committee from 1980. Among his publications are several postgraduate textbooks with Dame Josephine Barnes, one undergraduate textbook and many books for the lay public. See, for example, Philipp E, Barnes J, Newton M. (1986) *Scientific Foundations of Obstetrics and Gynaecology*. London: Heinemann Medical.

²² Mrs Wendy Savage HonDSc FRCOG (b. 1935) was Senior Lecturer in Obstetrics and Gynaecology, St Bartholomew's and the Royal London School of Medicine and Dentistry, Queen Mary and Westfield College (formerly London Hospital Medical College), University of London, from 1977 to 2000. She has an honorary chair at Middlesex University in the Department of Social Science.

²³ Dr Irvine Loudon wrote: 'May and Baker (M&B) produced the very successful sulphonamide known as M&B 693. This became known everywhere just as "M&B".' Letter to Dr Daphne Christie, 18 June 2001.

²⁴ Ignaz Philipp Semmelweis (1818–1865) successfully reduced maternal mortality due to puerperal sepsis. In 1847 he introduced a handwashing routine to be used before examining postnatal patients using liquid chlorate, later substituted with chlorinated lime. See Sinclair W J. (1909) *Semmelweis, his Life and his Doctrine*. Manchester: Manchester University Press.

²⁵ Professor Munro Kerr, together with Eardley Holland, introduced the lower segment Caesarean operation to the UK in 1921. See Kerr J N M. (1921) The lower uterine segment incision in conservative Caesarean section. *Journal of Obstetrics and Gynaecology of the British Empire* 28: 475–487. Holland E. (1921) (a) Methods of performing Caesarean section. (b) Results in Great Britain and Ireland 1911–1920. *ibid.* 28: 349–446. See also note 96.

Chamberlain: Wendy is quite right; the streptococcus had a 35-year cycle, but we are out of that by a long way now, so we should be back on the rise of infection if it was just that. There was also the formation of both the College of Obstetricians and the College of Midwives,²⁶ the training and regulation of both these professionals and, of course, blood transfusion.

Drife: It's rather salutary as one goes through the data for the current maternal mortality reports – of course they are edited for publication – but maternal death has still no respect for social class. Interestingly, in the original 1957 report the social classes, were 'well to do', 'comfortable', 'poor' and 'destitute', which looks different from how we grade them nowadays. And, of course, there has been a bit of an upturn in sepsis, which went down into single figures, and that has come back up again.

Ms Alison Macfarlane:²⁷ Those who have had the opportunity to read Irvine's book will know that the arguments about sepsis have a very long history, which I won't repeat here.²⁸ One of the things I would just like to point out, is that the Registrar General's Report for 1930–1932 which shows the social class gradient in maternal mortality per birth is much higher in social classes 1 and 2, than among women whose husbands were in the manual classes.²⁹ It has another analysis which examines it according to numbers of women in the population and that does not show the same gradient, because women at the lower end of the scale were having more pregnancies. Therefore, their risks were raised by having more pregnancies and that counteracted the benefits of avoiding the birth attendants that the better-off women paid. I think at that time there were also differences in access to contraception. Looking from a worldwide point of view, I think we need to look at access to contraception as well as access to the right sort of birth attendant, when we are considering the 600 000 women that Bodger has reminded us of.

Dr Iain Chalmers:³⁰ Irvine will be too coy to draw attention to his most recent book, *The Tragedy of Childbed Fever*, which was published earlier this year.³¹ Some of the

²⁶ See note 33.

²⁷ Ms Alison Macfarlane (b. 1942) graduated in mathematics and then statistics. After working as a statistician in agricultural research, traffic surveys and the impact of air pollution on health, she has worked on perinatal research since 1975, first at London School of Hygiene and Tropical Medicine and then, from 1978 to 2001, at the National Perinatal Epidemiology Unit, Oxford. She is now Professor of Perinatal Health at City University, St Bartholomew School of Nursing and Midwifery, London.

²⁸ op. cit. note 7, 4.

²⁹ General Register Office. (1938) *The Registrar General's Decennial Supplement, England and Wales, 1931*. Part IIa. *Occupational Mortality*. London: HMSO.

³⁰ Dr Iain Chalmers (Sir Iain Chalmers since 2000) Kt FRCPE FFPHM FMedSci (b. 1943) has been Director of the UK Cochrane Centre in Oxford, since 1992. With the NHS Centre for Reviews and Dissemination in York, the Centre is part of the information system supporting the NHS Research and Development Programme and a component of the Cochrane Collaboration – an international organization that aims to help people make well-informed decisions about healthcare by preparing, maintaining and promoting the accessibility of systematic reviews of the effects of healthcare interventions. Before taking up his current post, he was Director of the National Perinatal Epidemiology Unit in Oxford (1978–1992).

³¹ Loudon I. (2000) *The Tragedy of Childbed Fever*. Oxford: Oxford University Press.

things that Wendy was saying are not supported by the evidence presented in that. It's an absolutely superb book – we would expect no less from Irvine. And what is the price, Irvine? It's a good buy anyway!

Loudon: And you are not on commission, Iain, are you?

Mrs Caroline Flint:³² I wanted to take issue with Bodger. He was talking about the rise of the Royal College of Obstetricians and Gynaecologists and the rise of the Royal College of Midwives. The Royal College of Obstetricians and Gynaecologists is a very new organization, but the Royal College of Midwives has been hanging around since 1881.³³

Drife: What I remember years ago (this is what I am supposed to say from time to time), I had heard about death from sepsis, in fact septic abortion rather than puerperal fever, and I remember someone who had had a miscarriage, in the Eastern General in Edinburgh. I didn't exactly stay up all night with her, but I remember that her temperature flicked up a little and I thought, 'I've heard about this "septic abortion"' and I became very alarmed and despondent. Of course everything was fine. The point of the story is that nothing really happened. I just said that to emphasize the fact that for people of my vintage the stories about puerperal sepsis are from a previous era. I wonder if there are any reminiscences that people do have about what this was like?

Mr Roger Peel:³⁴ In my recent experience in the 1970s, infection was still causing maternal death. There is one woman in particular I can think of, a woman whose labour was induced surgically, who within four hours had died of septic shock, which might not be the classic puerperal sepsis, but nevertheless is a maternal mortality from an underlying infection.

Drife: It's absolutely terrifying when it goes quickly like that.

Professor Allan Maclean:³⁵ Again, my experience is not as long as that of others in the room, but I come from New Zealand, and that probably gives me a 35-year time lag.

³² Mrs Caroline Flint (b. 1941) was Honorary Professor at Thames Valley University, London, and has been an independent midwife in London since 1986. She was President of the Royal College of Midwives from 1994 to 1996.

³³ The Royal College of Midwives, formerly the Incorporated Midwives Institute, founded in 1881, 'aims to raise the efficiency and improve the status of midwives'. See Carter G B, Dodds G H. (1953) *A Dictionary of Midwifery and Public Health*. London: Faber and Faber, 638. The British College of Obstetricians and Gynaecologists was founded in September 1929 by Professor William Blair-Bell and Sir William Fletcher Shaw. It was granted the title 'Royal' by King George VI in 1938 and a Royal Charter awarded in 1947.

³⁴ Mr Roger Peel FRCSd FRCOG (b. 1935) qualified from the University of Leeds in 1958. After working in general practice for a short while he did junior obstetric and gynaecology appointments in the maternity hospital at Leeds, the Hospital for Women, Leeds, and St Luke's Maternity Hospital, Bradford. In 1968 he was appointed Consultant Obstetrician and Gynaecologist to St James's Hospital and St Mary's Hospital, Leeds, and to the United Leeds Teaching Hospitals. In 1980 he relinquished his obstetric appointments in favour of gynaecological oncology until his retirement in 2000. Between 1992 and 1995 he was Senior Vice President of the Royal College of Obstetricians and Gynaecologists.

³⁵ Professor Allan Maclean MD FRCOG (b. 1947) qualified in Otago, New Zealand, and trained in Obstetrics and Gynaecology in New Zealand and Scotland. He is currently Professor of Obstetrics and Gynaecology, Royal Free and University College Medical School, London.

And the question I would like to ask, because when I started as a medical student in the 1960s, midwives were not allowed to perform vaginal examination, the patient was rolled into a left lateral position and examined by a rectal examination. I remember at that time among New Zealand obstetricians and midwives, there was a long debate as to the safety of rectal versus vaginal examination in assessing progress for labours that went on for several days. I suspect there are people present in the room who would be able to enlighten us as to why these practices developed and why they changed in the 1960s.

Savage: I had the pleasure of working in New Zealand and I wouldn't quite concur with Allan about it being 35 years out of date. In some ways it was ahead of us, but I was taught as a medical student to examine rectally, because it was thought that this would reduce the risk of infection. It was just at that point when we were changing from rectal to vaginal examination. In this country I have not seen many cases of puerperal sepsis, but in Africa, of course, I saw hundreds of women die unnecessarily from puerperal sepsis. The woman that I remember most as a medical student, in fact, died from renal failure after a self-induced abortion, and in 1958 when I did my obstetrics as a student, there was no renal dialysis. That has also made a great deal of difference to the numbers of deaths from puerperal sepsis. That was one of the causes of death that has been prevented by technical assistance.

Drife: But the impression that I have got from watching my teachers, both obstetricians and midwives, is that these cases, watching somebody die, have a huge impact on the carer and therefore, you know, it changes practice. One of the things that obstetricians have been, probably rightly, criticized for over the years is doing things to large numbers of people as a matter of routine. I would be interested in people's thoughts as to whether the fact of going through an experience of seeing a maternal death or a death from haemorrhage – what kind of impact does it have on your subsequent practice?

Dr Ian Tait:³⁶ Before we move on, just a little story about rectal examination. I trained at Bart's and we did our obstetrics on the district. I remember doing what I was told and doing a rectal examination and the patient turned to the midwife and said, 'Tell the young doctor he's in the wrong hole'.

Dame Margaret Wheeler:³⁷ Just before we go on, I trained, and am probably one of the oldest midwives in the room, in the early 1950s and certainly was taught to do vaginal [examinations] right from the beginning.

³⁶ Dr Ian Tait FRCGP (b. 1926) was in general practice in Aldeburgh, Suffolk, from 1959 to 1990 and active in the development of vocational training for general practice. His MD thesis (1975) on the development and function of medical history taking in clinical practice stimulated his interest in the history of medicine, which he has continued since his retirement. See Tait I, Graham-Jones S. (1998) *General practice: its patients, and the public*, in Loudon I, Horder J, Webster C. (eds) *General Practice under the National Health Service, 1948–1997*. London: Clarendon Press.

³⁷ Dame Margaret Wheeler (néé Brain) DBE RGN RNT MTD DSc (h.c.) FRCOG (b. 1932) was President of the Royal College of Midwives from 1987 to 1994. She was a member of the Maternity Services Advisory Committee from 1981 to 1985, Perinatal Mortality Initiative Steering Group for Wales, from 1983 to 1985, and Standing Nursing and Midwifery Advisory Committee, from 1987 to 1993.

Chamberlain: It is false physiopathology to consider a rectal examination as safer than a vaginal one, from the bacteriological point of view. You are going into an area swarming with *E. coli* and *Streptococcus faecalis*; you are, in fact, massaging it into the mucosa of the rectum, as you do your PR [*per rectum*, rectal examination] against the fetal head. In fact, you are pushing bacteria into the body. In the 1950s data were published of quarter-hourly blood samples taken from people having PRs and showed *E. coli* and streptococci going into the blood soon after the examination.³⁸ It is not safer.

Drife: I was going to ask for the evidence and you have provided it, so fine.

Flint: I trained in 1964, did my Part I midwifery in 1964, and unlike Margaret [Wheeler] I learnt to do rectal examinations. I had my first baby in 1965 and was very, very relieved when the midwife came and said, 'Oh, I don't do examinations, you should be able to look at the woman and see how far on she is in labour.'

Drife: Was there a geographical difference? I mean in different parts of the country, in terms of rectal versus vaginal.

Miss Friedericke Eben:³⁹ One of the more recent problems is, of course, group B Strep., which is carried by most women in the rectum, so I can't believe that rectal examinations could ever be the right thing. Strep. B has been around since the 1970s, and in the population in America it is as high as 20 per cent. I think it is fast approaching that in England or even a higher percentage, and, of course, this is a cause of concern in the puerperium, although it doesn't cause deaths, it certainly causes infection to the mother and baby.

Dr Peter Hunter:⁴⁰ The question of how doctors reacted at the time to deaths from puerperal sepsis before the introduction of sulphonamides has been raised. One day in 1932, my father, Dr Donald Hunter, was returning home after seeing a woman with puerperal sepsis at her house. He had had a fair amount of exposure to obstetrics, as he had been a senior resident accoucheur at the London Hospital. When he arrived home he realized that my mother, who was in her third pregnancy, was going into a precipitate delivery. He had no alternative but to deliver the baby. He told me, 'I never washed my hands so carefully in the whole of my life'.

³⁸ See, for example, Prystowsky H. (1954) Is the danger of vaginal examination in labour overestimated? *American Journal of Obstetrics and Gynecology* 68: 639–644. A copy of a letter from Professor Geoffrey Chamberlain to Mrs Lois Reynolds, dated 2 October 2001, which provides further information, will be deposited with the records of this meeting.

³⁹ Miss Friedericke Eben MRCOG (b.1956) took her German state examination in 1983, trained in Berlin from 1977 to 1983 and has been Consultant Obstetrician and Gynaecologist, Whittington Hospital NHS Trust, London, since 1995. Her research interests include antenatal care in prisons, postdated pregnancy and breech presentation, and research into the role of corticotrophin-releasing hormone in preterm labour and pregnancy complicated by pre-eclampsia and preterm labour.

⁴⁰ Dr Peter Hunter MRCP (b. 1938) qualified from Middlesex Hospital, London, in 1963 and was Consultant Physician at the Royal Shrewsbury Hospital, from 1974 to 1993. From 1994 to 1997 he read pharmacology at King's College London, as preparation for full-time research on the history of discovery of drugs and medicines in the modern era.

Dame Lorna Muirhead:⁴¹ I think we have to view what Caroline [Flint] has said in the context of the medicalization of childbirth in the 1970s. Once women went into hospital and booked under obstetricians, the midwifery profession started to decline. It was very easy with hindsight to see that. My generation of midwives has to bear the responsibility for it but at the time we were just too busy getting on with our job to notice the erosion of our role.

The radical midwives saw it happening and they are to be congratulated for that. Today the wheel is almost going full circle. The sort of midwifery which we want to provide for today is the sort of midwifery we had pre-Peel,⁴² when midwives were acknowledged as the practitioners of normal childbirth and looked after the majority of women whose childbirth was normal.⁴³ Today we want that role back but we also acknowledge that in the care of women whose pregnancies are complicated we should become members of a multidisciplinary team.

So, I think we have to give credit to the radical midwives for highlighting for us the professional round we lost during the 1970s and 1980s, and for spearheading our recoveries. Some have seen our insistence on taking back our rightful role as being aggressive. We have even been called 'Rottweilers' by some, but if your profession has been denuded and you want to get it back you have to make a fuss. We have made great strides in taking back the care of normal pregnant women to ourselves but we still have a long way to go.

Peel: I know Wendy [Savage] won't mind me saying that whilst renal dialysis may not have been available, was it in London or Africa in 1968? [**Savage:** In London, in the Newham General Hospital.] It was most certainly saving lives in Leeds from about 1957 or 1956 onwards. Nearly all the early renal dialysis cases were of obstetric origin.

Drife: I think the original Leeds machine is in the Thackery Medical Museum in Leeds. There's a bit of a plug for Yorkshire there.

Mr Richard Porter:⁴⁴ I am very struck by the comparisons of maternal mortality rates

⁴¹ Dame Lorna Muirhead SRN SCM MTD DBE (b. 1942) has been President of the Royal College of Midwives, London, since 1997, and is a clinician of some 35 years' standing. She has a strong interest in intrapartum care and has a portfolio in excess of 4000 vaginal labours and deliveries. She is also committed to the care of women whose pregnancies are complicated and is part of a multidisciplinary team working to provide as good an outcome to the pregnancy as possible.

⁴² *op. cit.* note 69.

⁴³ Sir John Peel KCVO FRCP FRCS FRCOG (b. 1904) was Surgeon-Gynaecologist to the Queen, from 1961 to 1973, Consulting Obstetric and Gynaecological Surgeon at King's College Hospital, London, since 1969, Emeritus Consulting Gynaecologist, Princess Beatrice Hospital, London, since 1965.

⁴⁴ Mr Richard Porter FRCOG (b. 1951) qualified in 1976 in Oxford and has been Consultant Obstetrician and Gynaecologist in Bath since 1989. He is interested in the application of appropriate technology to maternity care, and the maternity services around Bath facilitate deliveries at home or in community maternity units, geographically distant from the obstetric unit, for 34 per cent of their population. He also works extensively for the World Health Organization, Department for International Development and other organizations in Eastern Europe and the former Soviet Union, reconfiguring maternity services.

between countries. For example, a ratio of 75:1 maternal mortality rate from abortions, 20:1 for infection, and interestingly enough, only 10:1 for haemorrhage.

Drife: Are those ratios?

Porter: Ratios in cause-specific maternal mortality between, as an example, Russia and the UK in the early 1990s. These are the areas where a country like this is grossly out of line with us in the UK even now, and I think it is particularly interesting to see this difference in a country that is, as you might say, an industrialized nation as opposed to a developing nation. (They are very good at collecting their figures, even if they don't necessarily learn the lessons.) One of the points that I want to make is that I am sure that haemorrhage, and its control, must have had something to do with changes in maternal mortality.

Drife: I was going to ask about other causes, because as you rightly say we have talked for some time about sepsis, and touching on that, the conflict or the dichotomy or whatever, disagreement – I don't know if it has been resolved – between the idea of it social conditions that have changed, or is it specific innovations, such as M&B, such as blood transfusion, or whatever? There does seem to be a disagreement between authorities on the relative importance of this matter.

Dr Sheila Duncan:⁴⁵ I think that, retrospectively, we oversimplify. If you go back to Figure 1, in the late 1930s, there was certainly this great drop in puerperal infections. An important cause was that due to the group A beta haemolytic streptococcus in a woman who might have had a straightforward delivery, possibly with some vaginal examinations, and who was well afterwards, but took ill two or three days later and died. There is no question whatsoever, that whether it was M&B or whether it was a change in the virulence of the streptococcus, that disappeared, the well woman who died of infection had certainly disappeared by the 1950s and 1960s. But there is an enormous gap between the peaks of the total deaths and those due to infection, indicating other causes.

There are problems of diagnosis and misclassification in the more complicated cases and that gap between the total and those due to infection has narrowed very dramatically. The difference between puerperal infections of all types and the total includes a variety of causes, for example haemorrhage, vaginal tears and renal failure. Surely haemorrhage has been one of the bigger groups and one of the biggest changes was ergometrine and oxytocic drugs, by speeding up labour and reducing long labours. Many of the women who died of infection, not necessarily streptococcal group A, were women who had had a traumatic delivery, vaginal trauma, a lot of vaginal examinations, haemorrhage, and

⁴⁵ Dr Sheila Duncan MD FRCOG DHMSA (b. 1931) qualified in 1955 in Glasgow and trained in Glasgow and London. Her MD Thesis (1968) was based on work on blood circulation in pregnancy. Further research was carried out in the Nuffield Institute, Oxford, on uterine blood flow. She was Senior Lecturer (later Reader) in Sheffield from 1969 to 1996. Her main research interests are in maternal disorders, perinatal medicine and prenatal diagnosis. She retired in 1996 but pursues an interest in the history of medicine.

improvement in these things was very slow and gradual. There was also blood transfusion. It was in the mid-1930s that ergometrine began to be used and later still, in the late 1940s, that oxytocin was used to assist labour. I think that these were dramatic events too that changed obstetrics in the 1940s and 1950s.

Drife: Was it as long ago as that or was it more recently? I can't remember the timescale there of ergometrine and oxytocin.

Chamberlain: I think one of the first published trials of prophylactic ergometrine was in 1953,⁴⁶ but as you [Sheila] said, it was used at least ten years before that.⁴⁷

Duncan: Yes, Chassar Moir did his studies in the early 1930s, and in the mid-1930s it began to be used. I think maybe a trial of prophylactic use came later, but ergometrine was used in haemorrhage from the late 1930s onwards. It was later that oxytocin was used to stimulate labour and to help labour. It was still a new thing in the late 1950s.⁴⁸ We set up a drip to do this and required a doctor to sit with the patient and observe the effect. Posterior pituitary extract had been used long before that. My mother was given posterior pituitary extract and I zoomed out, probably with a headache. There was potential damage with that. Posterior pituitary extract was very, very nonspecific.

Chalmers: There are data that bear on the issue of whether it is social condition or obstetric care that is important in these circumstances. Irvine will correct me if I am wrong, but his research suggests that obstetric care is profoundly important. A very interesting study was reported in the 1980s by Kaunitz and his colleagues in the *American Journal of Obstetrics and Gynecology*.⁴⁹ They looked at the mortality experience of mothers and their babies in a community called the Faith Assembly in

⁴⁶ Martin J D, Dumoulin J G. (1953) Use of intravenous ergometrine to prevent post-partum haemorrhage. *British Medical Journal* i: 643–646.

⁴⁷ See above.

⁴⁸ Dr Sheila Duncan wrote: 'Extract of ergot had a long history of use, and isolation of the complex alkaloids by Dale and colleagues in the early twentieth century left many paradoxes. Chassar Moir, after much painstaking work, showed that the impure liquid extract was more effective on the human postpartum uterus than the known alkaloids [Chassar Moir J. (1932) The action of ergot preparations on the puerperal uterus. *British Medical Journal* i: 1119–1122] and in 1935 isolated and named ergometrine – the truly active agent [Dudley H W, Chassar Moir J. (1935) The substance responsible for the traditional clinical effect of ergot. *British Medical Journal* i: 520–523]. Only thereafter did its use become widespread and later preventative. Ergot and derivatives caused tonic contractions and could not be safely used before delivery. Posterior pituitary extract was shown to have an effect in contracting the uterus, early in the century [Blair-Bell W. (1909) The pituitary body and therapeutic value of the infundibular extract in shock, uterine atony and intestinal paresis. *British Medical Journal* ii: 1609–1613] and was used, as an extract, also causing pressor effects. It was not until the 1940s that there was sufficient isolation of the active principle to enable its use in a physiological manner.' Letter to Dr Daphne Christie, 2 January 2001. See Tansey E M. (2001) Ergot to ergometrine: an obstetric renaissance?, in Conrad L, Hardy A. (eds) *Women and Modern Medicine*. Wellcome Institute for the History of Medicine Series. Amsterdam: Rodopi, 195–215. Dr Peter Hunter wrote: 'Further important details about how and when oxytocin was first purified and then synthesized in a manner that made industrial production possible, are in Oakley A. (1984) *The Captured Womb. A history of the medical care of pregnant women*. Oxford, Glasgow: Blackwell Scientific Publishers, 202.' Fax to Dr Daphne Christie, 28 June 2001.

⁴⁹ Kaunitz A M, Spence C, Danielson T S, Rochat R W, Grimes D A. (1984) Perinatal and maternal mortality in a religious group avoiding obstetric care. *American Journal of Obstetrics and Gynecology* 150: 826–831.

Indiana. This is an Anabaptist group that rejects all professional care during pregnancy and labour, both midwifery care and obstetric care. The researchers analysed the vital statistics of this community using registration data, and compared them with the rates for all the other residents of Indiana. What is particularly interesting is that members of the Faith Assembly are quite wealthy farmers, not socially or economically deprived at all. The point estimate of the higher maternal mortality risk was 90-fold, and the confidence interval ranged from a 19-fold to a 280-fold increased risk of maternal death. The increased risk was next biggest for stillbirth, and least for neonatal death. These data do address, in some sense, the question about the relative importance of obstetric care and social circumstances.

Drife: And presumably they rejected both obstetric and midwifery care, it was just all forms of care?

Chalmers: All professional care was rejected.

Drife: I remember coming into the hospital where I worked as a registrar on a Monday morning. One of the odd things was that I came in a door about 200 yards away from the maternity unit and they had had a disaster [a maternal death] and I could sense something wrong 200 yards away, thinking something is not right. I don't know what it was, a silence or a change in the atmosphere, it was quite spectacular.

Dr Ann Dally:⁵⁰ I do agree with you about remembering every detail of maternal death. When I was in gynaecology in Balham, I looked after a woman who took six weeks to die from an infected abortion, an illegal abortion. I remember every detail about her life, I remember every conversation I had with her, and the whole thing was very, very vivid.

The only other experience I have ever had of maternal death was when I myself was admitted in labour to have my baby, they had just had a maternal death on the labour ward, and that had a funny effect on me too. It has a specific effect on other patients.

Drife: How did you feel? I know that's a sort of television interviewer kind of question, but how did it feel?

Dally: I was very professional and asked what was the diagnosis. It turned out that she had some bleeding disease, and they hadn't diagnosed it. I then went on and had the baby and was all right, but I do remember it very vividly.

Savage: In that paper⁵¹ weren't the causes of death, one appendicitis and the rest were postpartum haemorrhage? So it was quite interesting that they weren't dying of

⁵⁰ Dr Ann Dally (b. 1926) is a retired GP and psychiatrist. She has a degree in modern history from the University of Oxford and was one of the first three women students at St Thomas' Hospital, London. After retirement she went to the Wellcome Institute [now Wellcome Trust Centre] to do an MD and has remained there as Research Associate. See Dally A. (1991) *Women under the Knife: A history of surgery*. London, Sydney: Hutchinson Books.

⁵¹ op. cit. note 49.

pre-eclampsia,⁵² they were dying of haemorrhage and then I think because they didn't believe in doctors at all, there was certainly one death from appendicitis.

This question about social class and maternal mortality. I agree that it is to do with obstetric care and midwifery care. When I went to Nigeria, I looked at the delivery book, there were 69 deaths in 1200 deliveries the previous year and most of these were said to be due to 'obstetric shock'. When I asked the midwives what was this obstetric shock, because I hadn't learnt about that when I was at medical school, she said, 'They didn't have any blood and they bled to death'. And so we set up a blood bank, and in the first six months we had five deaths, in the next six months we had three deaths, and then we had the Biafran war, so I taught the military how to run a blood bank and then I was evacuated. But these were on the whole poor women and we spent hours boiling up the urine, in test tubes, looking for pre-eclampsia with these huge antenatal clinics of 100 women at a time. And on the whole we were able, if they came to the antenatal clinic, to get them and induce them with the methods we had in those days, and get them delivered, but what killed them was haemorrhage and ruptured uterus. And one of the reasons they died of ruptured uterus is that the obstetricians wouldn't operate on them, which was a shocking indictment of our profession.

Drife: Because?

Savage: I discovered that my two consultant colleagues didn't operate unless people paid them a bribe and so if you didn't have the £35 – and this was when the per capita income in Nigeria was about £10 a year – they wouldn't do it.

Robinson: Can I draw attention to something that only recently, and after great consumer pressure, is getting adequate consideration, and is not adequately recorded for historical statistics, and that is suicide. As we know from the latest confidential enquiry, we finally got a chapter on it, it is of substantial importance, but still under-recorded because the figures only go up to a year after delivery. Dealing with suicidal women is the bread and butter of our consumer group work, particularly those who have had postpartum, post-traumatic stress disorder, and we now know from our work day to day that these women are very high suicide risks. So we really don't know how much that was the cause of death in earlier days and how much it is the cause of death now. We don't know because obstetricians have been quite rightly interested in haemorrhaging, sepsis and so on. I would like to say that we are extremely grateful to those officials in the Department of Health who listen to us.

Drife: Thank you. It certainly makes distressing reading to read about these suicide cases, very, very sad cases.

⁵² A common, dangerous complication of pregnancy characterized by raised blood pressure, oedema (retention of fluid) and albumin in the urine. It usually occurs in late pregnancy and if untreated it can progress to eclampsia with epileptic fits.

Miss Mary Anderson:⁵³ You looked as if you were in danger of moving on, so I may just ask one thing of the last speaker. When she first spoke, I think, if I didn't misunderstand her, she was suggesting that there could be a useful input from the public itself, as it were, to the maternal mortality report. Now I don't quite understand, as someone who sat on three of the tribunal reports, how it will be helpful to take evidence from the patient herself, the mother herself. You couldn't take evidence from her, but from her family.

Drife: Could I just say, and maybe Beverly [Beech] could express it better than I could? I know that when I am doing reports on events in other contexts, other than the confidential enquiry, that somehow the verbatim transcript of what a nonprofessional has said, can give you illuminating details about the sequence of events, which don't always come across from the way that data is processed by the carers, whoever they may be. I am being rather dampening on that bit, because I know that so many of the issues that we are talking about today are very much live issues, and issues that we may indeed want to see changed in the future, and I am conscious of the fact that we are talking about the past and I hope you are always using the past to learn from. But I understand Jean Robinson's view, although I know as well, almost as well as you do, Mary, how difficult it is in terms of the confidentiality and anonymity and so on, but I would like to see some thought given to that.

Mrs Mary Cronk:⁵⁴ Further anecdotal evidence. My name is Mary Cronk and I am a midwife. In preparation for coming here today, I found my first register, when I started practice. It dates from 1959 to 1969. I found three postpartum haemorrhages (PPH)⁵⁵ within it, and this is from 1960 (Figure 2): 'PPH during third stage approximately 55 ounces plus – remember there are 20 ounces to the pint – the GP summoned, two pints of blood given.' Here is another one: 'PPH, retained placenta, group O rhesus negative blood, two pints given on district, then transferred to West Middlesex Hospital, home from West Middlesex Hospital.' And the interesting thing is that when I discharged these women at 21 days, I described their condition as good. In that ten years I found four PPHs, and blood was, I am reminded, commonly given on the district.

Drife: Where was it obtained?

Cronk: It would be obtained, in this case, from the West Middlesex Hospital, which held the blood bank nearest to the district in which I was practising, which was East Twickenham.

⁵³ Miss Mary Anderson CBE FRCOG (b. 1932) graduated from Edinburgh University in 1956 and has recently retired as Senior Obstetrician and Gynaecologist at University Hospital Lewisham, London. She was Vice-President of the Royal College of Obstetricians and Gynaecologists from 1989 to 1992. Among several national positions held she was a Member of the Committee of the Future of Maternity Services, chaired by Baroness Cumberlege.

⁵⁴ Mrs Mary Cronk MBE (b. 1932) trained as a midwife in 1957, Part I at Queen Charlotte's in London, and Part II 'on the district' in Paisley. Most of her midwifery career has been in out-of-hospital clinical practice. In recent years she has entered the midwifery political arena as a member of the English National Board (ENB) and the UK Central Council for Nursing, Midwifery and Health Visiting (UKCC). Since 1990 she has practised independently.

⁵⁵ Bleeding through the vagina of more than 500ml after the delivery of the baby.

Figure 2: Sample cases from the register, showing postpartum haemorrhage.

Date and hour of infant's birth	Birth weight	Sex of infant Alive or dead	Delivered by	Date of last visit or discharge	Condition of mother then	Condition of infant then. Breast fed, complemented or supplemented	Drugs given (including analgesics) Date and time of administration	REMARKS
5.10 pm 17.11.60	not weighed 6-8 on 2 nd day	Boy Alive	MW Bronk.	1.12.60	good	good. BF Y8	Pethilofan 100mgm 1.40pm Pethilofan 50mgm 3.40pm Ergometrine 0.5mgm 5.30pm	17 Baby in asphyxia uvula cord 5u" long. responded to 11 mucus extraction O ₂ Gramine 60. req. resps after 30 mins seen by Mr Barclay.
6.45am 20.11.60	5 1/2 lbs	girl Alive	MW Bronk.	1.12.60	good	good BF 6.8.	Mt Brom Chloral gr 30 ea 12.45am Pethidine 100mgm 2am Ergometrine 0.5mgm 7.15am	20 Foetal Distress Cord tightly 11 round neck mild Blue 60 asphyxia responded to mucus extraction Maeus of Abd.
15.12.60 8.40am	Y.4	girl Alive	MW Bronk.	21.12.60	Flushed breast lactation being suppressed	good Y.4 A.F.	Pethilofan 100mgm 2.50am Pethilofan 100mgm 4.30am Ergometrine 0.5mgm 8.45am Morphine Sulph gr 1/4 9.5am Ergometrine 0.5mgm 11.30am	15 P.P.H. retained placenta 12 G.P.O.R.H. neg blood 2 O given on distict- 60 then transferred to W.M.H. 18.12.60 Home from W.M.H.
4.5.60 12 Noon.	7 lbs.	Boy Alive	MW Bronk.	4.6.60	Satis	Satis In food ? 8 1/2 lbs	Pethidine 100mgm 9.45am Ergometrine 0.5mgm 12.15pm	4 Episiotomy sutured by 3 D'Yonge. 60
16.5.60 12 noon	7 3/4 lbs	Boy Alive	MW Bronk.	14.6.60	good	good In food 9.6 lbs.	Pethilofan 100mgm 10.5am Ergometrine 0.5mgm 12.15pm	16 Baby sent in to W.M.H. by 5 Dr Bell on 6 th day because of 60 physiological jaundice.
17.5.60 2am	5 1/2 lbs	girl Alive	MW Bronk.	13.6.60	good	good C.G. 6 3/4 lbs	Ergometrine 0.5mgm 2.01am Ergometrine 0.5mgm 2.09am	17 PPH during 3 rd stage approx 55 of 5 Dr Sinclair summoned 60 2 pints blood given

The register was provided by Mrs Mary Cronk.

Drife: And you would take the blood and crossmatch it?

Cronk: I would summon the GP and he would get the blood out by ambulance, or if I thought it urgent, I would get the blood out by ambulance to meet the GP.

Loudon: Just to comment on that last thing. I think I am right in saying that Sir George Godber,⁵⁶ the Chief Medical Officer of Health, who is still alive, was responsible for introducing a very strong recommendation that women who in a home delivery had a PPH, should not be moved until they had been transferred by the flying squad. He produced figures later to show that this was indeed effective.

Cronk: The other interesting thing that I am reminded of, looking through this register, was the amount of pethidine I was using, and the fact that every woman appeared to be given ergometrine 0.5 mg intramuscularly.

Mrs Rosemary Jenkins:⁵⁷ I was a midwife but now work for the Department of Health. We have talked about the effect of being involved with a maternal death. I was unfortunate to be present at one in the early 1970s. Things have changed and this death may or may not happen now as I was working in a satellite unit to the main unit and the woman was a patient there. Looking back one of the things I remember most were the very appropriate personal responses to her death – shock and sadness – but also the very inappropriate response of the service.

The woman had had a number of antecedent medical problems that were all well documented and in hindsight she should have been transferred to the main unit. The result was that many more women were then transferred to the main unit and decisions were made to deliver many more women in the distant unit than were necessary. It was quite irrational to change the entry criteria for the satellite unit on the basis of the one death and it did seem to me then and even now, that more harm was done by the service response than if they had ‘sat on’ any major change and thought about what went wrong with the individual case.

Drife: Yes. It’s certainly one of the conflicts that obstetricians are very much trained to go by the overall statistics, rather than the individual case, but policies are often driven by, as we know, individual cases.

⁵⁶ Sir George Godber KCB GCB DPH HonFRCS HonFRCGP HonFRSocMed FRCPsych FFCM (b. 1908) was Deputy Chief Medical Officer, Ministry of Health (1950–1960), Chief Medical Officer, Department of Health and Social Security, Department of Education and Science, and Home Office (1960–1973) and Chairman of the Health Education Council (1976–1978).

⁵⁷ Mrs Rosemary Jenkins (b. 1942) worked for nine years for the Royal College of Midwives (RCM) between 1985 and 1994, heading the Professional Affairs Department at the time she left. While at the RCM she worked on the development of the College’s professional policy, presenting this regularly to key figures such as government ministers and leading managers in the NHS. She was one of the two midwife advisers to the Select Committee during its enquiry into maternity services and has worked with WHO on projects to improve maternity care in the countries of central and eastern Europe.

Hunter: A question. Who started obstetric flying squads and where?⁵⁸

Duncan: Bellshill in Lanarkshire. Frank Stabler and Farquhar Murray in Newcastle are the ones that get the credit, but it was 1935 or so, I think.⁵⁹

Drife: Sheila's statement has an air of credibility about it. Are there no Newcastle representatives here today?

Dr Edmund Hey:⁶⁰ I was working as a paediatrician with Dr Neligan in Newcastle in 1968 when the service was still answering 20 calls a year. It was William Hunter and Frank Stabler who got it going in Newcastle. Good ideas often spring up simultaneously in more than one place.⁶¹

Drife: Very statesman-like answer, thank you.

⁵⁸ The origins of obstetric flying squads are described in a letter to Dr Peter Hunter from Dr Sheila Duncan, 14 June 2000. Copies of correspondence will be deposited with the records of this meeting in Archives and Manuscripts, Wellcome Library, London. See note 59.

⁵⁹ Dr Sheila Duncan wrote: 'The development of obstetric flying squads was in the 1930s and was initially patchy. The first report of a well-organized regional service was by Farquhar Murray in 1938 in an Address to the British Medical Association. [Farquhar Murray E. (1938) The obstetrical flying squad. *British Medical Journal* ii: 654–656]. The service in Newcastle that he described had begun with one case in 1935 and had dealt with 46 by 1938. In his report, Murray refers to a service started in Bellshill (Lanarkshire) in 1931. In January 1939, W I C Morris gave a very detailed account to the Edinburgh Obstetrical Society of a service in Ayrshire started in 1937 [Morris W I C. (1939) The organisation and equipment of an emergency domiciliary obstetrical service. *Transactions Edinburgh Medical Journal* 46: 77–103]. Morris did not claim originality and in the discussion at that meeting, Dr Charlotte Douglas (Scottish Department of Health) stated that, "Such a service was started five or six years ago in a small way in Bellshill". Thereafter, the service slowly developed countrywide and reached its heyday in the 1950s and 1960s. In the build-up, the Newcastle upon Tyne service sustained what we would now call audit [Stabler F. (1947) The Newcastle-upon-Tyne obstetric emergency service. *British Medical Journal* ii: 878–880] and served as a role model for others.' Letter to Dr Daphne Christie, 2 January 2001.

⁶⁰ Dr Edmund Hey FRCP (b. 1934) trained as a respiratory physiologist in Oxford and worked for the MRC with Kenneth Cross, Geoffrey Dawes and Elsie Widdowson for some years before moving to Newcastle to get a grounding in paediatrics in 1968 [see Christie D A, Tansey E M. (eds) (2001) *Origins of neonatal intensive care in the UK. Wellcome Witnesses to Twentieth Century Medicine*, vol. 9. London: Wellcome Trust Centre for the History of Medicine at UCL, 5, 10 and 34]. He returned briefly to London in 1973 as a consultant to set up a respiratory intensive care service at Great Ormond Street Hospital, London, but returned to Newcastle in 1977 when the town's first neonatologist, Dr Gerald Neligan, died of leukaemia. Epidemiology and the conduct of controlled clinical trials have been his main research interests in recent years.

⁶¹ Dr Sheila Duncan wrote: 'I don't think this is true, though it's what was said. I think the added notes by myself and Edmund Hey, made later, make it clear that there was continuity in the thinking and an attributable continuous thread of implementation.' Note on draft transcript, 3 July 2001. Dr Edmund Hey wrote: 'The birth of the "Flying Squad" is well told by Derek Tacchi in chapter 6 of his recent short book, *Childbirth in Newcastle upon Tyne, 1760–1990* (Whitley Bay: Bewick Press, 1994). He diplomatically described its development in a lecture given at the Western General Hospital, Edinburgh, in 1985 as an idea that had "a Scottish conception and an English delivery". Farquhar Murray, then Lecturer in Midwifery in Newcastle, first raised the need for such a service in a talk to the Edinburgh Obstetric Society on 13 March 1929, and midwives in Bellshill, Lanarkshire, first gave the idea practical expression in 1931. The first call (for postpartum haemorrhage) answered by an experienced obstetrician and midwife in Newcastle was logged on 15 October 1935. Between 1945 and 1965 the service was answering a hundred calls a year. For other descriptions of the service see Farquhar Murray E. (1938) op. cit. note 59. Hunter W. (1958) The Newcastle upon Tyne Obstetric Emergency Service. *British Journal of Clinical Practice* 12: 38–45.' Letter to Dr Daphne Christie, 18 May 2001.

Hunter: The local community in Newcastle had to get used to this. One day the Newcastle Obstetric Flying Squad was called out to a case at an address that they realized would mean driving through a police speed trap. As they sped past the trap, one of the doctors waved his stethoscope out of the window. They dealt with the case. As they drove back a policeman waved a pair of handcuffs.⁶²

Drife: At least he didn't wave the baby. It would be good to ask Michael Bull, who is a name well known to us all, to introduce the topic of the decline in general practitioner midwifery, and the general practitioner maternity unit.

Dr Michael Bull:⁶³ Thank you very much. When the National Health Service was introduced in July 1948, I think I was doing my clinical stint as a student at the Radcliffe Infirmary in obstetrics and gynaecology. Irvine will no doubt remember that we had to do six months on those topics. I think this was because in those days most GPs were doing obstetrics when they went into practice, and as Lord Moran had said that the GP is someone who has fallen off the specialist ladder,⁶⁴ we had to be properly prepared. I didn't think much of it at that point, because not only did you, if you were lucky, deliver a woman, you also had to bath the baby and sluice the floors, and soak the linen. We were meant to do 20 deliveries, ten in hospital and ten on the district, but when we got to the district I found that I was always late, having cycled furiously from where I was living, and the baby was always there, so I got away with 13 deliveries not 20.

In those days we had to go into the services and in 1952 I went into the Air Force as a medical officer. I was very lucky with my posting, it was on the south coast, a fighter station with two jet squadrons, but they had also got a lot of families in very good housing. There was no 'pill', and no TV at that time, and so the birth rate was very high. I found that I knew very little obstetrics, having sort of dodged it as a student. A local GP used to look after the domiciliary confinements and he would occasionally call me in and I had to pour chloroform on a Schimmelbusch mask⁶⁵ at one end, while he did a forceps at the other. I could never quite understand the indications for those forceps, I suspect they might have been rather social, but anyway it made me realize the little did I know of obstetrics, even less did I know of anaesthesia.

⁶² Dr Edmund Hey wrote: 'The story has probably grown with the telling, but there is no doubt that Frank Stabler, who did more than anyone else to make a reality of Professor Farquhar Murray's "Flying Squad", enjoyed any excuse to drive his Bentley at speed under the nose of the Law.' Letter to Dr Daphne Christie, 18 May 2001.

⁶³ Dr Michael Bull MA BM FRCGP (b. 1926) graduated in 1950 and trained in Oxford. He was a GP in Oxford from 1956 to 1992 and hospital practitioner in obstetrics at the John Radcliffe Hospital from 1972 to 1993. In 1965 he initiated the development of an integrated GP maternity unit in Oxford and monitored its performance until his retirement in 1992.

⁶⁴ Lord Moran MC MD FRCP (1882–1977) was Consulting Physician to St Mary's Hospital, London, and Dean from 1920 to 1945. He was President of the Royal College of Physicians of London from 1941 to 1950. See Anonymous. (1977) Lord Moran. *British Medical Journal* i: 1088.

⁶⁵ Designed in 1890 the Kurt Schimmelbusch mask consisted of a spiral wire tower covered with a waxed cloth.

In 1955 I therefore came out of the services and I was all set on general practice, following these experiences. So I went and did a house job at the Churchill Hospital with John Stallworthy and Bill Hawksworth.⁶⁶ In 1956 I got into a practice, also in Oxford, and at that time I found that 40 per cent of the deliveries were at home. After a while I didn't think it was a very safe place to have a baby, having come across an obstructed labour with a brow presentation, a massive intrapartum haemorrhage,⁶⁷ and a stillbirth with a primipara. It seemed to me that GPs were in urgent need of specialist backup and that probably the flying squad wasn't good enough, because it took ten minutes, 20 minutes, 30 minutes to get there.

In 1965 we started a movement in Oxford, for a GP maternity unit. We had a benefactor in the Chairman of the Hospital Board, who put up the £12 000 that was necessary to build us a 12-bed, one delivery room, two first-stage rooms etc., nursery and the lot, and this was latched on to the end of the labour ward at the Churchill Hospital. The innovation then was that we were able to use domiciliary midwives, which we thought was a fairly major breakthrough. Chloe [Fisher] will remember it, she was in practice in Oxford at the same time as I was and the midwives were a little bit hesitant for the first two or three years, but in the end they took to it.

The other point was that we could have a much more relaxed style of care. People could go home a couple of days or even a day after delivery, they didn't have to wait ten days like they did in the specialist hospitals.

In 1972 things changed because the Churchill Maternity Unit closed down when the new John Radcliffe Maternity Hospital was built, but we moved in with them. We had eight beds and 70 GP obstetricians used them at that time. We were in a way lucky, because the first delivery in the new hospital was a GP unit delivery. It was, in fact, an ongoing success story and Figure 3 gives you the figures.⁶⁸ It worked pretty well until the end of the 1980s. Our peak year was 1989 when we booked more than 1000 women and had something like 750 actual deliveries, taking into account transfers either before labour or during labour. But, of course, in the 1990s things rapidly declined and regrettably the GP unit at Oxford is no more.

I was asked to give what I thought might have been the reasons for the decline in interest of GPs in obstetric care. The Peel Report in 1970⁶⁹ had urged for provision of

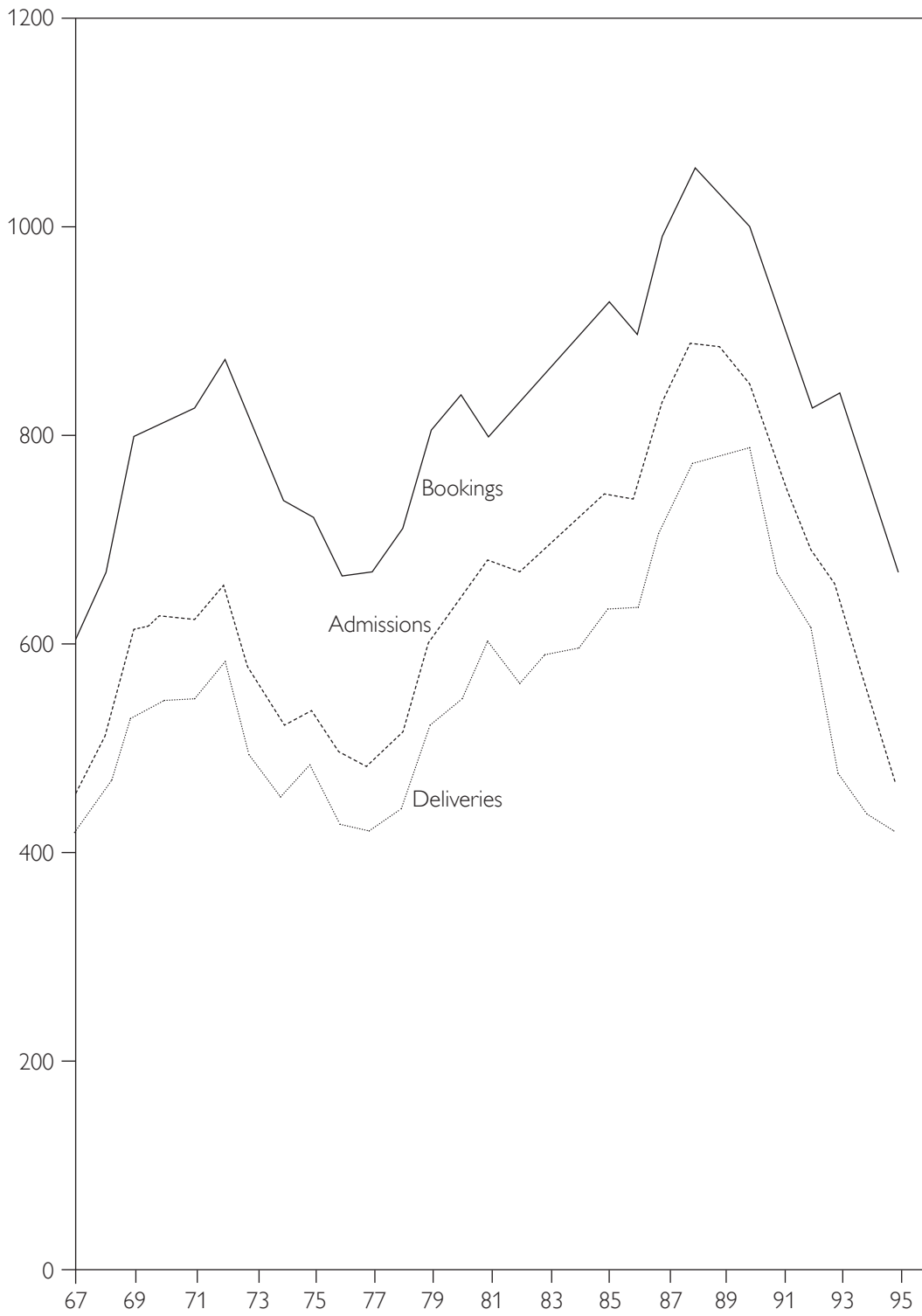
⁶⁶ Sir John Stallworthy Kt FRCS FRCOG HonFACS HonFACOG HonFRCSI (1906–1993) was Nuffield Professor of Obstetrics and Gynaecology, University of Oxford, from 1967 to 1973, then Emeritus, Fellow Emeritus, Oriol College, Oxford, 1973, Honorary Fellow, 1974. Mr William (Bill) Hawksworth OBE FRCS FRCOG (1911–1966) was appointed Consultant Obstetrician and Gynaecologist to the United Oxford Hospitals in 1947. See Peel J. (Compiler) (1976) Hawksworth William. *The Lives of the Fellows of the Royal College of Obstetricians and Gynaecologists 1929–1969*. London: William Heinemann Medical Books Ltd, 190–192.

⁶⁷ Bleeding due to partial separation of the placenta while the baby is still in the uterus.

⁶⁸ Bull M. (1995) Bookings, admissions and deliveries. Adapted and redrawn from the Oxford GP Maternity Unit Annual Report.

⁶⁹ Department of Health and Social Security, Welsh Office. (1970) *Domiciliary Midwifery and Maternity Bed Needs. Report of the Subcommittee*. (Chair: Sir John Peel). London: HMSO.

Figure 3: Oxford GP Maternity Unit Annual Report 1995. Bookings, admissions and deliveries.
See note 68.



100 per cent hospital confinement and, of course, this was achieved at the time by reducing the length of patient stay and it didn't really have to involve producing more beds. Public expectations have also increased markedly and I suppose the 1967 Abortion Act, when the motto was 'Every baby a wanted baby', and the public came to expect that every baby should be a perfect baby.

When I was first in practice inevitably there were Down's syndromes, spina bifidas, etc., that occurred from time to time. Nobody was held responsible for that and it was regarded as an act of God I suppose. Then there were the technological advances in obstetrics that exercised GPs a bit, like the active management of labour, or antenatal and intranatal fetal monitoring, and you had to be a fairly expert technician to undertake those procedures. The case load in many practices was also low. In Oxford, for example, the average case load was under ten women per doctor per year, and by and large most GPs didn't feel that they could take on the technological skills required.

And then next, of course, there's the question of litigation, the fear of it, and we have seen this come to the fore very recently. Only yesterday somebody rang me up from, I think it was Rotherham, about a brain-damaged child who had been born in the 1960s, and the child's mother was dead, the GP was dead, and they couldn't find any records. Yet they were taking action against the hospital board to try to get some cash for what had gone wrong, whatever it may have been.

There's a change in the attitude of GPs in general. They want regular working hours, they want pay for every moment, they want regular off duty and so on. Now in the old days if somebody was in labour, you went, whatever else you were doing, you might even have been on the golf course. My wife holds this against me, on one occasion we even had to postpone our holiday, because somebody was in labour. And then finally there's the new status of midwives, which we have heard of now even in New Zealand. I worked in New Zealand for a while in 1984, and the doctors had to do all the deliveries then, although the midwives were perfectly capable of it. We now have, of course, expert midwives and midwife-led maternity units, and I think that because of the expertise of midwives nowadays compared with the old days, when, on the district for example, if it wasn't a normal delivery, it wasn't a midwife's problem.

Those are perhaps some of the main reasons why GP obstetrics has diminished and withered. I enjoyed my time. I was responsible for nearly 2000 women having babies [much laughter], although, of course, before the 1960s the average GP would care for 3000 women in the maternity area during his/her career. That's really all I have to say about the decline and the fall of GP obstetrics, certainly as far as Oxford was concerned.

Drife: Maybe I will ask Chloe, but it really was a matter of the GP doing the delivery? I obviously belong to a different cohort, and it didn't occur to me that the midwives didn't participate as accoucheurs in the GP unit. The GP would come in and deliver the baby. Is that right?

Bull: No. Not at all. The situation was that we got community midwives into the GP unit to look after the women just as they would have done at home.

Ms Chloe Fisher:⁷⁰ My problem as a domiciliary midwife who had been practising already ten years and had made this as a very positive choice of my way of practising, the inception of the GP unit had me wondering what on earth the future of midwives was going to be. I realized that with changes in attitudes to home confinements and so on, this might be the only way that we could continue to provide continuity of care which I had been able to do for the last ten years. A bit of the story that Mike [Bull] left out was that in actual fact when the idea of developing the GP unit was first started, it was to care for those women whose homes were deemed to be unsuitable for home confinement, but who were low risk. By the time it opened, the swing towards pressure to stop women delivering at home had grown, although the Cranbrook Report which was produced in 1959⁷¹ had said, '30 per cent of women would continue to deliver at home' and I had relaxed and thought, 'Well, OK we're 30 per cent in Oxford, and my future is assured. Now I will have to take normal women out of their home to put them in this other building, because for some reason or other this was going to make it safer for them.' But what it did was to secure continuity of care, so in the end I gave in and continued to function there because I had no other choice.

Drife: Continuity of care in what sense? Did you have the shift system that we have just now, or what was the pattern?

Fisher: At the time we still worked as partners, midwives, and so we worked crazy hours and we were on call 24 hours and I am sure that we were unsafe sometimes, but thank goodness nothing awful happened to me. But it wasn't a shift system, it was the midwife who worked with the GP. We had had GP attachment in Oxford since 1962, and so the women that we were responsible for were the women who were booked with the practices that we were attached to.

Drife: It was crazy hours, but it wasn't something that you resented, the fact that the work would come at any time?

⁷⁰ Ms Chloe Fisher MBE NNEB RN RM MTD (b. 1932) chose to become a domiciliary midwife in Oxford on qualifying in 1956. In the first ten years she was able to practise innovations unheard of in consultant maternity units. Continuing to work in the community, she now also worked in the GP unit, which first opened in 1966 and moved into the new maternity unit at the John Radcliffe Hospital in Oxford in 1972. In 1976 she became Nursing Officer for the Central Oxford Community Midwifery Service. Michael Klein's research into the outcomes of the GP unit followed soon after, and was published in 1983 [Klein M, Lloyd I, Redman C W G, Bull M J V, Turnbull A C. (1983) A comparison of low-risk pregnant women booked for delivery in two systems of care: shared-care (consultant) and integrated general practice unit. I. Obstetrical procedures and neonatal outcome. II. Labour and delivery management and neonatal outcome. *British Journal of Obstetrics and Gynaecology* 90: 118–122, 123–128]. See also page 29. From 1991 until her retirement in 1997 she was Infant Feeding Specialist at the John Radcliffe Hospital, Oxford. She is Chairman of the Breastfeeding Working Group of the Royal College of Midwives that produced *Successful Breastfeeding*, first published in 1988 and with the third edition in press. She is co-author of *Bestfeeding. Getting breastfeeding right for you*. (Berkeley: Celestial Arts, 2nd edn, 2000) and has participated in many films and videos relating to breastfeeding.

⁷¹ op. cit. note 185.

Fisher: I continued to work crazy hours and I still do.

Sir Christopher Booth:⁷² I just wondered about the training of medical students because we have heard at the beginning of this discussion how people had to do a certain number of deliveries. I remember in Scotland where I graduated in 1951 we had to do 20 deliveries, many of them on the district, in fact, in slum houses where you delivered the baby on to newspapers on the floor. I can remember one unhappy occasion during that time when I and a trainee midwife were observing events when a foot suddenly appeared and I heard this horrified statement by this trainee Scottish midwife, 'That's nay a vertex'.⁷³

I remember also in those days that we were able to deliver babies anywhere we wanted as part of our training and quite a number of us used to go particularly to Ireland, to Dublin, to the Rotunda. I, in fact, went to Paris. I delivered babies at the Clinique Tarnier, my chief later became the obstetrician to Grace Kelly. It was just as amusing in France as it was in England, because the jokes in the labour ward were exactly the same. If she cried after the birth, for example, all the Frenchmen would say, 'Would you like me to put it back?'. And there was the same joke about the man who put forceps on the placenta thinking it was a second twin.

Drife: Certainly by 1970 the requirement for 20 deliveries had gone and the chance of delivering babies outside the hospital had disappeared from my group in Edinburgh, that's for sure.

Wheeler: I just wanted to comment on this question of general practitioners present at delivery in GP units and perhaps in homes as well. Certainly in my experience, and this was in Reading in Berkshire, where we had five GP units. I was there between 1968 and 1974, and it was not common for general practitioners to be present at the delivery, although they were GP units. If I could just also say in Julia Allison's work *Delivered at Home*⁷⁴ she looked at 68 000 deliveries in Nottingham, between 1948 and 1974, and in 1950 the GP was present at only 13 per cent of those, and this was reduced in 1970 to 4.6 per cent. So both in home deliveries and in GP units, during that period of time, general practitioners were not present at the majority of deliveries – they were conducted by midwives.

Bull: Can I just say that in our unit in Oxford we used to record the attendance rate at

⁷² Sir Christopher Booth Kt FRCP (b. 1924) trained as a gastroenterologist and was the first Convenor of the Wellcome Trust's History of Twentieth Century Medicine Group, from 1990 to 1996, and Harveian Librarian at the Royal College of Physicians from 1989 to 1997. He was Professor of Medicine, Royal Postgraduate Medical School, Hammersmith Hospital, London, from 1966 to 1977 and Director of the Medical Research Council's Clinical Research Centre, Northwick Park Hospital, Harrow, from 1978 to 1988.

⁷³ The area of the fetal head which is usually the part to appear first at the vulva during labour.

⁷⁴ Mrs Julia Allison has been a District and Community Midwife, Midwife Teacher, Adviser to Nottingham Health Authority and Head of Midwifery Education at the Norfolk College of Nursing and Midwifery. She was General Secretary of the Royal College of Midwives, London, from 1994 to 1996. See Allison J. (1996) *Delivered at Home*. London: Chapman & Hall.

deliveries and it was required that the GPs should attend the deliveries if they wished to keep their contract. The actual required number was very low, I thought it was too low. We tried to bring in that GPs should attend ten deliveries a year. Quite a lot of them didn't book ten deliveries, so it was reduced to five, but overall, over the years we were running, the attendance rate was something like 80 per cent. Many of those that didn't attend were because the labours were so fast that the woman had delivered before the doctor got there.

Drife: One of the criticisms now, of course, is that obstetricians don't see normal deliveries. Would the GPs be called specifically because something was going wrong, or would it just be because you tried to get there and sometimes made it and sometimes didn't.

Bull: No. It wasn't because things were going wrong. The great majority of our deliveries were perfectly normal. It was that the GP was the ultimately responsible person for that woman, and had to be. If she was transferred to specialist care, unless it was a critical emergency, the GP had to negotiate with the specialist staff to take over the care of that woman.

Robinson: I come from Oxford, where Mike Bull and Chloe Fisher practise, and I must say we really owe them both a great debt of gratitude. And I recall, Dr Bull, I used to watch the statistics like a hawk, looking at what percentage of deliveries various GPs had attended, you know if they weren't attending enough, they weren't getting the practice that made them safe. One reason he [Bull] does not give, that I think is important in the decline in the GPs, was that mothers were not being told by their own GPs that they had the right to go to another GP, purely for maternity care, without permanently leaving their own doctor, they could transfer just for that. And because of the kind of structure of the GP system, which has been absolutely crucial in the way that maternity care has developed in this country, GPs were paid relatively so little for doing the actual delivery, that it was worth their while to hang on to patients, get the money for the antenatal and postnatal care. What is particularly important I think about that clinic is the study that was done by Michael Klein, a Canadian research obstetrician, who compared outcomes in the GP unit with those of comparable women of equal low risk who went into the consultant unit. The outcomes were vastly different in that I seem to recall – Dr Bull will correct me if I am wrong – that there were fewer forceps deliveries, fewer Caesareans, less medication and so on. Outcomes were much better. On the basis of that, any rational health authority knowing the lower costs and that the rate was satisfactory, would have expanded not only that GP unit, which, of course, was in fact largely domiciliary midwives with some dedicated GP involvement, and cut down on the numbers of women going into the expensive consultancy wing, which was inducing women, but, of course, as we know that is not what happened.

Macfarlane: If you look at the Ministry of Health reports for the first 20 or so years of the Health Service, there were statistics published about numbers of GP claims for maternity care including delivery, and numbers of GPs present at the delivery, and the latter were lower than the former, but it was being monitored. The picture we see from

Oxford mirrors the national position, where beds were being provided in GP units through the 1940s, 1950s and 1960s, and then numbers declined.

Perhaps both as a reminder, and as a question to anyone who may remember back a bit further, the origin of the small maternity unit was at least a century earlier, at least the advocacy of it, in Florence Nightingale's book *Introductory Notes on Lying-in Institutions*.⁷⁵ She noticed that in the smallest unit that she looked at, the hut in the military hospital in Colchester, which was not a hospital, and where the soldiers' wives went to give birth, maternal mortality was unusually zero. This prompted her friend William Farr to coin the idea of the 'natuary', the opposite of the mortuary, where women without complications should give birth.⁷⁶ You can see that idea sort of simmering through the latter half of the nineteenth century and finding its way into the Women's Cooperative Guild's manifesto for maternity services.⁷⁷ They were campaigning for maternity homes for women who did not have nice homes and hospital rooms for women with complications. This then came in with Janet Campbell's 1919 or 1920 Plans for Maternity Services which had included both obstetric hospitals and maternity homes, run by midwives, who would call a doctor when they needed one.⁷⁸ In fact, the growth in the 1920s and 1930s was both in these maternity homes, which were often training schools, and also in general practitioner hospitals in which GPs did deliveries.

So there were two sorts of institutions that were particularly designed for those women who, as the *Lancet* put it, 'show some abnormality and those whose domestic conditions are unfavourable...comfort in child-bed has been sadly diminished by the house-famine.'⁷⁹ Of course, with the National Health Service both these types of institution became GP units.

Drife: Certainly the first delivery I ever saw, which I think would have been in 1968, was in Kilmarnock Maternity Home, which was a mile away from Kilmarnock Infirmary and staffed by midwives. And just as an interesting aside – one of the mores of the day – I saw it because as medical students we were resident there, and we were rolling back from the pub and were asked by one of the midwives did we want to see a delivery? Naturally we did, though whether the woman was asked whether she thought that was a good idea, of course, is another matter.

Mrs Vicky Tinsley:⁸⁰ I am from the Bath area and I have been involved with six GP units developing into midwifery-led units. The one thing that has struck me right

⁷⁵ Nightingale F. (1871) *Introductory Notes on Lying-in Institutions*. London: Longmans, Green and Co.

⁷⁶ General Register Office. (1872) *Thirty-third Report of the Registrar General for 1870*. London: HMSO.

⁷⁷ Davies M L. (ed.) (1915) *Maternity: Letters from working women collected by the Women's Cooperative Guild*. London: G Bell and Sons.

⁷⁸ Ministry of Health. (1920) *Memorandum with Regard to Maternity Homes and Hospitals*. 15/MCW. London: HMSO.

⁷⁹ Anonymous. (1920) Safety and comfort in child-bed. *Lancet* i: 506.

⁸⁰ Mrs Vicky Tinsley (b. 1960) manages six isolated community midwifery-led units in Wiltshire and Somerset. She has recently been to Russia with the World Health Organization advising on maternity services. She completed a Master's degree in industrial relations and human resource management and has a BSc in midwifery studies.

from since I have been involved with this, is the GPs' total lack of confidence, and their great fear of being called into deliveries to deal with an emergency, when it may have been five or six years since they last had to, and they have had little practical experience of having to put on forceps or ventouse.⁸¹ Some of them have felt very strongly and are quite angry that they have been unable to update their own practical skills.

Professor Lesley Page:⁸² I was Director of Midwifery at the John Radcliffe in Oxford for five years. I think what is interesting about this to me is when we provided this normal care in a GP unit or a home, it was nonthreatening, but the minute we tried to extend this idea of continuity of care and the midwife following the woman through the whole system of care, the opposition was vicious. I think, in a way, that very few people have an understanding of what it was like. We are seeing that reflected now, because there are a number of very good developments that have similar results, those shown by Michael Klein in the Oxford unit,⁸³ the intervention rate is lower, the level of safety is just as good. We are now seeing a number of birth centres, one of them in Liverpool, some in London, midwifery-led developments and the results are always the same, the intervention rate is lower, the outcomes are good. There is, I think, a lesson to be learned from this history, that we can, in fact, extend this kind of care to the majority of women in the maternity services. But there are groups of midwives and doctors who are very threatened by this and, in fact, try to resist it in many ways, if it isn't contained safely in a capsule in a part of the service.

Drife: Can I just ask you, Lesley [Page], before Caroline [Flint] speaks, about the new development? I know I have said we are not talking about the future, but are they mainly GPs and midwives, or midwives and obstetricians, or what is the mix?

Page: There has been a real decline in GPs who want to be involved in this part of the care. There has been an opportunity because of the changes in obstetrician staffing arrangements and the increased status of midwives, which we will move on to later. But, in fact, most of these developments are to do with relationships, and we are seeing them either in one-to-one schemes, or midwifery-led schemes, or birth centres. There's no systematic research being undertaken in these units, there are all sorts of

⁸¹ An alternative to obstetric forceps if delay occurs in late labour. A vacuum cup is applied to the baby's head and gentle pressure is applied by pulling on it. It is often safer than forceps.

⁸² Professor Lesley Page MSc BA RM RMT (b. 1944) qualified as a midwife at the Simpson Memorial Maternity Pavilion, Edinburgh, in 1966. She was the Midwife Member of the Expert Maternity Group, which prepared the report *Changing Childbirth* published by the Department of Health in 1993. She is the Queen Charlotte's Professor of Midwifery Practice with a joint appointment to Thames Valley University, London, and Queen Charlotte's and Hammersmith Hospitals. She was visiting Professor to the Institute of Obstetrics and Gynaecology, the Royal Postgraduate Medical School, University of London, from 1994 to 1998. Her work over 20 years has been in developing and evaluating new patterns of midwifery practice, in Canada and in England. She has been Head, Department of Midwifery and Program Director, Children's and Women's Health Centre of British Columbia, since August 2000.

⁸³ Professor Lesley Page wrote: 'The Oxford Unit was called the GP Maternity Unit although, in fact, GPs and midwives worked together. The outcomes were evaluated by Klein and colleagues and published. See note 70.' Letter to Dr Daphne Christie, 13 July 2001. See also page 27.

evaluations that haven't been brought together, but if you follow the results, the results are always the same, and they are astoundingly dramatic, and positive. We suffer from publication bias, as journals like the *British Medical Journal* and the *Lancet* are usually uninterested in these kinds of studies.

Flint: I am a National Childbirth Trust (NCT) teacher. I have been an NCT teacher much longer than I have been a midwife, and what I was very conscious of and have been over the years, is the influence of individual GPs on home birth rates in my part of south London. There were Luke Zander and Dr Rutty, if you didn't have one of those two doctors, you couldn't have a home birth and women were doing pilgrimages to those two doctors, who would say, 'Well, of course, why not? What a good idea,' and were very supportive of midwives.

Midwifery has always been a very punitive profession, and I, as a new midwife, got a lot of strength from both those GPs and went out and did home births, which was seen as a rather naughty thing to do. The influence of those GPs was so strong that I remember a woman in my NCT class who was going to have a home birth and then she said, 'I can't have a home birth' and I said, 'Why can't you have a home birth?' and she said, 'Dr Zander is on holiday then'.

Dr Lindsay Smith:⁸⁴ I am a GP in Somerset. I would like to contribute a few thoughts on why GPs might have opted out of maternity care. I say this from the perspective of a GP who still does attend both home births and hospital births, and have done for the 12 years since I have been in practice in Somerset. I am certainly one of the few remaining GPs I am aware of that still do actively attend births, much as Mike Bull describes was happening at Oxford in the 1980s. Some of the suggestions I am going to make have got some evidence to support them and some less so and are a little controversial, but I would like other people's comments on these areas.

First, I think the training of GPs has been at fault, certainly in my own experience, and of a lot of others, as a senior house officer in obstetrics, as you only get called to emergencies and disasters and not surprisingly you get a somewhat jaundiced view of whether anybody can have a normal delivery anywhere but in a hospital. Second, as GP units have closed, GPs have of necessity often had to travel further, perhaps to a consultant unit, when the environment has sometimes been unsupportive, perhaps even hostile, towards the GP being involved. Third, as GPs have turned over so to speak, and the older ones retired, in some practices you have lost that critical mass of partners who have supported each other, with the younger GPs perhaps being less well

⁸⁴ Dr Lindsay Smith MClinSci MD FRCGP (b. 1957) graduated from Bristol University in 1982, and was subsequently awarded his doctorate in 1996 on the topic of the training of future GPs in obstetrics. He has published many research papers on women's health, particularly maternity care, and has practised as a GP obstetrician since he entered rural general practice in Somerset in 1988. He continues to provide comprehensive maternity care for women on his practice list. This includes preconception, antenatal, labour and postnatal care for women delivering in hospital and at home. He was previously Chairman of the Quality and Clinical Network at the Royal College of General Practitioners and Consultant Senior Lecturer in the Department of General Practice and Primary Care, University of London; he continues to be the leader of a small group of research general practices in Somerset.

trained or not wishing to take part in intrapartum care. Therefore, once you lose the critical mass of partners prepared to do that, then the whole practice can't provide intrapartum care. Certainly the working day of GPs has become much more pressurized and full, and the flexibility to drop everything to attend a birth is much less now than it was before.

As mentioned earlier,⁸⁵ the actual remuneration GPs get, and I know this is a political topic to some extent, but the amount of money one 'earns' from having a mother booked under your care for delivery, is very little compared with other ways of earning money for the practice. I think fund holding and practice managers in some cases may have said to GPs, 'This is a waste of your time, you don't earn enough doing this'.

The other recent changes, the changing childbirth targets (midwife targets, midwife bookings, midwife this, that and the other) was, I think, a disincentive for GPs to carry on taking part. Some of the experienced community midwives who are used to working with the senior established GPs have retired, and the younger midwives are perhaps less used to working with GPs in that sort of partnership, which I believe is a bastion of continuity of care, that is a committed community midwife, who will make herself available for evenings and weekends, and a committed GP who will do the same. That team of two is hardly ever mentioned in publications or in the wider debate to any large extent. I certainly think that more recently the change to out-of-hours cooperatives has probably been the final nail in the coffin in that minimal numbers of GPs now, very few in fact, practise an on-call rota. As part of a cooperative on-call rota of 30–100 GPs, GPs will not provide, as a large group, responsibility for other GPs' labouring women. So I think there has been a wide range of influences on the decline in GP involvement. Some have evidence and some don't, and I hope that I have stimulated some more comments on those potential reasons.

Dr Luke Zander:⁸⁶ I realize that this is an occasion for looking back, but I am taking you at your word, Mr Chairman, it is also a time for looking forward to see what we can learn from the past. When we talk about GP midwifery, or GP units, we can either consider this from the perspective of the professionals – what is the role of the GP and what does obstetric care mean to his practice? Or we can focus on the woman and ask what is the nature of the type of care that up to now has been called GP or GP/midwifery care? Jean [Robinson] and Lesley [Page] have talked about the work of Michael Klein which found that it seemed to encompass a different sort of approach to intrapartum care from that delivered or received in many consultant-led units. I

⁸⁵ See page 29.

⁸⁶ Dr Luke Zander FRCGP (b. 1935) recently retired as Senior Lecturer in the Department of General Practice at the United Medical and Dental Schools of Guy's and St Thomas' Hospitals, London. He was the founder of the multidisciplinary Forum on Maternity and the Newborn at the Royal Society of Medicine, and a founder member of the Association for Community Based Maternity Care. He was an adviser to the Parliamentary Select Committee on Health for its report on the maternity services (1992) and is a past adviser to the National Perinatal and Epidemiology Unit in Oxford and to the National Childbirth Trust. He is a past President of the General Practice Section at the Royal Society of Medicine.

think it is important to say from the standpoint of general practice that for those of us who have been involved in intrapartum care, it was highly significant, as well as very satisfying, to our role as family doctors. If we look at where maternity care sits in the delivery of primary care, it would seem a great impoverishment if care for pregnancy slipped away from being an integral part of the role of doctors who call themselves, and have a particularly unique position as, a woman's personal physician. I feel there is an urgent need for all of us who are concerned with GP education and with the organization of care to look at ways whereby GPs can be encouraged to carry on providing not only ante and postnatal care, but also to have some involvement, however peripheral, with intrapartum care in their role as GP. In this regard we need to clarify our role and stress that this does not involve us undertaking specialist obstetric care. Michael Bull and Sandy Cavenagh are very special examples of what should be called GP obstetricians, i.e. those who are trained and prepared to undertake specialist-type activities – Sandy, for example, would perform Caesarean sections. Now that is a very unusual and minority type of role. Most of the rest of us are not like this at all. We were GPs providing general practitioner maternity care and we saw our role as ensuring that the women under our care received the type of care that they were requesting. We were there as facilitators but not necessarily providers of this care. I personally would not go down the road of saying that GPs always need to be present at the delivery; in the births with which I have been involved I frequently wasn't present for much or even any of the time of labour. I felt my responsibility was to ensure that the women who came to me were helped to have the type of delivery that they were wanting and then to make sure that they were referred for appropriate midwifery care. If I was present it was rarely to be at the bottom of the bed with the midwife but rather at the head with the mother, or in the kitchen making tea or taking photographs for the family. There should be no conflict with the midwife.

If we look forward, I feel that the role of the GP in ensuring that this type of care can continue and be developed, is as a supporter of midwives. If GPs can identify with and accept what is now called midwifery-led care I believe they have a real and highly important role to play. We still need to break down some existing barriers and misunderstandings if we are to develop a relationship within primary care that will be of full benefit to women and our two professions.

Drife: Thank you very much. I am hoping that we will coax Sandy [Cavenagh] to say a little about his unique role.

Savage: I was thinking that the real importance of home birth, and I have always thought that perhaps my attitude as an obstetrician stems from the very first baby I saw delivered, having read all those novels you know about the sweating and the knotted sheets and the women dying in childbirth, so I had a really negative attitude towards birth. Then I went out on the district, first call, we hadn't had our general call. In those days six students would come and stand there and watch the woman being delivered by a midwife, before we were allowed to try to do it ourselves. But I missed that because there were two district calls and I went out on the second one and another colleague on the first. So it was easy, it was so quiet, it was so peaceful, and I

thought, 'My God, is that all there is to it? It's not what I have been led to believe'. I did 20 deliveries on the district as a student, I did 67 at the London and at Forest Gate Hospital, Newham General didn't exist in those days of course – which was an old army hospital with a couple of prefabricated labour wards that we used to alternate each week to stop infection and all that sort of thing. It probably was old-fashioned. So I think that that had a very powerful influence on us as medical students, because birth was seen as a normal thing, we hardly saw a Caesar, and now the students see nothing but Caesars.

The training, GP training, it was 1971 that the vocational training came in and then it became rigidified and they had to do six months in obstetric units where they were all brain-washed into thinking home birth was dangerous. I examined for the DRCOG [Diploma of the Royal College of Obstetrics and Gynaecology] in the 1980s, every single student, if you brought up the question of home birth, said, 'Oh no, dangerous, I wouldn't have anything to do with intrapartum care' and I think that was a terrible problem.

I feel ashamed to say this, because I haven't ever published, but I did some research about GPs' attitudes to home births in the early 1990s. What was really striking was that those GPs who were doing or being involved in home births or encouraging women to have home births, had exactly the same anxieties as those who weren't doing them. And knowing some of them, what seemed to me to be the crucial factor was whether the doctor believed in the woman's autonomy and her right to have the baby where she wanted to have it. Because of these fears that were expressed, we had a unit called the Women's Healthcare Research Unit and Luke [Zander] came and talked on some of these courses. We ran some courses called 'Home Births for the Hesitant'. We did think to start with 'Home Births for the Terrified', but we thought that might be too much! And what Luke and other GPs who took part in this did, was to get the GPs there to talk through what they felt they couldn't cope with. In fact, they could cope with everything, because it wasn't as if they were there putting on the forceps and things like that, they could put up a drip if the woman had a massive postpartum haemorrhage and they could deal with a fit. They just brushed up their skills on that a bit or helped the midwife with it, so I think there are a lot of factors as Lindsay [Smith] says. Lindsay has done some research on this, about what kind of training GP trainees have, and showed if I remember rightly, Lindsay, that their confidence about doing deliveries declined in their six-month SHO post in obstetrics and gynaecology in hospital, which is a terrible condemnation I think of us obstetricians.

Dr Sandy Cavenagh:⁸⁷ I am very conscious of being the resident troglodyte here, but I would like to reiterate everything that Lindsay [Smith] and Luke [Zander] have said.

⁸⁷ Dr Sandy Cavenagh (b. 1929) qualified from Oxford and St Thomas' Hospital in 1954. During military service in 1958 he nearly lost his wife to Mendelsohn's syndrome following general anaesthesia for a Kiellands forceps delivery. As senior house officer he was trained by Hamish Chalmers in Worcester in the use of Ventouse. He was a GP in Brecon from 1960 to 1994 working in an isolated maternity unit, delivering 90 per cent of the population with consultant support from Cardiff, Newport and Abergavenny. He has performed more than 300 Ventouse deliveries. He was an Advanced Life Support in Obstetrics instructor from 1996 developing the 'Limpet' all-purpose disposable vacuum extractor.

The decline in GP obstetric involvement exactly mirrors my career, and I sometimes wonder if it wasn't entirely my fault. The first shock was the report by Butler and Bonham⁸⁸ which implied that we were unsafe and it took about ten years for Alison [Macfarlane] (and there were several other people) to say that the interpretation of those statistics needed questioning. But all those other factors that we have heard about have contributed. The thing that interests me is where we can possibly go from here. Is this a pattern of care that is remotely worth resuscitating?

The thing that has struck me most is being involved in an organization called ALSO, Advanced Life Support in Obstetrics, which brings together a bunch of people from all disciplines, now nearly all midwives, with a handful of GPs, a handful of consultants, paediatricians, anaesthetists, paramedics, etc.⁸⁹ This puts everybody through a rigorous 48-hour course where they are brushed up on common obstetric emergencies. The universal thing that everybody says at the end of the course is, 'How nice it was to work together', and this what we should have all been doing for the last 30 years and can we get back to that somehow?

I think the unhappiest thing we have seen is the sort of schizophrenic management of obstetrics, where we have gone our own various paths, midwives, GPs, consultants, etc. I can't believe it's only been unhappy for us, I think it has been unhappy for our women. I suspect that if we go back and decide how best we can work together, they will be happier and so will we.

Cronk: I have had another quick whiz through my register, during my time as a midwife, and I am now looking at the turn of 1969, and while I had GPs involved in most cases, most of them were not present at delivery. I am also reminded that I spent a lot of my time then, trying to get hospital beds for women who needed them, and wanted them. I recollect making up all sorts of reasons why women needed a hospital bed. It was very, very difficult. I am now looking at a record of a GP who did come out, Dr Charles Bill, who did a lot of hypnosis and was wonderful, and he thoroughly enjoyed it and I have enjoyed working with doctors.

Now I have to find home births and midwives for women who need and want them. It is not particularly because they want to give birth in their own bedroom, it is because they want to avoid what they perceive will happen to them should they go into hospital. I don't see why women should have to stay at home, in order to give birth in peace.

Porter: Just echoing what Luke was saying, I don't really think we should get too depressed about the withdrawal of GPs from intrapartum care, it's not as though the

⁸⁸ Butler N R, Bonham D G. (1963) *Perinatal Mortality*. The first report on the 1958 British Perinatal Mortality Survey. Edinburgh and London: E & S Livingstone Ltd.

⁸⁹ Dr Sandy Cavenagh wrote: 'Advanced Life Support in Obstetrics (ALSO) was developed by the University of Wisconsin Department of Family Medicine in 1991 and adopted by the American Academy of Family Physicians in 1993. It was introduced in the UK in 1996. The course provides instruction in the management of all common obstetric emergencies and is directed at all maternity care providers. More than 4000 clinicians of all relevant disciplines in the UK have now completed it.' Letter to Dr Daphne Christie, 19 June 2001.

baton has dropped and the race has come to an end, it's really a question of passing on the baton. This concept of the GP as a facilitator is a terribly important one.

Going back to the issue of attendance at deliveries. In our seven community units in the Bath area we plotted the attendance in the various units, and it varied from 12 to 72 per cent between the lowest and the highest in the seven (then) GP units, and the outcome statistics were identical in each of the units. So I don't really think that that's got a fantastic amount to do with it, but I think that this concept of passing on a sort of encouragement is desperately important. All our units have recently moved over from GP-led to midwife-led units, and we have not noticed a decline in the number of women delivering there, indeed we have noticed an increase and we are not talking about small numbers, we are talking about 1600 per year overall.

So I think we demonstrate that the doom and gloom that one could easily take on board from what Lindsay [Smith] was saying in his cataloguing of all the reasons for it, that's just historical record. We must move on from that and recognize that there is now a transition, a new way of naming paths.

Drife: Do you think that Bath is unusual in that?

Porter: Numerically, yes, but we stand as a model that others could, if they wish, quite easily follow.

Page: I just want to put the record straight as regards to the Expert Maternity Group. Mary [Anderson] and I were both members of the Expert Maternity Group and it was certainly our intention to recognize the role that GPs had played and we wanted them to continue. Whenever we visited vigorous maternity units or GP centres or where they wanted to convert, there was often a single GP who had supported a very wonderful service for local women and had supported midwives. Certainly the only kind of continuity of care that we were seeing around the country then, the greatest per cent, came from GPs. In fact it might have been in quite indirect language, but we made a suggestion about GPs being paid more to do intrapartum care.

Time has moved very quickly since then and perhaps one of the biggest factors in fragmenting care has been the working hours of GPs and their fear of intrapartum obstetrics. I have just been doing a few stints in Queen Charlotte's and I think it has become absolutely terrifying, I am learning the ropes again now, but it has changed a lot in the last five years, and it is quite frightening. But I think that we do need to move on and Bath, I think, is a wonderful study in terms of community care, GP involvement, and midwifery involvement, and we need to look forward.

Just one final thing. It's hard for me not to look forward at this moment, because I am returning to British Columbia in six weeks' time and I will be working with Michael Klein. British Columbia has the largest number of GPs actively involved, I think, in much of the world. They are now looking at GPs undertaking the role obstetricians

had, particularly in isolated communities and undertaking Caesarean sections and being leaders in a team, and I will certainly be looking at midwives being leaders in the team as well. I think that there are parts of the world that we can look at where we can see examples of general practice being invigorated and GPs working very closely with midwives and with obstetricians.

Drife: Can I just ask you, what did you find terrifying? What was terrifying about Queen Charlotte's?

Page: It's not just Queen Charlotte's, it's in all the major teaching hospitals now, the active management of labour and the high epidural rate, the high intervention rate has made it very intensive care and you have to be technologically very, very astute indeed. And I hate to admit this, but I think that the fear of litigation is having an effect. But you know basically, whether you are a midwife, or you are a doctor, you have to be incredibly sharp to keep up, and if you haven't been in a delivery suite for the last couple of years, you feel rusty. I am sure other people feel like that too.

Drife: I know consultant obstetricians who have said that as well.

Dr David Jewell:⁹⁰ I am a part-time GP from Bristol. I am feeling very uncomfortable about this. I learnt what evidence is at the feet of Iain Chalmers, so I am not sure that what I am going to say counts as evidence at all, except perhaps at a Witness Seminar. Perhaps Iain will forgive me if I go and beg forgiveness later on today.

I was a student at University College Hospital and graduated in 1975. I did a few hospital deliveries and then had two important experiences. First I undertook a student project, where I think I had a similar experience to Marjorie Tew, of setting out to say how wonderful hospital obstetrics was, and discovering that the data could be interpreted with exactly the opposite conclusion. When you set out to prove one thing and find something else it is very striking. I then went as a trainee to Ipswich which had acquired a large maternity unit quite late on. There was still a large number of GPs around who although they weren't doing deliveries then had done a lot between them in the recent past. It was important for me that there were people around who said, 'It's all right'.

The second experience came when I went to work in Southampton. I worked with a very experienced midwife who had done an enormous number of domiciliary deliveries and she helped me to see that it was safe, and I think this is something to do with the folk memory you mentioned earlier.⁹¹ I don't know that I agree about the folk memory of maternal mortality. I think it is still very strong somewhere. However, there is now no folk memory collectively among general practice that obstetrics is a large-scale thing that you can all do and it is safe.

⁹⁰ Dr David Jewell (b. 1950) is a part-time GP in Bristol where he remains involved in domiciliary deliveries, and is editor of the *British Journal of General Practice*. He previously was involved in GP obstetrics as a GP and lecturer in Southampton.

⁹¹ See page 7.

My final conclusion is that in order for midwives to take it on and take on their own responsibility they need that sort of folk memory around. I am sure that is one of the reasons that Bath is successful, that it has what in other contexts would be called a critical mass. It is one thing that is desperately needed. If there are enough midwives in an area who feel confident and say that low-tech obstetrics is safe then it will continue, and if there aren't then I fear it will be like Michael Bull's descending curve (Figure 3).

Smith: I just wanted to make two very brief points. As this is a historical seminar, I wanted to put on the record that when I started as a GP 12 years ago, every practice in my locality, referring to our local district general hospital, did GP obstetrics. Now 12 years later, only two practices, including my own, do so. I think there has been that marked change in the last ten to 12 years.

Second, and probably most important, I think this idea of the GP as a facilitator of helping women through the system is perhaps crucial for the future, and I would see that as a very important role. We see the increasing intervention rate (sections, epidurals, etc.) and I do hospital visits, to approve them as training for GPs, and in every hospital I seem to go to, the intervention rates are going up and up. I think GPs still have a very crucial role in supporting midwives, some of whom haven't got that much power in the system, which is still very medically and consultant dominated, to assist women getting choices, and doctors because they are part of the club as being doctors, probably have more access to try to help women and midwives to change the system.

Hunter: This is not a point about GP units. It refers back to a much earlier question about the emotional impact of fatal infections during the historical period before the introduction of sulphonamides in 1935.⁹² In a collection of microbiology editorials by L P Garrod,⁹³ which were originally published in the *British Medical Journal*, it is quite clear that microbiologists, in the years leading up to 1935, were in a state of what could be called despair, that no major discovery in chemotherapy of general clinical bacteriological infections had been made since the discovery of Salvarsan in 1910.⁹⁴

Drife: So despair can turn itself round when a breakthrough occurs. Yes, it is quite striking looking back sometimes, you see that. Professor Whitfield and Roger Peel are now going to talk about induction of labour and changing rates of assisted delivery, which are, historically speaking, some pretty spectacular changes in practice.

⁹² See Loudon I. (1987) Puerperal fever, the streptococcus and sulphonamides 1911–1945. *British Medical Journal* 295: 485–490. See also page 6.

⁹³ Anonymous. (1937) *Therapia sterilans magna*. *British Medical Journal* i: 79. See also Garrod L P. (1985) *On Antibiotics*. British Society for Antimicrobial Chemotherapy. London: Academic Press, 6–7, reprinted from the *Journal of Antimicrobial Chemotherapy*, vol. 15. Supplement B, March 1985.

⁹⁴ Salvarsan was first used in 1911 to treat human syphilis.

Professor Charles Whitfield:⁹⁵ When I thought of coming to a historical seminar on maternal care, I imagined that this would cover pre-pregnancy care, care during pregnancy, labour, postpregnancy care and counselling, family planning, the lot, so I didn't make any relevant preparations to talk about induction. Indeed the invitation to open this topic was given to me on my arrival here when I met my old friend, our chairman. He is still a friend.

As preparation, I did re-read Munro Kerr's textbook, *Maternal Mortality and Morbidity*.⁹⁶ He, incidentally, was my predecessor by six steps, and it makes very interesting reading, and I will only just say that if you look at Figure 1, that book was published just at the top of the last peak, before the big slide in maternal mortality. It's a very interesting book, we should pay attention to it, although probably inappropriately titled because he went on to discuss at length, morbidity, neonatal morbidity and the need for a National Maternity Service, and reading between the lines he was talking about the need for a National Health Service. I have some of his old notes including a quote, 'Am actively going to discuss with Arthur Greenwood' who was the Minister of Health before Neville Chamberlain. It was in the National Coalition Government.

However, I will go on and as someone said if you haven't much to say, say it quickly, so I will. Induction of labour is a historical matter and at the beginning of the last century it, of course, was done for virtually only maternal indications, often for borderline and, as it turned out, not very borderline cephalopelvic disproportion and, of course, for a long-dead baby.⁹⁷ That was another indication; it makes your hair rise on end to think of a surgical procedure in that sort of bacterial culture medium. The big trend was, of course, that gradually, although the maternal indications have remained, fetal indications have come on board. More and more inductions of labour are done to end what is perceived as, or what has become, a progressively dangerous experience for the fetus in its environment; that really is the big change.

There have, of course, been social indications, and they are important but probably taken too far. There was no doubt when we were talking about the rich or well-to-do

⁹⁵ Professor Charles Whitfield FRCPGlas FRCOG (b. 1927) graduated in Belfast in 1950 where he was later Consultant and Honorary Reader from 1964 to 1974. He was Professor of Obstetrics and Gynaecology at the University Hospital of South Manchester from 1974 to 1976 and Regius Professor of Midwifery in the University of Glasgow and Honorary Consultant in Obstetrics and Gynaecology at The Queen Mother's Hospital and Western Infirmary from 1976 to 1992. His main research interests have been in pregnancy anaemia, rhesus disease and various aspects of fetal medicine. Chairmanship of several Royal College of Obstetricians and Gynaecologists Committees included the Subspecialty Board and Higher Training Committee and of the Joint Ultrasound Group (with the Royal College of Radiologists). Much of his work is described in Tansey E M, Christie D A. (2000) (eds) Looking at the unborn: Historical aspects of obstetric ultrasound. *Wellcome Witnesses to Twentieth Century Medicine*, vol. 5. London: The Wellcome Trust, 61–64.

⁹⁶ Professor John Munro Kerr HonFRCOG (1868–1960) was Regius Professor of Midwifery, University of Glasgow, from 1927 to 1934. He was succeeded by Samuel James Cameron (1934–1943), James Hendry (1943–1945), Professor Robert Lennie (1946–1954), Professor Ian Donald (1954–1976), Professor Charles Whitfield (1976–1992). See Kerr J M. (1933) *Maternal Mortality and Morbidity*. Edinburgh: E & S Livingstone.

⁹⁷ Medical induction of labour was first introduced in 1913 and then consisted of a combination of quinine, castor oil, enema and, where necessary, injections of postpituitary extract (antidiuretic hormone and oxytocin).

and their forceps deliveries, that a lot of those were for social indications. One would hope that they would not come again, although I read the title somewhere, ‘Too posh to push’ – is it the same thing just coming back? There are things that do tend to come round from time to time.

However, as things changed so did the methods used. There used to be all sorts of crude bougies being produced. I can remember as a student seeing those in a cupboard and I remember the suggested insertion of bougies to introduce hormones. I would never want to see that again.

Then there were the ruptures and the names of various methods, for example, the Drew-Smythe cannula was designed for high fetal heads, but you often accidentally catheterized the placenta.⁹⁸ Then, of course, along came oxytocin [pitocin] and I can confirm the times we used it. Roger Peel was fortunate to work in Bradford with Theobald, so he will talk about that.

As regards assisted delivery, again in the real old days it was often on an almost exhausted, or already exhausted, mother, already perhaps infected and often with just a horrendous labour that was already disastrous and the baby dead. But then gradually less drastic maternal indications came into use, forceps rates in most places went down, and Caesarean section rates in recent years have undergone this huge change. I can remember when I was last very actively involved in obstetrics we worked with a 1.5 per cent Caesarean section rate and that would not be believed today, but there were no social indications then. Now vacuum extraction often replaces forceps delivery, but we are not here to discuss these. Incidentally, Smellie and Simpson were both using vacuum extraction not in the last century but in the one before that!⁹⁹

Drife: Thank you very much, Charlie. Roger, would you like to add something?

Peel: I just wanted to bring in some recollections of Theobald, not because I knew him personally, but because I worked at St Luke’s Maternity Hospital in Bradford¹⁰⁰ as a registrar in 1963 and intermittently until 1966, so there was a gospel according to Theobald, even at that stage. He made two very considerable contributions to obstetrics, perhaps two more than any other. One was to make the use of intravenous pitocin a recognized way of inducing labour.¹⁰¹ The second, of course, was to

⁹⁸ Professor H J Drew-Smythe (d. 1984) specialized in obstetrics and gynaecology in Bristol and invented the Drew-Smythe cannula. Professor Charles Whitfield wrote: ‘This was a double-curved cannula with a blunt-ended stylet, which is introduced through the cervical canal and beyond the fetal head where the stylet is pushed forward to rupture the membranes of the hindwaters. See Smythe H J D, Thompson D J. (1937) Induction of labour by rupture or high puncture of the membranes. *Journal of Obstetrics and Gynaecology of the British Empire* 44: 480–493.’ Note on draft transcript, 11 July 2001.

⁹⁹ See, for example, Simpson J Y. (1855) The air-tractor as a substitute for the forceps in tedious labours. *Obstetric Memoirs and Contributions* i: 498–505.

¹⁰⁰ See Melville H A H. (1965) Obstetric emergencies in Bradford. *The Practitioner* 194: 792–796.

¹⁰¹ See Theobald G W, Muirhead J M B. (1956) The pitocin drip. *Journal of Obstetrics and Gynaecology of the British Empire* 63: 641–661.

introduce the 48-hour discharge scheme, which wasn't directly associated with induction.¹⁰² He first advocated the use of pitocin at St Luke's Maternity Hospital in 1948, using a solution that had half-to-one unit of pitocin in 540 ml, a pint I believe, and never more than two units, and it was used routinely 24 hours after induction of labour by rupture of the membranes. What probably doesn't appear in the article is that it was used on a daily basis on occasions, for anything up to five days. Normally patients were allowed some more modest intravenous fluid without pitocin overnight, but it was not unusual for patients to have pitocin drips for five days in a row.

The other interesting thing was the almost total lack of contraindication. It was freely used with what he described as contracted pelvis, grand multiparous, 13 or more deliveries, and he even promised highly multiparous women induction over the weekend, rather than let them deliver at home. They would come into hospital while their husband looked after the children and then hopefully go out again on the Monday morning. It was also used after previous Caesarean section.

There are just two further comments that I thought I might bring to your notice. One is he writes, 'No obstetrician would sweep and rupture membranes on more than 600 patients a year if he could not rely on the pitocin drip,' and the other thing that I think, in a historical perspective, is of interest are his comments about fetal heart rates. He says that:

'It is unfortunate that we have no figures showing how often the fetal heart becomes rapid or irregular during the course of normal labour, but we are confident that with the ordinary, routine, first-stage ward care there need be no untoward anxiety concerning the fetal heart attributable to the pitocin drip. Indeed on not a few occasions, we have treated irregularity and rhythm of the fetal heart by sweeping and rupturing the membranes, giving morphia, and setting up a pitocin drip.'¹⁰³

He then goes on to give two illustrative cases.

I was in consultant practice in the mid-1970s, which was at the peak of active management of labour and induction of labour. Private patients of mine were always delivered on a Wednesday. They were admitted on the Wednesday morning, they had an epidural anaesthetic, rupture of the membranes, 'pitocin' [syntocinon] drip, and that left the day for them to labour and for me to do my NHS clinics. When the clinic finished at 5 o'clock, I would go across the road to the maternity hospital, deliver them and then home for tea.

Drife: I would like to continue on with the topics of induction of labour and assisted delivery, because certainly as far as I am concerned, having started as a houseman in

¹⁰² Theobald G W. (1959) Home on the second day: the Bradford experiment. *British Medical Journal* ii: 1364–1367.

¹⁰³ op. cit. note 101, 651.

1972, they are some of the biggest changes that I have seen in my nearly 30 years or so. I would be interested in hearing from you following on Roger's [Peel] rather dramatic references about the use of oxytocin, whether there was a phase that everyone had to go through of things going wrong, before we reached a stage where things improved, rather reminiscent of the number of maternal deaths that followed the Abortion Act of 1967,¹⁰⁴ which eventually saved lives. But there was a phase when the actual therapeutic legal termination introduced as many maternal deaths as the criminal abortion did, and I wondered whether there was a phenomenon of oxytocin causing problems.

Peel: I didn't say things went wrong.

Drife: I know, I am trying to coax other people into saying that things went wrong. Well, a lot of people wish to make a contribution. Iain, let's hear from you first of all.

Chalmers: I was a houseman just two years before you in Cardiff, where Alec Turnbull¹⁰⁵ was working, and the attitude to oxytocin and the use of induction there was very dramatic. I think it was partly driven by the results of the British Perinatal Mortality Survey, which showed an upturn in mortality of apparently normally formed babies past term.¹⁰⁶ It got to a point where people said, 'Look, there is no difference between 38 weeks and 42 weeks, so once a pregnancy has reached 38 weeks, we might as well get on and induce labour'. With the titration of oxytocin against contractions, which Alec [Turnbull] and Anne Anderson had developed in Aberdeen,¹⁰⁷ came a confidence that you could, in fact, achieve delivery in a very high proportion of induced labours. You weren't stuck in the situation where you had the four-day thing that Roger Peel was talking about with Theobald's practice.¹⁰⁸ And so you had publications (one by Derek Tacchi,¹⁰⁹ for example) promoting the idea that you could have planned delivery and that it would all be tidied away between nine and five. One of the other papers that was quite striking was about induction of labour in conditions of civil strife, by Professor Pinkerton and his colleagues in

¹⁰⁴ See Drife J O. (1997) Lessons to be learnt from maternal mortality reports. *Current Obstetrics and Gynaecology* 7: 218–223.

¹⁰⁵ Sir Alexander Turnbull CBE MD FRCOG (1925–1990) was Professor of Obstetrics and Gynaecology, Welsh National School of Medicine in Cardiff from 1966 to 1973. He was the third Nuffield Professor of Obstetrics and Gynaecology at Oxford University and Fellow of Oriel College from 1973. In 1990 he received the Eardley Holland Medal from the Royal College of Obstetricians and Gynaecologists, London. See I Z M. (1990) Sir Alexander Turnbull. *British Medical Journal* 301: 549.

¹⁰⁶ Butler N R, Alberman E D. (1969) *Perinatal Problems*. The second report of the 1958 British Perinatal Mortality Survey, under the auspices of the National Birthday Trust Fund. Edinburgh and London: E & S Livingstone Ltd.

¹⁰⁷ In 1968 Anderson and Turnbull introduced their method of titrated oxytocin infusion. See Turnbull A C, Anderson A B. (1968) Induction of labour. 3. Results with amniotomy and oxytocin 'titration'. *Journal of Obstetrics and Gynaecology of the British Commonwealth* 75: 32–41.

¹⁰⁸ See page 41.

¹⁰⁹ Tacchi D. (1971) Towards easier childbirth. *Lancet* ii: 1134–1136.

Northern Ireland.¹¹⁰ Because of curfews, they decided that they were going to try to work a policy of daylight deliveries. They mentioned that they lost a baby from premature delivery, because the dates had been mistaken. I think that was one of the things that was certainly a problem at that time, because assessing the length of gestation with great confidence really wasn't possible, and so sometimes people were four weeks out with their dates.

What we showed in some studies done later on that decade, was that the birth weight distribution and the gestational age distribution of Cardiff births had, in fact, shifted as these induction practices had been brought in.¹¹¹ Alison Macfarlane, looking at trends of deliveries by day of the week, showed that they were increasingly less likely to occur on weekends and bank holidays.¹¹² In fact, I think you predicted when the next bank holiday was going to be declared, didn't you? [Macfarlane: No, I didn't.] There was a dip occurring where there wasn't a bank holiday. Obviously people felt it was time that there was a bank holiday declared then.

Macfarlane: It was the day of the Queen's Jubilee.¹¹³

Chalmers: But one of the other things that was striking was the confusion that existed between *acceleration* of tardy labour with oxytocin, and *induction* of labour with oxytocin. There was a sort of ding-dong between O'Driscoll and Turnbull: Turnbull being seen as the promoter of induction of labour and O'Driscoll being seen as more conservative about induction of labour. It only gradually became clear that they were, in fact, talking about different things. One was talking about using oxytocin to end pregnancy, the other was talking about using it to end labour that had started spontaneously.

The wonderful vision of obstetricians being able to live a nine-to-five existence by doing these things was an important part of it. Then one or two things, apart from the premature deliveries, started to come through. There was a letter from two people in Liverpool, in the *Lancet*,¹¹⁴ suggesting that some of the problems that babies were experiencing with neonatal jaundice might be attributable to oxytocin. More papers were published on that and people started to wonder what might be happening as a consequence of giving oxytocin to all of these women. I remember the report by Cole *et al.*¹¹⁵ of a controlled trial of routine induction versus selective induction of labour at term. Jean Robinson really pitched into

¹¹⁰ Pinkerton J H, Martin D H, Thompson W. (1975) Selective planned induction in conditions of civil strife. *Lancet* i: 197–198.

¹¹¹ Newcombe R G, Chalmers I. (1977) Changes in distribution of gestational age and birth weight among firstborn infants of Cardiff residents. *British Medical Journal* ii: 925–926.

¹¹² Macfarlane A J, Thew P. (1978) Births: the weekly cycle. *Population Trends* 13: 23–24. Macfarlane A J. (1979) Variations in numbers of births and perinatal mortality by day of the week. *British Medical Journal* i: 750–751.

¹¹³ Unpublished data from the Office of Population Census and Surveys showed a dip in numbers of births on the day of the Queen's Jubilee in 1977.

¹¹⁴ Ghosh A, Hudson F P. (1972) Oxytocic agents and neonatal hyperbilirubinaemia. *Lancet* ii: 823.

¹¹⁵ Cole R A, Howie P W, Macnaughton M C. (1975) Elective induction of labour. *Lancet* i: 767–770.

that.¹¹⁶ She didn't like the way that they had interpreted their results. I think it was quite a well-designed trial, but the authors had made more of it than was possible. I remember that Jean was attacked in the correspondence columns, by a doctor who suggested that someone more knowledgeable must have ghost-written her letter.¹¹⁷ She responded that anyone who has access to a decent library can write a letter like this, and that he shouldn't imagine that consumers were going to stay out of libraries and leave his lot alone.

Ms Beverley Beech:¹¹⁸ I don't feel that we have heard too much of the women's voices so far and it seems to me that over the decades women's views of what was happening to them have not come to the fore. It is only recently that we hear far more about what women say. When we are talking about oxytocin, I don't quite remember now how O'Driscoll's work fitted in with the drive that was happening over here, but Moira O'Regan in an *Association for Improvements in the Maternity Services Journal* did a very good critique of O'Driscoll's active management of labour.¹¹⁹ She showed, in fact, that as the numbers of mothers going into the hospitals in Dublin increased, the length of labour decreased in inverse proportion. In other words they were using oxytocin as a way of getting the women in and out as fast as possible. And it has gone from statements that said, 'A normal labour lasts 36 hours'. Following a discussion with the Irish about a month ago a normal labour is apparently now eight hours. I remember in the 1970s someone who came from Newcastle, saying to me that obstetricians have destroyed two generations of women's confidence in birth. I think that we as a community are collectively destroying women's confidence in birth. That has gathered momentum and there is this constant thing about risk and danger and problems. I think the drive from the obstetricians' point of view of trying to do good and help the women who have real problems, has slowly developed into, 'We must control all birth in one way or another,' and the technology has been superimposed on everything. Midwives who have been struggling to keep birth normal are having this constant battle.

It concerns me that in the 1970s I was hearing some appalling statements from GPs to women who wanted home births, and we are still hearing them. We have had research since then, showing that home birth for many women is a safe option, and yet we are still getting this hysteria. If we are going to learn anything from history, perhaps we should be looking at the needs of all women and how they can be manipulated into feeding the needs of the profession. I have just been reading Diana Scully's book, *Men who Control Women's Health*,¹²⁰ I think everybody should read it,

¹¹⁶ Robinson J. (1975) Elective induction of labour. *Lancet* i: 1088.

¹¹⁷ Cox B S. (1975) Elective induction of labour. *Lancet* i: 1242.

¹¹⁸ Ms Beverley Lawrence Beech (b. 1944) is currently the Honorary Chair of the Association for Improvements in the Maternity Services (AIMS), and author of *Who's Having Your Baby? A health rights handbook for maternity care*. New edition. (London: Bedford Square, 1991). She is currently working, with Professor Jean Robinson (see note 20), on the second edition of *Ultrasound – Unsound? A critique of ultrasound use in maternity care*. London: AIMS.

¹¹⁹ O'Regan M. (1998) Active management of labour – the Irish way of birth. *Association for Improvements in the Maternity Services Journal* 10: 1–7.

¹²⁰ Scully D. (1994) *Men who Control Women's Health: The miseducation of obstetrician–gynaecologists*. Columbia: Teachers College Press.

but sit down and take a large gin and tonic before you do, because it is quite alarming. Who is driving the kind of interventions that we are seeing – often in the face of clear evidence that it is not beneficial to everybody? Electronic fetal monitoring is a wonderful example of over-used technology, ultrasound is another example; they are grossly overused and we don't seem to be able to stop that.

Drife: Thank you, Beverley. I think it is probably worth, for the record, pointing out for future generations that the number of women obstetricians is about ten per cent or so, certainly not much higher than that, and some of the assumptions in the profession, as you say, about it being all men have been endemic. The change is quite dramatic that is occurring right at the moment, with over 50 per cent of trainees being female and we'd expect to see the gender difference among consultants, you might say belatedly, but certainly starting to change quite soon.

Flint: In the 1970s I was not a midwife, I qualified in 1976. At the beginning of the 1970s I was a NCT teacher and was one of the very few NCT teachers in south London. One of the ways that I taught was that induction was a normal way of starting labour, because 50 per cent of the women in my classes were being induced. In the National Childbirth Trust there was huge worry and anxiety about this, because induction of labour for most women was complete agony and they needed much, much more analgesia, they just felt devastated. The thing that I thought was really, really fundamental was an article in *The Sunday Times* by Oliver Gillie about induction of labour that had a huge effect on everybody.¹²¹ There was also a television programme and I can't remember what it was called, somebody might remember [From the floor: *Horizon*] and Sheila Kitzinger, also at about the same time, published her *Good Birth Guide*,¹²² which everybody knows [From the floor: It was much later]. But anyway the induction of labour thing, the anachronism of it continues. I wrote an article 18 months ago, probably two years ago, looking at the dose of pitocin given in specific hospitals for inducing labour, and/or for accelerating labour.¹²³ And in every hospital, I rang up six labour wards within a radius of about ten miles of me, every single, solitary labour ward had a completely different protocol and a completely different dosage. It was just barmy frankly.

Drife: Just before Jean takes the microphone, I must, since there is nobody here from Dublin, say that Dublin and O'Driscoll certainly had a low rate of induction and a low rate of assisted delivery. It is only fair to put that on the record in this particular context that it was the augmentation rate that was high there.

¹²¹ Dr Edmund Hey wrote: 'The articles by the Gillies were in *The Sunday Times* for 13 and 20 October, 1974. An excellent and influential study of the effects of induction of labour, which was triggered by those articles and the reaction they engendered, was later published in 1979 by Ann Cartwright in a book called *The Dignity of Labour? A study of childbearing and induction*. London: Tavistock Publications.' Letter to Dr Daphne Christie, 2 July 2001.

¹²² Kitzinger S. (1979) *The Good Birth Guide*. London: Croom Helm.

¹²³ Flint C. (1996) Mixed messages. *MIDIRS Midwifery Digest* 6: 431–432.

Robinson: Could I say that as someone who has been involved in consumer aspects of healthcare for about 40 years, there is no doubt in my mind that it was the dramatic increase in induction of labour which fuelled the consumer movement on childbirth which has continued ever since. It was where we started finding out that by reading the evidence, we could use the medical profession's own evidence as well, and put it together with ours, to show that we had a case that what they were doing was not logical. I started this in the early 1970s, when I was asked to do a broadcast on *Woman's Hour*, it was generally on women's health. At the end of the programme the producer came up to me and said, 'Can you tell me about this induction of labour thing, because we are getting so many letters and we are getting really worried about it?' I was Chair of the Patients' Association¹²⁴ then, and I started with a batch of 200 letters from women about induced labour, which horrified me. Then I went to Clare Rayner and she gave me a further 200 so I had 400 to analyse. I think what this demonstrates is the damage of inadequate research in that you are only looking at limited criteria, limited outcomes, you know whether you get a live baby at the end, what the Apgar score is¹²⁵ or whatever.

One of the things they were not measuring was what labour was like for the mother being induced, as against not, and what the mental health of the mother was. On the basis of the letters I got, which gave the first descriptions I had seen of post-traumatic stress disorder, which at that time wasn't described I think in the literature, and I could only correlate it with First World War shell shock, women describing nightmares, the kind of nightmares where you woke up screaming and flashbacks and so on. I telephoned the Mother and Baby Psychiatric Units around the country, in areas where I knew there was a high induction rate on the basis of published studies, and said, 'Have your mother and baby admissions gone up?' They said, 'It's funny you should mention that'. I didn't know at the time that the induction rate in Oxford was 60 per cent. I was getting, 'We had one midwife who gave birth, who hid in the lavatory in the hospital, 'til she was too far gone to be interfered with, and a woman GP who lied about her dates, so that she wouldn't be induced.' So one got the feeling from all this various evidence that things were pretty bad. I went to Alec Turnbull,¹²⁶ the Professor of Obstetrics at the time, who had done, of course, a great deal of work on the Cardiff pump and so on, who was a smashing bloke, I mean just smashing. He was so receptive, and when I went back and read the research, I was so impressed in the quality and honesty of his research. In his early research he said, 'We believe we had one baby that died, and one baby

¹²⁴ The Patients' Association, London, represents patients' interests to government, professional bodies and all organizations involved in health matters.

¹²⁵ Developed by the American anaesthetist, Virginia Apgar in 1953, this is a score of a newborn's physical condition based on five measures (heart rate, respiration, muscle tone, colour and reflexive responsiveness) at one minute. A maximum of two points is given for each, often now measured again at five and ten minutes after delivery. See Apgar V. (1953) The Apgar score. A proposal for a new method of evaluation of the newborn infant. *Current Researches in Anesthesia and Analgesia* 32: 260–267.

¹²⁶ See note 105.

brain-damaged as a result of this use of oxytocin'.¹²⁷ So he was one of the honest guys, and boy, do I respect people like that, who are upfront about the things that go wrong. He asked me to give a talk at the hospital to the obstetricians and midwives, and as a former member of the Regional Board I got access to all the statistics. They said to me, 'Look this is doing good, our perinatal mortality rate has gone down'. So I analysed the figures and I said, 'Yes, but the percentage of working class births has gone down, the percentage of high-parity births has gone down, and high-risk births has gone down, so your perinatal mortality would have gone down if your care hadn't got better and probably even it had got worse'. And the induction rates did come down in Oxford and he was willing to listen, but it was the description from women of what the experience was like.

And the other interesting thing is I could compare the batch of letters I had from Glasgow, the batch of letters I had from Watford, and so on and so forth. And the women who came out with least psychological damage were the ones who had had intensive support from midwives, who said, 'I had a midwife who had formerly worked on the district, and she supported me, and I couldn't have got through it otherwise'. And then I realized that you could ameliorate the effects of the technology, when you had these one-to-one midwives, but I knew that things were changing, soon you would have high-tech midwives, and high technology, and the result was going to be disaster. That was how the consumer movement in childbirth started, and we got the confidence from reading the literature and by criticizing the Cole, Howie and Macnaughton trial from Glasgow,¹²⁸ which was statistically, I am sorry to say, absolute rubbish. Iain [Chalmers] and I proved it in the letter I wrote, and if we could do that, we knew we could do anything.

Drife: Another throw-away comment is, of course, that one of the fundamental principles of active management according to O'Driscoll was the one-to-one relationship with the midwife as well, which was one of his pillars. [It's been forgotten when other researchers have tried to replicate his work.] It's been extraordinarily hard to replicate the results from Dublin, that's for sure.

But I want to move on in a moment to Elliot [Philipp]. Looking back to 1972, when my introduction to obstetrics was, rupturing the membranes was certainly one of the skills one felt one had developed. It does make one cringe to look back on it, the ability to rupture the membranes however unfavourable the cervix was and to be able to insert either the Drew-Smythe catheter, as you say usually getting blood back rather than amniotic fluid, or to insert a pair of forceps through a very closed cervix. Oddly enough, you were told that that was what was required and you acquired the skill.

¹²⁷ See, for example, Turnbull A C, Anderson A B. (1968) Induction of labour. II. Intravenous oxytocin infusion. *Journal of Obstetrics and Gynaecology of the British Commonwealth* 75: 24–31.

¹²⁸ op. cit. note 115.

You also acquired a lot of skill in the early 1970s in the use of forceps, because limits were set on the duration of the second stage of labour, one hour in a primigravida and half an hour in a multigravida.¹²⁹ That meant that a generation of obstetricians now dying out, has extensive experience of instrumental delivery, which fortunately perhaps the succeeding generations won't have, but it is a problem, because if an instrumental delivery is required now, and these limits are not set and we are only doing instrumental deliveries when they are really necessary, the training is difficult. It is rather, I suppose, embarrassing to admit that some of us benefited from these unjustifiably high intervention rates. I mention that as a wry observation and not as a justification.

Porter: Can I just ask a question? It seems to me, standing back from it, not having been a part of it at that time – I had not yet qualified – that, despite the fact that the figures were so astonishingly high for the induction rate in this country, it took a remarkably long time for people to realize that something truly idiotic was happening. Am I wrong, or do people have theories as to why it took so long for the penny to drop?

Drife: I think that it would deserve study, the length of time. We are continually being criticized. I was trying to take questions like that last week [Rodney Ledward affair],¹³⁰ why did it take so long? I think it's always embarrassing in retrospect but I go back to my observations of the Abortion Act. It took 15 years from the introduction of the Act to abolish death from criminal abortion and that is, to me, one little indicator of how the timescales that we are working on, when you look back you think, 'Ridiculous, we should have recognized this immediately'. But I think that there is a phenomenon there that would deserve study and comment, which I see it is going to get. Peter, from you first of all.

Professor Peter Dunn:¹³¹ You were asking why it took so long. I think part of the explanation lay in the development of neonatal intensive care in the early 1970s just when obstetric intervention was rocketing upwards.¹³² As outcome was largely judged

¹²⁹ Primigravida – a woman pregnant for the first time. Multigravida – a woman pregnant for the second or subsequent time.

¹³⁰ Professor James Drife wrote: 'Rodney Ledward (d. 2001) was a consultant gynaecologist in Kent whose name was erased from the Medical Register in 1998 for serious professional misconduct because an unacceptably high number of his patients had suffered surgical complications. In 2000, an enquiry into the issues raised by his case, chaired by Jean Ritchie QC, found that he had been able to continue practising for several years after local colleagues had raised concerns about his competence.' Letter to Dr Daphne Christie, 17 July 2001.

¹³¹ Professor Peter Dunn FRCP FRCOG FRCPCH DCH (b. 1929) graduated from the University of Cambridge in 1953 and trained in perinatal medicine in Birmingham, San Francisco and then Bristol where he was responsible for the university neonatal service from 1969 to 1988. In 1971 he introduced in the UK continuous positive airway pressure using a Gregory box. His research interests include congenital dislocation of the hip (British Orthopaedic Association Gold Medal) and fetal adaptation to extrauterine life (De Snoo-van't Hoogerhuigs Medal and Prize). In 1975 he founded the British Association of Perinatal Medicine and was Inaugural President from 1980 to 1984, and Consultant to the World Health Organization (WHO) from 1970 to 1990. He is currently Emeritus Professor of Perinatal Medicine and Senior Research Fellow, University of Bristol. He has recently been elected James Spence Medalist for 2001 by the Royal College of Paediatrics and Child Health. See Christie D A, Tansey E M. (eds) (2001) *Origins of neonatal intensive care in the UK*. op. cit. note 60.

¹³² See Tansey E M, Christie D A. (2000) (eds) *Looking at the unborn: Historical aspects of obstetric ultrasound*. op. cit. note 95. Christie D A, Tansey E M. (eds) (2001) *Origins of neonatal intensive care in the UK*. op. cit. note 60.

in terms of perinatal mortality, the success of neonatal care helped to mask the ill effects of obstetric over-intervention. I remember a paper by Richard Beard a few years after Oliver Gillie's 1974 *Sunday Times* article criticizing meddling obstetrics, in which he [Beard] showed a correlation between his reduced induction of labour rate and perinatal mortality.¹³³ Professor Chamberlain will remember that paper.

One further point is that I think there is sound evidence that 80 per cent of women do not need any obstetric interference during normal childbirth; they just need psychological support, privacy and a hygienic environment. The problem is that obstetricians, and now to some extent midwives, are mainly trained on the pathology of parturition – the problems of the 20 per cent of women who do need expert help and assistance. I don't think we will get the balance right in hospital where nearly all deliveries now take place, until we give much greater emphasis to the training of obstetricians and midwives in the normal physiology and psychology of childbirth.

Chamberlain: It wasn't quite as slow as you implied. Two Gillie articles came out in the late summer of 1974, the *Horizon* programme was later.¹³⁴ The national incidence of induction of labour was reduced inside two years. I have often cited it since to students as an example of how you can change things round.

Can I just add one last comment to what has just been said? Absolutely right, Peter's last comments, we should teach people who are looking after women in labour from the normal end and not from the abnormal end. It is the other part of medicine, but of course we are still old-fashioned.

Page: I think one of the reasons it takes so long for things to change is faith and ritual. A lot of what we have undertaken in maternity care has been based on faith and ritual and hasn't been scientific, this has been a kind of blind spot. I think if we look at the work by O'Driscoll,¹³⁵ who emphasized that a nurse, he called them a nurse, should sit with the woman this distance away [about 8–12 inches]. We have got very good evidence that one of the most important interventions that we could undertake for women is to have a midwife, or in other countries an obstetric nurse, who stays with the woman through the whole of labour. And we are ignoring that evidence still, with an emphasis on more and more active intervention, where in fact the humane interventions might be the most powerful.

¹³³ See Beard R, Brudenell M, Dunn P, Fairweather D. (eds) (1975) *The Management of Labour*. Proceedings of the Third Study Group of the Royal College of Obstetricians and Gynaecologists 1975. London: Royal College of Obstetricians and Gynaecologists. Beard R, Steer P J. (1977) Induction of labour and perinatal mortality. *British Medical Journal* ii: 516–517.

¹³⁴ op. cit. note 121. Massey G, Bates R. (1975) A time to be born. *Horizon*, BBC2.

¹³⁵ O'Driscoll and Meagher of the National Maternity Hospital, Dublin, introduced their 'active management of labour', which provided low rates of obstetrical intervention with a high level of support in labour. See, for example, O'Driscoll K. (1972) Active management of labour. *British Medical Journal* 18: 425. O'Driscoll K, Stronge J M. (1973) *ibid.* 15: 590. op. cit. note 119.

Eben: As one of those more recently qualified obstetricians and gynaecologists and being female, as well as being one of four females in our unit, I feel things have changed. While I would agree that in a way as obstetricians and gynaecologists we have brought it upon ourselves that there has been an understandable backlash by the women we treat, because, I think, we have for a long time ignored what women want. I think part of being an obstetrician is to understand that even if you do want to book an induction, as long as you take the woman along with you and there is a good indication, you can explain that to the woman, and you can follow her through with the support of the midwives. I think her psychological trauma and whatever else is associated with that, can be reduced dramatically, including good care in labour and continuity of care. I think that it is not necessarily the induction, which may well be medically indicated and a very sensible thing, and not just for the purpose of getting the woman delivered at a certain time on a certain day, but on how you establish a partnership with the woman, even if she is being induced, as an obstetrician and as a midwife. I think that it is towards partnership that hopefully obstetrics and midwifery will go, rather than the male domination as previously pointed out.

Drife: Do you think it is? I was going to ask you about whether you thought it was because of male obstetricians, *vis-a-vis*, I am not saying 'against', but 'as compared with' female obstetricians.

Eben: I have worked with Professor Chamberlain. I was his senior house officer, and I think it is he and other male obstetricians (maybe this is why he is sitting here), who certainly as males have taught me a lot about patient relationships. I don't think it has to be male or female, but I think because the profession has been dominated by males and because midwives have mainly been females and patients have been females, there has been this sort of relationship that has been allowed to escalate. So I think that is where the problem has arisen. Traditionally it is in a way easy to blame the male.

Drife: Yes. I just think society has changed a bit.

Donnison: We have been talking a lot about what is normal, that labour used to be normal at 36 hours, and now it is normal only if it is eight, which is in my mind tommy rot. We are losing the concept of what 'normality' means. Normality seems to mean, possibly, what obstetricians say it is. We heard from Philip Steer in the *British Medical Journal* that about two-thirds of births are normal.¹³⁶ Big deal. Where else in the field of human conflict do you have *one-third* of anything that is *abnormal*? I rest my case.

The other point is why did it take so long? Well, it is still going on, it hasn't stopped, this technological intervention. I was once talking to the secretary of the now-defunct Central Midwives Board,¹³⁷ and he said, 'The trouble is you are no one in this

¹³⁶ Chamberlain G, Steer P. (1999) ABC of labour care. Labour in special circumstances. *British Medical Journal* **318**: 1124–1127.

¹³⁷ The Central Midwives Board was the statutory, regulating body for midwives in England and Wales from 1902 to 1983. It was succeeded by the United Kingdom Central Council for Nursing, Midwifery and Health Visiting.

technological age unless you have a bunch of machines, and obstetricians are disappointed jet pilots'. That is what it is all about. And the midwives follow suit. I remember the old pictures of midwives, where you had her with her birth chair, and then in the 1970s she is advertised in the *Midwives' Journal*, there she is beside a machine.¹³⁸ And that is what we have to get away from. The despising of the low-tech approach, and we have lost how to deal with difficult situations through psychology. Where else in any difficult situation do you, say, set somebody up for failure? If you are taking an exam you say, 'Look! Revise, turn the paper over, be careful, and pace yourself in the examination'. If you are running a race, 'Right, you have done your training and all that! Don't run too fast, watch your breathing, and you will win; you will *succeed!*' But here we say, 'Let us know when the pain gets too bad.' You set people up to *fail*. And we hear, 'Oh, she's run out of steam, she can't do it'. In the next couple of generations, our grandchildren will look back to a super-race of grandmothers who gave birth at home, without anaesthetic, or with 'gas and air', but they will think they were stronger than we are, just as I was told in the Canadian hospital in 1955 when I refused an episiotomy, their chained bed, and their scopolamine I think it was, because it made you all funny, 'English women must be stronger than Canadian women,'¹³⁹ just as we say the 'natives' are stronger than 'civilized' women. *What* is normality?

Mrs Janette Allotey:¹⁴⁰ I am a midwife teacher. You are talking a lot about exposure of obstetricians to techniques and about getting back to normality for midwives. And we have a problem with midwives that were trained like I was in the late 1970s, where women were attached to machines and all the students were exposed to was technological hospital birth. Some midwives never had the opportunity to see a home birth, and they are practising now. I think it is those midwives now that feel insecure about offering home birth and supporting mothers, and offering choices around home birth.¹⁴¹

¹³⁸ Dr Jean Donnison wrote: 'In sixteenth-century midwifery textbooks the midwife is commonly shown sitting on a low stool in front of the parturient who is seated on a birth chair. By contrast, in the 1970s the journal of the Royal College of Midwives (*Midwives' Chronicle*), carried advertisements for fetal monitoring machines showing the midwife standing proudly by the machine. The clear message is that the midwife will no longer need her own auscultation skills, a belief that has contributed to the gradual de-skilling of midwives.' Note on draft transcript, 17 July 2001.

¹³⁹ Dr Jean Donnison wrote: 'The East York Hospital, Toronto (a GP unit), where all births were forceps deliveries, complete with routine episiotomy and general anaesthesia. The delivery bed had chains for the mother's arms, it being said that the anaesthesia used made her throw them about. The only analgesia used was pethidine and nobody had heard of "gas-and-air" machines or seen a normal delivery.' Note on draft transcript, 17 July 2001.

¹⁴⁰ Mrs Janette Allotey (b. 1957) is currently a midwife teacher at the University of Manchester. She is also a part-time PhD student at the University of Sheffield, carrying out historical research into discourses on the female pelvis during birth. She qualified as a midwife in 1980, was appointed a midwifery sister in 1982 and became a teacher in 1992. She has been involved in pre- and postregistration midwifery education and was a Supervisor of Midwives for the West Midlands Regional Health Authority from 1991 to 1999.

¹⁴¹ Mrs Janette Allotey wrote: 'The definition of "normal birth" has been tremendously "stretched" in the twentieth century. For example, a mother experiencing induction of labour but having a normal vaginal birth will be categorized as "normal". Similarly, a woman whose labour has been augmented by artificial rupture of membranes and intravenous syntocinon infusion, requiring electronic fetal monitoring via a fetal scalp electrode with possibly an epidural to help with the pain, necessitating an additional intravenous infusion, catheterization of the bladder every two hours followed by vaginal examinations, and perhaps an episiotomy at birth will also be classified as having a "normal delivery". However, this type of care provides little insight into the natural process of birth. For more on the de-skilling of midwives since 1902, see Clarke R. (1993) *The last stand. Nursing Times* 89: 36-37.' Letter to Dr Daphne Christie, 4 December 2000.

Also as a teacher, I would like to say that now we have problems in facilitating the opportunity for all students to see at least one home birth, that is still not possible for all student midwives, yet in the past it was. Some students are also not getting the opportunity to use the Pinards stethoscope¹⁴² these days, because of the use of CTGs [cardiotocogram], sonicaids or Doppler machines. Those are the very basic experiences and techniques that we should perhaps be getting back to in midwifery education and practice.

Cronk: Why did it take so long? I think it was multifactorial. My first thought was, it was our arrogance, we didn't like to think that we might have got it wrong, but I don't think it was only that, I think we were developing and improving the techniques that helped us to get out of the messes we got ourselves into. Caesarean section was getting better and safer, anaesthesia was getting better, we were having epidurals, we could in fact go round to theatre, to get us out of the mess we had got into when we had inadvertently had a disaster when we ruptured the membranes. Maybe not when we had to poke it through a barely dilated cervix. We had much, much better neonatal paediatric care, neonatal units that were getting us out of the mess we had just got ourselves into.¹⁴³ So I think it was multifactorial, but I think there was also that little bit of arrogance where we didn't like to say that we might have got it wrong.

Drife: I think that is a good comment. I think there are two pits that one can fall into, one is the pitfall of too much self-flagellation, and the other is the pitfall of too much flagellation of one's colleagues. So it is a phenomenon that is interesting to study historically, but I think it has been a rather tortuous learning curve.

Mrs Jane Evans:¹⁴⁴ I am a midwife. I would like to say, and it ties up with what you have just said, that I trained in the mid-1970s as a midwife, and was able to watch women. Women are our greatest teachers. A student midwife if she has a Pinards¹⁴⁵ in her pocket, they are only four quid, often won't use it. We have to get out there, use history to learn from. We must learn from it, and by learning we can go back to having

¹⁴² Mrs Janette Allotey wrote: 'The Pinards fetal stethoscope: for auscultation of the fetal heart by physical means. The stethoscope is placed over the maternal abdomen at right angles to it, over the point of maximum intensity of the fetal heart and the operator's ear is placed on the other end to listen and count the number of beats per minute. It is used as a guide to fetal wellbeing.' Letter to Dr Daphne Christie, 27 June 2001. See Myles M F. (1999) Auscultation, in Bennett V R, Brown L K. (eds) *Myles Textbook for Midwives, with Modern Concepts of Obstetric and Neonatal Care*, 13th edn. London: Churchill Livingstone, 109–110.

¹⁴³ See Christie D A, Tansey E M. (eds) (2001) Origins of neonatal intensive care in the UK. op. cit. note 60.

¹⁴⁴ Mrs Jane Evans (b. 1953) qualified as SRN at the Middlesex Hospital, London, in 1974 and as SCM in 1976. After working as a midwife within the NHS for 20 years – 13 of which were as a community midwife – she now has her own independent practice and is interested in maintaining midwifery knowledge and skills.

¹⁴⁵ See note 142.

the humility to sit and watch a woman labour and allow her to give birth. I have delivered four babies – they are my own.¹⁴⁶

Savage: I was just thinking about this question of induction, that I don't think we know what the induction rate is today, because a lot of women are induced with prostaglandins and I don't think that that is recorded. I wouldn't be a bit surprised if you went into hospitals and found the induction rate was well over 20 per cent. I think that one of the problems that we have had is the statistics, you know like the fact that we had GP maternity units, when all the deliveries were being done by midwives. Why didn't we have deliveries by midwives recorded by our government statistics?

I was induced for my second baby, oil, bath and enema ['OBE'], I gave myself, although I didn't give the enema, oil and a bath, but that was what we used to use, oil, bath and enema. Then we gave pitocin injections, and they never worked, so I had the pitocin injections, and then they did the ARM [artificial rupture of membranes]. I was waiting for the pitocin drip, but I kept really quiet so that they wouldn't notice, and then I managed to deliver without having the drip. I also had a baby in the States, and the obstetrician turned to the obstetric nurses and said, 'Well that's a normal delivery', because they had never seen a woman who hadn't had an epidural or forceps, and you know we are always 20 years behind the States aren't we? Then we take things up and do them worse than they do in the States. But we have reached the point now where we are going to reach the same rate of Caesarean section as the Americans unless we are extremely careful. We have a whole generation of young obstetricians who are muddled up about choice and muddled up about litigation, and they haven't learnt like we did.¹⁴⁷ I trained when the maternal mortality rate wasn't terrific like it was when I was born, but there wasn't much we could do and what we had to learn to do was to deal with our own internal anxiety, and we learnt how to do that. The youngsters haven't learnt how to do that, and if you haven't got obstetricians on the labour ward who have learnt how to do that, the introduction of obstetricians into the labour ward may well fuel the section rate even more. All the evidence is that if you have a well-supported woman there is a reduction in intervention, in terms of both forceps and Caesarean section, and whether we can turn this round, I think, is a very moot point, because we now have a generation of young women who don't

¹⁴⁶ Mrs Janette Allotey wrote: 'Students tend to learn by exposure to experiences and by example. From personal observations in two large teaching maternity hospitals (between 1970 and 1980), where sufficient CTG (cardiotocograph) machines were purchased to provide almost all women in labour with a machine, learning opportunities for students were restricted. Students were often asked in this era of task-orientated care, to "put a lady on the monitor". In busy labour wards indirectly supervised students found a quick way of locating the fetal heart by moving the transducer around without first attempting to identify the precise fetal position by abdominal examination and auscultation. Once women were strapped up to monitors, their movements may have been restricted in order to avoid loss of contact to the CTG transducer, resulting in poor quality traces for which midwives were chastised. In this scenario a student would not dream of moving the monitor straps to perform an abdominal examination and auscultation using a Pinards stethoscope; although the stethoscopes were available they remained on the shelf collecting dust.' Letter to Dr Daphne Christie, 27 June 2001.

¹⁴⁷ See, for example, Al-Mufti R, McCarthy A, Fisk N M. (1996) Obstetricians' personal choice and mode of delivery. *Lancet* 347: 544.

understand that they can deliver normally. I was talking to two journalists about Cherie Blair,¹⁴⁸ and neither of them had had babies, and it became a teaching session, this article that finally came out in the *Daily Mail*. They had not realized that women could have a baby normally after a Caesarean section, but they were also not really sure that a woman could have a baby normally, and so somehow we have to get the media, because the media are very powerful, and these young journalists they all move in those sort of circles where they don't have real lives, if you know what I mean.

I just want to say one thing about the 1974 Gillie articles¹⁴⁹ and that is that nobody has mentioned the march to the Royal Free Hospital. When Yehudi Gordon was letting women adopt the position they wanted and his professor didn't want the position, there was a huge march up Pond Street.¹⁵⁰ That was really very important as well to make women realize that they could stand up and be counted and it would make a difference, and it did.

Drife: Let's move on to Elliot's introduction into obstetric analgesia and anaesthesia.

Philipp: Thank you very much indeed for asking me to start the ball rolling on obstetric pain relief. In the 1950s when I got my first obstetric consultant job, that was at Oldchurch Hospital in Romford, and we had about 2000 or more deliveries in the hospital and, listen to it, 2000 deliveries at home. So home deliveries were then common. The reason was we had no beds; not enough beds and the reason why we didn't have enough beds, is that we never thought of early discharge; we kept them in I don't know how long, a week, ten days, and therefore the rest were delivered at home. I will go a little later into home deliveries.

My senior colleague at Romford, was the late John Watt,¹⁵¹ to whom I owe everything, because he really taught me everything about midwifery. I had been a senior registrar at three London teaching hospitals before I got out to Romford, but I had never been at the sharp end of midwifery in a big, big way. Watt was a tremendous fan of spinal anaesthetics, set up by the obstetrician. The senior house officers, or registrars, or consultants, set up their own spinal anaesthetics. The way we did it was very crude. We got the women to lean forward against the lump that was her pregnant uterus, and sometimes this was supplemented by a pillow underneath her pregnant uterus, so we got a curve on the back. We then did a spinal tap, I don't know at exactly what level, I think about L4 or 5,¹⁵² and we had an open

¹⁴⁸ Cherie Blair, barrister and wife of the British Prime Minister, Tony Blair, gave birth to her fourth child on 30 May 2000. The birth was a natural one and straightforward. At her age of 45 it was anticipated that the birth would be by Caesarean section.

¹⁴⁹ op. cit. note 121.

¹⁵⁰ Mrs Wendy Savage wrote: 'Pond Street in Hampstead, London, where the Royal Free Hospital is located. The Professor there was Ian Craft.' Note on draft transcript, 9 August, 2001. The Royal Free protest was in 1982. See Protest organized against Royal Free's policy. London rally in support of natural methods, *The Times*, 5 April 1982.

¹⁵¹ Mr Elliot Philipp wrote: 'Mr John Dickie Watt FRCOG (1915–1995) was Consultant Obstetrician and Gynaecologist at Wanstead Hospital and then Oldchurch Hospital, Romford. He was a pioneer in the use of ultrasound.' Note on draft transcript, 27 June 2001.

¹⁵² In the space between the fourth and fifth lumbar vertebrae.

phial of cocaine-like derivative, I think it was novocaine or bupivacaine, but there again I am not quite sure which one. It was a common one when I went there, we changed a little bit over the years. We let the spinal fluid drip into this phial, we put a spigot into the spinal tap, so that it didn't go on leaking, and then we stirred it all up in the phial and so we added about 2 or 3 ml of cerebrospinal fluid (CSF) to dissolve the local anaesthetic, which we then injected back up the needle. And it was very, very effective. We were able to do forceps, we were able to do breech extractions, and occasionally, but very, very rarely, the babies popped out before we got the instruments on. If we couldn't get the baby out, of course there was a terrible temptation to pull too hard. I once pulled really too hard, because the analgesic was so good, and I actually pulled the baby out and damaged its brain. Apart from that we had very little in the way of troubles. We thought that we had done enough to be able to publish this technique and we published 2650, or a little bit more, cases of spinal anaesthetic for forceps and breech deliveries in the *Journal of Obstetrics and Gynaecology of the British Empire*.¹⁵³ How things have changed! The journal's title has changed very much.¹⁵⁴ We thought that we had not had any maternal mortality, but then it was drawn to our attention that one woman had died after getting home, but I don't think that it was due to the spinal. I don't know why she died, we didn't follow that case up as we should have done. When you put a spinal in, you drop the patient's blood pressure, and so we had to have somebody on each side to hold her up.

One of the things I regretted then and I still regret was that we didn't allow male partners into the labour ward. The reason was very simple, there weren't any lavatories for men and that was the absolute excuse! The midwives were much more against having male partners in than the doctors were. Anyhow we delivered all these babies. I was very worried once or twice when I saw some dust coming down from the ceiling into the open phials, I had to discard them. We never had any case of septicaemia, I can't understand why we didn't, it would have been disastrous if we had infected the spinal fluid. We did episiotomies, and occasionally, just occasionally, we went on to a Caesarean section. We had a very good anaesthetic department there and the spinal anaesthesia was supplemented sometimes with inhalation and general anaesthesia.

What was wrong with spinals? What was wrong was a 40 per cent headache rate; and the headaches sometimes persisted for weeks, for months, and on one or two occasions for years, and that really was the great thing against it.

Later on, when I had moved to the City of London Maternity Hospital Michael

¹⁵³ Watt J D, Pateman M, Philipp E E. (1959) Low spinal anaesthesia in obstetrics. *Journal of Obstetrics and Gynaecology of the British Empire* 66: 424–433.

¹⁵⁴ Mr Elliot Philipp wrote: 'The journal is currently called the *British Journal of Obstetrics and Gynaecology*. In the 1950s it was called the *British Journal of Obstetrics and Gynaecology of the British Empire*. In between it was called the *Journal of Obstetrics and Gynaecology of the British Commonwealth*.' Letter to Dr Daphne Christie, 25 June 2001.

Pugh¹⁵⁵ came and joined me. Michael Pugh had made a very nice film, not a video, it was a film of caudal anaesthesia.¹⁵⁶ Caudal anaesthesia, of course, is a very low epidural, nothing else at all. It was very effective and there were a lot of women delivered with instruments under caudal anaesthesia.

Dame Josephine Barnes¹⁵⁷ and I, worked very closely together.¹⁵⁸ We had both been assistants with Will Nixon¹⁵⁹ at University College Hospital, London. She was very interested indeed in pethidine and did a lot of research on pethidine. So we learnt how to put pethidine into intravenous drips that we had going. If the woman had a lot of pain and we thought she need not have a spinal, we put the pethidine, 100 mg, into the drip and let it work faster or slower, according to the patient's need for pain relief.

We were then approached by the National Birthday Trust Fund¹⁶⁰ – I don't want to confuse it with the National Childbirth Trust – to try to find out what the best inhalation was, for pain analgesia; on the wards and for midwives to use in their patients' homes. Nobody knew at that time what the percentage of gas and oxygen should be. We had been giving gas-and-air analgesia on the wards and on the district, but that is really a form of asphyxia, because you deprived the woman of oxygen, so it was very important we thought, to give oxygen, we didn't know the quantities. We each had a machine called the Lucy Baldwin machine.¹⁶¹ It was called a Lucy Baldwin machine because Lucy Baldwin had been one of the founders of the National Birthday Trust Fund. This was a modified dental machine. Independently, although we did consult one another occasionally, we were driven to the answer that it should be 50 per cent gas and 50 per cent oxygen. When I say we were driven, it was the midwives who told us, because the midwives were the people who were watching the women in labour and had seen what gave them most relief without asphyxiating them, or leaving them without control. If

¹⁵⁵ Mr Michael Pugh FRCS FRCOG is a retired Consultant Obstetrician and Gynaecologist, formally at the Hospital for Women, Soho Square, the Royal Northern Hospital, the City of London Maternity Hospital, and later at the Whittington Hospital, London.

¹⁵⁶ Pugh M. (1967) *Continuous Caudal Analgesia in Obstetrics*. Copenhagen, Denmark: ASTRA Film Library.

¹⁵⁷ Dame Josephine Barnes CBE FRCP FRCS FRCOG (1912–1999) was Consultant Gynaecologist at Charing Cross Hospital and Elizabeth Garrett Anderson Hospital, London, and was President of the British Medical Association and Vice-President of the Royal College of Obstetricians and Gynaecologists.

¹⁵⁸ See, for example, Philipp E, Barnes J, Newton M. (eds) (1970, 1977, 1986). *op. cit.* note 21.

¹⁵⁹ Professor William Nixon FRCS FRCOG (1903–1966) was Professor of Obstetrics and Gynaecology, University of London, and Director of the Obstetric Unit, University College Hospital, London, from 1946. Mr Elliot Philipp was first assistant in his department at University College Hospital in 1950–51.

¹⁶⁰ See Barnes J. (1970) Happier birthdays. The story of the National Birthday Trust. Sixth Rhys Williams Memorial Lecture. *Midwives Chronicle & Nursing Notes* 83: 406–411. See also Williams A S. (1997) *Women and Childbirth in the Twentieth Century: A history of the National Birthday Trust Fund 1928–1993*. Stroud: Sutton Publishing Ltd.

¹⁶¹ Mr Elliot Philipp wrote: 'Lady Baldwin was the wife and then widow of Stanley Baldwin, later Lord Baldwin of Bewdley, Earl Baldwin of Bewdley in 1961, and Prime Minister in 1923, 1926, and from 1935 to 1937. Lucy Baldwin was Vice-Chairperson of the National Birthday Trust Fund from its foundation. She was very interested in maternal mortality and helped to start the National Birthday Trust Fund in 1928 to "solve the problem of maternal mortality". At the time of its foundation the maternal mortality rate was five per 1000 deliveries.' Note on draft transcript, 22 June 2001.

you put it up to 60 per cent gas we lost control of the woman. That was the reason why we had to bring it down to 50 per cent. I don't know whether the Entonox machine still exists. The Entonox machine was made in its thousands, made in tens of thousands, as a result of the work that Josephine and I did, completely independently. She did it in Kingsbury of all places. She had an appointment at a small maternity hospital out there and that's where she got the midwives to cooperate in this with her and that was the unit that the former President of the Central Midwives Board, Sir Arnold Walker¹⁶² had. She took over from him. I think things have come round in a way, the circle doesn't quite meet; but it's even better than meeting; because now the combination of epidurals and spinal together is a very, very effective form of pain relief. I think that not all women should have inhalation anaesthetic; and you can do Caesars very well indeed without. I don't know how many of you do your Caesars under combined epidural and spinal, but at our Whittington unit they do that very, very effectively.

I want to go a little bit back to these attendants who were holding the women up. We have fought very hard, I fought very hard, to try to get partners, male partners, into the labour ward; but it was an absolute uphill struggle, until I managed to persuade one of our top midwife sisters that this was a good thing. And then she got the top midwifery job at, I think, the Central Middlesex Hospital. She came back to me and she said, 'Can you talk to my consultants and say having male partners in the labour ward is a very good thing?' That's how we were responsible at the time for bringing male partners into the labour ward.

It is really incredible to me that this present high Caesarean section rate should have occurred.¹⁶³ But, of course, the seriously high Caesarean section rate now is partly so because the man can stand by his conscious wife's head while she is having her Caesar, and in fact they do this, as you know. I think this is partly due to the wonderful spinal.

I must talk a little bit about open ether. With 2000 deliveries in the home, we had to have a very good flying squad and we did have a *very* good flying squad.¹⁶⁴ We had an anaesthetist who came out, either a consultant or a registrar, or occasionally a senior house officer, to the patient's homes. And the anaesthetic of choice was open ether. That had a great disadvantage because we thought the fire in the grate had to be put out, before we could use the ether. I remember very well going out to do a manual removal of placenta in a caravan in a snowy field outside Romford, and the anaesthetist said, 'All right if she's in a hurry, I will get on with it despite the fire'. I sat down to do the removal, on to the grate! Open ether was the anaesthetic of choice and I think that says enough just to start your ball rolling. I would just like to add one thing and that is that we always took group O negative blood, two units of blood, with the flying squad, wherever we went.

¹⁶² Sir Arnold Walker Kt CBE FRCS FRCOG (1897–1968) was Consultant Gynaecologist at the West London Hospital from 1939 to 1959. He was Chairman of the Central Midwives Board from 1946 to 1967.

¹⁶³ See Professor Whitfield's contribution on page 41.

¹⁶⁴ See note 59.

Drife: I noticed a number of heads nodding as you mentioned some of the machines and I am told by the body language of the man in the back row that the Entonox machines are still in action.

Peel: I can remember as a house surgeon, in a car on the way to the patient's home, being taught how to give an anaesthetic and that was with ethyl chloride and ether, and it went very well. One of its greatest advantages was that with ether the patient rarely went to sleep, so as they wriggled around on the bed, they normally coughed and when they coughed, of course, they emptied their bladder, and when they emptied their bladder, the placenta delivered. But times did change and then it was decided that we must have an anaesthetist with us when we went out on the flying squad and by then I was a consultant. I can remember on one occasion doing three flying squads in a day, but on this particular occasion we went to a GP maternity home and the anaesthetic registrar who was there intubated the patient. We then found that there wasn't a connection to put between the endotracheal tube and the anaesthetic machine, so he finished up blowing down the endotracheal tube, so as to maintain an oxygen supply to the patient. So simply because you bring a specialist with you, it doesn't necessarily mean that things improve.

Chalmers: I just want to add another 'open ether' anecdote which relates to someone whom both Elliot Philipp and Sandy Cavenagh knew quite well – my father, Hamish Chalmers. In 1990, I drove him to the north of Scotland, where, half a century earlier, he had been one of two obstetricians based in Inverness. They had to cover all the territory from Elgin in the east, all of Caithness, all of the Western Isles, down to Fort William across to Dalwhinny. That was their parish, as it were. As we were driving down past Lairg, Hamish recalled an instance when he had been called out to a delivery. A tinker family had attracted the attention of a train driver the previous day. A woman was in labour, in difficulties, on a tarpaulin in a tent. This must have been about 1948, I suppose. It was a Sunday, so there were no trains operating. So they steamed up an engine and put Hamish in the cab with his open ether and his forceps and whatnot. The engine stopped at the point where the tinker tent was, Hamish went inside, and he used open ether to anaesthetize the woman himself (presumably he got one of the tinker family to keep the spray going). She had a transverse lie, she was a grand multip and so he did an internal version and extracted the baby by the breech. The mother refused to come into hospital after this (he felt that she might deserve a rest); and so after staying with her for a few hours, they steamed up the engine again and took him back to Lairg.

Chamberlain: Can I remind the younger members here of pethidine which you recall was made in the war for the German armed forces.¹⁶⁵ At the end of the war we took over that corner of Germany as part of the reparations and we got pethidine in Britain. For the first 18 months, it was not considered to be an addictive drug and it was sold

¹⁶⁵ Professor Geoffrey Chamberlain wrote: 'The Allied blockade on Germany in the Second World War was very effective. Amongst other products, it blocked the supply of opium and morphine to Germany. This stimulated their chemists to work hard developing pethidine, which had already been described. It proved a valuable analgesic and was then used by front-line troops if injured.' Note on draft transcript, 17 June 2001.

over the counter. People who had recurrent pain would go and buy tablets or even injections if they wanted to. One of the recurrent pains is dysmenorrhoea and those in the know, (i.e. midwives and female doctors), used to buy pethidine then quite openly and quite legally for the dysmenorrhoea. I am sorry to have to finish on a sad note, but there were 900 pethidine addicts made in just over 18 months. The authorities suddenly realized this, put it on the dangerous drug list, and the rest of the story you know; pethidine, super though it was, was addictive for recurrent use. This is not true for pain relief in labour, no one was going to end up an addict in labour.¹⁶⁶

Cronk: I remember the 25 mg tablets for dysmen, it was wonderful. I also remember open ether, open chloroform, because in Glasgow tenement houses you had box beds.¹⁶⁷ You put the woman across the box bed to put on forceps with that canvas, lithotomy harness we had, and I remember crawling into the back of box beds and given open chloroform from a Schimmelbusch's mask,¹⁶⁸ dripping it on and, 'A bit tight this end, sister' and you tipped it on, 'A bit blue this end, sister', you took it off. And the amazing thing was that the woman survived and so did the babies. I was often fairly anaesthetized.

Loudon: Can I just say a word on open ether? The first Professor of Anaesthetics in the world was Robert Macintosh at Oxford.¹⁶⁹ He used to lecture me as a student. And one of the things was a demonstration and a talk and he said, 'You will hear from obstetricians and GPs that if you are going to use open ether, you must put the fire out. This is total nonsense, it is perfectly safe, open ether. Ether and oxygen is explosive, ether and air is not' and then he carried out a series of experiments to show this, ending up with a magnificent dramatic explosion of ether and oxygen. But it is apparently, according to him, and he was a reliable guy, it is a myth, you don't have to put the fire out if you are using ether.

Drife: Could I make a boring interjection at this point? Just to say that for all the safety of the ether, chloroform and so on, one of the staggering achievements I think of one specialty in the last 20 years has been the fact that maternal deaths from anaesthesia, which were 20 in a triennium or more than 20 in a triennium when I graduated in 1971, have been reduced to a single death, a *single death*, in the whole of

¹⁶⁶ See, for example, Fraser A C. (1976) Drug addiction in pregnancy. *Lancet* ii: 896–899.

¹⁶⁷ Mrs Mary Cronk wrote: 'These were double beds built into a recess in the kitchen and therefore had a wall on three sides. They were quite high as there was often a truckle-bed stored underneath which was pulled out at night for the children.' Note on draft transcript, 15 May 2001.

¹⁶⁸ See note 65.

¹⁶⁹ Professor Sir Robert Macintosh FRCSEd FFA RCS (1897–1989) was first Nuffield Professor of Anaesthetics University of Oxford (1937–1965). He collaborated with the physicists Dr Kurt Mendelssohn and Dr H G Epstein and together they designed and built the Oxford vaporizer, a portable and accurate means of delivering varying concentrations of ether. See M K S. (1989) Robert Reynolds Macintosh. *Lancet* ii: 816. A C S. (1980) Sir Robert Macintosh. *British Medical Journal* 299: 851.

the three-year period, 1994, 1995, and 1996.¹⁷⁰ For all that we grumble about anaesthetists being fussy and moaning at us and holding us up when we want to get on and do things, I think that their achievement in making anaesthesia almost totally safe from the women's point of view is one of the staggering achievements of the last 30 years. So I wanted to make that point.

Savage: I don't think we could leave without mentioning Grantly Dick-Read and the whole psychoprophylaxis, Lamaze and all those other ways of dealing with the pain of labour.¹⁷¹ I think it is sad that people seem to have forgotten all that movement, apart from a tiny proportion.

Fisher: When I first qualified as a midwife, it was absolutely assumed that women would need pain relief and you had done a bad job if you hadn't made sure that she had pethidine, and certainly she had to have the gas afterwards. And local health authorities would vie with each other to say, 'We have provided the Minnitt gas and air machine to all our midwives', and for the first ten years I was practising there were only three reasons for women not receiving inhalation analgesia: one was that it was a BBA [born at home before the arrival of the district midwife]; one was that there was no time to set it up; and the third was, 'Woman refused', and it took me ten years to get the other category, which was that it was not required.

Flint: I run an independent midwifery practice in London. I was very pleased and touched to be asked to talk about the increasing status and responsibility of midwives. I am sure that people will disagree with some of the things I say and will need an opportunity to say so. I thought I would just do a little gentle amble through my own personal experiences of midwifery over the years.

One of the other things that I would like flag up is that I think it is really sad that Sheila Kitzinger¹⁷² is not here, who has had such an effect on the history of maternity care and who is an absolute mine of knowledge on our history.

I was introduced to midwifery when I was eight years old. It was 1949, when my mother's fourth child was born at home. My mother had a very, very negative view of midwives, she thought they were very bossy, and irritable sort of women, and she didn't like them at all. She was having her fourth baby at home, and she begged her GP to be there, to protect her from the midwives. But for me, it entered my

¹⁷⁰ See, for example, Moir D D. (1980) Maternal mortality and anaesthesia. *British Journal of Anaesthesia* 52: 1–3. Crowhurst J A, Platt F. (1999) Why mothers die – report on confidential enquiries into maternal deaths in the United Kingdom 1994–1996. *Anaesthesia* 54: 207–209. See also, op. cit. note 8.

¹⁷¹ Dr Grantly Dick-Read (1890–1959) was a gynaecologist in private practice in London from 1923 to 1948 and developed the concept of 'natural childbirth'. His publications *Natural Childbirth* (1933) and *Revelation of Childbirth* (1942) focused attention on 'fear-tension-pain' syndrome and its relief by relaxation.

¹⁷² Ms Sheila Kitzinger MBE (b. 1929) was the Course Team Chairman in the Open University from 1981 to 1983 and received the Writers' Fellowship Award from the Rockefeller Foundation in 1988. She was a member of the editorial board of the Midwives Information and Resource Service, National Childbirth Trust, and Chairperson, Foundation for Women's Health Research and Development, from 1985 to 1987. op. cit. notes 122 and 175.

consciousness, it was just so magical, the birth of this divine baby, that I then decided that I wanted to be a midwife and that I wanted to have babies of my own.

So I started my midwifery training in 1964 after having trained as a nurse by mistake, because I didn't realize that you could actually do it without. I don't remember much about my midwifery training, because I did Part I which was six months, but I can remember that midwives couldn't give local anaesthetic and we had to call the houseman if anybody needed a local anaesthetic, and also that every woman had an intact perineum. I thought for years why did that happen, and I think it was probably because women were always examined in the left lateral, nobody went foraging up their vaginas to see whether there were any vaginal tears, they just looked at the actual perineum, so they saw no grazes, no nothing, and so they all had intact perineums and I think there was a point in that frankly.

I had my first baby in 1965, I had him at home, like 30 per cent of other women around me did. One of the reasons I had him at home was because I wanted my husband to be there, I didn't think I could do it without him and I think that was right. The midwife I had was wonderful. I have already described the fact that she didn't do vaginal examinations, she was also deaf, so she couldn't listen with a Pinards stethoscope. I also had some knowledge of midwifery. She was very, very encouraging and lovely, but she was called 'nurse' and she didn't like you to call her anything else, she was nurse, and that fascinated me. I didn't continue on my midwifery training until 1975, which I found absolutely horrendous, it was probably the most traumatic experience in my whole life. Women being induced, women in agony all over the place, I found it just quite, quite frightful, and a general disregard for women. I felt as if I was mad some of the time, it was just horrible. In 1976 there were several midwives around then who obviously felt the same. Because in 1976 there was a letter in *The Sunday Times* which said, 'We are disillusioned student midwives, we have come to England because we want to learn to be real midwives, and we are so disillusioned and so distressed'.¹⁷³ It was a letter sent by Marianne Scruggs from the United States, from Judy Rogers, who was Canadian, and I think Lidwyn Dury who was Australian, and they set up the Association of Radical Midwives.¹⁷⁴ I didn't go to the first meeting, I think I went to the second. No, Mary Cronk went to the second. I think I went to the third, but anyway it was magical, the recognition among each other was just so exciting, and we all felt that we were on the same side and we felt that women were really being screwed up and pushed around and it was horrible for them.

At the same time the women's movement was growing, the National Childbirth Trust was growing, Sheila Kitzinger's book *The Experience of Childbirth*¹⁷⁵ rang a chord in many, many people. It was beautiful, her writing was absolutely wonderful and at the

¹⁷³ See, for example, Karpf A. (1977) Midwives in ARMS. *The Sunday Times*, 24 July, 40.

¹⁷⁴ The Association of Radical Midwives (ARMS) started in 1976 and included midwives, student midwives and others in the UK committed to improving the maternity care provided by the NHS.

¹⁷⁵ Kitzinger S. (1962) *The Experience of Childbirth*, 1st edn. London: Gollancz.

same time, or just after that, independent midwives were re-emerging. I say re-emerging, because at one time obviously all midwives were independent midwives and for many years the Director of Midwifery Services at King's College Hospital had been an independent midwife, Dora Henschell. She had travelled to people's homes and lived with them for a month, delivered their baby, and she was an inspiration and always a very exciting person to know, and lovely. And there was one independent midwife I remember well, Judy Graham. I remember talking to her when I was a student midwife and saying, 'Eventually I want to be a community midwife, how long did you stay in the hospital before you went out?' She said, 'Six months' and I said, 'Oh, six months, that wasn't very long, how did you get your experience?' She said, 'My experience after six months was that women couldn't give birth and their bodies were totally, totally, inept'. She said, 'I thought if I stayed any longer that I would be completely destroyed so I came out'. So I was very lucky and I got a job as a community midwife without ever having had any experience except being a student midwife. I had a year off to save my sanity, but that was it. At this time the Royal College of Midwives was virtually invisible. I mean midwives were invisible. When you said to people I am training to be a midwife or I am a midwife, people would say, 'Oh, we used to have midwives in the old days and they used to ride round on bicycles, my grandmother was...' It almost felt that as if they were virtually invisible. There was support in that there was a forum set up by Lady Philippa Micklethwaite and Luke Zander at the National Childbirth Trust, which was very, very supportive, and it was a lovely organization. I remember we used to have strawberries every summer from Philippa Micklethwaite's garden.

The Association of Radical Midwives had a huge impact on midwifery and the visibility of midwifery. One thing, we all took a vow, I can't remember what year it was, that we would tell somebody every day about being a midwife. And I still do that, every time I go to the supermarket, and I say, 'Oh yes. I like lots of tea bags, because I am a midwife you see'. My children use to die of embarrassment, I have to say. But our strategic plan was to speak all the time about midwifery and being a midwife, to write as much as you can, to challenge every article that came up or every letter that came up, to join the Royal College of Midwives, and ginger it up and be part of it, and get it taken forward. I think one of the most important things that the Association of Radical Midwives did was to write a document called *The Vision*.¹⁷⁶ Marianne Scruggs was a very visionary woman, extraordinarily visionary, and she predicted the National Health Service deteriorating as it is now. She said it's no good just sitting here moaning, we have to discover where we want to go, and we will spend a weekend together. The weekend was at my house, everybody came and stayed at my house, and my husband went and stayed with my mother, and I bought a six-slice toaster so that everybody could have toast and things. Everybody had to have written to her [Marianne], before they were allowed to come, to say where they wanted midwifery

¹⁷⁶ Association of Radical Midwives. (1986) *The Vision – Proposals for the Future of the Maternity Services*. Ormskirk: The Association of Radical Midwives. See also Towler J, Bramall J. (1986) The midwife's renewed battle for survival. In *Midwives in History and Society*. Beckenham: Croom Helm Ltd, 247–287.

to be in ten years' time, and the whole basis of that document was that the mother is the focus of the care, that the relationship between the mother and the midwife is fundamental, that women want choice, they want continuity and they want to be in control and I think you have all heard those words before. That little document, which was sponsored by somebody's mother who gave £1000 so that we could produce it, and which was sent to every MP, and to the Royal College of Midwives, Royal College of Nursing and the Royal College of Obstetricians and Gynaecologists, had a huge, huge push.

The other thing, of course, which had a push was Sheila Kitzinger's *Good Birth Guide*,¹⁷⁷ which I think was a seminal piece of work, because it made everybody so angry, and underlined the fact that we provide a service for women, that we are not doing them a favour by looking after them. That was so outrageous when it came out, because nobody had even considered that before I don't think. I am talking mainly about the Association of Radical Midwives, I think the Association of Radical Midwives then galvanized the Royal College of Midwives. I am going to stop now, because by now I should have fired-up other people.

Drife: I don't know whether any of the current or previous Presidents of the Royal College of Midwives would agree with that analysis or whether they wish to say something.

Smith: I would like really to comment as a GP because certainly in my experience the degree of independent thought of the midwife or how committed they are to the patient seem to go hand in hand in many ways. Certainly I have seen a range of hospital and community midwives over the past 15 years caring for women, and it seems to me that there's a wide range, but a number of them certainly are very committed to providing one-to-one care, being available, and providing continuity. Others, at the other end, want a nine-to-five job, and there's a wide range in between. And one of the things that I feel sad about is some of the midwives whom I have spoken to want to provide greater continuity, particularly community midwives, and their management won't let them. They have to be on call on a fixed-rota system and they are not insured, they are definitely told not to be available to your women. I think that is very sad that it has come to that stage in some places.

Drife: Certainly I found that my brief experience on the UK Central Council Midwifery Committee¹⁷⁸ made me realize that there are many different strands of opinion within midwifery and it's not as it seems, simply a matter that 'the midwives say this'. The internal discussions within midwifery were interesting to hear. What I

¹⁷⁷ op. cit. note 122.

¹⁷⁸ The UK Central Council for Nursing, Midwifery and Health Visiting (UKCC) is the statutory, regulatory body for nursing, midwifery and health visiting. It started to work in 1983 to establish and improve standards of education, training and professional conduct for all those on its register. The UKCC and the four National Boards for Nursing, Midwifery and Health Visiting replaced the General Nursing Council for England and Wales and the Central Midwives Board. See also note 137. See, for example, Davies C, Beach A. (2000) *Interpreting Professional Self-regulation: A history of the United Kingdom Central Council for Nursing, Midwifery and Health Visiting*. London, New York: Routledge.

took from what Caroline [Flint] just said is the kind of self-belief and vision that a group of midwives had of being proactive and maybe some of us can learn from that in these beleaguered times as well.

Muirhead: I think we have to view the resurgence of what Caroline saw as midwifery in the context of how we have seen the medicalization of women during the 1970s, because there is no doubt about it, we are talking about the increased status of midwives. Once women went into hospital and booked under consultants, the midwifery profession started its decline. It's very easy with hindsight to see that. My generation who have to bear the scars of that, were so busy doing the job at the time, that we didn't see it happening. The radical midwives possibly saw it happening and they are to be congratulated for that. But really the wheel is going almost full circle, the sort of midwifery that we want to provide for women today is the sort of midwifery we had pre-Peel,¹⁷⁹ where we are acknowledged as the practitioners who will look after the majority of women who will be normal. I certainly think there is a movement in midwifery that wants certainly to acknowledge that all women should be looked after, we are not just to be with the women who are normal, and although we want to look after the vast majority of them on our own, we also will join a multidisciplinary team and look after women who are not normal. So I think what the radical midwives did was to highlight for us the ground that we had lost and they provided for us a spearhead, some saw us as aggressive Rottweilers and we all know how aggressive we were, but if your profession has been denuded, then obviously to try to claw it back you have to make a fuss, and a fuss has been made. I think we have moved along that scale, but certainly we have a long way to go.

Wheeler: In some ways perhaps I am an invisible midwife and have been an invisible midwife for the last 30 years or so, of an invisible college or so it sounds. I wonder what I have done for the last years. I think that from Peel there is no doubt that with the place of delivery changing, or the emphasis on the place of delivery changing into hospital, not only the role of the midwife diminished, but the role of women diminished, and the whole of that era resulted in great change.

I also acknowledge what the Association of Radical Midwives did, but nevertheless I was on the Council of the Royal College of Midwives, and they worked for change. I knew a lot of midwives who were working to get good care, women-centred care. I was perhaps fortunate working with somebody called Peter Wheeler, whom you may know, whom I subsequently married, and certainly in that unit midwives were recognized for what they could do, midwives and consultants worked together in many hospitals in this country. I wouldn't want it to go on the record that nowhere were there midwives who were interested in women-centred care, listening to women, and that was role that I did throughout my professional life.

¹⁷⁹ op. cit. note 69.

Fisher: Just to say that I now can't remember the dates, but once upon a time, I was paid a salary for doing my job and my job was to care for the mothers who were allocated to me. Once we started being paid extra for being on call, for weekends, the cost went up, and as the cost went up so the people who managed us, reorganized the service, made groups larger, didn't allow us to be on call. I think it did a lot to affect the way midwives worked.

Drife: Certainly if I could just say one of the strange periods of my life, looking back on it, was when in 1972, 1973, 1974, I, as the newly entered obstetrician, the senior house officer and registrar, was expected to give orders to people like Molly Staples,¹⁸⁰ who had been in midwifery for 30 years, and had seen more than I will ever see. It was an awkward situation for both of us. It's quite easy to say now, this is all wrong, but if you are in the situation where you are, as it were junior lieutenant, it takes a very special person, which I was not, to realize what was going on to begin with. It took quite a while for us juniors sometimes to learn the hard way how to value the experience. And yet some people learned intuitively, but we weren't told how to do that. We like to think now that we tell the juniors that you are learning from the midwives, but it wasn't spelt out to us in terribly clear terms in those days, so it was an awkward phase until we worked out how best to live through it.

Evans: I am interested that we have got round to this again. Earlier on in the afternoon we were talking about working together and what a good experience that is. Now it strikes me, listening to all this and having lived through it too, that the problem may have come with intervention in the natural process and lack of respect. There's one profession deeming to know more than another profession and not respecting that other profession. If we can lose that somehow, then we may have a way forward to a place where we can all appreciate each other's skills and each other's specialities.

The other thing that concerned me is that of obstetric analgesia. We seem to have skidded over that, analgesia and anaesthesia. Wendy talked about Grantly Dick-Read's movement.¹⁸¹ Why there is such a huge rate of epidurals now? Why is it that women have no knowledge, and we as professionals do not seem to be acknowledging either the problems that can come with epidural anaesthesia? It seems to be the answer to everything. Yes, it makes it very easy to do a Caesarean section, it does not make it very easy for a woman to give birth to her baby. We must find the balance somehow, by looking at what happened in history, and again stepping back and appreciating each other's strengths.

¹⁸⁰ Professor James Drife wrote: 'Molly Staples was the Senior Midwife on the labour ward in the Simpson Memorial Maternity Pavilion, Edinburgh, when I began training in 1973 as a senior house officer (SHO) in obstetrics. At that time midwives were expected to report any concerns to the Senior Midwife, who then reported, if necessary, to a junior doctor. This could mean that a midwife with many years of experience had to await a decision from an SHO with only a few weeks' or months' experience in the specialty.' Letter to Dr Daphne Christie, 17 July 2001.

¹⁸¹ See note 171.

Drife: Thank you. The reason that we are skidding past some things in an unsatisfactory way is that I can see the clock and you can't.

Eben: I certainly learnt how to deliver a baby from midwives and I never felt too proud. I think that is what you are referring to in a way as a young doctor to learn from the people who quite clearly had been doing it for a long time and were much better than we were. I think it is what hopefully is being taught to new medical students. I certainly know that within our unit, there is a strong move towards multidisciplinary teaching, and there is now a move in medical schools, and for junior doctors to be taught with other disciplines, so that you learn not to approach particularly a problem on the labour ward where one profession is allowed to dominate the other one, which I think that has been a problem in the past.

I have to speak very briefly about analgesia, if I may, and epidurals. I know there is a high epidural rate, and I know that my grandmother spent 38 hours with the birth of her first child and my mother spent about 24 hours giving birth to me as an undiagnosed breech at 43 weeks' gestation. And I have had three babies with epidurals, totally normally, with midwife deliveries, and I have enjoyed every moment of it, and I have to be very honest, it was great.

Drife: Honesty is what it is all about.

Peel: I was glad Margaret Brain [Wheeler] commented about the cooperation between midwives and consultants, because Caroline's description of the radical midwife was something completely foreign to what was happening in some other parts of the world. I learnt from a midwife as a junior, but equally I learnt from midwives as a consultant and valued their opinions and very often it was as a consultant that one offered the technical expertise that is so despised and yet so very often necessary, but as to whether in fact it was a good idea to use it, was very often as a result of listening to the midwives. I think it is wrong to give the impression in a historical document like this that there was always opposition between midwives and consultants, because I don't think it is true.

Cronk: I totally support that and I probably trained before one profession dominated the other. I have a vivid memory as a pupil midwife in Queen Charlotte's Hospital, *circa* 1950-something, one Sunday afternoon on the labour ward, doing what pupil midwives did, cleaning the cupboards. The labour ward supervisor whose name was Gracie was having tea, and the following conversation took place, 'Good afternoon, Sir Humphrey, I don't believe I have called you. May I offer you some tea?' And all hell was going on round the corner, in the six-bed first stage room I am cleaning the cupboards, and he was quite interested in what was going on and what 'patients' she had, and she said, 'China or Indian?'. They had a very good relationship, they had a high regard and respect for each other, but Gracie ran the labour ward and Sir Humphrey was consulted when Gracie or her midwife colleagues considered it necessary, and when called, the registrars and consultants came immediately.

Page: I can remember the community midwives I worked with in Colinton, near Edinburgh, who were absolutely terrifying, and even the possibility of men being attendant at birth and telling children where the baby came from was really frowned on, and they were very massive in all senses of the word, I can give you their names now, but I won't, and so they were sort of characters. I think we have to be honest about this, there was a huge dip in British midwifery, and I came back from Canada in 1986, really looking forward to legitimately being a midwife and being part of the mainstream and I have to say that I felt invisible at times. I remember going to a clinic, and it's a funny story really because I was in Reading, and I had to do a long refresher course, although I had been practising as a midwife in Canada, it didn't count, and they made me do three months. I had to pretend to be a refresher midwife who hadn't done anything for a long time and I had to wear a staff midwife's uniform. I went into the clinic and I was standing next to the couch and I had done an abdominal palpation on the woman and the consultant arrived and he didn't look at me, and I said, 'I think that the presentation might be breech' and he jumped visibly, he hadn't seen me there as a person.

I do remember too the midwives on the antenatal clinic in the John Radcliffe who were very, very strong midwives, some of them had worked in Africa, they had looked after thousands of women, their job became to provide one of the consultants with KitKats for his morning tea, and they had a receptionist role. We very quickly got midwife couches and we got the midwives doing antenatal assessments and so on, but there was, I think, very definitely a dip in British midwifery, and I think we were very close to losing the profession. I think quite honestly that we are still in severe danger, unless we increase the status of midwives.

Chamberlain: Just that this is a meeting on history and therefore we must put the facts right. Sometimes when people speak they speak in headlines and condense things down. I must put forward the point of view that Caroline Flint was an extremely good midwife in my department. She was a sister midwife with me and went on to higher things, but she certainly did work. I cannot remember quarrelling ever, and if she had something to say I would listen to it. We did research together; I don't think she was antidoctors particularly, I don't want that impression to go through.

Flint: But, Bodger, I didn't mention obstetricians when I was talking.

Jenkins: In the 1980s I was working for the Royal College of Midwives and so had a national view of what was going on. For this historical record I want to flag up that there were actually two concurrent battles being fought out during the 1980s. We have heard a lot about the battle between obstetrician (man) and midwife (woman) today although I recall that it was sometimes a battle and sometimes conducted as a very pleasant 'gentlemanly' disagreement. But the other one that was being fought was over the status of the midwife vis-a-vis the nurse. It was a very problematic relationship and our differences were multifactorial. Over some of the issues I don't think midwives should be very proud. We did not recognise the huge skill of

individual nurses in some of the jobs they were doing or the routine skills levels of some midwives required by the jobs they were doing. We tended to think of the skills of all nurses as inferior to the skills of all midwives and tried to move away from them by claiming a higher status. But it was a singular battle that was hard to win due to the overwhelming numerical power of nursing. The rivalry probably has not diminished so it must not be forgotten when one is trying to carve out a place for midwifery within health services.

Dunn: I just wanted to say that I was attracted into perinatal medicine by my experience in the slums of Dublin as a medical student. We were on our own without midwives or doctors. Another medical student and I attended 44 home deliveries in six weeks. It made a tremendous impression on me – the joy and excitement of the whole experience. Even though there were hairy moments, there was always a tremendous party after the birth in which all the neighbours joined in. This was a great bonding occasion for the community. It is sad that we have taken childbirth (and death for that matter) and shoved it away in hospital. In the home, though, there is the opportunity to share the joy at the arrival of the new baby, renew friendships and make up quarrels. It's just great and something that is impossible to reproduce on any scale in hospital. Incidentally, we lost none of our mothers or babies during that time in Dublin. Indeed, I remember that in the whole year there were no maternal deaths among over 2000 Rotunda home deliveries.

Drife: Thank you, Peter, and it is the perfect introduction for Alison to give us some thoughts on home versus hospital.

Macfarlane: Perhaps the subplot is a little bit of a mention about how members of my profession, statisticians, have been around to count the work that you do and all the babies that you have. I contest my title, 'Home versus Hospital', because I think we are talking about *place* of delivery, a debate that has been running a long time. It's not just home versus hospital, but differences between a variety of different settings for birth. The other component, which is now counted separately in our statistics, is who is helping people give birth in those settings. I think they need to be considered as two dimensions, when people are forming statistics, and it's very counterproductive to talk merely about home versus hospital. Finally you have to look at birth in the context of the healthcare system in which it takes place. Now as I mentioned it's a very old saga. As soon as we had birth and death registration statistics in the nineteenth century, the question of maternal mortality, whether maternity hospitals were dangerous, got on the agenda. It was discussed by William Farr¹⁸² who in the nineteenth century set up our system for analysing birth and death registration statistics. He said hospitals are dangerous places, as did Florence Nightingale in her analysis of his statistics and survey.¹⁸³ This was also the conclusion of a book from which she drew by Leon Le

¹⁸² William Farr FRS (1807–1883) studied medicine in Paris (1829–1831) and pioneered the collection and production of vital registration statistics for England and Wales in the late 1830s.

¹⁸³ *op. cit.* notes 75 and 76.

Fort, the French surgeon, who did a tour of Europe collecting statistics about maternity hospitals.¹⁸⁴ In fact this was debated at a European level in the 1860s, so European collaboration is nothing new. Right up until the mid-1930s, the overrunning theme was the dangers of hospital because of puerperal fever, but another issue that has been going for a long time is how you interpret the statistics. If someone starts giving birth in the community, and finally delivers in hospital, how is she counted if she or her baby dies, home or hospital? That was spelt out very clearly by Leon Le Fort in 1866.

Once we got over the very identifiable dangers of hospital, in terms of puerperal fever, in the postwar era, and those of you who were around will remember it, the issue was about meeting the demand for hospital care. We have heard people now talking about how they were so busy getting on with the job, and so the reports in the 1950s and 1960s leading up to the Peel Report in 1970¹⁸⁵ were about meeting the demand for hospital care and the pressure for hospital beds. There were also questions about who should have these scarce hospital beds, and monitoring who got them. Inevitably the analysis by social class, guess what, showed who were the most likely to get the hospital beds, and were the most needy people likely to get them? Those who were involved in flying squads clearly saw the people, some of whom you could have predicted in advance might get into trouble, whereas other women who perhaps could perfectly well have given birth at home, formed AIMS [Association for Improvements in the Maternity Services]¹⁸⁶ to campaign for more hospital beds. That's the exact opposite to what AIMS subsequently campaigned for. There was never any consideration of the evidence about what was the safest. Finally the Peel Committee said that there was enough room now for everyone to give birth in hospitals, so they should give birth there.¹⁸⁷ It merely stated without evidence that this was the safest, because perinatal mortality had gone down, as hospital births had gone up. This was parodied by Archie Cochrane, in his book *Effectiveness and Efficiency*.¹⁸⁸ He said that perinatal mortality had gone down as postnatal length of stay had gone down, therefore it must be safer to spend less time in hospital. I came into the debate in the mid-1970s and I was introduced to it through two people I met in a group called Radical Statistics. One was Martin Bland. We'd got together to do a critique of a

¹⁸⁴ Le Fort L. (1866) *Des Maternités: Étude sur les maternités et les institutions charitables d'accouchement à domicile dans les principaux états de l'Europe: France, Autriche, Prusse, Russie, Angleterre, Belgique, Danemark, Hollande, Etats allemands*. Paris: Masson.

¹⁸⁵ Ministry of Health. (1952) *Report of Ministry of Health for April 1950 to December 1951*. Part I. Cmd 8655. London: HMSO. Ministry of Health. (1959) *Report of the Maternity Services Committee* (Chair: the Earl of Cranbrook). London: HMSO. op. cit. note 69.

¹⁸⁶ The Association for Improvements in the Maternity Services (AIMS), London, was formed in 1960 to improve the quality and provision of maternity services in the UK. It organized the first International Home Birth Conference (1984) and the first International Water Birth Conference (1994).

¹⁸⁷ op. cit. note 69.

¹⁸⁸ Cochrane A L. (1972) *Effectiveness and Efficiency: Random reflections on the Health Service*. London: Nuffield Provincial Hospitals Trust.

report *Priorities for Health and Personal Social Services in England*,¹⁸⁹ and how it had used statistics. We wrote a pamphlet on it.¹⁹⁰ One thing that wasn't quite relevant to that, was that Martin Bland was telling us about this contract researcher in Nottingham called Marjorie Tew.¹⁹¹ She had written a paper saying that hospital birth wasn't safer and as a result her contract hadn't been renewed. This was Marjorie Tew's entry into the debate, and it's a great pity she's not here today. One of her most prominent early articles contains elements I agree with and elements I disagree with.¹⁹² The most important thing was that she was a voice that has gone on and on. I never perhaps agreed with what she said about the whole question of transfers and how data were interpreted. I have always agreed with her challenge to using correlation to prove causation, but I think she is important and I am very sorry she is not with us. This particular article was in *New Society*. I remember going to a seminar in the Office of Population Censuses and Surveys as it then was, and people weren't very happy about how their statistics had been used in it. They were developing a new system of statistics that would link births to infant deaths, and therefore allow you to look at the mortality according to the data collected at the time of birth registration. Isobel Macdonald Davies was involved in this and she wrote this article, from which I have given you an extract.¹⁹³ It shows that the perinatal mortality among all births at home had become higher than that of hospitals and isolated GP units. She was saying that we should interpret this very carefully because you didn't know how many of these home births were intended. Her graph (Figure 4) was reproduced exactly by the Short Committee, which no one has mentioned yet.¹⁹⁴ I think it was very important in reinforcing the technology of the 1970s and it recommended that home births be phased out further, because of its misinterpretation of Isobel's graph and also, of course, that GP units should be phased out further. Isobel and I designed this survey and Rona Campbell, whose initial PhD project had fallen through, came along and did it. Rona showed that two-thirds of the births at home in 1979 were babies whose mothers had intended to deliver in hospital, but hadn't got there.¹⁹⁵ The debate continued through the 1980s and more research was done. Marjorie Tew wrote more articles. In 1990 the Health Minister, Roger Freeman, met a number of members of

¹⁸⁹ Department of Health and Social Security. (1976) *Priorities for Health and Personal Social Services in England*. London: HMSO.

¹⁹⁰ Radical Statistics Health Group. (1976) *Whose Priorities? A Critique of Priorities for Health and Personal Social Services in England*. London: Radical Statistics.

¹⁹¹ Marjorie Tew, a statistician from Nottingham, was the first person to challenge evidence favouring hospital births. Her study showed home births to be as safe as hospital deliveries. See Tew M. (1990), op. cit. note 192, 241–245.

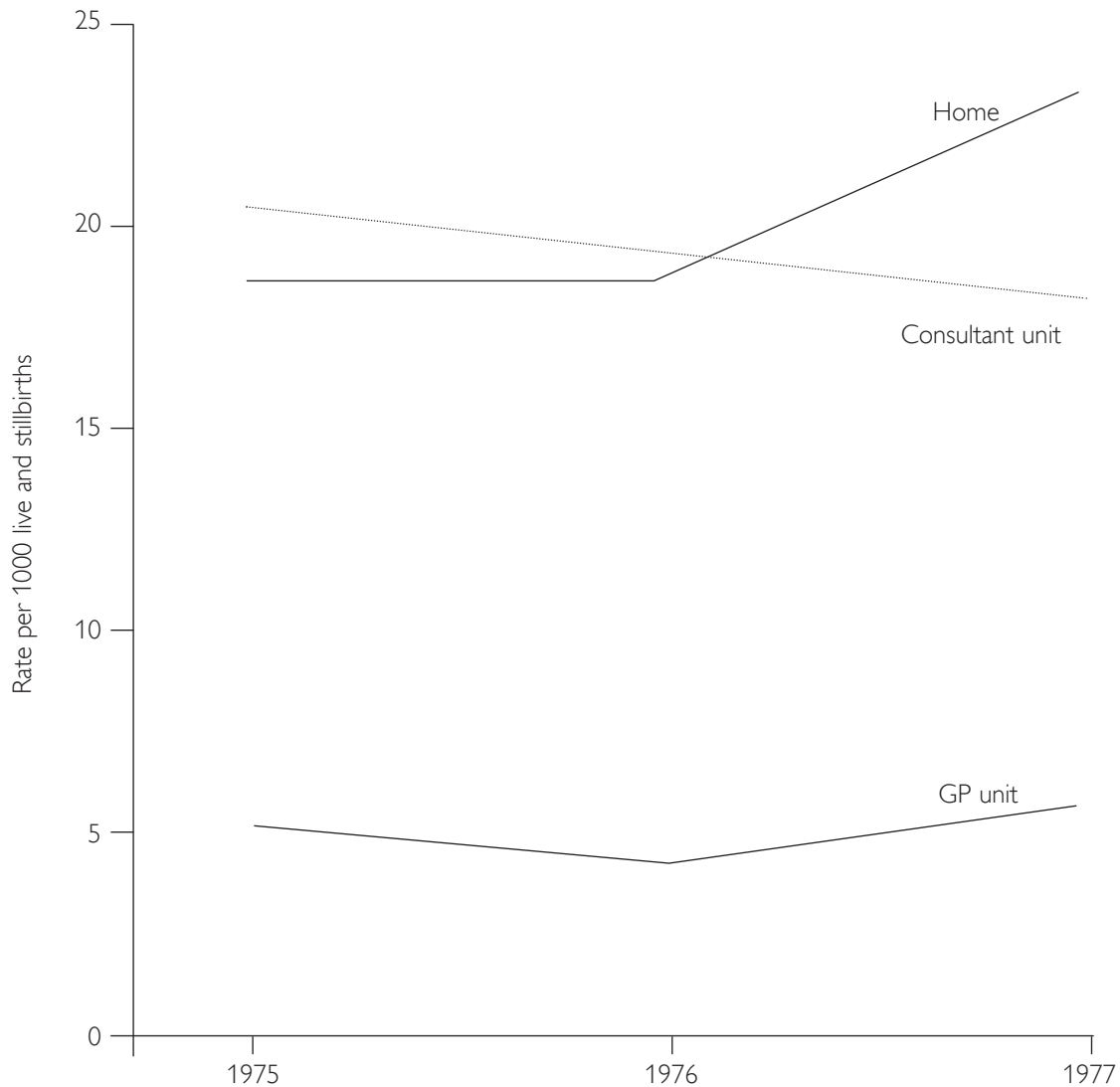
¹⁹² See Tew M. (1977) Where to be born? *New Society* 20 January: 20–21. See also Tew M. (1990) *Safer Childbirth? A critical history of maternity care*. London, New York: Chapman & Hall, 147–149.

¹⁹³ Macdonald Davies I M. (1980) Perinatal and infant deaths: social and biological factors. *Population Trends* 19: 19–21.

¹⁹⁴ House of Commons Social Services Committee. (1980) *Perinatal and Neonatal Mortality. Second report from the Social Services Committee, session 1979–80*, vol. I, HC 663-I (Chair: Renee Short). London, HMSO.

¹⁹⁵ Campbell R. (1986) Home births survey. *Perinatal Mortality by Intended Place of Delivery for Births Occurring at Home. England and Wales, 1979*. Unpublished. PhD Thesis. University of London. Campbell R, Macdonald Davies I, Macfarlane A J, Beral V. (1984) Home births in England and Wales, 1979: perinatal mortality according to intended place of delivery. *British Medical Journal* 289: 721–724.

Figure 4: Perinatal mortality by place of confinement, 1975–1977.



Source: Macdonald Davies I M. (1980) *Perinatal and infant deaths: social and biological factors*. Population Trends 19: 19–21.

voluntary organizations. When the director of Maternity Alliance¹⁹⁶ complained about more closures of GP units, he said, ‘Well, my wife tells me that women like to give birth close to home, but my officials tell me these units are dangerous’. Maternity Alliance said, ‘Haven’t you read the evidence, it was funded by your department?’. He asked them to organize a seminar and some people here took part.¹⁹⁷ He said, ‘I am convinced’ and 12 days later he was reshuffled on to the Ministry of Transport. In the corridor

¹⁹⁶ Maternity Alliance, London, is the national organization that provides up-to-date information of a wide range of maternity issues, including employment rights and maternity benefits.

¹⁹⁷ It took place in the House of Commons on 12 March 1990.

Audrey Wise¹⁹⁸ said to several of us, ‘I am fed up with all these enquiries we have into perinatal mortality, I want an enquiry into normal childbirth’. We don’t know what political deals were done, but the enquiry took place and was called the Winterton Report, but I think Audrey had more to do with it.¹⁹⁹ This was the first time that the evidence was actually brought into the debate. The evidence was, as far as you could find it that we can never prove whether home or hospital birth is safer in terms of mortality, because the numbers are so small, we can only get at it in a sideways way. I would be interested in people’s comments on how the evidence has been used. We have seen a lot of evaluations of midwife-led units, but the numbers of births in them are too small to prove safety with a randomized trial.

Finally, in Figure 5b, you can see that perinatal mortality by place of birth has been going down. You can’t prove, of course, anything about the relative safety. This is from an article that was rejected by the *British Medical Journal* because we hadn’t ‘proved’ that home births were safer, but you can read it in the new edition of *Birth Counts*.²⁰⁰

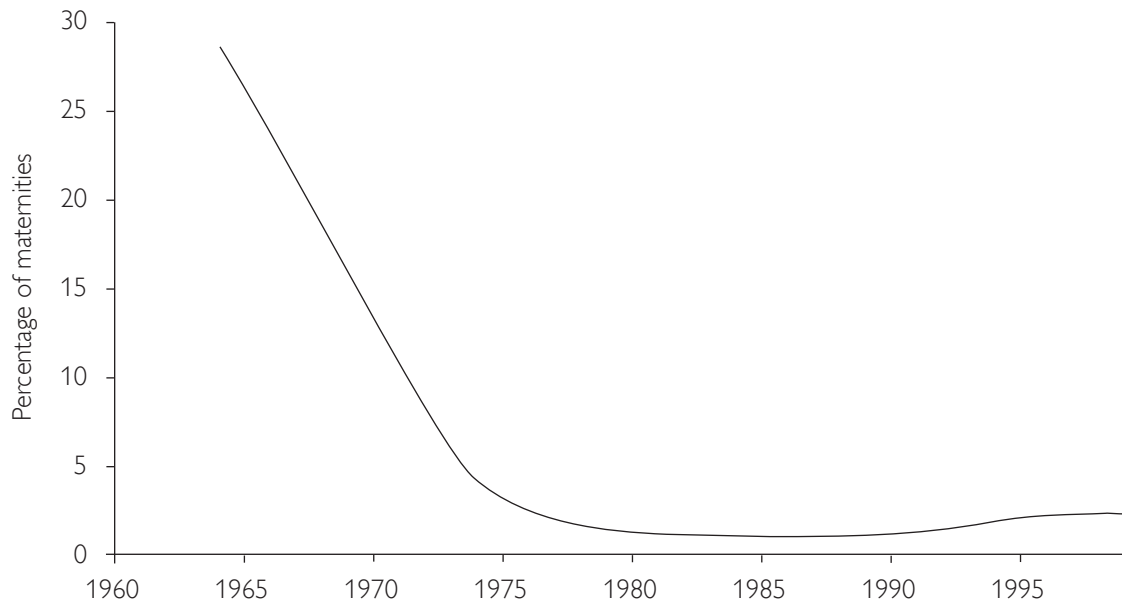
Jenkins: I chose to come along here today especially to share this with you. I was with Caroline Flint, the midwife expert, on the Select Committee Report, but actually Alison [Macfarlane] is slightly wrong. There was a government change in the attitude over government policy towards childbirth that pre-dated that and I thought I would share with you exactly how that happened. I think it is a case study that shows how difficult it can be, even when the evidence is very strong, to change policy even when you are working at the centre. I was working for the Royal College of Midwives in Wales at the time and I was invited to go on to a technical committee that was to look at new ways to deliver healthcare in Wales. One of them was on maternal care. At the time they were, I think, quite forward thinking, although not as forward thinking as one would expect to see now, because they decided to take both technical people’s views, that is the professional views, and users’ views into account, and set up a user group and a technical group. Where they weren’t quite so forward thinking was the two groups never met, they met separately, rather than together, and I have a feeling, my memory is that I think Beverley Beech was on the user group. I was on the technical group and I was one of two midwives, Sheila Drayton was the Welsh Office midwife, and I was the external midwife, working for the Royal College of Midwives. It was a group with some very powerful obstetricians, paediatricians, anaesthetists, hospital managers and civil servants on it. The civil servants had no knowledge of

¹⁹⁸ Professor Alison Macfarlane wrote: ‘Audrey Wise MP (1932–2000), was a Labour MP and a long-standing member of the back-bench Health Committee. Maternity care was one of her major interests and she campaigned effectively for change. See Beech B L. (2000) In Memorium, Audrey Wise MP. *AIMS Journal* 12: 14.’ Note on proofs, 29 August 2001.

¹⁹⁹ House of Commons Health Committee. (1992) *Maternity Services*, vol. I. Report HC 29-I (Chair: Nicholas Winterton). London: HMSO.

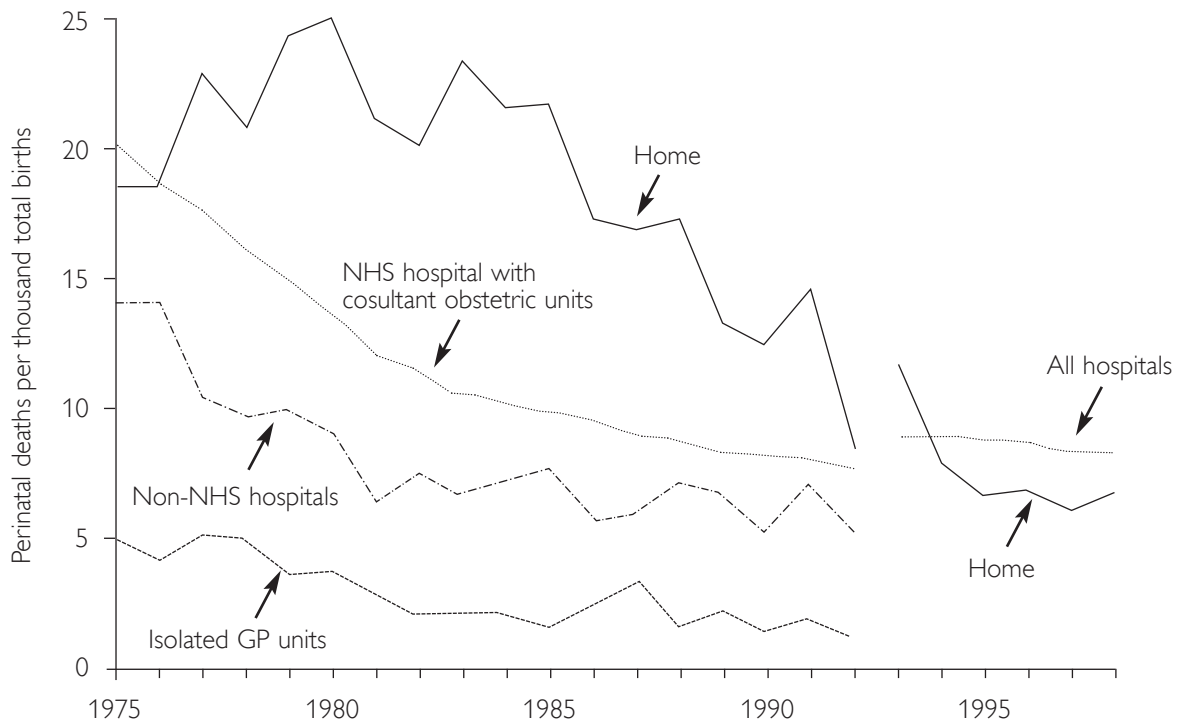
²⁰⁰ Macfarlane A J, Mugford M. (2000) *Birth Counts: Statistics of pregnancy and childbirth*, vol. 1, 2nd edn. London: The Stationery Office. A copy of a letter from Dr Edmund Hey to Dr Daphne Christie, dated 16 July 2001, which relates to the data presented by Professor Alison Macfarlane on the impact of place of birth on perinatal mortality will be deposited with the records of this meeting in Archives and Manuscripts, Wellcome Library, London.

Figure 5a: Percentage of registered maternities which occurred at home, England and Wales, 1964–98.



Source: Office for National Statistics, Birth Statistics, Series FM1 and Birth Counts.

Figure 5b: Perinatal mortality by place of birth, England and Wales, 1975–98.



Source: Office for National Statistics, Mortality Statistics, Series DH3 and Birth Counts. The break between 1992 and 1993 reflects the change in definition of stillbirth and the end of the distinction between hospitals of different types.

obstetrics at all. We started a series of meetings with a series of papers that were presented. We hadn't been asked to put any papers in at all, and the papers reiterated the common view that had been running from Short right the way through, which was that hospital remained the place to have a baby. Sheila Drayton and I immediately challenged that, almost the first of these meetings, and we verbally gave the evidence. By that time it was 1989 so that we had *Effective Care in Pregnancy*, we had *Where to be Born*,²⁰¹ the monograph from Alison was available to everybody and, in fact, *Effective Care* was in the Welsh Office library at the time. We argued long and hard, and we were given a sort of platform. After the first series of meetings it became clear when we were getting minutes of those meetings, on which the eventual policy would be based, that the minutes were always skewed towards the obstetric argument. It didn't matter how much we made statements in that environment, when it came out, the sort of obstetric view was coming through very clearly. Sheila and I started attending the meetings with *Effective Care* in front of us on the table and we would walk in and put it in front of us, as a statement about where we came from, which was we had the evidence, and it was here.

I say to you I am not personally a home-birth person, I would choose to go to hospital myself if I were going to have a baby, but I did feel that we had a lot of evidence that ought to be logically rolled into the policy that was being developed. We ended up, and I don't suppose Iain [Chalmers] will remember this, with the final draft of the document to check. By that time Sheila Drayton and I were on the phone after every meeting, just checking what had been said, what had been said by others, what we had said, to make sure that every meeting was minuted in the way that reflected the discussion. We were sent the final draft but one of the final report and I don't know who did this or who was responsible, but the sentence was slipped in, we had got them to the point where they said yes the evidence isn't clear, but it is clear that the evidence is not that every woman should have her baby in hospital, and somewhere somebody had put in the phrase to say, 'However, people can make the local decision about whether they still go ahead with 100 per cent hospital confinement or not'. At that point, although we had been sitting on the evidence at every meeting, I decided we had to roll somebody else in. I don't know whether Iain will ever remember this, but I rang Iain up (because it was only a quick call, so you probably won't) and I said to him, 'We have this phrase in this document, can I just quote you on what your reaction would be if this was to be printed?' He said, 'It is absolute rubbish'. So at the final meeting we went to, to sign it off, we said that we had consulted with Iain and that Iain had said this part of the sentence was rubbish. The civil servants who were very good, I will say this, said, 'Well then, of course we must take it out, our advice was it ought to go in'. They eventually took it out and in 1989, the end of 1989, that document was published in Wales, saying that the argument was no longer there to put every woman into hospital.

Maclean: I wonder if we can look back through history? The graphs that Alison provided show that in 1960 the number of women delivering at home was roughly

²⁰¹ Campbell R, Macfarlane A. (1987) *Where to be Born? The debate and the evidence*, 1st edn. Oxford: National Perinatal Epidemiology Unit.

one-third, and at this time with the NHS strapped for cash, there is no doubt that if there is a cheaper option, then the argument for women having to come to hospital to be managed antenatally and to deliver, may reverse. I just wonder in going back through the lessons of history why this rather steep drop in the number of women delivering at home. If there is an increase from 1985, and it's a small increase, what factors would increase or accelerate that again? And the role that politicians might have, not because it was necessarily better care, but because it was going to save money, because that seems to be one of the increasing issues. One of the things I am aware of, and this may be misinterpreted, is that if you have your baby at home with one or several midwives involved, then the costs for the NHS of providing that care are greater than if the midwife is employed within a labour ward, where during her shift she has the opportunity of looking after several women in labour, and that if more were to choose to deliver at home, then the costs would increase, it would not necessarily be cheaper. But I am not sure, I don't have figures to base that comment on.

Drife: I am interested in that amazing graph (Figure 5a) between 1965 and 1975, the sudden disappearance of home delivery effectively.²⁰² I would be very hard to convince that this was the result of a government report. The Government produces reports every year that have absolutely no bearing on reality.

Macfarlane: Can I just say, very quickly, two things. One is to do with the number of births, and in *Where to be Born* we produced graphs of numbers of births and the big 1960s baby boom.²⁰³ As it tailed off, the hospital-building programme, and the provision of more maternity units, came on stream. So if you showed it as numbers it would look very different.

The other point is, and I apologize extremely to Rosemary [Jenkins] for not remembering her important report, to point out that the increase in home births started in 1988 in percentage terms. So these changes in views were following what choices were being made, even though there was such a battle as Rosemary has described. So the graph has to be interpreted in the light of the numbers as well.

Cronk: I hate to think of this as 'home versus hospital'. I think home birth has a place and, as Rosemary said, hospital birth has a place. Some women don't have homes, for some women home is not a safe place to give birth and we need a safe place where women can give birth in peace that isn't their home. Unfortunately, hospital now appears to equal loss of control over the process, no continuity of carer, no one-to-one midwifery care, and active management of labour. That is what hospital birth means in many, many places in Britain.

The other thing that comes into the equation is that the National Health Service has no legal obligation to provide a domiciliary midwifery service and that is a legal fact

²⁰² Macfarlane A. (2000) Graph based on data from *Birth Counts* and *Office for National Statistics, Birth Statistics, Series FMI*.

²⁰³ op. cit. note 201.

on which legal opinions have been taken. The 1974 Reorganization Act implemented in 1976 did not specify that area health authorities, and now trusts, have to provide a domiciliary service; they have a duty to provide a maternity service and that is all.²⁰⁴

Drife: When I speak to people about having a baby – which, as soon as people at a dinner or anything find out you are an obstetrician, that is what they talk about – they talk about how it was 20 years ago when they had a baby. That is what we are here to do. I cannot stop myself from saying that there has been a culture change in many hospitals over the last ten years in terms of trying to achieve what you are talking about, continuity of care and obviously respect for the woman and not putting her into a sausage machine. I would love to think that that was a generalized change that has occurred very recently, more recently than perhaps we are mainly talking about here. I can't stop myself from making that comment.

Flint: I just want to take issue on cost. As Lesley [Page] said earlier, when midwives look after women, especially when midwives look after women at home (like the Albany Group Practice), the amount of intervention is much lower and therefore the cost is lower but because it is different budgets that cost-saving is not recognized. I don't know where you all come from, but I live in London where in most hospitals for primigravid women the Caesarean section rate is 30 per cent. That has to be costing a fortune, much more than all those women being at home and having a Caesarean section rate of 8 per cent, which is what most midwives would think that they have.

Chamberlain: Talking about cost, the National Birthday Trust Survey on home births,²⁰⁵ which I am not going to give you details of, you all know it, but it examined some 3500 women having babies at home, compared with some 4000 in hospital. We submitted the data to the National Perinatal Epidemiology Unit in Oxford²⁰⁶ and there their health economists did some sums for us. The costs were virtually the same, they were within £20 of each other, the home births and the hospital births, the year was 1994, and that's the last data I have seen on cost. They were virtually the same.

Zander: Just two small points about the home birth issue. First, I very much support what Mary [Cronk] says. Many of us are at fault in turning this into a home versus hospital issue. What we should be asking is whether we, within the professions, will accept as perfectly reasonable that some women, in some places, for certain personal reasons, should have the option of having their birth at home, as opposed to

²⁰⁴ See, for example, Cox C A, Fox S S, Zinkin P M, Matthews A E. (1976) Critical appraisal of domiciliary obstetric and neonatal practice. *British Medical Journal* i: 84–86.

²⁰⁵ Chamberlain G, Wright A, Crowley P. (eds) (1997) *Home Births. The Report of the 1994 Confidential Enquiry by the National Birthday Trust*. London: Parthenon Publishing Group.

²⁰⁶ The National Perinatal Epidemiology Unit was established as a Policy Research Unit by the Department of Health in 1978 and is hosted by the University of Oxford Faculty of Clinical Medicine. The Unit aims to improve the health and wellbeing of women and their babies during pregnancy, delivery and after birth. See Henderson J, Mugford M. (1997) An economic evaluation of home births, in Chamberlain G, Wright A, Crowley P. (eds) op. cit. note 205, 191–211.

everybody being encouraged, forced, or whatever word one wants to use, to go into hospital. It is whether we can see home as a valid option for some women.²⁰⁷

We have talked quite often today about the issue of our system of education, how do we train, and how can the younger doctors acquire the appropriate attitudes? One of the striking things about the Winterton Report,²⁰⁸ for which I had the pleasure of being the GP adviser, was that the first third of it was devoted to the views of women. I think this is unique in any such government report. I don't think we are going to move forward on this issue if we leave it solely up to the professionals to make the move. It's only going to happen when we open up the decision-making process much more effectively to the views of women; they are the ones who are going to say what they themselves want. The issue here is to what extent we will accept the issue of choice as an option. What we in the professions need to consider very carefully is rather than being antagonized by the option of home as a setting for birth, it would seem much more productive to look at that setting as a laboratory, to ask why is it that women appear to perform so differently when giving birth in their own surroundings; for instance in their use of analgesia. In the five or six hundred births with which I have been involved just two to three ampoules of pethidine were used. That would seem to me to be an obvious example for us as scientists to ask why it is that the use of analgesia is so different in one setting than another; is it related to anxiety levels, is it the opportunity for movement or what is it? I think that until we have clear proof to the contrary we, obstetricians, either on the grounds of choice, or, as scientists, must really examine the costs and benefits of the home as a setting for birth. We need to adopt a much more positive response than the antagonistic one of defensiveness and aggression to what seems a very reasonable request.

Page: Simply to comment on costs. If you have midwives affiliated to wards and departments and working shifts, it is a much more costly system. If you have midwives following women through the system of care, it's much more cost effective. The system in which midwives follow women through the system of care, allows home births definitely at no extra cost. If you take into account the reduction of interventions that are associated with home births, a Caesarean is at least twice as much as a normal delivery on current NHS costs, and nobody has taken those into account. So I think that we have to look very carefully. I have been doing eight years of economic evaluation with York Health Economics Consortium and also working with NHS accountants. I think there are a lot of myths in the NHS about what costs more, and unfortunately services that are running into difficulty cut home births before they cut the epidural rate or the Caesarean section rate and it makes absolutely no sense at all.

Porter: I just wanted to talk about our Bath City experience with home deliveries, because I think Allan [Maclean] is making the point that many, many people have

²⁰⁷ See, for example, Zander L. (1976) Home v hospital delivery. *Journal of Maternal and Child Health* 1: 14–20.

²⁰⁸ See note 199.

made all across the country, that if you increase the number of home deliveries your costs are going to increase. I can say that our home births in Bath City rose from 3 per cent to 12, 13, 14 per cent in the late 1990s, and yes, our costs rose, but our costs rose because we recognized that we had a big hole in our community maternity provision. In some respects I am not going to contradict what others have said, indeed I am going to come clean and say, 'Yes, we redistributed considerable resources into the community, because we sensed that there was a real demand to deliver in the community.' But it wasn't just the home births, it was a demand for domino deliveries etc. and what we created was a big increase in community midwifery teams to meet this demand.²⁰⁹ And that is where the issue gets a bit muddled, because like so many of these analyses the moment you start looking at the problem it slides out of your hands. My message really is that people are following their intuition when they are saying that doing more home deliveries is going to cost a lot more money, and that is incredibly dangerous. If there is one thing that I have learnt in the last 20 years in maternity care, it is that intuition frequently lets us down in a big way. Many things in maternity care are counterintuitive, and this applies here.

Robinson: As far as I remember, the Peel Report did not say there should be a 100 per cent of hospital births, it said that provision should be made for 100 per cent of hospital delivery.

Drife: At this point we have run out of time and so we will have to bring the meeting to a close. I would like to thank everyone who has contributed to these discussions this afternoon.

Tansey: I would like to thank you all for participating in this afternoon's seminar and add my particular thanks to Professor James Drife for his excellent chairing of the meeting.

²⁰⁹ In the 'Domino' scheme community midwives book low-risk women for a hospital delivery and after onset of labour they accompany the women into hospital and take responsibility for the delivery. Provided there are no complications women can go home just a few hours after delivery.

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