

COUNTING MATERNITY:  
THE MEASURE OF  
MIDWIFERY IN AUSTRALIA,  
2002

by

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A PROFESSIONAL DOCTORATE  
SUBMITTED IN PARTIAL FULFILMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF MIDWIFERY

UNIVERSITY OF TECHNOLOGY, SYDNEY

DECEMBER 2002

## ABSTRACT

The aim of this Professional Doctorate in Midwifery is to challenge the status quo in maternity services through scholarly reflection and research. Through the studies reported here I aim to provide women with information on which to make informed choices about the services available to them, and to ensure politicians become more responsive to the lack of options currently available in Australia. My aim is also to provide measures that would allow maternity service managers to deploy resources more efficiently to achieve the best care.

The majority of the papers in the portfolio are derived from population data that is routinely collected in Australia. One of the cornerstones of healthcare improvement is creating meaningful information and measurement from these collections. True comparisons from accurate data can be used to better understand the nature of the system, and to gauge whether changes have been effective. Thus, the information derived from various collections of routinely collected data is used to measure and evaluate the maternity services. This measures only part of the experience of childbirth, however.

The Doctorate is a collection of nine major works undertaken in the years 1999 to 2002, during my appointment as a research midwife with the Australian Midwifery Action Project (AMAP). The first paper is an essay that tells of the juxtaposition of two different worldviews and the paradigmatic issues that shape the professional differences between obstetrics and midwifery. The second consists of a brief overview of the Australian maternity system described within the terms of reference for a Senate Inquiry into Childbirth Procedures. The third and fourth papers explore the levels of obstetric intervention for low risk women and the cost of these interventions using a new costing model derived from population data. The fifth paper reviews the contemporary issues in the workforce and education of midwives. The sixth paper outlines a proposal for funding reform and a new model of midwifery care. The seventh paper compares midwifery in Australia and New Zealand, in terms of a public health strategy. The eighth paper explores the concept of a new research method called Graffiti; and the final paper continues the theme of measurement in an essay titled 'Evidence based Everything'.

The portfolio explores a number of issues around public funding and the call for reform of the maternity services in Australia. In particular it argues for reforms to fund a more responsive service, based on values outlined by women who experience maternity care in Australia, as opposed to those guided by obstetrics and technology who currently set the agenda and determine the way maternity services will be offered and funded.

Although I have articulated and measured some of the characteristics of midwifery and obstetric care in Australia, this disentangling or quantification merely underlies and emphasises the many more continuations and complexities that coexist beyond that, which is 'measured'.

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## Acknowledgments

Firstly I would like to acknowledge the vision and generosity of Jill White, Dean of the Faculty of Nursing, Midwifery and Health at UTS in Sydney, who introduced the Professional Doctorate in Midwifery to UTS, Australia and the World! My thanks also go to the long suffering academic staff who along with Jill were there at the beginning of the process - especially Mary Chiarella and her colleagues, who battled with the original Prof. Doc. School programs in the early days. To Lesley Barclay, as my supervisor, I owe a very special vote of thanks. Thankyou for your tireless enthusiasm and energy, and for standing beside me on the journey.....never letting me off the track, in fact. Thankyou for always seeing the cheerful side of some of our really 'down' times, and for always being on the end of an email, no matter how many other things you had to do. Thankyou also to Virginia Schmied for also trying to keep me in some sort of 'line' as a co-supervisor – thankyou for trying! My opportunity to share a vision in the way midwives and women do in a relationship arose when Barb Vernon became my external supervisor. Thankyou, Barb for the insight and suggestions you were able to offer; for all the drink coasters posted into your hard drive by adventurous two year olds aware their mother was preoccupied on the phone. I want to also acknowledge Justine, who with Barb and Willy patiently walked with me along the political corridors, teaching me all sorts of wonderful new political thoughts and inspiring me to believe that everything and anything is possible. What would this doctorate have been without our visionary and inspiring colleagues from across the Tasman: Karen Guilliland, Sal Pairman, and Chris Hendry.....constantly reminding us that we exist in some Dark Age when we compare our politicians, our social policies and of course the way our countries value their midwifery profession. How I have enjoyed sharing the final details of how to 'scheme' and 'hatch' and 'plot' and most of all to think strategically. Thankyou also, for my constant supply of duty free 'Mother's Ruin'. How can I acknowledge my colleagues on this side of the Tasman without thinking fondly of the 'damp duster' or the 'direct entrant' directing the traffic, or the thousand and one new titles we have for our Prof Docs. To Nicky, Pat and Lesley, I owe so much for the wonderful support and friendship and funny times we have shared from day one of the Prof Doc. I would like to thank my family and friends for their patience and support, including my kids who have spent what they consider to be a 'lifetime' - waiting to be collected from the station because their mother was 'just finishing something off' before she could come. None of this could have happened if I had not been able to extract myself on an annual basis from the daily rigours of being a mother and go 'bush' for a week or so to Barraba Station. Here I was able to truly be quiet and put my thoughts together with the help of 'grandfather lizard', otherwise known as JL, and his endless anecdotes concerning galahs and rain. This would not be complete without my acknowledging my family and other animals at Emu Bottom who have waited so patiently for one or other 'things' to be finished so we could walk in the mornings, so that meals would appear, the computer would be free, or those clothes in the washing machine might see some sunshine. Finally, but most especially, I must thank the



Doctor Himself - my strongest ally and friend, a long suffering and patient individual, not perturbed by all night hysterics, publication and conference deadlines, disc drives going mad, and antics far too numerous and diverse to mention here! Without him the Prof Dog would still be out of its kennel.

## Glossary

<b>AHA</b>	Australian Healthcare Association
<b>AAPTC</b>	Australian Association of Paediatric Teaching Centres
<b>ACMI</b>	Australian College of Midwives Incorporated
<b>AMAP</b>	Australian Midwifery Action Project
<b>AIHW</b>	Australian Institute of Health and Welfare
<b>BMID</b>	Bachelor of Midwifery
<b>CHERE</b>	Centre for Health Economics Research and Evaluation
<b>DHB</b>	District Health Board
<b>EB</b>	Evidence based
<b>IPO</b>	Independent Practitioner Organisation
<b>MDC</b>	Midwives Data Collection
<b>MMPO</b>	Midwifery and Maternity Provider Organisation
<b>MCCP</b>	Midwifery Co-ordinated Care Provider
<b>NH &amp; MRC</b>	National Health and Medical Research Council
<b>NMAP</b>	National Maternity Action Plan
<b>NCEPH</b>	National Centre for Epidemiology and Population Health
<b>NSW</b>	New South Wales
<b>NZCOM</b>	New Zealand College of Midwives
<b>RANZCOG</b>	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
<b>RCT</b>	Randomised Controlled Trial
<b>RHA</b>	Regional Health Authority
<b>SECs</b>	Socially Equitable Comparisons

# PROLOGUE

## A NOTE ON THE PROFESSIONAL DOCTORATE

*“Some ways of knowing have traditionally occupied spaces at the edge of the dominant vision, the same kinds of spaces as are filled by the lives and experiences of the socially marginalised, including women. Thus, neither methods nor methodology can be understood except in the context of gendered social relations. Understanding this involves a mapping of how gender, women, nature and knowledge have been constructed both inside and outside all forms of science.”<sup>1</sup>*

Ann Oakley, *Experiments in Knowing*, P4

The stated goal of the Professional Doctorate at UTS is to advance, in the field of professional practice, the development of “solutions” for practice problems in the workplace, in combination with an opportunity for the candidate to develop and enhance her attributes towards professional leadership in the field.<sup>2</sup>

A Doctorate may be presented as a portfolio of written works that include ‘ reflections on the implication of the work for practice and strategies for bringing change in practice as appropriate’<sup>3</sup>The objective is to challenge accepted wisdoms and orthodoxy whilst ‘advancing knowledge through scholarly engagement with the practice of a profession’<sup>4</sup>.

Although without precedent in Australia, this first Professional Doctorate in Midwifery aims to integrate practice related outcomes with a level of scholarly expertise that is both interdisciplinary and practice based.

My appreciation for inquiry is based on the recognition of certain connections. To be mindful that the ‘separation of knower from known implies a separation of self from other and researcher from subject...’<sup>5</sup>, in my view, validates the subjective nature of my Professional Doctorate. The connection between understanding in the scientific and biological domain, and the experience we bring from our family, our practice, our social and political contexts, together with our use of language, is the reason why we can expect to have different and multiple understandings of the world. The influence of previous learning and the conceptual framework I bring to my practice enables me to make sense of facts, to select and organise all the observations I make at a range of conceptual or epistemic levels.

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<sup>1</sup> Oakley A. *Experiments in Knowing: Gender and Method in the Social Sciences*. Polity Press. Cambridge 2000

<sup>2</sup> Browne M. 1998 The Professional Doctorate at UTS: A discussion paper. University Graduate School. [www.gradschool.uts.edu.au/p&p/p2b.html](http://www.gradschool.uts.edu.au/p&p/p2b.html)

<sup>3</sup> See Browne M. 1998 as above

<sup>4</sup> UK Council for Graduate Education. *Practice-Based Doctorates in the Creative and Performing Arts and Design*. Coventry. UKCGE, 1997

<sup>5</sup> Reason P. *Human Inquiry in Action: Developments in New Paradigm Research* London: Sage 1988

In her latest book, *Making Sense of Life*, Evelyn Fox Keller<sup>6</sup>, suggests that it is the stories that are drawn from our reservoir of experiences and social contexts that connects us through language and metaphor to understand the sciences. The understanding of biological systems depends on a multiplicity of understandings, explanations and connections. The portfolio before you is a collection of works that records some of the interconnections and information that may shape and change some areas of midwifery practice in Australia. Some may find it disturbing and ambiguous, others may dismiss it as non-scientific. My hope is that there will be a number of midwives and women who can use the information presented here to call for long overdue reforms in the maternity system of Australia.

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<sup>6</sup> Evelyn Fox Keller. *Making Sense of Life* Harvard University Press. 2002.

# INTRODUCTION

## A NOTE ON THE MEASURE OF.....

*'Est modus in rebus' - 'There is measure in (all) things'.*

Horace 65-8 BC

This Professional Doctorate in Midwifery is a portfolio of works that reflect considerable variety in their appearance and purpose. The overall theme, is as the title suggests.... the 'measure' of midwifery.....

The aim of the work is to challenge the status quo through scholarly reflection and research, and to raise a political awareness amongst women, midwives, obstetricians and policy makers about current issues affecting midwifery practice within the maternity services in Australia in 2002. The diversity of writing styles, and the variations in the use of language are an attempt to make information accessible and meaningful to a wide spectrum of the public for whom the pieces were written. This strategy is strengthened by reporting research findings in journals intended for the audience I hoped to engage. Each paper is prefaced with a short introductory note giving the context and rationale for the language and methods used and its location within a body of work.

In the year 1999 no comprehensive analyses of Australian midwifery policies were available, nor were the effects of current policies in regulation , education and service delivery well understood. This led to serious constraints in policy and planning and a continuing lack of communication between stakeholders in maternity care.

In 1999, 257,394 babies born to 253,352 mothers were notified to perinatal data collections in the States and Territories of Australia. This represents a birth every two minutes and approximately 705 births a day in Australia in 1999 (Nassar and Sullivan 2001<sup>7</sup>). Every birth is attended by a midwife, and midwives are the largest single group of health workers in the maternity care system in Australia. A national study was urgently needed to investigate the present constraints on the midwifery contribution to maternity care.

The objective of this professional doctorate in midwifery was to contribute data and policy analysis to the Australian Midwifery Action Project (AMAP), which was launched in 1999. The doctorate describes the current situation in the workforce and education of Australian midwives. It also describes the funding and policy arrangements for midwifery within the Australian context and compares these policies with our nearest geographical neighbour and trading partner, New Zealand. The results of research undertaken to demonstrate the critical state of affairs in terms of medical intervention for childbearing women in Australia, further demonstrates the need for maternity service reform.

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<sup>7</sup> Nassar N, Sullivan EA 2001. Australia's mothers and babies 1999. AIHW Cat. No. PER 19. Sydney: AIHW National Perinatal Statistics Unit (Perinatal Statistics Series no11).

The Doctorate is a collection of the work undertaken during the years 1999 to 2002, during my appointment as a research midwife on a national research project known as the Australian Midwifery Action Project (AMAP)<sup>8</sup>. The project was funded by an Australian Research Council (ARC) grant, and a Strategic Partnerships in Research and Training (SPIRT) grant over the period of three years.<sup>9</sup> The Australian Midwifery Action Project, as its name implies, an action oriented project. The challenge facing the research team of AMAP was how to both conduct empirical research and at the same time inform and facilitate improvements in midwifery practice within the maternity system. Some of the 'actions', therefore, within the project constituted empirical studies whilst others took the form of processes such as: reports, submissions, interviews and the preparation of policy statements for specific meetings with government officials. Where the strategy for change included forming a collaboration of authors, the individual expertise of each author, and my own participation in the collaboration is fully acknowledged.

The title I have chosen for my Professional Doctorate implies in the most general sense, a level of simple quantification of midwives or others currently employed within the maternity service in Australia. Certainly the concept of 'measure' is integral to the whole portfolio and is a thread that binds all these papers together. However, I have chosen to use the terms 'counting' and 'measure' not to reduce and quantify the service and the providers within a notional objective description of reality, but to keep in mind that through mere quantification of anything we are in danger of disregarding, devaluing or even denying that which we cannot measure. So in 'counting maternity', I am implying that, rather than singling out and quantifying the discreet elements of a set of factors that contribute to maternity in Australia, my observations of maternity are inseparable from the subjective views of myself (the observer/midwife and mother) in my account of maternity services. Similarly I have used the word 'measure' to suggest that the qualities I describe are not relative to any objective body of knowledge separate from my own search for meaning and value. Although I have articulated and measured some of the characteristics of midwifery and obstetric care in Australia, this disentangling or quantification merely underlies and emphasises the many more continuations and complexities that coexist beyond that, which is 'measured'.

**Part 1**, the essay **Reconceptualizing Risk and Uncertainty**, is primarily preoccupied with the concept of 'measure'. It narrates the historical path where new paradigms emerged through time as a result of dissatisfaction with previously held ideas and beliefs within the scientific community. It tells of the juxtaposition of two different worldviews and the paradigmatic issues that shape the professional differences between obstetrics and midwifery. The qualities of empiricism and measurement are intrinsic to the story of how

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<sup>8</sup> Please see P 21 following, The Australian Midwifery Action Project (AMAP)

<sup>9</sup> For this reason several of the research papers contained in this portfolio also contribute directly to the final report of the AMAP project. However, other than papers that are in the public domain in their published form, the AMAP report and the Doctorate are separate and complimentary publications.

Western science sought to quantify existence. The essay is an account of the evolution of Western scientific thought and its relation to medicine (obstetrics) and midwifery; where science is regarded as the triumph of reason and experiment over the contested authority of the other. The essay tells of the elevation of the quantitative in nature over the qualitative; the objective and sceptical over the subjective; the separation of the natural from cyclical nature; the superiority of rational over intuitive discourse. In summary, the turning away from the ancient fascination with individual and portentous events toward the search for general and overarching laws; from individual belief to sharable results; the dismissal of the contemplative relation with nature, in favour of active intervention; and above all the mechanization of the universe. The essay illustrates the paradigmic crises encountered during the evolution of Western scientific thought from its beginnings to the present. From this account one would be forgiven for thinking the paper is unreflectively essentialist in placing obstetrics and midwifery in a binary analytic framework that idealises one and demonises the other. Midwives have been part of a spectrum of manifestations whose collective record, explored in part by this essay, offers an opportunity to measure our current understandings of women's voices and positions as mothers and midwives. The reader should be reassured though, the essay is a description of the historical milestones that mark our evolutions of knowing from a scientific framework on the one hand and an experiential framework on the other. Both are capable of intersection and reform however, and the reader is not left without hope!

Alongside an empirical estimation of certain attributes of the maternity services, the concept of measure is used in a more literal or figurative sense to mean an estimation of the different dimensions of midwifery. This implies an intrinsic qualitative meaning to the word 'measure'. According to the Shorter Oxford Dictionary: to measure is to "estimate the quantity or degree or proportion of something that is bestowed or granted to a person. It can also ascertain the spatial magnitude of something; to estimate the amount duration and value of something, not so much to denote a count or the weight of, but figuratively to estimate the amount duration, and *quality* of..."<sup>10</sup> In defining 'measure' as a quality or attribute, it is perhaps useful to look at the literary use of the word 'measure'. In its most celebrated literary context, in Shakespeare's *Measure for Measure*, the qualities, or measures of justice and mercy are balanced against each other.<sup>11</sup> Without considering the question further - whether every measure or quality is equal to or comparable to all others, let's consider the famous line of Lord Tennyson's, "Man is the measure of all truth unto himself" (Tennyson).

In art, in music, architecture, commerce and morality there are multiple allusions to 'measure'. The reproduction of "The Measurers", a Flemish painting from the sixteenth century (see following) shows scenes of practical measurement inferring the intrinsic nature of measure in everyday lives. The universality of this attribute in all aspects of our lives, is

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<sup>10</sup> The Shorter Oxford Dictionary on Historical Principles, Eds, C T Onions, 1969, Oxford Clarendon Press

<sup>11</sup> The hidden text here asks the question 'can an immoral act be justified for a good cause?'

further intimated through the reference to the words of the Latin Lyric poet Horace: 'Est modus in rebus' - 'There is measure in (all) things'.

It's an old and often used cliché that the true measure of any man or woman is only evident when they are no longer present. The gap left by their absence suddenly reveals the true stature to which we were previously blind because we took it for granted when it was always there. Can the same be true of midwifery? In this thesis then, the meaning of measure is also to suggest both a 'contemporary state of affairs' and a measure of midwifery that is a description of the magnitude, the character, and the dimension of midwifery evident in Australia in 2002.

The papers that comprise Parts 2,3,4,5,6 and 7 of this portfolio are derived from data that is routinely collected in Australia. One of the cornerstones of healthcare improvement is creating meaningful information and measurement from these collections. True comparisons from accurate data can be used to better understand the nature of the system and to gauge whether changes have been effective. Measurement that is used appropriately is crucial for a range of purposes such as quality improvement, accountability, regulation and changing services to improve outcomes. The challenge is always to balance progress or 'goodness' in public policy and public choice between competing views of the world -- each justified by how we measure and understand the quality of the service delivered. The balance to be struck is that between overemphasizing accountability and underemphasizing learning<sup>12</sup>, or as the policy reformers of the NHS claimed five years ago, "Measurement for improvement is not measurement for judgment."<sup>13</sup> Simply developing state of the art tables to demonstrate efficiency and accountability are not enough. Women need to see comparisons and relate their own contextual understanding in making their choices about care. The information derived from various collections of routinely collected data is used to measure and evaluate the maternity services. This measures only part of the experience of childbirth, however. Through the studies reported here I aimed to provide women with information on which to make informed choices about the services available to them, and to ensure politicians become more responsive to the lack of options currently available in Australia. My aim was also to provide measures that would allow service managers to deploy resources more efficiently to achieve the best care. With this in mind, I have made every effort to base the findings from these papers on measures of quality that demonstrate attributes such as validity, reliability, comparability and communicability.<sup>14</sup> I am also mindful of the critics of these methods who claim that our increasing reliance on measures of effectiveness, safety, acceptability, and efficiency reduces all traditionally qualitative, anecdotal approaches that are supplemented by trust<sup>15</sup>. The problem, of course, is that measurement itself, like evidence,

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<sup>12</sup> Berwick D. Looking forward: The NHS: feeling well and thriving at 75. *BMJ* 1998;317:57-61

<sup>13</sup> Pringle M, Wilson T, Grol R. Measuring "goodness" in individuals and healthcare systems. 2002 *B MJ* 2002 ;325::704-8

<sup>14</sup> *ibid*

<sup>15</sup> *op cit*



does *not* in fact improve outcomes. Measurement will only serve to demonstrate where improvements can be made, through informing and identifying where the problems lie. In addition, both measurement and evidence can be denied and manipulated.

**Part 2, Childbirth in Australia: Measuring the current state of play**, is based on a written Submission to the Senate Inquiry into Childbirth Procedures held in Australia during 1999. I prepared the submission as a brief summary of current research that informed the key issues raised by the Inquiry. The Findings<sup>16</sup> from the Inquiry provided a basis for much of the work that follows in my professional doctorate, particularly in areas of obstetric intervention, funding midwifery, and workforce issues. In particular the Inquiry highlighted the dire situation in the workforce where a shortage of midwives and the lack of non-interventionist midwifery models of care were strongly noted. It found that women perceived themselves to be disempowered in the decision making around birth, and that too many caesarean sections were being performed. The issue of early discharge following birth, without the necessary community midwifery support was also identified as an area of deep concern.

In **Part 3, Measuring Obstetric Intervention in Australia**, the notably high levels of interventions during childbirth are addressed in a paper that was written in collaboration with clinicians representing each of the specialties, obstetrics, epidemiology, and midwifery. The paper, *Rates of Obstetric Intervention among private and public patients in Australia: population based descriptive study* was published in the British Medical Journal in July 2000. (A second paper, *Trends in labour and birth interventions among low risk women in New South Wales*, was written in collaboration with the same multidisciplinary team with the addition of an anaesthetist. See Supplementary Paper 1.)

The population data that informed these two intervention papers was further developed into **Part 4** of the portfolio, **Measuring the Cost of Obstetric Interventions**. The paper, *Costing the cascade: estimating the cost of increased obstetric intervention in childbirth using population data* was accepted for publication in the BJOG on the 18<sup>th</sup> October 2002, and is to be published in the near future. This paper outlines the development of a costing formula to assist in cost analysis and cost projections for managers of midwifery services.

**Part 5**, of the portfolio, **A Measure of the Australian Midwifery Workforce**, maps the current situation in the midwifery workforce in terms of gaps in data collection, inconsistencies in educational programs and recommendations for reform. In addressing one of the main objectives of the Australian Midwifery Action Project, to determine the barriers to midwifery care in Australia, I undertook a descriptive analysis around current workforce and education issues for midwives in Australia. The paper: *Contemporary Issues In The Workforce And Education Of Australian Midwives*, was published in the Australian Health Review in November 2000, and highlighted the need to address many of the issues that were later examined in the first Commonwealth Midwifery Workforce Review undertaken by The

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<sup>16</sup> Rocking the Cradle. See Part 2 and <http://www.aph.gov.au/senate/committee/history/index.htm#Community>

Australian Health Workforce Advisory Committee (AHWAC) in 2002<sup>17</sup> to be released at the end of 2002

**Part 6, Measures in Health Reform and Funding** is presented in four sections. Section 1 provides an overview of health funding and reforms from an international perspective. This fulfils a compulsory requirement of the Professional Doctorate to submit a piece of writing addressing the international context of the subject under review. Section II compares and contrasts the health systems of New Zealand and Australia with particular reference to the funding of midwives. Section III is based on the submission to the second Commonwealth Senate Roundtable Discussion on Hospital Funding in 2000, on behalf of the Centre for Family Health and Midwifery, UTS, Sydney. Section IV proposes a new model for Australia in a proposal for an integrated midwifery model across a continuum of care and location.

The need for funding reform is highlighted again in **Part 7, Midwifery and Public Health**. This is an evidence based argument presented as a discussion paper on the subject of midwifery as a public health strategy. In comparing the scope of practice of midwives in Australia and New Zealand, it advances further the argument that funding is one of the pivotal issues in need of reform in the maternity services in Australia.

**Part 8** of this doctorate describes the intrinsic nature the **Graffiti Method – a measure of utterance**. This is an innovative research tool that was devised within the larger AMAP research project. It was used to gather ideas and opinions from midwives all over Australia to inform the study affectionately known as the Midwives Voices Study<sup>18</sup> in AMAP. The paper presented here takes the reader on another explorative journey, briefly into the realms of the writings of modern French theorists such as Gilles Deleuze, Claire Parnet, Felix Guattari and Roland Barthes, and the feminist theorist, Elizabeth Grosz, in a separate dissertation on ‘measure’. The method evolved as a means for midwives and researchers to connect with the complex reality within and around us during the research process of the Australian Midwifery Action Project.

The portfolio concludes the theme of measurement with **Part 9, Evidence Based Everything**. This is an essay, designed originally as an introductory lecture for practicing midwives studying for a postgraduate diploma. It concedes both to the notion that there is measure in all things and that to ‘measure’ has the potential to be a rewarding and liberating experience. The paper describes for midwives the key factors behind the evidence based movement and summarises the main theme of my Professional Doctorate, that to challenge the status quo, is to effect change through research based practice. It encourages midwives to embrace the strength of our special partnership in practice, as midwives in the company of women

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<sup>17</sup> Australian Health workforce Advisory Committee (2002), *The Midwifery Workforce In Australia*, AHWAC Report 2002.2, Sydney NSW.

<sup>18</sup> Brodie, P. (2002). Addressing the barriers to midwifery: Australian midwives speaking out. *Australian Journal of Midwifery*. 15 (3): 5–14.



## ABOUT THE SUPPLEMENTARY PAPERS

I have included several pieces of work as a collection of Supplementary papers at the end of this portfolio. They represent major pieces of work that supplement, or are a continuation of the work gathered here for the portfolio, and undertaken during the term of my professional doctorate.

The first supplementary paper is a continuation of the research presented in Part 3. It was undertaken with the same multidisciplinary team, with the addition of an anaesthetist, and led by Dr Christine Roberts. Although I contributed to the research process, I did not initiate the research in this study, as I had in the previous work<sup>19</sup> presented in Part 3.

The National Maternity Action Plan is included here as Supplementary Paper 2. It is the result of a broad coalition of consumer and midwifery representatives and organisations from across Australia, of which I was a contributing author. The NMAP outlines the rationale behind the need for major reform of maternity services, and, proposes a strategy for Federal and State/Territory governments to enable comprehensive implementation of community midwifery services in both urban and regional/rural Australia within the public health system. This is a vision document that grew from the energy and enthusiasm of a group of women who have the same vision for reform in Australia's maternity services that I share. The plan was launched nationally in every state parliament and in national parliament on the 24<sup>th</sup> September, 2002.

Supplementary Paper 3 is a program outline for the implementation of NMAP through caseload community midwifery care in the public health sector. As a contributing author, I was able to elaborate on the model of midwifery outlined in this current portfolio on Pp 142-146. The program was presented to Professor William Walters, Chair of the NSW Maternal and Perinatal Committee within the NSW Health Department, for discussion at the meeting on December 11<sup>th</sup>, 2002.

### ***Supplementary Paper 1***

Roberts CL, Algert C, Peat B, Tracy S, Douglas I. Trends in labour and birth interventions among low-risk women in an Australian population. ANZJOG. 2002; 42:2:176 - 181

### ***Supplementary Paper 2***

*The National Maternity Action Plan (NMAP)*, Maternity Coalition, 2002.

[www.maternitycoalition.org.au](http://www.maternitycoalition.org.au)

### ***Supplementary Paper 3***

Implementing Community Midwifery in NSW. Maternity Coalition, 2002.

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<sup>19</sup>Roberts C, Tracy S, Peat B (2000) Rates for obstetric intervention rates among private and public patients in Australia: population based descriptive study. BMJ 2000;321(7254):137-141. <http://bmi.com/cgi/content/abstract/321/7254/137> accessed 18<sup>th</sup> August 2002

## THE AUSTRALIAN MIDWIFERY ACTION PROJECT (AMAP)

The Australian Midwifery Action Project (AMAP) was initiated by a group of midwives, researchers and service managers who shared concerns for the development and sustainability of the current systems of midwifery education and practice in Australia. The three-year project began in April 1999 and was funded through a Strategic Partnerships with Industry Research and Training (SPIRT) grant from the Australian Research Council, in collaboration with five Industry partners, NSW Health, SA Health Commission, South Eastern Sydney Area Health Service, Women's Hospitals Australasia and the Australian College of Midwives Inc.

The overall aim of the study was to provide evidence on which to base strategic planning, workforce review, educational reform, and policy direction, as well as improvements in midwives' contribution to maternity care through facilitating and supporting institutional and systems reform. Consumer input is of course vital to this work and two sociologists in the research team provided a key role in this area ensuring that the needs of women and communities remained a priority. Priorities also included rural and remote issues, including equity and access to services provided for Indigenous women and babies. The research team consisted of the Chief Investigator, Professor Lesley Barclay, two full time research midwives, Pat Brodie and Sally Tracy and four associate researchers, Nicky Leap (Flinders University), Karen Lane (Deakin University), Kerreen Reiger (La Trobe University) and Linda Saunders (Flinders University).

### THE RESEARCH QUESTIONS

The research addressed these questions:

- What are the barriers to the provision of safe, efficient and economic midwifery care within maternity services?
- What are the strategies to overcome these barriers?

The project, therefore, consisted of two concurrent and interlinked strands:

STRAND I consisted of several interrelated studies investigating state and territory differences in service provision, education, policy and regulation associated with midwifery care within maternity services.

STRAND II worked towards interaction across sectors during the research and engaged a broad range of individuals, groups and institutions in the research process.

### THE AUSTRALIAN CONTEXT

**Workforce** One of the most alarming concerns is the shortage of midwives in each state with rural and remote areas being particularly affected by short supply. Clearly, strategies are required to ensure the supply and maintenance of the current numbers of midwives and, whilst there are exceptions, many state governments do not have a coherent plan in place

that signifies their concern. Incentives to address priority areas such as rural and remote regions are urgently needed.

#### **Education and regulation**

Midwifery education, leading to an authority to practice is provided through Universities and classified as a postgraduate qualification which attracts either post graduate Higher Education Contribution Scheme (HECS) payments, or full course fees. This places a considerable personal financial burden on nurses who wish to study midwifery, and affects both the recruitment and attrition rates of Australian students. There is no national monitoring system to ensure a particular standard of midwifery education across the country or an adequate baseline of competence. Reliable anecdotal reports suggest enrolments are decreased in some cases by as much as 50% with attrition rates as high as 25% in some midwifery programs. Strategies for educational reform are being explored on a number of levels including the introduction of an under graduate Bachelor of Midwifery.

#### **Organisation of maternity care**

The integration of autonomous midwifery practice into mainstream maternity services through a collaborative approach that includes the care of all women, remains a major challenge for service providers, policy makers, medical practitioners and midwives , in both urban and rural settings.

#### **Rural and remote issues**

Rural and remote midwifery is in decline, with some midwives and employers concerned not only with the lack of availability of midwives, but also the potential loss of skills and expertise necessary to practice safely.