THE WINSTON CHURCHILL MEMORIAL TRUST
OF AUSTRALIA

Report by Rosie Downing, 2013 Churchill Fellow

The Peter Mitchell Churchill Fellowship to observe successful birthing services for women living in rural and remote communities.

Footprints of ‘Inukjuak babies’

I understand that the Churchill Trust may publish this Report, either in hard copy or on the internet or both, and consent to such publication.

I indemnify the Churchill Trust against any loss, costs or damages it may suffer arising out of any claim or proceedings made against the Trust in respect of or arising out of the publication of any Report submitted to the Trust and which the Trust places on a website for access over the internet.

I also warrant that my Final Report is original and does not infringe the copyright of any person, or contain anything which is, or the incorporation of which into the Final Report is, actionable for defamation, a breach of any privacy law or obligation, breach of confidence, contempt of court, passing-off or contravention of any other private right or of any law.

Signed

Rosie Downing, 10 November, 2014
Index

Acknowledgements .................................................................................................................. 3
Introduction ............................................................................................................................. 5
Executive Summary .................................................................................................................. 6
Programme (2014) .................................................................................................................... 7
Maternity services in remote communities .............................................................................. 10
  Remote Northern Territory, Australia ..................................................................................... 10
  Scotland ................................................................................................................................... 12
  Canada .................................................................................................................................... 23
    Case Study: Inukjuak Maternity .......................................................................................... 24
  Aotearoa/New Zealand .......................................................................................................... 33
    Case Study: Rural Midwifery Recruitment and Retention Service (RMRRS) ......................... 35
Lessons learned: the key factors in ensuring success and sustainability of birthing services in remote communities ............................................................................................................ 40
  Community support and drive ............................................................................................... 40
  A belief in the importance and precedence of choice ............................................................. 41
  Confident, skilled maternity carers ....................................................................................... 41
  Good communication and respectful relationships within the maternity care team .......... 43
    Service flexibility and reflexivity, with supportive midwifery management ...................... 43
Where to next: key recommendations for growing our maternity services and dissemination of knowledge gained from this project .................................................................................. 45
References ............................................................................................................................... 48
Recommended reading ........................................................................................................... 49
Acknowledgements

Without the impetus and financial support of the Winston Churchill Memorial Trust of Australia, I would have only continued to dream about the possibilities of this journey. Thank you for believing in me and my project idea; I hope to continue to demonstrate my gratitude for this opportunity through my actions and work in the future. I would like to express my sincere thanks to the Mitchell family, who, in honour of Peter Mitchell, have generously committed to sponsoring young Australians like myself through the Churchill Trust. I would also like to especially thank David Martin and Meg Gilmartin for their generous support, advice and time.

Thanks to my Dad, Bob Downing, for backing me from the very start. Thank you to my friends and family for all your encouragement and support.

Thank you Sheryl Alexander and Prof. Sue Kildea for providing me with very generous references and guidance, and to Prof. Lesley Barclay AO for sharing your invaluable ideas, suggestions and connections.

The Northern Territory Department of Health allowed me to take extended leave to pursue this project; thank you Angela Agostini for your support.

Prior to this journey, I would not have dared to imagine of asking for the unending generosity and support I have been shown by midwives, their families and communities around the world. I struggle to find the words to express my deep gratitude to you.

I feel incredibly privileged, honoured and deeply humbled to think of how much has been shared with me; I could never have asked for what I have been given. I have been generously hosted, fed, chaperoned, chauffeured and cared for. More than this, midwives shared their very precious time, their experiences and stories; professional, personal, hilarious, joyful, miraculous, heartbreaking and sometimes very difficult. It is this infinite goodwill, strength and belief in creating something better that keeps us all going. Thank you for sharing it all with me.

I would like to thank (in the order I met you all):

In Scotland/Alba; Catherine McDonald and her family, the midwives working at the Stornoway Maternity Unit especially Anne-Marie McIver, Mary Vance, Joanne Murray-Stewart, Nellie MacArthur, Elayne Starkey, Jennifer Reid, Nadine Edwards, Iona Duckett and the midwives at Montrose Maternity, Prof. Edwin Van Teijlingen, Rona McCall, Mairi Milne, Catherine McDonald and the midwives at Fort William Maternity Unit, and (last but definitely not least!) Sarah McLeod.
In Canada and Inukjuak; Valerie Perrault, Aileen Moorhouse, Brenda Epoo, Kimberly Moorhouse, Margaret Mina, Mary Nastapoka, Caroline Ningiuk, Syra Qinuajuak, Akinisie Smiler, the Inukjuak community, Isabelle Zachotard, Geri Bailey, Tia Sarkar, Vicki Van Wagner, Sara Wolfe, Monica, Tamara and Hannah at the Toronto Birth Centre, Jennie Stonier, Sinclair Harris, Carol Couchie, Rachel Dennis and families, Jane Collins, Barb and Dave Purcell.

In Aotearoa/New Zealand; Alison Eddy, Karen Grey, Sue Morris, Jean Patterson, Mandy Madin, Morgan Weathington, Justine Quirk, Sheryl-Joy Christian and the Gloriavale community, Celia Butler, Pamela Goffriller, Wendy Campbell, Claire Bracey and Justine Schroder and her gorgeous boys.

*Rona McCall and I at the top of the legendary Bealach na Ba (the Pass of the Cattle, and the road with the steepest climb in the UK), on the way to Applecross, Scotland.*
Introduction

At the present time, around one in four women living in the Northern Territory, Australia, are expected to leave their homes, families and community in preparation for the birth of their child in a setting where there are appropriate staff and resources at hand (Thompson, 2013). Leaving their home is not without risk; the emotional, cultural, spiritual, social, financial and physical risks that may ensue in this arrangement are well documented in many studies, reports and research articles. However, women and their families must juggle these risks with the risks of planning to birth in a remote setting with variable access to skilled maternity carers, appropriate resources and knowing the geographical barriers to accessing emergency care if it becomes necessary. For many families, there are also the inherent complexities and challenges of negotiating a dominant colonial health care system.

From a service provision point of view, there are many barriers to be overcome if maternity services are to be sustained in the remote setting. The oft-quoted ‘tyranny of distance’, inclement weather and its impact on road or air access, variable and transient population sizes, shifting government structures and funding, and the difficulty of recruiting and retaining skilled maternity carers are all factors that will affect how maternity care can be planned and organised, and what that care will be like. And yet, facing similar barriers and complexities, there are services in other rural and remote communities around the world who provide safe maternity and birthing care.

This research project was inspired by a desire to improve the maternity services available to women living in rural and remote communities in Australia. The generous award of a Peter Mitchell Churchill Fellowship allowed me to travel to Scotland, Nunavik, Canada, and Aotearoa/New Zealand, to visit midwives and communities who have successfully established and continue to sustain birthing services in their remote communities. This report will provide more detail of these maternity services, the midwives and communities I visited, what I learnt from visiting them, and finally, how I plan to use these experiences and lessons to work towards improving maternity care access for families living in rural and remote Australia.
Executive Summary

The Peter Mitchell Churchill Fellowship enabled me to visit midwives, midwifery managers and community members involved in the provision of birthing services in rural and remote communities in Scotland, Nunavik (in Canada) and Aotearoa/New Zealand to observe how they successfully sustain their service.

Living in a remote community often comes with unique conditions and complexities. Sustaining a birthing service in a remote community that is safe, in all meanings of the word, for women, their families and their maternity carers likewise entails overcoming some significant challenges. Each of the communities I visited have their own unique and appropriate solutions to the barriers they encounter; what they showed me is that where there is a will, there is a way.

Key elements of their success, as I observed them, included:

- a community-driven desire and drive to provide good quality, safe maternity care to women in their community,
- a culture of valuing a woman’s prerogative to choose her place of birth,
- growing confident, skilled maternity carers,
- fostering supportive, strong relationships within the maternity care team, and
- organising the service structure with midwifery led clinical governance, innovation, flexibility and reflexivity

Based on these observations, I would make the following recommendations to improve maternity care for rural and remote communities in Australia:

1. Developing midwifery management and clinical governance structures on both regional and national levels
2. Encouraging and supporting midwifery training institutions to develop courses that enable student midwives to remain in their communities for their training
3. Establishing an organisation dedicated to supporting, recruiting and retaining midwives working in rural and remote communities
4. In the Northern Territory, the first step must be to strengthen and streamline existing maternity services available to women living in remote communities. Women need access to skilled maternity carers to ensure safe, timely and appropriate maternity care.

In order to contribute to the improvements and developments of existing maternity services in the Northern Territory, I plan to share my experiences and observations through my professional and personal networks, and with relevant organisations and Ministers. It is my great hope that together we can provide maternity services that foster strong, healthy and happy future generations.
<table>
<thead>
<tr>
<th>Dates</th>
<th>Location</th>
<th>Who I met</th>
<th>Research focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 May – 6 June</td>
<td>Prague – the International Confederation of Midwives congress</td>
<td>3,800 midwives from around the world!</td>
<td>Attended workshops, talks and seminars focused on the latest in best maternity practice and innovative midwifery care</td>
</tr>
<tr>
<td>8 – 10 June</td>
<td>Glasgow – The Early Years Collaborative</td>
<td>Multidisciplinary team from the Western Isles</td>
<td>Networking, meeting, developing an understanding of the Scottish health and welfare system</td>
</tr>
<tr>
<td>10 – 15 June</td>
<td>Western Isles; Lewis, North Uist, South Uist, Barra and Vatersay</td>
<td>Catherine McDonald, midwives at the Stornoway Maternity Unit, Joanne Murray-Stewart, Nellie MacArthur</td>
<td>Observing how maternity care and birthing choices are supported in this remote part of Scotland (with considerable geographical barriers)</td>
</tr>
<tr>
<td>16, 17 June</td>
<td>Oban Phone call to Cambelltown</td>
<td>Elayne Starkey, Jennifer Reid, Sarah George</td>
<td>Observing how maternity care and birthing choices are supported in this region of Scotland</td>
</tr>
<tr>
<td>18 June</td>
<td>Edinburgh</td>
<td>Nadine Edwards and the Pregnancy and Parents Centre</td>
<td>Visiting and learning about the establishment and running of a highly successful community based resource centre for parents</td>
</tr>
<tr>
<td>19 June</td>
<td>Montrose</td>
<td>Iona Duckett and midwives at Montrose Maternity Unit</td>
<td>Learning about how a birthing service on the point of closure was revitalised and strengthened</td>
</tr>
<tr>
<td>20 June</td>
<td>Gairloch</td>
<td>Rona McCall</td>
<td>Observing how maternity care and birthing choices are supported in these remote parts of Scotland</td>
</tr>
<tr>
<td>21, 22 June</td>
<td>Portree</td>
<td>Mairi Milne</td>
<td></td>
</tr>
<tr>
<td>Dates</td>
<td>Location</td>
<td>Who I met</td>
<td>Research focus</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>23 June</td>
<td>Fort William</td>
<td>Catherine McDonald and midwives at the Fort William Maternity Unit</td>
<td>Learning about how maternity care and birthing choice is respected and provided for in this region of Scotland</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sarah McLeod, a Lead Midwife with NHS, Highland</td>
<td>Hearing how a midwifery manager works to protect and sustain midwifery services across remote Scotland. Learning about her strategies and insights into service planning in the remote context.</td>
</tr>
<tr>
<td>24 – 30 June</td>
<td>rest days and travel to Canada</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 9 July</td>
<td>Inukjuak</td>
<td>Midwives in Inukjuak</td>
<td>Observing and learning how the maternity unit in Inukjuak was established and is sustained</td>
</tr>
<tr>
<td>10 July</td>
<td>Ottawa</td>
<td>Geri Bailey, Pauktuutit Inuit Women of Canada</td>
<td>Learning more about the role and work of the Pauktuutit Inuit Women of Canada</td>
</tr>
<tr>
<td>11 – 13 July</td>
<td>Toronto</td>
<td>Tia Sarkar, Vicki Van Wagner, Sara Wolfe of Seventh Generation Midwives, and Monica, Tamara and Hannah at the Toronto Birth Centre</td>
<td>Learning more about how these midwives have acted as allies for midwifery services in Nunavik Visiting the Seventh Generation Midwives practice and an innovative birth centre</td>
</tr>
<tr>
<td>14 July</td>
<td>Montreal</td>
<td>Jennie Stonier Sinclair Harris</td>
<td>Learning more about how these midwives have supported the midwives and community in Nunavik</td>
</tr>
<tr>
<td>15 – 17 July</td>
<td>Powassan</td>
<td>Carol Couchie Rachel Dennis</td>
<td>Visiting a midwifery service set up by two First Nations midwives in their Nipissing community</td>
</tr>
<tr>
<td>18 – 21 July</td>
<td>Kelowna</td>
<td>Barb Purcell</td>
<td>Visiting a midwife who works in a regional centre in British Columbia</td>
</tr>
<tr>
<td>22 – 24 July</td>
<td>Travel to Aotearoa/New Zealand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dates</td>
<td>Location</td>
<td>Who I met</td>
<td>Research focus</td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>24 July</td>
<td>Christchurch</td>
<td>Allison Eddy, New Zealand Council of Midwives</td>
<td>Gaining an overview of how maternity care is provided across Aotearoa/New Zealand. Learning about the establishment of the Rural Maternity Recruitment and Retention Service, and its role in supporting midwives working in rural communities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sue Morris, Rural Midwifery Recruitment and Retention Service</td>
<td></td>
</tr>
<tr>
<td>25 – 27 July</td>
<td>Christchurch</td>
<td>Karen Grey</td>
<td>Discussing differences between maternity services in Australia and Aotearoa/New Zealand</td>
</tr>
<tr>
<td>28 July</td>
<td>Dunedin</td>
<td>Jean Patterson, Emma Bilious</td>
<td>Learning more about Jean’s experience and work in remote midwifery and service planning</td>
</tr>
<tr>
<td>29 – 31 July</td>
<td>Wanaka</td>
<td>Mandy Madin, Morgan Weathington, Justine Quirk</td>
<td>Learning about the realities of working in the most remote communities in Aotearoa/New Zealand and how these midwives sustain their practice here</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3 August</td>
<td>Gloriavale</td>
<td>Sheryl-Joy Christian</td>
<td>Learning more about how this community has worked to access and develop the maternity care that works best for them</td>
</tr>
<tr>
<td>4, 5 August</td>
<td>Gloriavale</td>
<td>Celia Butler, Pamela Goffriller</td>
<td>Visiting midwives working in a service that has been adapted in order to provide continuity of maternity care in a rural community</td>
</tr>
<tr>
<td>6 August</td>
<td>Takaka</td>
<td>Justine Schroder, Wendy Campbell and Claire Bracey</td>
<td>Learning more about how this innovative model of maternity service provision was developed to meet the needs of the community.</td>
</tr>
<tr>
<td>7-8 August</td>
<td>Kaikoura</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Maternity services in remote communities

In order to provide a basic appreciation of the context in each of the communities I visited, I will first provide a brief outline of maternity service provision in remote Northern Territory communities in Australia. I will then outline the maternity service structure and provision in each of the communities I visited as part of my research, and discuss my observations of these services. A summary of how these services are arranged is presented in a table, one for each country visited.

Remote Northern Territory, Australia

Aside from a small number of privately practicing obstetricians, maternity care services in the Northern Territory are publicly funded and available free of charge to any Australian woman. In the Northern Territory (NT), birthing services are available in Darwin, Nhulunbuy, Katherine and Alice Springs. In health centres in rural and remote clinics, only basic obstetric emergency supplies are available, and there may or may not be a skilled maternity carer present. While there is no explicit policy that women must ‘evacuate’ their communities for birth, it is a bureaucratic and systematic expectation. This means that women living in rural and remote communities are encouraged and expected to travel to one of these regional centres in order to access skilled practitioners and appropriate resources for the birth of their child. In 2010, this equated to 26.8% of all NT women giving birth in the NT (Thompson, 2013).

When women living in remote communities leave their homes, families and communities in order to access birthing support and services, they often put themselves and their families at risk of social, economic, physical, cultural and/or spiritual harm. These risks have been widely documented and discussed in numerous research reports and articles (for examples, please refer to Kildea & Van Wagner 2012). It should be made clear that for many Aboriginal or Torres Strait Islander families, there are significant cultural and spiritual risks that arise when a baby is born in a part of the country that is not their own. Their cultural safety may be further compromised as they leave their family, community, and language to engage with the dominant medical culture. Women and their families must weigh up the different risks they face in their particular situation as they choose where they plan to birth. While most women from rural and remote communities in the NT will end up travelling to one of the four centres for the birth of their baby, there are those who birth in their community, or end up birthing in transit. In 2010, 2.3% of births in the NT occurred either in rural or remote health centres or in transit (89 births, 72 of whom were Indigenous mothers) (Thompson, 2013).
It is worth noting that this experience is shared by many rural and remote communities throughout Australia, not just in the NT. This is well documented; for one example, please refer to the Rural Doctors Association of Australia 2006 statement, *Maternity Services for Rural Australia.*
Scotland

Like Australia, most women in Scotland access their maternity care through the publicly funded National Health Service (NHS). There are privately practicing midwives and obstetricians, but none I heard of practicing in rural or remote communities. Across Scotland, there are fourteen geographically based local NHS boards. These health boards are responsible for providing maternity services in their regions, including hospital and community-based midwifery care.

Taken from <http://www.allnumis.com/postcard/united-kingdom-of-great-britain/scotland-map-1964>
During my research, midwives, supervisors and service managers all expressed the general NHS philosophy that services should be made available to people in their local community. This means that though population numbers may be small, and there may be geographical and environmental barriers to navigate, midwifery services are made available to every woman, regardless of where they live. There seemed to be a general philosophy that women’s choice in planning their birth was utmost; if a woman living in a remote area wanted to plan to have a home birth then this would be accommodated for as best possible. The *NHS Highland Midwifery Guidelines: Planned Homebirth* policy (Burnside 2014) states that:

*The decision of where to give birth should always be made by the woman and family with sufficient time to make an informed decision regarding their intended place of birth. The woman should be given appropriate, accessible and evidenced information and be fully involved in the decision making process (Maternity Services Action Group, Scottish Government 2010).*

…*If the midwife is aware of any risk factors which would impact on the suitability of the woman for Homebirth she should refer the woman to a Consultant Obstetrician. Although the midwife, supervisor of midwives, obstetrician and/or the GP [General Practitioner] may feel that Homebirth is not appropriate, the woman still has the right to choose Homebirth and midwifery care and support must be provided (NMC 2004).*

For some of the midwives that I met, this might mean that they spend hours and up to hundreds of kilometers via road or ferry to provide care to women in their homes. They might travel in inclement weather or, for example, creatively plan their workload to fit in a four hour round trip to attend an antenatal check-up (whilst being mindful of the other women in the region who might go into labour or otherwise require the midwives’ services at any time). However, the expectation and desire to provide midwifery care to women in their own community ensures that a way to achieve this is always found.

(L – R) Sign in the maternity unit in Uist; photos of babies born in the Uist maternity unit; a home on Vatersay (an isle connected to Barra) that has been a place of birth.
The Scottish Ambulance Service (SAS) provides emergency transport to tertiary centres. In the event that the SAS will be too long (there are three helicopters to cover the whole of Scotland), or in the event of particularly inclement weather, the Coastguard may also be able to assist with emergency transport. However, if the weather is too inclement, neither plane nor helicopter (nor possibly road transport) will be able to be used for transfers.

Midwives are the primary maternity carers in all rural and remote communities that I visited and heard of, though there are obstetricians who may visit from time to time. All maternity carers work from the Keeping Childbirth Natural and Dynamic (KCND) pathways, which provide guidance as to when midwifery or obstetric care is most appropriate. At the services I visited, there seemed to be a strong and open relationship with the obstetric and neonatal special care teams at the regional tertiary referral unit. Teleconferencing was used regularly not only for consultation and referral, or when responding to emergency situations, but also for meetings, and regular ongoing professional education and skill sharing.

In some of the more remote communities, the size of the population and the birth rate fluctuates and is relatively small. It was here that I noticed midwives working especially closely with the local GPs and ambulance service. A good example of this is found in the west coast town of Gairloch, where it takes an average of two hours to drive the often single track road to the nearest tertiary referral centre. In Gairloch, though the region is relatively sparsely populated, has a fluctuating birth rate and significant geographical and weather conditions that may affect access, the midwives, GPs and ambulance service work together to support each other in sustaining the provision of maternity care, including supporting women who choose to plan their birth at home. They also support each other to provide an on-call service (for more details, please see Table 1, below). Across Scotland, many midwives I spoke with were quick to acknowledge their appreciation of being able to collaborate with a team of health practitioners, including those in referral hospitals, as needed.
<table>
<thead>
<tr>
<th>Location</th>
<th>Number of pregnant women/ Births per year*</th>
<th>Number of maternity carers</th>
<th>Access to obstetric support/ Time to transfer to tertiary care*</th>
<th>Special systems in place to address issues or barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland/Alba</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uist (Western Isles)</td>
<td>20 - 30 women 1 - 6 births</td>
<td>Two midwives</td>
<td>Obstetric consultants visit twice a month</td>
<td>Flexibility in midwifery positions (e.g. More midwives can be employed on a part-time basis to increase the number of midwives available). Funded positions are based on the average caseload in the communities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local GPs also available as back up.</td>
<td>To Stornoway, it’s a half hour flight by plane or helicopter. To Glasgow, it’s a one hour flight. The plane or helicopter can’t land in inclement or foggy weather. Transfer times also depend on vehicle access.</td>
<td>Nurses and GPs are on hand to assist as necessary; training for these non-obstetrically skilled professionals is encouraged. Regular teleconferencing education sessions between regional maternity units and tertiary referral services to aid collaborative teamwork and keep practice up to date. (continued over page)</td>
</tr>
<tr>
<td>Location</td>
<td>Number of pregnant women/ Births per year*</td>
<td>Number of maternity carers</td>
<td>Access to obstetric support/ Time to transfer to tertiary care*</td>
<td>Special systems in place to address issues or barriers</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------</td>
<td>---------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
</tbody>
</table>
| Barra (Western Isles)   | 20 women 2 births                           | One midwife (GP to act as back-up/second at births) | To Stornoway, 50 minute flying time by plane or helicopter. To Glasgow, one hour flying time. Again, transfer times depend on the weather and vehicle access. | (cont.)

  Midwives encouraged to gain competency in obstetric and neonatal emergency management and stabilisation, perineal repair, cannulation and to hone their skills in risk assessment and decision making, particularly in regards to transferring a mother or baby to tertiary care.

  Good relationships with GPs and obstetric consultants in Stornoway. Midwives in Stornoway able to come down provide relief as needed.

  Women with high risk complications in their pregnancy may be recommended to move to Glasgow for their birth.

  Coastguard are able to be called upon to assist with emergency transfers to tertiary centres. |
<table>
<thead>
<tr>
<th>Location</th>
<th>Number of pregnant women/ Births per year*</th>
<th>Number of maternity carers</th>
<th>Access to obstetric support/ Time to transfer to tertiary care*</th>
<th>Special systems in place to address issues or barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oban</td>
<td>150 – 200 births/year in Oban</td>
<td>10.5 full time equivalent midwifery positions to cover Oban and the local area (including islands). Two midwives on call overnight Local GPs can provide care and cover on-call as necessary (including on Mull).</td>
<td>Consultant visits once a week from Glasgow. Women may also travel to Glasgow for more intensive care (e.g. further ultrasounds). Two hours ambulance drive to Glasgow from Oban. Helicopter can transfer women from Mull in an emergency (though unable to in inclement weather). Also an option for retrieval team to come from Glasgow. Transfusion services are available in Oban hospital, though only used in absolute emergency.</td>
<td>Midwives take on clients in a ‘caseload’ like model; 17 women per year per midwife. Midwives work in buddies to provide as much continuity of care as possible but do not go on call for births (instead, work on a roster system). Antenatal and postnatal care provided in Mull and islands by midwives from Oban. They catch the ferry across and then have a little car there on the island that they can use. Women from Mull advised to come to Oban at 38 weeks pregnant to wait for birth but a few years ago a big uproar from community; now, if women choose to birth on the island, two midwives will travel and stay there to be on call for the birth. While they wait, they attend to their continuing professional development and training, paperwork, and provide caseload antenatal and postnatal care for other women on the island. Often women might not decide on their place of birth until they are in labour. Women deemed to have high risk pregnancies, might thus opt to drive the two hours to Glasgow with a midwife escort.</td>
</tr>
</tbody>
</table>

Also cover community on the island of Mull (population of around 4000), and ten other islands.
<table>
<thead>
<tr>
<th>Location</th>
<th>Number of pregnant women/ Births per year*</th>
<th>Number of maternity carers</th>
<th>Access to obstetric support/ Time to transfer to tertiary care*</th>
<th>Special systems in place to address issues or barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campbelltown (and surrounding islands)</td>
<td>80 pregnant women, around 20 – 25 births</td>
<td>5 midwives in total/ 3 full time, 2 part time. Always one midwife on call. No obstetricians or obstetrics trained GPs</td>
<td>3 hours by road to Glasgow, 25 minutes by air (not including any delays waiting for a plane or helicopter) No theatre in Campbelltown; all emergencies must transfer to Glasgow. Once a month a consultant visits the community.</td>
<td>Work very similarly to the maternity service in Oban (please see above). Ask women on the islands to come to Campbelltown by 39 weeks pregnant. Mix of full time/part time midwives works well to help cover on-call (there is always one midwife on-call). When asked about biggest barriers, midwives said that while they used to provide an ultrasound service (after being trained), this has been discontinued. Women must now travel to Glasgow for any ultrasound scans.</td>
</tr>
<tr>
<td>Location</td>
<td>Number of pregnant women/ Births per year*</td>
<td>Number of maternity carers</td>
<td>Access to obstetric support/ Time to transfer to tertiary care*</td>
<td>Special systems in place to address issues or barriers</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------</td>
<td>-----------------------------</td>
<td>---------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>Montrose</td>
<td>Roughly 300 women cared for each year and 200 births per year, including up to 7 home births</td>
<td>8.8 full time positions; at present there are 3 midwives working full time and 9 working part time. Midwives work in 12 hour shifts in the unit; two during the day and one at night. One extra midwife works on call overnight to be called in as back up for births.</td>
<td>Consultant-led unit in Dundee, about 35 minute ambulance drive away, and Aberdeen, about 40 minutes by ambulance. (Must transfer there for any intervention beyond opioid analgesia). Consultant visits for review every fortnight. Midwives have been trained to attend dating ultrasound scans, as well as for use in the case of bleeding in early pregnancy or to confirm the position of the baby in late pregnancy.</td>
<td>Midwives provide antenatal and postnatal care for all women. It is recommended that only 'low-risk' clients plan to birth at the Montrose birth unit (others to go to Dundee or Aberdeen for care in labour and birth there). However, if women with certain 'high risk' factors express their desire to birth in Montrose, the team have worked to support their choice as best and as safely as they can (for example, women with a high BMI or with breech babies have made special plans in order to birth in Montrose; special plans include specified indications for transfer if needed). Overnight, if it isn't busy, midwives use the time to catch up on paperwork, administrative work and continuing professional development. Stated goal to have 54% of local births (of all births, regardless of risk) in this birth unit; have achieved this. The reputation of the unit is such that some women have chosen to travel from elsewhere to birth in Montrose. Facing closure, a community and midwifery led campaign saw the re-invigoration of the maternity unit. In the first year the unit went from having a small number of births, to 100. A strong focus on normal birthing and water birthing (70% of their babies are born through water) has developed in response to community demand.</td>
</tr>
<tr>
<td>Location</td>
<td>Number of pregnant women/ Births per year*</td>
<td>Number of maternity carers</td>
<td>Access to obstetric support/ Time to transfer to tertiary care*</td>
<td>Special systems in place to address issues or barriers</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>----------------------------</td>
<td>---------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The Western Ross region (population groupings of Ullapool, Gairloch and Lochcarron)</td>
<td>50 – 60 women</td>
<td>2.6 full time positions – 4 midwives.</td>
<td>1.5 – 2 hour drive to Inverness, the closest hospital</td>
<td>Caseload fluctuates and is small, so midwives work flexibly to cover on-call; only on call in the advent of a quick birth or a planned home birth. Otherwise, out of hours care is provided by 5 GPs working in the region, who take it in turns to work on call. Midwives work closely with local ambulance service to respond to emergencies/planned home births. The midwives host obstetric emergency training for GPs and ambulance staff every six months to keep up skills and build team communication and relationships. Midwives flexible so that they can help cover caseload as it fluctuates or if a midwife has had to leave her ‘patch’ for leave or to attend a birth. Midwives work with women’s choices; travel to attend births at birth centres, help plan for home births (considering weather conditions and the time of year). Some homes accessible ONLY by boat or foot! Midwives must be willing to engage in this travel to provide care. One story of a midwife walking eight miles each way to provide postnatal care to a woman and her baby.</td>
</tr>
<tr>
<td>Location</td>
<td>Number of pregnant women/ Births per year*</td>
<td>Number of maternity carers</td>
<td>Access to obstetric support/ Time to transfer to tertiary care*</td>
<td>Special systems in place to address issues or barriers</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------</td>
<td>-----------------------------</td>
<td>---------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
</tbody>
</table>
| Portree (in the Skye and Lockalsh region) | 60 – 120 women/year 4-8 home births, otherwise women and midwives both travel to birth centre in Broadford (35 – 45 minutes’ drive away from Portree) | 5.2 full time positions  
One midwife each in Portree and Broadford on call outside of business hours. | Portree is four hours’ drive from Inverness (two to two and a quarter hours from Broadford to Inverness). Transfer from birth centre in Broadford must be via ambulance, which may add to the delay as many roads in Skye are single track.  
Consultant clinic held once a month.  
Can take up to 7 hours to transfer a newborn baby (road transport may not be appropriate in this situation so families and maternity carers might be waiting for air transport in this instance). | Midwives practice in caseload model to provide continuity of care. Focus on recruiting younger/early career midwives to plan for the future.  
Splitting full time positions to create more part time positions helped to set up the team so that there are enough midwives to make working on call sustainable.  
Use videoconferencing and email to communicate with consultants in Inverness.  
Communicate and meet up with local GPs to work together.  
Once a month, neonatal nurse practitioner comes through to provide education updates. |
<table>
<thead>
<tr>
<th>Location</th>
<th>Number of pregnant women/ Births per year*</th>
<th>Number of maternity carers</th>
<th>Access to obstetric support/ Time to transfer to tertiary care*</th>
<th>Special systems in place to address issues or barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fort William (2,000 square mile region covering two peninsulas, three islands and including Lochaber hospital in Fort William)</td>
<td>250 women 50 births</td>
<td>8.3 full time positions – 11 midwives. 2 midwives on call overnight, an extra one on call if a planned home birth in a rural area. 3 maternity care assistants (trained in maternity emergency care, breastfeeding support and provide other clinical and administrative support to midwives).</td>
<td>Inverness is 1.5 to 3.5 hours away by road ambulance, depending on woman’s location (1.5 hours from Lochaber hospital). At Lochaber hospital, there is one anaesthetist on call overnight. No obstetrically trained GPs. General surgeon able to attend emergency caesarean sections. Blood transfusion services are available. Two obstetric consultants visit from Inverness to provide clinic services twice a month. In between times, midwives are able to call or email to discuss planned care for women as needed.</td>
<td>No obstetricians or obstetrically trained GPs; therefore recommended criteria for birthing in Fort William is that women fit ‘low risk’ criteria. Women living on peninsulas or small islands are advised to move closer to town when they are 38 or 39 weeks pregnant. Women often decide in labour where they would like to birth. Midwives care for clients based on a case load model. They travel up to 2 hours (including to islands) to provide antenatal and postnatal care to women. Cars provided by the district health board. Monthly liaison meetings with GPs in the region, as well as with child protection colleagues. Midwives provide ‘cross-cover’ on call support for women planning home births in other health board districts (in the Oban region, for example). Because of the local terrain (very mountainous) planes cannot be used, only helicopters. In winter and/or bad weather, neither road nor air evacuation will be possible. Lifeboat evacuation might be used for women living on peninsulas or islands, if weather permits. “We are very good at risk assessment”.</td>
</tr>
</tbody>
</table>
Canada

Across the Atlantic, the publicly funded maternity care system in Canada is structured quite differently. The governing systems and consequently, the available maternity services, vary between each province; it is difficult to briefly generalise the systems here. However, generally women can choose to have a midwife, family physician (similar to a GP) or obstetrician as their maternity care provider. In the places that I visited, midwives and family physicians provide primary maternity care based in the community. Obstetricians may also practice in the community setting, and can work as primary care providers as well as being on call for obstetric care. Most of the midwives that I met, notwithstanding those in Inukjuak, work in caseload model midwifery practices and are paid by the government through their professional associations per episode of care, while doctors can bill per visit. Most Canadian hospitals employ nurses, not midwives, to work in their maternity units alongside obstetricians.

There are a few birth centres in certain provinces, and some midwifery group practices may have a room set up in their space for women to use in their labour and birth. Otherwise, midwives will follow their clients whether they choose to birth at home or in the hospital. To care for their clients in the hospital, midwives, like obstetricians and family physicians, must have admitting privileges with their local hospital. At a home birth, there needs to be a second trained birth attendant also present.

In rural and areas, women’s access to maternity care varies depending on where they live, province to province. As part of my fellowship research, I focused on the maternity unit in Inukjuak, a remote Inuit community in Nunavik (in the governmental jurisdiction of Quebec).

Sinclair Harris and Jennie Stonnier at Sinclair’s group practice rooms in Montreal; Sarah Wolfe and Vicki Van Wagner in one of the beautiful birthing rooms at the Toronto Birth Centre
Case Study: Inukjuak Maternity

How many times have we heard Qallunaak [non-Inuit people] say ‘What if, what if, what if, what if….’ How can we know all the what ifs? I want to know what now!

Akinsie Qumaluk, Registered midwife, Puvirnituq in Stonnier et al., in publication

Nunavik is a peninsula in the north east of Canada, on the eastern side of Hudson Bay. It is made up of fourteen communities, accessible only by plane, or a lengthy boat, skidoo or dog sled journey, depending on the season and weather. In a very similar scenario to that of remote Australia, following the arrival of the dominant medical culture, women from remote communities were expected to travel many hundreds of kilometres to the nearest tertiary centre for the birth of their baby.

Taken from Van Wagner et al., 2011, p. 2
A woman goes and never knows when she’ll be back. Her family is left wondering and waiting and she is waiting alone. It is not fun for the kids and their fathers. It is not fun for the woman. Birth is supposed to be a joyful time.

Father, Inukjuak in Stonnier et al., in publication

You can’t have a community where the biggest event is death. There is a beginning and an ending to life. We need to know both.

Elder, Puvirnituq in Stonnier et al., in publication

... They were usually flown out some time in their third trimester and only returned after their babies had been born. It was assumed by health authorities that statistics would improve, and that women would complacently comply... At first, many Inuit women scheduled for evacuation hid their feelings of violation. Those who expressed them mostly went unheard. The more determined hid their pregnancies or dates of conception until labour began, and it was too late to be evacuated south. Later, as it became clear that health outcomes were worse when women were indiscriminately evacuated... the communities, beginning in Puvirnituq, took matters into their own hands.

Stonnier et al., in publication.

Community activism led to the development of the health services on the Hudson coast. Community consultations involving Inuit leaders and health professionals toured the Hudson coast communities of Nunavik. Public meetings, talks on the radio, and meetings with councils and committees focused on what kind of health services could be created, including for birth. This began the development of the Inuulitsivik Health Centre, an Inuit governed organisation funded by the Quebec government. Inuulitsivik translates as ‘place of healing’. The community received funding to establish their health centre and the planning stages focused on getting feedback from people about what they really wanted and needed. At the same time women had been expressing dissatisfaction with the practice of routine evacuation for birth. As one Inuit midwife I met said, “the people stood up and the women refused to get on the plane [to travel away to birth]”. During another set of community consultations focused on birth and led by Inuit women, it became apparent that the community wanted Inuit women to be the professionals who assisted their women in birth.
It was the community that chose the women to be midwives. The women’s group led the discussions in the community, and we were involved in the selection of the women. The health centre never did on their own. They didn’t know the people. We were part of the interview program and it was done very carefully. We wanted to know if women were able to stay the long road. They obviously had to have some basic English, as a lot of the instruction was going to be in English… they would have to be able to arrange themselves so they could be on call at night, take the course and sometimes travel. They had to be women that weren’t so down trodden that they couldn’t rise up and take responsibility… So that meant that their husband had to be supportive.

Annie Tulugak, First DG, Inuulitsivik Health Centre, Puvirnituq in Stonnier et al., in publication

Elders in the communities, including midwives who had worked prior to routine evacuation for birth, wanted younger women to train as midwives so that they might learn to combine traditional and modern (medical) skills. Midwives from outside of Nunavik were invited to work with the community to help develop a locally based training program, specifically designed to include the skills required to work in their remote setting.

We knew that Inuit had something to learn from the southern [medical] system…but Inuit culture has much to offer and much more to reclaim… so we had to clearly tell them, ‘if you come with the intention of telling our people what to do, you may as well stay home’…

Anne Pallisar Tulugak, Former DG Inuulitsivik Health Centre in Stonnier et al., in publication

The recruitment of local midwifery students was seen as essential to ensuring that care would be provided in the Inuktitut language, within the Inuit cultural framework. This would be the key to ensuring real sustainability and longevity of services. As healthcare in the north has a very high staff turnover, locally trained Inuit midwives were envisioned to be the cornerstone of the service, providing culturally appropriate and empowering perinatal care that would help to reshape the health of their entire community.

Stonnier et al., in publication
Midwives from southern Canada and other countries were recruited and invited to the community to train local Inuit student midwives; in time, these Inuit midwives were able to prove their competency and become legally registered practitioners with the Quebec College of Midwives. At a time when midwifery was not legally recognised as a professional practice in Canada (midwifery became legally recognised in Quebec in 1999), the newly formed Inuullitisivik Health Centre successfully developed their own midwifery services. The first maternity service began in Puvirnituq (PUV). In response to community demand, maternity services then developed in Inukjuak (in August 1998) and Salluit.

At present, Inukjuak Maternity is staffed by four midwives who share 2-3 full time positions, and four student midwives, all Inuit women. These midwives and students are the primary maternity carers for all women, regardless of their medical risk, but work within a team of family physicians and other health workers. Women see a family physician at the beginning of their pregnancy, and are referred for specialist medical consultation as needed. Inukjuak is now a community of around 1,500 people, with about 80 pregnant women cared for and between 30 and 40 babies born there each year.

There is an ultrasound machine at the health centre, but this is generally only used in emergencies (for example, a suspected ectopic pregnancy). Although an ultrasound technician visits the health centre routinely they do not do anatomy scans. For routine ultrasounds in their pregnancy, women travel to PUV. Women who need further investigative ultrasounds travel to Montreal, 1,500 km away.
Midwives provide all the antenatal care and education for women, unless a referral or consultation to another health professional or service provider is indicated. Living and working in their own community, they also act as primary health care workers, women’s health practitioners and public health educators.

The focus of our work is really on prevention. We feel it is most important to support and nourish our community with knowledge and respect. In this way our people become healthier.

Nellie Tulugak, Registered midwife, Puvirnituq in Stonnier et al., in publication

One example of this is found in the simple but effective strategy designed to assist women to have a healthy diet, and strengthen their food security. On Mondays, women can come and collect their voucher to use at the community store. This voucher can be redeemed for $45 to be spent on specified ‘healthy food’. The midwives, supported by the broader community, also collaborate with the community’s hunter support program to acquire and distribute traditional ‘country’ food such as caribou and Arctic char, a special fish that is said to be good for pregnant women to eat, as well as those who are breastfeeding. The midwives are playing an active role in ‘preserving traditional Inuit midwifery and honouring the elders’ (Van Wagner et al. 2011, p. 3).

Arctic char in a freezer in the women’s health room
At around 34 weeks of pregnancy (roughly six weeks before the baby’s estimated day of birth), each woman’s case is reviewed via teleconference with the midwives and family physician from PUV to discuss their plan for birth. Based on the discussion about her health, safety and other factors such as social concerns or weather conditions, it might be recommended to the woman that she plan to birth in PUV or Montreal. Ultimately however, it is the woman and her family who will choose where she plans to birth. If this is different from the recommendation of the health workers, she will be asked to sign a refusal of treatment form. When I asked the midwives there if they sometimes felt scared about this, they said “no”. They felt no fear of blame. They said, women know what they are choosing and the community knows what they are choosing; “if there is a tragedy, people would rather be together”.

Women who choose to travel to Montreal for their birth generally leave the community when they are around 36 weeks pregnant. They will usually stay with family members or at the Inuit hostel – an accommodation specifically provided for people who are staying in Montreal to access medical care.

The midwives take turns being on call for emergencies and births. A primary and a second midwife are available in the community at all times. If a woman is in labour, she might call her midwife, or she might call the midwife who is on call, who will in turn call that woman’s assigned midwife. If that midwife is able to come in, she will. If not, then the on-call midwife will attend. Family physicians working in the clinic take turns being on call. They can be called if the midwives would like their opinion or assistance and, if in the community, may be able to consult in person, although often consultation is on the phone. If the midwives would like to consult or refer to an obstetrician in Montreal, the family physicians will help organise the transfer.

A transfer out may take many hours. Once called, it will take about one hour for the plane to get ready to come and pick up the woman and/or her baby (and possibly also a midwife, depending on the situation and staffing). It is then a two hour flight to PUV. In PUV, the community health centre has on site physicians, blood transfusion facilities, some limited theatre capacity (for example, they can attend a planned D&C but not a caesarean section) and inpatient beds for babies. Here the situation can be reviewed and a decision made to either remain, or plan another transfer to the tertiary hospital in Montreal, another two hour Commander jet ride away. Of course, in certain weather conditions, landing or taking off becomes unsafe or impossible.
Given the statistics that identify Inuit women as having increased rates of anaemia, preeclampsia and premature birth (conditions that have the potential to complicate pregnancy or birth and necessitate tertiary level care), it is impressive to consider the finding that of the babies born to mothers from Nunavik between 2000 and 2007, 86.3% of births occurred in Nunavik (Van Wagner et al. 2011, p. 3). Equally impressive is the 2.1% caesarean rate (Van Wagner et al. 2011, p. 3). While it may be tempting to then assume that this would entail significantly higher rates of maternal or infant mortality, the statistics provided by this research show otherwise. For example, of the 1,372 women in the sample group there was one maternal death in this period; sadly, a woman who passed away after a planned caesarean section in Montreal (Van Wagner et al. 2011). These researchers concluded that their work ‘supports previous findings that most women served by the Inuulitsivik midwives are able to birth safely in Nunavik’ (2011, p. 6).

Aside from community support, another acknowledged key to the success and sustainability of the Inukjuak maternity has been the way in which student midwives are recruited, supported and trained. Students work closely with the midwives and will gradually take on more responsibility and independence in their practice as they and their midwifery colleagues feel comfortable. The midwives and students acknowledged the difficulties and complexities, particularly in terms of communication, sometimes encountered as they live and work so closely together, but also felt that this was key to their success. It generally takes about four or five years to finish their training. In this time, they will be the second midwife at around 40 births and the primary midwife for at least 60 births. Once they have achieved competency in all the required skills, and feel confident in themselves and their practice, they are ready to be evaluated. After successful completion of oral, written and practical exams the students can then apply to be registered as midwives.

Midwives and students review pathology and radiology results
Students and midwives all agreed that a significant factor in the sustainability of their service is the ability for students to stay in their community, with their families and colleagues, for their training. Student midwives in Nunavik have the option of doing much of their practical and clinical learning in their own language, at their own pace, with space and flexibility to take time for family, cultural and personal responsibilities. Traditional ways of learning which focus on oral and hands on approaches are respected. The students however, like all midwives, learn to read and interpret pathology and radiology results, to do clinical documentation and to read and apply current maternity care research. These academic skills, necessary for them to provide good quality and safe maternity care, are often in a second or third language.

This success stands in stark contrast to the experience of other remote Canadian communities. Where student midwives have had to leave their communities for training (in written English or French), there has been a very high dropout rate. In these communities, the midwives working there are generally from outside the community, often on short term contracts to fill the position.

When I asked the midwives and students in Inukjuak what made their service sustainable, they answered: teamwork and communication, but ultimately, the community ownership and investment in the service. As one midwife said, “the community fought for the maternity service and they believe in it”. In another meeting, another midwife, “as long as we have communities who believe in midwifery, we will be sustainable”.

The health centre, home of the Inukjuak maternity service
### Table 2: Overview of Canadian remote maternity services visited

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of pregnant women/ Births per year*</th>
<th>Number of maternity carers</th>
<th>Access to obstetric support/ Time to transfer to tertiary care*</th>
<th>Special systems in place to address issues or barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inukjuak</td>
<td>80 pregnant women 30 – 40 births/year</td>
<td>2-3 full time positions, filled by 4 part-time midwives 4 student midwives GPs may be available in Inukjuak clinic as back up. Otherwise, GPs available 24/7 in PUV.</td>
<td>Caesarean and tertiary level care in Montreal. Women and/or babies may first be evacuated to PUV for assessment and then transferred to Montreal. 2-3 hours to PUV From PUV, another 2 hours to Montreal (usually around 6 - 8 hours from Inukjuak to Montreal but very dependent on weather)</td>
<td>Team meeting with woman when she is 34 weeks to discuss plan for birth. Training midwives in community at their own pace, with flexibility in assessment. Midwifery role includes community health and health education, well woman and STI clinic for all women in community. Midwives also administer education program and act as mentors. Midwives brought to community to provide holiday relief.</td>
</tr>
</tbody>
</table>
Aotearoa/New Zealand

As in Australia, Scotland and Canada, all women living in Aotearoa/New Zealand are entitled to free maternity care, through the public health system, administrated by the Ministry of Health. Maternity care units are set up around the country based on the average number of pregnant women in that region; provision of service to women is the bottom line, not necessarily economic rationalism. Prior to 1990, the care within these maternity care units, which provide birthing services, would have been provided by GPs supported by midwives. Following the re-structuring of the maternity care system in 1990, midwives' professional autonomy was reinstated. Midwives are now able to be employed in the hospital or birthing unit setting, as well as self-employed Lead Maternity Carers (LMCs), referring to obstetric expertise when appropriate and as outlined in the published Guidelines for Consultation with Obstetric and Related Medical Services (known as the Referral Guidelines).

Hospital based obstetric services, like the birthing units, are the responsibility of District Health Boards (DHBs, administered by the Ministry of Health). Obstetricians employed by the boards are expected to provide obstetric coverage to the women who reside within their district health board boundaries. This includes receiving referrals for consultation or transfers from rural midwives, and may also include providing clinics in rural hospitals.

Alison Eddy, the Midwifery Advisor, Professional Projects and Contracts with the New Zealand College of Midwives, explained there is a general expectation that each woman in Aotearoa/New Zealand is entitled to have her own midwife during her pregnancy, birth and for the first six weeks following birth; 91% of women have a midwife as their LMC. This model of maternity care is fully publicly funded; as such, there are no privately practicing midwives and relatively little demand for private obstetric services.

LMC midwives usually work as part of a group practice and are paid for each 'module of service'. There is a separate fee for each trimester of pregnancy, labour and birth and post natal care. LMCs claim payment for services after they are provided. Extra funding can be claimed by LMCs to cover the costs of their travel to provide postnatal care for women who live rurally; the LMC midwife is expected to provide home visits.

In some remote rural settings, this model of care and payment can create certain pressures as LMCs may compete for clients, or not have enough clients in their caseload to make their practice economically viable. Some of the midwives I met explained that the payment that can claim for may not necessarily cover the true cost of
providing care across a rural region. Further, if a population is too small to support one LMC, then having a second maternity carer available to be a back-up and provide support may be extremely difficult; in a small community with a correspondingly small number of LMCs, it can be almost impossible for LMCs to take a day off from being on-call. These are some of the considerations that may mean that there is not a local LMC available for some women living in a rural community in Aotearoa/New Zealand. In certain rural and remote communities, including those with birthing units, tertiary level care may be anywhere from three to five hours away.

Taken from <http://www.backpack-newzealand.com/mapofsouthisland.html>
Case Study: Rural Midwifery Recruitment and Retention Service (RMRRS)

The RMRRS was established ‘to support the retention of midwives practicing rurally as Lead Maternity Carers and the recruitment of midwives to join or set up practices in rural areas that are experiencing a shortage’ (http://www.midwiferyrecruitment.org.nz/). It is a joint venture between the New Zealand College of Midwives and the Midwifery and Maternity Providers Organisation, and is funded by the Ministry of Health to support rural midwives.

The RMRRS provides rural midwives with:

- A locum service to allow midwives working in rural areas to take their entitled nine days of annual leave per year, as well as five days ‘emergency locum cover’. (Without another skilled, experienced LMC to step in and cover their caseload, LMCs would not be able to leave their community or take time off-call);
- A mentoring scheme for rurally practicing midwives (who are often professionally isolated);
- Grants to assist midwives planning to move to a rural community where there is an identified need for more LMCs;
- Support in the long term sustainability and planning of rural maternity services by monitoring;
- Advocacy in the form of identifying areas of need or workforce shortages (for example, their publication Mapping the Rural Midwifery Workforce in New Zealand not only provides very useful data about the need for and availability of maternity care in rural Aotearoa/New Zealand, it also includes an insightful analysis of feedback from rural midwives about barriers encountered and suggestions for improvement of rural maternity services), and;
- A point-of-call and source of networking and communication by connecting LMCs, district health board staff, hospital and obstetric staff.
Table 3: Overview of New Zealand rural maternity services visited

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of pregnant women/ Births per year*</th>
<th>Number of maternity carers</th>
<th>Access to obstetric support/ Time to transfer to tertiary care*</th>
<th>Special systems in place to address issues or barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aotearoa/New Zealand</td>
<td>140 women (Women choose place of birth and LMCs will attend them there)</td>
<td>6 midwife LMCs</td>
<td>Was supposed to have a fly-in obstetric service but this hasn’t eventuated (lack of funds). Consultant visits nearby town of Clyde (about an hour’s drive away) once a month. The nearest birthing centre is in Alexandra, about an hour’s drive away. The nearest obstetric service is in Dunedin, about 3.5 hours’ drive away.</td>
<td>Ambulance can be one hour before they arrive to begin a transfer, so often a ‘half way meet’ is arranged and the midwife may begin the transfer by following the woman in her own car (might have to transfer 2 or 3 times given the different regions covered by ambulance services). CTG is available, bought with funds from community group, Lions.</td>
</tr>
<tr>
<td>Location</td>
<td>Number of pregnant women/ Births per year*</td>
<td>Number of maternity carers</td>
<td>Access to obstetric support/ Time to transfer to tertiary care*</td>
<td>Special systems in place to address issues or barriers</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------</td>
<td>---------------------------</td>
<td>-------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Gloriavale</td>
<td>36 women last year, 31 births in the community (5 transfers to Greymouth as indicated).</td>
<td>One midwife (one student midwife due to qualify and register at the end of this year) Other LMC midwives to act as second at births in Hoitika (1.5 hours’ drive away) and Westport (2 hours’ drive away).</td>
<td>Nearest obstetric support and unit in Greymouth, about one hours’ drive away. Nearest tertiary level care is in Christchurch, 3 – 3.5 hours’ drive away.</td>
<td>Previously, access to LMCs has been sporadic, leaving women in the community very few options for accessing maternity care. In order to provide regular and appropriate maternity and birthing care, women from the community have opted to train as midwives. The locum service through RMRRS is used to attend continuing professional development. Mentor relationship very valuable and sustaining for a midwife who is professionally isolated. Very strong culture in community around the normalcy of pregnancy and birth, guided by their faith. Midwife has consciously worked to develop a good relationship with obstetricians and maternity unit at Greymouth, and with other ‘local’ LMC midwives. If there is a need to consult or refer, midwife feels comfortable to call or email obstetricians. If need to transfer, can call ambulance thought it might be quicker to drive to Greymouth rather than wait for an ambulance to arrive.</td>
</tr>
<tr>
<td>Location</td>
<td>Number of pregnant women/ Births per year*</td>
<td>Number of maternity carers</td>
<td>Access to obstetric support/ Time to transfer to tertiary care*</td>
<td>Special systems in place to address issues or barriers</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------</td>
<td>---------------------------</td>
<td>---------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td>Takaka</td>
<td>50 – 60 pregnant women in the community, about 20 births in the community</td>
<td>Two midwives employed by the health centre. (GPs in community but don’t provide maternity care.)</td>
<td>Nelson is nearest obstetric referral unit (around 20 minutes by helicopter each way). Wellington is the nearest tertiary referral centre, a three hour transfer by helicopter or plane. Women travel to Nelson to see obstetrician (about two hours’ drive)</td>
<td>Biggest issue for the midwives is being able to take time off, or even take sick leave (two midwives working on call, 24 hours a day, 7 days a week). Locum service from RMRRS has been helpful in this way. Flexibility in method of employment by District Health Board has made it economically sustainable to have two midwives working in the community; otherwise, not enough income to support two midwives. Midwives are self-employed as LMCs but are also contracted by the District Health Board to provide inpatient services (when women birth at the primary unit there) as well as having their income ‘topped up’ to compensate when their caseload isn’t reliable.</td>
</tr>
<tr>
<td>Kaikoura</td>
<td>30 – 50 pregnancies, about 15 births in the community</td>
<td>Two midwives working part time (equivalent to one full time midwife working on call 24/7).</td>
<td>GPs are available as back up for births in the community or for obstetric emergencies.</td>
<td>Because of the small caseload, it hasn’t been financially viable or sustainable for midwives to work in the area as LMCs. An agreement was made between the Kaikoura Medical Centre, Rural Canterbury Primary Health Organisation and the DHB that the medical centre would employ midwives to provide a full birthing service in Kaikoura. Two salaried part time midwifery positions were created (making it financially viable for them to practice).</td>
</tr>
<tr>
<td>Location</td>
<td>Number of pregnant women/ Births per year*</td>
<td>Number of maternity carers</td>
<td>Access to obstetric support/ Time to transfer to tertiary care*</td>
<td>Special systems in place to address issues or barriers</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------</td>
<td>---------------------------</td>
<td>------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>4 GPs who also work on call (one at a time)</td>
<td></td>
<td>Nearest obstetric unit is either in Christchurch (2.5 hours’ drive away), or Blenheim (1.5 hours’ drive away). It takes about 3 - 5 hours to reach tertiary care if transfer is necessary. Would usually arrange a half way meet with an ambulance and team from Christchurch. Helicopter also available (weather permitting).</td>
<td>(cont.) The GPs in the community were keen to provide back up at the births and offer antenatal care where necessary. Prior to this arrangement, there had been antenatal and postnatal care available, but no planned births in the community for five years. Good working relationship between the team. A monthly meeting with GPs, managers and midwives provides a good opportunity to touch base and review their work as a team. Two midwives working ‘part time’ allows them to take the necessary time off call, thereby reducing the risk of ‘burn out’. Registered nurses working at the Kaikoura District Hospital are also available to care for women who stay at hospital after their birth. The midwives visit once or twice a day and ensure the hospital staff are happy with the care the mother and baby may require. Nurses have attended training so that they feel confident to provide assistance and support with breastfeeding and normal postnatal care.</td>
</tr>
</tbody>
</table>
Lessons learned: the key factors in ensuring success and sustainability of birthing services in remote communities

In every place that I visited, I made a point of asking those I met, ‘What makes your service sustainable?’ I am glad that I did, as sometimes their replies addressed issues I had not considered in my own observations of the service and how it functioned.

The key factors to the success and sustainability of birthing services in remote communities were identified:

- Community support and drive: Community support, drive and desire to have birthing services locally available
- A belief in the importance and precedence of choice: An underlying belief held by all (health professionals, women, community) in the importance and precedence of women’s and communities’ prerogative to choose where their babies are born
- Confident, skilled maternity carers
- Good communication and respectful relationships within the maternity care team
- Service flexibility and reflexivity: including supportive midwifery management

Community support and drive

There would not be a birthing service in a remote community if it was not a service that the community wanted. Without exception, in every community I visited that had local birthing services, there was a strong sense of their right to birth in their own community. There seemed to be great pride expressed as people told me about how they had worked to retain, revitalise or sustain their birthing service. For example, in Montrose, Scotland, it was the community and midwives who worked together when they heard of plans to close the local birthing service. The campaign focused on creating a service that would provide women with the kind of care they wanted in labour and birth; consequently, 54% of all births in the region are at Montrose maternity unit, 70% of them water births (Birth in Angus website). When asked what made their maternity services sustainable, many of the midwives I met replied, “it’s for the women”. The reply of one midwifery manager in the Western Isles, Scotland made me appreciate how for her community, the closure of local maternity and birthing services is inconceivable; “as long as women are having babies we will need midwifery services. Given the distance from tertiary units, we need midwifery expertise”.
A belief in the importance and precedence of choice

People living in remote communities are those most aware of the barriers and risks that they may encounter as a result of their location. Midwives reflected that many women knew at their first antenatal visit where they would like to birth. For some women, this might be in a regional hospital because this is where they feel safer, or perhaps because it is where their mother birthed her babies. While of course informed consent must include very clear discussion of what possibilities and eventualities may arise for a mother and/or her baby, no doubt she and her family have already considered these possibilities themselves.

It struck me that no woman, midwife or manager that I met denied the barriers or difficulties they encounter as they work to provide birthing services in remote communities, nor did they shy away from sharing their stories of tragedy or loss. Rather, they actively and honestly discussed these experiences, how they worked together prevent and address them.

Our choice is to be with our families – whether in joy or in pain. The traditional way of living was without blame when something tragic happened… what is important is to live these things together and learn from them...

Elasuk Pauyngie, Elder, Head of Health Committee, Salluit in Stonnier et al., in publication.

In each of these conversations, it would be explained to me how these challenging experiences had helped to create a stronger, safer maternity service.

Confident, skilled maternity carers

Without exception, midwives and managers I met working in birthing services in remote communities acknowledged the unique skill set required to work safely and sustainably in these settings. Vicki Van Wagner, in Canada, explained that working in remote, isolated settings, maternity carers benefit from a unique combination of homebirth and acute experience; “you need a homebirth midwife who is comfortable in the hospital”. In Aotearoa/New Zealand, Jean Patterson emphasised, “we need to have midwives who are comfortable to keep it safe to birth, so that women can get on with the business of birthing”.

Page | 41
In every birthing service I visited, midwives mentioned the importance of continuing their professional education. There was a very strong emphasis on the importance of midwives keeping their skills up to date and making sure they are well aware of changes in policies, procedures and guidelines. Around Scotland, midwives often mentioned how ‘spare time’ in their working hours would be used to access education packages, some of which are made mandatory by their NHS employer. For the midwife LMCs working in rural Aotearoa/New Zealand, they spoke of how RMRRS' locum service has helped them to attend training courses or workshops, often held in cities. In Nunavik, teleconferences bring students, midwives and health workers together for in-service education and team meetings. Across all these birthing services, there seemed to be strong culture of ensuring their maternity carers maintain and feel confident in their skill set, review their clinical practice, and continue their professional education.

It was repeatedly emphasised that in the remote setting, where there are no ‘buzzers to press for help’ - ‘you are the help’ - and without specialised colleagues around, maternity carers need to be skilled in risk assessment and decision making, particularly in terms of making plans for management, referral and transfer. As much as women and their carers face many unknowns in their pregnancy and birth, midwives said that by being able to ‘pre-empt risk’, feeling confident in their skills, and aware of the limits of their professional scope of practice, they were able to provide as safe a service as possible in their community.

Jean Patterson explained that ‘we cannot rely on importing midwives to remote settings’; moving to a remote community can be isolating, confronting and not the lifestyle that everyone would choose. As newly arrived midwives discover this and move on, maternity services in remote settings, and the community, often suffer the impacts of staff turnover and shortages. By comparison, midwives who have trained in their own community are far more likely to remain in their community. Thus, for many of the midwives and managers I met, the answer ultimately lies in ‘growing our own’. This is demonstrated in the story of the Inukjuak maternity service, and also in Aotearoa/New Zealand, where universities are increasingly supporting students to remain in their communities for study. One student midwife I met in Aotearoa/New Zealand explained to me that though she is providing birthing care for women in one of the most remote locations in the country, “I'm not afraid of being far from the hospital, I get it … I think about things differently”.
Good communication and respectful relationships within the maternity care team

Midwives also acknowledged the importance of good relationships with their colleagues; other midwives, GPs, obstetricians, emergency service and tertiary referral centre personnel alike. They felt that by being able to communicate easily and clearly with their colleagues, they were able to work well as a team; this in turn, helped them feel safer in their practice in their remote settings. Each birthing service had clearly identified referral and consultation strategies, and midwives often explained that they felt it part of their role to nurture a good relationship with the colleagues they would refer or consult with if the need arises.

Critical incident debriefing was often emphasised as an important part of supporting each member of the maternity care team, growing together and sustaining health professionals in what may often be challenging situations. As has been discussed previously, in each of the remote birthing services I visited, the midwives were quick to acknowledge the invaluable support of their midwifery, medical, and other colleagues as one of the reasons their work was sustainable.

Midwives also discussed the importance of team work. This included recognising differing roles and skill sets and being honest, reflexive and responsible in regards to their skills and scope of practice. One example of how this was sustained is the shared attendance of emergency skills training or professional development days. ‘Supporting each other’, and working together with a sense of goodwill, was a common response when asked what made remote maternity services sustainable. For example, one midwife in Scotland discussed how in her workplace, the midwives cared for each other by being understanding of the demands of working on call, and flexible in swapping or extending their working hours to support the needs of their colleagues.

Service flexibility and reflexivity, with supportive midwifery management

_Because of where we are, there needs to be space allowed for creativity… that goes for the services, professional boundaries, and the education…_

Lissie Sakiagak, Student midwife, Salluit in Stonnier et al., in publication.

Midwives spoke of the value of having supportive managers and a bureaucratic culture that understood their work as midwives, as well as the remote community context. They suggested that communication and support is enhanced within a midwifery
management structure, which seems to inherently appreciate the realities in which they work, and holds a culture of allowing the flexibility and reflexivity that helps sustain them in their roles.

“You need to be able to be flexible” was something I heard time and time again. The ability to ‘go with the flow’, accept and adapt to changing conditions, barriers or complexities was often cited as one of the keys to sustaining remote maternity and birthing services. Midwifery managers spoke of the importance of a ‘robust infrastructure’ when working in remote communities.

Midwives felt that part of what made their roles sustainable was the ability to be flexible in their hours, and for their colleagues and managers to reciprocate and support each other in this flexibility. The burden of providing an on-call service at all times was often discussed; “we’re wearing people out… you can’t have a glass of wine at night… you’re never off-duty”. Midwifery managers spoke of the importance of ensuring work and life balance in order to sustain their workforce.

In Scotland, midwives often mentioned their legal requirement to have professional supervision when discussing the sustainability of their work. The ability to and importance of discussing challenging situations, reflecting on issues they have encountered, and identifying areas for professional development is something that seems strongly imbued in the maternity service culture in Scotland. They were surprised to learn that I, as a registered and practicing midwife in Australia, do not have a professional supervisor or mentor.

Interestingly, what I never once heard from any woman, midwife or manager was how a particular resource or piece of equipment contributed to their feeling safe or sustained in their practice in the remote setting. In most of the remote birthing services I visited, they had no more specialised equipment than would be expected in the ‘normal risk’ birthing unit (though some did have access to transfusion services). Nor did anyone mention a particular mode of transport or evacuation plan as a factor in the sustainability of their service. Of course these exist, but as discussed, are not always guaranteed. As Jean Patterson explained, when planning for the provision of birthing services in remote communities, “it can’t just be a conversation about having doctors and caesareans”.

Where to next: key recommendations for growing our maternity services and dissemination of knowledge gained from this project

Based on my research, I would make the following key recommendations as a first step towards improving access to maternity care in rural and remote Australia:

1. **The development of midwifery management and clinical governance structures on both regional and national levels.**
   We need management systems that are able to understand and appreciate the value of good quality maternity health care, and what is needed in order to effectively organise and provide these services.

2. **Encouraging and supporting midwifery training institutions to develop courses that enable student midwives to train in their communities.**
   One of the best known ways to recruit and retain a rural and remote workforce is to support them to learn in their own community, through realistic and flexible training pathways.

3. **Establishing an organisation and framework dedicated to supporting, recruiting and retaining midwives and maternity carers in rural and remote communities.**
   This organisation could act to promote and support rural and remote midwifery and maternity care as a viable career path, by encouraging those early in their career, and supporting those wanting to continue to develop their skills or re-enter the workforce. A service like this could be provided by an existing professional body; for example, the Australian College of Midwives (ACM) or CRANAPlus (the Council for Remote Area Nurses Association).

4. **In the NT, the first step must be to strengthen and streamline existing maternity services available to women living in remote communities.**
   Women need access to skilled maternity carers to ensure safe, timely and appropriate maternity care. If this isn’t possible in their own community, then they need to be able to easily access this care. I would suggest that outside of working to ensure that skilled maternity carers are available in each community, we can also improve our Patient Assistance Travel Scheme (the system designed to support people travelling to centres for health care), and look at better utilising teleconferencing and tele-health resources to assist team communication, referral and care planning.
With these elements successfully in practice, and in the presence of community drive for birthing services, any other barriers would be able to be overcome. From the experiences and learning I have gained from my research, I do not doubt the ability for birthing services to be revitalised or returned to rural and remote communities in Australia. I have great hope that where these services are desired, they can be developed and successfully sustained. I look forward to contributing to this process as I can.

I will begin my contributions by sharing the inspiring stories and observations I have been lucky enough to have shared with me. It is my intention to start a blog where I will be able to retrospectively detail my experiences, as well as add new, relevant stories or resources as I encounter them. I am working on a journal article abstract for submission, and an application to present at an upcoming rural health conference. I would like to put together and present an informal slideshow-and-tell about my fellowship to share with my colleagues in the NT.

I intend to share this report, and open conversation with:

- The midwives, managers and communities I visited as part of this fellowship project; everyone I met was interested to hear about everyone else I had met!
- My local communities in Alice Springs, Ntaria and Papunya
- My colleagues: Alice Springs maternity service providers, remote community clinics and NT Health Department policy makers
- My professional networks: the Australian College of Midwives (in the NT and nationally, as well as the Rural and Remote Advisory Council), the National Rural Health Alliance, the Health Consumers of Rural and Remote Australia, Council of Remote Area Nurses Australia (CRANAPlus) and Australian Nursing and Midwifery Federation.
- Other organisations who may be interested, including the Congress of Aboriginal and Torres Strait Islander Nurses and Midwives, the National Aboriginal Community Controlled Health Organisation, Aboriginal Medical Services Alliance Northern Territory, individual Aboriginal community controlled health organisations (especially those based in rural and remote communities), the Country Women’s Association, and the National Rural Women’s Coalition.
- My Territory and Federal Ministers

One of the particularly striking successes I noted during my fellowship was the development of organisations that support Indigenous midwives and student midwives. The National Aboriginal Council of Midwives has developed an incredible toolkit
designed to support Aboriginal communities wanting to learn more about maternity care. Nga Maia is an association developed to support Maori midwives and birthing practices. I plan to support such groups and activities in Australia as I can. For example, I would love to assist in facilitating as many Aboriginal and Torres Strait Islander midwives, students and women to attend the next International Confederation of Midwives’ congress, which will be held in Toronto, Canada, in 2017.

Finally, I intend to continue to grow and train myself to be a skilled and capable midwife who is confident to support women to birth wherever they choose, in their power, and with informed choice. I also hope to be able to act as a resource for those who are interested in supporting this choice. The Peter Mitchell Churchill Fellowship has provided me with great opportunity; I know that I will continue to build upon these inspiring experiences and the lessons I have learnt, with the goal to improve maternity services available in rural and remote Australia.
References


Recommended reading


Inuulitisivik Health Centre, [www.inuulitisivik.ca/organisation-en-ca](http://www.inuulitisivik.ca/organisation-en-ca)


Nga Maia, [http://www.ngamaia.co.nz/](http://www.ngamaia.co.nz/)