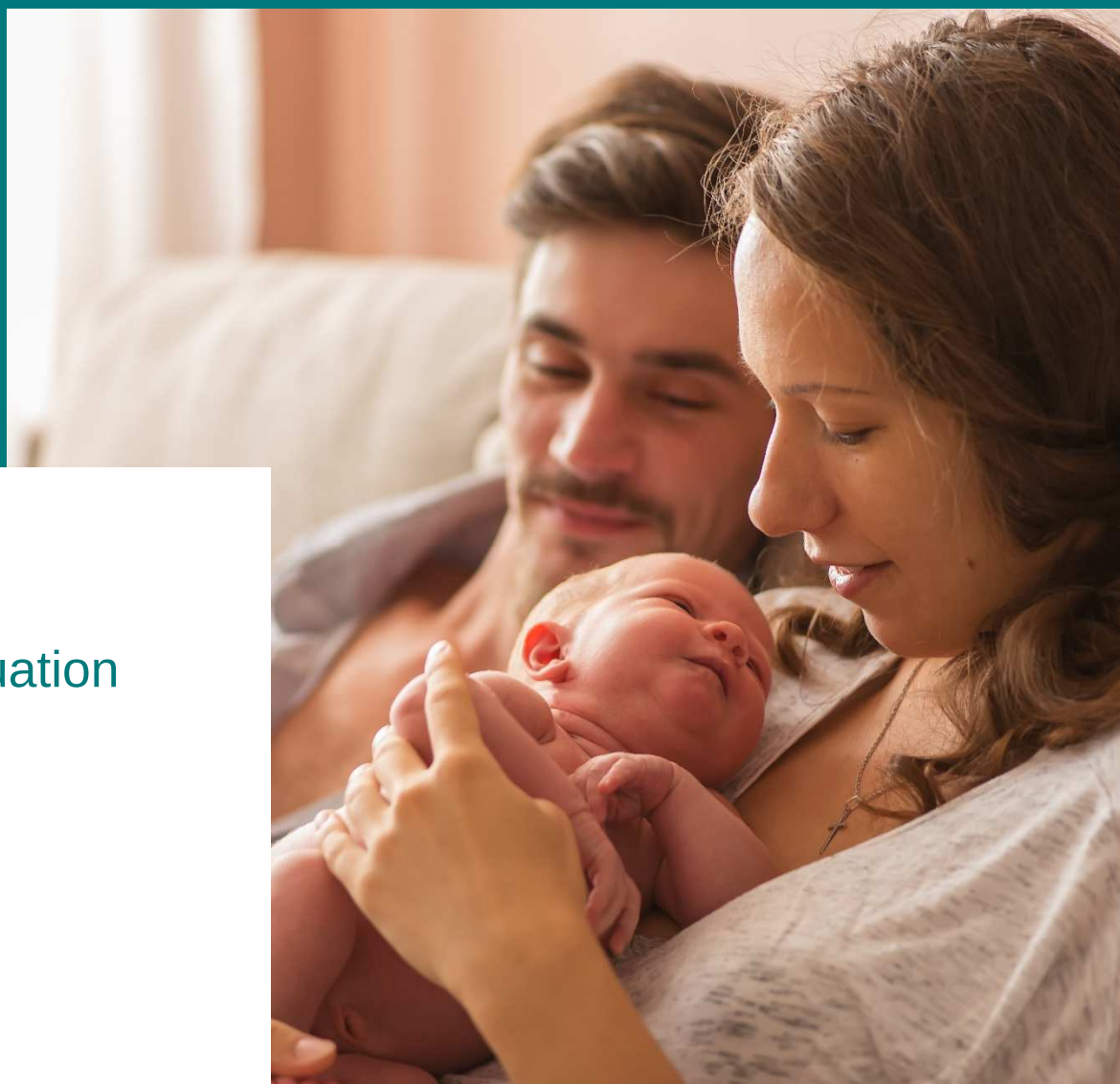
ACT Government | Canberra Health Services

Publicly Funded Homebirth Trial Process Review



Interim Evaluation Report

May 2019

Approvals

Committee	Date
Women Youth and Children Divisional Management Meeting	27 June 2019

Contents

Glossary

ACT – Australian Capital Territory.

ACTAS – ACT Ambulance Service.

ACTIA- ACT Insurance Authority – Insurance Provider for the ACT Government.

ACTPAS – ACT Patient Administration System.

Apgar score- a tool used to assess the health of the neonate at one, and five minutes after birth.

Birth Centre – an area of the Centenary Hospital for Women and Children where midwifery led birthing services are provided to low risk women.

BOS – Birthing Outcomes System. An electronic clinical database used to collect clinical information at the Centenary Hospital for Women and Children.

CHHS – Canberra Hospital and Health Services – now known as Canberra Health Services.

CHWC - Centenary Hospital for Women and Children, ACT.

CMP – Canberra Midwifery Program (now known as Continuity Low Risk).

Clinical incident – an event or circumstance resulting from health care which could have, or did lead to unintended harm to a person, loss or damage, and/or included consumer feedback [1]

Continuity of care – care by the same carer, or group of carers, throughout pregnancy, birth and after the birth.

Gestation – length of pregnancy expressed in weeks.

Homebirth – a planned event where the woman decides to give birth at home, with care provided by a midwife.

Informed consent – when a woman consents to a recommendation about her care after she has been provided with sufficient evidence based information about options, in the absence of coercion by any party and without withholding information about any options.[2]

Intrapartum – during labour.

LDDI -Locally Defined Data Item – a field within ACTPAS which has been created to capture specific information at the local level.

Low risk – women whose history and condition suggests there is little likelihood of complications in pregnancy.

1 (ACT Health, 2012)

2 (ACT Health, 2016)

Maternal morbidity – medical conditions, risk factors and complications arising from or related to obstetric interventions.[3]

Model of Care – a concept which broadly defines the way health services are delivered.

Multiparous – has had two or more pregnancies resulting in potentially viable babies.

Neonate – refers to the baby from birth until 28 days of life.

Postnatal (post-partum) – the first six weeks after birth.

Postpartum haemorrhage – blood loss greater than 500ml.[4]

Riskman – an electronic reporting tool to enable the recording of clinical incidents.

Syntocinon – a medication used to assist in the separation of the placenta (third stage) and reduce maternal bleeding.

3 (Australian Government, 2012)

4 (Australian College of Midwives, 2013)

Executive Summary

In 2015, Cabinet approved the ACT Health proposal to implement a trial of publicly funded homebirth to women at low risk of pregnancy or birth complications receiving care at the Centenary Hospital for Women and Children (CHWC). In October 2016, a Publicly Funded Home Birth Trial (PFHBT) commenced at the CHWC as an extension of existing maternity services with an aim to provide additional childbirth choices for women who live in the ACT.

The *Canberra Hospital and Health Services Framework for a Trial of a Publicly Funded Homebirth Service* (the Framework)[5] was developed through the ACT Health Nursing and Midwifery Office, Australian Capital Territory Insurance Authority (ACTIA), ACT Health obstetric and midwifery clinicians; and consumer representatives from the ACT Healthcare Consumers Association. The service commenced in October 2016 with a trial of up to one-two births per month over a three year period, while the outcomes were to be monitored and evaluated. Women were recruited to the program from October 2016 with the first homebirth occurring in January 2017.

It was agreed at the commencement of the homebirth trial that there would be an internal interim process review of the service after 20 births, and that an external consultant would be commissioned to provide a summative evaluation at the conclusion of the trial period. The interim data gathering exercise was conducted after a period of approximately 21 months and included 17 births. Further analysis of the data occurred in May 2019, however births occurring after 30 October 2018 have not been included.

The service was able to draw on a strong foundation of existing experience and expertise in the Model of Care for low risk women, with an established Birth Centre and midwifery led continuity of care models. The publicly funded homebirth service has been developed as an extension of existing midwifery led continuity of care models and operates out of the existing low risk program.

A woman's suitability for the trial is based on the *Australian College of Midwives Consultation and Referral Guidelines (2013)*, *the Framework* eligibility criteria, and the ACT Health policy and procedure documents entitled *Homebirth: Publicly Funded Trial*[6] [7]*.* In line with these documents the trial is open to low risk women who have had at least one, and not more than four previous healthy pregnancies, who live within a 30 minute round trip to the CHWC (a catchment area defined by the ACT Ambulance Service (ACTAS)), and wish to birth at home. The woman is reviewed throughout her pregnancy, labour and birth to identify any changes in her condition that would exclude her from safely birthing at home.

At this interim stage the review is limited to a desktop exercise and will focus on clinical outcomes, program governance and quality and safety. A wide range of sources were used to provide data for analysis. This process review is intended to:

- enhance the performance of the current service,

5 (ACT Health, 2015)

6 (ACT Health, 2015)

7 (ACT Health, 2015)

- enable the service to further refine the Model of Care by identifying risks and highlighting opportunities for improvement, and
- enhance the probability of achieving improved program outcomes in the short and longer term.

The aim of the review is to provide a performance monitoring analysis of the trial to date, ensure accountability for program activities, report on progress towards pre-established goals, and provide information to improve future service delivery.

To 30 October 2018, a total of 18 women were enrolled to birth at home as part of the trial, with one woman withdrawing as she wished to have a water birth, making her ineligible. The remaining 17 women all successfully birthed in the home environment. This is a remarkable achievement and clearly demonstrates that the safety, quality of the service, skill and expertise of the midwives, and the governance processes are working. The high standard of education offered to participating midwives is worthy of special mention. In addition to mandatory training, the midwives working on the PFHBT receive training targeted at managing a situation in a home environment, including the variations in neonatal life support processes and equipment. Simulation exercises supported by ACTAS provide 'real life' opportunities in a collaborative spirit, and are aimed at ensuring any emergency situation is managed in a safe, professional and confident manner. Of the six women who experienced unplanned events, or who required additional care post birth, none resulted in long term poor outcomes for the mother or baby.

It is worth noting the positive outcomes for all 17 babies. They were all reported as having good Apgar scores, birth weights, and breastfeeding initiation rates. No transfers occurred due to a compromised baby, during or after birth.

The process review found that the trial has been successful to date, with all 17 women enrolled having a spontaneous vaginal birth at home, and all babies healthy at birth. None of the women required additional care in the hospital environment during labour, or during the birth. While some women required additional care at the CHWC post birth, none suffered any longer term consequences. The women transferred to hospital either by car or ambulance received the care they needed to ensure a safe outcome.

Some areas for improvement were identified, with these mostly relating to documentation, processes, data integrity, risk management and reporting. A number of recommendations have been made with an aim to improve processes, clarify reporting requirements, improve data integrity, assist program planning, and ultimately improve overall safety and quality of the service.

Progression to the final external evaluation will commence within the Home Birth Trial Framework recommendation.

Recommendations

Following a process review of the Homebirth Trial a number of recommendations have been made:

1. Seek advice on the requirement for submission of Riskman reports to record all events and near misses, that are outside the eligibility criteria and homebirth framework
2. In relation to recommendation 1, that a written document is developed on the nature of reportable events via Riskman, and that this is incorporated into the existing procedure and policy documents with ongoing education for midwives.
3. That, for any unexpected outcome, the ACT Insurance Authority (and any associated Riskman) reports are forwarded within one working day, as identified in the Homebirth Framework. In the absence of the usual approval pathways, these should be escalated through the Director of Nursing and Midwifery.
4. That audits are conducted at 36 weeks gestation, and post birth, with a view to ensuring all tasks have been completed, actioned where necessary, and fully documented. This includes Riskman and ACT Insurance Authority reports.
5. That a process is developed to ensure the ambulance case sheet is included within the medical records, where applicable.
6. That midwifery education reinforces the importance of data integrity.
7. That controls for response for a birth occurring before the arrival of the midwife include calling an ambulance, and that the Publicly Funded Homebirth Trial Risk Register be updated accordingly.
8. That the Clinical Midwifery Manager for Continuity assumes accountability for oversight of the audits identified in recommendation 4, and that a written report is prepared for the Homebirth Trial Governance Committee.
9. That oversight by the Homebirth Trial Governance Committee is strengthened to include a full review of all homebirths as outlined in the Terms of Reference, and that this be via the written reports.
10. That the Publicly Funded Homebirth Trial Risk Register be updated as risks are identified, including women declining previously consented treatment, and unplanned waterbirths.
11. That eligibility criteria is strictly adhered to, including ACT and catchment area residency.
12. In line with the ACT Health Consumer Feedback Management policy, that feedback is encouraged and documented appropriately.
13. That a record be kept on the ACT Patient Administration System via the existing Locally Defined Data Item of all women requesting homebirth, and the reason for exclusion or program exit, where this is the outcome.
14. That monitoring and evaluation of those accessing information on the trial (i.e. analytics on webpage views) be undertaken quarterly to inform future planning.

Introduction

The ACT Government recognises that every woman has the right to accurate information, informed consent, respect for her choices and preferences for model of care and place of birth, to be treated with respect, to equality and freedom from coercion, including her birthing preference. Some women prefer to give birth in the comfort of their own home.

There is good evidence that planned homebirth is at least as safe as hospital birth for women at low risk of obstetric complications when attended by a qualified caregiver who is well networked with mainstream maternity services[8] [9] [10] [11]. The trial of a publicly funded homebirth service aims to provide women in the ACT with additional choices in relation to their maternity care and place of birth. In addition, this initiative acts on the commitment of the ACT Government to the National Maternity Services Plan[12] to investigate, implement and evaluate publicly funded homebirth models of care.

In 2015, Cabinet approved the ACT Health proposal to implement a trial of publicly funded homebirth to women at low risk of pregnancy or birth complications receiving care at the Centenary Hospital for Women and Children (CHWC). In October 2016, a Publicly Funded Home Birth Trial (PFHBT) commenced at the CHWC as an extension of existing maternity services with an aim to provide additional childbirth choices for women who live in the ACT. Publicly funded homebirth had not previously been offered in the ACT. The service commenced with a trial of up to one-two births per month over a three year period, while the outcomes were to be monitored and evaluated. Recruitment commenced in October 2016 with the first homebirth occurring in January 2017. It was agreed at the commencement of the homebirth trial that there would be an internal interim formative evaluation (known herein as the 'process review') of the service after 20 births, and that an external consultant would be commissioned to provide a summative evaluation at the conclusion of the trial period. By the time of this process review (30 October 2018), a total of 17 births had occurred. Since that time, a number of additional births have occurred, and some improvements have been initiated in response to feedback, however these will not be included in this Report.

At this interim stage the process review is limited to a desktop exercise and will focus on clinical outcomes, program governance and quality and safety. The process review is intended to:

- enhance the performance of the current service,
- enable the service to further refine the Model of Care (MoC) by identifying risks and highlighting opportunities for improvement, and
- enhance the probability of achieving improved program outcomes in the short and longer term.

8 (Davis, 2011)

9 (Catling- Pauall, 2012)

10 (Stark, 2016)

11 (Group, 2015)

12 (Commonwealth of Australia 20111)

Background

Service Model and Implementation

The *Canberra Hospital and Health Services Framework for a Trial of a Publicly Funded Homebirth Service* (the Framework) was developed through the ACT Health Nursing and Midwifery Office, Australian Capital Territory Insurance Authority (ACTIA), ACT Health obstetric and midwifery clinicians; and consumer representatives from the ACT Healthcare Consumers Association. This Framework was approved by Cabinet and ACT Health prior to commencement, and is at **Attachment A**. The trial was implemented within the current maternity budget.

The development and initial implementation was overseen by a Steering Committee comprising consumers, midwives, obstetricians, neonatologists, senior managers and Executive. In addition, other lay and professional groups had the opportunity to provide feedback through a number of consultations.

The service was able to draw on a strong foundation of existing experience and expertise in the MoC for low risk women, with an established Birth Centre and midwifery led continuity of care models. The publicly funded homebirth service has been developed as an extension of existing midwifery led continuity of care models and operates out of the existing low risk program.

A woman's suitability for the trial is based on the *Australian College of Midwives Consultation and Referral Guidelines (2013)*[13] , the *Framework* eligibility criteria, and the ACT Health policy and procedure documents entitled *Homebirth: Publicly Funded Trial* [14] [15](**Attachments B-C** respectively). In line with these documents the trial is open to low risk women who have had at least one, and not more than four previous healthy pregnancies, who live within a 30 minute round trip to the CHWC (a catchment area defined by the ACT Ambulance Service (ACTAS)), and wish to birth at home. The woman is reviewed throughout her pregnancy, labour and birth to identify any changes in her condition that would exclude her from safely birthing at home.

Midwives staffing the service expressed an interest with an initial six midwives deemed the minimum required to ensure a reliable and sustainable service. A program of continuing professional development was implemented to develop the midwives' knowledge and skills in homebirth and managing obstetric and neonatal emergencies in the home. In addition to the mandatory education requirements and specific education relating to homebirths, a number of simulation exercises were conducted collaboratively with ACTAS to test knowledge and skills, and newly developed processes for communicating with and transferring women to hospital, if required.

13 (Australian College of Midwives, 2013)

14 (ACT Health, 2015)

15 (ACT Health, 2015)

Evaluation

The intent of this process review is to examine internal processes with a focus on clinical outcomes, program governance and quality and safety. The aim of the review is to provide a performance monitoring analysis of the trial to date (30 October 2018), ensure accountability for program activities, report on progress towards pre-established goals, and provide information to improve future service delivery.

The scope of the process review was to provide a desktop quantitative assessment of the PFHBT in the form of a performance monitoring analysis after the first 20 births. Recruitment was initially slow, and has steadily increased over time. The interim data gathering exercise was therefore conducted after a period of approximately 21 months (20 January 2017 - 30 October 2018) and included 17 births. Further analysis of the data occurred in May 2019, however births occurring after 30 October 2018 have not been included. A wide range of sources were used to provide data for analysis.

The methodology is outlined at **Appendix A**.

Evaluation Results

To 30 October 2018, 18 women were enrolled to birth at home as part of the trial, with one woman withdrawing as she wished to have a water birth, making her ineligible. The remaining 17 women all successfully birthed at home.

In line with the focus of the review results below are divided into program governance, quality and safety, and clinical outcomes.

Program Governance

As an extension of the existing continuity of midwifery led MoC, the publicly funded homebirth service is subject to all relevant clinical and administration processes, procedures and business rules. Additional business rules have been developed in response to identified issues, primarily relating to data collection and data management.

The trial was initially supported by a Steering Committee, but as implementation progressed it was deemed more suitable to convene a PFHBT Governance Committee. The Terms of Reference for the Governance meeting were developed in December 2017 and are at **Appendix B**. The group report to the Executive Director, Division of Women, Youth and Children via the Director of Nursing and Midwifery. This Committee meets monthly, operates within a risk management framework, and provides ongoing quality assurance and monitoring with standing agenda items including:

- PFHBT update report (currently verbal)
- Policy and Operational Guidelines
- Management and Staffing
- Midwifery Education
- General Operations/Rostering Leave

- Communication
- Data and evaluation, and
- Medications.

The service is managed by the Clinical Midwifery Manager for Continuity, who reports via the Assistant Director of Midwifery through to the Director of Nursing and Midwifery. Commitment to improvement of this service is evident through the meeting minutes of the PFHBT Governance Committee. Improvements were considered at the meetings and implemented if appropriate, including:

- Development of additional business rules.
- Increasing staff education for existing and new PFHBT midwives.
- Streamlining of data management processes.
- Streamlining of consumer engagement, and
- Contemporaneous communication strategies between midwives and women.

An area for improvement is accurate and timely documentation. There are a number of instances where documents were either not completed, or were unable to be found in the clinical records' systems. It is possible that the forms were completed and not appropriately saved, however this is conjecture. Missing data includes:

- Consent for two women,
- Home assessment for birthing and/or for safe off campus visiting for four women,
- Ambulance case notes for two women transferred, and
- Home oxygen request forms.

All women attended the suitability for homebirth consultation with their midwife and an obstetrician at 36 weeks where the consent form, home oxygen request and medication orders are completed. It therefore seems unlikely that these forms were not signed, however they did not make it into the clinical record.

There was an isolated case regarding adherence to eligibility criteria, specifically ACT residency. A NSW resident relocated to the ACT from 38 weeks gestation for a period of two weeks to gain entry to the trial.

Education

In line with the PFHBT procedure document, any continuity midwife that attends homebirth whether in a primary or back up capacity, commits to an extended level of professional development through regular education opportunities.

Midwives must ensure that they have all mandatory hospital based education current, and additionally, attend homebirth neonatal resuscitation training on a six monthly basis. These homebirth resuscitation exercises allow midwives the opportunity to maintain their neonatal resuscitation skills at an advanced level, and to ensure they have the skills to care for a compromised neonate in the home environment. It also provides the opportunity to use the equipment that is specific to homebirth in a simulated environment and ensure midwives are confident and competent. These sessions are conducted in a multidisciplinary manner and are run by the Clinical Development Midwife of continuity and the neonatal resuscitation educator from the Staff

Development Unit. The staff development educator keeps a record of attendance and compliance and this is also documented on the organisation's professional development portal 'Capabiliti'.

In addition to mandatory requirements, the homebirth midwives attend off-campus simulation exercises. These exercises are conducted collaboratively by Canberra Health Services and ACTAS and provide the opportunity to practice care delivery in an unfamiliar environment, and work with ACTAS to ensure transfer processes run smoothly. A number of these simulation exercises were run prior to the commencement of the trial, and are planned annually. These sessions exceed the expectations required by the PFHBT, demonstrate the commitment of the midwives, and the value these sessions have in building confidence in processes that differ to routine operations in the hospital environment.

One of the homebirth midwives who transferred a woman to hospital in an emergency situation following a postpartum haemorrhage commented '*the simulation exercise was valuable as I felt sure of what I needed to do in the situation and understood what my role, and the role of the ambulance officers were in transferring the woman to hospital. This helped ensure that the process was as smooth as possible for the woman and all others involved*.'

Quality and Safety

Riskman is the key mechanism for documenting risk management activities, monitoring and reporting[16]. Of the six events that were deemed appropriate for a Riskman report, only three were submitted. These related to two women who required transport to CHWC via ambulance, and one who birthed before the arrival of the midwife. They specifically include:

- a woman who birthed before the arrival of the midwife, had a post-partum haemorrhage, and declined syntocinon for active management of the third stage,
- a woman who sustained a third degree tear requiring suturing in the operating theatre, and
- a woman who birthed before the arrival of the midwife with an otherwise uncomplicated birth and post-partum outcome.

The three incidents where a Riskman report was not submitted included:

- One baby born before the arrival of the midwife (this incident generated a Riskman report of a different nature, regarding the Birth Suite Team Leader not being notified that a women was in labour, rather than the birth before arrival notification by the primary midwife),
- One waterbirth, and
- One woman who declined active management of the third stage by administration of syntocinon.

It is possible that the midwives did not deem these incidents suitable for reporting given that they would not routinely be reported in a hospital based environment. Given that one woman received no intrapartum care, and two resulted in activities specifically excluded from the trial eligibility (waterbirth and physiological management of the third stage) it is reasonable that these should have

16 (ACT Health, 2019)

been reported. Additionally, generating a Riskman report provides an additional mechanism for notification of an incident to ACTIA.

During the review period there were no formal complaints or compliments received via the ACT Health Consumer Feedback and Engagement Team.

Quality Improvement Projects

A number of Quality Improvement (QI) projects and activities have been undertaken prior to, and during the course of the trial. This further demonstrates the commitment of the midwives to provide excellence in health care. One QI project of note addressed Standard 02: Partnering with Consumers, entitled *Homebirth Simulation including Consumer*. The aim of this simulation was to identify clinical risks and patient safety issues in the provision of a publicly funded homebirth service prior to implementation of the new service. The findings of the simulations identified that they assisted ACT Health to implement a safe home birth service that increase birthing options for ACT women. The simulation-based evaluation report is at **Appendix C**.

Clinical Outcomes

During the review period, 17 women birthed as part of the PFHBT. All of these women had spontaneous vaginal births at home. This in itself is a success story, and demonstrates that the trial processes are working. As with any birth, there are occasions where variations on the norm occur and/or intervention is required. These incidents included:

- Two women requiring transfer by ambulance to hospital post birth. One of these women had perineal trauma requiring suturing in the operating theatre, and the other had a post-partum haemorrhage (PPH).
- One woman was transported to hospital by private car for perineal trauma requiring suturing by the midwife in an environment with better lighting.
- Three babies were born before the arrival of the midwife, with one of these women also having the PPH identified above. This woman initially declined an active third stage of labour, but agreed to the appropriate medication once bleeding increased.
- One woman had an unplanned water birth.

As articulated in the Framework '*in some clinical circumstances it may be necessary….to transfer from a planned homebirth to a hospital birth. This should be an anticipated or expected event and not seen as a failure by the woman or her care providers nor as an adverse event by health professionals*[17]. In some of the above situations, women were transferred not for the birth, but for additional care post birth. This demonstrates that safety is a key consideration and that the quality and safety processes are working.

Finally, but not less importantly, all of the babies were healthy, with good Apgar scores, birth weights and breastfeeding initiation rates. Only one of the 17 women did not maintain breastfeeding while under the care of the homebirth midwife.

17 (ACT Health, 2015)

Discussion

The PFHBT celebrated its first birth in January 2017, and to October 2018 has cared for a total of 17 women wishing to birth at home. Of these 17 women, all had spontaneous vaginal births in the home environment. This is a remarkable achievement and clearly demonstrates that the safety, quality of the service, skill and expertise of the midwives, and the governance processes are working. The high standard of education offered to participating midwives is worthy of special mention. In addition to mandatory training, the midwives working on the PFHBT receive specific training targeted at managing a situation in a home environment, including the variations in neonatal life support processes and equipment. Simulation exercises supported by ACTAS provide 'real life' opportunities in a collaborative spirit, and are aimed at ensuring any emergency situation is managed in a safe, professional and confident manner. The QI project on homebirth simulation was of such a high standard it attracted a five star rating, the highest level of achievement. Despite the intensive work that has gone into developing and implementing a successful program, and the minor adjustments that have been made in response to identified risks and/or incidents, it is suggested that the service continue to seek opportunities for formal QI activities.

Of the six women who experienced unplanned events, or who required additional care post birth, none resulted in long term poor outcomes for the mother or baby. They are however worth discussing in a little more detail.

Perineal trauma is common during the birth process, with perineal injury being the most common maternal morbidity[18] associated with vaginal birth[19] There is a high number of women who had an intact perineum, or who only received first degree tears {n:12, 76%}. Once again this is a successful outcome. A few women received second degree tears {n: 4, 23.5%} which is not an unanticipated outcome of birth. While third degree tears are not desirable, only one woman in the trial received this degree of perineal trauma. This incident required transfer to CHWC via ambulance for suturing in the operating theatre, a treatment choice which would have occurred had the woman birthed in hospital. In line with the risk management framework, this incident was reported via the ACT Health risk management electronic system, Riskman.

Riskman reports are a tool used by ACT Health to document, monitor and report incidents and thereby identify associated trends, with an aim to take actions which will minimise or eradicate such risk in the future[20]. Not all reportable incidents generated a Riskman report. Such incidents include the woman who had an unplanned water birth, one baby born before the arrival of the midwife, and the woman who declined active management of the third stage. Given that these events either fall outside the eligibility inclusion for homebirth, or resulted in women receiving no intrapartum care, it is reasonable to expect that Riskman reports would be submitted. Given that this review is a desktop exercise, it can only be speculated as to why this may have occurred. It could be hypothesised that

18 (Australian Government, 2012)

19 (ACT Health, 2014)

20 (ACT Health, 2019)

these incidents may not require Riskman reporting in a hospital based environment, and as such did not trigger the midwife to deem this necessary. However, the home environment is unique, the PFHBT has stringent eligibility criteria, and therefore the reporting requirements are specific to the setting.

1. Recommendation: Seek advice on the requirement for submission of Riskman reports to record all events and near misses, that are outside the eligibility criteria and homebirth framework

2. Recommendation: in relation to recommendation 1, that a written document is developed on the nature of reportable events via Riskman, and that this is incorporated into the existing procedure and policy documents with ongoing education for midwives.

In addition to the general functions of the Riskman register, notification of incidents relating to the Homebirth Trial may trigger a notification to ACTIA. This occurs following an assessment by the Clinical Risk and Medico Legal Team, and the Insurance and Legal Liaison Unit. This is an important aspect of the trial's quality and safety, and governance processes. Although difficult to confirm via a desktop exercise, it appears not all ACTIA written reports identifying unexpected outcomes were sent within the required one working day. The approval pathway for these reports do not allow for situations such as the delegate being on leave, or not being available to access email notification in this timeframe.

3. Recommendation: That**,** for any unexpected outcome, the ACT Insurance Authority (and any associated Riskman) reports are forwarded within one working day, as identified in the Homebirth Framework. In the absence of the usual approval pathways, these should be escalated through the Director of Nursing and Midwifery.

Missing data, including consent forms, oxygen request forms, and home safety assessments was evident. All women attended the 36 week suitability for home birth assessment with an obstetrician where the consent and oxygen forms are completed. It therefore seems unlikely that they were not completed, and more probable that they were misappropriated. Regardless, this demonstrates a deficiency in the documentation processes. Home safety assessments take the form of an off-campus home visiting assessment which focusses on staff safety, or an assessment of the suitability of the home environment for home birth. It is difficult to argue that either of these assessments are not important. Once again, it is likely that the assessments occurred, with or without documentary evidence. However the absence of evidence is of concern. Finally the ambulance case sheet documentation was not available in the clinical notes. This information is part of the woman's care and health outcomes, so this is an omission of process which must be rectified moving forward.

4. Recommendation: That audits are conducted at 36 weeks gestation, and post birth, with a view to ensuring all tasks have been completed, actioned where necessary, and fully documented. This includes Riskman and ACT Insurance Authority reports.

5. Recommendation: That a process is developed to ensure the ambulance case sheet is included within the medical records, where applicable.

6. Recommendation: That midwifery education reinforces the importance of data integrity.

Three women in total either partially (head born) or completely birthed prior to the arrival of the midwife. As the trial accepts multiparous women who have had at least one previous healthy pregnancy, it is anticipated that some women may have short labours. It is inevitable that, on occasions it will not be possible for the midwife to be present. It is not clear however what education and information is provided to the women around what to do in this situation. If it appears as though the labour is progressing quickly, and that the midwife may not arrive in time for the birth while driving in a safe manner, the woman should be advised to call an ambulance. This is the same advice given to women who are experiencing an unplanned homebirth, and in this instance the advice should be the same.

7. Recommendation: That controls for response for a birth occurring before the arrival of the midwife include calling an ambulance, and that the Publicly Funded Homebirth Trial Risk Register be updated accordingly.

8. Recommendation: That the Clinical Midwifery Manager for Continuity assumes accountability for oversight of the audits identified in recommendation 4, and that a written report is prepared for the Homebirth Trial Governance Committee.

9. Recommendation: That oversight by the Homebirth Governance Committee is strengthened to include a full review of all homebirths as outlined in the Terms of Reference, and that this be via the written reports.

10. Recommendation: That the Publicly Funded Homebirth Trial Risk Register be updated as risks are identified, including women declining previously consented treatment, and unplanned water births.

A NSW resident was accepted to the trial after relocating to an ACT residence from 38 weeks gestation, for a period of two weeks, to enable her to 'reside' within the catchment area for the birth. The Framework clearly states that the trial is 'to provide additional childbirth choices for women who live in the ACT[21]…and 'that NSW residents are not eligible'. This breach of the eligibility

21 (ACT Health, 2015)

criteria is concerning on many levels, including managing future capacity, financial considerations and homebirth trial integrity.

11. Recommendation: that eligibility criteria is strictly adhered to, including ACT and catchment area residency.

During the review period there were no formal complaints or compliments received via the ACT Health Consumer Feedback and Engagement Team. It seems unlikely that there would be no feedback received over a period of 21 months, therefore it is more likely that feedback received was not passed on, or that women weren't aware of how to lodge this feedback. In line with the policy document *Consumer Feedback Management in ACT Health*[22]consumer feedback, including complaints, compliments and comments all provide valuable feedback and therefore should be encouraged, and documented appropriately.

12. Recommendation: In line with the ACT Health Consumer Feedback Management policy, that feedback is encouraged and documented appropriately.

As noted in the Framework, not all women requesting a homebirth will be accepted into the trial. This may be due to the stringent eligibility criteria, including geographical place of residence. Although capacity of the service does not appear to have been a factor in women being declined a place on the trial to date, this may occur in the future. Despite the fact that a specific field in the ACTPAS data base already exists in which to capture information on a woman's expression of interest, model of care allocated and reason for exclusion or exit from the PFHBT, this is not being utilised. The service cannot glean information on interest levels if in the future the criteria is changed, and therefore cannot plan a future service around potential demand. Another means of assessing interest relates to the number of people accessing the relevant webpage on the ACT Health Internet. This could be done on a quarterly basis to inform possible future planning.

13. Recommendation: That a record be kept on the ACT Patient Administration System via the existing Locally Defined Data Item (LDDI) of all women requesting homebirth, and the reason for exclusion or program exit, where this is the outcome.

14. Recommendation: That monitoring and evaluation of those accessing information on the trial (i.e. analytics on webpage views) be undertaken quarterly to inform future planning.

22 (ACT Health, 2018)

Conclusion

This process review has focussed on the quality and safety, governance and clinical outcomes from the first homebirth on 20 January 2017 to 30 October 2018 in the publicly funded home birth trial. The review has taken the form of a desktop exercise and involved assessing a broad range of documents including the woman's medical records, the Homebirth Framework, the literature, policies, procedures, business rules, governance meeting Minutes, Riskman reports, ACTIA reports, and consumer feedback. Information gained from this exercise is intended to enhance the performance of the current service, enable the service to further refine the MoC by identifying risks and highlighting opportunities for improvement, and enhance the probability of achieving improved program outcomes in the short, and longer term. These quality improvement and assurance activities will enable improvements to be made prior to the external summative evaluation.

The process review found that the trial has been successful to date, with all 17 women enrolled having a spontaneous vaginal birth at home, and all babies healthy at birth. None of the women required additional care in the hospital environment during labour, or during the birth. While some women required additional care at the CHWC post birth, none suffered any longer term morbidity. The women transferred to hospital either by car or ambulance received the care they needed to ensure a safe outcome.

Some areas for improvement were identified, with these mostly relating to documentation, process, data integrity, risk management, and reporting. A number of recommendations have been made with an aim to guide improved processes, clarify reporting requirements, improve data integrity, assist program planning, and ultimately improve the safety and quality of the service.

Progression to the final external evaluation will commence within the Home Birth Trial Framework recommendation.

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Appendix A

Methodology

The scope of the process review was to provide a desktop quantitative assessment of the Publicly Funded Homebirth Trial in the form of a performance monitoring review after the first 20 births. Recruitment was initially slow, and has steadily increased over time. The interim data gathering exercise was therefore conducted after a period of approximately 21 months (20 January 2017 - 30 October 2018) and included 17 births. Further analysis of the data occurred in May 2019, however births occurring after 30 October 2018 have not been included. A wide range of sources were used to provide data for analysis. These included the clinical health record and maternity hand held record that are scanned into the ACT Health Clinical Record Information System (CRIS), and the maternity Birth Outcomes System (BOS). Information reviewed included, but was not limited to:

- characteristics of the mother.
- maternal outcomes.
- neonatal outcomes.
- infant feeding, and
- management of incidents and unexpected outcomes.

All midwives working in the homebirth trial must comply with specific elements of safety and quality and thereby demonstrate they meet the program requirements. This includes obtaining informed consent, undertaking risk assessments, referral pathways, submission of data and reports, clinical audits, adverse events management, and completion of ACT Health competencies. These were all reviewed.

Evaluation of Program Governance Methodology

Program Governance was reviewed by measuring performance against expectations as identified in the documents:

- Canberra Hospital and Health Service (CHHS) Trial of a Publicly Funded Home Birth service – the Framework 2015.
- CHHS Policy: Homebirth: Publicly Funded Homebirth Trial, 2016.
- CHHS Operational Procedure, Homebirth: Publicly Funded Homebirth Trial, 2016.
- Terms of Reference & meeting Minutes, Publicly Funded Homebirth Trial (PFHB) Governance Committee
- PFHB Risk register.
- Review of business rules
- Mandatory education for home birth.

Evaluation of Quality and Safety Methodology

Quality and Safety processes were reviewed by measuring performance against expectations as identified in the documents:

- CHHS Homebirth: Publicly Funded Homebirth Trial Policy, 2016.
- CHHS Operational Procedure, Homebirth: Publicly Funded Homebirth Trial, 2016.
- PFHBT Risk Register.
- Compliance with Business Rules, including accuracy and timeliness of risk reporting through Riskman and ACTIA.

- ACTIA notifications.
- PFHBT Governance Committee meeting Minutes
- Consumer Engagement and Feedback reports.

Evaluation of Clinical Outcomes

Clinical outcomes were reviewed by examining the medical records of all women on the program and include:

- those enrolled and transferred out of the program.
- those remaining on the homebirth program.
- adverse outcomes or near misses.
- outcomes for both mother and baby.

Appendix B

Terms of Reference Publicly Funded Homebirth Trial Governance Committee

Publicly Funded Home Birth (PFHB) Trial Governance Committee

Centenary Hospital for Women and Children

Division of Women Youth and Children

TERMS OF REFERENCE

Governance
The committee reports through to the WYC Executive Committee via the Chair.
Role
The PFHB Trial Governance Committee will: • Monitor the progress of the trial • Monitor risks associated with the trial • Monitor the communications strategy for the trial • Ensure that the organisations responsibilities in relation to ACTIA are met • Make decisions in relation to changes to the trial as required • Monitor resourcing of the trial • Oversee the evaluation of the trial
Tasks

The PFHB Trial Governance Committee will:

- Review outcomes and actions from previous meetings
- Review KPIs through monthly reports
- Clinically review each birth and implement any recommendations resulting from this process
- Review policy, guidelines and consumer material as required
- Ensure that all staff participating in the trial are compliant with education requirements
- Review any Workplace Safety (WPS) incidents
- Review the evaluation framework and progress evaluation process (interim and final)

Meeting Schedule & Process

- Meetings will be held monthly on Monday morning.
- Where necessary the committee may choose to make out-of-session determinations and decision via electronic means such as e-mail or teleconferences.
- An agenda, including all relevant attachments will be distributed to all committee members 72 hours prior to the scheduled meeting.
- Minutes and action items will be distributed within 72 hours of the scheduled meeting to ensure action items can be completed in a timely manner.
- Minutes and action items will be managed by the office of the Director of Nursing and Midwifery, WYC

Quorum

50% + 1

Chair

Director of Nursing and Midwifery, WYC

Secretariat

PA to Director of Nursing and Midwifery, WYC

Membership

Director of Nursing and Midwifery, WYC (Chair) Assistant Director of Nursing and Midwifery, WYC Professor of Midwifery Clinical Midwifery Consultant CMP Clinical Development Midwife CMP Clinical Midwifery Consultant, CaTCH Homebirth Midwife Rep/s Clinical Director, O&G Clinical Director, Neonatology BOS System Administrator Clinical Support Midwife, Maternity Clinical Support Nurse, Neonatology Operations Manager Pharmacy Rep Consumer Rep/s Additional attendees may attend by invitation.

Authored by:
Karen Faichney **A/g Director of Nursing and Midwifery, WYC**

Endorsed By:	**Date:**
_____ Name **Elizabeth Chatham** **Executive Director** **Women Youth and Children**	**/ 12 / 2017**

Appendix C

ACT Government Health

Simulation-based evaluation
of a publically funded homebirth service prior to commencement

Louise Botha, MACN Patient Experience Unit, ACT Health, Canberra. Email: louise.botha@act.gov.au

Introduction

The use of simulation to evaluate new healthcare services, offers unique opportunities to observe, analyse and improve resourcing, whilst exposing latent systems issues. This promotes patient safety and generates cost savings in the short and long term.

Aim

The purpose of the simulations was to identify clinical risks and patient safety issues in the provision of a new publically funded homebirth service prior to implementation of the new service.

Methods

3 realistic birthing scenarios were delivered as simulated events. 2 were held in the planning for service phase and 1 was held prior to first client being accepted into the service.

Birthing Scenarios

Held in the planning phase:

Scenario 1: Management and transfer of a patient with a post partum haemorrhage

Scenario 2: Management and transfer of a baby requiring intensive resuscitation and transfer to hospital

Held immediately prior to commencing the service:

Scenario 3: Management and transfer of a patient post shoulder dystocia and neonate post resuscitation

Pre-Briefing

The participants were fully informed that this simulation was not a personal observation of clinical ability but rather to assess process, in order to ensure smooth implementation of the service.

This statement was made for the benefit of all involved: (Centre for Medical Simulation, Boston)

We make the following assumptions today - we are all:

- Intelligent
- Well trained
- Care about doing our best
- Want to improve

Discussion

Each scenario included transfer to hospital of mother, baby or both. Observers from specialities, quality and safety and external agencies were invited to attend and give feedback against the objectives. Formal debrief after the events occurred and assessed the outcomes of the simulation against the learning outcomes.

Initial Simulations findings

Identify issues relating to resources available to the home birth team	• Set out and labelling of bag-Use ACTAS as guide
	• Naming of Medications
	• Recording of events
	• Check capacity of O2 Cylinder
	• Have Homeowner have Ice available
Uncover any systems issues relating to implementation of the service	• Difficulty in emergency to call and action emergency Consider birth supporters helping
	• ACT Ambulance Service (ACTAS) overflow response mechanism
	• Review mobile phone "speaker" use
	• Staff Pass access for Ambulance Bay
	• Review Safe working heights
Identify unsatisfactory spaces or patient care areas	• Access issues at the home to be checked at 36 week assessment
Assess interfaces between the service and external agencies	• Joint Education re terminology used
	• Use of warmed fluids by ACTAS
	• Understand ACTAS Communication Systems

3rd Simulation findings

Midwives involved stated they felt calmer and communicated well with family and ambulance services.

Midwives playing family member and mother roles felt they had been included and the midwives kept them calm and informed.

ACTAS admitted to a deliberate delay in response time to simulate this possibility occurring in reality.

A consumer representative was present at the 3rd simulated event to offer valuable feedback from the "Patient" perspective.

Conclusion

Consumer attendee gave considerable feedback around the use of phones, the presence of animals in the home, documentation, accessibility of parking for ACTAS and scenarios where women withdraw consent or choose to act against the midwife's advice. All these aspects had been recognised previously and addressed by the working group and policies/procedures were already in place to address.

Despite these simulations being an activity related to process, rather than clinical ability, emotions and reflections on clinical ability were evidenced in the participants who were actively participating in the simulations and were discussed within the debrief.

Significance for Practice

These simulations have assisted ACT Health to implement a safe home birth service that increases birthing options for Canberra women.

Simulations will now form part of an ongoing clinical practice opportunity for midwives to practice clinical emergencies and enhance teamwork.

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Health Care Consumers Association of the ACT

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