Integrated Care Pathways: First 1,000 Days

Report

April 2024

BERMUDA HEALTH STRATEGY

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Glossary of Terms

Integrated Care Pathway

An Integrated Care Pathway ("Care Pathway") is a plan for delivering care that is comprehensive and integrated, meaning it covers patient care from the beginning to the end. It defines what happens, when it happens, and who is responsible at each stage. The objective is to improve patient experience, clinical outcomes, and operational performance.

Universal Health Coverage ("UHC")

Ensuring that all people have equitable access to needed informative, preventive, curative, rehabilitative and palliative essential health services, of sufficient quality to be effective, while also ensuring that people do not suffer financial hardship when paying for these services and critical medicines.

Service Map

A visual representation that illustrates various components and interactions of a medical service, highlighting processes, stakeholders, and touchpoints involved. It helps to identify areas of improvement and optimise service delivery.

Journey Map

A visual representation that outlines the entire patient journey across different stages of a medical service. It provides insights into patient perspectives, needs, and pain points, enabling healthcare providers to enhance patient satisfaction and outcomes.

Joint Strategic Needs Assessment ("JSNA")

A 2023 report aimed at understanding Bermuda's current health needs, to help align efforts toward achieving UHC and improved population health outcomes. Can be accessed via www.healthstrategy.bm.

Referral Process

The systematic process of transferring a patient from one healthcare provider to another, typically based on the need for specialised services or expertise.

KEMH (King Edward VII Memorial Hospital)

Bermuda's general hospital, administered by the Bermuda Hospitals Board.

Mid Atlantic Wellness Institute

Bermuda's psychiatric hospital.

National Digital Health Strategy ("NDHS")

The Bermuda National Digital Health Strategy aims to modernise healthcare delivery in Bermuda. The NDHS is specific to integration of digital health. Can be accessed via www.healthstrategy.bm.

PEARL (Patient Electronic & Administrative Records Log)

KEMH's electronic medical record, spanning electronic patient records administered by the Bermuda Hospitals Board.

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Abstract

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This project set out to map the First 1,000 Days Pathway in Bermuda.

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Rationale

The earliest stage of human development — the period from conception to the end of a child's second year — has become known as "the First 1,000 Days". Environmental and social factors make this period vital to wellbeing.

The Ministry of Health's Bermuda Health Strategy 2022-2027 has eight Strategic Principles, including the development of integrated care pathways in support of the journey to Universal Health Coverage ("UHC"). The Ministry is committed to achieving accessible, affordable, and quality healthcare for all residents. A key component is developing a First 1,000 Days Integrated Care Pathway ("the Care Pathway/the Pathway") to support new mothers and their children.

By using a care pathway mapping approach, we highlight the importance of integrated, person-centred care. The goal of the First 1,000 Days Care Pathway is to demonstrate that improving access, quality, integration, and targeting of the service system will yield great benefits to families, communities, and the economy more broadly.

Current Landscape

The landscape of maternal and child health services in Bermuda is spread across the public and private sectors. Women in Bermuda have access to sexual and reproductive health, preconception, and antenatal care. Preconception and antenatal care can be accessed through private OBGYN clinics, and the Sexual and Reproductive Health Clinics provide antenatal care at no cost to patients. The Government Child Health clinics offer free paediatric services, while the private sector is served by two paediatric offices. A small percentage of GP/non-paediatric offices also treat children. The Pathway is supported by other government services including early intervention, child development programme, health visitors, childcare regulation, and access to educational resources.

The declining birth rate has the potential to impact health, pension, and education systems. Bringing back the focus to raising healthy and happy children is therefore paramount.

Objective and Approach

This report presents the findings of a study that was conducted to assess and map the current First 1,000 Days Care Pathway in Bermuda. It is an assessment of the entire pathway, that incorporates maternal, child health, and adjacent services. The objective was to map the journey for patients in the First 1,000 Days Pathway in Bermuda and formulate future improvements. The Report highlights challenges in the Pathway and suggests opportunities for improvement.

This study is the result of contributions from, and engagement with, stakeholders. It included an extensive literature review on the global outlook for the first 1,000 days of life, stakeholder interviews with patients and health service providers, a Community Survey, and three workshops.

Mapping found 10 challenges and 16 opportunities for improvement in the Pathway.

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Pathway Challenges:

The existing pathway underwent an assessment that revealed insights into its current condition. Several challenges were brought to light during this assessment, including:

1. Ineffective information flow across the current pathway provides challenges to those receiving care.
2. The amount of antenatal care information provided to women is not consistent across providers.
3. Access to maternal and child health services remains a challenge for many.
4. Options for affordable childcare are limited and affect women's economic opportunities.
5. Outdated care models and disparities in care quality are areas of concern.
6. Care is fragmented across the Island.
7. The current pathway lacks explicit considerations for mental health concerns, despite a significant demand for it.
8. Long delays in accessing early intervention services are prevalent.
9. Chronic diseases have a notable impact on maternal and child health within the current pathway.
10. Patient empowerment through information and respect throughout their journey is not a current priority in the pathway.

Opportunities for Improvement

Several opportunities for improvement were identified by patients, including:

1. Introduce standards of care.
2. Define a shared vision for the Pathway.
3. Establish a community engagement forum to formalise patient and family engagement.
4. Improve information sharing among health service providers in the Pathway.
5. Formalise and enhance the role of health visitors.
6. Foster better integration of mental health services within the First 1,000 Days Care Pathway.
7. Create a safety net to protect the most vulnerable.
8. Strengthen communication with off-island services.
9. Offer comprehensive support to women from the start.
10. Clearly communicate what to expect and how to navigate the Pathway.

Finally, health service providers suggested six areas in which to make improvements, including:

1. Enhance midwifery role.
2. Focus on early years.
3. Provide clear link with oral health.
4. Organise interdisciplinary case reviews.
5. Enhance support for families.
6. Empower patients.

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Methodology

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The primary objective was to understand the current Pathway in order to best construct a future pathway.

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The overall aim in developing and designing care pathways is to standardise best practice to operational reality, making best use of available resources and infrastructure. This project's objectives and lines of enquiry include:

Objectives

a) Better **understand the current provision** of maternal and child health services in Bermuda.

b) Better **understand the service user's experience** of using these services.

c) Identify the **existing challenges and opportunities** to allow for an efficient and effective, person-centred care pathway that reflects best practice, thereby improving access to care and health outcomes.

Key Lines of Enquiry

a) Service provider **roles and responsibilities**.

b) Service **touchpoints, processes, and handovers of care** between service providers.

c) Patient and family **experience and what their care journey looks like**.

d) Areas of **overuse and/or duplication or redundancy of services** and **inefficiencies** in their provision.

e) Existing and perceived **challenges in the delivery** and access to services.

Scope: In the context of the current mapping exercise, we understand First 1,000 Days to include all services and care relating to the period from conception to the end of a child's second year:

"The 1,000 days from pregnancy to age two offer a crucial window of opportunity to create brighter, healthier futures. How well or how poorly mothers and children are cared for during this time has a profound impact on a child's ability to grow, learn and thrive." (The First 1,000 Days Organisation)

This effort was led by a multidisciplinary Working Group.

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This Care Pathway mapping effort was led by the First 1,000 Days Working Group (the Working Group). The multidisciplinary nature of the Working Group ensured that the Care Pathway mapping project incorporated diverse perspectives and accounted for the complexities of healthcare delivery.

The project governance structure comprised three levels:

1. The Working Group was responsible for gathering and analysing the materials, producing comprehensive reports, and recommendations.
2. The Stakeholder Group served as an essential source of information, providing valuable insights.
3. Representatives from the Ministry of Health provided guidance where needed.

The Working Group would like to acknowledge the contributions and expertise provided by the wider First 1,000 Days Stakeholder Group throughout the duration of this project.

Ministry of Health

reporting and accountability

Working Group

- Dr. Sylvanus Nawab, Bermuda Hospitals Board (Group Chair).
- Dr. Attiya Talbot, Paediatric Officer, Bermuda Hospitals Board.
- Tiara Carlington, Policy Analyst, Bermuda Health Council.
- Ricky Brathwaite, CEO, Bermuda Health Council.
- Support from KPMG Bermuda (Consultant).

First 1,000 Days Stakeholder Group

- Patients.
- Healthcare professionals with various roles throughout the Pathway were engaged such as: nursing, mental healthcare, primary care, and specialist care.
- Operational professionals with various roles throughout the Pathway such as: service coordination, family services, and other relevant operations.

Appendix 6 provides a more detailed list of stakeholders that have approved of their names to be included in this report. (Patients and patient representatives have been excluded for confidentiality reasons.)

The methodology focused on stakeholder engagement and desk research to gather insights.

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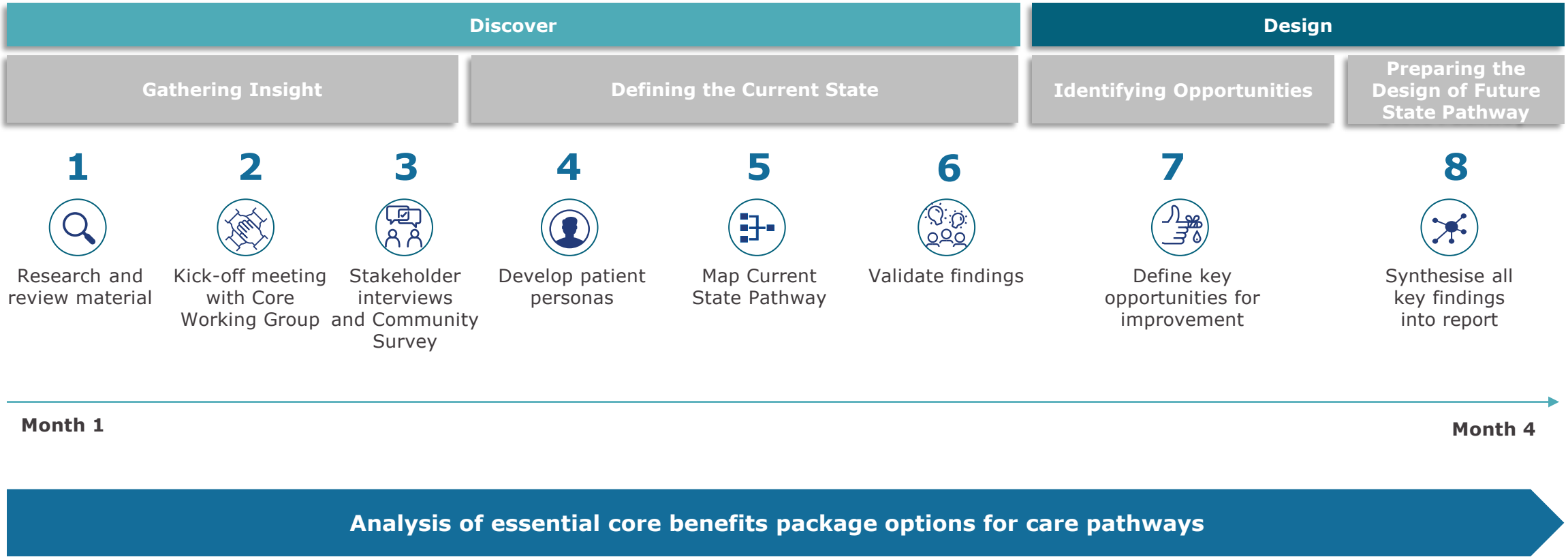
The diagram below presents an outline of the methodology used. This method was used across the Pathway to gather insight and build a detailed understanding of the Current State of maternal and child services in Bermuda.



Intensive engagement across the Pathway was key in finding stakeholder experiences and perspectives.

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Talking to both patient-facing and non-patient-facing stakeholders was key to getting a thorough understanding of interdependencies and root causes of patient pain points. Stakeholders were engaged individually and then brought together during collaborative workshops and focus groups.

Community

- **Who?** Representatives from the community who embody characteristics of the personas as they undertake the Pathway journey.
- **How?** One-hour interviews with each person.
- **What?** To discuss their expectations, challenges, emotions, and positive experiences of the Pathway.

Clinical Colleagues

- **Who?** Healthcare professionals with various roles throughout the Pathway were engaged. This included clinicians specialising in areas such as: nursing, mental healthcare, primary care, and specialist care.
- **How?** One-hour interviews with each clinical colleague.
- **What?** To discuss their experiences in delivering the current Maternal and Child Pathway.

Operational & Other Stakeholders

- **Who?** Operational professionals with various roles throughout the Pathway were engaged. This included stakeholders specialising in areas such as: service coordination, family services, and other relevant operations.
- **How?** One-hour interviews with each operational stakeholder.
- **What?** To discuss how their roles and responsibilities impact the patient experience in the Pathway.

The community at large was also engaged to gather views on current maternal and child health services.

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Surveying the community about their experiences accessing maternal and child health services in Bermuda, assisted in understanding how child and maternal health services are perceived. In addition to the Survey, 40 individual stakeholder interviews were completed, and three stakeholder collaboration workshops were held to gather additional insights.

375
Survey Responses

375 responses to the online Community Survey were received. Data was analysed according to age, household income, and the type of insurance held.

40
Stakeholder Interviews

40 individuals were consulted on their personal experiences of using or delivering services across the Pathway.

3
Stakeholder Workshops

3 interactive workshops were held to capture the views and feedback of care providers involved in the current pathway.

This report is based on survey responses which included responses primarily from a group with higher education and/or high-income levels who have access to private insurance. While every effort was made to ensure diversity in respondents, the survey's inherent biases warrant a thoughtful consideration of the results. This report aims to provide valuable insights into the attitudes and opinions of the surveyed group but does not claim to represent the entire community comprehensively.

Results from stakeholder engagement were used to draft a Service Map for maternal and health services.

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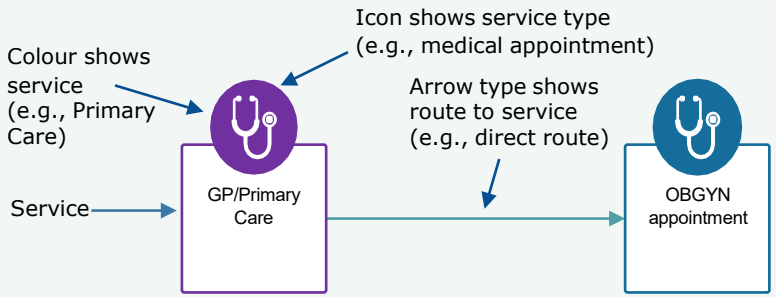
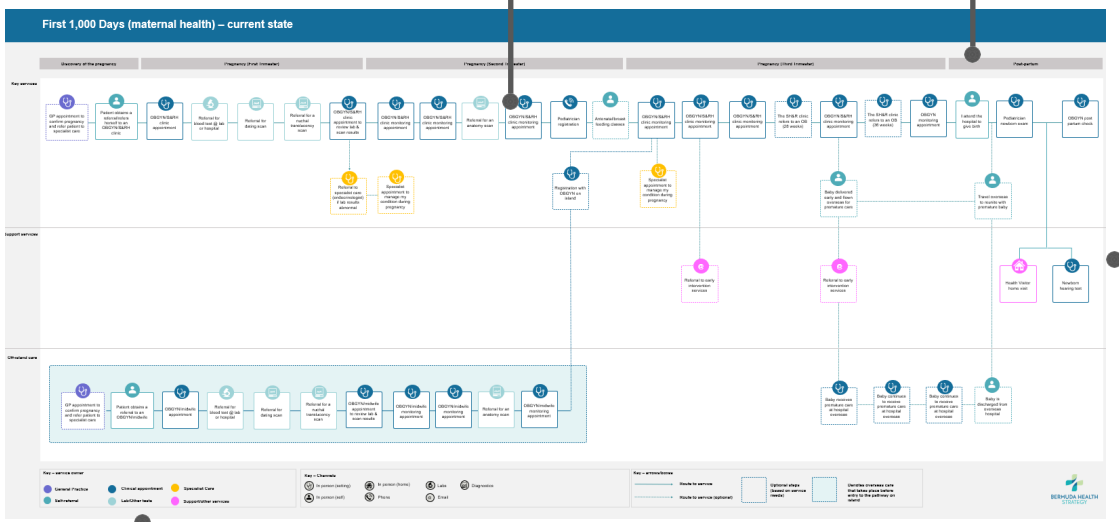
A healthcare service map is a visual representation or diagram that outlines the various healthcare services, providers, and resources available within a specific healthcare system or community.

Why are pathway service maps useful?

- A service map is a graphic depiction of the services available to patients across their journey.
- These are helpful communication tools. They align stakeholders on a 'single version of the truth' by providing a clear visual of the service landscape, routes to services, and any gaps or duplication in service delivery.

Reading service map icons





Icons demonstrate what type of service is being delivered

Phase shows the part of the journey when the service is delivered

Arrows show services that are linked in some way, such as through a referral from one to another

Colours demonstrate who is delivering the service

The full First 1,000 Days Service Map can be found in the Appendices.

Personas were crafted to understand patient experiences in the Pathway.

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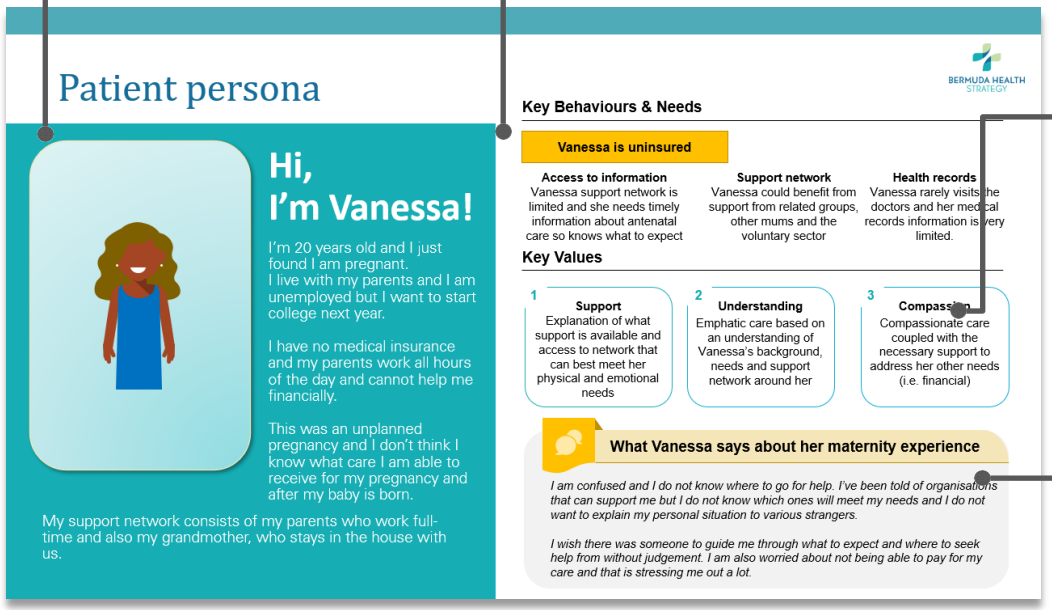
To understand the experiences of integrated care pathways, patients must be recognised as holistic participants that have various wants and needs. Personas are patients constructed to represent subsets of the population, defined by common characteristics, attributes, or needs.

Why are personas useful?

- Personas allow meaningful categorisation of patients.
- Defining patients by their behaviour and what they value, experience, and expect is beneficial to both understanding their current experiences on certain journeys and designing targeted improvements to their experiences.
- Without understanding the different types of patients interacting with services, it is difficult to assess their experiences and purposefully design new services that truly support and satisfy their needs.
- Appendix C provides a description of the four personas used to map the Current State of services.

Background and Lifestyle
Provides a brief background profile

Behaviours and Needs
Provides journey-specific background and needs



Key Values
Show what is important to the service user with regards to their care and expectations

Experience
Illustrates persona's experience from using the Pathway

The full Personas can be found in the appendices.

Patient experiences were plotted on the Service Map to create a Journey Map.

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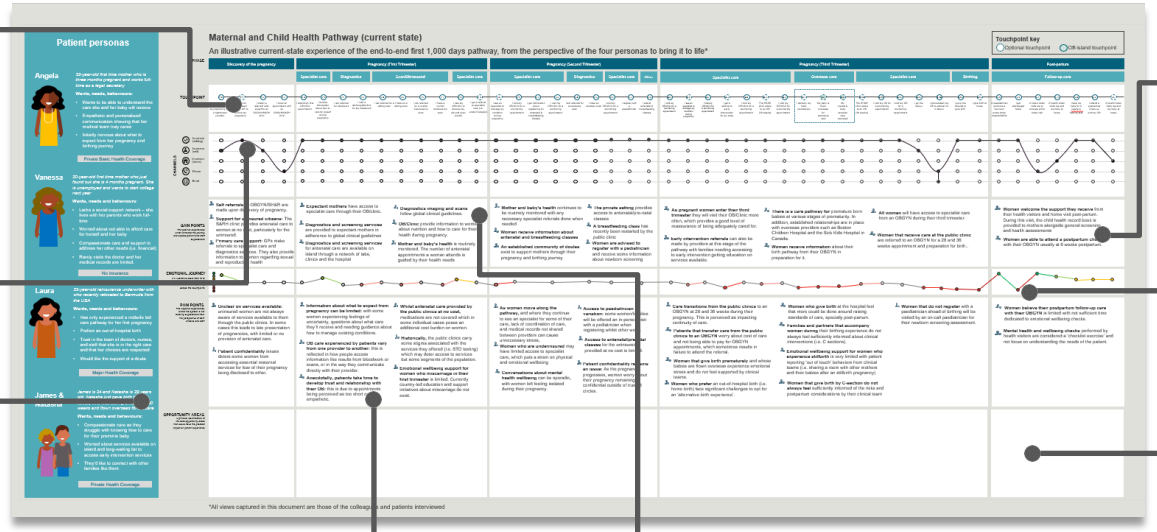
A Journey Map has been created to break down patients' experiences into the specific, individual touchpoints they have with an organisation. Moving through the various touchpoints in the journey gives the organisation a first-person view of every interaction, from beginning to end. This brings to life the emotional experience of the user of the Pathway as well as the pain and gain points that they experience.



Journey Phase and Touchpoints
Validated through our workshops and interviews

Channels
Means of communication with users at various stages of the journey

Personas
Overview of patient personas to bring the journey to life

Gain Themes
Points at which interactions are positive

The Emotional Journey
An illustrative line to track the movements in the citizens' emotional journey across the touchpoints

Opportunity areas
High-level identification of the core opportunities that would have the greatest impact on patient experience

Pain Themes
Points at which interactions are negative

Data, insights, and timeline
Key data points and qualitative insights mapped along the indicative timeline of journey phases

The full Journey Map can be found in the appendices.

3

Current State

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By understanding the current First 1,000 Days Pathway, several key pathway findings were discovered.

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The current pathway was assessed, and key insights into its Current State were discovered. The examination of the current service landscape serves as the basis for Pathway improvements and intervention prioritisation.

Through the development of care pathway service and journey maps, specific user needs and systemic challenges were identified, leading to opportunities for addressing those challenges. An overview of these identified challenges is provided below and explained further on the following pages.

1 Maternal and child health services in Bermuda are distributed across multiple providers.

2 Patient choices for maternal healthcare providers are primarily influenced by trust and recommendations.

3 Patients generally express satisfaction with the care and information they receive.

4 Some patients report dissatisfaction with the quality of care, communication, and the information they receive.

5 Patients have proposed recommendations for enhancing the care provided to young children.

6 Patients have identified challenges in the areas of childbirth, postpartum support, and support for parental care.

7 The local context underscores the necessity for an improved First 1,000 Days Pathway.

8 There is currently a growing momentum to address the challenges and opportunities within the Pathway.

1. Maternal and child health services are dispersed across providers in Bermuda.

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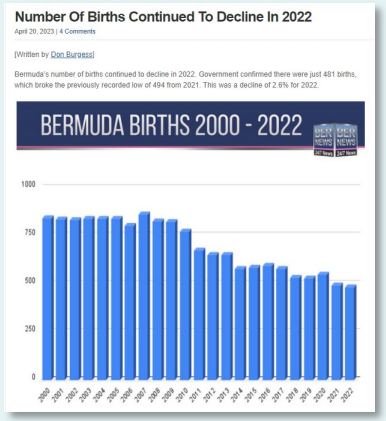
Women in Bermuda have access to sexual and reproductive health, preconception, and antenatal care.

Antenatal, pregnancy, and breastfeeding classes are available to women, although affordable choices are currently limited. Other support services (e.g., doulas) are also available to women in the private setting. Insurance coverage for these services may vary.

Maternal health is provided by six private OBGYNs. The Sexual and Reproductive Health Clinic provides antenatal care at no cost to patients.

Child Health clinics provide free paediatric services, while the private sector has two paediatric offices. A small percentage of GP/non-paediatric offices also treat children. Other services include early intervention, a child development programme, and health visitors' home visits.

The information provided below provides an overview of the local context for maternal and child health services in Bermuda.



Declining Birth Rate

Bermuda Government Statistics confirm **481 births in 2022**, which broke the previously recorded low of 494 from 2021.

Patient Satisfaction

A recent Community Survey showed that **88% of respondents** were satisfied with the care they received throughout their pregnancy. More information is provided on the following pages.

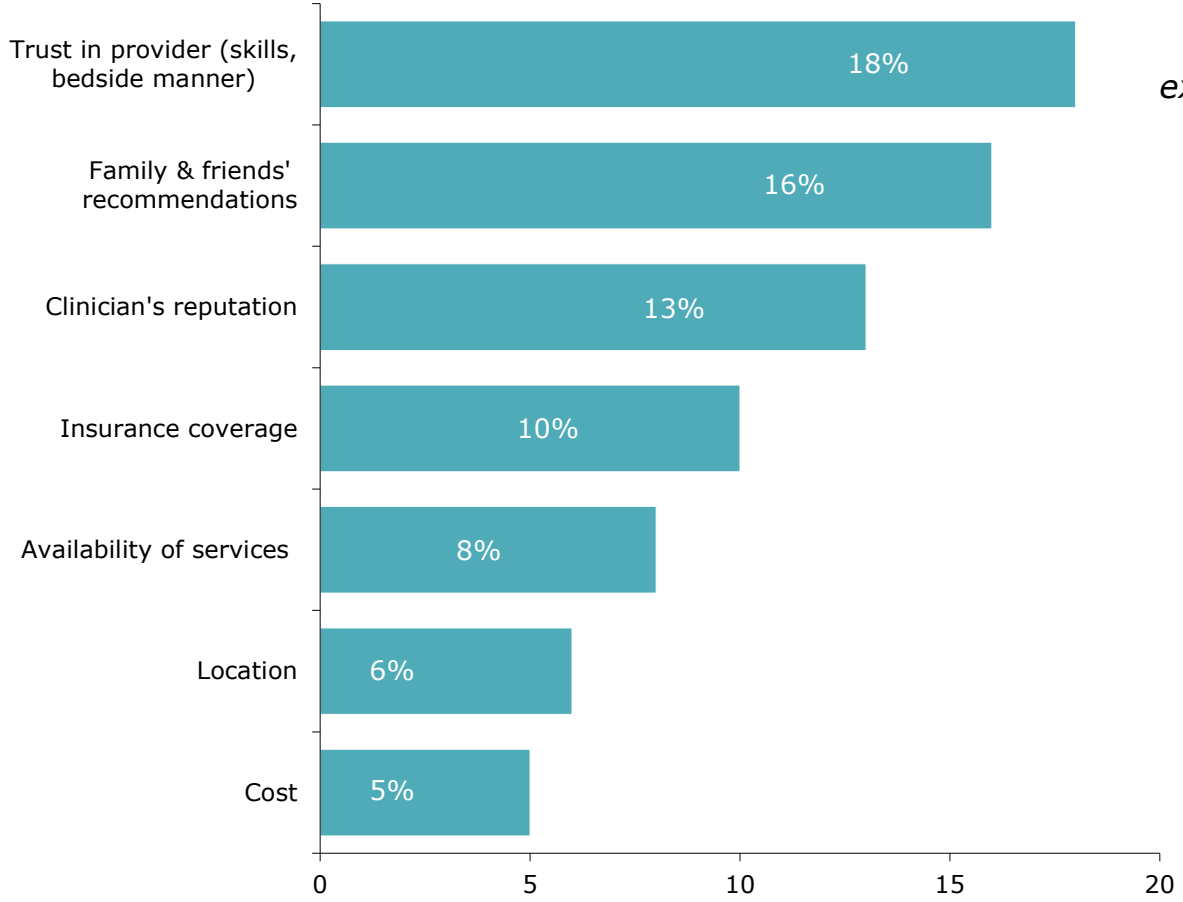
Immunisation Coverage

Bermuda has a well-established programme of childhood immunisation run by the Department of Health. However, recent data shows **a drop** in **immunisation for a number of conditions.** Polio coverage is below 90%, and measles coverage was 65% in 2021. This is far below the threshold for the population to achieve herd immunity, which requires 95% of the population to be vaccinated.

Bernews April 2023

2. Patients mostly choose their maternal healthcare provider based on trust and recommendations.

Analysis of the Community Survey responses suggests that a majority of patients chose their maternal care providers on the basis of trust, family and friends' recommendations, and reputation. Insurance coverage and cost combined also appeared as significant decision-making factors.



*"**Friends'** experiences"*

*"**Openness** to discuss my concerns about natural childbirth."*

*"I chose who I felt the most **comfortable/safe** with and who had my best interest at heart."*

*"The **reputation** of the gynaecologist, **cost** and coverage of **insurance** provided"*

*"**Word of mouth**"*

*"The doctor that was **the right fit for me**. Nothing else was a major factor."*

*"**Reputation** and **availability**. I wanted someone whom I know many people used, as well as availability to see me frequently and in a timely fashion."*

3. Patients are generally satisfied with the care and information they receive.

88%

Of survey respondents were either very satisfied or somewhat **satisfied with the care received during their pregnancy**

*"The community nurse at the clinic was **wonderful** in responding to queries quickly over WhatsApp. I also felt the doctors at the community clinic were excellent. The **level of care** was very good and they gave us a lot of their time and made us feel **valued**."*

77%

Of survey respondents were either very satisfied or somewhat **satisfied with care received while giving birth**

*"I liked my OBGYN. I felt my meetings with them were **productive and informative**. I felt fortunate to have **access to blood tests**, scans, etc., when needed."*

91%

Accessed **their first antenatal consultation within the first 12 weeks of their pregnancy**

*"Having a doula and doing a birthing class helped me go learn **all my options** for childbirth and how to **prepare and advocate for myself.**"*

72%

Of survey respondents were either very satisfied or somewhat **satisfied with information provided during their pregnancy**

*"The parish nurse was an **amazing resource** that I had no idea about. She was my first point of contact with major questions, **especially in the first 6 weeks**."*

4. Some patients mention unsatisfactory quality of care, communication, and information received.

When questioned about the aspects of care they wish to see enhanced, respondents highlighted multiple themes.

40%
cited unsatisfactory **quality of care**

*"The care **did not always feel personalised,** and I often felt like it was a transactional relationship. The follow-up was also a bit lacking - I was **not provided the information** from my OBGYN regarding my recovery and what to expect following the delivery."*

10%
cited lack of **alternative birthing options**

*"I would like to see **midwives** practicing to the full scope of their practice and without the need to involve OBGYNs… **Insurance coverage** needs to increase to cover homebirth and midwives at 100%... midwives are essential to population wellbeing and improve outcomes for women and babies when integrated into healthcare systems! Follow the evidence!!"*

4%
cited lack of **respect for patient choice**

*"I wish the birth could have been **more as I wanted**... more care for the mother after birth is important and check-ins to see if there's support, they are eating well, and coping well. I felt the focus was entirely on baby, which was important, but **the mum is forgotten."***

19%
cited insufficient **support and resources**

15%
cited unsatisfactory **communication** and **information** received

5. Patients provided suggestions for improvement related to care provided to young children.

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Respondents were asked about their experiences accessing healthcare for children below age two, as well as their thoughts about what services Bermuda must focus on providing for young children to ensure their health and happiness.

When respondents were asked to describe the support they received the last time they sought care for their child aged under two years:

43%
Noted positive experiences with a healthcare provider

26%
Mention the high quality of care provided

11%
Mention clinicians giving access to educational resources

9%
Noted having a less-than-satisfactory experience

"It was very good. There was discussion about [my child's] development, what to look for in the next few months, as well as when her next check-up would be and what it would entail."

"The support provided was commendable, with friendly and attentive employees… However, the waiting time at the Clinic was utterly ridiculous… people have work commitments and children need to attend school. Spending nearly half a day waiting… is highly inconvenient and unacceptable."

When respondents were asked their thoughts about what services Bermuda must focus on providing to young children to best support their wellbeing:

27%
Seek resources about parenting skills and developmental milestones

23%
Ask for better public spaces, such as parks and playgrounds

22%
Would like to see more affordable childcare

17%
Want improved access to nutritious, affordable food

10%
Wish for extended parental leave

6. Patients mention challenges in birth, postpartum support, and supporting parental care.

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The First 1,000 Days Community Survey surfaced clear themes identifying challenges and areas of improvement within the current health system. Notably, parents seem relatively satisfied with care during pregnancy but face challenges in birth, postpartum support, and supporting parental care.

Supporting Parental Care

*"Childcare (i.e., **nurseries are very expensive**). Seeking out the more affordable care often leads to "unofficial" nurseries."*

*"The pressure to leave our babies at three months and **break the bond is traumatising."***

*"We need **affordable quality childcare** services"*

Mental Health

*"**Severely lacking** postnatal support for mothers. Postnatal depression can **easily be missed** and information is not readily available for support."*

*"**Mental health support** for families needs to be **more affordable** or covered by HIP."*

Models of Care

*"**Meeting my doula** was fundamental for me in the whole process and **made the journey much more pleasant**."*

*"I appreciated the visits from the **community health nurse**. Her visits taught me key strategies for supporting my newborns that helped me to be more confident as a mother.*

Information Sharing

*"The specialist **did not have time** or energy to explain what to expect."*

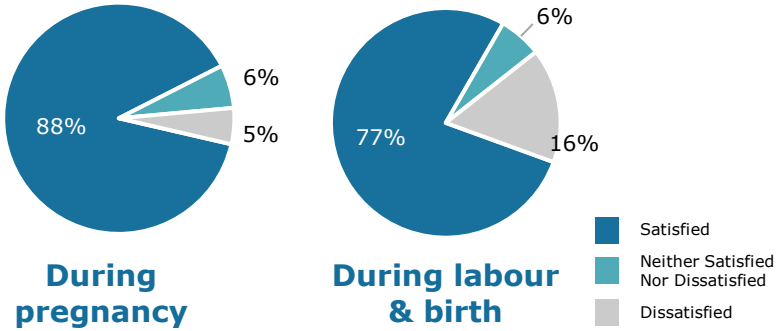
*"In general, **OBGYN visits seem very sterile**, "in & out", and don't leave much time to discuss concerns or how one is feeling."*

*"[my child] wouldn't latch on, so I needed to pump. They wheeled the machine in, **didn't tell me how** to use it."*

Birth and Postpartum Care

*"While my prenatal care was excellent, I felt that **postnatal care and support was lacking**"*

Satisfaction with care:



There was an **11% decrease** in satisfaction with care during labour and birth compared to care received during pregnancy.

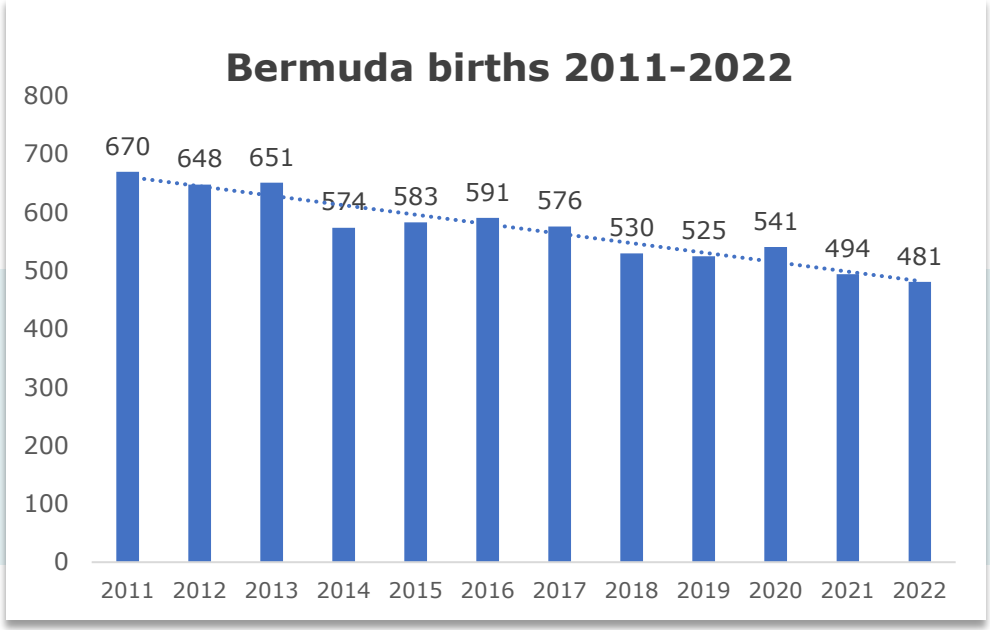
In summary, while **1 in 20** mothers were dissatisfied with the care they received while pregnant, **1 in 6** were dissatisfied with their care during the labour and birth of their child.

7. Local context emphasises the need for an improved First 1,000 Days Pathway.

Similar to other developed nations, Bermudians are having an insufficient number of children to replace themselves. Bermuda's Population Projections 2016-2026 stated that there will be a "natural decrease (deaths exceeding births) from 2021".

This sub-replacement level of fertility has many consequences for the health system and economy.

Source: *Bermuda's Population Projections 2016-2026*



- The Island's ageing population and/or **declining birth rate is cited as impacting aspects including, but not limited to, the health system, pension system, and education system.**
- **The declining birth rate was also cited during the consultation process for primary schools**, noting that "Bermuda's birth rate continues to decline, and projections show that the decline in enrolment will continue."
- The Bermuda Health Strategy 2022-2027 added that "one in three people will be aged over 65 by 2039".

25%
of the population will be **seniors** by 2026

"Bermuda's children present the most precious opportunity for the continued success of our homeland."

– Throne Speech 2022

8. There is now momentum to address challenges and opportunities in the Pathway.

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Based on the desktop review of existing documents, it can be concluded that there is now momentum to address challenges and opportunities in the Pathway. The Ministry of Health is currently implementing the Bermuda Health Strategy 2022-2027, a five-year strategy with eight priority areas, including the development of integrated care pathways, in support of the journey to implement UHC.

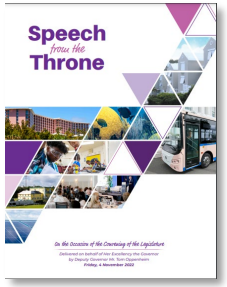
A key component of the Strategy is developing the First 1,000 Days Care Pathway to support new mothers and their children.

The initiative was introduced by the 2022 Throne Speech and further supported by the recently completed national Joint Strategic Needs Assessment.

Premier of Bermuda

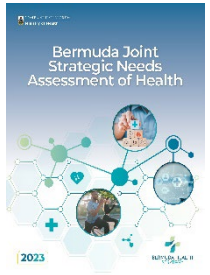
"The Government will embark on a First 1,000 Days project to optimise this critical period of life for all families…"

– **Throne Speech**



Bermuda Throne Speech 2022
• Introduced the First 1,000 Days initiative, a pathway to provide a foundation leading to a healthy life. • Emphasis on identifying the needs and drivers for services. • Calls for integration of services leading to better outcomes.

Bermuda Health Strategy 2022-2027
• Outlines integrated care pathways and First 1,000 Days as one of eight prioritised projects to support UHC. • Goal is to understand the current care provision landscape in order to address key priority need areas and action possible opportunities for improvement.



Joint Strategic Needs Assessment 2023
• A holistic and systematic assessment of Bermuda's population health needs. • Provides a high-level view of child and maternal health indicators in Bermuda (based on insurance claims) and set of recommendations.

4

Pathway Challenges

BERMUDA HEALTH STRATEGY

Through the Pathway Mapping exercise, we identified 10 challenges experienced by service users.

BERMUDA HEALTH STRATEGY

Drawing from the findings of the Current State assessment and stakeholder engagement, ten user-experienced challenges were synthesised. They are listed below and explained in further detail on the following pages. Examples from other jurisdictions are also explored to provide suggestions for improvement.

Challenge 1
Ineffective information flow across the current pathway provides challenges to those receiving care.

Challenge 2
The amount of antenatal care information provided to women is not consistent across providers.

Challenge 3
Access to maternal and child health services remains a challenge for many.

Challenge 4
Options for affordable childcare are limited and affect women's economic opportunities.

Challenge 5
Outdated care models and disparities in care quality are areas of concern.

Challenge 6
Care is fragmented across the Island.

Challenge 7
The current pathway lacks explicit considerations for mental health concerns.

Challenge 8
Long delays in accessing early intervention services are prevalent.

Challenge 9
Chronic diseases have a notable impact on maternal and child health within the current pathway.

Challenge 10
Patient empowerment through information and respect throughout their journey is not a current priority in the pathway.

Inadequate flow of information within the current pathway poses difficulties for individuals receiving care.

BERMUDA HEALTH STRATEGY

Challenge 1: Ineffective information flow across the current pathway provides challenges to those receiving care

One significant challenge is the efficient and accurate exchange of health-related information between healthcare providers, patients, and across various healthcare settings. Examples include:

- Patient records are not often shared between providers or across healthcare settings. For instance, a woman who receives specialist care and also sees an OBGYN for antenatal care may need to do unnecessary duplicate blood tests because her patient records are not shared between providers. This may also involve additional costs for the patient.
- There is a lack of a nationwide health system information strategy across the health system. The introduction of the electronic medical record system PEARL (Patient Electronic & Administrative Records Log) at BHB is a welcomed step towards digitalisation of patient records. However, at present, PEARL only records patient information for services received at KEMH, MWI, or the Lamb Foggo Urgent Care Centre.
- Families with children who have complex needs are often the most impacted by the lack of patient information sharing between providers on- and off-island, as they need to provide the same information to multiple health service providers.

How did other health systems address this challenge?

- The Maternal and Newborn Clinical Management System (MN-CMS) Project is the design and implementation of an Electronic Health Record (EHR) for all women and babies being cared for in maternity, newborn, and gynaecology services in **Ireland**. This record enables all maternal, newborn, and gynaecology information to be shared with relevant providers of care. The MN-CMS is leading the way for sharing patient information (where and when it is required) and integration with other systems, in compliance with GDPR rules, for the benefit of patients requiring maternal, newborn, and gynaecology care in Ireland.

Inconsistencies in antenatal care information provided to women impact patient experience.

BERMUDA HEALTH STRATEGY

Challenge 2: The amount of antenatal care information provided to women is not consistent across providers and can impact the service user experience.

Pregnancy can be both an exciting and vulnerable time for women. The Community Survey and patient interviews conducted tell us that women are often left unprepared about the limited amount of antenatal care information they receive from their care team and OBGYN. Examples are:

- Women who are under- or uninsured are not always aware of antenatal care that is available at no cost through the public clinics, which in the past, has led to late presentation of pregnancy (second and third trimesters).
- Mothers and families interviewed called for more information about what to expect from their pregnancy journey. Most often, this information only comes from one source or service provider. This leaves women feeling unprepared and sometimes, feeling isolated.
- Many of the patients interviewed indicated a need for access to community groups and forums that can help prepare them for motherhood.

How did other health systems address this challenge?

- The availability, effectiveness, and access to antenatal care are directly linked with good maternal and neonatal outcomes, making antenatal care an important determinant in health. A recent review on antenatal care policy in high-income countries with a universal health system maps available evidence on the nature, extent, and range of antenatal care policies in countries such as Australia, Denmark, Finland, Iceland, Italy, Norway, Portugal, Spain, Sweden, and the United Kingdom.

Many patients encounter difficulties in accessing maternal and child health services.

BERMUDA HEALTH STRATEGY

Challenge 3: Access to maternal and child health services remains a challenge for many.

Financial constraints and the limited availability of specialised care can impede individuals' ability to receive timely and equitable healthcare services. Examples include:

- The high cost of care can deter uninsured women to access the care that they need. A number of families rely on financial aid from non-profit organisations.
- Specialist off-island services (such as for premature babies) pose significant financial stress on uninsured and underinsured families who rely on financial aid in the form of loans and struggle to pay them back.
- Paediatric care is served by two private paediatric offices and a small network of public clinics. The latter provides services to families at no cost. However, families often report long waiting room wait times before appointments, making them unable to attend work as a result and causing additional financial strain. Private paediatricians continue to perform pro-bono newborn assessments at the hospitals for mothers who cannot afford to register with a paediatrician's office. There is currently no formal agreement in place for this service and if stopped, it would severely impact the care of newborns of uninsured families.
- Early intervention services such as speech therapy, have long waiting lists and limited human resources.

How did other health systems address this challenge?

- The challenge of affordability of care is not unique to maternal and child health. Nevertheless, the importance of ensuring equitable access to maternal and child health services beyond the provision of antenatal care is paramount - as it contributes to providing the best start in life for children and their families. Various country interventions have addressed this same challenge in response to population needs. This varies from evaluating the cost-effectiveness of interventions to improve maternal, newborn, and child health outcomes using WHO guidance; to investing in maternal health and family planning evidenced-based interventions for small island states.

Limited affordable childcare options adversely impacts patient experience.

BERMUDA HEALTH STRATEGY

Challenge 4: Options for affordable childcare are limited and affect women's economic opportunities.

The lack of affordable and accessible childcare in the country is not new and requires further policy attention, as it has a detrimental effect on women's economic opportunities and prevents them from re-entering the workforce. Examples include:

- Options for affordable care (e.g., Happy Valley Child Care Center) are very limited and may force families to use unregulated childcare providers.
- While the introduction of regulatory oversight of childcare service providers is helping tackle the issue of unregulated childcare, families of low socioeconomic backgrounds are still unable to access childcare options due to high prices, thereby exacerbating the challenge of limited affordable childcare and its impact on women's economic opportunities.

How did other health systems address this challenge?

- The Commonwealth Fund publication 'An International Comparison of Early Childhood Initiatives: From Services to Systems' provides examples of the successful factors of early intervention interventions in different countries. Although first published in 2009, the emphasis on a collaborative approach between healthcare and education to create new models for developmental surveillance is of special relevance to the island even today.
- A more recent (2020) report published by EASPD discusses early childhood intervention programmes in Europe specific to children with disabilities.

Outdated care models and disparities in care quality are areas of concern.

BERMUDA HEALTH STRATEGY

Challenge 5: Outdated care models and disparities in care quality are areas of concern.

The current antenatal model of care is often perceived to be "too" physician-led, by both patients and providers. Both groups advocate for exploring alternative models of care that support affordability and access to services, such as a midwifery-led model of care. Examples include:

- Most women interviewed perceived the Current State of antenatal care as too traditional, especially women who had previously experienced antenatal care overseas. In many instances, families recall being unable to exercise birthing choices. This is important as a significant number of women and families surveyed, as well as the majority of patients interviewed, recall being left feeling "judged" and unsupported when wanting to discuss their birthing options, such as water births or home births.
- The nursing community, patients, and families would like to see the role of midwifes be present in the Pathway. In some cases Pathway users describe the amount of contact with the OBGYNs under the Pathway as excessive.
- Pathway users report on disparities in the quality of antenatal care received from the public clinics versus the private setting. Within the private setting, Pathway users report variation in openness to discussing alternative birthing options among providers, leading to a negative patient experience.

How did other health systems address this challenge?

- In the UK, the NHS led a review of maternity services named 'Better Births'. The review considered international evidence and made recommendations on safe and efficient models of maternity services, including midwife-led units.
- The US National Partnership for Women & Families also published guidance on the 'Four care models decision-makers must implement for healthier moms and babies'. The paper discusses evidenced-based maternity care models including midwifery care, community births (including home births), and doula support.

Provision of care through multiple providers results in a fragmented care experience.

BERMUDA HEALTH STRATEGY

Challenge 6: Care is fragmented across the Island.

Fragmentation of care services is mostly due to lack of communication between providers, both in the public and private sectors. Most notably, the lack of an electronic health record makes coordination of care even more challenging. Some examples of challenges experienced are as follows:

- Communication between service providers (touchpoints) across the Pathway is not always consistent. Anecdotal evidence tells us there is often too little contact time within the Pathway and between providers, thus increasing the likelihood of poor communication between patient and provider, and appropriate treatment.
- With regards to child health, anecdotal feedback showed that public services tend to operate in silos, which leaves families feeling vulnerable and 'lost' in the system (e.g., families with children that have complex needs and receive services from early intervention and child development programmes).
- Early intervention providers often experience uncoordinated services and broken communication with other service providers on island, including social services. Some providers have called for the introduction of a care coordinator role for families with complex needs.

How did other health systems address this challenge?

- A 2016 article published by the British Medical Journal discussed integrated care as a solution for improving children's health. The article explores the reasons behind child health problems in the UK, including determinants of health. It also calls for a comprehensive strategy to improve UK child health that includes action across all the domains and determinants of health.
- In the US, an Integrated Care for Kids Model was launched in 2020 across seven states. Under the Model, lead organisations, such as health providers, managed care organisations, and public health departments, oversee care coordination and case management among community partners, including schools and child welfare agencies.

Patients want the pathway to explicitly incorporate considerations for mental health issues.

BERMUDA HEALTH STRATEGY

Challenge 7: The current pathway lacks explicit considerations for mental health concerns.

Feedback from the stakeholder engagement suggests more could be done in the Pathway to support mothers and families by addressing their mental health needs early in the process. For example:

- Women report lack of mental health support during and post-pregnancy. During pregnancy, some women report feeling unsupported by health service providers regarding how to deal with home environment struggles that affect their wellbeing.
- Post-pregnancy, some women report not getting sufficient information about postnatal depression or how to deal with their mental health and wellbeing after having a baby. In particular, women who deliver premature babies have a need for additional mental health support from health service providers in dealing with the emotional journey involved in delivering a baby prematurely.
- Accessing mental health services during and post-pregnancy can be challenging, especially for families that are uninsured and underinsured; those who can afford to access mental health support do so through private sector providers and self-referrals.
- Families who cannot afford to access private sector mental health services rely on referrals to MWI for certain acute services. However, the stigma around MWI deters some from accessing services. Patient confidentiality also plays a part in families not accessing mental health services for fear of 'others knowing' about their mental health struggles.

How did other health systems address this challenge?

- In recognition of the detrimental effects of poor mental health on women's lives and caregiving capabilities, perinatal mental health is now gradually being included in policy considerations for maternal, newborn, and child health around the world. The perinatal period is often defined as the period of time between conceiving a baby until the end of the first postnatal year.
- A 2023 study on integrating perinatal mental healthcare into maternal and perinatal services provides perspectives on addressing challenges by providers and health systems such as task sharing – to tackle the shortage of mental health professionals – or providing integrated care models for perinatal mental health, which involve the provision of screening for perinatal mental health problems and low intensity treatments by midwives and health visitors in collaboration with primary mental health services.

Patients and families encounter extended wait times to access early intervention services.

BERMUDA HEALTH STRATEGY

Challenge 8: Long delays in accessing early intervention services are prevalent.

The number of families needing access to early intervention services has risen in recent years, a challenge that is compounded by the effects of the Covid-19 pandemic. Some examples of challenges experienced are as follows:

- As mentioned previously, families needing speech therapy services for their child currently experience long waiting lists. This is partly due to the effects of the pandemic but also, the limited amount of human resources available.
- Occupational and physiotherapy services staff face issues related to limited physical space and resources (e.g., materials and specialised toys) that they are able to offer to families in need of their services.
- The Child Development Programme has also faced increased delays with autism screening services.

How did other health systems address this challenge?

- The Commonwealth Fund publication 'An International Comparison of Early Childhood Initiatives: From Services to Systems' provides examples of the successful factors of early intervention in different countries. Although first published in 2009, the emphasis on a collaborative approach between healthcare and education to create new models for developmental surveillance is of special relevance to the island even today.
- A 2020 report published by EASPD discusses early childhood intervention programmes in Europe specific to children with disabilities.

Chronic diseases also impact health services provided in the Pathway.

BERMUDA HEALTH STRATEGY

Challenge 9: Chronic diseases have a notable impact on maternal and child health within the current pathway.

Adult conditions such as Chronic Kidney Disease and Diabetes, that once were regarded solely as products of adult behaviour and lifestyle, are now also being linked to processes and experiences occurring in pregnancy or infancy. Examples include:

- Women living with chronic disease at the time of pregnancy require personalised care that addresses their complex health needs. However, some health service providers suggested that pregnant women who are uninsured or underinsured are at a higher risk of not receiving appropriate care to manage their condition due to concerns about the cost of care.
- Prevalence of chronic disease is linked to wider determinants of health. However, population health data is not linked to wider socioeconomic information, making it difficult to understand inequalities in this regard.

How did other health systems address this challenge?

- In 2019, the Florida Department of Health led a project that enhanced relationships between maternal and child health and chronic disease epidemiologists. This collaboration focused on identifying ways to improve the health of women before they conceive and help them manage any chronic diseases during the perinatal period. The study also identified five strategies that the state health agency and its partners could use to support chronic disease efforts.

The Current Pathway is not sufficiently focused on patient empowerment.

BERMUDA HEALTH STRATEGY

Challenge 10: Patient empowerment through information and respect throughout their journey is not a current priority in the Pathway.

The Community Survey highlighted some difficulties women and their families face in accessing information that would support a better care experience. For example:

- Parents of premature babies felt particularly unsupported about how to care for their premature babies at a time of heightened vulnerability for both parents and babies. Families of premature babies shared their frustration regarding the lack of guidance from clinical staff; for instance, information on where to find diapers for premature babies on island or breastfeeding support.
- Women report wanting access to their antenatal information and pregnancy records to be able to manage their health and feel more empowered. At present, this information is not easily accessible for patients.
- Antenatal, breastfeeding, and birthing classes are not usually covered under health insurance plans, and are rarely available at no cost. One clinic has recently restarted breastfeeding classes and hopes to scale up its offerings. In addition, whilst the benefits of breastfeeding are largely promoted by the health system, it is not supported by the surrounding environment (for example, statutory maternity leave is 12 weeks).

How did other health systems address this challenge?

- The Centering Model of Pregnancy was piloted in the early 1990s by a nurse-midwife as a group-based model of prenatal care. It consists of standard prenatal care combined with a comprehensive pregnancy and childbirth class.
- Instead of seeing a doctor or midwife individually, women participating in centring pregnancy care attend regular, provider-led group meetings. The meetings are designed to address all aspects of wellness during pregnancy, not just their physical health. They promote better health outcomes, more provider and patient contact, patient empowerment, and learning, self-care, and support amongst group members.

5

Pathway Opportunities

BERMUDA HEALTH STRATEGY

Synthesis of findings suggests 16 opportunities for improvement for the Pathway.

BERMUDA HEALTH STRATEGY

Ten opportunities for the Future State pathway emerged from stakeholder interviews. The following pages provide greater detail.

1. Introduce **standards of care.**
2. Define a **shared vision** for the Pathway.
3. Establish a **community engagement forum** to formalise patient and family engagement.
4. **Improve information sharing** among health service providers in the Pathway.
5. Formalise and enhance the **role of health visitors.**
6. Foster **better integration of mental health services** within the First 1,000 Days Care Pathway.
7. Create a **safety net to protect the most vulnerable.**
8. **Strengthen communication** with **off-island services.**
9. **Offer comprehensive support** to **women** from the start.
10. Clearly communicate **what to expect** and how to **navigate the Pathway.**

Feedback from maternal and child health service providers identified six additional opportunities for improving the Current State, as outlined below.

11. Enhance **midwifery role**

12. Focus on **early years**

13. Provide clear link with **oral health**

14. Organise **interdisciplinary case reviews**

15. Enhance **support for families**

16. **Empower patients**

Two opportunities for improvement focus on enhancing collaboration and reaching consensus on care.

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1. Introduce standards of care.

Results from the pathway mapping suggest that patients would like to see the quality of care improved: 40% of women surveyed described being very dissatisfied with the quality of antenatal care received and birthing experience in hospital. Issues range from rudeness of staff and insufficient information regarding care, to lack of mental health support.

Setting agreed upon standards of care across the Pathway could improve provider accountability and patient experience, whilst promoting transparency by communicating standards to pathway users.

2. Define a shared vision for the Pathway.

To address the significant disparities in care for users of the First 1,000 Days Pathway, it is essential to explore how services can adapt to the evolving requirements of women and children.

Establishing a clear, shared vision for the First 1,000 Days Pathway model that is informed by feedback from the Community Survey and aligns with local needs, can be a good starting point to address disparities.

Further guidance

- In 2016, the WHO published guidance for health systems on the introduction of standards for improving quality of maternal and newborn care. The Guide introduces a framework for the quality of maternal and newborn health care that contains eight domains of quality of care that should be assessed, improved, and monitored within the health system.
- In 2016, the NHS led a review of maternity services in England. Better Births set up out a clear vision: for maternity services to become safer, more personalised, kinder, professional, and more family friendly. It also calls for high performing teams, in organisations that are well led, with staff to be supported to deliver care that is women-centred.

Establishing community engagement and enhancing information sharing can improve the Pathway further.

BERMUDA HEALTH STRATEGY

3. Establish a community engagement forum to formalise patient and family engagement.

In order for The First 1,000 Days Pathways users to feel empowered, it is important to ensure their needs and concerns are well understood at all stages of treatment and care. Families interviewed and feedback from the Community Survey unearthed many examples of poor communication between patient and providers that translated to the patients as their concerns not having been heard or well understood by their provider.

To address this, a community engagement forum that considers and implements patient-led improvement initiatives should be formalised. By involving families and patients, special attention to the needs of the community can be addressed.

4. Improve information sharing among health service providers in the Pathway.

In the current care pathway, insufficient communication among healthcare providers places the burden on patients to find, retain, and convey their information as they progress through the Pathway.

To address this, enhancing information sharing and breaking down barriers among healthcare providers, in alignment with the NDHS project, is essential. Engaging with the National Digital Health Working Group and establishing a national registry can streamline information sharing and create a more efficient and interconnected First 1,000 Days Pathway.

Further guidance

- 'Hearing the True Voice of Women' is a patient-led project by the Royal Surrey Hospital's Maternity Services team (England, UK). This project looked at how the team received feedback about their service from women using it, particularly hard-to-reach groups. The team recognised that the existing channels they were using did not represent their target audience fairly.
- Electronic Medical Record Use and Maternal and Child Care and Health is a 2016 study that evaluated the effects of EHR adoption and use during pregnancy on maternal and child health care utilisation and health among pregnant mothers and infants. The Study introduces meaningful data evidence of the potential gains to be derived from EHRs, particularly for vulnerable low-income women and infants.

Opportunities exist in formalising the role of health visitors and fostering integration of mental health services.

BERMUDA HEALTH STRATEGY

5. Formalise and enhance the role of health visitors.

Navigating through the Pathway can be a daunting task for patients. This often leaves patients feeling overwhelmed and uncertain about where to turn for guidance and support.

It is recommended to formalise and enhance the role of health visitors who can take on care coordinator responsibilities alongside their other duties. This formalised support system would better serve both healthcare providers and families in need.

6. Foster better integration of mental health services within the First 1,000 Days Care Pathway.

Patients have expressed difficulties in accessing mental health services, which are currently disjointed from maternal and child health services during the perinatal period.

To address this issue and ensure a more cohesive and integrated approach, there is a need to promote and reduce variation in the provision of perinatal mental health to prevent adverse consequences to children's health and development. Moreover, ongoing advocacy efforts for the establishment of a National Mental Health Strategy in Bermuda should integrate the insights derived from the First 1,000 Days Community Survey to enhance the delivery of perinatal mental health services.

Further guidance

- One of the biggest challenges for families is coordinating care across all members of the care team. In order to meet the challenge of improving care coordination for children with complex needs, a multidisciplinary team from Boston Children's Hospital, developed an application called Caremap, which helps patients navigate through the Care Pathway and coordinate care among health service providers.
- The Council of State Governments is a US-based, non-profit organisation that monitors government activities. In 2021, they published 'Maternal mental health: strategies to address societal and structural challenges', which comprises a list of policy interventions to improve and better integrate maternal mental health services.

It is advised to address barriers to care while strengthening communication with off-island services.

BERMUDA HEALTH STRATEGY

7. Address barriers to care to support vulnerable patients and families.

Some families and patients face vulnerabilities not only due to access barriers but also because of significant social stresses. Uninsured families often find themselves burdened by steep service costs, which intensify the struggle to access essential healthcare. Offering health education programmes on subjects like sexual and reproductive health, healthy relationship dynamics, and abuse prevention is essential to safeguard the wellbeing of vulnerable patients and families.

Therefore, it is crucial to identify and address barriers to care that impact the most vulnerable groups. By addressing barriers to care, the overall health and quality of life within our community can be enhanced.

8. Strengthen communication with off-island services.

Currently, a process for liaising with off-island services required by patients in the Pathway is lacking, resulting in ambiguity and placing undue responsibility on patients to seek information.

To enhance patient outcomes, it is advisable to establish a process for the exchange of information between on island and off-island providers to help patients who require off-island specialist care.

Further guidance

- The First 1,000 Days of Life report by the UK Health and Social Care Committee (2017-19) focuses on interventions to improve support for children, parents and families who are dealing with social stresses (such as poverty, poor housing, or unstable employment). The report also introduces interventions needed to address the funding of a National First 1,000 Days Strategy.
- Formalising existing relationships with off-island providers through partnership agreements can improve provider-patient communication. The WHO has published guidance to raise visibility of support coordination and provide cooperation platforms. Although the guidance is not specific to maternal and child health, it provides useful criteria to establish effective and mutually beneficial partnerships.

Patients recommend offering support to women from the start and ensuring clear communication on what to expect.

BERMUDA HEALTH STRATEGY

9. Offer comprehensive support to women from the start.

The findings from the Community Survey identified areas where support for families can be improved. Among the most pressing needs are the promotion of open discussions on subjects like birthing choices, fertility struggles, miscarriages, and breastfeeding. Furthermore, the survey has underscored the importance of optimising the role of, and support provided to, fathers in the context of ensuring the wellbeing of their children.

Therefore, it is imperative to establish a family-oriented forum in which members can address these concerns effectively. This will create a space for open discussions while also enhancing the support and involvement of fathers in childcare.

10. Clearly communicate what to expect and how to navigate the Pathway.

Recognising what each touchpoint in the Pathway entails can positively impact the patient experience. This is crucial for health service providers responsible for patient wellbeing, as highlighted in the Community Survey, where parents expressed a strong desire for improved understanding of their care throughout the Pathway.

To address this, the Ministry of Health should review and revise communication protocols, utilising standardised patient education materials with clear language and visual aids to reinforce key concepts. This will help health service providers clearly communicate what to expect and how to navigate the Pathway.

Further guidance

- The Healthy Start Programme is an example from the US of a country intervention that works to improve health outcomes before, during, and after pregnancy. Some of the activities offered to the community include community outreach, mental and behavioural health screenings, and care referrals.
- Using patient personas can help understand how patients experience a care pathway. An example can be found at The 'Hospital Pathways programme: lessons learned', a collaborative programme in which five hospitals worked to improve both processes of care and interactions between staff and patients using patient personas to understand patient needs.

Health service providers suggest enhancing the midwifery role and focusing on the early years.

BERMUDA HEALTH STRATEGY

Continued participation in stakeholder workshops and collaboration sessions has surfaced a number of considerations to inform a Future State of the Pathway, based on health service providers' experience of delivering maternal and child health services. They are listed below and on the following pages:

11. Enhance midwifery role.

- Care continuum: Integrate midwifery-led services with physician offices to provide comprehensive antenatal and hospital in-patient care.
- Maternal care: Bolster the existing midwifery-led Department of Health service to cover antenatal care and explore potential for postnatal care improvements.
- Seamless health transition: Elevate the health visitor role to ensure a smooth shift from immediate postnatal support to proactive health promotion and preventive measures.
- Provider-patient protection: Investigate person-centred measures that safeguard all parties involved in midwifery-led births.
- Governance for safety: Establish a governance framework to accompany any future considerations for out-of-hospital birth options.

12. Focus on early years.

- Enhanced transition for premature Infants: Explore better coordination between paediatricians and the Government's Child Development Programme to ensure timely release of families from hospitals, reducing unnecessary referrals (40+ annually) for early intervention services, particularly for infants born overseas.
- Longitudinal data insights: Establish a comprehensive data collection system to track the long-term progress of families who have received support, as well as those who haven't, offering insights into their wellbeing over time.
- Empowering parental education: Address the requirement for parental education by providing resources that enhance parents' comprehension of developmental milestones and the principles of responsive parenting.

Provider feedback indicates need to establish link with oral health and organise interdisciplinary case reviews.

BERMUDA HEALTH STRATEGY

13. Provide clear link with oral health.

- Improve parent education: Address the link between pregnancy periodontal disease inflammation and outcomes like low birthweight and pre-term delivery, emphasising the importance of consistent maintenance during pregnancy.
- Enhance breastfeeding education: Provide insights into how breastfeeding impacts facial muscle and bone development, promoting better understanding among parents.
- Monitor breathing while asleep: Implement a strategy to observe infant breathing during sleep, ensuring nasal breathing rather than mouth breathing for optimal airway health.
- Optimise solid food nutrition: Encourage solid foods with texture that require chewing to bolster facial muscle and bone development, positively influencing the airway by preventing underdevelopment.

14. Organise interdisciplinary case reviews.

- Implement enhanced care oversight: Establish quality control, learning, and reflective practices for maternal and infant care by creating a structured process for interdisciplinary case reviews.
- Foster collaboration: Develop a comprehensive forum involving health professionals from diverse backgrounds, encompassing public, private, and alternative providers who participate in women and infant care.
- Holistic issue resolution: Ensure regular meetings within this forum to address and assess issues spanning the entire care journey, extending beyond hospital confines to enhance the continuum of care.

Providers emphasise the importance of enhancing support for families and empowering patients in their feedback.

BERMUDA HEALTH STRATEGY

15. Enhance support for families.

- Enhance parental support: Create opportunities to assist families in managing the challenges of parenting, especially for new parents or those adapting to raising multiples, while maintaining a healthy work-life balance.
- Expand family counselling: Provide access to family counselling services, catering to parents requiring guidance and support in various familial contexts.
- Targeted assistance for families: Develop specialised support for families dealing with known needs or risks, including diagnoses, cognitive delays, and mental health issues, throughout their journey.

16. Empower patients.

- Enhance pregnancy monitoring: Introduce individualised pregnancy/antenatal health records for expectant mothers, facilitating better tracking of their care progression.
- Empower through information: Like the UK's Red Book for child health, provide families with essential health details, empowering them with relevant information throughout the pregnancy journey.
- Local pregnancy Red Book: Implement a localised version of the pregnancy Red Book, supported by promotion and health education initiatives to ensure effective adoption and usage.

6

Appendices

BERMUDA HEALTH STRATEGY

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Appendix 1

Core Benefits and International Comparison

WHO identifies six core benefits for First 1,000 Days.

BERMUDA HEALTH STRATEGY

Global guidelines from WHO and UNICEF publications provide guidance on maternal and child health and early childhood development. WHO publications, such as the Guidelines on Maternal, Newborn, Child, and Adolescent Health and Infant and Young Child Feeding, outline evidence-based recommendations for optimal care during the first 1,000 days of life. Early Childhood Development Action Network, a global platform that brings together experts and organisations to advocate for early childhood development, also provides guidance and policy briefs that contribute to the understanding of core benefits for promoting optimal development in the early years. Based on those two source, the table below summarises key benefits for child and maternal health. The following pages includes international examples of child and maternal health benefits.

	Maternal Health and Nutrition	Early Childhood	Responsive Caregiving	Early Stimulation and Learning	Access to Healthcare & Immunisation	Multisectoral Collaboration
Key Principles	• Adequate nutrition and healthcare for expectant mothers are essential during pregnancy to support healthy foetal development.	• Appropriate nutrition for infants and young children is crucial for their growth and development.	• Responding to the child's needs promptly, providing affection, and helping families create a safe and stimulating environment.	• Providing opportunities for sensory stimulation, play, and early learning experiences supports cognitive development and lays the foundation for future learning.	• Ensuring access to healthcare services, regular check-ups, vaccinations, and appropriate medical interventions to safeguard the health of both the mother and child.	• The First 1,000 days approach requires collaboration across multiple sectors, including healthcare, nutrition, education, social services, regulation, and policy-making.
Core Benefits	• Proper maternal nutrition, access to healthcare, screening, diagnostics, and antenatal care core benefits.	• Supporting mothers to breastfeed for the first six months of life, followed by the introduction of nutritionally balanced foods.	• Access to education tools and understanding of developmental milestones.	• Child Development and early intervention programmes.	• Maternal and child health services, immunisation programmes.	• Maternal and child health services, immunisation programmes.

Bermuda's child health benefits include a robust programme for child immunisation.

With an average of 500 births per year, most babies are born in hospital. Antenatal care is provided through OBGYN clinics and the Sexual and Reproductive Health public clinic on Victoria Street (Hamilton) and satellite clinics. Paediatric care is served by two paediatrician offices and the (public) child health clinics.

Private OBGYN
Bermuda has six private OBGYNs.

Private Paediatricians
Wee Care and Edgewood Paediatrics

Public Clinics
Hamilton, Warwick, St. George's and Somerset (the latter, under review)

Maternity leave of **13 weeks** is mandated at **full pay** – if mothers have completed at least one year of continuous employment.

Paternity leave of **5 days** is mandated at **full pay**.

Maternal Health

- In the private setting, obstetric and gynaecological services are provided by the six private OBGYNs that serve the Island. Care provided follows the guidelines of the American College of Obstetricians and Gynaecologists. OBGYNs can make referrals to specialist services.
- Besides providing antenatal care, the public clinics offer services such as family planning, STI screening, pelvic examinations, health promotion and counselling, cancer screening (pap smear and breast mammograms), HPV vaccines, and referrals.

Child Health

- Paediatric Care follows care guidelines from the American Academy of Paediatrics.
- A robust programme of child immunisations is also in place and monitored by the Department of Health.
- Public clinics provide paediatric care, child health, immunisations, a health visitors programme, health promotion, and education.

The Cayman Islands offer two options for birth, both of which are provided by the hospital.

BERMUDA HEALTH STRATEGY

All babies in the Cayman Islands are born in hospital. There are two main maternity wards, one in the public Cayman Islands Hospital (CIH) and one in the private Doctors Hospital. Home and water births are not offered. There are two options for birth in hospital.

Option 1: Private OBGYN
Cayman has many private OBGYNs.

Option 2: CIH midwives
Midwives deliver the baby, calling an OBGYN if needed.

CIH has five OBGYNs and 16 midwives who form the Women's Health Clinic.

Maternity leave of **14 weeks** is mandated, with 6 weeks of full pay and 8 weeks of no pay. Mothers are only entitled to this after one year of employment, otherwise the amount will be pro-rated.

Paternity leave is **not mandated**.

Free Antenatal Classes

- The Health Services Authority, a government body, offers a free, eight-week course on Parent Craft, including topics like nutrition, labour, CPR, breastfeeding, and postnatal care.
- Doctors Hospital, a private hospital, also offers a free three-week course of antenatal classes.

Paid Antenatal Classes

- Many private organisations offer antenatal classes for a fee, as well as related services for mothers such as a pelvic floor physiotherapy, Pilates, massage, and water aerobics.

In the United Kingdom child and maternal health are centrally managed by the NHS.

BERMUDA HEALTH STRATEGY

In the UK, maternal and child health is primarily managed by the NHS, with involvement from other governmental bodies like Public Health England. The NHS offers basic services to new parents, such as midwifery and health visitors. Local partners may also provide other services such as breastfeeding support and mental healthcare based on need.

Antenatal Support

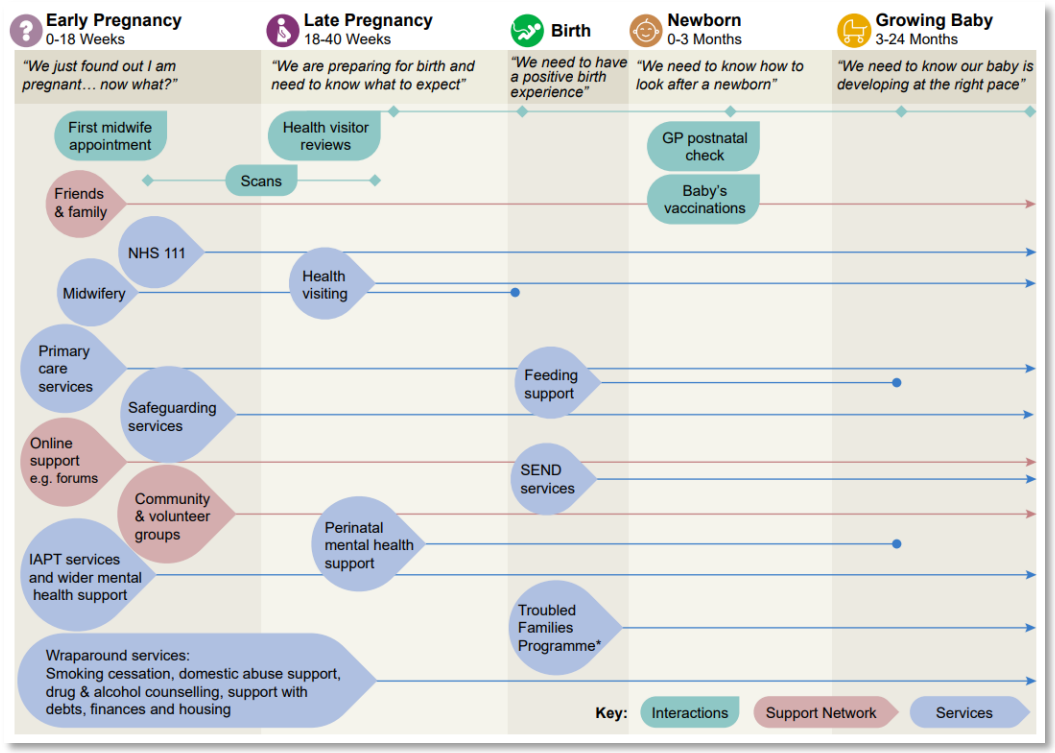
- The first midwife appointment is offered within the first ten weeks of pregnancy.
- Midwives help parents prepare for birth, support with birth, and continue to provide postnatal support for up to ten days following birth.

Postnatal Support

- Health visitors provide ongoing support once midwives step back. They are required to make at least five visits during the first 1,000 days. They ensure the baby's health and development are on track and support parents.
- Public Health England runs a National Breastfeeding Helpline to support new parents.
- GPs perform a six- to eight-week postnatal health check, focusing on mental health.

Mental Health Care for Parents

- The NHS prioritises parental mental health. Health visitors, midwives, and social workers identify mental health needs. Perinatal women are prioritised for mental health assessment and treatment within two to four weeks.



In 2021, the UK Government released a report titled The Best Start for Life: A Vision for the 1,001 Critical Days. This report details the Current State of the Pathway and identifies key action areas.

The United States has a fragmented system without federally mandated paid maternity leave.

BERMUDA HEALTH STRATEGY

Without a comprehensive national health insurance scheme, the US has a fragmented and complicated system for perinatal care, with many providers and payors. Multiple government authorities play a role in financing and legislating around the system. The US has the highest maternal mortality rate of all developed countries and the Biden-Harris administration has recently published a blueprint for improving these outcomes.

Birth Locations and Care Team

- 98.4% of births take place in hospital, with around 1% taking place at home.
- The US has three levels of certified midwives (CNMs, CMs, and CPMs), with different levels of qualification and expertise.

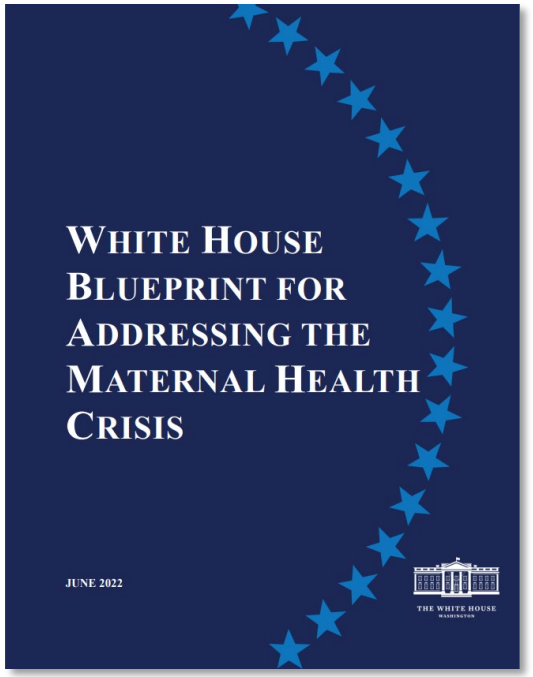
*Maternity leave of **12 weeks without pay** is federally mandated. Men are also eligible for this. Some states mandate longer leave and partial pay.*

Postnatal Services

- Access to postnatal services is variable depending on insurance coverage. For families with significant barriers to care, the federally-funded Maternal, Infant, and Early Childhood Home Visiting (MIECHV) programme provides regular home visits.

Coverage for Maternal Services

- Presently, mothers are provided coverage for 60 days postpartum when enrolled with Medicaid or CHIP. These programmes currently cover around 40% of all births.
- Recent efforts have been made to extend coverage for a full 12 months postpartum. A number of states have adopted this practice.
- Around half of all births are paid through private insurance.
- Many women struggle to afford perinatal health services and find it challenging to figure out what their insurance covers.



In 2022, the White House released a blueprint for improved maternal healthcare, with plans to reduce maternal mortality and care inequity.

The parental services in The Bahamas highlight education through course offerings.

BERMUDA HEALTH STRATEGY

Some perinatal expenses are covered by The Bahamas' National Health Insurance scheme. The Government also provides postnatal services and antenatal classes.

Facilities and Care

- Births take place in hospital, either at Princess Margaret Hospital, Rand Memorial Hospital, or Doctors Hospital. Home births are not common.
- Most high-risk pregnancies travel to the US to give birth, since the NICU at Princess Margaret Hospital only has 13 beds.

Supplemental Services

- An eight-week Parentcraft course is offered by the Ministry of Health, teaching parents about topics like nutrition, childbirth, and development.
- Postnatal community healthcare nurses with the Ministry of Health provide postnatal home visits within ten days of delivery.

National Health Insurance Coverage

- Under the National Insurance programme, women can qualify for a maternity benefit of 66% of their salary (minimum $66 and maximum $333) to be received weekly.
- Maternity benefit is paid for 13 weeks but can be extended a further six weeks if needed.
- A one-time maternity grant of $490 per child is also available to all new mothers.
- The Bahamas NHI programme covers seven to nine perinatal care visits, including lab tests and supplemental medicine (e.g., folic acid). NHI does not cover the cost of delivery.

Maternity leave of **12 weeks** with pay is mandated.

Men are eligible for **one week** of paternity leave.

Canada parental offerings include the option for extended parental benefits.

Canada's history of strong social support and public funding for healthcare means that many of the costs associated with birth, perinatal care, and childrearing are significantly reduced.

Location of Birth and Care

- Most births take place in hospitals, though home births are growing in popularity. Families typically hire a midwife for a home birth.
- Around three-quarters of births in Canada are attended by obstetricians and a quarter by family physicians. Only 3% are attended by midwives.

Supplemental Support

- The Canada Prenatal Nutrition Program provides perinatal support to women in challenging circumstances, such as through nutrition counselling, vitamins, and food coupons.
- 30% of maternity hospitals provide prenatal classes.

Mothers are provided **15 weeks** of maternity leave, during which they can receive **55%** of their earnings (maximum $650 per week).

This can be followed by either **Standard Parental Benefits** or **Extended Parental Benefits**

Payments and Benefits

- Childbirth is free in Canada, as the health system is publicly-funded.
- Parents can also enrol in the Canada Child Benefit, a tax-free monthly payment to families with children under 18 years to help with food and general upbringing costs.
- Following maternity leave, many mothers take additional parental leave.
    1) **Standard Parental Benefit** includes up to 40 weeks, shared between parents and entails a benefit of 55% of regular earnings.
    2) **Extended Parental Benefit** includes up to 69 weeks, shared between parents and entails a benefit of 33% of regular earnings.

BERMUDA HEALTH STRATEGY

Appendix 2

Joint Strategic Needs Assessment (JSNA)
Recommendations on Child and Maternal Health

Bermuda Joint Strategic Needs Assessment contains eight recommendations for Maternal and Child Health Services.

BERMUDA HEALTH STRATEGY

Develop a health information infra-structure that includes the indicators shown in Fig. 4.5.2 of the Report as an **indicator of performance in the Pathway.**

Reproductive Health Indicators
Prescribed Long-Acting Reversible Contraceptives/1,000 Patients[1]
Abortion Rate per 1,000 Women[2]
% of pregnant women who have 4 or more antenatal contacts with Department of Health Maternal Services

Capture information relating to the **wider determinants of health and non-healthcare services** in the development of the First 1,000 Days Integrated Care Pathway and feed it into the Ministry of Health.

Harness the National Digital Health Strategy to develop a **better health information infrastructure for child health**.

Promote the prescription of Long-Acting Reversible Contraceptives at low or no cost to **reduce unplanned pregnancies as part of the First 1,000 Days Integrated Care Pathway**.

Implement the **recommendations contained in the 2019 Mental Health Situational Analysis Report** to improve paediatric mental health.

Focus on **increasing childhood vaccination levels** to once again reach herd immunity (particularly for polio and measles).

Promote HPV vaccine uptake as a **primary prevention measure against cervical and oral cancer**.

Conduct a **Child and Maternal Health Needs Assessment** as a theme for an Annual Report of the Chief Medical Officer, with considerable input from community health, education, mental health, midwifery, obstetric, and paediatric professionals.

BERMUDA HEALTH STRATEGY

Appendix 3

Patient Personas

Hi, I'm Angela!

I'm 32 years old and I am three months pregnant with my first baby. I also work full-time as a legal secretary.

I get health insurance through my employer that includes maternity benefits.

I have received some information about what to expect regarding my pregnancy but, as this is my first baby, I'd like more clarity so I can manage my own physical and mental health.

My support network consists of my partner and a group of friends. None of my friends have had a baby before.

BERMUDA HEALTH STRATEGY

Key Behaviours & Needs

Angela is fully insured

Access to information
Angela wants to be able to understand the care she and her baby will receive.

Clear communication
Angela would like to be notified of upcoming appointments ahead of time.

Access to the right support
Angela is worried about not coping well after her baby is born and she'd like to speak to a health professional who can guide her accordingly.

Key Values

1 **Clarity**
Clear explanation of what antenatal care she will receive and what tests are required

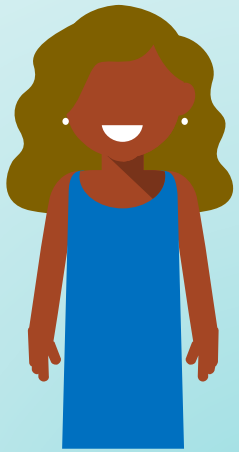
2 **Empathy**
Empathetic and personalised communication showing that her medical team truly cares

3 **Trust**
Trust in the team of doctors, nurses, and staff that she is in the right care

What Angela says about her maternity experience

I have received some information regarding what to expect from my second and third trimesters and that's helpful. I wish I had been able to access earlier information about nutrition and preconception care. Before getting pregnant my diet was not healthy and I am told I am at risk of developing gestational diabetes. If I had known what to do to minimise the risk, I would have done some things differently.

Hi, I'm Vanessa!



I'm 20 years old and I just found I am pregnant. I live with my parents, and I am unemployed, but I want to start college next year.

I have no medical insurance and my parents work all hours of the day and cannot help me financially.

This was an unplanned pregnancy, and I don't think I know what care I am able to receive for my pregnancy and after my baby is born.

My support network consists of my parents who work full-time and also my grandmother, who stays in the house with us.

BERMUDA HEALTH STRATEGY

Key Behaviours & Needs

Vanessa is fully insured

Access to information
Vanessa's support network is limited and she needs timely information about antenatal care so knows what to expect

Support network
Vanessa could benefit from support from related groups, other mums, and the non-profit sector

Health records
Vanessa rarely visits the doctors and her medical records information is very limited.

Key Values

1 **Support**
Explanation of what support is available and access to a network that can best meet her physical and emotional needs

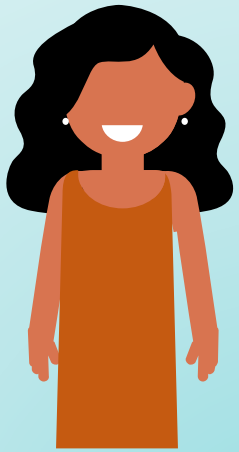
2 **Understanding**
Emphatic care based on an understanding of Vanessa's background, needs, and support network around her

3 **Compassion**
Compassionate care, coupled with the necessary support to address her other needs (i.e., financial)

What Vanessa says about her maternity experience

I am confused and do not know where to go for help. I've been told of organisations that can support me, but I do not know which ones will meet my needs and I do not want to explain my personal situation to various strangers. I wish there was someone to guide me through what to expect and where to seek help from without judgement. I am also worried about not being able to pay for my care and that is stressing me out a lot.

Hi, I'm Laura!



I'm 32 years old and pregnant with my second child.
I relocated to Bermuda in 2021 with my husband and my 2-year-old child.

I work full-time as a reinsurance underwriter, as does my husband.

For my first pregnancy (in the US) I saw a midwife for most of my care and I'd like to do the same for my second baby.

I've registered with an OBGYN and we've agreed on a collaborative plan to work with a trained midwife to meet my preference of a home birth. I also couldn't breastfeed my first baby, so I'd like to get some additional breastfeeding support this time around.

BERMUDA HEALTH STRATEGY

Key Behaviours & Needs

Laura wants a non-hospital birth

Having choice
Laura wants to enable her choice of having her baby delivered at home.

Health records
Laura would like access to her health records so that she can take control of her health during pregnancy.

Collaborative working
Laura would like to see collaboration between her OBGYN and midwife to minimise any stressors on her care.

Key Values

1 **Respect**
For her pregnancy and birthing choices. Laura needs support from health professionals in helping her understand her care plan.

2 **Support**
Laura would like support and empathy from her care team as she wants to breastfeed her second child.

3 **Trust**
Trust in the team of doctors, nurses, and staff that she is in the right care and that her choices are respected.

What Laura says about her maternity experience

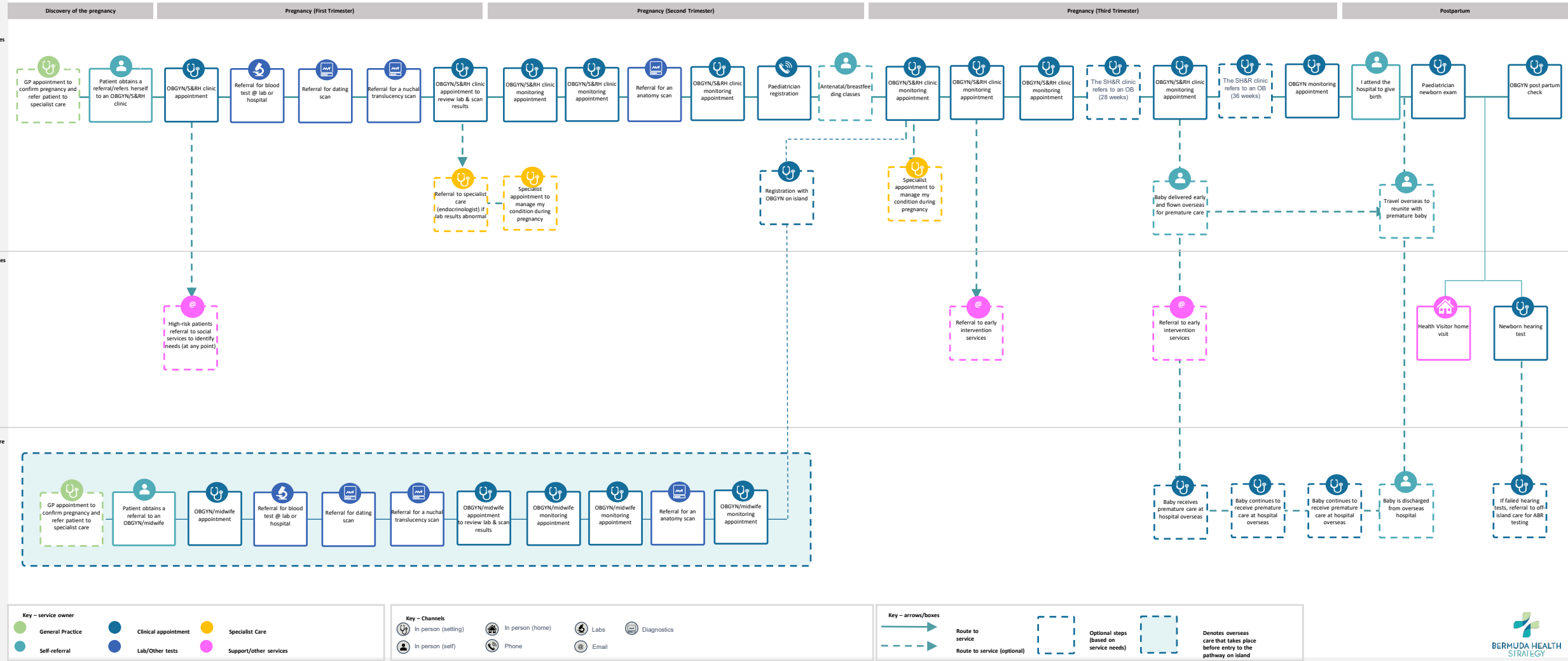
I am excited about this pregnancy as I have started to develop a close relationship with my health team. Having said that, I wish some things could have been more straight forward – for instance, having access to my health records, ultrasound reports, and other tests. Also, my choice of having a home birth hasn't been easy to navigate – both with health professionals and with my environment. When I've talked about it with friends and family, I get very strong reactions and all sorts of opinions about it, which makes me feel uneasy.

BERMUDA HEALTH STRATEGY

Appendix 4

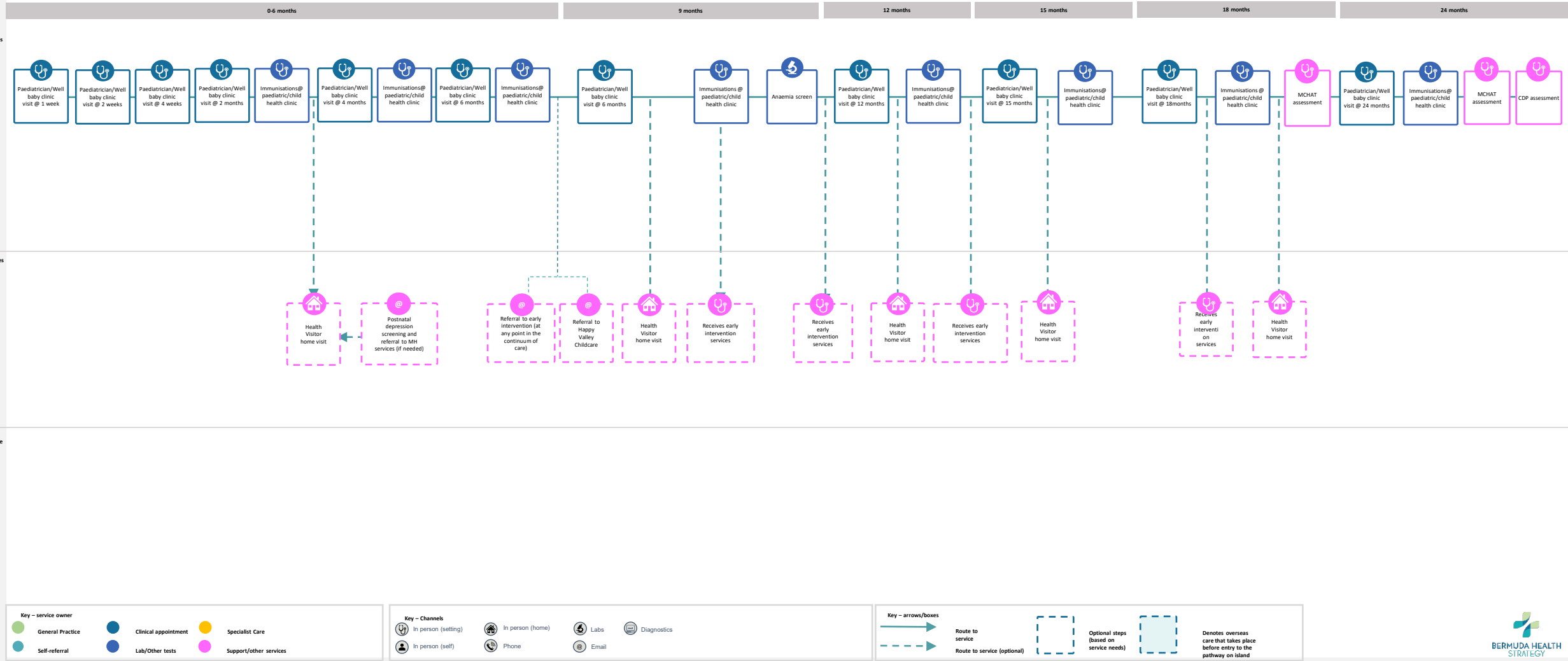
Service Maps

Service Map First 1,000 Days (Maternal Health)



BERMUDA HEALTH STRATEGY

Service Map First 1,000 Days (Child Health)



BERMUDA HEALTH STRATEGY

BERMUDA HEALTH STRATEGY

Appendix 5

Journey Maps

Patient personas

Angela

32-year-old first time mother who is three months pregnant and works full-time as a legal secretary

Wants, needs, behaviours:

- Wants to be able to understand the care she and her baby will receive
- Empathetic and personalised communication showing that her medical team truly cares
- Initially nervous about what to expect from her pregnancy and birthing journey

Private Basic Health Coverage

Vanessa

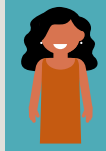
20-year-old first time mother who just found out she is 4 months pregnant. She is unemployed and wants to start college next year

Wants, needs and behaviours:

- Lacks a social support network – she lives with her parents who work full-time.
- Worried about not able to afford care for herself and her baby.
- Compassionate care and support to address her other needs (i.e. financial)
- Rarely visits the doctor and her medical records are limited.

No insurance

Laura



32-year-old reinsurance underwriter with who recently relocated to Bermuda from the USA

Wants, needs and behaviours:

- Has only experienced a midwife-led care pathway for her first pregnancy
- Prefers an out-of-hospital birth
- Trust in the team of doctors, nurses, and staff that she is in the right care and that her choices are respected
- Would like the support of a doula

Major Health Coverage

James & Natasha

James is 34 and Natasha is 29 years old. Natasha just gave birth to baby Lucas, who was born premature at 30 weeks and flown overseas for his care

Wants, needs and behaviours:

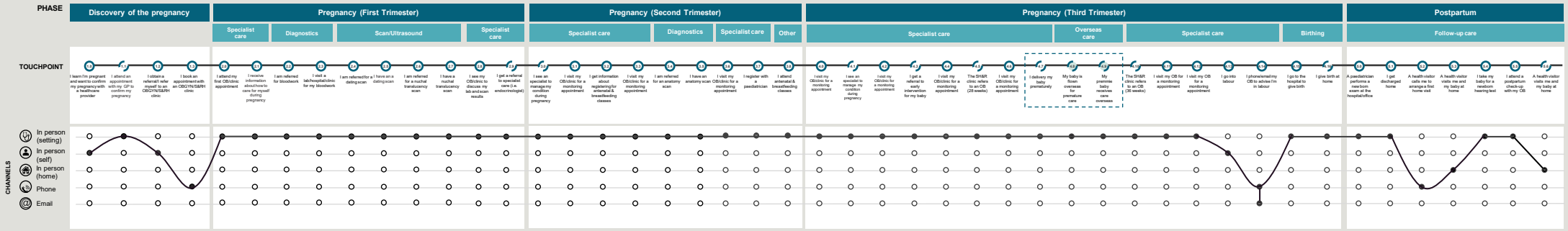
- Compassionate care as they struggle with knowing how to care for their premmie baby
- Worried about services available on island and long waiting list to access early intervention services
- They'd like to connect with other families like them

Private Health Coverage

Journey Map (Maternal Health)

An illustrative Current State experience of the end-to-end First 1,000 Days Pathway, from the perspective of the four personas to bring it to life*

Touchpoint key ◌ Optional touchpoint ○ Off-island touchpoint



GAIN POINTS

The positive experiences which enhance the journey and exceed patient and staff expectations

Discovery of the pregnancy

- **Self-referrals to** OBGYN/SH&R are made upon discovery of pregnancy.
- **Support for uninsured citizens:** The S&RH clinic provides antenatal care to women at no cost, particularly for the uninsured.
- **Primary care support:** GPs make referrals to specialist care and diagnostics services. They also provide information to women regarding sexual and reproductive health

Pregnancy (First Trimester)

- **Expectant mothers** have access to specialist care through their OB/clinic.
- **Diagnostics and screening services** are provided to expectant mothers in adherence to global clinical guidelines
- **Diagnostics and screening services** for antenatal care are available on island through a network of labs, clinics and the hospital
- **Diagnostics imaging and scans** follow global clinical guidelines.
- **OB/Clinic** provide information to women about nutrition and how to care for their health during pregnancy.
- **Mother and baby's health** is routinely monitored. The number of antenatal appointments a woman attends is guided by their health needs

Pregnancy (Second Trimester)

- **Mother and baby's health** continues to be routinely monitored with any necessary specialist referrals done when needed
- **Women receive information about antenatal and breastfeeding classes**
- **An established community of doulas** exist to support mothers through their pregnancy and birthing journey
- **The private setting** provides access to antenatal/prenatal classes
- **A breastfeeding class** has recently been restarted by the public clinic
- **Women are advised to register with a pediatrician** and receive some information about newborn screening

Pregnancy (Third Trimester)

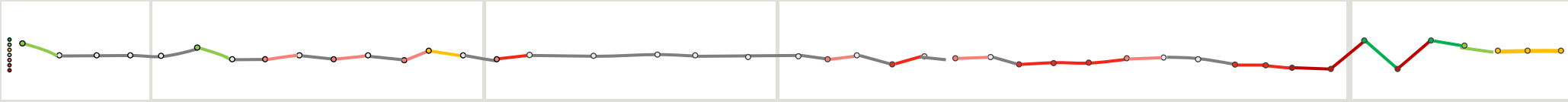
- **As pregnant women enter their third trimester** they will visit their OB/Clinic more often, which provides a good level of reassurance of being adequately cared for.
- **Early intervention referrals** can also be made by providers at this stage of the pathway with families needing accessing to early intervention getting education on services available.
- **There is a care pathway for** premature born babies at various stages of prematurity. Usually, if born under 26 weeks, premature babies are referred overseas for further care. In addition, established relationships are in place with overseas providers such as Boston Children Hospital and the Sick Kids Hospital in Canada.
- **Women receive information** about their birth pathway from their OBGYN in preparation for it.
- **All women** will have access to specialist care from an OBGYN during their third trimester.
- **Women that receive care at the public clinic** are referred to an OBGYN for a 28 and 36 weeks appointment and preparation for birth..

Postpartum

- **Women welcome the support they receive** from their health visitors and home visit postpartum. During this visit, the child health record book is provided to mothers alongside general screening and health assessments
- **Women are able to attend a postpartum check** with their OBGYN usually at 6 weeks postpartum.

EMOTIONAL JOURNEY

An illustrative scale from -3 to +3 to track the movements in the citizens' emotional journey across the touchpoints



PAIN POINTS

The negative experiences where the system is not meeting expectations from the perspective of both citizens and staff

Discovery of the pregnancy

- **Unclear on services available:** uninsured women are not always aware of services available to them through the public clinics. In some cases this leads to late presentation of pregnancies, with limited or no provision of antenatal care.
- **Patient confidentiality** issues deters some women from accessing essential maternal services for fear of their pregnancy being disclosed to other.

Pregnancy (First Trimester)

- **Information about what to expect from pregnancy can be limited:** with some women experiencing feelings of uncertainty, questions about what care they'll receive and needing guidance about how to manage existing conditions.
- **OB care experienced by patients vary from one provider to another:** this is reflected in how people access information like results from bloodwork or scans, or in the way they communicate directly with their provider.
- **Anecdotally, patients take time to develop trust and relationship with their OB:** this is due to appointments being perceived as too short or not empathetic.
- **Whilst antenatal care provided by the public clinics at no cost,** medications are not covered which in some individual cases poses an additional cost burden on women.
- **Historically,** the public clinics carry some stigma associated with the services they offered (i.e. STD testing) which may deter access to services but some segments of the population.
- **Emotional wellbeing support for women who miscarriage in their first trimester** is limited. Currently country-led education and support initiatives about miscarriage do not exist.

Pregnancy (Second Trimester)

- **As women move along the pathway,** and where they continue to see an specialist for some of their care, lack of coordination of care, and medical records not shared between providers can cause unnecessary stress,
- **Women who are underinsured** may have limited access to specialist care, which puts a strain on physical and emotional wellbeing
- **Conversations about mental health wellbeing** can be sporadic, with women left feeling isolated during their pregnancy.
- **Access to paediatrician variation:** some women/families will be offered an in person visit with a pediatrician when registering whilst other won't.
- **Access to antenatal/prenatal classes** for the uninsured provided at no cost is limited.
- **Patient confidentiality remains an issue:** As the pregnancy progresses, women worry about their pregnancy remaining confidential outside of trusted circles.

Pregnancy (Third Trimester)

- **Care transitions from the public clinics** to an OBGYN at 28 and 36 weeks during their pregnancy. This is perceived as impacting continuity of care.
- **Patients that transfer care from the public clinics to an OBGYN** worry about cost of care and not being able to pay for OBGYN appointments, which sometimes results in failure to attend the referral.
- **Women that give birth prematurely** and whose babies are flown overseas experience emotional stress and do not feel supported by clinical teams.
- **Women who prefer** an out-of-hospital birth (i.e. home birth) face significant challenges to opt for an 'alternative birth experience'.
- **Women who give birth** at the hospital feel that more could be done around raising standards of care, specially postpartum.
- **Families and partners that accompany women during** their birthing experience do not always feel sufficiently informed about clinical interventions (i.e. C sections).
- **Emotional wellbeing support for women who experience stillbirth** is very limited with patient reporting 'out of touch' behaviors from clinical teams (i.e. sharing a room with other mothers and their babies after an stillbirth pregnancy)
- **Women that give birth by C-section do not always feel** sufficiently informed of the risks and postpartum considerations by their clinical team
- **Women that do not register** with a paediatrician ahead of birthing will be visited by an on-call paediatrician for their newborn screening assessment.

Postpartum

- **Women believe their postpartum follow-up care with their OBGYN** is limited with not sufficient time dedicated to emotional wellbeing checks.
- **Mental health and wellbeing checks** performed by health visitors are considered a 'checklist exercise' and not focus on understanding the needs of the patient.

OPPORTUNITY AREAS

High-level identification of the core opportunity areas that would have the greatest impact on patient experience

1. Introduce standards of care
2. Define a shared vision for the Pathway
3. Establish a community engagement forum to formalise patient and family engagement
4. Improve information sharing among health service providers in the Pathway
5. Formalise and enhance the role of health visitors
6. Foster better integration of mental health services within the First 1,000 Days Care Pathway
7. Create a safety net to protect the most vulnerable
8. Strengthen communication with off-island services
9. Offer comprehensive support to women from the start
10. Clearly communicate what to expect and how to navigate the Pathway
11. Enhance midwifery role
12. Focus on early years
13. Provide clear link with oral health
14. Organise interdisciplinary case reviews
15. Enhance support for families
16. Empower patients

*All views captured in this document are those of the colleagues and patients interviewed

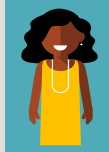
Journey Map (Child Health)

An illustrative Current State experience of the end-to-end first 1,000 days pathway, from the perspective of the four personas to bring it to life*

Touchpoint key
Optional touchpoint | Off-island touchpoint

Patient personas

Angela

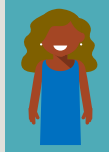


32-year-old first time mother who is three months pregnant and works full-time as a legal secretary

Wants, needs, behaviours:
- Wants to be able to understand the care she and her baby will receive
- Empathetic and personalised communication showing that her medical team truly cares
- Initially nervous about what to expect from her pregnancy and birthing journey

Private Basic Health Coverage

Vanessa



20-year-old first time mother who just found out she is 4 months pregnant. She is unemployed and wants to start college next year

Wants, needs and behaviours:
- Lacks a social support network – she lives with her parents who work full-time.
- Worried about not able to afford care for herself and her baby.
- Compassionate care and support to address her other needs (i.e. financial)
- Rarely visits the doctor and her medical records are limited.

No insurance

Laura

32-year-old reinsurance underwriter with who recently relocated to Bermuda from the USA

Wants, needs and behaviours:
- Has only experienced a midwife-led care pathway for her first pregnancy
- Prefers an out-of-hospital birth
- Trust in the team of doctors, nurses, and staff that she is in the right care and that her choices are respected
- Would like the support of a doula

Major Health Coverage

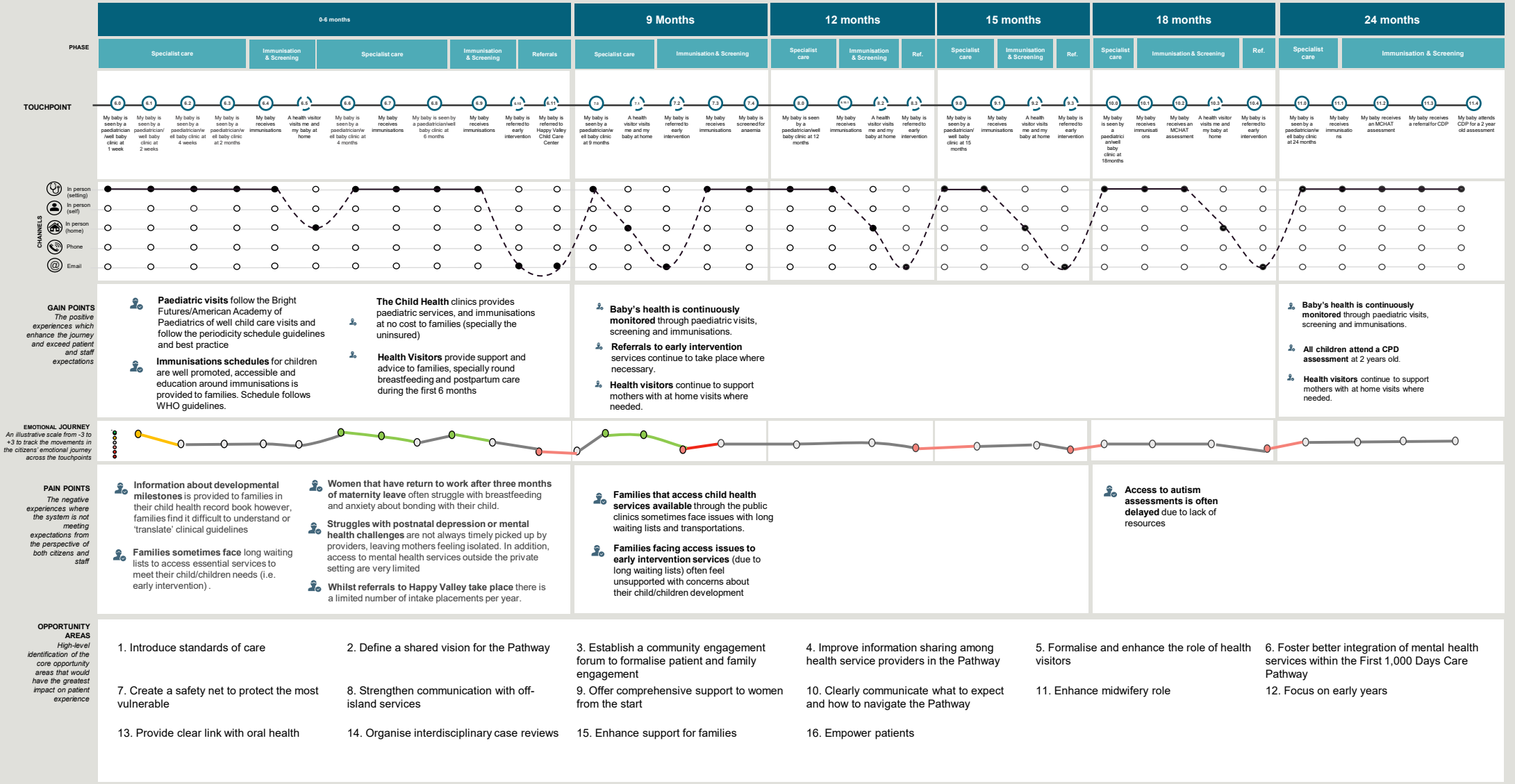
James & Natasha

James is 34 and Natasha is 29 years old. Natasha just gave birth to baby Lucas, who was born premature at 30 weeks and flown overseas for his care

Wants, needs and behaviours:
- Compassionate care as they struggle with knowing how to care for their premmie baby
- Worried about services available on island and long waiting list to access early intervention services
- They'd like to connect with other families like them

Private Health Coverage

*All views captured in this document are those of the colleagues and patients interviewed



BERMUDA HEALTH STRATEGY

Appendix 6

Consulted Stakeholders

This project was completed in partnership with stakeholders across Bermuda.

BERMUDA HEALTH STRATEGY

The involvement of all stakeholders played a pivotal role in shaping this project's outcomes and we are grateful for their participation and support.

Thank you!

Fiona Dill, Executive Director, It Takes a Village Foundation

Dr. Annabel Fountain, Medical Director, Fountain Health

Lynn Jackson, Child Health Coordinator, Department of Health

Dr. Ronda James, Dentist

Dr. Terrylynn Tyrell, Coordinator, Child Development Programme, Government of Bermuda

Bernadette Wilson, RN, Edgewood Paediatrics

Teresa Woolridge, Coordinator Community Rehabilitation – Occupational Therapy & Physiotherapy Services, Government of Bermuda

This project also owes its success to the invaluable contributions of many highly engaged patients and health service providers, whose names remain undisclosed to protect their privacy.

Contact Us:

We'd love to hear from you! If you have any query or concern, reach out for a helping hand. Please find our contact details below:

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