A playbook for

embedding compassion, quality, and value into maternal and newborn care

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Organizations: 1. Leapfrog to Value, 2. Percept Actuaries and Consultants, 3. Global Development Incubator

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FOREWORD

In the heart of care: transforming maternal and newborn health with compassion and value

In the journey to revolutionize maternal and newborn care, we must turn our gaze to the imbalances and disparities that still mar the experience of care provided to mothers and their infants across the globe. Inequities and inconsistency in the approach to maternal care stand as barriers for many, preventing access to the essential support they require.

It is with sincere admiration that I commend Leapfrog to Value and partners for their initiative in crafting a guide that delineates the essence of quality, compassionate care for mothers and newborns. This playbook not only charts a course for the integration of such care into health systems but also underscores the critical importance of nurturing and empathy in the caregiving process.

“The playbook for embedding compassion, quality, and value into maternal and newborn care” meticulously details the principles of person-centered care and its seamless incorporation into healthcare provision - be it in measuring success, delivering service, or funding patient care. This text champions the belief that respectful, compassionate maternal care can profoundly alter the childbirth experience for all mothers. It advocates for person-centered care that ensures equitable treatment across the varied tapestry of cultures, social backgrounds, and economic circumstances, supported by pillars of clinical proficiency, personalized care, and fiscal prudence.

The playbook also delineates innovative financial models to deliver compassionate maternal and newborn care. It also advocates for collaborative, woman-centered care by eliminating unnecessary medical interventions. The vision presented is clear: no woman should have to face childbirth in isolation. It’s a principle that Leapfrog to Value embodies in their discussions of midwifery’s cost-effectiveness and its role in private healthcare, in line with what we have experienced at Fernandez Foundation in the last 13 years of midwifery practice.

From cover to cover, this playbook is dedicated to one noble aspiration: to ensure that maternal and newborn care is accessible, dignified, and respectful for all. As the authors insightfully note, the scope of compassionate care in maternal health transcends clinical interventions, recognizing the indelible mark of pregnancy and childbirth on a woman’s life. I invite you to read on and absorb the wisdom contained within these pages, to learn how to adopt a care model that is both compassionate and sustainable, for the wellbeing of mothers and children alike.

In unity with the visionaries at Leapfrog to Value and partners, we share the sentiment that transforming maternal and newborn care to be more inclusive and respectful is not just a worthy goal, it is an imperative that demands our immediate and unyielding commitment.

Dr Evita Fernandez

Chairperson
Fernandez Foundation, India

NOTES ON LANGUAGE AND TERMS

The language and terms around health systems are ever-evolving, however, for the flow of the document we have chosen to keep the language simple and consistent. We explain a few important terms here.

Mothers and newborns

We use terms such as “mothers and newborns”, “maternal and newborn health” often in this playbook. “Mothers” includes pregnant women, postpartum mothers, and mothers whose pregnancy journey ended prematurely because of an abortion or stillbirth. Similarly, the term “newborns” is meant to be inclusive of neonates, embryos, and fetuses.

Doula

We use the term “doula” to describe a skilled professional, who offers support before, during, and after childbirth (Cleveland Clinic, 2022). Although they do not administer medical care, doulas provide a range of support services including physical and emotional assistance to the mothers.

Compassionate care

Compassionate care refers to an approach grounded in empathy, kindness, respect, and understanding, with a focus on meeting emotional, psychological, and cultural needs (Homer CS et al., 2021). It extends beyond clinical procedures, recognizing the impact of pregnancy and childbirth on a woman's life. Compassionate care involves healthcare providers actively listening to and involving mothers in decision-making, fostering a supportive and trusting relationship throughout the maternity journey.

High-quality care

Quality care encompasses a comprehensive, evidence-based approach that ensures safe, effective, patient-centered, timely, efficient and equitable services throughout the continuum of pregnancy, childbirth, and the postpartum period (Agency for Healthcare Research and Quality, 2022). Continuous quality improvement mechanisms, informed by regular assessments and feedback, further characterize this approach, ensuring that care remains responsive to evolving evidence and the unique needs of the population (WHO, 2019).

Value

Value in maternal health is defined as a ratio of outcomes and costs (Porter & Lee, 2013). We include the range of outcomes that matter most to mothers. Costs include the resources required to achieve those outcomes across the full journey of care.

Person-centered care

We use “person-centered” care in the report to underscore the care that is responsive to the needs of individuals seeking care and different healthcare system actors. It prioritizes the individual preferences, values, and lived experiences, ensuring that care is tailored to cater to their unique needs and circumstances.

Our team

We use the term “our team” to indicate any subset of team members indicated in the author list above from the three organizations: Leapfrog to Value, Percept Actuaries and Consultants, and Global Development Incubator. Leapfrog to Value collective is comprised of Leapfrog to Value, PharmAccess, Percept Actuaries and consultants, Indian School of Business, Access Health International, and International Consortium of Health Outcome Measurement.

ACKNOWLEDGEMENTS

This playbook was made possible through the invaluable contributions of our partners, whose expertise, funding, and mentorship have been instrumental in its development. We extend our deepest gratitude to Dr Neo Tapela (International Consortium of Health Outcomes Measurement - ICHOM), Dr Howard Manyonga (NetworkOne, South Africa), and Ursula Torr (Alignd, South Africa) for serving as expert reviewers.

The support from the UBS Optimus Foundation has been crucial in making this report a reality. We also appreciate the strategic insights from Marissa Leffler and Cedrine Gisin of their team. Our gratitude extends to USAID's Center for Innovation and Impact, Merck for Mothers, and Global Development Incubator for their previous investments in Leapfrog to Value collective, which laid the foundation for this playbook.

We have also studied the following organizations and their work in maternity space either through our independent secondary research, direct interactions with their leadership teams and employees, or both, to develop the case studies. We sincerely appreciate their input.

- HoPE Doula, USA
- Department of International Public Health, Liverpool School of Tropical Medicine, UK
- The Fernandez Foundation, India
- Government of Rwanda
- NetworkOne, South Africa
- PPO Serve, South Africa
- Jacaranda Health, Kenya
- iDeliver, Kenya
- MomConnect, South Africa
- MomCare: PharmAccess Foundation, Kenya

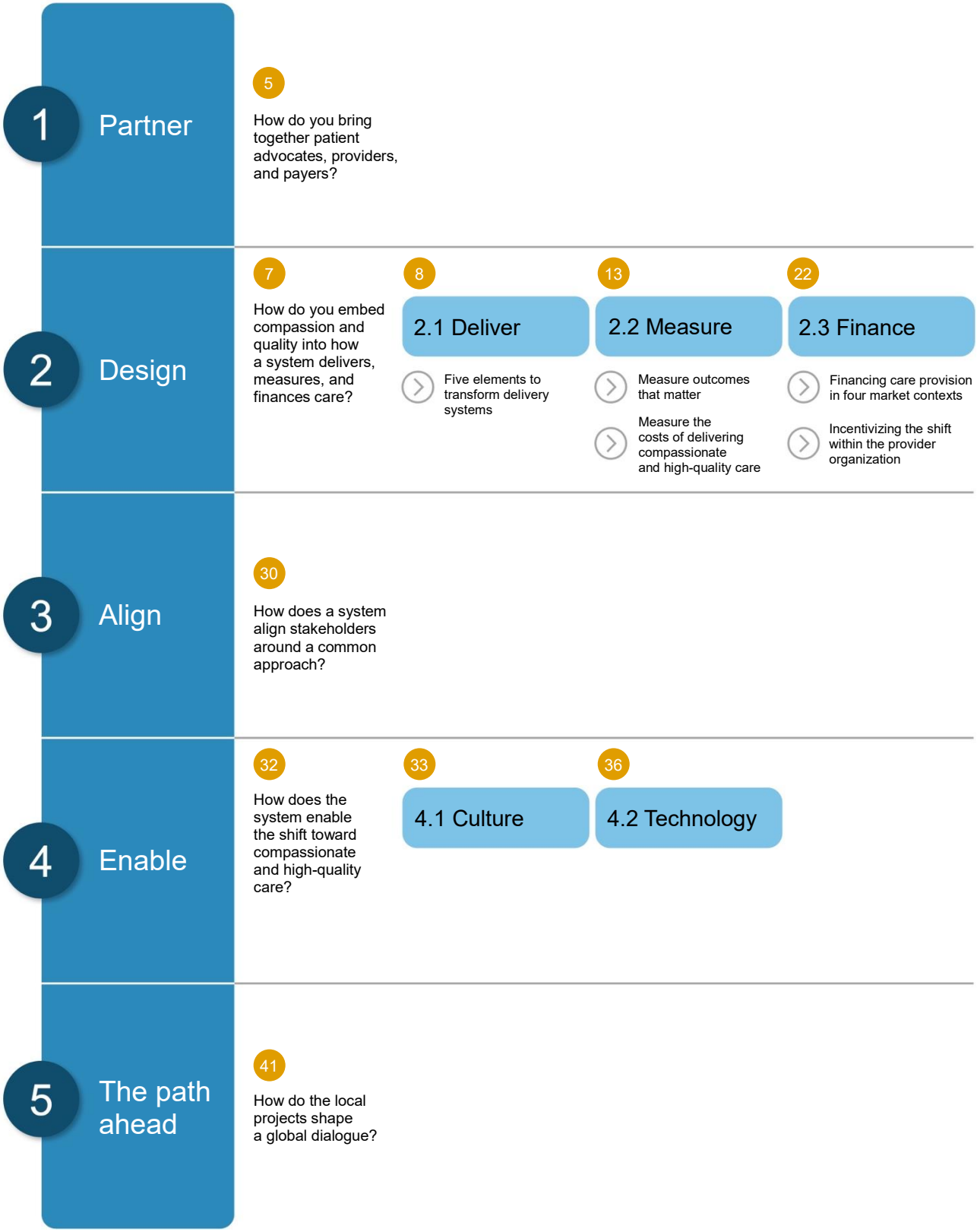
Percept and Leapfrog to Value developed a standard outcome set for South Africa for maternity, based on the ICHOM Set,Patient-Centered Outcome Measures for Pregnancy and Childbirth. Also, Leapfrog to Value, Indian School of Business, and the Fernandez Foundation in India collaborated on costing of midwife-led care. Both real-world experiences have richly informed many parts of the playbook, including the two case studies.

We extend our special thanks to Catherine Davis for her valuable editorial insights, which greatly enhanced the quality of this report, and to the skilled designers at Paper Snap for their contributions to the visual presentation of the playbook.

CONTENTS AND HOW TO USE THIS PLAYBOOK

This document is a resource for those seeking to understand and establish the components necessary to integrate compassion and quality into maternal and neonatal health systems. It builds on our earlier work, A playbook for designing human-centered health systems (refer to the companion resource section for details).

Each core chapter in this playbook focuses on “how” questions:



ACRONYMS AND ABBREVIATIONS

Acronyms	Explanation
ABC	Activity-based costing
AI	Artificial intelligence
ANC	Antenatal care
BSS-R	Birth Satisfaction Scale-Revised
CHWs	Community health workers
EDD	Estimated date of delivery
EMR	Electronic medical records
FGDs	Focus group discussions
GDPR	General Data Protection Regulation
HIV	Human immunodeficiency virus
HL7	Health Level 7
HR	Human resources
ICHOM	International Consortium for Health Outcomes Measurement
IMT	Integrated maternity team
IT	Information technology
MADM	Mothers Autonomy in Decision Making scale
MNH	Maternal and neonatal health
MOR	Mothers on Respect index
MUBC	Multidisciplinary birth centers
NGO	Non-governmental organization
NICU	Neonatal intensive care unit
OBGYN	Obstetrics and gynecology
OOP	Out of pocket
PNC	Postnatal care
POPIA	Protection of Personal Information Act, South Africa
PPP	Public-private partnership
PREMs	Patient-reported experience measures
PROMIS Global Health	Patient-reported outcomes measurement information system, aka PROMIS 10
PROMs	Patient-reported outcome measures
SDG	Sustainable Development Goals
SMS	Short message service
TDABC	Time-driven, activity-based costing
UHC	Universal healthcare
USA	United States of America
VBC	Value-based care

INTRODUCTION

Over the past two decades, there has been significant progress on maternal and neonatal survival. Since 2000, the global maternal mortality ratio has declined by ~35%, although progress has stalled in the past eight years (UNICEF, 2023). What has persisted however, is inequity. Of all maternal deaths, 99% occur in low-and middle-income countries (LMICs), with the majority (~70%) occurring in sub-Saharan Africa, and another ~15% in South Asia (WHO, 2023).

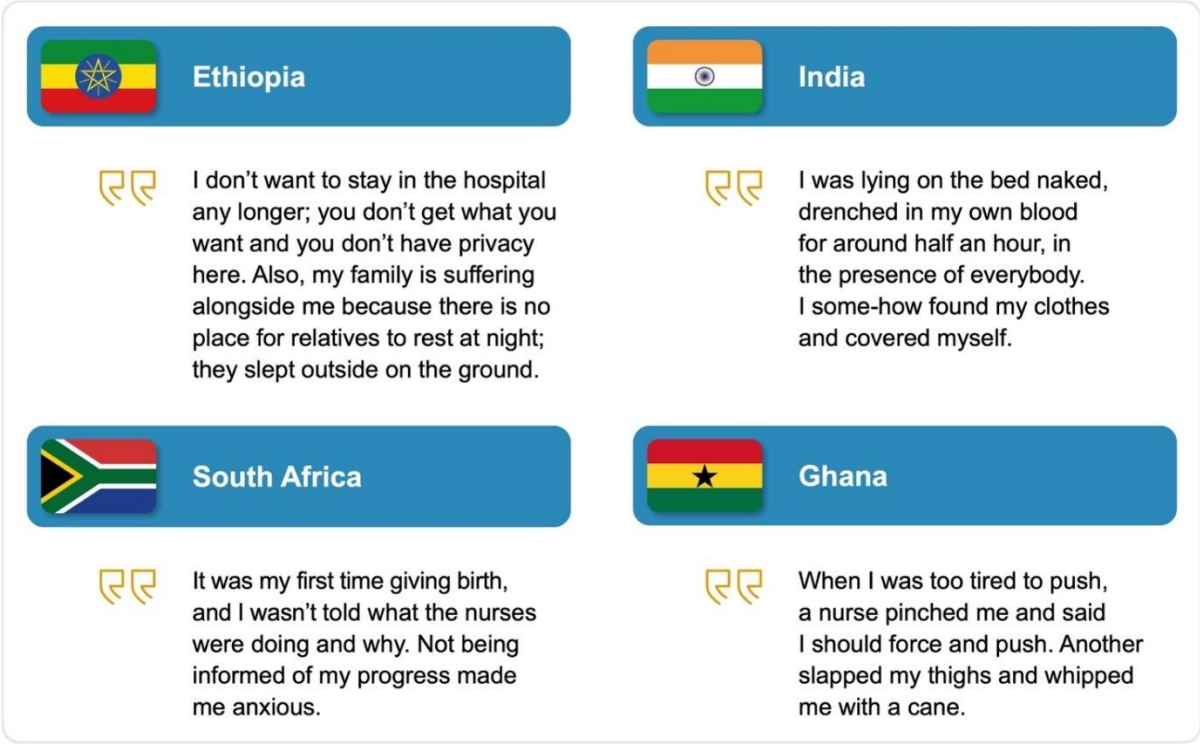
Inequities persist within countries, too. In India, 70% of Dalit women have experienced problems accessing healthcare, contributing to a 15-year shorter lifespan compared to upper caste women (NFHS-5, 2022). In Kenya, only 31% of deliveries in the poorest households had a skilled attendant at birth, compared to 93% of deliveries among the richest households (UNICEF, n.d.). In the United States, Black women are three times more likely to die from a pregnancy-related cause than White women (CDC, 2023). This inequity is a moral and strategic problem: leaving whole communities behind is a deep injustice and a barrier to achieving the maternal health Sustainable Development Goals (SDGs).

Underlying this problem are three interdependent crises.

1. Globally, access to maternal and newborn health (MNH) care has expanded with inconsistent quality (Arsenault et al., 2018). While strategies to expand access to care are essential to overcoming inequities, it is important to address the gap in quality of care. Otherwise, expanding access threatens the assumption that universal coverage will improve the lives of communities previously left out of the system.

2. MNH care has ignored the voices of women (Figure 1). Pregnancy and birth have been over-medicalized, positioning women and newborns as people in need of healthcare, rather than agents in their own thriving. The prevalence of obstetric violence points to a broader disenchantment with the experience of institutional births, contributing to even more distrust and hesitation in seeking care.

FIGURE 1: Capturing voices of women in LMICs

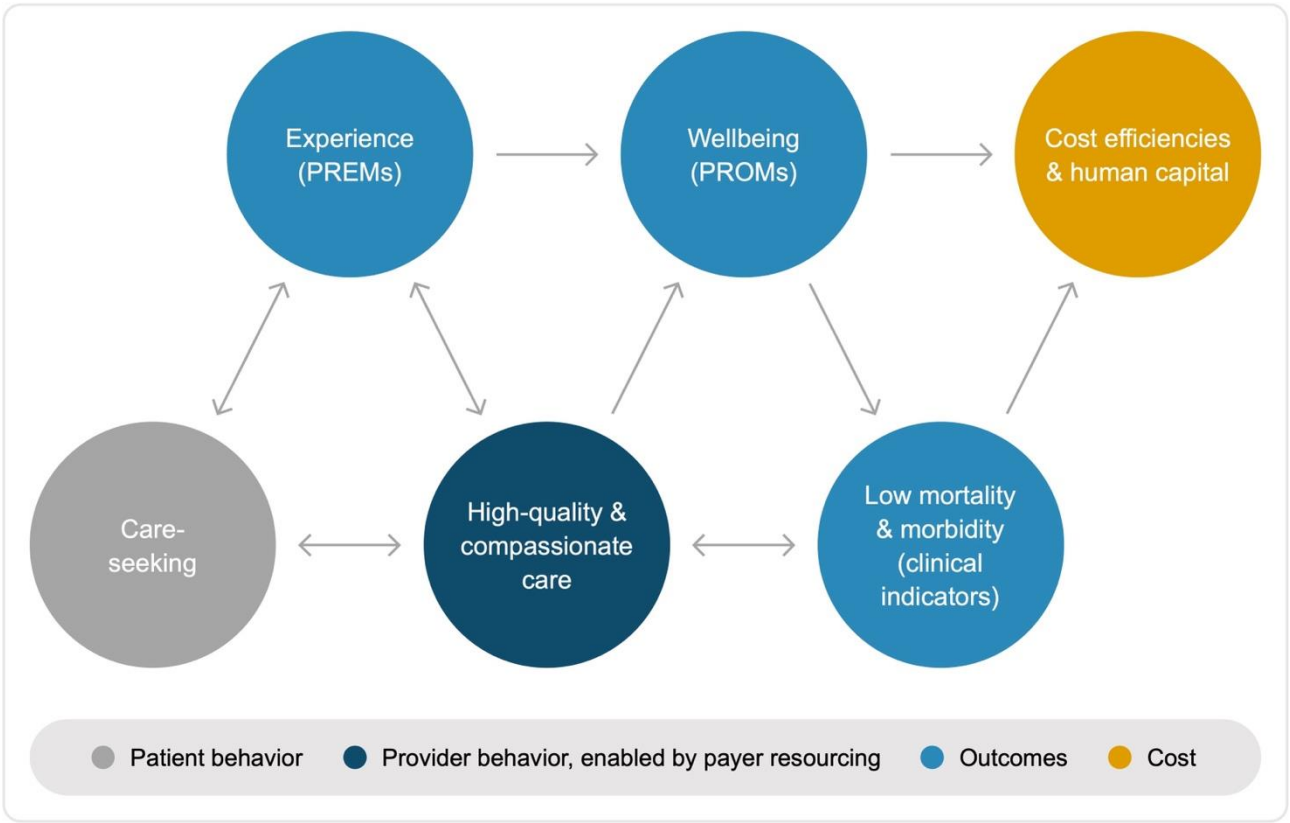


3. MNH systems finance inputs and outputs to care (e.g. human resource costs and number of deliveries), rather than the outcomes that matter (mortality and morbidity, satisfaction with care, self-reported wellbeing). We know from global experience that this approach to financing leads to low-value care. In the private sector, it can create perverse incentives toward the medicalization of pregnancy and an excess of caesarean deliveries. In the public sector, input-based financing creates no accountability for outcomes and little incentive to improve the value of care. Health spending increases, whether or not outcomes improve.

The global MNH community has recognized these challenges and has launched important efforts to address them (IMNHC, 2023). There is a technocratic movement to improve the quality of care, a rights-based movement to call for respectful MNH care, and performance-based financing mechanisms to establish stronger accountability for spending.

This playbook provides practitioners with a model to bring these three movements together. The model centers on compassionate and high-quality care. This model has the potential to improve care-seeking, people's satisfaction with care, their subjective sense of wellbeing, as well as clinical outcomes, generating cost savings, and building human capital (Figure 2).

FIGURE 2: Framework for improving patient-centered outcomes and experiences through compassionate and quality care



PARTNER

1. PARTNER

Unlocking the value of compassionate and quality maternal care requires high-trust partnerships. In Section 1 of our publication, "A playbook for designing for human-centered health systems" (refer to the companion resource section for details), we provide strategies for bringing patients, providers, and payers together.

These strategies can be adapted to the maternal health context by refining who is in each category.

Patients.

The MNH ecosystem has pre-existing patient advocacy organizations like local chapters of the White Ribbon Alliance. Representatives of such advocacy groups can elevate the voices of patients.

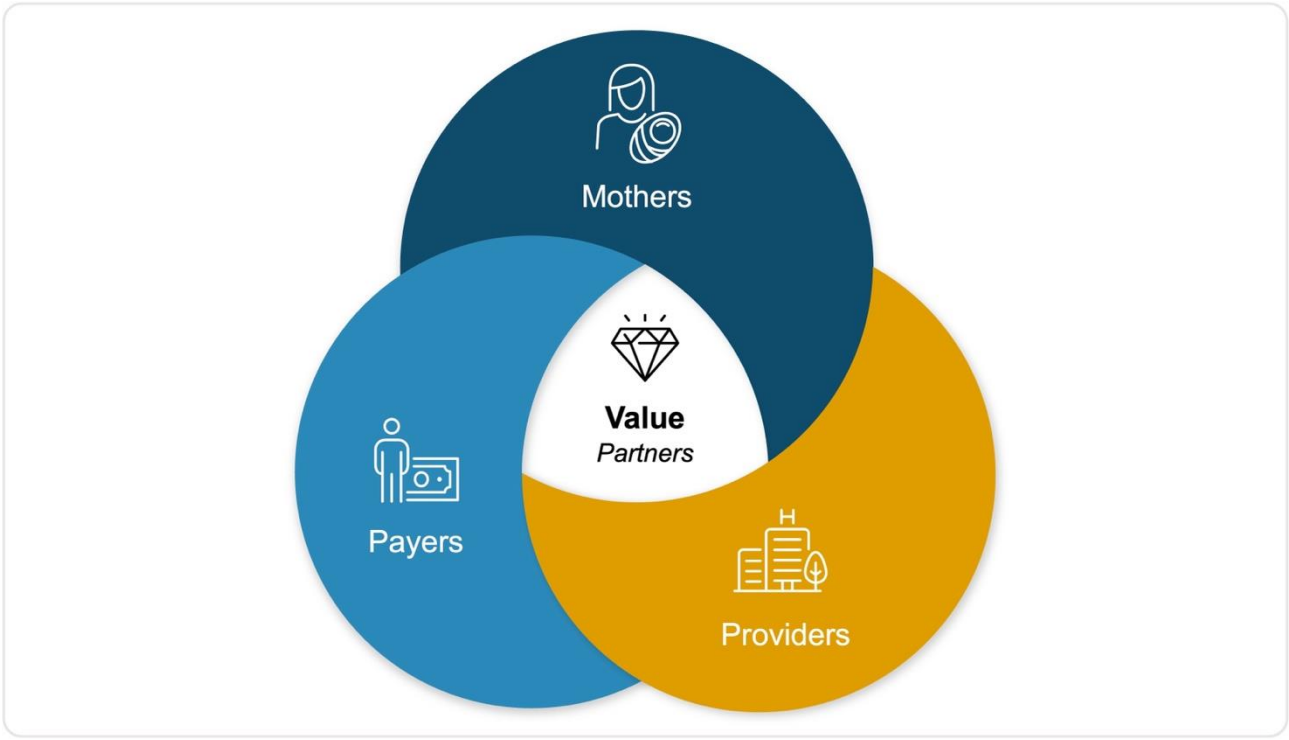
Providers.

It's important to include provider perspectives beyond medical doctors, especially for MNH systems. This may include the providers who are closest to the experience of moms and newborns, such as nurses, midwives and doulas.

Payers.

In addition to traditional healthcare payers (governments, donors, insurers, other businesses), consider looking to other potential investors. MNH care has an impact on society's human capital. Therefore, it is sometimes possible to unlock investment from government ministries unrelated to healthcare.

FIGURE 3: Partners



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DESIGN

2. DESIGN

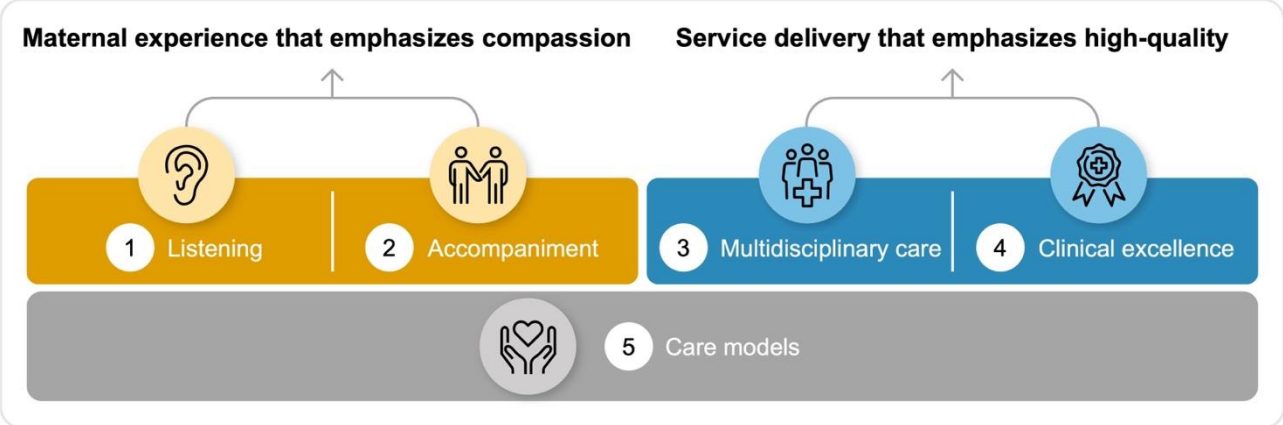
What does it mean to embed compassion and quality into health systems? We organize our answer by clarifying how compassion and quality can be integrated into three elements of a health system: how it delivers services, how it measures (and manages) performance, and how it finances care.

2.1 Deliver

Compassionate maternal and neonatal care aims not only at the surviving, but also the thriving of women, newborns, and communities through a whole-person, whole-society approach (Grant et al., 2022). Compassion reduces pain, improves healing, lowers blood pressure, and helps alleviate depression and anxiety (Trzeciak et al., 2017). Elevating the principles of dignity, respect, and kindness, compassionate care is also a driver of societal value (Sudhof & Shah, 2019). Unlocking this value starts with transforming delivery systems.

There are five elements to transforming the delivery systems. Maternal experience that emphasizes compassion, including how we listen to (1), and accompany mothers and newborns (2); and a service delivery that emphasizes quality, including multidisciplinary teams (3), and clinical excellence (4); and innovative care models (5) cut across all these.

FIGURE 4: Elements to transform delivery systems



1. Listening

In a traditional biomedical model, the mother is the object of care, receiving healthcare services from an expert provider. In a compassionate care model, the mother is an agent in her own flourishing. Health systems can recognize this agency by embedding listening as a central activity in its care model.

This starts with understanding needs at the population level. Market research and surveys represent a kind of listening that can surface the unique circumstances and preferences of a community, and how those vary within the population. Leapfrog to Value and Percept published the findings of this kind of listening in South Africa (refer to the companion resource section for details). While this investigation can establish a point-in-time picture of needs, compassionate systems also listen routinely (see the measure section).

Listening is also embedded throughout the journey of each mother. Providers should actively listen, empathize, and ask open-ended questions to encourage dialogue. Respecting cultural differences and maintaining non-judgmental attitudes fosters trust. Clarifying potentially confusing points and summarizing the discussions promotes mutual understanding, while documenting the discussions in medical records ensures accountability. Encouraging partner involvement and follow-up reinforces continuity of care.

2. Accompaniment

While listening can reveal the attitudes, beliefs, and preferences of a mother, listening alone does not sufficiently empower them to advocate for their needs and take meaningful decisions. Accompanying women through their care journey can help reduce this gap.

Accompaniment provides emotional, physical, and informational support to pregnant individuals. It involves offering reassurance, comfort, and advocacy that empowers women to make informed decisions about their care. Continuity of support ensures consistency and reduces stress, contributing to positive birth experiences and improved maternal and neonatal outcomes. Whether provided by healthcare professionals, such as midwives or doulas, or by family members and friends, accompaniment plays a crucial role in enhancing the overall wellbeing of mothers and their families. It fosters trust, and promotes person-centered care throughout the maternity journey.

Despite these benefits, many health systems have an antagonistic relationship with the individuals accompanying mothers through their care journey. Family members are prohibited from maternity wards or doulas are discredited in their role. Health systems have an opportunity to reverse those practices and embrace the role of accompanists, and the positive outcomes that come with it.

Case study 1: Doulas that provide accompaniment for women during childbirth in New York

Racial disparities in maternal and neonatal health in the USA represent generations of discrimination and mistrust in health systems. Social, economic, and biomedical determinants of health; and variable quality of care, all contribute to inequality in pregnancy-related mortality (Hill et al., 2022). Integrating doulas as part of the maternal-neonatal care journey has been shown to improve a number of birth outcomes, such as shortened labor, fewer medical interventions, fewer preterm birth and low birth weight, and improved experiences of birth and breastfeeding initiation (MA et al., 2017, Marudo et al., 2023).

Drawing on this evidence base, the HoPE Doula Program provides community-based doula care, free of cost, to anyone seeking maternal care at Elmhurst Hospital and Queens Hospitals in New York City (Hope Doula, 2022). The effort is directed by a community advisory board that includes representation from doula organizations, hospitals, research institutions, and government agencies. It is a joint venture of NYC Health + Hospitals, the Arnhold Institute for Global Health at Mount Sinai Hospital, and two community-based doula programs in Queens: Ancient Song Doula Services and Caribbean Women's Health Association.

As the initiative grows it aims to lead the way in scaling the concept of doulas to the birthing process in public hospitals, pioneering a model of care that prioritizes personalized, culturally responsive support for mothers. HoPE also seeks to demonstrate the impact of its model for New York Medicaid (insurance scheme covering low-income residents), to unlock more financing for its model of accompaniment.

3. Multidisciplinary care

Multidisciplinary care is the foundation for compassionate and quality care. It replaces an obstetrician-centered and hierarchical model, with a team-based culture. In doing so a health system can:

1. Address a variety of human needs, going beyond the biomedical;
2. Unlock efficiencies in managing scarce resources, distributing tasks to the highest value team member;
3. Calibrate care to different levels of clinical and social risk.

The composition of a multidisciplinary team for maternal and neonatal health will vary by context but should cover the following functions in Figure 5.

FIGURE 5: Functions and roles for multi-disciplinary maternal care teams

Function	Example role(s)
Accompaniment	Doula, community health worker (CHW), family member
Clinical care for low-risk pregnancies	Midwife or non-specialist medical officer
Clinical care for high-risk pregnancies	Obstetrician/gynecologist
Dietary support	Dietitian (or wrapped within a role above)
Support for complex social situation	Social worker and/or paralegal
Perinatal mental health	Psychology professional, if available
Pain management	Obstetrician and anesthesiologist

4. Clinical excellence

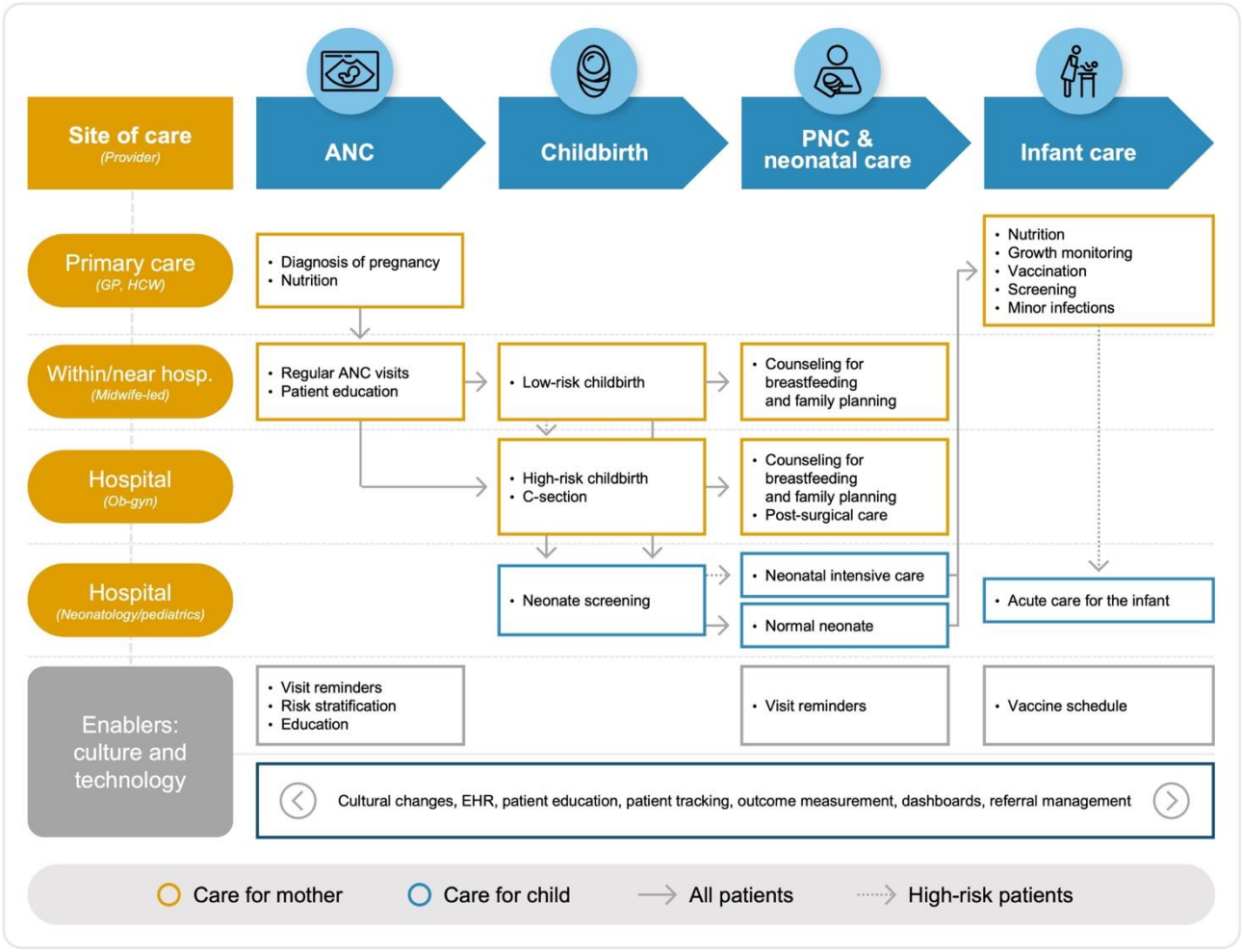
While many other resources elaborate on clinical guidelines, it would be negligent to omit a summary here, because they are essential to achieving the clinical outcomes that matter to mothers and neonates, and to appropriate resource utilization.

Inputs from the key providers of maternity care (midwives and doctors) should be sought to ensure that the offering is clinically sound, that mothers enter care at the appropriate time, and they have sufficient healthcare interactions to mitigate any risks along the maternity journey.

In line with following global maternal healthcare standards, it is recommended that all mothers attend a minimum of eight antenatal care (ANC) visits. The first visit should be in the first trimester to determine the stage of the pregnancy accurately and estimating for the expected date of delivery (EDD). Early entry into ANC allows for assessment of clinical risk and therefore sets up the foundation for improving maternal and neonatal outcomes.

This baseline eight-visit care pathway would be applied to low-risk pregnancies. The clinical risk category of a mother is based on a number of factors such as maternal age, body mass index, previous obstetric history and the presence of comorbidities. Clinical risk may increase during the course of a maternity journey, which requires vigilance from the care team to detect these changes and respond with the appropriate escalation of care to safeguard the mother and baby. At a minimum, a skilled birth attendant should be present at delivery to ensure the mother and neonate's safety. We illustrate an ideal patient pathway in Figure 6 below.

FIGURE 6: Illustration of a high-value maternal and neonatal care pathway



5. Care models

Care models that integrate the four elements above can serve as a cross-cutting strategy to deliver compassionate and high-quality care. Figure 7 includes a starter-list of models that center compassion and quality. These models are not mutually exclusive.

FIGURE 7: Care models

Midwife-led	Midwife-led care models focus on the natural process of childbirth. They offer personalized, holistic support throughout pregnancy, labor, and postpartum, prioritizing minimal medical intervention and fostering empowering birth experiences. This approach typically involves a degree of risk stratification, where higher-risk mothers receive supplementary services from obstetricians.
Group-based	Group-based maternal care is a collaborative approach in which mothers receive prenatal and postnatal care within a supportive group environment. This model cultivates a sense of community, enabling participants to share experiences and learn collectively, thereby enriching their understanding and support network throughout pregnancy, childbirth, and the early postpartum period. Moreover, this approach can be implemented to optimize resource utilization within the healthcare system, while maintaining or increasing the quality and compassion of the care.
Community-based	These models leverage community health workers and local facilities to provide maternal and neonatal care. They focus on accessibility, education, and prevention, often incorporating traditional practices with modern healthcare. For example, traditional birth attendants can play a vital role, bridging biomedical approaches with community traditions, enhancing relevance and acceptance.
Digitally-enabled	Digitally-enabled maternal care models use technologies like online applications, wearables, and telehealth to provide real-time health monitoring, educational resources, and virtual consultations. Its features include symptom tracking, appointment reminders, and direct messaging with healthcare providers, offering a connected and informed pregnancy experience.
Family-centered	This model places the family at the heart of the care process, encouraging active participation of family members in the birthing and neonatal care process. It emphasizes accompaniment, and the psychological, emotional, and social aspects of care, alongside the physical aspects.

2.2 Measure

Measurement is critical to evaluating progress against a goal and serves as the compass that guides improvement. The crux is the examination of outcomes that matter – those that resonate deeply with care seekers and significantly affect their wellbeing. The focus extends to measuring costs, recognizing the critical interplay between resource allocation and the quality of care provided. The ability to quantify and evaluate outcomes and costs empowers care seekers, providers, and payers, fostering a culture of mutual accountability.

1. Measure outcomes that matter

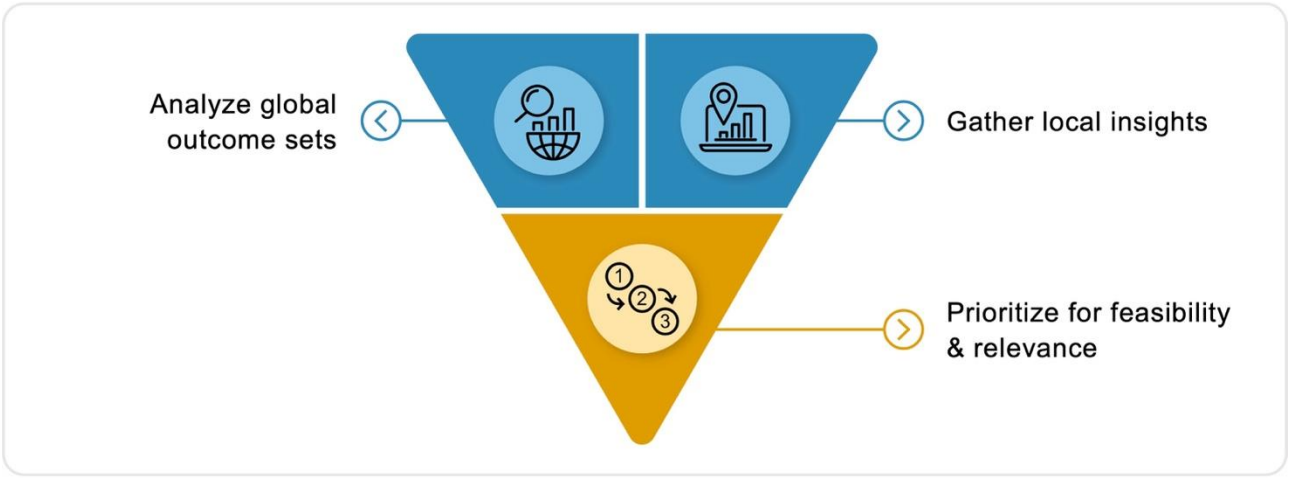
Global initiatives to improve MNH over the past two decades have predominantly focused on access metrics, neglecting the aspect of quality (WHO, 2016). Health systems cannot afford to expand access to poor quality care. Tracking outcomes enables health systems to establish visibility into and accountability for the quality of services delivered (Hanefeld et al., 2017). If compassion is also the goal of care, a system must also develop corresponding metrics.

The first step to creating value therefore, is understanding what matters to people receiving maternity care. The outcomes that matter to care seekers include clinical outcome measures (such as survival), patient-reported outcome measures (PROMs), and patient-reported experience measures (PREMs). PROMs access subjective outcomes directly from patients on how they are doing (symptoms, wellbeing, functioning) beyond just surviving the condition as a result of treatment (Cochrane, 2023). PREMs assess care seekers' experiences and perceptions of care, including aspects of communication, empathy, and the quality of care. PROMs and PREMs hold immense significance because they represent the voice of the care seeker, and can enrich appraisal of health system performance, which has traditionally focused on the perspective of clinicians, policy makers, and payers.

To arrive at an integrated metric set, we recommend three steps which can be undertaken iteratively rather than sequentially:

1. Analyze global outcomes set,
2. Gather local insight, and
3. Prioritize for feasibility and relevance.

FIGURE 8: Process to arrive at integrated metric set



1. Analyze global outcomes set

Reputed healthcare organizations and experts have developed standard outcome sets and individual scales for maternal and neonatal care. Engaging with these sets or scales provides a foundation for outcome metric design and facilitates benchmarking.

The International Consortium for Health Outcome Measurements (ICHOM) has developed a standard outcome set called the ICHOM Set of Patient-Centered Outcome Measures for Pregnancy and Childbirth (ICHOM, n.d.). This comprehensive set includes clinical measures related to survival and morbidity (five indices); and patient-reported measures related to health and wellbeing (six indices) and satisfaction (three indices). There are 14 validated scales associated with the ICHOM set such as, the Birth Satisfaction Scale (BSS-R) and the 10-item questionnaire from Patient-Reported Outcomes Measurement Information System Global Health - PROMIS 10. (BSS-R, n.d., PROMIS 10, 2015)

There are more focused tools such as the Mother's Autonomy in Decision Making scale (MADM) (Vedam et al., 2017) which measures women's involvement in their own care, and the Mothers on Respect index (MOR) (Vedam et al., 2017) measures quality, safety, and human rights in childbirth.

In acknowledging the importance of engaging with existing scales and metric sets, it is crucial to recognize that many of these sets were developed in high-income countries. While these sets offer valuable insights and uphold rigorous standards, their applicability to diverse global contexts, especially those with varying resource levels, may be limited. It is imperative to approach the adoption of such frameworks with a pragmatic and localized lens.

2. Gather local insight

Maternity care is intricately woven into the fabric of local contexts, shaped by cultural norms, socioeconomic factors, and constraints of local infrastructure. Our experience in South Africa highlighted the necessity of ensuring that the outcomes we measure are contextually relevant, capturing the nuances that matter most to the local population. We first surveyed local women and then developed an outcome set inspired by their specific hopes and concerns. Read more about this process in this survey on what matters to women (refer to the companion resource section for details) and in the case study below.

If you are unable to invest in a full survey process, you can find other ways to gather local insights through focus group discussions (FGDs) and reviewing local ethnographic and sociological research, where available.

At this point, one could develop a de-novo PROMs and PREMs assessment tool, tailor-fitted for a specific context. In case such a tool *is* developed de-novo, it requires an additional step of validating the tool. It does have a disadvantage of not being able to benchmark globally, against data in different contexts. An example from Malawi and Kenya follows.

Case study 2: Building a novel PROM assessment tool in Malawi and Kenya

A study titled, "Assessing Quality of Care in Maternity Services in Low and Middle-Income Countries: Development of a Maternity Patient Reported Outcome Measure", conducted by researchers from the Liverpool School of Tropical Medicine, UK, developed a novel PROM tailored for maternity care, with a focus on facilitating improvements in quality of care provided to women giving birth in healthcare facilities. (Dickinson et al., 2022)

The researchers tested the draft PROM tool in Malawi and Kenya, engaging in FGDs with women to gather feedback and refine measures. This iterative process resulted in enhancements to the final measure, including the addition of issues related to the ability to perform household tasks and the impact of pregnancy and childbirth on marital relationships, based on the insights gleaned from participant feedback. This study underscores the significance of seeking input directly from women to ascertain how the quality of their care should be assessed, particularly within LMIC contexts.

3. Prioritize for relevance and feasibility

After considering outcome measures globally and evaluating them against the local context, a health system ultimately needs to develop a shortlist of outcome metrics that collectively become a single outcome set. To arrive at this outcome set, prioritization is essential both to help decision-makers focus on what matters most and to ensure sustainability. The process should be collaborative, consulting diverse stakeholders such as care seekers and patient advocates, personnel collecting data, healthcare administrators, and policy makers. Criteria for prioritization based on relevance and feasibility follow.

Relevant

Actionable. Metrics generate useful insight for improving care: clinical decisions, triaging, resource allocation, and payment decisions. When possible, share a view of what needs to happen to improve performance, helping achieve quick wins, and building trust.

Credible. Ensure care seekers are involved in the design of the instrument, and that the set is validated by public health experts, clinicians, and implementers. Or if a new tool is built, that it is validated before scaled.

Patient-reported. Prioritize areas where insight into patient wellbeing cannot be derived without direct patient voice. Patient wellbeing measures such as pain, fatigue, sexual functioning and compassion of care measures such as inclusion in decision-making, privacy, treatment with respect and dignity are in this category.

Quotable. Data can convince minds; stories win hearts to motivate change. Consider how you might capture care seekers' direct quotes to amplify their voices and tell their stories.

Feasible

Low-burden. Consider patient and staff burden, methods of administration, cost, availability of translated versions, and guidelines for scoring and interpretation.

Shareable. Determine what measures providers are able and willing to share, considering data safety and concerns around credibility and trust.

Scalable. Define what standardization and IT-enablement can facilitate scale.

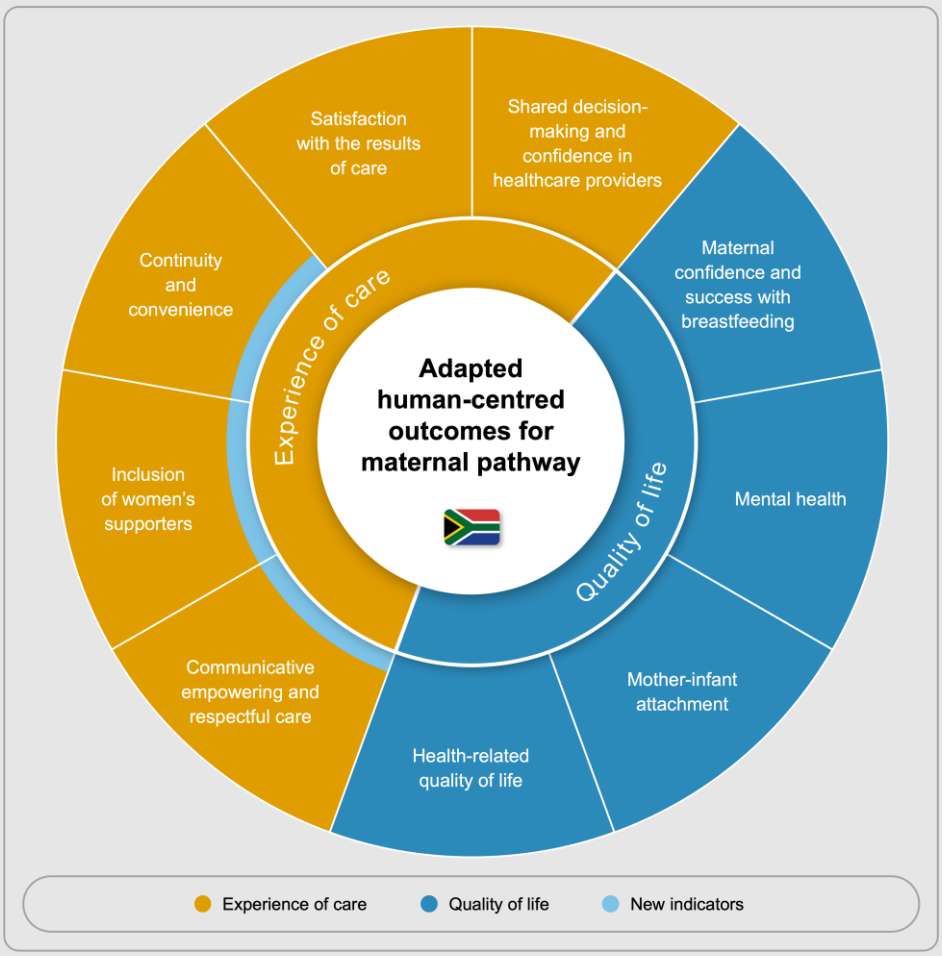
Case study 3: Advancing maternal health outcomes in South Africa: Bridging gaps and customizing measures

In the South African province where Percept and Leapfrog to Value were working, significant strides have been made to improve maternal health, particularly with respect to infrastructure development and availability of skilled healthcare professionals. Despite these advancements, persistent challenges remain, such as fragmented services, occurrences of obstetric violence, and disparities in access to quality care. These disproportionately affect women from economically disadvantaged backgrounds, ultimately contributing to the rising maternal mortality incidences throughout the province.

These challenges underscore the necessity for ongoing enhancements not only in the delivery of quality maternal health services, but also in understanding and assessing the needs of mothers. Measuring outcomes that matter was one important way to this understanding.

We started with the global maternity standard set, developed by ICHOM. It formed the foundation of the metrics design, enabling us to capture crucial outcomes related to survival, morbidity, health, wellbeing, and satisfaction. However, when applied to the South African context, it was apparent that these standardized measures needed to be aligned and customized to the unique healthcare landscape and patient demographics. For instance, incorporating the full set of questions from the maternity set, posed the tough challenge of balancing length of questionnaire needed to ensure rigor and integrating the lived experiences of mothers. Additionally, certain operational definitions, such as 'conception', differed in the South African context, prompting a re-evaluation of the questions from the ICHOM validated questionnaires set.

FIGURE 9: Proposed human centered outcomes set to measure value



To address this and deepen our understanding of what matters to mothers in this province, we conducted a survey (as mentioned above), gathering data from 360 mothers from diverse socioeconomic backgrounds receiving care across public and private maternity facilities.

Apart from using the survey inputs, we further prioritized outcomes that were relevant and feasible to the health needs and perspectives of mothers. For example, the ICHOM maternity set omitted critical aspects of maternity care, such as fetal screening and nausea treatment which were salient in the South African context. There was also a notable absence of data points related to access to family planning and contraception, neonatal health indicators (e.g., stunting, growth, vaccination), and continuity of care. This prioritization also led to the recognition that the maternity set primarily focused on birth alone, whereas greater attention was warranted on ANC in this setting. Figure 9 shows the outcomes set we created.

The 'Global - Local - Prioritize' framework drove us to implement a more nuanced and person-centered approach to outcome measurement. By leveraging existing validated metrics, tailoring their applicability, and prioritizing outcomes based on the specific local context, we could effectively address the multifaceted challenges in quality maternal healthcare provision in South Africa. To know more about the process and rationale refer to the report, **"Making a case for value-based care (VBC)"** (refer to the companion resource section for details).

2. Measure the costs of delivering compassionate and high-quality care

When integrated with outcomes data, cost measurement gives a system insight into the value of care, including a number of cost/value optimization opportunities. Stewardship of MNH resources involves both the day-to-day work of ongoing performance management, as well as, the occasional deeper structural changes to delivery. We represent these two types of optimization opportunities as a continuum in Figure 10.

FIGURE 10: Optimizing the cost of care

Optimization opportunity	Examples of MNH application
Care model change across the pathway	Midwife-led model for low-risk deliveries; group antenatal care, mobile health solution
Social, behavioral, environmental determinants	Investment case for programs such as cash transfer, nutrition security, housing, social stigma
Innovations	Investment case for a portable ultrasound
Avoidance of bad outcomes	Neonatal ICU stays; morbidity due to high-risk cases
Appropriateness of care	Appropriate use of inductions, episiotomy, caesarean sections
Medico-legal costs	Lawsuits related to delivery complications
Out-of-pocket costs	Transportation, medications
Operations management	Scheduling; utilization of medical supplies for labor and delivery

Structural changes

Performance management

Aligned with these two types of optimization are two types of cost measurement.

Firstly, on an ongoing basis, systems should track routine indicators to guide performance management within an existing model of care. These indicators do not involve a full-blown costing exercise. They are the key drivers of the biggest and most variable costs longitudinally. Figure 11 offers indicators across cost categories for this ongoing optimization. Partners may choose suitable indicators and modify for their local context.

FIGURE 11: Illustrative routine indicators for performance management

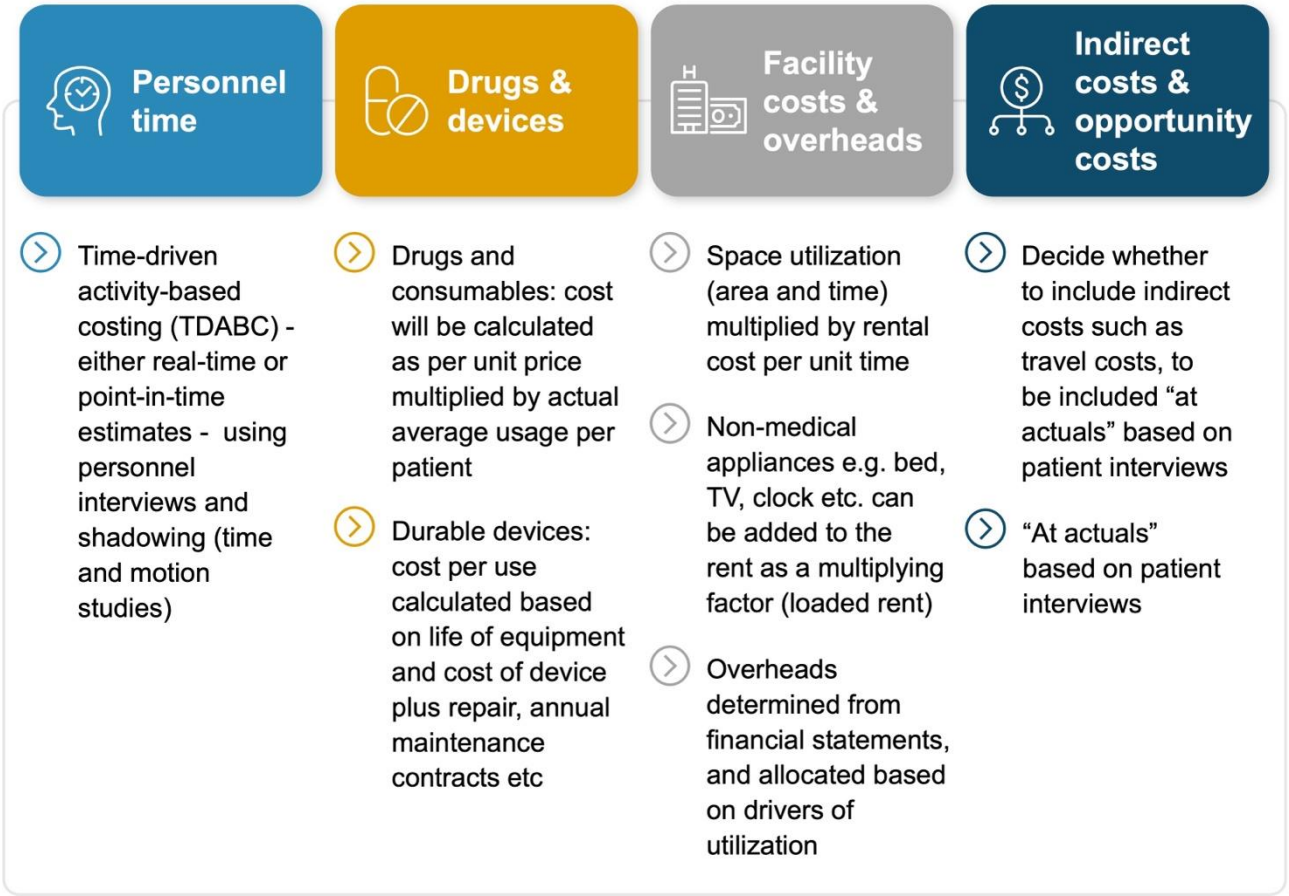
Category	Example indicators for performance management
ANC visit	• Number of ANC visits and scans by risk category • Number of ANC visits done (physical vs. digital format) • Visits managed by midwife vs. primary care physician vs. obstetrician • Average time spent by obstetrician per visit • Generic drug utilization for ANC supplementation
Labor and delivery	• Cesarean section rates by Robson risk categories • Length of hospital stay by type of delivery • Percentage of low-risk deliveries managed by midwives • Site of delivery: community-based, midwife-led unit vs. tertiary hospital
Neonatal care	• Percentage of neonates that require neonatal intensive care unit (NICU) stay • Length of NICU stay
Out-of-pocket payment	• Facility and diagnostics fees paid out of pocket (OOP) • Transport costs

Secondly, MNH systems may occasionally face pivotal design decisions that call for comprehensive costing analysis. For example, a system may seek to evaluate the investment case for adopting a new technology. Or a system may need to decide whether to adopt a dramatically new care model that shifts how mothers flow through the care journey and/or how the provider model works. For these decisions, a more comprehensive costing is often required.

Comprehensive costing in the line of care requires depth of understanding of costing, especially the clear distinction between costing and pricing. In absence of automated costing systems, such micro-costing efforts can also be resource-intensive and demanding; making it crucial to align the intensity of costing effort with the objective of the costing, i.e. the structural change decision we are trying to make.

Such detailed costing starts with identifying the unique care pathways from a costing perspective and mapping each pathway including people and equipment involved in care. Consider the time people spend caring, and the spaces where care is offered. Take note of variations in the pathways, in the personnel used, the equipment usage and the duration of all of these. Figure 12 shows examples of cost estimation approaches for various cost categories; and Case study 4 offers details on how we optimized the method for a specific objective, in an ongoing effort.

FIGURE 12: Methods for comprehensive costing of the care pathway for structural change decisions



Case study 4: Demonstrating value of midwife-led maternity care for uninsured people

The Fernandez Foundation has been practicing and advocating for midwifery for more than a decade. While they believe that use of midwifery in low-risk childbirth creates high value, i.e. better maternal and newborn outcomes and costs, they wanted to test this hypothesis rigorously and with external organizations. Indian School of Business (ISB) and Leapfrog to Value (L2V) worked with the Fernandez Foundation to test this hypothesis.

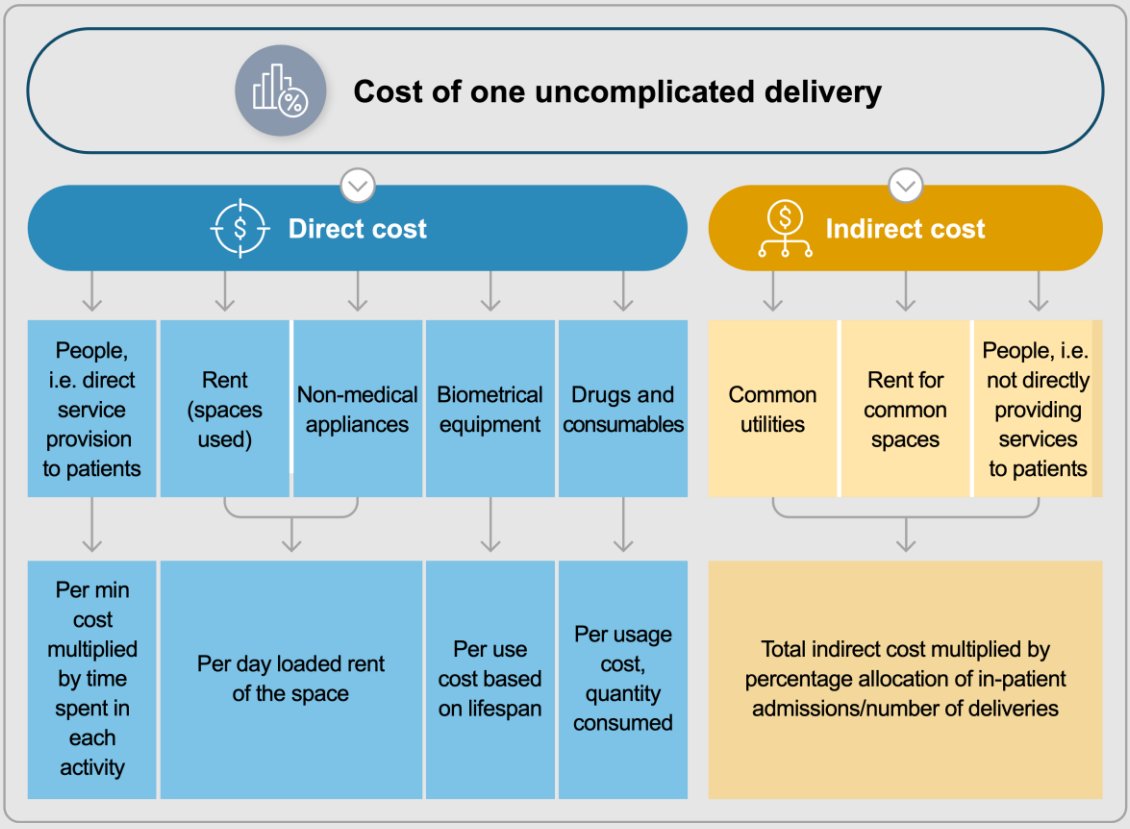
The Fernandez Foundation had internally documented evidence on the better outcomes from midwifery. Hence, we (ISB and L2V) decided to prioritize the comparison of costing midwifery and the more prevalent obstetrician model. While it may appear that the cost of midwife-led birth should obviously be less than obstetrician-led birth given lower cost resources involved in the first, the question is more complicated than it appears. This is because (1) the midwife-led unit and obstetrician-led unit shared space and midwives' time; (2) in the case of Fernandez Foundation, the midwives are present with the patient for almost the entire duration of active labor whereas the doctors monitor the patient intermittently; and (3) the midwifery suite used a larger space and had different equipment. So, to test this hypothesis a nuanced costing analysis was required.

We used a detailed time-driven, activity-based costing (TDABC) methodology to model the cost of the entire pathway. It began with mapping the following clinical pathways:

- Delivery led by obstetrician, assisted by midwife
- Delivery led by obstetrician, without midwife on the team
- Midwife-led delivery

The risk-profile of mothers handled by midwives is limited. To ensure a like-to-like comparison, we compared patients who received midwifery care, with low-risk mothers eligible for midwifery but who received obstetric care.

FIGURE 13: Methods used for comprehensive costing of the three pathways



Different cost categories had different drivers and per unit costs, as depicted by the figure above. Data was derived from multiple sources, including direct observation to map the pathway and understand the time spent. Nursing notes timestamps were analyzed to understand variations of the pathway. We used many other sources of data such as staff rosters, statistics on the births in one month, interviews with key resources etc., to triangulate our assumptions

While this study is still ongoing, initial analyses suggest that the midwife-led births for low-risk care are cheaper than the obstetrician-led births. And even when midwives assist in the obstetrician-led birth, it leads to cost-savings while simultaneously enhancing the quality and experience of care. We plan to add outcome data including PROMs and PREMs to understand the numerator of value.

Depending on the objective of costing, it is important to balance aggregation and granularity.

Aggregation enables a system to understand the interplay between costs and outcomes. With only a fragmented view, a provider may cut costs in antenatal prevention, without seeing the costly downstream consequences in the form of increased cesarean rates and NICU stays. For this reason, costs should be aggregated across pregnancy, delivery, and postpartum care.

Granularity enables a system to pinpoint cost drivers. A health system may observe that similarly sized facilities have different per annum budgets, and wonder what accounts for the variation. When costs are broken down into categories – personnel, medications, diagnostics, etc. – the system can begin to understand the opportunities to optimize. Analyzing variability at each level of disaggregation (by cost category, patient risk-strata, facility, individual provider, or individual activities within the care pathway) offers insight into controllable and uncontrollable variability, which can further guide optimization efforts.

Data sources for costing

Costing necessitates the triangulation of data from various sources to address data gaps and improve credibility. In Figure 14 below, we demonstrate a range of alternative data sources.

FIGURE 14: Data sources for costing

Stakeholder	Data sources
Provider	Staff and salaries • HR organogram charts and payroll systems • Staffing rosters • Financial statement Staff time spent on specific activities • Interviews • Observation studies • Timestamps from electronic medical records (EMR) Rent, utilities, equipment cost, and indirect cost • Financial statements • Biomedical department Drugs and consumables • Pharmacy • Discharge summary • Consumables checklists Number of deliveries • Medical records and biostatistics department
Health insurance	• Claims data across multiple diagnostic codes and health system encounters
Government budgets	• Budgets at a facility level • Individual budget line items for salaries, operational cost, and drugs, etc.
Public health	• Demographic data (pointing to risk factors) • Birth notifications

2.3 Finance

Dominant health financing models for MNH are not tightly aligned to compassion and quality. This is true for both public and private sectors. Budgeting systems in the public sector, while simple to operationalize, typically do not encourage resource stewardship and performance accountability. The budgets tend to encompass biomedical care and exclude accompaniment (e.g. doulas) and other psychosocial support. Rigidity of budgets stifles innovation and prevents providers from making wise reallocation decisions based on better insight into immediate needs.

Fee-for-service payments prevail in the private sector. This payment model can incentivize the provision of unnecessary care that drives costs upwards and can even be harmful. Private markets rarely provide good visibility into the relative performance of providers; therefore, providers feel little competitive pressure to achieve better outcomes for mothers and newborns, even when they compete fiercely on the footfall and revenue.

How do we shift the status quo? Financing models must allocate the resources required to deliver compassionate and high-quality care in a sustainable manner, and align payers, providers, and patients. Arriving at such a financing model emanates from measuring outcomes and costs to understand how the two interact (Chapter 2.2) and a well-designed delivery model (Chapter 2.1).

There are four archetypal market contexts:

1. Much of the world's most vulnerable communities seek care where the government is both the payer and provider of MNH services.
2. Many families access care from private providers, paying out of pocket for care. This is true even for many poor households, who opt out of government services which are seen as low quality and unpleasant.
3. In insurance markets, both public and private, there is a clear division between payer and provider.
4. Vulnerable populations often have access to multiple sources of healthcare financing, which are often fragmented and inadequate.

Described below are approaches to develop appropriate financing models for each of these four market contexts.

Financing models for four market contexts

1. Government as an integrated payer-provider

In LMICs, government financing and provision is still the most prominent financing source that reaches the most vulnerable mothers and families. However, government financing is often defined in terms of line-item budgeting and hence not responsive to individual needs and healthcare demand. This reveals a major opportunity to get more value from limited government budgets navigating tough tradeoffs.

We see two types of opportunities to optimize financing in government budgets, in line with the categories mentioned in Chapter 2.2: Measure - Measuring costs.

Performance management

Governments can foster a culture of performance and accountability for mothers and families by channeling resources toward compassion and quality. To establish this culture, there are a few important elements.

1. Define performance standards and goals.

Government programs tend to be very large, with many facilities, and a large workforce. Defining what quality and compassion mean within that system and for the variety of relevant stakeholders is the first step. Governments should integrate quality and compassion into existing goal-setting processes and use the metrics developed to track progress against these goals.

2. Manage performance.

There are a variety of management mechanisms to improve performance. These are best done in performance improvement cycles, grounded in data on outcomes and costs. Strong management systems require financing and, when well executed, provide a strong return on investment. These management loops can pull a variety of levers, for example:

- Refer mothers to high-value facilities. Governments can identify the highest value sites of ANC, labor and delivery, and postpartum care. They can refer mothers and families to those facilities.
- Manage utilization. Governments can create “appropriate use” guidelines and review mechanisms for high-cost services such as elective cesarean section. If governments exert too much control, it can create a rigid system where providers don’t have the autonomy to make decisions based on their proximity to patients.
- Optimize cost of inputs. Analysis of procurement can reveal opportunities for price optimization. These exercises can consider not only procurement prices, but also cost effectiveness, when outcomes are viewed in balance with costs.

3. Support higher performance.

- Build capability. Achieving goals on new metrics is not easy. Governments can proactively identify gaps and finance capability building programs aligned with compassion and quality.
- Spread best practices. Governments can understand variation in performance across clinicians, facilities, geographies, etc. The analysis can surface best practices of high performers which can be replicated elsewhere.
- Incentivize performance. Financial and non-financial incentives can reinforce compassion and quality within the system. These incentives are only possible with data that is trusted by the healthcare system. Without that confidence, it is not advisable to introduce financial incentives.

Structural changes

Given the conservative budgeting processes, governments are often slow to adopt innovations that could bring significant value to mothers, newborns, and families. To mobilize financing for new models, the government can consider investment cases for structural changes to its MNH care model. For examples of structural changes refer to Figure 10: Optimizing the cost of care.

Case study 5: How can government financing realign incentives for better maternal care?

Community-based performance financing in Rwanda shifted the focus of care to ensuring mothers receive adequate prenatal care. Though more than a decade old, this exemplifies how re-aligned financing and incentives shifts ANC utilization, which has known linkage to better outcomes (WHO Africa, 2013).

Mothers were offered in-kind incentives for showing up to care appointments, and the government as a funder shared in savings on complications, attributable to this improved care. A preliminary assessment showed that 86% more women accessed antenatal services for the first nine months in 2010 compared to the same period in 2009. A 2017 analysis was able to establish causal linkage between in-kind incentives and better care-seeking behavior (Shapira et al., 2017). Aligning incentives and financing towards programs such as these will allow them to thrive, resulting in increased preventative care, improved interventions tailored to local context, and stronger relationships within communities. Up-front investment such as development of such a program and incentives is often required to catalyze the shift towards financing compassion and quality; these investments can yield long-term returns in the form of improved outcomes, enhanced patient satisfaction, and sustainable practices. Similar direct-to-mother incentives have since been incorporated in many countries such as India, leading to similar improvements in ANC-seeking behavior.

The budget allocations for structural changes require development of an investment case. This involves weighing new costs against anticipated return, in terms of both cost savings and improved outcomes. Upfront investments may include, for example, retraining existing staff such as community health workers, or building a new cadre of staff such as midwives. Investment may also include ongoing operational costs, for example, new spending on salaries, facility costs, IT, etc. Beyond financing itself, it is critical to address some important barriers by creating guidelines for changes to referral patterns, new standard operating procedures, and policy-level updates. The government, its programs, or departments might be able to leverage other resources such as public-private partnerships, donor funding etc., to expand the budget envelope, especially at the early stages of experimentation with such new structural changes.

2. Households as healthcare payers

Mother and families are healthcare payers in their own right. While they can exercise their choice in where to seek care, they often have little visibility into outcomes and costs. Due to power and information asymmetries, they are often unable to establish accountability for the care they are paying for. To provoke change within this context requires action from patient advocacy groups, government regulation, and/or provider-driven innovation. These actors can consider at least three mechanisms to align financing to quality and compassion within the out-of-pocket market context:

1. Visibility into outcomes and costs:

Fernandez Foundation in India, and many other conscientious private-sector organizations, display their full price list in their lobby. They also employ financial counselors to discuss the range of costs that the patient will have to pay for a vaginal delivery and for a caesarean section, with and without any possible complications. These conversations also illuminate which services are included and excluded with each package of care.

2. Service guarantees.

The providers take financial responsibility for any lapses in service quality or compassion, through a predefined discount to the bill in such cases, or by covering the treatment of complications free of cost. For example, any maternal or neonatal readmission (except uncontrollable ones such as neonatal jaundice) within 30 days after discharge, is free of charge for the patient.

3. Business models with bundling.

While many hospitals offer fixed prices for a bundle of services in the OOP context, what can be added to these bundles is linkage to compassion and quality. To know more about how to create a bundle, refer to the insurance section below.

3. Insurance

In the insurance context, the objective is to orient competition toward compassionate, high-quality and high-value care. There are a variety of ways in which insurers can align their financing model to compassion and quality. To simplify the options, we describe three models, with progressive degrees of sophistication:

1. Visibility into outcomes and costs,
2. Bonuses and penalties linked to performance, and
3. Bundled payments.

1. Visibility into outcomes and costs

An insurer or a group of insurers working together can create a marketplace that favors this shift. Under such a model, the mothers and families have visibility to different providers' ability to provide compassionate and high-quality care. They can choose their provider based on that input. The providers who are able to deliver high-quality and compassionate care prosper in this environment because they are able to attract more mothers and help them stay with the same provider. The insurer can also choose to assist the mothers and families in making the right choice of provider by offering suggestions, recommendations, or stipulations (in-network vs out-of-network providers), depending on the local country regulations. The insurer benefits from the mothers and babies having a better care experience and better health outcomes as they will retain their clients, and lower costs. So, this model has potential to deliver a triple win: for patients, providers, and payers.

2. Bonuses and penalties linked to performance

The next level is to link a part of the payment that the provider receives from the payer to their performance on compassion, quality, and costs. Such linkages can take the form of a bonus if certain outcomes are met or a penalty when such outcomes are not met. The MomCare program in Kenya tracks a "Pregnancy Journey Score", which is an indicator of how closely mothers have been able to follow the planned ANC journey. Linking to a bonus to achieving a certain level of this score or any other patient-reported outcome or experience measures, would enhance the incentives for quality.

3. Bundled payments with risk adjustments

A bundled payment is a fixed payment for a bundle of services, predefined contractually between a payer and a provider. The bundle for maternity could include a predefined number of ANC visits, scans, delivery, and postnatal care (PNC) visits. A fixed payment means there are no additional fees paid for predefined complications if they arise, for example, care for sutures, infections, or readmissions within 30 days. Because a part of the financial risk is transferred to the providers, they have a financial incentive to ensure they provide the highest quality care.

Case study 6: A comprehensive VBC model including bundled payment from South Africa

Privately run maternity centers in South Africa face unique challenges due to the country's healthcare landscape, and socioeconomic disparities. Limited access to private healthcare, income inequality, and over-medicalization contribute to difficulties in accessing quality maternity care (Wabiri et al., 2013). Disparities in access are worsened by the concentration of maternity centers in urban areas, leaving rural and underserved communities with inadequate facilities (Harris et al., 2011). Internally, private maternity centers struggle with fragmented care, pricing inconsistencies, limited professional development, and unclear role definitions for doulas and perinatal support workers. This is complicated by a lack of regulatory framework that can support newer payment models. These challenges hinder the delivery of effective services and compromise the overall quality of care for mothers and infants.

NetworkOne Maternity is a chain of private maternity centers in South Africa. They have taken a pioneering approach to comprehensive and compassionate care to women with low-risk pregnancies. Births take place at multidisciplinary birth centers (MUBC), which may be standalone or part of hospitals, with care coordinated by midwives. We describe below NetworkOne's VBC model along how they measure outcomes and cost, deliver care, pay for care using a bundled model and enable care delivery.

Measure: NetworkOne measures cost-effectiveness, patient outcomes, and patient experience

Deliver: Led by midwives, NetworkOne's Integrated Maternity Team (IMT) includes doulas, obstetricians, a sonographer, pediatricians, and allied health professionals. The IMT includes providers from primary, secondary, and tertiary levels, working together through formal service level agreements. NetworkOne Maternity also emphasizes the establishment of Minimum Operational Standards and Regulatory Compliance measures. These measures uphold rigorous quality and safety standards, ensuring patient wellbeing. This way, NetworkOne Maternity maintains consistency and quality across care settings.

Pay: NetworkOne receives a fixed fee from the patient based on the initial detailed assessment. The financial risk of a patient's risk level changing during the course of pregnancy is borne by NetworkOne, removing any financial uncertainty for the patients. NetworkOne pays a fixed global fee per pregnancy adjusted for risk-level to the entire team (IMTs). This encourages collaboration among diverse healthcare professionals and financial sustainability. The reimbursement is aligned with measurable indicators of cost-effectiveness, quality outcomes, and patient experience.

Enable: The IMT has access to medical equipment, EMRs, and workflow IT systems with decision-support capabilities that enable personalized care. To ensure a culture of high-quality care, the staff is supported with continuous professional development through their online academy for midwives, quality assurance audits, and supportive supervision.

When assessing the impact of NetworkOne Maternity, it is evident that their comprehensive and collaborative approach is a shift from the traditional model of maternal care in South Africa. Patient-feedback suggests that by prioritizing patient-centered care, interdisciplinary collaboration, and continuous improvement, NetworkOne Maternity is achieving improvements in maternal health outcomes.

Steps in creating a bundled care program

A bundled care program can come out of a payer-provider collaboration, in consultation with mothers and families. However, there are times when a payer or provider may take a lead to develop such a program and convince the other partner to participate. In the case of NetworkOne in South Africa, the provider has taken the lead to develop the program in an OOP market context and are in advanced stages of convincing multiple large insurance schemes in the country to enter into a bundled payment contract. Similarly, African insurer, Britam, is leading the development of a maternity care bundle in Kenya and plans to work with providers.

Some common steps involved in developing such a program include:

Defining goals.

A bundled payment should be driven by the performance goals particular to geography and patient segment. This can include clarifying priority performance metrics such as maternal and neonatal mortality, preterm birth, cesarean section for low-risk pregnancies, breastfeeding initiation and continuation, maternal experience of compassionate care, episiotomy, and pain relief, etc.

Defining scope

Building a bundle requires clarity on its scope. The parameters include:

- Patient eligibility criteria. E.g. A particular risk or severity strata to be allowed to participate in the program. Such criteria should be objective and verifiable to avoid misuse. These criteria do not mean refusing care for any patient; they only mean the ineligible patients will seek care within the previously prevalent payment model.
- Start and end points of the bundle. E.g. Does the program include only delivery, or the entire ANC to six weeks PNC pathway?
- Types of products and services included, and an ideal number of such services along the defined care pathway. E.g. Does the bundle include eight ANC visits, three scans, hospitalization, patient travel costs, ANC supplements, midwife care, doula services, testing, and treatment for the neonate?

Estimating bundle cost

Once the scope is defined, payers and providers can estimate the cost of the bundle. The provider reviews their historical cost of delivering care for each risk-stratum. The payer can consider the past claims data they have from different providers and risk-strata. When estimating the costs, it's important to triangulate data sources (refer to Figure14 on page 21). From this costing, the payer and provider have a basis on which to consider a price.

Negotiating a contract

Once both the provider and payer have their views on the cost of the bundle, they embark on a collaborative and iterative process of negotiating contract terms. The payer and provider may refine the scope and pricing of the bundle until it is optimized for patient access, and for the financial sustainability of payer and provider.

The contract negotiation includes clear definitions of inclusions/exclusions and outcome goals; defined ways of handling exclusions/ineligible patients; a negotiated bundle price; volume commitments if any; program governance including data sharing, data protection, monitoring, and regulatory environments; marketing strategy and distribution channels; and any other terms.

To ensure that both parties are interested in making this contract work, it is important to balance the amount of financial uncertainty each party is taking on as a result of such a contract in comparison with the status quo. To arrive at sustainable contract terms, it is important to involve the procurement team from the payer, the marketing/pricing team from the provider, and on both sides, the legal, administrative, leadership, and finance teams.

Pricing model for bundled payments

To aid the process of developing a bundled payment, the actuarial experts on our team created a pricing model (refer to the companion resource section for details). The model walks the users through the process of defining outcome goals, defining the scope of what is included in the pathway, inputting prices for services involved, and arriving at a cost that can be used for the negotiation. In this model, costs are represented in terms of utilization and unit cost. The payer and provider can tweak assumptions on these values for each service, to arrive at appropriate costing. It also sets out an example of how costs can be allocated per risk group and split as variable and fixed costs.

4. Multiple sources of financing

Often, even care for one mother in an LMIC, can be financed by multiple sources of funding, leaving the mother having to track complex and overlapping insurance covers. For example, in Kenya, a mother from a low-income family might have national health insurance (NHIF), a maternal welfare scheme (like LindaMama, which is currently being restructured), and no-frills health insurance from an employer. Despite having these three sources, the mother might still be required to make OOP payments because the coverage provided by each of these sources has reached its upper limit i.e. maximum amount of coverage or benefits that an insurance policy or healthcare financing mechanism will provide for a specific service or within a given timeframe. It also means that a single payer cannot hold the provider accountable for quality.

We see a few opportunities to improve such a situation. One more immediate opportunity is financially stacking, i.e. ensuring that all of these sources are available to the patient for full utilization, and that they are additive to ensure financial access to highest quality care available while minimizing the OOP payment. MomCare in Kenya achieved this by pooling different sources of financing in a single mobile health wallet, called M-TIBA. The longer-term opportunities are reforms that standardize financing across insurance-based and non-insurance-based systems and transitioning towards universal health coverage (UHC) models. These longer-term reforms require collaboration between governments, policymakers, insurers, healthcare providers, communities, and donors.

Incentivizing the shift within the provider organization

While the financing mechanisms we have described so far consider the incentives for the provider as an entire organization, these organizations need to create an internal environment that fosters motivation to advance the compassion and quality agenda.

Motivating the multidisciplinary teams within the provider and the individual members such as the obstetricians, nurses, midwives, etc. involves a strategic blend of non-financial and financial incentives. See Figure 15 for an overview of common incentive options and examples of how they can be implemented. Ideally, organizations use a combination of these incentives to encourage a culture of compassion and quality in their MNH practice.

FIGURE 15: Common incentive options

Type of incentives	Illustrations
Cultural	Non-financial incentives for team members can appeal to their intrinsic motivation to do good for their patients. E.g. providing a sense of autonomy, joy at work, freedom to experiment and fail within ethical boundaries, a culture of excellence, etc.
Recognition programs	Awards and accolades that acknowledge and reward teams for their contributions and success in implementing compassionate and quality delivery approaches.
Professional development opportunities	Offering training, education, and skill development opportunities for healthcare professionals, enhancing their expertise in delivering quality and compassionate approaches.
Cascading financial incentives	A part of financial incentives that the provider earns from the payer can be cascaded to the teams and individuals in a predefined proportion to create financial incentives for staff and a skin-in-the-game feeling.

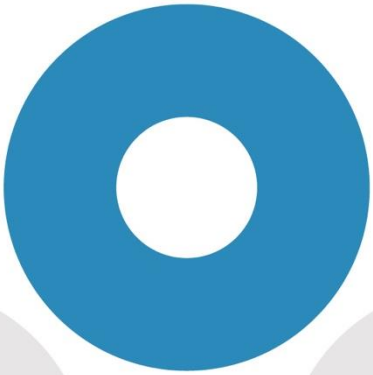
ALIGN

3. ALIGN

Once the design of a pilot model is complete, it is important to align as a team (patient, provider, payer, and others) on how to test and potentially scale the model. The scope of this alignment includes:

- **Goals** for the pilot and scale-up in measurable and time-specific terms. This may include goals specific to each stakeholder.
- **A learning agenda.** What are the hypotheses to test? What kind of evidence is required to inform a decision to scale? What level of rigor is required? How do we include an experimental design to credibly attribute impact to the new model?
- **A threshold for scale-up.** What is the minimum threshold of performance that would compel all stakeholders to scale the model? What does the next stage of "scale" mean in terms of patient volumes, geographies, patient segments, etc.?

Documenting alignment along these dimensions, in form of a memorandum of understanding or a contract will help partners make important decisions on whether and how to scale a new model.



ENABLE

4. ENABLE

While the model designed takes care of the “what” of the model, there needs to be an enabling environment. How health systems implement compassionate and high-quality care at scale depends on two critical enablers: culture and technology.

4.1 Culture

Embedding compassion and quality into a maternal health system requires deep cultural change. Culture is composed of values, and each value comes to life through specific practices. Health systems should define the values and practices that best align with their context. To stimulate thought, we have distilled a set of values and practices that we have seen in high-performing systems.

1. Values

- **Integrate technocratic and rights-based perspectives.** Many good health systems rely on a technocratic perspective alone, emphasizing clinical quality, for example, but undervaluing the humanistic needs of mothers and families. Patient advocates often embrace a rights-based lens, underappreciating the interdependencies with technocratic excellence. To achieve both compassion and quality, these two perspectives must be integrated and mutually respected in the organizational culture.

- **Build just power structures.** Global health systems are stuck in colonial paradigms. Care models are oriented around specialist doctors in a hierarchical, biomedical model; women and families are recipients of healthcare rather than agents in their own care; and healthcare payers exert power over providers. The work is to challenge unjust power structures at every level of the system.

- **Trespass disciplinary boundaries:** Fulfilling our mission requires integration of many perspectives that match the complexity of maternity and neonatal health. This means integrating the perspectives of clinical medicine, sociology, anthropology, economics, indigenous knowledge and ancestral wisdom.

2. Practices

In the figure below, we provide practical approaches for improving accountability and governance, fostering inclusive representation and facilitating collaborative decision-making. Overall it aims to promote just power structures, compassionate care, and equitable outcomes within healthcare systems.

FIGURE 16: Values and practices to encourage cultural change

Values	Illustrative practices
Integrate technocratic and rights-based perspectives	• Accountability and governance, e.g. representation of both technocratic and rights-based voices in monthly review meetings and patient feedback mechanisms. • Training, e.g. role-play-based modules that encourage clinicians to practice offering compassionate care. • Policies, e.g. treatment protocols should go beyond clinical check-lists.
Build just power structures	• Representation, e.g. include marginalized communities on steering committees. • Facilitation, e.g. facilitate meetings in a way that flattens traditional hierarchies, giving each person a chance to speak uninterrupted in a circle. • Decision-making, e.g. decentralize decision-making and make it collaborative where possible, from administrators to field staff; encourage shared decision-making among providers and mothers and families. • Governance and accountability, e.g. use publicly visible or appropriately shared dashboards to encourage a culture of transparency and disclosure.
Trespassing disciplinary boundaries	• Program design, e.g. establish ‘outcome and cost-improvement circles’ that include patient representatives, the payer, clinicians, experts on social determinants, design thinkers, medical social workers, anthropologists, etc. • Incentives, e.g. performance measurement and recognition should be at the level of the team instead of the individual to encourage trans-disciplinary collaboration.

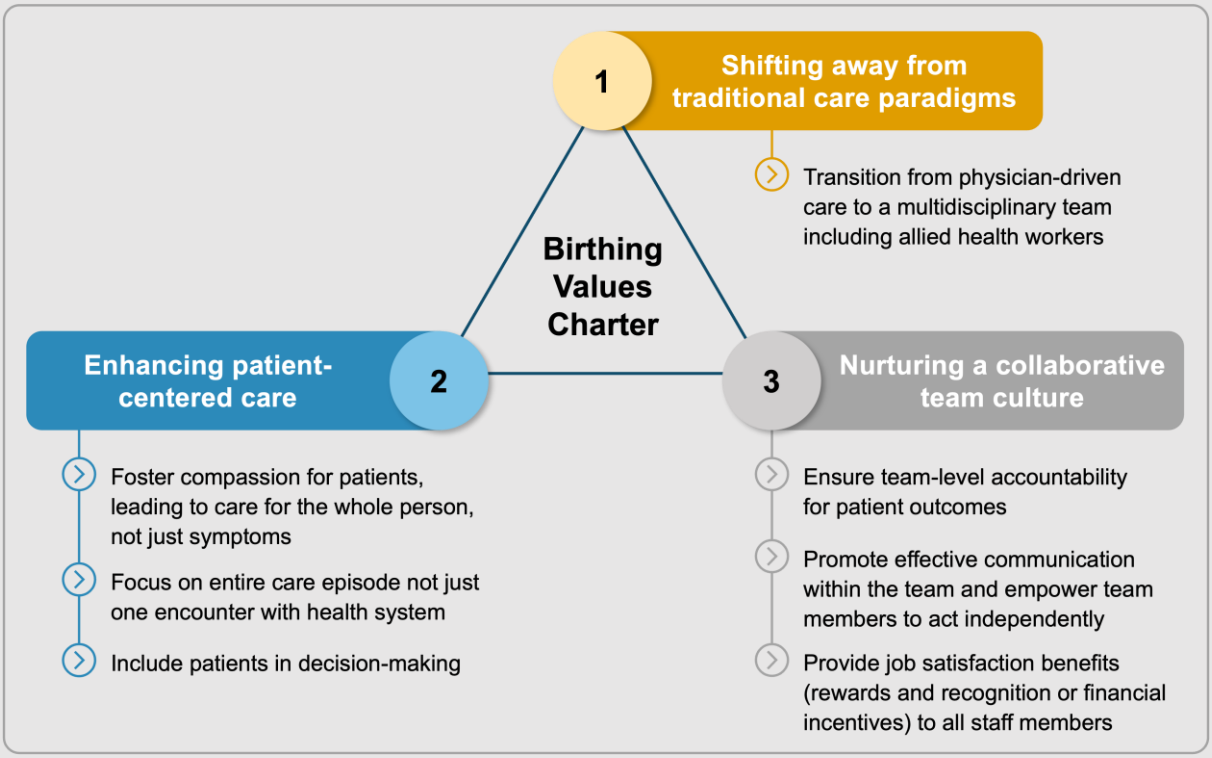
Case study 7: PPO Serve clinicians commit to a culture to practice, through a "Values Charter"

PPO Serve is a South African healthcare management company whose mission is to create better care, inspire teams, and improve systemic value. PPO Serve launched The Birthing Team in 2016, an end-to-end, fixed-fee, value-based care maternity program for the OOP market segment. PPO Serve also created Integrated Clinical Consortia which are composed of obstetricians working in partnership with a local private hospital group. They provide their hospital and nursing services, and other team members, such as sonographers, pediatricians and anesthetists were contracted through a Service Level Agreement contract which governed ways of working and agreed rates. PPO Serve helped the consortia with contracting, IT and financial management shared services to deliver their program.

Given that this was a new model, PPO Serve recognized that choosing the clinicians who have high alignment with organizational values and fostering a culture of patient centricity and collaboration was important for the success of their model.

In the initial stages of identifying clinicians to recruit into the clinical consortia, a Birthing Values Charter was used to align values, interests, and get buy-in for a new team structure which enhances the care delivered to women. The core values embedded in the Values Charter were:

FIGURE 17: Birthing Values Charter designed by PPO Serve

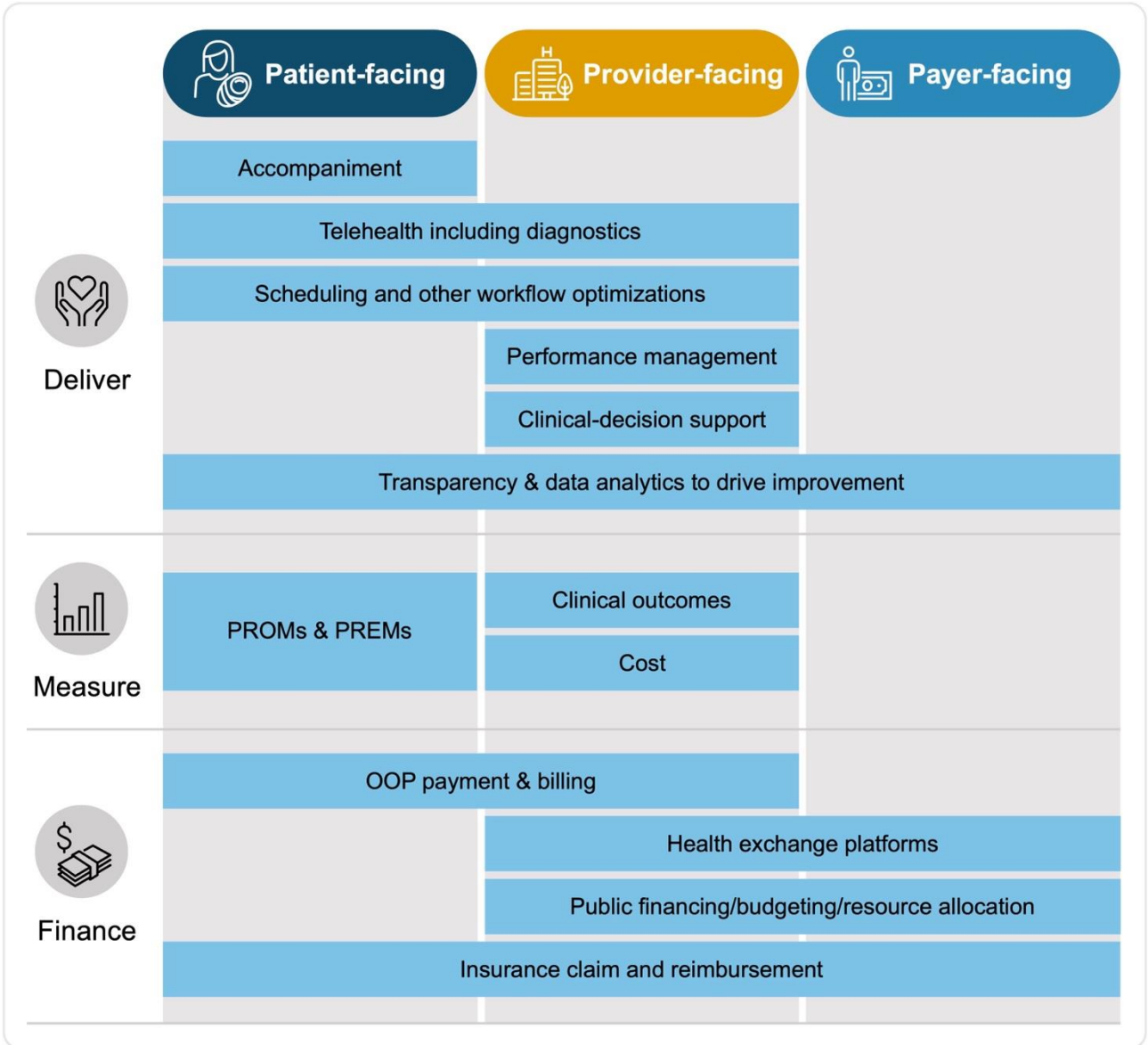


All clinicians had to commit to following the principles embedded in the charter and sign a declaration of intent. By leading with the culture shifts required to center patients in clinical care, The Birthing Team was able to successfully recruit clinicians who were philosophically aligned to team-based care through a self-selection process, using the Birthing Values Charter.

4.2 Technology

Technology can make our work of delivering compassionate and high-quality care at scale easier, cheaper, and more effective. By using technology, we can record the data to measure clinical and financial performance, informing how we manage and improve processes, thus building the case for compassion and quality. The model below highlights how technology can facilitate delivery, measurement, and finance.

FIGURE 18: Utilizing technology to enhance compassionate and high-quality care



1. How can technology facilitate delivery?

The primary users of technology platforms could be those seeking care, providers, or payers. It could also be two or all of these users.

Person-facing digital platforms (accessed on a mobile phone or computer) can provide accompaniment to the patients throughout the maternal journey, providing timely educational information (e.g. what a mother can expect at each week of her pregnancy), and enabling access to interact with providers remotely.

Electronic scheduling platforms can benefit both mothers seeking care and providers. For mothers, it can offer more autonomy in seeking care at the clinically appropriate time, while considering their day-to-day work. For providers, these platforms can help efficiently manage capacity, e.g. aligning the human resource availability and staffing rosters with patient appointments, patient flow, person-centeredness, and provider experience. Additionally, workflow management tools can aid providers in coordinating multidisciplinary teams and sequencing tasks among team members. Clinical decision support systems can promote adherence to evidence-based practice and support clinical teams when expert obstetrician care is inaccessible. Electronic dashboards can build on the outcomes and cost data, offering transparency into performance for all stakeholders, through routine report generation. Additionally, these tools can provide analytic capacity to derive actionable insights from these aggregated data.

2. How can technology facilitate measurement?

Technology can play a crucial role in amplifying the voices of expecting mothers, collecting their clinical data and getting their perspectives along their maternity journey at scale. Person-facing tools allow us to collect PROMs and PREMs directly from patients. The choice of technology used will be determined by various factors such as context, access to cellular phones, smartphone penetration, and access and affordability of data services. The patient data must be securely stored and integrated with other patient-level data, such as clinical outcomes data from EMRs at an individual patient level.

Provider-facing tools can also play a critical role in estimating the cost of care. These are typically health management information systems that help track utilization of clinical services (e.g. doula, nurse, and doctor time; laboratory and radiology services; C-section rates; bed occupancy, etc.) and consumables (e.g. pharmacology and surgical consumables) at the patient-level or facility-level.

3. How can technology facilitate financing?

Regardless of market context, there are technological tools that can facilitate financing of care. Payment-processing platforms and point-of-sale tools can facilitate OOP payments. In the insurance context, there are platforms that enable easy claims submission from providers, as well as authorization and reimbursement from insurers. In the public sector, there is technology that facilitates financing, budgeting, and resource allocation.

4. What are the considerations when choosing a technology platform?

Whether choosing an existing technology platform or creating one a new one, there are few things to consider:

FIGURE 19: Considerations when choosing a technology platform

Key question	Thought starters on considerations
Is the current process optimized?	• Improve process before implementing new tech solution e.g. if a facility still relies on paper-based processes, the initial focus should be on improving these processes before embarking on a digital transformation.
What is the primary purpose of a technological intervention?	• Clarity on the purpose by potential users is critical to ensuring a new technological intervention is required and will be utilized.
What solutions exist?	• Identify solutions that serve the primary purpose. • Evaluate those solutions based on features, costs (including infrastructure, upfront costs, and subscription costs), payment model options, etc.
How will the solution integrate?	To integrate into local systems, consider: • Open-source solutions. • Ability to host on local servers. • Compliance with local regulations of the country. • Interoperability standards.

Does the particular solution work for your context?	Consider the infrastructure and connectivity available:
	• Reliable internet access, particularly in rural or underserved areas where connectivity may be challenging.
	• Availability and compatibility of hardware (such as computers, tablets, and smartphones) and software.
	• Integration with existing workflows:
	  ○ The tech solution has a higher chance of acceptance and usage if it does not disrupt current care processes and workflows.
	  ○ Piloting with potential users including healthcare providers, clinicians, and support staff is crucial in ironing out user interface and functionality.
	• Cultural knowledge of the solution, data headers, questions and answer options for cultural contexts.
	• Availability of translations where needed.

How can you increase adoption?	• Earn stakeholder buy-in at the leadership level and implementation team level. • Train the main users.

Case study 8: Four examples of using tech for high-quality and compassionate care

Jacaranda Health PROMPTS: a patient-facing platform to improve value

Adherence to evidence-based clinical pathways through enhanced care-seeking behavior plays a significant role in ensuring improved clinical outcomes. PROMPTS is an AI-enabled digital health service launched by Jacaranda Health in Kenya (Prompts, n.d.). It empowers women to access timely and appropriate care, through a two-way SMS exchange system. The platform improves care-seeking behavior by sending mothers SMS nudge messages tailored to their stage of pregnancy. Additionally, it features an AI-enabled helpdesk service that triages and responds to mothers' questions, and sparks a rapid referral chain if a risk is identified (Prompts Blog, 2022). The outbound nudges serve the purpose of appointment reminders and provide relevant educational content which empowers mothers with clinical, psychosocial, and dietary information along their maternity journey, increasing their agency.

iDeliver: a clinical decision support system for providers

iDeliver is a clinical decision support tool which helps clinicians in prioritizing, diagnosing, managing, and escalating patient care based on their history, symptoms, and signs at presentation (Scope, n.d.). The application provides the healthcare worker with three categories of information about each patient: acuity level, differential diagnoses, and treatment guidelines. The decision support spans across the entire maternity episode of care - the antenatal period, the critical intrapartum period and postnatal care. Delivery monitoring and management care plans are provided for normal labor and the various complications which occur during childbirth. With an intuitive interface and a fully digitized workflow to document all clinical interactions, iDeliver simultaneously provides decision support. Treatment data is inputted and available in real-time which allows the team to spend more time on patient care. The application is built on an open source framework and allows for interoperability with most health information systems. Data collected is streamlined, aggregated, and automatically delivered through an integrated reporting suite for the users (Bartlett et.al., 2021).

MomConnect: care experience for improvement in the public health system

MomConnect is an m-Health solution which was launched in South Africa by the National Department of Health to augment and improve maternal health services nationally (National Department of Health, n.d.). The main features of the program include registration of pregnant women onto a national registry; weekly informative messages, and an interactive helpdesk. The platform allows the end user to rate and send compliments and critiques of their experience of care at a particular health facility which has a unique identifier. Through this data collection and review, it allows system-wide assessment and improvement of the mother's experience of care (Jahan et al., 2020).

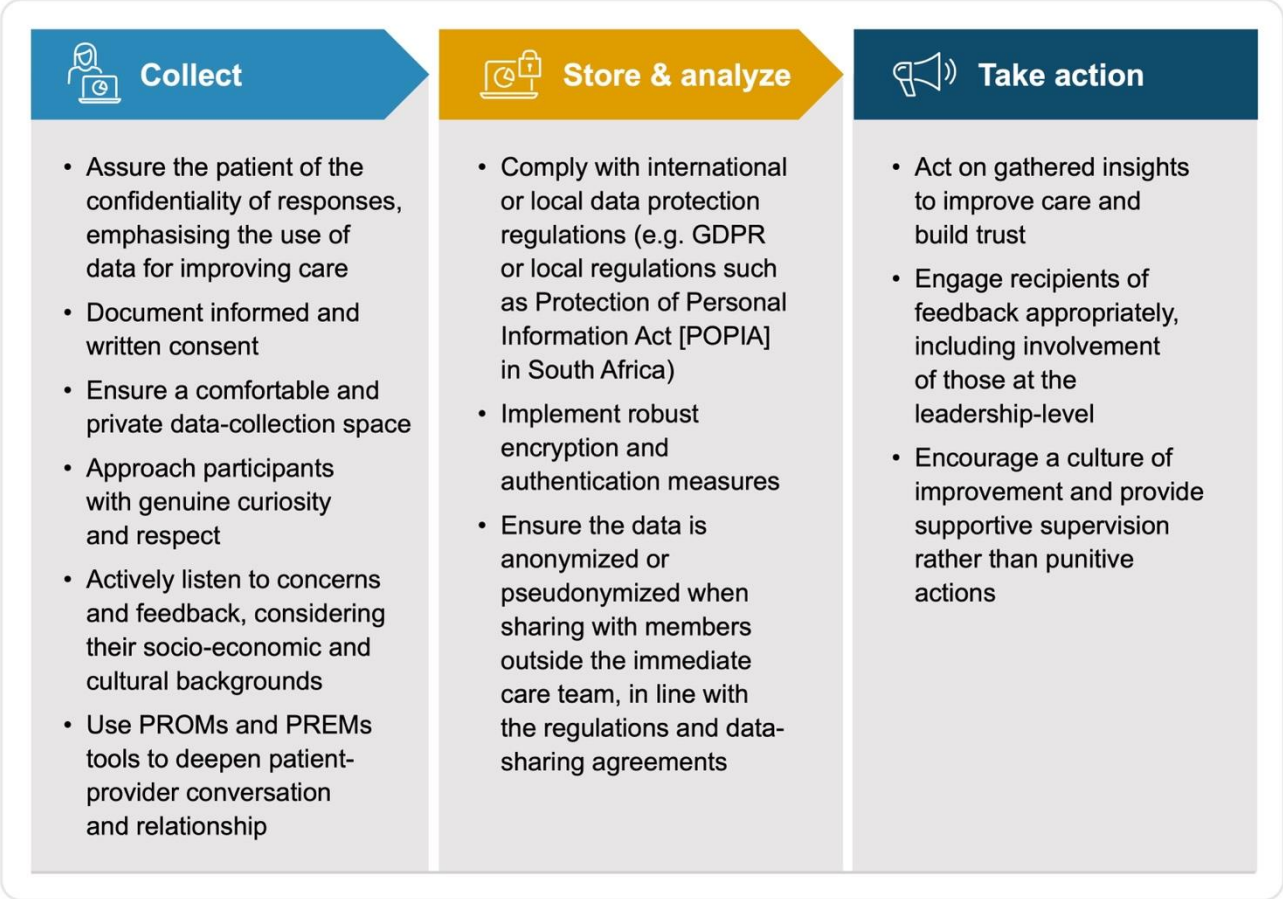
MomCare: a platform that connects patients, providers and payers for VBC payments

MomCare is a collaboration between PharmAccess, MSD for Mothers, and M-TIBA in Kenya (Dohmen et al., 2022). It illustrates the use of digital tools which interface at the patient, provider, and payer level, in financing maternity care (MSD for Mothers, 2020). On the MomCare cellphone platform, mothers have access to reliable information on the cost of maternal healthcare so they can plan accordingly. Providers receive "quality bonuses" from payers as an incentive to deliver the full continuum of high-quality maternal healthcare, and support women to complete their journeys. Providers are also able to collect payments from payers quickly and efficiently using M-TIBA, an integrated health payment platform linked to MomCare. Payers are able to understand costs per patient and aggregate them through a digital dashboard that monitors the quality of care throughout a maternal health journey and that links the costs to maternal and newborn health outcomes. Payers can track utilization of services to validate that providers delivered care as reported.

Ethical considerations in managing data

Collecting, storing, managing, and responding to data in an ethical manner is important to ensure continued trust from the mothers and families in the health systems.

FIGURE 20: Ethical considerations in managing data



5

THE PATH AHEAD

THE PATH AHEAD: LOCAL PROJECTS SHAPE A GLOBAL DIALOGUE

This playbook is an attempt to unite three ascendant movements in maternal and neonatal health:

1. A technocratic push to improve the quality of care;
2. A social justice effort to advocate for respectful care; and
3. Value-for-money campaign that aligns financing to outcomes.

Cohering these movements is not an intellectual exercise. It is the smart problem-solving and the gritty perseverance demonstrated by many of the examples featured in the case studies from South Africa, India, Kenya, and beyond. We believe locally owned projects with grassroots insight can shape a global dialogue on compassion and quality.

These projects can generate evidence of the impact of compassionate and high-quality MNH care models. And that evidence can help unlock the financing required to scale them.

We are eager to hear from you.

FIGURE 21: Connect with us

LIST OF FIGURES

LIST OF CASE STUDIES

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