

# Maternal Value-Based Care using Value Points

An Interoperable Metric to Improve Maternal Care Utilization in Tanzania

## Background

MomCare is a digital VBHC program, supporting perinatal care across Kenya and Tanzania

From 2019 to 2023, MomCare supported 40,000 pregnancies and collected data revealing gaps in maternal care financing and delivery

In 2023, PharmAccess introduced ValuePoints (VPs) across 30+ clinics in Hanang district, a rural area in Tanzania with low digitalization, to visualize completeness of maternal care delivery and incentivize value.

Integrated into the local digital ecosystem, VPs provide real-time insights at patient journey level, enabling providers to deliver higher value, patient-centric care.

## Methods

### Value Points Design and Implementation

Indicator	ValuePoints
Antenatal care visit registered within the first 12 weeks of pregnancy	1
Full antenatal care profile administered	1
Ultrasound registered within the first 24 weeks of pregnancy	1
Four or more registered antenatal care visits	2
Facility-based delivery registered	4
Two or more postnatal care visits registered	1
<b>Complete journey</b>	<b>10</b>

**Table 1.** Value Points assigned to key service indicators. VPs aim to drive *complete* patient journeys that contain all of the described key care services.

### Local and global standards:

Defined using the Leapfrog-to-Value Maternity Playbook (2024), incorporating WHO guidelines and MomCare data, emphasizing high-value services.

### Interoperability:

Integrated into an existent application and based on Fast Healthcare Interoperability Resources (FHIR) standards, enabling linkage to various data systems and function such as the District Health Information Software 2 (DHIS2).

### Quality-based incentives:

VPs were linked to small financial rewards for the provider, and reinvested in supplies and equipment.

## Results

### Positive care experience

ICHOM-based surveys (n = 5588) captured maternal outcomes and experiences

- + 95.5% healthy children
- + 98% care satisfaction
- + 87.4% enjoyed their pregnancy journey
- 10% experienced emotional challenges
- 4% had difficulty accessing services
- 2% did not receive the needed support

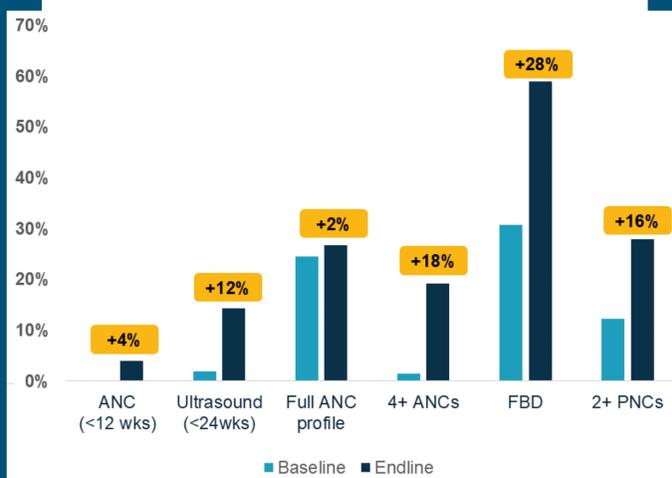
#### Factors contributing to positive experience

- respectful treatment by clinic staff
- easy to understand the information
- confident in asking for care or information
- short waiting time
- clean facility

#### Reported negative experiences

- few health care givers
- lack of seats and beds
- no medical supplies
- not enough water available

### Recorded delivery of perinatal care services increased across all key indicators



**Figure 1.** Average percentage of obtained ValuePoints per indicator at baseline and endline (+ppt change). VPs doubled from 16% in January to 35% in September 2023 across the 11,000+ patient journeys tracked (with less than 10USD invested per patient).

### Metrics motivate providers

Provider surveys (n = 60) indicate positive effect of VPs

#### Agency in care improvement

*"It empowers to attain the goals through sharing feedback. The evaluation makes us realize our weaknesses and identify the area to act upon for improvement. You work with focus."*

#### Transparency of journeys

*"It visualizes the ongoing mothers' journey as categorized based on their risks and know the number of mothers who have attended and been enrolled."*

#### Collaboration across the network

*"It facilitated close interaction with the nurses from other facilities (...) as such, it is easy to request for support from another facility."*

#### Patient-centric

*"The implementation of the dashboard enabled us to focus more on the mother than before."  
"Mothers' services have been given great attention; she was provided with services immediately and in a better way."*

## Discussion & conclusion

VPs significantly improve care provision in Hanang Tanzania, and enable providers to act and optimize limited resources for maximal patient value.

#### tracking individual patient journeys for actionable insights

An incremental investment of < 10\$ per mother in quality-based incentives seems effective to motivate service improvements.

Although existing system limitations do remain (low staff capacity, limited human and clinical resources), this open-source technology and incentive system supports:

- Effective resource planning and supply management
- Operational improvement and staff efficiency
- Cross-organizational collaboration
- Effective problem solving at provider level

We recommend investment in low-cost quality-based incentives to motivate service delivery improvements at the provider level, contributing to positive patient experiences and increased records of care delivery. We continue to research how to further effectively embed these methods in the care system. We encourage reuse of our methods, and therefore make our methods and software available for re-use and adaptation here:

Demonstrated feasibility of an interoperable, quality-based, digital VBHC incentive model in a low-resource setting

Showing positive effects on provider motivation and patient-centric care with continuous improvement efforts

Contributing to improved patient experience and patient outcomes across pregnancy

#### Open-source Software & Design

