msh
Management Sciences for Health

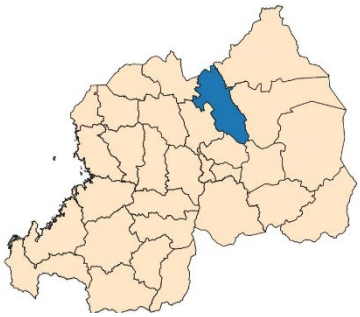
PHC PERFORMANCE MANAGEMENT (PHC-PM) ACTIVITY

GICUMBI DISTRICT, RWANDA

Improving Antenatal Care Coverage through a Performance Management Approach

1. INTRODUCTION & CONTEXT

Rwanda's Gicumbi district has a population of around 450,000 people with one teaching hospital, 23 health centers, and a relatively high ratio of community health workers (CHWs). The district has faced persistent challenges in strengthening its PHC system to effectively deliver quality primary care services.



Indicator	District baseline value	National baseline value
Land area	828.9 km²	N/A
FY22 expenditures [1]	46.5 billion FRW	N/A
Health workers per 1000 population [2]	0.9	1.1 [3]
Number of CHWs per 1000 population [2]	9.1	1.1 [3]
ANC1 (%)[2]	58.6%	4.6 4
ANC4 (%) [2]	59.8%	53.0%
Deliveries assisted by skilled health workers (%)/skilled delivery geographic equity index (G)	82.5%	63.9%
Family planning acceptance rate (%) [2]	59.4%	56.5%
Institutional Neonatal Mortality Rate per 1000 [2]	9.2	9.8

Figure 1: Gicumbi baseline statistics

*WHO benchmark is 2.5 health workers per 1000 population
[1] MINECOFIN budget report, 2023
[2] HMIS dashboard covering the period October-December 2023 for monthly reported indicators and FY22-23 for annually reported indicators. Calculations are based on the RHAP codebook.
[3] National average is based on: World Bank Data Rwanda
[4] Calculated as follows: Number of CHWs, divided by population multiplied by 1000

Although Gicumbi district has performed relatively better than the national average on antenatal care (ANC) indicators, baseline data from January 2024 showed ANC1[1] coverage at 59% and maternal mortality at 33.9 per 100,000 (Figure 1). ANC1 coverage—the proportion of pregnant women who attend their first ANC visit—is critical because it enables early identification of risks, provision of preventive interventions, and continuity of care throughout pregnancy.In its role as the district-level body responsible for planning, performance management, and coordination, the District Health Management Team (DHMT)[2] prioritized improving ANC1 coverage as a Desired Measurable Result (DMR).launched two improvement cycles focused on improving ANC1 visit coverage: Cycle 1 (Feb–Jul 2024) targeted an increase from 59% to 63%, and Cycle 2 (Aug–Dec 2024) aimed for 68%. By the end of 2024, ANC1 coverage had increased to 68%. The DHMT leveraged catalytic grant funding to support health worker training, supervision, and service reorganization.

Gicumbi District chose to prioritize low ANC1 attendance, which negatively impacted subseque nt ANC visits, hemoglobin testing, and maternal and child health outcomes. Root causes identified by the DHMT included long waiting times due to staff shortages, inadequate patient flow, limited provider skills, weak supervision of CHWs, and low community awareness compounded by misconceptions and gaps in health insurance coverage. To address these challenges, the DHMT implemented targeted strategies focused on reorganizing patient flow, strengthening provider skills through refresher training, enhancing supervision and mentorship, and mobilizing communities to improve early ANC attendance and insurance uptake.

2. ROOT CAUSES & BARRIERS IDENTIFIED

Through the PHC Leadership Development Program (PHC-LDP), the DHMT identified systemic, provider, and community barriers that contributed to low ANC1 coverage.

System-level issues included long waiting times, inadequate patient flow, lack of dedicated ANC rooms, weak supervision of CHWs, and limited accountability for ANC performance, compounded by staffing challenges in remote areas and constrained budgets.

Provider-level gaps centered on low skills in ANC protocols, limited refresher training, and insufficient mentorship, while community-level barriers involved low awareness, misconceptions about ANC, and gaps in health insurance coverage that restricted access.

This analysis helps identify key challenges to DHMT performance: structural bottlenecks, capacity gaps, and socio-economic constraints collectively delaying early antenatal contact, underscoring the need for intervention in service delivery, training, supervision, and community mobilization.

These barriers reflected a combination of structural bottlenecks, capacity gaps, and socio-economic constraints that delayed early antenatal contact and reduced continuity of care.

[1] ANC coverage is measured by the number of women who attended ANC1 divided by the number of new registrations for ANC1.
[2] As per the District Health System Guidelines (Ministry of Health, 2019), the DHMT oversees coordination, planning and monitoring, supervision of health activities, coordination of development partners and of activities, resource management and oversight, improvement of citizen participation in the management and delivery.

3. IMPROVEMENT STRATEGY & PRIORITIZED ACTIONS

Gicumbi DHMT adopted a phased, data-driven approach through the PHC-LDP to address persistent gaps in ANC1 coverage. The strategy unfolded across two cycles, with priorities refined based on routine data review and implementation learning.

Cycle 1 (Mar–Jul 2024) focused on structural improvements to reduce long waiting times and improve patient flow, which were major deterrents to early ANC visits. Cycle 2 (Aug 2024–Jan 2025) shifted attention to community engagement and quality of care, introducing health education sessions, CHW sensitization, and mobilization for health insurance coverage, alongside strengthened supervision and mentorship.

Across the two cycles, the DHMT moved from addressing service organization and readiness gaps toward strengthening provider competency, supervision systems, and community engagement to improve early ANC attendance.

The selection of these priorities was grounded in evidence from HMIS data and root cause analysis using tools such as the "Five Whys". Interventions were prioritized for their direct impact on measurable results within ANC1 and alignment with national maternal, newborn and children's health (MNCH) strategic priorities. For example, reorganizing patient flow addressed systemic bottlenecks, while ultrasound training improved service quality and attracted more women to ANC visits. Community mobilization and insurance enrollment tackled socio-economic barriers that limited access, while enhanced supervision strengthened accountability and provider performance.

Catalytic grant funding played a pivotal role in enabling these changes. District budgets typically exclude implementation costs for training, equipment, and intensive supervision, making external support essential. Grants financed supplemental activities such as ANC protocol and ultrasound training, procurement of equipment, and monthly mentorship visits to health centers and CHWs.

Figure 2: DHMT training on ultrasound use

These investments supported improvements in ANC1 coverage and strengthened service quality, demonstrating how targeted funding can support progress toward improved maternal health outcomes.

Table 1. Evolution of DHMT Strategy Across PHC-LDP Cycles

Cycle	Focus	How Strategy Evolved
Cycle 1 (Mar-July 2024)	Facility readiness and ANC service organization	Established foundational systems through workflow reorganization, dedicated ANC spaces, staff refresher training, and strengthened CHW supervision.
Cycle 2 (Aug 2024 – Jan 2025)	Community engagement and service improvement	Expanded beyond facility changes to mobilize communities, improve CHW follow-up, and reinforce accountability through regular supervision.

4. IMPLEMENTATION: KEY ACTIVITIES ACROSS CYCLES

To address low ANC1 attendance, the DHMT implemented a structured improvement process throughout all four cycles of the PHC-LDP, supported by health center managers, midwives, nurses, and CHWs.

Cycle 1 (March – July 2024)

The DHMT reorganized patient flow within health centers to reduce waiting times and improve service efficiency and created dedicated ANC consultation rooms in all health centers. Additionally, DHMTs conducted refresher training for health center/health post (HC/HP) staff on ANC protocols and guidelines and strengthened CHW supervision through structured mentorship and regular supervisory visits. Leadership discussions and multidisciplinary group work guided prioritization, and catalytic grants were used for training and supervision activities.

Cycle 2 (August 2024 – January 2025)

During Cycle 2, the DHMT strengthened community engagement and reinforced service quality. Building on foundational readiness gains, Cycle 2 placed greater emphasis on women's experience of care and the systems supporting early pregnancy identification and follow-up. Midwives participated in customer-care training and field-based coaching to strengthen respectful maternity care. The district introduced ANC cohort registers and intentional pregnancy-mapping tools to improve

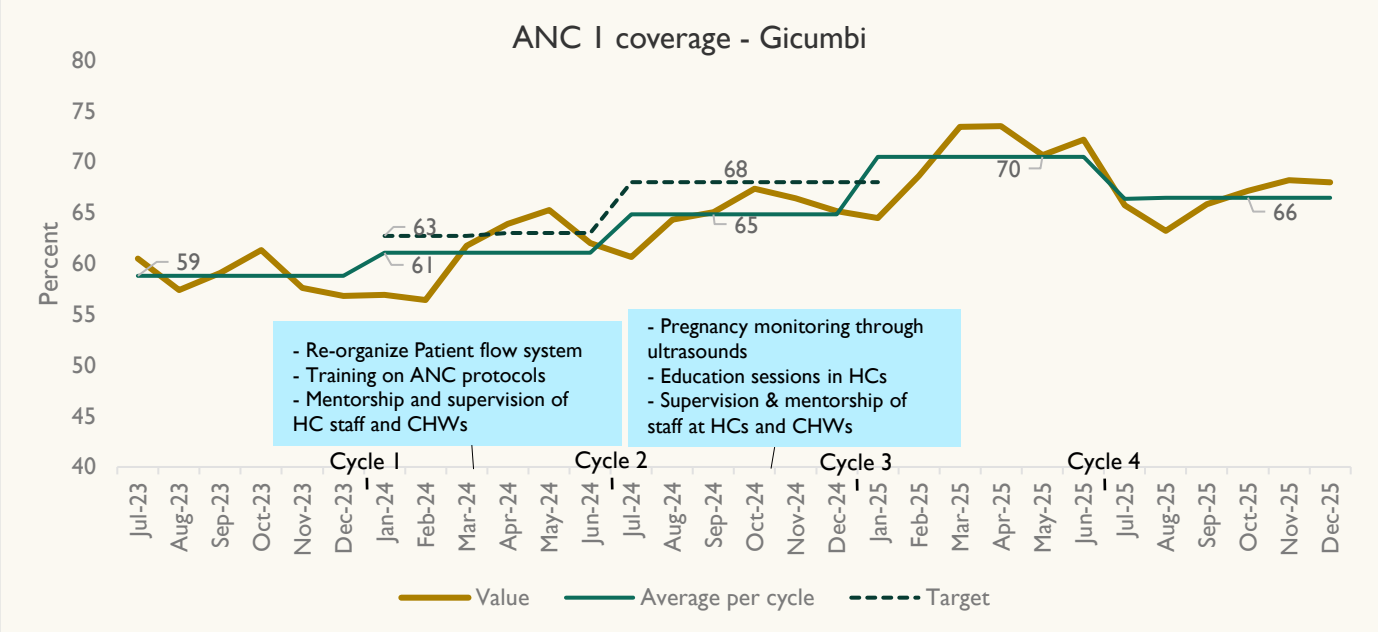


Figure 3: ANC1 coverage in Gicumbi District from July 2023 to December 2025.

During the implementation of the two cycles, ANC1 coverage improved but did not yet meet the steadily from Jan 2024 to May 2025, consistently exceeding the median of 60.2% and reaching peaks above the set goals of 63% and 68% within the two cycles. Some fluctuations occurred, notably in Feb and Jun 2024, Jan 2025, and July 2025, which coincided with harvesting season and highlighting the need for continued monitoring and targeted interventions, also during these seasons. A drop in ANC1 coverage is observed during Cycle 4 at which time no specific activities were implemented by the DHMT to further improve ANC1 coverage, which underlines the need to keep ANC1 coverage a district priority.

systematic tracking, while enhancing CHW engagement through coordination and community mobilization.

5. RESULTS & EVIDENCE OF CHANGE

The DHMTs prioritization of ANC1 in their PHC-LDP intervention delivered measurable improvements. ANC1 coverage increased from 59% to 68%, and ultrasound screening reached 43% of pregnant women after training and equipment procurement. Health insurance coverage among pregnant women rose to 95%, reducing financial barriers to care. Enhanced supervision and mentorship also strengthened 24-hour service readiness at health centers, enabling timely management of complications.

Figure 4: ANC facilities in Gicumbi district

At the facility level, health centers reorganized patient flow and created dedicated ANC consultation rooms to reduce waiting times. Fifty staff received refresher training on ANC protocols, and later, 56 providers were trained in ultrasound use. Monthly supervision and mentorship visits reinforced accountability and improved service quality. At the community level, CHWs were mobilized to follow up with pregnant women, dispel misconceptions about ANC, and encourage timely visits. Health education sessions and insurance enrollment campaigns achieved near-universal coverage, removing financial and informational barriers to care.

Several practices emerged as drivers of success:

- **Data-driven prioritization**: Using HMIS/DHIS2 data and root cause analysis (5 Whys) to select interventions with direct impact on ANC coverage.
- **Integrated approach**: Combining facility-level improvements (training, supervision, infrastructure changes) with community engagement (CHW follow-up, behavior-change sessions).
- **Leadership and accountability**: Active involvement of DHMT and health center managers ensured sustained focus and resource mobilization.
- **Catalytic grant funding**: Grants financed supplemental activities—ultrasound training, mentorship, and equipment maintenance—that were not covered by district budgets, accelerating progress.
- **Continuous monitoring**: Run charts and supervision reports enabled real-time course correction and reinforced a culture of performance improvement.

6. LESSONS LEARNED, SUSTAINABILITY, & RECOMMENDATIONS

Across the PHC-LDP improvement cycles, the DHMT developed a deeper understanding of the system and community factors influencing early antenatal care attendance. Gicumbi District achieved significant progress in maternal health through its PHC-LDP initiative. ANC1 coverage rose from 59% to 68% in 2024, and ultrasound screening reached 43% of pregnant women after training and equipment procurement. Health insurance coverage among pregnant women climbed to 95%, reducing financial barriers.

These changes were supported by strong DHMT leadership in planning, supervision, and performance monitoring, alongside active engagement of health center managers and CHWs, and catalytic funding that supported supplemental activities such as ultrasound training and mentorship. Data-driven decision-making using HMIS/DHIS2 and root cause analysis ensured interventions were targeted and impactful. Leadership and coordination across levels helped maintain focus and momentum throughout implementation. Routine data use supported identification of gaps and adjustment of service delivery and community mobilization strategies. Facility-level improvements were most effective when combined with community engagement. Community mobilization campaigns addressed misconceptions about ANC and supported increased health insurance enrollment, while CHW follow-up strengthened early identification and referral of pregnant women.

The district faced multiple challenges before and during implementation: limited budgets, misconceptions about ANC, tariff gaps for certain services, staff shortages, and inadequate skills in advanced ANC tools. These were addressed through prioritization of high-impact activities, advocacy for insurance coverage, and skill-sharing among providers. Mentorship from hospital gynecologists supported health center staff, while task redistribution and scheduling optimized available human resources. Community mobilization campaigns countered misconceptions and boosted insurance enrollment, while catalytic grants filled critical funding gaps for training and equipment.

The PHC-LDP catalyzed important shifts in governance and accountability. DHMT strengthened its role in planning, supervision, and monitoring, introducing monthly mentorship visits and integrating ANC performance into routine reviews. Facility-level leadership improved patient flow by creating dedicated ANC rooms and reorganizing service delivery.

These changes fostered a culture of continuous improvement and data use for decision-making, aligning district priorities with national MNCH goals.

These lessons translated into several system shifts that strengthened ANC performance and inform priorities for sustaining and scaling progress.

Sustainability Conditions

Sustainability efforts focused on embedding successful practices into routine operations. Activities such as community mobilization, CHW follow-up, and mentorship were integrated into existing health center workflows. Equipment maintenance plans were established, and refresher training was institutionalized through district coordination meetings. Cost-sharing strategies and advocacy for insurance coverage aimed to secure long-term financing for ANC services.

Recommendations for Future Scale-Up

The DHMT's experience offers several insights for similar settings:

- **Data-driven prioritization** using HMIS/DHIS2 and root cause analysis.
- **Integrated interventions** combining facility improvements with community engagement.
- **Leadership accountability** through regular supervision and performance reviews.
- **Catalytic funding model** to finance supplemental activities like advanced training and equipment procurement.
- **Community mobilization for insurance coverage**, which achieved near-universal enrollment in Gicumbi.

Collectively, these lessons position Gicumbi District to sustain improvements in ANC1 coverage while offering practical guidance for districts seeking to strengthen maternal health services and PHC performance.

Key System Shifts

To sustain and scale progress, the DHMT recommends the following actions:

- Equip health facilities with essential tools, including ultrasound machines.
- Maintain enhanced service delivery for ANC, ensuring 24-hour readiness.
- Maximize outreach and community engagement through CHWs and local leaders.
- Institutionalize refresher training for ANC protocols and advanced tools.
- Advocate for insurance schemes to cover all ANC-related services.
- Share best practices across districts to accelerate national progress toward universal maternal health coverage.

ABOUT THE PROJECT

PHC is the foundation of resilient and equitable health systems. Strong local leadership is essential to ensuring accessible, high-quality care that responds to community needs. In Ghana and Rwanda, national and district health authorities are strengthening health system performance through the PHC-PM Activity—an initiative led by government partners and implemented with local institutions, with support from the Gates Foundation and technical partners including MSH. At the heart of the model are four interlinked components, each designed to reinforce district leadership, evidence-based decision-making, and sustained PHC system improvement:

1. Leadership development
2. Operational data & integrated dashboards
3. Ongoing monitoring, evaluation, and learning (MEL)
4. Catalytic grant funding

Through adaptive performance management cycles, district health authorities continuously analyze, monitor, learn, and adapt—maturing over time into effective stewards of district health systems. The PHC-PM Activity is a collaboration between MSH, Ubora Institute (Ghana), Building Systems for Health (Rwanda), Three Stones International (Rwanda), HISP Ghana, Zenysis, and district and national health authorities.