Integrated Antenatal Care Care project: Community impact stories from Ghana

Objective: Introduce proven diagnostic technologies and upgrade provider ANC skills in infectious disease screening and treatment at the primary health care level for prevention of mother-to-child transmission of key infectious diseases.

Sene West District

Kyeamekrom Community Health Planning and Services Compound

The Integrated ANC project has improved both the provision of care by health workers and the client experience at Kyeamekrom Community Health Planning and Services (CHPS) Compound. The ability of providers to offer primary prevention services has improved, as a wider range of conditions and infections are now tested during ANC visits. The providers’ knowledge, skills, and resources have expanded, improving their capacity to identify specific causative organisms (e.g., for urinary tract infections [UTIs]) and to prescribe medications that provide effective treatment and avoid drug resistance.

In addition to providing improved point-of-care and lab diagnostics, the new project approach includes cost savings for clients. While previously clients paid out of pocket for a number of laboratory services, fees are no longer necessary for many services.

Objective: Health worker skills and capacity built to effectively manage and/or refer patients with infections.

Bantama Community Health Planning and Services Compound

Initially, midwives did not proactively ask patients screening questions for gonorrhea and chlamydia during ANC visits; they asked follow-up questions only if the women mentioned symptoms. Now, midwives proactively ask clients screening questions regarding symptoms, and if needed, take vaginal swabs for gonorrhea and/or

About the Integrated Antenatal Care project

Since 2022, Ghana Health Services (GHS) and PATH have been working to improve diagnosis and management of maternal infections during the antenatal period. The Integrated Antenatal Care (ANC) project is implementing comprehensive maternal and newborn infection prevention and management through the ANC platform.

Working mainly at the primary health care level in nearly 70 facilities across five districts of Ghana’s Bono East Region, the project is expanding the capacities of community-based and first-level health care providers to better diagnose and manage maternal infections, improving the availability of services through routine ANC, and strengthening connections between primary and referral facilities.

The following vignettes from the communities and providers engaged in this initiative help illustrate its impact across key project objectives.
chlamydia, which are sent to Holy Family Hospital in Techiman for analysis.

Prior to initiation of the Integrated ANC project, health care providers typically used Combi 2 tests during ANC, which detected only glucose and protein for gestational diabetes and pre-eclampsia. Providers are now trained to use Combi 10, which includes such parameters as nitrites and leucocytes, and facilities in the region have been provided with the test strips. Providers now screen with Combi 10, which enables them to quickly identify infections and offer early treatment.

**Objective: Supply chain of diagnostic consumables and medicines strengthened to ensure availability at health facilities.**

**Techiman Municipal**

**Nsuta Health Centre**

Prior to initiation of the Integrated ANC project in Nsuta Health Centre, pregnant women were tested with Combi 2 during ANC visits, which only screened for glucose and proteins. These tests were sent to the lab for additional review only when clients reported symptoms consistent with infections. The process for sending and obtaining lab results required considerable time before patients received diagnosis and treatment, putting both mother and baby at risk.

Implementation of Combi 10 to screen women during ANC visits has helped speed the process. Health care providers can now screen for a broader range of conditions beyond glucosuria and proteinuria, identify infections early while clients are on-site, and promptly provide treatment as needed. These changes have improved the quality of on-site health care service delivery to the pregnant women who attend ANC.

**Objective: Empower and engage communities to increase demand for interventions and services by improving knowledge of HIV, syphilis, hepatitis B, group B streptococcus, the risks to newborns, and strategies for prevention.**

**Atebubu-Amantan District**

**Kunfia Community Health Planning and Services Compound**

Training of community health nurses (CHNs) and community influencers has improved awareness and demand in the district. Before the Integrated ANC project, women in Sabidi, a community that accesses health care at the Kunfia CHPS Compound, often did not attend ANC early in their pregnancies. Supported by the project, a Kunfia CHN and a community volunteer led engagement and education. This effort has led to improved health care-seeking behaviors: pregnant women now report to ANC visits earlier than they did in the past.

Expanded testing in Kunfia CHPS Compound enabled by the project has also made a difference. Previously, this facility tested only for hemoglobin and malaria using the malaria rapid diagnostic test. Pregnant women who attended ANC were referred to Sene District Hospital in Kwame Danso for all the other routine laboratory tests.

Now, the project not only provides kits including Combi 10, HIV, syphilis, hepatitis B, chlamydia and gonorrhea tests, but it has equipped ANC staff with the knowledge and skills to administer these tests during ANC visits. This has resulted in an improved spectrum of services at the facility, reduced travels, and reduced costs for women, as they no longer need to seek further care at Kwame Danso. We anticipate that this will contribute to improvement in overall satisfaction with ANC services among pregnant women in the community.

**Objective: Strengthen linkages between primary care facilities and district and regional hospitals to improve patient management and referral systems.**

**Nkoranza North District**

**Senya Community Health Planning and Services Compound**

A young woman reported several times to Senya CHPS Compound with signs and symptoms of a UTI pre-pregnancy. While no laboratory sample was tested for culture and sensitivity, the provider prescribed antibiotics based on clinical assessment. Even though the patient reported taking the full prescribed course of antibiotics, she kept presenting with recurring infections.

The woman later became pregnant and began attending ANC visits at Senya CHPS Compound. According to Integrated ANC project protocol, the provider screened her with Combi 10 during registration. Results indicated the presence of leukocyte and nitrites, indicating a UTI. A mid-stream urine sample was sent to Holy Family Hospital for culture and sensitivity as a follow-up measure.

The test results showed resistance to all antibiotics except amikacin and gentamycin and treatment was initiated accordingly. The woman was relieved upon hearing the news that, finally, the team had identified the cause of her persistent infection and prescribed the appropriate medication to treat it. She had suffered with the infection in the past but would now be fully treated.
during pregnancy. Going forward, other pregnant women who are in similar situations will also be screened and appropriately managed. Further, this experience provided an opportunity to identify gaps in overall UTI screening for non-pregnant populations in the catchment area of this CHPS compound and initiated discussions with the Regional Health District on expanded improvement beyond the target population.

**Objective:** Behavior change communication messages developed and approved by the Ghana Health Service for dissemination.

**Pinihin Community Health Planning and Services Compound**

The Integrated ANC project’s social and behavior-change communications materials, including flyers, leaflets, and posters used at health facilities and communities for education, are making a positive impact. These materials have increased understanding of illness prevention and treatment among community members, men and women alike. Adherence to follow-up visits has markedly improved, and communities are now more aware of the importance of timely ANC, the impact of infections on mothers and babies, recognition of infection danger signs, and the importance of knowing where to go and what can be done.

At the beginning of the project, it was uncommon for pregnant women who attended ANC to tell health professionals unprompted if they experienced symptoms of infections. This was mainly attributed to women’s limited awareness of infections and the importance of early diagnosis and treatment.

The project’s impact is illustrated by the story of a pregnant woman in the Pinihin community who received a leaflet during a community education session that described the project, potential infections, and the consequences of infections. After reading the leaflet, she went to Pinihin CHPS Compound, the nearby health facility where she usually attended ANC. She met with a CHN and reported the symptoms she was experiencing, which were consistent with infection symptoms described in the leaflet.

The patient explained to the CHN that she had been taking medication, yet the symptoms kept recurring. To address these symptoms, the CHN arranged for a high vaginal swab to be taken and sent for culture and sensitivity. Results indicated antibiotic sensitivity, the treatment was adjusted, and the woman’s symptoms improved.

**Kintampo North Municipal**

**Kintampo Municipal Hospital**

A pregnant woman who usually receives ANC at Kintampo Municipal Hospital attended her fifth visit, during which the usual point-of-care tests were conducted. The provider screened her with Combi 10, and the patient tested positive for leucocytes; a urine sample was collected and sent to the Kintampo Health Research Centre laboratory.

Because the woman also complained of vaginal discharge and vulvar itching, a provider took swabs including a high vaginal swab to test for chlamydia and gonorrhea that was sent to the lab at Kintampo Health Research Centre for culture and sensitivity.

Results from the culture and sensitivity showed pure growth isolating *Klebsiella oxytoca* with sensitivity to cefuroxime. She received follow-up care, and cefuroxime was prescribed for seven days. Two weeks after the new treatment, she tested negative for leucocytes, and the discharge and itching had resolved. The client is now doing well and continues to receive follow-up ANC at Kintampo Municipal Hospital.

---

**The Pfizer Foundation**

This project is funded by The Pfizer Foundation, which is a separate legal entity from Pfizer Inc. with distinct legal restrictions. The information contained in this document is the sole responsibility of PATH and does not necessarily reflect the position of the donor organization.