

The Maternal and Newborn Health E-Cohort

RESULTS FROM THE 2023 KENYAN BASELINE SURVEY (MODULE 1)

SITE DESCRIPTION

The MNH E-Cohort is a longitudinal mixed-mode (in-person and phone) survey aimed at providing novel evidence on health system quality for mothers and newborns. In June-August 2023, **1,003 women** were recruited in **Kitui and Kiambu counties in Kenya**. Women aged 15 years or older seeking care for the first time in their pregnancy were recruited from 21 study facilities (13 public and 8 private facilities). This brief highlights the key measures from the baseline survey (Module 1).

Site characteristics	Kiambu	Kitui
Administrative level	County	
Geography	Urban	Rural
Population density (per sq km)	981	37
Public primary facilities	180	372
Public secondary	26	16
Private facilities	564	101

CHARACTERISTICS OF WOMEN ENROLLED

Demographic characteristics	Kiambu N=498	Kitui N=505
Facility type for first ANC visit:		
Primary care facility	60.6%	58.5%
Hospital	26.9%	21.4%
Private facility	12.5%	20.0%
Mean age (years)	27.5	26.2
Avg gestational age (weeks)	19.3	21.3
Completed secondary school	73.1%	43.9%
First pregnancy	30.5%	29.4%
Wealth: Poorest	7.5%	59.1%
Middle	52.3%	32.2%
Richest	40.2%	8.6%

Key findings on the first antenatal care (ANC) visit

Competent Care: Nearly all (98%) women had a blood test and 90% had a urine test during the visit. However, **few women received ultrasounds** when in third trimester (10.3%), and only 59% of counseling items were discussed.

Competent Systems: Health problems and risk factors (anemia, danger signs, chronic diseases) are not always detected and addressed during the visit. **Women who have general medical or obstetric risk factors** or those who report danger signs **do not undergo additional examinations or tests**, nor are they more likely to be referred for specialized ANC.

User Experience: **63% of women rate their visit as very good or excellent quality**, but many report problems with long wait times, short consultation length, and unavailability of equipment or supplies.

Economic outcomes: **75% of women spent money for the consultation**. The highest costs were for laboratory tests or examinations.

COMPETENT CARE

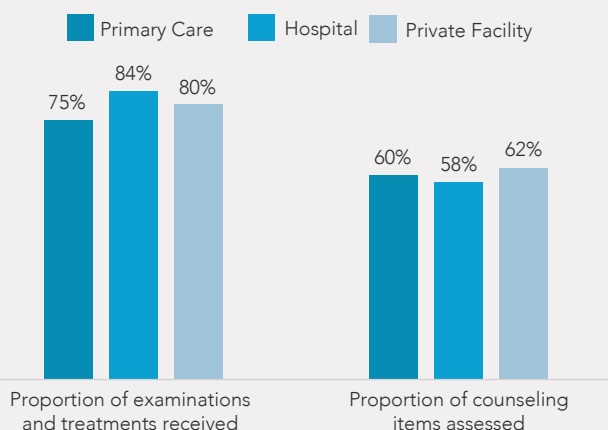
What is the average quality of first ANC visit?

On average during the first ANC visit, **78%** of recommended tests, examinations and treatments were provided and **59%** of elements of counseling were addressed.

The following are done in less than half of first ANC visits:

- Ultrasound for women in their third trimester **10%**
- Assessment of malnutrition by measuring the mid-upper arm circumference **24%**
- Discussed birth plan with provider **38%**
- Deworming medication for women in second or third trimester **8%**

By facility type



Items Assessed

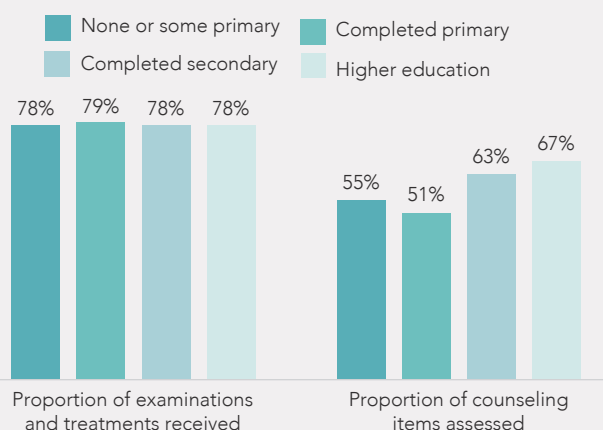
Exams & treatments

- Blood pressure measured
- Weight & height taken
- Mid-upper arm measured
- Fetal heart rate assessed (second and third trimester)
- Urine and blood tests
- Iron and folic acid
- Tetanus injection

Counseling

- Nutrition & exercise
- Signs of pregnancy complications
- Told to return to ANC
- Discussed birth plan

By education of the woman

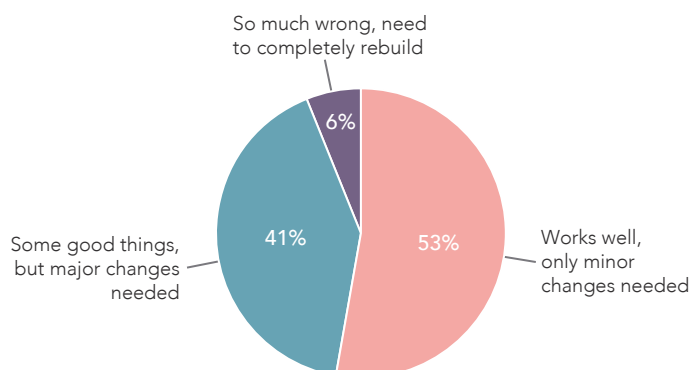


ALMOST HALF OF WOMEN REFERRED FOR SPECIALIZED CARE

Among the 687 women recruited at a primary level facility (public or private), **49%** were referred to the hospital or told to see an obstetrician for specialized care. There were no differences in referral between women with and without risk factors. However, **those who reported a danger sign were more likely to be referred.**

CONFIDENCE & TRUST

Endorsement of the current health system (% respondents)



ECONOMIC OUTCOMES

43% of women have insurance coverage: 82% are covered with NHIF and 17% with Linda Mama.

75% of women spent money out-of-pocket (OOP) for the first ANC visit (**72%** in public facilities, **86%** in private facilities).

Total spent was 475 KES on average in public facilities and 1925 KES in private facilities.

Average costs (among those with OOP expenses) in KES

Average per respondent	Public facilities	Private facilities
Total spent	476	1925
Registration	23	352
Medicines or vaccines	14	308
Laboratory tests or exams	162	954
Indirect costs*	277	311

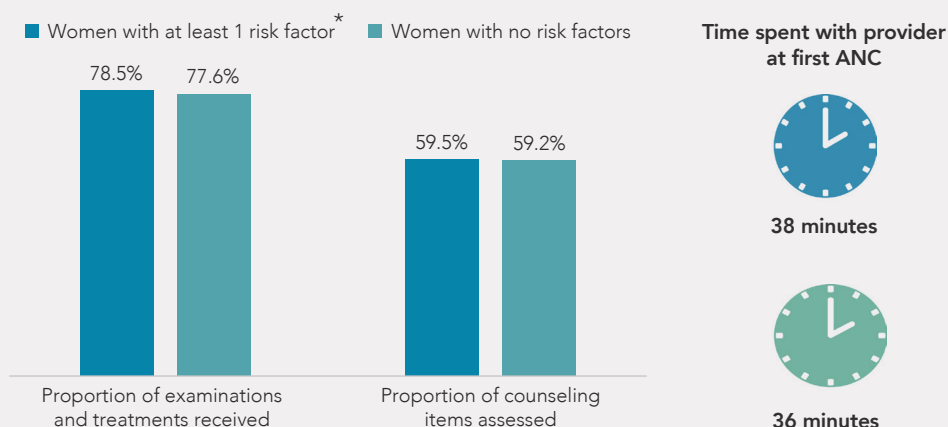
*Includes cost of transportation, accommodation, food or other

COMPETENT SYSTEMS: PREVENTION & DETECTION

Care quality by level of risk

Women with risk factors received the same amount of care at first ANC visit compared to women with no risk factors.

Among the 1,003 women enrolled, 54% had risk factors (general medical or obstetric risk factors) that required specialized antenatal care or additional investigations, follow-up or referral care. There were no differences in the number of examinations, tests, and treatments they received or in the amount of counseling they received.



Proportion of women who received an ultrasound at first ANC



8% of women with at least one risk factor



10% of women with no risk factor

**General medical risk factors included being aged less than 18 or more than 35, being previously diagnosed with a chronic illness including diabetes, hypertension, cardiac problems, HIV, TB, renal disorder etc., having high-blood pressure at enrollment (SBP > 140 or DBP > 90), moderate to severe anemia at enrollment < 11.0 g/dL. Obstetric risk factors included multiple pregnancy, or prior history of: stillbirth, neonatal death, preterm birth, postpartum hemorrhage or c-section.*

Care quality when danger signs are reported

Women who report danger signs receive the same amount of care at first ANC compared to women with no danger signs.

Among the 1,003 women enrolled, 23% reported experiencing at least one danger sign so far in pregnancy. There were no differences in the number of examinations, tests, and treatments they received or in the amount of counseling they received. Women with danger signs spent 16 more minutes on average with the health provider and they were more likely to get an ultrasound.



Proportion of women who received an ultrasound at first ANC



13% of women with at least one danger sign

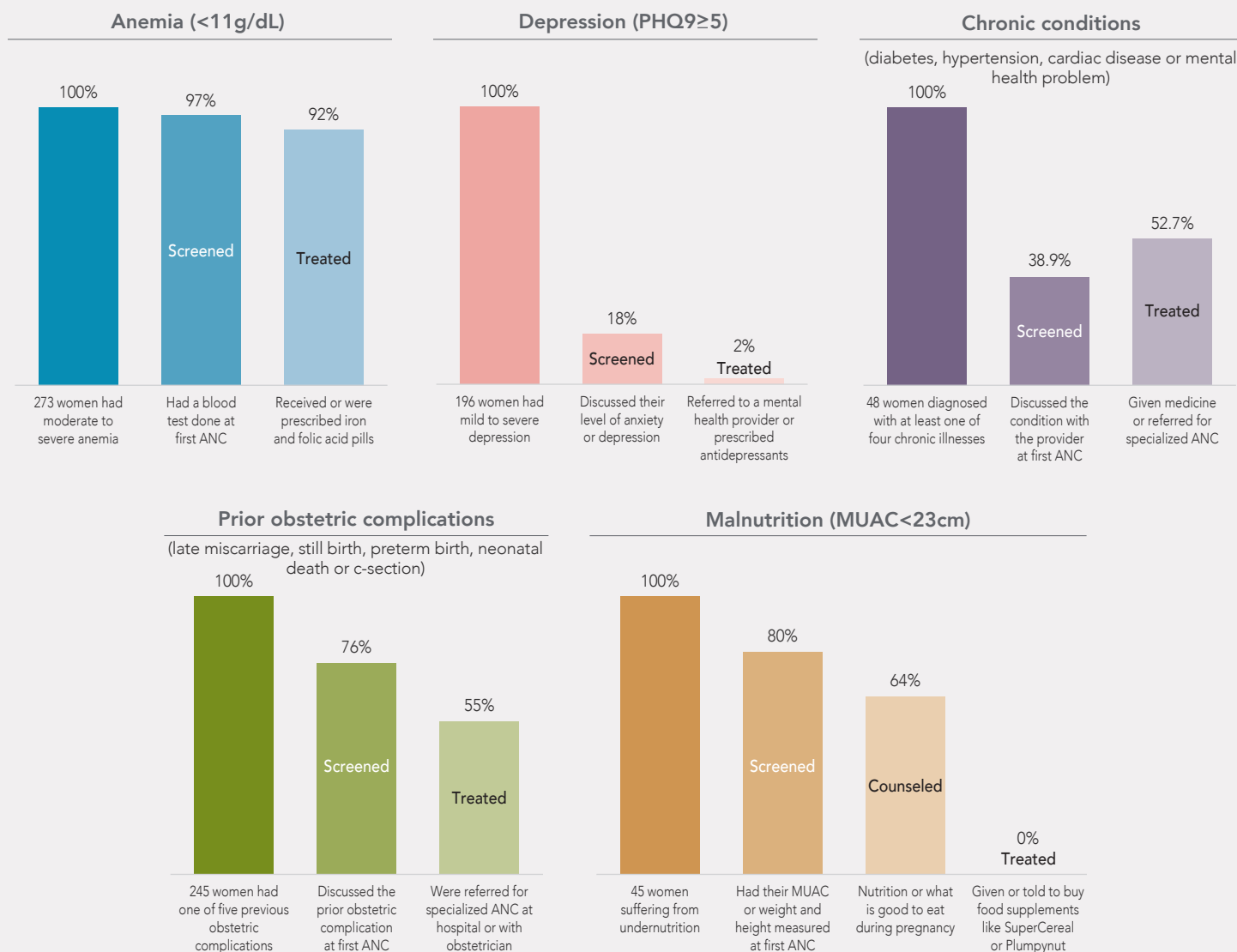


7% of women with no danger sign

**Danger signs included: severe or persistent headaches, vaginal bleeding, fever, severe abdominal pain, convulsions, or repeated fainting*

COMPETENT SYSTEMS

Health problems are not always detected and addressed during the first ANC visit.

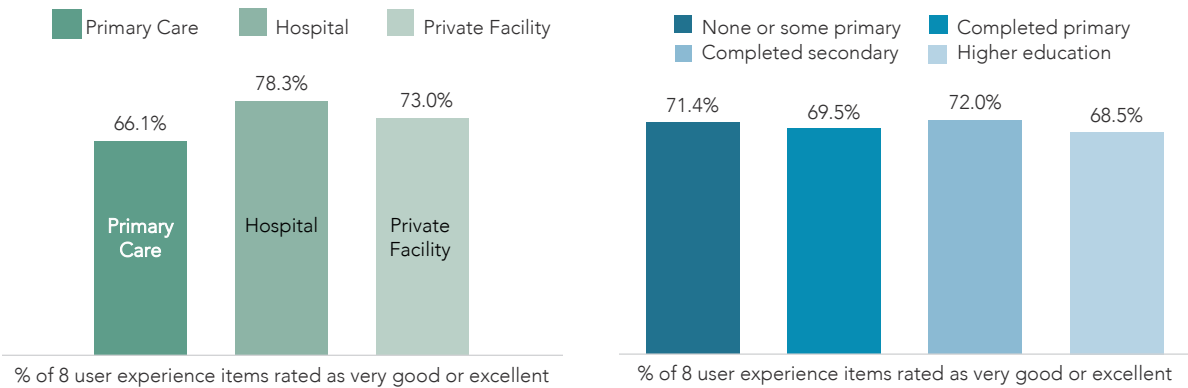


Anemia, depression, and malnutrition were assessed by E-Cohort data collectors using hemoglobin test, PHQ9 and MUAC, respectively. Prior obstetric complications and chronic conditions are based on self-reports.

USER EXPERIENCE

How do women rate their experience during their first ANC visit?

63% of women rated the quality of their first ANC visit as very good or excellent. User experience was higher in public hospitals and in private facilities compared to public primary facilities. There was no difference in user experience by women's education.



Ratings of the first ANC visit, by component	Proportion of women who rate each item as very good or excellent
Clarity of explanations	77.7%
Knowledge and skills of the provider	76.7%
Being involved in decisions about your care	76.1%
Level of respect from the provider	75.7%
Courtesy and helpfulness of facility staff	70.7%
Availability of supplies and equipment	68.3%
Amount of time spent with provider (length of visit)	65.6%
Waiting time	50.3%

METHODOLOGY

The MNH E-Cohort survey was developed following the framework of the Lancet Global Health Commission on High Quality Health Systems and focuses on under-measured dimensions of quality including care and system competence, user experience, patient-reported outcomes and confidence. From June to August 2023, a total of 1003 pregnant women were enrolled during their first ANC visit at 21 health facilities (public health centers, dispensaries, hospital and private health facilities) in Kiambu and Kitui counties in Kenya. Mobile phones were distributed, and phone surveys will be conducted monthly until 10-12 weeks postpartum. Data will be collected on the quality of antenatal, intrapartum and postnatal care.

To learn more contact us at: info@questnetwork.org or visit: <https://questnetwork.org/e-cohorts-longitudinal-care-quality>