Quality of antenatal care in Primary Health Care in Brazil: a latent class analysis

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The **highest adequacy of care** (39.5%) was found for the indicator 'Identification and ANC of low/high-risk pregnancies', while 'ANC routine tests' had the **lowest frequency** (16.8%). PHC teams were characterized as follows: 20.5% having "High adequacy" of care, 23.9% as "Intermediate adequacy", and 55.6% as "Low adequacy".

BACKGROUND

Adequate antenatal care (ANC) is fundamental in preventing maternal and neonatal mortality. Developing indicators for assessing the ANC quality in Primary Health Care (PHC) is essential.

We characterize subgroups of quality of care concerning ANC at the PHC level in Brazil.

METHODS

We conducted a cross-sectional study with data from first Brazil's National Program for Improving Primary Care Access and Quality (PMAQ-AB) Cycle (2011–2012).

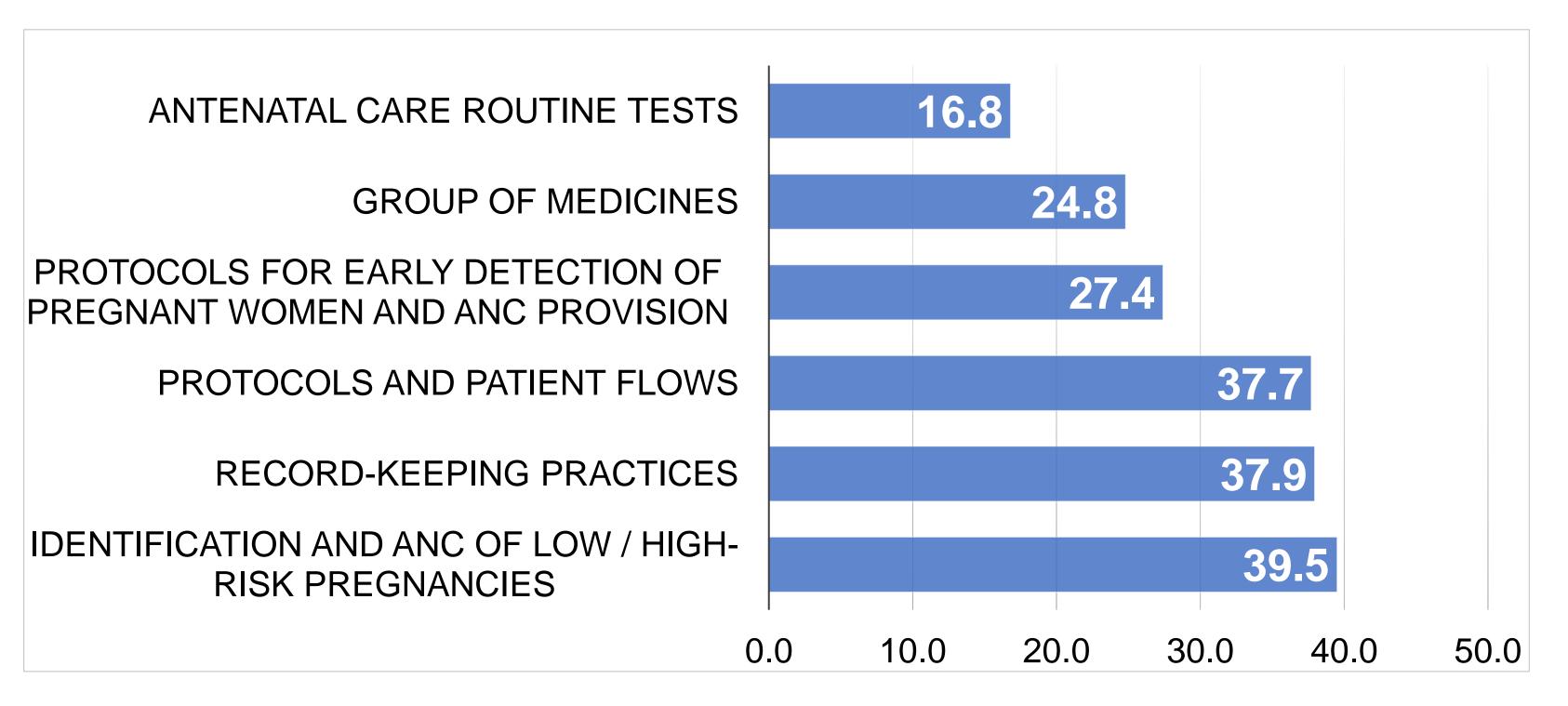
A total of 16,566 (49.6%) PHC teams participated in the first cycle of the PMAQ-AB, distributed across 69.3% of Brazilian municipalities.

To assess the quality of ANC, six indicators were defined: 'Group of medicines,' 'Protocols and patient flows,' 'Record-keeping practices,' 'ANC routine tests,' 'Protocols for early detection of pregnant women and ANC provision,' and 'Identification and ANC of low/high-risk pregnancies.' Latent Class Analysis (LCA) was carried out to characterize the quality of care provided by PHC teams according to these six indicators.

RESULTS

'Identification and ANC of low/high-risk pregnancies' indicator had the highest percentage of teams providing adequate care (39.5%), while 'ANC routine tests' had the lowest percentage (16.8%) (Figure 1).

Figure 1. Percentage of adequacy for the Antenatal Care (ANC) quality indicators.

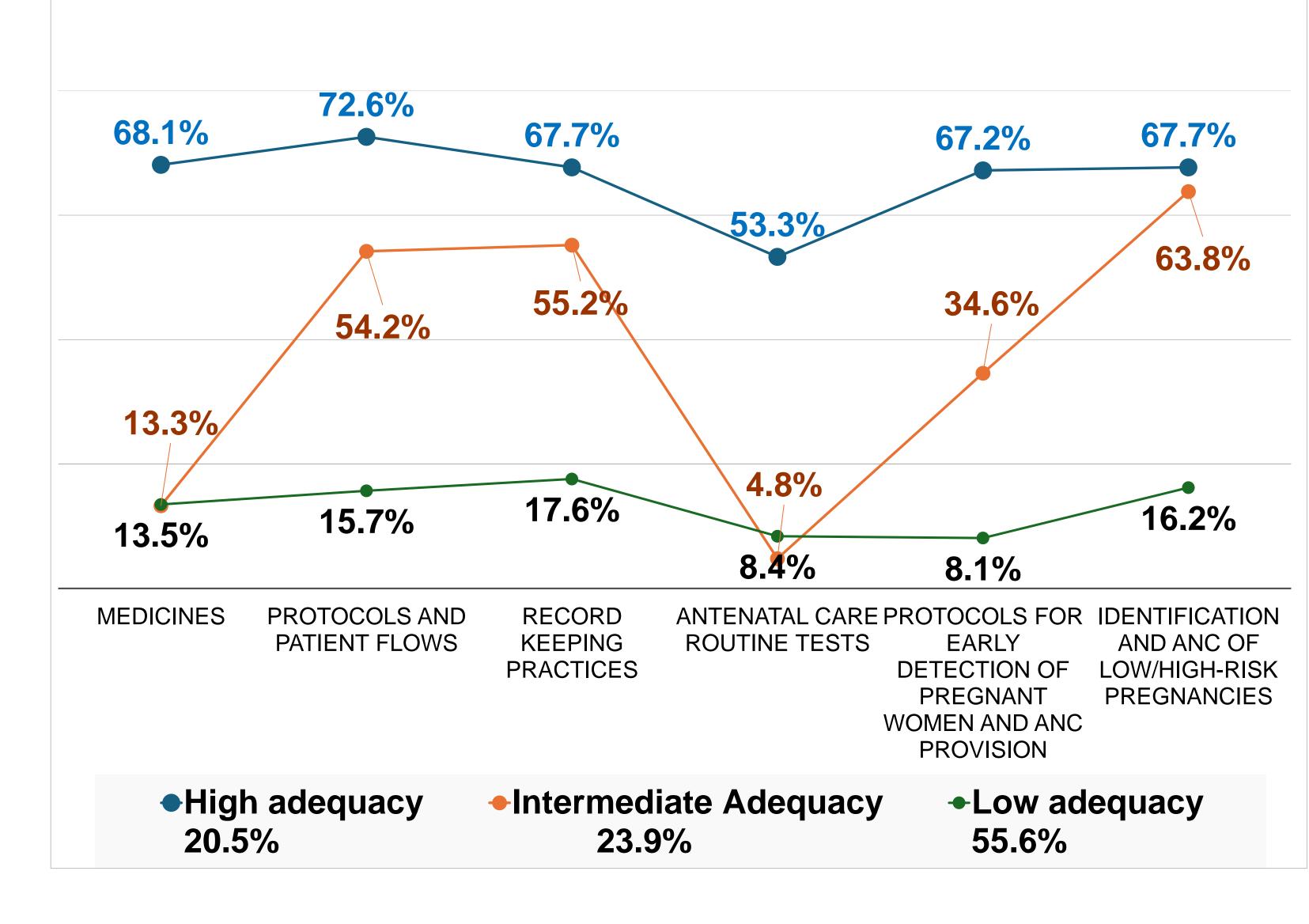


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RESULTS CONTINUED

The LCA identified three classes, and 20.5% of PHC teams had the probability of belonging to the class denominated 'High adequacy' (Figure 2).

Figure 2. Latent class membership of PHC units in relation to PMAQ-AB indicators for Antenatal Care (ANC) quality. PMAQ-AB, Brazil. 2012.



CONCLUSIONS

Using a national PHC-level dataset from 2011–2012, the study found significant weaknesses in Brazilian PHC teams across six indicators, especially in essential care. This underscores the need for systematic data collection to improve PHC quality. Effective ANC requires proper infrastructure and healthcare professionals to perform necessary procedures and provide guidance. Outreach, home visits, and strong connections with the healthcare teams are crucial for quality ANC. The developed model captures key aspects of ANC quality and can guide global evaluations, promoting high standards of ANC and better health outcomes for mothers and children.

ADDITIONAL KEY INFORMATION

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