Policy Brief

Enhancing ANC Seeking:

Timely Uptake, Quality of Services, and Equity for Better MNH Outcomes in Amhara Region

Executive summary

Despite improvements, antenatal care (ANC) coverage in the Amhara region remains below national targets. Many women initiate ANC contacts late in pregnancy and insufficiently utilize the recommended minimum of four contacts, particularly in rural areas and among women with less education and from poorer households. The quality of ANC services varies by urban and rural and across health facilities, with limited availability of essential components like ultrasound scans and laboratory tests and inconsistent adherence to ANC guidelines and protocols by healthcare providers. This policy brief outlines the current situation, identifies key challenges, and offers strategic recommendations to enhance ANC-seeking behavior and service quality in the Amhara region.

ANC1+ coverage in the Amhara region has shown significant improvement, rising from 16% in 2000 to 86% in 2019, surpassing the national increase from 28% to 74%. Although recent DHIS2 data suggests it may have plateaued, this progress is a reason for optimism. Similarly, ANC4+ coverage grew from 3% to 52% during the same period, with notable gains since 2011. However, despite a more than 90% increase in early ANC visits between 2000 and 2019, nearly two-thirds of pregnant women still did not receive timely first ANC services.

Additionally, quality-adjusted coverage for ANC1+ remained significantly low, estimated at 9-24% between 2016 and 2023.

To enhance the timely uptake of ANC services, we recommend implementing community-based awareness campaigns, including local media, community leaders, and health extension workers, to educate women and families about the importance of early and regular ANC contacts. It's crucial to upgrade health facilities, particularly health centers in rural areas, with essential ANC components, including ultrasound machines and laboratory equipment. Equally important is the need for ongoing training for health service providers to ensure adherence to ANC guidelines and protocols, which will reassure the audience about the quality of care. Establishing quality assurance teams to monitor and enhance equitable service delivery and developing targeted outreach programs for underserved areas will ensure marginalized populations can access ANC services. Implementing financial support schemes to reduce economic barriers and strengthening data collection systems to monitor ANC utilization and quality of care is also crucial. Another critical step is drawing lessons from the successes in family planning by integrating task shifting and prioritization for community health workers, ensuring they are effectively utilized to maximize outreach and education efforts. Finally, quality metrics should be incorporated into ANC programs and regularly evaluated to ensure continuous improvement.

Background

ANC is a crucial health service for pregnant women to ensure optimal health for both mother and baby. According to the WHO[1], ANC involves skilled healthcare professionals providing problem

hidentification, disease prevention and management, and health education while preparing women for birth to reduce preventable maternal and perinatal mortality and morbidity. While the number of ANC contacts is essential, it does not guarantee effective maternal health interventions if there is no quality ANC service in the health facility. Crude or contact coverage measures access but not the quality of care or adherence to standards. Thus, it often overestimates the health benefits of ANC[2].

The analysis of effective coverage (EC)[3, 4] - defined as quality-adjusted coverage – adjusts crude coverage to include ANC service quality indicators, accounting for health facility readiness and at least four ANC visits as an intervention[5]. This approach provides a more accurate evaluation of the health system by estimating the proportion of pregnant women who received quality ANC services necessary for a positive pregnancy outcome.

Approaches

Evidence used to back up our policy recommendations emanates from various sources, including five rounds of demographic and health surveys (EDHS) from 2000 to 2019 [6] and routine health facility data (DHIS2 2018-2023)[1] [7]. We estimated crude coverage and explored absolute differences to assess progress in reducing inequality using residence, education, and wealth. In addition, data from service provision assessment [8-9] (SPA 2014 and 2022) and service availability and readiness assessment (SARA 2018) [10] were linked to EDHS data (2016 and 2019) and DHIS2 2023 to estimate EC for ANC coverage. Weighted crude coverage was derived from household surveys, while readiness scores, as quality indices, were calculated from facility surveys. The overall readiness indices of facilities were obtained using a weighted additive method, first computed by individual domains. Facility readiness indices and crude coverage were linked to estimate input-adjusted, intervention-adjusted, and content-adjusted coverage reflecting ANC service quality. Ethiopian Health Sector Transformation Plan II (HSTP II) [11] target for ANC4+ was used as a reference.

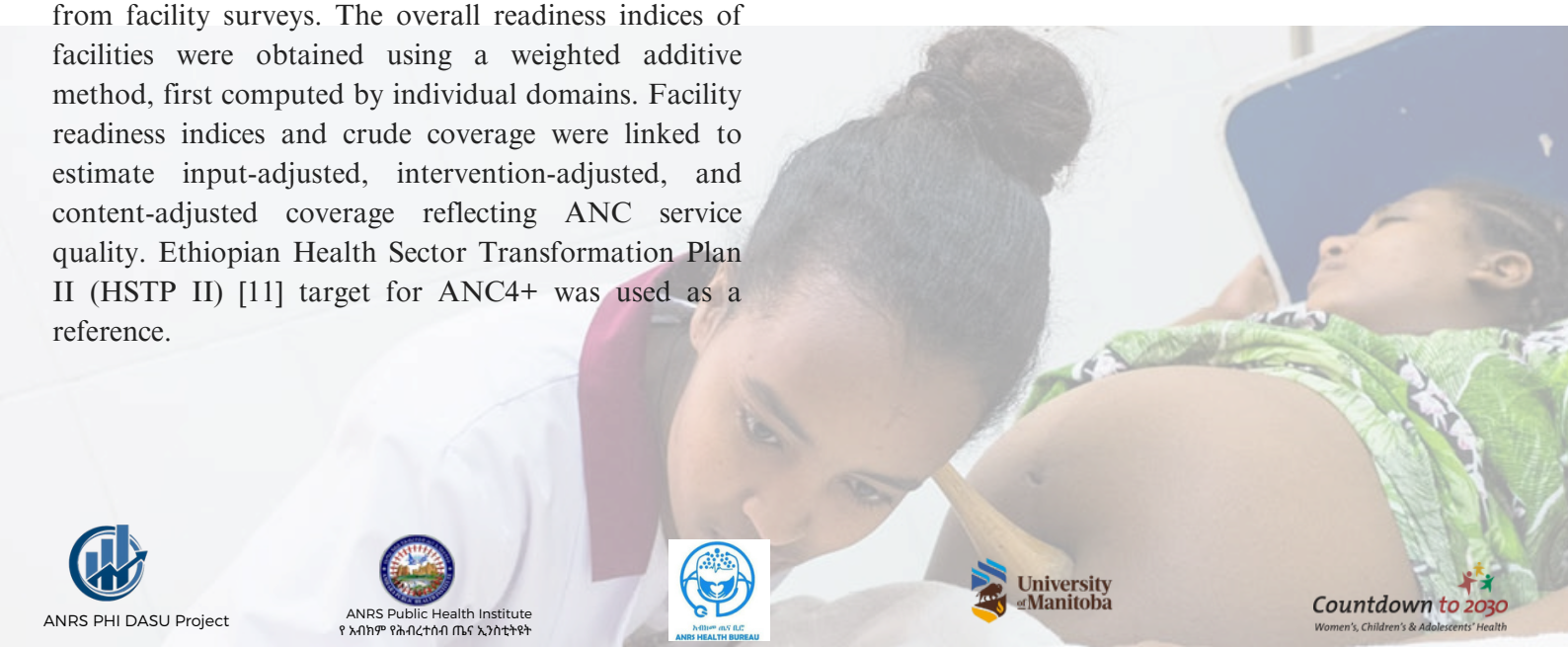
Regional program managers, policymakers, and experts were consulted throughout the process, from conception to analysis and development of this policy brief, to determine and contextualize priority issues and interpretation of findings. The final version was reviewed, validated, and approved by experts working in the region.

[1] Conversion of EFY to Gregorian
Hamle 2010 to Sene 2011=2018, Hamle 2011 to Sene 2012=2019, Hamle 2012 to Sene 2013=2020
Hamle 2013 to Sene 2014=2021, Hamle 2014 to Sene 2015=2022, Hamle 2015 to Sene 2016=2023

Key findings

ANC crude coverage

The study revealed that ANC1+ coverage increased from 16% in 2000 to 86% in 2019, with a 9% average increase annually, and likely plateaued after that (Figure 1). ANC4+ coverage increased from about 3% in 2000 to 52% in 2019, with an average annual increase rate of 15%. ANC4+ coverage fluctuated over the past five years, ranging from a low of 56% in 2021 to a high of 73% in 2022, before settling at 65% in 2023; ANC4+ coverage increased by an average of 5% annually between 2019 and 2023, much slower pace compared to the progress observed the five years before 2019. The recent conflict-driven service interruptions likely influenced these variations and the slowed pace in 2021 and 2023. Given the region's progress over the past five years, the Amhara region must triple its efforts, requiring an average annual increase of nearly 10% to meet the national target of 81% ANC4+ coverage by 2025.



Timely uptake of ANC

Despite the significant progress in the percentage of pregnant women receiving their first ANC visit within the first trimester, which increased from 2% in 2000 to 33% in 2019, according to EDHS. Still, only one-third of the pregnant women receive their first visit within the recommended timeframe. Furthermore, the progress made up to 2019 has reversed in recent years, sharply declining to 23% in 2023, indicating that fewer than one in four pregnant women receive their first ANC visit during the first trimester. This decline, coupled with the fact that fewer than one in four pregnant women are now receiving their first ANC visit during the critical first trimester, raises serious concerns about the early detection and management of potential pregnancy complications and the overall effectiveness of ANC services in the region. This trend underscores the urgent need for renewed efforts to encourage early ANC visits and ensure that pregnant women receive timely and adequate care.

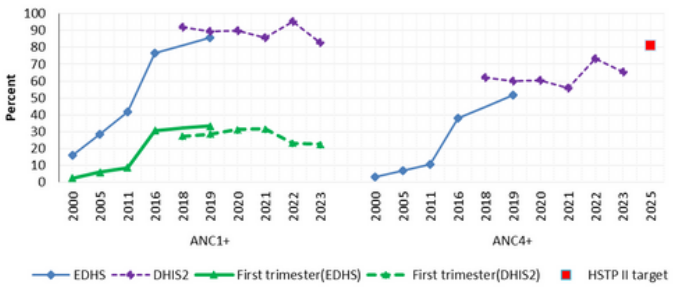


Figure 1. Antenatal care coverage in Amhara region, 2000-2023.

Equity of ANC coverage

In the Amhara region, the absolute urban-rural difference decreased from 34.2% in 2000 to 17.8% in 2019, with an average annual reduction of 2.6%. The gap between mothers with no education and those with secondary or higher education narrowed slightly by 0.4% from a 25.8% difference in 2000. In contrast, wealth inequality between the richest and poorest groups increased by over 1% annually over 20 years, starting from a difference of 22.3% in 2000.

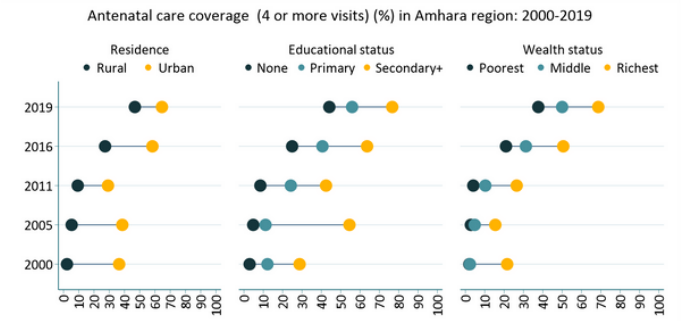


Figure 2. Inequalities in ANC4+ coverage in Amhara region, 2000-2019

Health facilities readiness for ANC service

The readiness of facilities for ANC services improved across several domains from 2014 to 2022, with basic amenities increased from 51% to 60%, standard precautions from 54% to 74%, ANC-specific services[1] from 54% to 62%, and medicine and supplies from 21% to 54%. Training and guideline availability increased from 37% to 50%, while diagnostic test availability remained low, rising slightly from 29% to 30%. Routine[2] ANC services provision dropped from 79% in 2014 to 56% in 2022, despite an overall readiness increase from 54% in 2014 to 60% in 2022. Individual indicators with low availability and those that showed a decline between 2014 and 2022 are presented in the Annex.

[1] Services include iron supplementation, folic acid supplementation, tetanus toxoid vaccination, and iron + folic acid combination tablets

[2]Routine provisions include Weighing clients, taking blood pressure, Conducting group health education sessions, Urine tests for protein, Blood tests for anemia, HIV testing and counseling (HTC) for pregnant women, Measuring clients' height, and rapid diagnostic testing for syphilis.

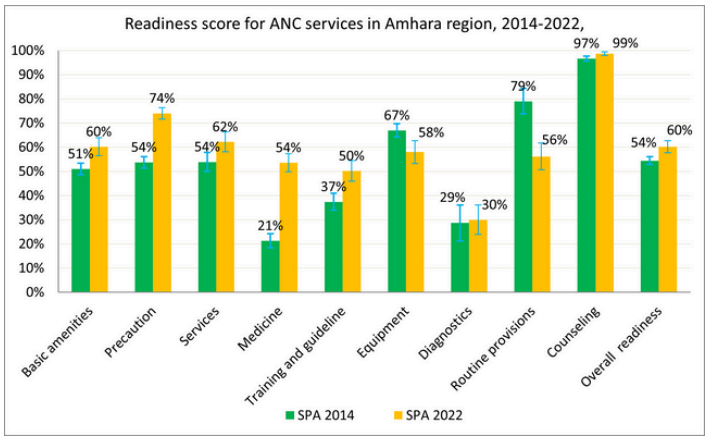


Figure 3 Health facilities' readiness score for ANC services by domain in Amhara region, 2014-2022.

Effective coverage cascade

When the crude coverage adjusted for facilities' readiness, the input-adjusted coverage increased from 39% in 2016 to 48% in 2019 but showed little or no change after that, likely stagnating. Further adjusting input coverage by the intervention (with ANC4+ as the intervention), the coverage dropped to 16% in 2016, reached 25% in 2019, then 31% in 2023. Quality-adjusted ANC coverage was estimated at 9% in 2016, increased to 18% in 2019 and 24% by 2023(Figure 4).

The absolute difference between crude and input-adjusted coverage was 35%, 38%, and 33% across three years, while the difference between crude and quality-adjusted coverage decreased from 68% in 2016 and 2019 to 59% in 2023. This significant difference highlights a mismatch between the observed progress in contact coverage and effective coverage, indicating a need for substantial effort to enhance facility readiness and improve service quality to meet standards.

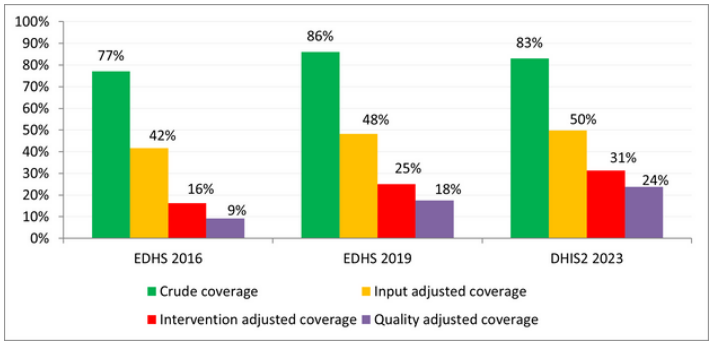


Figure 4. Cascading estimate of effective coverage in Amhara region

Conclusion

The increase in ANC coverage from 2000 to 2019, followed by stagnation, was not accompanied by consistent improvements in service quality. Despite significant gains in crude and EC, especially between 2000 and 2019, ANC coverage has shown little or no progress in the past five years. Significant gaps in diagnostic tests, essential services, guideline availability, and training continue to undermine the quality of care. The stark disparities between urban and rural areas and across educational and economic lines underscore a critical failure to deliver effective and equitable ANC services.

Additionally, it is crucial to emphasize that less than one in four pregnant women in the Amhara region receive their first ANC visit during the critical first trimester. This delay in accessing essential ANC not only increases the risk of complications for both mother and child but also limits the opportunity for timely interventions that could significantly improve health outcomes.

Despite past gains, persistent gaps in service quality and stark disparities across geographic, socioeconomic, and educational lines undermine progress. Therefore, it is critical to ensure that all women receive the quality care they need early in their pregnancy, which is a crucial factor in reducing maternal and newborn mortality and improving overall health in the population. By urgently addressing these barriers and implementing strategic actions, stakeholders can transform ANC-seeking behavior and service delivery, ensuring healthier mothers and newborns and strengthening the community's overall well-being. The time for decisive action is now.

Policy recommendations

Enhancing timely and required uptake of ANC services through developing and implementing community-based awareness within communities to highlight the benefits of early and regular ANC contacts; utilizing local media outlets to broadcast informative and engaging messages about the importance of ANC; engaging and empowering community leaders to champion ANC awareness and encourage community participation where leaders can share information and address any concerns or misconceptions about ANC; mobilizing health extension workers focusing on task shifting, and training and deploying more health extension workers to conduct door-to-door contacts; and developing collaborative partnerships with local and global non-government organizations, faith-based organizations, and other stakeholders to enhance outreach efforts and coordinate with local institutions to integrate ANC education into health curricula and community outreach programs.

Improving the quality of ANC services by strengthening health facility capacity to ensure they are equipped with essential ANC components, providing continuous professional training, emphasizing adherence to ANC guidelines and protocols; and establishing quality assurance programs to monitor and evaluate the quality of ANC services.

Addressing socioeconomic and cultural barriers through education and empowerment programs, which involve developing programs targeting women and communities to empower women through health education and support groups and financial support schemes, such as health insurance or subsidized healthcare services, to reduce the economic burden on low-income and less-educated families and encourage ANC utilization.

References

1. Organization, W.H., WHO recommendations on antenatal care for a positive pregnancy experience. 2016: World Health Organization.
2. Tanahashi, T., Health service coverage and its evaluation. Bulletin of the World Health Organization, 1978. 56(2): p. 295.
3. Amouzou, A., et al., Advances in the measurement of coverage for RMNCH and nutrition: from contact to effective coverage. BMJ Global Health, 2019. 4(Suppl 4): p. e001297.
4. Ng, M., et al., Effective coverage: a metric for monitoring universal health coverage. PLoS Medicine, 2014. 11(9): p. e1001730.
5. Riese, S., S. Assaf, and T.W. Pullum, Equity in effective coverage of antenatal and sick child care. 2022.
6. Central Statistical Agency—CSA/Ethiopia, ICF. Ethiopia Demographic and Health Survey 2000-2019. Addis Ababa, Ethiopia: CSA and ICF
7. DHIS2 V2.30 End-user Manual, Federal Ministry of Health, 2019
8. Ethiopian Public Health Institute, FMOH, Ethiopia, ICF International. Ethiopia Service Provision Assessment Plus (ESPA+) Survey, 2014
9. Ethiopian Public Health Institute, MOH, Ethiopia, ICF. Ethiopia Service Provision Assessment (SPA), 2021–22
10. Ethiopian Public Health Institute, Ethiopia. Ethiopia Service Availability and Readiness Assessment (SARA) Final Report, 2018
11. Ministry of Health, Ethiopia, Health Sector Transformation Plan II (HSTP II), 2020/21-2024/25

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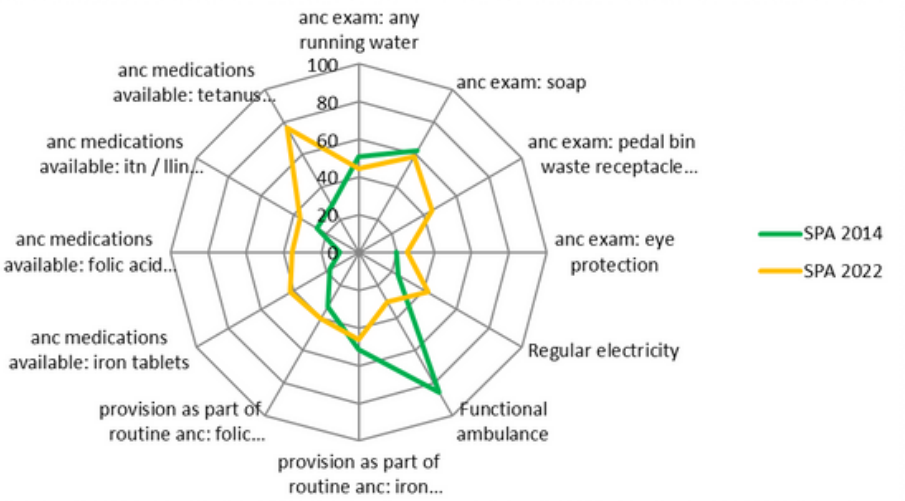
Annex


anc exam: any running water
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anc exam: eye protection
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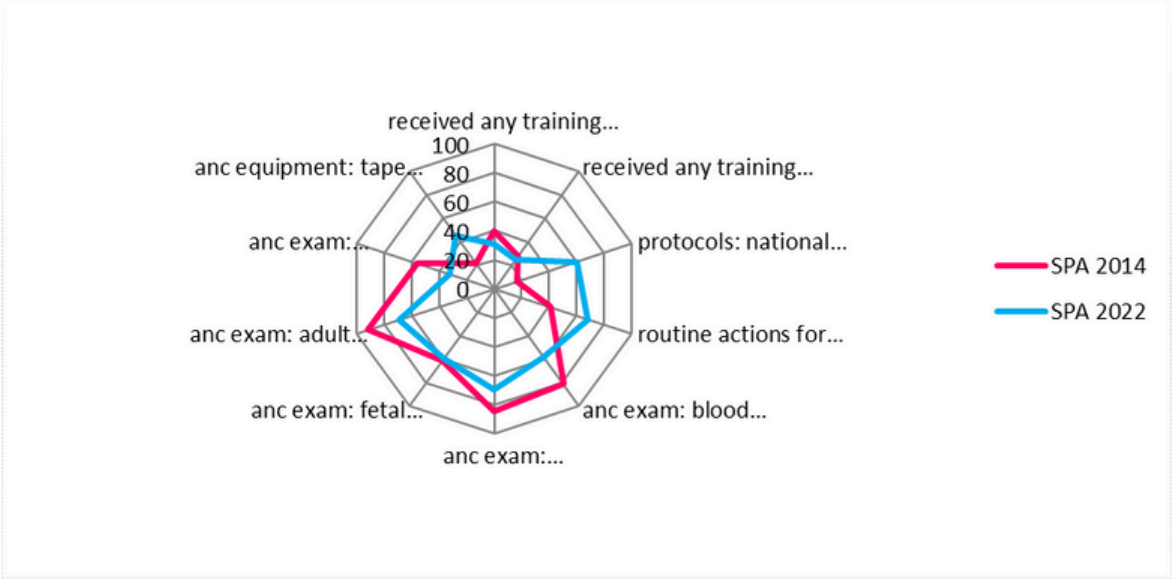
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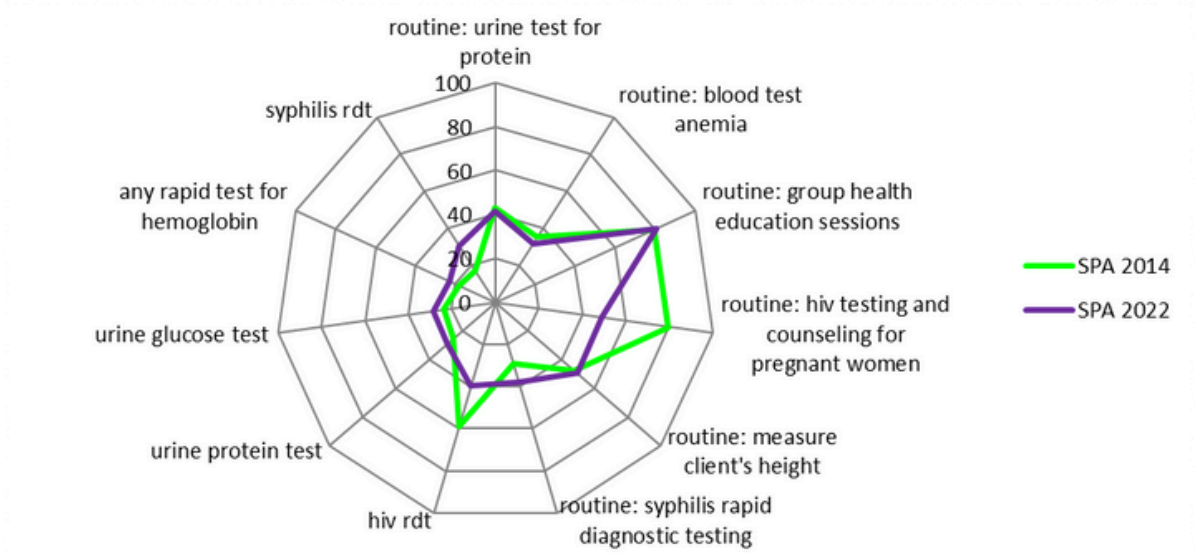
routine: urine test for protein
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