

Early antenatal care visit as indicator for health equity monitoring

Early antenatal care visits can be used as an indicator for health equity monitoring in the context of the Sustainable Development Goals (SDGs). National-level surveys, health information system data, and perinatal studies demonstrate substantial differences between countries grouped by income in the proportion of women initiating the first antenatal care visit in the first trimester of pregnancy. In the analysis by Ann-Beth Moller and colleagues (October, 2017),¹ early antenatal care coverage showed an inverse association with country-level income, ranging from more than 80% in high-income countries to 52% in lower-middle-income and 24% in low-income countries in 2013.¹ Mothers' education, other individual socioeconomic factors such as income, and health system factors such as accessibility are also known determinants of early antenatal care attendance.

The SDGs are often interpreted as relating mainly to low-income and middle-income countries, based on the argument that high-income countries such as Germany provide universal access to health care.² In an age of increasing migration and population heterogeneity, however, variance in health indicators might be high and underlying determinants more diverse than previously considered. We demonstrate this high variance and increased diversity using data from a perinatal study in Berlin, Germany,³ covering 6466 births. 52% of these births are to first-generation immigrant or second-generation women of whom many originate from middle-income countries such as Turkey and Lebanon. Although early antenatal care coverage among non-immigrant, second-generation, and first-generation

	Number of women	Mean age in years (SD)	Proportion with first ANC visit <12 weeks of gestation	Age-adjusted and parity-adjusted odds ratio (95% CI) for first antenatal care visit <12 weeks of gestation
First-generation immigrant women, arrival in Germany <2 years before	414	27.0 (5.7)	51.0%	0.25 (0.20-0.31); p<0.0001
First-generation immigrant women, arrival in Germany 2-5 years before	454	28.6 (5.8)	69.8%	0.60 (0.48-0.75); p<0.0001
First-generation immigrant women, arrival in Germany ≥5 years before	1616	30.8 (5.5)	80.5%	1.05 (0.90-1.23); p=0.52
Second-generation women	871	27.7 (5.8)	80.9%	1.10 (0.90-1.34); p=0.34
Non-immigrant women (including third generation)	3111	30.7 (5.8)	81.6%	1 (ref)

Table: Early antenatal care (ANC) coverage and number of visits by migrant status, Berlin, Germany, 2011-12

women who arrived in Germany 5 or more years before is more than 80%, it is only 51% among first-generation women who arrived less than 2 years before (table). Adjustment for age and parity leads to similar findings. The dimension of the differences between local population groups is comparable to that between high-income and lower-middle-income countries described by Moller and colleagues.¹

The notion underlying the SDGs of leaving nobody behind requires increased attention to disadvantaged population subgroups, including those in high-income countries. Although established indicators such as education are important,³ factors such as time since arrival need to be considered in high-income countries experiencing immigration from low-income and middle-income countries; however, these parameters are not yet routinely reported in Germany.¹ Moreover, there are no dedicated data on antenatal care in asylum seekers who, due to their recent arrival, might be at particularly high risk of late initiation of antenatal care.

Equity-oriented monitoring systems focusing on the magnitude of health inequalities between social groups, and respective changes over time, are essential to identify and amend the underlying structural mechanisms.⁴ However, such monitoring systems are not yet established even in many high-income countries.⁵

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