



Addressing Unnecessary Caesarean Sections in Eastern Europe and Central Asia

Strategies and Call to Action



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Introduction

Originally developed as a last resort to extract the fetus from a mother who had died or was dying during childbirth, Caesarean section has evolved rapidly over the past century.¹ Advances in anaesthesia, hygiene and surgical techniques² have revolutionized surgical safety, leading to dramatic increases in Caesarean section rates globally. Betrán and others, analysing data from 154 countries, covering approximately 95 per cent of all births, predicted that by 2030 nearly one third of all births would be by Caesarean section.³ Their analysis also revealed great disparities in the use of operative delivery, with most procedures occurring in middle-income countries, where rates often exceed medically justified levels, while access remains limited and inadequate in the lowest-income countries, such as in sub-Saharan Africa.⁴

However, these rising trends in Caesarean section rates at the population level have raised concerns among governments and health professionals regarding the potential negative consequences for maternal and infant health. The World Health Organization states that there is no evidence showing the benefits of Caesarean delivery for women or infants who do not require the procedure.⁵ Rates above 19 per cent have not been shown to reduce maternal or neonatal morbidity and mortality and may instead be associated with avoidable risks linked with surgical interventions.⁶ The International Federation of Gynaecology and Obstetrics (FIGO) emphasizes that “a caesarean delivery should be recommended as the only medically reasonable alternative if, and only if, there is certainty of an evidence base for the clinical judgement that caesarean delivery is clinically superior to vaginal delivery”.⁷ The FIGO statement also recommends good practices for counselling expectant mothers and for managing elective Caesarean sections in comparison with planned vaginal birth.⁸

It must also be recognized that many women prefer a vaginal birth to avoid unnecessary medical interventions and overmedicalization. Avoiding a Caesarean section is often one of the key goals. Vaginal birth may offer several advantages, including faster maternal recovery and potential

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1. Jane Eliot Sewell, *Caesarean Section: A Brief History*, Part 2 (US National Library of Medicine, 2018).
 2. A. P. Betrán and others, “Trends and projections of caesarean section rates: global and regional estimates”, *BMJ Global Health*, vol. 6, No. 6 (June 2021).
 3. Ibid.
 4. Ibid.
 5. World Health Organization, *WHO Recommendations: Non-clinical Interventions to Reduce Unnecessary Caesarean Sections* (Geneva, 2018).
 6. G. Molina and others, “Relationship between cesarean delivery rate and maternal and neonatal mortality”, *Journal of the American Medical Association*, vol. 314, No. 21 (December 2015).
 7. International Federation of Gynaecology and Obstetrics, “Decision-making about vaginal and caesarean delivery”, 2024.
 8. Ibid.

benefits for both the baby's health and the mother's overall well-being.⁹

While there are ongoing efforts and advocacy to lower Caesarean section rates, the paramount concern remains the health and safety of both the mother and the newborn. Although Caesarean section is an integral part of high-quality obstetric care and can be life-saving in specific situations, it is associated with risks that can impact both immediate and long-term health. These risks include infection, haemorrhage and adhesions, which may affect future pregnancies, especially in cases where the procedure is performed without a clear medical indication.¹⁰

Beyond the clinical considerations, Caesarean birth is associated with substantially higher costs than vaginal birth.¹¹ These additional expenditures place a significant burden on health systems and divert resources that could be invested in other essential areas of maternal and child health. Moreover, unnecessary Caesarean sections also contribute to a significantly larger carbon footprint and may even lead to catastrophic health spending for economically vulnerable households.¹²

This paper describes trends in Caesarean section rates across Eastern Europe and Central Asia,¹³ highlighting temporal changes and cross-country differences based on national data. It then proposes targeted strategies to increase rates of vaginal birth among low-risk pregnancies and to curb rising Caesarean section rates without compromising maternal and fetal safety.



9. Statens beredning för medicinsk och social utvärdering, *Kejsarsnitt utan medicinsk indikation: En systematisk översikt* (Stockholm, 2021).

10. Ibid.

11. R. Negrini, R. D. da Silva Ferreira and D. Z. Guimarães, "Value-based care in obstetrics: comparison between vaginal birth and caesarean section", *BMC Pregnancy and Childbirth*, vol. 21, No. 1 (26 April 2021).

12. N. A. Spil and others, "The carbon footprint of different modes of birth in the UK and the Netherlands: an exploratory study using life cycle assessment", *BJOG: An International Journal of Obstetrics and Gynaecology*, vol. 131, No. 5 (April 2024); P. Binyaruka and A. T. Mori, "Economic consequences of caesarean section delivery: evidence from a household survey in Tanzania", *BMC Health Services Research*, vol. 21, No. 1 (December 2021); F. Boekhorst and others, "The effects of climate change and environmental pollution on human reproduction: a scientific review commissioned by the European Board and College of Obstetrics and Gynaecology (EBCOG)", *European Journal of Obstetrics, Gynecology and Reproductive Biology*, vol. 301 (October 2024).

13. For the purposes of this article, the Eastern Europe and Central Asia region includes the following countries and territories: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, North Macedonia, the Republic of Moldova, Serbia, Tajikistan, Türkiye, Turkmenistan, Ukraine, Uzbekistan and Kosovo. All references to Kosovo shall be understood to be in the context of United Nations Security Council Resolution 1244 (1999).

Eastern Europe and Central Asia region

The Eastern Europe and Central Asia region is undergoing considerable demographic and reproductive health transitions. The region is home to a population of approximately 370 million people, and fertility within the region has broadly declined.¹⁴ A significant proportion of countries and territories in the region now report fertility rates below 1.69 children per woman, and several of the region's countries and territories have some of the highest rates of population decline in the world.¹⁵

Maternal and reproductive health systems in the region feature high levels of facility-based births and skilled birth attendance, although substantial disparities persist between countries.¹⁶ While the legacy of centrally organized maternity services and high institutional birth rates remains strong, the increasing medicalization of childbirth, particularly rising Caesarean section rates, is placing pressure on health systems in terms of cost, equity and quality of care.¹⁷

Caesarean section trends across the region

The analysis included data from 17 countries and territories in the region, providing a broadly representative overview of Caesarean section trends. Rates from 2019 (or 2018 for Bosnia and Herzegovina, 2017 for Tajikistan and 2013 for Azerbaijan) were compared with the most recent available data from 2023–2024 to assess changes over a five-year period. Overall, notable increases were observed across most countries with comparable data, with the exception of Turkmenistan, which demonstrated a modest decrease, alongside persistent substantial inter-country variation (Table 1).

The most recent rates ranged from 6.2 per cent in Turkmenistan¹⁸ to 61.2 per cent in Türkiye.¹⁹ Many countries and territories reported rates exceeding 30 per cent, indicating a substantial regional shift towards surgical birth. Kosovo experienced the largest relative rise, from 20.1 per cent in 2019²⁰ to 40.5 per cent in 2023,²¹ effectively doubling within four years, with a further increase to 46.2 per

14. United Nations Population Fund, Regional Office for Eastern Europe and Central Asia, Demographic Resilience Programme: Strengthening Demographic Resilience in Europe and Central Asia. Available at <https://eeca.unfpa.org/en/demographic-resilience-programme> (accessed on 1 July 2026).

15. United Nations Population Fund, "The real fertility crisis: what barriers are preventing people from having the number of children they want?", 2 July 2025.

16. Agnes Phelan and Rhona O'Connell, "Childbirth: Myths and medicalization", in World Health Organization, Regional Office for Europe, *Birth in Europe in the 21st Century, Entre Nous*, No. 81, 2015. Available at https://eeca.unfpa.org/sites/default/files/pub-pdf/Entre_Nous_81_web.pdf (accessed on 28 May 2026).

17. Ibid.

18. The State Committee of Statistics of Turkmenistan, UNICEF, *The 2024 Turkmenistan Multiple Indicator Cluster Survey: Survey Findings Report* (Ashgabat, 2026). Available at <https://mics.unicef.org/sites/mics/files/2026-01/Turkmenistan%20MICS%202024%20SFR%20EN.pdf> (accessed on 22 June 2026).

19. Ministry of Health of Türkiye, *Health Statistics Yearbook 2024* (Ankara, 2025).

20. Republic of Kosovo, Ministry of Health, Raporti i Gjendjes Perinatale në Kosovë për Vitin 2019.

21. Republic of Kosovo, Ministry of Health, Raporti i Gjendjes Perinatale në Kosovë për Vitin 2023.

cent in 2024²² (Figure 1). Similarly, Azerbaijan showed an increase from 26.0 per cent to 47.1 per cent.²³ The rate in Türkiye, which was already among the highest globally, rose from 57.0 per cent in 2019 to 61.2 per cent in 2024.²⁴ Among countries in the South Caucasus, Armenia reported an increase from 34.4 per cent in 2019 to 40.1 per cent in 2024,²⁵ while the rate in Georgia rose from 39.9 per cent to 42.9 per cent over the same period.²⁶

Within the framework of the new Caesarean section policies implemented in Türkiye, the primary Caesarean rate decreased by 4.1 percentage points over one year, from 32.1 per cent to 28.0 per cent in 2025.²⁷

In the Western Balkans, Albania exhibited persistently high rates (from 41.8 per cent to 45.6 per cent),²⁸ and North Macedonia reported national estimates of 42.0–43.0 per cent in 2023, practically unchanged since 2019.²⁹ Data for Bosnia and Herzegovina were limited to 2018 (26.5 per cent),³⁰ precluding trend analysis, while Serbia reported 31.8 per cent in 2019,³¹ with no recent updates.

Among Central Asian countries, Kazakhstan showed a modest increase from 19.7 per cent to 23.7 per cent,³² while the rate in Kyrgyzstan rose from 11.7 per cent to 15.9 per cent.³³ Uzbekistan's most recent estimate (20.9 per cent³⁴) is based on the 2021–2022 Multiple Indicator Cluster Surveys, while Turkmenistan recorded the lowest rates in the region (7.7 per cent in 2019³⁵ and 6.2 per cent in 2024³⁶). Evidence from Kosovo indicates a higher prevalence of Caesarean deliveries in private clinics compared with public health institutions.³⁷

22. Republic of Kosovo, Ministry of Health, Raporti i Gjendjes Perinatale në Kosovë për Vitin 2024.

23. UNICEF, "Indicator: C-section rate - percentage of deliveries by cesarean section", UNICEF Data Warehouse.

24. Ministry of Health of Türkiye, *Health Statistics Yearbook 2024* (Ankara, 2025).

25. Armenia, Ministry of Health, National Institute of Health, "Health and Healthcare: Statistical data – Tables, charts, and maps", 2024.

26. Data for 2019 provided by the National Center of Disease Control and Public Health; UNICEF, "Indicator: C-section rate - percentage of deliveries by cesarean section", UNICEF Data Warehouse; data for 2024 available from the National Center of Disease Control upon request.

27. Republic of Türkiye, Ministry of Health, "Sağlık Bakanlığının 2026 Yılı Bütçesi TBMM Plan ve Bütçe Komisyonunda Kabul Edildi", 21 November 2025. Available at <https://www.saglik.gov.tr/TR-114440/saglik-bakanliginin-2026-yili-butcesi-tbmm-plan-ve-butce-komisyonunda-kabul-edildi.html> (accessed on 22 June 2026).

28. Data provided by the Statistics Division of the Ministry of Health and Social Protection.

29. UKIM Repository, "Robson classification of Cesarean section in North Macedonia - current trends". Available at <https://repository.ukim.mk/entities/publication/67c28432-a751-47c2-9e5c-aea19647dac8> (accessed on 28 May 2026); Sitel, "Rečisi sekoe vtoro dete vo Makedonija se rađa so carski rez", 18 May 2023. Available at <https://sitel.com.mk/rechisi-sekoe-vtoro-dete-vo-makedonija-se-ragja-so-carski-rez> (accessed on 22 June 2026).

30. Agency for Statistics of Bosnia and Herzegovina, "Caesarean sections". Available at <https://pdo.bhas.gov.ba/3-4-1/> (accessed on 28 May 2026).

31. Statistical Office of the Republic of Serbia and UNICEF, *Serbia Multiple Indicator Cluster Survey and Serbia Roma Settlements Multiple Indicator Cluster Survey, 2019: Survey Findings Report* (Belgrade, 2020).

32. Ministerstvo zdravookhraneniya Respubliki Kazakhstan, "Statisticheskii sbornik za 2020 god". Available at <https://www.gov.kz/memleket/entities/dsm/documents/details/246287?lang=ru> (accessed on 22 June 2026); Ministerstvo zdravookhraneniya Respubliki Kazakhstan, "Zdorov'e naseleniya Respubliki Kazakhstan i deyatel'nost: organizatsiy zdravookhraneniya v 2025 godu". Available at <https://nrchd.kz/medical-statistics/analytics> (accessed on 22 June 2026).

33. Ministerstvo zdravookhraneniya Kyrgyzskoy Respubliki, "Sbornik 'Zdorov'e naseleniya i deyatel'nost' organizatsiy zdravookhraneniya Kyrgyzskoy Respubliki'". Available at <https://cez.med.kg/здоровье-населения-и-деятельность-03/> (accessed on 22 June 2026). Data for 2024 provided by the Ministry of Health of the Kyrgyz Republic.

34. Gosudarstvennyy komitet Respubliki Uzbekistan po statistike i Detskiy fond Organizatsii Ob'yedinnennykh Natsiy (UNICEF), *Mul'tiindikatornoye klasternoye obsledovaniye (MICS), 2021–2022 gg. Otchet o rezul'tatakh obsledovaniya* (Tashkent, 2022).

35. The State Committee of Turkmenistan for Statistics and UNICEF, *2019 Turkmenistan Multiple Indicator Cluster Survey: Survey Findings Report* (Ashgabat, 2020). Available at https://mics.unicef.org/sites/mics/files/Turkmenistan%202019%20MICS%20SFR_English.pdf (accessed on 1 July 2026).

36. The State Committee of Statistics of Turkmenistan, UNICEF, *The 2024 Turkmenistan Multiple Indicator Cluster Survey: Survey Findings Report* (Ashgabat, 2026). Available at <https://mics.unicef.org/sites/mics/files/2026-01/Turkmenistan%20MICS%202024%20SFR%20EN.pdf> (accessed on 22 June 2026).

37. Republic of Kosovo, Ministry of Health, Raporti i Gjendjes Perinatale në Kosovë për Vitin 2021; Republic of Kosovo, Ministry of Health, Raporti i Gjendjes Perinatale në Kosovë për Vitin 2024.

Data gaps remain a challenge for several countries. Belarus has not released official figures since 2020. The last available estimate was 31.2 per cent based on the 2019 Multiple Indicator Cluster Survey,³⁸ while data published by national media suggest that the Caesarean section rate was approximately 34 per cent in 2024.³⁹

Overall, the regional median Caesarean section rate among countries and territories with available recent data (2024 or nearest year) was approximately 35.5 per cent, highlighting a consistent upward trajectory across most countries with comparable data.

Table 1. Caesarean section rates in Eastern Europe and Central Asia, 2019–2024⁴⁰

Country or territory	Caesarean section rates		
	2019 (%)	2024 (%)	Change (percentage points)
Albania	41.8	45.6	+3.8
Armenia	34.4	40.1	+5.7
Azerbaijan	26.0* (2013)	47.1* (2023)	+21.1
Belarus	31.2	-	-
Bosnia and Herzegovina	26.5* (2018)	-	-
Georgia	39.9	42.9	+3.0
Kazakhstan	19.7	23.7	+4.0
Kyrgyzstan	11.7	15.9	+4.2
North Macedonia	42.6	42.0–43.0* (2023)	-0.6 to +0.4
Republic of Moldova ⁴¹	22.6	30.9	+8.3
Serbia	31.8	-	-
Tajikistan ⁴²	5.3* (2017)	10.4* (2023)	+5.1
Türkiye	57.0	61.2	+4.2
Turkmenistan	7.7	6.2	-1.5
Ukraine ⁴³	24.0	30.0* (2023)	+6.0
Uzbekistan	17 ⁴⁴	20.9* (2021–2022)	+3.9
Kosovo	20.1	46.2	+26.1

* Data from earlier years as indicated.

38. National Statistical Committee of the Republic of Belarus and UNICEF, *2019 Belarus Multiple Indicator Cluster Survey: Survey Findings Report* (Minsk, 2021).

39. STV, “Kak chasto v Belarusi delayut Kesarevo sechenie? Vrach privela statistiku”, 23 May 2025. Available at <https://ctv.by/news/obshchestvo/kak-chasto-v-belarusi-delayut-kesarevo-sechenie-vrach-privela-statistiku> (accessed on 24 June 2026).

40. Citations are provided only for those sources not already cited in this report.

41. Data provided by the National Agency of Public Health of the Institute of Mother and Child.

42. UNICEF, “Indicator: C-section rate - percentage of deliveries by cesarean section”, UNICEF Data Warehouse; Statistical Agency under the President of the Republic of Tajikistan, Ministry of Health and Social Protection of Population of the Republic of Tajikistan and ICF, *Tajikistan: 2017 Demographic and Health Survey – Atlas of Key Indicators* (Rockville, MD, 2018). Available at <https://dhsprogram.com/pubs/pdf/ATR18/ATR18.pdf> (accessed on 22 June 2026); Statistical Agency under the President of the Republic of Tajikistan, Ministry of Health and Social Protection of Population of the Republic of Tajikistan and ICF, *Tajikistan: Demographic and Health Survey 2023 – Key Indicators Report* (Rockville, MD, 2024). Available at <https://www.dhsprogram.com/pubs/pdf/PR155/PR155eng.pdf> (accessed on 22 June 2026).

43. Data for 2019 provided by the Ministry of Health; data for 2023 provided by the National Health Service of Ukraine.

44. UNICEF, “Indicator: C-section rate - percentage of deliveries by cesarean section”, UNICEF Data Warehouse.

Causes of rising Caesarean section rates

Studies examining the epidemiology of Caesarean section generally highlight a constellation of evolving maternal, obstetric, organizational and structural factors that contribute to increasing rates globally.⁴⁵

Maternal and clinical characteristics

- The rising prevalence of maternal overweight and obesity is widely recognized as a major driver of Caesarean section rates.⁴⁶
- In many high-income settings, such as the United Kingdom, the average age at first birth has increased substantially over recent decades, and advanced maternal age remains strongly associated with both planned and emergency Caesarean sections.⁴⁷
- Pregnancies conceived via assisted reproductive technologies are associated with higher odds of Caesarean section compared with spontaneously conceived pregnancies, including for singleton births.⁴⁸
- As more women with pre-existing or pregnancy-acquired comorbidities (e.g., hypertension, diabetes) embark on parenthood, the associated obstetric risks, including the risk of Caesarean section, increase.⁴⁹

Systemic and structural drivers

- Fragmentation of maternity care, including limited continuity of caregiver, has been associated with higher intervention rates, reduced trust and increased preference for Caesarean section.
- Overly conservative or static risk classification systems may result in unnecessary escalation of care and increased Caesarean section rates, particularly where risk status is not regularly reassessed.
- In some countries' health systems, physician reimbursement favours Caesarean birth over vaginal birth. The International Federation of Gynaecology and Obstetrics recommends minimizing differences in reimbursement between Caesarean and vaginal births, except where greater compensation is justified by the increased complexity of the procedure.⁵⁰ A position statement by the European Board and College of Obstetrics and Gynaecology, titled "How to influence rising caesarean section rates in Europe", endorses this approach.⁵¹

45. P. Velebil and others, "How to influence rising caesarean section rates in Europe? An invited scientific review by European Board and College of Obstetrics and Gynaecology (EBCOG)", *European Journal of Obstetrics, Gynecology and Reproductive Biology*, vol. 311 (July 2025).

46. W. Al-Kubaisy and others, "Maternal obesity and its relation with the cesarean section: a hospital based cross sectional study in Iraq", *BMC Pregnancy and Childbirth*, vol. 14 (July 2014).

47. L. Oakley and others, "Risk of adverse obstetric and neonatal outcomes by maternal age: quantifying individual and population level risk using routine UK maternity data", *PLoS One*, vol. 11, No. 10 (October 2016).

48. B. Luke, "Pregnancy and birth outcomes in couples with infertility with and without assisted reproductive technology: with an emphasis on US population-based studies", *American Journal of Obstetrics and Gynecology*, vol. 217, No. 3 (2017); R. Kumari, A. Patel and K. Chanania, "Obstetric and perinatal outcomes of pregnancies following assisted reproductive techniques in a tertiary care center compared with age matched control conceived spontaneously", *Journal of Neonatal Surgery*, vol. 14 (2025).

49. R. Fresch, K. Stephens and E. DeFranco, "The combined influence of maternal medical conditions on the risk of primary cesarean delivery", *AJP Reports*, vol. 14, No. 1 (January 2024).

50. International Federation of Gynaecology and Obstetrics, "Drivers and solutions to the caesarean delivery epidemic with emphasis on the increasing rates in Africa and Southeastern Europe", *International Journal of Gynecology and Obstetrics*, vol. 163, Suppl. 2 (October 2023).

51. Negrini, da Silva Ferreira and Guimarães, "Value-based care in obstetrics: comparison between vaginal birth and caesarean section"; Velebil and others, "How to influence rising caesarean section rates in Europe?"

- As the safety of Caesarean section has improved, the threshold for its use has become lower. At the same time, Caesarean section is often perceived as being associated with positive pregnancy outcomes, while the potential adverse effects for both women and newborns may be insufficiently recognized.⁵²
- Organizational issues within certain maternity hospitals, including inadequate staffing in labour wards, may compromise the quality of care during labour. Therefore, planned Caesarean birth may become a default option. In such circumstances, medicolegal factors may be another consideration.



Photo: UNFPA Armenia/Jody Hilton

Psychosocial influences and the role of media in choice of mode of birth

- Given the significantly increased use of social media to share personal experiences of pregnancy and labour, some women's negative personal experiences may influence others.⁵³
- Increased media coverage of adverse outcomes related to inadequate or poor-quality intrapartum care may also influence women's choices.⁵⁴
- Social norms, attitudes and family beliefs influence choice of mode of birth, especially fear of instrumental birth and preferences for a Caesarean section.⁵⁵
- Previous experiences or expectations of disrespectful or non-consensual maternity care may lead women to request planned Caesarean section as a means of regaining control and predictability.
- Inadequate postnatal debriefing following complicated or traumatic births may contribute to fear of vaginal birth in subsequent pregnancies and increased demand for elective Caesarean section.

52. Velebil and others, "How to influence rising caesarean section rates in Europe?"

53. V. Lawrence, S. Richardson and L. Philp, "How does social media influence expectations, decision making and experience of childbirth?", *British Journal of Midwifery*, vol. 31, No. 4 (2023); J. Roberts and S. De Benedictis, "Childbirth on television: a scoping review and recommendations for further research", *Feminist Media Studies*, vol. 21, No. 2 (2021); A. Luce and others, "Is it realistic? The portrayal of pregnancy and childbirth in the media", *BMC Pregnancy and Childbirth*, vol. 16 (2016).

54. M. S. G. van der Pijl and others, "Left powerless: a qualitative social media content analysis of the Dutch #BreakTheSilence campaign on negative and traumatic experiences of labour and birth", *PLoS One*, vol. 15, No. 5 (2020).

55. M. Colomar and others, "Do women prefer caesarean sections? A qualitative evidence synthesis of their views and experiences", *PLoS One*, vol. 16, No. 5 (2021).

Are high Caesarean section rates associated with improved perinatal outcomes?

There is a persistent but erroneous belief that higher Caesarean section rates are associated with improved perinatal outcomes. In response to this assumption, the European Board and College of Obstetrics and Gynaecology commissioned research to examine the relationship between Caesarean section rates and outcomes across Europe.⁵⁶

Higher Caesarean section rates should not be interpreted as evidence of superior quality of care. Associations between Caesarean section rates and outcomes are frequently confounded by factors such as case mix, referral patterns and organizational features. In many settings, high Caesarean section rates coexist with preventable harm, while lower rates achieved within well-functioning health systems are compatible with excellent perinatal outcomes.

Comparative data from across different regions of Europe reinforce this conclusion, indicating that thresholds for choosing mode of birth differ significantly across settings,⁵⁷ with consistently lower rates in Northern Europe than in Southern Europe. However, these differences are not accompanied by meaningful variation in maternal or neonatal morbidity and mortality. Taken together, this evidence suggests that higher Caesarean section rates do not necessarily translate into better health outcomes. These findings are particularly important for health-care professionals when counselling women on mode of birth, including in discussions of the risks and benefits of planned Caesarean section versus vaginal birth.

A growing body of evidence highlights the importance of organizational factors within maternity services. For example, independent reviews and regulatory reports from across the United Kingdom have identified systemic challenges with direct implications for obstetric outcomes,⁵⁸ including shortcomings in workforce capacity, training, skill mix and organizational culture, all of which affect the safety and quality of intrapartum care.

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56. B. Gachon and others, "Should we advise women that pre-labor caesarean section prevents pelvic floor dysfunction?", *European Journal of Obstetrics, Gynecology and Reproductive Biology*, vol. 244 (2020); V. El Radaï and others, "Adverse neonatal outcomes following planned vaginal birth compared to planned caesarean birth: a population-based study", *Acta Paediatrica* (2026); S. Ebadi and others, "Caesarean section rates in public vs private hospitals in Europe: a systematic review and meta-analysis using the Robson ten group classification system", *European Journal of Obstetrics and Gynecology and Reproductive Biology*, vol. 318 (2026).
57. V. El Radaï and others, "Robson ten group classification system for Caesarean sections across Europe: a systematic review and meta-analysis", *European Journal of Obstetrics, Gynecology and Reproductive Biology*, vol. 305 (February 2025).
58. United Kingdom of Great Britain and Northern Ireland, House of Commons Health and Social Care Committee, *The Safety of Maternity Services in England: Fourth Report of Session 2021–22* (London, 2021); Donna Ockenden, *Findings, Conclusions and Essential Actions from the Independent Review of Maternity Services at the Shrewsbury and Telford Hospital NHS Trust* (London, 2022); Ockenden Maternity Review, "The Independent Review into Maternity Services at the Nottingham University Hospitals NHS Trust: One Year On". Available at <https://www.ockendenmaternityreview.org.uk/the-independent-review-into-maternity-services-at-the-nottingham-university-hospitals-nuh-nhs-trust-one-year-on/> (accessed on 22 June 2026); B. Kirkup, *Reading the Signals: Maternity and Neonatal Services in East Kent* (London, 2022); Healthcare Improvement Scotland, *Royal Infirmary of Edinburgh: Maternity Services Safe Delivery of Care Inspection* (Edinburgh, 2025).

Detailed findings from the Ockenden reviews of maternity services at the Shrewsbury and Telford Hospital National Health Service Trust and the Nottingham University Hospitals National Health Service Trust document serious failures in clinical practice, including inadequate risk assessment, delayed escalation of care, poor communication and insufficient staff training.⁵⁹ A lack of experienced clinicians, particularly in complex intrapartum situations, has been repeatedly identified as a contributing factor to adverse maternal and neonatal outcomes. In addition, high workload pressures and understaffing have limited opportunities for supervision, reflection and postnatal follow-up, with potential implications for both women's birth experiences and subsequent preferences regarding mode of birth. Repeated findings of organizational failure and preventable harm may also erode trust among women and health-care professionals. In such contexts, Caesarean section may increasingly be perceived by clinicians as a safer and more defensible option, and by women as a more predictable choice – further driving rates upward.⁶⁰

Further evidence from an independent investigation into maternity and neonatal services in East Kent highlights missed opportunities to identify and respond to early warning signs of harm.⁶¹ The report identifies deficiencies in multidisciplinary working arrangements, governance and responsiveness to concerns raised by staff and families. Taken together, these failures undermine trust in maternity services and expose weaknesses in quality assurance mechanisms.

Inspection findings from Healthcare Improvement Scotland at the Royal Infirmary of Edinburgh further illustrate how variations in training, supervision and service pressures can influence clinical outcomes, including higher-than-expected rates of severe perineal trauma in a tertiary referral centre.⁶² These findings underscore the importance of maintaining clinical competence in vaginal birth and perineal protection, particularly in high-volume or high-acuity settings.

Collectively, these reports suggest that rising Caesarean section rates cannot be fully understood without considering broader system-level factors. For example, workforce shortages, insufficient training in complex vaginal birth, constrained working conditions and inconsistent governance may have cumulative effects that lower the threshold for operative birth. Addressing these structural challenges is therefore essential to ensuring safe, evidence-based and woman-centred decision-making regarding mode of birth.

Overall, the available evidence indicates that high Caesarean section rates are neither a reliable proxy for quality of care nor a guarantee of improved perinatal outcomes. They can also reflect deficiencies in workforce capacity, clinical skills, organizational culture and governance. Sustainable improvements in maternal and neonatal outcomes are more consistently achieved through investment in skilled teams, continuity of care, respectful maternity services and robust clinical governance, rather than through increased reliance on surgical birth.

59. Ockenden Maternity Review, "The Independent Review into Maternity Services at the Nottingham University Hospitals NHS Trust: One Year On".

60. Ibid.

61. Kirkup, *Reading the Signals*.

62. United Kingdom of Great Britain and Northern Ireland, House of Commons Health and Social Care Committee, *The Safety of Maternity Services in England*; Healthcare Improvement Scotland, *Royal Infirmary of Edinburgh*.

What can be done to reduce unnecessary Caesarean section: A whole-system approach

The safety of mother and newborn must remain the overriding priority throughout pregnancy, labour and the postnatal period.

Reducing unnecessary Caesarean sections therefore requires a whole-system approach that strengthens respectful and evidence-based maternity services across the continuum of care, ensures that Caesarean section is readily available when clinically indicated, supports women to make informed choices through shared decision-making, and secures a skilled and sustainable workforce.

1. Strengthening antenatal, intrapartum and postnatal care

High-quality maternity care begins at the woman's first point of contact with health services and continues throughout pregnancy, birth and the postnatal period.

- Early encounters with maternity staff provide a critical opportunity to establish trust, identify risks, address anxieties and support shared decision-making.
- Clear, structured risk-assessment tools should be used to categorize women's risk profiles at booking and should be reassessed at every antenatal visit.
- Risk status should be clearly documented and updated throughout pregnancy to reflect changes in maternal or fetal well-being.
- Evidence-based, clearly written and publicly accessible antenatal protocols should guide the management of pregnancy.
- Continuity of antenatal care helps to alleviate fear, build confidence and support informed choices about mode of birth.
- Evidence-based, clearly written and publicly accessible intrapartum care protocols should guide the management of labour in different delivery settings (primary, secondary and tertiary centres).
- Clear protocols should be in place for transfer of care between health-care providers at different stages of pregnancy.
- Where feasible, one-to-one care during labour should be provided, supported by adequate staffing levels, continuous fetal monitoring and immediate access to senior medical input.
- Integrated midwife-led and specialist obstetrician-shared care models have been shown to reduce intervention rates and improve maternal satisfaction.
- Robust intrapartum protocols, including timely pain relief, early detection of fetal compromise and round-the-clock specialist availability, can improve safety and reduce demand for elective Caesarean section.

- Postnatal care should support physical recovery, breastfeeding, pelvic floor health, mental well-being and appropriate pregnancy spacing, with community follow-up tailored to clinical and social needs.

2. Providing robust, evidence-based information

While women's autonomy must always be respected, decisions should also be guided by the responsibility to promote benefit, minimize harm and provide equitable care.

- Women and their partners should have access to clear, balanced and evidence-based information on labour induction, pain relief options and modes of birth.
- Hospital websites should transparently publish policies, clinical guidelines and available services.
- Evidence-based intradepartmental guidelines should be publicly accessible and regularly updated.
- Women experiencing severe fear of childbirth should receive respectful, empathetic and specialist psychological support.
- Systems should allow for second opinions or referral when disagreement arises, particularly regarding non-medically indicated elective Caesarean section.
- Counselling should present the risks and benefits of all modes of birth in a balanced, individualized manner.

3. Client education and information sharing

When women are given clear, balanced information, education becomes a powerful tool to support informed choice and build confidence in vaginal birth.

- Reproductive and maternity health education should be integrated into pre-conception care and antenatal care.
- Antenatal education classes should be universally available, covering pregnancy care, labour processes, pain relief options, monitoring of maternal and fetal well-being, and the short- and long-term implications of different modes of birth.
- Information should be evidence-based, unbiased and accessible in multiple formats and languages understood by women.
- Information should also take into account the needs of women with disabilities.
- Open, respectful dialogue between health-care professionals and women should underpin all information sharing.



4. Planned Caesarean section without medical indication

Women who are considering a planned Caesarean section without a medical indication should be supported with clear, balanced information about the potential risks involved.

Both the short- and long-term risks to mother and child should be explained clearly and compassionately within a shared decision-making framework.⁶³

- Maternal risks include increased likelihood of infection, haemorrhage, uterine rupture, abnormal placentation, ectopic pregnancy, post-surgical adhesions, preterm birth and stillbirth in future pregnancies.
- Infants born by Caesarean section may experience altered immune development; increased risk of childhood obesity, allergy, asthma and type 1 diabetes; and changes in gut microbiota.

5. Promoting shared decision-making and women-centred care

Decisions regarding mode of birth are central to a woman's experience of care, and women and their partners should be meaningfully involved, supported and respected throughout the decision-making process.

- Concerns about vaginal birth – whether related to safety, pain or previous experiences – must be acknowledged and addressed respectfully.
- Counselling should fairly present the risks and benefits of both vaginal and Caesarean birth, including short- and long-term outcomes.
- Women's informed choices, following shared decision-making, must be respected.
- Psychological support should be available for women with fear of childbirth, previous traumatic birth experiences or specific personal concerns.
- Education programmes should address common misconceptions, including fears related to pelvic floor injury, instrumental birth and fetal compromise.

6. Developing a workforce fit for purpose

A well-trained and supported maternity workforce is fundamental to enabling safe vaginal birth and reducing reliance on unnecessary Caesarean section.

- Midwives, obstetricians, anaesthetists and theatre staff require appropriate training, supervision and ongoing support.
- Evidence from multiple inquiries has highlighted a skill gap in assisted complex vaginal births among newer generations of maternity staff,⁶⁴ which has resulted in a lower threshold for performing difficult emergency Caesarean sections during the second stage of labour.

63. Negrini, da Silva Ferreira and Guimarães, "Value-based care in obstetrics: comparison between vaginal birth and caesarean section"; M. Temmerman and A. Mohiddin, "Caesarean section: more than a maternal health issue", *PLoS Medicine*, vol. 18 (2021); O. E. Keag, J. E. Norman and S. J. Stock, "Long-term risks and benefits associated with cesarean delivery for mother, baby, and subsequent pregnancies: systematic review and meta-analysis", *PLoS Medicine*, vol. 15, No. 1 (2018).

64. G. H. A. Visser and others, "FIGO opinion paper: drivers and solutions to the cesarean delivery epidemic with emphasis on the increasing rates in Africa and Southeastern Europe", *International Journal of Gynecology and Obstetrics*, vol. 163, Suppl. 2 (October 2023); J. Wladimiroff and others, "Caesarean section rates across Europe and its impact on specialist training in obstetrics: a qualitative review by the Standing Committee of Hospital Visiting Programme for Training Recognition of the European Board and College of the Obstetrics and Gynaecology", *European Journal of Obstetrics, Gynecology and Reproductive Biology*, vol. 304 (2025).

- Training curricula should reflect modern maternity care, recognizing that women are older, have more comorbidities and require complex care.
- Principles of clinical governance, risk management and reflective practice should be integrated into training.

7. Continuing professional development and clinical skills maintenance

- Regular multidisciplinary training, simulation exercises and emergency drills should be mandatory and audited.
- Regular exposure to instrumental vaginal birth is necessary to acquire and maintain essential skills among trainees, making them less inclined towards elective and emergency Caesarean section.
- Multidisciplinary high-fidelity simulation should be used to train all staff in assisted vaginal delivery and intrapartum emergency management, with a record of their attendance kept and their skills validated.
- Regular weekly case reviews, including antepartum and intrapartum cardiotocography interpretation, should be standard practice, particularly following adverse outcomes.

8. Strengthening governance, assurance and quality improvement

Robust assurance mechanisms play a vital role in supporting safe maternity care and sustaining public trust in maternity services.

- Systems should support service-user feedback, safety leadership and multidisciplinary collaboration.
- Specialist obstetrician-led labour ward rounds, clear escalation pathways and named care teams for complex pregnancies should be standard.
- The Robson classification system should be implemented to collect data on Caesarean deliveries at the individual unit level to support quality improvement.

The Robson system categorizes outcomes of all women admitted for delivery into 10 mutually exclusive groups based on clinically relevant characteristics, including factors such as parity, gestational age, onset of labour, fetal presentation, number of fetuses and previous Caesarean section. This standardized approach enables robust trend analysis in each group and the development of targeted strategies for improvement.

- A continuous audit of Caesarean section trends according to each Robson group should be conducted on a monthly basis to identify groups of women giving birth who have the highest Caesarean section rates and to develop targeted strategies and interventions (e.g., Caesarean section in first-time mothers).
- Where appropriate, facilitate access to a second clinical opinion for planned Caesarean sections without a medical indication, within a shared decision-making framework.
- Evidence-based psychosocial support programmes, relaxation training and culturally sensitive care pathways should be developed.
- Strategies should evolve in response to changing social expectations while maintaining safety as the primary objective.

9. Optimizing labour management and the birth environment

The organization of labour care and the physical and emotional birth environment significantly influence intervention rates.

- Labour wards should promote mobility, upright positions and physiological labour practices unless contraindicated.
- Access to non-pharmacological pain relief (e.g., water immersion, active mobility during the first stage of labour, continuous labour support from birth assistants) should be standard.
- Clear guidance on the diagnosis of labour dystocia should be implemented to avoid premature intervention.
- Admission during established labour, rather than early labour, should be encouraged where clinically appropriate.
- Birth environments should support privacy, dignity and calm, recognizing their role in reducing stress-related labour dysfunction.



10. Supporting vaginal birth after Caesarean

Increasing safe access to vaginal birth after Caesarean is one of the most effective strategies for reducing overall Caesarean section rates.

- Women with a previous Caesarean section should receive structured counselling on eligibility, benefits and risks of vaginal birth after Caesarean.
- Pathways for vaginal birth after Caesarean should be clearly defined, evidence-based and consistently implemented across facilities.
- Where clinically appropriate, women should be offered planned vaginal birth after Caesarean in facilities with timely access to emergency obstetric and neonatal care.
- Clinician confidence and institutional support for vaginal birth after Caesarean should be strengthened through training and governance.

11. Aligning incentives, accountability and medicolegal frameworks

System-level incentives and risk environments strongly shape clinical decision-making.

- Payment and performance frameworks should not inadvertently incentivize Caesarean section over vaginal birth.

- Medicolegal environments should support evidence-based practice rather than defensive medicine.
- National or regional benchmarks for Caesarean section rates, adjusted for case mix, should be reported transparently.
- Clinical decisions should be supported by clear documentation standards and shared accountability models.

12. Addressing equity, access and variations in care

Unwarranted variation in Caesarean section rates often reflects inequities in access, information and quality of care.

- Caesarean section rates should be stratified by facility, region, socioeconomic status and population groups using the Robson classification system. These data should be collated nationally for reporting and to identify outliers.
- Targeted interventions should address overmedicalization in low-risk populations and underuse of services in vulnerable groups.
- Culturally sensitive care pathways should be developed to ensure informed choice for all women.
- Language support and health literacy considerations should be integrated into maternity services.

13. Leveraging digital tools and data for decision support

Digital health tools can enhance consistency, safety and transparency in maternity care.

- Electronic decision-support systems can assist with risk stratification, labour management and escalation of care.
- Digital antenatal education and counselling platforms and applications can complement in-person care and extend reach.
- Real-time data dashboards on intervention rates should be available to clinical teams and service leaders.
- Routine use of patient-reported outcome and experience measures should inform service improvement.

Call to action

The continuing rise in Caesarean section rates across Eastern Europe and Central Asia requires careful analysis of current models for planning and delivering care during pregnancy.

The focus should be on ensuring equitable, seamless, coherent and evidence-based care throughout pregnancy, labour and the postnatal period.

Health systems should ensure that Caesarean section remains a necessary and life-saving procedure rather than the routine mode of birth. The objective is not to achieve a particular Caesarean section rate, but to ensure that every woman has access to safe, respectful and evidence-based maternity care; that Caesarean section is readily available when clinically indicated; that unnecessary procedures are avoided; and that women are supported to make informed choices through shared decision-making. Achieving these goals requires joint commitment at all levels of the health system.

Policymakers and health system leaders

- Prioritize reform of the maternal health system and recognize rising Caesarean section rates as an indicator of quality of care and health system balance.
- Embed Caesarean section reduction in national strategies and integrate it into maternal and newborn health action plans.
- Align financial incentives by ensuring equal reimbursement for vaginal and surgical births, thereby removing financial bias towards Caesarean section.
- Revise hospital financing models to be partly based on Caesarean section rates.⁶⁵
- Implement a national strategy to collect Caesarean section data by using the Robson classification system at the unit level.
- Ensure that each obstetric service (hospital or clinic) collects and submits data based on the Robson classification system to national health authorities, enabling the publication of an annual report at the individual unit level, inter-unit comparison and identification of outliers for corrective action.⁶⁶
- Establish a national requirement for all maternity hospitals or units to undertake a monthly audit of Caesarean section trends using the Robson classification system to identify subgroups of women with the highest Caesarean section rates and develop targeted local strategies.
- Enforce accountability and transparency by requiring each maternity care provider to publish annual Caesarean section rates, disaggregated by Robson group and clinical indication, on their public websites.

65. Visser and others, "FIGO opinion paper".

66. Healthcare Quality Improvement Partnership, *National Maternity and Perinatal Audit: Clinical Report 2022* (London, 2022).

- Invest in equitable access by expanding midwifery-led models of care, strengthening referral systems and ensuring round-the-clock access to emergency obstetric and neonatal services.
- Address the issue of fear of litigation, adverse publicity and criminal prosecution.⁶⁷

Health-care professionals and institutions

- Adopt evidence-based practice, including the use of Robson classification data for regular monthly audit reports and subgroup trend analysis and to identify one subgroup with the highest Caesarean section rate to develop and implement targeted strategies.
- Support safe vaginal birth as an appropriate option for low-risk pregnancies through evidence-based protocols, respectful care and informed choice.
- Apply shared decision-making principles to ensure that women receive information about the risks and benefits of Caesarean section and vaginal birth.
- Promote teamwork and culture change by fostering open communication, reflective learning and joint decision-making among obstetric and midwifery teams, and by promoting the use of second opinions.⁶⁸
- Strengthen clinical skills by maintaining competence in assisted vaginal birth, vaginal birth after Caesarean section and the management of breech or twin deliveries.
- Enhance patient communication by providing consistent, clear information and supporting shared decision-making throughout pregnancy.
- Improve the birthing experience through investment in better care and labour support, ongoing training of labour ward personnel, privacy in maternity units and access to adequate pain relief.⁶⁹

Educators, professional associations and researchers

- Modernize curricula to train the next generation of maternity professionals in physiological labour management, communication and respectful care.
- Support professional standards by developing and promoting evidence-based guidelines and national training frameworks.
- Strengthen and maintain competencies in safe assisted vaginal birth, where clinically appropriate and consistent with national standards.⁷⁰
- Invest in data and research to monitor national and subnational trends in Caesarean section and explore the underlying drivers, including clinical, cultural and systemic factors.
- Disseminate best practices by facilitating regional knowledge exchange and recognizing facilities that achieve safe reductions in unnecessary Caesarean sections.
- Develop exchange programmes with countries where Caesarean section rates are lower, such as the Nordic countries and the Netherlands. Such initiatives should involve multidisciplinary teams spending time in the host country to learn about their system in operation.

67. Visser and others, "FIGO opinion paper".

68. Ibid.

69. Ibid.

70. Ibid; Wladimiroff and others, "Caesarean section rates across Europe and its impact on specialist training in obstetrics".

Women, families and communities

- Support informed choice by ensuring that women understand their options, rights and the implications of different modes of birth.
- Promote support networks and encourage continuous labour companionship and peer-to-peer education about childbirth.
- Address misconceptions by challenging cultural perceptions that equate Caesarean birth with safety, convenience or modernity, including through engagement with faith-based organizations and opinion leaders.
- Advocate for respectful care and demand quality, dignity and transparency in maternity services.

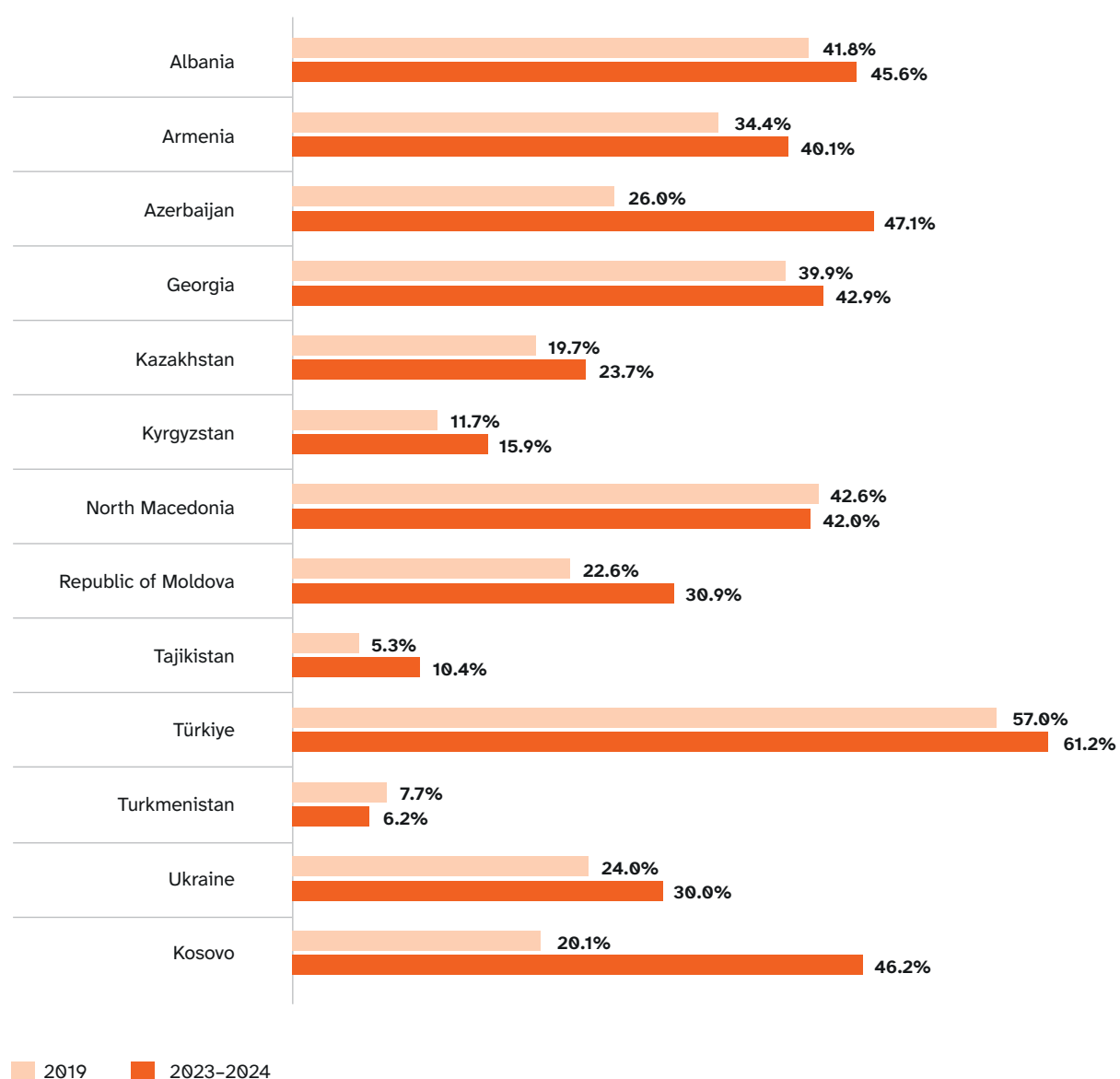
A shared responsibility

Reducing unnecessary Caesarean sections is a shared responsibility. It cannot be achieved through policy alone or by health-care providers working in isolation. It calls for leadership, courage and collaboration, anchored in the conviction that every woman deserves safe, informed and respectful maternity care. By acting collectively, stakeholders can help ensure that Caesarean section is used appropriately, when needed, rather than simply by default.



Photo: UNFPA Kosovo/Erind Zhubi

Figure 1. Caesarean section rates (%) in selected countries and territories of Eastern Europe and Central Asia in 2019 compared with the most recent available data from 2023–2024



For Azerbaijan, the baseline year is 2013; for Tajikistan it is 2017. Countries or territories with unavailable or non-comparable data are excluded.



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