Faktencheck Gesundheit Kaiserschnitt

Caesarean sections in Germany: Marked increase and wide regional variations

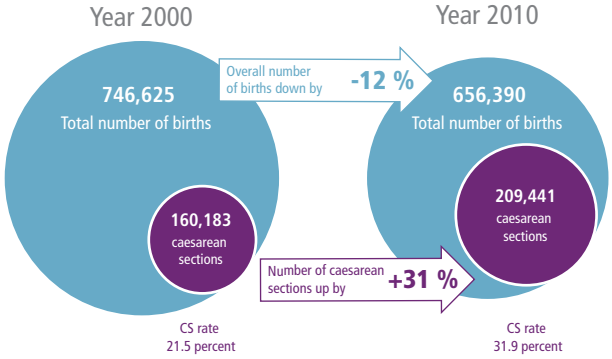
Nearly one in three children are born by caesarean section

In spite of the falling birth rate, the number of caesarean sections performed in Germany is constantly on the increase. In 2010, caesarean sections (CS) already accounted for almost one third of all births, some ten percent higher than the figure for the year 2000:

- In 2010, 31.9 % of all children in Germany were born by caesarean section (2000: 21.5 %).
- This makes Germany one of the countries with the highest rates of caesarean sections (CS rate) in Europe.
- However, this does not result in Germany having a lower than average rate of infant mortality. A European comparison reveals no correlation between neonatal mortality and the rate of caesarean sections.

Hospital births, 2000 and 2010

Number of births



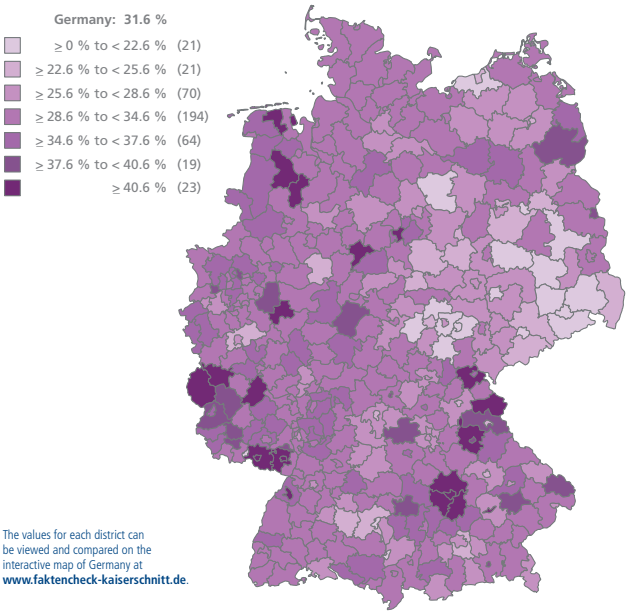
Source: German Federal Statistical Office (Stat_GrunddatenKH); own calculation and graphics (IGES 2012). | BertelsmannStiftung

The Healthcare Fact Check shows: the CS rate varies considerably from region to region.

- The rate of caesareans sections performed in rural and urban districts of Germany vary between 17 % and 51 % – i.e. by a factor of three. These significant regional variations remain steady over the course of the period reviewed.
- Factors often cited to justify these variations – such as the average age of the mothers, educational attainment, varying rates of premature or multiple births or of children with higher than average birth weights or (primary) diseases in the mother – can not explain the extent of the increase or of the regional variation in the CS rate.

Standardized CS rates in German districts 2010

District of residence, only live births, directly standardized to live births according to age groups of mothers in 2010; percentages.



The values for each district can be viewed and compared on the interactive map of Germany at **www.faktencheck-kaiserschnitt.de**.

Source: German Federal Statistical Office; own calculation and graphics (IGES 2012). | BertelsmannStiftung

INFO

On behalf of Healthcare Fact Check, Professor Petra Kolip of the University of Bielefeld in collaboration with the IGES Institute in Berlin studied trends in the caesarean section rate on the basis of routine data provided by the BARMER GEK health insurance fund, the results of a survey carried out among young mothers insured by BARMER GEK and publicly available data.

Context

Key determinant: differing procedures in the face of relative indications

Ninety percent of all caesarean sections are based on relative indications (e.g. breech presentation, previous caesarean section). Such indications do not in themselves necessitate a decision to perform a caesarean section but they require a careful consideration of the form of delivery in light of the risks to mother and child. In other words, relative indications leave scope for deciding in favor of either a natural delivery or a caesarean section.

- **Changes in how obstetricians assess the risks of such relative indications are responsible for the rise in the rate of caesarean sections over the last decade:**
  This change in risk assessment is in part attributable to defensive obstetric practices, developments in matters of liability, changes in the way clinics are organized and an increasing lack of experience on the part of obstetricians in dealing with complicated spontaneous deliveries.
- **This risk assessment varies from region to region and consequently gives rise to regional variations in the rate of deliveries by caesarean section:**
  Variations in the CS rate are not largely due to the fact that the risk factors indicating a caesarean section are subject to regional variations. On the contrary, the freedom of choice offered by relative indications is interpreted differently by obstetricians in the clinics of the various regions. This gives rise to marked variations in the obstetric procedures that ensue.

Additional facts

- **Once a caesarean section – always a caesarean section?**
  The so-called resectio caesarea or secondary section, i.e. a caesarean section carried out on the basis of a previous caesarean delivery, contributes significantly to the increase and regional variations of the CS rate. After a previous caesarean delivery, subsequent children are frequently delivered by caesarean section, even though the German Society of Gynecology and Obstetrics (DGGG) recommends striving for a vaginal delivery.
- **Forms of care during pregnancy and at the time of delivery have slight effect**
  Involving midwives early on in the care regime and one on one care at the time of delivery give a slight reduction in the CS rate.
- **“Caesarean delivery on maternal request” not a widespread factor**
  According to the Fact Check findings, only 2 % of pregnant women request a caesarean delivery in the absence of medical indications.
- **Caesarean sections more frequently planned by office-based physicians**
  Deliveries under the care of office-based practices with hospital admission rights are more frequently by caesarean section than deliveries in main hospital wards. This accounts for about 9 % of the variation in all caesarean sections and over 14 % of the variation in primary caesareans between districts.
- **Economic aspects**
  The rise in the CS rate is not directly attributable to changed incentives in terms of remuneration. In the case of spontaneous deliveries, however, there is a greater economic risk for hospitals, since the course of delivery and the duration of hospitalization are less predictable, making the planning of resources more difficult.

A further increase in districts with low CS rates and in those already having high CS rates

- Districts which recorded a below-average CS rate in 2007 frequently show an increase above the national average in 2010.
- Districts with above-average CS rates in 2007 recorded a further increase, albeit a less marked one.
- Furthermore, recent years have seen an above-average increase in the rate of caesareans performed on younger women in the under-25 age group.

➔ ***If these trends continue, it must be assumed that the CS rate will continue to rise.***

Responsibly exploit scope for decision-making in the interests of the patient

Ways to prevent a further rise in the number of caesarean sections:

Care structures

- **Involve midwives:** The structural conditions conducive to delivery by a midwife should be maintained and developed further. In addition to cost and remuneration based initiatives, structural innovations can make a significant contribution in this regard. An example of a successful model is provided by maternity wards staffed by midwives.

- **Coordination and interdisciplinary communication:** Cooperation between the gynecologists, obstetricians and midwives involved in the care of mothers-to-be is being successfully trialed in a number of model studies. Multiprofessional care should be proactively encouraged.

- **Clinic structures:** Experts report that pregnant women can often (no longer) find a clinic prepared to support their wish for a vaginal delivery in the case of twins or after a previous caesarean. Obstetricians frequently lack practical experience. An appropriate way to approach this issue (in densely populated areas) could be for certain maternity clinics to specialize in providing counseling and care for mothers-to-be in precisely these situations.

Guidelines

- Existing guidelines offer obstetricians only a limited amount of guidance. Further work in the area of evidence collection and adherence to evidence-based guidelines could help to reduce unwarranted variations in obstetric procedures. The development of S3 guidelines for particular constellations could form a framework for this endeavor.

Patient counseling

- The contents of the guidelines to be developed must be incorporated into information material aimed at the general public. Evidence-based counseling of women during pregnancy should be used as an opportunity to ensure that the relevant information has been received and understood.

Training and professional development

- Theoretical training should deal separately with the risks and benefits of vaginal delivery and caesarean section. Training should also be given in the practical procedures applicable to different delivery situations by way of scenarios and on the basis of realistic models (e.g. in so-called skills labs). All obstetricians must be obliged to keep themselves up to date with the current state of expertise through of regular training courses and professional development initiatives and encouraged to put these insights into practice.

Transparency

- **Monitoring:** Clinics are often largely unaware of how their performance compares to that of other clinics. Regional obstetric care structures should be subjected to an ongoing analysis of local practices in the light of perinatal statistics taken from an existing data base such as the external quality assurance procedures for hospitals. In the event of any serious anomaly, the bodies responsible for externally monitoring quality assurance in hospitals at the federal state level should enter into an informed dialog with the hospitals to discuss the findings.
- **Improve provider transparency:** After adjusting for risks, the CS rates should be disclosed in quality reports.

THE HEALTHCARE FACT CHECK PROJECT (FAKTENCHECK GESUNDHEIT)

Mapping regional variations in healthcare

In its "Healthcare Fact Check" the Bertelsmann Stiftung seeks to map regional variations in healthcare in Germany. The overall goal is to identify solutions to structural deficits while providing patients with clear and accurate information. Previous endeavors to investigate variations in healthcare in the UK, the United States, the Netherlands and Spain provided both inspiration and a model for this project.

First report illustrates bandwith and magnitude of variation

the first publication in the current series appeared in September 2011 and provides an insight into 16 different cases of regional variations in healthcare. Covering a range of topics from caesarian section to end-of-life care, this report illuminates the bandwidth and magnitude of regional variations in the German healthcare system. It is available in English at www.faktencheck-gesundheit.de/english-summary/

Single topic reports provide the public with relevant information

In the years to come, regular single-topic reports will focus on key healthcare issues, addressing the range of variations, underlying causes and possible solutions. This paper on "Caesarean sections in Germany", published in 2012, summarizes the findings of one of these reports. For each issue, a website provides patients with useful tips, check lists and practical information to help them make the best individual decision in consultation with their physician.

Further information can be found at › faktencheck-kaiserschnitt.de and › faktencheck-gesundheit.de

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