



Availability and access in modern obstetric care

Centralization has been shown to improve short-term outcomes for complex treatments and procedures, but can also increase the frequency of obstetric interventions in low-risk deliveries.

This study shows reduced access to obstetric care as the number of institutions in Norway declined. The clinical outcomes did not improve as expected and the regional differences in outcome increased.

The distribution of benefits and burdens in the centralization of obstetric care needs to be better understood.

AUTHORS

Hilde Marie Engjom, MD, DTM&H
Nils-Halvdan Morken, PhD, Specialist in
Obstetrics and Gynaecology.
Ole Frithjof Norheim, Professor
Kari Klungsoyr, Professor

AFFILIATIONS

Department of Global Public Health and Primary
Care, University of Bergen, Norway.

Department of Obstetrics and Gynaecology
Department of Research and Development,
Haukeland University Hospital, Norway.

The Medical Birth Registry of Norway,
Norwegian Institute of Public Health

RESEARCH GROUPS

Registry-based studies of familial risks

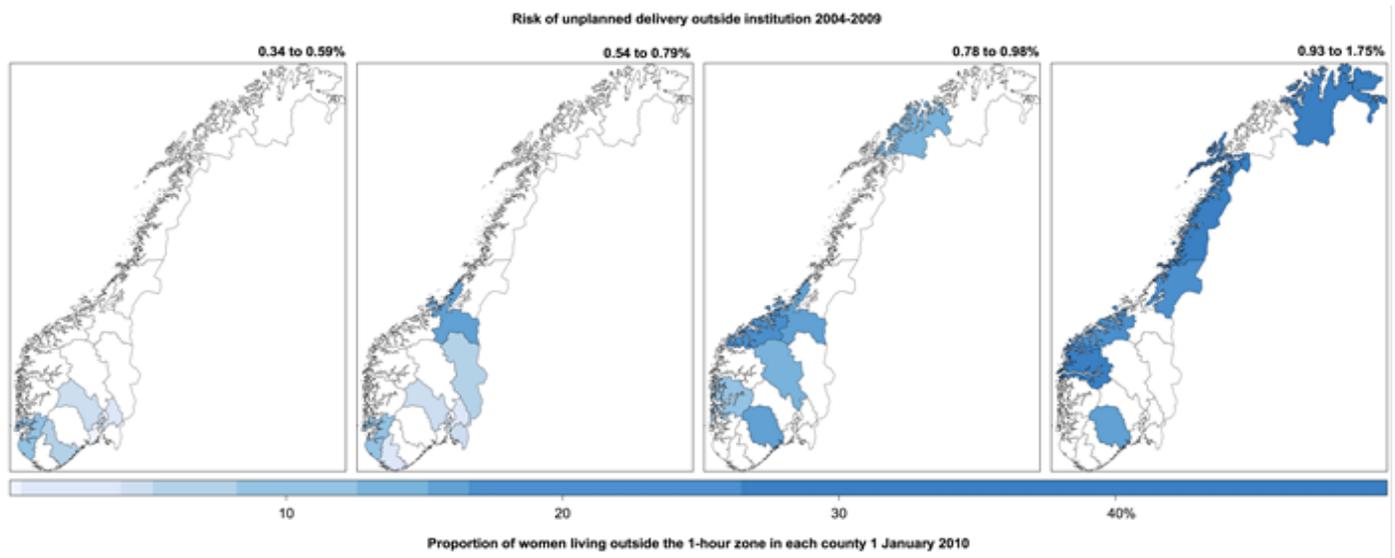
Focus on epidemiological surveillance of perinatal
problems, evaluation of health services in
connection with childbirth and the impact of
pregnancy on maternal long-term morbidity and
mortality.

Global Health Priorities

The group works interdisciplinary in Norway as
well as Tanzania, Ethiopia and Malawi and
covers public health, economics, ethics,
philosophy and political science.

Links

onlinelibrary.wiley.com/doi/10.1111/1471-0528.12510/full
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Background

The number of obstetric institutions in Norway declined from 95 to 51 between 1979 and 2009. Knowledge about how centralisation of obstetric services affects availability and access to obstetric institutions is lacking in high-income countries. In particular, the consequences are unclear for maternal outcomes. National policy in Norway has emphasized the need for decentralised care in order to provide safe services of high quality near a woman's home.

Caught between high-technology services and the care for normal uncomplicated deliveries, obstetric care has been a core issue in the current health-system debate in several high-income countries.

Within other fields in medicine, such as cancer treatment, surgery, and intervention-cardiology, centralisation to larger units improve patient outcomes although the mechanisms are complex. In obstetrics however, delivery in large institutions has been associated with an increased frequency of interventions for low-risk women.

The World Health Organization (WHO) has developed tools for monitoring emergency obstetric care, including geographic distribution of institutions, access, utilization and the type of services provided. We used the guidelines along with novel geographic information technology and traditional epidemiology in this study.

Reduced availability and access indicates reduced quality from a health systems perspective.

Main findings

Number of emergency institutions below WHO recommendation. During the period from 2000 to 2009 the number of emergency obstetric care institutions was reduced to a level below the estimated need according to the WHO model. The reduction was found on a national level and in three of the five health regions.

Women live further from the obstetric institutions The proportion of women living outside the one-hour travel zone increased by 10 % from 2000 to 2009. The increase was highest in urban regions, whereas the Northern region had the highest absolute numbers.

Doubled risk of unplanned delivery outside institution. The risk of unplanned delivery outside institution was doubled during the last 30 years. The risk increase was highest in district counties, but also more than doubled in the urban counties.

Increase in maternal morbidity Maternal mortality and delivery-related perinatal mortality were low and indicate good quality of clinical care in the institutions. Based on the rationale for centralization to increase the quality of clinical care we expected an unchanged or reduced risk of maternal morbidity. Contrary to this we report an increase in the risk of maternal morbidity and in 2009 there were significant regional differences,

Conclusion

Availability and access should be considered in service planning and evaluation, and the risk factors for unplanned delivery outside institution in urban and rural areas need to be addressed.

More knowledge is needed to understand the interaction between structural factors and clinical outcomes for mother and child.