

Impact of Healthcare Teams and the Onset of Prenatal Care on Birth Outcomes in the United States and Denmark

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Spring 2022 Healthcare Systems: A Comparative Approach A - Immersion Fall 2022



Introduction

Women who fail to receive prenatal care are more likely to give birth to a baby that is underweight or a baby with a significantly lower chance of surviving. As a result, they spend more time in critical care units within the hospital. Not only is this traumatic for new mothers, but it is potentially expensive in countries where universal healthcare is not provided. Therefore, adequate prenatal care is essential for both mother and child because it can reduce the risk for potential complications that accompany birth (Promoting Prenatal Health and Positive Birth Outcomes A Snapshot of State Efforts 2017:1).

Background

- Rate of maternal morbidity in U.S is 17 maternal deaths per 100,000 live births
- Rate of maternal morbidity in Denmark is 4 maternal deaths for every 100,000 live births
- Denmark has a standardized plan for all women who are pregnant and this often is not deviated from
- Unless deemed necessary all non-complicated births in Denmark are facilitated by midwives and not OB GYNs
- Women in the U.S face a lack of access to primary healthcare even prior to getting pregnant creating a greater risk for complications
- The U.S is 61.6% white while Denmark is 86% danish
- Population of the U.S is 329.5 million ; Population of Denmark is 5.8 million

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Methods

Search Terms Used	Databases/Websites Used
- Maternal Morbidity	- PubMed
- Midwives	- Google Scholar
- Patient satisfaction	- National Vital Statistics
- Denmark birth outcomes	- Planned Parenthood
- Prenatal care in Denmark	- National Institute of Health
- Onset of prenatal care in Denmark and influence on birth outcomes	- The Danish Medical Journal
- Prenatal care in the United States	- Rigshospitalet
- Prenatal care in the United States and birth outcomes	- US Department of Health and Human Services
- Prenatal care and birth outcomes	- World Bank
- Disparities in birth outcomes in the United States	- Commonwealth Fund

Conclusion

- We conclude that in Denmark's system of prenatal care, which includes a set procedure for expectant mothers and a standard for women giving low risk births, we see better birth outcomes than we do in the United States.
- The United States is unable to offer a high standard of care for women due to a lack of standardization of care for expectant mothers.
- The levels of care which women receive are often dependent on race and socioeconomic status, and birth outcomes are variable across racial groups in the United States.
- Marginalized populations experience worse birth outcomes than non-marginalized populations, and with no clear initiatives dedicated to decreasing these disparities, this will likely be a phenomenon that will persist in years to come.
- The United States could learn from Denmark's standardization of both prenatal care and procedures for healthcare teams

Results

United States Prenatal Care (PNC)

- Around 15 recommended prenatal visits
- 77.1% of women start PNC in the 1st Trimester
- 15% of women receive inadequate PNC

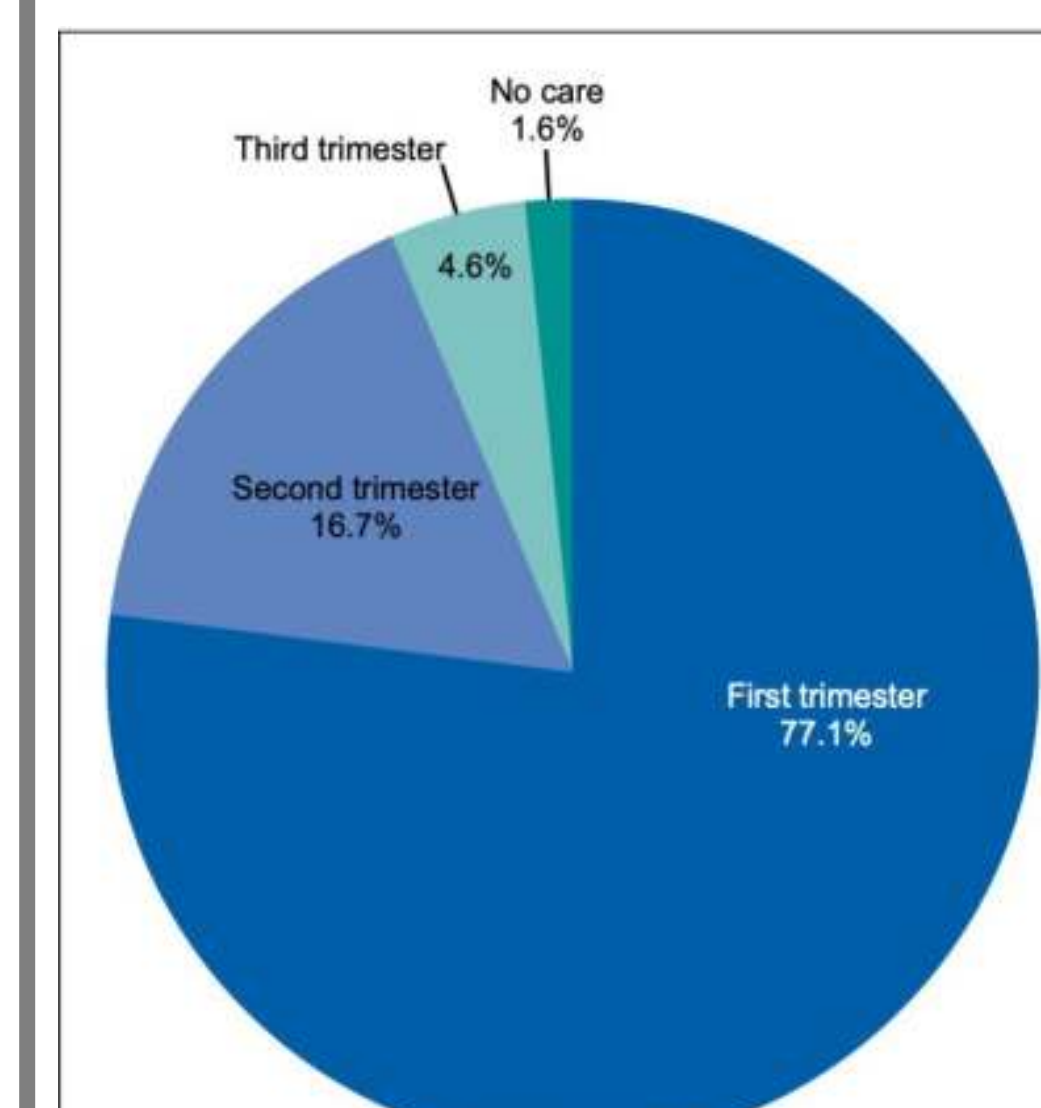


Figure 1. Pie chart showing when women in the United States access prenatal care (Osterman and Martin, 2018; 2)

Selected Characteristic	First Trimester PNC (%)	Second Trimester PNC (%)	Late PNC (%)	No PNC (%)
Race and Hispanic Origin				
Non-Hispanic White	82.3	13.4	3.3	1.1
Non-Hispanic Black	66.5	23.5	7	3
Non-Hispanic American Indian or Alaska Native	63	24.5	9.2	3.3
Non-Hispanic Native Hawaiian or Other Pacific Islander	51.9	28.9	14.2	5
Hispanic	72	20.3	5.6	2.1
Asian	80.6	14	4.6	0.8
Age of Mother				
Under 20	61.2	27.6	8.3	2.9
20-24	70.3	21.7	5.9	2.1
25-29	77.8	16.3	4.4	1.5
30-34	82.1	13.1	3.6	1.2
35-39	81.7	13.5	3.6	1.2
40 and over	78.4	16	4.1	1.5
Educational Attainment				
Less than high school	62.7	26.1	7.5	3.7
High school	73.4	19.5	5	2.2
Some college	80.2	15.1	3.5	1.2
Bachelor's degree or higher	87.6	9.1	2.8	0.5
Source of Payment for the Delivery				
Medicaid	68.1	23.3	6.4	2.2
Private Insurance	87	10.3	2.1	0.6
Self-pay	54.8	25.4	13.2	6.6
Other	75	16.8	5.8	2.3

Table 2. Trimester prenatal care began, by various selected characteristics: United States, 2016 (Osterman and Martin 2018; 8)

Denmark Prenatal Care

- Prenatal care is free of charge due to their universal healthcare system
- 9-12 prenatal visits compared to around 15 in the United States, yet worse outcomes in the United States
- 100% of women attend the first prenatal visit
- Non-Western women only attend 8.2-8.9 prenatal visits and have less contact with the free services

Healthcare Teams in the United States

- 98.4% of pregnant women in the United States opt for a hospital birth
- The attendant that is in charge of facilitating childbirth is a physician 90.6% of the time
- Although the utilization of midwives in birthing settings is becoming more popular in the U.S., its lack of widespreadness differs greatly from Denmark's approach
- The U.S. struggles to yield birth outcomes that are as successful as Denmark's