

# Perinatal and Postpartum Measures of the EQ-5D-5L

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## Background

- Pregnancy is a unique health state with significant physiological changes occurring from conception and birth.
- However, the variability in health-related quality of life (HRQoL) during & after pregnancy is not well understood.

**OBJECTIVE:** to measure self-reported HRQoL at different stages of pregnancy and during postpartum

## Methods

- From May – July 2021, we conducted a national cross-sectional, online survey of 1,669 pregnant and 1,723 postpartum individuals.
- Participants completed a 30-minute online survey with items on:
  - ✓ HRQoL measures: EQ-5D-5L & EQ-VAS
  - ✓ Due date / date of child's birth
  - ✓ Sociodemographic information
- We used segmented regression to estimate changes in continuous HRQoL measures at monthly intervals throughout pregnancy and up to 6 months postpartum.
- We examined the proportion of respondents reporting issues with each EQ-5D-5L item:
  - Mobility
  - Self-care
  - Usual activities
  - Pain / Discomfort
  - Anxiety / Depression

## Results

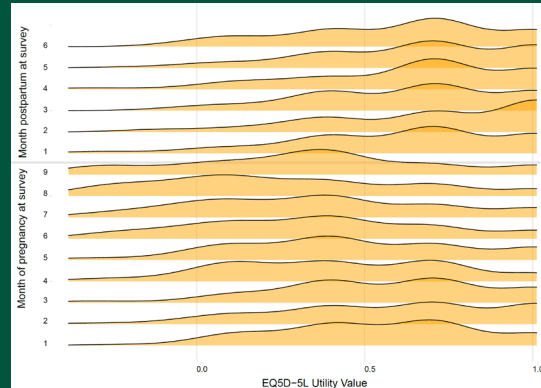


Figure 1. Distribution of EQ-5D-5L utility values by month of pregnancy or month postpartum at time of survey.

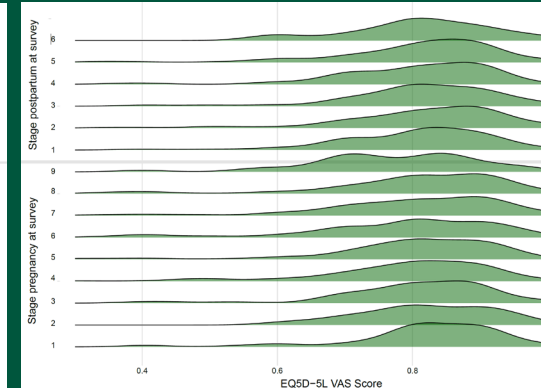


Figure 2. Distribution of EQ-5D-5L VAS values by month of pregnancy or month postpartum at time of survey.

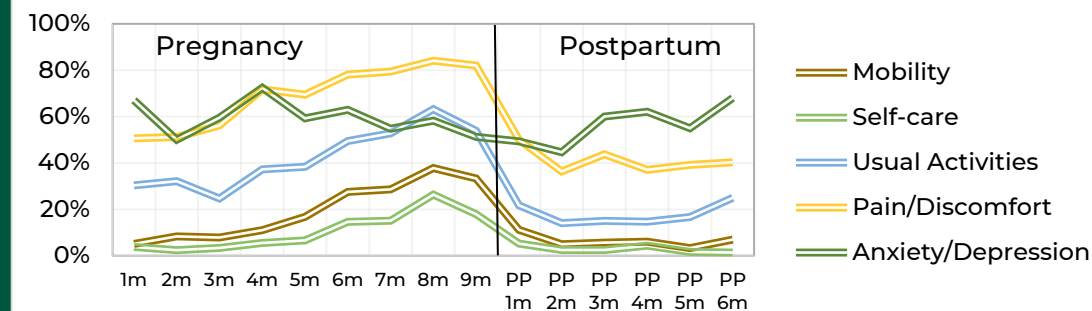


Figure 3. Proportion of respondents reporting problems with mobility, self-care, usual activities, pain or discomfort, or anxiety or depression on the EQ-5D-5L.

- We observed declines in the median EQ-5D-5L utilities from 0.68 (IQR 0.32) at 1<sup>st</sup> trimester to 0.38 (IQR 0.30) in 2<sup>nd</sup> trimester to 0.33 (IQR 0.35) in 3<sup>rd</sup> trimester (Figure 1).
- Median utility values increased immediately postpartum, returning to 0.69 (IQR 0.38, 1.00) during the 1<sup>st</sup> month postpartum.

## Results (Cont'd)

- Segmented regression results indicated that on average, there was a 4% decline ( $\beta=-0.04$ ) in EQ-5D-5L utilities for each month of pregnancy, followed by a 31% improvement at 1 month postpartum ( $\beta=0.31$ ).
- This pattern was not observed with EQ-VAS (Figure 2).
- The proportion of respondents reporting pain/discomfort increased from 56% to 72% between month 3 and month 4 of pregnancy (Figure 3).
- Difficulties engaging in usual activities also appeared sensitive to changes over time.

## Conclusions

- HRQoL as measured by EQ-5D-5L utilities varies across pregnancy, indicating progressive declines beginning in 2<sup>nd</sup> trimester and return to 1<sup>st</sup> trimester values during the first month after giving birth.
- Declines in utility values were predominantly attributed to self-reported issues with pain and discomfort.
- These findings allow better understanding of natural variation in HRQoL measures throughout pregnancy.

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