

Health-related Quality of Life Outcomes of Very Preterm or Very Low Birth Weight Individuals: Evidence from an Individual Participant Data Meta-analysis

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Background

- **Importance:** Assessment of health-related quality of life (HRQoL) for individuals born very preterm and/or low birthweight (VP/VLBW) offers valuable complementary information alongside biomedical assessments. However, the impact of VP/VLBW status on HRQoL in adulthood is inconclusive.
- **Objective:** To examine associations between VP/VLBW status and preference-based HRQoL outcomes in early adulthood.
- **Design, Setting and Participants:** Individual participant data (IPD) were obtained from five prospective cohorts of individuals born VP/VLBW and controls contributing to the 'Research on European Children and Adults Born Preterm (RECAP)' consortium. The combined dataset included over 2,100 adult VP/VLBW survivors ranging in age from 18 to 29 years. Data were analyzed using generalized linear mixed models in a one-step approach using fixed and random effects models.
- **Main Exposure:** Birth before 32 weeks' gestation (VP) and/or birth weight below 1500 g (VLBW).
- **Main Outcomes and Measures:** Preference-based HRQoL measures in early adulthood, including the Health Utilities Index Mark 3 (HUI3) and the Short Form 6D (SF-6D), were harmonized across the five cohorts.

Results and Conclusions

1. VP/VLBW status was associated with a clinically significant decrease in HUI3 multi-attribute utility score of -0.06 (95% CI: -0.08, -0.04), but this was not replicated for the SF-6D. Impacted functional domains included vision, ambulation, dexterity and cognition. VP/VLBW status was not associated with poorer emotional, pain or social functioning.
2. VP/VLBW status is associated with lower overall HRQoL in early adulthood, particularly in terms of physical and cognitive functioning. Studies that estimate the effects of VP/VLBW status on multi-dimensional HRQoL outcomes in mid and late adulthood are also needed.