Women with spinal cord injury (SCI) in their childbearing age represent a growing population, and in the U.S., each year, approximately 2,000 women in their reproductive period suffer from an SCI.1

SCI and paralysis in pregnancies are rarely seen when compared to other conditions.2

Pregnant women with SCI/paralysis have higher chances of associated labor or obstetric complications such as anemia, autonomic dysreflexia, decreased blood pressure, urinary tract infections, preterm labor, and Cesarean section.3

Vital to understand the health services utilization of this population for the healthcare system to be responsive to medical needs and acknowledge the financial implications associated with the necessary healthcare rendered to this population.

Health services utilization during inpatient hospitalization for non-delivery related reasons by pregnant woman with SCI or paralysis is different than delivery-related hospitalization for the pregnant woman with SCI or paralysis

To assess delivery-related healthcare services utilization among pregnant women with SCI or paralysis in the United States

- Data source
  - National (Nationwide) Inpatient Sample by Healthcare Cost and Utilization Project

- Study period: 2006 to 2019

- Statistical software: STATA SE 17.0 (StataCorp, College Station, TX)

- Outcome variables
  - Length of hospital stay
  - Total hospitalization charges

- Independent variables
  - Population characteristics
    - Predisposing variables (age, race)
    - Enabling variables (location, median household income, primary payer)
    - Need variables (type of admission, modified Elixhauser comorbidity index)
  - Health delivery system characteristics
    - Hospital bed size
    - Hospital location/teaching status
    - Hospital region
  - Statistical Analyses
    - Negative binomial regression model
    - Ordinary least squares regression model

### Results

#### Table 1: Negative Binomial Regression Model predicting length of hospital stay

<table>
<thead>
<tr>
<th>Variables</th>
<th>Variability Measure</th>
<th>Negative Binomial Regression Model predicting length of hospital stay</th>
<th>Ordinary least squares regression model predicting log of total hospital charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age-group</td>
<td></td>
<td>Count Ratio</td>
<td>95% Confidence Interval</td>
</tr>
<tr>
<td>25 to 29 years (reference)</td>
<td>24.57%</td>
<td>1.135</td>
<td>0.862, 1.495</td>
</tr>
<tr>
<td>19 years or less</td>
<td>4.55%</td>
<td>1.013</td>
<td>0.821, 1.260</td>
</tr>
<tr>
<td>20 to 24 years</td>
<td>19.85%</td>
<td>1.097</td>
<td>0.845, 1.390</td>
</tr>
<tr>
<td>30 to 34 years</td>
<td>25.81%</td>
<td>1.014</td>
<td>0.848, 1.272</td>
</tr>
<tr>
<td>35 to 39 years</td>
<td>19.85%</td>
<td>1.132</td>
<td>0.900, 1.425</td>
</tr>
<tr>
<td>40 years or more</td>
<td>5.65%</td>
<td>1.088</td>
<td>0.907, 1.304</td>
</tr>
</tbody>
</table>

#### Figure 1: Trends in the mean/median length of hospital stay among inpatient encounters of delivery-related pregnant women with SCI or paralysis

#### Figure 2: Trends in the mean/median total hospitalization charges among inpatient encounters of non-delivery related pregnant women with SCI or paralysis

### Conclusion

- Average length of hospital stay: 8.11 days (median: 4 days, IQR: 2 - 8 days) and average total hospitalization charges: $79027.84 (median: $30043.4, IQR: $16164.16 - $78386.09, in 2019 dollars)

- Equips healthcare providers with healthcare services utilization estimates for delivery and labor related inpatient hospitalization of pregnant women with disabilities that can be leveraged when determining the number and frequency of prenatal care visits for this population

- Provides a rationale for designing targeted interventions and healthcare policies to improve the healthcare services utilization for this vulnerable population while also considering its financial implications

### References

