MENINGOCOCCAL B VACCINATION AMONG OLDER ADOLESCENTS AND YOUNG ADULTS IN THE UNITED STATES: AN ANALYSIS OF COMMERCIAL AND MEDICAID CLAIMS DATA

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BACKGROUND
In the US, a serogroup B meningococcal (MenB) vaccine series is recommended for 16-23-year-olds (yo) based on shared clinical decision-making.
While nationwide MenB vaccination coverage among 17 yo was 21.8% in 2019, little is known about coverage in those >17 yo and by insurance type.
We conducted a real-world analysis of MenB vaccine uptake and determined factors associated with MenB vaccine series initiation among US adolescents and young adults.

METHODS
Study Design
Retrospective analysis of administrative claims data from MarketScan Commercial Claims and Encounters (2014-2020) and Multi-State Medicaid Databases (2014-2019)
Population
Two non-mutually exclusive age groups of 16-18 yo and 19-23 yo (Figure S1)
Outcomes
Receipt of ≥1 dose of either MenB vaccine (i.e., MenB-4C or MenB-FHbp) following the index date (i.e., January 1, 2017 or date of 16th/19th birthday)
Statistical Analysis
Kaplan-Meier curves describe MenB uptake and time to series initiation
Cox proportional hazards models identify factors independently associated with MenB series initiation

RESULTS
A majority of US adolescents and young adults are not initiating vaccination against meningococcal B disease, despite existing recommendation based on shared clinical decision-making.

CONCLUSIONS
MenB vaccine series initiation among US adolescents and young adults is low, with long time to initiation: among 16-18 yo, 33% in Commercial and 20% in Medicaid initiated a MenB series by 36 months from date of first eligibility.
Factors associated with vaccine initiation (e.g., age, race) may inform MenB vaccination strategies and implementation programs.
Understanding patient and provider attitudes towards recommendations based on shared clinical decision-making is needed to address barriers to MenB vaccine initiation.

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**SUPPLEMENTARY MATERIALS**

**Figure S1: Study Design Schematic**

- **POST-INDEX (FOLLOW-UP) PERIOD**
- **SELECTION PERIOD**
- **6 MONTH BASELINE**

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<td>8/31/2019 Commercial</td>
<td>6/30/2019 Medicaid</td>
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Footnotes:
- Pre-index baseline measures: Incident medically high-risk conditions, other vaccinations received, healthcare costs and all-cause and preventative office visits measured during the 6 months baseline period. Individuals with ≥ 1 MenB vaccine dose measured from 10/2/2014 through 1/3/2017 or index date.
- Index date measures: Demographic and other baseline characteristics
- At least 6 months of continuous enrollment before and after the index date were required.
- After the ACP updated recommendation for 2-dose MenB-FHhp for healthy individuals.
- Post-index outcomes: MenB vaccine uptake and time to MenB vaccine initiation

ACIP: Advisory Committee on Immunization Practices
MenB: Serogroup B Meningococcal

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**REFERENCES**


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- PG and NC are employees of the GSK group of companies and hold shares in the GSK group of companies. PN was an employee of the GSK group of companies and held shares in the GSK group of companies at the time of the study conduct. PN is now an employee of Moderna and holds shares in Moderna. EP, GK, NMZ and LCM are employees of IBM Watson Health. EP, NMZ, LCM and GK declare that their employer received funding via a contractual agreement with the GSK group of companies to perform the work contributing to this research. The authors declare no other financial and non-financial relationships and activities.