**Trends in initiation and continuation of long-acting reversible contraception among female adolescents in North Carolina**

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**Introduction**

- The U.S. adolescent pregnancy rate remains high, with persistent geographic and racial disparities
- Long-acting reversible contraception (LARC) is highly effective and increasingly used by adolescents
- The aims of this study are:
  1. to describe statewide rates of North Carolina adolescents' LARC initiation and continuation,
  2. to examine the association of patient and provider factors with LARC initiation and continuation

**Methods**

- Retrospective cohort study and secondary data analysis
- North Carolina Medicaid claims data
- Adolescent women (13-to-19-years-old) who were continuously enrolled in Medicaid (no break in coverage for >6 months) from January 1, 2013 to December 31, 2018
- Compared those who did vs. did not have a LARC inserted, and those who had IUD vs. implant inserted
- Used ICD-9, ICD-10, CPT, HCPCS codes for subdermal implant or etonogestral implant insertion or removal
- Accrual period: January 1, 2013 to December 31, 2015 in order to have follow-up of 3-6 years
- Bivariate statistics (using 2-sample t-test for continuous variables, or chi-squared for categorical variable)
- Kaplan Meier curves to examine discontinuation

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**Results**

- 3% of adolescents initiated LARC. LARC-using adolescents were more often non-Hispanic, non-White, received Medicaid Family Planning or for Pregnant Women (compared to other Medicaid), and lived in rural regions (results not shown here)
- Implant users were younger than IUD users, and more frequently Black than White. IUD users were more likely to have been pregnant.
- LARCs were frequently placed in outpatient clinics, by OBGYNs, and in rural regions. IUDs were more often placed by OBGYNs and in hospital settings.

**Conclusions**

- Older, racial minority, and rural adolescents are more often initiating LARC, and receiving them from rural specialists
- Discontinuation is often occurring prematurely for both implant and IUD users, with similar rates by age and rurality (results not shown) and black adolescents having significantly higher continuation compared to white peers
- Future research should evaluate how adolescents choose to initiate and discontinue LARC, particularly Black adolescents who may experience reproductive coercion around initiation or continuation or have difficulty accessing removal services

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