How Much Can Expanding Access to Long-Acting Reversible Contraceptives Reduce Teen Birth Rates?

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*NIHCM Webinar on Teen Health*
Teen childbearing

Over 3/4 unintended at conception (Mosher et al., 2012)

Half to teens using contraception (CDC, 2012)
Focus on sexual activity:
  - have not been shown to be effective

Focus on improving contraceptive use:
  - have been shown to be effective
The current push for LARCs

LARC should be “first-line recommendations” for adolescents
- 2012, 2014: The American College of Obstetricians and Gynecologists’ (ACOG) Committee on Adolescent Health Care
- 2014: American Academy of Pediatrics

“Few teens on birth control use the most effective types”
- 2015: Centers for Disease Control and Prevention
## The Case for LARCs

<table>
<thead>
<tr>
<th>Contraceptive method</th>
<th>Pregnancies per 1,000 women (one year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LARCs</td>
<td>1</td>
</tr>
<tr>
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<td>91</td>
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<tr>
<td>Condom</td>
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How much can expanding access to LARCs reduce teen birth rates?

Depends on what teens would use otherwise

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Colorado Family Planning Initiative (CFPI)

First large-scale program to expand access to LARCs

Colorado’s teen birth rate has since declined quite dramatically

How much of this decline can be attributed to the initiative?
Evaluating the effect of the CFPI

Requires us to estimate *what would have happened* in Colorado counties with clinics receiving funding *in the absence of the CFPI*

We do so by considering:

(1) What happened in other U.S. counties with Title X clinics over the same time period

(2) What happened in other counties in Colorado over the same time period

(3) What happened in other comparison areas that resembled Colorado prior to the initiative ("Synthetic Colorado")

* Focus on (1) here but all produce similar results
The CFPI And LARC Use Among Teens

Primary Form of Contraceptive Used By Teens Visiting Title X Clinics in Colorado

Note: Calculations based on data provided by the Colorado Department of Public Health and Environment.
The CFPI and LARC Use Among Teens

LARC Use Among Teens Visiting Title X Clinics
Colorado Versus United States Overall

Note: Calculations based on data provided by the Colorado Department of Public Health and Environment.
The CFPI and LARC Use Among Teens

LARC Use Among Teens Visiting Title X Clinics, 2013

Source: Title X Family Planning Annual Report, United States 2013.
Counties with Title X Clinics
Teen Birth Rates (Per 1,000 females aged 15–19)

Note: Calculations based on birth records provided by the National Center for Health Statistics.
Teen Birth Rates (Per 1,000 females aged 15–19)

Statistical adjustments for differences in trends, demographics, economic conditions, and other relevant policies

CFPI reduced teen birth rates by 5.6% over four years

Especially pronounced effects on counties with poverty rates above the Colorado median

Back of the envelope calculation based on these estimates: the initiative prevented 1,050 teen births that would have been conceived between 2009 and 2012
Expanding access to LARCs can lead to large reductions in teen birth rates.

These numbers give us a sense of how much in this case.
Can these impacts be replicated?

Though the ACA improved access to contraceptives, publicly funded clinics remain important to teens who are afraid to use their parents’ health insurance to obtain contraceptives, those who are uninsured, and those on grandfathered plans.

The number of people still using these clinics highlights their continued importance.

But we should expect the effects to vary depending on pre-existing LARC usage and on the demand for LARCs.

Can now be done at significantly lower cost because of Liletta.
The research discussed in this talk is available at:
http://econweb.tamu.edu/jlindo/LARC-Colorado.pdf