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Prevalence of Adolescent Sexual Health Outcomes at Children's Hospitals During COVID-19

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Prevalence of Adolescent Sexual Health Outcomes at Children's Hospitals during COVID-19

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Disclosures

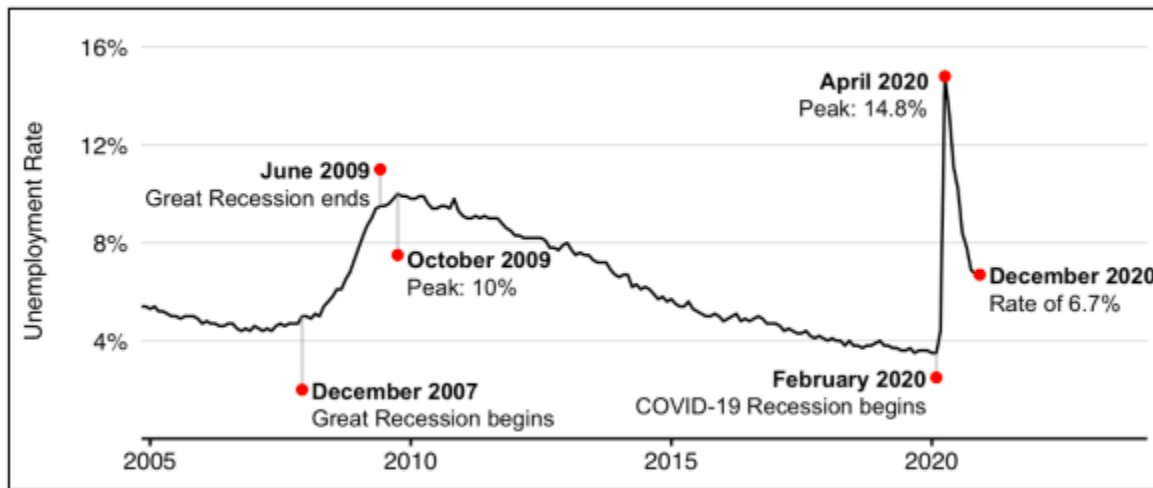
All authors have no financial relationships or conflicts of interest to disclose.

Background

COVID mitigation strategies may impact teen sexual health behaviors

Figure 2. U.S. Unemployment Rate

Seasonally adjusted monthly data from November 2004 to December 2020

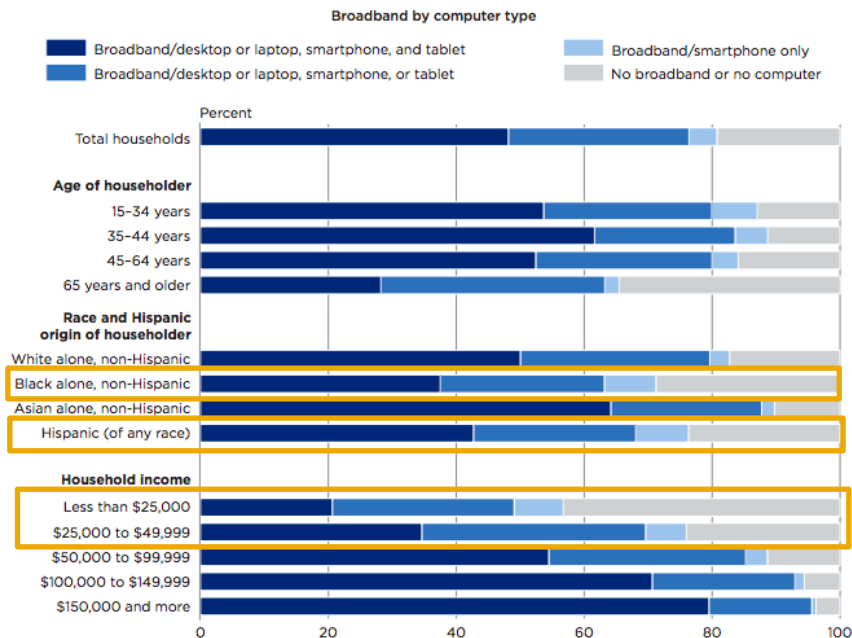


Source: Created by CRS using data from the Bureau of Labor Statistics (BLS).

Background

Telehealth may fail to meet healthcare needs of adolescents

Figure 4.
Percentage of Households by Broadband Internet Subscription and Computer Type: 2016



Note: For more information, visit <www.census.gov/acs>.
Source: U.S. Census Bureau, 2016 American Community Survey, 1-Year Estimates.

Background

What's going on at baseline?

- 1 in 4 adolescent females positive for STIs annually
- 90% of teen pregnancies are unintended
 - More perinatal complications, lower educational attainment
- 1 in 3 adolescents have no PCPs, rely on EDs

Study Objectives

- To assess changes in rates of adolescent health behavior outcomes, in the hospital setting during the COVID pandemic, including:
 - Sexually transmitted infections, or STIs
 - Pregnancy
 - Sexual Assault

Methods

Study Design:

- Retrospective cohort study
- Pediatric Health Information System (PHIS) database
- 2017-2019 (pre- COVID) and 2020 (during COVID)

Methods

Study Period Definitions:

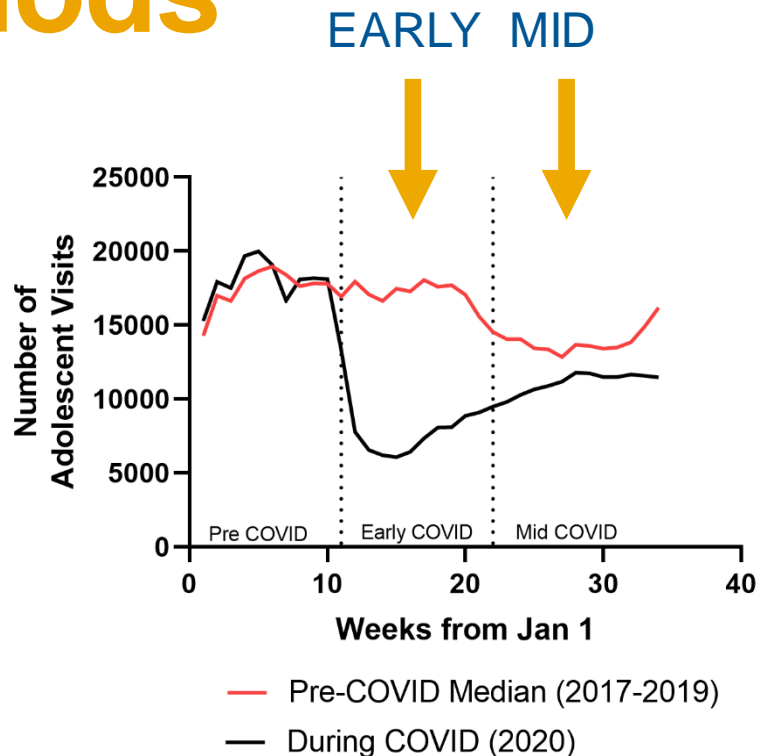
Compare 2020 data to 2017-2019 data

Early COVID:

- March 15th to May 31st

Mid COVID:

- June 1st to August 31st



Methods

Inclusion Criteria:

- 11-18 years
- Inpatient/observation stay and ED visits at PHIS hospital

Exclusion Criteria:

- Males from pregnancy outcome
- Subsequent encounters for the same pregnancy

Methods

Primary Outcome:

- Proportion of hospital visits with ICD-10 diagnoses of:
 - Sexually Transmitted Infections
 - Pregnancy
 - Sexual assault
- Compare proportion of visits pre- and during COVID

Methods

Patient Characteristics

- Age
- Sex
- Race/ethnicity
- Clinical Setting (ED vs IP/Obs)
- Payer type
- Median annual household income quartile
- Region setting (urban vs rural)

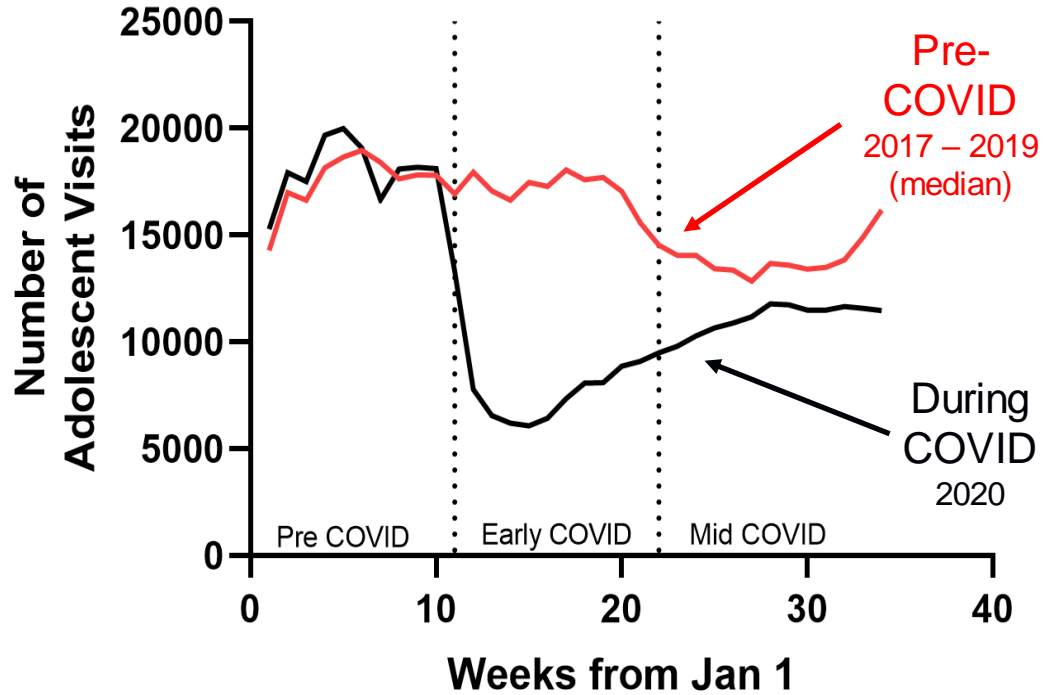
Analysis

- Descriptive statistics
- Chi-square analysis
- General linear mixed model
 - Models adjusted for demographic variables

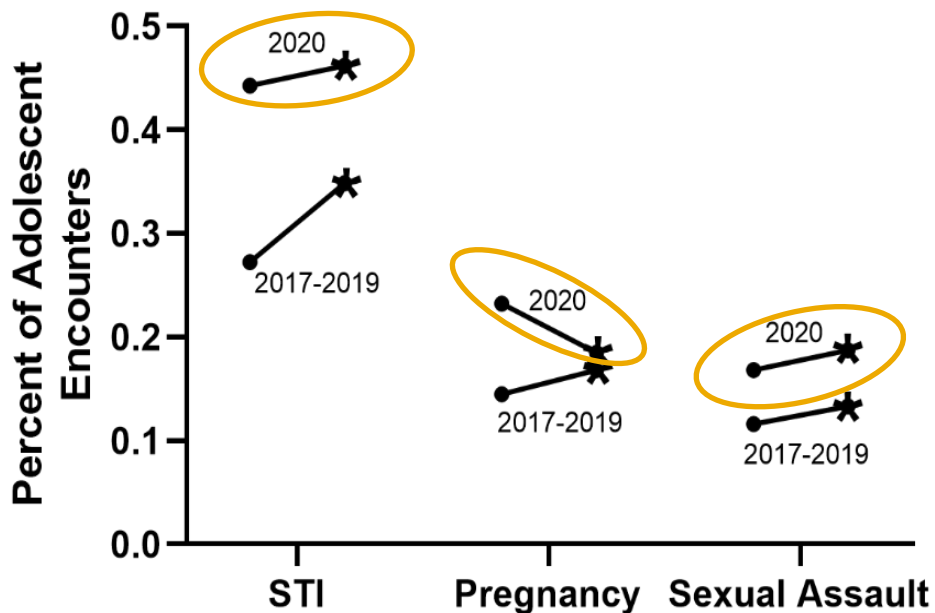
Results

Major volume decreases overall:

- 55% early,
- 21% mid



Overall Changes in Encounter Percentage in Early and Mid COVID



● Mar 14-May 31 * Jun 1-Aug 31
Early Mid

Adjusted Odds Ratio for all Outcomes

	Early COVID: March 15-May 31		Mid COVID: Jun 1 - Aug 31	
	aOdds Ratio (95% CI)	p	aOdds Ratio (95% CI)	p
STIs	1.5 (1.3, 1.6)	<.001	1.3 (1.1, 1.4)	<.001
Pregnancy	1.4 (1.1, 1.7)	<.001	1 (0.8, 1.2)	0.835
Sexual Assault	1.6 (1.3, 2)	<.001	1.4 (1.1, 1.9)	0.012

Conclusions

Reasons for increased visits for SRH needs:

- Healthcare access changes
- Limited access to schools
- Changes in the home
 - Overall increase in domestic violence

Limitations

- Administrative data:
 - Accuracy
 - Limited clinical and health outcome information
- Limited to PHIS hospitals (urban setting, less generalizable)
- Decreased overall volumes may impact relative proportions

Future Directions

Improving SRH access during a pandemic:

- School based interventions
 - Education on consent and safe sex practices
- Healthcare based interventions
 - Optimizing telehealth for teens
 - Prioritizing SRH needs

Further areas of investigation

Questions?

Thank you!

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	Early COVID: March 15-May 31		Middle COVID: Jun 1 - Aug 31	
	Percent Change in Medians (95% CI)	p	Percent Change in Medians (95% CI)	p
Pregnancy	-7.4 (-31.5, 16.6)	0.538	0 (-24.4, 24.4)	1.000
STI	-24.8 (-38.6, -10.9)	0.001	10.7 (0.5, 20.9)	0.040
Sexual Assault	-16.3 (-39.4, 6.7)	0.161	26.1 (3.8, 48.4)	0.023