

# COVID-19 Pandemic

## Identifying Gaps in Care

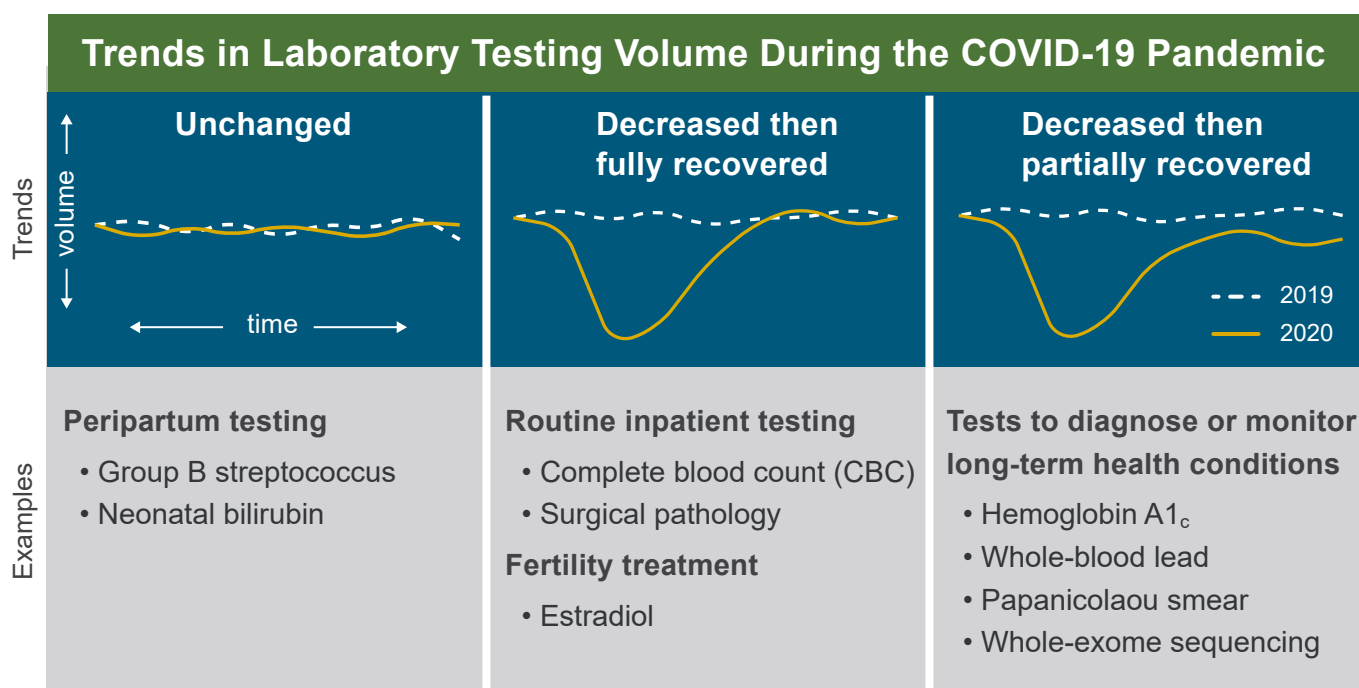
**?** How has laboratory testing changed during the COVID-19 pandemic?

### Background

The COVID-19 pandemic disrupted healthcare services, including laboratory testing. Understanding how laboratory testing changed during the pandemic can help identify where laboratory stewardship programs are needed to help avoid adverse health outcomes.

### Study Design and Findings

Laboratory testing volumes from a large metropolitan health system (Texas Children's Health System) before the COVID-19 pandemic were compared to those during the pandemic.



Figures shown are representative.

**→** Volumes of tests used to detect and monitor long-term health conditions were persistently decreased, even after reopening. Coordinated health system responses are needed to address these gaps.

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## Identifying Gaps in Care

### Article Title: Changes in Test Volumes During Coronavirus Disease 2019 (COVID-19): a Laboratory Stewardship Opportunity

Ila R Singh,<sup>1</sup> Michael Dowlin,<sup>1</sup> Thomas H Chong,<sup>1</sup> Jon M Nakamoto,<sup>2</sup> Lee H Hilborne<sup>3,4</sup>

<sup>1</sup>Baylor College of Medicine, Texas Children's Hospital, Houston, TX; <sup>2</sup>Amazon.com, Inc, Seattle, WA; <sup>3</sup>David Geffen School of Medicine at UCLA, Los Angeles, CA; <sup>4</sup>Quest Diagnostics, Secaucus, NJ

Citation: Sing IR, Dowlin M, Chong TH, et al. *Arch Pathol Lab Med*. Published March 25, 2021. doi:[10.5858/arpa.2021-0058-SA](https://doi.org/10.5858/arpa.2021-0058-SA)

### Background

- During the COVID-19 pandemic, the delivery and use of healthcare in the United States changed according to shifting public health priorities.<sup>1,2</sup>
- Understanding how laboratory testing changed during the pandemic can help identify where laboratory stewardship programs are needed to help avoid adverse health outcomes.
- **Objective:** In the study, investigators measured laboratory test volumes from a metropolitan health system before and during the COVID-19 pandemic to identify possible persisting gaps in care.

### Methods

- Investigators examined laboratory test volumes from the Texas Children's Health System (TCHS) before (January-August 2019) and during (January-August 2020) the COVID-19 pandemic.
  - TCHS provides care to women and children in Houston, TX; 61% are people of color and 50% are insured by Medicaid and other public health programs.
- The study included volumes for commonly ordered tests used for disease diagnosis, screening, and monitoring, as well as for whole-exome sequencing (WES)—a low-volume service for detecting genetic conditions.

### Results

- During the COVID-19 pandemic, laboratory testing at TCHS demonstrated 3 general patterns that reflected different aspects of healthcare:
  - No change, reflecting consistent birth counts between the study periods
    - Peripartum tests (eg, group B streptococcus, neonatal bilirubin): no change from pre-pandemic levels
  - Initial decrease followed by full or near-full recovery during phased reopening, reflecting inpatient patterns
    - Complete blood count: declined 34% during lockdown; mostly recovered to pre-pandemic levels within 4 months of phased reopening
    - Estradiol: fell markedly; returned rapidly to pre-pandemic levels
  - Initial decrease without full recovery (low levels in April remained low 4 months after reopening), reflecting diagnosis and monitoring of chronic conditions
    - HbA1c: declined 80% in April; remained 16% below 2019 levels
    - Blood lead: declined 39% in April; remained 23% below 2019 levels
    - Pap smears: declined 77% in April; remained 29% below 2019 levels
    - WES: declined 45%; remained low

### Conclusions

- The COVID-19 pandemic substantially affected the delivery of healthcare to the TCHS patient population, which may reflect trends across underserved populations.
- The impact was most prominent in the diagnosis and monitoring of chronic health conditions.
- Coordinated and collaborative laboratory stewardship programs focused on gaps caused by the pandemic may help provide appropriate, effective, and equitable care.

### References

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2. Blue Cross Blue Shield. Missing vaccinations during COVID-19 puts our children & communities at risk. November 18, 2020. <https://www.bcbs.com/the-health-of-america/infographics/missing-vaccinations-during-covid-19-puts-our-children-and-communities-at-risk>

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