The National Hospital Care Survey (NHCS)
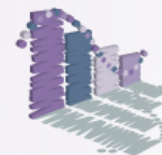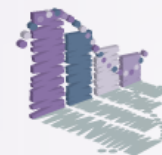
July 15, 2020

Webinar Essentials

- To preserve confidentiality of hospitals in the sample, please use your first name only when identifying yourself in the webinar discussion today.

- When you are not speaking, please mute your phone to keep background noise to a minimum.

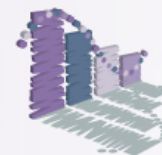**National Hospital Care Survey**

Speakers

- **Jennifer Madans, PhD**
  Acting Deputy Director,
  National Center for Health Statistics (NCHS)

- **Geoff Jackson, MS**
  Team Leader, Hospital Care Team, NCHS
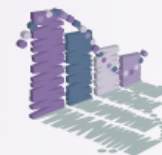
National Hospital Care Survey

Webinar Overview

1. Welcome to the National Center for Health Statistics and the National Hospital Care Survey

2. Design of NHCS

3. Uniqueness of NHCS

4. Examples of Data Uses

5. Participation Benefits
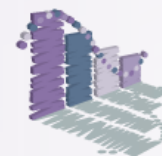
6. Steps to Participate

7. Question & Answer

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Welcome to the National Center for Health Statistics and the National Hospital Care Survey
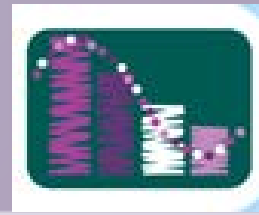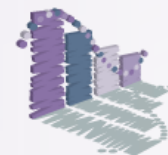
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NCHS Background

- NCHS is one of the principal federal statistical agencies and is organizationally located in the Centers for Disease Control and Prevention (CDC).

- NCHS monitors the health of the Nation and of subgroups by providing data on:
  - The delivery and utilization of health care;
  - Health status, behaviors and risk factors; and
  - Vital events.

- NCHS is responsible for the collection of data from a range of health care settings, including ambulatory, hospital-based, and long-term care.

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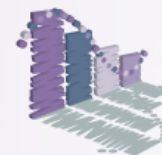
National Health Care Surveys

- NCHS has collected provider-based information since 1965.
- National Health Care Surveys are nationally representative, provider-based surveys that cover a broad spectrum of health care settings (e.g., home health care agencies, inpatient hospital units, or physician offices).
  - National Ambulatory Medical Care Survey (NAMCS)
  - National Hospital Ambulatory Med Care Survey (NHAMCS)
  - **National Hospital Care Survey (NHCS)**
  - National Post-Acute and Long-Term Care Study (NPALS)
- NHCS is pioneering NCHS' move to an electronic collection of utilization data.
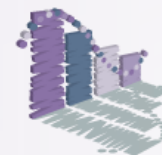
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NHCS - Goal and Objectives

- **Goal:**

  – Provide reliable and timely healthcare utilization data for hospital-based settings.

- **Objectives:**

  – Provide national data for benchmarking.

  – Link episodes of care across hospital units as well as link to other data sources, such as the National Death Index (NDI) and Centers for Medicare & Medicaid Services (CMS) Master Beneficiary Summary File.
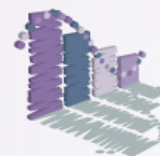
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Potential Data Uses

- NHCS allows for the study of hospitalizations and ED visits due to:
  - common medical issues like asthma, pneumonia, and strokes;
  - injuries, both intentional and accidental;
  - rare medical conditions such as traumatic brain injury;
  - rare treatments, medications, and procedures; and
  - opioid-involved and COVID-19 related visits and mortality.

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Why Participate?

- Inform health policy and practice
  - Without your participation, there can be no nationally representative datasets.
  - The Nation's ability to address public health crises will be diminished unless we build the best data collection system now.
- If NHCS was fully operational now it would be producing:
  - Inpatient stays and ED visits related to substance and opioid use and COVID-19, including rates, procedures performed, medications provided and services used;
  - Inpatient stays and ED visits and characteristics of stays/visits unrelated to COVID-19 during the emergency; and
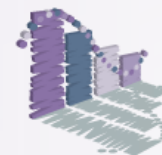 - Post-acute mortality for patients who visited the hospitals in the sample for any condition.

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Privacy and Confidentiality

- NCHS and its agents are required by law to keep all data regarding patients and facilities strictly confidential[1] and to use these data only for research and statistical purposes[2].

- Willful unauthorized disclosure of confidential information is punishable as a Class E felony with fines of up to $250,000 and 5 years imprisonment, or both.

- Under HIPAA's Privacy Rule, disclosure of protected health information without patient authorization is allowed for public health purposes.

- The NCHS Ethics Review Board and the U.S. Office of Management and Budget have approved this data effort.

[1] Section 308(d) of the **Public Health Service Act** [42 United States Code 242m(d)]

[2] Section 302 of the **Confidential Information Protection and Statistical Efficiency Act** (Pub. L. No. 115-435, 132 Stat. 5529 §302)

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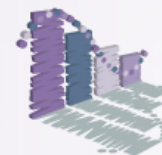
Data Protections

- ## Controlled Access

Direct personal identifiers are removed from patient files and stored in a separate, secure location. Access is restricted to a 'need to know' basis to designated staff.
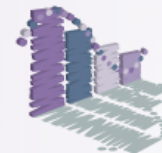
- ## Secure Transmission

Data are transmitted to NCHS and its contractors by secure data transmission. No data are transmitted unless encrypted and, once received, are housed on a server with restricted access.

- ## Patient Privacy

The identity of specific hospitals or individual patients will not be released in any manner except to NCHS staff, contractors, and agents—only when required to complete assigned tasks and with necessary access controls. There will be no contact with patients.

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Design of NHCS

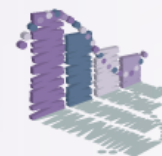National Hospital
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NHCS- Sample Design and Data Coverage

- **Sample Design:**
  - Hospitals are randomly selected and each hospital selected for the survey uniquely represents facilities of similar size, service type, and/or geographic location and cannot be replaced.
  - The 2020 NHCS sample consists of **608** non-institutional, non-federal hospitals with six or more staffed inpatient beds.
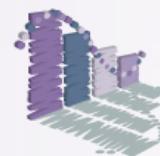 - Participation is voluntary and there is no penalty for not participating.

- **Data coverage:**
  - <u>All</u> inpatient discharges and emergency department (ED) visits for up to a 12-month period.
  - Includes patient personally identifiable information (PII) so patient as well as encounter level counts can be determined.

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NHCS - Data Sources

- Electronic Health Records (EHRs)
  - For the 2020 NHCS, hospitals submitting EHR data to participate will need to transmit data using the format of the HL7 CDA® R2 Implementation Guide (IG): National Health Care Surveys, STU Release 1.2 – US Realm
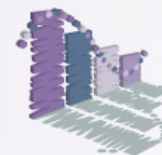
- UB-04 administrative claims
- State files
- Vizient

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NHCS - Data Elements Collected
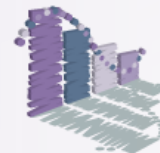
UB-04:

- Patient PII
- Demographic information
- Encounter dates
- Diagnoses and procedures
- Revenue codes

EHR:

- Patient PII
- Demographic information
- Encounter dates
- Diagnoses and procedures
- Procedure outcomes
- Lab tests and results
- Medications
- Vital signs
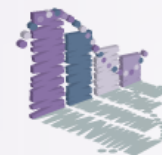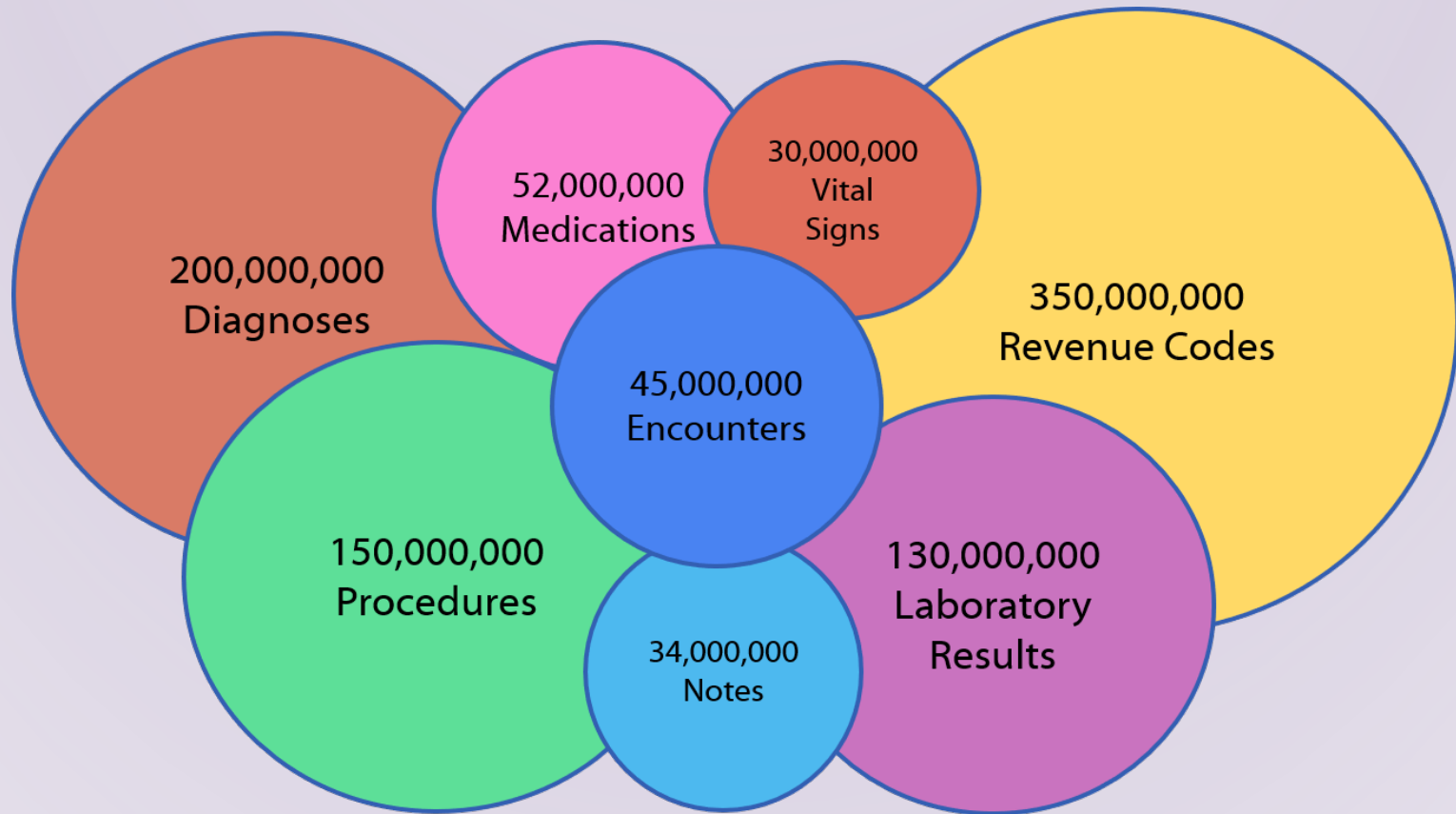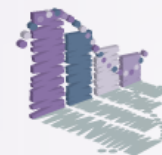- Clinical notes (for ED visits only)

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Uniqueness of NHCS

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Large Volume of Data

2016 NHCS Data Collection

200,000,000 Diagnoses

52,000,000 Medications

30,000,000 Vital Signs

350,000,000 Revenue Codes

45,000,000 Encounters

150,000,000 Procedures

34,000,000 Notes

130,000,000 Laboratory Results

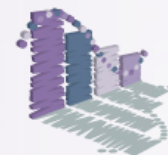**National Hospital Care Survey**

Data Linkage

- The records are at the encounter-level and contain patient PII.

- The inclusion of patient PII allows users to:
  - Follow episodes of care across hospital settings;
  - Measure repeat visits; and
  - Link to external data sources, such as NDI.

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NHCS Demonstration Papers and Presentations

- **Mortality for Women Within One Year After Delivery in the National Hospital Care Survey, 2016**
  - Link: https://www.cdc.gov/nchs/data/nhcs/mortality_women-508.pdf

- **Insurance and Maternal Health in the National Hospital Care Survey, 2016**
  - Link: https://www.cdc.gov/nchs/data/nhcs/maternal_poster-508.pdf

- **National Hospital Care Survey Demonstration Projects: Stroke Inpatient Hospitalizations, 2014**
  - Link: https://www.cdc.gov/nchs/data/nhsr/NHSR132-508.pdf

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Examples of Data Uses

Unweighted data; not nationally representative
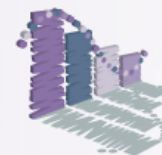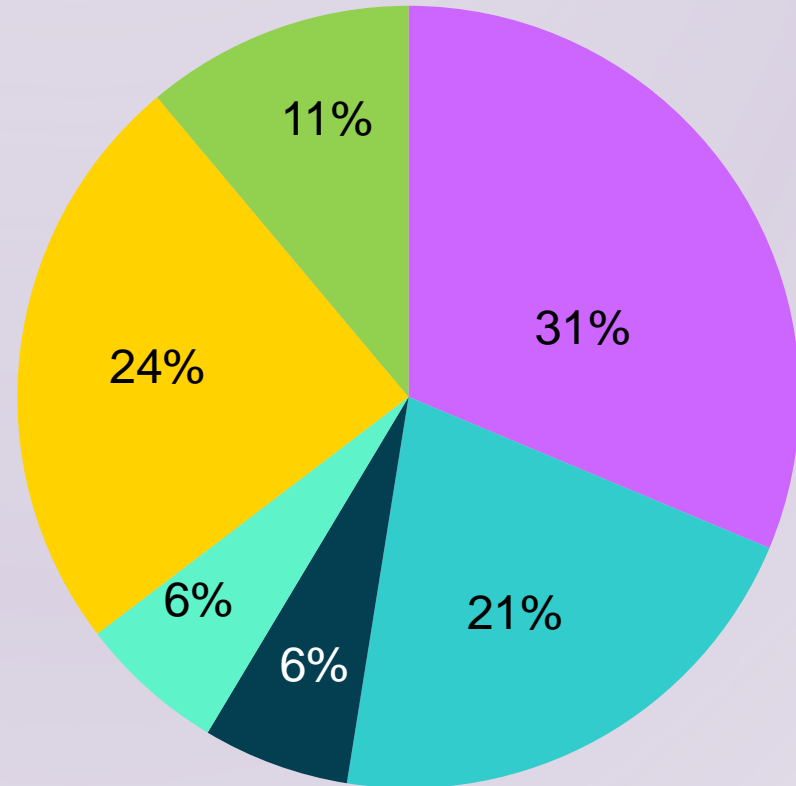
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Figure 1. Percentage of Deaths within one year of Delivery, by Cause of Death

Legend:
- ■ Complication of pregnancy, birth, and puerperium
- ■ Accidental poisoning and exposure to noxious substances
- ■ Major cardiovascular disease
- ■ Motor vehicle accidents
- ■ All other diseases
- ■ Unknown

Pie chart values:
- 31%
- 21%
- 6%
- 6%
- 24%
- 11%

NOTE: Deaths, n= 109. Data are not nationally representative.
SOURCE: NCHS, National Hospital Care Survey, 2016 linked to the National Death Index, 2016 and 2017. Complete poster can be accessed at:
https://www.cdc.gov/nchs/data/nhcs/mortality_women-508.pdf.
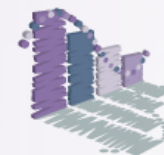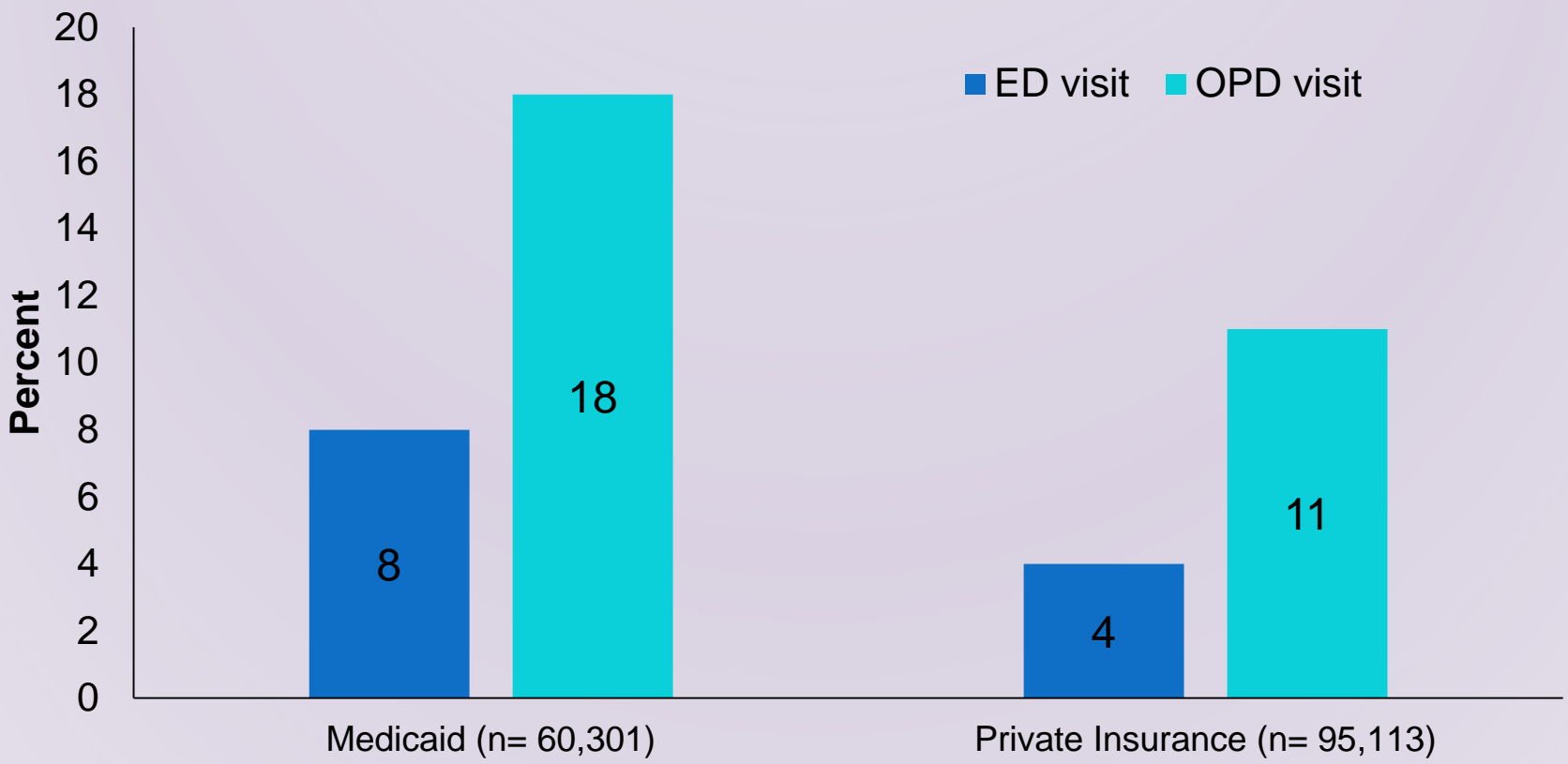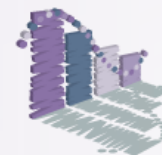
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Figure 2. Percent distribution of Medicaid and private insurance patients who visited the ED or OPD within 90 days post-delivery

NOTE: Data are not nationally representative.
SOURCE: NCHS, National Hospital Care Survey, 2016. Complete poster can be accessed at:
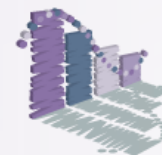https://www.cdc.gov/nchs/data/nhcs/maternal_poster-508.pdf.

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Participation Benefits
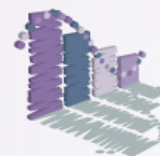
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Participation Benefits

- Improve quality of health care and other health benchmarks
- Promoting Interoperability (formerly MU) credit
- Community Health Benefit
- Continuing Education Units credits
- Access to NCHS-created reports and analytic papers
- Payment of $500 for a test file and $500 for 12 months of data
- Access to your data via the Hospital Data Reporting Portal

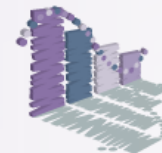**National Hospital Care Survey**

NHCS Data Portal

- A beta version of the Annual Hospital Report portal is now available.

  – https://www.cdc.gov/nchs/nhcs/annual_hosp_report_portal.htm

- We will hold a demonstration webinar in late August.

  – Please stay tuned for details later this summer.

- The portal will allow hospitals access to their own data and aggregate 30-,60-, and 90-day mortality data.

- We would like to hear from hospitals on what is of interest to them in order to prioritize the functionality of the portal.
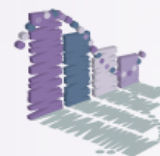
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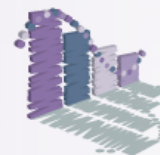
Steps to Participate

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Steps to Participate

1) Brief interview to determine eligibility

2) Electronic submission of data (EHR, claims, etc.)

– When you agree to participate, login credentials will be provided to you to facilitate submitting your data to the secure network.

3) Annual hospital questionnaire

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Questions?

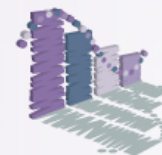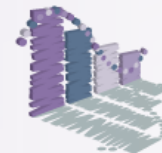**https://www.cdc.gov/nchs/nhcs/index.htm**

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THANK YOU!

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