HOUSTON HEALTH DEPARTMENT

Houston Health Department

2023-2024 Weekly Influenza Report Syndromic Surveillance

MMWR Week 2024 10 (ending 03/09/2024)

Key Highlights:

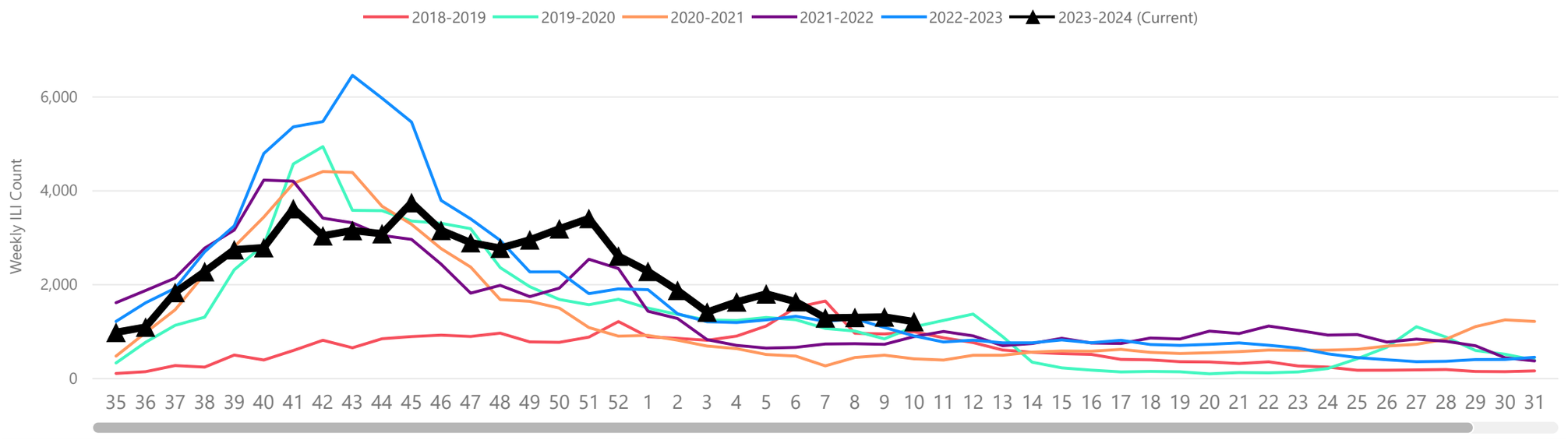
Historically, the influenza season begins around the first of October, usually MMWR Week 40. Last season (2022-2023), HHD observed an uptick in influenza prior to Week 40. Because of this slight change in timeline from the traditional influenza season, all figures in this report currently begin on Week 35. There is a 7 day lag for state and national values reported. Last 5 weeks of syndromic data are subject to change.

Figures begin on page 3 of this report. *Please note that wastewater was not sampled for 2024 Week 3 due to weather events.*

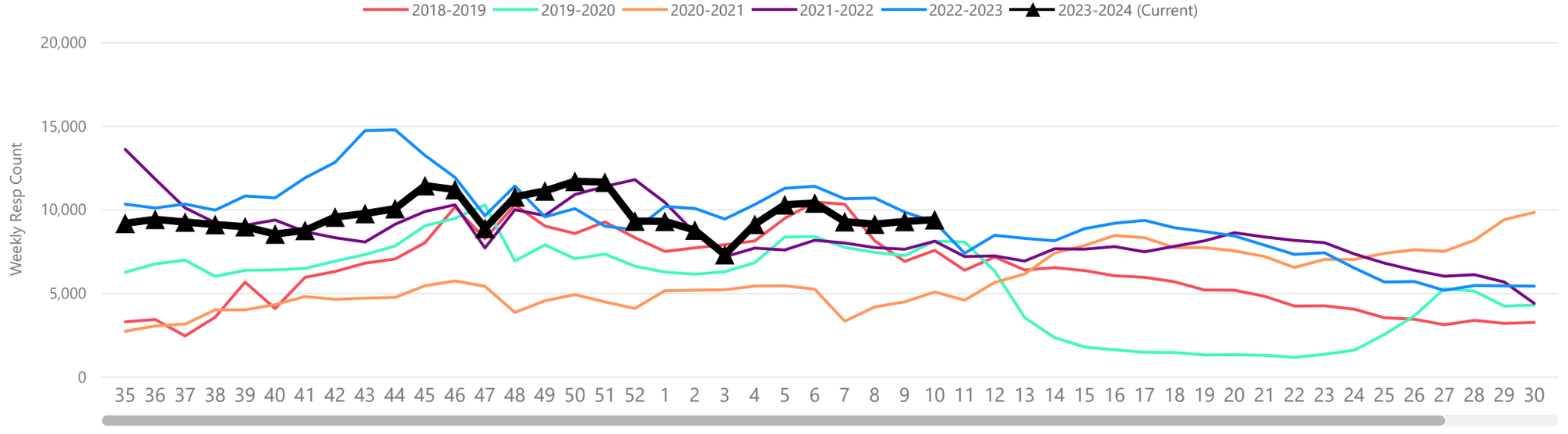
- ILI & Resp Syndrome Historical (COH), page 3: The **weekly ILI syndrome count is slightly down from the previous week and overall trend has been decreasing the past few weeks.** The weekly Resp syndrome count is slightly up from last week, consistent with previous seasons for the timeframe.
- Respiratory Diagnoses Historical (COH), page 4: The **weekly flu diagnosis count is slightly down from last week** and **has been decreasing the past several weeks**. The **weekly RSV diagnosis count is slightly up from/consistent with previous week and trending downward for the past few months/leveling out the past few weeks**. The **weekly COVID-19 diagnosis count is down from the previous week**, similar to trends and counts seen in previous seasons for this timeframe.
- Current Respiratory Diagnoses with Wastewater data, page 5: the **weekly influenza diagnosis count and the wastewater level are down from the previous week. The RSV diagnosis count is slightly up from/consistent with, while the wastewater level is down from the previous week.** The COVID-19 diagnosis count and the wastewater level are down from the previous week.
- Current Flu Season with Texas and National trends, pages 6: Both national and Texas counts of positive influenza tests by clinical laboratories and ILINet % of visits for ILI are potentially leveling out/trending down after weeks of increasing trends.
- Demographics of Flu Diagnoses for COH (past 5 weeks), page 7: a **majority of the current seasons flu diagnoses in the past 5 weeks** in COH are **children ages 5 to 17 and this age group and children under 5 age group have the highest ILI visit percentages**. **Males and females** make up close to equal proportions of flu diagnoses, with males having a slightly higher % ILI visits. **Hispanic followed by NH White and NH Black** make up a majority of flu diagnoses for the past 5 weeks. The highest ILI visit percentage is seen in NH Asian (also see an increase from previous week), followed by Hispanic and NH Black.
- Page 8 & 9 are the same figures shown in pages 3 and 4, except the display trends for the whole PH6/5S region, which currently mirror the trends of COH.

ILI & Resp Syndrome during Flu Season: 2023-2024 and previous 5 years

Weekly ILI Syndrome Count



Weekly Resp Syndrome Count



Select Region

COH ZIP | **PH6/5S**

The syndromic surveillance system ESSENCE (Electric Surveillance System for the Early Notification of Community-based Epidemics) assigns incoming records to preset syndrome groups.

A syndrome group is a set of associated symptoms, conditions, and/or diagnoses. ESSENCE searches chief complaint and discharge diagnosis fields for keywords and ICD codes to determine if a record fits into one or more of the pre-defined syndrome groups.

Figures to the left display counts of the ILI and Resp syndromes in ESSENCE.

The Influnza-like Illness (ILI) syndrome includes terms and their associated keywords such as "Flu", "Influenza", "H1N1", and for symptoms including "Fever" and "Cough" or "Sore Throat", while discounting non-ILI fevers (e.g., Rocky Mountain, Dengue).

The Respiratory (Resp) syndrome includes terms and their associated keywords such as "Acute Bronchitis", "Chest Congestion", "Cough", "Shortness of Breath", "Acute Respiratory Distress".

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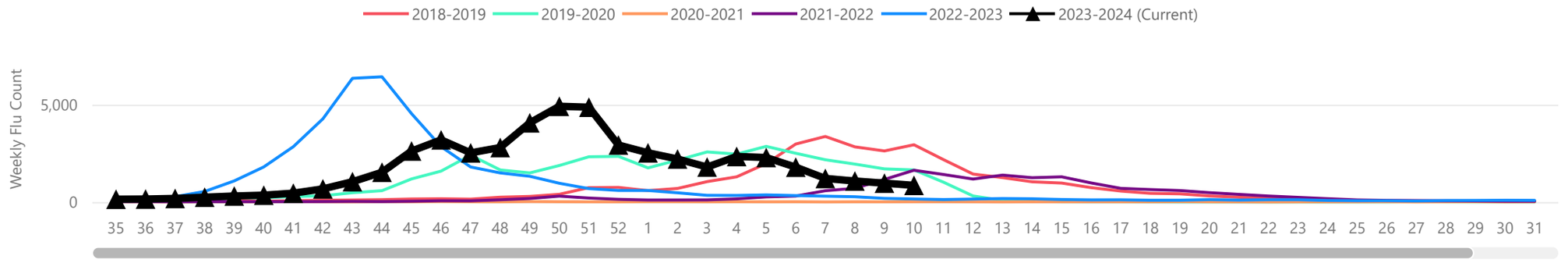
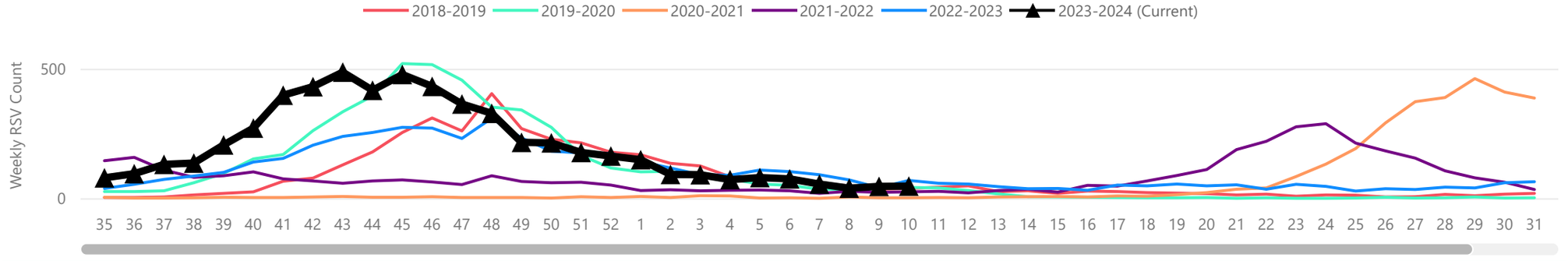
Respiratory Diagnosis during Flu Season: 2023-2024 and previous 5 years

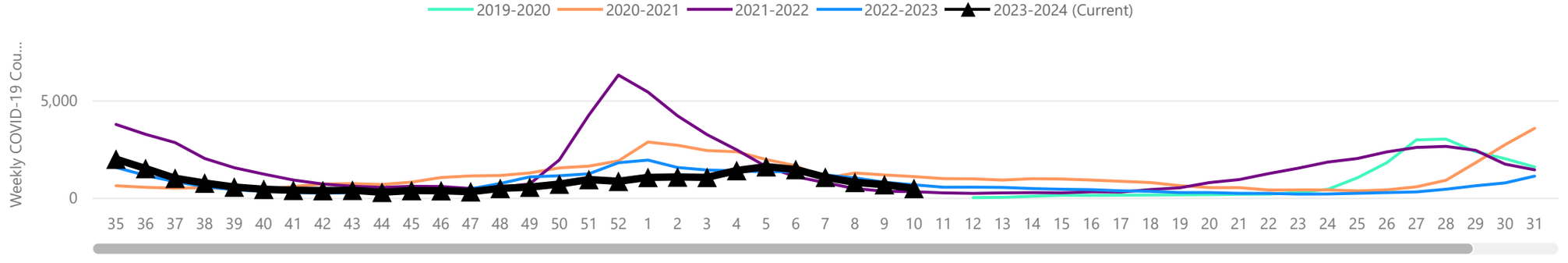
Weekly Flu Diagnosis Count



Weekly RSV Diagnosis Count



Weekly COVID-19 Diagnosis Count



Select Region

COH ZIP | PH6/5S

The **discharge diagnosis field** in an ESSENCE record contains ICD codes given by the provider/facility.

Figures to the left display counts of the ICD10 codes found in the discharge diagnosis field for influenza (flu), respiratory syncytial virus (RSV), or coronavirus disease 2019 (COVID).

2023-2024 Flu Season (Current) Respiratory Diagnosis Counts:

50,121
Flu Diagnoses

5,769
RSV Diagnoses

22,676
COVID-19 Diagnoses

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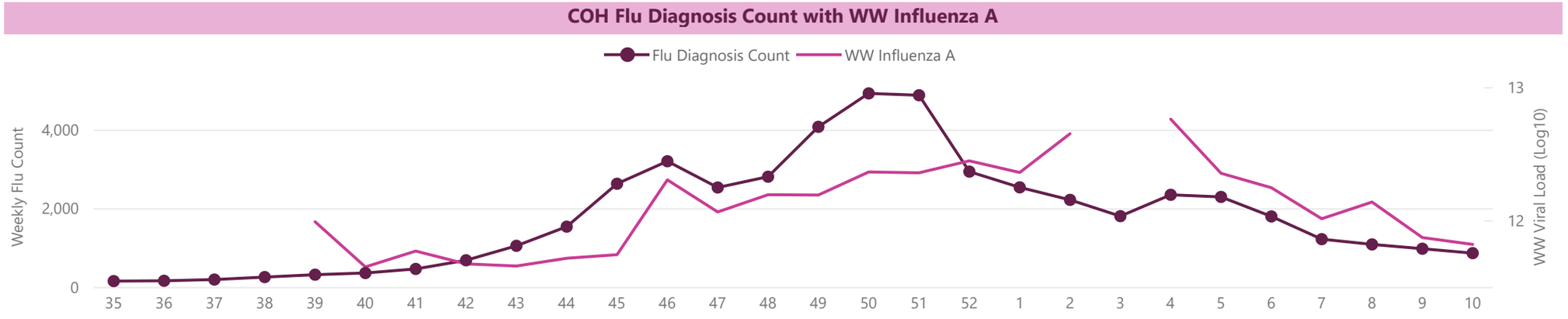
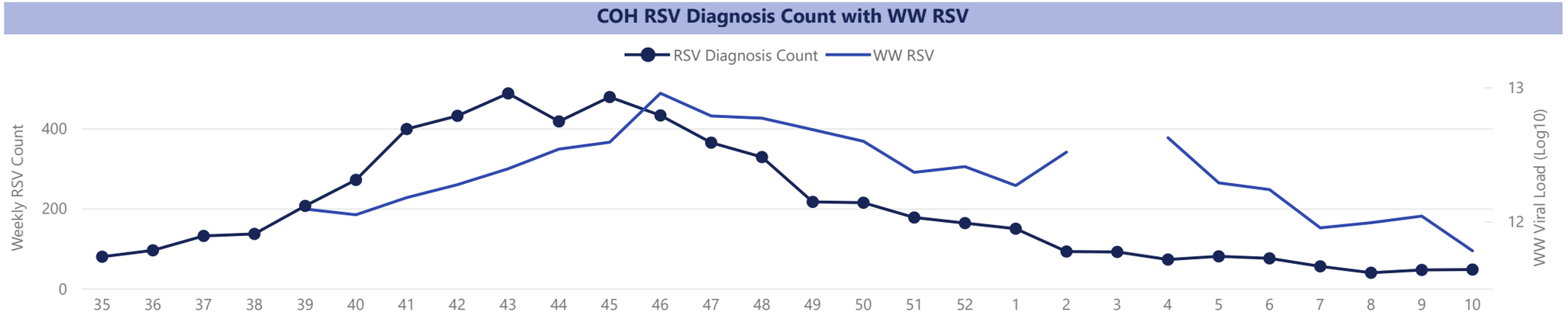
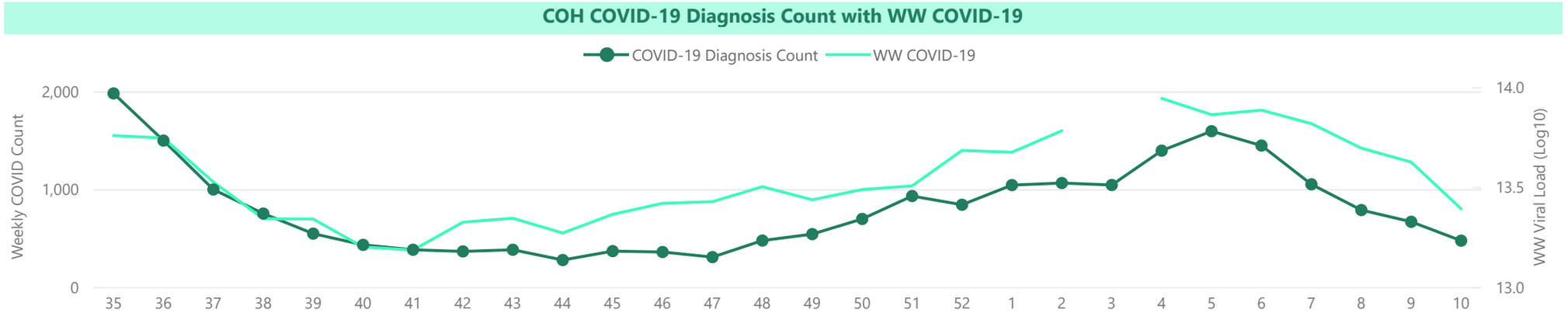
Respiratory Diagnoses (Flu, RSV, COVID) Weekly Counts with Wastewater Trends for Current 2023-2024 Flu Season







COVID-19 in wastewater (WW) is consistently tested on a weekly basis. Testing for Influenza A and RSV in wastewater resumed on a weekly basis on 9/25/2023 (MMWR Week 2023-39).

There was no WW sampling 2024-03 due to cold weather events.

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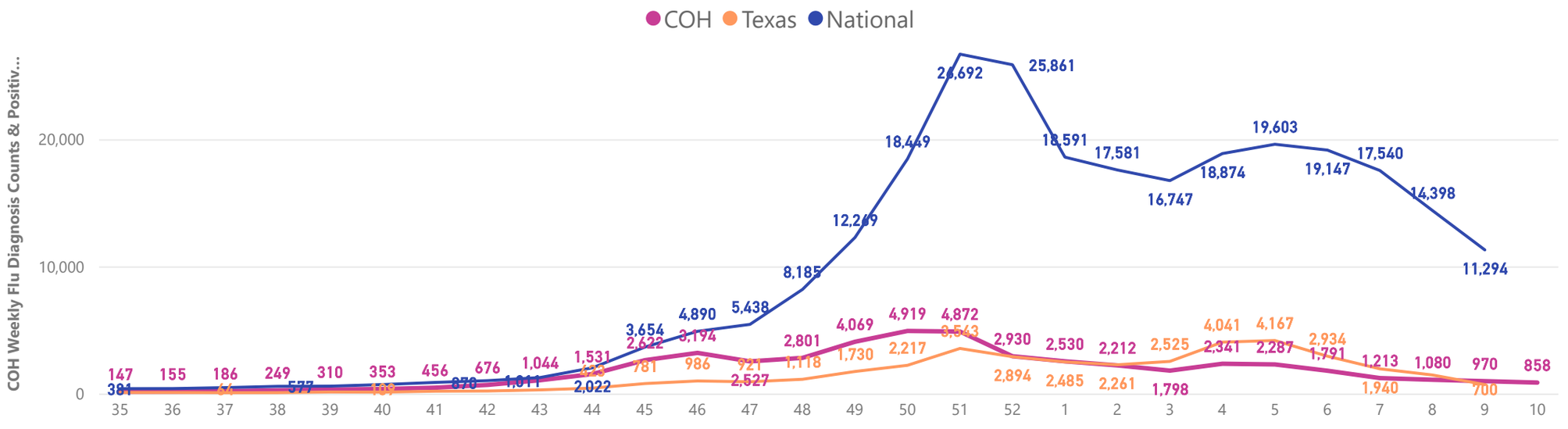
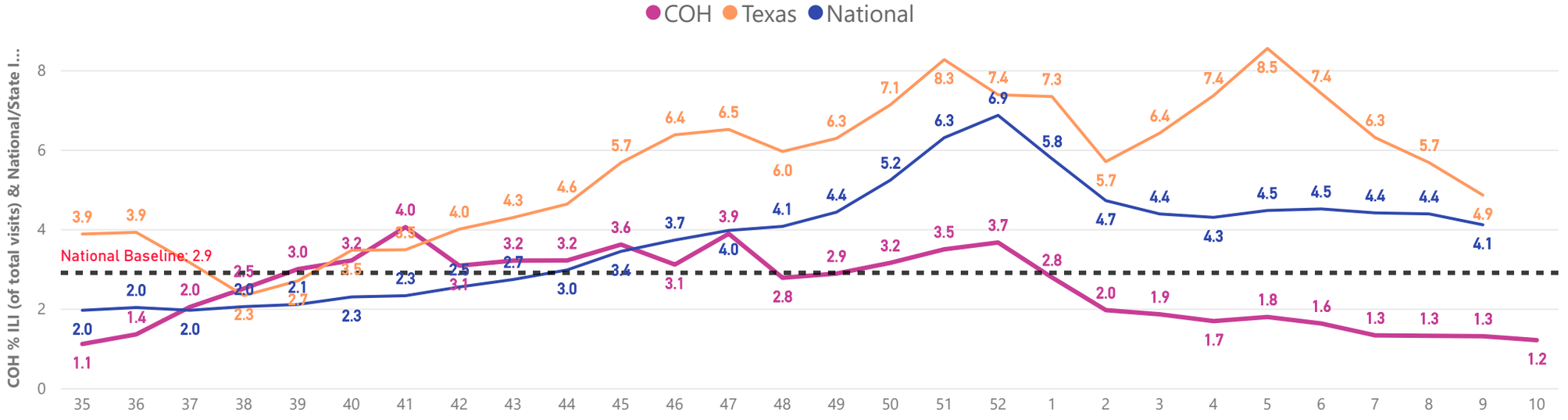
COH Flu Diagnosis Weekly Counts & Percentage of Visits with National and Texas Flu Trends for Current 2023-2024 Flu Season

COH Flu Diagnosis Counts with Texas and National Positive Flu Tests



Note on top figure: this figure is for comparison of general trends only. National and Texas weekly values (influenza positive tests reported to CDC by clinical laboratories) are sourced from CDC's FluView and are displayed with weekly syndromic flu diagnosis counts for the COH 126 ZIP codes.

COH, Texas and National Percentage of Visits for ILI



Note on bottom figure: this figure is for comparison of general trends only. National and Texas weekly values (percentage of visits for ILI) are sourced ILINet via CDC's FluView and are displayed with weekly percent ILI (out of total visits) from ESSENCE for the COH 126 ZIP codes.

The dashed line on figure corresponds to the 2023-2024 national baseline value.

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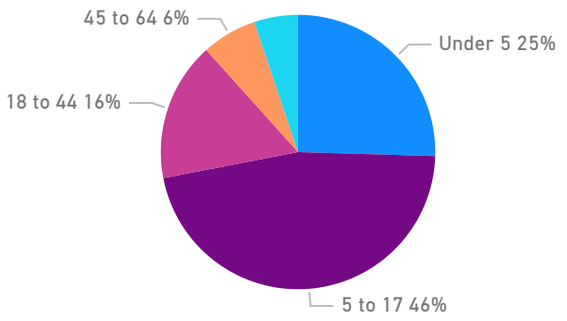
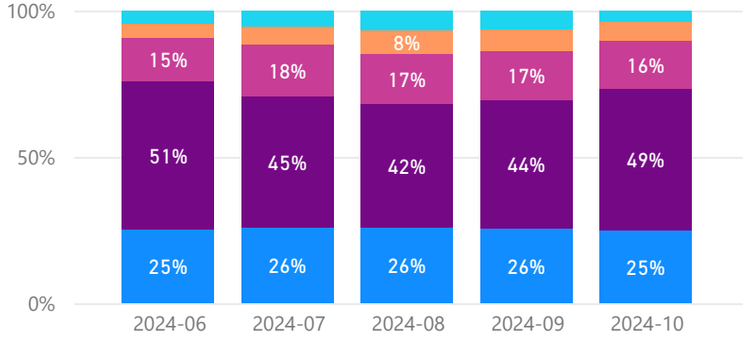
Demographics of Flu Diagnoses for 2023-2024 Flu Season (Last 5 weeks, COH 126 ZIP Codes)

Last 5 Weeks: Flu Diagnosis Count
5,819

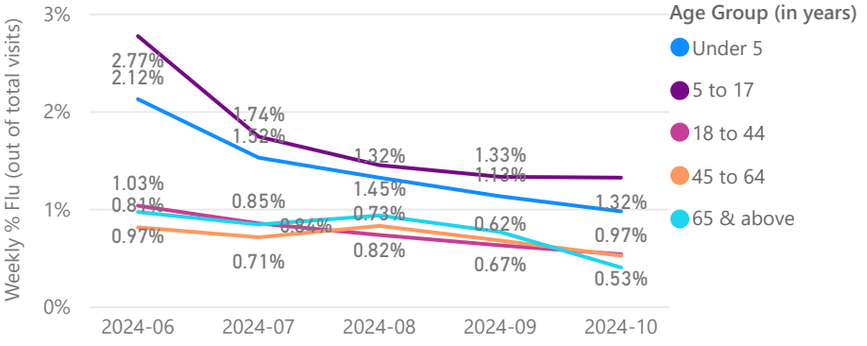
AGE GROUP: % Distribution for Current Season



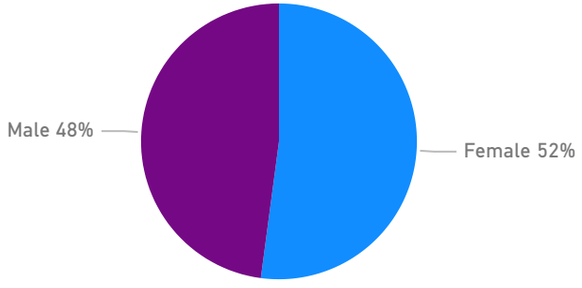
AGE GROUP: % Distribution by Week



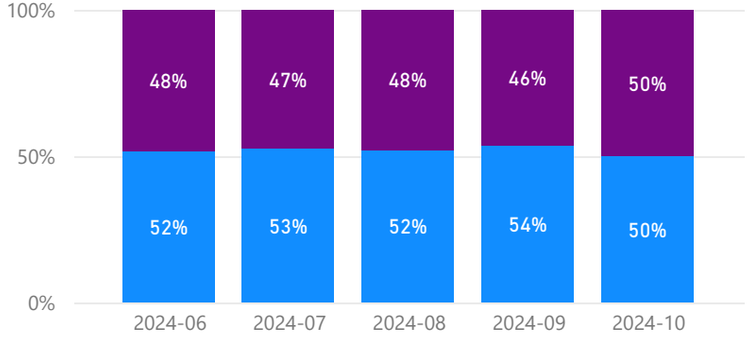
AGE GROUP: % Flu of Total Visits by Week



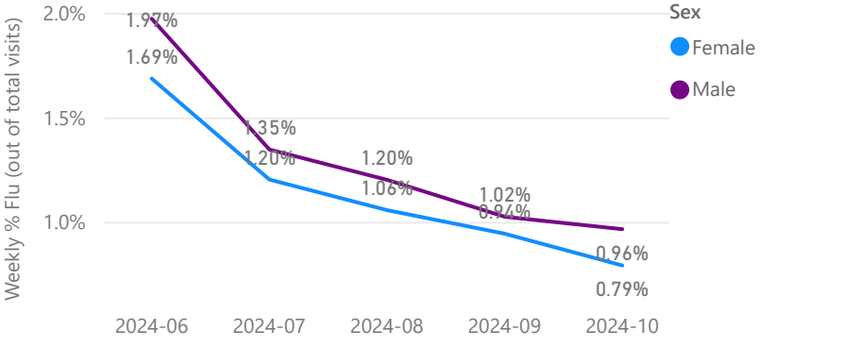
SEX: % Distribution for Current Season



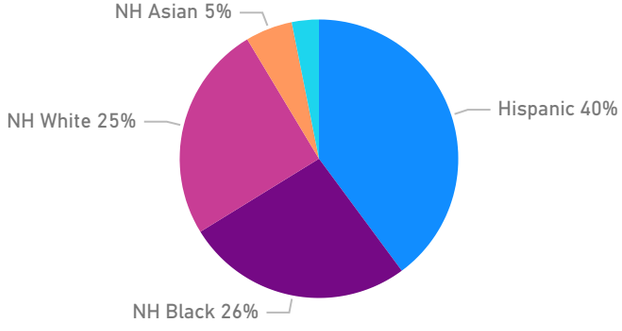
SEX: % Distribution by Week



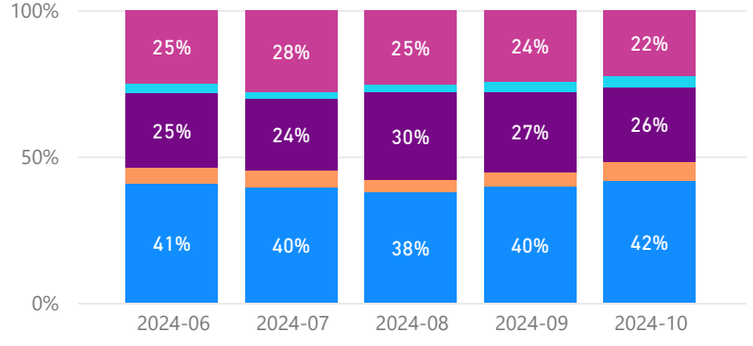
SEX: % Flu of Total Visits by Week



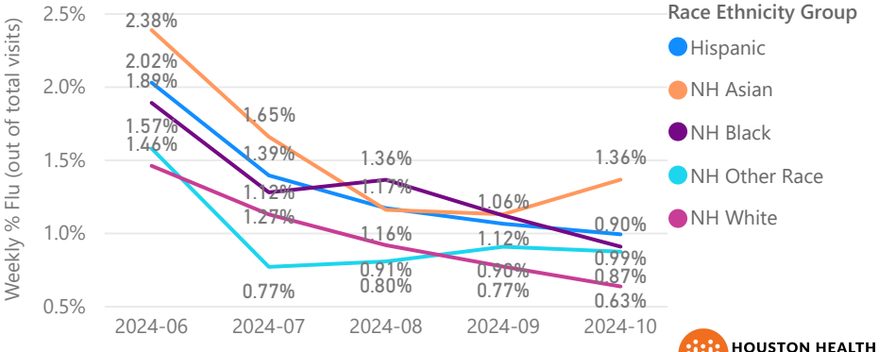
RACE-ETHNICITY: % Distribution for Current Season



RACE-ETHNICITY: % Distribution by Week



RACE-ETHNICITY: % Flu of Total Visits by Week



ILI & Resp Syndrome during Flu Season: 2023-2024 and previous 5 years

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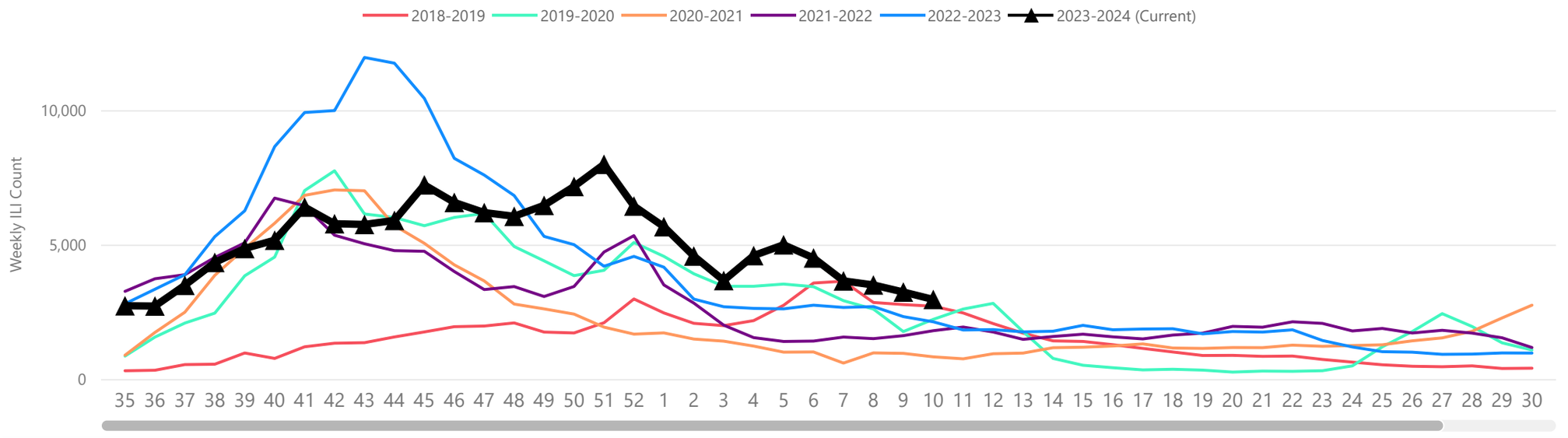
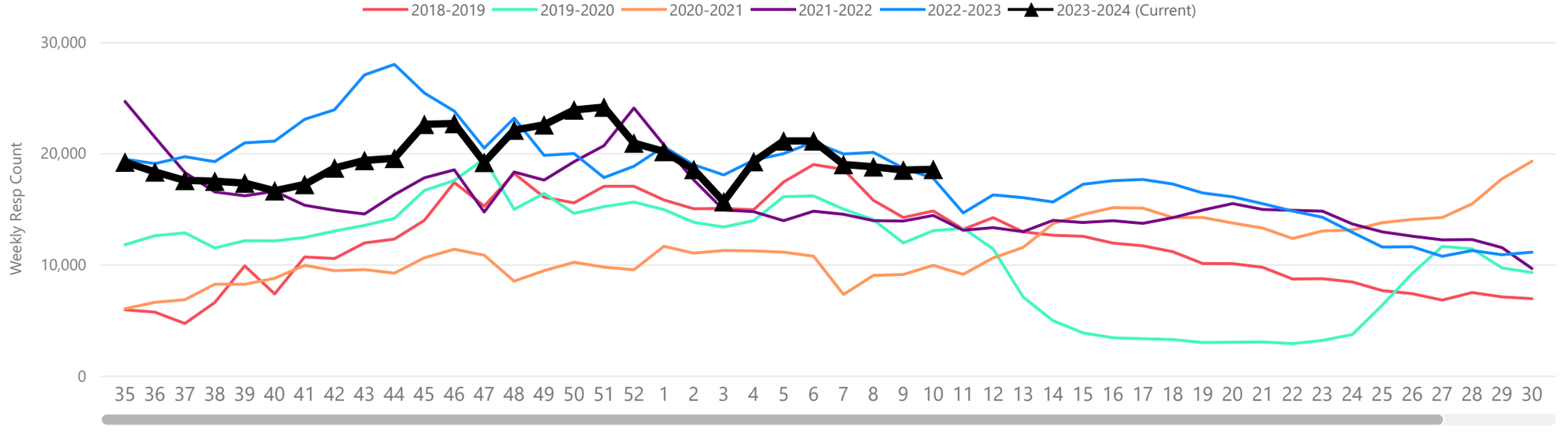


Weekly Resp Syndrome Count



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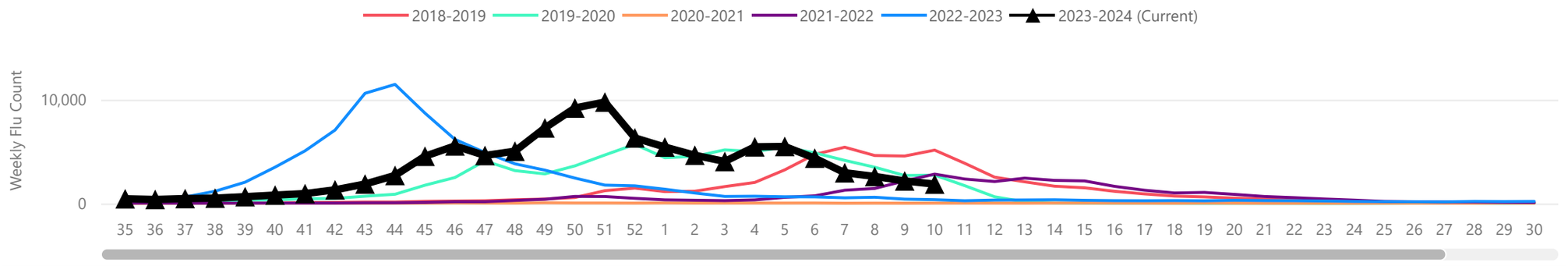
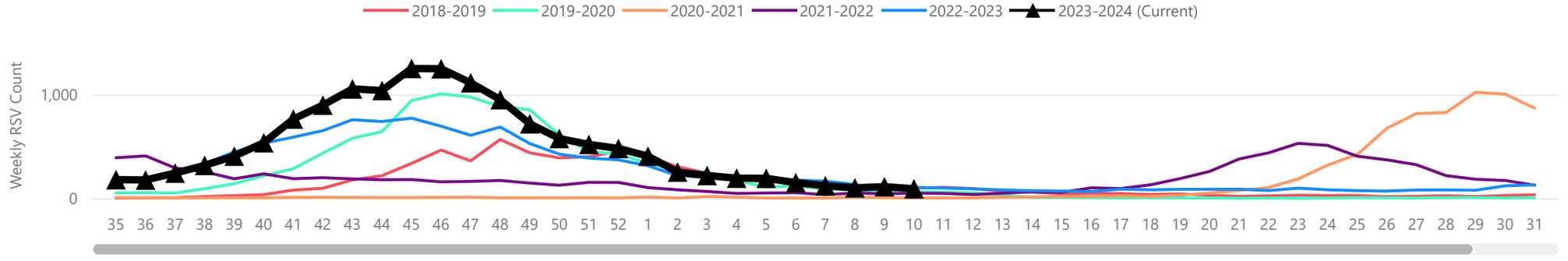
Respiratory Diagnosis during Flu Season: 2023-2024 and previous 5 years

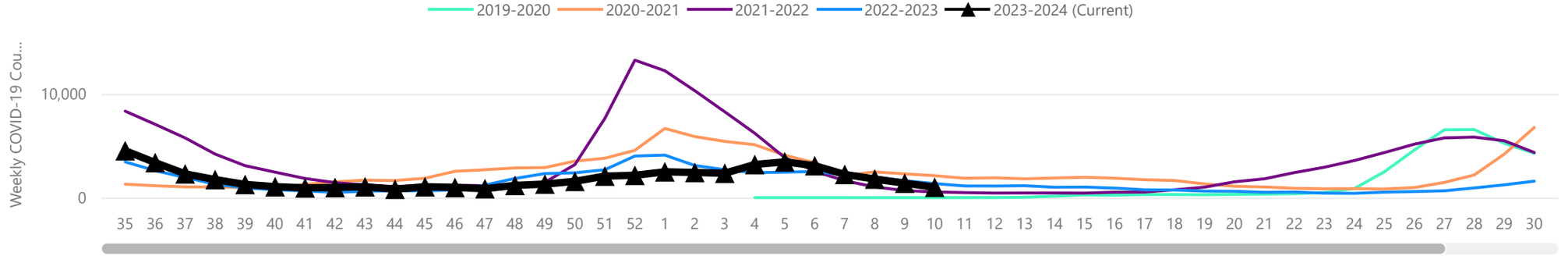
Weekly Flu Diagnosis Count



Weekly RSV Diagnosis Count



Weekly COVID-19 Diagnosis Count



Select Region

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2023-2024 Flu Season (Current) Respiratory Diagnosis Counts:

101,693
Flu Diagnoses

14,332
RSV Diagnoses

52,565
COVID-19 Diagnoses

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