



Houston Health Department

2023-2024 Weekly Influenza Report

Syndromic Surveillance

MMWR Week 2024 01 (ending 01/06/2024)

Key Highlights:

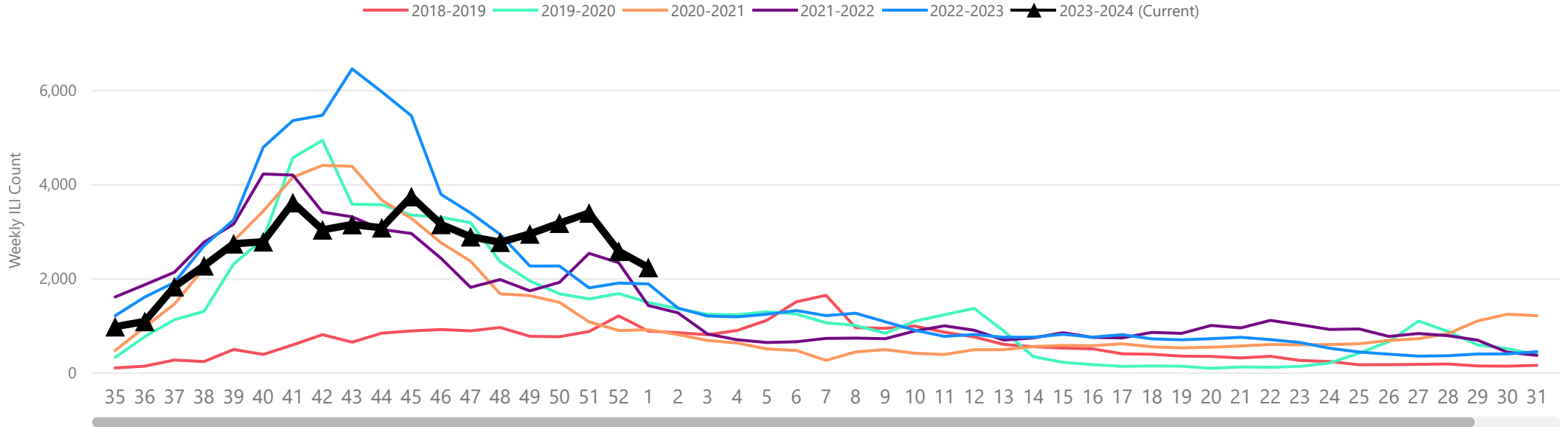
Historically, the influenza season begins around the first of October, usually MMWR Week 40. Last season (2022-2023), HHD observed an uptick in influenza prior to Week 40. Because of this slight change in timeline from the traditional influenza season, all figures in this report currently begin on Week 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 2023 Week 52 & 2024 Week 01 overall had low counts potentially due to the holidays. Additionally, there is no updated wastewater levels this week for 2024 Week 01 .

- **ILI & Resp Syndrome Historical (COH), [page 3](#):** The weekly ILI syndrome count is down from the previous week and overall trend has been decreasing for the **past 3 weeks**, similar to the trend of the 2021-2022 season for the city of Houston. The weekly Resp syndrome count is slightly down from last week, consistent with previous seasons for the timeframe.
- **Respiratory Diagnoses Historical (COH), [page 4](#):** The weekly flu diagnosis count is down from last week and has been trending downward the past 3-4 weeks. The weekly RSV diagnosis count is slightly down from previous week and trending downward for the past 9 weeks. The weekly COVID-19 diagnosis count is slightly up from the previous week and trending slightly upward, 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 is down from the previous week, while the wastewater level has been increasing since 2023 Week 40. The RSV diagnosis count is down from the previous week and the wastewater level has been trending downward for the **past 8 weeks**. The COVID-19 diagnosis count is slightly up from the previous week and the wastewater level has been trending upward for the past 12 weeks.
- **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 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**, however, recent weeks show the age group distribution and rates are changing. **Males and females** make up close to equal proportions of flu diagnoses, however, recent weeks show that females make up slightly higher proportion of diagnoses (males still have a slightly higher ILI percentage of total visits). **Hispanics followed by NH Blacks** make up a majority of flu diagnoses, and both these groups have the highest ILI percentage of total visits.
- 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



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.

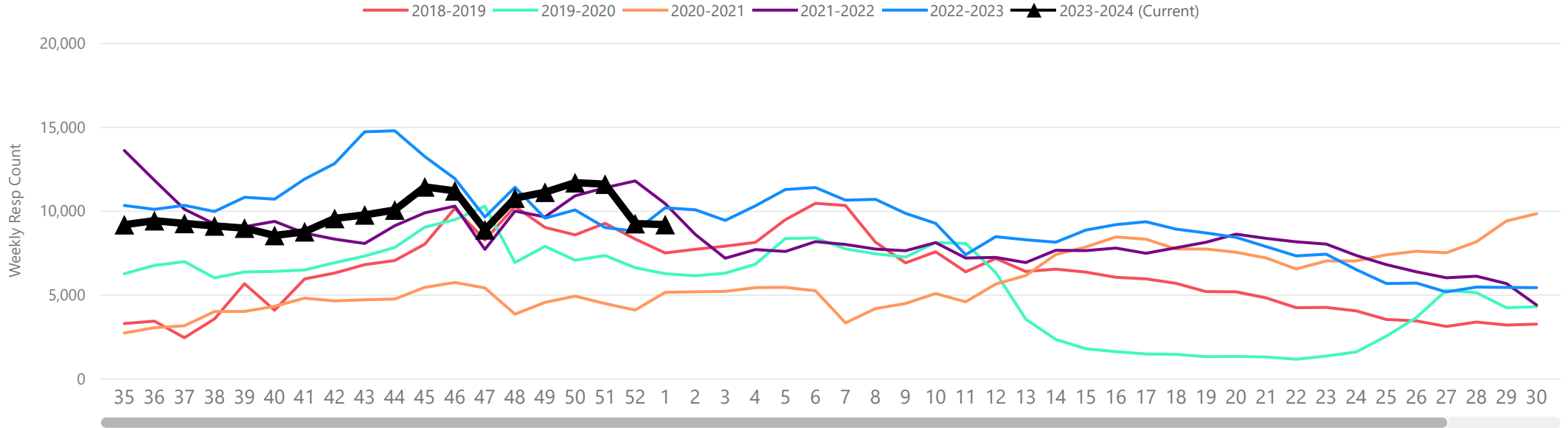
A **syndrome group** is a set of associated symptoms, conditions, and/or diagnoses. ESSENCE searches chief complaint and discharge diagnosis fields for keywords and ICD codes to determine if a record fits into one or more of the pre-defined syndrome groups.

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

The **Influenza-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).

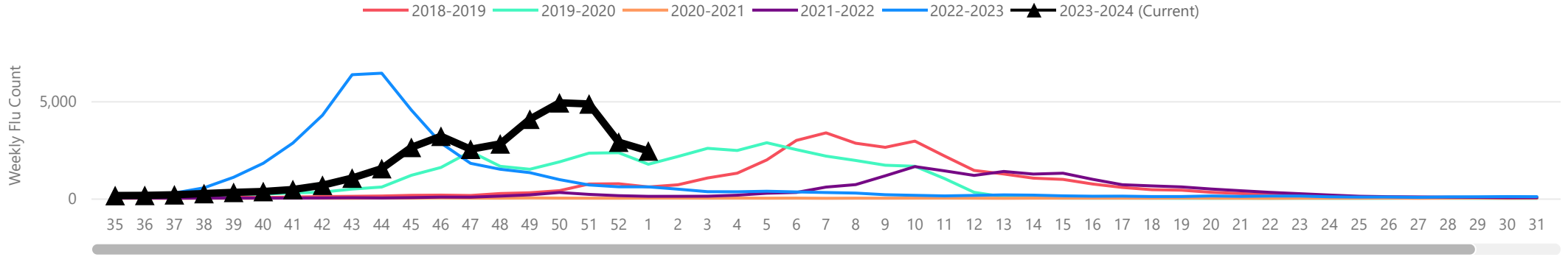
The **Respiratory (Resp) syndrome** includes terms and their associated keywords such as "Acute Bronchitis", "Chest Congestion", "Cough", "Shortness of Breath", "Acute Respiratory Distress".

Weekly Resp Syndrome Count

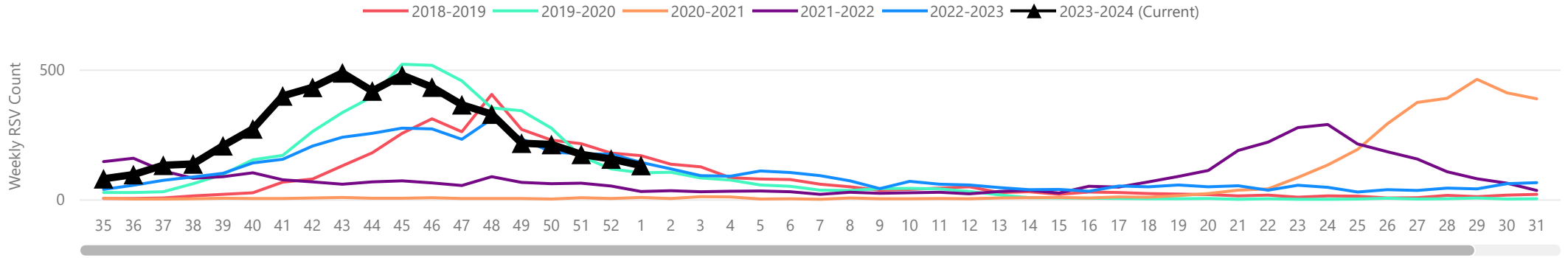


Respiratory Diagnosis during Flu Season: 2023-2024 and previous 5 years

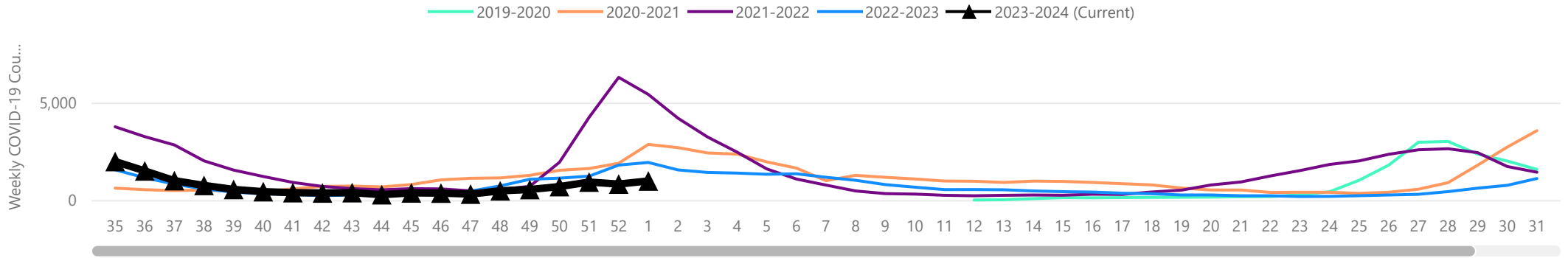
Weekly Flu Diagnosis Count



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:

35,414

Flu Diagnoses

5,138

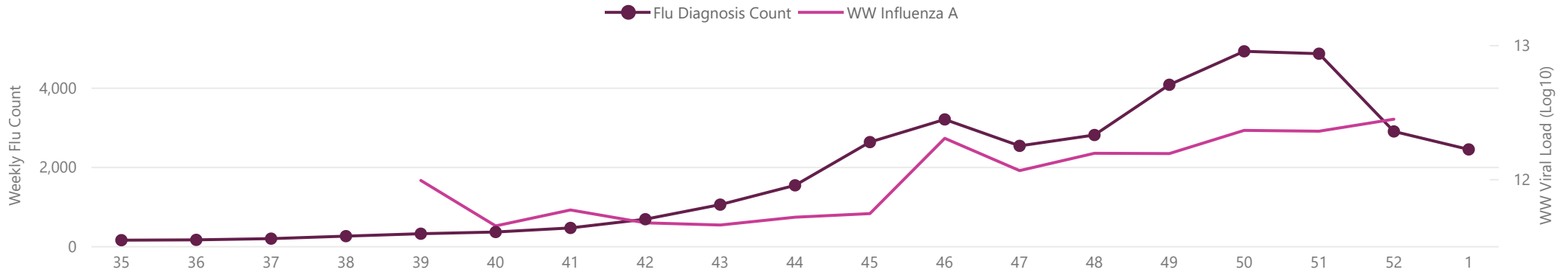
RSV Diagnoses

13,067

COVID-19 Diagnoses

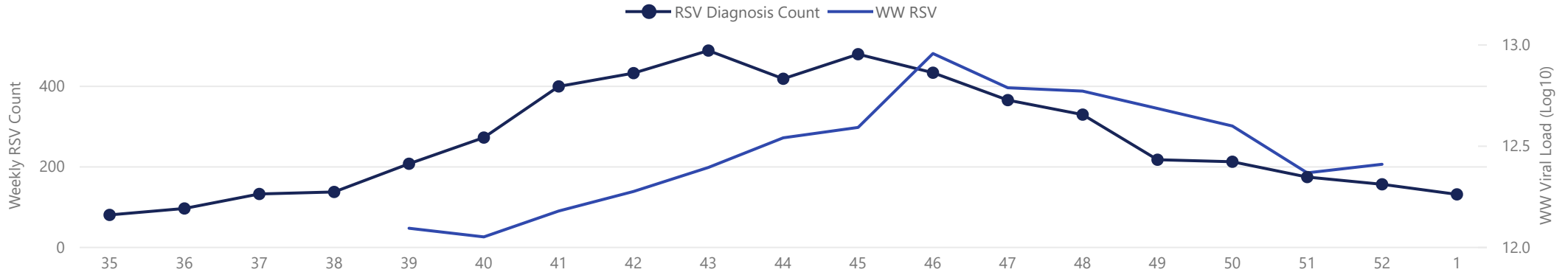
Respiratory Diagnoses (Flu, RSV, COVID) Weekly Counts with Wastewater Trends for Current 2023-2024 Flu Season

COH Flu Diagnosis Count with WW Influenza A

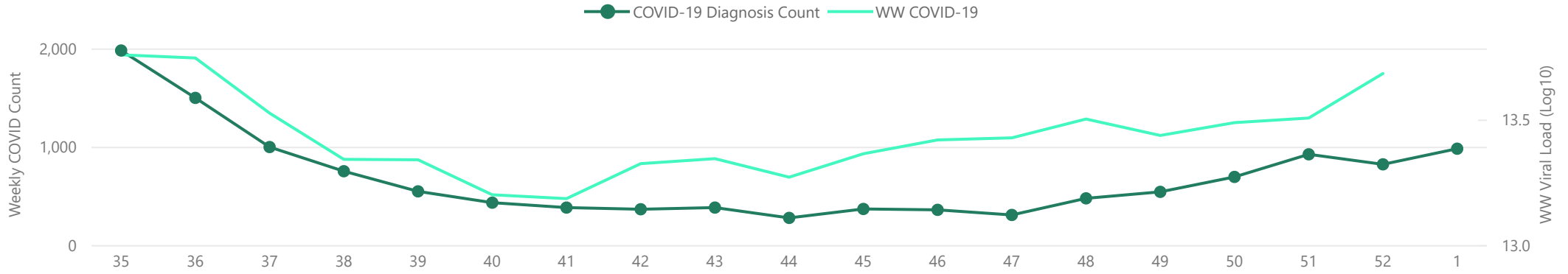


COVID-19 in wastewater (WW) is consistently tested on a weekly basis. Testing for Influenza A and RSV in wastewater resumed on a weekly basis on 9/25/2023 (MMWR Week 2023-39).

COH RSV Diagnosis Count with WW RSV

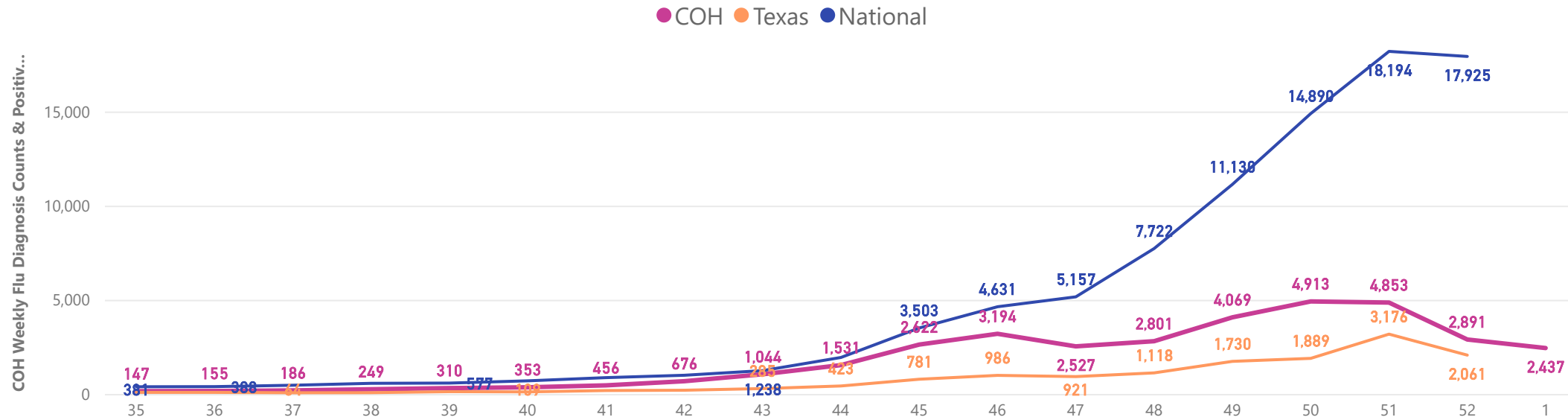


COH COVID-19 Diagnosis Count with WW COVID-19



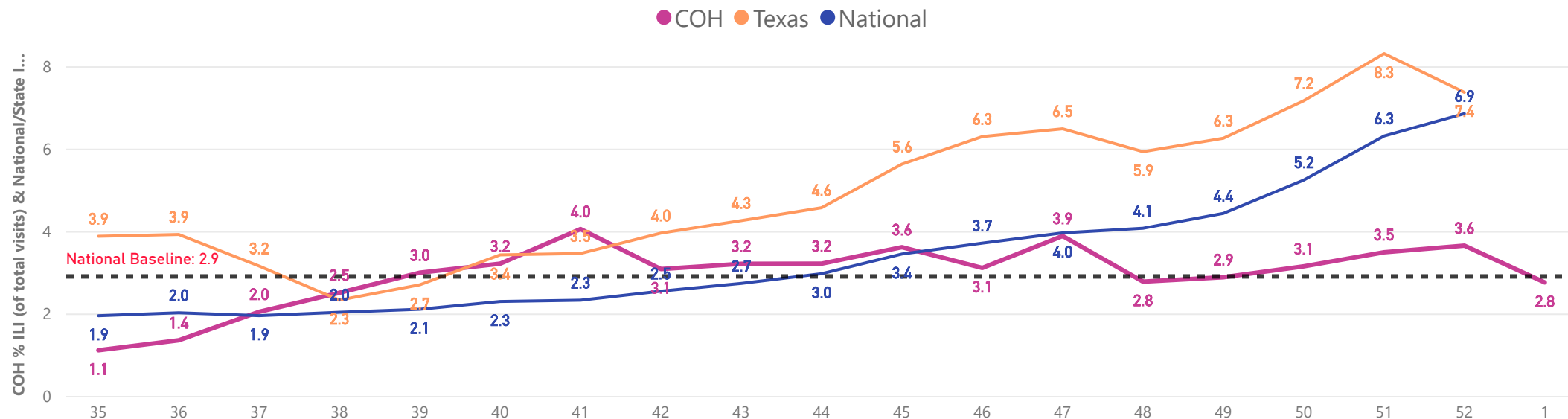
COH Flu Diagnosis Weekly Counts & Percentage of Visits with National and Texas Flu Trends for Current 2023-2024 Flu Season

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



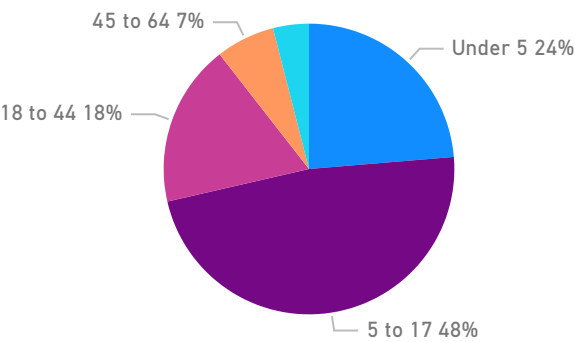
Note on bottom figure: this figure is for comparison of general trends only. National and Texas weekly values (percentage of visits for ILI) are sourced ILINet via CDC's FluView and are displayed with weekly percent ILI (out of total visits) from ESSENCE for the COH 126 ZIP codes.

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

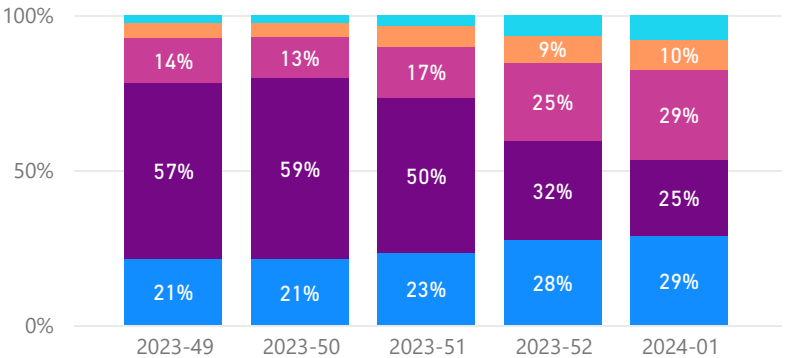
Demographics of Flu Diagnoses for 2023-2024 Flu Season (Last 5 weeks, COH 126 ZIP Codes)

Last 5 Weeks: Flu Diagnosis Count
18,921

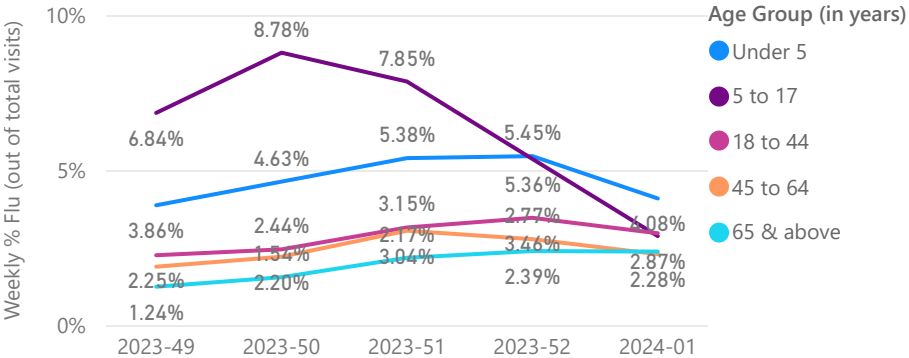
AGE GROUP: % Distribution for Current Season



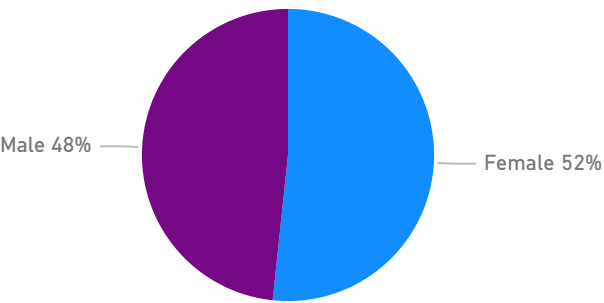
AGE GROUP: % Distribution by Week



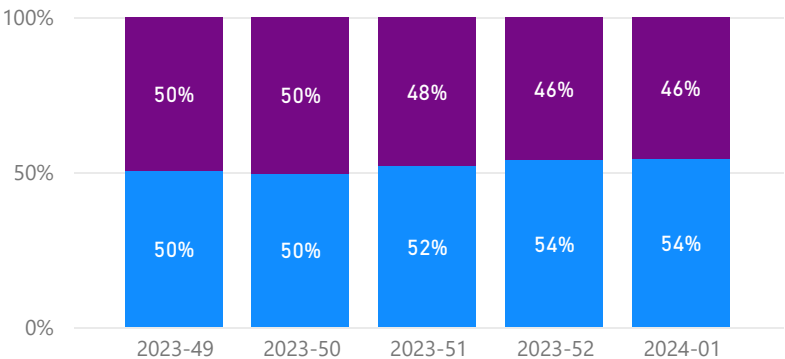
AGE GROUP: % Flu of Total Visits by Week



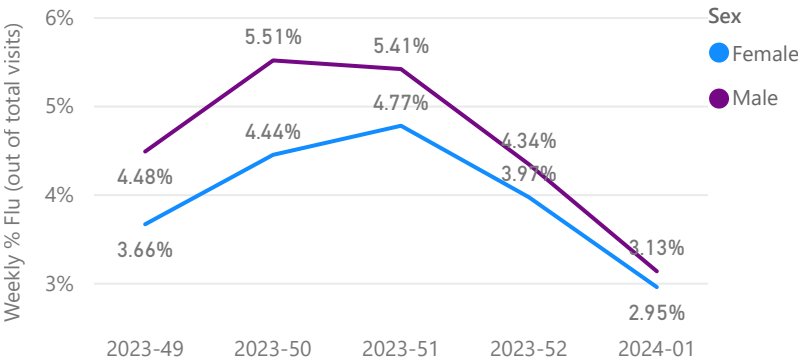
SEX: % Distribution for Current Season



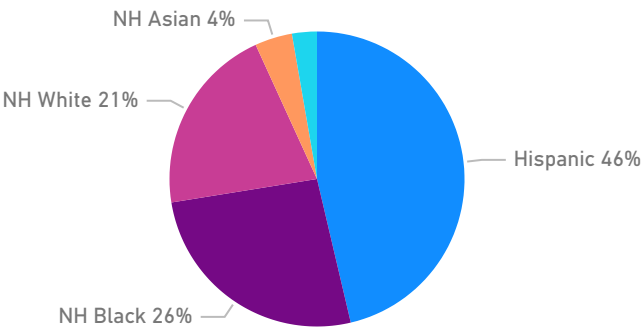
SEX: % Distribution by Week



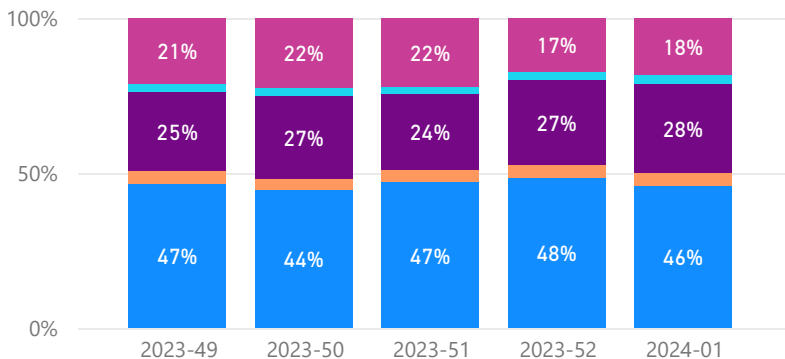
SEX: % Flu of Total Visits by Week



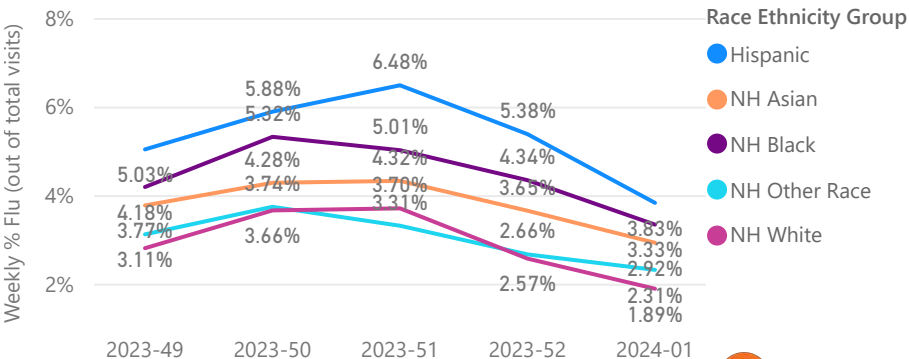
RACE-ETHNICITY: % Distribution for Current Season



RACE-ETHNICITY: % Distribution by Week

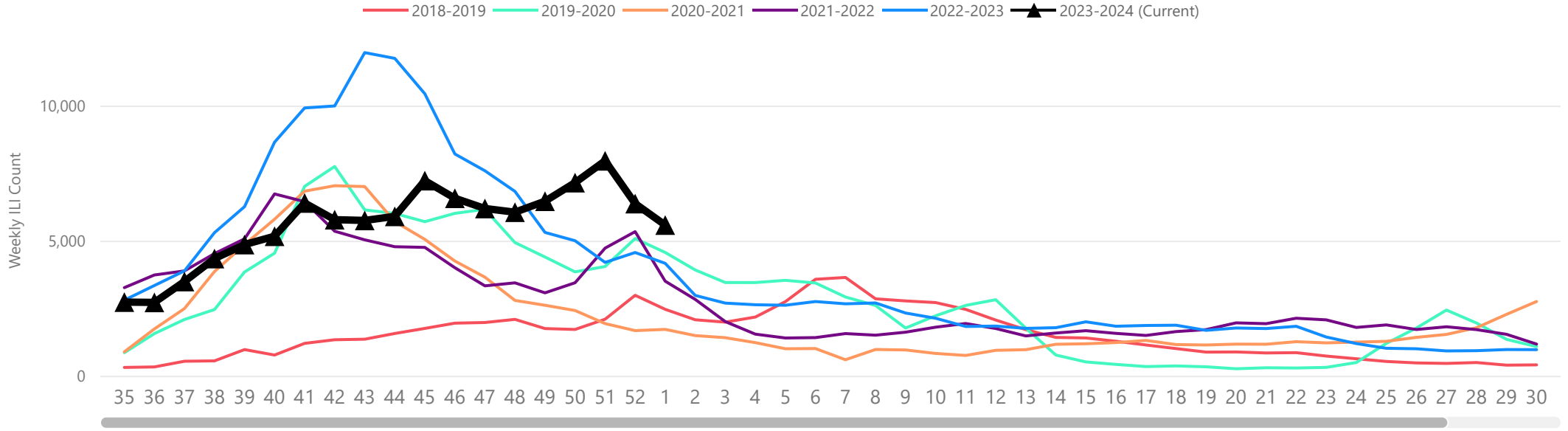


RACE-ETHNICITY: % Flu of Total Visits by Week



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

Weekly ILI Syndrome Count



Select Region

COH ZIP

PH6/5S

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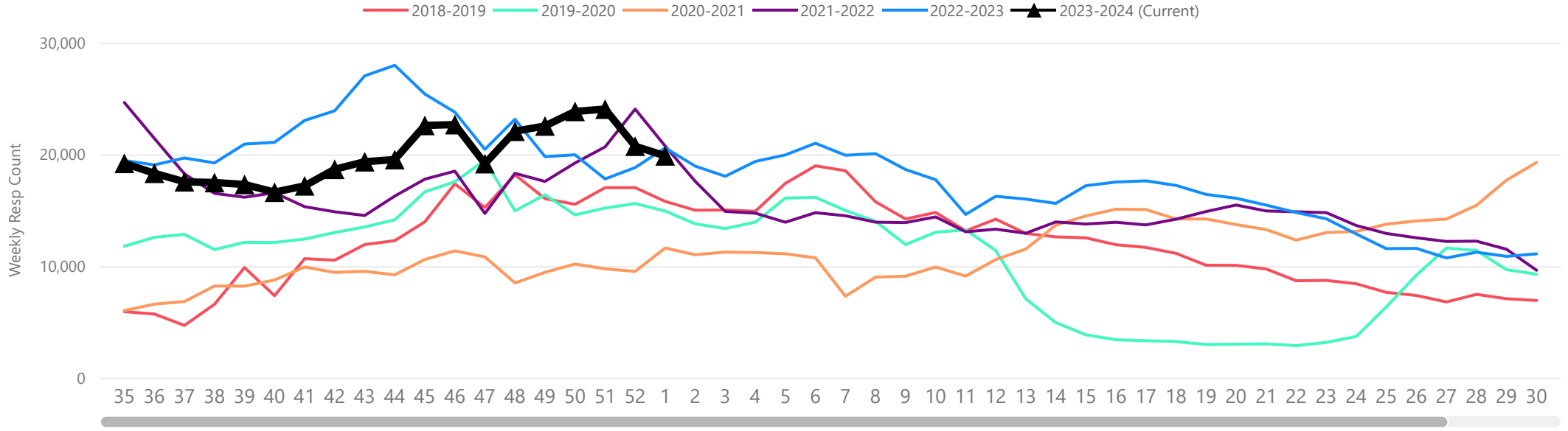
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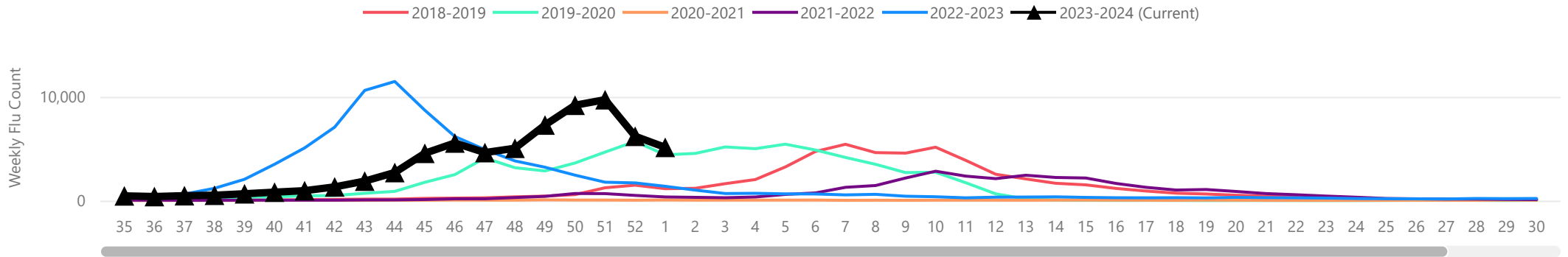
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Weekly Resp Syndrome Count

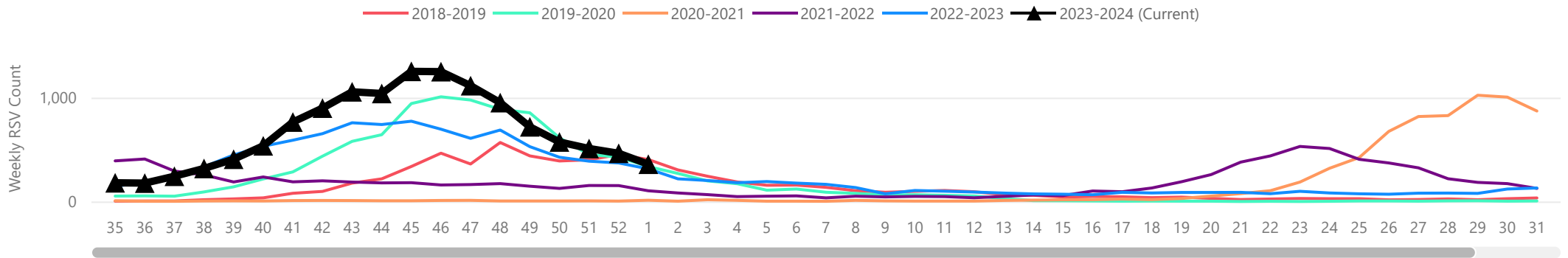


Respiratory Diagnosis during Flu Season: 2023-2024 and previous 5 years

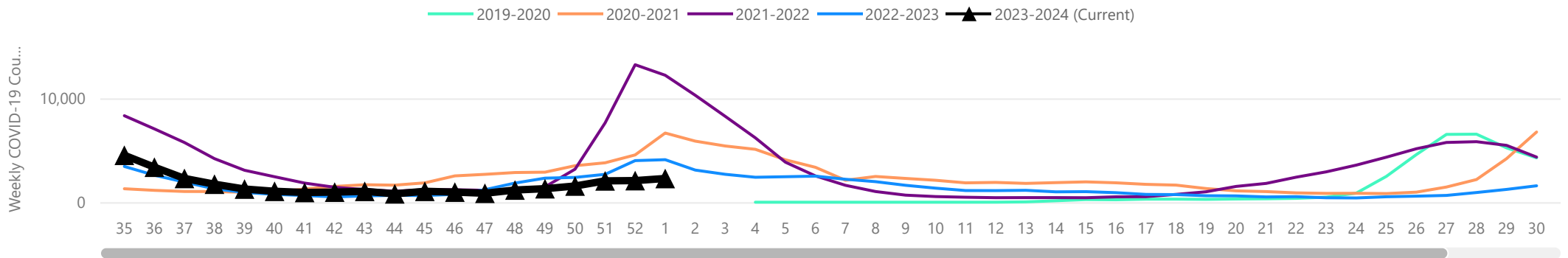
Weekly Flu Diagnosis Count



Weekly RSV Diagnosis Count



Weekly COVID-19 Diagnosis Count



Select Region

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PH6/5S

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

67,512

Flu Diagnoses

12,816

RSV Diagnoses

31,370

COVID-19 Diagnoses