



Houston Health Department

2023-2024 Weekly Influenza Report Syndromic Surveillance

MMWR Week 2024 17 (ending 04/27/2024)

Key Highlights:

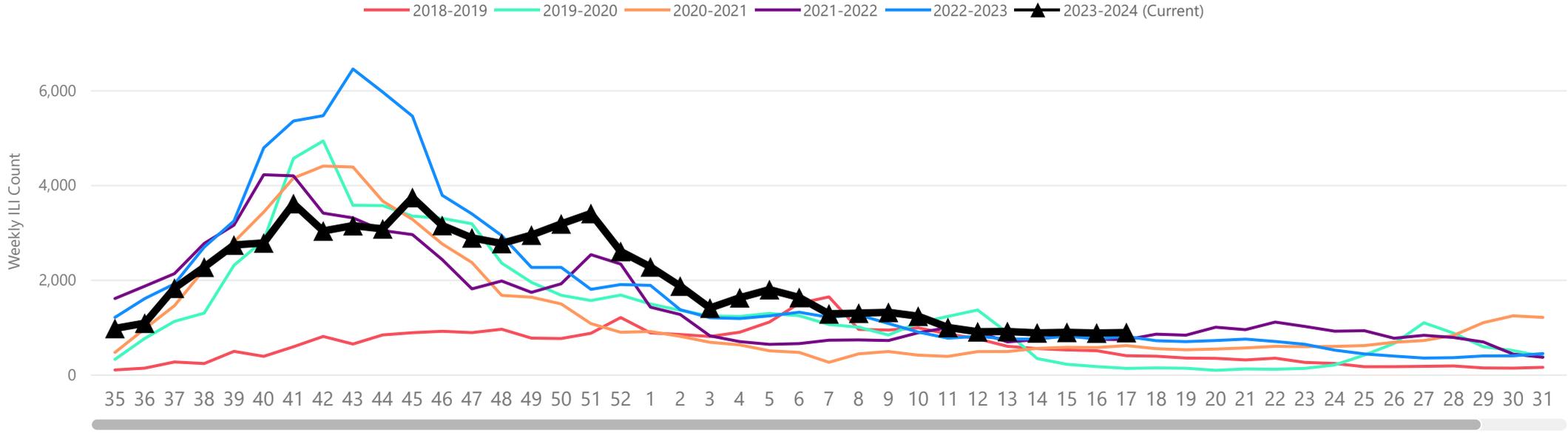
Historically, the influenza season begins around the first of October, usually MMWR Week 40. Last season (2022-2023), HHD observed an uptick in influenza prior to Week 40. Because of this slight change in timeline from the traditional influenza season, all figures in this report currently begin on Week 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 consistent with the previous week and overall trend has been decreasing/leveling out the past few months. The weekly Resp syndrome count is slightly down from/consistent with the previous week, consistent with previous seasons for the timeframe.
- **Respiratory Diagnoses Historical (COH), page 4:** The weekly flu, RSV, and COVID-19 diagnosis counts are slightly down from/consistent with the previous week and have been decreasing the past several weeks.
- **Current Respiratory Diagnoses with Wastewater data, page 5:** the weekly influenza diagnosis count is consistent with the previous week and the wastewater level is up from previous week (and has been on an increasing trend for the past 6 weeks). The RSV diagnosis count and wastewater level are slightly up from/consistent with the previous week. The COVID-19 diagnosis count and the wastewater level are down from the previous week (both have been trending down for the past couple of months).
- **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. Hispanic followed by NH Black make up a majority of flu diagnoses for the past 5 weeks. The highest ILI visit percentage is seen in Hispanic followed by NH Black and NW White this week.
- 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.

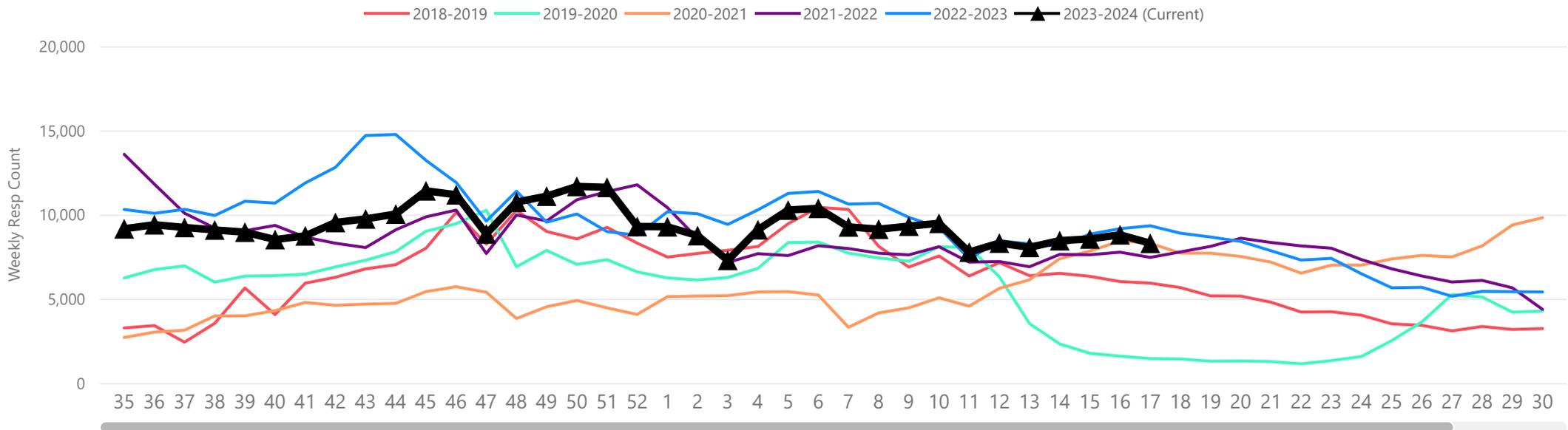
A **syndrome group** is a set of associated symptoms, conditions, and/or diagnoses. ESSENCE searches chief complaint and discharge diagnosis fields for keywords and ICD codes to determine if a record fits into one or more of the pre-defined syndrome groups.

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).

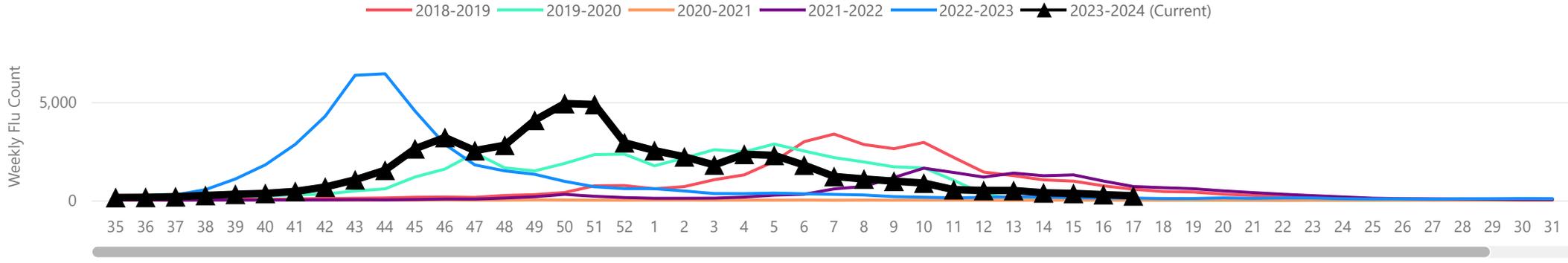
The **Respiratory (Resp) syndrome** includes terms and their associated keywords such as "Acute Bronchitis", "Chest Congestion", "Cough", "Shortness of Breath", "Acute Respiratory Distress".

Weekly Resp Syndrome Count



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

Weekly Flu Diagnosis Count



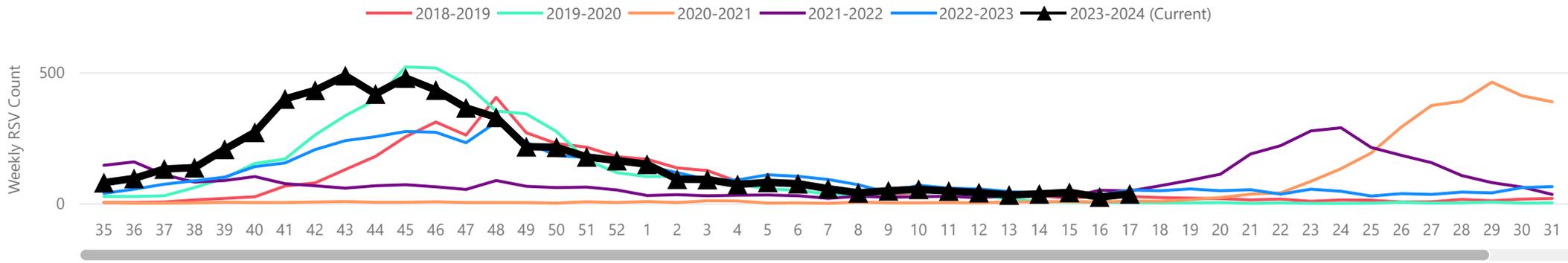
Select Region

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).

Weekly RSV Diagnosis Count



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

52,955

Flu Diagnoses

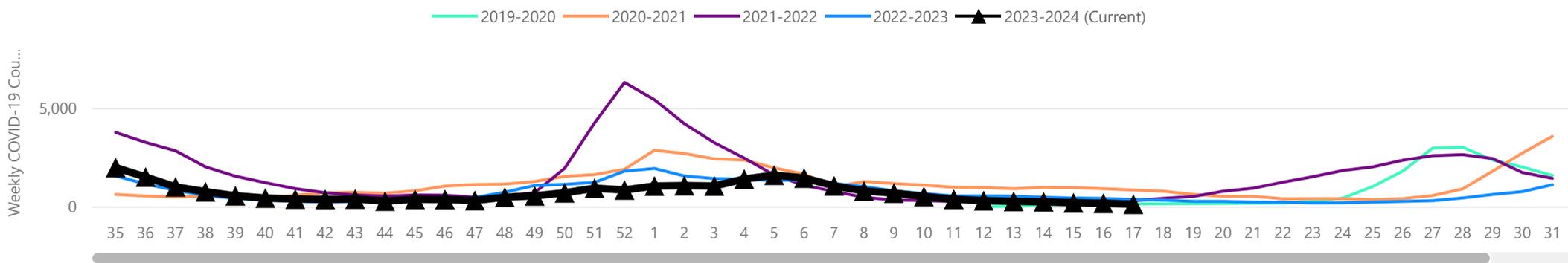
6,038

RSV Diagnoses

24,376

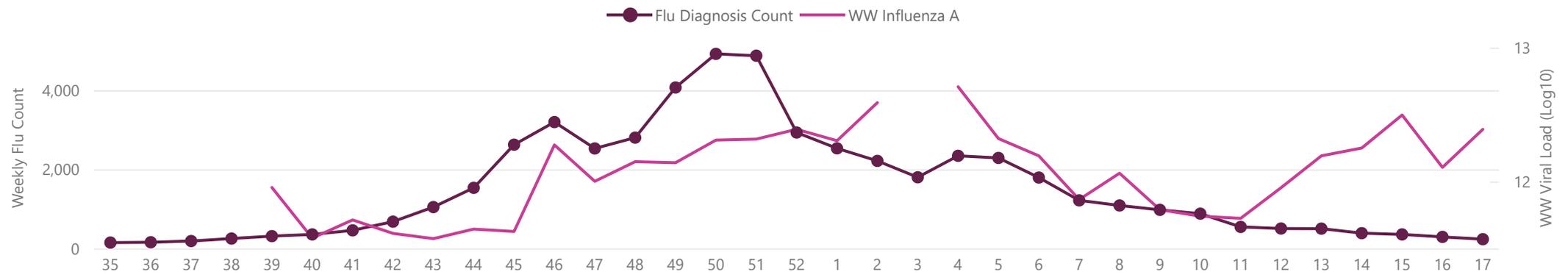
COVID-19 Diagnoses

Weekly COVID-19 Diagnosis Count



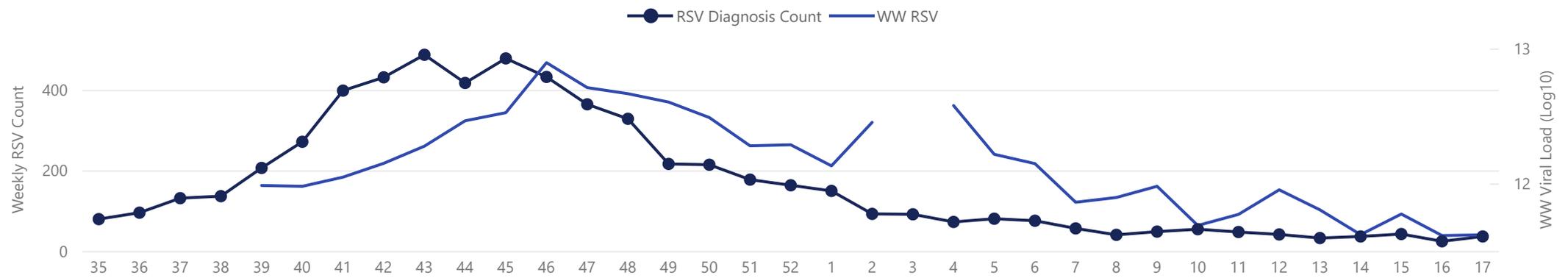
Respiratory Diagnoses (Flu, RSV, COVID) Weekly Counts with Wastewater Trends for Current 2023-2024 Flu Season

COH Flu Diagnosis Count with WW Influenza A

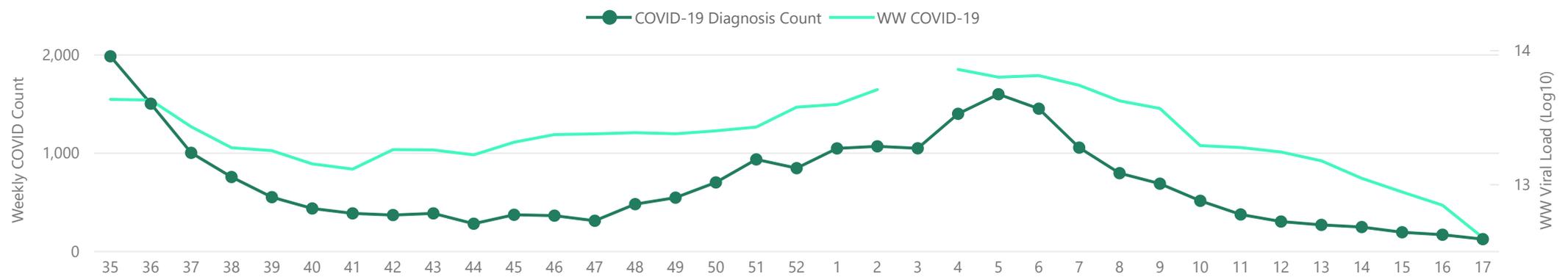


COVID-19 in wastewater (WW) is consistently tested on a weekly basis. Testing for Influenza A and RSV in wastewater resumed on a weekly basis on 9/25/2023 (MMWR Week 2023-39). There was no WW sampling 2024-03 due to cold weather events.

COH RSV Diagnosis Count with WW RSV

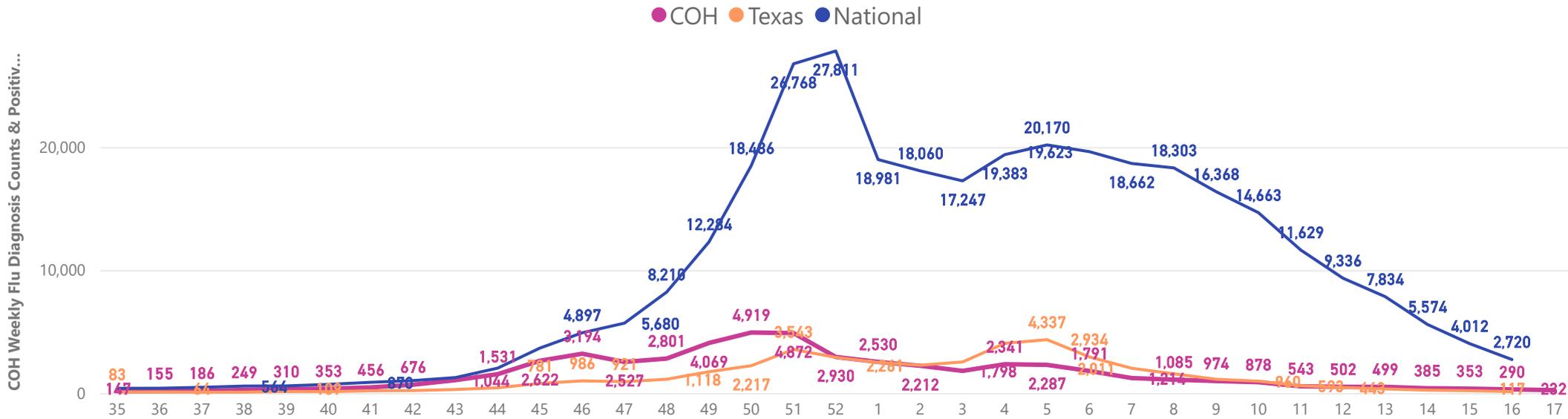


COH COVID-19 Diagnosis Count with WW COVID-19



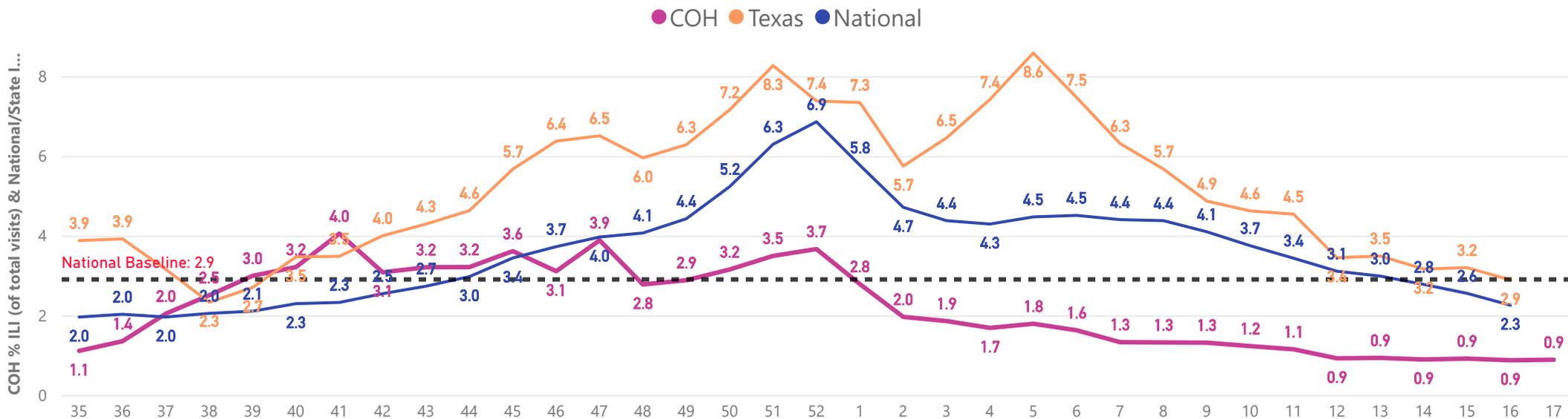
COH Flu Diagnosis Weekly Counts & Percentage of Visits with National and Texas Flu Trends for Current 2023-2024 Flu Season

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.

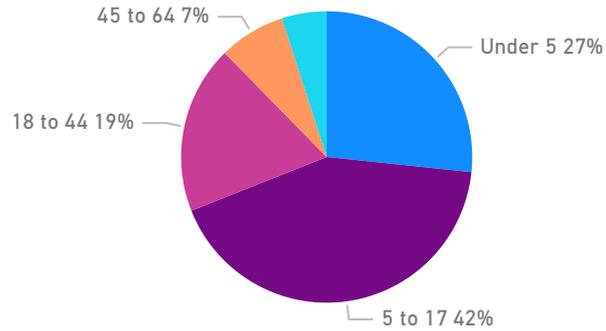
The dashed line on figure corresponds to the 2023-2024 national baseline value.

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

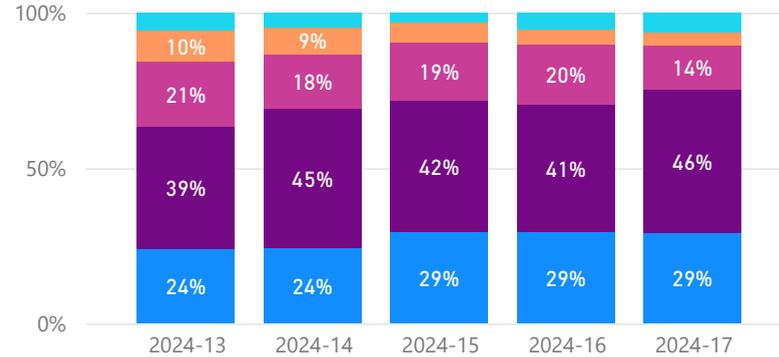
Last 5 Weeks: Flu Diagnosis Count

1,725

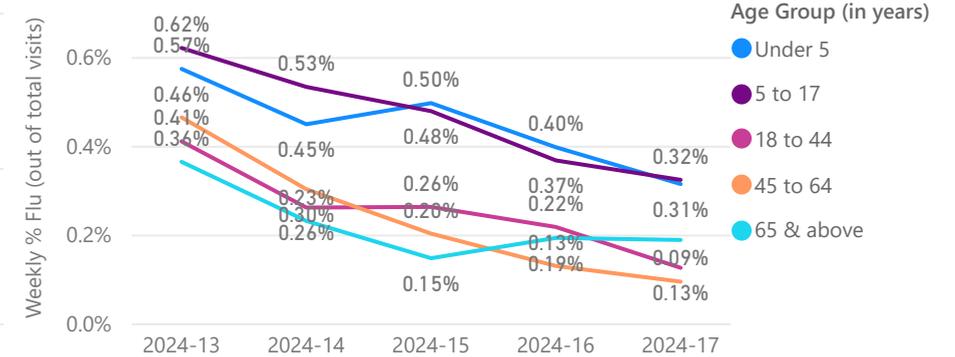
AGE GROUP: % Distribution for Current Season



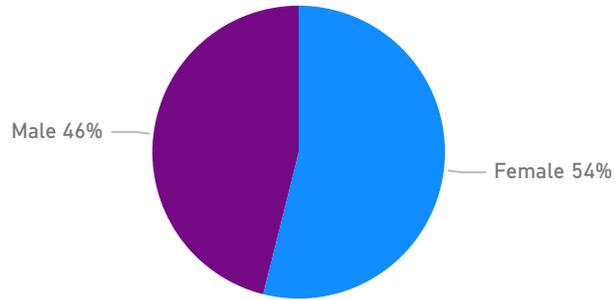
AGE GROUP: % Distribution by Week



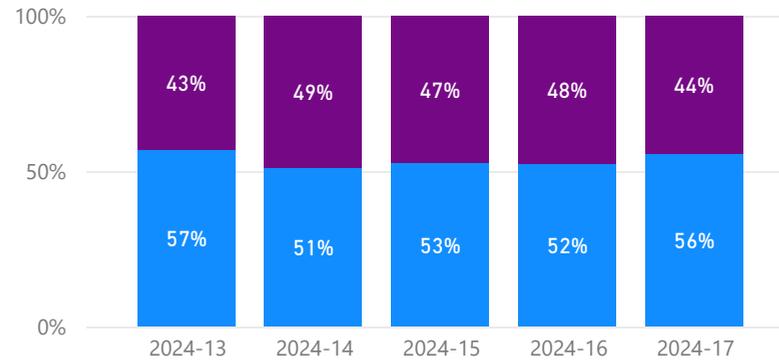
AGE GROUP: % Flu of Total Visits by Week



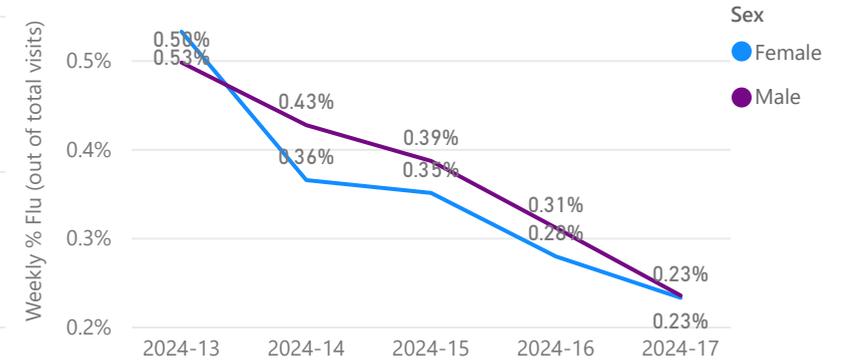
SEX: % Distribution for Current Season



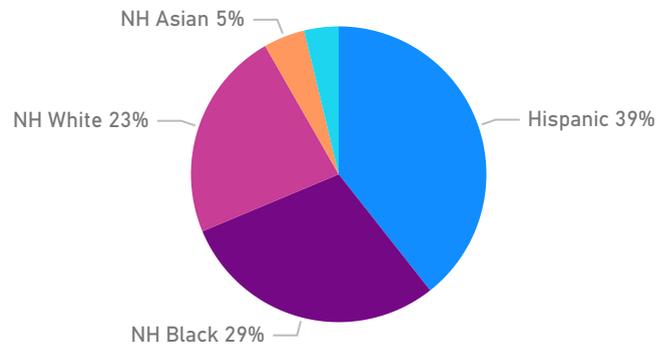
SEX: % Distribution by Week



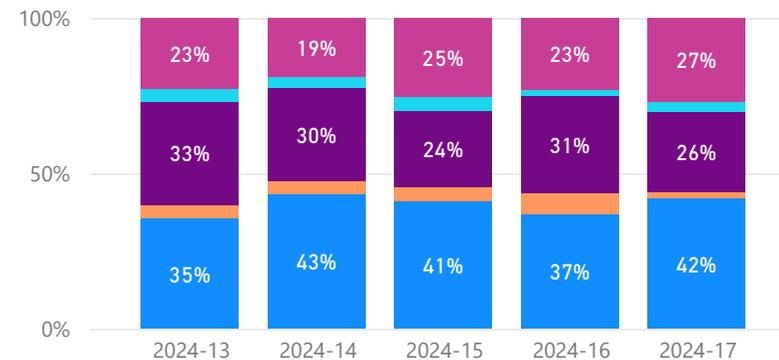
SEX: % Flu of Total Visits by Week



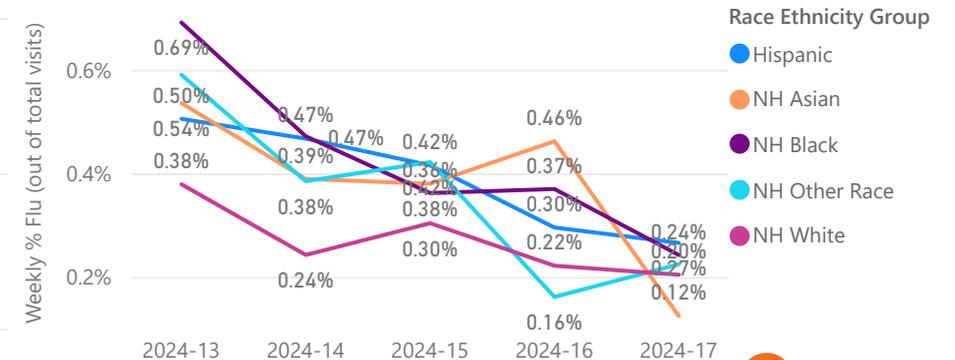
RACE-ETHNICITY: % Distribution for Current Season



RACE-ETHNICITY: % Distribution by Week

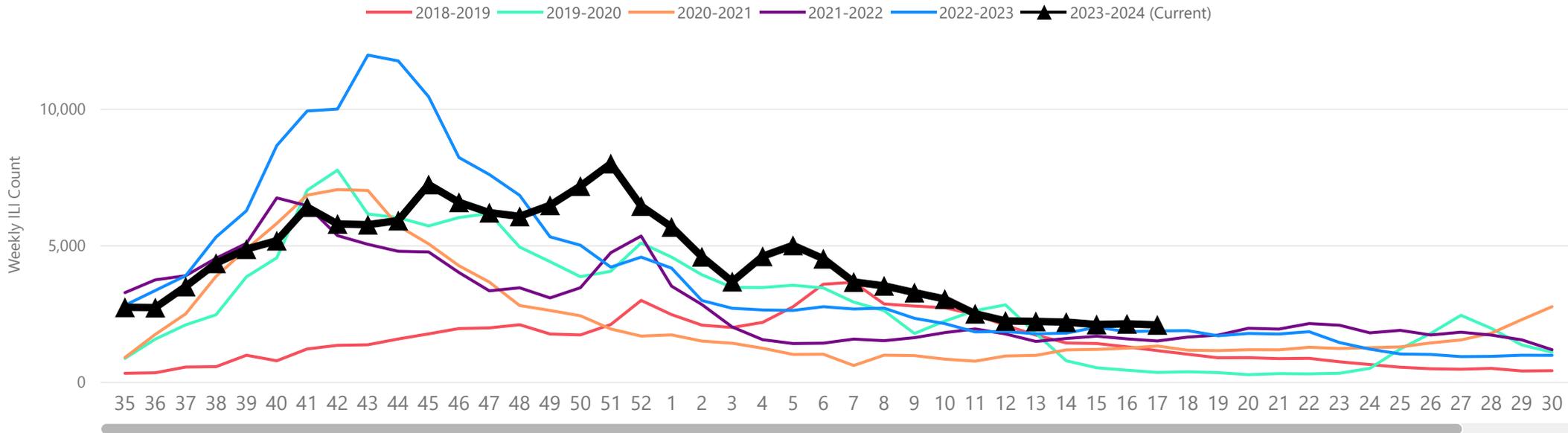


RACE-ETHNICITY: % Flu of Total Visits by Week



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

Weekly ILI Syndrome Count



Select Region

COH ZIP

PH6/5S

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

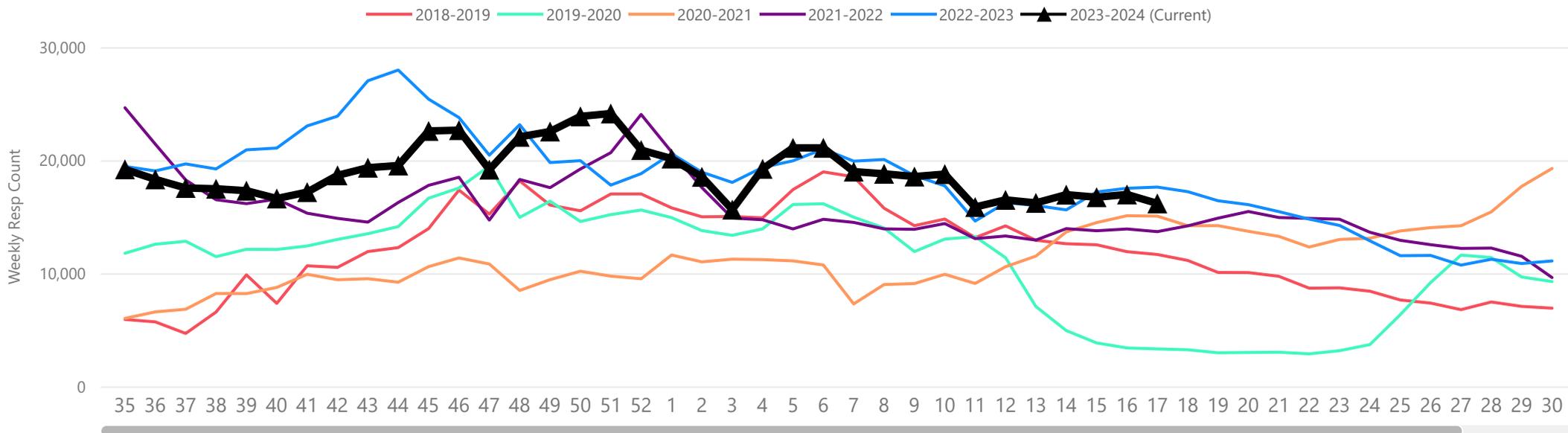
A **syndrome group** is a set of associated symptoms, conditions, and/or diagnoses. ESSENCE searches chief complaint and discharge diagnosis fields for keywords and ICD codes to determine if a record fits into one or more of the pre-defined syndrome groups.

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).

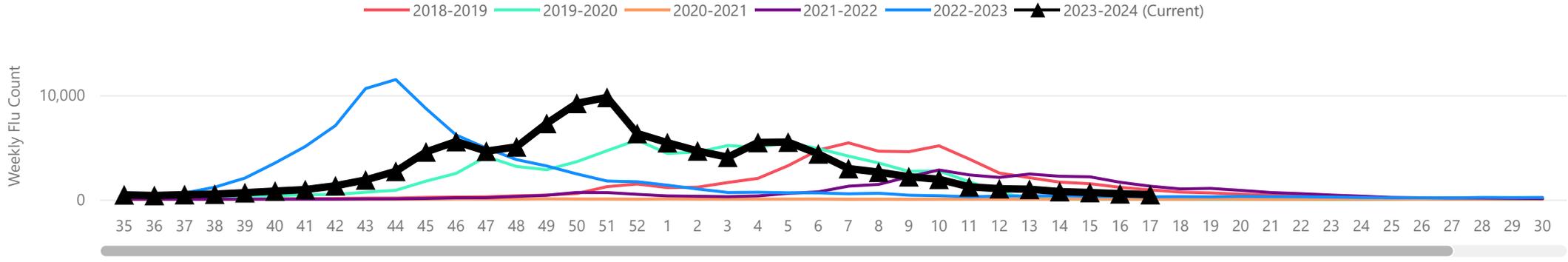
The **Respiratory (Resp) syndrome** includes terms and their associated keywords such as "Acute Bronchitis", "Chest Congestion", "Cough", "Shortness of Breath", "Acute Respiratory Distress".

Weekly Resp Syndrome Count



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

Weekly Flu Diagnosis Count



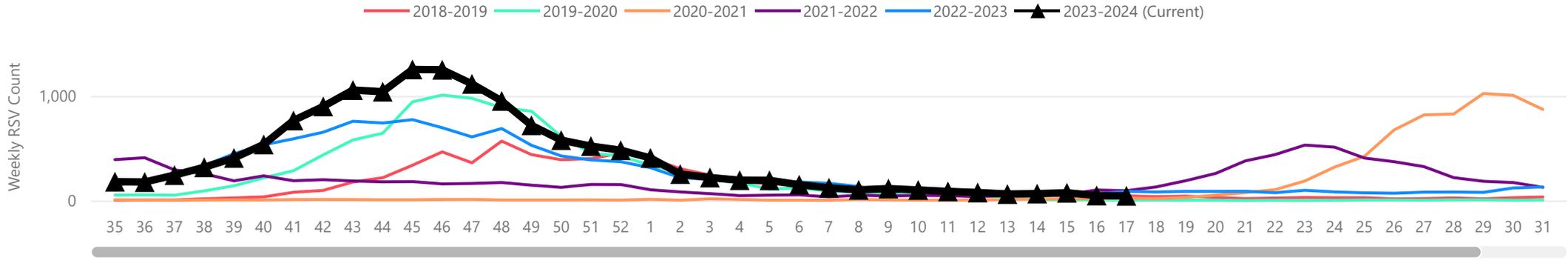
Select Region

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).

Weekly RSV Diagnosis Count



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

107,536

Flu Diagnoses

14,804

RSV Diagnoses

56,240

COVID-19 Diagnoses

Weekly COVID-19 Diagnosis Count

