HOUSTON HEALTH
DEPARTMENT

Houston Health Department

2023-2024 Weekly Influenza Report Syndromic Surveillance

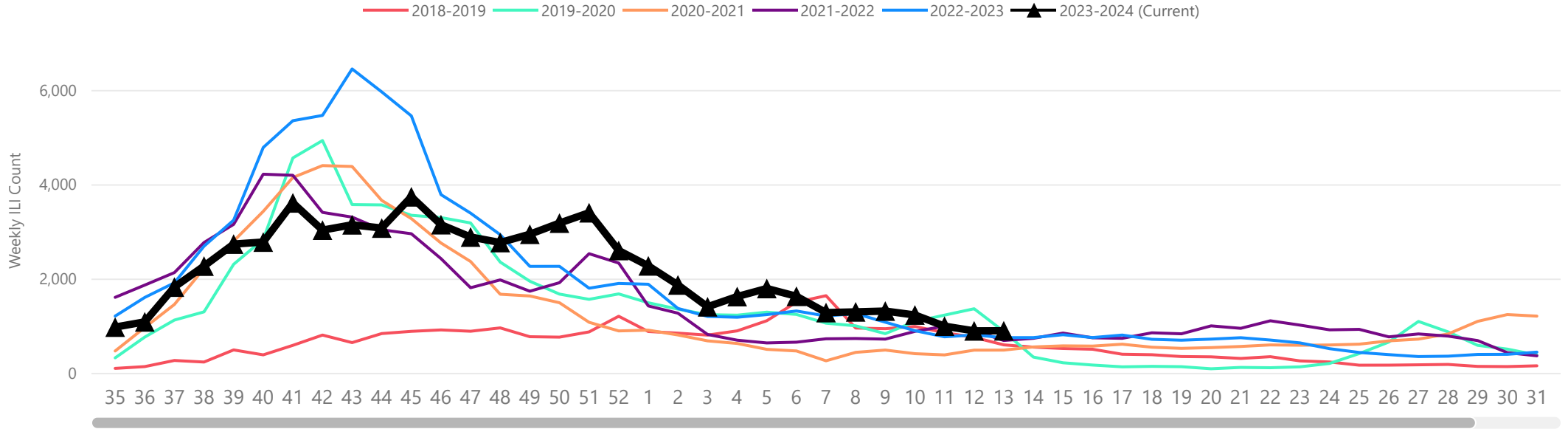*MMWR Week 2024 13 (ending 03/30/2024)*

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/consistent with the previous week and overall trend has been decreasing 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, while the wastewater level is up** (2nd week in a row). **The RSV diagnosis count and wastewater level are slightly down from 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, with females having a slightly higher % ILI visits this week. **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 Black, followed by NH Asian 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

Legend: 2018-2019 · 2019-2020 · 2020-2021 · 2021-2022 · 2022-2023 · 2023-2024 (Current)

Weekly ILI Count (y-axis: 0; 2,000; 4,000; 6,000)

X-axis (weeks): 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Weekly Resp Syndrome Count

Legend: 2018-2019 · 2019-2020 · 2020-2021 · 2021-2022 · 2022-2023 · 2023-2024 (Current)

Weekly Resp Count (y-axis: 0; 5,000; 10,000; 15,000; 20,000)

X-axis (weeks): 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

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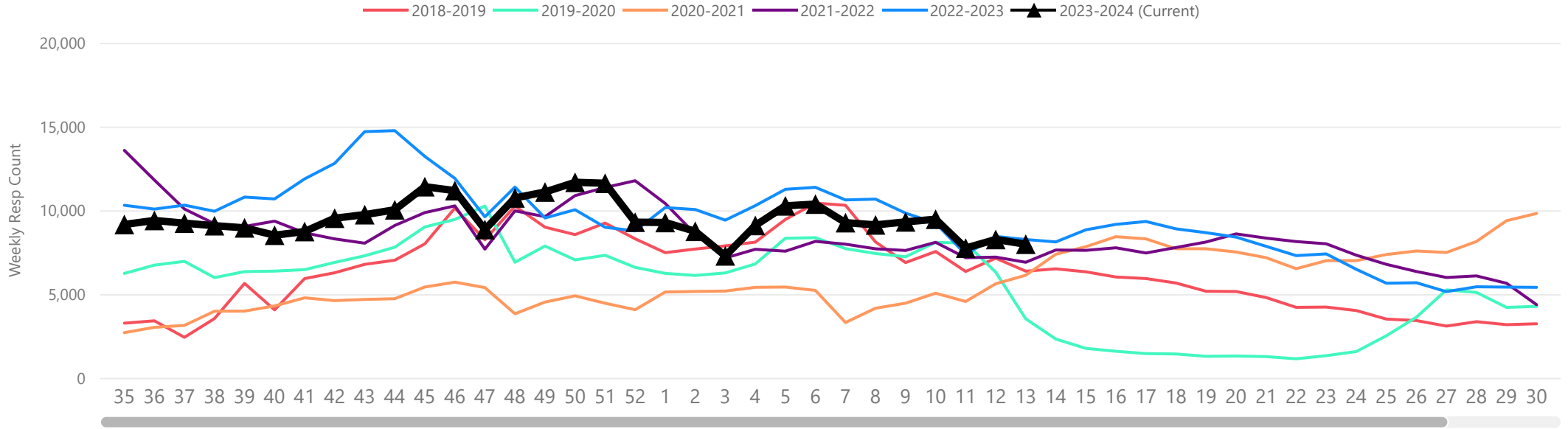
A syndrome group is a set of associated symptoms, conditions, and/or diagnoses. ESSENCE searches chief complaint and discharge diagnosis fields for keywords and ICD codes to determine if a record fits into one or more of the pre-defined syndrome groups.

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).
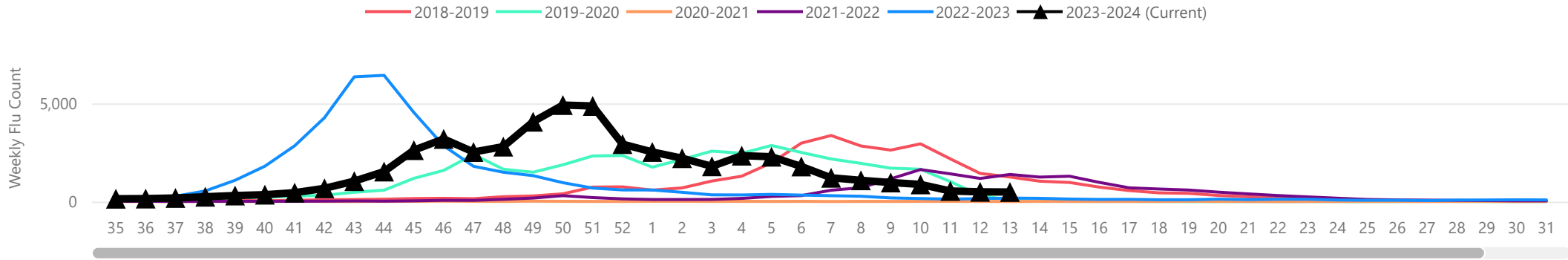
The Respiratory (Resp) syndrome includes terms and their associated keywords such as "Acute Bronchitis", "Chest Congestion", "Cough", "Shortness of Breath", "Acute Respiratory Distress".
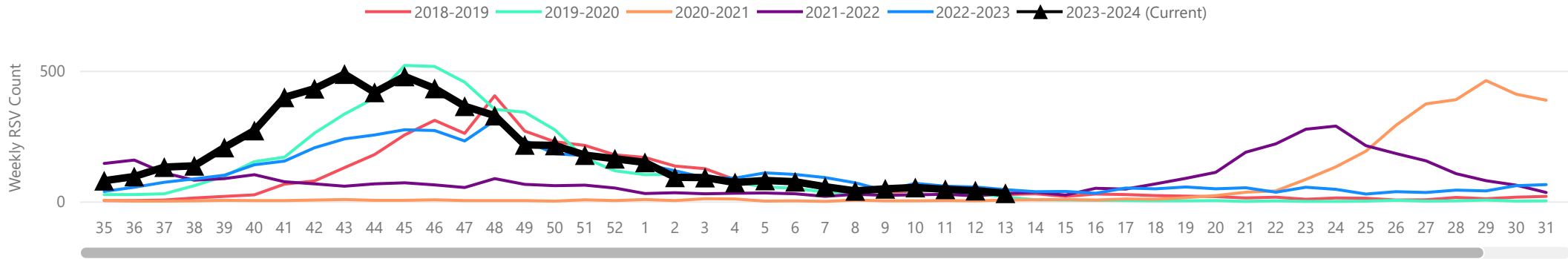
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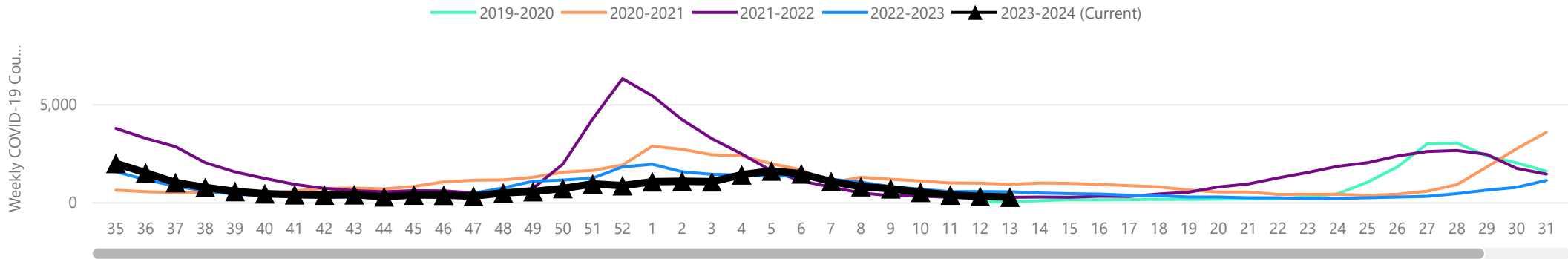# Respiratory Diagnosis during Flu Season: 2023-2024 and previous 5 years

Weekly Flu Diagnosis Count

Legend: 2018-2019, 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024 (Current)

Weekly RSV Diagnosis Count

Legend: 2018-2019, 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024 (Current)

Weekly COVID-19 Diagnosis Count

Legend: 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024 (Current)

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:
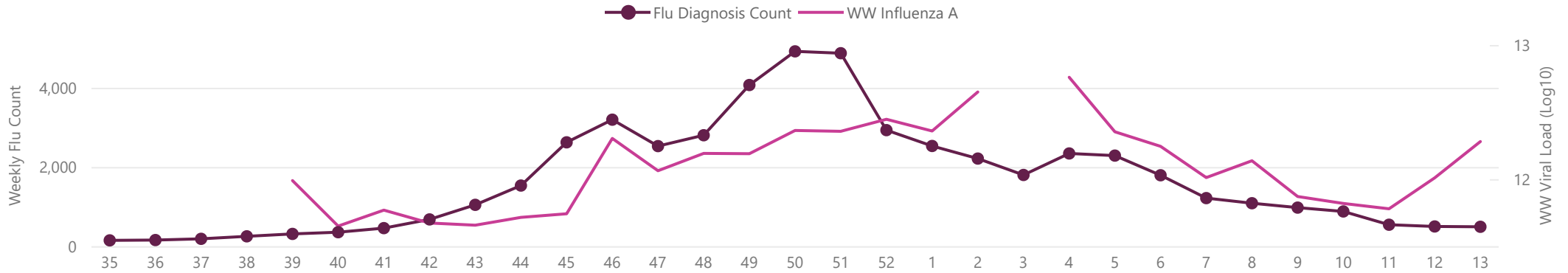
51,680
Flu Diagnoses

5,897
RSV Diagnoses

23,641
COVID-19 Diagnoses

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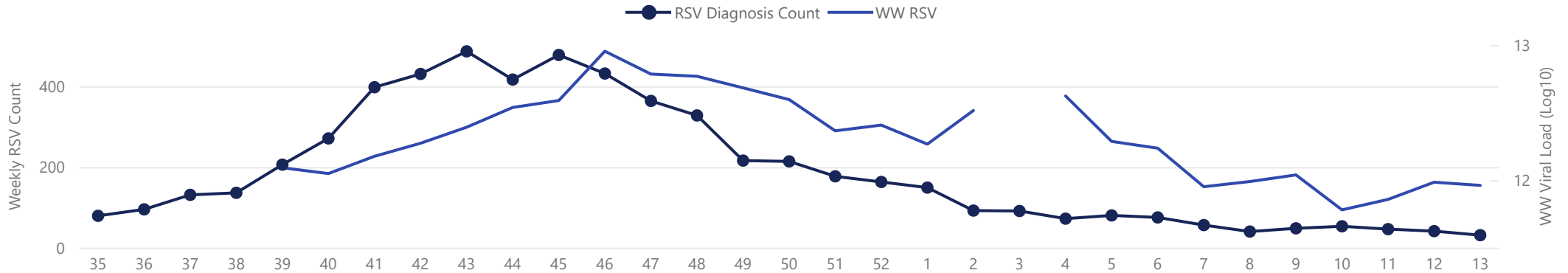# Respiratory Diagnoses (Flu, RSV, COVID) Weekly Counts with Wastewater Trends for Current 2023-2024 Flu Season
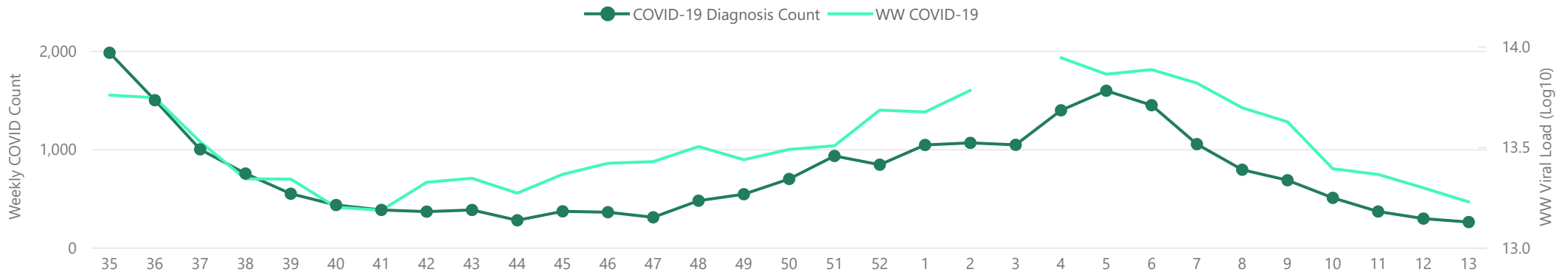

COVID-19 in wastewater (WW) is consistently tested on a weekly basis. **Testing for Influenza A and RSV in wastewater resumed on a weekly basis on 9/25/2023 (MMWR Week 2023-39).**

There was no WW sampling 2024-03 due to cold weather events.
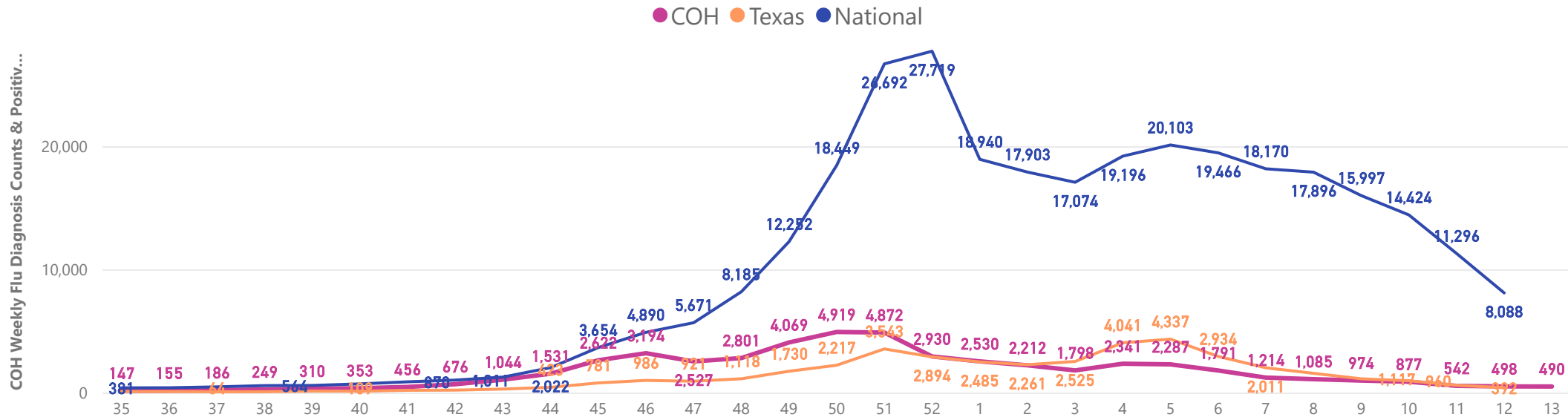
COH Flu Diagnosis Weekly Counts & Percentage of Visits with National and Texas Flu Trends for Current 2023-2024 Flu Season

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
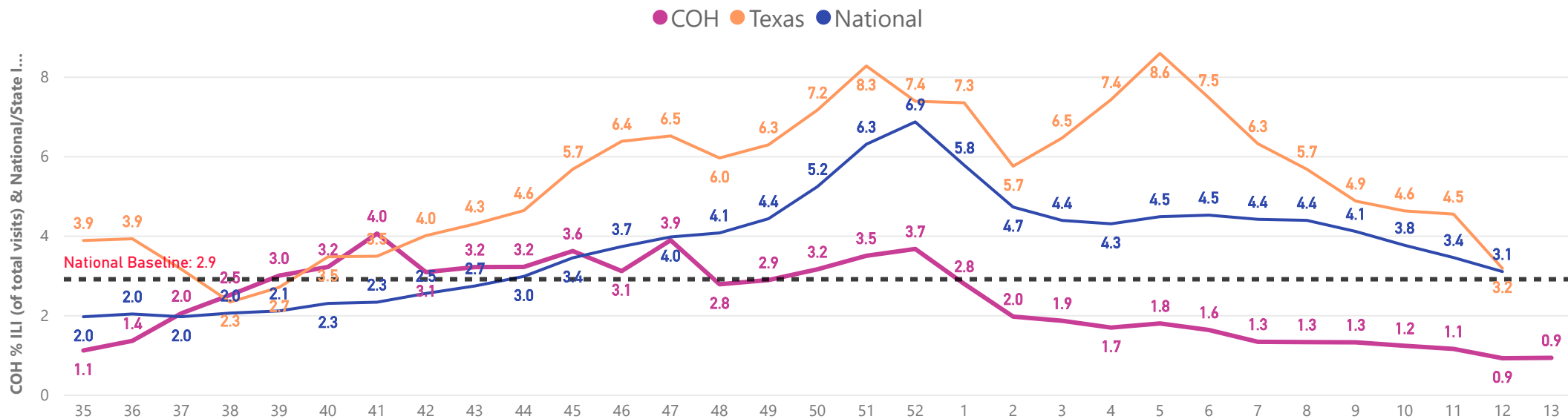
Note on bottom figure: this figure is for comparison of general trends only. National and Texas weekly values (percentage of visits for ILI) are sourced ILINet via CDC's FluView and are displayed with weekly percent ILI (out of total visits) from ESSENCE for the COH 126 ZIP codes.
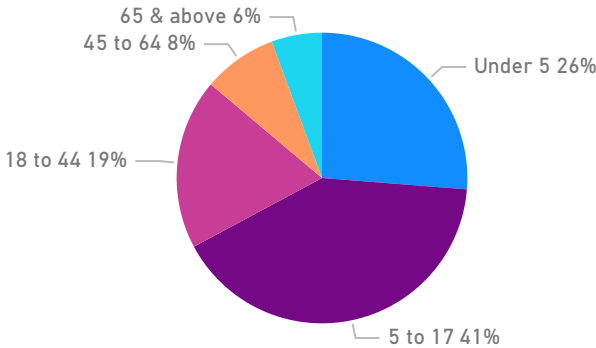
The dashed line on figure corresponds to the 2023-2024 national baseline value.

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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
3,311

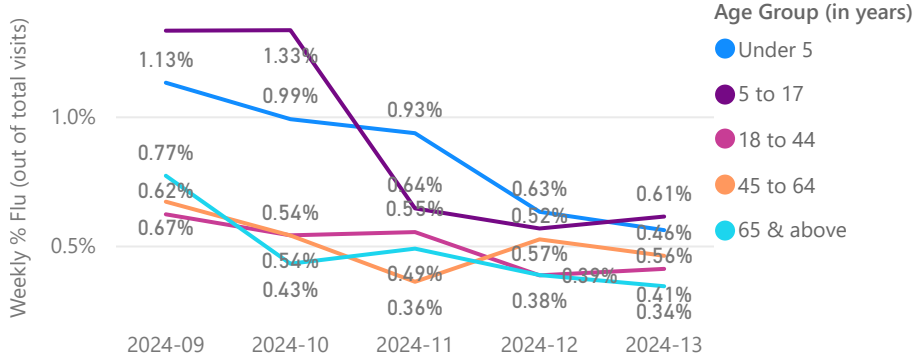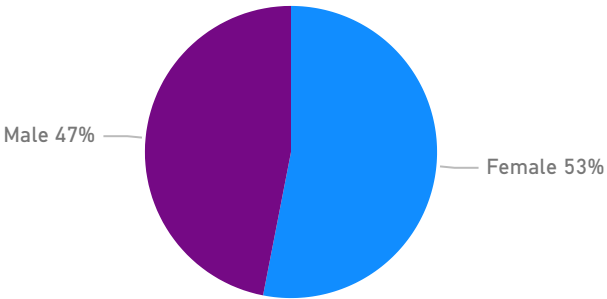### AGE GROUP: % Distribution for Current Season
- Under 5: 26%
- 5 to 17: 41%
- 18 to 44: 19%
- 45 to 64: 8%
- 65 & above: 6%

AGE GROUP: % Distribution by Week

Age Group	2024-09	2024-10	2024-11	2024-12	2024-13
65 & above					
45 to 64			11%	10%	
18 to 44	17%	16%	25%	20%	21%
5 to 17	44%	48%	30%	35%	40%
Under 5	25%	25%	31%	28%	24%
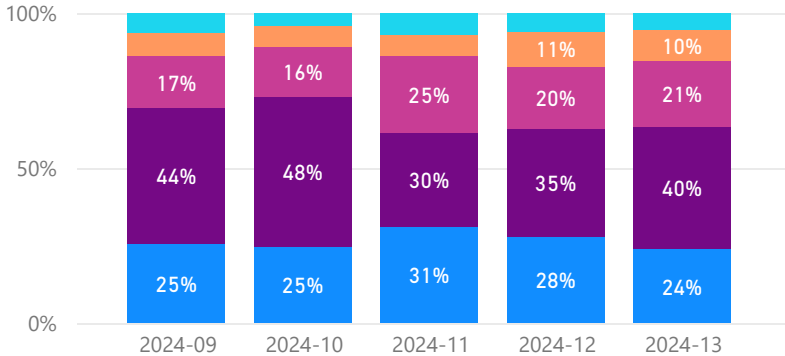
AGE GROUP: % Flu of Total Visits by Week

Weekly % Flu (out of total visits)

Age Group (in years)
- Under 5
- 5 to 17
- 18 to 44
- 45 to 64
- 65 & above

Under 5: 1.13%, 0.99%, 0.93%, 0.63%, 0.61%
5 to 17: 1.33%, 0.64%, 0.52%, 0.46%
18 to 44: 0.77%, 0.54%, 0.55%, 0.57%, 0.56%
45 to 64: 0.62%, 0.54%, 0.49%, 0.38%, 0.41%
65 & above: 0.67%, 0.43%, 0.36%, 0.33%, 0.34%

SEX: % Distribution for Current Season
- Male: 47%
- Female: 53%

SEX: % Distribution by Week
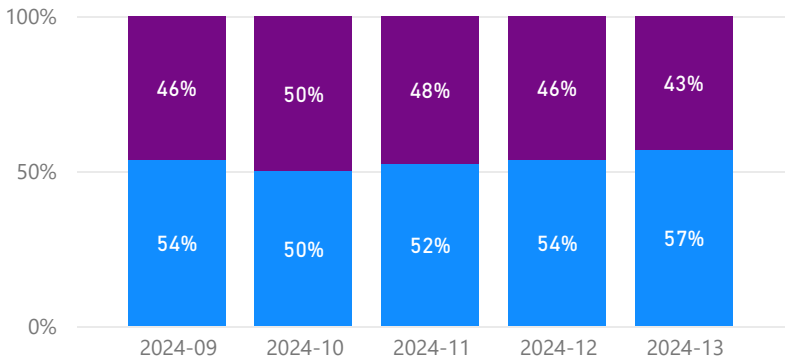
Sex	2024-09	2024-10	2024-11	2024-12	2024-13
Male	46%	50%	48%	46%	43%
Female	54%	50%	52%	54%	57%

SEX: % Flu of Total Visits by Week

Weekly % Flu (out of total visits)

Sex
- Female
- Male

Female: 0.95%, 0.81%, 0.59%, 0.50%, 0.52%
Male: 1.02%, 0.98%, 0.68%, 0.53%, 0.49%

RACE-ETHNICITY: % Distribution for Current Season
- Hispanic: 39%
- NH White: 23%
- NH Black: 28%
- NH Asian: 6%
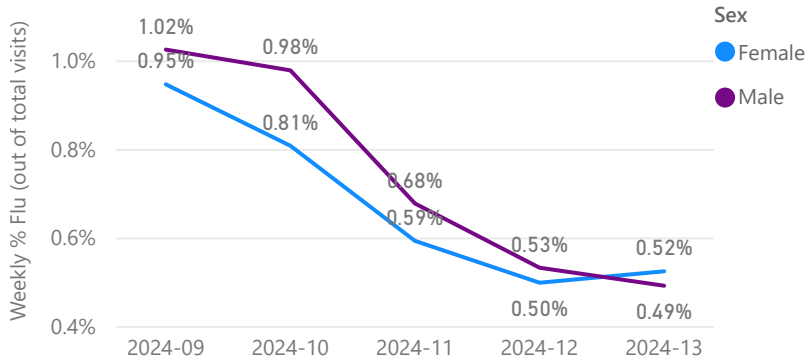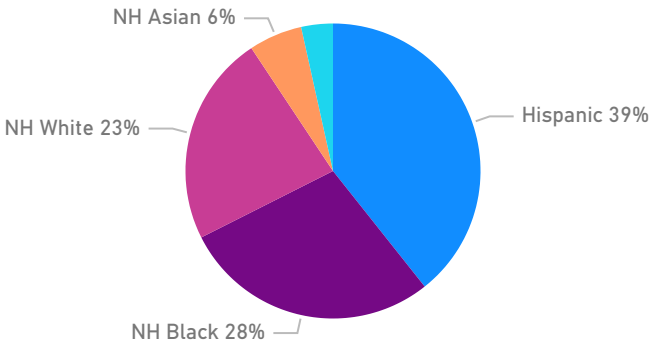
RACE-ETHNICITY: % Distribution by Week

Race Ethnicity	2024-09	2024-10	2024-11	2024-12	2024-13
NH White	24%	22%	20%	25%	24%
NH Black	27%	26%	27%	30%	34%
Hispanic	40%	41%	42%	36%	34%
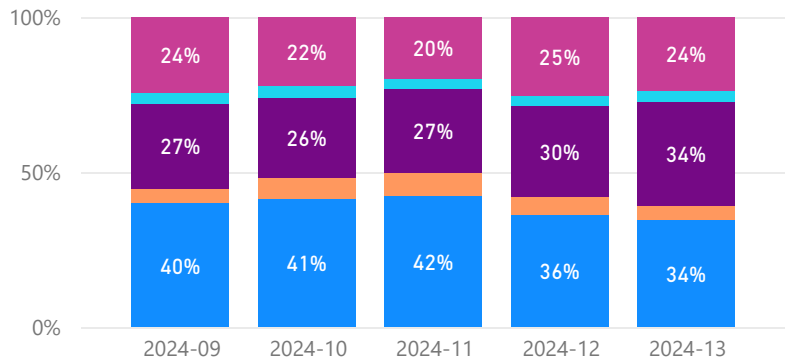
RACE-ETHNICITY: % Flu of Total Visits by Week

Weekly % Flu (out of total visits)

Race Ethnicity Group
- Hispanic
- NH Asian
- NH Black
- NH Other Race
- NH White

NH Asian: 1.06%, 1.40%, 0.98%, 0.69%, 0.69%
NH Black: 1.12%, 1.00%, 0.73%, 0.61%, 0.56%
Hispanic: 0.90%, 0.95%, 0.67%, 0.51%, 0.48%
NH Other Race: 0.77%, 0.93%, 0.51%, 0.42%, 0.49%
NH White: 0.64%, 0.43%, 0.41%, 0.39%

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

Weekly ILI Syndrome Count

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Weekly Resp Syndrome Count

Legend: 2018-2019 · 2019-2020 · 2020-2021 · 2021-2022 · 2022-2023 · 2023-2024 (Current)

Select Region

COH ZIP | PH6/5S

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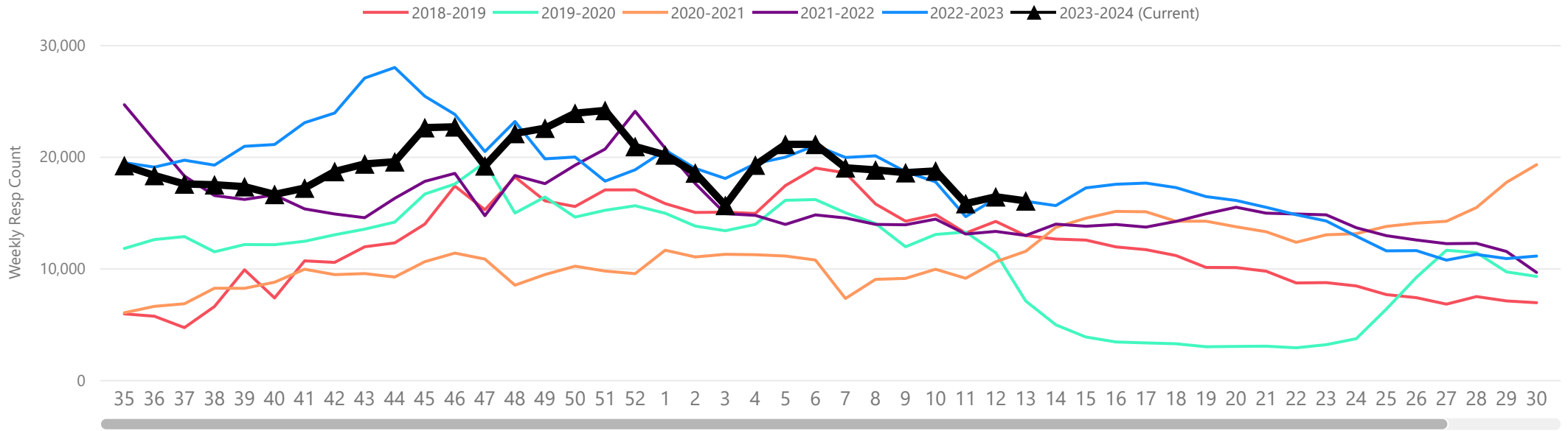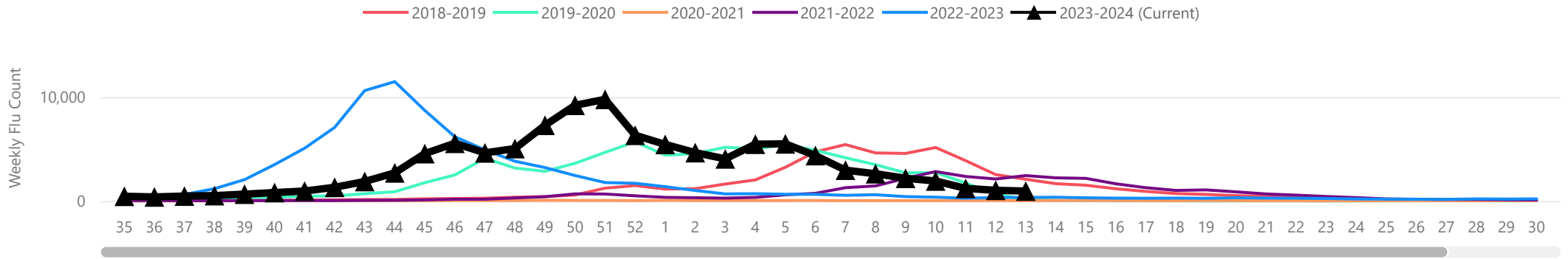
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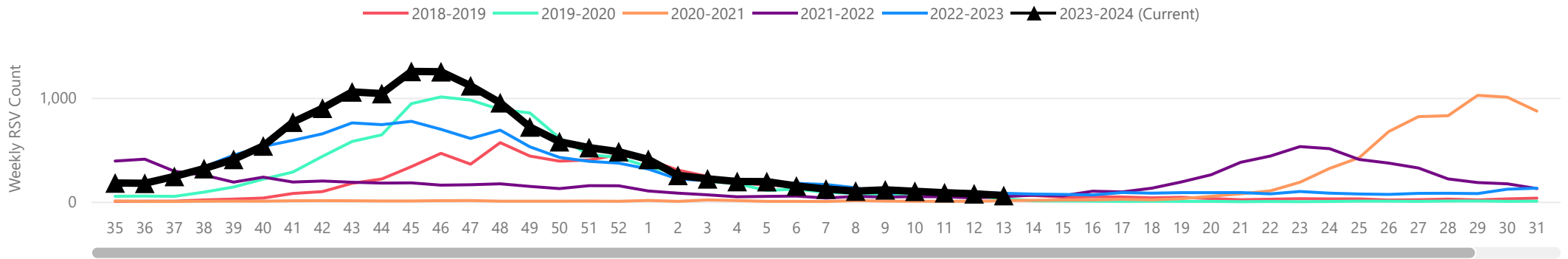
The Respiratory (Resp) syndrome includes terms and their associated keywords such as "Acute Bronchitis", "Chest Congestion", "Cough", "Shortness of Breath", "Acute Respiratory Distress".

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

Weekly Flu Diagnosis Count

Legend: 2018-2019, 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024 (Current)

Weekly RSV Diagnosis Count

Legend: 2018-2019, 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024 (Current)

Weekly COVID-19 Diagnosis Count

Legend: 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024 (Current)

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:

104,975
Flu Diagnoses

14,565
RSV Diagnoses

54,604
COVID-19 Diagnoses

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