



HOUSTON HEALTH
DEPARTMENT

Houston Health Department

2023-2024 Weekly Influenza Report
Syndromic Surveillance

MMWR Week 2023 43 (ending 10/28/2023)

Key Highlights:

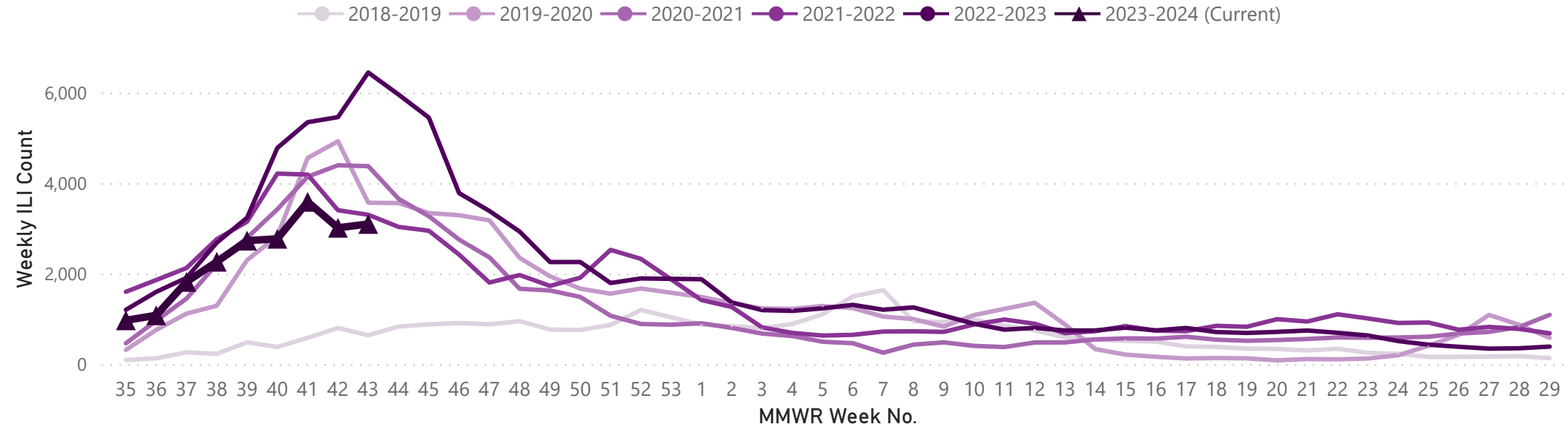
Historically, the influenza season begins around the first of October, usually MMWR Week 40. Last season (2022-2023), HHD observed an uptick in influenza prior to Week 40. Because of this slight change in timeline from the traditional influenza season, all figures in this report currently begin on Week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

Figures begin on page 3 of this report.

- **ILI & Resp Syndrome Historical (COH), page 3:** The **weekly ILI syndrome count is currently on an increasing trend**, similar to the trend and counts of the last few seasons for the city of Houston (126 ZIP codes). The weekly Resp syndrome count is on a slight increasing trend, consistent with previous seasons for the timeframe.
- **Respiratory Diagnoses Historical (COH), page 4:** The **weekly flu diagnosis count is on a slight increasing trend**, however, counts are still low compared to those of the previous season (2022-2023) for the same timeframe. The **weekly RSV diagnosis count is on increasing trend and current counts are slightly higher than those of previous seasons** from the same timeframe. The **weekly COVID-19 diagnosis count is on a decreasing trend**, similar to trends and counts seen in previous seasons for this timeframe.
- **Current Respiratory Diagnoses with Wastewater data, page 5:** weekly influenza diagnosis counts have been increasing since 2023 Week 35, however, the same increasing trend is not currently seen in wastewater, where influenza A levels remain relatively low. **Both RSV diagnosis counts and wastewater levels have been increasing since 2023 Week 39**, while COVID-19 diagnosis counts and wastewater levels continue to decrease.
- **Current Flu Season with Texas and National trends, pages 6 & 7:** Both national and Texas counts of positive influenza tests by clinical laboratories and ILINet % of visits for ILI are increasing.
- **Demographics of Flu Diagnoses for COH, page 8:** a **majority of the current seasons flu diagnoses** in COH are **children ages 5 to 17**, who also have the highest weekly percentage of total visits. **Males** make up the slight majority of flu diagnoses and have a higher percentage of total visits. **Hispanics followed by non-Hispanic Black** make up a majority of flu diagnoses, and have the highest percentages of total visits.
- Page 9 & 10 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
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The syndromic surveillance system ESSENCE (Electric Surveillance System for the Early Notification of Community-based Epidemics) assigns incoming records to preset syndrome groups.

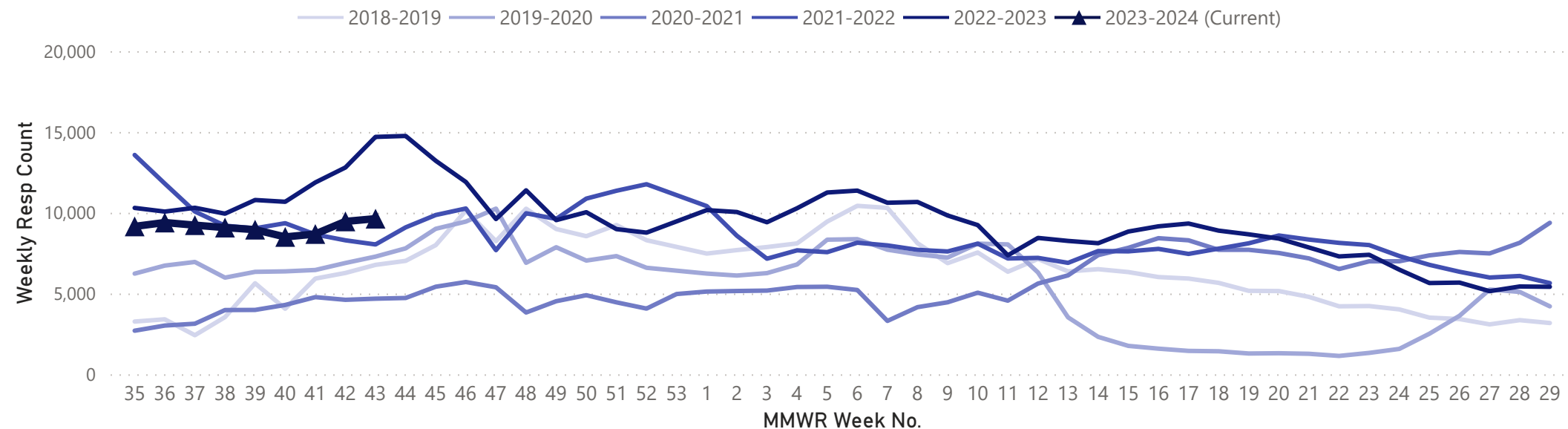
A syndrome group is a set of associated symptoms, conditions, and/or diagnoses. ESSENCE searches chief complaint and discharge diagnosis fields for keywords and ICD codes to determine if a record fits into one or more of the pre-defined syndrome groups.

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).

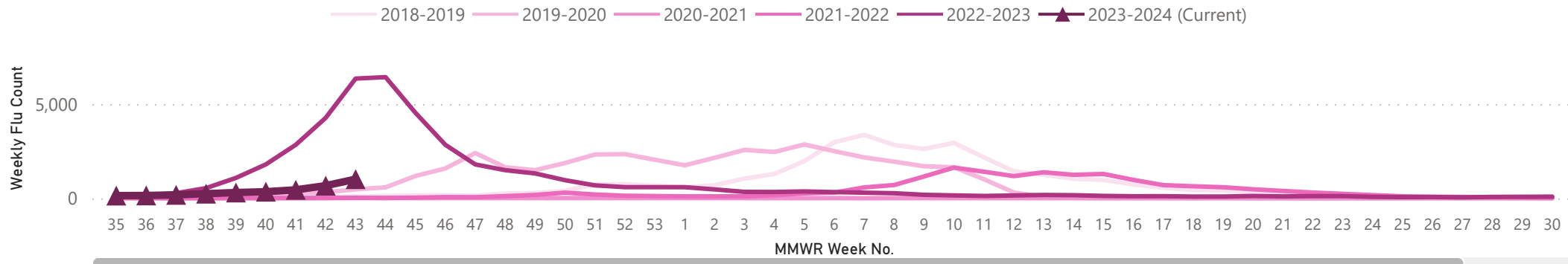
The **Respiratory (Resp) syndrome** includes terms and their associated keywords such as "Acute Bronchitis", "Chest Congestion", "Cough", "Shortness of Breath", "Acute Respiratory Distress".

Weekly Resp Syndrome Count



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

Weekly Flu Diagnosis Count

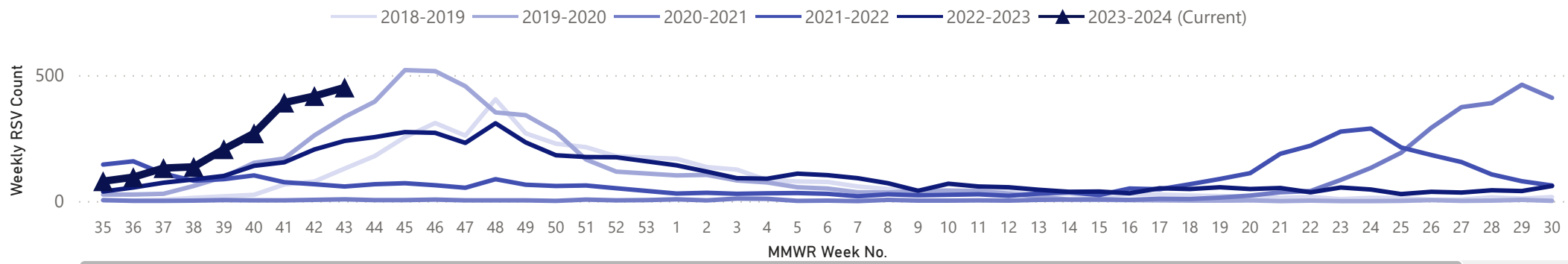


Select Region

COH ZIP	PH6/5S
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The **discharge diagnosis** field in an ESSENCE record contains ICD codes given by the provider/facility.

Weekly RSV Diagnosis Count



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:

3,547

Flu Diagnoses

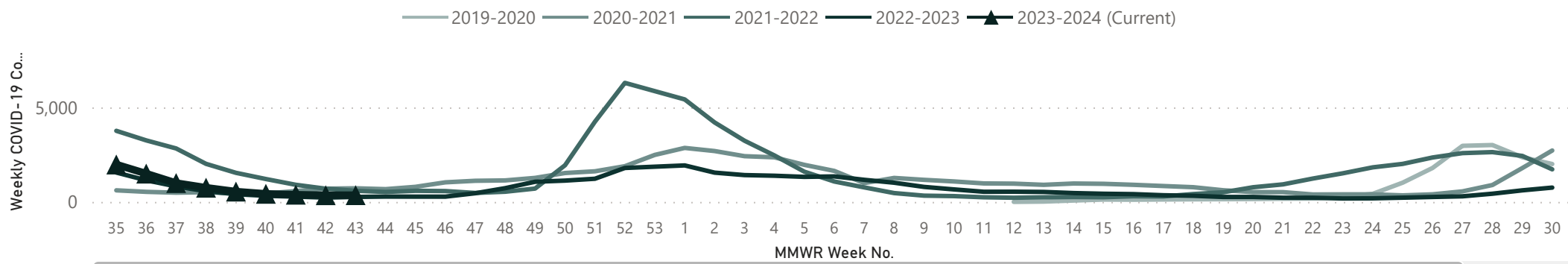
2,175

RSV Diagnoses

7,290

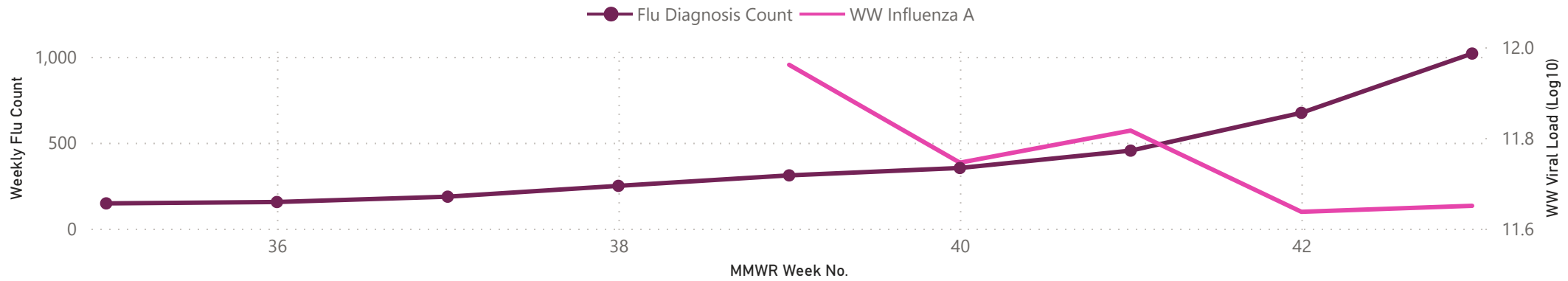
COVID-19 Diagnoses

Weekly COVID-19 Diagnosis Count



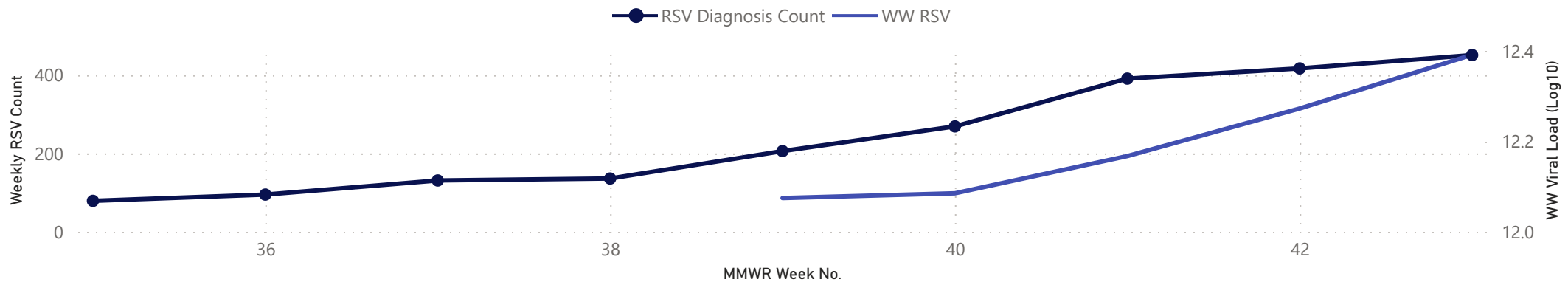
Respiratory Diagnoses (Flu, RSV, COVID) Weekly Counts with Wastewater Trends for Current 2023-2024 Flu Season

COH Flu Diagnosis Count with WW Influenza A

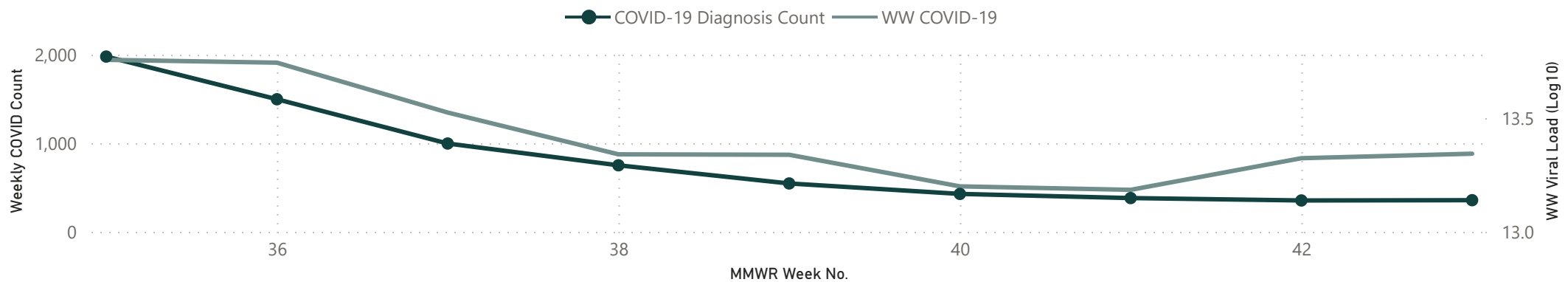


COVID-19 in wastewater (WW) is consistently tested on a weekly basis. **Testing for Influenza A and RSV in wastewater resumed on a weekly basis on 9/25/2023 (MMWR Week 2023-39).**

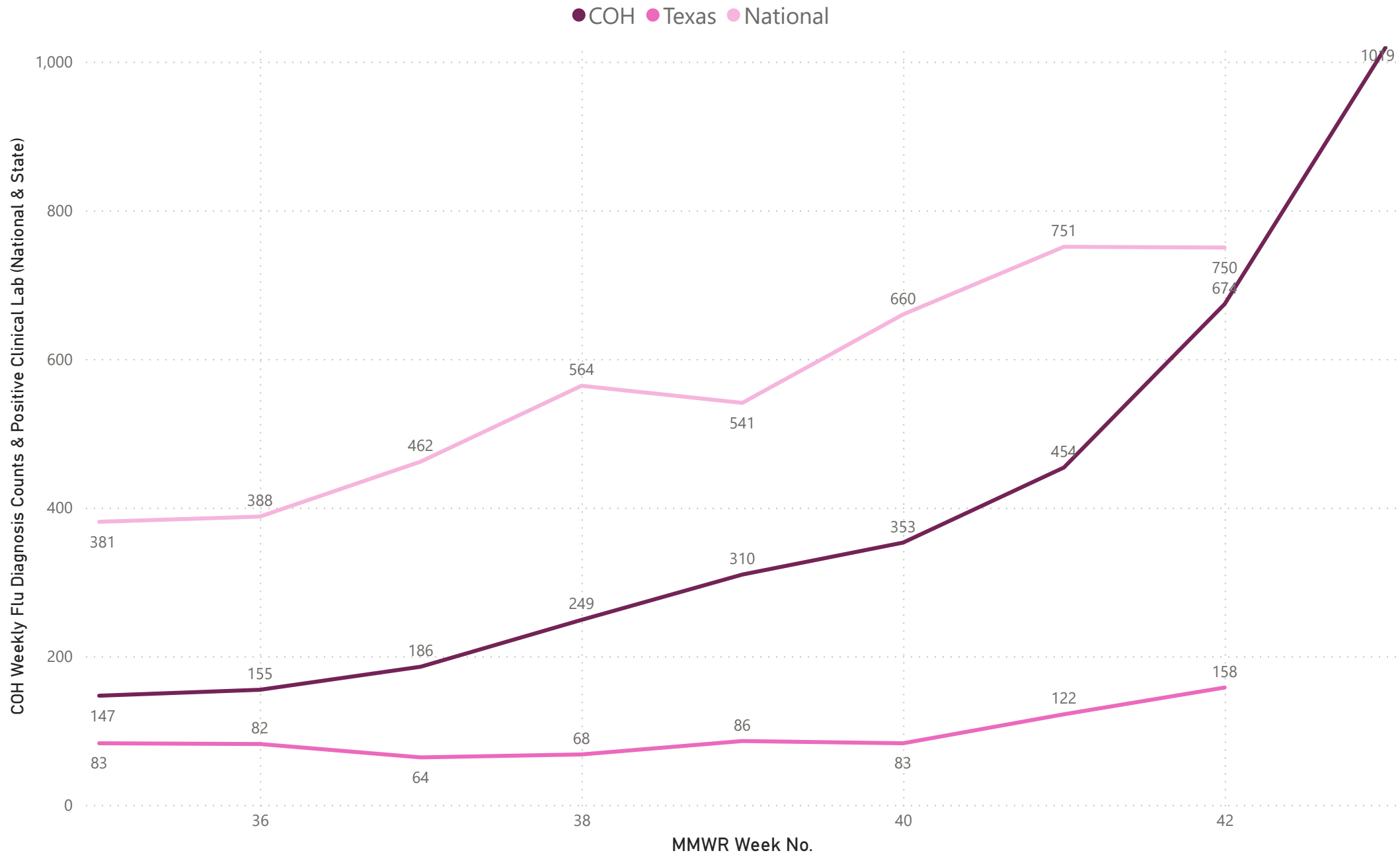
COH RSV Diagnosis Count with WW RSV



COH COVID-19 Diagnosis Count with WW COVID-19

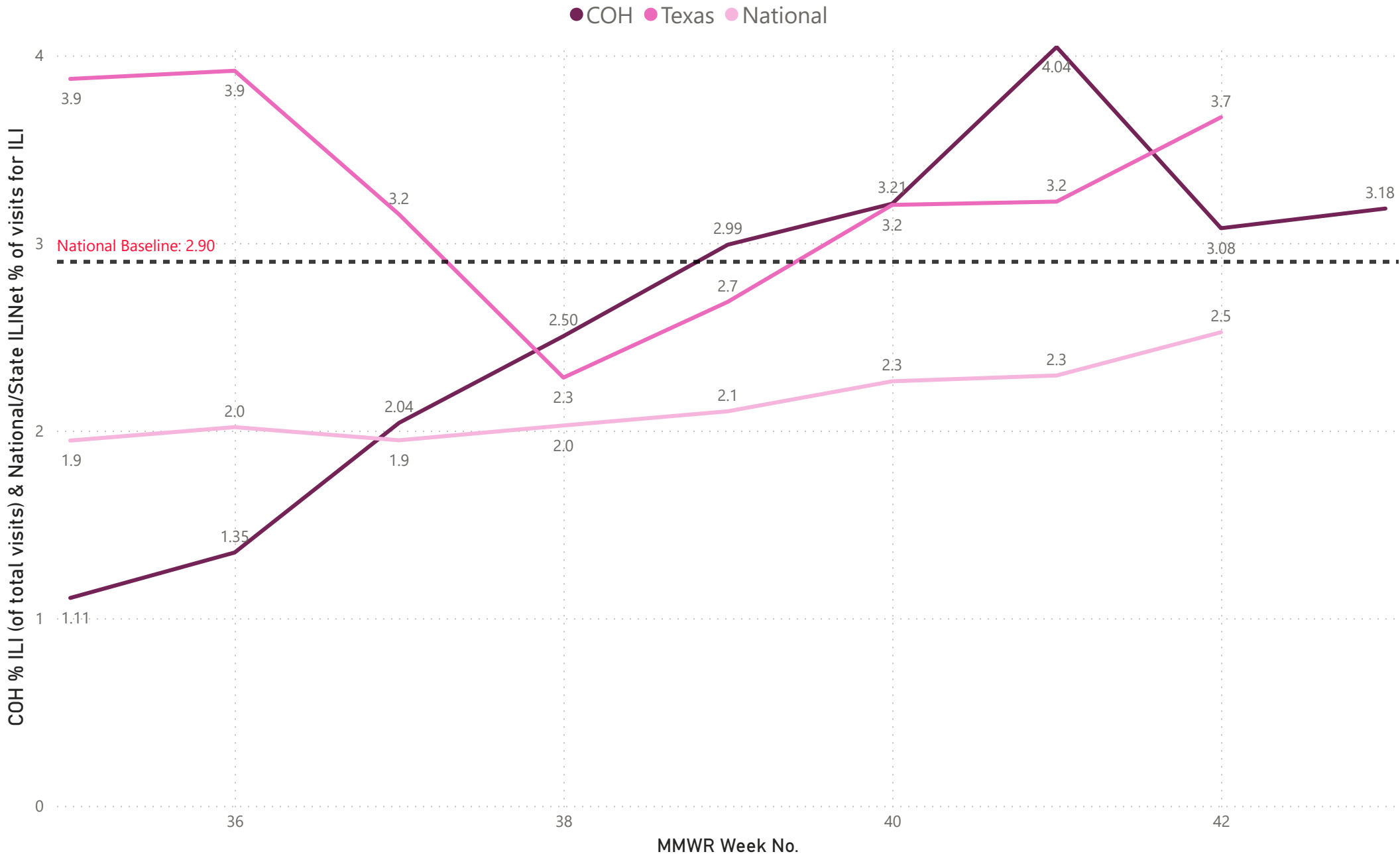


COH Flu Diagnosis Weekly Counts with National and Texas Clinical Positive Flu Labs for Current 2023-2024 Flu Season



Note: 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 Weekly Percent ILI with National and Texas Percentage of visits for ILI (ILINet) for Current 2023-2024 Flu Season



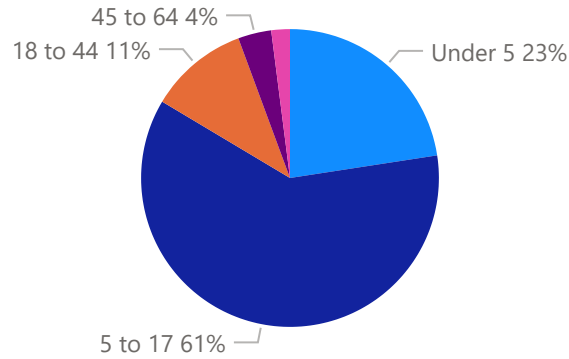
Note: this figure is for comparison of general trends only. National and Texas weekly values (percentage of visits for ILI) are sourced ILINet via CDC's FluView and are displayed with weekly percent ILI (out of total visits) from ESSENCE for the COH 126 ZIP codes.

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

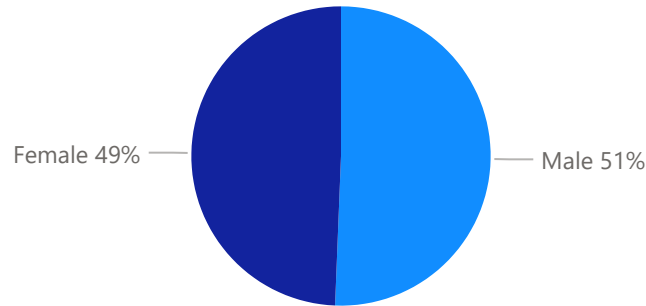
Demographics of Flu Diagnoses for 2023-2024 Flu Season (COH 126 ZIP Codes)

Current Flu Diagnosis Count
3,547

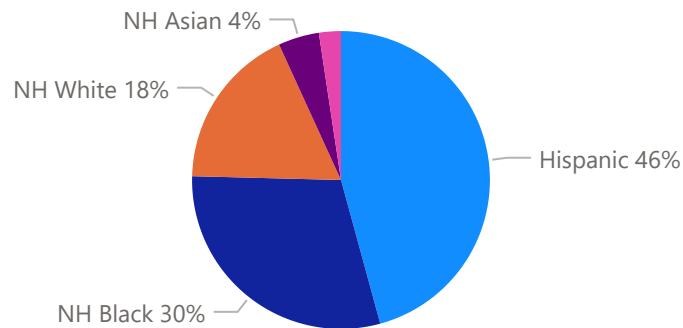
AGE GROUP: % Distribution for Current Season



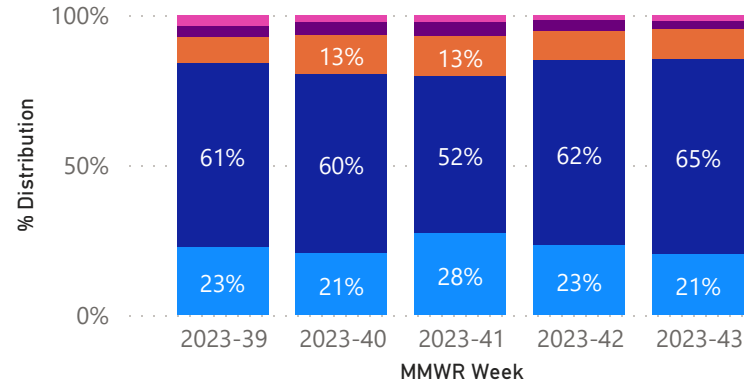
SEX: % Distribution for Current Season



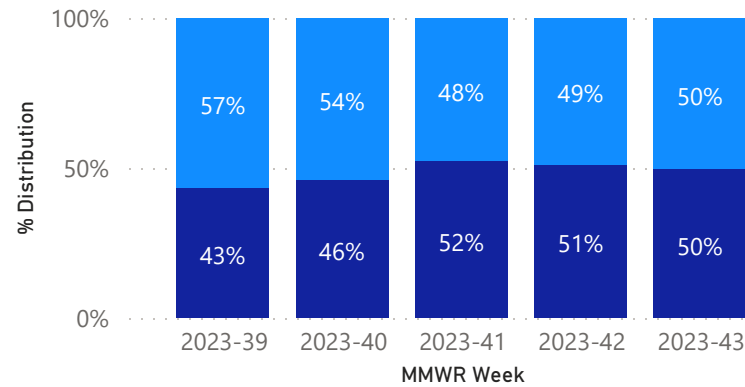
RACE-ETHNICITY: % Distribution for Current Season



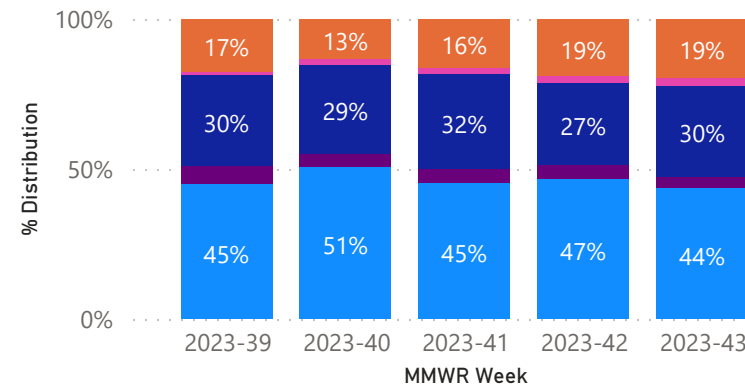
AGE GROUP: % Distribution by Week



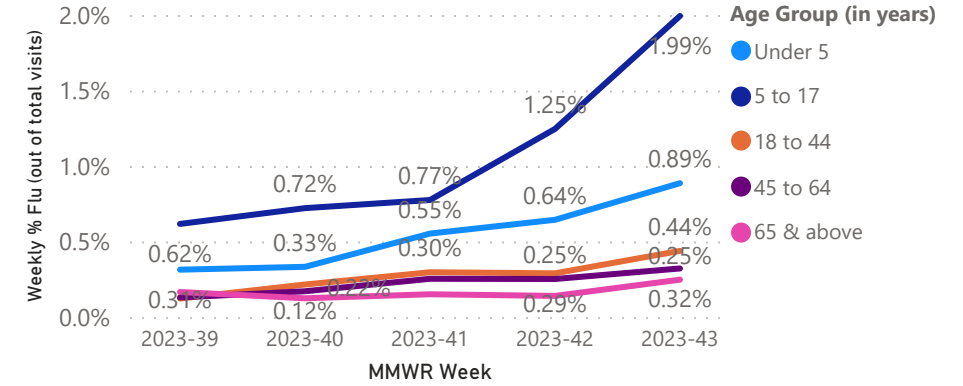
SEX: % Distribution by Week



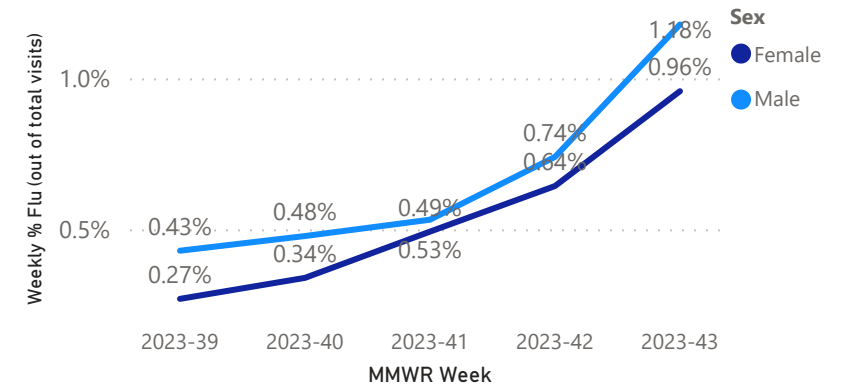
RACE-ETHNICITY: % Distribution by Week



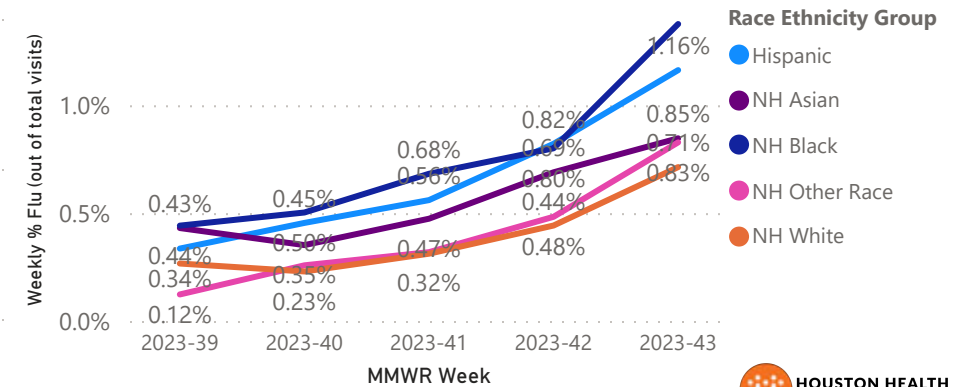
AGE GROUP: % Flu of Total Visits by Week



SEX: % Flu of Total Visits by Week

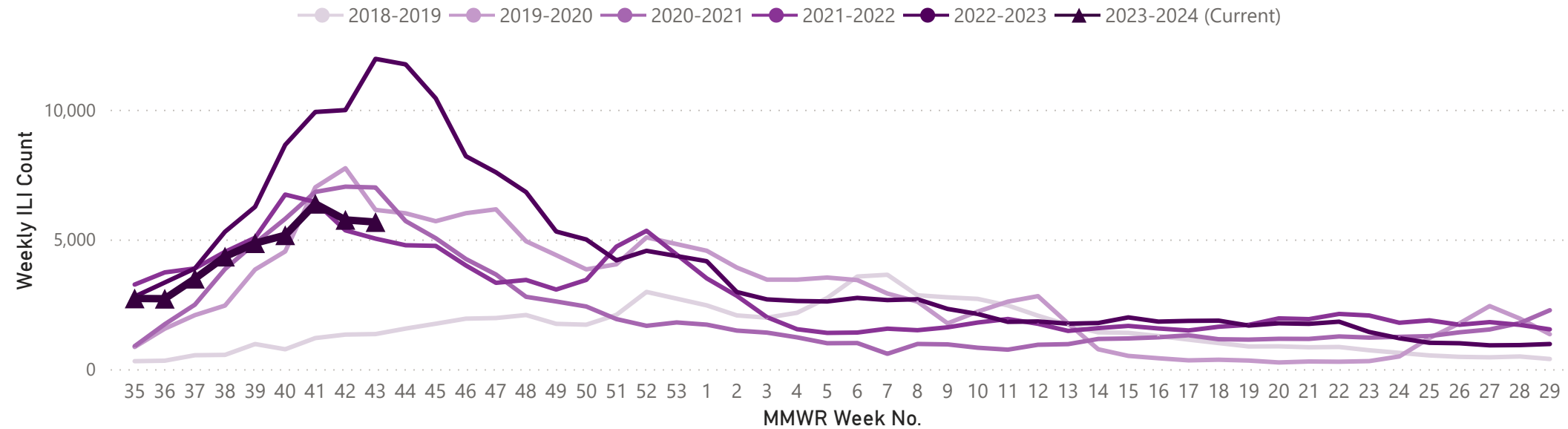


RACE-ETHNICITY: % Flu of Total Visits by Week



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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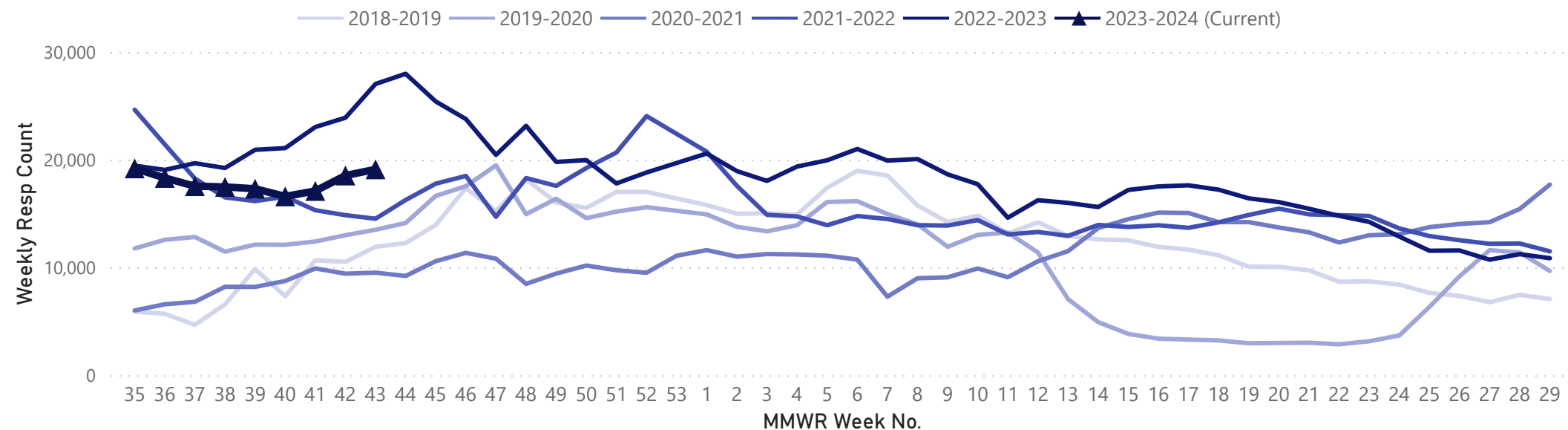
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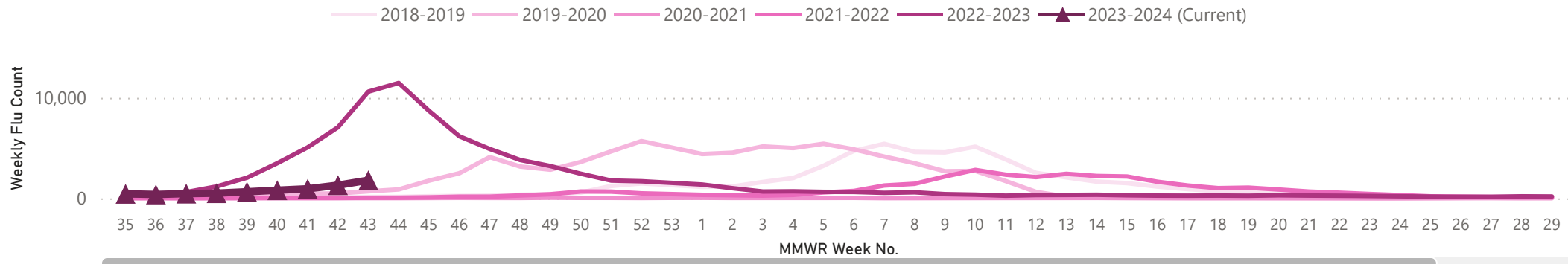
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Weekly Resp Syndrome Count



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

Weekly Flu Diagnosis Count



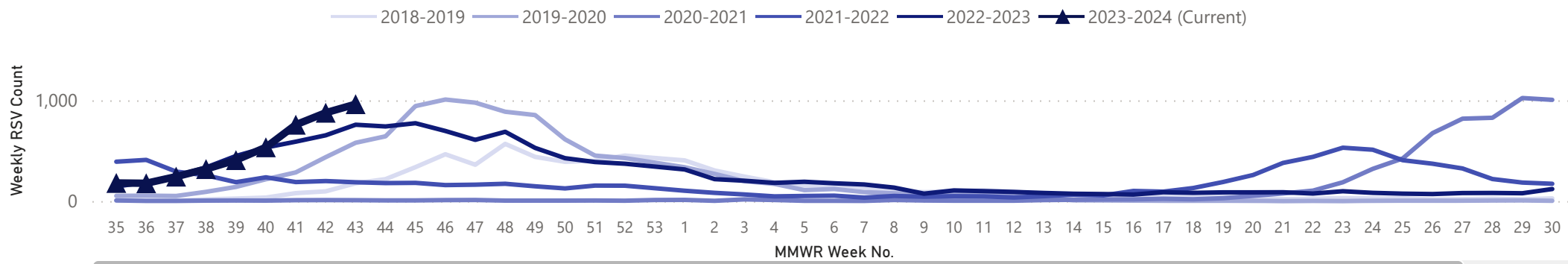
Select Region

COH ZIP

PH6/5S

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Weekly RSV Diagnosis Count



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

7,405

Flu Diagnoses

4,456

RSV Diagnoses

17,102

COVID-19 Diagnoses

Weekly COVID-19 Diagnosis Count

