

Using ACS data to advance equity and inclusion in access to COVID-19 vaccinations

B Perez, K Bobrow, K Rees on behalf of Washington County Public Health

05/18/2023



WASHINGTON COUNTY
OREGON

Department of Health and Human Services

ABOUT WASHINGTON COUNTY HEALTH AND HUMAN SERVICES

We work in partnership with our community to **improve and protect the public's health** and achieve health equity through prevention, regulation and education

Together, we promote health and wellbeing by influencing policies, systems and environments; providing education, programs and services; and responding to the needs of vulnerable populations.

Our work is led and influenced by our values of **equity, accountability, transparency, respect, cultural responsiveness and collaboration.**

WASHINGTON COUNTY VACCINE TEAM FOR COVID-19

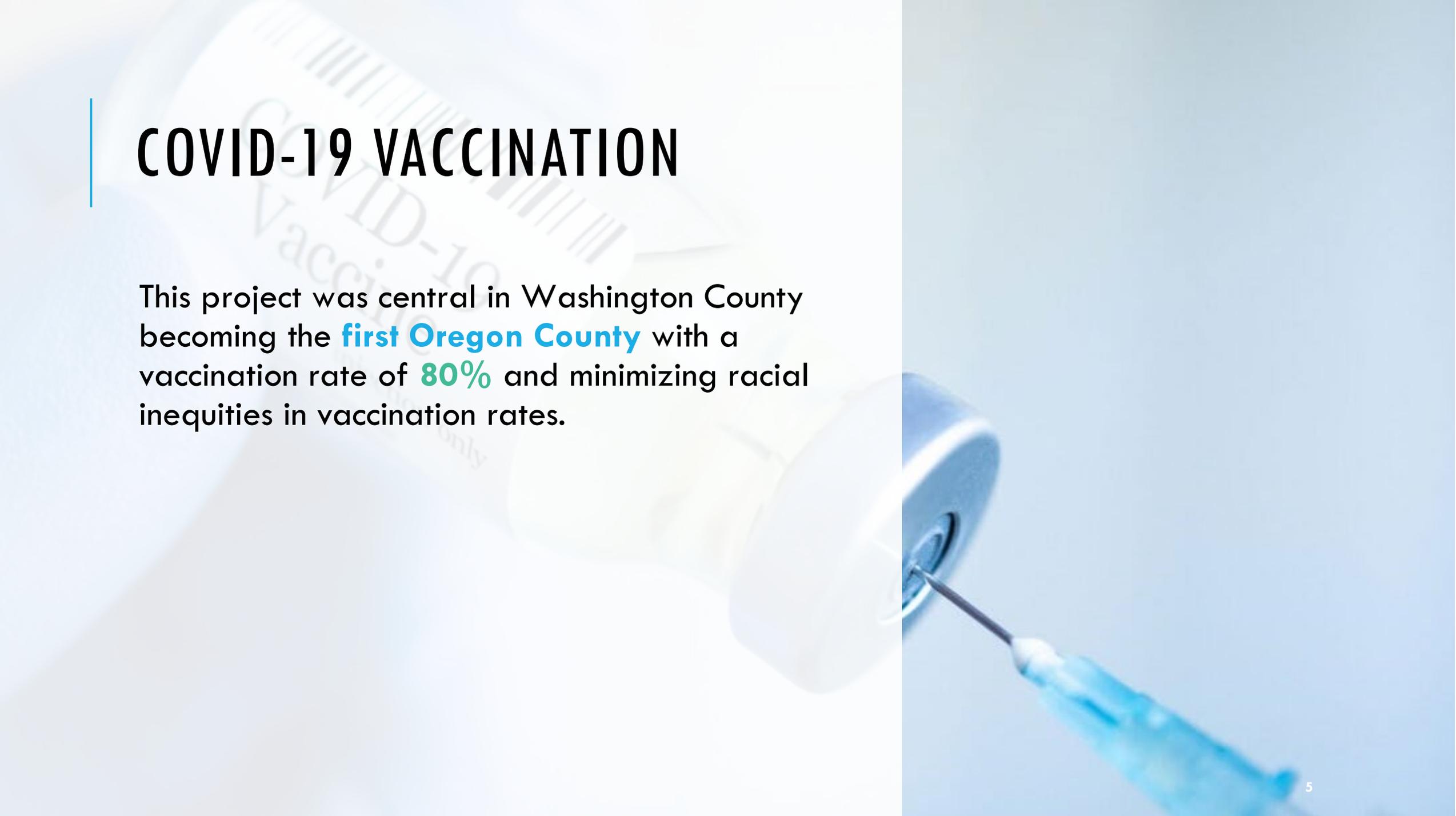
The Washington County Vaccine Team provided and promoted access to COVID-19 vaccinations with a **focus on individuals who are medically underserved, racial and ethnic communities with low vaccination rates** and those with barriers to vaccine access.

The team coordinated efforts with community-based organizations, federally qualified health centers, faith-based communities and non-governmental agencies to promote and achieve a vaccine equity goal of an 80% vaccination rate in marginalized populations.

RESEARCH,
ANALYTICS,
INFORMATICS
AND DATA

The public health science unit within Washington County Public Health.

We provide ongoing epidemiological and research data support to the Public Health Division and Health and Human Services Department.



COVID-19 VACCINATION

This project was central in Washington County becoming the **first Oregon County** with a vaccination rate of **80%** and minimizing racial inequities in vaccination rates.

BACKGROUND

The COVID-19 pandemic has had a disproportionate impact on racial/ethnic minority and underserved groups in the United States

To address this issue, Washington County Health and Human Services focused on allocating vaccination resources to these disproportionately affected communities, using a health equity approach

The team used data from the **American Community Survey (ACS)** and local surveillance data, specifically from the ALERT Immunization Information System, analyzing the data and creating visualizations with R.

Interactive dashboards and maps were created with R Markdown, Leaflet, and Flexdashboard, and were used to select geographic focus areas and specific sites for vaccination events.

THESE EFFORTS RESULTED IN

Doses administered through free home visitations:

529

Number of mobile clinics hosted:

371

Vaccination events open to children and their families:

388

Individuals being vaccinated:

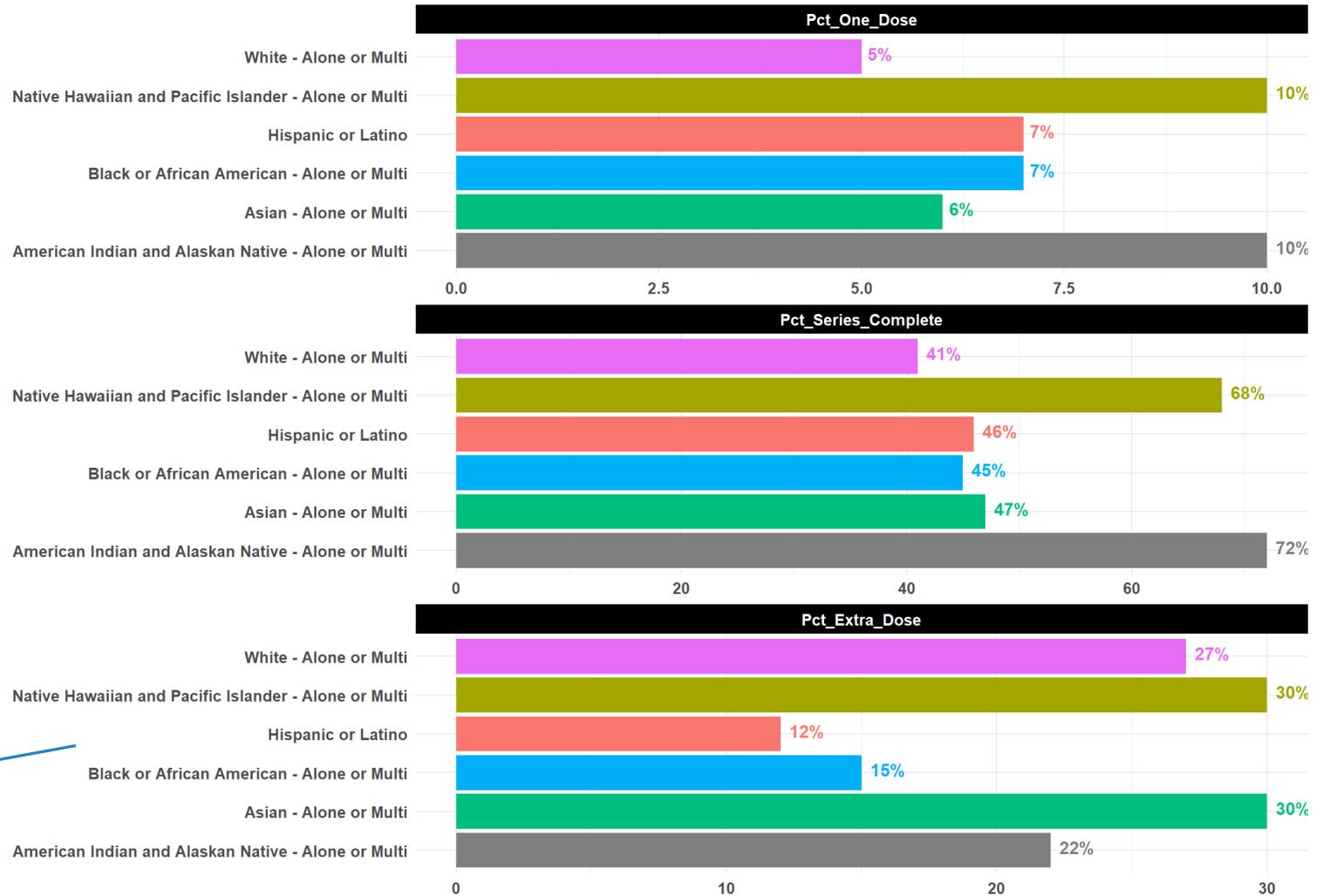
16,472

with over **70%** coming from disproportionately affected communities.

ADVANCING EQUITY AND INCLUSION WITH ACS DATA

We reported Vaccination Coverage using ALERT Immunization Information System in combination with **ACS B tables on Population Estimates by Race Alone or Multi**

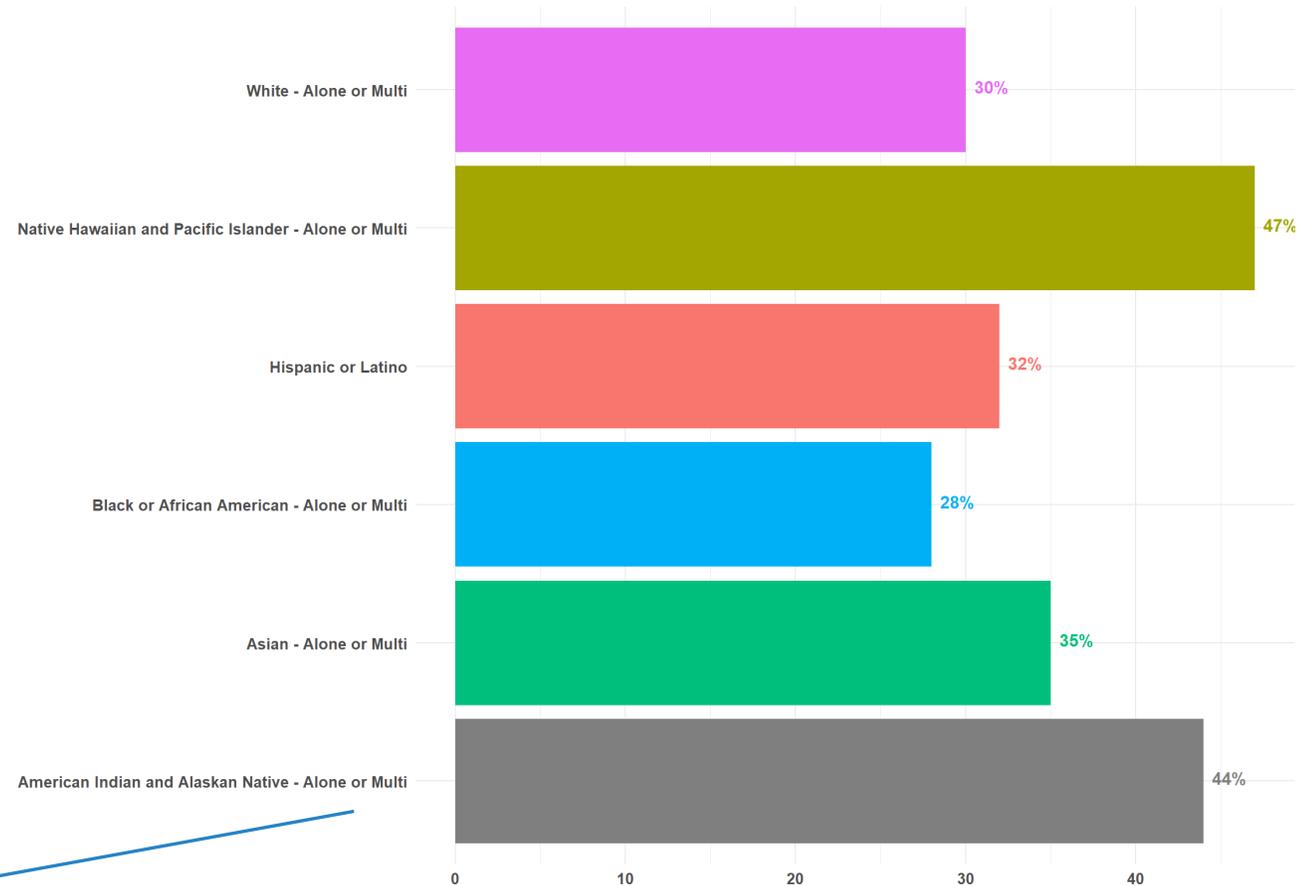
ACS B0208-B0213 tables for Race Alone or in Combination



ADVANCING EQUITY AND INCLUSION WITH ACS DATA

We tracked the Booster Eligibility Rate, using **ACS Population Estimates by Race Alone or Multi**

ACS B0208-B0213 tables for Race Alone or in Combination



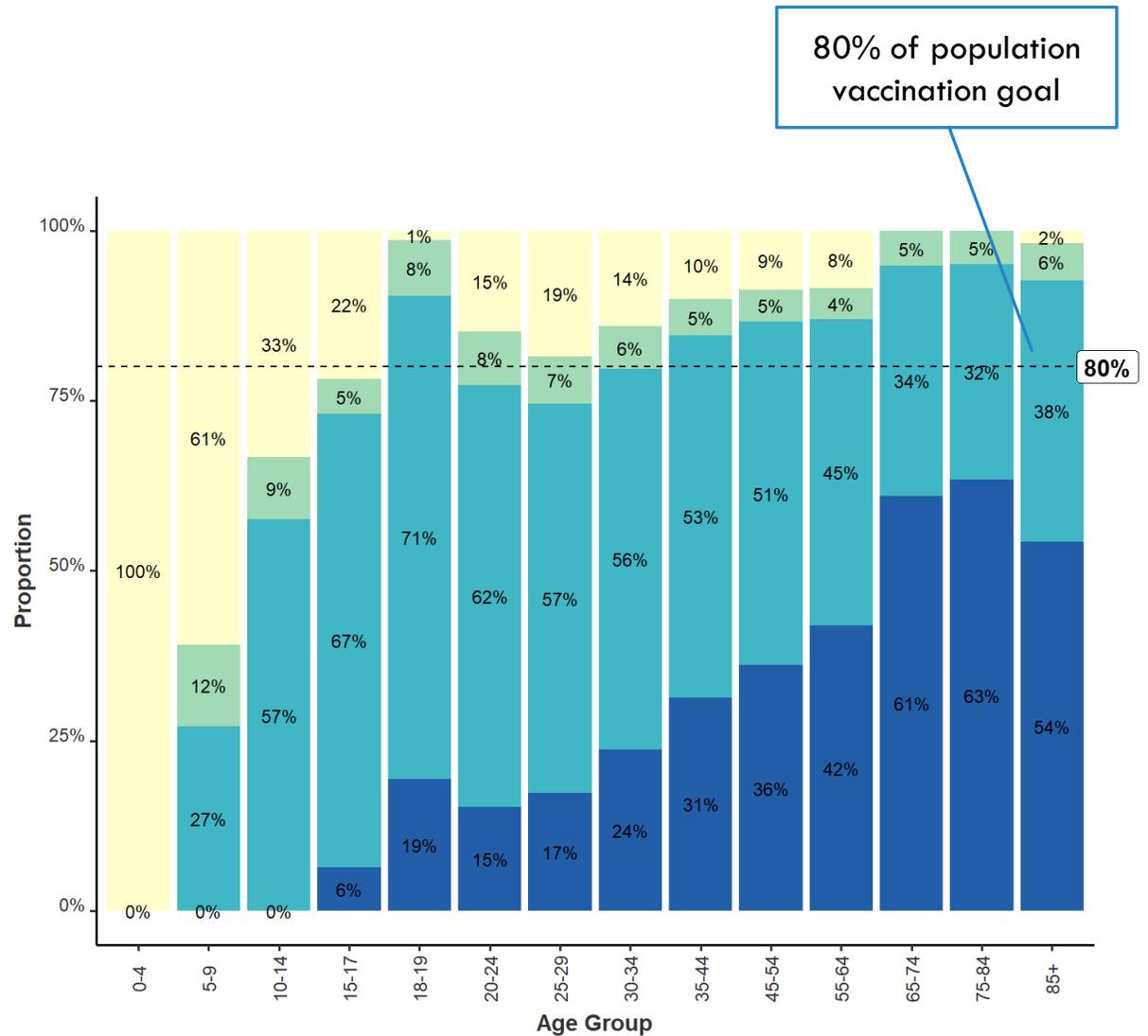
ADVANCING EQUITY AND INCLUSION WITH ACS DATA

We tracked the vaccination coverage by **Age** on a weekly basis.

In this chart, we can see which age groups had reached the goal of **80%** vaccination percentage of the population

Vaccination_Status

- % None
- % Partial
- % Full
- % Booster



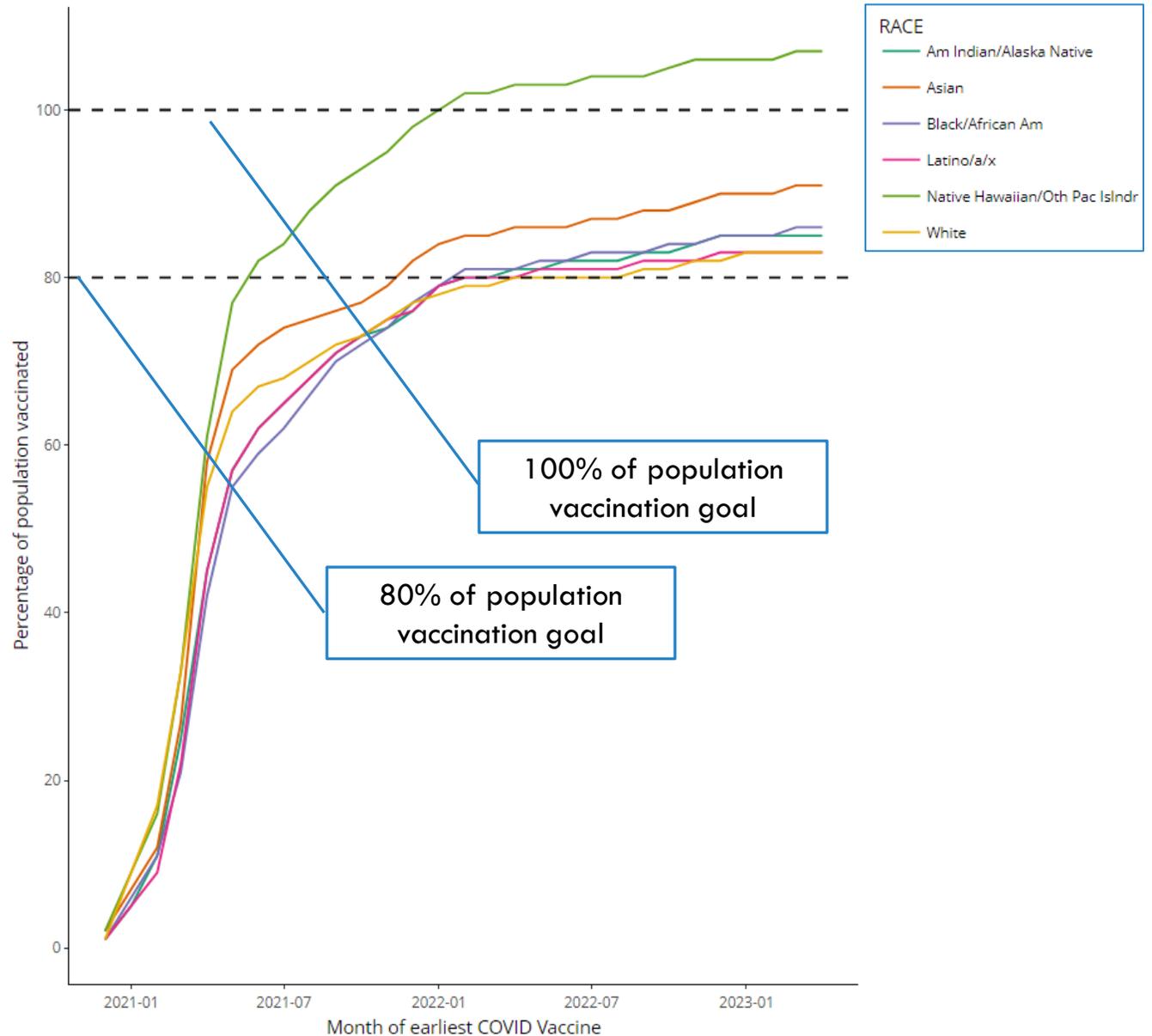
Age groups and population estimates from the ACS B01001 table

TRENDS OVER TIME

The team also used vaccine surveillance data to track trends over time and evaluate the impact on health equity, including reductions in disparities in vaccine coverage by race and ethnicity.

To the right, time trend on the percentage of population vaccinated with the COVID vaccine by race

Percentage of Population by Race with at least one dose of the COVID Vaccine



UTILITY OF THE ACS FOR OUR WORK WITH PARTNERS

One example of this work was the collaboration with **school district managers** and vaccination partners to identify school sites for mass vaccination campaigns, using **ACS data on sociodemographic characteristics and vulnerability measures**, immunization coverage data, and publicly available school-specific data to create school profiles and a priority ranking matrix.

Was presented weekly by an epi to the vaccine team to determine where to pursue mobile vaccine events, in addition to schools

YOUR RESPONSE IS
REQUIRED BY LAW

A message from the Director, U.S. Census Bureau...

About two weeks ago, the U.S. Census Bureau sent instructions for completing the American Community Survey to your address. We asked you to help us with this very important survey by completing it online. But we have not received your response yet.

If you have already completed the survey, thank you very much. If you have not, please complete the survey soon using ONE of the following two options.

Go to <https://respond.census.gov/acs> to complete the survey online.

The **ACS data** played a critical role in the success of these efforts.

American Community Survey

Two Ways to Complete the American Community Survey:



Option 1 – Go to <https://respond.census.gov/acs> to complete the survey online.
IMPORTANT: You will need information from the address label on the enclosed questionnaire to log in.



Option 2 – Fill out the enclosed questionnaire and mail it back in the postage-paid envelope.

Please choose **ONLY** one way to respond. If you need help or have questions about the American Community Survey, call the toll-free number.

ACS FOR OUR WORK WITH SCHOOL DISTRICTS

Background

Children are impacted by COVID-19 directly and indirectly

Approval for a COVID-19 vaccine for children 5 – 11 (FDA approval 10/29/21)

Beaverton, Hillsboro, and Tualatin/Tigard school districts were interested in partnering with vaccine providers (local public health, Virginia Garcia, MTI, etc.) to host school and school-adjacent COVID-19 vaccination events to promote rapid vaccination of eligible children

Methods

Mapped ACS and census data on sociodemographic and vulnerability measures by zip code and census tract

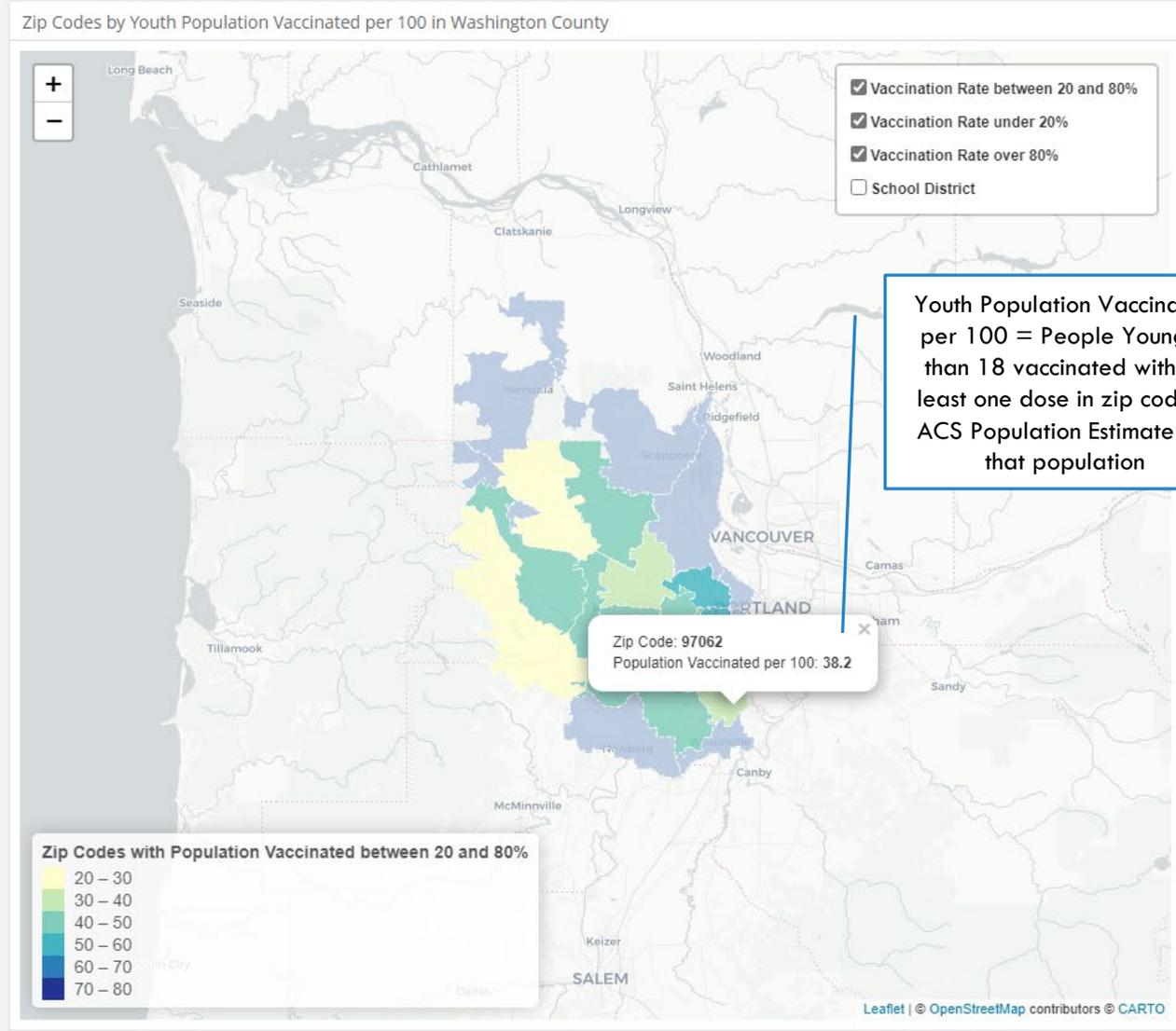
Mapped available immunization coverage data on older children and adults by zip code

Mapped Title 1 elementary schools and school district boundaries

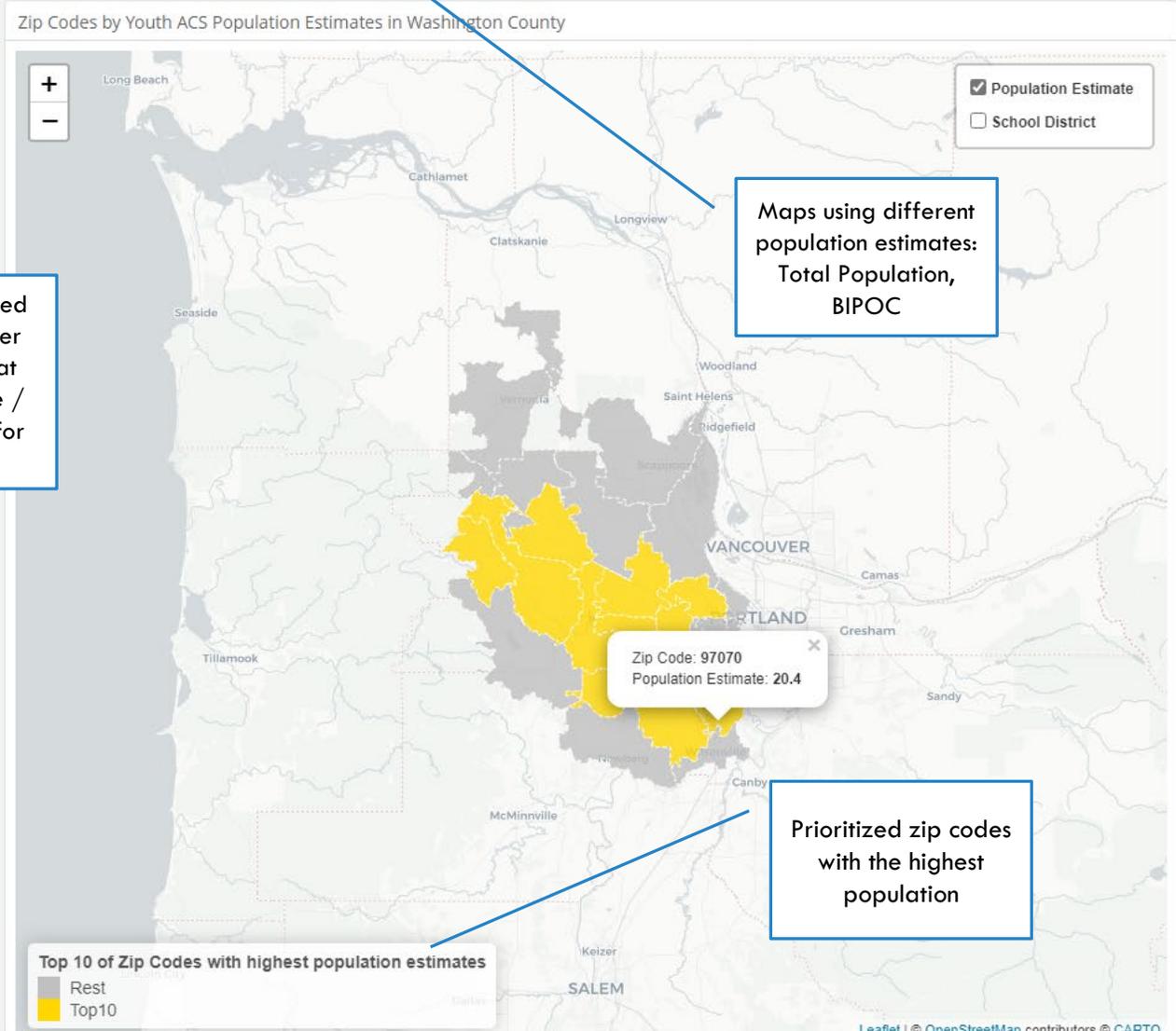
Reviewed profiles of schools (size etc.)

Reviewed planned and existing vaccine clinics (mass vaccination sites)

Generated a priority score and ranked schools



Youth Population Vaccinated per 100 = People Younger than 18 vaccinated with at least one dose in zip code / ACS Population Estimate for that population

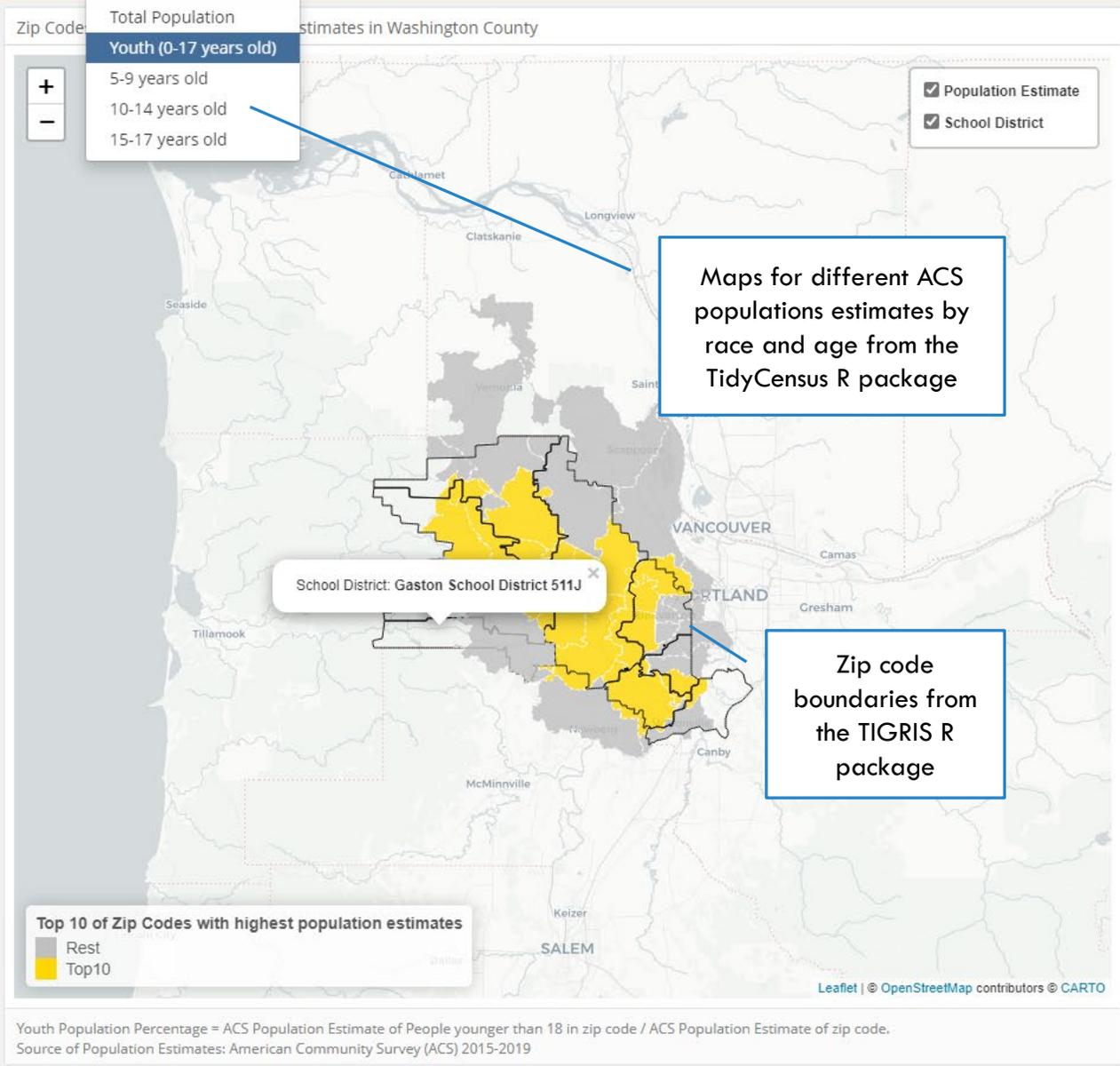
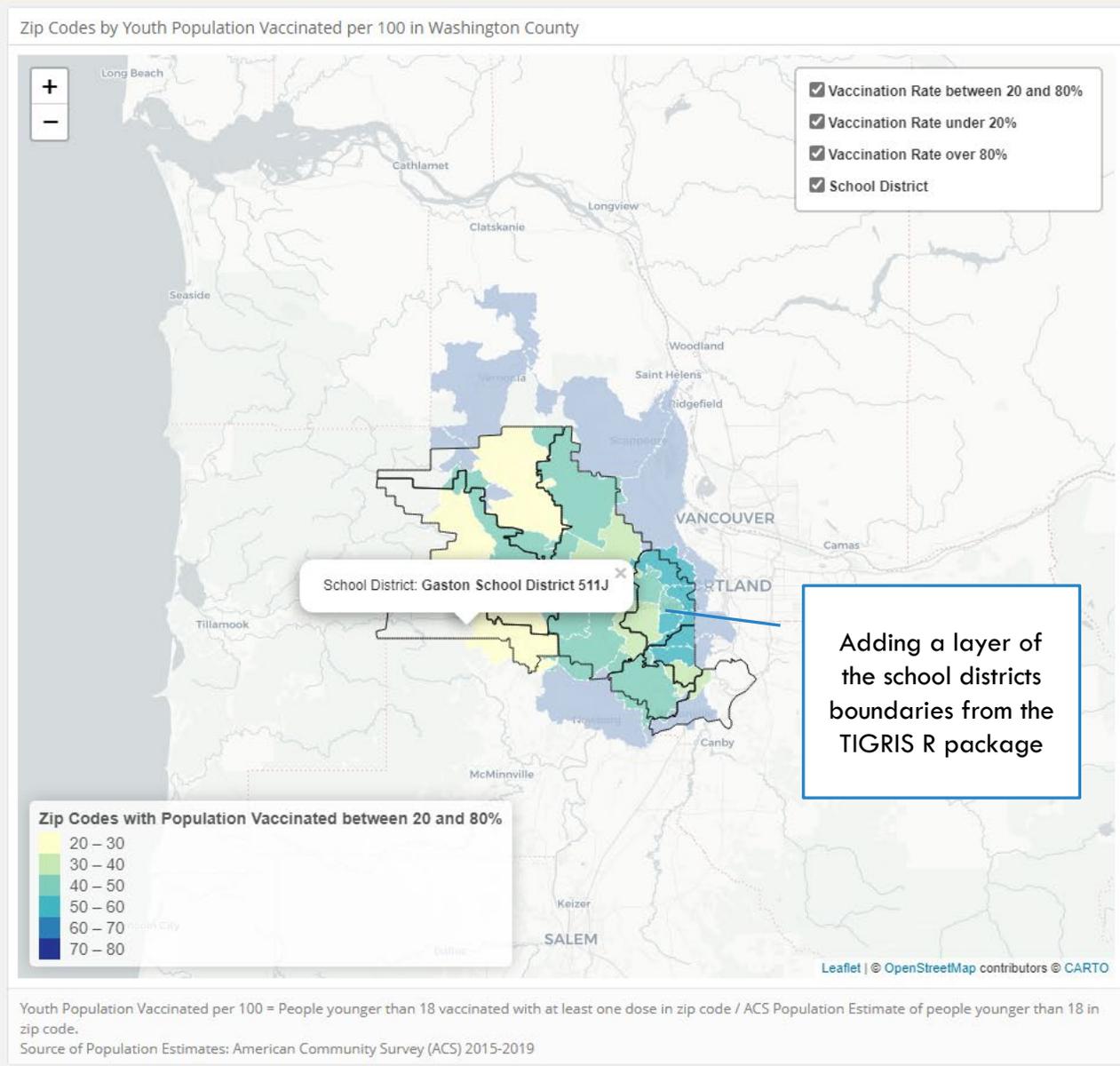


Maps using different population estimates: Total Population, BIPOC

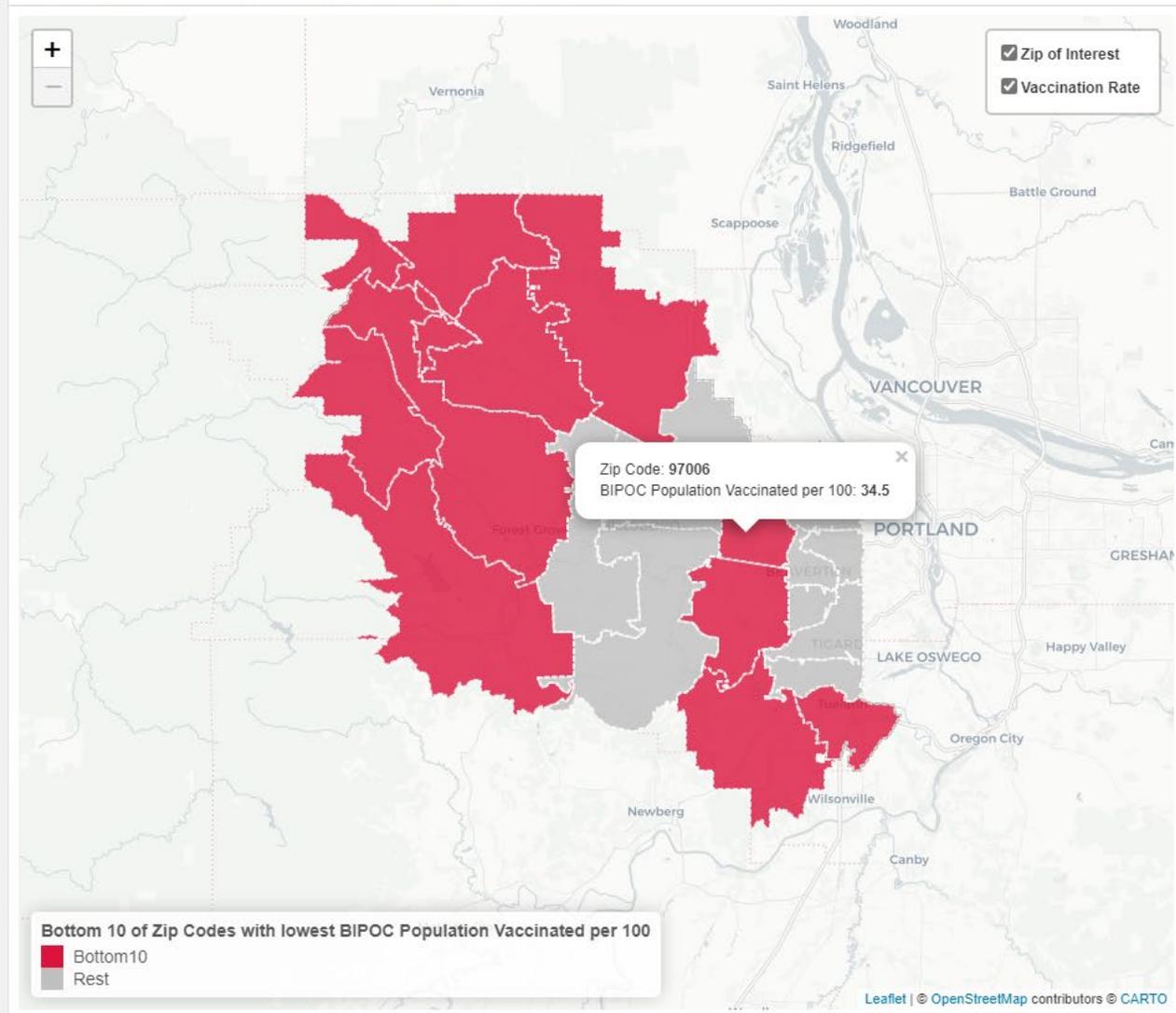
Prioritized zip codes with the highest population

Youth Population Vaccinated per 100 = People younger than 18 vaccinated with at least one dose in zip code / ACS Population Estimate of people younger than 18 in zip code.
 Source of Population Estimates: American Community Survey (ACS) 2015-2019

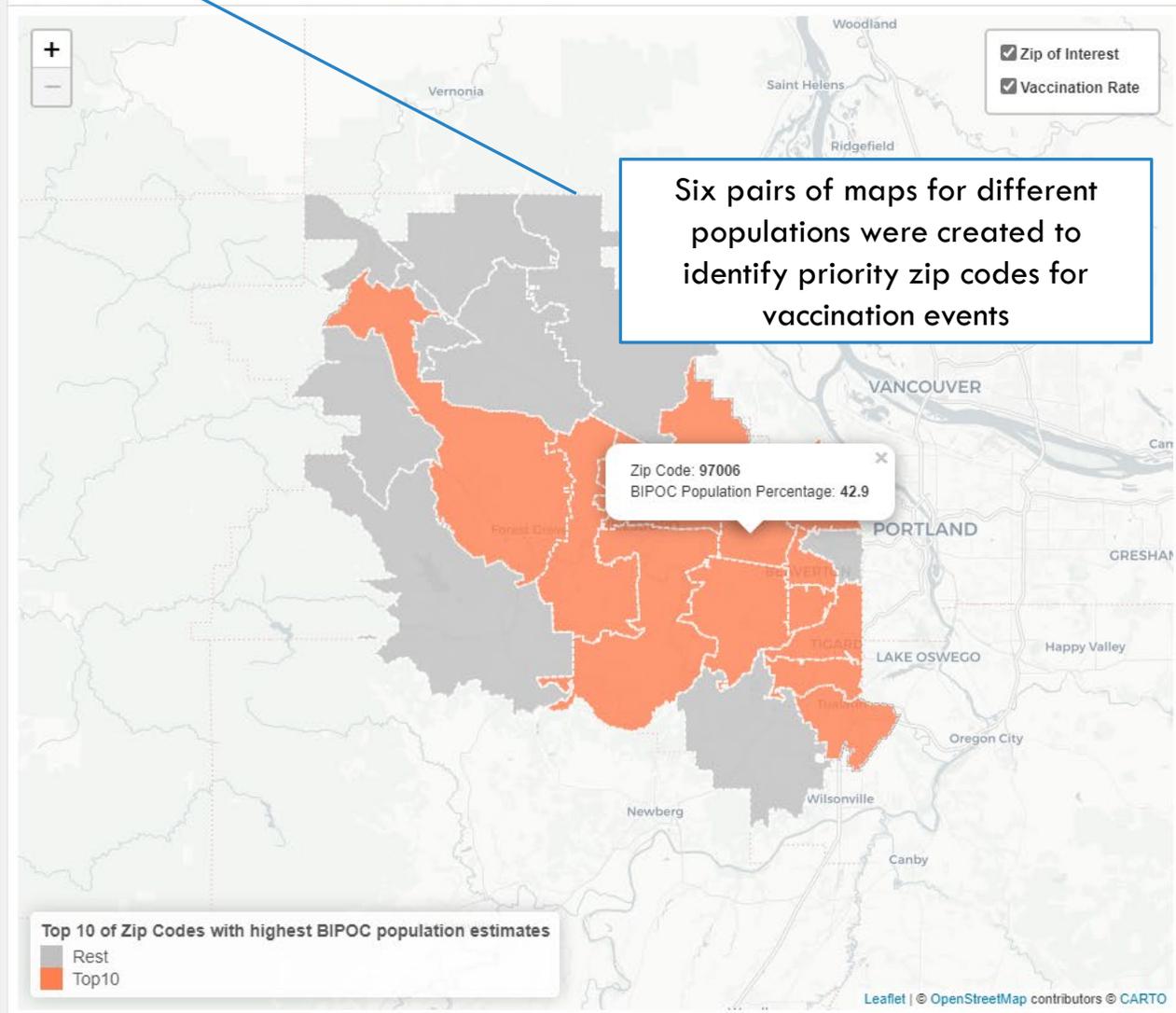
Youth Population Percentage = ACS Population Estimate of People younger than 18 in zip code / ACS Population Estimate of zip code.
 Source of Population Estimates: American Community Survey (ACS) 2015-2019



Zip Codes by BIPOC Population Vaccinated per 100 in Washington County



Zip Codes by BIPOC ACS Population Estimates in Washington County

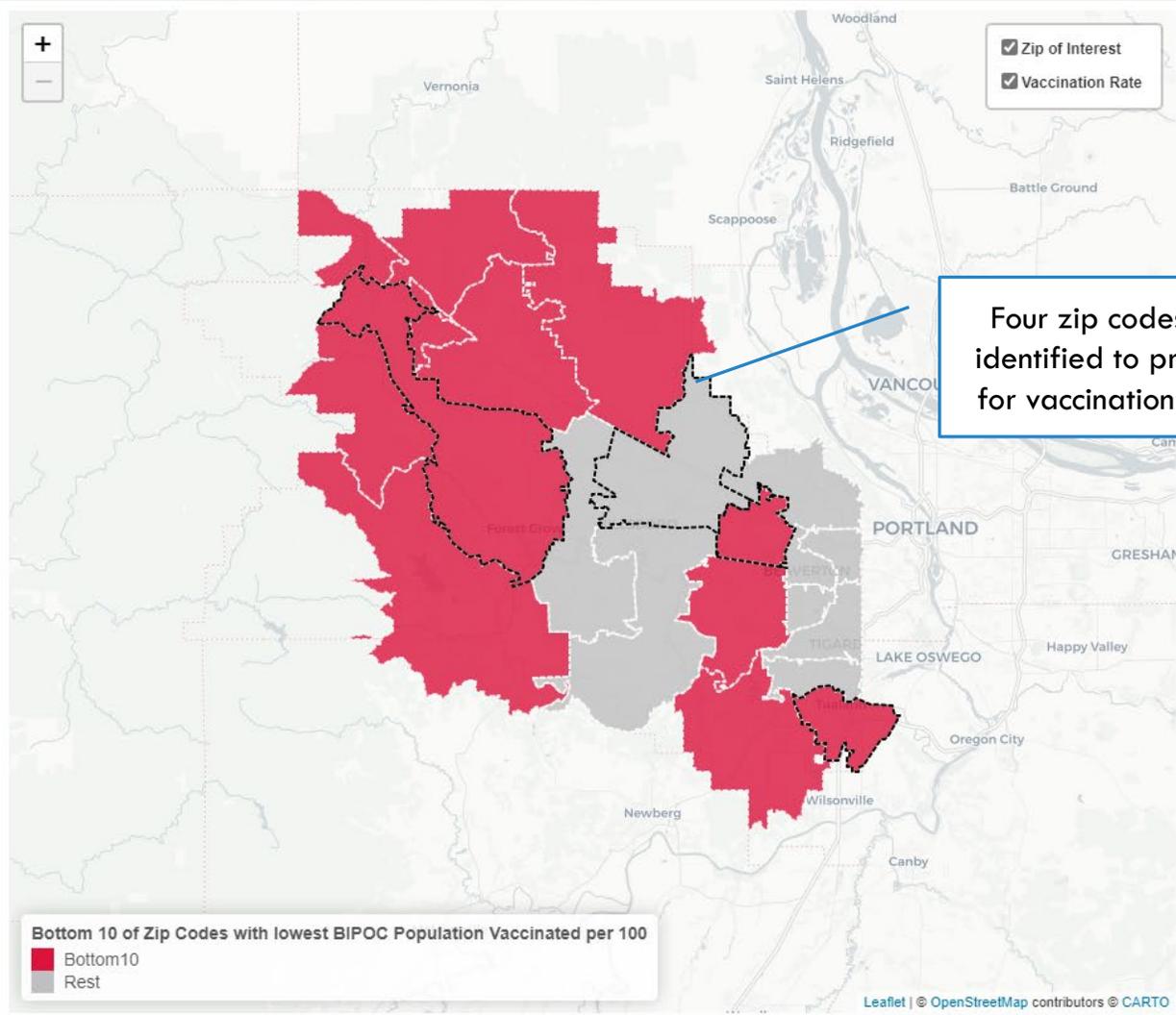


Six pairs of maps for different populations were created to identify priority zip codes for vaccination events

BIPOC Population Vaccinated per 100 = BIPOC People Vaccinated with at least one dose in zip code / ACS Population Estimate of zip code.
Source of Population Estimates: American Community Survey (ACS) 2015-2019

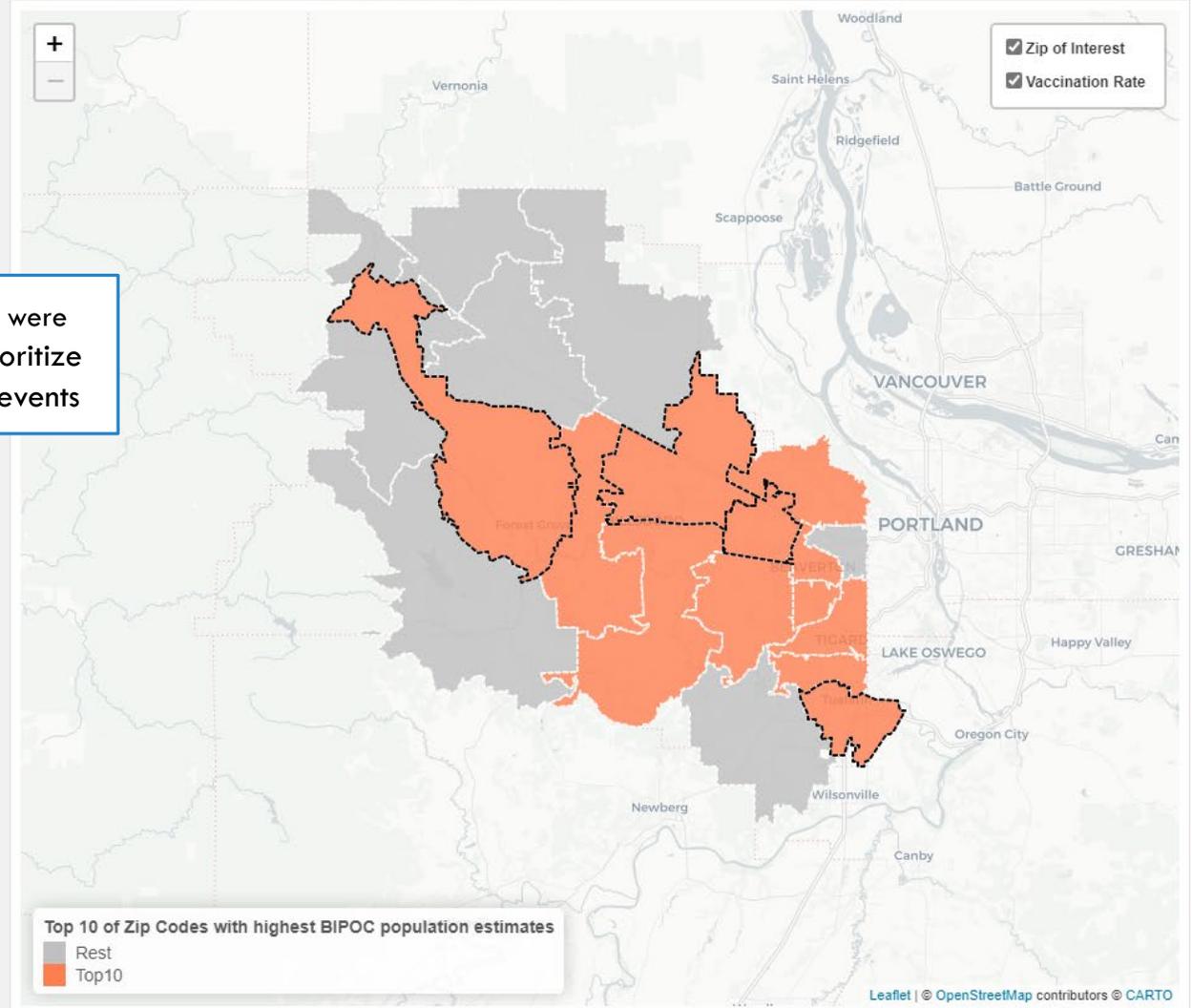
BIPOC Population Percentage = ACS Population Estimate of BIPOC in zip code / ACS Population Estimate of zip code.
Source of Population Estimates: American Community Survey (ACS) 2015-2019

Zip Codes by BIPOC Population Vaccinated per 100 in Washington County



Four zip codes were identified to prioritize for vaccination events

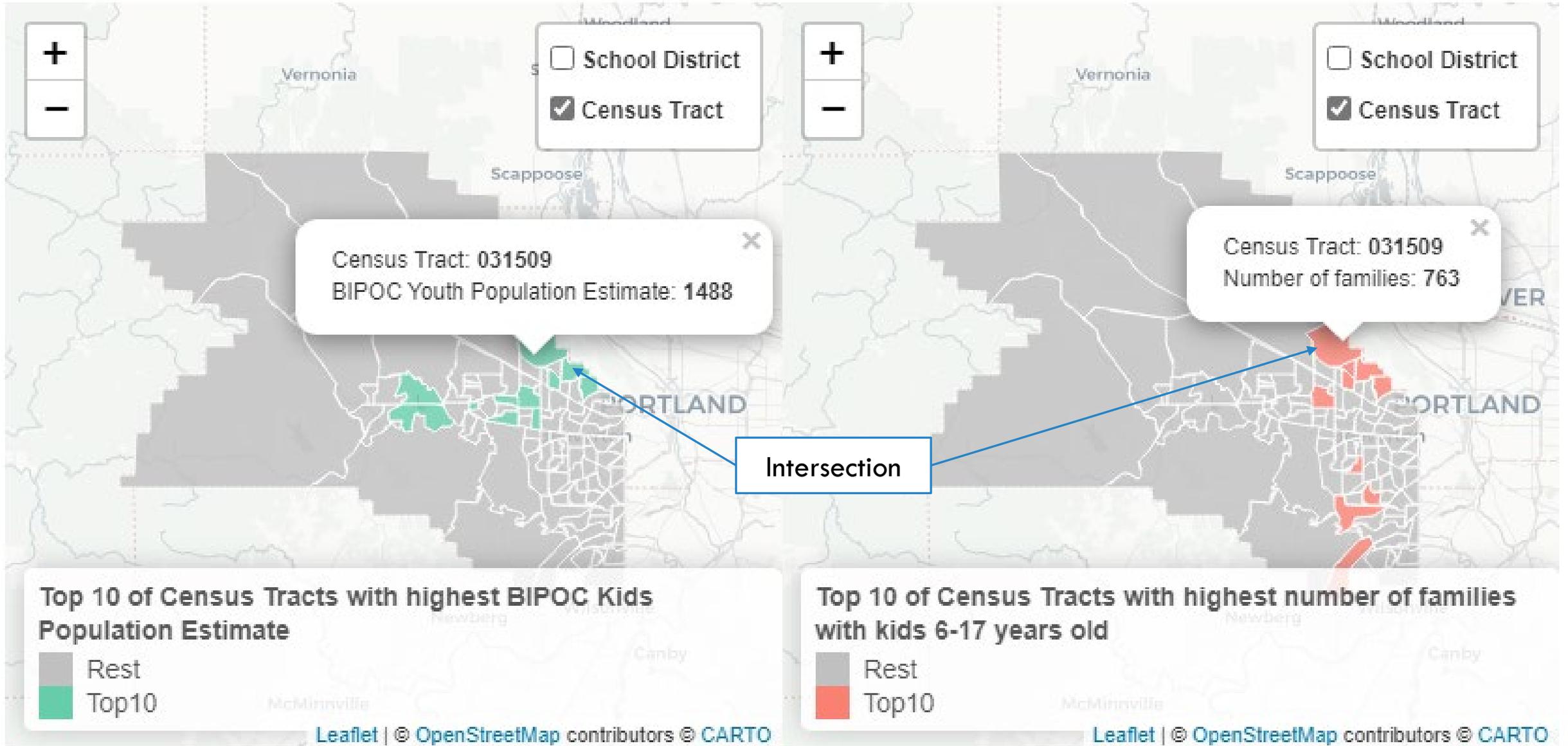
Zip Codes by BIPOC ACS Population Estimates in Washington County



BIPOC Population Vaccinated per 100 = BIPOC People Vaccinated with at least one dose in zip code / ACS Population Estimate of zip code.
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BIPOC Population Percentage = ACS Population Estimate of BIPOC in zip code / ACS Population Estimate of zip code.
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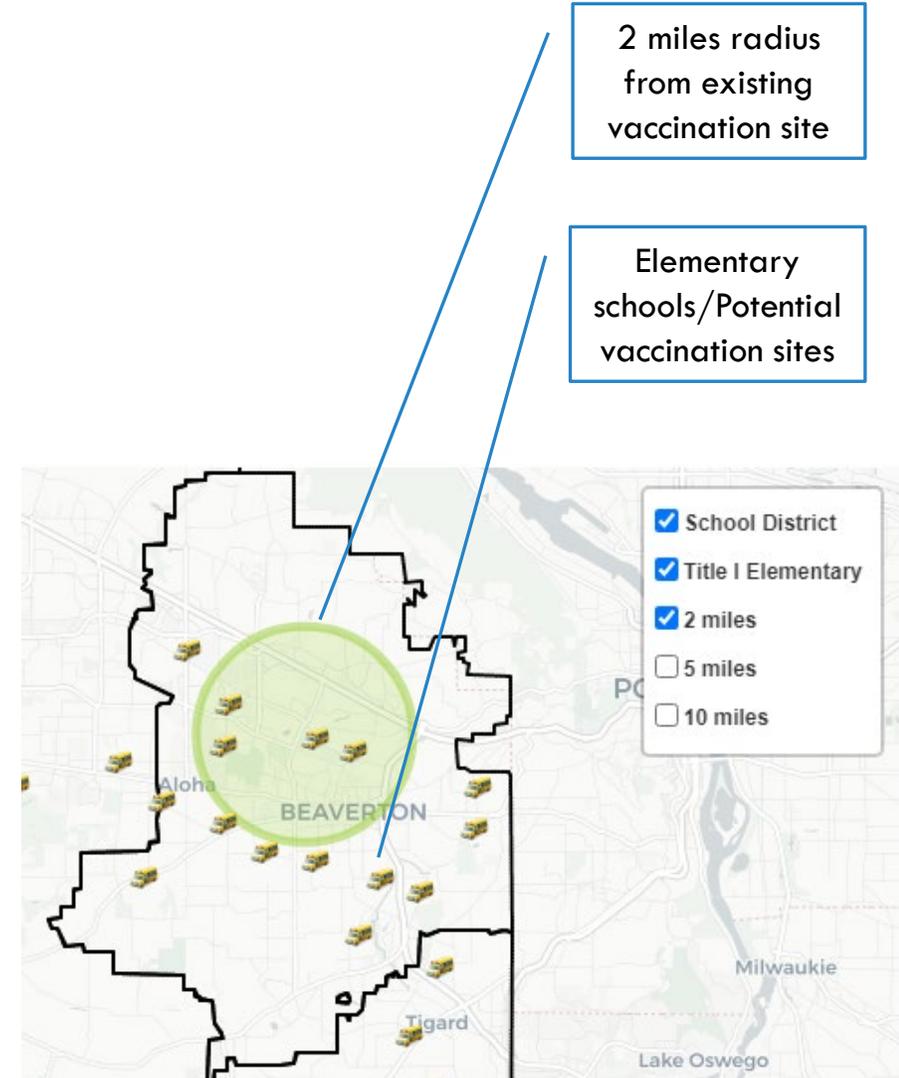
5.2 Maps: BIPOC Youth and Families



BEAVERTON SCHOOL DISTRICT

Elementary School Name	High SVI	Low 10 vax rate	>50% Hispanic	>50% BIPOC	>50% low income	> 500 students	Priority Score	Strategic Concerns
Aloha-Huber Park		✓	✓	✓	✓	✓	5	K – 8
Vose	✓		✓	✓	✓	✓	5	
McKinley		✓		✓	✓	✓	4	
Kinnaman		✓		✓	✓	✓	4	CSDB
Chehalem		✓		✓	✓		3	
Greenway				✓	✓		2	
Beaver Acres	✓	✓		✓	✓	✓	1	Tektronix
Barnes	✓	✓	✓	✓	✓	✓	1	Tektronix
Fir Grove	✓	✓					1	
Hazeldale	✓	✓					1	
McKay					✓		1	
Raleigh Hills						✓	1	
Raleigh Park							0	
William Walker		✓	✓	✓	✓		4	Tektronix
Elmonica		✓		✓		✓	-1	Tektronix

CSDB: Close to School District Boundary – could partner with adjacent schools



THANK YOU!



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