



NATIONAL COUNCIL *of* URBAN INDIAN HEALTH

RAVEN

Report on Adult Vaccine Equity for Natives

March 1st, 2023 - May 31st, 2023



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Vaccine Equity: “Everyone having fair and just access to vaccinations”¹

All people have equal access and coverage of vaccines regardless of racial, demographic or any other classification.

Throughout COVID-19 pandemic, the general population has paid higher attention to issues of health equity and vaccine equity. In addition to a concern that public health authorities and healthcare providers respond adequately to the seriousness of the pandemic, there was increased attention to existing perennial gaps in healthcare disparities and equity. The Native American community has been one such population; having long suffered from increased disease burden, stretched resources, and low trust in institutions that have historically failed them.

As the immediate response to COVID-19 is winding down, with the ending of the Emergency Declaration in May of 2023, attention should now be shifted to other adult vaccinations. With the same energy and concern that was paid to COVID-19 vaccinations, there should be increased attention to vaccine equity across all types of immunizations against preventable diseases.

Therefore, NCUIH creates this report, to summarize the data around adult vaccines and immunizations in the urban Native American population. This report will show available data indicating a continued gap in vaccination coverage among AI/AN. This is the age where data defines the parameters of the story. With the story leading our action, having Native American and Urban Native American representation in data and research is essential achieve vaccine equity.

Table of Contents

1. Vaccinations and Immunizations Overall	3
2. Influenza.....	5
3. HPV	7
4. Appendix.....	9
5. Works Cited.....	17



1. Vaccinations and Immunizations Overall

The Indian Health Service (IHS) tracks adult vaccination coverage throughout network on a quarterly basis. This data includes all utilizations in the I/T/U system (IHS/Tribal/Urban). Their reports show that adult vaccination continues to fall across multiple vaccinations. As of Quarter 3 FY 2022, IHS data reports that coverage for Tdap and HPV fell, while Zoster, pneumococcal, and HPV1 vaccinations remain at depressed levels as they were at the beginning of the year (Figure 1).² The trajectory of vaccine coverage between Q3 2019 and Q3 2022, shown as a percentage on the y axis, is shown in Figure 2. The figure illustrates the continued downwards trajectory of adult vaccine coverage.

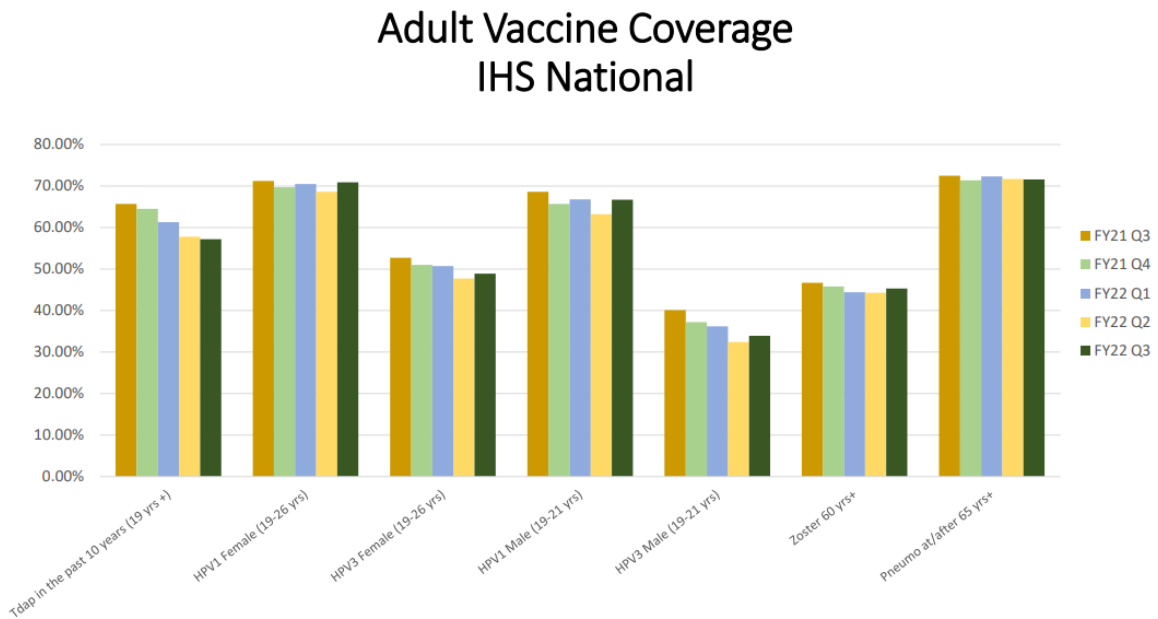
Among vaccination, the largest decrease was seen in Tdap. Tdap coverage rates have been decreasing for twelve quarters, starting at 74.9% in Q3 2019 and ending at 57.2% in Q3 2022. Zoster coverage rates among IHS patients have also fallen over the entire length of time, starting with 56.3% in Q3 2019 and ending at 44.3% in Q2 2022, though there was a small increase in the most recent quarters report. Pneumococcal coverage among the elderly showed the least amount of change, being stable around 72% for four quarters after a sharp drop in coverage from 76% in Q1 2021.

HPV vaccines among females and males have decreased gradually over seven quarters. Among females, coverage fell from 58.7% to 47.7% from Q3 2021 to Q2 2022. Among males, coverage fell from 45.0% to 32.4% from Q3 2021 to Q2 2022. There was a small increase in coverage in the past quarter.^{3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15}

There was a concern that the COVID-19 pandemic may have impaired access to facilities for routine vaccinations, thereby delaying vaccinations to people at the recommended time of immunization.¹⁶ Delays in routine vaccination bring with them additional costs borne out farther in the future, with more people being susceptible to vaccine preventable diseases. As the emergency declaration elapses, it is an important goal to bring vaccine coverage for Native people in general, at least to the levels they were before the COVID-19 pandemic.

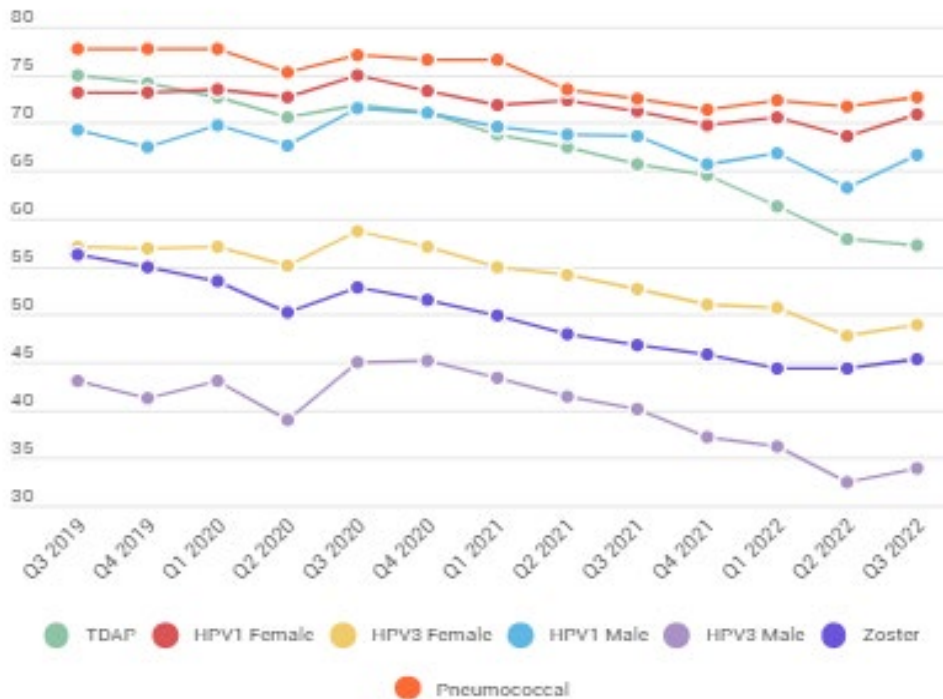


Figure 1: Adult Vaccine Coverage in the IHS System Nationally



Data source: National Immunization Reporting System (NIRS):
<https://www.ihs.gov/NonMedicalPrograms/hpes/immunizations/index.cfm?module=immunizations&option=home>

Figure 2: Changes in Adult Vaccine Coverage among IHS active patients from Q3 2019 to Q3 2022.





2. Influenza

Immunization continues to be the easiest way to protect oneself against seasonal influenza infection, yet data shows that AI/AN people continue to have lower influenza vaccination coverage than white people. The CDC surveys Americans regularly with the National Immunization Survey – Adult COVID Module (NIS-ACM). This survey asks numerous questions about vaccination, though it was tooled and repurposed to ask questions around COVID-19 vaccinations starting in April 2021 with the uptake of the COVID-19 vaccine. At the end of the last influenza season (May 28, 2022), 37.4% of the AI/AN population was immunized against influenza. Comparing influenza coverage of AI/AN people by urbanity, 33.8% of urban AI/AN population was immunized against the flu, while 41.8% of the suburban AI/AN population and 33.6% of the rural AI/AN population was immunized against the flu.

This is compared to the adult White population, which had 51% of its population take the flu vaccine. 52.1% of the urban White population was immunized as of May 31, 2022. 52.4% of the suburban White population was immunized and 44.8% of the rural White population was immunized.¹⁷ This gap is continuing in this current influenza season; as shown in table 1 below, influenza vaccine coverage for white people continues to outpace that of AI/AN people. This can be seen by urbanity as well, though vaccine coverage among urban AI/AN was suppressed due to lack of data.

Table 1: Reported Influenza Vaccine Coverage by Race: Source CDC NIS-ACM

	10/01/2022 – 10/29/2022	10/30/2022 – 11/26/2022	11/27/2022 – 12/31/2022	01/01/2023 – 01/28/2023
AIAN	22.0%	25.7%	33.3%	42.2%
<i>Urban</i>	---	---	---	---
<i>Suburban</i>	26.9%	31.5%	---	38.0%
<i>Rural</i>	22.2%	---	31.9%	43.5%
White	29.4%	45.1%	52.1%	53.3%
<i>Urban</i>	29.9%	46.8%	53.2%	54.5%
<i>Suburban</i>	31.2%	46.6%	53.3%	54.8%
<i>Rural</i>	23.0%	37.5%	46.5%	46.5%

Kaiser Family Foundation also observed a gap in influenza coverage for AI/AN adults. As of the end of the 2022 flu season, 41% of AI/AN adults were immunized against influenza, compared 52% of the non-Hispanic White adult population.¹⁸



Urban Indian Organizations (UIOs) are Title V organizations that provide culturally competent healthcare and community to urban AI/AN people. There are UIOs in 38 metropolitan areas across the country, serving the over 70% of AI/AN people that live in cities.¹⁹ CDC tracks influenza like activity level at the core base statistical area (CBSA) level, of which there are 44 CBSA's that overlap with UIO service areas. So far in this influenza season 2022-2023, influenza-like illness (ILI) activity was at very high levels at least once in 21 CBSA's within UIO service area. Fourteen (14) metropolitan areas were at high influenza activity level²⁰. Figure A.1 through A.44 in the appendix show the trajectory of influence like activity within UIO service areas. There are 3,150,218 estimated AI/AN people living in the service areas UIOs serve. In many of those cities, AI/AN people tend to live in areas of higher social vulnerability, making them more susceptible to the impact of natural disasters and reducing resilience.^{21, 22}

According to the Indian Health Service (IHS) Infectious Disease Branch, Division of Epidemiology and Disease Prevention (DEDP), ILI activity level has been decreasing “with a rate below IHS baseline” with 0.7% of outpatient visits as of the week ending on April 1st. 73% of IHS areas show ILI activity levels decreasing from the past week and 45% of IHS areas report ILI activity at or above the national rates. Portland and California show low ILI activity level (0.3% and 0.1%).

As of the April 1st report from IHS DEDP, the national influenza vaccination rate among the IHS active clinical population is 31%, with four regions (Navajo, Nashville, Albuquerque, and Tucson) above the national rate.

Their analysis of ILI levels in their clinical population shows that this season (2022-2023) had an earlier peak of high influenza activity compared to most years seasons. The past three seasons have begun at around week 47, while this year's influenza season appears to begin at week 44. The IHS estimates this was a shorter season too, dropping below 2% twelve (12) weeks later. Prior years have been approximately 20 weeks of elevated ILI activity.²³



3. HPV

Recent reports and research have shown the gap in HPV vaccination among AI/AN people. Among eligible patients in the IHS system, coverage remains low and below pre-pandemic levels. As of Q3 2022, 33.9% of male patients in the IHS system have received three doses of HPV vaccine, and 66.7% have received at least one dose of the HPV vaccine.² Additionally, as of Q3 2022, 48.9% of female patients in the IHS system have received three doses of HPV vaccine, and 70.9% have received at least one dose of the HPV vaccine.² CDC reports that the national coverage for at least one HPV vaccine is 75.1% as of 2020, and full completion of the HPV series is estimated at 58.6%.²⁴

In a recently published paper, researchers engaged in a systematic analysis of 43 previous published studies of indigenous peoples globally, including 18 studies of Native American populations in the United States. In this analysis, they identified a number of thematic barriers to HPV vaccinated reported by indigenous peoples. The most common barrier was concerns of vaccine safety and side-effects.²⁵

- The most common specific concern was “New vaccine with unknown effects”. Other concerns included: fear of pain, implementation delays, indigenous-specific side effects, infertility and sterilization, vaccine testing on indigenous peoples, contracting diseases, autism and death.²⁵
- Systematic analysis indicated the second most common barrier was beliefs, particularly around the appropriateness of vaccination and concerns about promiscuity, the age appropriate for vaccination, and beliefs about the perceived low risk of oncogenic HPV. Studies done in the USA found a range of opinion on vaccine timing. A focus group in the southwest USA showed that beliefs around personal risk perception were common, i.e., “virtually everyone contracts HPV, but not all cases of HPV are cancer causing...; that the HPV vaccine provided minimal protection...; and that there are alternative prevention options”.²⁵
- The third most common barrier is lack of effective knowledge dissemination. This included knowledge about the vaccine, and the HPV diseases and outcomes.²⁵
- The fourth most common barrier was multigeneration and social influences, i.e., parents or caregivers refusing consent or external pressure that influence autonomous decision making. Other mentioned barriers to vaccination included: distrust, gender specific disparities, lack of culturally appropriate awareness campaigns, and lack of healthcare provider recommendations.²⁵

Researchers also noted in the systematic review there were a number of themes that supported and facilitated HPV vaccination, including: community oriented



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health education; affirming multigenerational social influences; social and cultural determinants of health such as vaccine recipient autonomy, gender equity, and previous childhood vaccination; consistent healthcare provider recommendation; positive beliefs such as that the vaccines are safe and effectively protect from cancer; equity oriented systems; and increased HPV knowledge. However, the review does not mention examples of these themes from USA studies of AI/AN people.²⁴



4. Appendix

Figure A.1: Influenza-Like Activity in Aberdeen, SD (Sioux Falls Service Area)

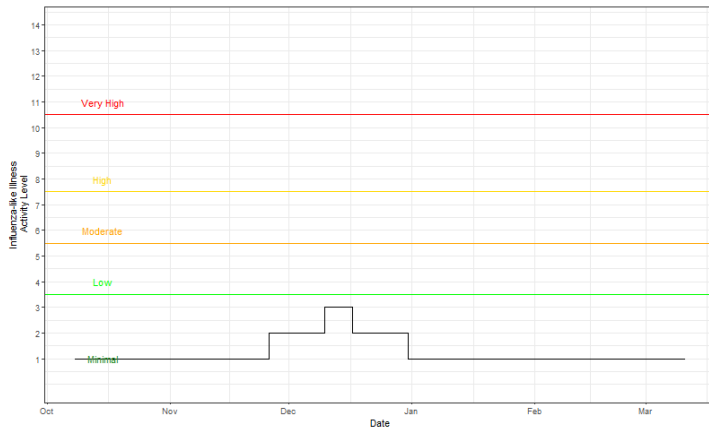


Figure A.2: Influenza-Like Activity in Albuquerque, NM (Albuquerque Service Area)

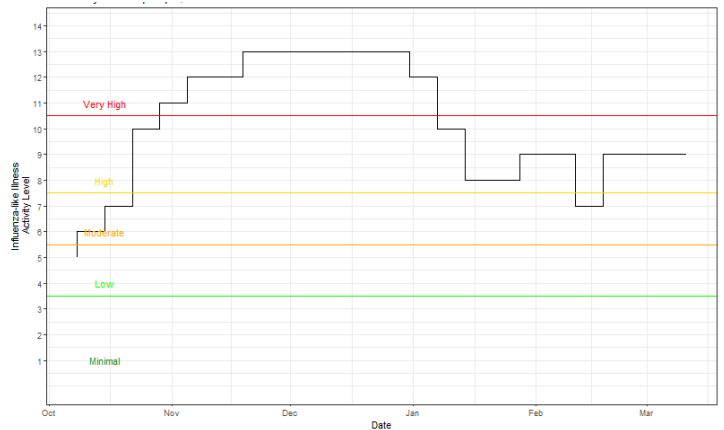


Figure A.3: Influenza-Like Activity in Baltimore-Columbia-Towson, MD (Baltimore Service Area)

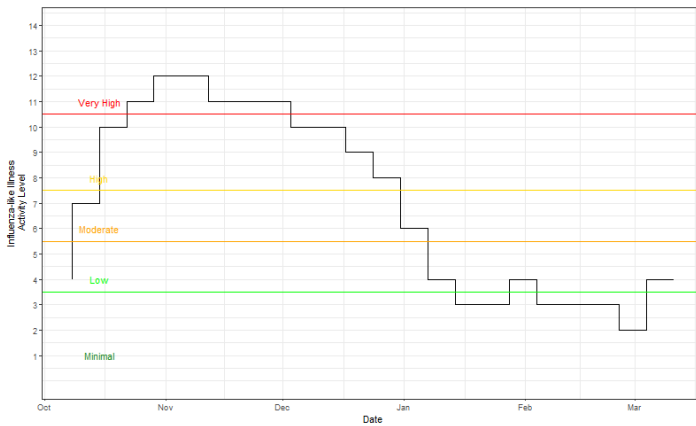


Figure A.4: Influenza-Like Activity in Billings, MT (Billings Service Area)

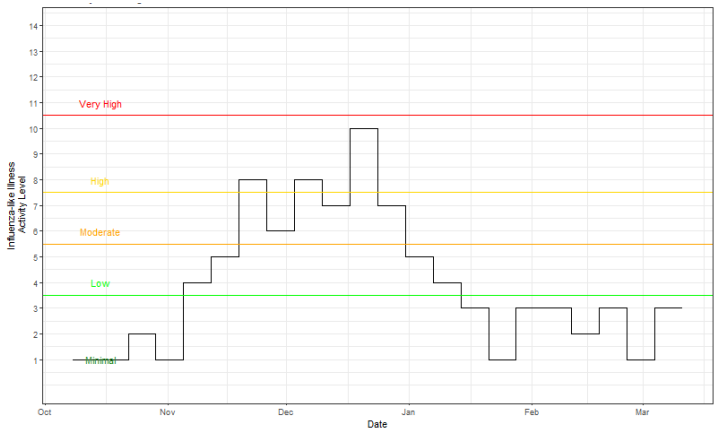


Figure A.5: Influenza-Like Activity in Boston-Cambridge-Newton, MA-NH (Boston Service Area)

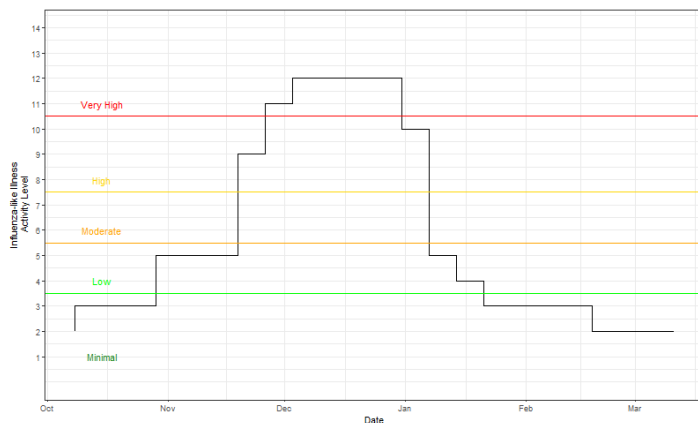


Figure A.6: Influenza-Like Activity in Boulder, CO (Denver Service Area)

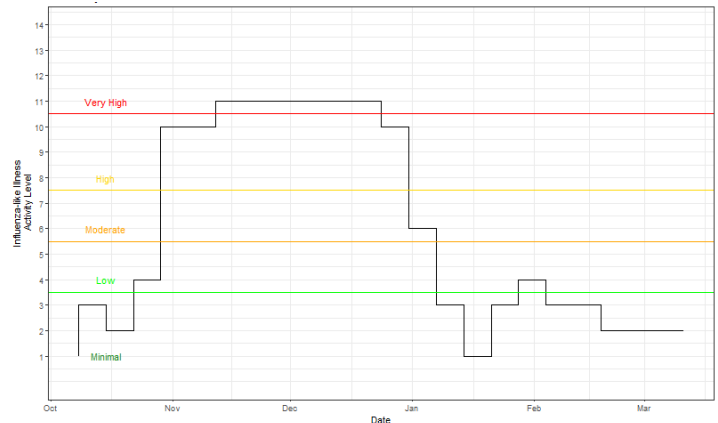




Figure A.7: Influenza-Like Activity in Butte-Silver Bow, MT (Butte Service Area)

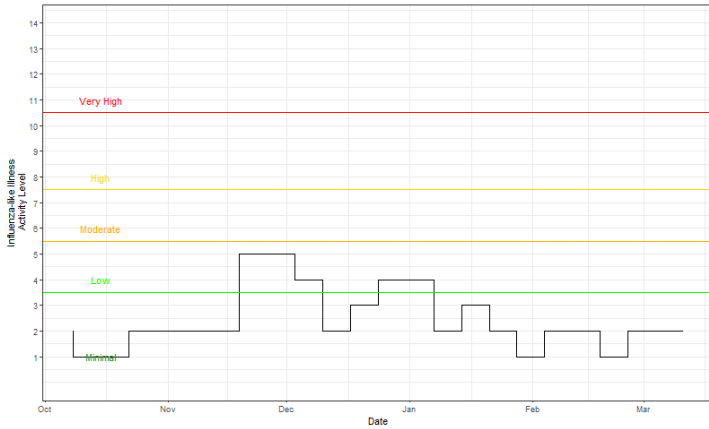


Figure A.8: Influenza-Like Activity in Chicago-Naperville-Elgin, IL-IN-WI (Chicago Service Area)

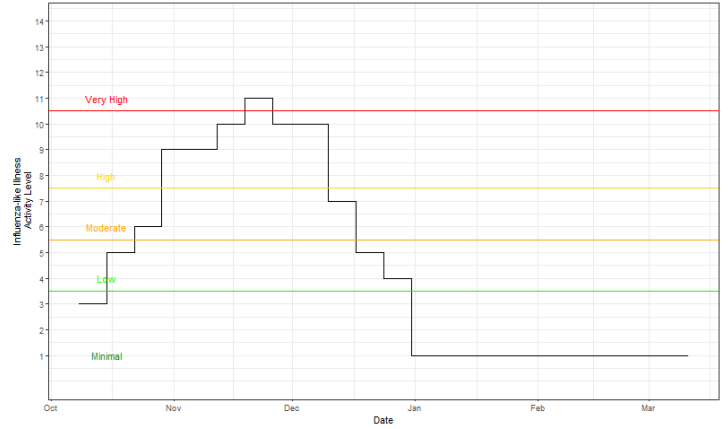


Figure A.9: Influenza-Like Activity in Carson City, NV (Reno Service Area)

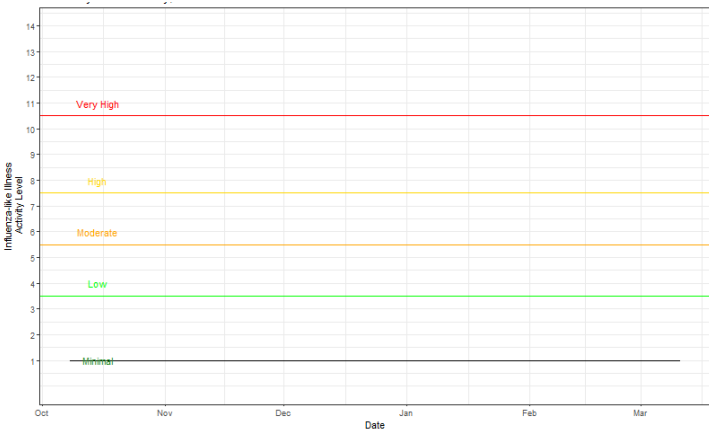


Figure A.10: Influenza-Like Activity in Detroit-Warren-Dearborn, MI (Detroit Service Area)

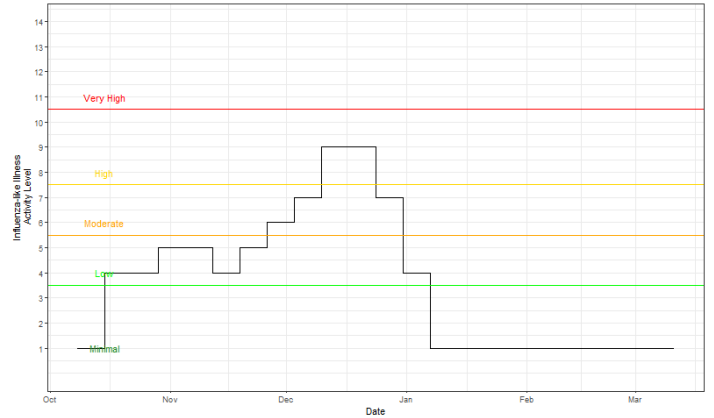


Figure A.11: Influenza-Like Activity in Denver-Aurora-Lakewood, CO (Denver Service Area)

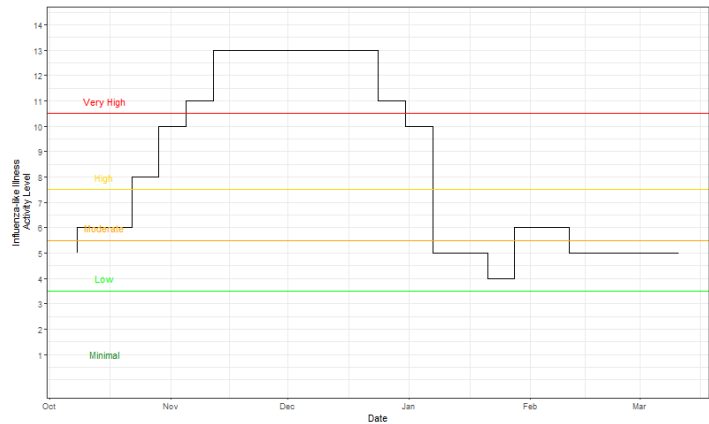


Figure A.12: Influenza-Like Activity in Dallas-Fort Worth-Arlington, TX (Dallas Service Area)

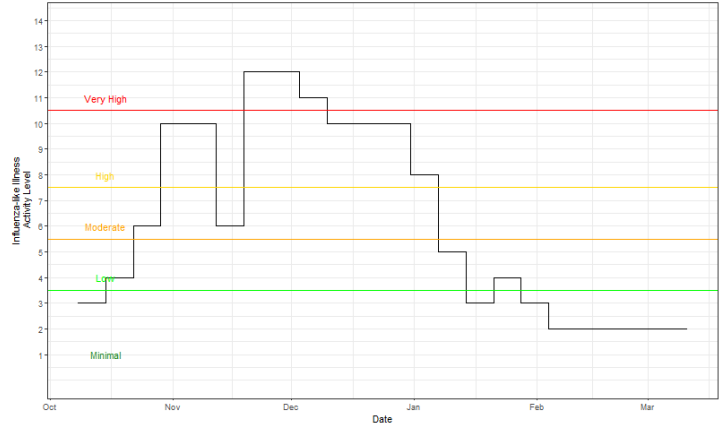




Figure A.13: Influenza Like Activity in Fallon, NV (Reno Service Area)

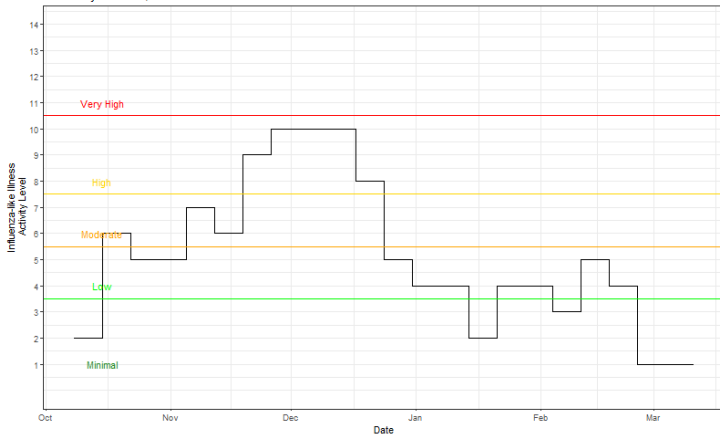


Figure A.14: Influenza Like Activity in Flagstaff, AZ (Flagstaff Service Area)

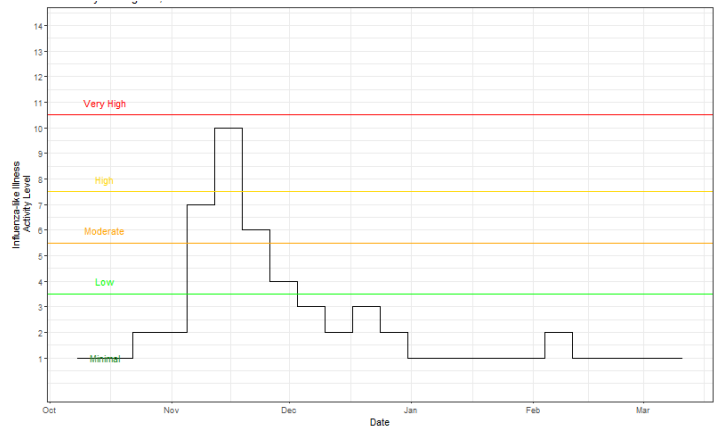


Figure A.15: Influenza Like Activity in Gardenville Ranchos, NV (Reno Service Area)

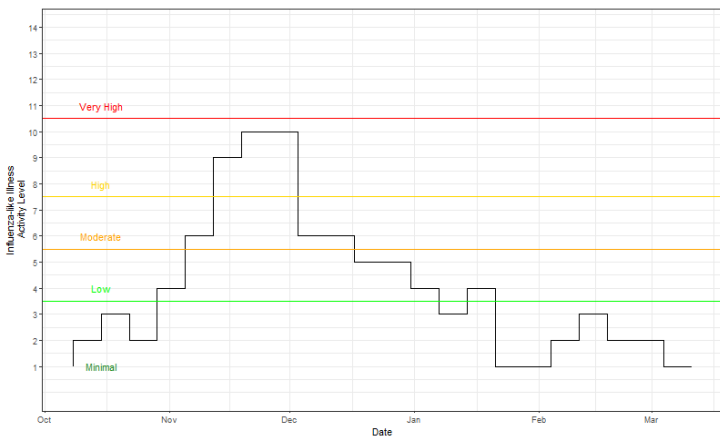


Figure A.16: Influenza Like Activity in Helena, MT (Helena Service Area)

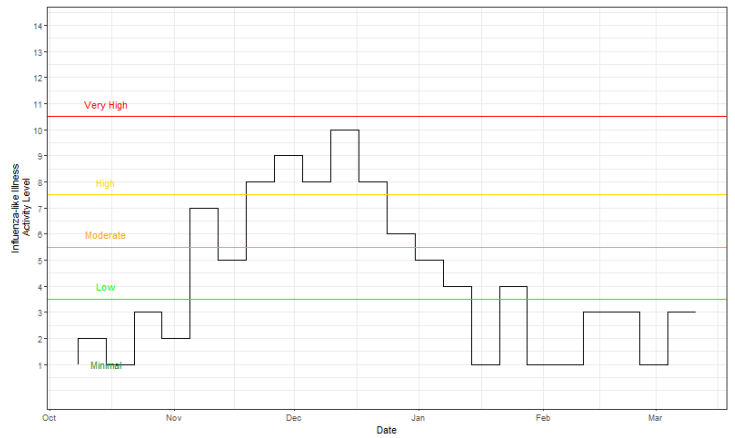


Figure A.17: Influenza Like Activity in Kansas City, MO-KS (Kansas City Service Area)

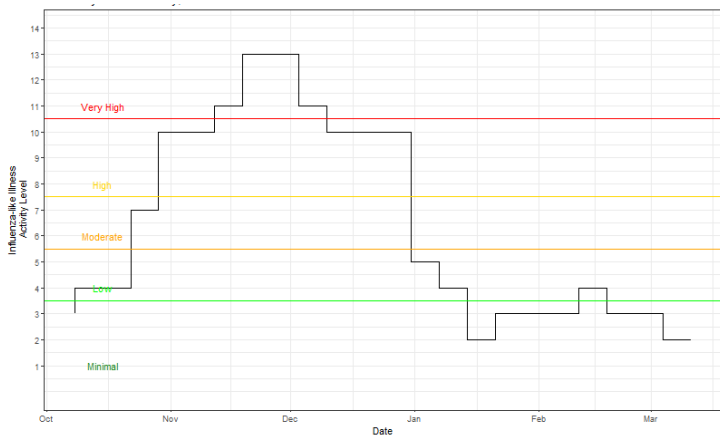


Figure A.18: Influenza Like Activity in Lincoln, NE (Omaha Service Area)

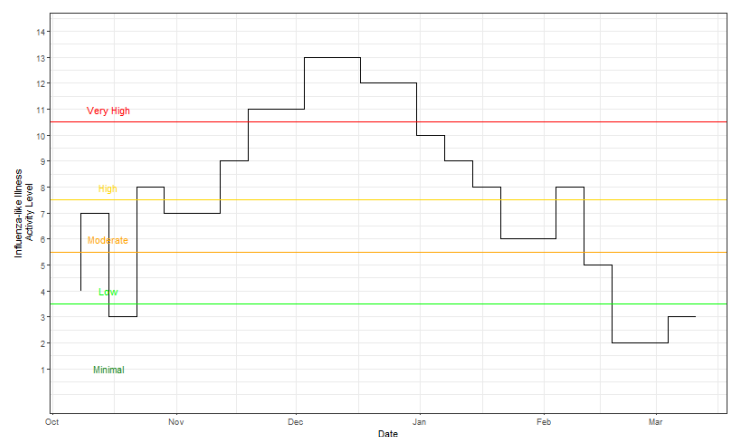




Figure A.19: Influenza Like Activity in Los Angeles-Long Beach-Anaheim, CA (Los Angeles Service Area)

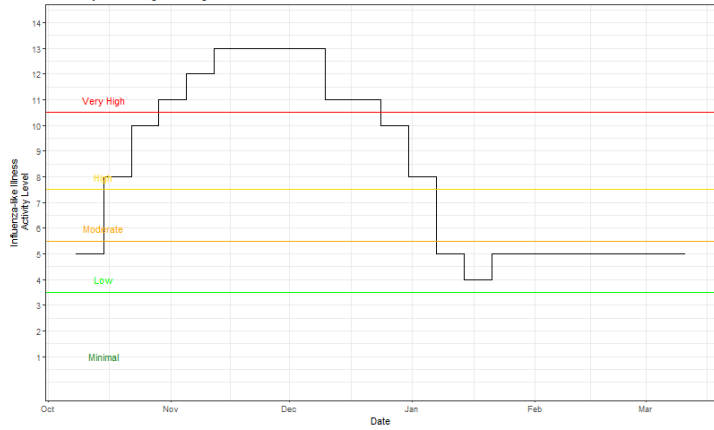


Figure A.20: Influenza Like Activity in Milwaukee-Waukesha-West Allis (Milwaukee Service Area)

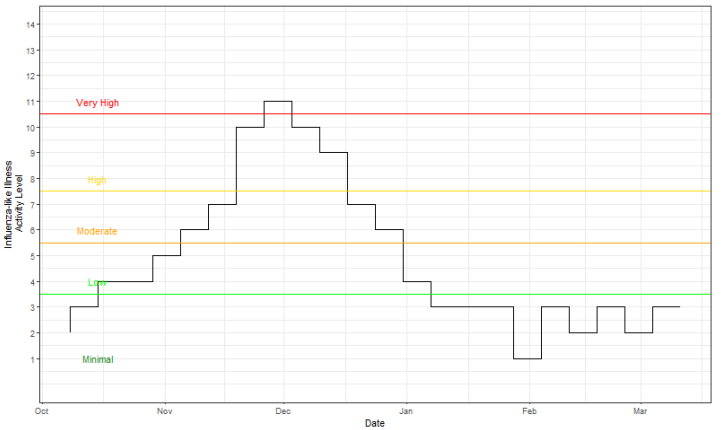


Figure A.21: Influenza Like Activity in Minneapolis-St. Paul-Bloomington, MN-WI (Minneapolis Service Area)

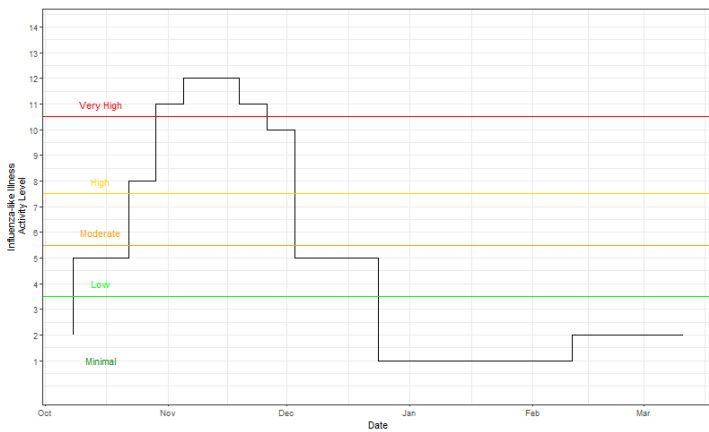


Figure A.22: Influenza Like Activity in Missoula, MT (Missoula Service Area)

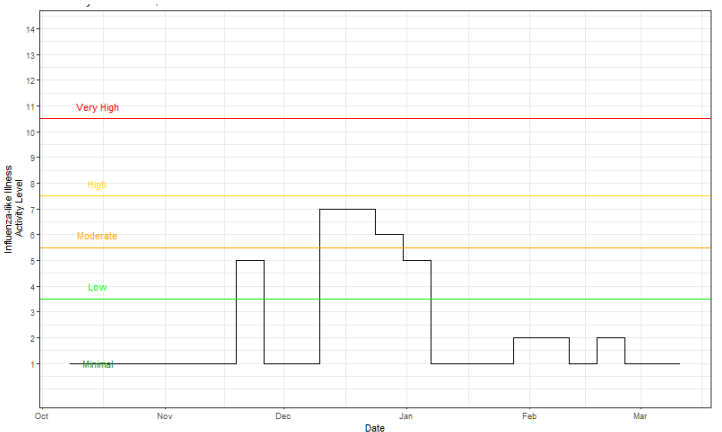


Figure A.23: Influenza Like Activity in New York-Newark-Jersey City, NY-NJ-PA (New York City Service Area)

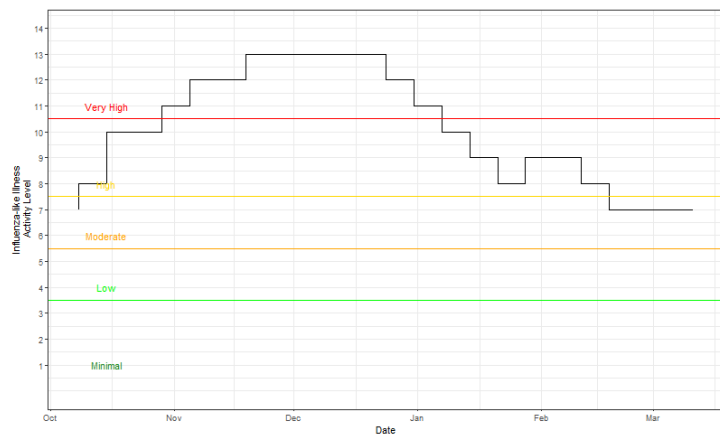


Figure A.24: Influenza Like Activity in Ogden-Clearfield, UT (Salt Lake City Service Area)

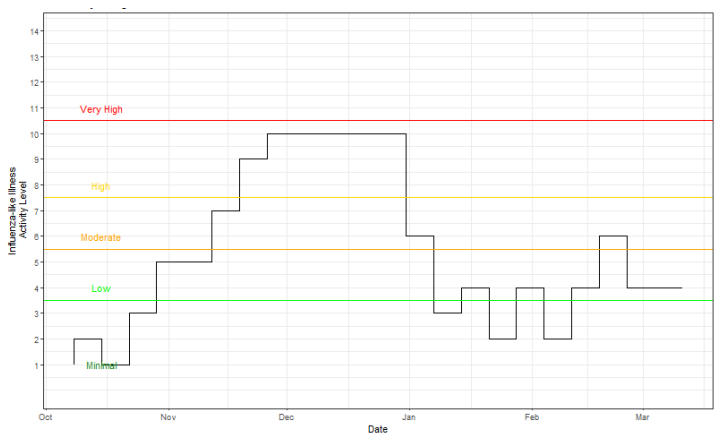




Figure A.25: Influenza Like Activity in Oklahoma City, OK (Oklahoma City Service Area)

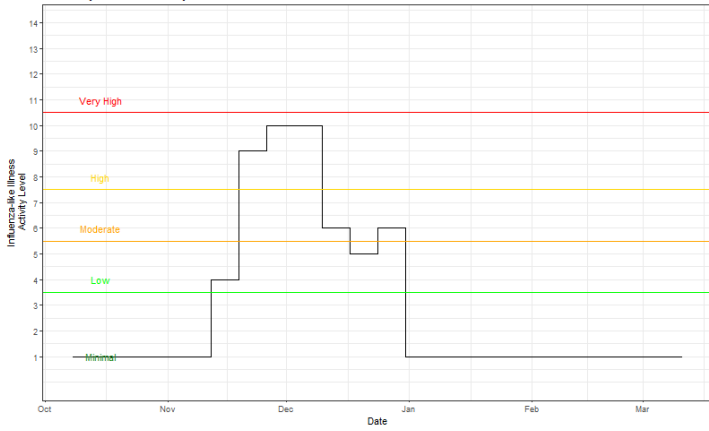


Figure A.26: Influenza Like Activity in Oxnard-Thousand Oaks-Ventura, CA (Santa Barbara Service Area)

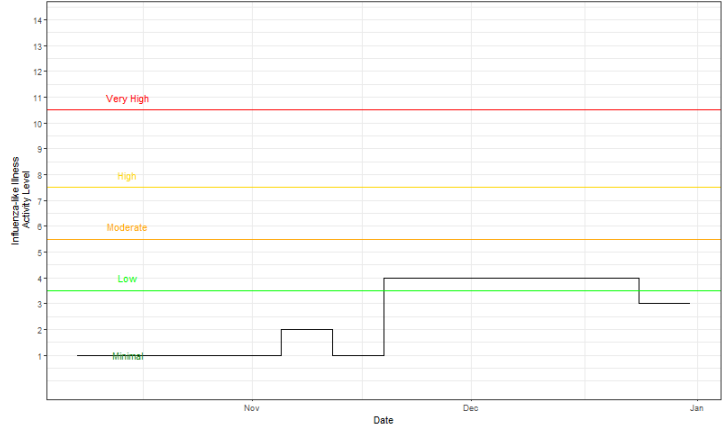


Figure A.27: Influenza Like Activity in Omaha-Council Bluffs, NE-IA (Omaha Service Area)

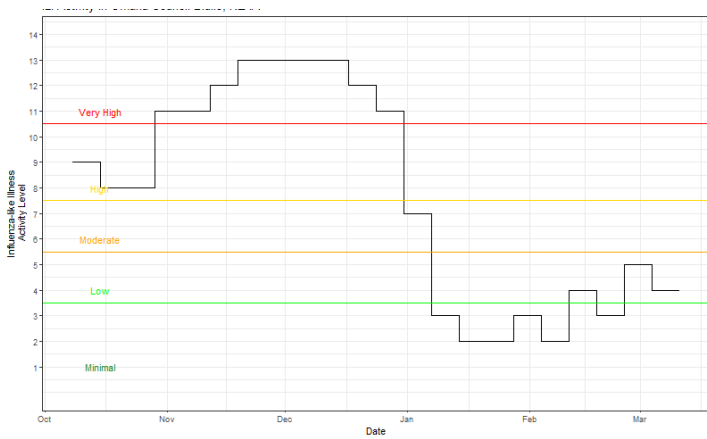


Figure A.28: Influenza Like Activity in Phoenix-Mesa-Scottsdale, AZ (Phoenix Service Area)

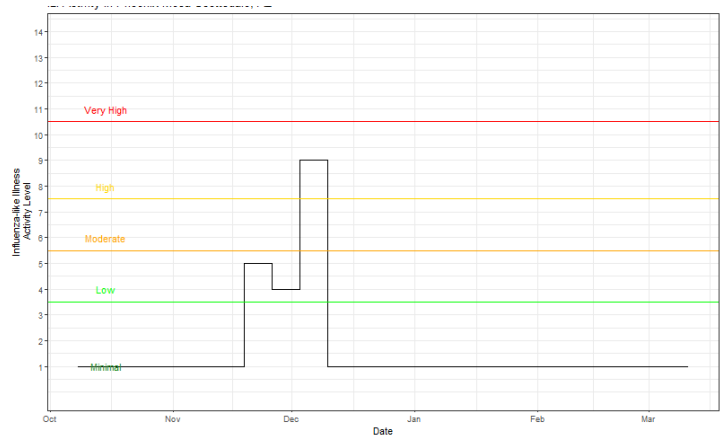


Figure A.29: Influenza Like Activity in Pierre, SD (Sioux Falls Service Area)

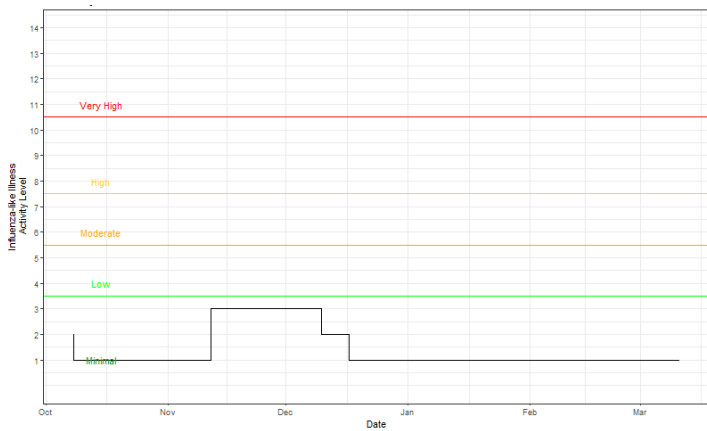


Figure A.30: Influenza Like Activity in Portland-Vancouver-Hillsboro, OR-WA (Portland Service Area)

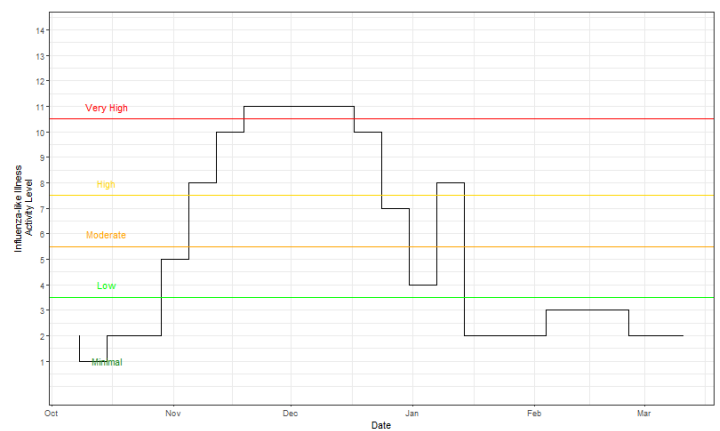




Figure A.31: Influenza Like Activity in Provo-Orem, UT (Salt Lake City Service Area)

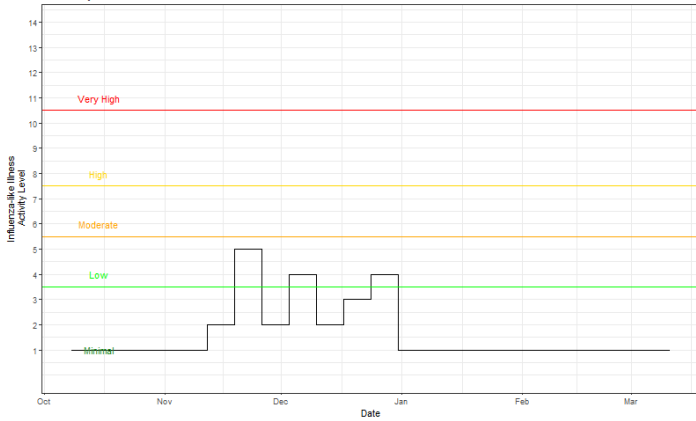


Figure A.32: Influenza Like Activity in Reno, NV (Reno Service Area)

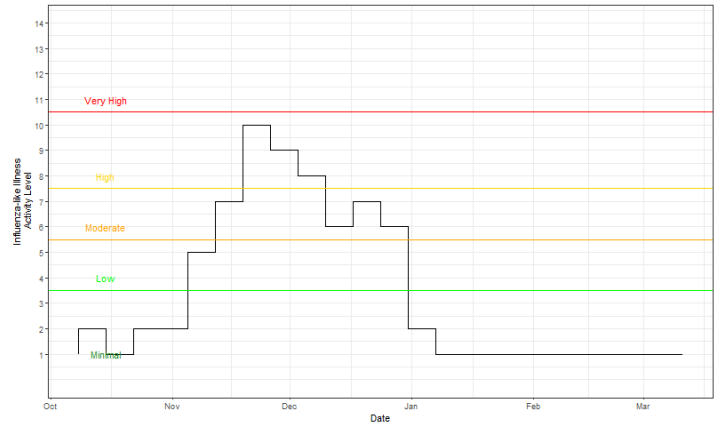


Figure A.33: Influenza Like Activity in Sacramento-Roseville-Arden-Arcade, CA (Sacramento Service Area)

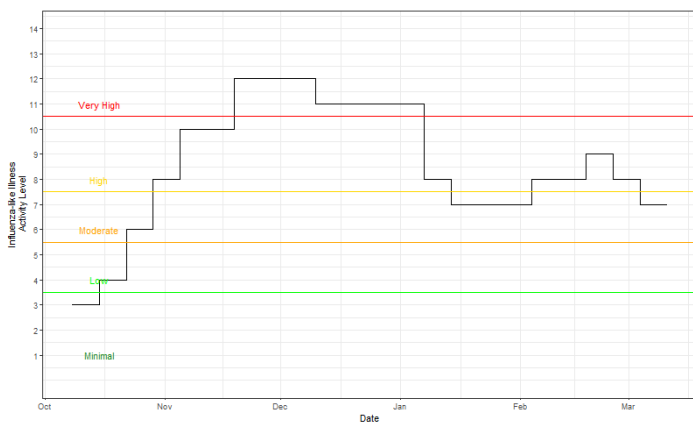


Figure A.34: Influenza Like Activity in Salt Lake City, UT (Salt Lake City Service Area)

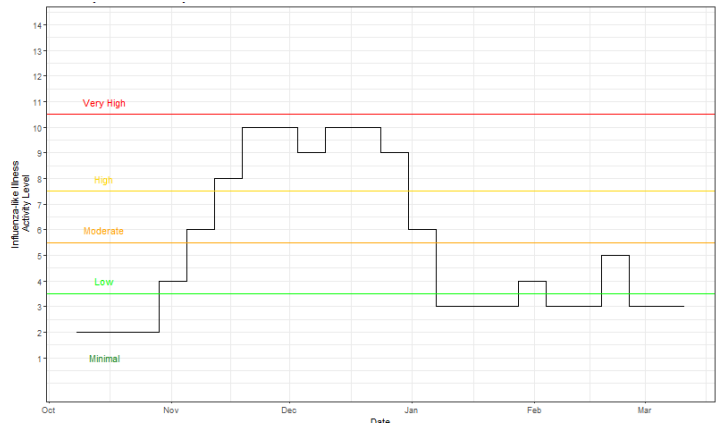


Figure A.35: Influenza Like Activity in San Diego-Carlsbad, CA (San Diego Service Area)

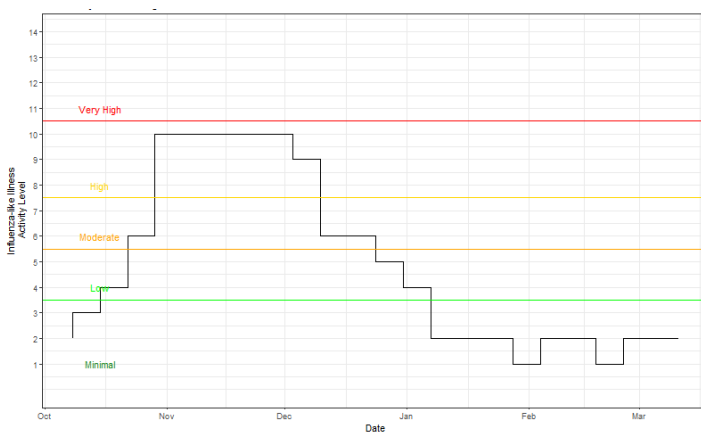


Figure A.36: Influenza Like Activity in San Francisco-Oakland-Hayward, CA (Oakland Service Area)

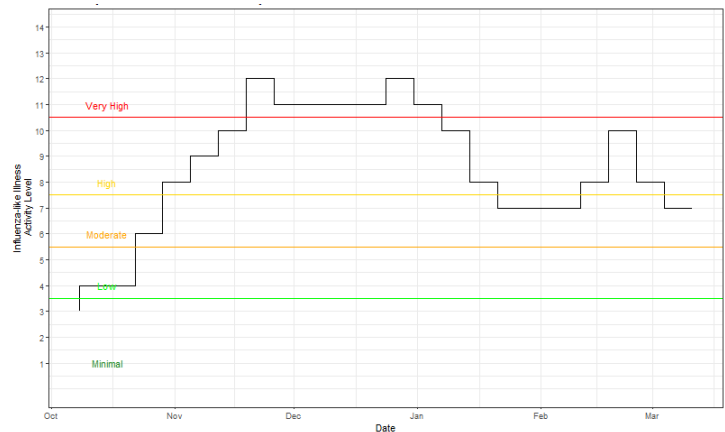




Figure A.37: Influenza Like Activity in San Jose-Sunnyvale-Santa Clara, CA (San Jose Service Area)

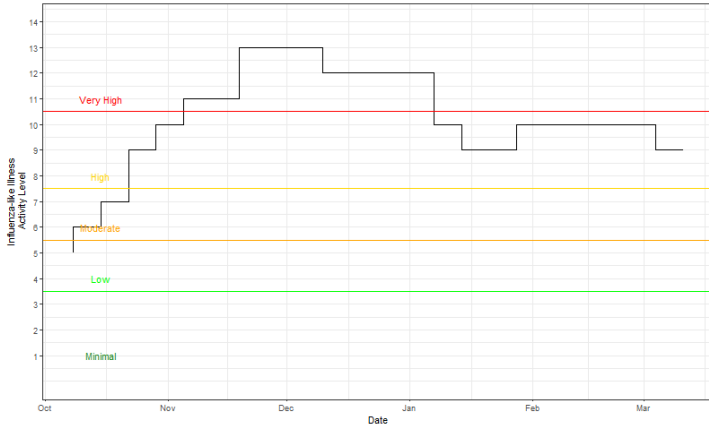


Figure A.38: Influenza Like Activity in Seattle-Tacoma-Bellevue, WA (Washington Service Area)

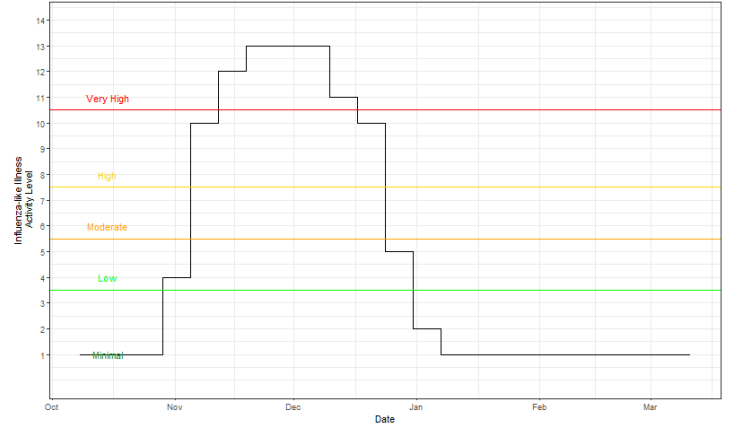


Figure A.39: Influenza Like Activity in Sioux City, IA-NE-SD (Omaha Service Area)

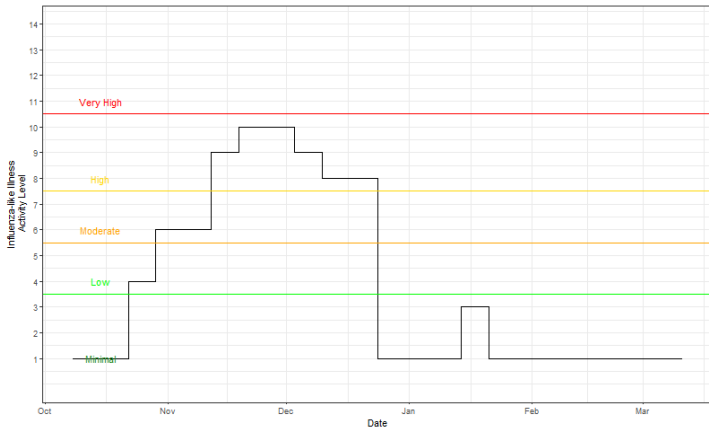


Figure A.40: Influenza Like Activity in Sioux Falls, SD (Sioux Falls Service Area)

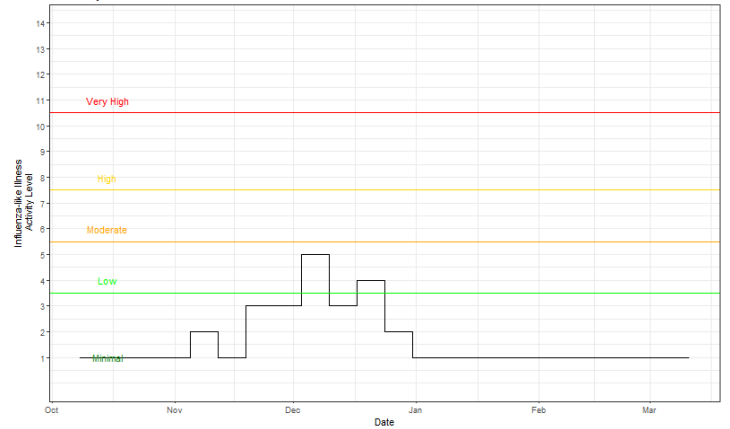


Figure A.41: Influenza Like Activity in Stockton-Lodi, CA (Manteca Service Area)

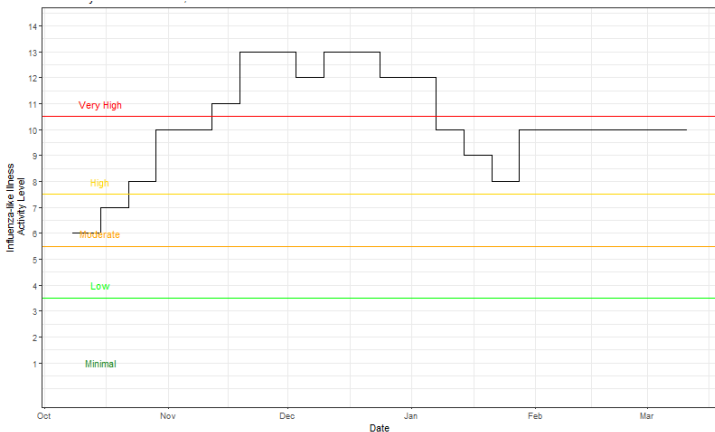


Figure A.42: Influenza Like Activity in Tucson, AZ (Tucson Service Area)

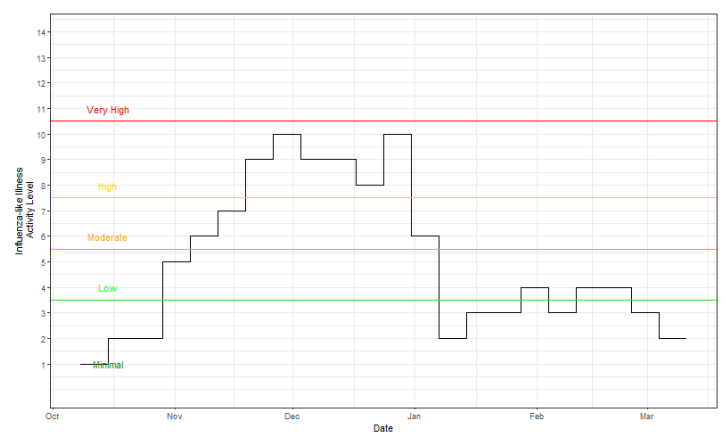
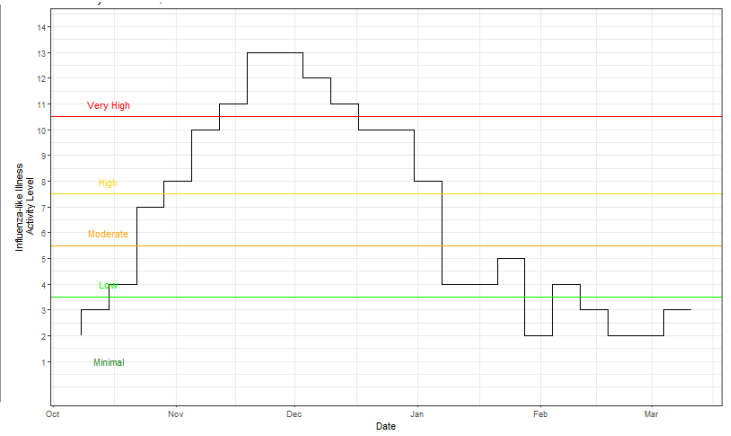
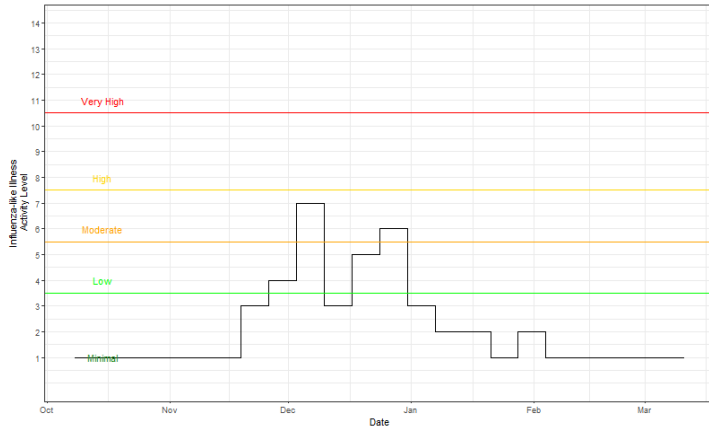




Figure A.43: Influenza Like Activity in Tulsa, OK (Tulsa Service Area)

Figure A.44: Influenza Like Activity in Wichita, KS (Wichita Service Area)





5. Works Cited

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