

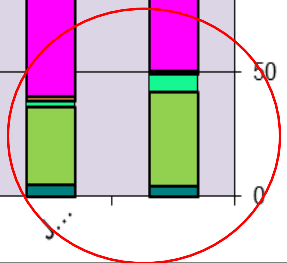
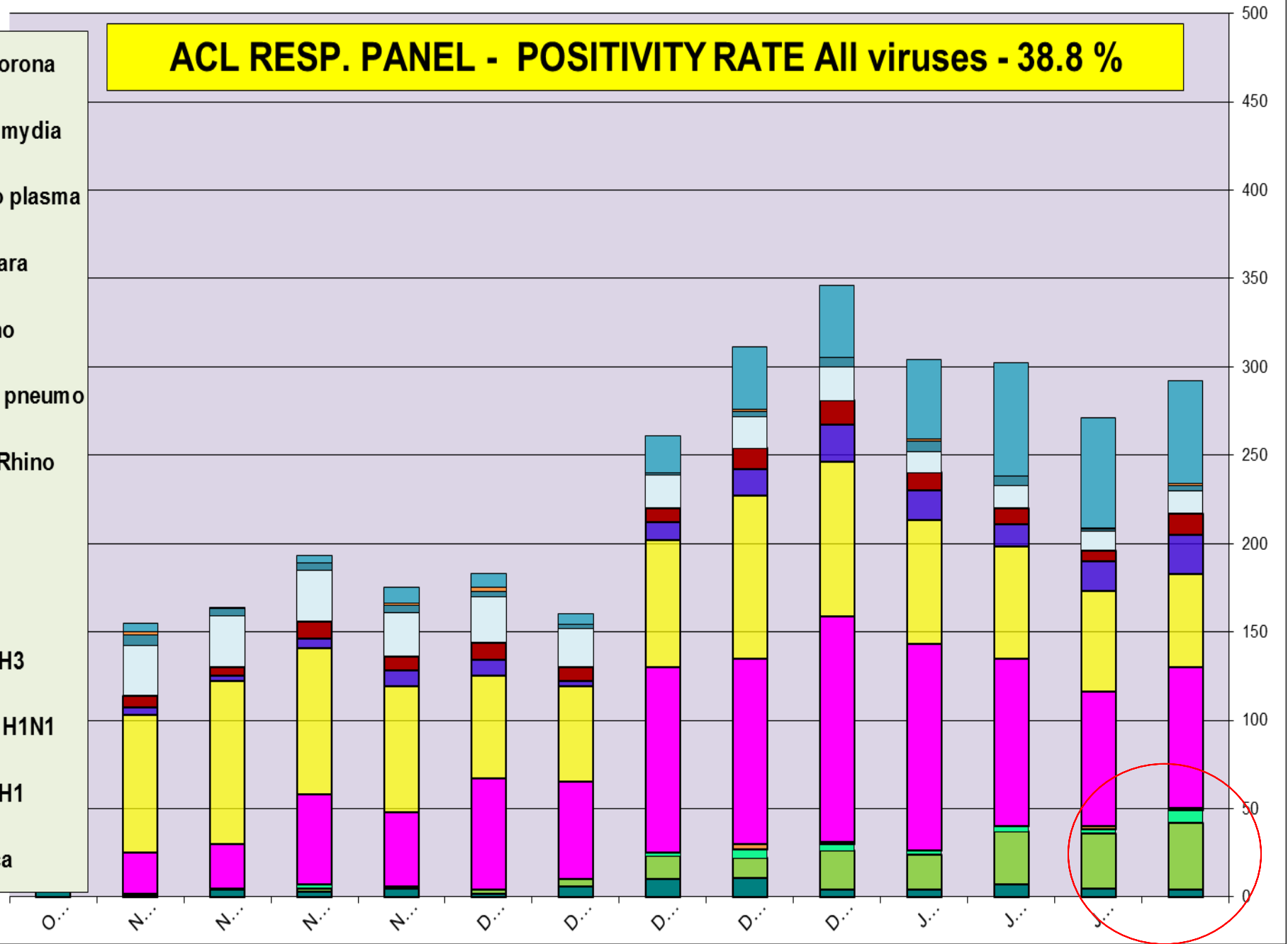
Respiratory Pathogens Data Oct 26 2018 - Feb 2 2019

| Week Beginning | InfA-H1 | InfA-H3 | 2009 H1N1 | Inf B | RSV | All Para | EV/ Rhino | Meta pneumo | Adeno | All Corona | Bocca | Mycoplasma | Chlamydia | Total Pos | POS FLU | Total | ACL %FLU | US %FLU | IL/WI PCR | Sofia EIA |
|----------------|---------|---------|-----------|-------|-----|----------|-----------|-------------|-------|------------|-------|------------|-----------|-----------|---------|-------|----------|---------|-----------|-----------|
| Feb1 | 0 | 7 | 38 | 1 | 80 | 13 | 53 | 22 | 12 | 58 | 4 | 3 | 1 | 292 | 46 | 751 | 6.1 | n/a | n/a | 19.6 |
| Jan 26 | 0 | 2 | 31 | 2 | 76 | 11 | 57 | 17 | 6 | 62 | 5 | 1 | 1 | 271 | 35 | 947 | 3.7 | 19.2 | 12.6 | 18.3 |
| Jan 18 | 0 | 3 | 30 | 0 | 95 | 13 | 63 | 13 | 9 | 64 | 7 | 5 | 0 | 302 | 33 | 1064 | 3.1 | 15.7 | 13.3 | 11.6 |
| Jan 11 | 0 | 2 | 20 | 0 | 117 | 12 | 70 | 17 | 10 | 45 | 4 | 6 | 1 | 304 | 22 | 1026 | 2.1 | 12.7 | 11.6 | 10.6 |
| DEC 28 | 0 | 4 | 22 | 1 | 128 | 19 | 87 | 21 | 14 | 41 | 4 | 5 | 0 | 346 | 27 | 812 | 3.3 | 12.7 | 11.8 | 9.6 |
| DEC 28 | 0 | 5 | 11 | 3 | 105 | 18 | 92 | 15 | 12 | 35 | 11 | 3 | 1 | 311 | 19 | 783 | 2.4 | 13.7 | 9.0 | 3.7 |
| DEC 21 | 0 | 2 | 13 | 0 | 105 | 19 | 72 | 10 | 8 | 21 | 10 | 1 | 0 | 261 | 15 | 766 | 2.0 | 15.6 | 6.9 | 7.2 |
| DEC 14 | 0 | 0 | 4 | 0 | 55 | 22 | 54 | 3 | 8 | 6 | 6 | 2 | 0 | 160 | 4 | 891 | 0.4 | 11.0 | 4.1 | 5.1 |
| DEC 7 | 0 | 0 | 2 | 0 | 63 | 26 | 58 | 9 | 10 | 8 | 2 | 3 | 2 | 183 | 2 | 785 | 0.3 | 3.6 | 1.8 | 3.6 |
| Nov 30 | 0 | 0 | 1 | 0 | 42 | 25 | 71 | 9 | 8 | 9 | 5 | 4 | 1 | 175 | 1 | 641 | 0.6 | 4.2 | 1.9 | 1.9 |
| NOV 23 | 0 | 2 | 2 | 0 | 51 | 29 | 83 | 5 | 10 | 4 | 3 | 4 | 0 | 193 | 4 | 566 | 0.7 | 2.4 | 1.6 | 2.7 |
| NOV 16 | 1 | 0 | 0 | 0 | 25 | 29 | 92 | 3 | 5 | 1 | 4 | 4 | 0 | 164 | 1 | 457 | 0.2 | 1.7 | 1.5 | 0.7 |
| NOV 9 | 0 | 0 | 1 | 0 | 23 | 28 | 78 | 4 | 7 | 5 | 1 | 6 | 2 | 155 | 1 | 458 | 0.2 | 1.2 | 0.9 | 1.5 |
| OCT 26 | 0 | 0 | 2 | 0 | 18 | 23 | 93 | 1 | 8 | 2 | 3 | 6 | 1 | 157 | 2 | 506 | 0.4 | 0.9 | 0.7 | 1.6 |

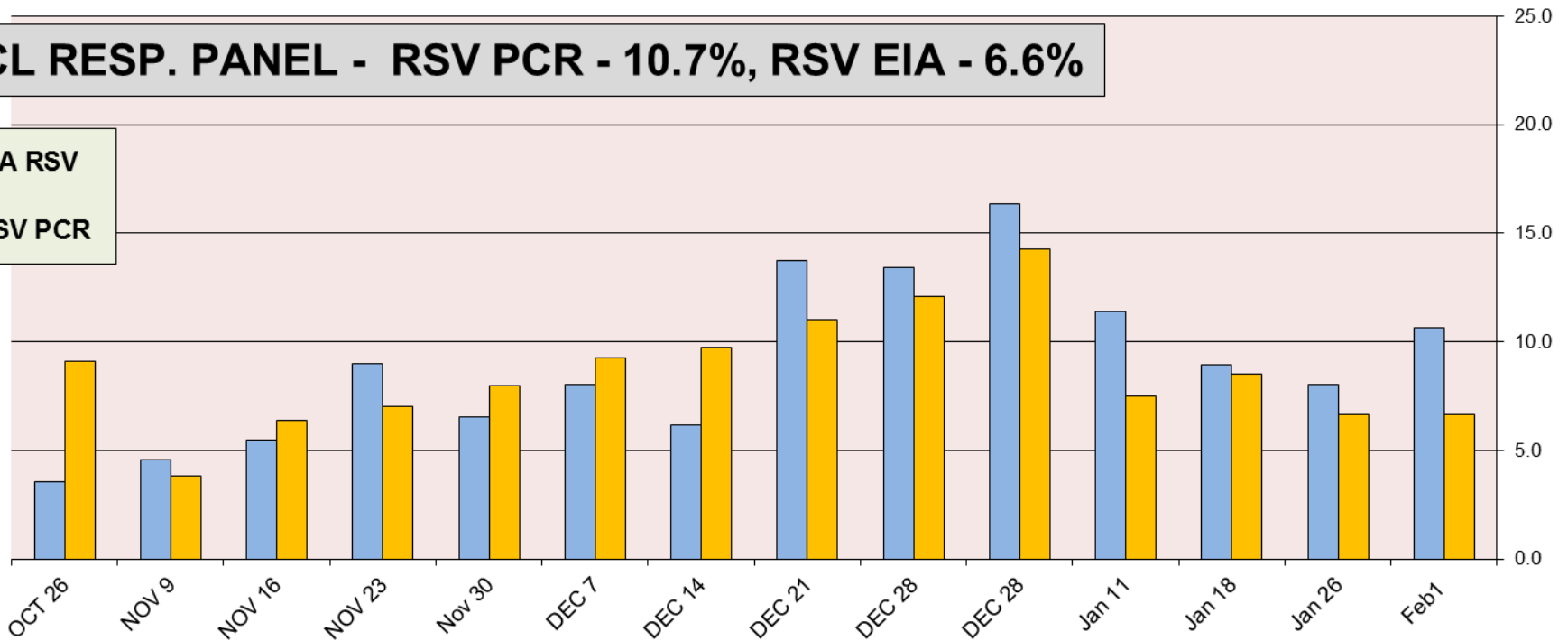
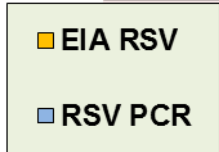
Flu PCR % Rate

ACL RESP. PANEL - POSITIVITY RATE All viruses - 38.8 %

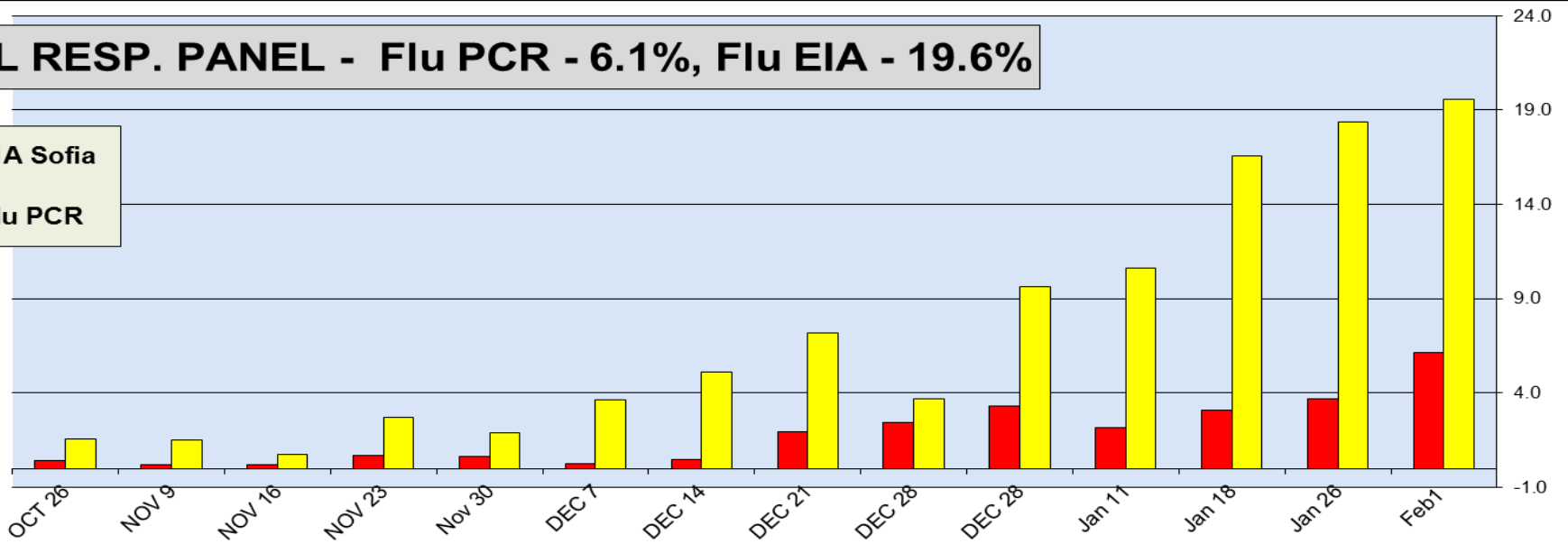
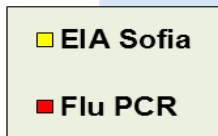
- All Corona
- Chla mydia
- Myco plasma
- All Para
- Adeno
- Meta pneumo
- EV / Rhino
- RSV
- Inf B
- InfA-H3
- 2009 H1N1
- InfA-H1
- Bocca



ACL RESP. PANEL - RSV PCR - 10.7%, RSV EIA - 6.6%



ACL RESP. PANEL - Flu PCR - 6.1%, Flu EIA - 19.6%



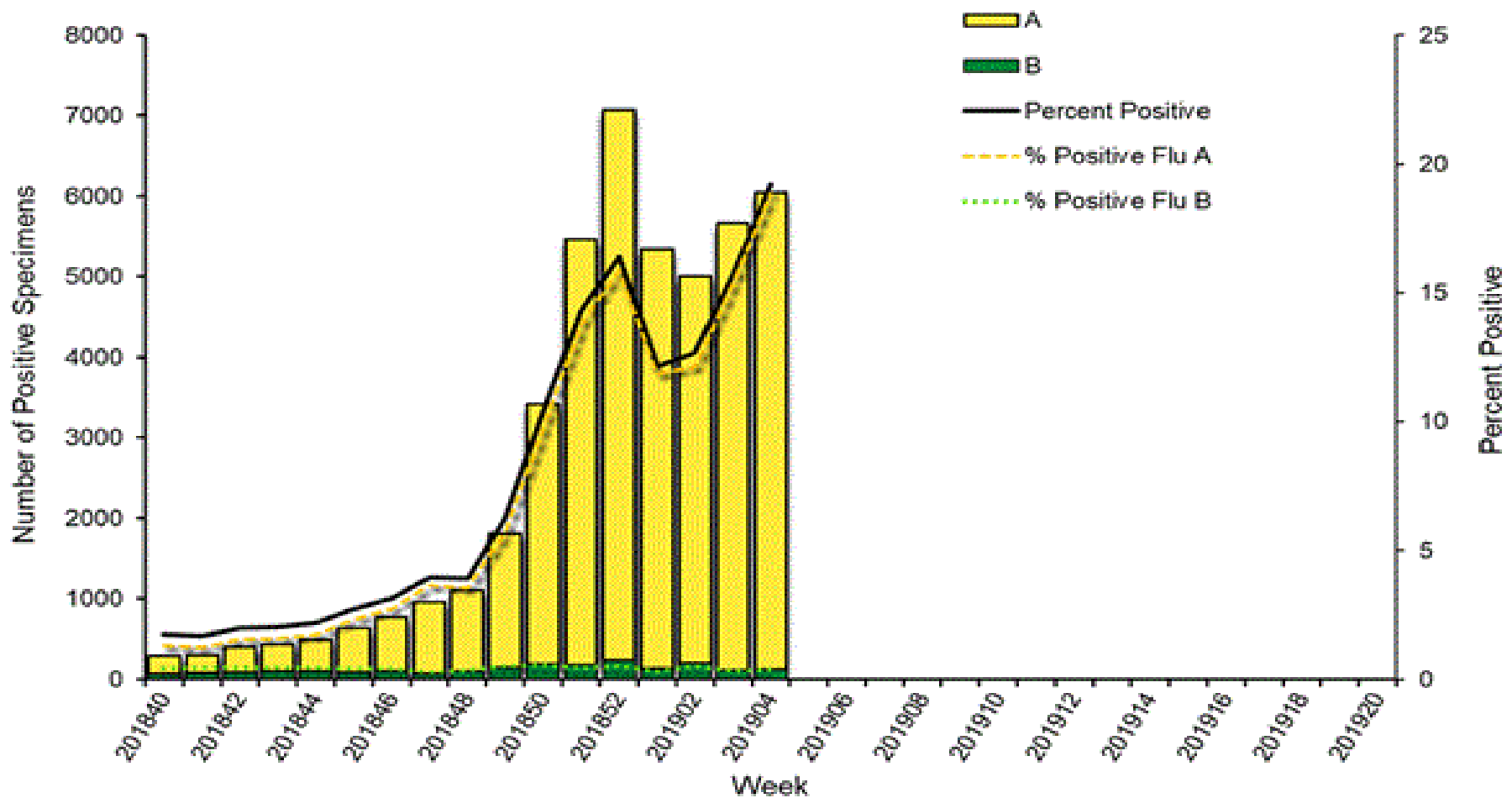
Correlation between RPPNL (FLU PCR) and Sofia (FLUAG) - Accuracy 96.3%

In the last two months 1589 samples were tested by both methods most of them negative, 47/90 samples were positive by EIA when confirmed by PCR. 47 negative EIA samples were tested positive by PCR method. (ACL correlation data is compiled on samples collected within <48 h)

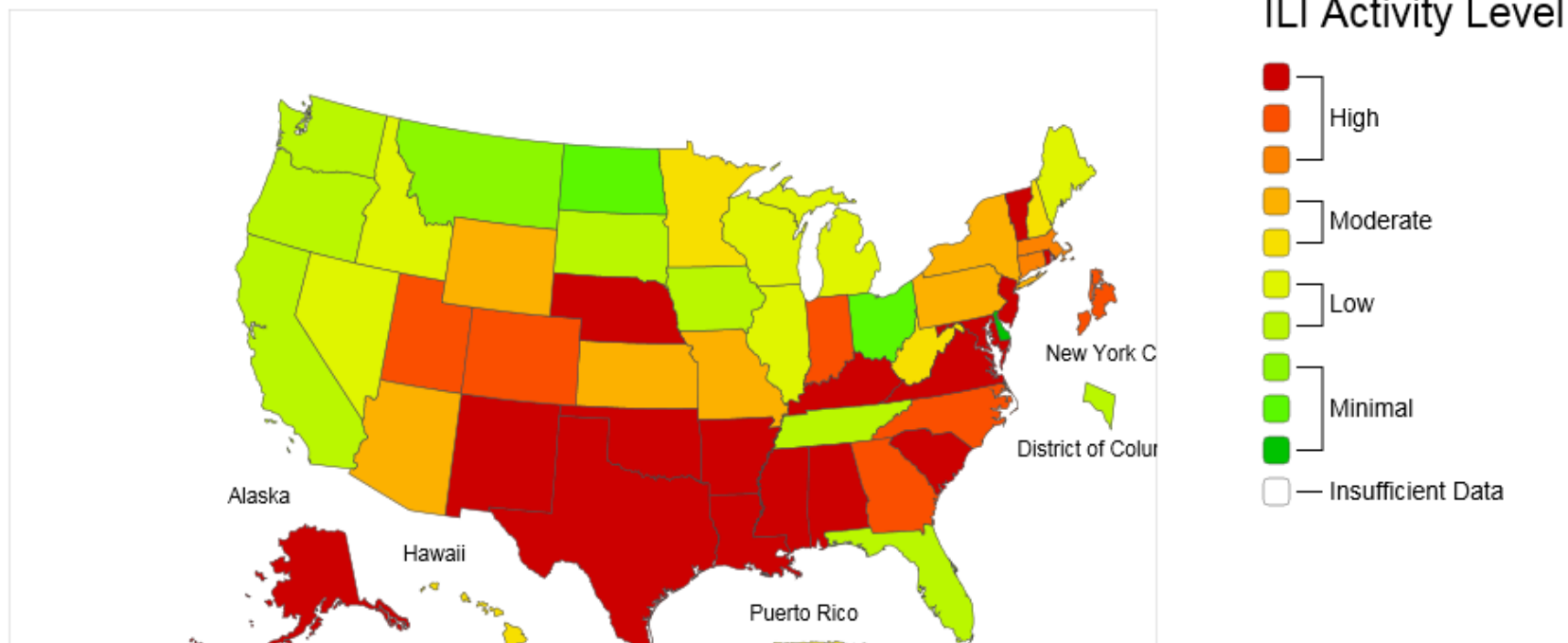
| Dec 1 2018 to Feb 2 2019 | | | | |
|--|---------------------------------|-------|-------|-------|
| FLUAG (Sofia) vs RPPNL (PCR) correlation | | | | |
| | | RPPNL | | |
| | | + | - | Total |
| FluAG | + | 43 | 11 | 54 |
| | - | 47 | 1488 | 1535 |
| | | | Total | 1589 |
| % | | | | |
| 47.8 | Clinical Sensitivity | | | |
| 99.3 | Clinical Specificity | | | |
| 79.6 | Positive Predictive Value (PPV) | | | |
| 96.9 | Negative Predictive Value (NPV) | | | |
| 96.3 | Accuracy | | | |

Jan 26, 2019 **Positivity rate 19.2%** - Flu A – 98% , Flu B – 2%

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, 2018-2019 Season



2018-19 Influenza Season Week 4 ending Jan 26, 2019



*This map uses the proportion of outpatient visits to healthcare providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.

*Data collected in ILINet may disproportionately represent certain populations within a state, and therefore may not accurately depict the full picture of influenza activity for the whole state.

*Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map are based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data is received.

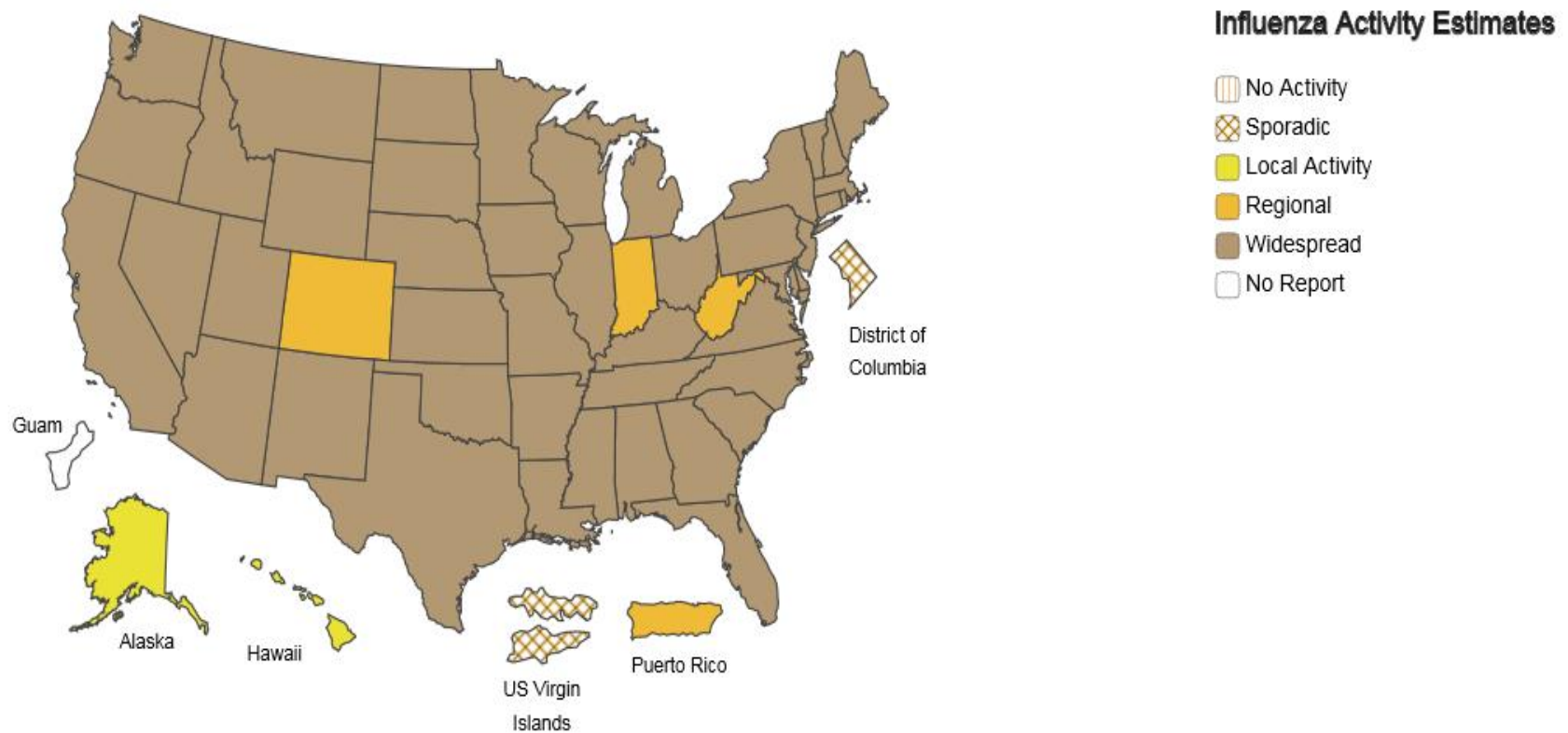
*Differences in the data presented by CDC and state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.

*For the data download you can use Activity Level for the number and Activity Level Label for the text description.

A Weekly Influenza Surveillance Report Prepared by the Influenza Division

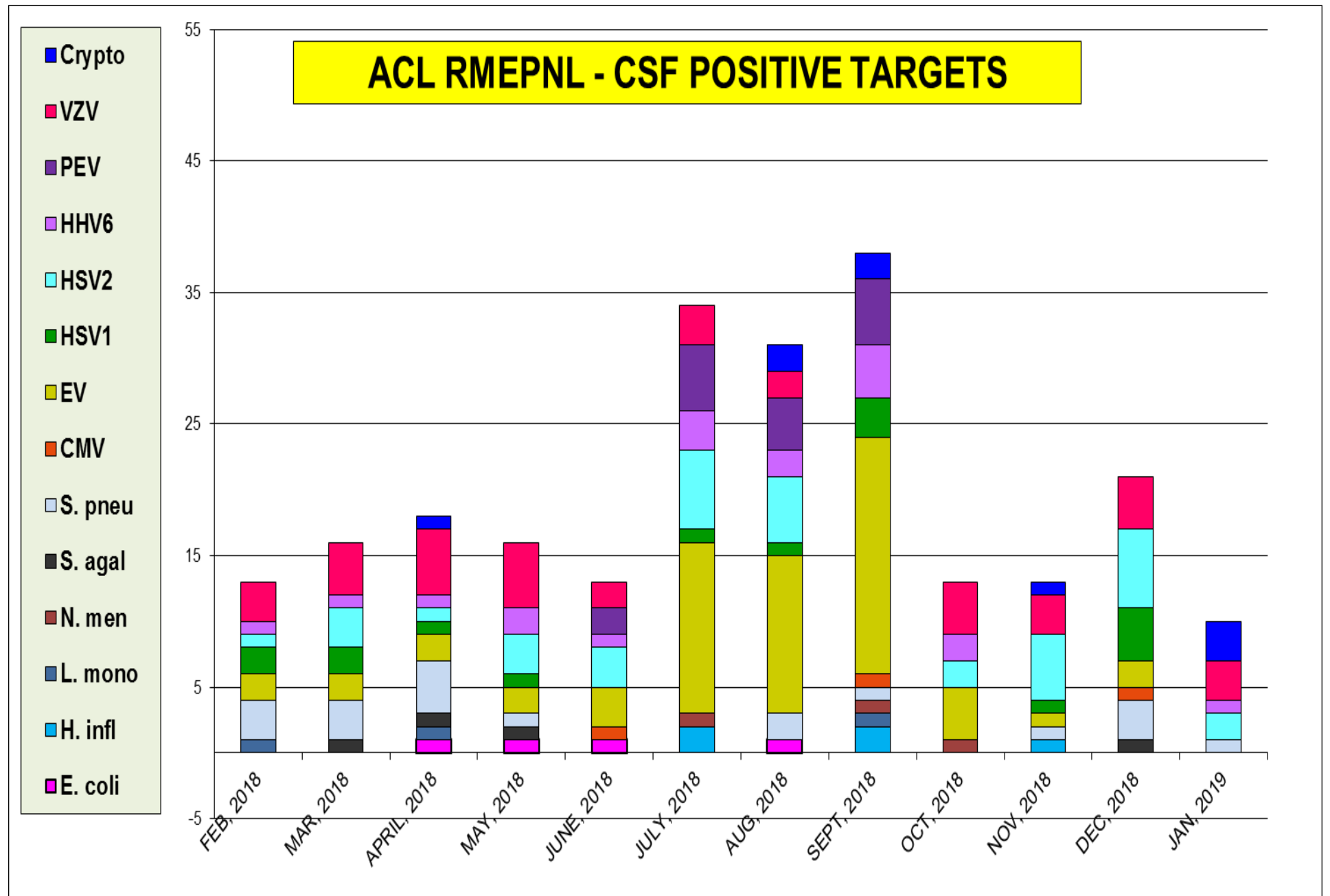
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending Jan 26, 2019 - Week 4



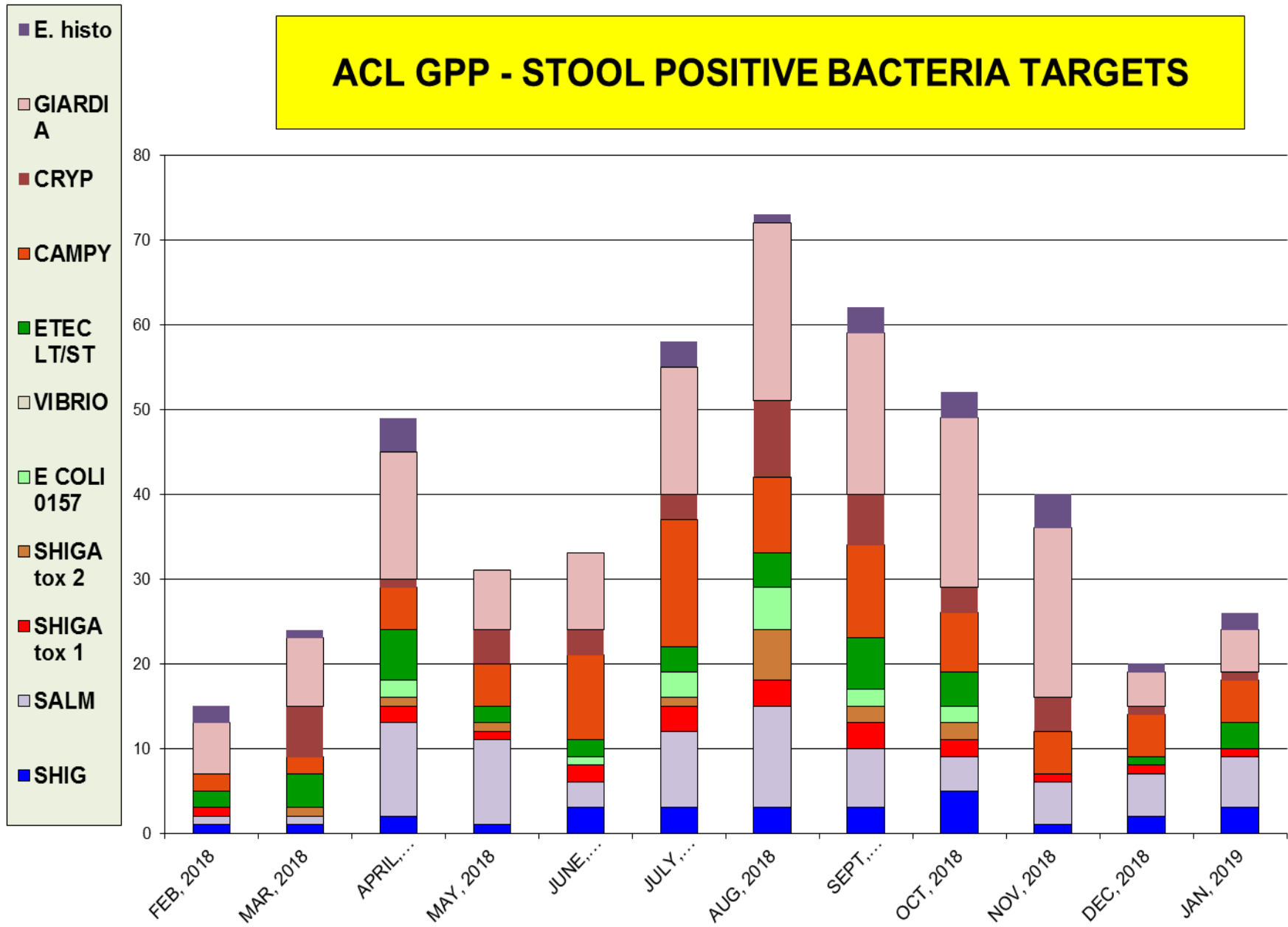
*This map indicates geographic spread and does not measure the severity of influenza activity.

The most prevalent target were VZV and Crypto – total pos. rate 6.4%

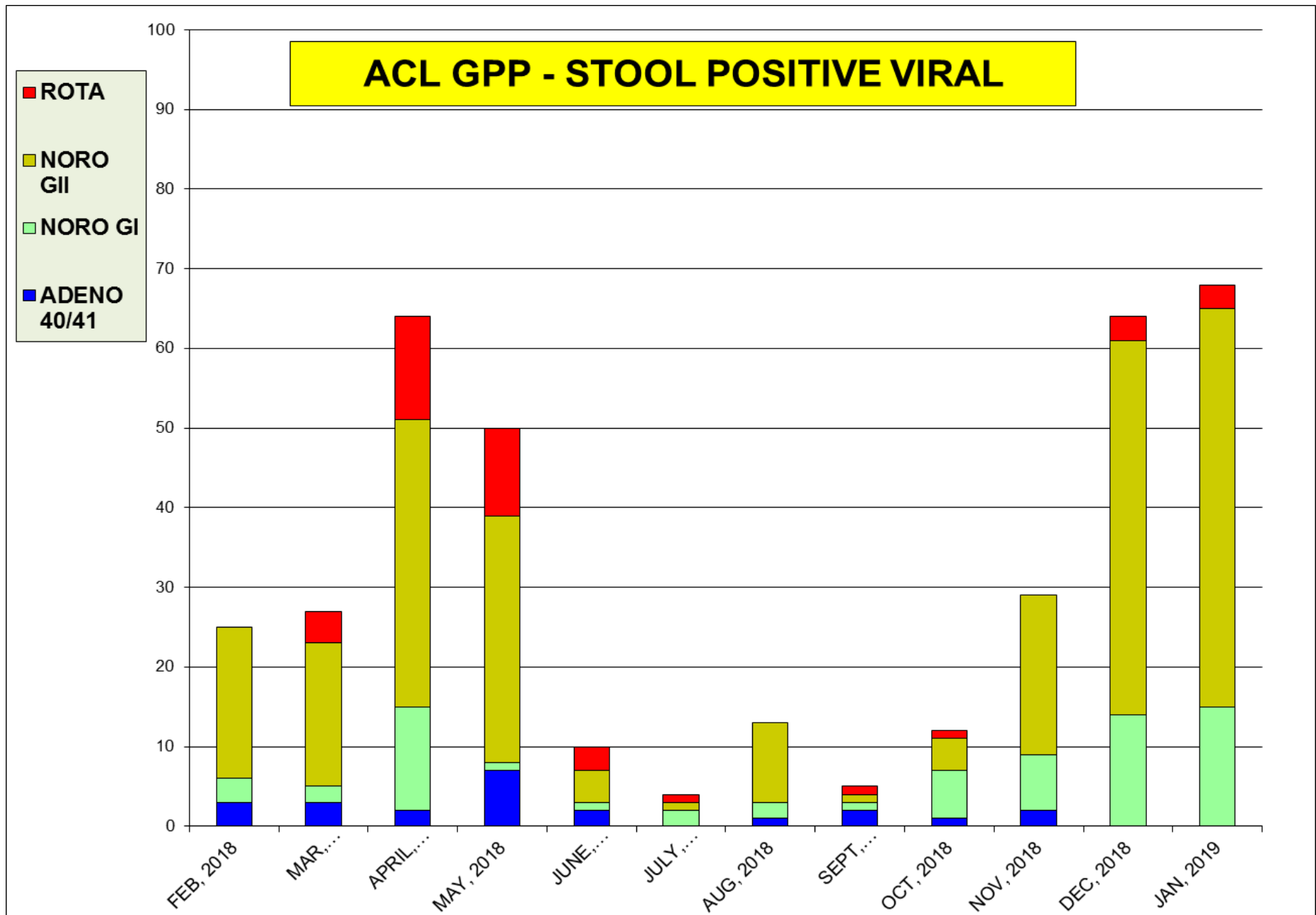


The most prevalent bacterial targets was **Campy**, **Salmonella** and **Giardia**

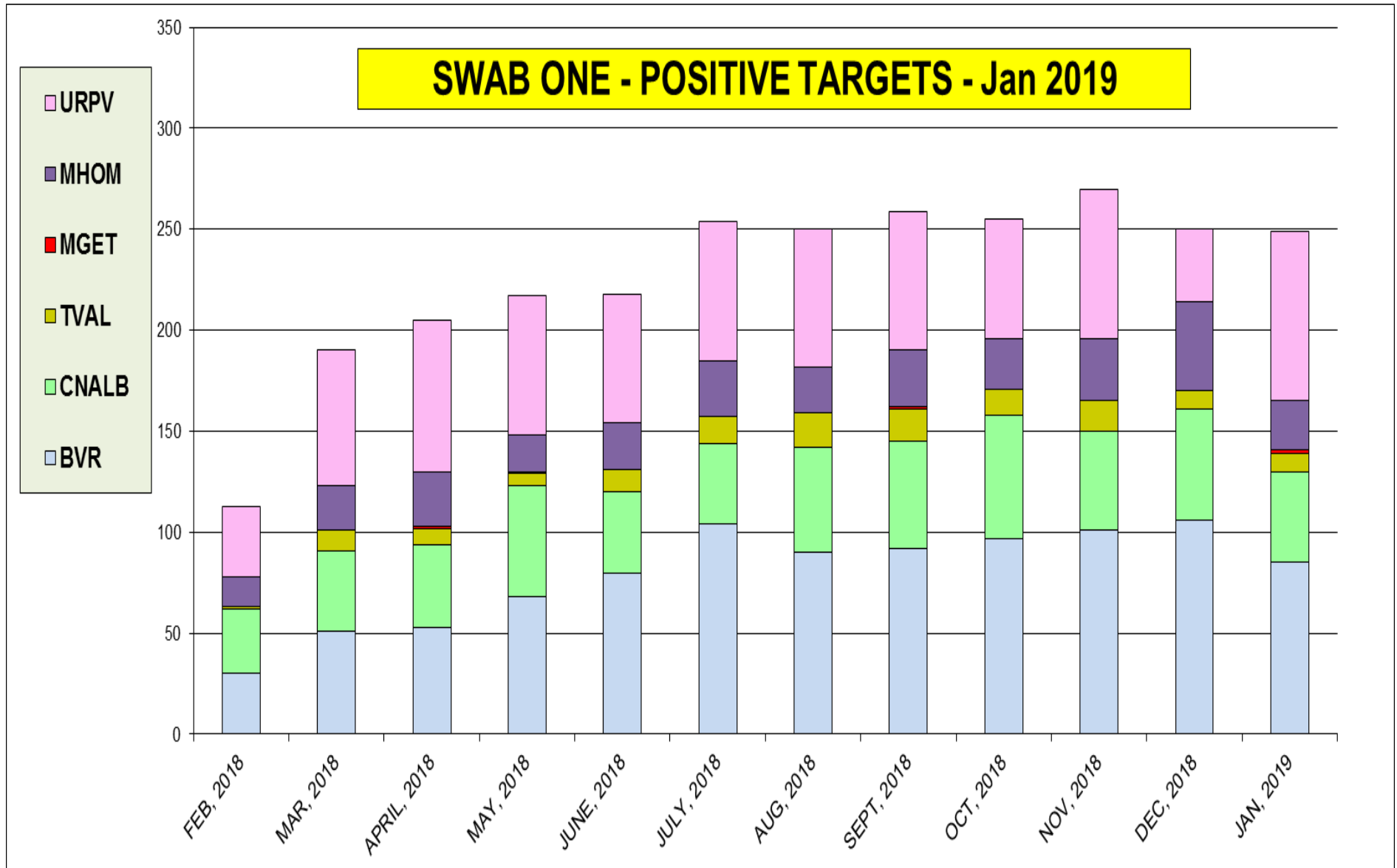
ACL GPP - STOOL POSITIVE BACTERIA TARGETS



The most prevalent virus target was **Norovirus type I / II** – **13% pos. rate**



| | BV-Bacterial vagionosis | Candida albicans | Candida galbrata | Candida kruzei | T. vaginalis | M. genitalium | M. hominis | U. parvum | TOTAL % POS |
|-------|-------------------------|------------------|------------------|----------------|--------------|---------------|------------|-------------|-------------|
| % pos | 21.3 | 12.5 | 1.9 | 0.3 | 2.8 | 0.1 | 6.8 | 17.1 | 62.8 |



Neuraminidase Inhibitors Resistance in samples collected – as of Jan 26, 2019

| Per CDC website | Oseltamivir | | Peramivir | | Zanamivir | |
|-------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|
| | Virus Samples tested (n) | Resistant Viruses, (%) | Virus Samples tested (n) | Resistant Viruses, (%) | Virus Samples tested (n) | Resistant Viruses, (%) |
| Influenza A (H1N1)pdm09 | 431 | 0.5 | 431 | 0.5 | 431 | 0 |
| Influenza A (H3N2) | 219 | 0 | 219 | 0 | 219 | 0 |
| Influenza B | 79 | 0 | 79 | 0 | 79 | 0 |

There 0.5 resistance detected.