Respiratory Pathogens Jan 18 - Apr 20 2019

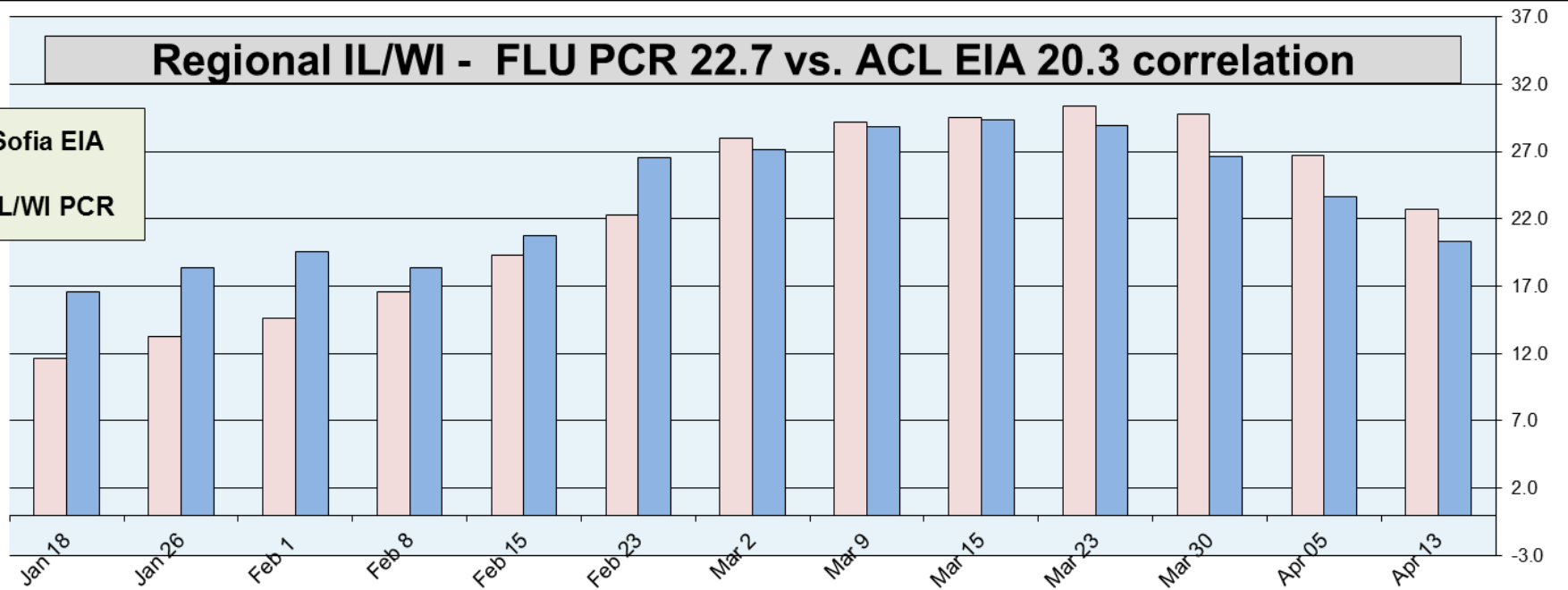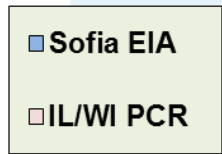| Week	InfA-H1	InfA-H3	2009 H1N1	Inf B	RSV	All Para	EV / Rhino	Meta pneumo	Adeno	All Corona	Bocca	Myco plasma	Chla mydia	Total Pos	POS FLU	Total	ACL %FLU	US %FLU	IL/WI PCR	Sofia EIA
Apr 20	0	16	17	5	8	34	58	47	2	19	8	2	1	217	38	827	4.6	n/a	n/a	16.6
Apr 13	0	24	33	8	12	28	68	59	8	28	12	1	1	282	65	893	7.3	11.8	22.7	
Apr 05	0	55	26	7	17	33	62	35	5	40	1	1	3	285	88	893	9.9	15.1	26.	
Mar 30	0	37	45	3	15	25	56	31	6	34	11	1	2	266	85	936	9.1	18.1	29.8	26.6
Mar 23	0	48	40	8	25	20	60	34	6	35	4	0	1	281	96	984	9.8	22.1	30.4	28.9
Mar 15	0	39	65	2	17	15	42	23	7	45	3	0	1	259	106	1076	9.9	26.0	29.5	29.4
Mar 9	0	21	57	1	21	4	68	33	4	57	5	1	1	273	79	1011	7.8	25.8	29.2	28.9
Mar 2	0	34	45	0	28	8	41	27	7	50	3	1	1	245	79	961	8.2	26.1	28.0	27.2
Feb 23	0	10	38	3	36	5	43	20	5	58	7	2	2	229	51	908	5.6	26.7	22.3	26.5
Feb 15	0	5	47	2	61	11	40	31	9	50	8	1	1	266	54	807	6.7	24.6	19.3	20.7
Feb 8	0	11	32	2	51	3	44	25	8	66	3	3	1	249	45	767	5.9	21.6	16.6	18.4
Feb 1	0	7	38	1	80	13	53	22	12	58	4	3	1	292	46	751	6.1	19.2	14.6	19.6
Jan 26	0	2	31	2	76	11	57	17	6	62	5	1	1	271	35	947	3.7	15.7	13.3	18.3
Jan 18	0	3	30	0	95	13	63	13	9	64	7	5	0	302	33	1064	3.1	12.7	11.6	16.6

Flu PCR % Rate

ACL RESP. PANEL - POSITIVITY RATE All viruses - 26.2%

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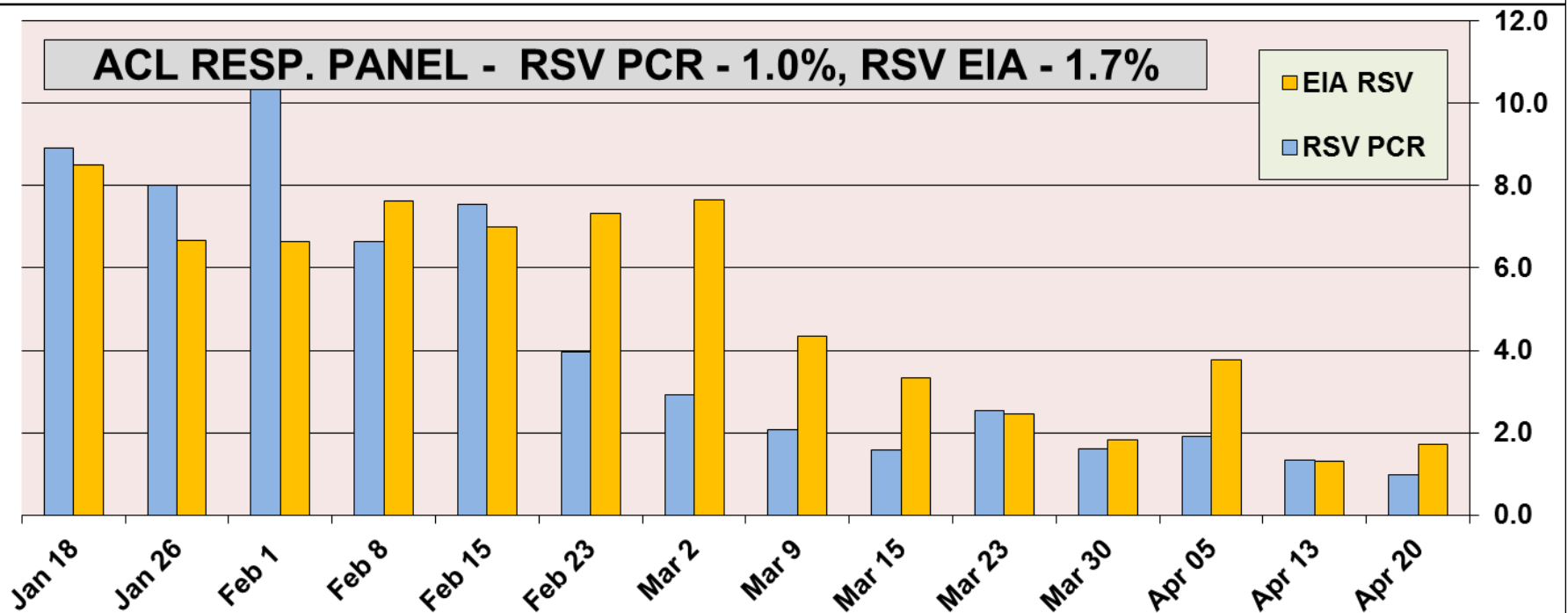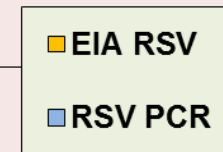- All Corona
- Chla mydia
- Myco plasma
- All Para
- Adeno
- Meta pneumo
- EV / Rhino
- RSV
- Inf B
- InfA-H3
- 2009 H1N1
- InfA-H1
- Bocca

X-axis: Jan 19, Jan 26, Feb 1, Feb 8, Feb 15, Feb 23, Mar 2, Mar 9, Mar 15, Mar 23, Mar 30, Apr 05, Apr 13, Apr 20

Y-axis: 0, 50, 100, 150, 200, 250, 300, 350
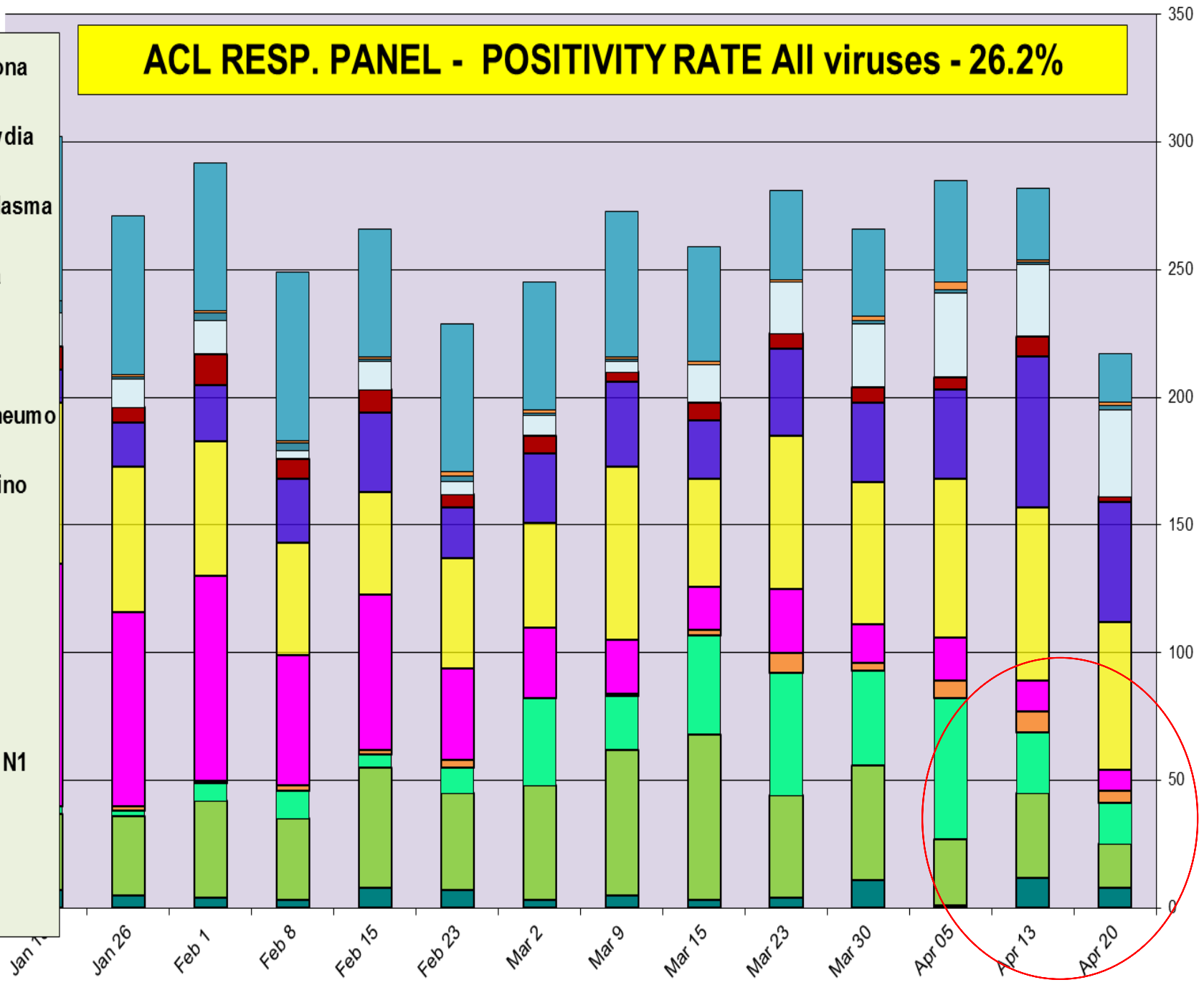
Regional IL/WI - FLU PCR 22.7 vs. ACL EIA 20.3 correlation

Legend: ■ Sofia EIA ☐ IL/WI PCR

**ACL RESP. PANEL - RSV PCR - 1.0%, RSV EIA - 1.7%**

Legend: ■ EIA RSV ■ RSV PCR

Correlation between RPPNL (FLU PCR) and Sofia (FLUAG) - Accuracy is 94%

In last two month, a 2598 samples were tested by both methods most of them negative, 157/3093 samples were positive by EIA when confirmed by PCR. 152 negative EIA samples were tested positive by PCR method. *(ACL correlation data is compiled on samples collected within <48 h). Since positive rate is under-represented and provides correlation on very small fraction of positive samples – <u>interpret clinical sensitivity with caution</u>.*

02/02/19 to 04/20/2019				
FLUAG (Sofia) vs RPPNL (PCR) correlation				
		RPPNL		
		+	**-**	Total
FluAG	**+**	**157**	**4**	161
	-	**152**	**2285**	2437
			Total	**2598**

| %	
50.8	**Clinical Sensitivity**
99.8	**Clinical Specificity**
97.5	**Positive Predictive Value (PPV)**
93.8	**Negative Predictive Value (NPV)**
94.0	**Accuracy**

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, 2018-2019 Season
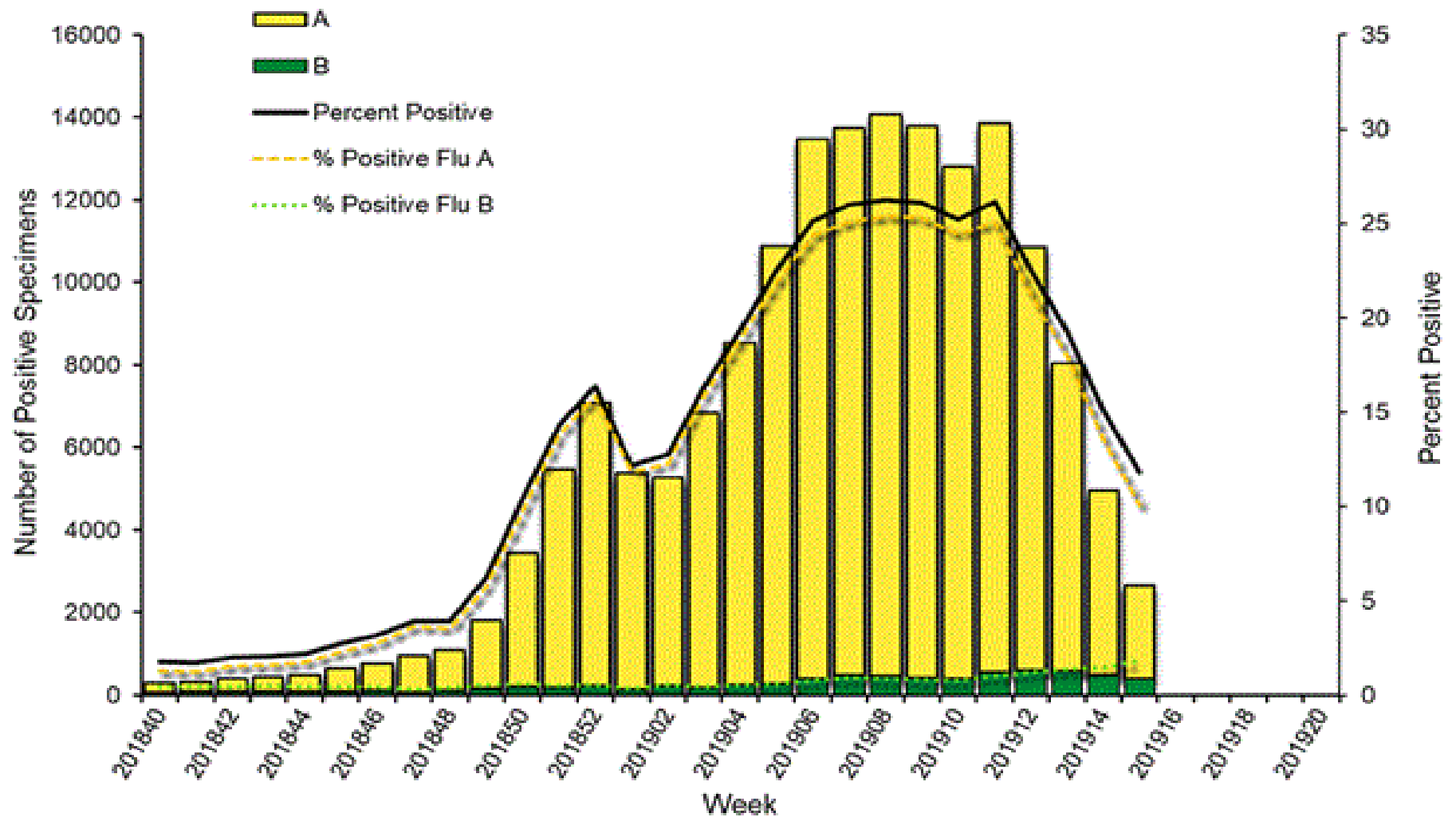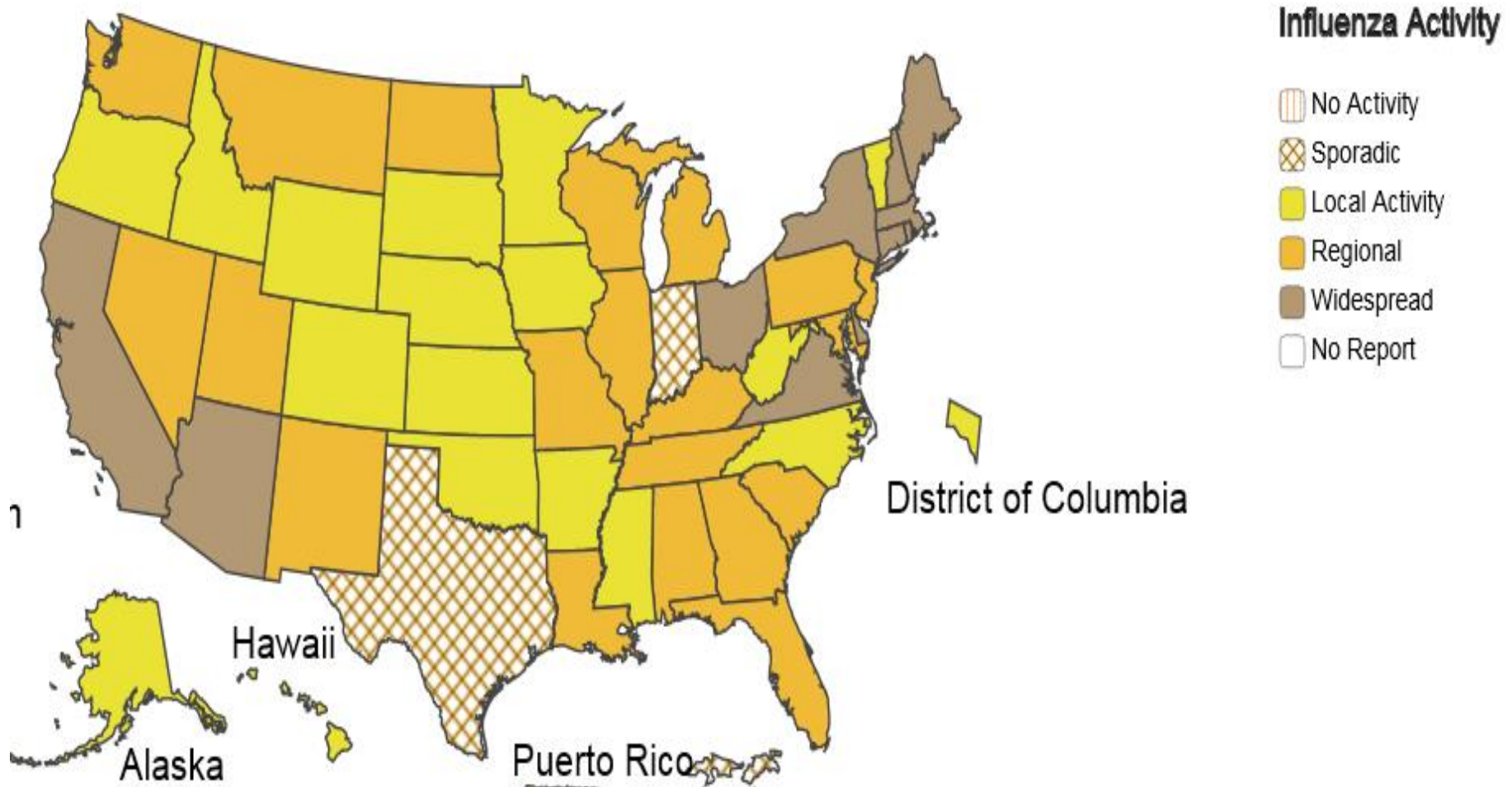
2018-19 Influenza Season Week 15 ending Apr 13, 2019

ILI Activity

- High
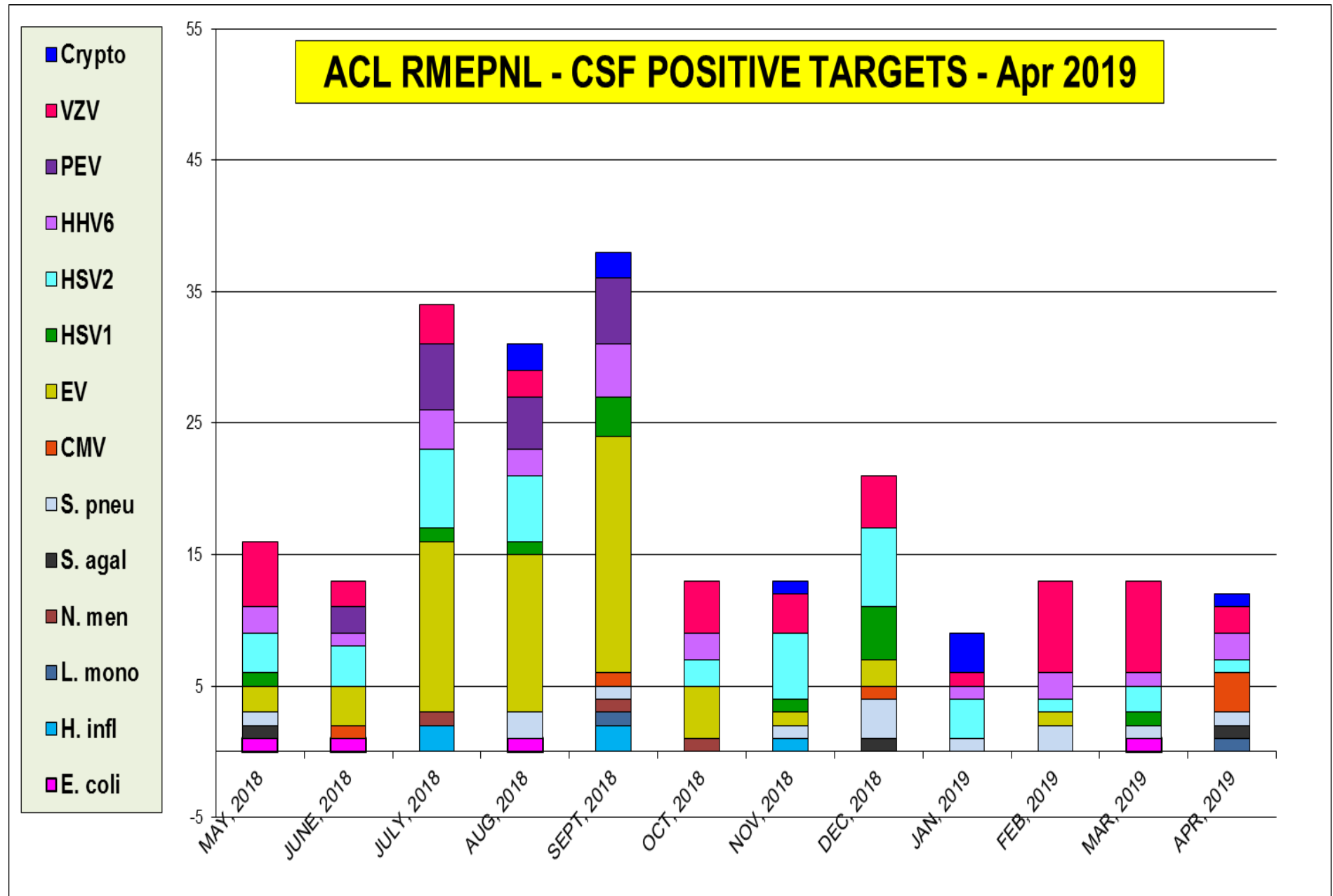- Moderate
- Low
- Minimal
- Insufficient [

New Yo

District of (

Hawaii
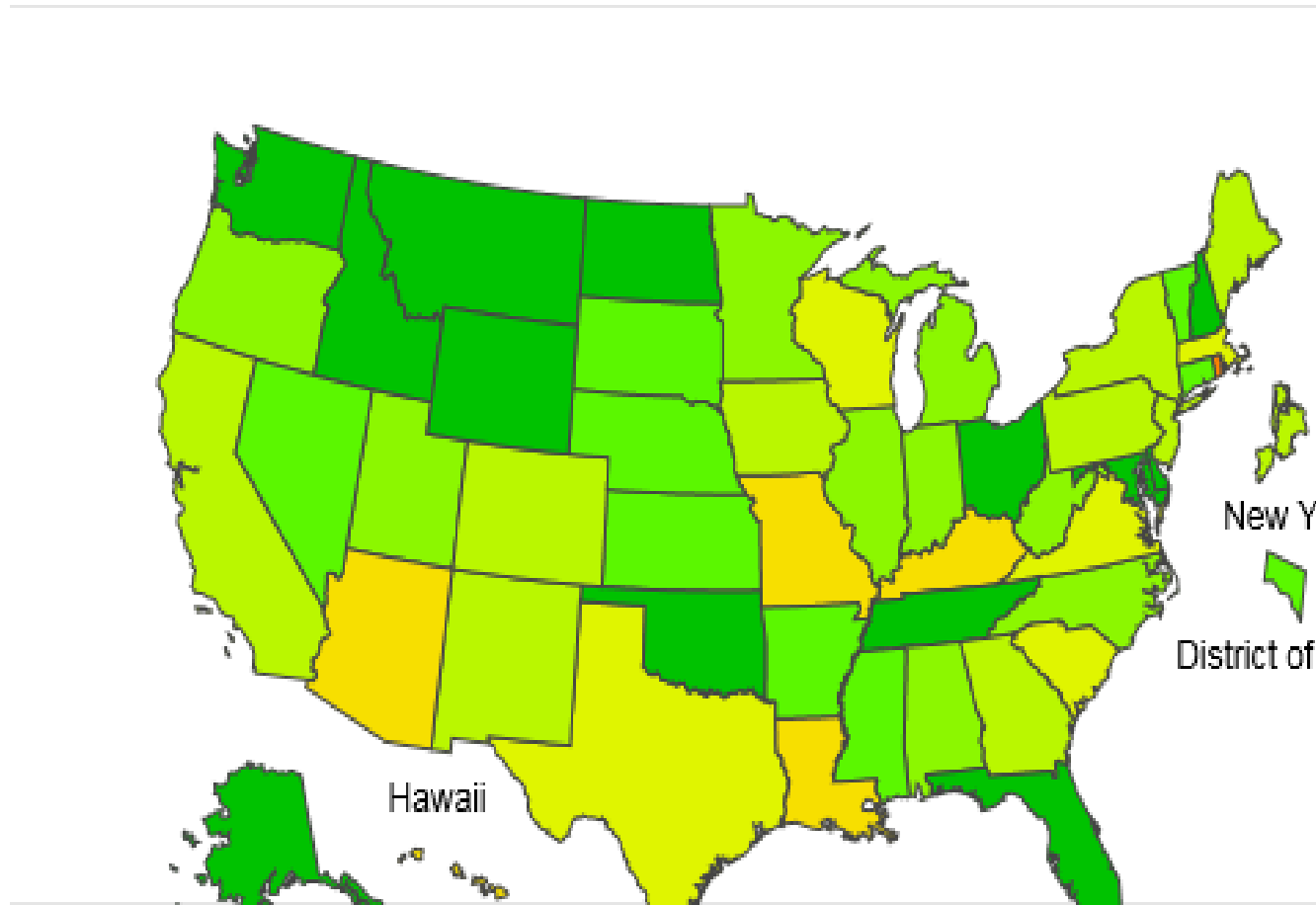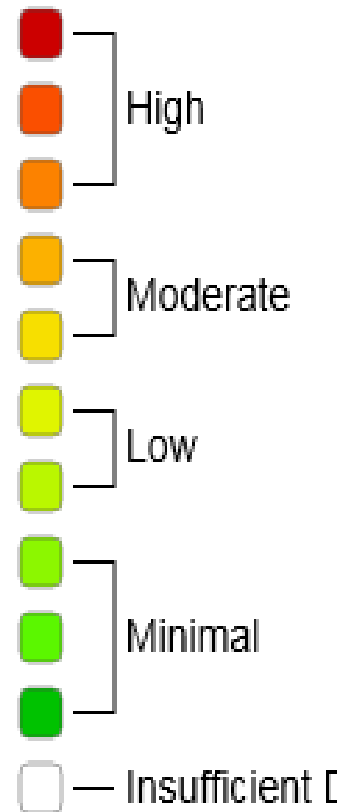
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*
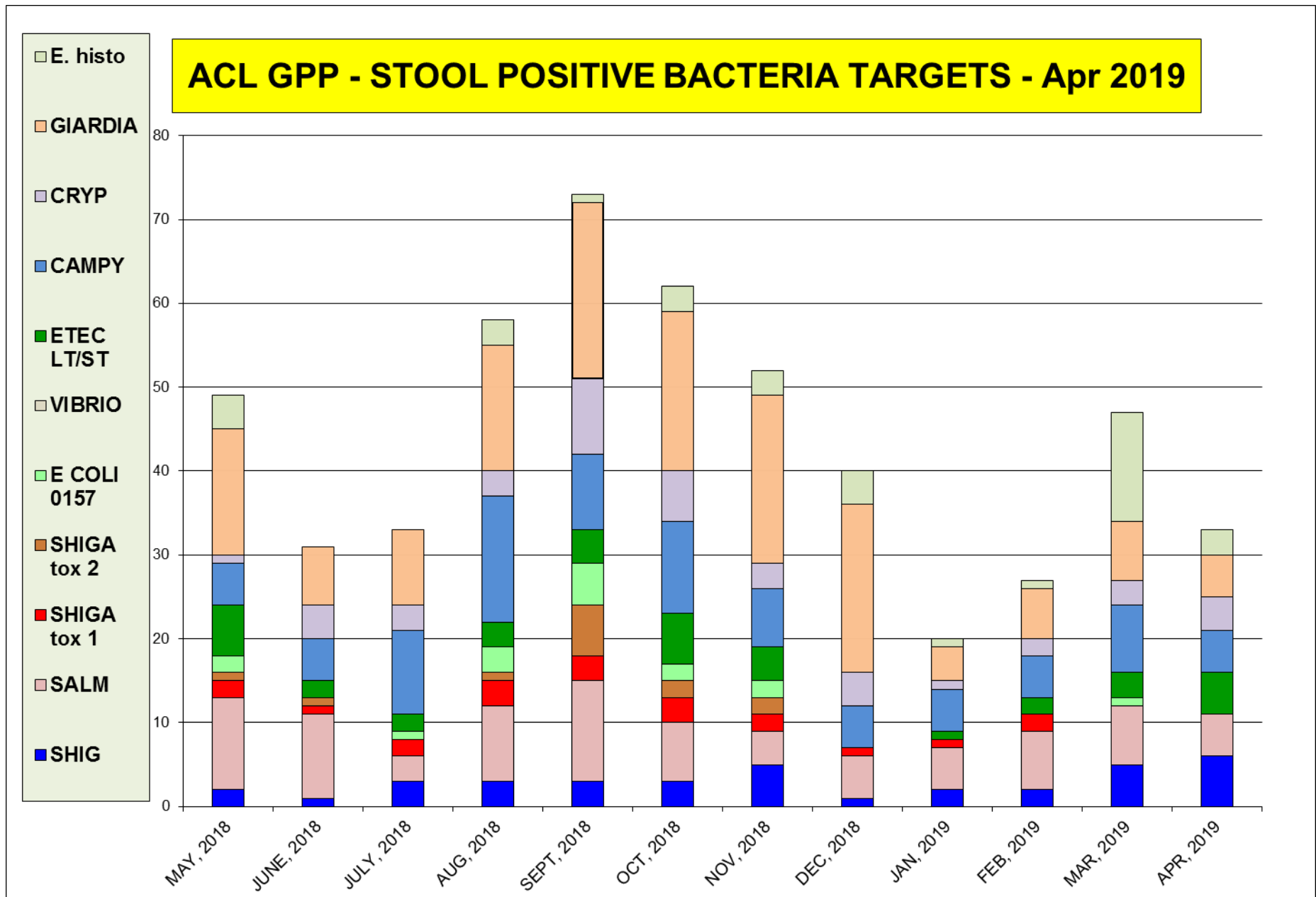
Week Ending Apr 13, 2019 - Week 15

Influenza Activity

- No Activity
- Sporadic
- Local Activity
- Regional
- Widespread
- No Report

District of Columbia

Hawaii

Alaska

Puerto Rico

The most prevalent target **was CMV– total pos. rate 10.3%**

ACL RMEPNL - CSF POSITIVE TARGETS - Apr 2019

Legend:
- Crypto
- VZV
- PEV
- HHV6
- HSV2
- HSV1
- EV
- CMV
- S. pneu
- S. agal
- N. men
- L. mono
- H. infl
- E. coli

X-axis: MAY, 2018; JUNE, 2018; JULY, 2018; AUG, 2018; SEPT, 2018; OCT, 2018; NOV, 2018; DEC, 2018; JAN, 2019; FEB, 2019; MAR, 2019; APR, 2019

Y-axis: -5, 5, 15, 25, 35, 45, 55

The most prevalent bacterial targets was **Shiga**

ACL GPP - STOOL POSITIVE BACTERIA TARGETS - Apr 2019

Legend:
- E. histo
- GIARDIA
- CRYP
- CAMPY
- ETEC LT/ST
- VIBRIO
- E COLI 0157
- SHIGA tox 2
- SHIGA tox 1
- SALM
- SHIG

Months: MAY, 2018; JUNE, 2018; JULY, 2018; AUG, 2018; SEPT, 2018; OCT, 2018; NOV, 2018; DEC, 2018; JAN, 2019; FEB, 2019; MAR, 2019; APR, 2019

The most prevalent virus target were; **Norovirus (9.3%)** and **Rotavirus (10%) pos**. rate

ACL GPP - STOOL POSITIVE VIRAL TARGETS -Apr 2019
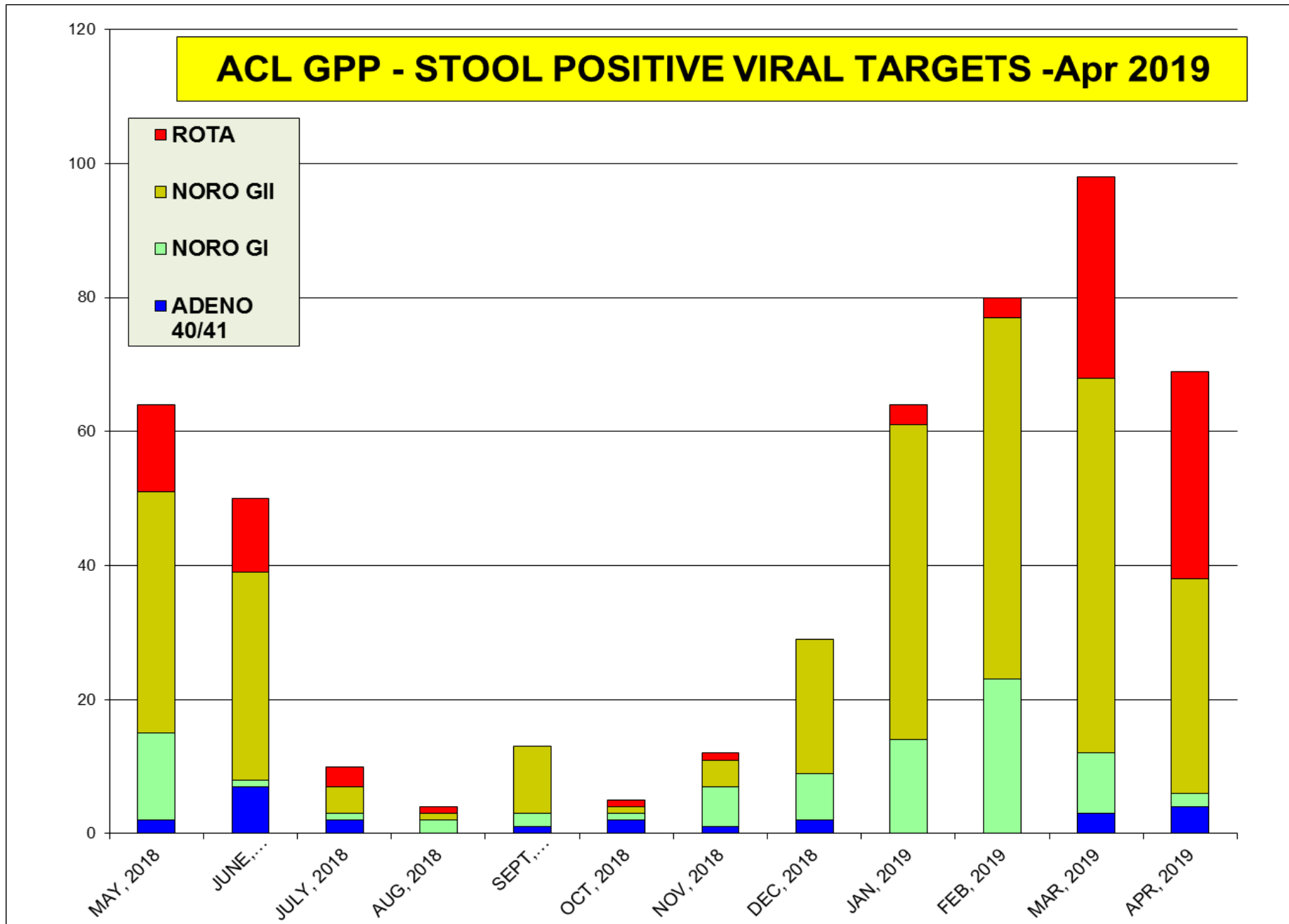
BV	C.ALB	C.GLB	C.KUR	T.VAG	M.GEN	M.HOM	U.PAV	Tot. pos.
5,381	5,381	5,381	5,381	5,381	5,381	5,381	5,381	5,381
22.9	**12.6**	**1.7**	**0.2**	**3.0**	**0.1**	**8.5**	**21.3**	**69.4**

SWAB ONE - POSITIVE TARGETS - Apr 2019
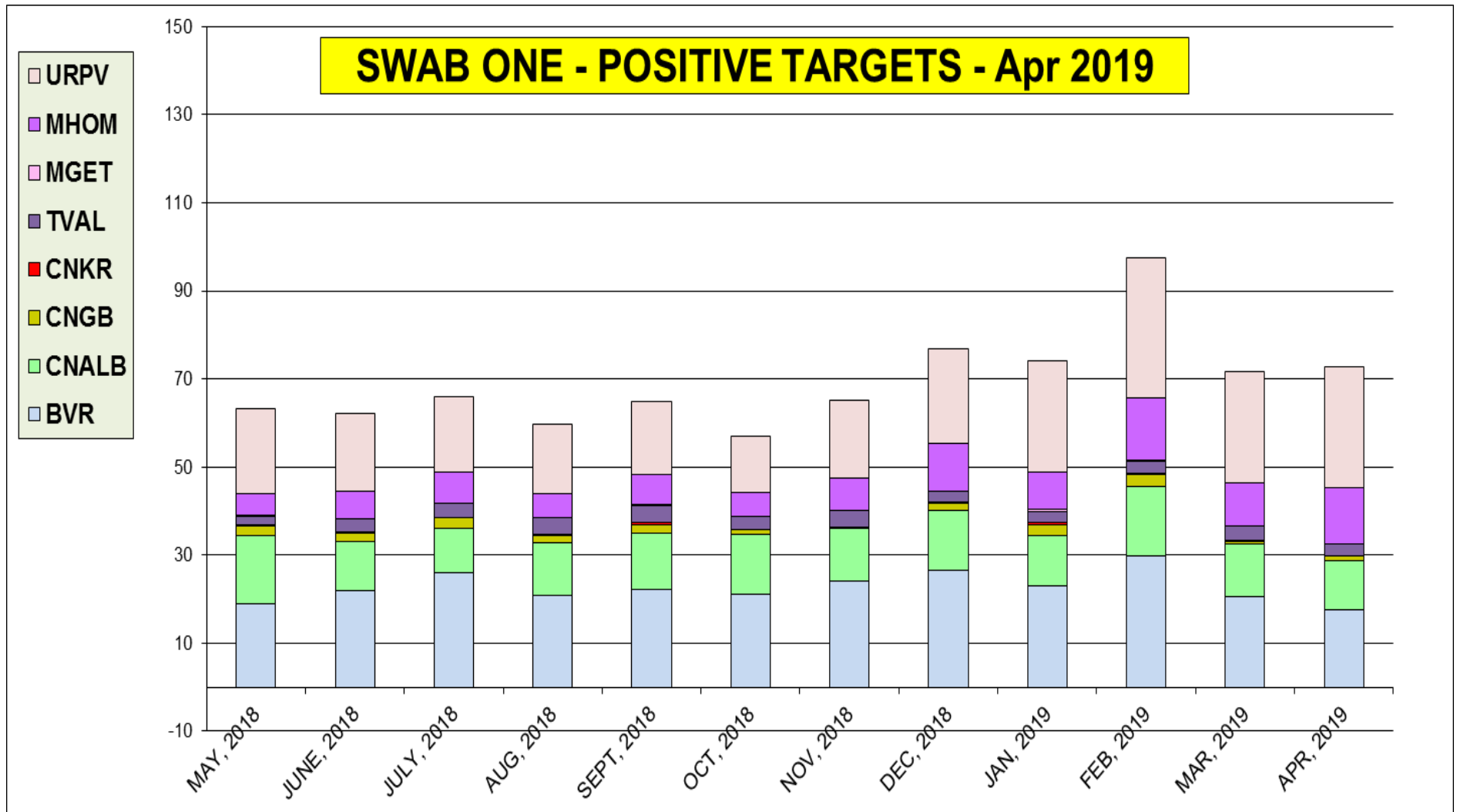
Neuraminidase Inhibitors **Resistance** in samples collected – as of Apr 15, 2019

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	968	0.1	968	0.1	968	0
Influenza A (H3N2)	732	0	732	0	732	0
Influenza B	254	0	254	0	254	0

There is 0.1% resistance detected.