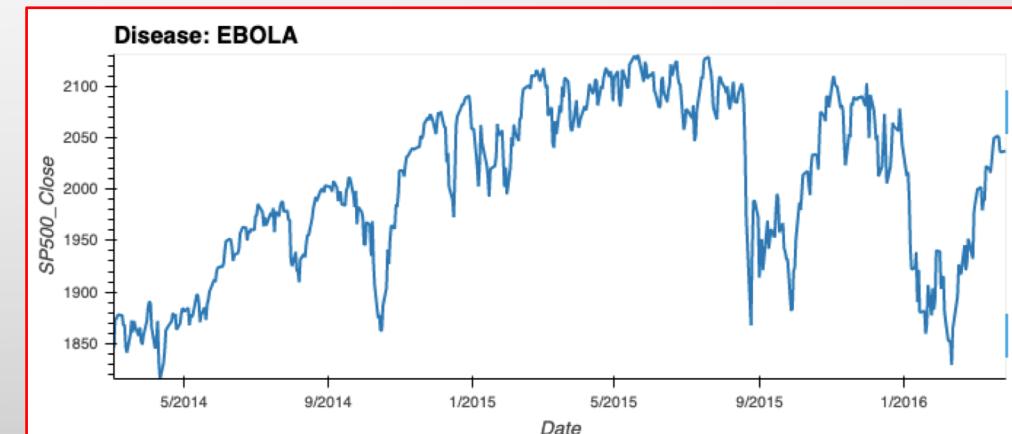
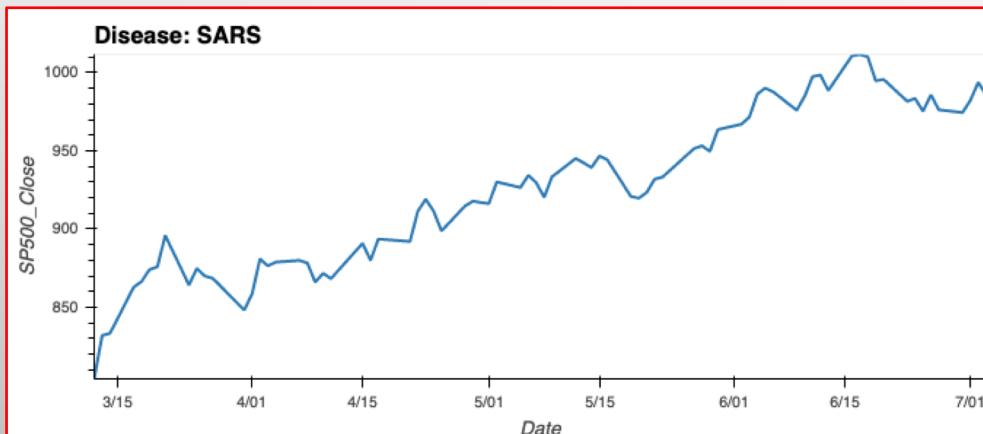
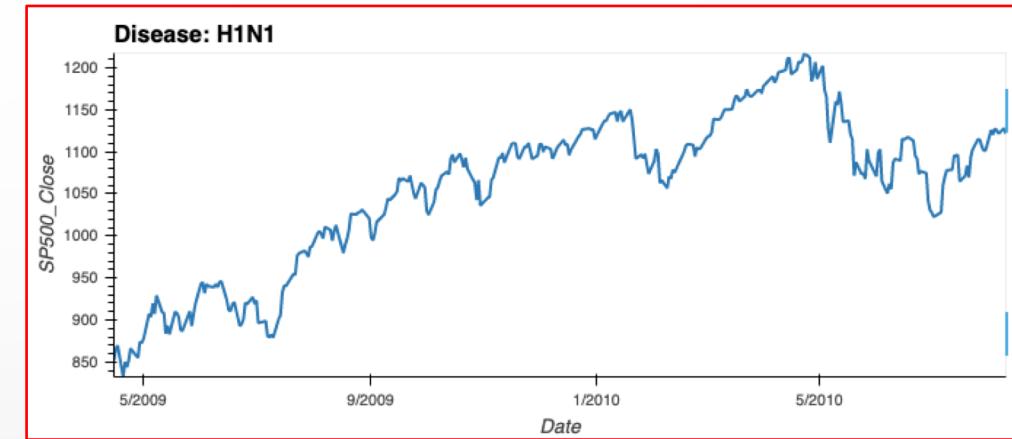
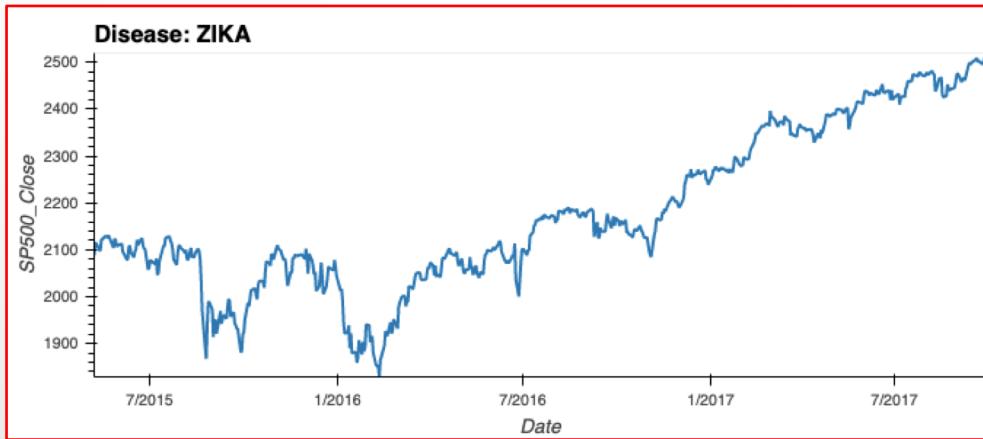


VISUALIZATIONS

ZIKA, H1N1, SARS, EBOLA

SPY (S&P500)



SPY_SECTORS

XLY: Consumer Discretionary

XLF: Financials

XLB: MAterials

XLP: Consumer Staples

XLV: Health Care

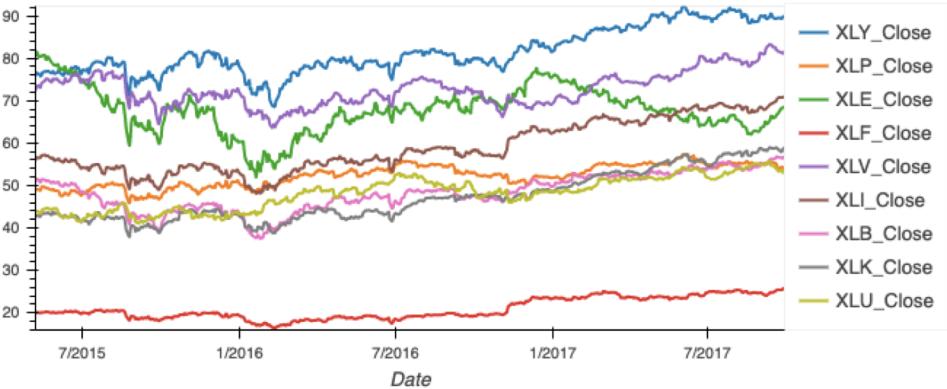
XLK: Technology

XLE: Energy

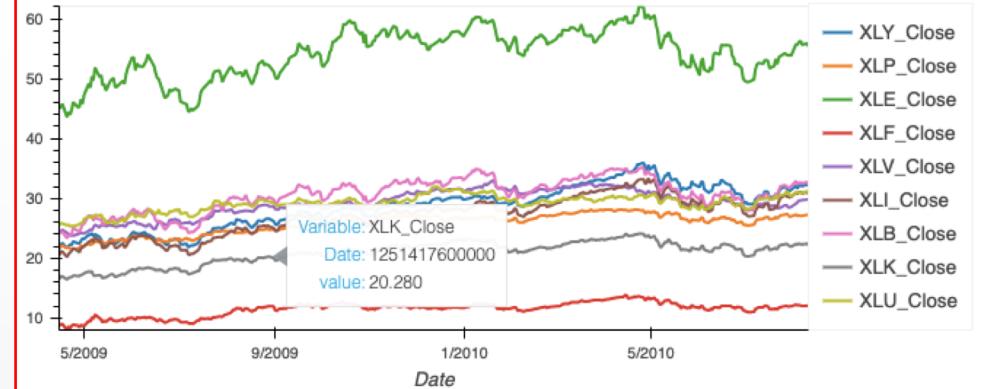
XLI: Industrials

XLU: Utilities

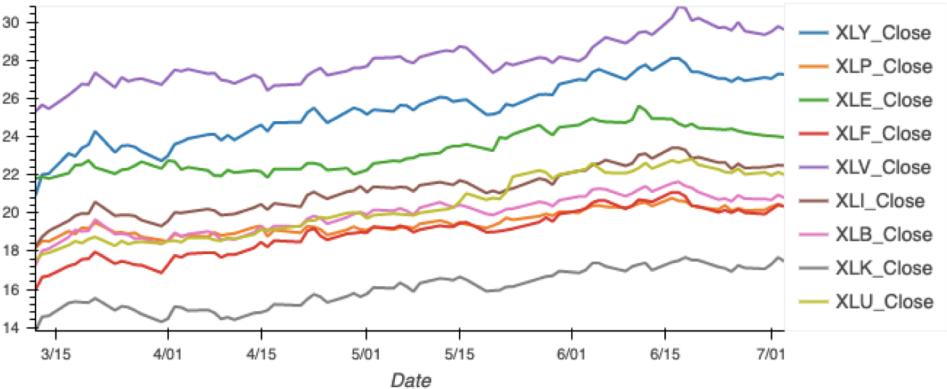
Disease: ZIKA



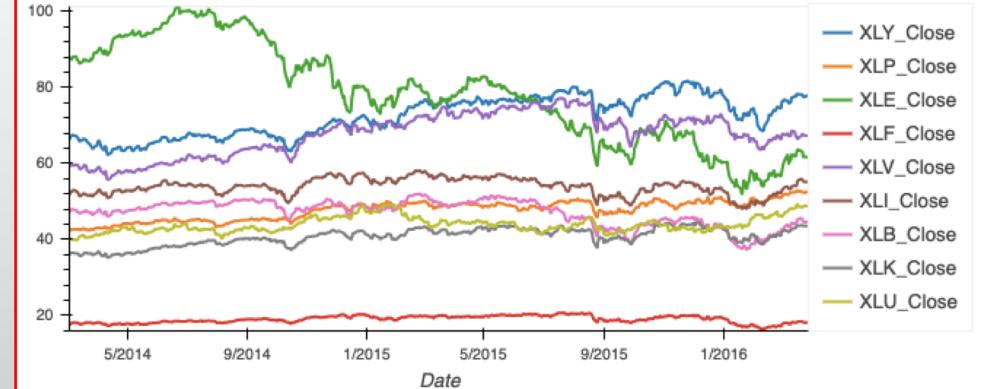
Disease: H1N1



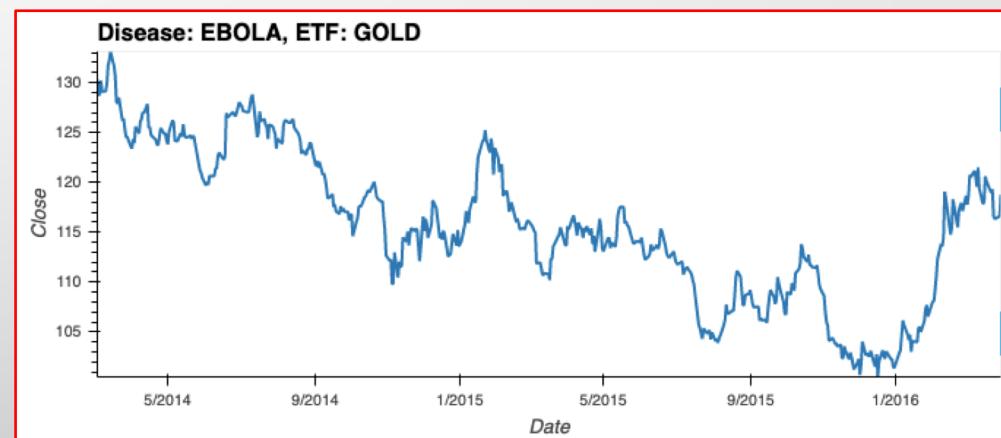
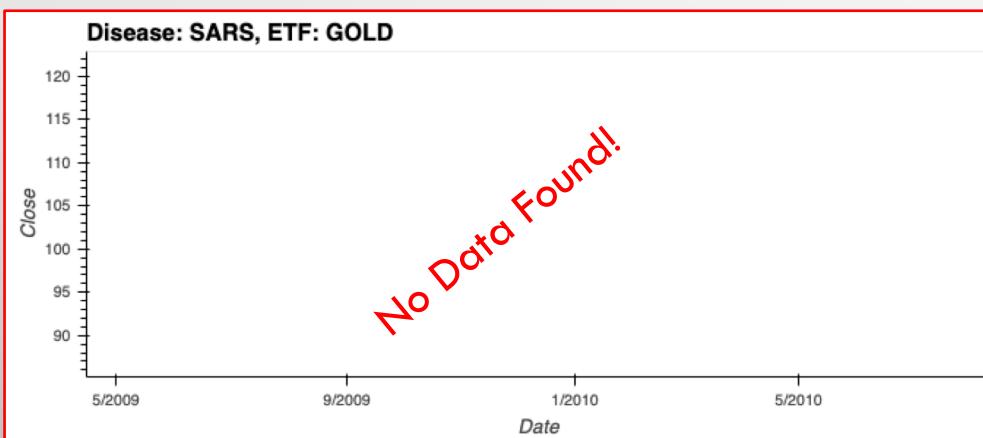
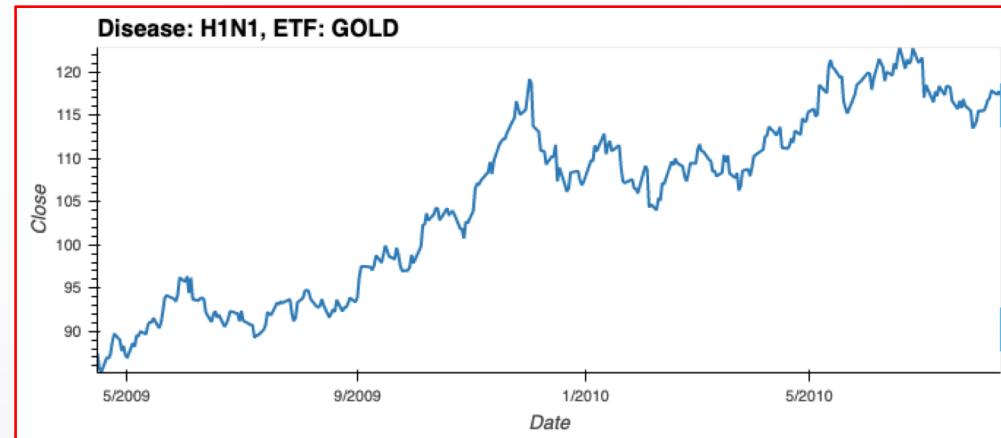
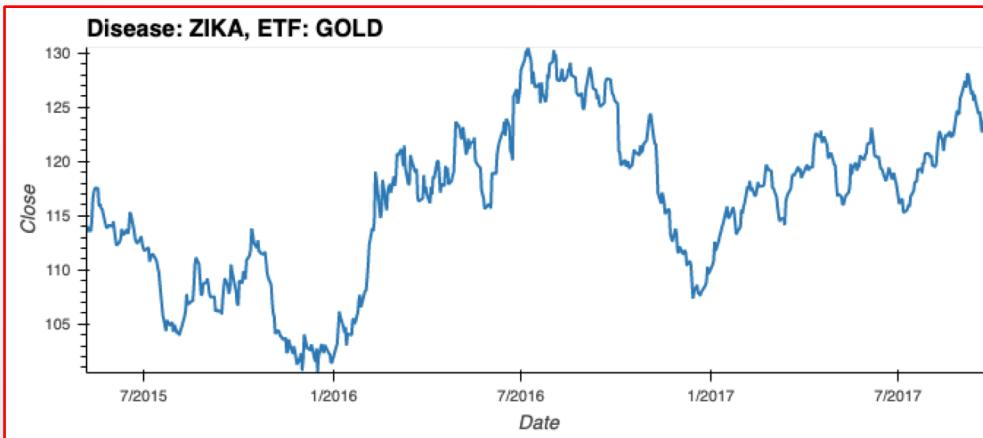
Disease: SARS



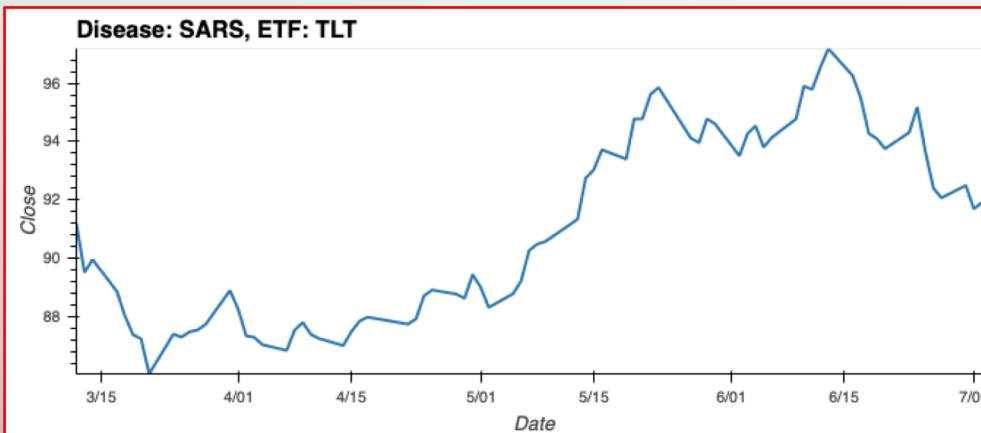
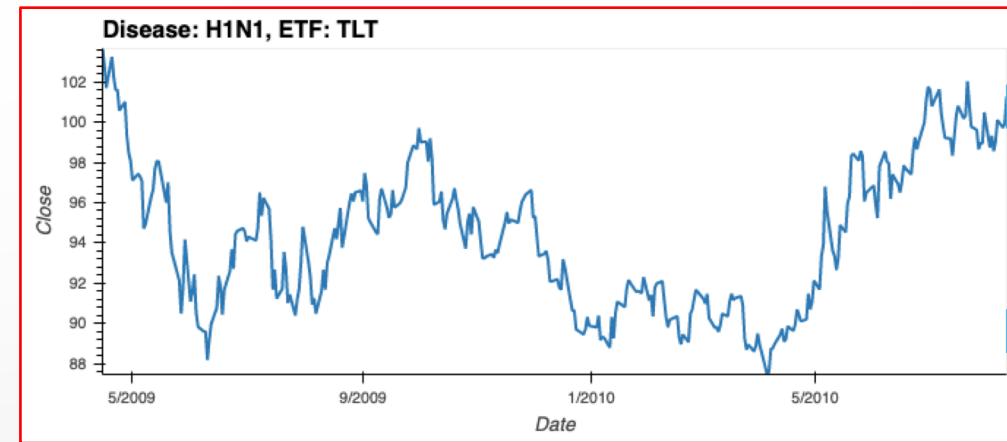
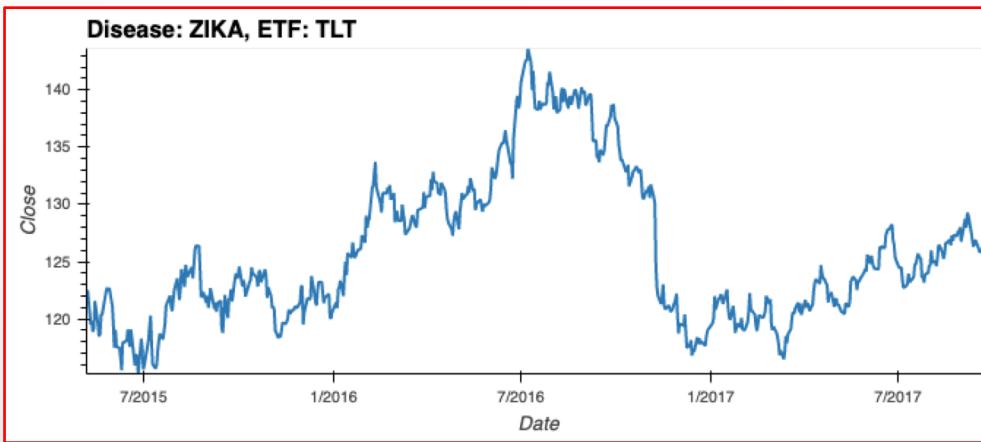
Disease: EBOLA



GOLD (GOLD ETF)



TLT (T-BONDS ETF)



VOLATILITY INDEX (TAILOR MADE – STEP 1)

| GOLD Tranches | | TLT Tranches | | SPY/Sectors Tranches | | | | | | | | | | | | | | | |
|---------------|--------------|--------------|----------|----------------------|--------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----|-----------|
| | | Close | Volume | SP500_Close | SP500_Volume | XLY_Close | XLY_Volume | XLP_Close | XLP_Volume | XLE_Close | XLE_Volume | XLF_Close | XLF_Volume | XLV_Close | XLV_Volume | XLI_Close | XLI_Volume | | |
| Disease | min/max/mean | | | Disease | min/max/mean | | | | | | | | | | | | | | |
| ZIKA | min | 0.000000 | 0.000384 | ZIKA | min | 0.000000 | 0.000849 | ZIKA | min | 0.000000 | 0.000268 | XLY | Close | XLY | Volume | XLP | Close | | |
| | max | 0.049038 | 4.578831 | ZIKA | max | 0.042432 | 3.261861 | ZIKA | max | 0.039414 | 197.072109 | XLY | 0.039941 | XLP | 0.000287 | XLE | 0.000129 | XLF | 0.000122 |
| | mean | 0.006463 | 0.424195 | ZIKA | mean | 0.006232 | 0.336188 | ZIKA | mean | 0.005424 | 0.588873 | XLY | 0.006278 | XLP | 0.034794 | XLE | 0.000542 | XLF | 0.000724 |
| H1N1 | min | 0.000000 | 0.004650 | H1N1 | min | 0.000000 | 0.002124 | H1N1 | min | 0.000043 | 0.000004 | XLY | 0.002006 | XLP | 0.000000 | XLE | 0.000630 | XLF | 0.000000 |
| | max | 0.041702 | 2.705102 | H1N1 | max | 0.032707 | 3.363390 | H1N1 | max | 0.043974 | 3.212649 | XLY | 0.052206 | XLP | 0.029638 | XLE | 0.010469 | XLF | 0.040469 |
| | mean | 0.008454 | 0.356125 | H1N1 | mean | 0.007868 | 0.348063 | H1N1 | mean | 0.009246 | 0.185479 | XLY | 0.011144 | XLP | 0.034794 | XLE | 0.0268101 | XLF | 0.0344343 |
| EBOLA | min | 0.000000 | 0.000137 | SARS | min | 0.000106 | 0.001298 | SARS | min | 0.000676 | 0.001780 | XLY | 0.000000 | XLP | 0.001025 | XLE | 0.000527 | XLF | 0.012976 |
| | max | 0.040189 | 4.296912 | SARS | max | 0.018421 | 7.442777 | SARS | max | 0.035427 | 0.752583 | XLY | 0.053110 | XLP | 0.028633 | XLE | 0.090327 | XLF | 0.029665 |
| | mean | 0.007035 | 0.466491 | EBOLA | mean | 0.006336 | 0.778884 | EBOLA | mean | 0.009463 | 0.110712 | XLY | 0.011346 | XLP | 0.008443 | XLE | 0.007947 | XLF | 0.015422 |
| EBOLA | min | 0.000000 | 0.000017 | EBOLA | min | 0.000005 | 0.000642 | EBOLA | min | 0.039414 | 197.072109 | XLY | 0.000000 | XLP | 0.000287 | XLE | 0.000000 | XLF | 0.000000 |
| | max | 0.027183 | 2.314681 | EBOLA | max | 0.027183 | 2.314681 | EBOLA | max | 0.043974 | 197.072109 | XLY | 0.039941 | XLP | 0.034794 | XLE | 0.064244 | XLF | 0.040469 |
| | mean | 0.006837 | 0.343920 | EBOLA | mean | 0.006837 | 0.343920 | EBOLA | mean | 0.006558 | 0.554056 | XLY | 0.007444 | XLP | 0.0417676 | XLE | 0.005811 | XLF | 0.0472277 |

VOLATILITY INDEX

(TAILOR MADE – STEP 2)

| GOLD Volatility | | TLT Volatility | | SPY/Sectors Volatility | | | | | | | | | | | |
|-----------------|------------------|----------------|------------|------------------------|----------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|
| Disease | Date | Disease | Date | V_SP500_Close | V_SP500_Volume | V_XLY_Close | V_XLY_Volume | V_XLP_Close | V_XLP_Volume | V_XLE_Close | V_XLE_Volume | V_XLF_Close | V_XLF_Volume | V_XLV_Close | V_XLV_Volume |
| | V_Close V_Volume | | | | | | | | | | | | | | |
| Disease | Date | Disease | Date | | | | | | | | | | | | |
| ZIKA | 2015-05-12 | ZIKA | 2015-05-08 | L | L | H | L | L | H | L | H | L | H | L | H |
| ZIKA | 2015-05-12 | ZIKA | 2015-05-11 | L | L | H | L | L | H | H | H | L | L | L | L |
| ZIKA | 2015-05-13 | ZIKA | 2015-05-13 | L | L | H | L | L | H | L | H | L | L | L | L |
| ZIKA | 2015-05-14 | ZIKA | 2015-05-14 | L | L | H | L | H | L | L | H | L | H | L | H |
| EBOLA | 2016-03-22 | EBOLA | 2016-03-22 | L | L | L | L | L | L | L | L | L | H | L | H |
| EBOLA | 2016-03-23 | EBOLA | 2016-03-23 | H | H | H | H | H | H | H | H | H | L | L | H |
| EBOLA | 2016-03-24 | EBOLA | 2016-03-24 | L | L | L | L | L | L | L | L | L | H | L | H |
| EBOLA | 2016-03-28 | EBOLA | 2016-03-29 | L | L | L | L | H | H | L | H | H | L | L | L |