

MEMORANDUM

TO: Diocese of Southeast Florida Bishop's Committee on Re-Gathering
FROM: Ronald W. Helms, Ph.D.
DATE: 2021-02-24
SUBJECT: Selected Statistics that Summarize the Status of the COVID-19 Pandemic for Counties in the Diocese of Southeast Florida for the Period Ending 2021-02-23

RESULTS

The following displays (tables and graphs) contain:

- selected daily statistics that summarize the status of the COVID-19 pandemic for counties in the Diocese of Southeast Florida for the fortnight noted in the Subject line above, plus
- weekly statistics summarizing the status from the first week of June, 2020, through this past Saturday,

compiled from statistics published through today's date by the Florida Department of Health (FL DOH) at:

http://ww11.doh.state.fl.us/comm/_partners/covid19_report_archive/cases-monitoring-and-pui-information/county-report/

The FL DOH reports contain the warning, "Data in this report are provisional and subject to change." *Caveat emptor.*

THE USUAL ENDING ... WITH A CHANGE AND ADDITIONAL COMMENTS

Disclaimer

My usual disclaimer: As before, I personally extracted the numbers from the website and my work has not yet been reviewed by others. Although I worked carefully my error rate is not zero and I request that you be kind (as in, "Love thy neighbor....") when my errors pop up—and tell me about them quickly so that I can repair them quickly.

Please let me know what changes you would like that will assist you in your very difficult assignment.

Outliers and other Anomalies: FYI but ultimately not very important

The following "statistical outliers" or other potentially anomalous statistics from FL DOH are highlighted in rose in the tables but are not highlighted in the graphs. Values that are either more than 2.0 standard deviations above the fortnightly mean or more than 2.0 standard deviations below the fortnightly mean are highlighted as "statistical outliers". This rule would classify roughly 5% of correct values as "outliers". Each table has 84 statistics (6 counties \times 14 days); if all were correct we would expect roughly 5% (~4) to be more than 2 standard deviations from the mean.

NEW: This week we begin reporting the anomalies in a table rather than via bullet points. The table should be self-explanatory except possibly for

- Negative deaths: FL DOH reports *cumulative* reported Covid=19 Deaths¹, from the beginning of the pandemic through each date (e.g., DOH reported that through 2021-02-15 Hendry County had experienced 66 Covid-19 Deaths), and similarly for Covid-19 Hospitalizations. (For reported Covid-19 Cases FL DOH reports the actual number, not the cumulative number, for each date.)
 - I calculate the *actual* number of reported Covid-19 Deaths reported on a specific date = (cumulative number of reported Covid-19 Deaths for a specific date) — (cumulative number of reported Covid-19 Deaths for one day earlier).
 - Example: (66 Hendry cumulative reported Covid-19 Deaths thru Feb. 14) — (64 Hendry cumulative reported Covid-19 Deaths thru Feb. 13) = 2 *actual* reported Covid-19 Deaths *on* Feb. 14.
 - When FL DOH “adjusts” the data (see footnote) the cumulative reported Covid-19 Deaths thru a specific date may be less than the cumulative number reported for the previous date. When this happens the computed number of actual reported Covid-19 Deaths *on* the latter date may be negative.
 - Example: (65 Hendry cumulative reported Covid-19 Deaths thru Feb. 16) — (66 Hendry cumulative reported Covid-19 Deaths thru Feb. 15) = -1 computed number of *actual* reported Covid-19 Deaths *on* Feb. 16.

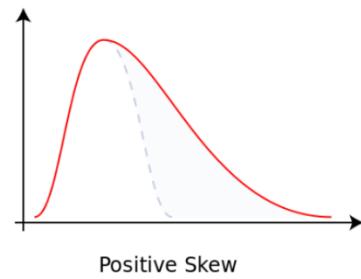
¹ Recall that “reported Covid-19 Deaths” is a technical term, a phrase whose actual definition is different from the meaning inferred from the English language text. Each day Florida hospitals and other units submit to FL DOH data on persons who died in that unit on that date (or earlier but not previously reported) that licensed physicians or other licensed medical professionals determine were exclusively or primarily due to Covid-19 infection. FL DOH may report these statistics on its website without review or after an incomplete review. In accordance with procedures previously published on the FL DOH website FL DOH data clerks, who are not medical professionals and may have little or no medical training, review data from each reported death, use their “medical judgement” to apply stringent FL DOH criteria for a death to be considered a “Covid-19 Death” (a technical term), and in many cases overrule the medical professionals’ judgements, declare the case to be *not* a “Covid-19 Death”, and enter their decisions in the database. In subsequent reports such cases are not counted or reported as “Covid-19 Deaths”. When this happens for stats from a county with a small number of reported Covid-19 Deaths the DOH review and reclassification may result in the cumulative number of reported Covid-19 Deaths decreasing from one day to the next. The same effect occurs to a greater degree in larger counties but the effect is concealed by the larger number of newly-reported deaths.

IF one accepts the judgement of a licensed physician or other licensed medical professional, in preference to the judgement of a not-medically-trained data clerk, as to whether a death was exclusively or primarily due to a Covid-19 infection, then one must conclude that the number of Covid-19 Deaths reported by FL DOH is fewer than the actual number, i.e., FL DOH under-reports Covid-19 Deaths. FL DOH does not provide the public with information or data that would permit an accurate evaluation of the degree of under-reporting.

Procedures for addressing this issue vary from state to state and, in some cases, from time to time. On one extreme some states simply accept the judgements of licensed medical professionals. FL DOH and some other states are on the other extreme, preferring the judgements of data clerks applying stringent criteria. Some states take an intermediate approach, using, in essence, the FL DOH approach to define “Covid-19 Death” and calling cases where judgements of data clerks differ from judgements of licensed medical professionals “probable [or “possible”] Covid-19 Deaths”, then reporting “Confirmed Covid-19 Deaths” and “Probable [or Possible] Covid-19 Deaths”.

The entire discussion above also applies to the technical terms “reported Covid-19 Hospitalizations” and “newly-reported Covid-19 Cases”.

- This is an error, of course. Experience with the FL DOH reports suggests that the error arises most frequently from FL DOH “data adjustments” described in the footnote but other types of errors also occur.
 - For example, last June an 85-year-old woman was reported to have died in the Lower Keys Medical Center, a hospital in Key West. That turned out to be an error: the next day she was discovered to be alive and ultimately survived the infection. The cumulative number of reported Covid-19 Deaths decreased by 1 on the day she was found alive, giving Monroe County -1 reported Covid-19 Deaths *on* that date.
- The entire discussion above also pertains to reported Covid-19 Hospitalizations.
- Negative value of “Std. Devs above Fortnight Mean”: The “statistical distribution” of the statistics we report is not a “normal (a.k.a. “Gaussian”) distribution”. The notable difference for this point is that the normal distribution is symmetric about its mean but our asymmetric distributions have more quite-large values than quite-small ones. This is called a “positive skew”, schematically depicted as in the diagram copied from Wikipedia. Consequently we report more statistical outliers that are larger than the mean than outliers that are smaller than the mean. In the table below a statistical outlier that is smaller than the mean has a negative value of “Std. Devs above Fortnight Mean”.



In every case noted in the table below:

- A careful review shows that the statistics in this report match the statistics in the FL DOH website.
- No further information is available.
- The reported value is not particularly alarming.

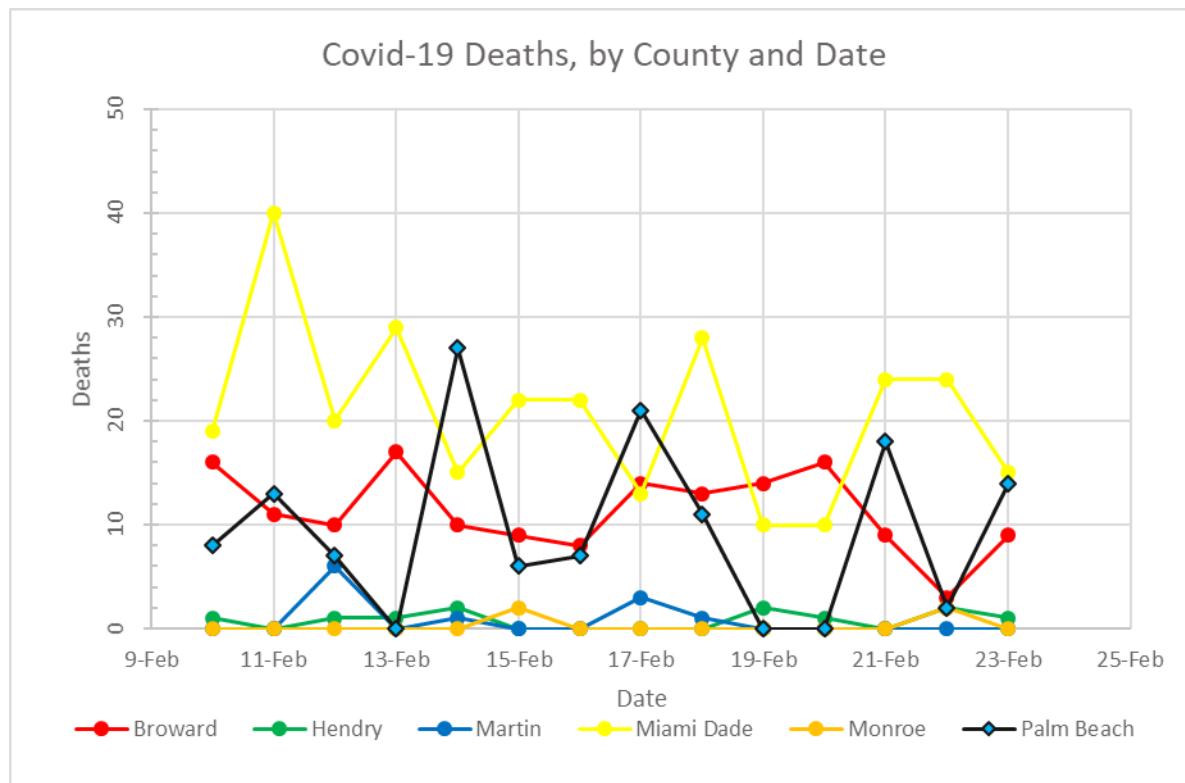
Statistical Outliers

Type	County	Date (mm-dd) in 2021	Reported Statistic	Fortnight Mean	Std. Devs above Fortnight Mean	Notes
Deaths Deaths/100K	Broward	02-22	3 0.15	11.4 0.58	-2.2 -2.2	Below fortnightly means
Deaths Deaths/100K	Martin	02-12	6 3.73	0.79 0.49	3.0 3.0	
Deaths Deaths/100K	Miami/ Dade	02-11	40 1.47	20.3 0.77	2.3 2.3	Not outlier in previous report; mean decreased
Deaths Deaths/100K	Miami/ Dade	02-13	29 1.07	21.4 0.79	2.1 2.1	Previously reported; stats from prev. fortnt.

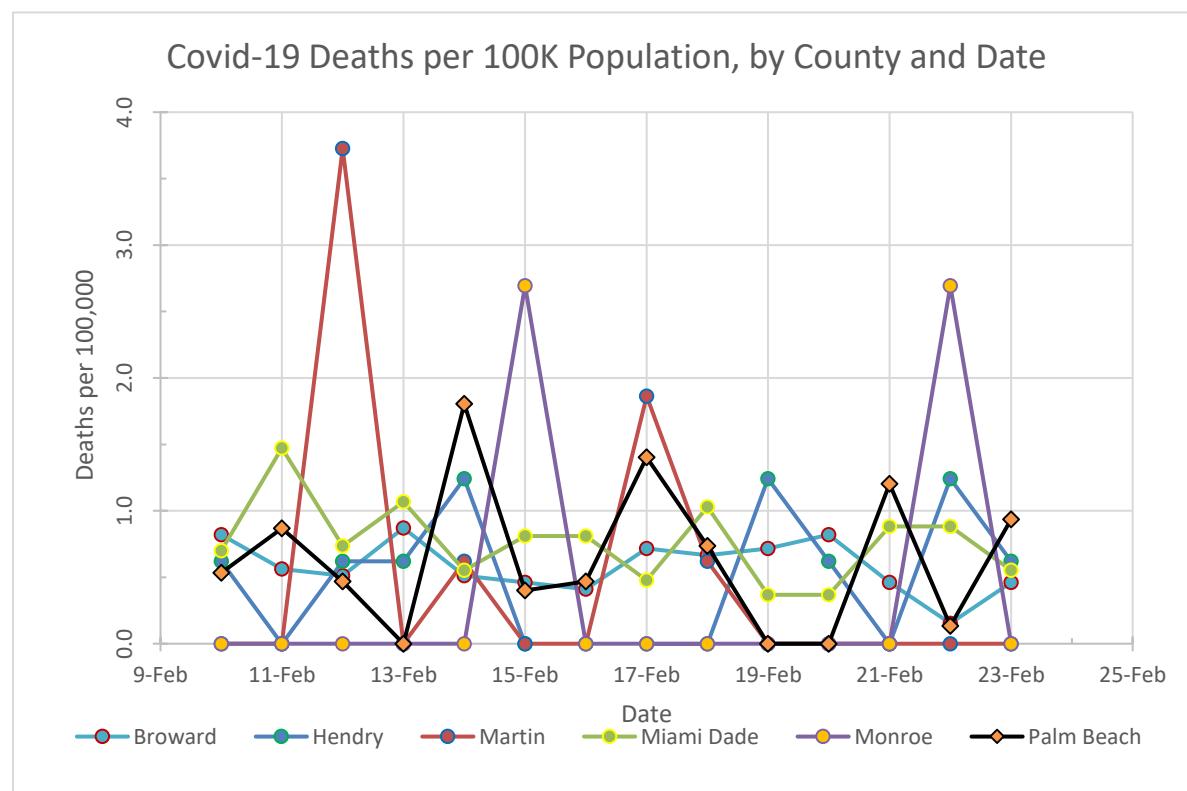
Type	County	Date (mm-dd) in 2021	Reported Statistic	Fortnight Mean	Std. Devs above Fortnight Mean	Notes
Deaths	Monroe	02-15	2	0.29	2.4	Not outlier in previous report; mean decreased
Deaths/100K			2.69	0.38	2.4	
Deaths	Palm Beach	02-14	27	9.6	2.1	Not outlier in previous report; mean decreased
Deaths/100K			1.80	0.64	2.1	
Hospitalizations	Hendry	02-15	2	0.6	2.2	Previously reported; stats from prev. fortn.
Hosp./100K			4.76	1.4	2.2	
Hospitalizations	Miami/Dade	02-12	59	29.6	2.2	Previously reported
Hosp./100K			2.17	1.1	2.2	
Hospitalizations	Monroe	02-12	-1			Negative deaths Previously reported
Hospitalizations	Palm Beach	02-10	36	17	2.2	Not outlier in previous report; mean decreased
Hosp./100K			2.14	1.1	2.2	
Cases	Broward	02-22	175	711	-2.62	Below fortnightly means
Cases/100K			9	36.4	-2062	
Cases	Miami/Dade	02-14	650	1452	2.2	Previously reported
Cases/100K			24	53	2.2	

Covid-19 Deaths, by County and Date (Computed from Cumulative Year-to-Date Totals)

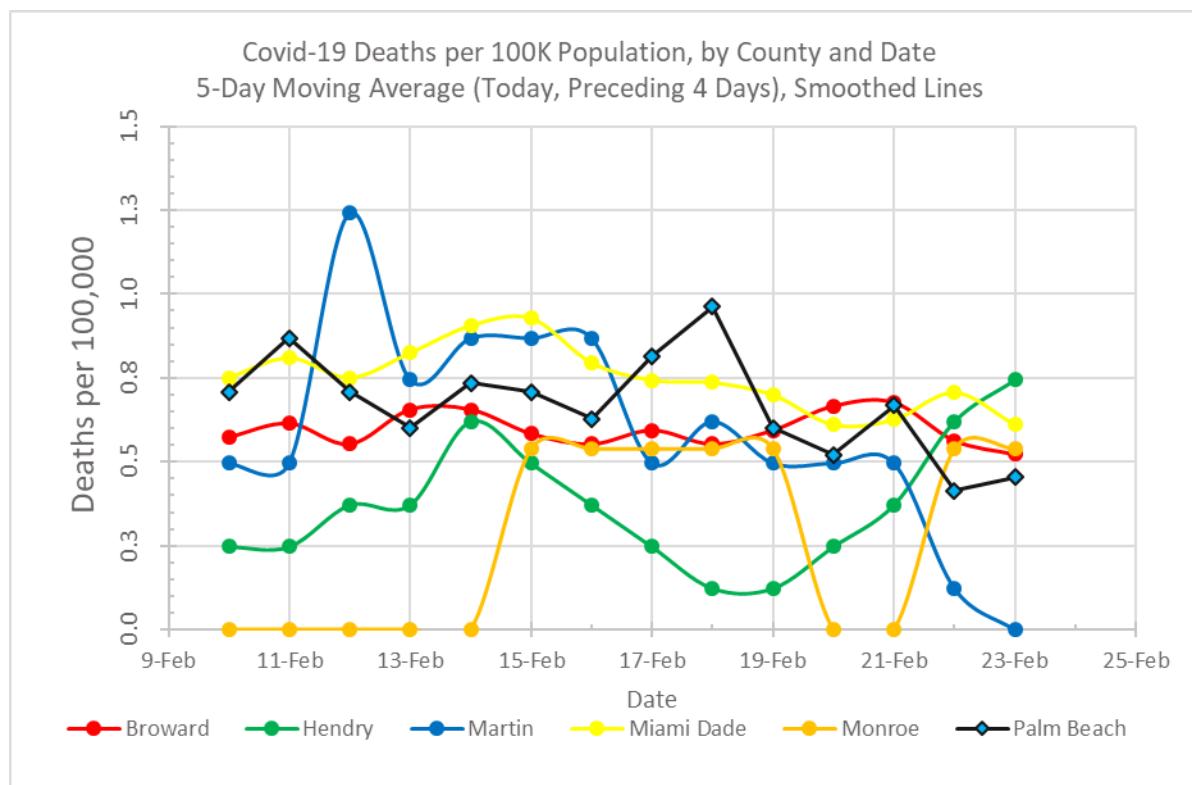
Date	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Broward	16	11	10	17	10	9	8	14	13	14	16	9	3	9
Hendry	1	0	1	1	2	0	-1	0	0	2	1	0	2	1
Martin	0	0	6	0	1	0	0	3	1	0	0	0	0	0
Miami Dade	19	40	20	29	15	22	22	13	28	10	10	24	24	15
Monroe	0	0	0	0	0	2	0	0	0	0	0	0	2	0
Palm Beach	8	13	7	0	27	6	7	21	11	0	0	18	2	14



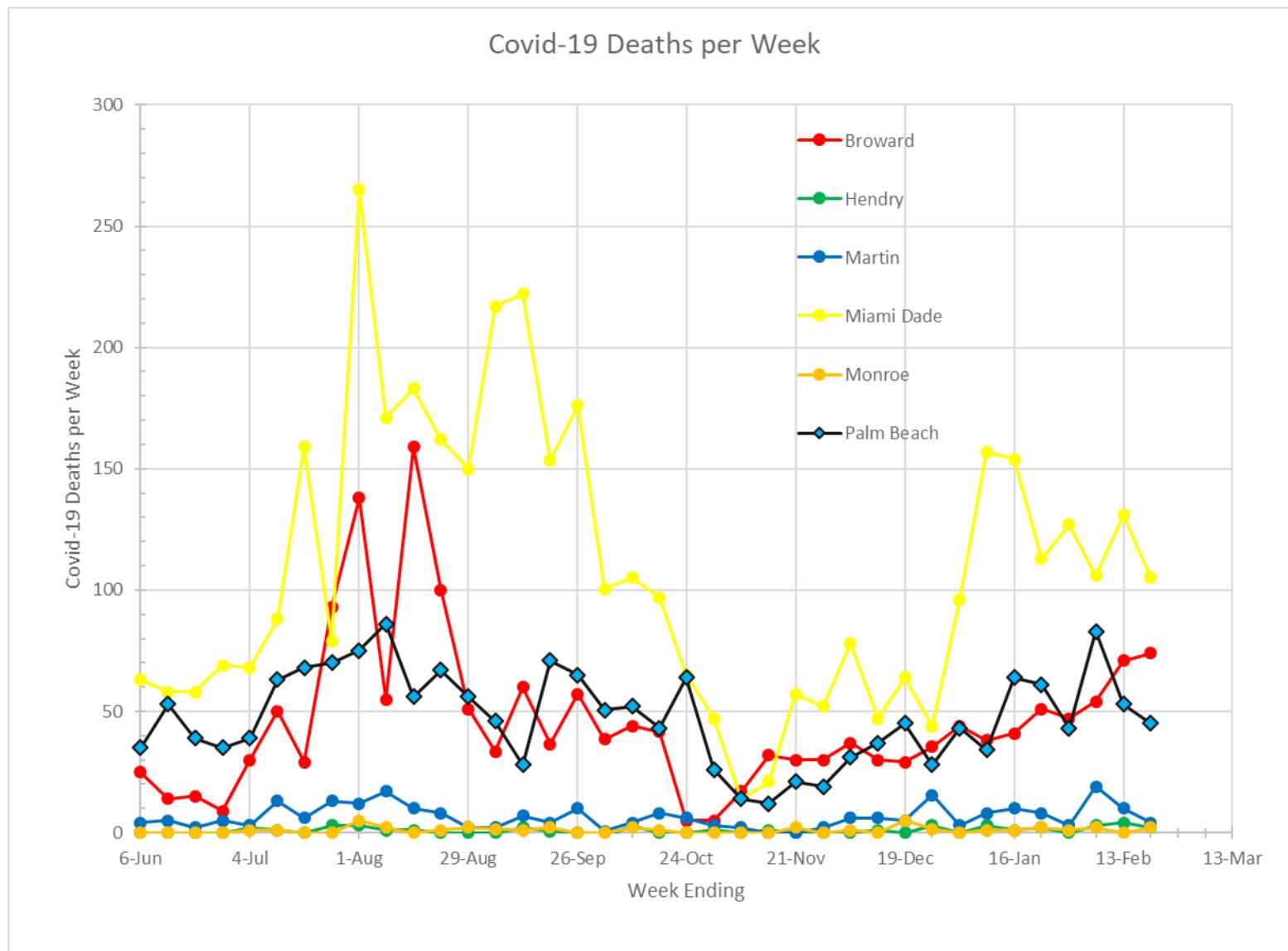
Date	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Broward	0.82	0.56	0.51	0.87	0.51	0.46	0.41	0.72	0.67	0.72	0.82	0.46	0.15	0.46
Hendry	0.62	0.00	0.62	0.62	1.24	0.00	-0.62	0.00	0.00	1.24	0.62	0.00	1.24	0.62
Martin	0.00	0.00	3.73	0.00	0.62	0.00	0.00	1.86	0.62	0.00	0.00	0.00	0.00	0.00
Miami Dade	0.70	1.47	0.74	1.07	0.55	0.81	0.81	0.48	1.03	0.37	0.37	0.88	0.88	0.55
Monroe	0.00	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00	0.00	0.00	0.00	2.69	0.00
Palm Beach	0.53	0.87	0.47	0.00	1.80	0.40	0.47	1.40	0.73	0.00	0.00	1.20	0.13	0.94



Date	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Broward	0.57	0.61	0.55	0.66	0.66	0.58	0.55	0.59	0.55	0.59	0.67	0.68	0.56	0.52
Hendry	0.25	0.25	0.37	0.37	0.62	0.50	0.37	0.25	0.12	0.12	0.25	0.37	0.62	0.75
Martin	0.50	0.50	1.24	0.75	0.87	0.87	0.87	0.50	0.62	0.50	0.50	0.50	0.12	0.00
Miami Dade	0.75	0.81	0.75	0.82	0.91	0.93	0.80	0.74	0.74	0.70	0.61	0.63	0.71	0.61
Monroe	0.00	0.00	0.00	0.00	0.00	0.54	0.54	0.54	0.54	0.54	0.00	0.00	0.54	0.54
Palm Beach	0.71	0.87	0.71	0.60	0.73	0.71	0.63	0.82	0.96	0.60	0.52	0.67	0.41	0.45

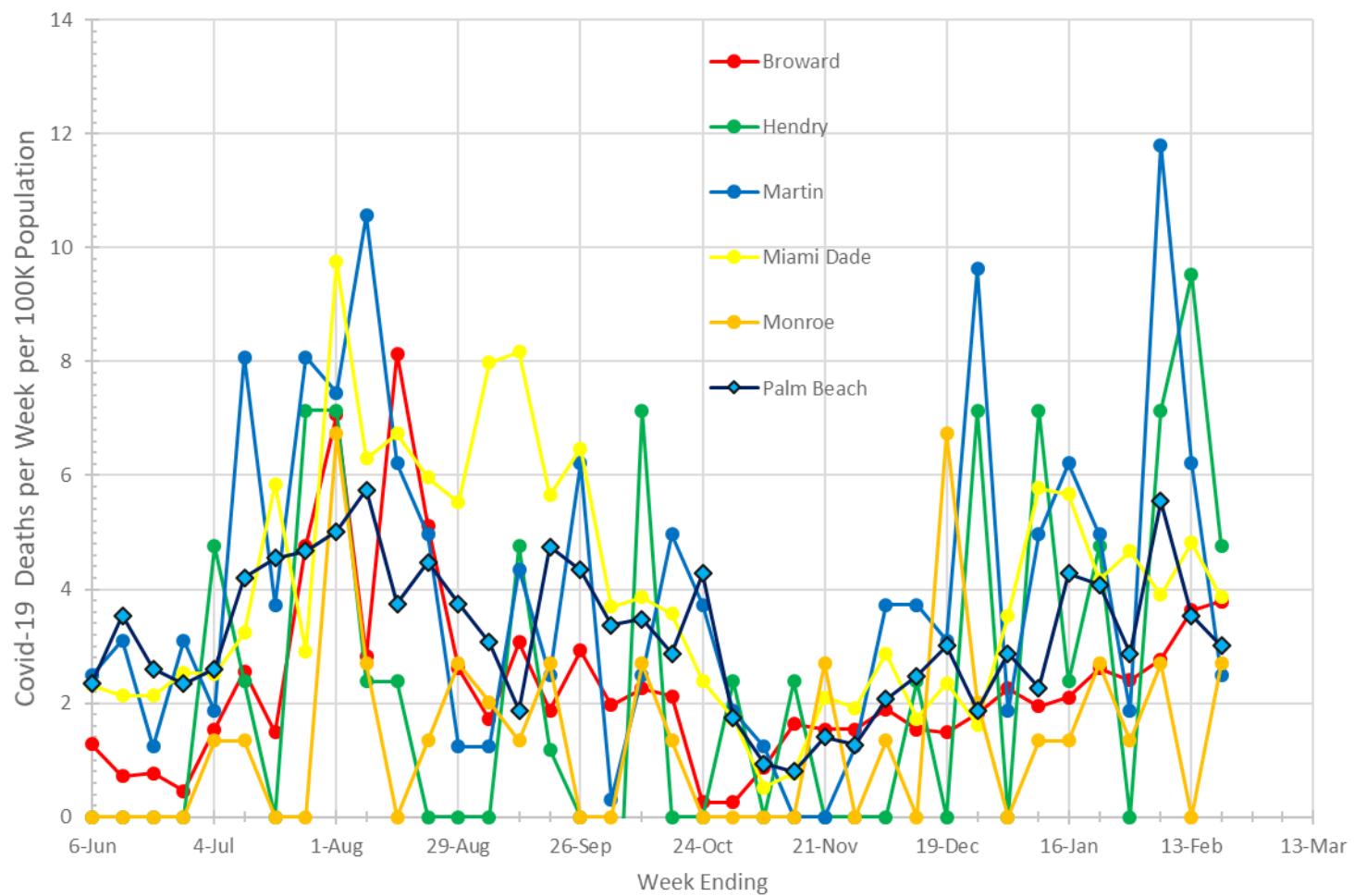


Covid-19 Deaths per Week						
Week End	Broward	Hendry	Martin	Miami Dade	Monroe	Palm Beach
2020-06-06	25	0	4	63	0	35
2020-06-13	14	0	5	58	0	53
2020-06-20	15	0	2	58	0	39
2020-06-27	9	0	5	69	0	35
2020-07-04	30	2	3	68	1	39
2020-07-11	50	1	13	88	1	63
2020-07-18	29	0	6	159	0	68
2020-07-25	93	3	13	79	0	70
2020-08-01	138	3	12	265	5	75
2020-08-08	55	1	17	171	2	86
2020-08-15	159	1	10	183	0	56
2020-08-22	100	0	8	162	1	67
2020-08-29	51	0	2	150	2	56
2020-09-05	33.5	0	2	217	1.5	46
2020-09-12	60	2	7	222	1	28
2020-09-19	36.5	0.5	4	153.5	2	71
2020-09-26	57	0	10	176	0	65
2020-10-03	38.5	-2	0.5	100.5	0	50.5
2020-10-10	44	3	4	105	2	52
2020-10-17	41.5	0	8	97	1	43
2020-10-24	5	0	6	65	0	64
2020-10-31	5	1	3	47	0	26
2020-11-07	17	0	2	14	0	14
2020-11-14	32	1	0	21	0	12
2020-11-21	30	0	0	57	2	21
2020-11-28	30	0	2	52	0	19
2020-12-05	37	0	6	78	1	31
2020-12-12	30	1	6	47	0	37
2020-12-19	29	0	5	64	5	45
2020-12-26	35.5	3	15.5	44	1.5	28
2021-01-02	44	0	3	96	0	43
2021-01-09	38	3	8	157	1	34
2021-01-16	41	1	10	154	1	64
2021-01-23	51	2	8	113	2	61
2021-01-30	47	0	3	127	1	43
2021-02-06	54	3	19	106	2	83
2021-02-13	71	4	10	131	0	53
2021-02-20	74	2	4	105	2	45



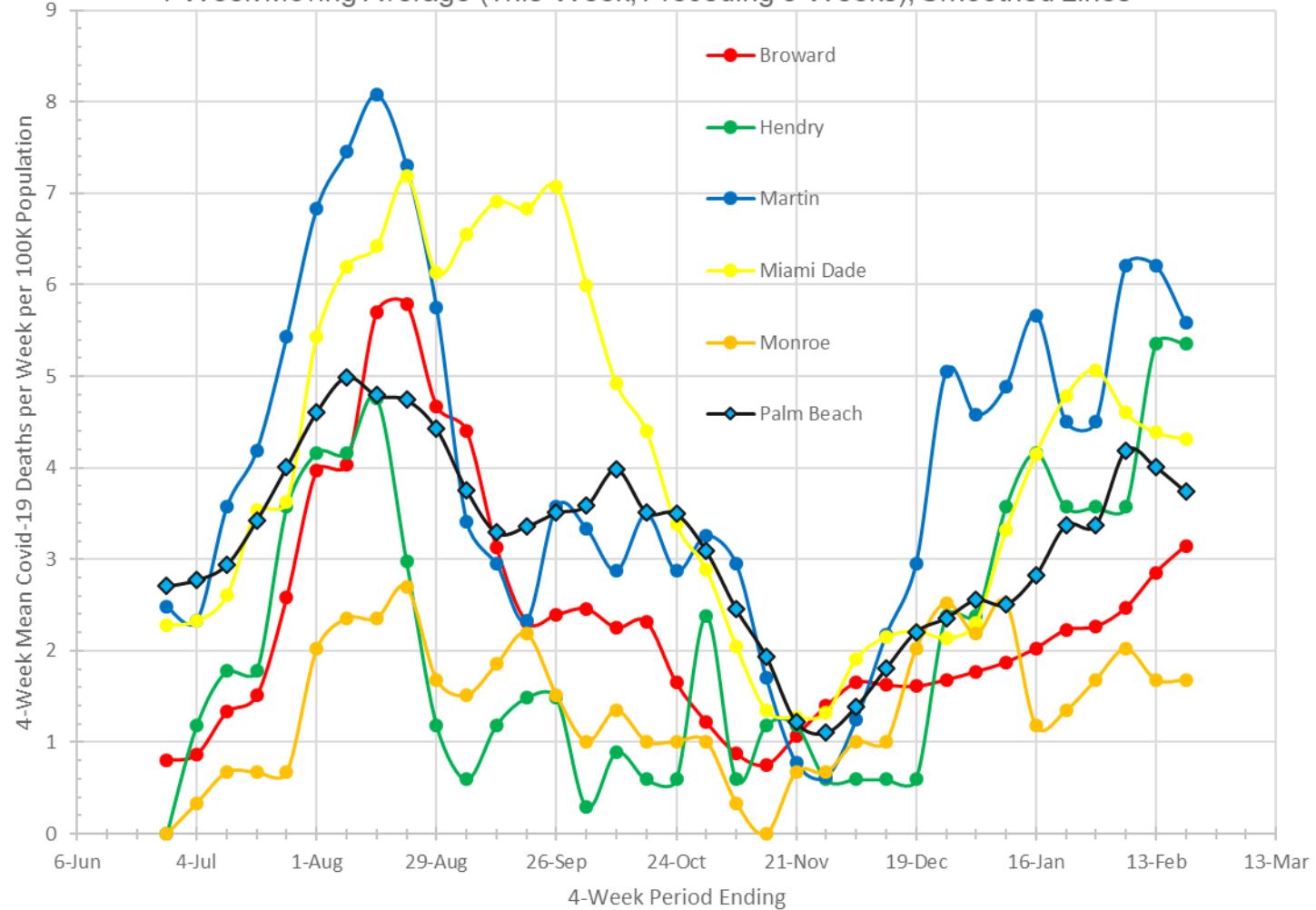
Covid-19 Deaths per Week per 100K Population, Computed from US Census Bureau 2019 Est. Populations and Deaths per Week						
Week End	Broward	Hendry	Martin	Miami Dade	Monroe	Palm Beach
2020-06-06	1.28	0.00	2.48	2.32	0.00	2.34
2020-06-13	0.72	0.00	3.11	2.13	0.00	3.54
2020-06-20	0.77	0.00	1.24	2.13	0.00	2.61
2020-06-27	0.46	0.00	3.11	2.54	0.00	2.34
2020-07-04	1.54	4.76	1.86	2.50	1.35	2.61
2020-07-11	2.56	2.38	8.07	3.24	1.35	4.21
2020-07-18	1.49	0.00	3.73	5.85	0.00	4.54
2020-07-25	4.76	7.14	8.07	2.91	0.00	4.68
2020-08-01	7.07	7.14	7.45	9.75	6.74	5.01
2020-08-08	2.82	2.38	10.56	6.29	2.69	5.75
2020-08-15	8.14	2.38	6.21	6.74	0.00	3.74
2020-08-22	5.12	0.00	4.97	5.96	1.35	4.48
2020-08-29	2.61	0.00	1.24	5.52	2.69	3.74
2020-09-05	1.72	0.00	1.24	7.99	2.02	3.07
2020-09-12	3.07	4.76	4.35	8.17	1.35	1.87
2020-09-19	1.87	1.19	2.48	5.65	2.69	4.74
2020-09-26	2.92	0.00	6.21	6.48	0.00	4.34
2020-10-03	1.97	-4.76	0.31	3.70	0.00	3.37
2020-10-10	2.25	7.14	2.48	3.86	2.69	3.47
2020-10-17	2.13	0.00	4.97	3.57	1.35	2.87
2020-10-24	0.26	0.00	3.73	2.39	0.00	4.28
2020-10-31	0.26	2.38	1.86	1.73	0.00	1.74
2020-11-07	0.87	0.00	1.24	0.52	0.00	0.94
2020-11-14	1.64	2.38	0.00	0.77	0.00	0.80
2020-11-21	1.54	0.00	0.00	2.10	2.69	1.40
2020-11-28	1.54	0.00	1.24	1.91	0.00	1.27
2020-12-05	1.89	0.00	3.73	2.87	1.35	2.07
2020-12-12	1.54	2.38	3.73	1.73	0.00	2.47
2020-12-19	1.49	0.00	3.11	2.36	6.74	3.01
2020-12-26	1.82	7.14	9.63	1.62	2.02	1.87
2021-01-02	2.25	0.00	1.86	3.53	0.00	2.87
2021-01-09	1.95	7.14	4.97	5.78	1.35	2.27
2021-01-16	2.10	2.38	6.21	5.67	1.35	4.28
2021-01-23	2.61	4.76	4.97	4.16	2.69	4.08
2021-01-30	2.41	0.00	1.86	4.67	1.35	2.87
2021-02-06	2.77	7.14	11.80	3.90	2.69	5.55
2021-02-13	3.64	9.52	6.21	4.82	0.00	3.54
2021-02-20	3.79	4.76	2.48	3.86	2.69	3.01

Covid-19 Deaths per Week per 100K Population

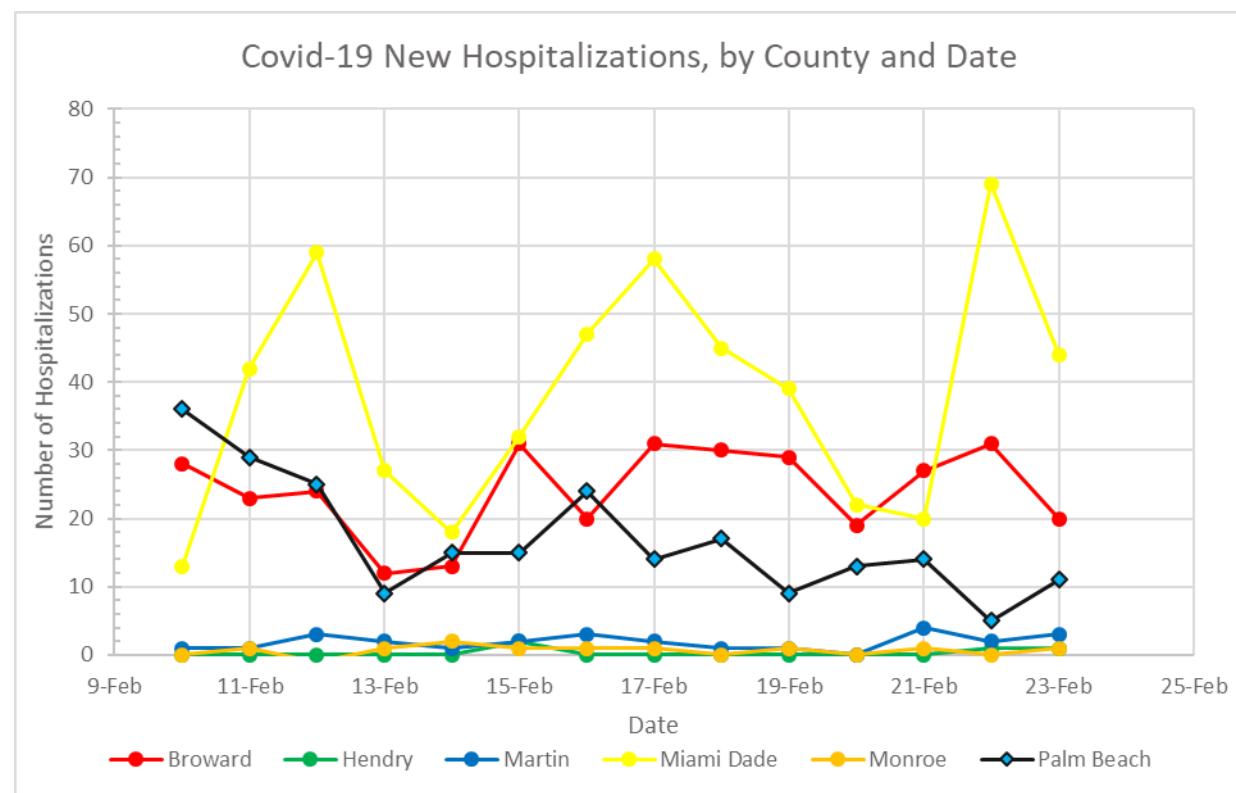


Mean Covid-19 Deaths per Week per 100K Population						
4-Week Moving Averages: This Week, Preceding 3 Weeks						
4-Week End	Broward	Hendry	Martin	Miami Dade	Monroe	Palm Beach
2020-06-06						
2020-06-13						
2020-06-20						
2020-06-27	0.81	0.00	2.48	2.28	0.00	2.71
2020-07-04	0.87	1.19	2.33	2.33	0.34	2.77
2020-07-11	1.33	1.78	3.57	2.60	0.67	2.94
2020-07-18	1.51	1.78	4.19	3.53	0.67	3.42
2020-07-25	2.59	3.57	5.43	3.63	0.67	4.01
2020-08-01	3.97	4.16	6.83	5.44	2.02	4.61
2020-08-08	4.03	4.16	7.45	6.20	2.36	4.99
2020-08-15	5.70	4.76	8.07	6.42	2.36	4.79
2020-08-22	5.79	2.97	7.30	7.19	2.69	4.74
2020-08-29	4.67	1.19	5.75	6.13	1.68	4.43
2020-09-05	4.40	0.59	3.42	6.55	1.52	3.76
2020-09-12	3.13	1.19	2.95	6.91	1.85	3.29
2020-09-19	2.32	1.49	2.33	6.83	2.19	3.36
2020-09-26	2.39	1.49	3.57	7.07	1.52	3.51
2020-10-03	2.46	0.30	3.34	6.00	1.01	3.58
2020-10-10	2.25	0.89	2.87	4.92	1.35	3.98
2020-10-17	2.32	0.59	3.49	4.40	1.01	3.52
2020-10-24	1.65	0.59	2.87	3.38	1.01	3.50
2020-10-31	1.22	2.38	3.26	2.89	1.01	3.09
2020-11-07	0.88	0.59	2.95	2.05	0.34	2.46
2020-11-14	0.76	1.19	1.71	1.35	0.00	1.94
2020-11-21	1.08	1.19	0.78	1.28	0.67	1.22
2020-11-28	1.40	0.59	0.62	1.33	0.67	1.10
2020-12-05	1.65	0.59	1.24	1.91	1.01	1.39
2020-12-12	1.63	0.59	2.17	2.15	1.01	1.80
2020-12-19	1.61	0.59	2.95	2.22	2.02	2.20
2020-12-26	1.68	2.38	5.05	2.14	2.53	2.36
2021-01-02	1.77	2.38	4.58	2.31	2.19	2.56
2021-01-09	1.88	3.57	4.89	3.32	2.53	2.51
2021-01-16	2.03	4.16	5.67	4.15	1.18	2.82
2021-01-23	2.23	3.57	4.50	4.78	1.35	3.37
2021-01-30	2.27	3.57	4.50	5.07	1.68	3.37
2021-02-06	2.47	3.57	6.21	4.60	2.02	4.19
2021-02-13	2.85	5.35	6.21	4.39	1.68	4.01
2021-02-20	3.15	5.35	5.59	4.32	1.68	3.74

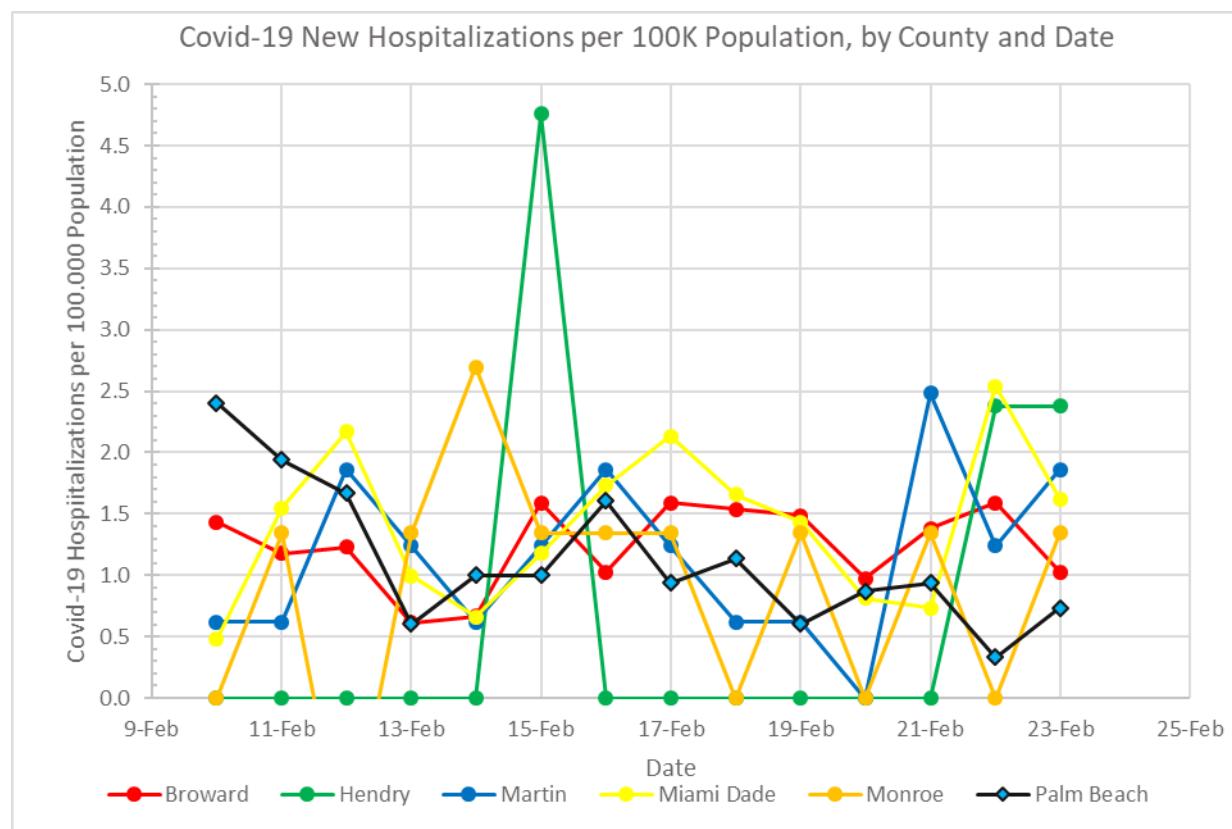
Mean Covid-19 Deaths per Week per 100K Population
4-Week Moving Average (This Week, Preceding 3 Weeks), Smoothed Lines



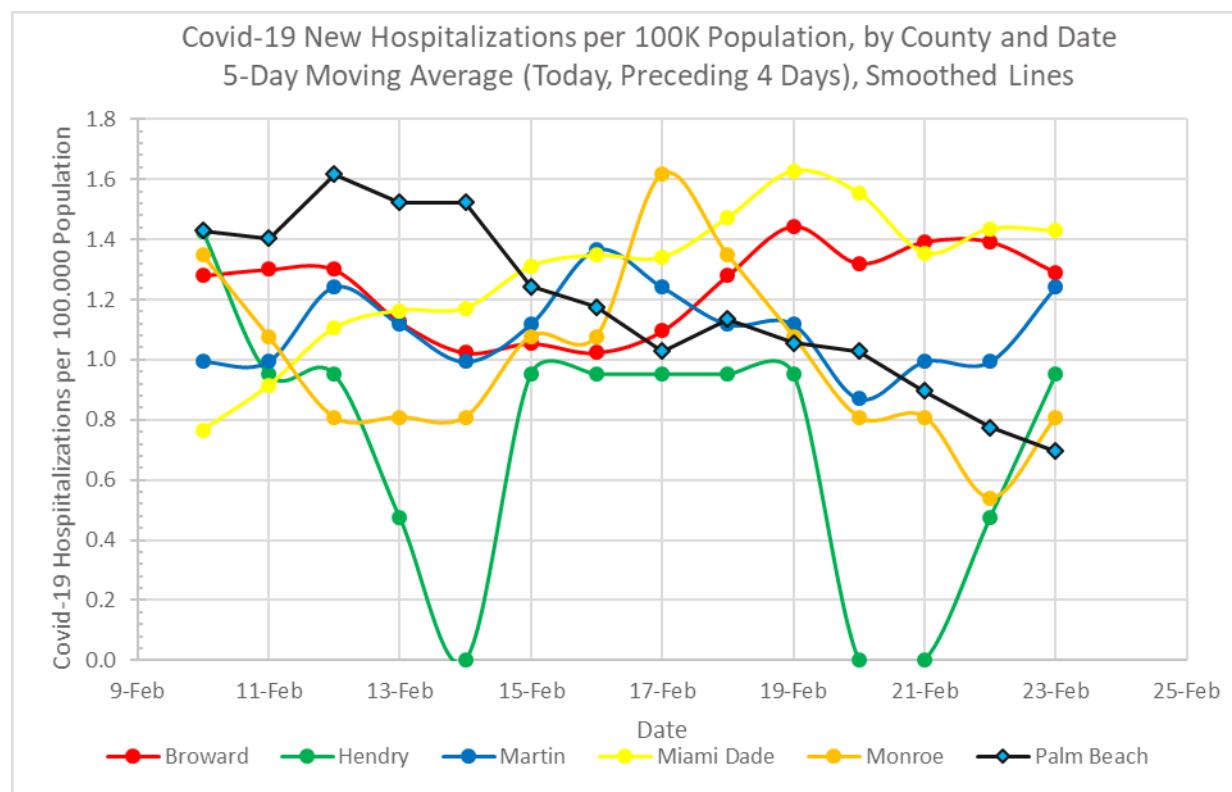
Covid-19 New Hospitalizations, by County and Date														
Date	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Broward	28	23	24	12	13	31	20	31	30	29	19	27	31	20
Hendry	0	0	0	0	0	2	0	0	0	0	0	0	1	1
Martin	1	1	3	2	1	2	3	2	1	1	0	4	2	3
Miami Dade	13	42	59	27	18	32	47	58	45	39	22	20	69	44
Monroe	0	1	-1	1	2	1	1	1	0	1	0	1	0	1
Palm Beach	36	29	25	9	15	15	24	14	17	9	13	14	5	11



Covid-19 New Hospitalizations per 100K Population, by County and Date (Computed from US Census Bureau 2019 Est. Populations and Hospitalizations Table)														
Date	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Broward	1.43	1.18	1.23	0.61	0.67	1.59	1.02	1.59	1.54	1.49	0.97	1.38	1.59	1.02
Hendry	0.00	0.00	0.00	0.00	0.00	4.76	0.00	0.00	0.00	0.00	0.00	0.00	2.38	2.38
Martin	0.62	0.62	1.86	1.24	0.62	1.24	1.86	1.24	0.62	0.62	0.00	2.48	1.24	1.86
Miami Dade	0.48	1.55	2.17	0.99	0.66	1.18	1.73	2.13	1.66	1.44	0.81	0.74	2.54	1.62
Monroe	0.00	1.35	-1.35	1.35	2.69	1.35	1.35	1.35	0.00	1.35	0.00	1.35	0.00	1.35
Palm Beach	2.41	1.94	1.67	0.60	1.00	1.00	1.60	0.94	1.14	0.60	0.87	0.94	0.33	0.73

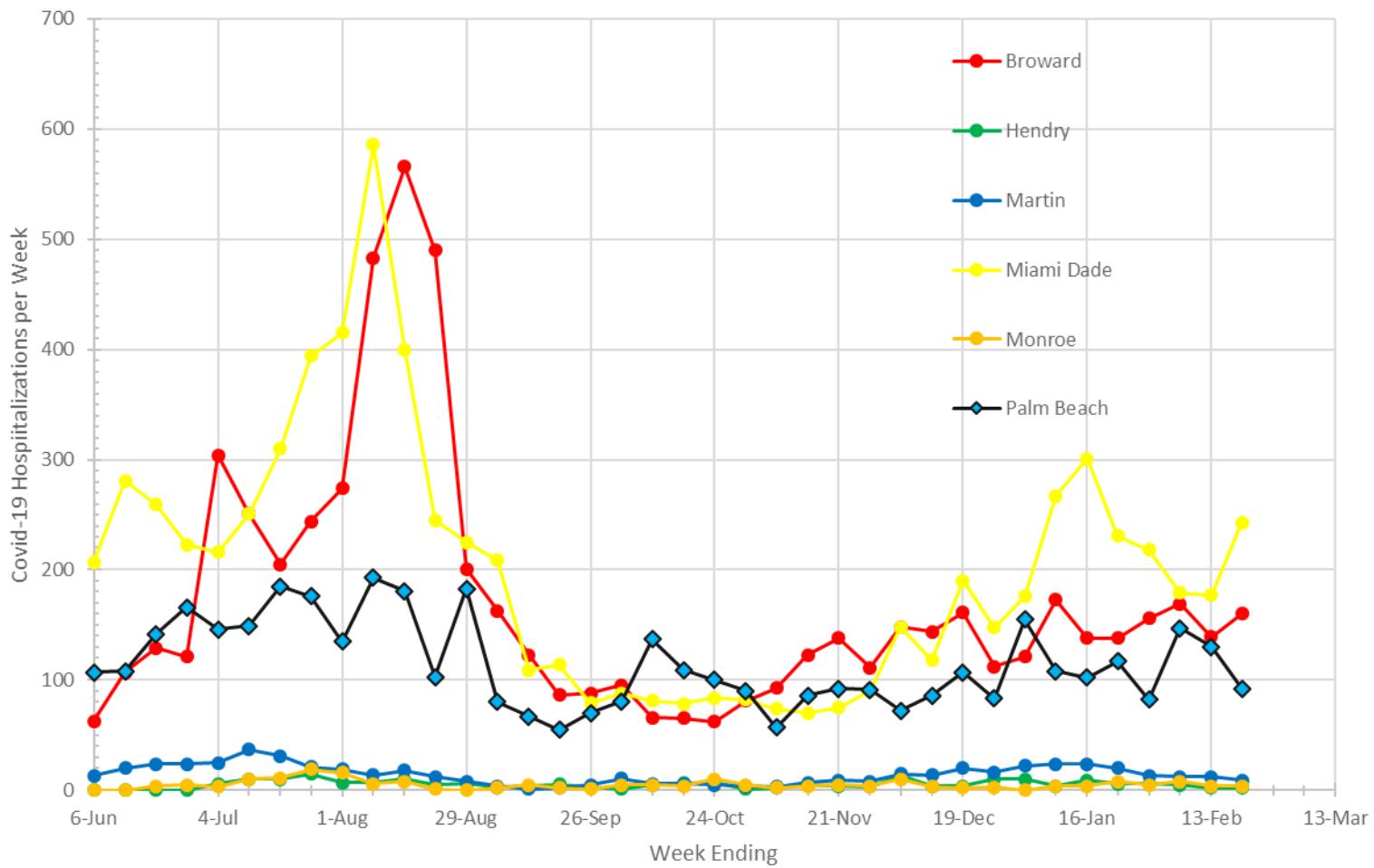


Covid-19 New Hospitalizations per 100K Population, by County and Date, 5-Day Moving Averages: Today, Preceding 4 Days, (Computed from New Cases per 100K Table)														
Date	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Broward	1.28	1.30	1.30	1.13	1.02	1.05	1.02	1.10	1.28	1.44	1.32	1.39	1.39	1.29
Hendry	1.43	0.95	0.95	0.48	0.00	0.95	0.95	0.95	0.95	0.95	0.00	0.00	0.48	0.95
Martin	0.99	0.99	1.24	1.12	0.99	1.12	1.37	1.24	1.12	1.12	0.87	0.99	0.99	1.24
Miami Dade	0.77	0.91	1.10	1.16	1.17	1.31	1.35	1.34	1.47	1.63	1.55	1.35	1.44	1.43
Monroe	1.35	1.08	0.81	0.81	0.81	1.08	1.08	1.62	1.35	1.08	0.81	0.81	0.54	0.81
Palm Beach	1.43	1.40	1.62	1.52	1.52	1.24	1.18	1.03	1.14	1.06	1.03	0.90	0.78	0.69



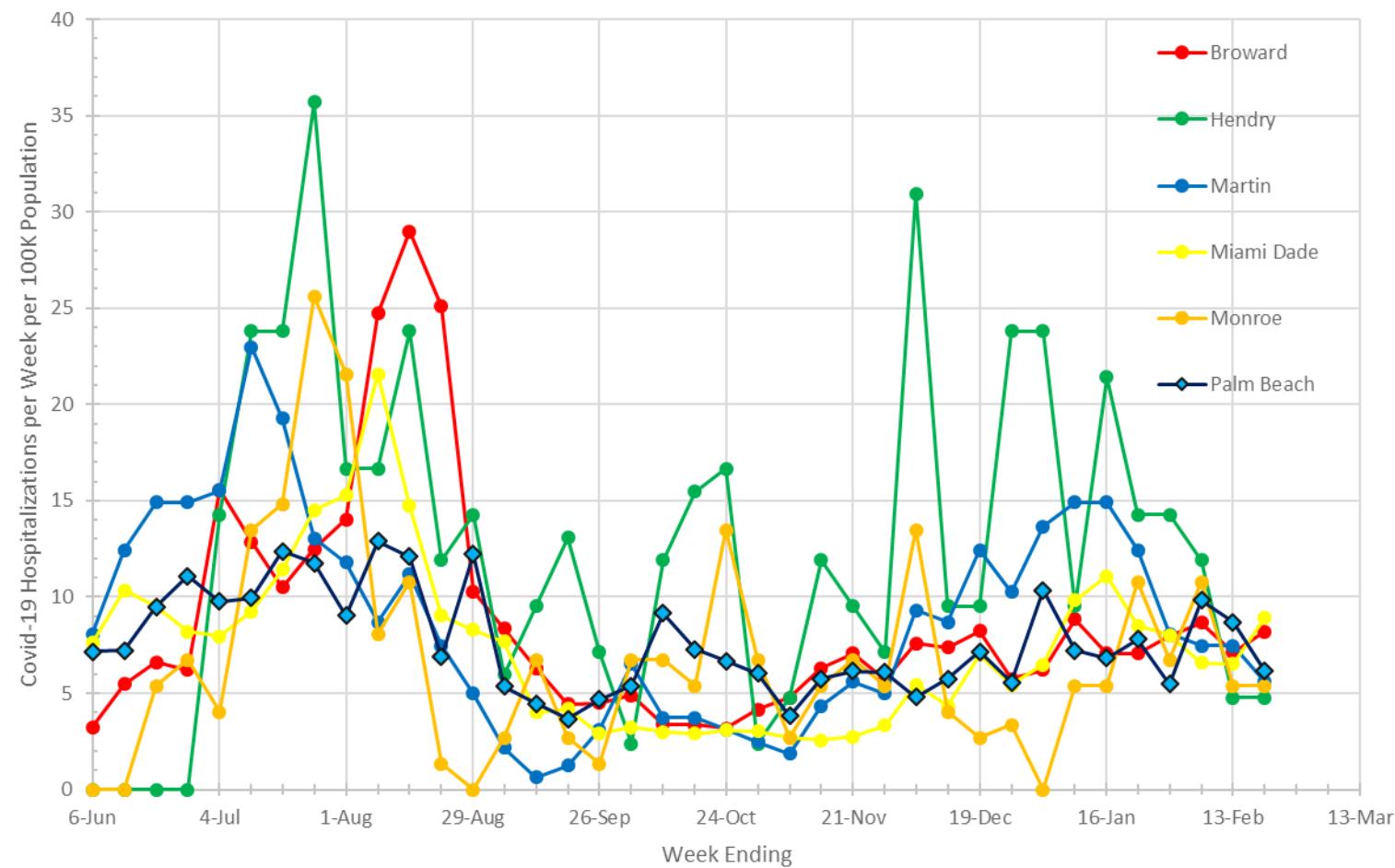
Covid-19 Hospitalizations per Week						
Week End	Broward	Hendry	Martin	Miami Dade	Monroe	Palm Beach
2020-06-06	63	0	13	207	0	107
2020-06-13	107	0	20	281	0	108
2020-06-20	129	0	24	259	4	142
2020-06-27	121	0	24	223	5	166
2020-07-04	304	6	25	216	3	146
2020-07-11	251	10	37	251	10	149
2020-07-18	205	10	31	310	11	185
2020-07-25	244	15	21	394	19	176
2020-08-01	274	7	19	415	16	135
2020-08-08	483	7	14	586	6	193
2020-08-15	566	10	18	400	8	181
2020-08-22	490	5	12	245	1	103
2020-08-29	201	6	8	225	0	183
2020-09-05	163	2.5	3.5	208.5	2	80
2020-09-12	123	4	1	109	5	67
2020-09-19	86.5	5.5	2	114	2	55
2020-09-26	88	3	5	79	1	70
2020-10-03	95.5	1	10.5	88	5	80.5
2020-10-10	66	5	6	81	5	137
2020-10-17	65.5	6.5	6	78.5	4	109
2020-10-24	62	7	5	84	10	100
2020-10-31	81	1	4	82	5	90
2020-11-07	93	2	3	74	2	57
2020-11-14	123	5	7	70	4	86
2020-11-21	138	4	9	75	5	92
2020-11-28	111	3	8	90	4	91
2020-12-05	148	13	15	148	10	72
2020-12-12	144	4	14	118	3	86
2020-12-19	161	4	20	190	2	107
2020-12-26	112.5	10	16.5	147.5	2.5	83.5
2021-01-02	121	10	22	176	0	155
2021-01-09	173	4	24	267	4	108
2021-01-16	138	9	24	301	4	102
2021-01-23	138	6	20	231	8	117
2021-01-30	156	6	13	218	5	82
2021-02-06	169	5	12	179	8	147
2021-02-13	139	2	12	177	4	130
2021-02-20	160	2	9	243	4	92

Covid-19 Hospitalizations per Week



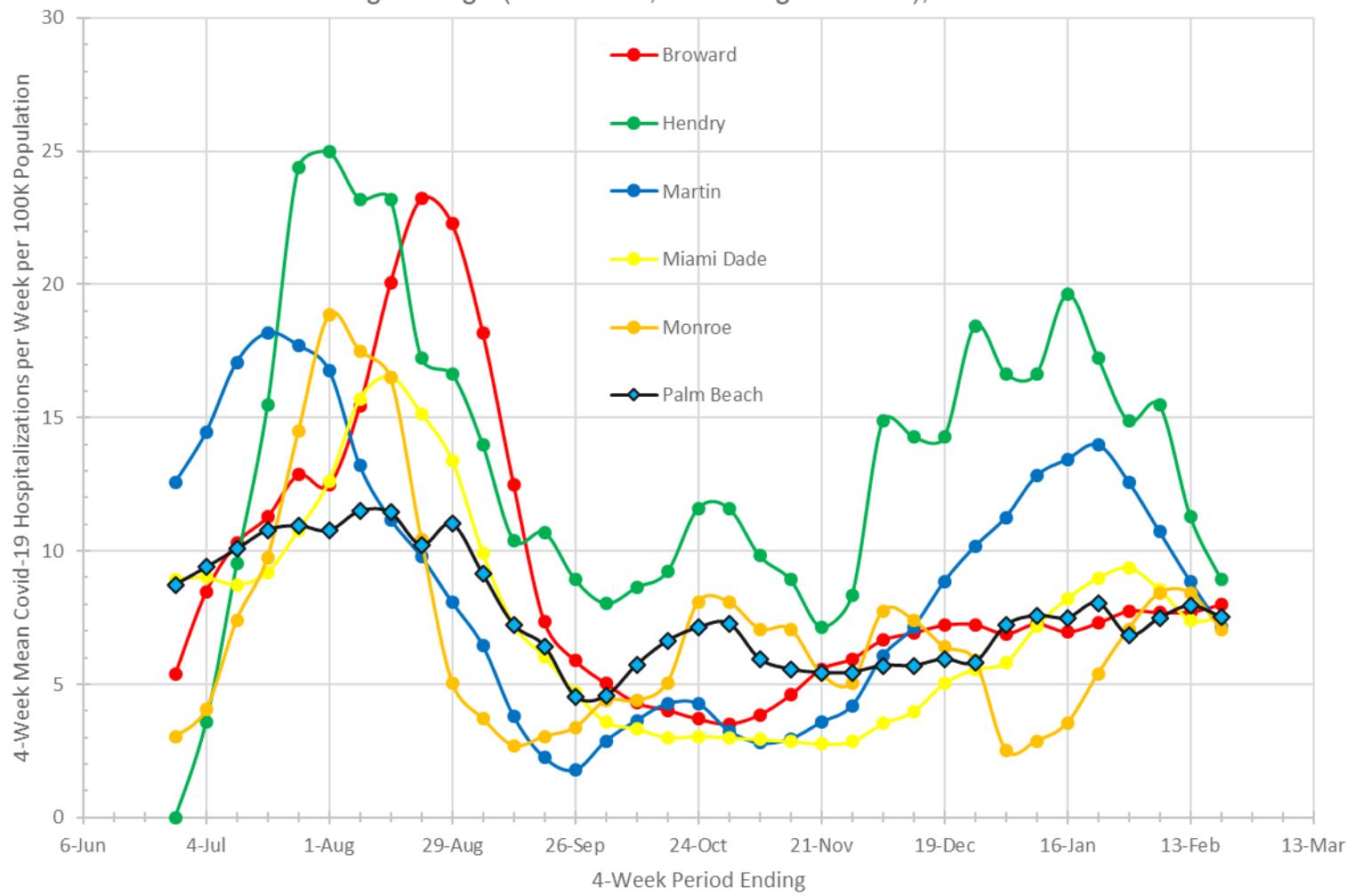
Covid-19 Hospitalizations per Week per 100K Population						
Computed from US Census Bureau 2019 Estimated Populations						
	and Hospitalizations/Week					
Week End	Broward	Hendry	Martin	Miami Dade	Monroe	Palm Beach
2020-06-06	3.23	0.00	8.07	7.62	0.00	7.15
2020-06-13	5.48	0.00	12.42	10.34	0.00	7.22
2020-06-20	6.61	0.00	14.91	9.53	5.39	9.49
2020-06-27	6.20	0.00	14.91	8.21	6.74	11.09
2020-07-04	15.57	14.28	15.53	7.95	4.04	9.75
2020-07-11	12.85	23.80	22.98	9.24	13.47	9.95
2020-07-18	10.50	23.80	19.25	11.41	14.82	12.36
2020-07-25	12.50	35.70	13.04	14.50	25.60	11.76
2020-08-01	14.03	16.66	11.80	15.27	21.56	9.02
2020-08-08	24.73	16.66	8.70	21.57	8.08	12.89
2020-08-15	28.98	23.80	11.18	14.72	10.78	12.09
2020-08-22	25.09	11.90	7.45	9.02	1.35	6.88
2020-08-29	10.29	14.28	4.97	8.28	0.00	12.23
2020-09-05	8.35	5.95	2.17	7.67	2.69	5.34
2020-09-12	6.30	9.52	0.62	4.01	6.74	4.48
2020-09-19	4.43	13.09	1.24	4.20	2.69	3.67
2020-09-26	4.51	7.14	3.11	2.91	1.35	4.68
2020-10-03	4.89	2.38	6.52	3.24	6.74	5.38
2020-10-10	3.38	11.90	3.73	2.98	6.74	9.15
2020-10-17	3.35	15.47	3.73	2.89	5.39	7.28
2020-10-24	3.17	16.66	3.11	3.09	13.47	6.68
2020-10-31	4.15	2.38	2.48	3.02	6.74	6.01
2020-11-07	4.76	4.76	1.86	2.72	2.69	3.81
2020-11-14	6.30	11.90	4.35	2.58	5.39	5.75
2020-11-21	7.07	9.52	5.59	2.76	6.74	6.15
2020-11-28	5.68	7.14	4.97	3.31	5.39	6.08
2020-12-05	7.58	30.94	9.32	5.45	13.47	4.81
2020-12-12	7.37	9.52	8.70	4.34	4.04	5.75
2020-12-19	8.24	9.52	12.42	6.99	2.69	7.15
2020-12-26	5.76	23.80	10.25	5.43	3.37	5.58
2021-01-02	6.20	23.80	13.66	6.48	0.00	10.36
2021-01-09	8.86	9.52	14.91	9.83	5.39	7.22
2021-01-16	7.07	21.42	14.91	11.08	5.39	6.81
2021-01-23	7.07	14.28	12.42	8.50	10.78	7.82
2021-01-30	7.99	14.28	8.07	8.02	6.74	5.48
2021-02-06	8.65	11.90	7.45	6.59	10.78	9.82
2021-02-13	7.12	4.76	7.45	6.51	5.39	8.69
2021-02-20	8.19	4.76	5.59	8.94	5.39	6.15

Covid-19 Hospitalizations per Week per 100K Population

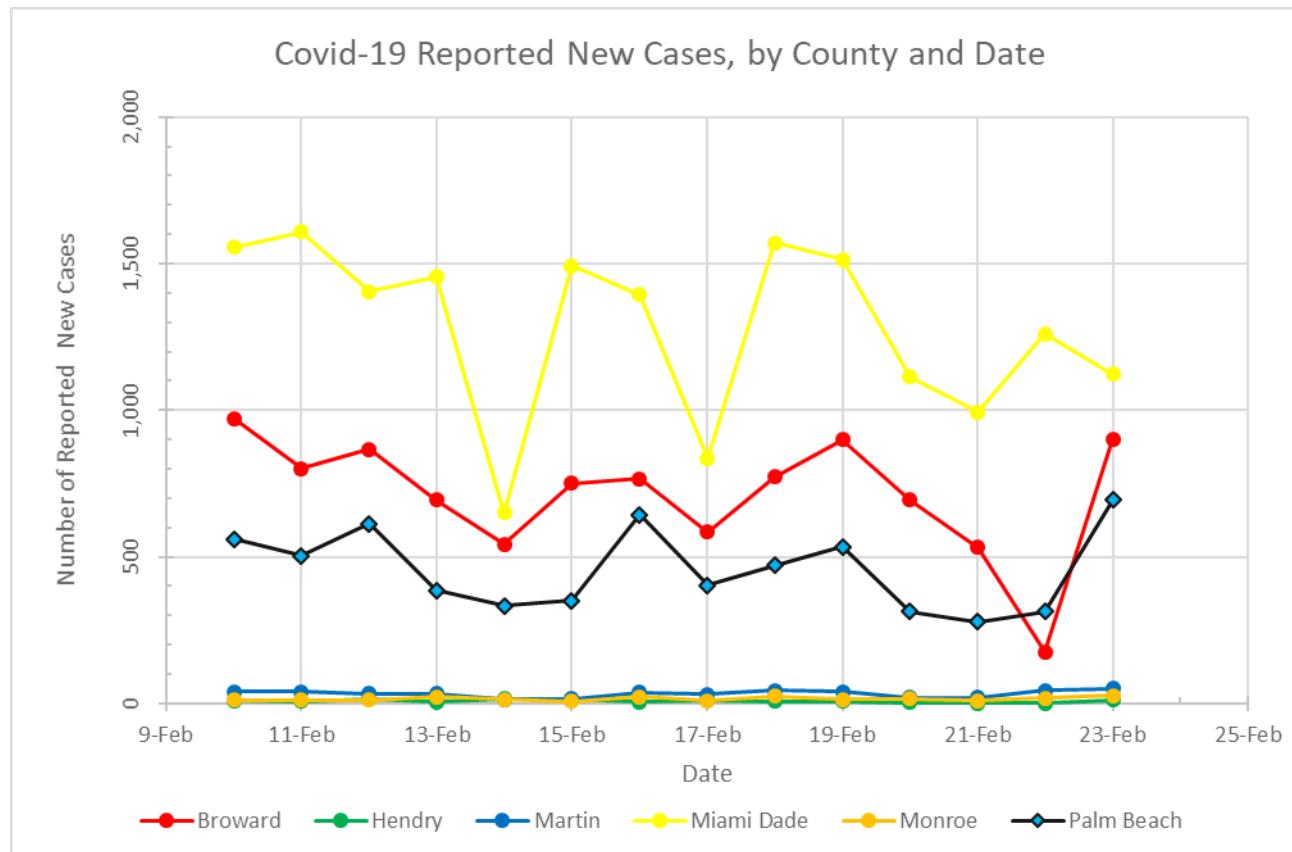


Mean Covid-19 Hospitalizations per Week per 100K Population						
4- Week Moving Averages: This Week, Preceding 3 Weeks						
4-Week End	Broward	Hendry	Martin	Miami Dade	Monroe	Palm Beach
2020-06-06						
2020-06-13						
2020-06-20						
2020-06-27	5.38	0.00	12.58	8.93	3.03	8.74
2020-07-04	8.46	3.57	14.44	9.01	4.04	9.39
2020-07-11	10.31	9.52	17.08	8.73	7.41	10.07
2020-07-18	11.28	15.47	18.17	9.20	9.77	10.79
2020-07-25	12.85	24.39	17.70	10.77	14.48	10.96
2020-08-01	12.47	24.99	16.77	12.61	18.86	10.77
2020-08-08	15.44	23.20	13.20	15.69	17.51	11.51
2020-08-15	20.06	23.20	11.18	16.52	16.50	11.44
2020-08-22	23.21	17.25	9.78	15.15	10.44	10.22
2020-08-29	22.28	16.66	8.07	13.40	5.05	11.02
2020-09-05	18.18	13.98	6.44	9.92	3.70	9.14
2020-09-12	12.51	10.41	3.80	7.25	2.69	7.23
2020-09-19	7.34	10.71	2.25	6.04	3.03	6.43
2020-09-26	5.90	8.92	1.79	4.70	3.37	4.54
2020-10-03	5.03	8.03	2.87	3.59	4.38	4.55
2020-10-10	4.30	8.63	3.65	3.33	4.38	5.72
2020-10-17	4.03	9.22	4.27	3.00	5.05	6.62
2020-10-24	3.70	11.60	4.27	3.05	8.08	7.12
2020-10-31	3.51	11.60	3.26	3.00	8.08	7.28
2020-11-07	3.86	9.82	2.80	2.93	7.07	5.95
2020-11-14	4.60	8.92	2.95	2.85	7.07	5.56
2020-11-21	5.57	7.14	3.57	2.77	5.39	5.43
2020-11-28	5.95	8.33	4.19	2.84	5.05	5.45
2020-12-05	6.66	14.87	6.06	3.52	7.75	5.70
2020-12-12	6.93	14.28	7.14	3.97	7.41	5.70
2020-12-19	7.22	14.28	8.85	5.02	6.40	5.95
2020-12-26	7.24	18.44	10.17	5.55	5.89	5.82
2021-01-02	6.89	16.66	11.26	5.81	2.53	7.21
2021-01-09	7.27	16.66	12.81	7.18	2.86	7.57
2021-01-16	6.97	19.63	13.43	8.20	3.54	7.49
2021-01-23	7.30	17.25	13.98	8.97	5.39	8.05
2021-01-30	7.75	14.87	12.58	9.36	7.07	6.83
2021-02-06	7.69	15.47	10.71	8.55	8.42	7.48
2021-02-13	7.71	11.30	8.85	7.41	8.42	7.95
2021-02-20	7.99	8.92	7.14	7.52	7.07	7.53

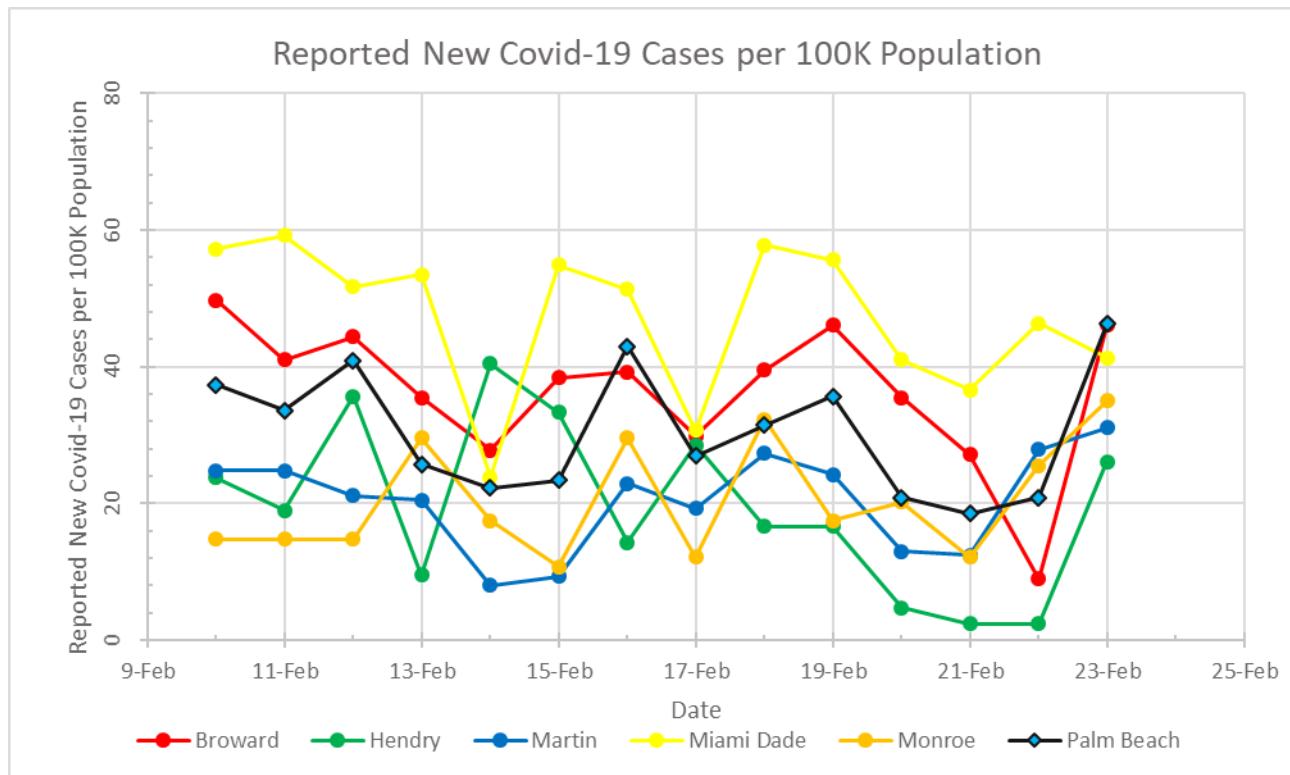
Mean Covid-19 Hospitalizations per Week per 100K Population
4-Week Moving Average (This Week, Preceding 3 Weeks), Smoothed Lines



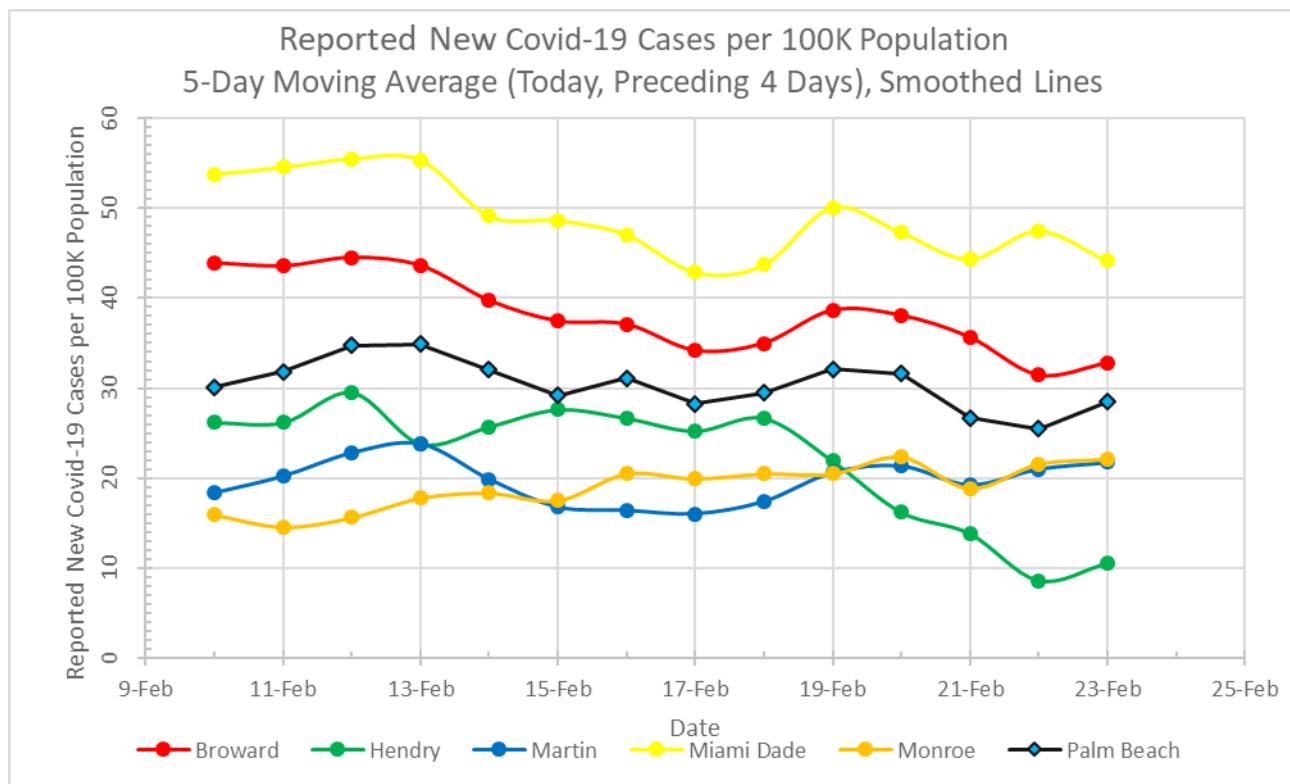
Covid-19 Reported New Cases, by County and Date														
Date	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Broward	972	802	867	694	543	750	767	584	772	900	694	531	175	901
Hendry	10	8	15	4	17	14	6	12	7	7	2	1	1	11
Martin	40	40	34	33	13	15	37	31	44	39	21	20	45	50
Miami Dade	1,556	1,609	1,405	1,454	650	1,492	1,394	836	1,570	1,513	1,114	994	1,261	1,122
Monroe	11	11	11	22	13	8	22	9	24	13	15	9	19	26
Palm Beach	560	504	613	385	334	350	644	404	471	534	313	278	313	693



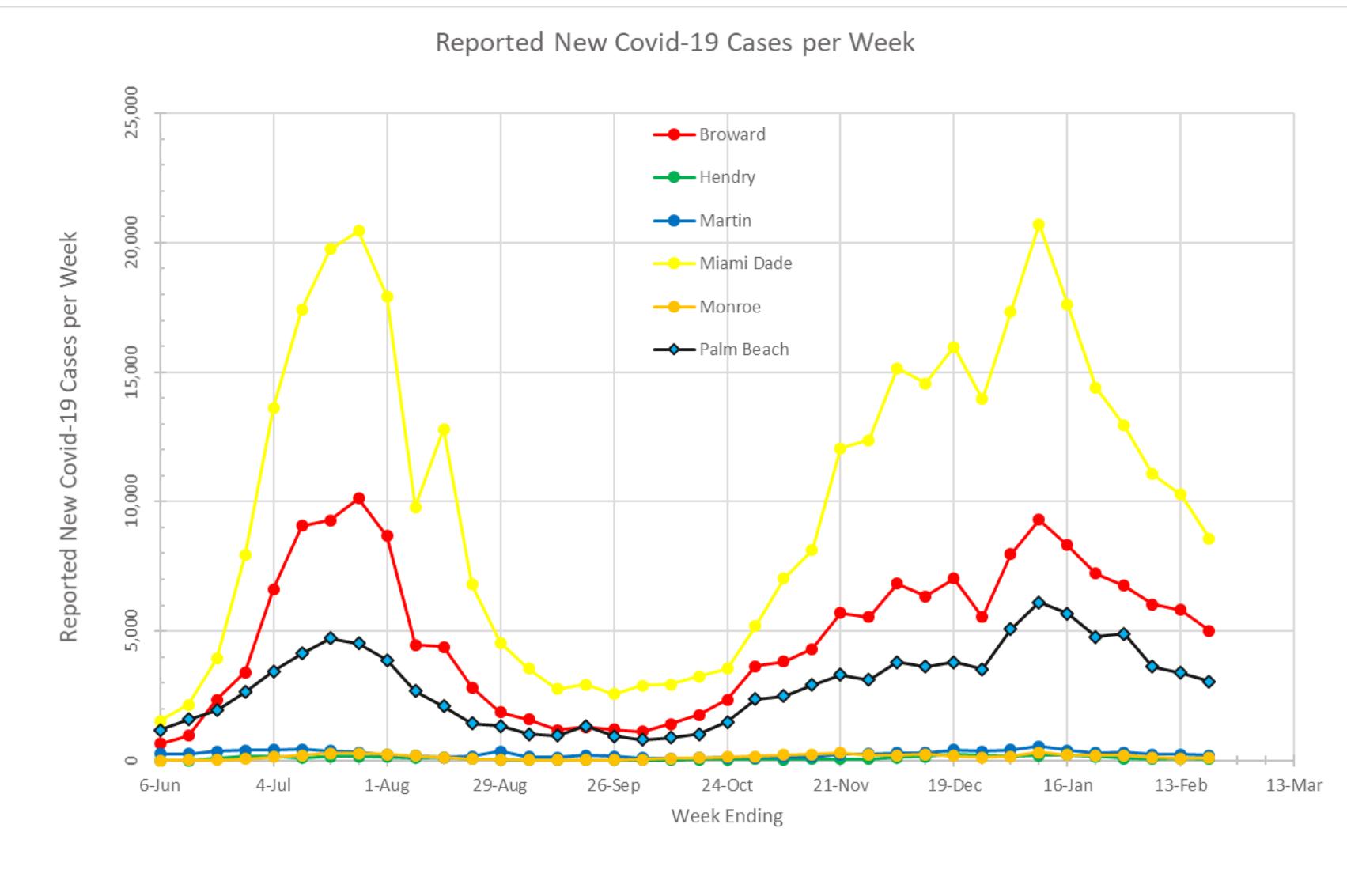
Reported New Covid-19 Cases per 100,000 Population, by County and Date (Computed from US Census Bureau 2019 Est. Populations and New Cases Table)														
Date	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Broward	50	41	44	36	28	38	39	30	40	46	36	27	9	46
Hendry	24	19	36	10	40	33	14	29	17	17	5	2	2	26
Martin	25	25	21	20	8	9	23	19	27	24	13	12	28	31
Miami Dade	57	59	52	54	24	55	51	31	58	56	41	37	46	41
Monroe	15	15	15	30	18	11	30	12	32	18	20	12	26	35
Palm Beach	37	34	41	26	22	23	43	27	31	36	21	19	21	46



Covid-19 New Cases per 100,000 Population, by County and Date, 5-Day Moving Averages: Today, Preceding 4 Days (Computed from New Cases per 100,000 Table)														
Date	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Broward	44	44	44	44	40	37	37	34	35	39	38	36	31	33
Hendry	26	26	30	24	26	28	27	25	27	22	16	14	9	10
Martin	18	20	23	24	20	17	16	16	17	21	21	19	21	22
Miami Dade	54	55	56	55	49	49	47	43	44	50	47	44	47	44
Monroe	16	15	16	18	18	18	20	20	20	20	22	19	22	22
Palm Beach	30	32	35	35	32	29	31	28	29	32	32	27	26	28

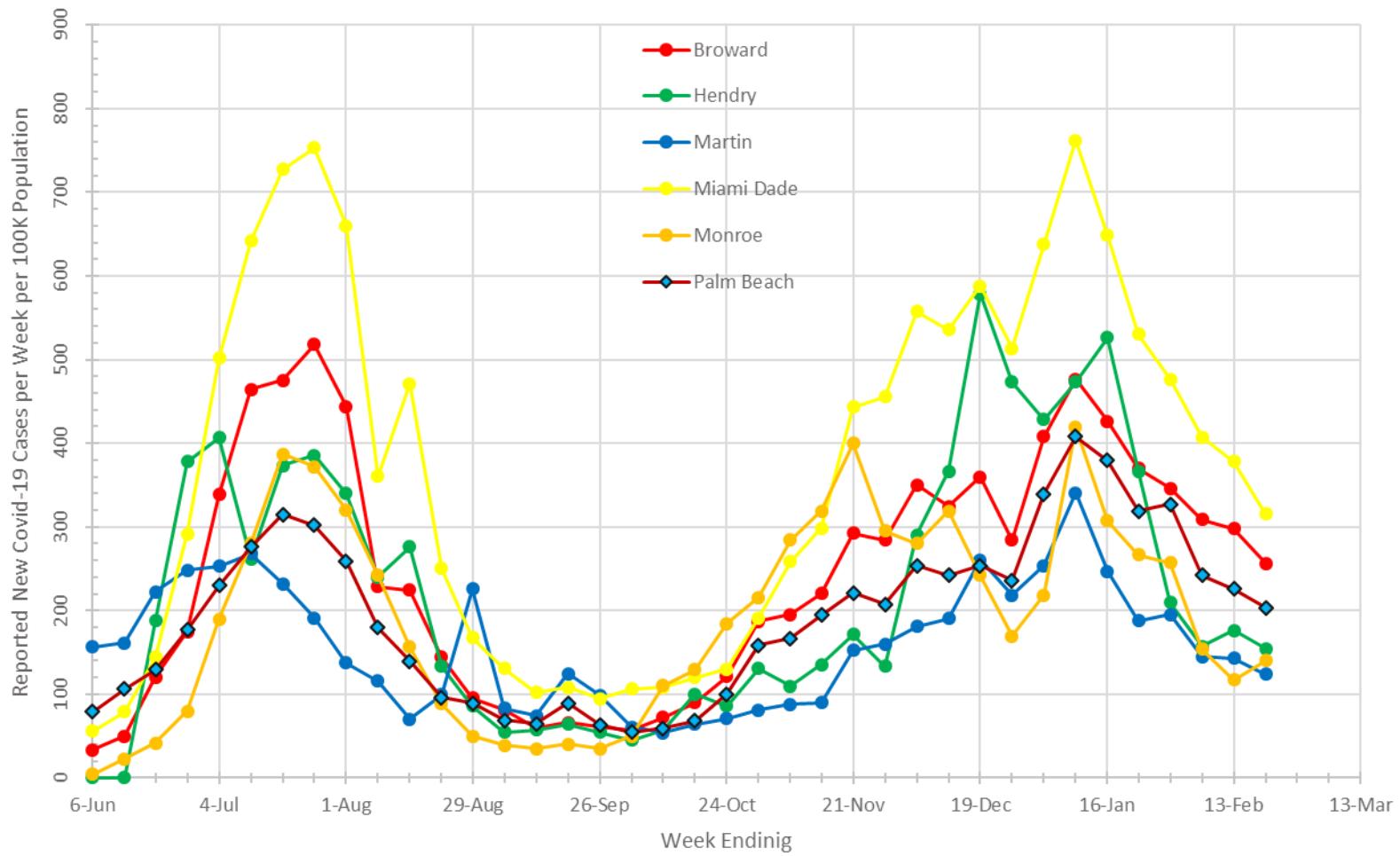


Reported New Covid-19 Cases per Week						
Week End	Broward	Hendry	Martin	Miami Dade	Monroe	Palm Beach
2020-06-06	651	0	252	1523	3	1182
2020-06-13	969	0	260	2157	17	1595
2020-06-20	2354	79	358	3931	31	1935
2020-06-27	3416	159	400	7934	59	2646
2020-07-04	6619	171	408	13625	141	3440
2020-07-11	9066	110	431	17430	208	4138
2020-07-18	9280	157	373	19754	287	4718
2020-07-25	10123	162	308	20464	276	4516
2020-08-01	8672	143	222	17932	238	3882
2020-08-08	4464	101	186	9795	180	2691
2020-08-15	4381	116	113	12801	116	2089
2020-08-22	2822	56	160	6803	66	1441
2020-08-29	1860	36	364	4551	37	1339
2020-09-05	1590	23	134	3546	29	1029
2020-09-12	1171	24	120	2768	26	971
2020-09-19	1292	27	201	2946	30	1332
2020-09-26	1206	23	159	2566	26	947
2020-10-03	1113	19	98	2897	37	816
2020-10-10	1410	24	87	2937	82	893
2020-10-17	1763	42	103	3262	96	1019
2020-10-24	2362	36	114	3537	137	1499
2020-10-31	3651	55	131	5192	160	2377
2020-11-07	3813	46	142	7029	211	2497
2020-11-14	4300	57	145	8119	237	2917
2020-11-21	5707	72	245	12050	297	3305
2020-11-28	5552	56	258	12377	219	3107
2020-12-05	6834	122	291	15151	208	3799
2020-12-12	6337	154	307	14560	237	3627
2020-12-19	7020	243	420	15976	180	3794
2020-12-26	5551	199	352	13954	126	3533
2021-01-02	7966	180	409	17320	162	5078
2021-01-09	9306	199	549	20711	311	6110
2021-01-16	8327	221	398	17615	228	5679
2021-01-23	7226	154	302	14405	198	4776
2021-01-30	6754	88	314	12941	191	4901
2021-02-06	6029	66	234	11060	114	3630
2021-02-13	5814	74	230	10270	87	3380
2021-02-20	5010	65	200	8569	104	3050



Reported New Covid-19 Cases per Week per 100K Population						
Computed from US Census Bureau 2019 Est. Populations						
	and Reported New Covid-19 Cases					
Week End	Broward	Hendry	Martin	Miami Dade	Monroe	Palm Beach
2020-06-06	33	0	157	56	4	79
2020-06-13	50	0	161	79	23	107
2020-06-20	121	188	222	145	42	129
2020-06-27	175	378	248	292	79	177
2020-07-04	339	407	253	501	190	230
2020-07-11	464	262	268	642	280	276
2020-07-18	475	374	232	727	387	315
2020-07-25	518	386	191	753	372	302
2020-08-01	444	340	138	660	321	259
2020-08-08	229	240	116	361	242	180
2020-08-15	224	276	70	471	156	140
2020-08-22	145	133	99	250	89	96
2020-08-29	95	86	226	168	50	89
2020-09-05	81	55	83	131	39	69
2020-09-12	60	57	75	102	35	65
2020-09-19	66	64	125	108	40	89
2020-09-26	62	55	99	94	35	63
2020-10-03	57	45	61	107	50	55
2020-10-10	72	57	54	108	110	60
2020-10-17	90	100	64	120	129	68
2020-10-24	121	86	71	130	185	100
2020-10-31	187	131	81	191	216	159
2020-11-07	195	109	88	259	284	167
2020-11-14	220	136	90	299	319	195
2020-11-21	292	171	152	444	400	221
2020-11-28	284	133	160	456	295	208
2020-12-05	350	290	181	558	280	254
2020-12-12	325	366	191	536	319	242
2020-12-19	359	578	261	588	242	253
2020-12-26	284	474	219	514	170	236
2021-01-02	408	428	254	637	218	339
2021-01-09	477	474	341	762	419	408
2021-01-16	426	526	247	648	307	379
2021-01-23	370	366	188	530	267	319
2021-01-30	346	209	195	476	257	327
2021-02-06	309	157	145	407	154	243
2021-02-13	298	176	143	378	117	226
2021-02-20	257	155	124	315	140	204

Reported New Covid-19 Cases per Week per 100K Population



Mean Reported New Covid-19 Cases per Week per 100K Population						
4-Week Moving Averages: This Week, Preceding 3 Weeks						
4-Week End	Broward	Hendry	Martin	Miami Dade	Monroe	Palm Beach
2020-06-06						
2020-06-13						
2020-06-20						
2020-06-27	95	142	197	143	37	123
2020-07-04	171	243	221	254	84	161
2020-07-11	275	309	248	395	148	203
2020-07-18	363	355	250	541	234	250
2020-07-25	449	357	236	656	307	281
2020-08-01	475	340	207	695	340	288
2020-08-08	417	335	169	625	330	264
2020-08-15	354	311	129	561	273	220
2020-08-22	260	247	106	436	202	169
2020-08-29	173	184	128	312	134	126
2020-09-05	136	137	120	255	84	99
2020-09-12	95	83	121	163	53	80
2020-09-19	76	65	127	127	41	78
2020-09-26	67	58	95	109	37	71
2020-10-03	61	55	90	103	40	68
2020-10-10	64	55	85	104	59	67
2020-10-17	70	64	69	107	81	61
2020-10-24	85	72	62	116	119	71
2020-10-31	118	93	68	137	160	97
2020-11-07	148	106	76	175	203	123
2020-11-14	181	115	83	220	251	155
2020-11-21	224	137	103	298	305	185
2020-11-28	248	137	123	364	325	198
2020-12-05	287	183	146	439	324	219
2020-12-12	313	240	171	498	324	231
2020-12-19	330	342	198	534	284	239
2020-12-26	330	427	213	549	253	246
2021-01-02	344	462	231	569	237	268
2021-01-09	382	488	269	625	262	309
2021-01-16	399	475	265	640	279	341
2021-01-23	420	449	257	645	303	361
2021-01-30	405	394	243	604	313	359
2021-02-06	363	315	194	515	246	317
2021-02-13	331	227	168	448	199	279
2021-02-20	302	174	152	394	167	250

Reported New Covid-19 Cases per 100K Population
4-Week Moving Average (This Week, Preceding 3 Weeks), Smoothed Lines

