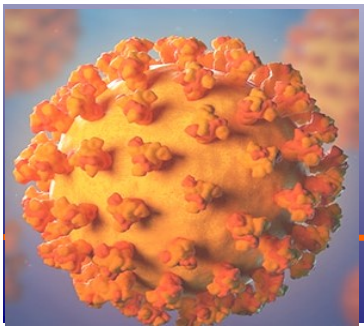
Stats News & Views



Special Topic Statistical Bulletin - COVID-19

Issue 3, 10 April 2020

The **Special Topic Statistical Bulletin on COVID 19 in CARICOM Countries Issue 3**, provides an update of the trajectory of COVID 19 in the CARICOM Region up to **10 April 2020**. The bulletin provides information on the pattern of the disease, graphically summarising the total number of confirmed cases, new cases and deaths by date as well as patterns for each country. Similar to Issues I and 2, the data are preliminary and will be adjusted as more reliable data are made available. New elements in this Issue are some projections at the regional level of the number of confirmed cases for a period of approximately two weeks from the end of the actual data series. The analysis also tracks the number of new cases with trendlines and visualises the trend in the rate of change of the confirmed cases for selected countries and regionally to ascertain whether there is an upward or downward path in the transmission of the virus. These projections and trendlines are subject to a number of assumptions that may not reflect the actual outcome. Information on the mode of transmission is also attempted as well as on recoveries. The primary approach to sourcing the data continues to be web-scraping of information from official sources of countries including official situation updates and media releases from ministries of health and other departments of governments, as well as official dashboards/Facebook sites of governments and other sources.

Situation at a Glance

Sun. 29th March	287 Cases
Mon. 30th March	310 Cases
Tues. 31st March	334 Cases
Wed. 1st April	371 Cases
Thur. 2nd April	403 Cases
Fri. 3rd April	435 Cases
Sat. 4th April	456 Cases
Sun. 5th April	474 Cases
Mon. 6th April	501 Cases
Tues. 7th April	531 Cases
Wed. 8th April	542 Cases
Thur. 9th April	566 Cases
Fri. 10th April	577 Cases

Total number of Confirmed cases increased by **290** over **12 days** (29 March to 10 April 2020) doubling at a rate of **2.01**

Total number of deaths **increased by 25 in 7 days** (3-10 April 2020) at a rate of **2.4**

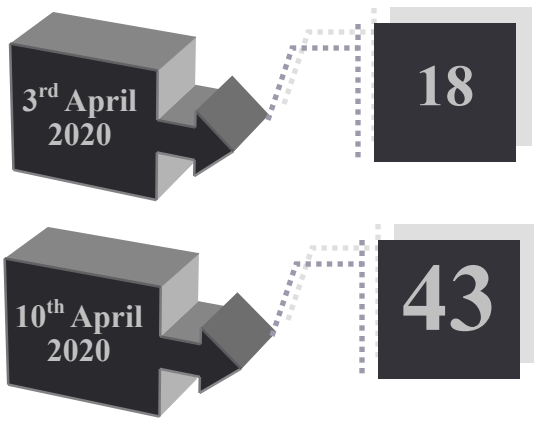


TABLE 1: SUMMARY ALL COUNTRIES -NUMBER OF CONFIRMED CASES, NEW CASES AND DEATHS BY DATE

Date	No. of Confirmed Cases	No of New Cases	No. of Deaths
10-Mar	1	1	0
11-Mar	3	2	1
12-Mar	4	1	1
13-Mar	15	11	1
14-Mar	17	2	2
15-Mar	22	5	2
16-Mar	28	6	2
17-Mar	36	8	2
18-Mar	40	4	3
19-Mar	50	10	3
20-Mar	57	7	3
21-Mar	112	55	3
22-Mar	120	8	3
23-Mar	132	12	3
24-Mar	156	24	3
25-Mar	177	21	4
26-Mar	210	33	4
27-Mar	225	15	5
28-Mar	255	30	6
29-Mar	287	32	6
30-Mar	310	23	6
31-Mar	334	24	11
01-Apr	371	37	14
02-Apr	403	32	16
03-Apr	435	32	18
04-Apr	456	21	20
05-Apr	474	18	26
06-Apr	501	27	31
07-Apr	531	30	33
08-Apr	542	11	38
09-Apr	566	24	42
10-Apr	577	11	43

CHART 1: SUMMARY ALL COUNTRIES - NUMBER OF CONFIRMED CASES, NEW CASES AND DEATHS

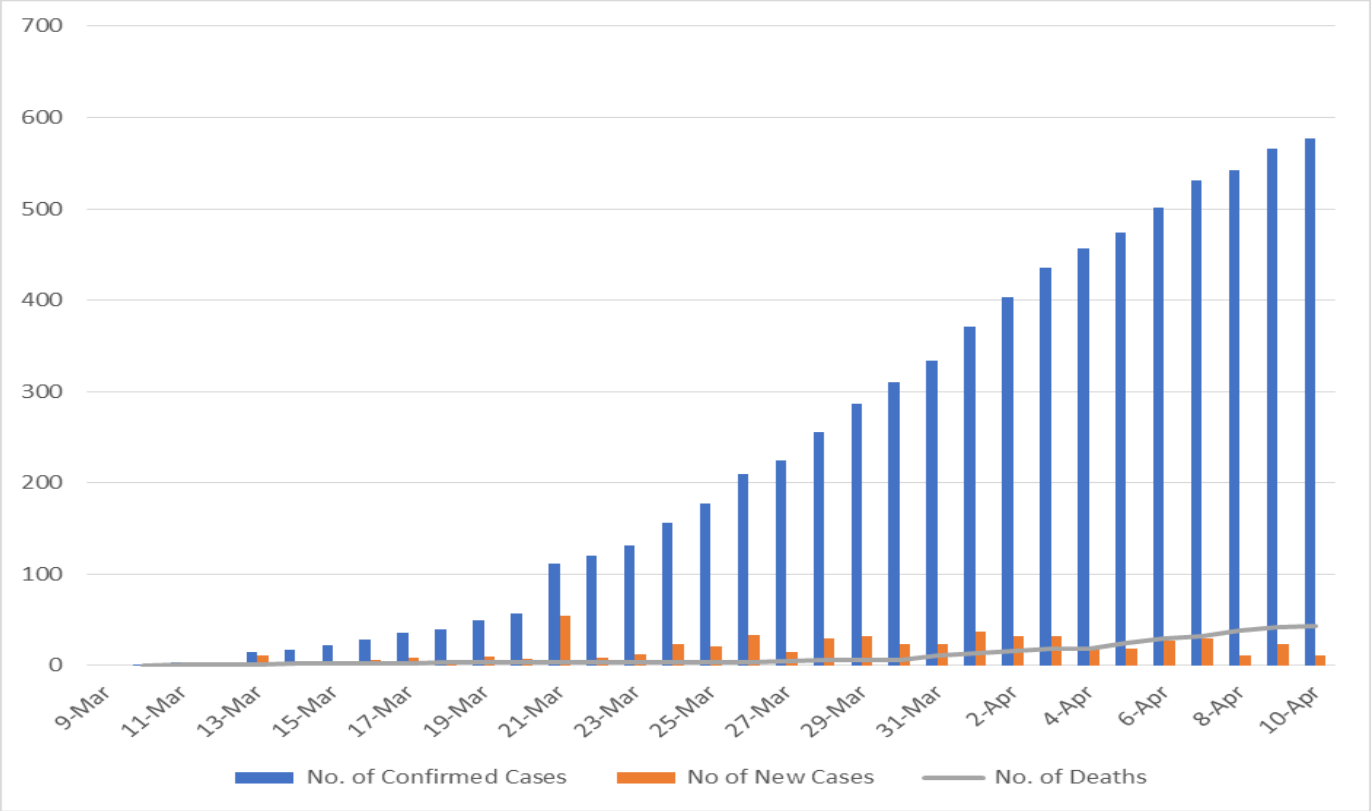
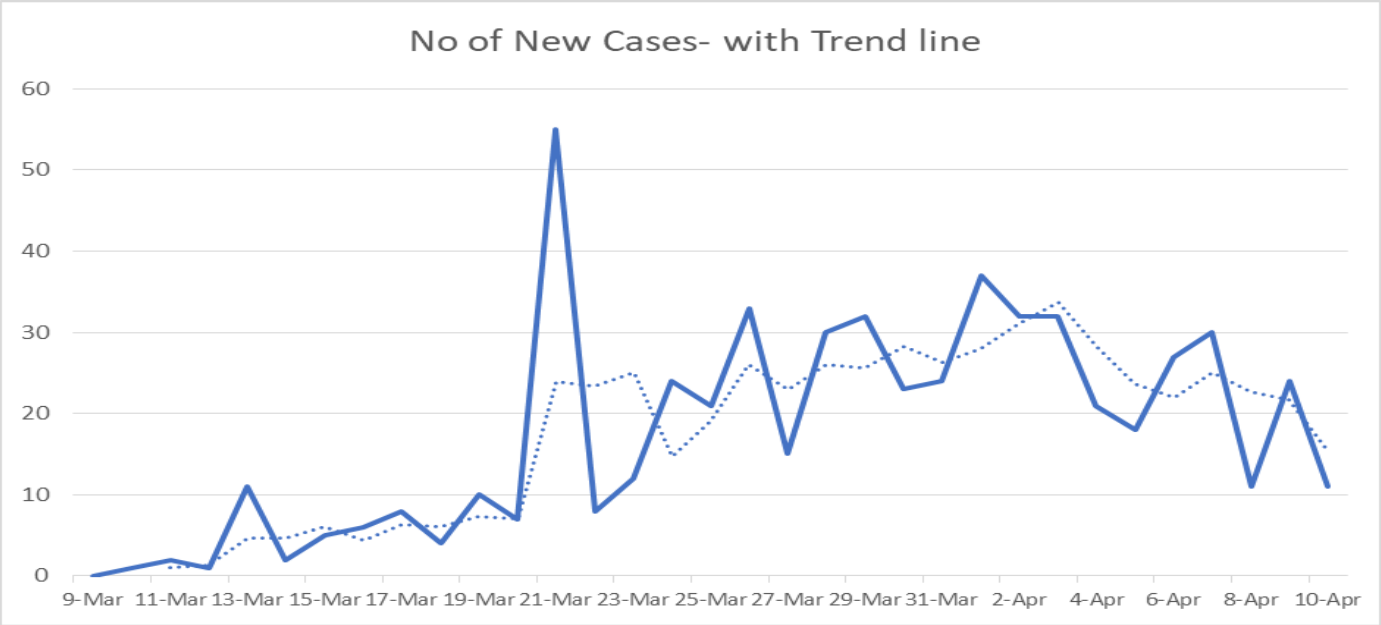


CHART 1A: SUMMARY ALL COUNTRIES – THREE-DAY MOVING AVERAGE OF THE NUMBER OF NEW CASES [1]



1. See explanatory notes on pages 32 –33.

CHART 1B: SUMMARY ALL COUNTRIES - NUMBER OF DEATHS

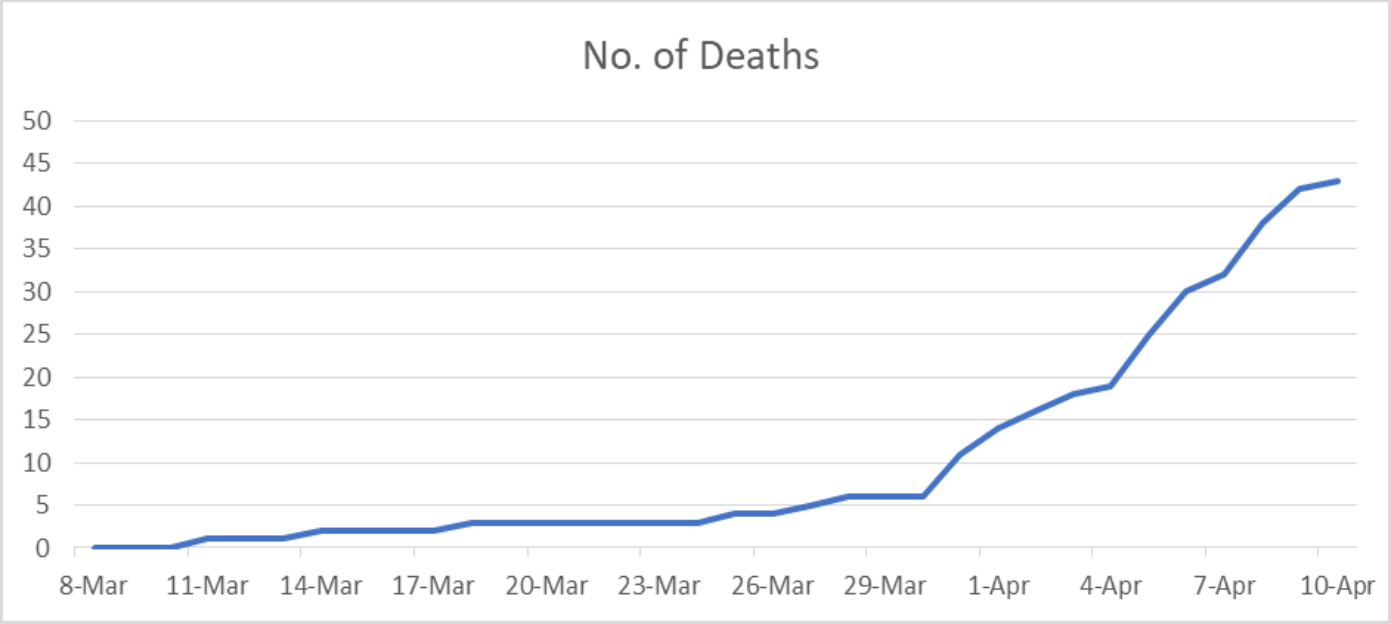
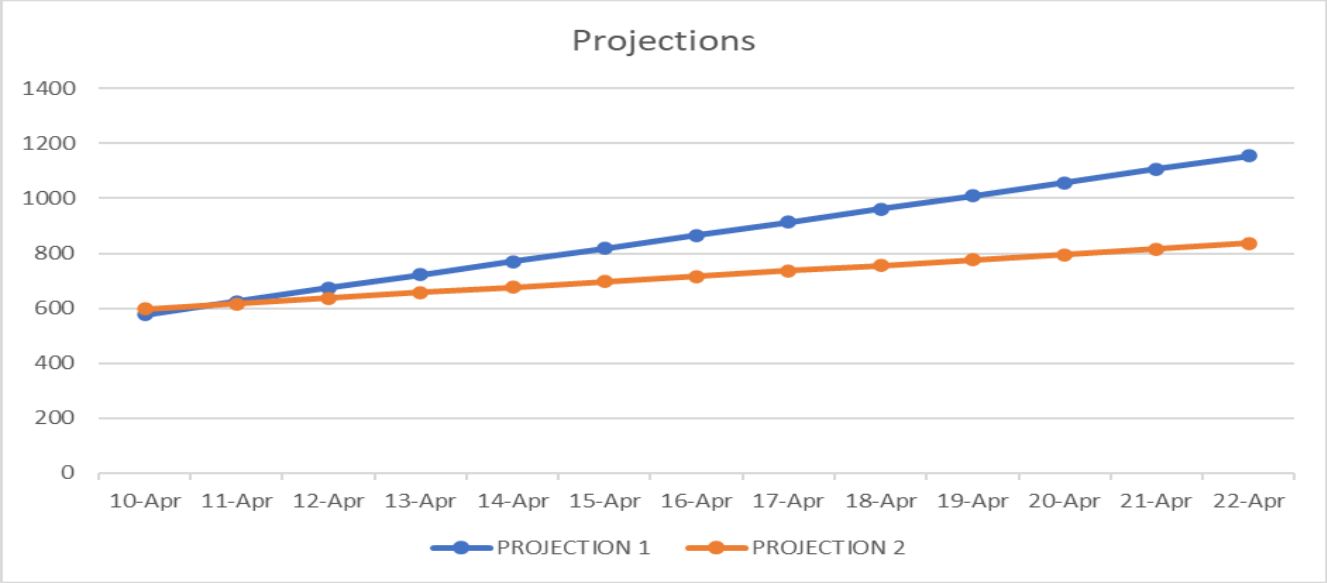


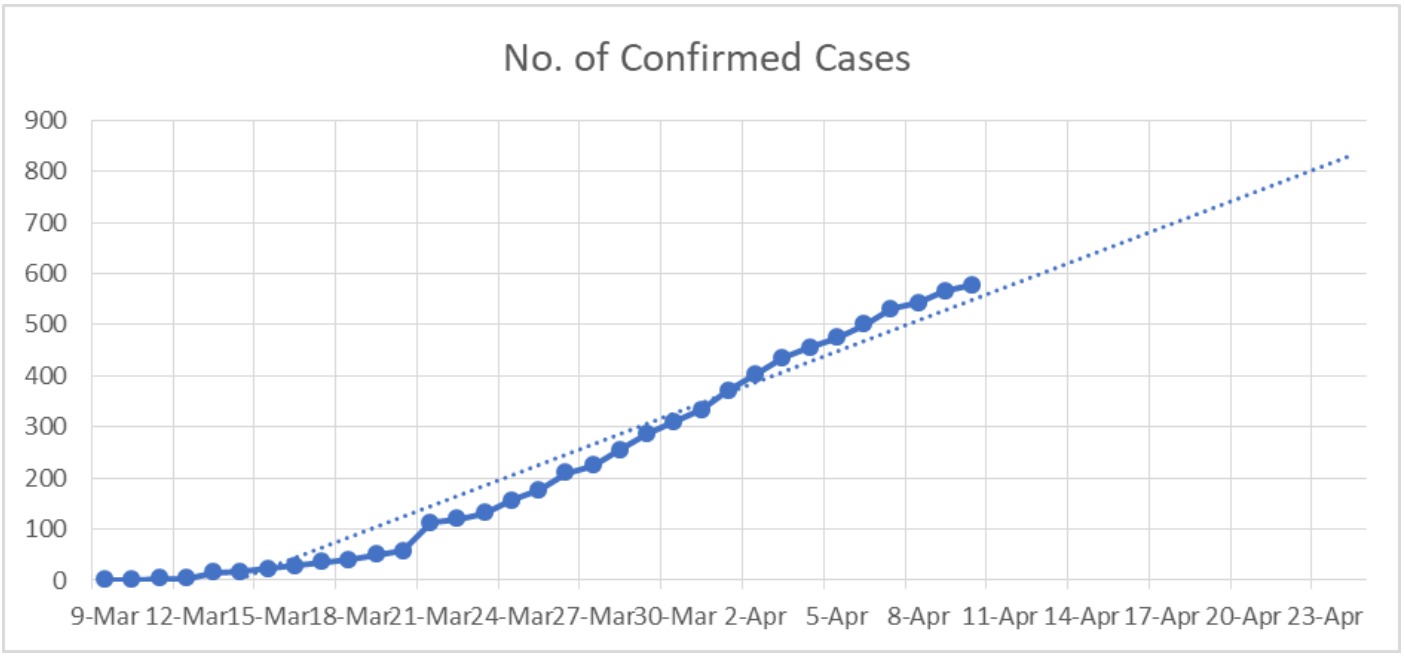
CHART 2: PROJECTIONS OF TOTAL NUMBER OF CONFIRMED CASES –ALL COUNTRIES



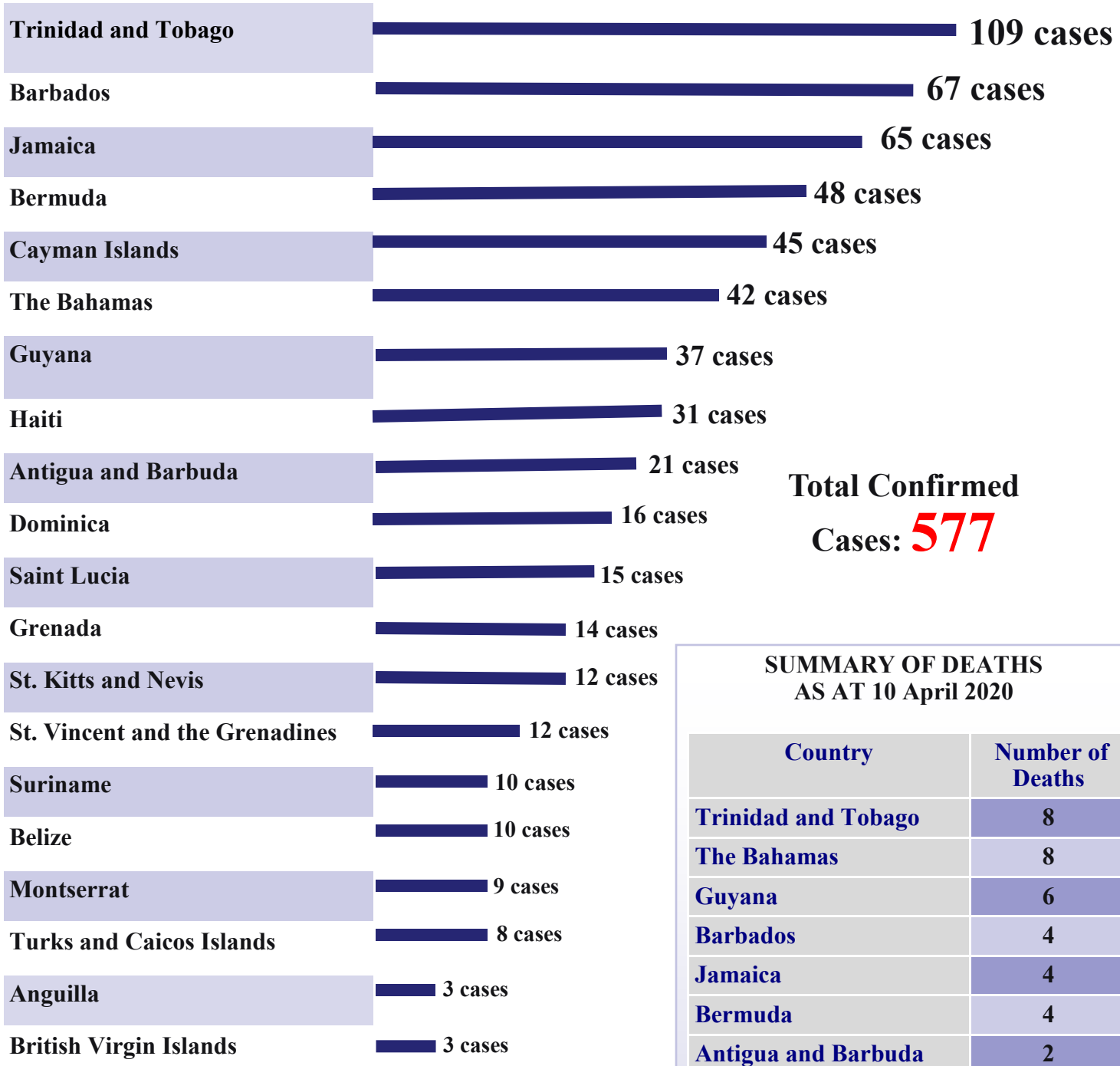
Projection 1 **Assumes a doubling time of 12 days to extrapolate up to the 22nd April.**

Projection 2 **Uses the average number of new cases for 8-10 April [using a 3 -day moving average].**

CHART 3: LINEAR PROJECTION OF CONFIRMED CASES – ALL COUNTRIES



SUMMARY OF CONFIRMED CASES AS AT 10 APRIL 2020



Total Confirmed Cases: 577

Total Deaths: 43

SUMMARY OF DEATHS AS AT 10 April 2020

Country	Number of Deaths
Trinidad and Tobago	8
The Bahamas	8
Guyana	6
Barbados	4
Jamaica	4
Bermuda	4
Antigua and Barbuda	2
Belize	2
Haiti	2
Turks and Caicos Islands	1
Suriname	1
Cayman Islands	1

CHART 4A: NUMBER OF CONFIRMED CASES PER 100,000 POPULATION IN CARICOM

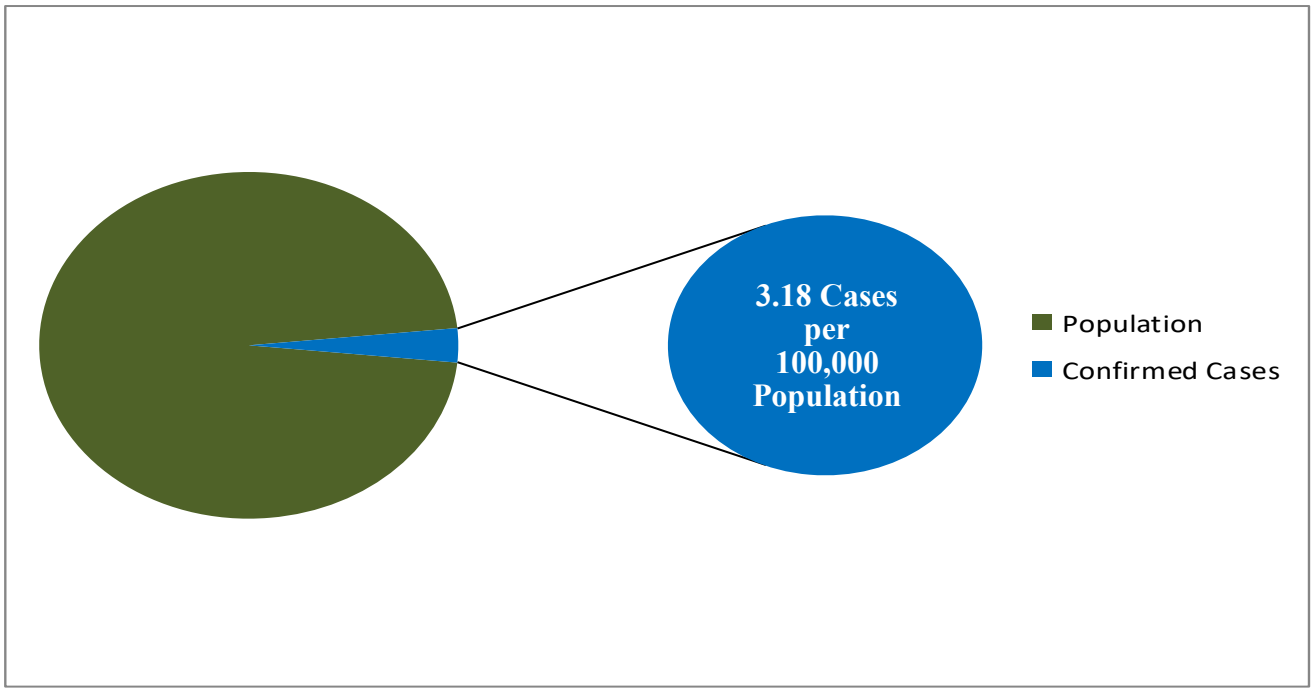
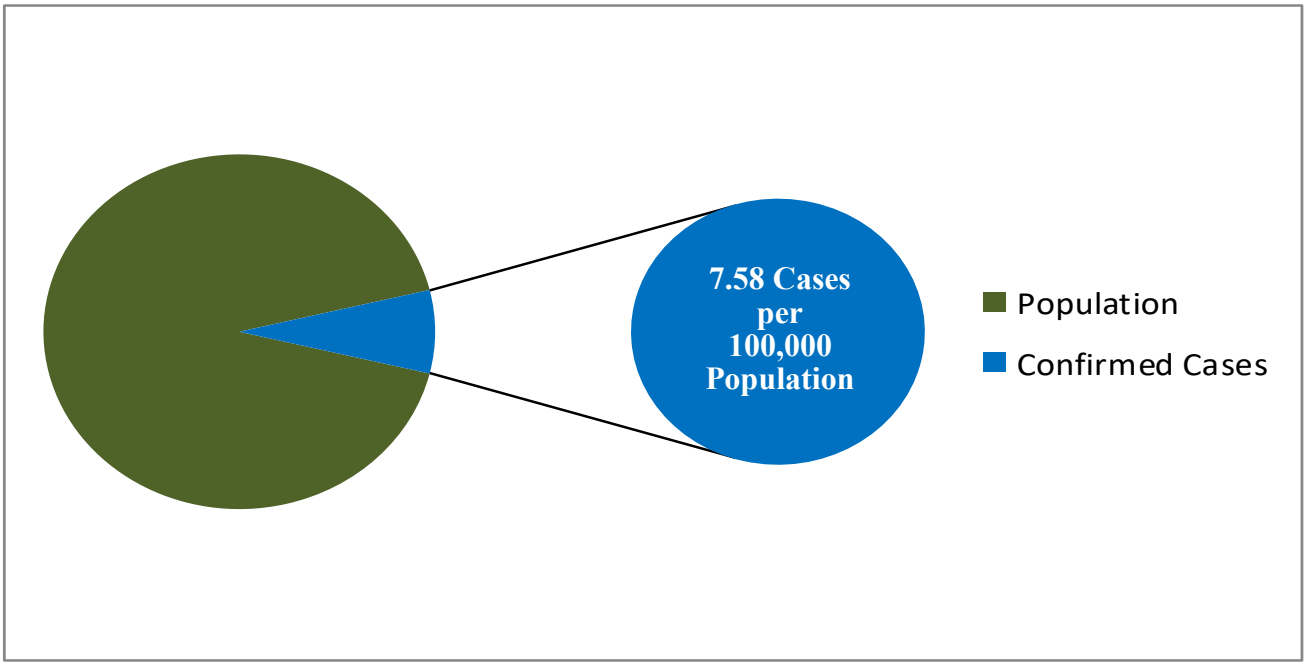


CHART 4B: NUMBER OF CONFIRMED CASES PER 100,000 POPULATION IN CARICOM (EXCLUDING HAITI)



NUMBER OF CONFIRMED CASES PER 100,000 POPULATION - SELECTED COUNTRIES

CHART 4C THE BAHAMAS

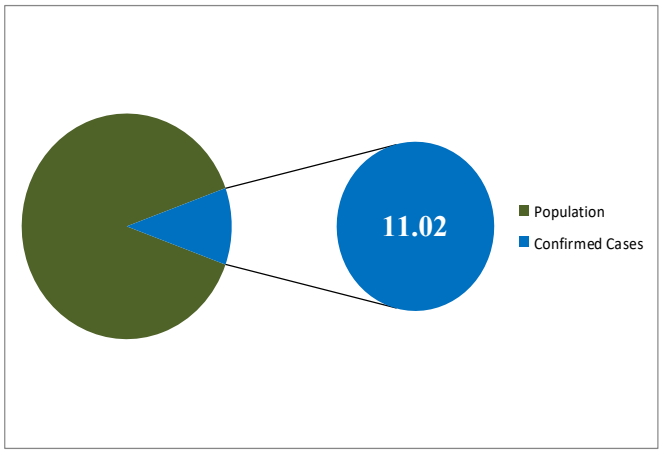


CHART 4D BARBADOS

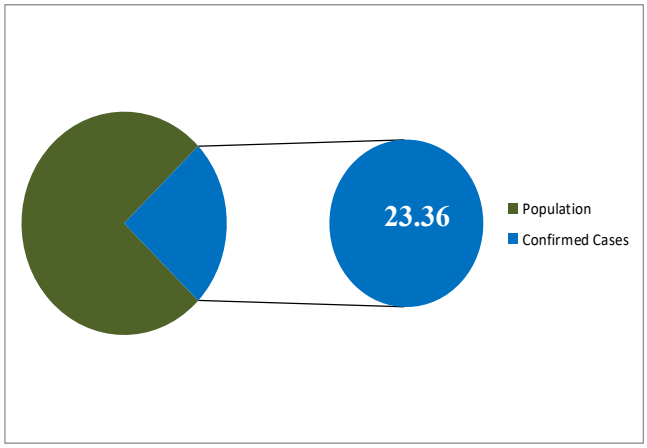


CHART 4E GUYANA

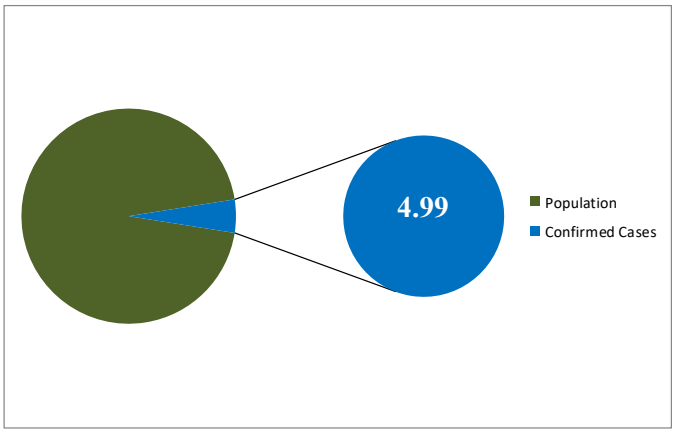


CHART 4F JAMAICA

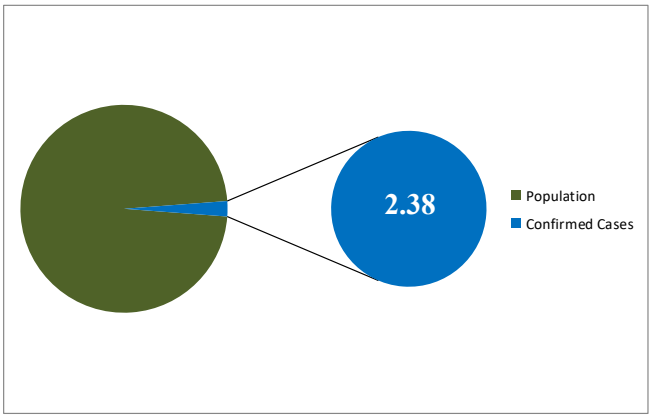


CHART 4 G TRINIDAD AND TOBAGO

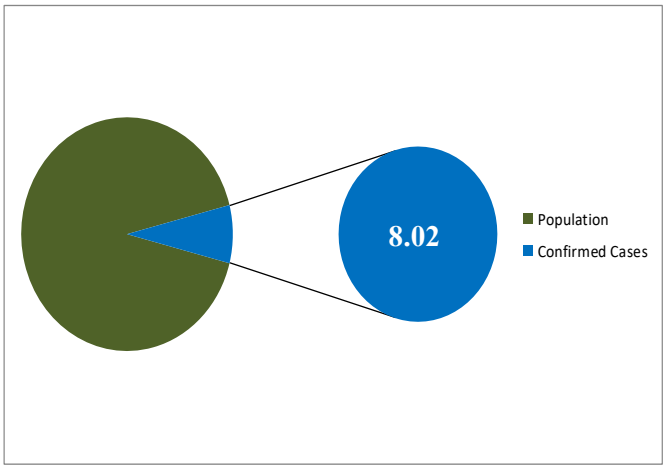


TABLE 2: RECOVERIES BY COUNTRY AS AT 10 APRIL

Country	Recoveries/Discharged
Bermuda	25
Jamaica	13
Barbados	11
Guyana	8
Cayman Islands	6
The Bahamas	5
Dominica	5
Suriname	4
Trinidad and Tobago	3
Saint Lucia	1
St. Vincent and the Grenadines	1
Antigua and Barbuda	0
Belize	0
Grenada	0
Haiti	0
Montserrat	0
St. Kitts and Nevis	0
Anguilla	0
British Virgin Islands	0
Turks and Caicos Islands	0

APPROXIMATE MODE OF TRANSMISSION - SELECTED COUNTRIES AS AT 10 APRIL 2020

Country	Imported Transmission 	Local Transmission 	Community Transmission 	Under Investigation 
Jamaica[1]	31	22	-	12
Trinidad and Tobago [2]	81	20	1	5
Bermuda	23	17	-	8

1. **Jamaica classifies the mode of transmission as Imported, Imported-related and under investigation.**
2. **In the case of Trinidad and Tobago there were 2 cases for which the mode of transmission was not found.**

General—Please see Issue 2 for Explanations on Mode of Transmission

CHART 5: ANTIGUA AND BARBUDA

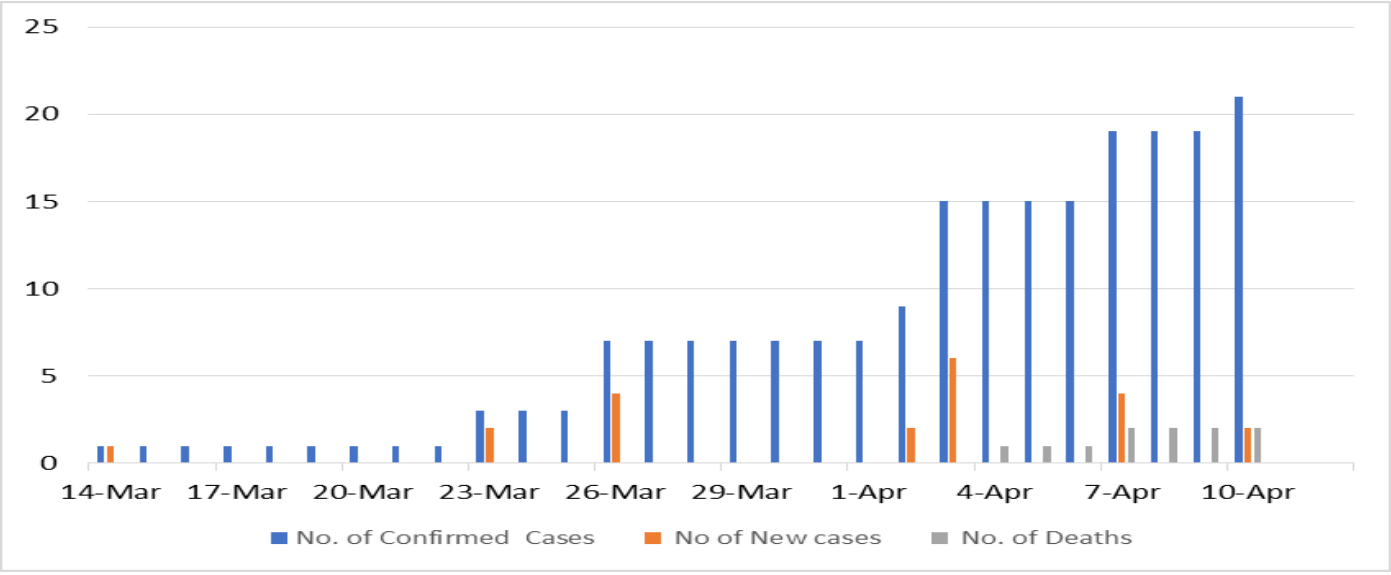


CHART 6: THE BAHAMAS

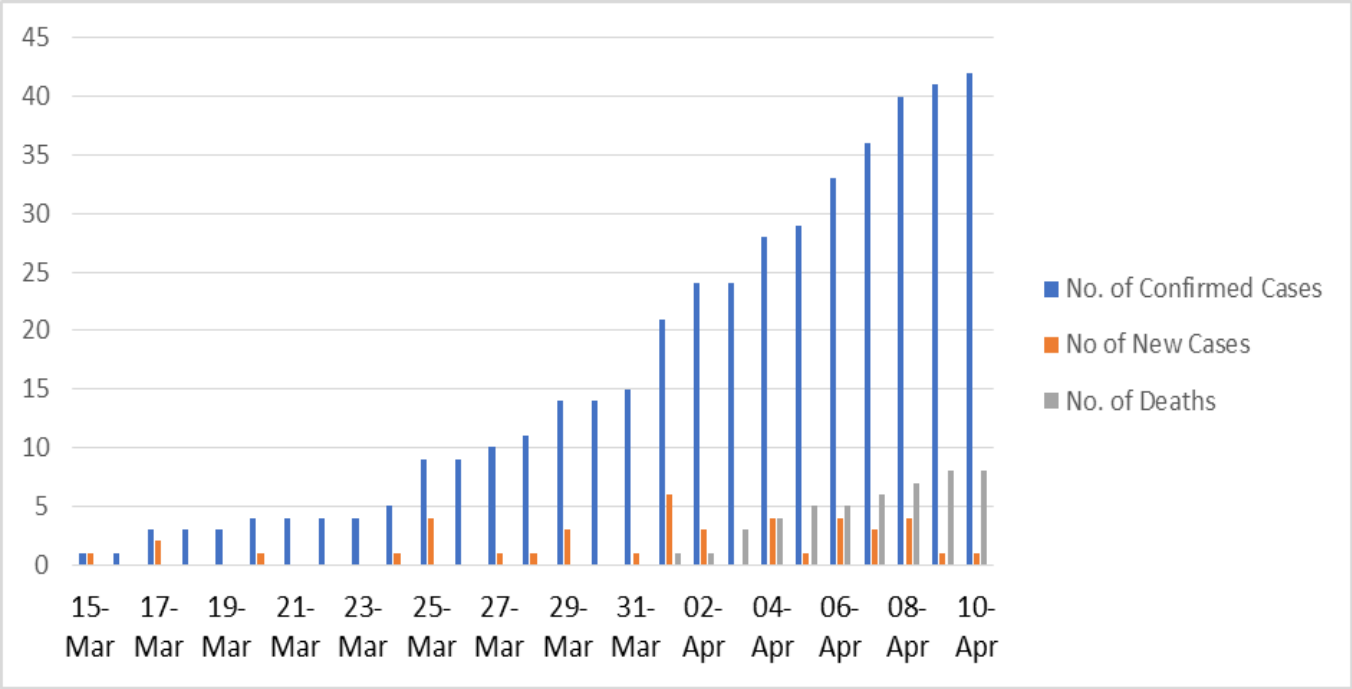


CHART 6A: THE BAHAMAS

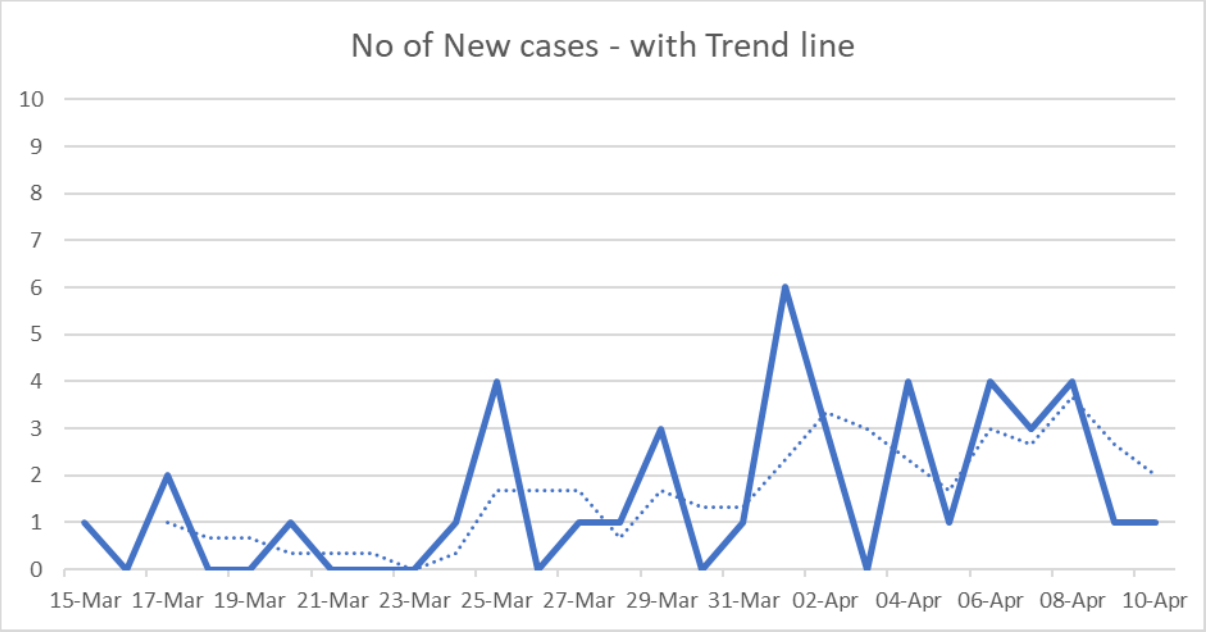


CHART 7: BARBADOS

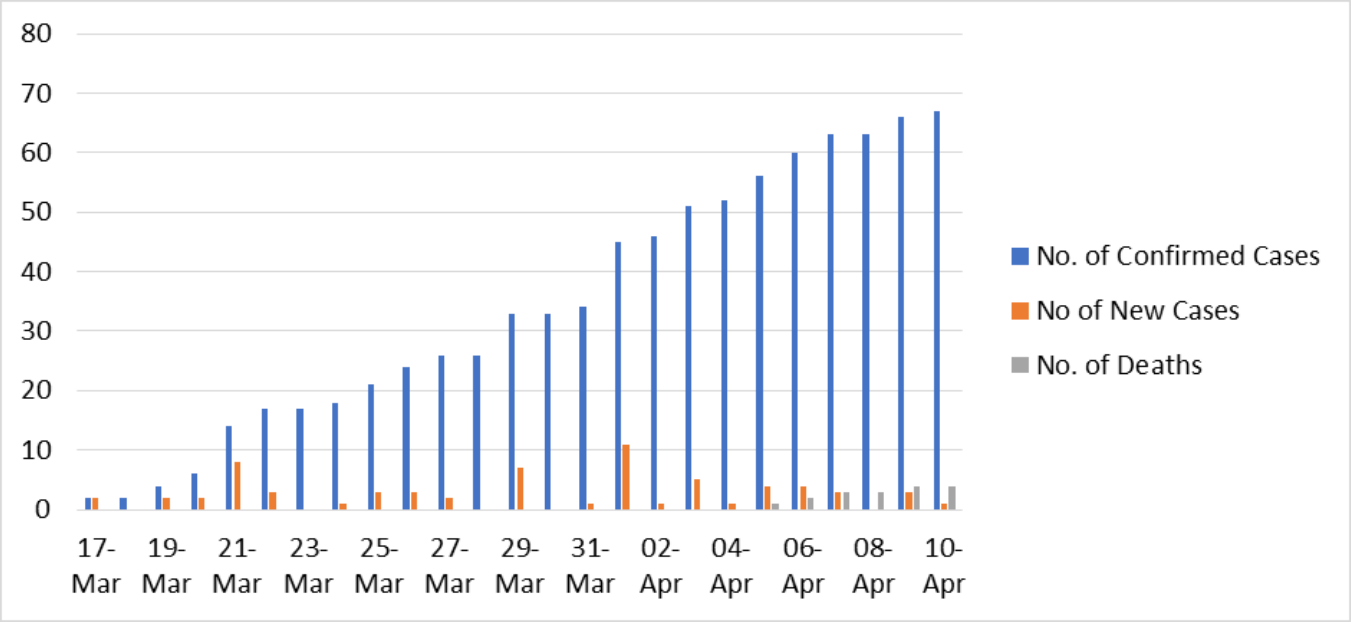


CHART 7A: BARBADOS

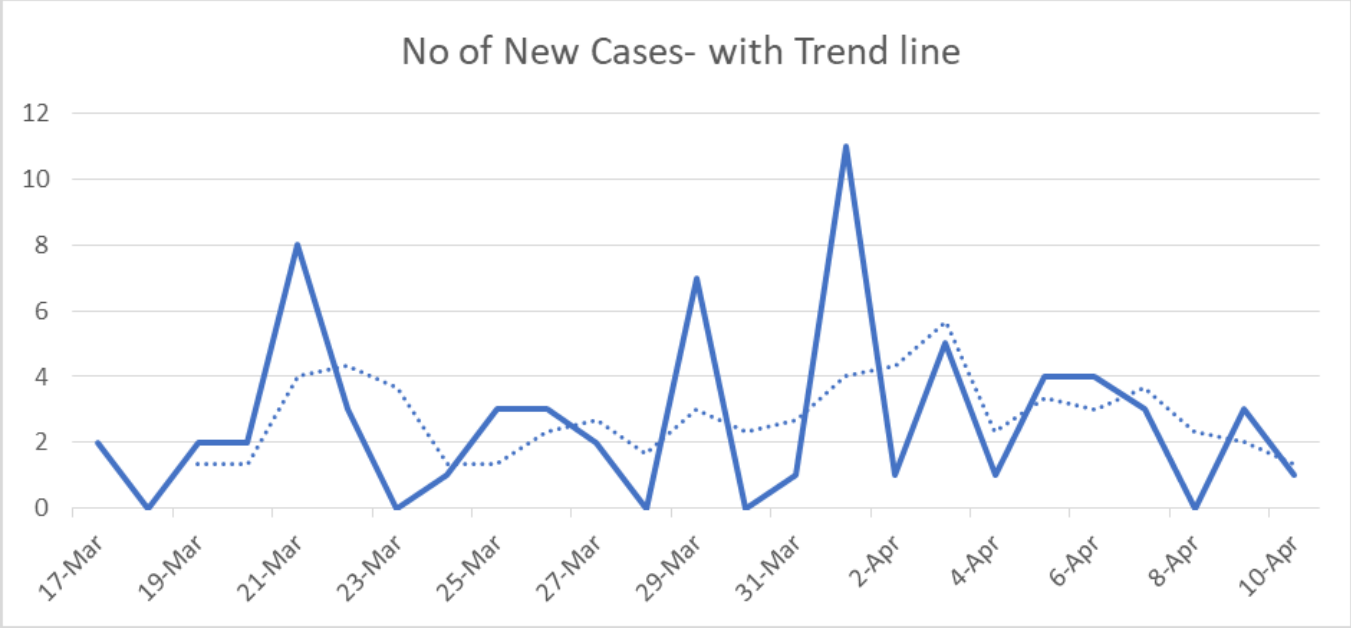


CHART 7B: BARBADOS - RATE OF CHANGE OF CONFIRMED CASES

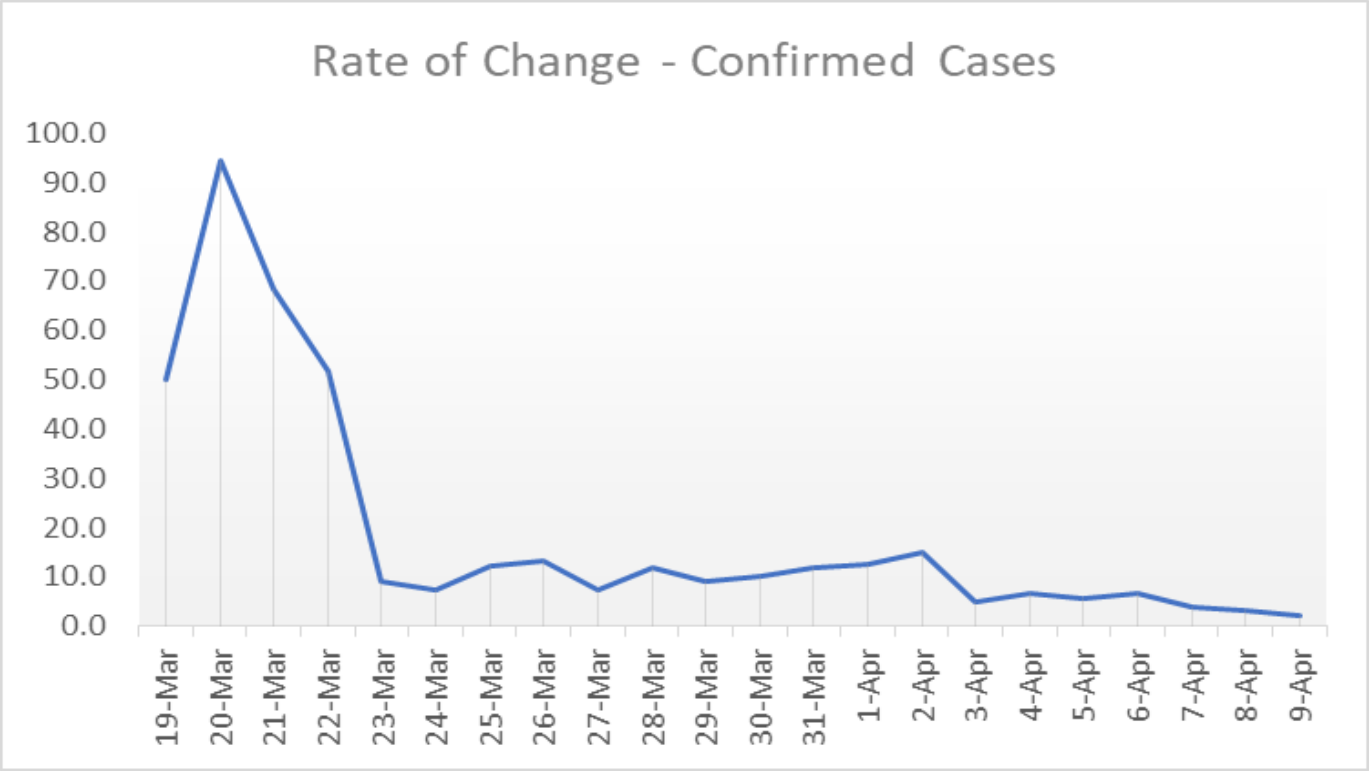


CHART 8: BELIZE

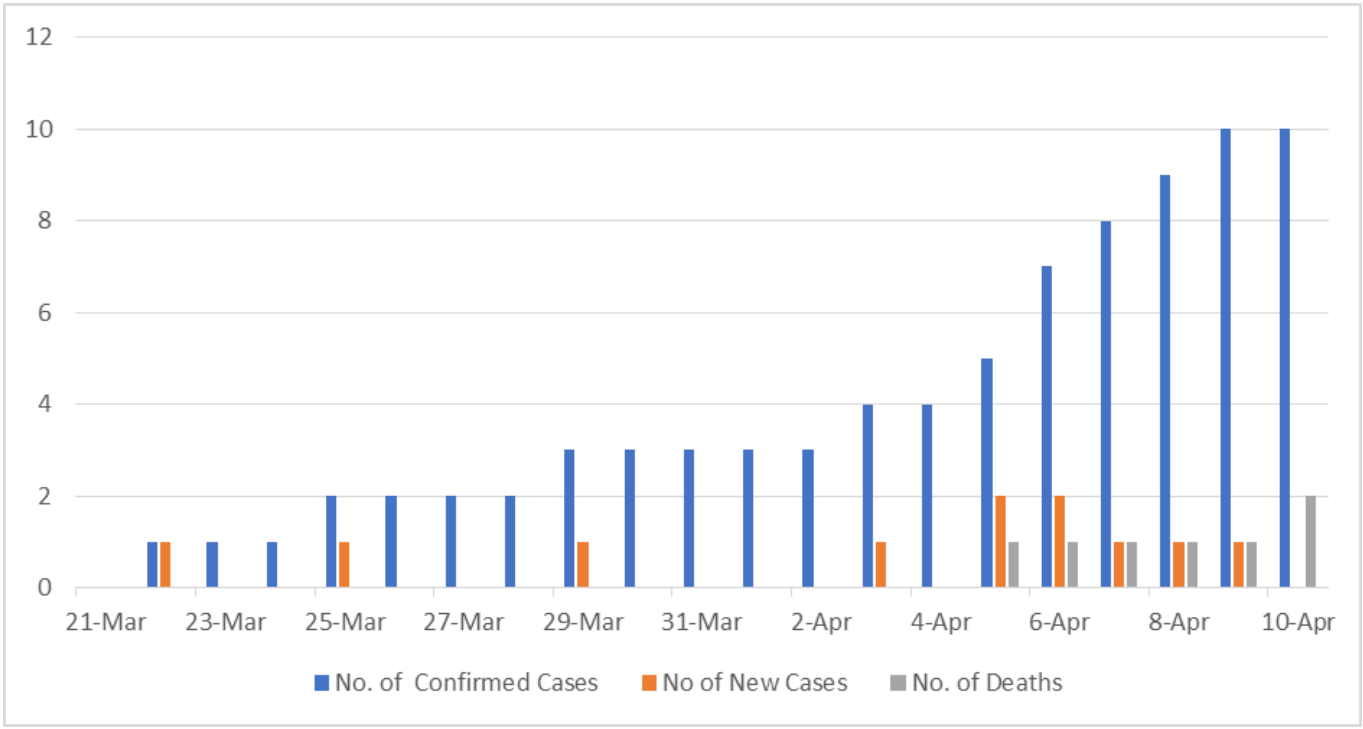


CHART 9: DOMINICA

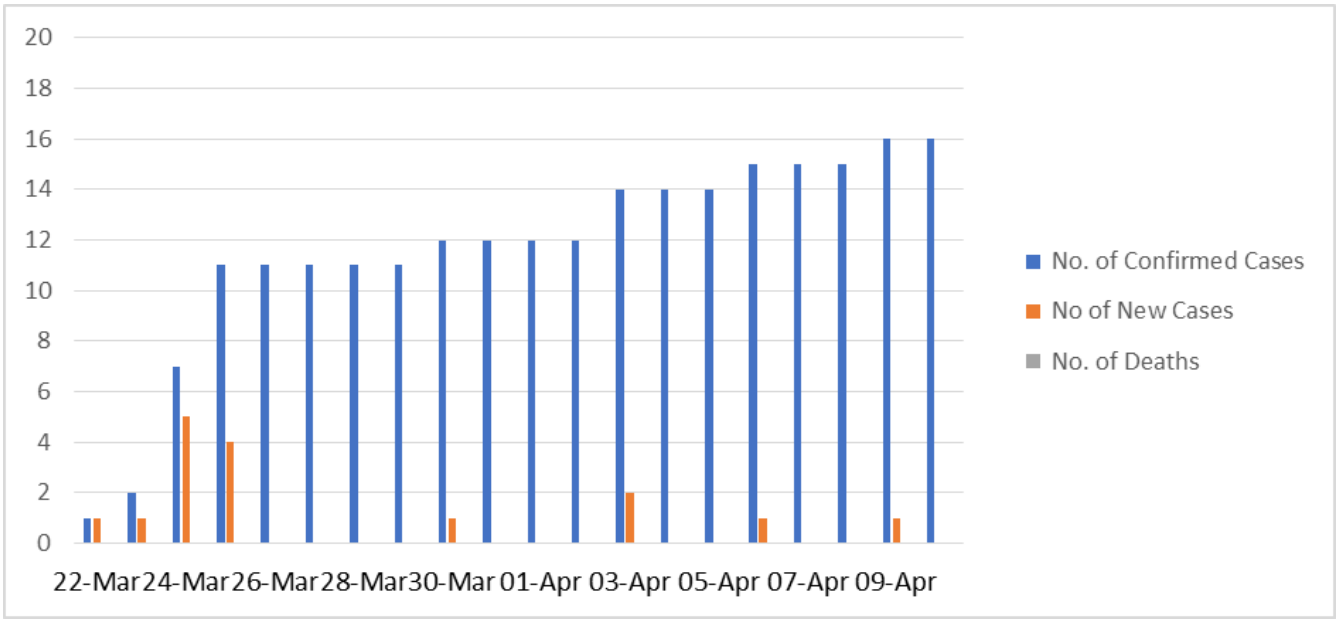


CHART 10: GRENADA

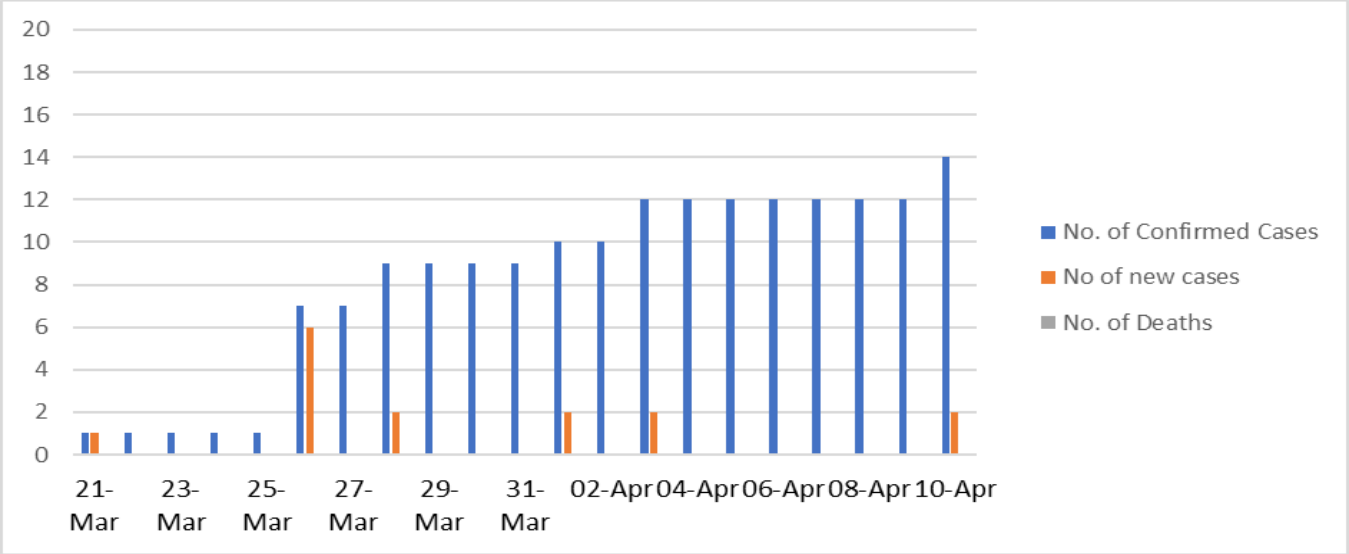


CHART 11: GUYANA

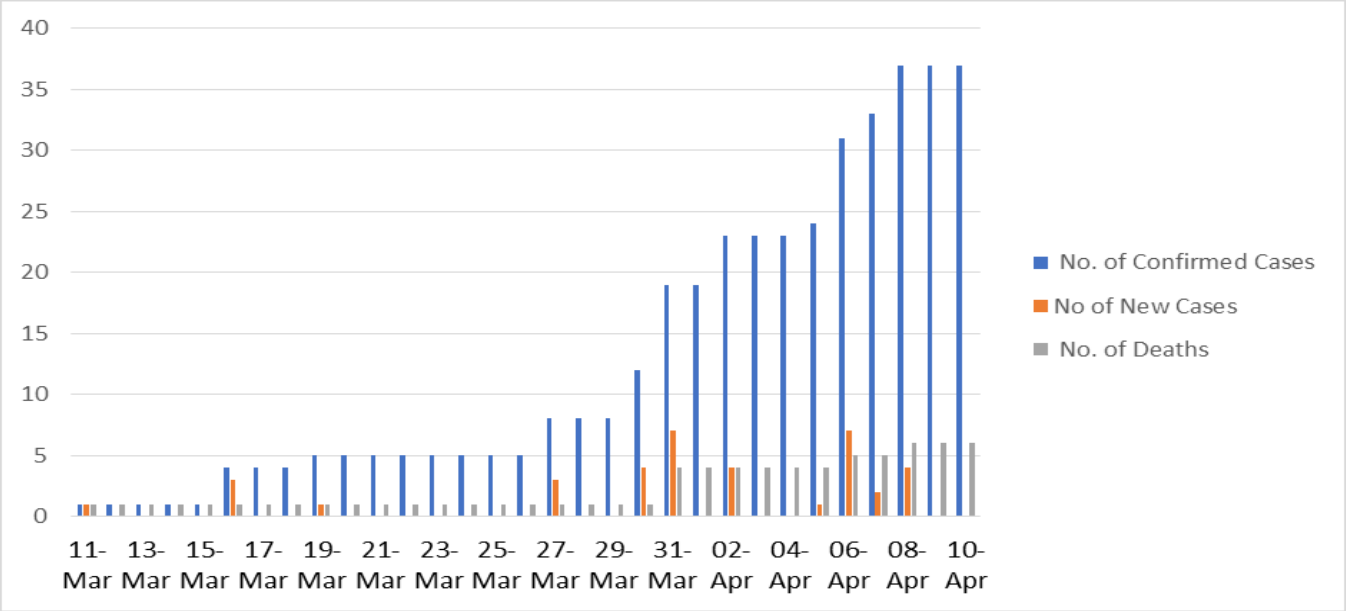


CHART 11A: GUYANA

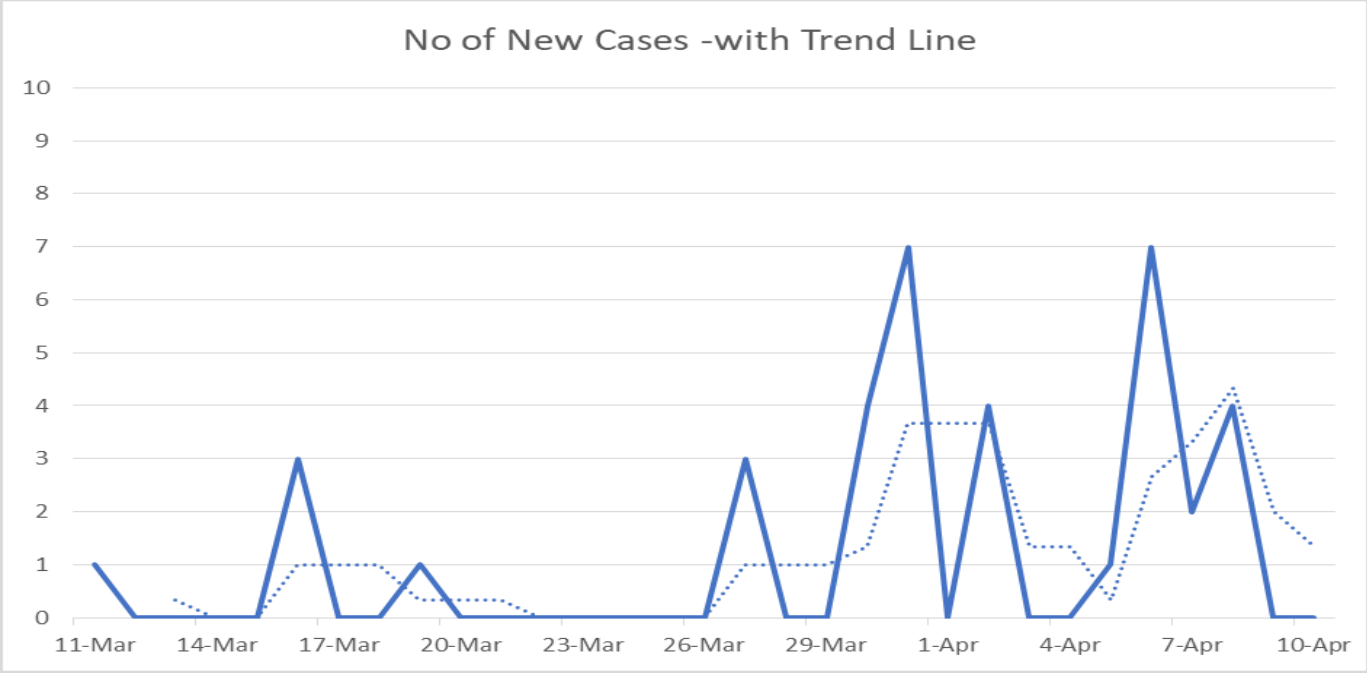


CHART 12: HAITI

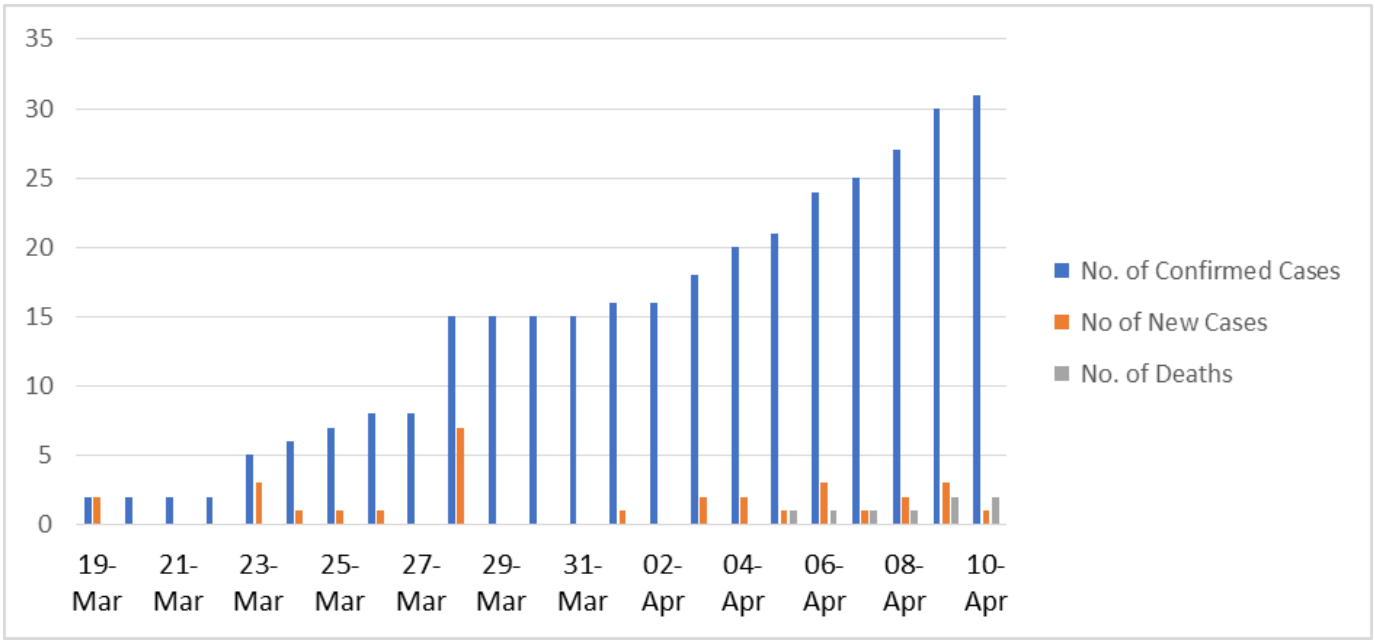


CHART 12A: HAITI

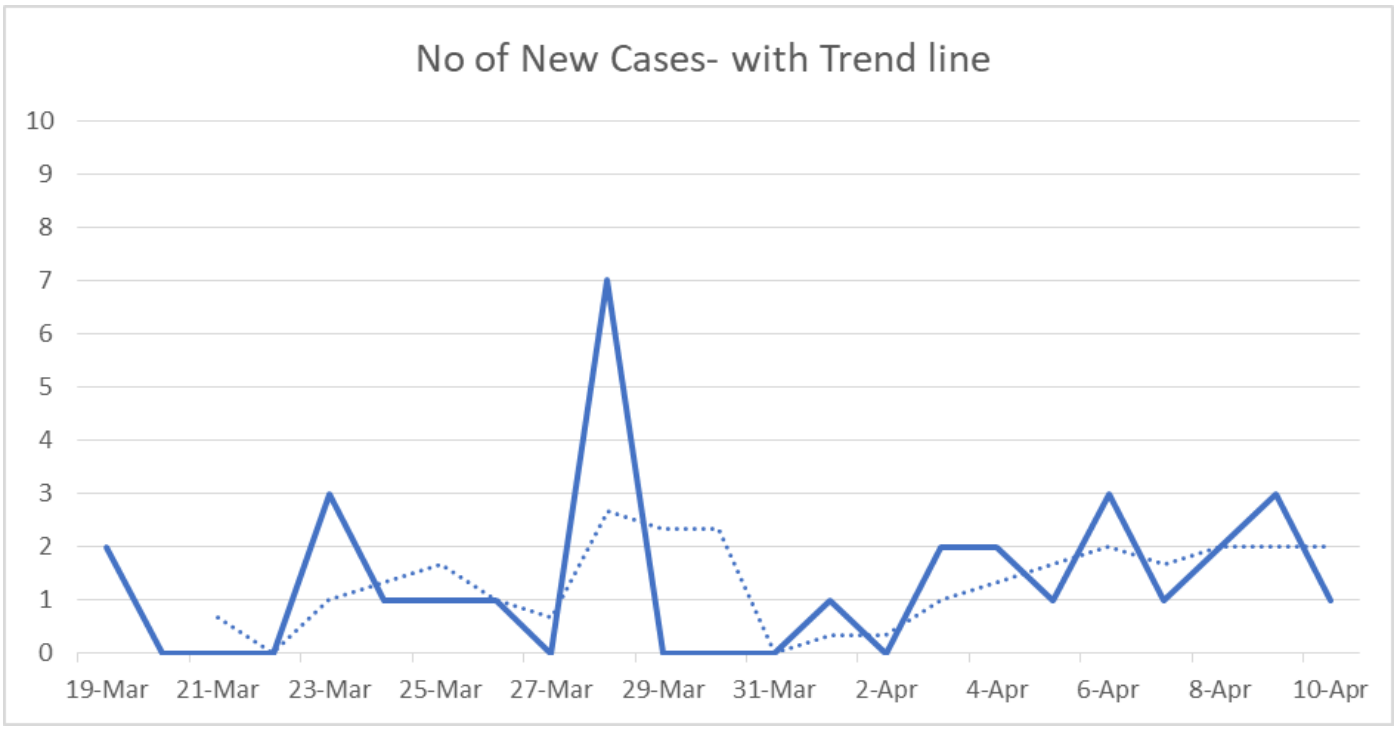


CHART 13: JAMAICA

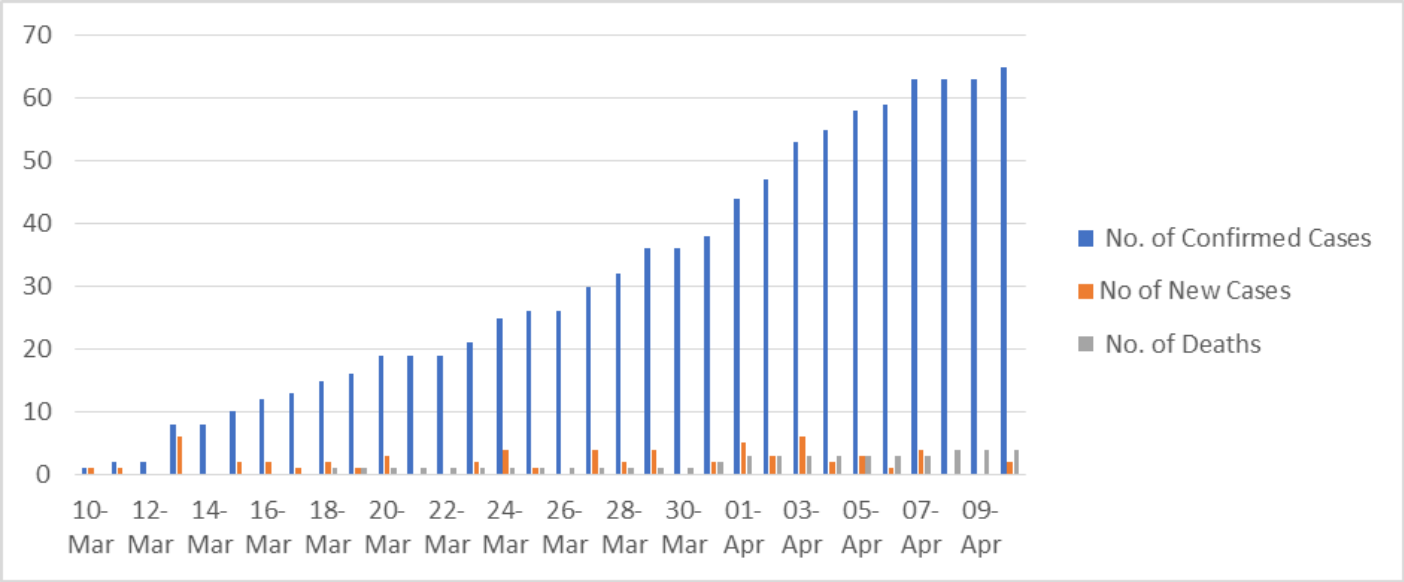


CHART 13A: JAMAICA

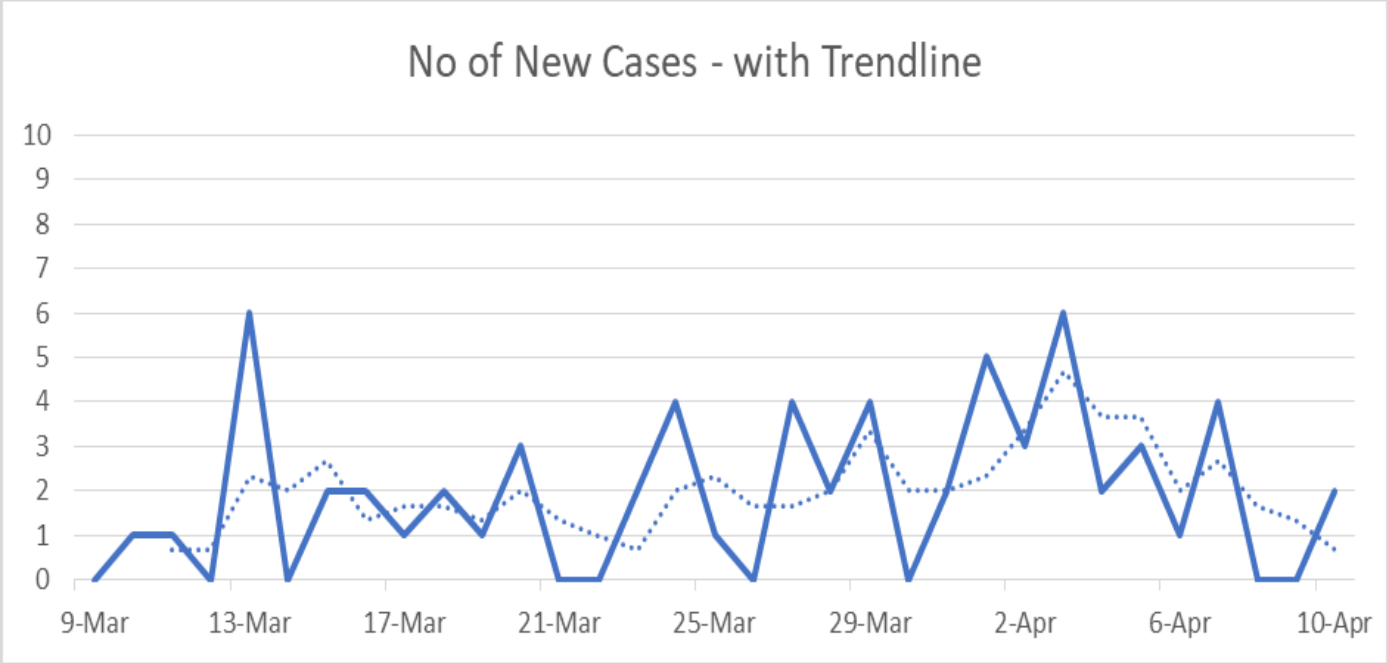


CHART 13B: JAMAICA - RATE OF CHANGE OF CONFIRMED CASES

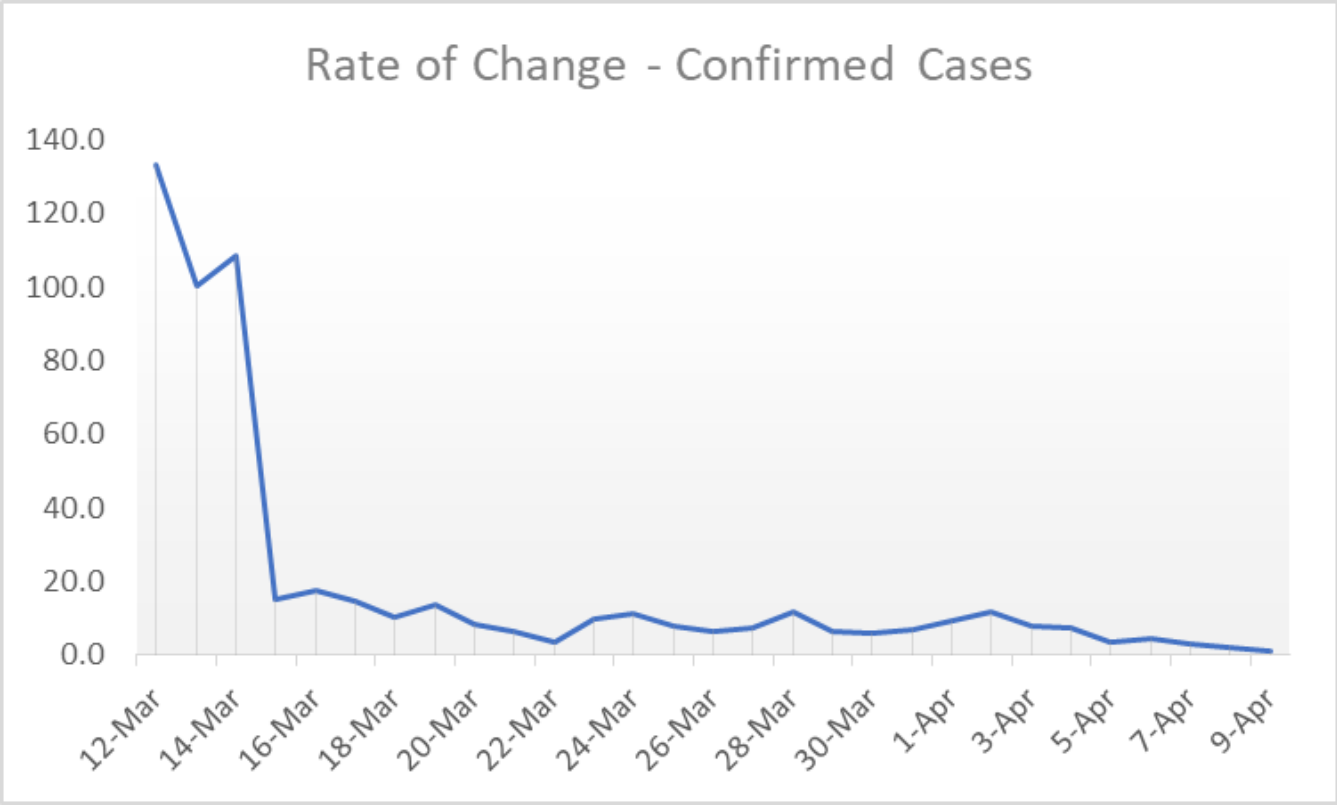


CHART 14: MONTSERRAT

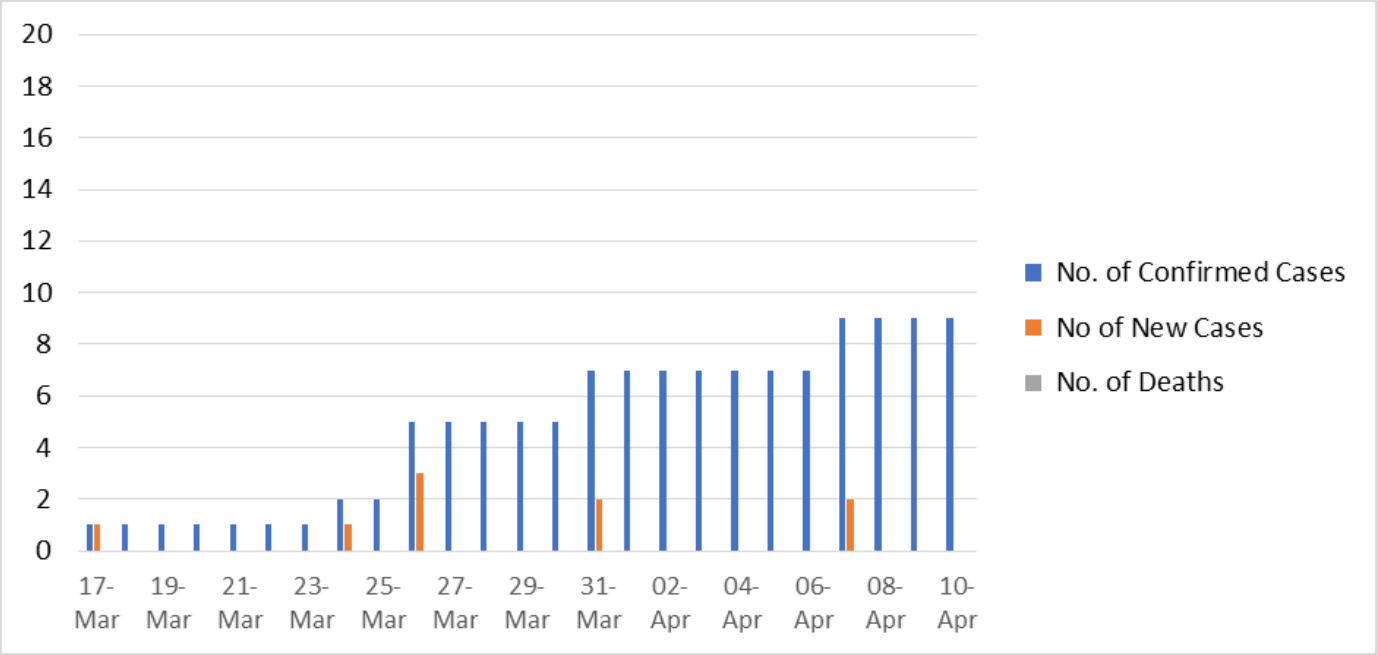


CHART 15: SAINT LUCIA

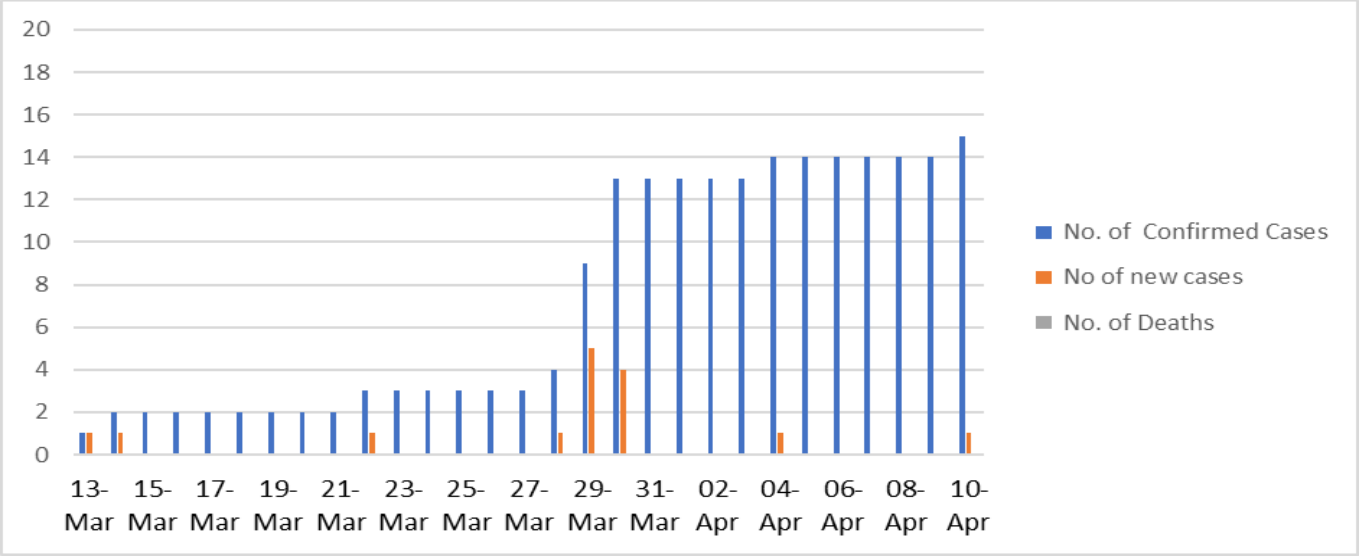


CHART 16: ST. KITTS AND NEVIS

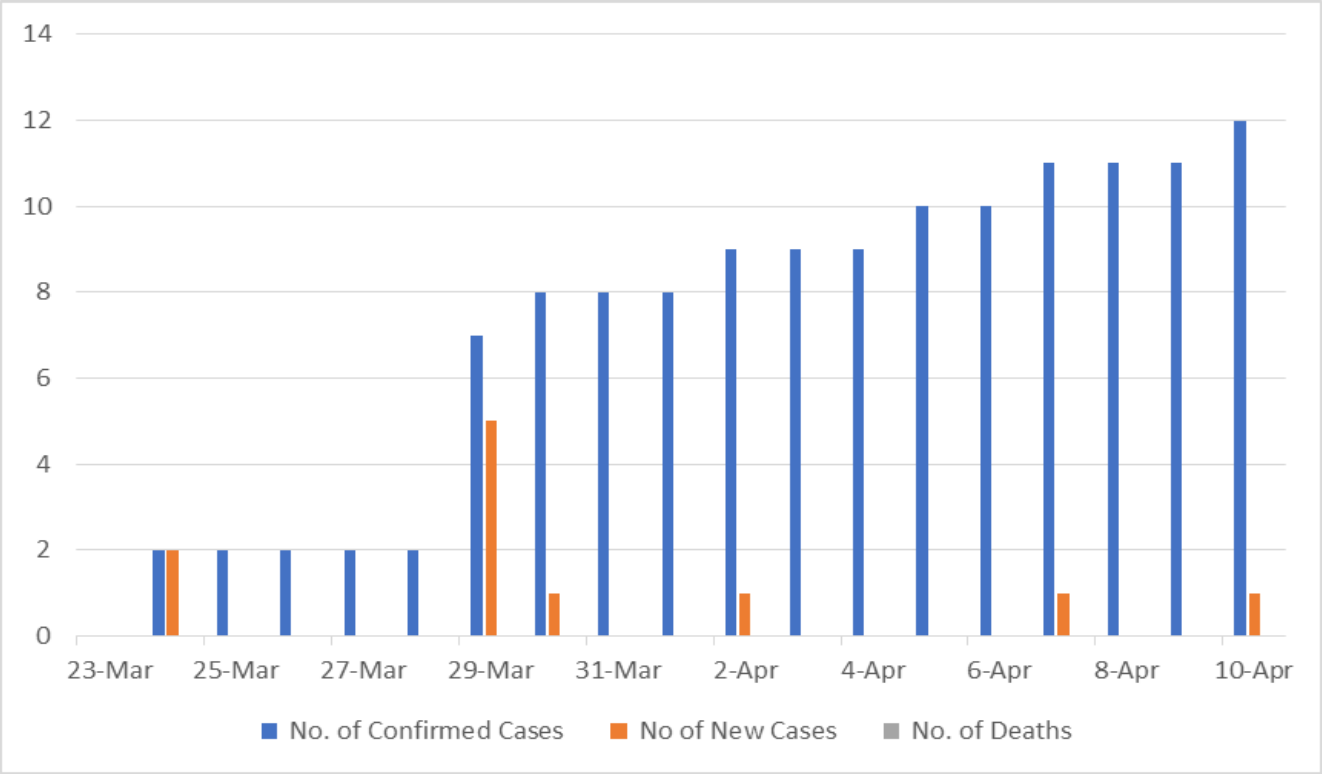


CHART 17: ST. VINCENT AND THE GRENADINES

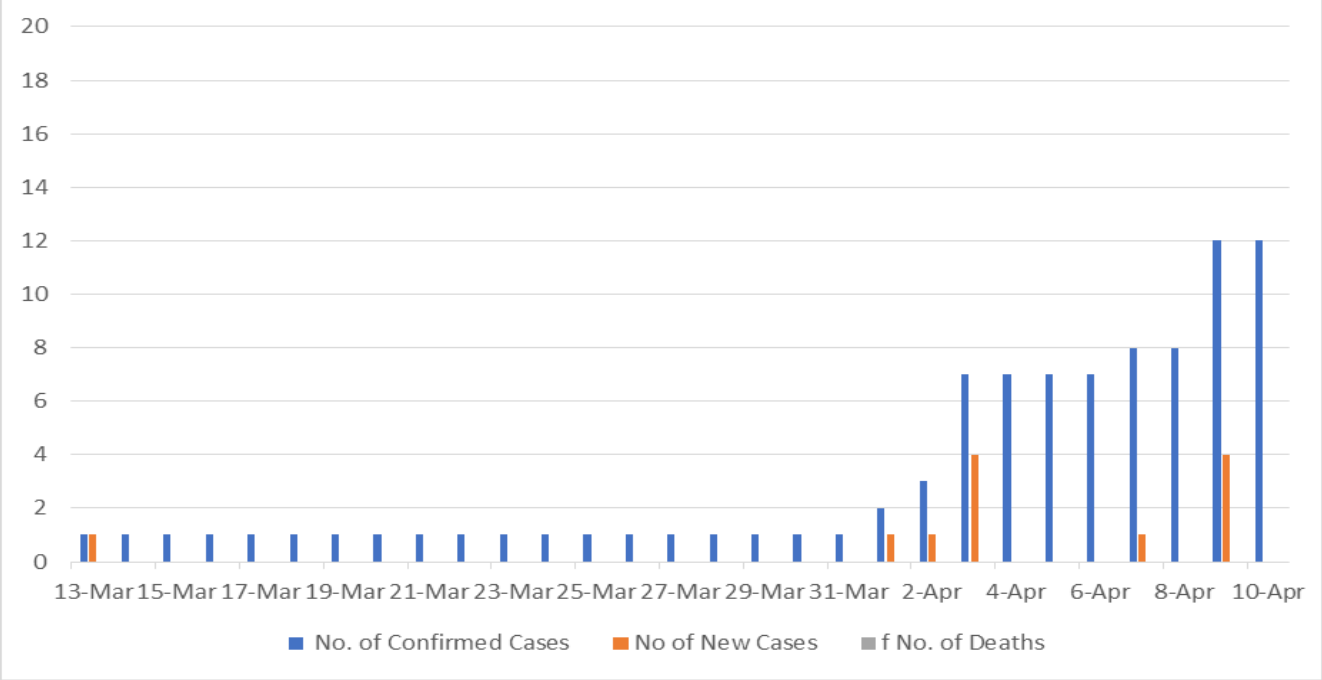


CHART 18: SURINAME

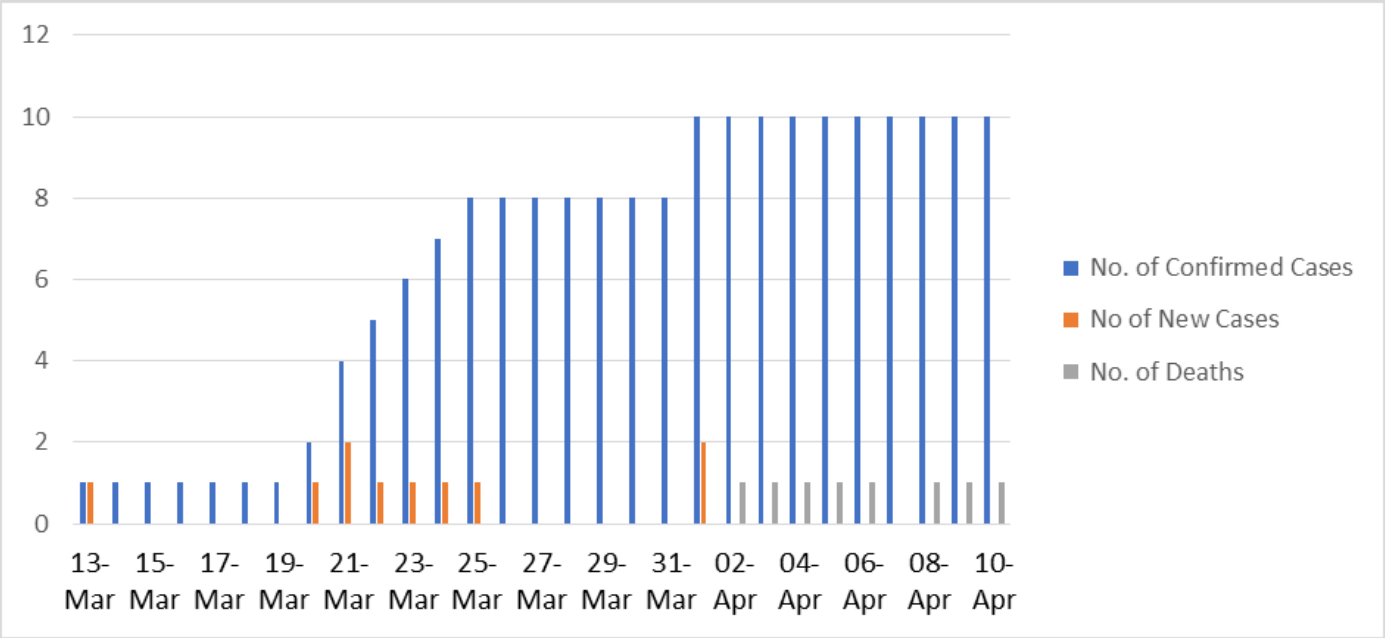


CHART 19: TRINIDAD AND TOBAGO

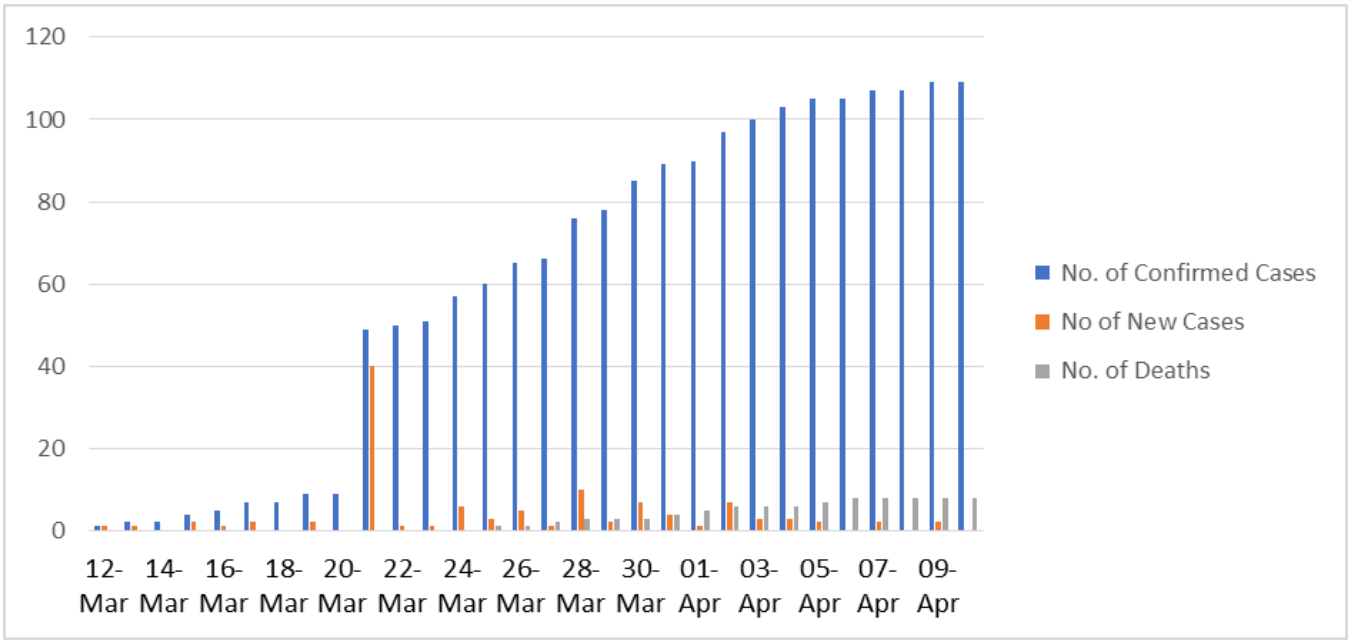


CHART 19A: TRINIDAD AND TOBAGO

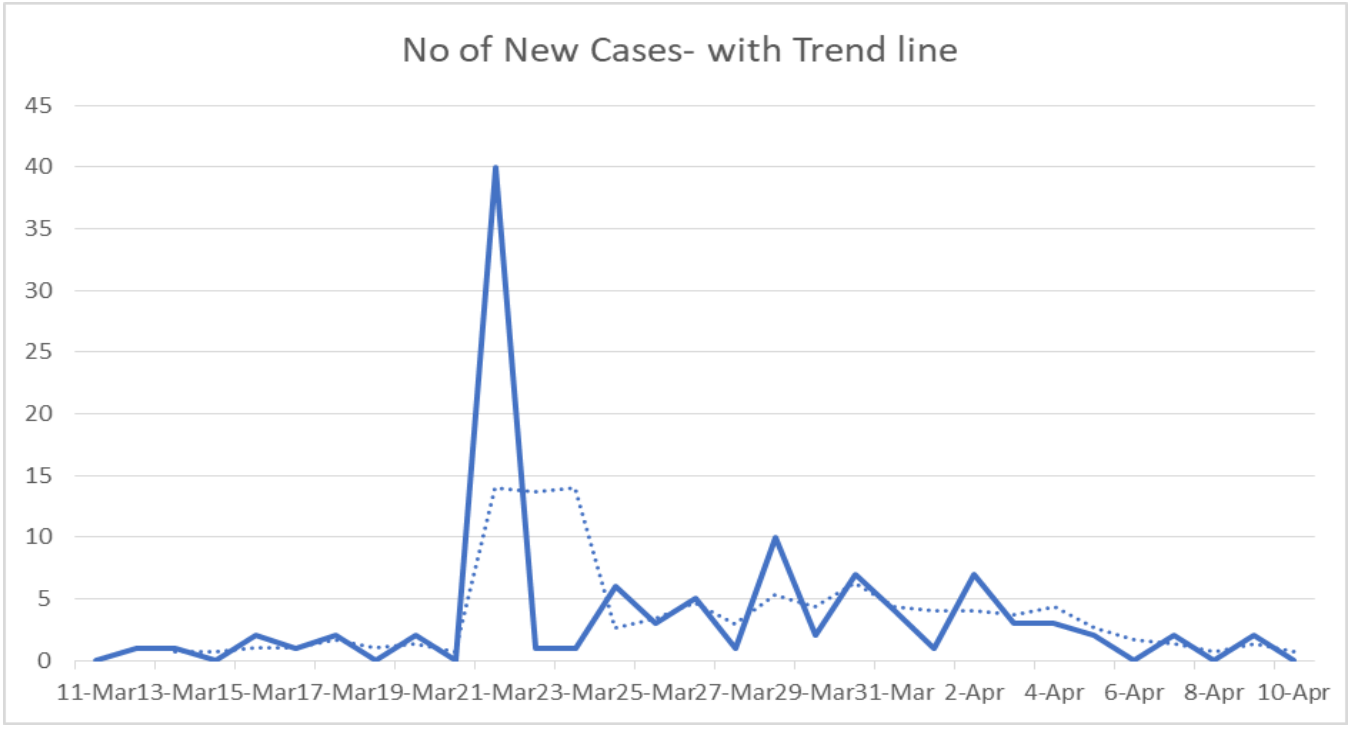


CHART 19B: TRINIDAD AND TOBAGO - COMPARISON OF CONFIRMED CASES WITH AND WITHOUT CRUISE CASES

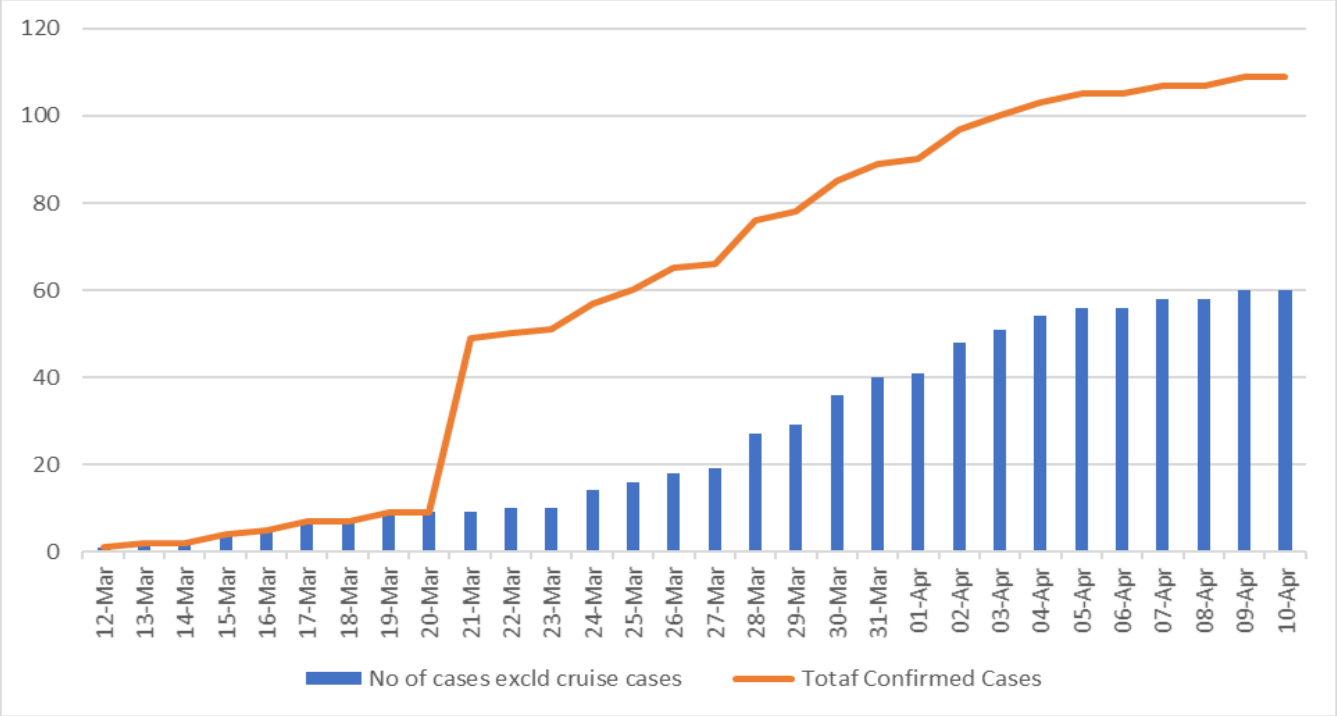


CHART 19C: TRINIDAD AND TOBAGO - RATE OF CHANGE - CONFIRMED CASES (INCLUDING CRUISE CASES)

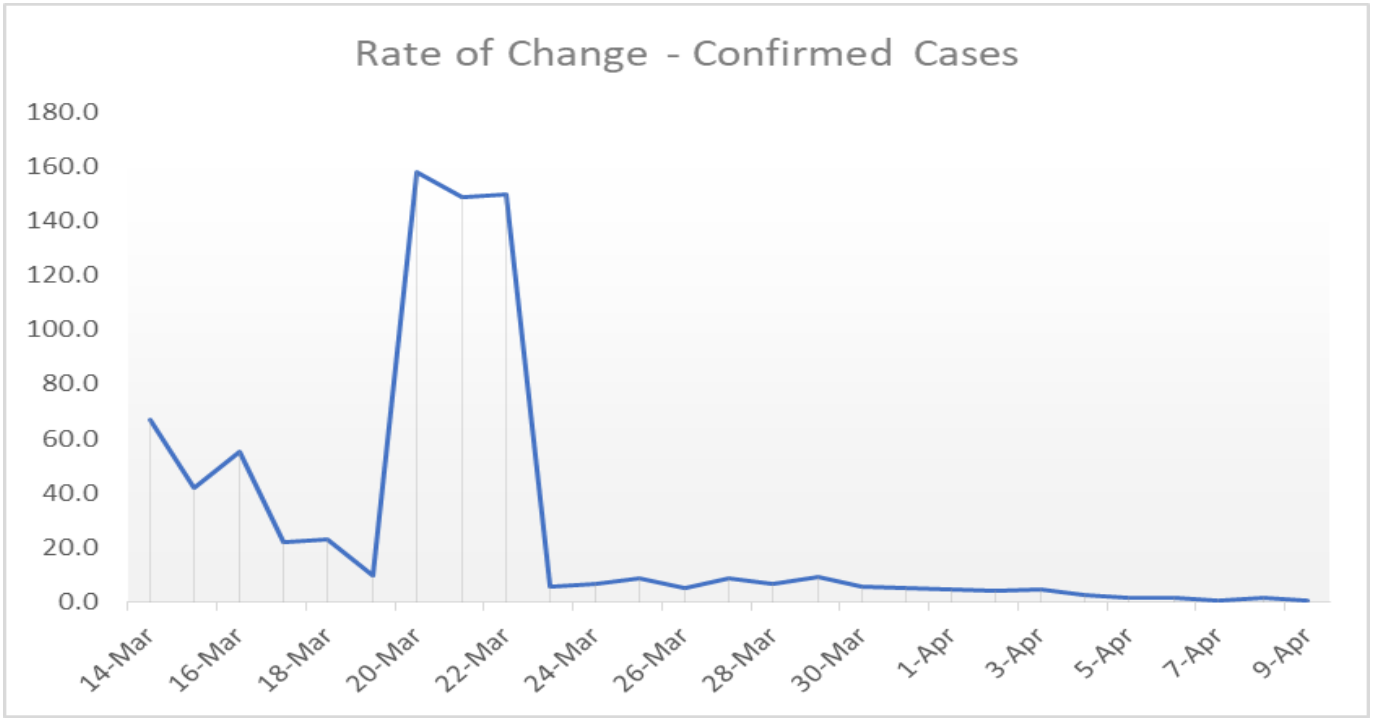


CHART 19D: TRINIDAD AND TOBAGO - RATE OF CHANGE OF CONFIRMED CASES

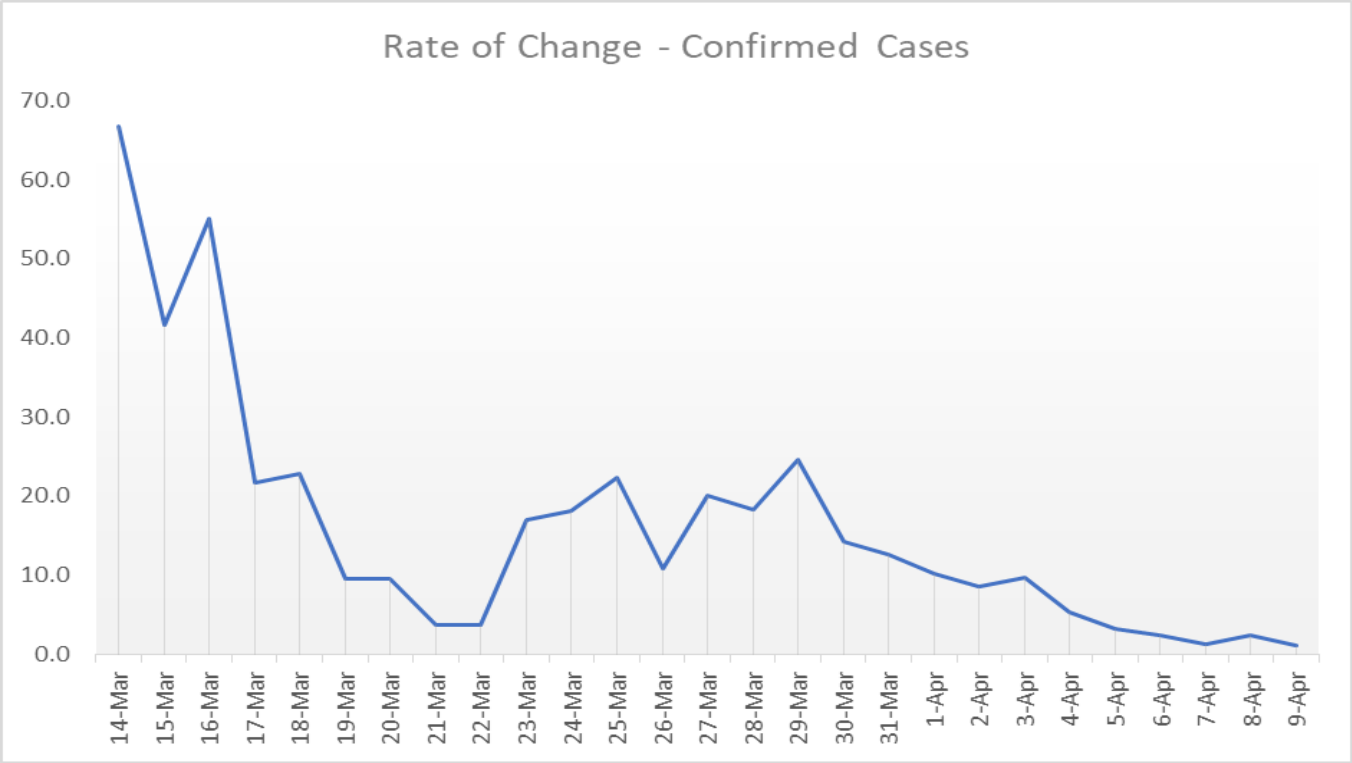


CHART 20: ANGUILLA

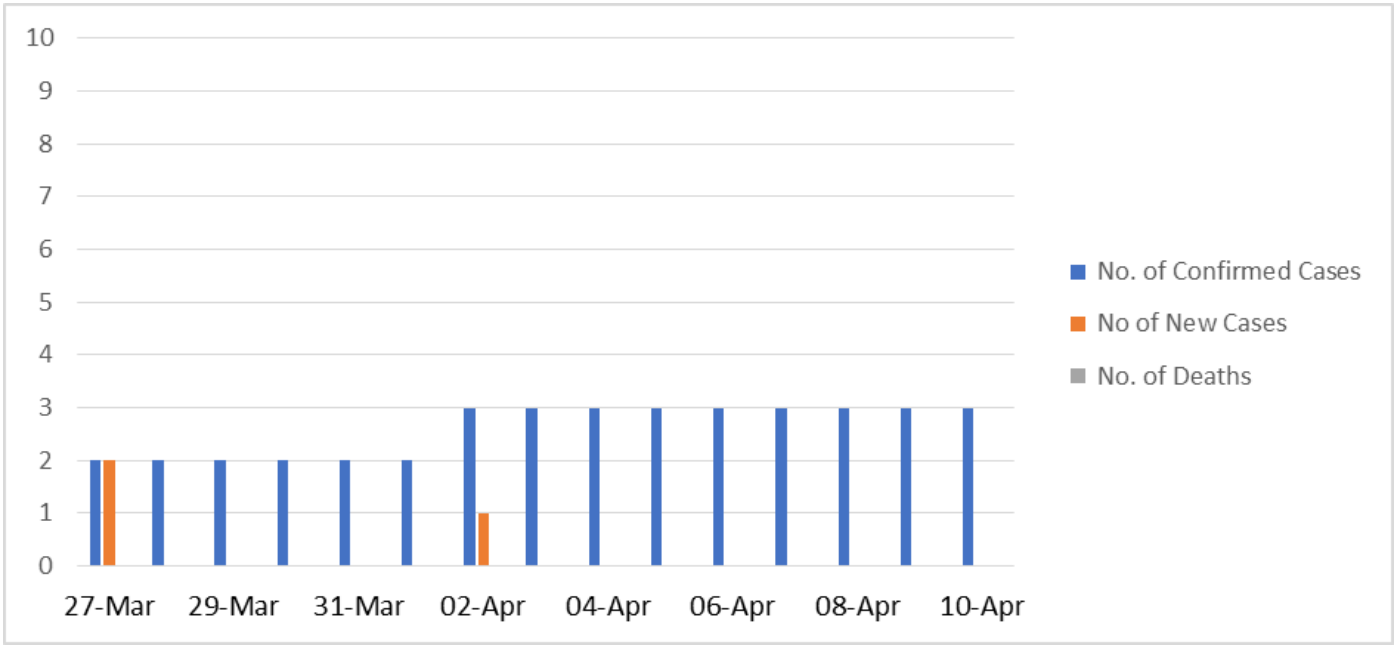


CHART 21: BERMUDA

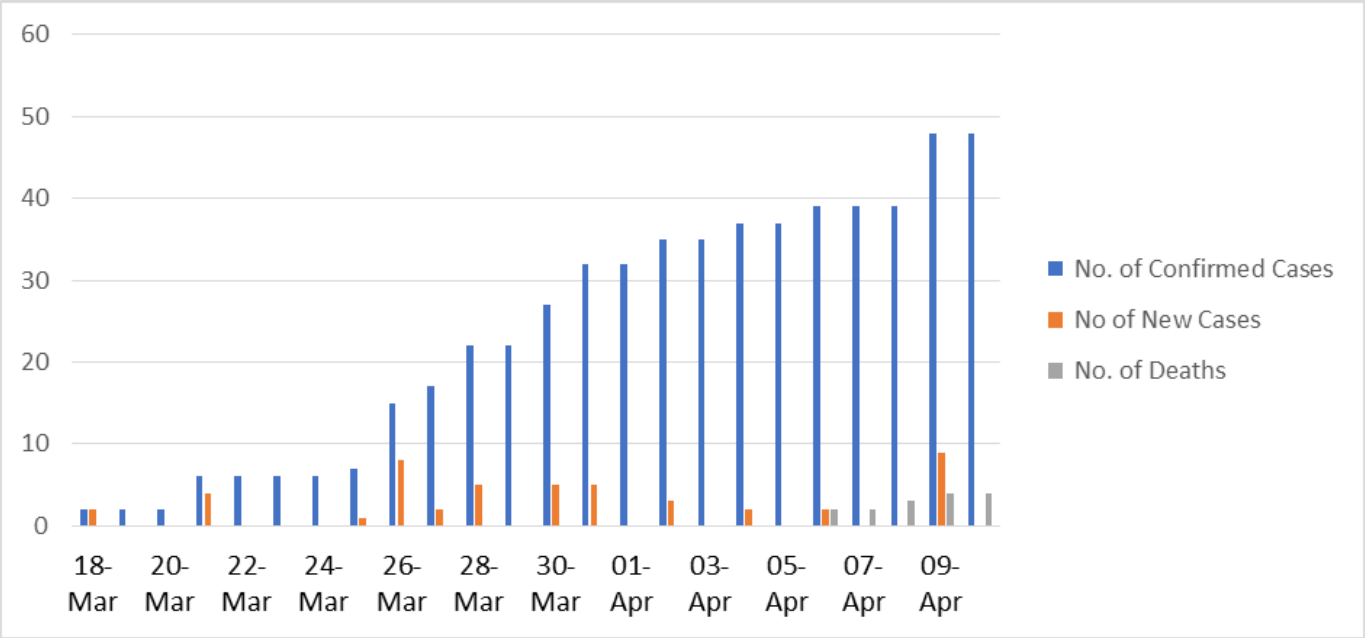


CHART 21A: BERMUDA

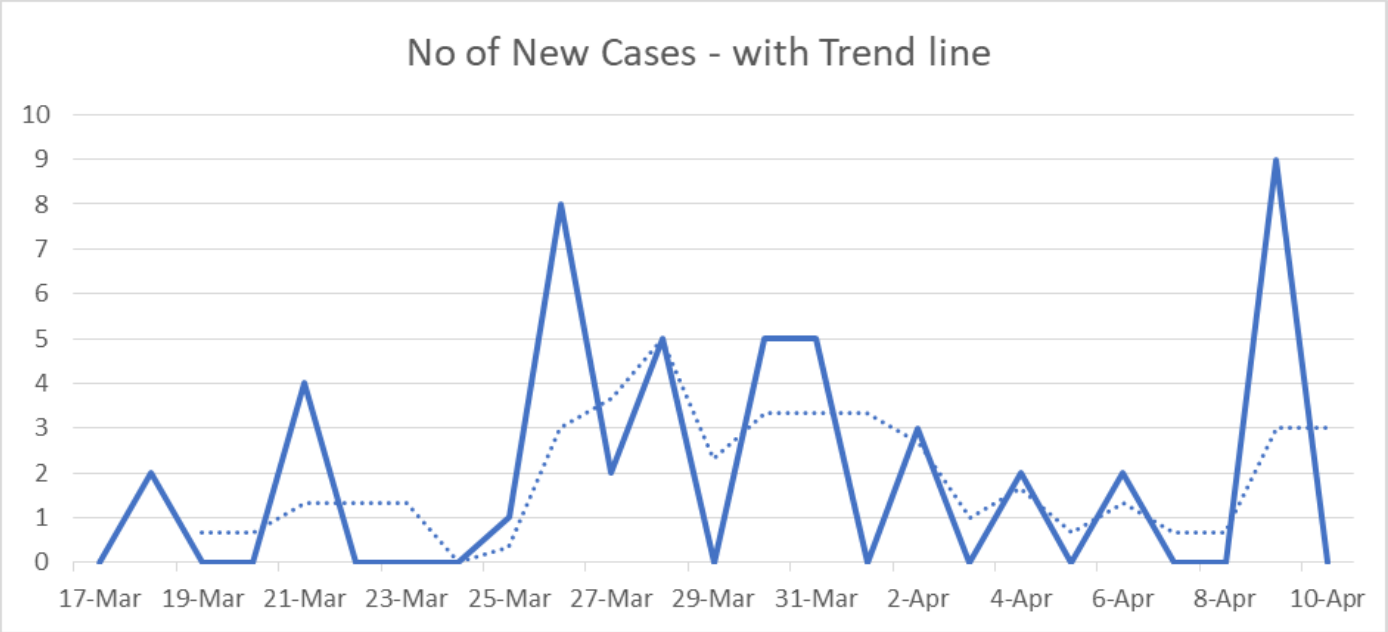


CHART 21B: BERMUDA - RATE OF CHANGE OF CONFIRMED CASES

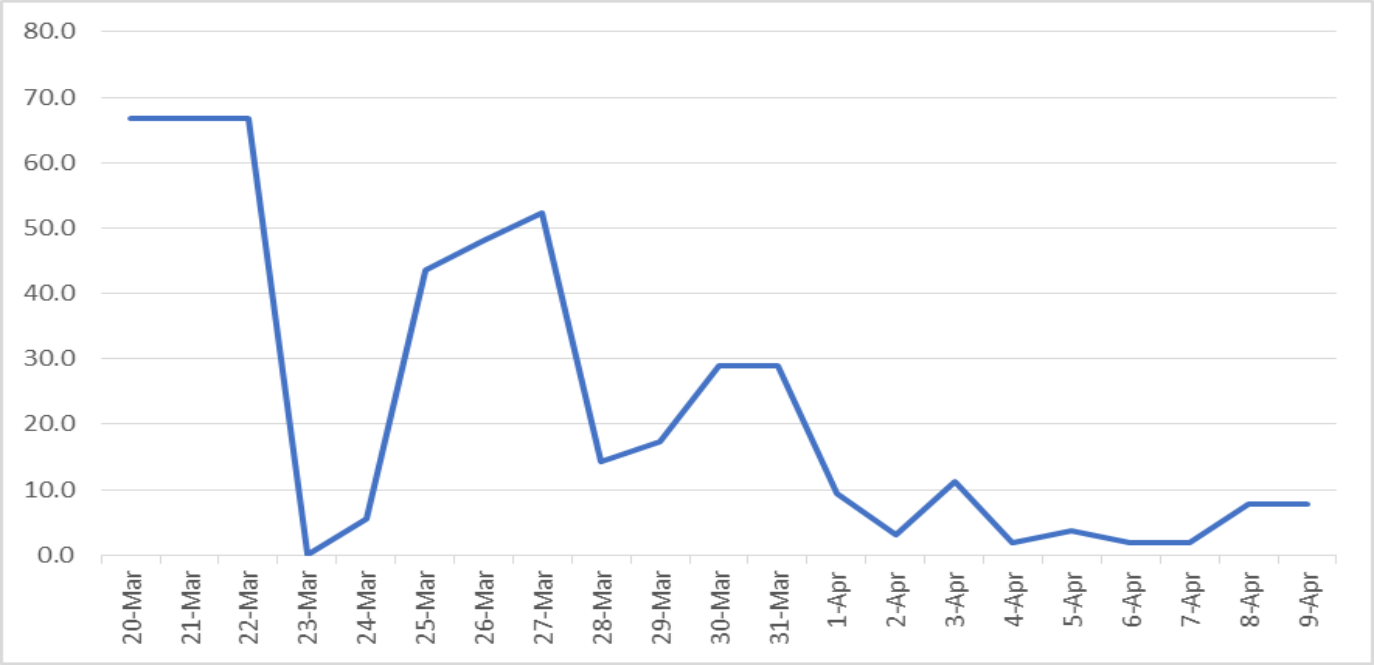


CHART 22: BRITISH VIRGIN ISLANDS

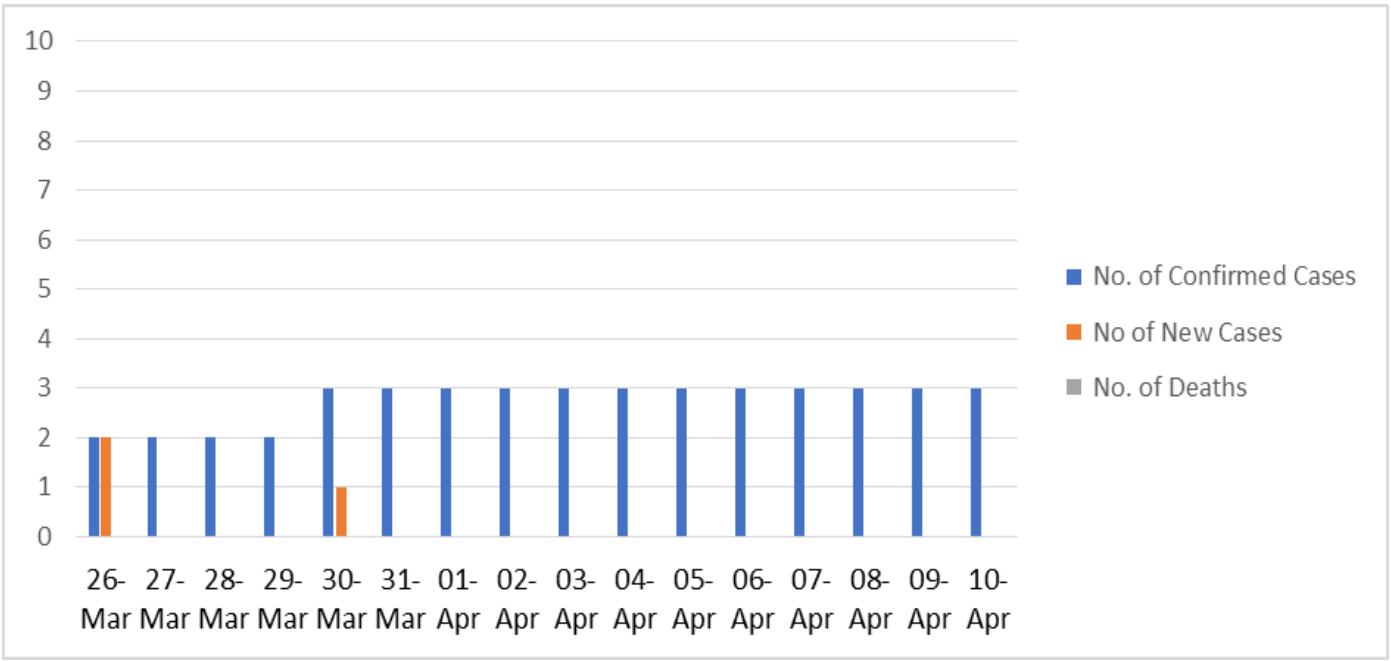


CHART 23: CAYMAN ISLANDS

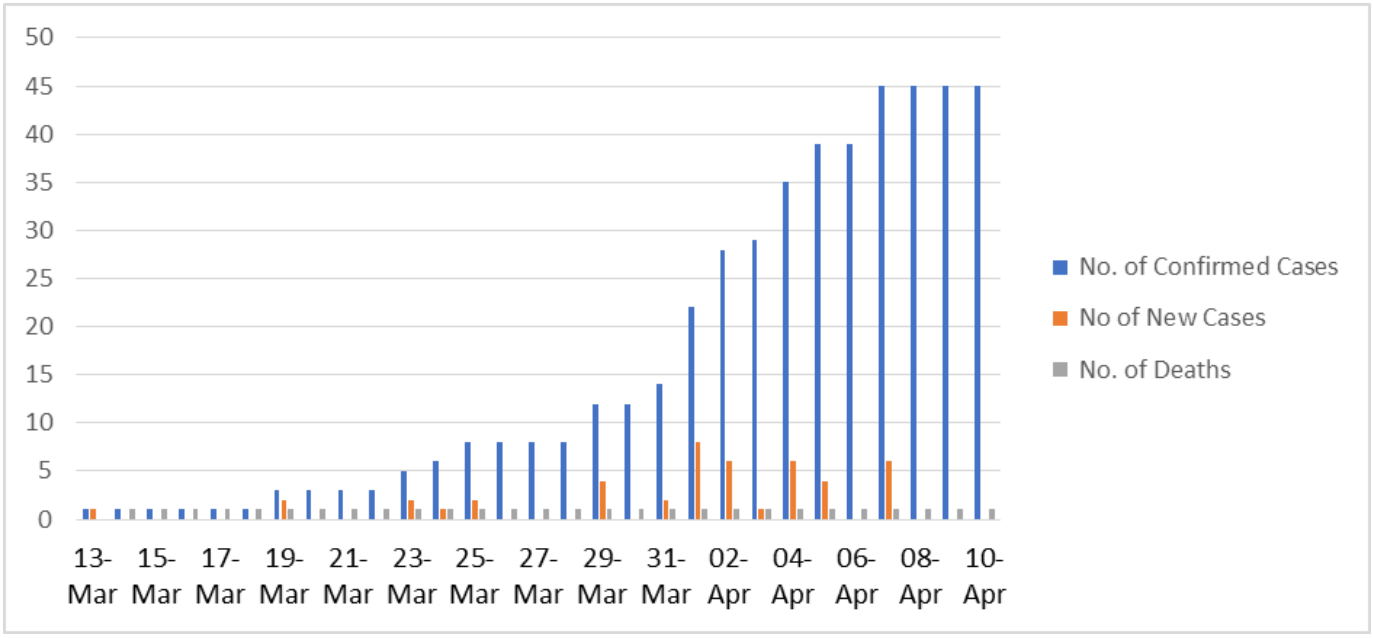


CHART 23A: CAYMAN ISLANDS

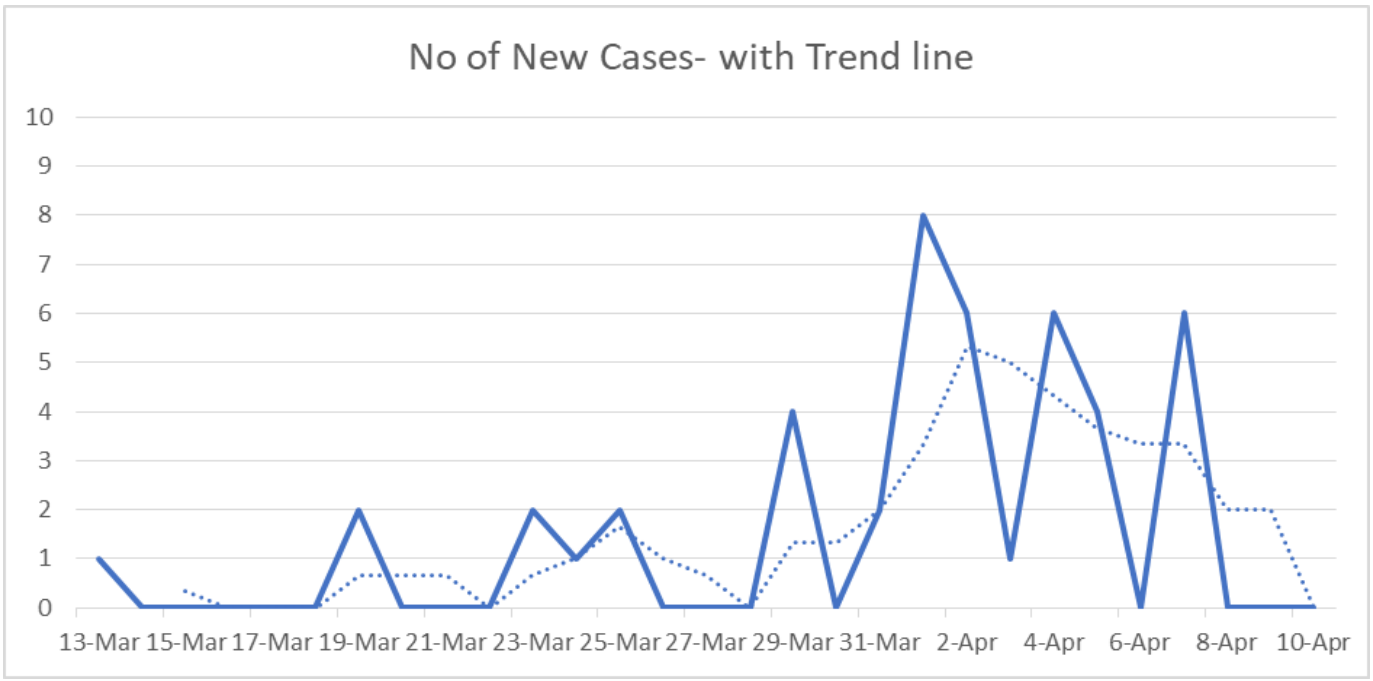


CHART 24: TURKS AND CAICOS ISLANDS

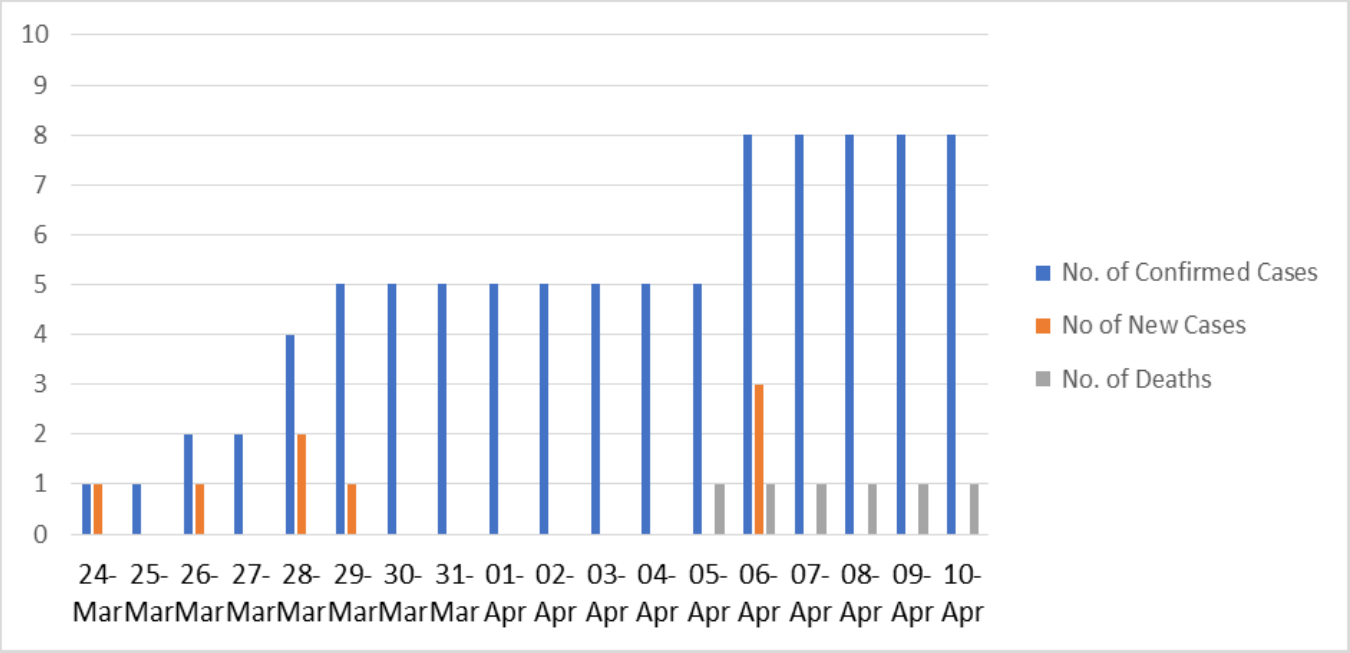


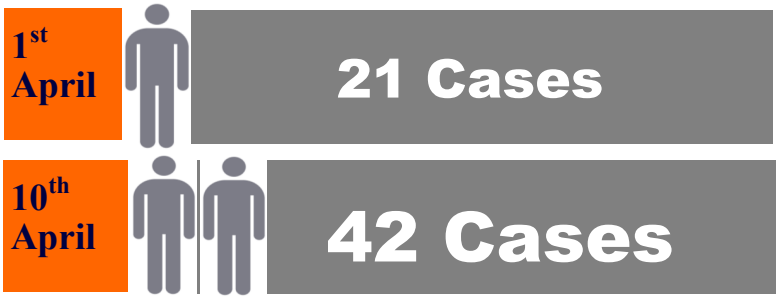
TABLE 3: TREND IN DOUBLING TIME –ALL COUNTRIES, THE BAHAMAS AND BARBADOS

COUNTRY	PERIOD/NO. OF CASES		NO. OF DAYS
ALL COUNTRIES	21 Mar 26 Mar	112 210	5
	26 Mar 3 Apr	210 435	8
	29 Mar 10 April	287 577	**12**
The Bahamas	24 Mar 27 Mar	5 10	3
	27 Mar 1 Apr	10 21	5
	1 Apr 10 Apr	21 42	**9**
Barbados	22 Mar 31 Mar	17 34	9
	30 Mar 10 Apr	33 67	**11**

DOUBLING OF CONFIRMED CASES IN SELECTED COUNTRIES

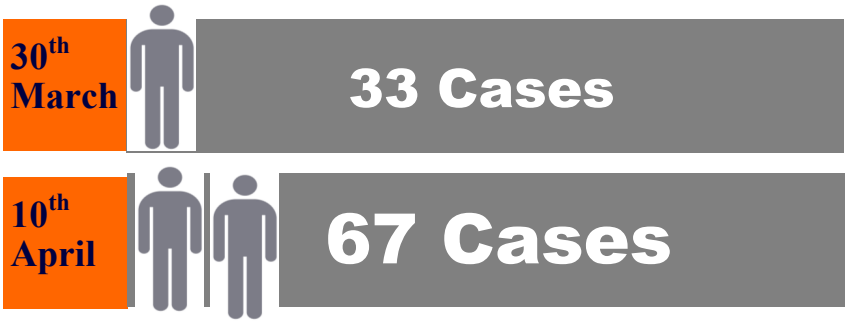
The Bahamas

Doubling (2) 9 days



Barbados

Approx. Doubling(2.03) 11 days



Guyana

Approx. Doubling (1.95) 9 days

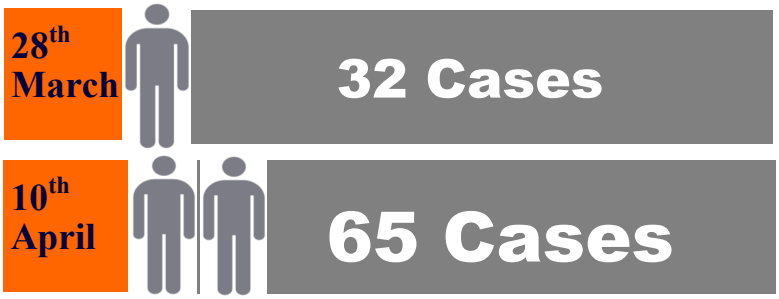
Haiti

Approx. doubling (1.94) - 8 days

DOUBLING OF CONFIRMED CASES IN SELECTED COUNTRIES

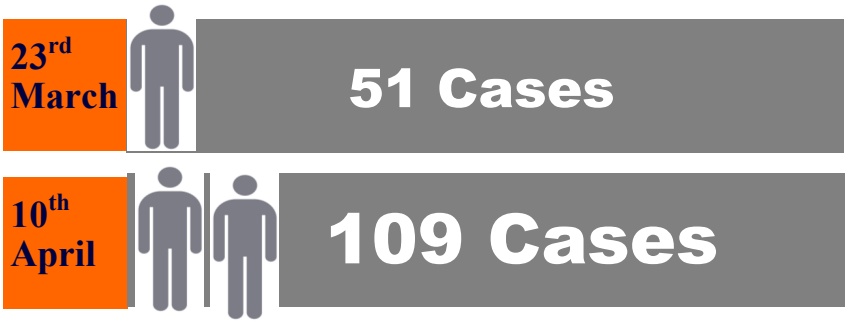
Jamaica

Approx. Doubling (2.03) 13 days



Trinidad and Tobago

Approx. Doubling(2.1) 18 days



Bermuda

Approx. Doubling (2.2) 12 days

TABLE 4: Explanations of Key Terms

Key Term/Issue	Explanation
1. Flattening the Curve	Flattening the curve involves reducing the number of new COVID -19 cases from one day to the next. The trend in the number of new cases provides information on whether the curve is flattening or not. The patterns of the new cases or the rates of change in the confirmed cases will typically provide information on the flattening of the curve. While the number of cases might be increasing it may be increasing at a decreasing rate as reflected in a general downward trend. **Example 1:** Chart 1A (page 3), Summary New Cases – All Countries, shows an increasing trend in new cases from 10 March 2020 to 3 April 2020 approximately, but a downward trend from 3 April to 10 April 2020.
2. Moving Average	The benefit of a moving average is to enable a smooth trend in the data relative to fluctuations that might occur over time, in terms of errors of reporting, outliers etc. It is called a moving average since it successively drops the earliest value in calculating an average of a set of data for a specified time period, say 3 days, 4 days etc.
3. Doubling Period of Confirmed Cases in Days	Like other viruses, COVID-19 infections tend to grow exponentially. Fixed rate exponential growth implies that the number of cases doubles over a defined period of time. Monitoring of the doubling time in days can indicate the rate of spread of the virus, subject of course to limitations in coverage of cases. If the doubling period in days is short, it represents faster growth of the virus compared to a longer doubling period. The doubling time is dynamic and informs on the impact (or lack of impact) of interventions on epidemic growth, all things being equal. **Example 2:** In the case of The Bahamas, there were 21 cases on 1 April and 42 cases on 10 April, the doubling period is therefore 9 days which shows a relatively slowing in the rate of growth of the virus as compared to 5 days for the period 27 March – 1 April. (See Table 3, Page 29).
4. Number of Cases per 100, 000 population	The number of cases per 100,000 population is calculated by dividing the number of cases by the total population, and then multiplying the result by a standard population size such as 100,000. $Rate = \frac{No.of\ Confirmed\ Cases}{Total\ Population}\ x\ 100{,}000$ It is useful for comparing countries/regions of varying populations. For very small values/small populations these rates may be unstable. Given the population size of Haiti, the rate is shown with and without this country.

4: Key Explanations (Continued)

Key Term/Issue	Explanation
5. Fluctuation in Data for Trinidad and Tobago	On March 21, the number of positive cases of COVID 19 for Trinidad and Tobago increased drastically due to the testing positive of 40 passengers that returned from a cruise. An additional 9 cruise passengers that returned either separately or with the main group have been tested positive during the period up to 10 April. This therefore stands out as on outlier for Trinidad and Tobago in the charts shown. Chart 19 A shows the application of a 3-day Moving Average that smooths out the fluctuation in the data. Chat 19 C shows the difference between the Positive Cases with and without the Cruise Cases.

KEY REGIONAL AND INTERNATIONAL LINKS ON COVID-19

CARICOM Today:- https://today.caricom.org/covid19/regional/

UN DATA HUB:- https://covid-19-response.unstatshub.org/useful-links/international-organisations-resources/

Please note that this Newsletter is on the Regional Statistics Programme's (RSP) website as well as on the UN Data Hub.

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