



## **Epidemiological report of SARS-CoV-2 on the Dutch Caribbean CAS- and BES-islands:**

**December 2022 (week 48-52)**

Produced by the National Institute for Public Health and the Environment of the Netherlands - RIVM  
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### **Summary of SARS-CoV-2 epidemiological surveillance on the CAS-BES islands**

Last month, the number of SARS-CoV-2 positive test results in the Caribbean part of the Kingdom of the Netherlands increased slightly compared to the previous month (from 474 in November to 575 reports in December). The number of new COVID-19 related hospital admissions also increased slightly. There were 60 admissions with/due to COVID-19 reported in December, as compared to 54 in November. COVID-19 related mortality remained low in December (5).

Curaçao reported 134 SARS-CoV-2 positive test results last month, comparable to the number of infections reported in November (126). The number of new COVID-19 related hospitalizations (17) increased slightly compared to last month (12). In total, <5 deaths were reported in December. In calendar week 52 (December 27, 2022 – January 2, 2023), 9 per 100,000 inhabitants (number of inhabitants approx. 164,000) received a SARS-CoV-2 positive test result and the test positivity rate was 8%.

Aruba reported 201 positive test results in December. This is a slight decrease compared to the number of reported infections in November (296). The number of COVID-19 related hospital admissions decreased in December (24) compared to November (36). Aruba also reported <5 deaths in December. In calendar week 52 (December 27, 2022 – January 2, 2023), 34 per 100,000 inhabitants (number of inhabitants approx. 125,000) received a SARS-CoV-2 positive test result and the test positivity rate was 19%.

Sint Maarten reported 44 SARS-CoV-2 positive test results, 10 COVID-19-related hospitalizations and no COVID-19-related deaths in December. The number of positive test results increased compared to November (23). In calendar week 52 (December 27, 2022 – January 2, 2023), 2 per 100,000 inhabitants (number of inhabitants approx. 62,000) received a positive SARS-CoV-2 test result and the test positivity was 17%.

198 SARS-CoV-2 infections were reported on Bonaire in December, more than double the number of reported infections in November (82). More people were tested in December, partly due to testing policies for travelers to South America. There were 13 COVID-19 related hospitalizations and <5 COVID-19 related deaths reported in December. In calendar week 52 (December 27, 2022 – January 2, 2023), 43 per 100,000 inhabitants (number of inhabitants approx. 23,000) received a positive SARS-CoV-2 test result and the test positivity rate in the GGD testing street was 26%.

On St. Eustatius, 7 positive test results were reported in December; last month there were <5. In calendar week 52 (December 27, 2022 – January 2, 2023), no inhabitants received a positive SARS-CoV-2 test result and the test positivity rate was therefore 0%. No COVID-19 related hospitalizations were reported in December. However, for the first time since April 2022, a new COVID-19 related death has been reported on the island. A total of 6 deaths have now been reported since the start of the pandemic.

On Saba <5 positive test results were reported last month, in November there were also <5. No COVID-19 related hospitalizations or deaths have been reported. Less people have gotten tested last month. In calendar week 52 (December 27, 2022 – January 2, 2023), 104 per 100,000 inhabitants (number of inhabitants approx. 1,900) received a positive SARS-CoV-2 test result and the test positivity rate was 100%.

### **Variants**

There are several subvariants and recombinants of the Omicron BA.2, BA.4 and BA.5 that are being monitored with extra attention. On the Leeward islands, the subvariant 22E (Omicron) BQ.1 and derivatives (derived from BA.5) are dominant (88% on Curaçao, 87% on Aruba and 84% on Bonaire in week 51). In addition, subvariants 22D (Omicron) BA.2.75 and derivatives and 22F (Omicron) XBB and derivatives (recombinant of BA.2.75 and BA.2.10) circulate on these islands. There are no genomic surveillance results for COVID-19 in December from the Windward islands (Sint Maarten, Saba and Sint Eustatius).

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## Information on COVID-19 surveillance on the CAS-BES islands

The Caribbean part of the Kingdom of the Netherlands entails the countries Curaçao, Aruba, and Dutch St Maarten (CAS-islands), as well as the overseas municipalities Bonaire, St Eustatius, and Saba (BES-islands). Surveillance data of SARS-CoV-2 cases is collected on each island in collaboration with local medical professionals, laboratories, and public health departments. These surveillance data are shared by the CAS- and BES-islands through daily updates and stored in the SARS-CoV-2 IHR Daily Overview Dutch Caribbean; an overview of the spread of SARS-CoV-2 on the CAS- and BES-islands. This report has been generated using surveillance data registered at the RIVM between March 22nd 2020 and 2 January 2023. Sometimes surveillance data is reported to the RIVM one or multiple days later than documented on the islands. The data presented in this report are based on the date of registration at the RIVM. Because islands retrospectively correct surveillance data, the crude estimates in this report may differ slightly from the data shared by each island. The data reported here may lag behind in case more recent data has not yet been reported to the RIVM by respective islands. It is not known from all positive cases if they were admitted to the hospital or have passed away. This is due to the mainland Netherlands, the CAS-, and the BES-islands not being obligated to report on hospital admissions and deaths from persons with a positive test result for SARS-CoV-2. The actual numbers are therefore (probably) higher than the reported numbers.

## Changed reporting of COVID-19 surveillance data throughout the pandemic

Since the start of the COVID-19 outbreak, the testing policies on the islands have undergone various changes. Not all persons with SARS-CoV-2 are getting tested. The number of SARS-CoV-2 infections is likely to be higher than what is reported here.

As of March 8, 2022, SARS-CoV-2 positive test results are no longer be reported by the islands on a daily basis. It is possible that SARS-CoV-2 positive test results of more than one day are reported by an island within one reporting date. Data presented in this report may therefore be underreported if the update falls within an incomplete calendar week. Missing data does not mean that there are no positive SARS-CoV-2 test results, but that those data are reported by the island cumulatively at a later time, for example in the form of weekly data.

Until May 31, 2022, the local GGD on Curacao did contact tracing. Until June 4, 2022, Curacao offered free large-scale SARS-CoV-2 tests. From June 5 2022, onwards this policy changed and tests for SARS-CoV-2 are no longer free. People who want to be tested (or are recommended to be tested by their general practitioner) can be reimbursed by their health care provider from June 5 2022, onwards. Due to this policy change the number of people that will be tested at local labs will drop. Surveillance data dating from June 5, 2022, onwards will have to be interpreted differently than before. The percentage of positive tests from June 5, 2022, onwards cannot be compared to before in a straight-forward matter, mostly due to a change in group-composition of the people that are tested. The group-composition of future tests will be mostly travelers, (insured) people with symptoms and clinical test results.

Until March 26 2022, the local GGDs on St. Maarten did contact tracing. Until April 26 2022, St. Maarten offered free large-scale SARS-CoV-2 tests. From April 27 2022 onwards this policy changed and tests for SARS-CoV-2 are no longer free. People who want to be tested (or are recommended to be tested by their general practitioner) can be reimbursed by their health care provider from 27 April 2022 onwards. Due to this policy change the number of people that will be tested at local labs will drop. Surveillance data dating from April 27 2022 onwards will have to be interpreted differently than before. The percentage of positive tests from April 27 2022 cannot be compared to before in a straight-forward matter, mostly due to a change in group-composition of the people that are tested. The group-composition of future tests will be mostly travelers, (insured) people with symptoms and clerical test results.

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## **Information on COVID-19 vaccination monitoring on the CAS and BES islands**

The COVID-19 vaccination campaign on the CAS-BES islands started in February 2021. Each island has their own vaccination campaign. The actual implementation of these vaccination campaigns depends on, among other things, the approval, operation, delivery and distribution of the vaccines, and on people's willingness to vaccinate.

In week 39-40 (2022), the fall campaign of COVID-19 vaccination started for the Caribbean part of the Kingdom. Persons aged 60 years and older, in medical risk groups, and healthcare workers with patient or client contact were the first to be invited. People are eligible for the repeat vaccination from 3 months after their last corona vaccination or 3 months after a SARS-CoV-2 infection.

In this report we report the estimated total number of vaccinated persons and the vaccination coverage on the CAS-BES islands. The current report is based on data on vaccinations administered up to and including 2 January 2023 using monitoring data received by the RIVM from the CAS-BES islands.

### **Disclaimer**

Though this monthly report has been produced with the utmost care, it could possibly contain errors. Feedback on this overview is welcome.

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# 1 Overview of reported SARS-CoV-2 infections on the CAS-BES islands

Table 1: Number of laboratory confirmed cases with a positive SARS-CoV-2 test result, number of hospital admissions and number of deceased cases, cumulative and for the previous week, on the CAS-BES islands, as reported to RIVM<sup>1,2</sup>

Island	Last updated on	Total cumulative			Past 4 weeks <sup>5</sup>		
		Number of cases	Hospital admissions	Deceased	Number of cases	Hospital admissions	Deceased
Aruba	2023-01-01	43860	1664	281	201	24	<5
Curaçao <sup>3</sup>	2023-01-01	45720	1150	299	123	17	<5
Saba	2023-01-01	737	7	<5	<5	0	0
Sint Eustatius	2023-01-01	1214	22	6	7	0	<5
Sint Maarten <sup>4</sup>	2023-01-01	10998	413	89	44	10	0
Bonaire	2023-01-01	9811	152	33	198	13	<5

<sup>1</sup> Actual number of hospitalised COVID-19 patients or (probable) COVID-19 deaths may be higher than the number of admitted or deceased patients reported in the surveillance. This is because there is no reporting obligation for hospital admissions in the European Netherlands as well as on the CAS and BES islands

<sup>2</sup> Due to privacy reasons, numbers smaller than 5 will not be specified in this table.

<sup>3</sup> Surveillance data reported by Curaçao as of June 5, 2022, onwards will have to be interpreted differently than before. See page 2 for more information.

<sup>4</sup> Surveillance data reported by Sint Maarten as of April 27, 2022, onwards will have to be interpreted differently than before. See page 2 for more information.

<sup>5</sup> These have been reported to the RIVM between 26 November 2022 and 2 January 2023 .

Table 2: Number of laboratory confirmed cases with a positive test result for SARS-CoV-2 over the past 2 weeks, as reported to the RIVM by the CAS-BES islands<sup>1</sup>

Island	Period	Number of tests	Number of laboratory confirmed positive test results	Positivity rate %
Aruba	19 until 25 December 2022	252	51	20.2
Aruba	26 December 2022 until 1 January 2023	217	42	19.4
Bonaire	19 until 25 December 2022	50	34	68
Bonaire	26 December 2022 until 1 January 2023	38	10	26.3
Curaçao <sup>2</sup>	19 until 25 December 2022	247	13	5.3
Curaçao	26 December 2022 until 1 January 2023	177	14	7.9
Saba	19 until 25 December 2022	0	0	-
Saba	26 December 2022 until 1 January 2023	<5	<5	100
Sint Eustatius	24 until 30 December 2022	0	0	-
Sint Eustatius	31 December 2022 until 6 January 2023	0	0	-
Sint Maarten <sup>3</sup>	20 until 26 December 2022	45	8	17.8
Sint Maarten	27 December 2022 until 2 January 2023	14	<5	7.1

<sup>1</sup> A '-' sign indicates there is insufficient data available at the RIVM to present in this table.<sup>2</sup> Surveillance data reported by Curaçao as of June 5, 2022, onwards will have to be interpreted differently than before. See page 2 for more information.<sup>3</sup> Surveillance data reported by Sint Maarten as of April 27, 2022, onwards will have to be interpreted differently than before. See page 2 for more information.

Table 3: SARS-CoV-2 incidence rate per 100,000 residents on the CAS-BES islands, as reported to RIVM<sup>1</sup>

Island	Period	Number of positive cases	Incidence per 100.000 inhabitants
Aruba	19 until 25 December 2022	51	40.7
Aruba	26 December 2022 until 1 January 2023	42	33.5
Bonaire	19 until 25 December 2022	34	146.7
Bonaire	26 December 2022 until 1 January 2023	10	43.2
Curaçao <sup>2</sup>	19 until 25 December 2022	13	7.9
Curaçao	26 December 2022 until 1 January 2023	14	8.5
Saba	19 until 25 December 2022	0	0
Saba	26 December 2022 until 1 January 2023	<5	104.3
Sint Eustatius	24 until 30 December 2022	0	0
Sint Eustatius	31 December 2022 until 6 January 2023	0	0
Sint Maarten <sup>3</sup>	20 until 26 December 2022	8	12.8
Sint Maarten	27 December 2022 until 2 January 2023	<5	<5

<sup>1</sup> The calculated incidence rates include the estimated number of undocumented migrants on each island, see Table 5.

<sup>2</sup> Surveillance data reported by Curaçao as of June 5, 2022, onwards will have to be interpreted differently than before. See page 2 for more information.

<sup>3</sup> Surveillance data reported by Sint Maarten as of April 27, 2022, onwards will have to be interpreted differently than before. See page 2 for more information.

Table 4: Number of residents and acreage of the CAS-BES islands<sup>1</sup>

Island	Capital city	Residents	Acreage	Political status
Aruba	Oranjestad	125.282	180 km <sup>2</sup>	Country within the Kingdom of The Netherlands
Bonaire	Kralendijk	23.173	288 km <sup>2</sup>	Dutch municipality
Curaçao	Willemstad	164.223	444 km <sup>2</sup>	Country within the Kingdom of The Netherlands
Saba	The Bottom	1.918	13 km <sup>2</sup>	Dutch municipality
Sint Maarten	Philipsburg	62.323	34 km <sup>2</sup>	Country within the Kingdom of The Netherlands
Sint Eustatius	Oranjestad	3.142	21 km <sup>2</sup>	Dutch municipality

<sup>1</sup> These numbers refer to the 2021 population sizes. Each island counts a substantial population of undocumented migrants. The reported incidence rates include the estimated population of undocumented migrants. On Aruba, Curaçao, and Dutch St Maarten the population size is estimated to be between 8,000 and 20,000 migrants in 2021. On Bonaire the population size is estimated around 1,400 migrants. These data are relevant to include as these populations are difficult to reach for local public health services and often have less access to curative care.

## 2 SARS-CoV-2 progression over time



Figure 1: Number of weekly reported positive SARS-CoV-2 test results on Aruba, presented by reporting date<sup>1-3</sup>.

<sup>1</sup> These data show the weekly number of new SARS-CoV-2 infections by reporting date of each island. The black line in the epicurve represents the 3-week average in the number of newly detected SARS-CoV-2 infections.

<sup>2</sup> Due to underlying differences between the islands in the number of reported infections differ on the Y axes of these figures.

<sup>3</sup> The reported data has been presented by the date of reporting by each island. These numbers can lag behind when the most recent data has not yet been registered at the RIVM.



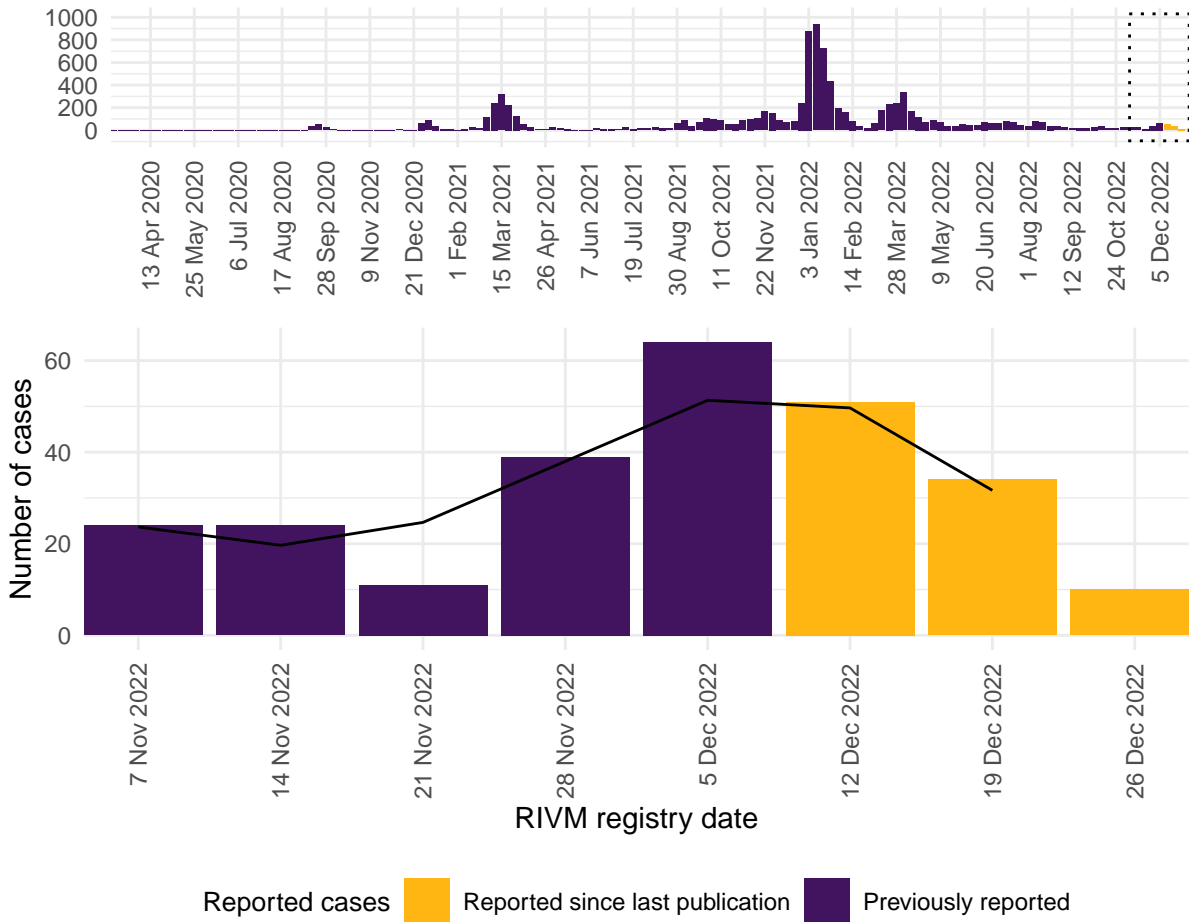


Figure 2: Number of weekly reported positive SARS-CoV-2 test results on Bonaire, presented by reporting date<sup>1-3</sup>.

<sup>1</sup> These data show the weekly number of new SARS-CoV-2 infections by reporting date of each island. The black line in the epicurve represents the 3-week average in the number of newly detected SARS-CoV-2 infections.

<sup>2</sup> Due to underlying differences between the islands in the number of reported infections differ on the Y axes of these figures.

<sup>3</sup> The reported data has been presented by the date of reporting by each island. These numbers can lag behind when the most recent data has not yet been registered at the RIVM.



Figure 3: Number of weekly reported positive SARS-CoV-2 test results on Curaçao, presented by reporting date<sup>1-4</sup>.

<sup>1</sup> These data show the weekly number of new SARS-CoV-2 infections by reporting date of each island. The black line in the epicurve represents the 3-week average in the number of newly detected SARS-CoV-2 infections.

<sup>2</sup> Due to underlying differences between the islands in the number of reported infections differ on the Y axes of these figures.

<sup>3</sup> The reported data has been presented by the date of reporting by each island. These numbers can lag behind when the most recent data has not yet been registered at the RIVM.

<sup>4</sup> Surveillance data reported by Curaçao as of June 5, 2022, onwards will have to be interpreted differently than before. See page 2 for more information.

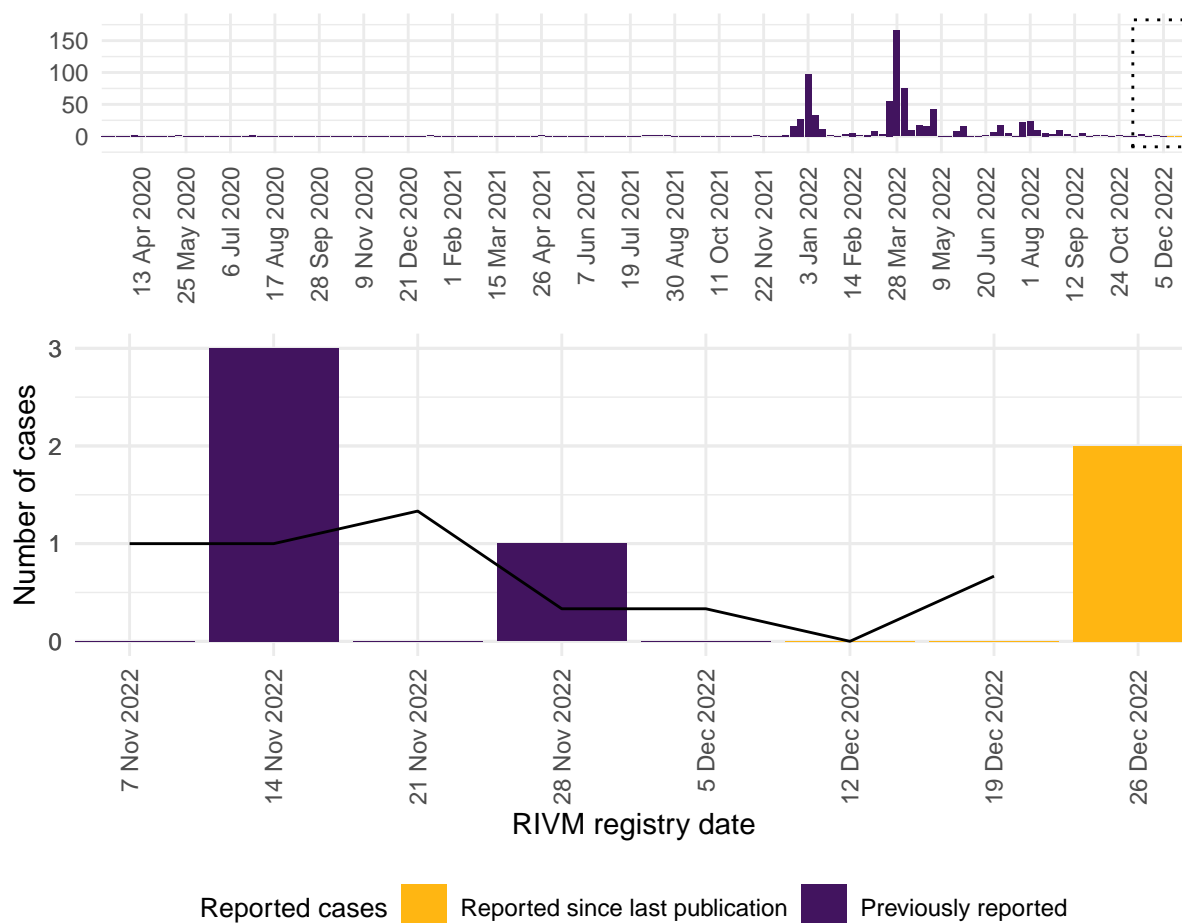


Figure 4: Number of weekly reported positive SARS-CoV-2 test results on Saba, presented by reporting date<sup>1-3</sup>.

<sup>1</sup> These data show the weekly number of new SARS-CoV-2 infections by reporting date of each island. The black line in the epicurve represents the 3-week average in the number of newly detected SARS-CoV-2 infections.

<sup>2</sup> Due to underlying differences between the islands in the number of reported infections differ on the Y axes of these figures.

<sup>3</sup> The reported data has been presented by the date of reporting by each island. These numbers can lag behind when the most recent data has not yet been registered at the RIVM.



Figure 5: Number of weekly reported positive SARS-CoV-2 test results on St Eustatius, presented by reporting date<sup>1-3</sup>.

<sup>1</sup> These data show the weekly number of new SARS-CoV-2 infections by reporting date of each island. The black line in the epicurve represents the 3-week average in the number of newly detected SARS-CoV-2 infections.

<sup>2</sup> Due to underlying differences between the islands in the number of reported infections differ on the Y axes of these figures.

<sup>3</sup> The reported data has been presented by the date of reporting by each island. These numbers can lag behind when the most recent data has not yet been registered at the RIVM.



Figure 6: Number of weekly reported positive SARS-CoV-2 test results on Dutch St Maarten, presented by reporting date<sup>1-4</sup>.

<sup>1</sup> These data show the weekly number of new SARS-CoV-2 infections by reporting date of each island. The black line in the epicurve represents the 3-week average in the number of newly detected SARS-CoV-2 infections.

<sup>2</sup> Due to underlying differences between the islands in the number of reported infections differ on the Y axes of these figures.

<sup>3</sup> The reported data has been presented by the date of reporting by each island. These numbers can lag behind when the most recent data has not yet been registered at the RIVM.

<sup>4</sup> Surveillance data reported by Sint Maarten as of April 27, 2022, onwards will have to be interpreted differently than before. See page 2 for more information.

### 3 SARS-CoV-2 three week average incidence rate, progression over time

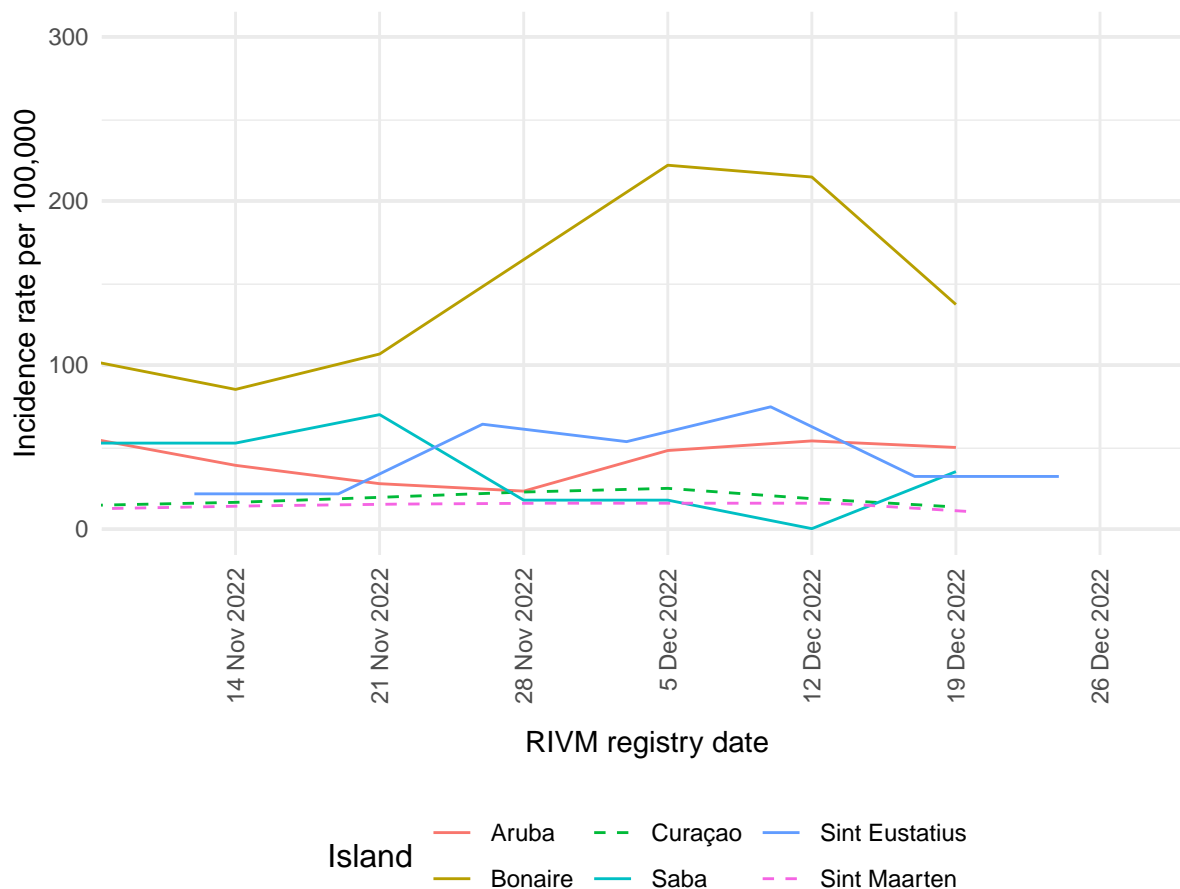


Figure 7: Three week<sup>1</sup> average number of reported cases per 100,000 residents by each islands' reporting date, on Curaçao<sup>2</sup>, Aruba, Dutch St Maarten<sup>3</sup>, Saba, Sint Eustatius, and Bonaire.

<sup>1</sup> This figure displays the 3-week average incidence rate per island per 100,000 residents, including the population of undocumented migrants on each island. Each line on the vertical axis indicates a weekly average of the incidence rate (defined as the number of new cases per 100,000 persons per week, over the total population) over a period of three weeks.

<sup>2</sup> The incidence on Curacao as shown in Figure 7 from June 5, 2022, onwards cannot be compared to the trend prior to June 5, 2022, due to a change in group-composition of the people that are tested. The group-composition of future tests will be mostly travelers, (insured) people with symptoms and clinical test results. For this reason the incidence as of June 5, 2022, continues in a dotted line in the graph above. See page 2 for more information.

<sup>3</sup> The incidence on St. Maarten as shown in Figure 7 from April 27, 2022 onwards cannot be compared to the trend prior to April 27, 2022, due to a change in group-composition of the people that are tested. The group-composition of future tests will be mostly travelers, (insured) people with symptoms and clinical test results. For this reason the incidence as of April 27, 2022 continues in a dotted line in the graph above. See page 2 for more information.

## 4 Number of COVID-19 vaccine doses administered on the CAS-BES islands

Table 5: Number of persons per island with a completed primary series, primary series + 1, primary series + 2, primary series +3, until 26 December 2022<sup>1-3</sup>

CAS-BES islands	Date update	Number primary series	Number primary series + 1	Number primary series + 2	Number primary series + 3
Aruba	2022-12-26	84105	35659	5441	1128
Bonaire	2022-12-26	16177	8096	1147	-
Curaçao	2022-11-14	100757	42973	5278	1056
Saba	2022-11-28	1667	1169	355	83
Sint Eustatius	2022-11-14	1606	766	63	5
Sint Maarten	2022-10-31	26713	9097	629	242

<sup>1</sup> The vaccination coverage data presented here is reported by the islands to the RIVM on a weekly basis. These data may lag behind from the vaccination coverage data presented by the island officials.

<sup>2</sup> These data refer to the numbers of vaccinated persons on the Dutch side of St Maarten. Vaccination coverage on the French side of St Martin is reported by Santé Publique France on a weekly basis.

<sup>3</sup> The number of fully vaccinated persons is defined as the number of completed vaccinations. This also includes persons who only require one dose of vaccine to be considered as fully vaccinated, due to having a history of SARS-CoV-2 infection. Both Aruba and Curaçao are reporting these data separately from the number of persons who have received two doses of vaccine. Dutch St Maarten and the BES-islands are currently not reporting these data. The number of completed vaccinations on those islands may therefore be an underestimation.

Table 6: Number of persons per island who received a repeat vaccination in the autumn campaign, until 26 December 2022<sup>1-3</sup>

CAS-BES islands	Date update	Number repeat vaccinations (60-)	Number repeat vaccinations (60+)
Aruba	2022-12-26	979	2392
Bonaire	2022-12-26	910	969
Curaçao	2022-11-14	354	1919
Saba	2022-11-28	117	84
Sint Eustatius	2022-11-14	11	11
Sint Maarten	2022-10-31	135	340

<sup>1</sup> The vaccination coverage data presented here is reported by the islands to the RIVM on a weekly basis. These data may lag behind from the vaccination coverage data presented by the island officials.

<sup>2</sup> These data refer to the numbers of vaccinated persons on the Dutch side of St Maarten. Vaccination coverage on the French side of St Martin is reported by Santé Publique France on a weekly basis.

<sup>3</sup> The repeat vaccination is available to everyone aged 12 years and older who has completed the basic series of COVID-19 vaccinations. People can get the repeat vaccination starting from 3 months after their last COVID-19 vaccination or 3 months after a SARS-CoV-2 infection.

## 5 Vaccination coverage on the CAS-BES islands

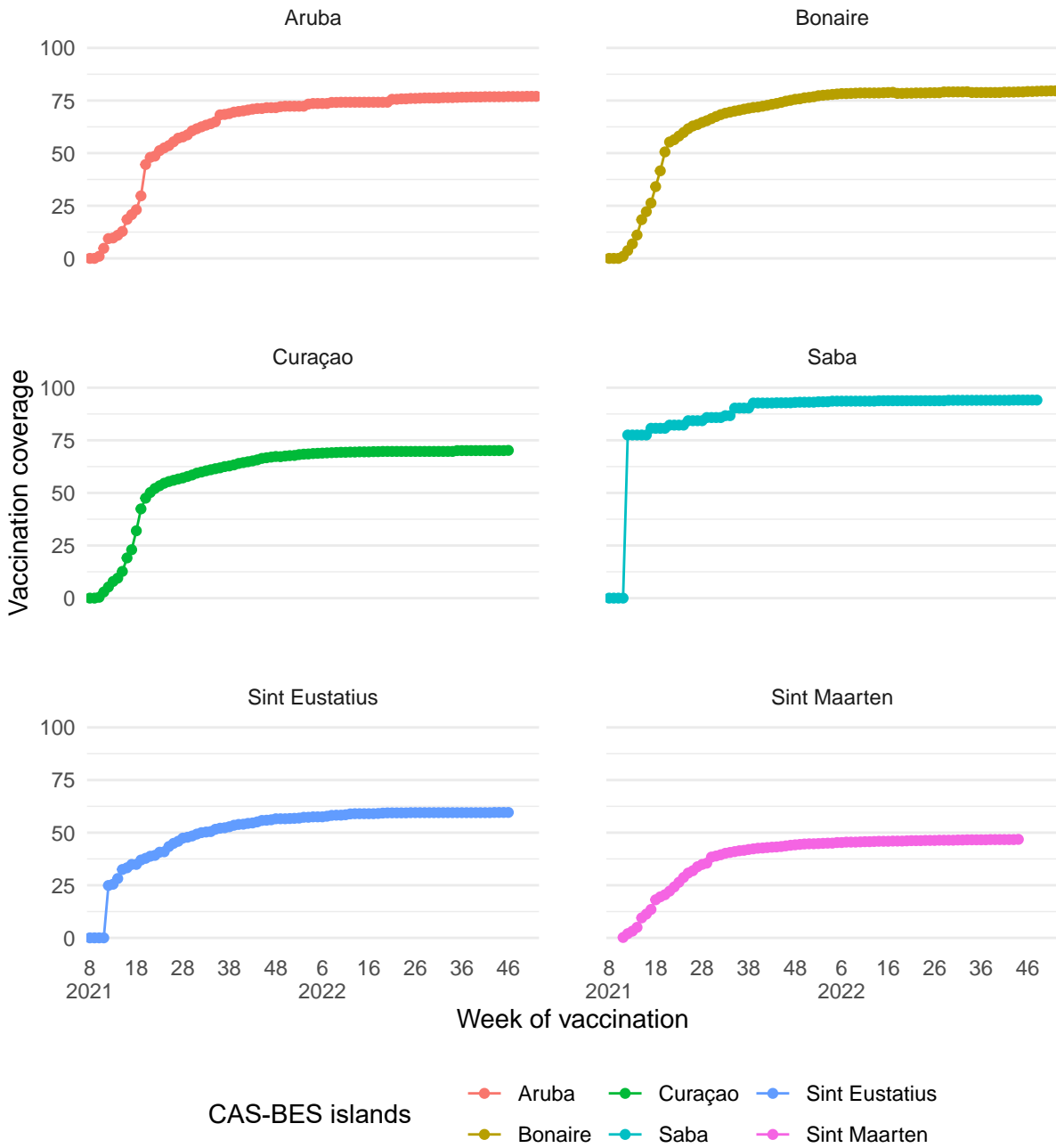


Figure 8: COVID-19 vaccination coverage for the primary series on the CAS- and BES-islands, until 26 December 2022<sup>1,2,3</sup>.

<sup>1</sup> The vaccination coverage data presented here is reported by the islands to the RIVM on a weekly basis. These data may lag behind from the vaccination coverage data presented by the island officials.

<sup>2</sup> These data refer to the numbers of vaccinated persons on the Dutch side of St Maarten. Vaccination coverage on the French side of St Martin is reported by Santé Publique France on a weekly basis.

<sup>3</sup> The number of fully vaccinated persons is defined as the number of completed vaccinations. This also includes persons who only require one dose of vaccine to be considered as fully vaccinated, due to having a history of SARS-CoV-2 infection. Both Aruba and Curaçao are reporting these data separately from the number of persons who have received two doses of vaccine. Dutch St Maarten and the BES-islands are currently not reporting these data. The number of completed vaccinations on those islands may therefore be an underestimation.