



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

November 2022 (week 44-48)

Produced by the National Institute for Public Health and the Environment of the Netherlands - RIVM
7 December 2022, 19:00 pm AST

Summary of SARS-CoV-2 epidemiological surveillance on the CAS-BES islands

In the Caribbean part of the Kingdom of the Netherlands, 474 positive test results were reported in November, a decrease compared to October (545). The COVID-19 related mortality was lower in November (5 compared to 11 in October). No new COVID-19 deaths have been reported on the BES islands since August 22.

Curaçao reported 97 positive SARS-CoV-2 test results last month, lower than the number of positive test results in October (121). The number of COVID-19 related hospital admissions decreased slightly from October 15 to November 11. In total, <5 deaths were reported in November; all patients were older than 65 years and died in a care setting. In calendar week 48 (29 November - 5 December 2022), 27 people per 100,000 inhabitants (population approx. 164,000) received a positive SARS-CoV-2 test result and the test positivity rate was 20%.

Aruba reported 266 positive test results, 30 COVID-19 related hospitalizations and <5 COVID-19 related deaths in November. This is an increase compared to the number of reported positive test results in October (187). The number of COVID-19 related hospital admissions increased (from 18 in October to 30 in November), but not in any way that hospital capacity was under pressure. Five of the 30 patients admitted in November were minors. The COVID-19 related mortality has been corrected retrospectively and is therefore now higher than in previous reports. The number of reported deaths consists of both deaths due to and with COVID-19. In week 48 (29 November - 5 December 2022), 42 people per 100,000 inhabitants (population approx. 125,000) received a positive SARS-CoV-2 test result and the test positivity rate was 21%.

On Sint Maarten, 23 positive test results, 8 COVID-19-related hospitalizations (all >60 years old) and no COVID-19-related deaths were reported through November 29, 2022. The number of positive test results fell sharply compared to October (66). In week 46 (16-22 November 2022), 18 people per 100,000 inhabitants (population approx. 62,000) received a positive SARS-CoV-2 test result and the test positivity rate was 18%.

82 SARS-CoV-2 positive test results were reported on Bonaire in November, lower than the number of positive test results reported in October (112). There were <5 COVID-19 related hospitalizations and no COVID-19 deceased deaths reported in November. In week 48 (November 29 - December 5, 2022), 160 people 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 test street was 68%.

On Sint Eustatius, <5 positive test results were reported last month, compared to 8 in October. No COVID-19 hospital admissions or deaths were reported in November. Because a SARS-CoV-2 negative test result is no longer required for travel to Sint Maarten, the total number of tests on Sint Eustatius has reduced. In week 48 (November 29 - December 5, 2022), 127 people per 100,000 inhabitants (population approx. 3,000) received a positive SARS-CoV-2 test result and the test positivity rate was 40%. NB. In the previous report, an incorrectly estimated number of inhabitants was stated in the summary.

Up to and including 27 November, 2022, <5 positive test results were also reported on Saba, in October there were also <5. No COVID-19 related deaths or hospitalizations were reported in November. In week 47 (November 21-27, 2022), 0 people per 100,000 inhabitants (population approx. 1,900) received a positive SARS-CoV-2 test result and the test positivity rate was 0%.

Variants

There are several sub-variants of the Omicron BA.2, BA.4 and BA.5 that are monitored with extra attention. Of BA.2 these are the subvariants BA.2.75 and BA.2.12.1. This is the subvariant BA.4.6 of the BA.4. And of BA.5 for example the BF.7 and BQ.1 (including BQ.1.1.). There are also variants that consist of combinations of properties of variants (recombinants), such as the XBB, which are monitored by the RIVM.

On Aruba, subvariant 22E (Omicron) BQ.1 and derivatives (derived from BA.5) are most prevalent (79% at week 46). In addition, the subvariant 22B (Omicron) BA.5 and derivatives (21% week 46) circulate on the island.

On Bonaire, subvariant 22B (Omicron) BA.5 and derivatives are most prevalent (50% week 47). In addition, subvariants 22E (Omicron) BQ.1 and derivatives (25% week 47) and subvariant 22F (Omicron) XBB and derivatives (recombinant of BA.2.75 and BA.2.10 derivative) (25% week 47) circulate on the island. The proportion of subvariant 22F increased rapidly on the island between weeks 41 and 47.

On Curaçao, the subvariant 22B (Omicron) BA.5 and derivatives are dominant (50% week 46). In addition, subvariants 22E (Omicron) BQ.1 and derivatives (derived from BA.5) (40% week 46) and 22F(Omicron) XBB and derivatives (recombinant of BA.2.75 and BA.2.10 derivative) circulate on the island (10% week 46).

On Dutch Sint Maarten, the subvariants 22B (Omicron) BA.5 and derivatives (33%), 22D (Omicron) BA.2.75 and derivatives (33%) and 22E (Omicron) BQ.1 and derivatives (33%) are equally common present at week 44.

No new results are known for Saba and Sint Eustatius in November. On Saba, at weeks 40 and 41, subvariant 22B (Omicron) BA.5 and derivatives (100%) were circulating. On St. Eustatius, in week 29, the subvariant 22B (Omicron) BA.5 and derivatives (50%) and the 22A (Omicron) BA.4 and derivatives (50%) circulated.

Information on COVID-19 surveillance on the CAS and 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 7 December 2022. 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.

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 7 December 2022 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- and 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- and BES-islands, as reported to RIVM^{1,2}

Island	Last updated on	Total cumulative			Past 4 weeks ⁵		
		Number of cases	Hospital admissions	Deceased	Number of cases	Hospital admissions	Deceased
Aruba	2022-12-01	43641	1640	280	266	30	<5
Curaçao ³	2022-12-01	45586	1128	297	97	11	<5
Saba	2022-12-01	736	7	<5	<5	0	0
Sint Eustatius	2022-12-01	1207	22	5	<5	0	0
Sint Maarten ⁴	2022-12-01	10954	403	89	23	8	0
Bonaire	2022-12-01	9613	139	31	82	<5	0

¹ 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

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

³ 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.

⁴ 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.

⁵ These have been reported to the RIVM between 30 October 2022 and 1 December 2022 .

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- and BES-islands¹

Island	Period	Number of tests	Number of laboratory confirmed positive test results	Positivity rate %
Aruba	14 until 20 November 2022	248	74	29.8
Aruba	21 until 27 November 2022	234	73	31.2
Bonaire	14 until 20 November 2022	36	24	66.7
Bonaire	21 until 27 November 2022	37	11	29.7
Curaçao ²	14 until 20 November 2022	249	23	9.2
Curaçao	21 until 27 November 2022	250	27	10.8
Saba	14 until 20 November 2022	<5	<5	100
Saba	21 until 27 November 2022	<5	0	0
Sint Eustatius	16 until 22 November 2022	<5	<5	50
Sint Eustatius	23 until 29 November 2022	7	<5	14.3
Sint Maarten ³	9 until 15 November 2022	43	7	16.3
Sint Maarten	16 until 22 November 2022	63	11	17.5

¹ A '-' sign indicates there is insufficient data available at the RIVM to present in this table.² 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.³ 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- and BES-islands, as reported to RIVM¹

Island	Period	Number of positive cases	Incidence per 100.000 inhabitants
Aruba	14 until 20 November 2022	74	59.1
Aruba	21 until 27 November 2022	73	58.3
Bonaire	14 until 20 November 2022	24	103.6
Bonaire	21 until 27 November 2022	11	47.5
Curaçao ²	14 until 20 November 2022	23	14.0
Curaçao	21 until 27 November 2022	27	16.4
Saba	14 until 20 November 2022	<5	156.4
Saba	21 until 27 November 2022	0	0.0
Sint Eustatius	16 until 22 November 2022	<5	31.8
Sint Eustatius	23 until 29 November 2022	<5	31.8
Sint Maarten ³	9 until 15 November 2022	7	11.2
Sint Maarten	16 until 22 November 2022	11	17.6

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

² 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.

³ 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- and BES-islands¹

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

¹ 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

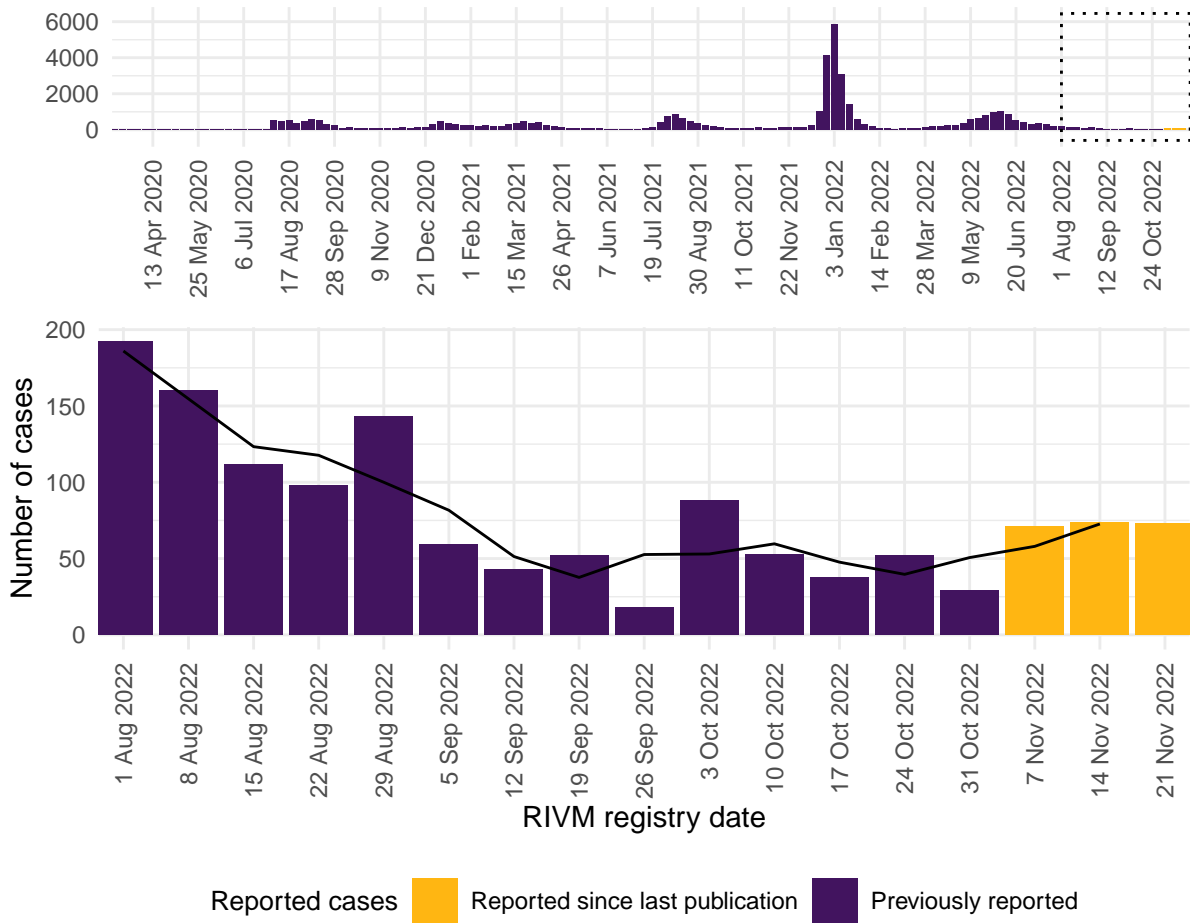


Figure 1: Number of weekly reported positive SARS-CoV-2 test results on Aruba, presented by reporting date¹⁻³.

¹ 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.

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

³ 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.

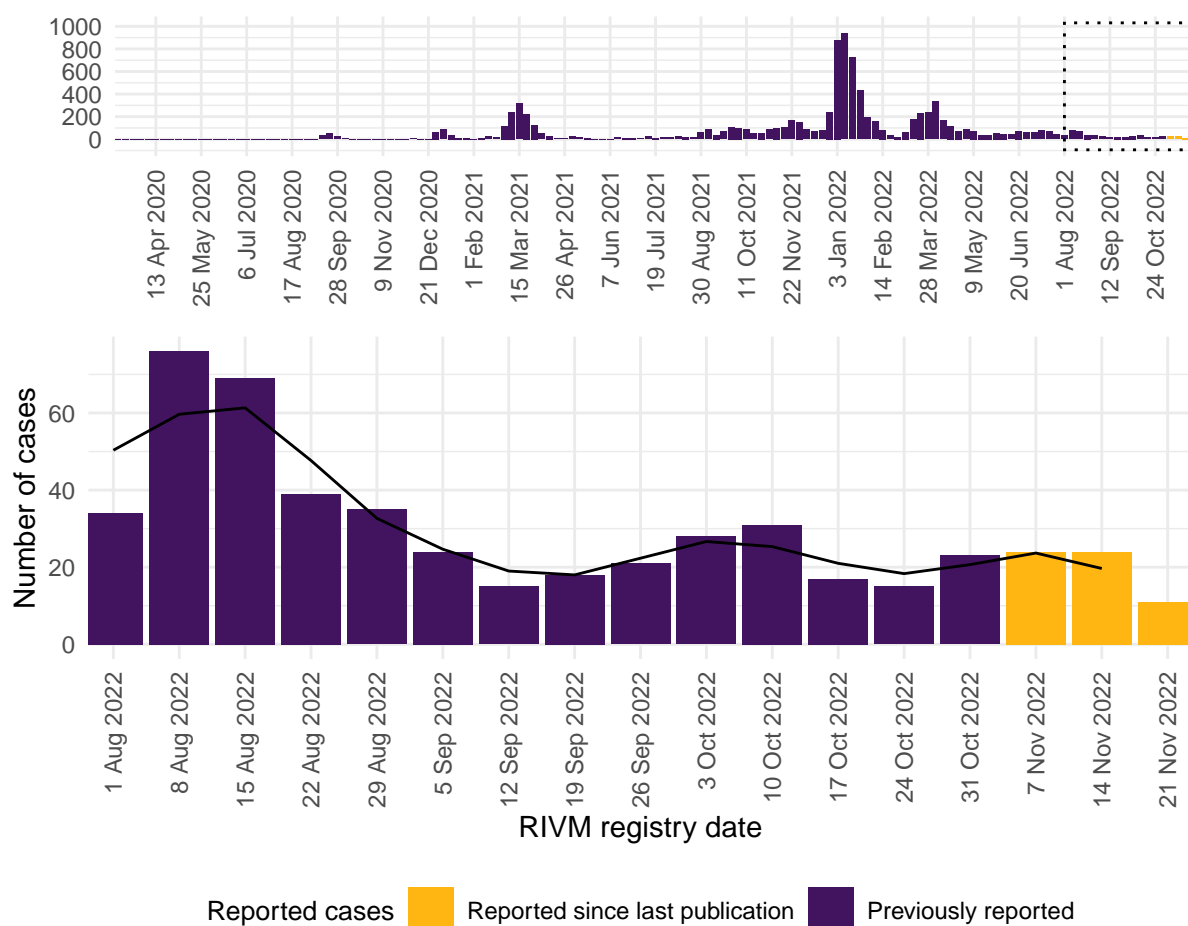


Figure 2: Number of weekly reported positive SARS-CoV-2 test results on Bonaire, presented by reporting date¹⁻³.

¹ 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.

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

³ 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.

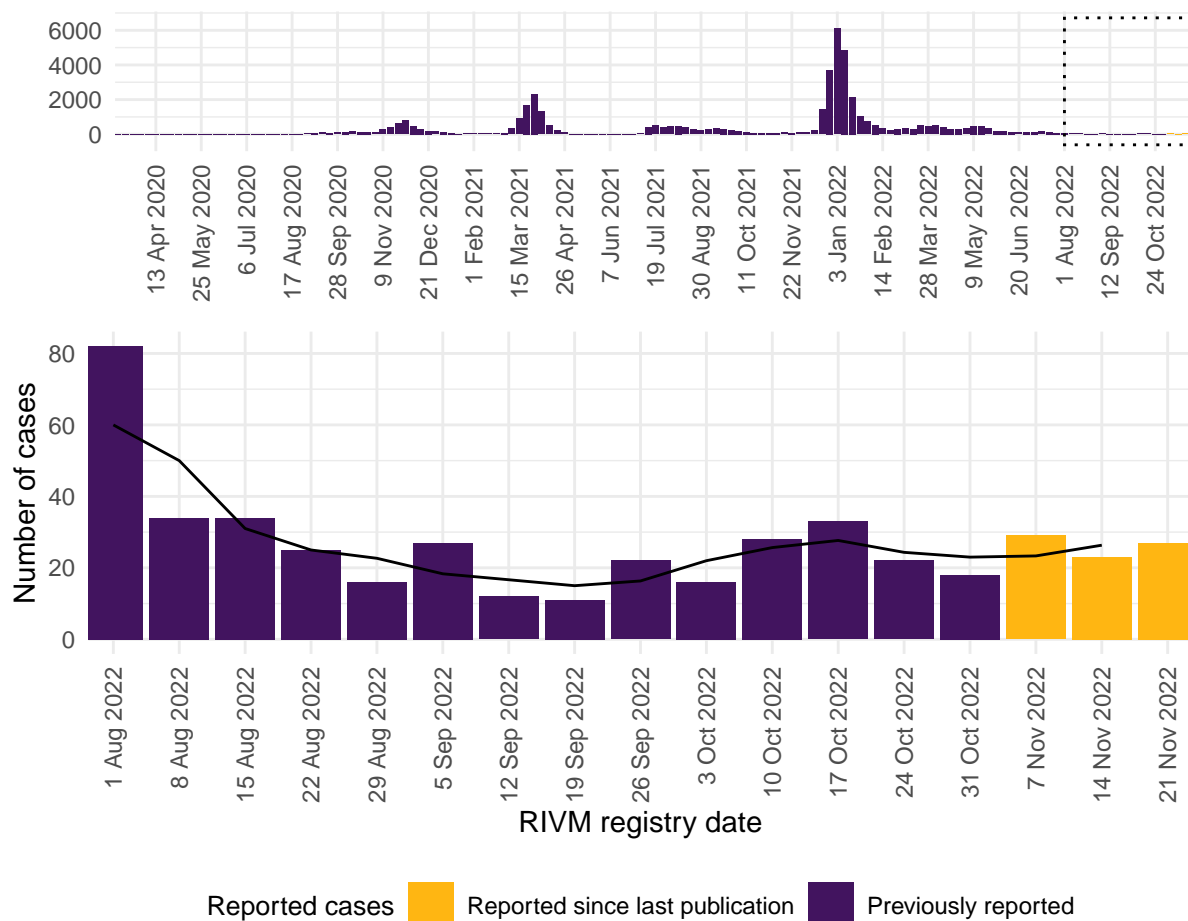


Figure 3: Number of weekly reported positive SARS-CoV-2 test results on Curaçao, presented by reporting date¹⁻⁴.

¹ 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.

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

³ 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.

⁴ 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.

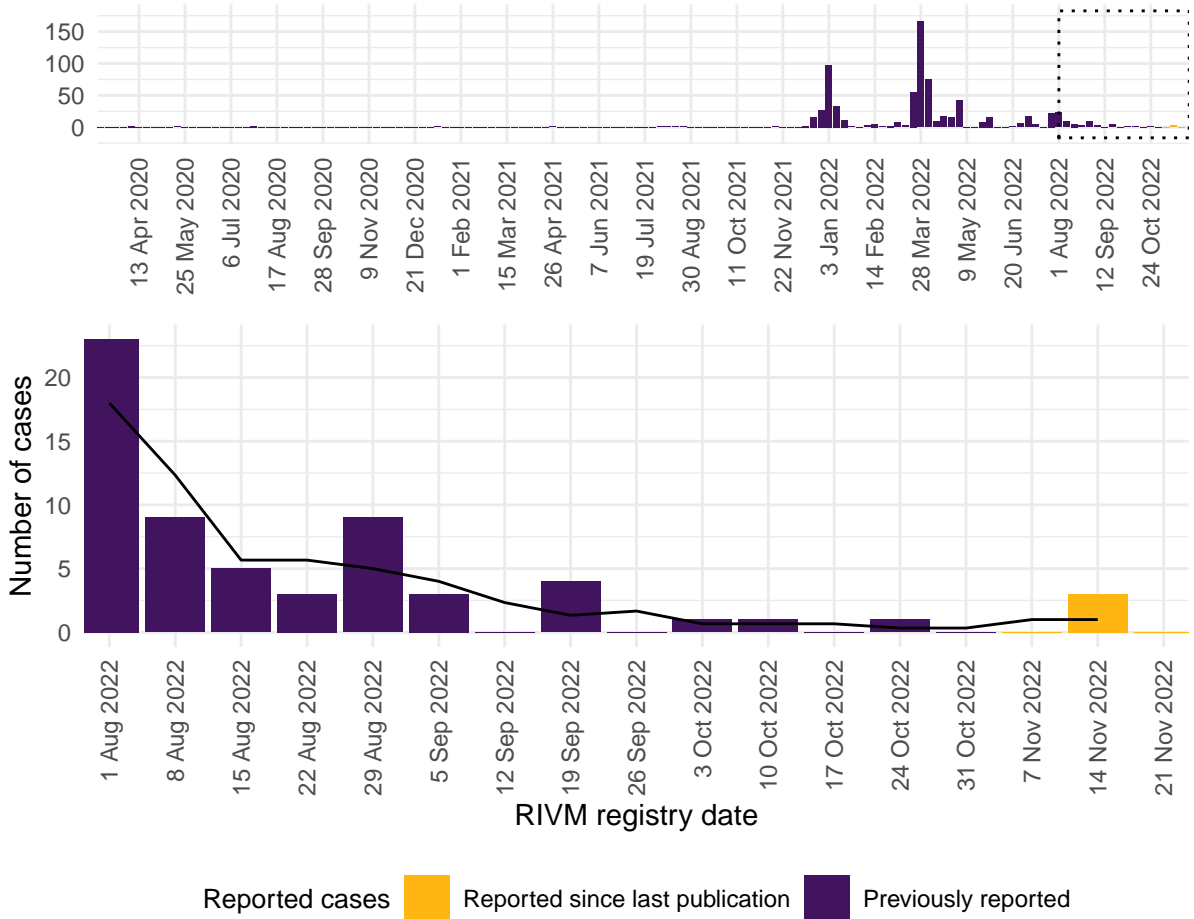


Figure 4: Number of weekly reported positive SARS-CoV-2 test results on Saba, presented by reporting date¹⁻³.

¹ 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.

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

³ 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.

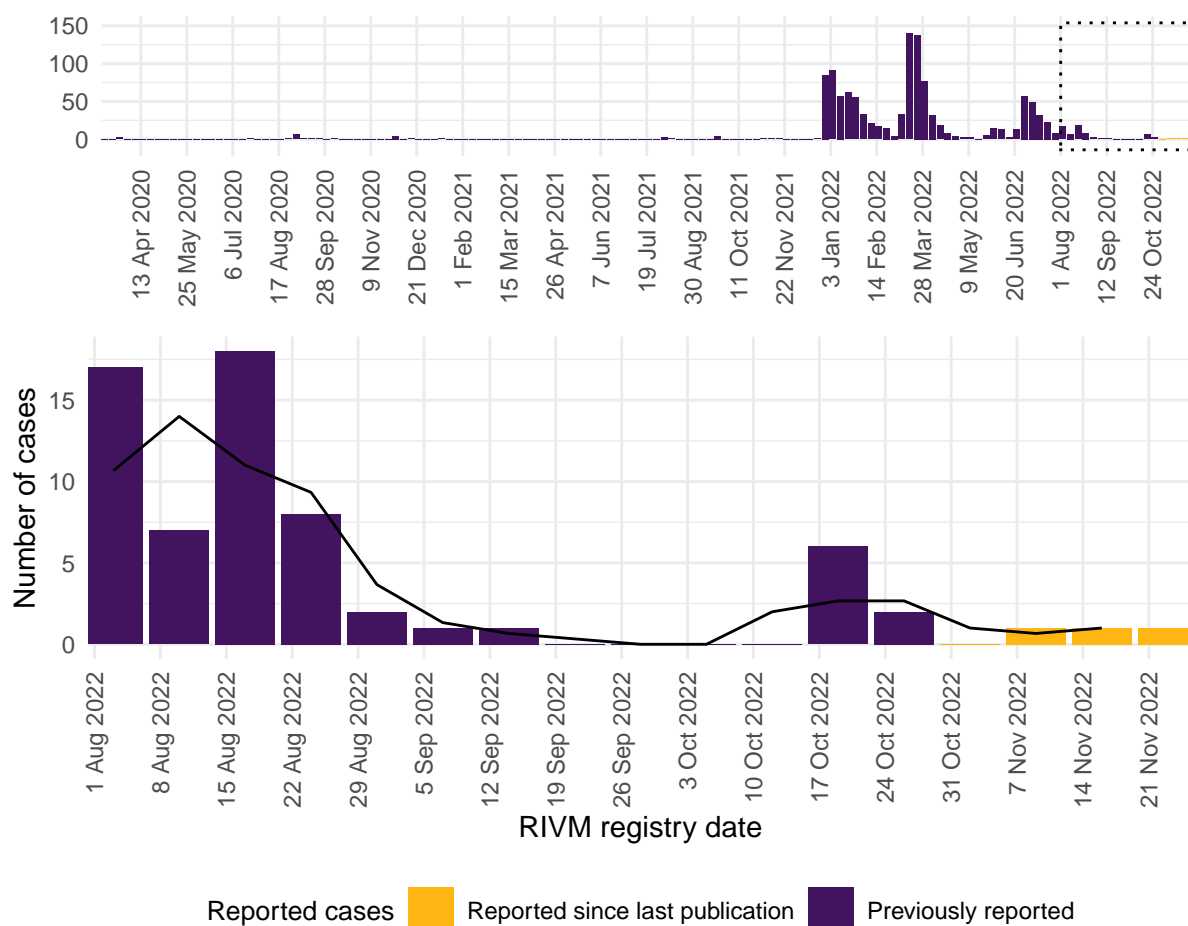


Figure 5: Number of weekly reported positive SARS-CoV-2 test results on St Eustatius, presented by reporting date¹⁻³.

¹ 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.

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

³ 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.

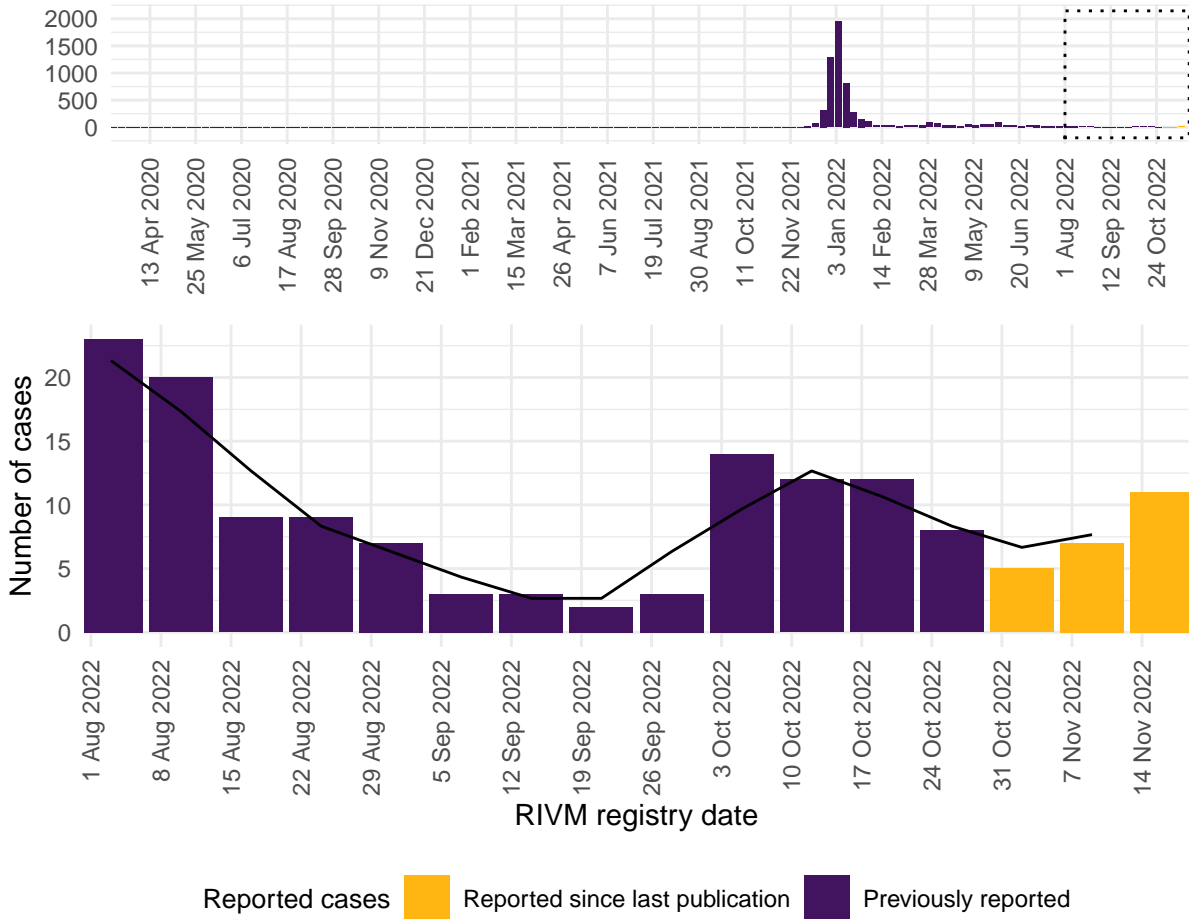


Figure 6: Number of weekly reported positive SARS-CoV-2 test results on Dutch St Maarten, presented by reporting date¹⁻⁴.

¹ 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.

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

³ 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.

⁴ 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

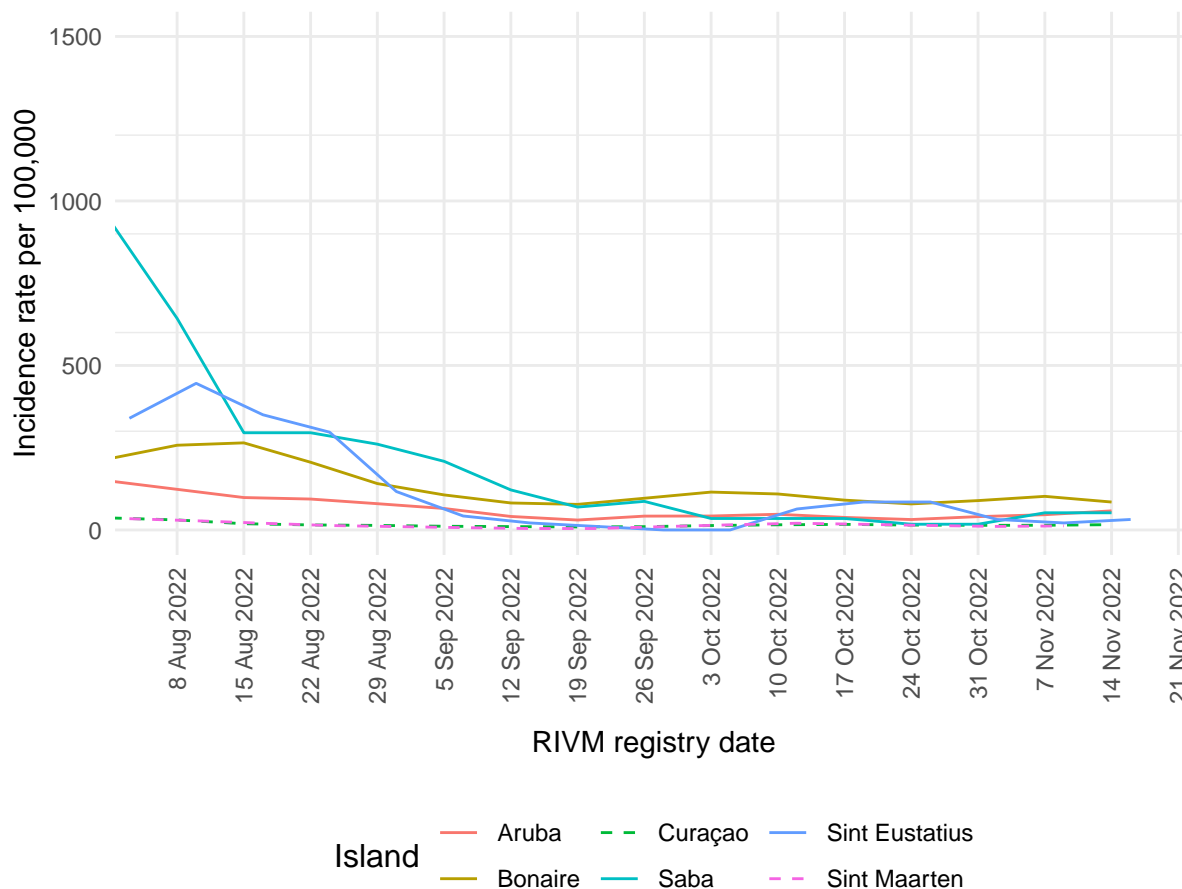


Figure 7: Three week¹ average number of reported cases per 100,000 residents by each islands' reporting date, on Curaçao², Aruba, Dutch St Maarten³, Saba, Sint Eustatius, and Bonaire.

¹ 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.

² The incidence on Curaçao 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.

³ 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 28 November 2022¹⁻³

BES-/CAS-eilanden	Date update	Number primary series	Number primary series + 1	Number primary series + 2	Number primary series + 3
Aruba	2022-11-21	84001	35501	5139	927
Bonaire	2022-11-28	16056	8095	1150	-
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

¹ 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.

² 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.

³ 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 28 November 2022¹⁻³

BES-/CAS-eilanden	Date update	Number repeat vaccinations (60-)	Number repeat vaccinations (60+)
Aruba	2022-11-21	848	1862
Bonaire	2022-11-28	781	904
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

¹ 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.

² 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.

³ 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

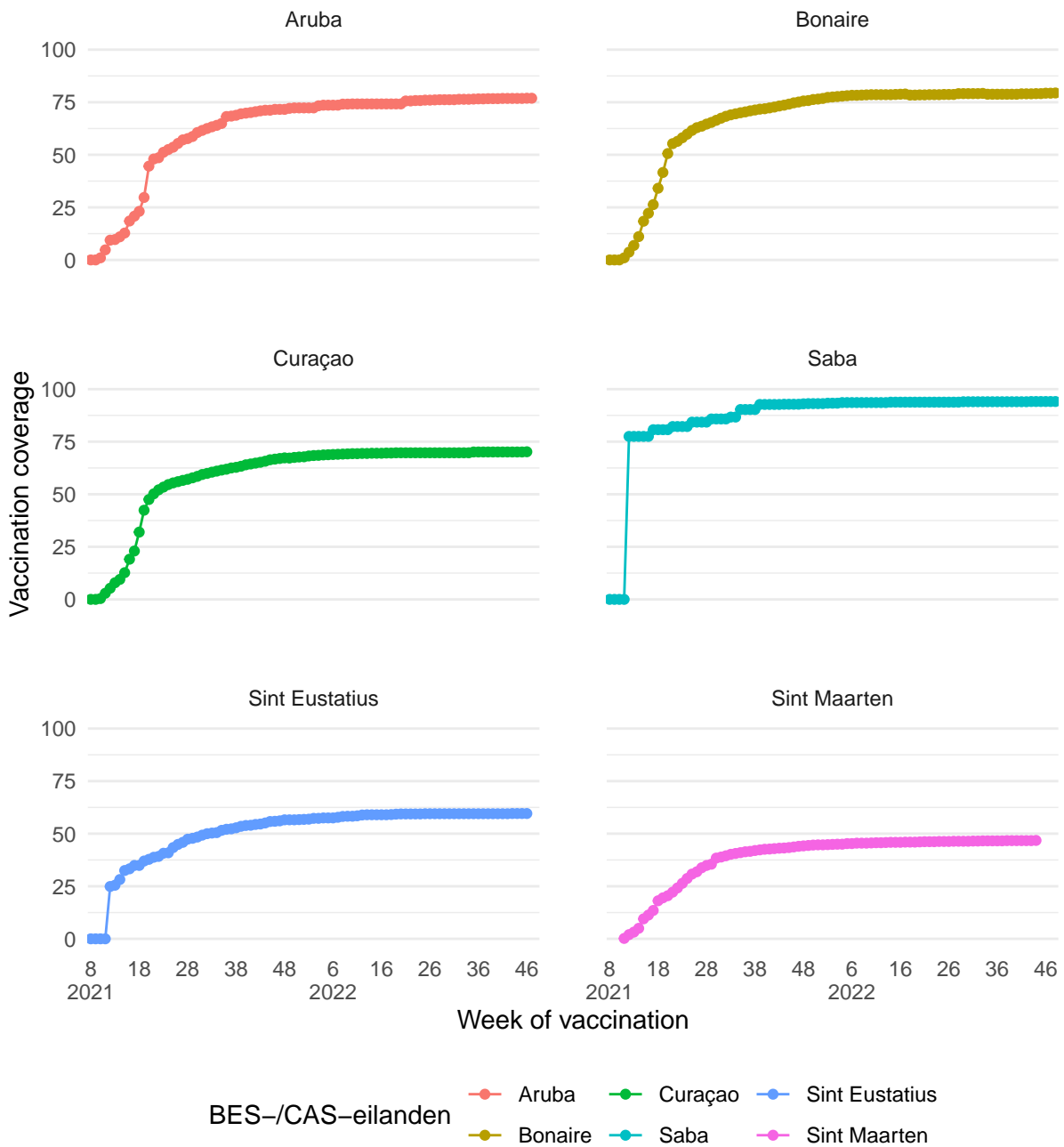


Figure 8: COVID-19 vaccination coverage for the primary series on the CAS- and BES-islands, until 28 November 2022^{1,2,3}.

¹ 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.

² 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.

³ 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.