

COVID-19 EPIDEMIOLOGICAL UPDATE

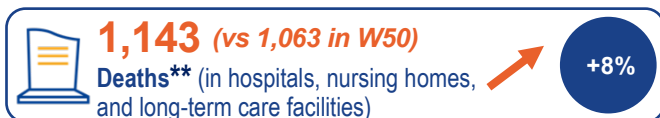
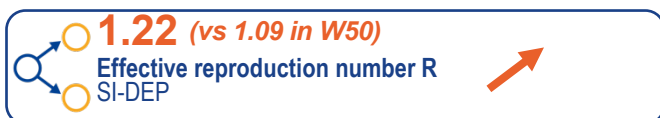
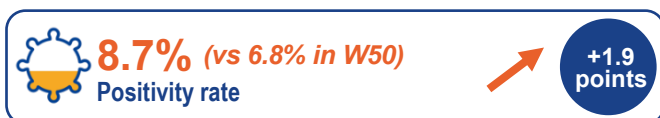
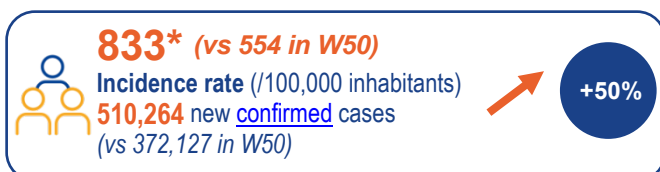
Weekly Report / Week 51 / 30 December 2021

As part of its surveillance, alert, and prevention missions, Santé publique France analyses and publishes COVID-19 data obtained from its network of partners¹ as well as its own studies and surveys. This report is based on data reported to Santé publique France up to 29 December 2021.

Key numbers

Week 51 (20-26 December 2021)

Compared to week 50 (13-19 December 2021)



On 28 December 2021

Compared to 21 December 2021



*Rate corrected for the public holiday effect (25 December)

**Unconsolidated data from week 51

¹Santé publique France acknowledges the large public health network that contributes to COVID-19 surveillance: healthcare professionals working in private practice and hospitals, emergency departments, hospital and private biology laboratories, learned societies for infectious diseases, resuscitation, and emergency medicine, CNAM, INSERM, and INSEE.

Key points

Epidemiological situation

In week 51, the circulation of SARS-CoV-2 surged with strong growth in Omicron, which is now the dominant variant.

• Metropolitan France:

- Incidence rate* above 1,000/100,000 inhabitants in Île-de-France, Provence-Alpes-Côte d'Azur, Corsica, and Auvergne-Rhône-Alpes
- Largest increase in the incidence rate* among 20-29 and 30-39 year-olds
- New hospital and intensive care admissions stable but high at the national level with regional disparities

• Overseas France:

- Sharp rise in the incidence rate* in Guadeloupe and Mayotte
- Incidence rate still very high in Reunion Island

Variants

- 62.4% of screened tests showing a profile compatible with the Omicron variant at the start of week 52
- Omicron representing 15% of interpretable sequences in the Flash Survey from week 50 (13 December)

Prevention

- Vaccination on 28 December 2021 (Vaccin Covid data):
 - 77.0% of the French population had received a complete primary vaccination series
 - 43.7% of the 18+ age group (80.7% of eligible people) and 70.6% of the 65+ age group (87.9% of eligible people) had received a booster shot
- Importance of combining different measures: complete vaccination schedule (including complete primary vaccination and booster shot after 3 months) as well as adherence to contact tracing and recommended guidelines
- Compliance with preventive measures, including reducing contacts and frequently ventilating enclosed spaces, is essential during the end-of-year festive period given the circulation of the Omicron variant

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[InfoCovidFrance](#)

Key figures and evolution of COVID-19 in France and worldwide

Week 51 (20 to 26 December 2021)

SITUATION UPDATE

In week 51, the circulation of SARS-CoV-2 escalated substantially (+50%) due to the rapid spread of the Omicron variant, which is now dominant. On 27 December, 62.4% of screened tests had a profile compatible with Omicron. The 10-49 age group had the highest incidence rate (corrected for the public holiday effect on 25 December) with >900 cases per 100,000 inhabitants, reaching 1,770 (+124%) among 20-29 year-olds. The incidence rate exceeded 1,000 cases per 100,000 inhabitants in Île-de-France, Provence-Alpes-Côte d'Azur, Corsica, and Auvergne-Rhône-Alpes. New hospital admissions increased in these four regions but were stable or falling in the rest of metropolitan France. A slight rise in hospitalisations was observed in people under 40 years, notably among 20-29 and 0-9 year-olds. On 28 December, 70.0% of the total population had received a complete primary vaccination series. In adults aged 18 years and over, 43.7% had received a booster dose (70.6% of people aged 65 and over). During this festive period, the strict adherence to all preventive measures, including reducing contacts and frequently ventilating enclosed areas, is now necessary more than ever. Given the high epidemic level and the increasingly intense circulation of the virus dominated by the Omicron variant, it is crucial to intensify the vaccination campaign, including the booster shot after 3 months, and ensure the isolation of cases and quarantine of contacts in order to curb the spread of infection as much as possible and preserve the healthcare system.

EPIDEMIOLOGICAL SITUATION

Nationally, the incidence rate corrected for the public holiday effect (25 December) surged in week 51 (+50%) to reach 833 cases per 100,000 inhabitants (vs 554 in week 50). On average, almost 72,900 cases were diagnosed per day. The effective reproduction rate increased to 1.22, indicating the accelerated circulation of the virus. The corrected incidence rate rose in all age groups, except in children aged 0-9 year in whom it fell (528/100,000, -9%). The incidence rate exceeded 900 cases per 100,000 inhabitants in the 10-49 age group. The highest rates and increases were observed in people aged 20-29 years (1,770, +124%) and 30-39 years (1,364, +62%). For the entire population, the corrected screening rate continued to climb (9,563/100,000, +17%). It reached 15,666 (+46%) among 20-29 year-olds but fell in the population under 20 years due to the school holidays. The positivity rate of tests increased by 1.9 points to reach 8.7%.

After a week of stability, the number of consultations for suspected COVID-19 went up again in SOS Médecins organisations (4,036, +11%) and emergency departments (9,686, +23%) in week 51.

The number of new hospital (7,621) and intensive care admissions (1,719) remained stable (unconsolidated data). On 28 December, 17,471 COVID-19 patients were hospitalised, including 3,429 in intensive care. More than 1,000 deaths were again reported in week 51 (+8%), with 1,099 occurring in hospitals and 44 in long-term care facilities (unconsolidated data). The [all-cause excess mortality](#) observed since week 47 continued to rise in week 50.

In metropolitan France, the corrected incidence rate climbed in all regions. It reached 1,409 (+108%) in Île-de-France, 1,092 (+20%) in Provence-Alpes-Côte d'Azur, 1,040 (+60%) in Corsica, and 1,000 (+36%) in Auvergne-Rhône-Alpes. In these four regions, the rate of new hospital admissions also increased. A slight rise in hospitalisations was also observed in people under 40 years, especially among 20-29 and 0-9 year-olds.

In overseas France, the incidence rate remained high in Reunion Island (669, +15%) and increased sharply in Guadeloupe (206, +220%) and Mayotte (113, +194%). It reached 258 (+38%) in Martinique. New hospital admissions were also on the rise in Reunion Island.

VARIANTS

Omicron became the dominant variant at the national level, with 62.4% of screened tests showing mutation profiles compatible with the Omicron variant at the start of week 52 (vs 39.4% in week 51). The Flash Survey from week 50 confirmed the rapid growth in the detection of Omicron (15% of interpretable sequences in week 50 vs 1.5% in week 49, metropolitan France). As of 29 December, the Omicron variant had been detected by sequencing in all metropolitan and overseas regions.

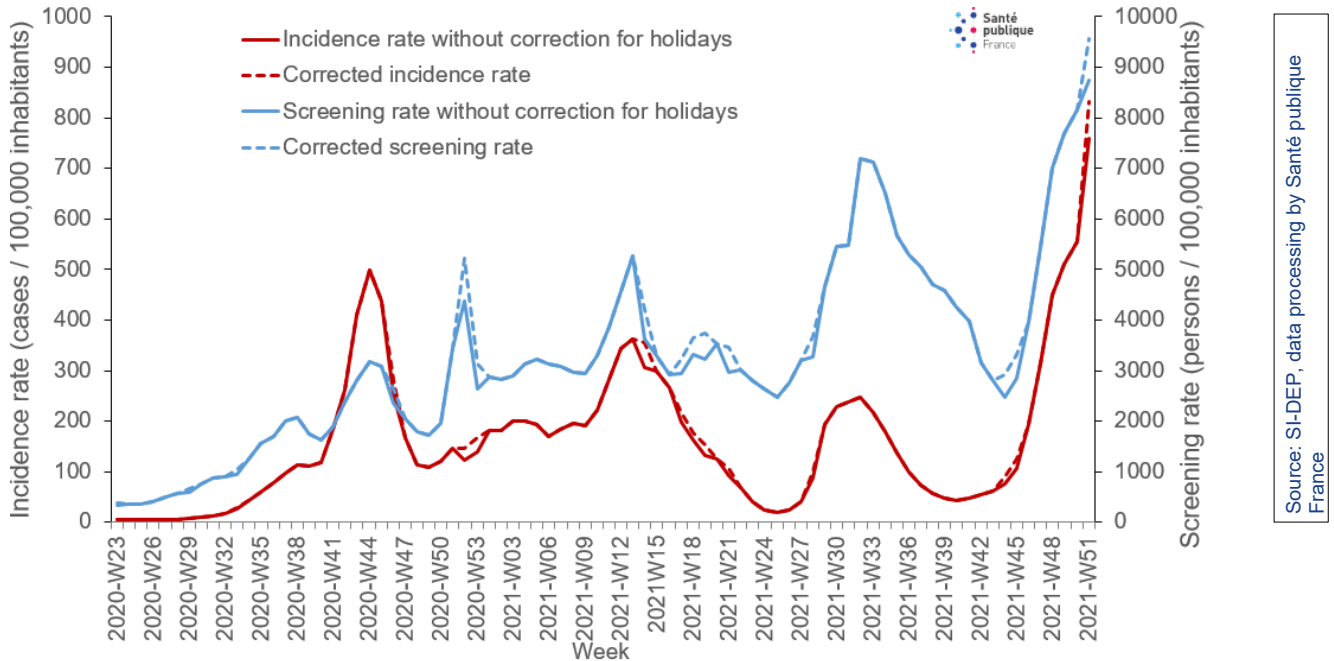
PREVENTION

On 28 December, 77.0% of the total population had received a complete primary vaccination series. In adults aged 18 years and over, 43.7% had received a booster dose (representing 80.7% of those eligible at that date), with this proportion reaching 70.6% of people aged 65 years and over (representing 87.9% of those eligible at that date).

Confirmed cases, incidence, and screening

Nationally, the [incidence rate](#) corrected for the public holiday effect (25 December) continued to increase, reaching 833 cases per 100,000 inhabitants in week 51 (vs 554 in week 50, or +50%). The corrected [screening rate](#) was also on the rise (9,563/100,000 vs 8,146 in week 50, +17%), as was the [positivity rate](#) (8.7%, +1.9 points). Among the 5,376,030 tested individuals who provided information about the possible presence of symptoms, 87% were asymptomatic, a stable proportion compared to the previous week (86%). An increase in the positivity rate was observed among both symptomatic (30% vs 23% in week 50) and asymptomatic (5.4% vs 4.1%) cases. The proportion of symptomatic cases decreased (45% vs 48%).

Weekly trends in the incidence and screening rates, with or without correction for the effect of public holidays, since 1 June 2020, France (data on 29 December 2021)



Source: SI-DEP, data processing by Santé publique France

Incidence and screening rates by age group

In week 51, the corrected [incidence rate](#) increased in all age groups with the exception of children aged 0-9 years in whom it fell (-9%). The largest increases were observed in people aged 20-29 years (+124%) and 30-39 years (+62%). The corrected incidence rate exceeded 500 cases per 100,000 inhabitants in adults under 60 years, reaching 1,770 (+56%) among 20-29 year-olds. The corrected [screening rate](#) rose in adults over 20 years but dropped among 0-9 year-olds (-46%) and 10-19 year-olds (-10%). It exceeded 10,000 per 100,000 inhabitants in the 20-49 age group, being the highest among 20-29 year-olds (15,666). The [positivity rate](#) increased in people under 40 years but remained stable in those aged 40 years and older. It was the highest among 20-29 year-olds (11.3%). In school children, the corrected incidence rate was the highest among 6-10 year-olds, reaching 832 (-13%), with a corrected screening rate of 7,931 (-51%) and a positivity rate of 10.5% (+4.7 points).

Weekly evolution of the incidence rate per 100,000 inhabitants by age group since week 40, France (data on 29 December 2021)

27	29	38	48	55	80	109	143	214	227	228	283	90 years +
26	35	43	43	56	67	86	118	148	154	155	198	80-89
33	43	56	63	80	99	134	184	224	214	203	250	70-79
29	37	47	57	81	108	155	239	314	326	317	395	60-69
35	39	46	58	83	116	178	278	392	432	458	663	50-59
48	53	61	72	110	146	225	375	550	635	675	973	40-49
64	67	72	85	132	181	270	423	631	732	842	1364	30-39
58	61	57	69	105	151	218	321	457	553	790	1770	20-29
49	50	58	58	81	112	195	345	531	637	669	904	oct-19
41	44	52	44	66	106	211	391	580	637	580	528	0-9
44	48	55	62	91	125	194	312	450	510	554	833	All ages
W40	W41	W42	W43	W44*	W45*	W46	W47	W48	W49	W50	W51*	

Source: SI-DEP

*Rates corrected for the effect of public holidays



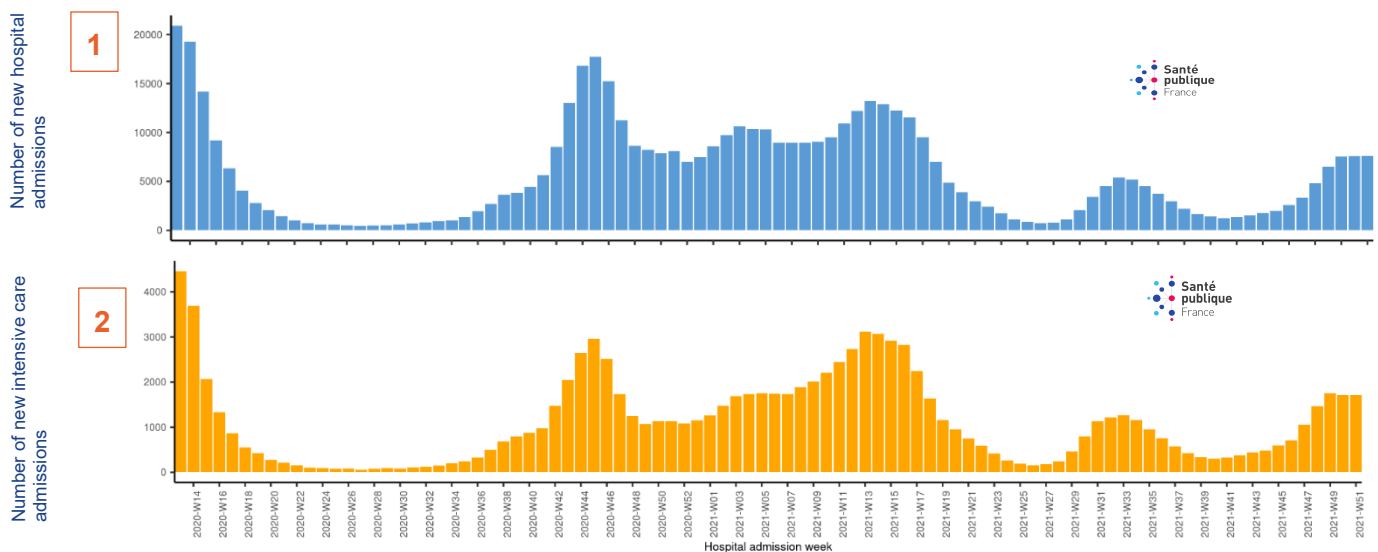
Hospitalisations, intensive care admissions, and deaths

To better understand the hospital dynamics, new hospital and intensive care admissions are analysed by date of patient admission to hospital. New deaths (in hospital and long-term care facilities) are analysed by date of occurrence. **Data from week 51, up to 28 December 2021, are not yet consolidated and may thus be underestimated.**

On 28 December 2021, 17,471 COVID-19 patients were hospitalised in France (vs 16,412 on 21 December, +8%), including 3,429 in intensive care (vs 3,109 on 21 December, +10%).

At the national level, hospital indicators by date of admission continued to stabilise, with 7,621 [new hospital admissions](#) in week 51 (stable since week 49, +1%) and 1,719 new intensive care admissions (stable since week 49, -2%) (unconsolidated data from week 51).

Weekly number of new hospital (1) and intensive care (2) admissions for COVID-19 patients since 23 March 2020, France (data on 28 December 2021)

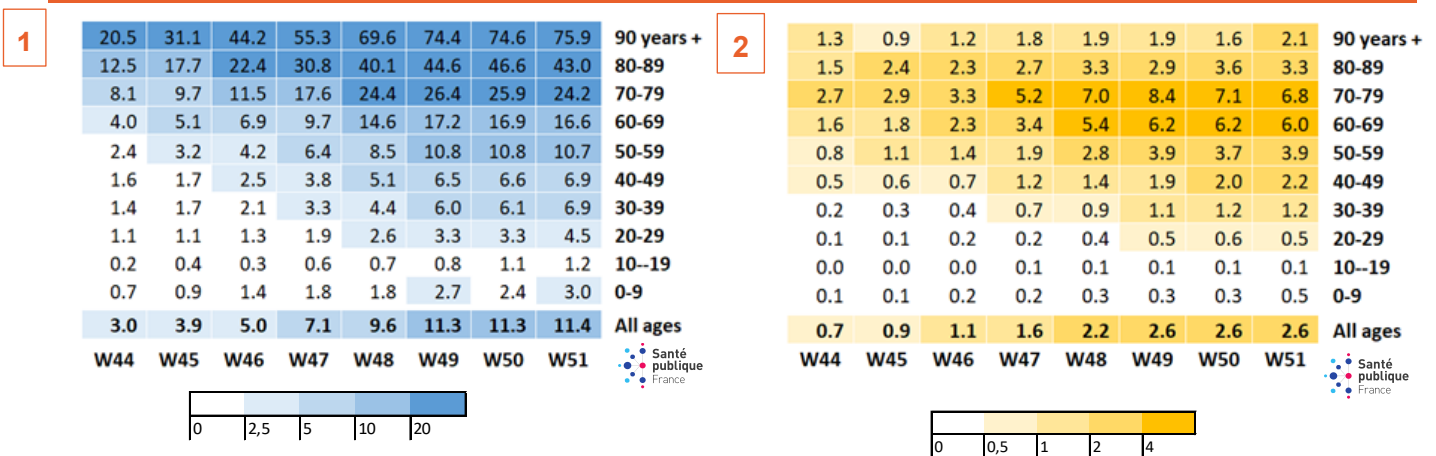


W51: unconsolidated data

Source: S-I-VIC, data processing by Santé publique France

In week 51, the weekly rate of new hospital admissions was stable or slightly down in adults aged 40 years and older, although it increased slightly in those under 40 years, especially among 0-9 year-olds (236 hospital admissions in week 51 vs 190 in week 50) and 20-29 year-olds (340 in week 51 vs 246 in week 50). New intensive care admissions were stable in most age groups, with low numbers of admissions for 0-9 year-olds (36 in week 51 vs 27 in week 50).

Weekly rate of new hospital (1) and intensive care (2) admissions per 100,000 inhabitants, by age group, from week 44 to week 51, France



Source: S-I-VIC, data processing by Santé publique France

At the national level, there were 1,099 deaths in hospital in week 51 (+7% from week 50; unconsolidated data from week 51). In the previous week, this number had increased by 14% compared to week 49. There were also 44 deaths in long-term care facilities in week 51 (vs 37 in week 50 and 38 in week 49).

Situation at the regional level

Incidence, positivity, and screening rates

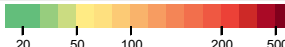
In **metropolitan France**, the corrected incidence rate increased in four regions, especially in Île-de-France (+108%) and Corsica (+60%). The corrected incidence rate was above 500 cases per 100,000 inhabitants in all regions except for Normandy (474), Brittany (449), and Centre-Val de Loire (441). The positivity rate ranged from 6.7% in Brittany to 10.5% in Auvergne-Rhône-Alpes and was increasing in all regions. As in week 50, the corrected screening rate exceeded 10,000 per 100,000 inhabitants in Provence-Alpes-Côte d'Azur, Corsica, and Île-de-France. In week 51, the corrected incidence rate was above 800 in 31 departments (vs 9 in week 50), while it exceeded 1,000 in 18 departments. The highest incidence rates were observed in Paris (2,231, +123%), Hauts-de-Seine (1,625, +120%), Val-de-Marne (1,447, +118%), and Savoie (1,446, +84%).

In **overseas France**, the corrected incidence rate rose substantially in Guadeloupe (206, +220%), Mayotte (113, +194%), French Guiana (187, +56%), and Martinique (258, +38%). It remained high in Reunion Island (669, +15%).

Evolution of the incidence, positivity, and screening rates by region since week 46, France (data on 29 December 2021)

Régions	Incidence rate per 100,000 inhabitants						Positivity Rate (%)		Screening rate per 100,000 inhabitants		
	W46	W47	W48	W49	W50	W51*	W51* vs W50 (%)	W51	W51 vs W50 (point)	W51*	W51* vs W50 (%)
Auvergne-Rhône-Alpes	219	394	604	682	735	1000	36	10.5	1.6	9,534	16
Bourgogne-Franche-Comté	175	311	489	558	505	603	19	8.5	0.9	7,085	7
Bretagne	142	215	298	302	293	449	53	6.7	1.5	6,692	18
Centre-Val de Loire	158	211	311	349	335	441	32	7.5	1.3	5,912	9
Corse	306	387	447	635	650	1040	60	8.2	1.9	12,733	23
Grand Est	204	313	449	484	469	588	25	7.1	0.9	8,337	10
Hauts-de-France	194	304	418	449	436	501	15	7.0	0.9	7,154	-1
Île-de-France	191	312	449	509	679	1409	108	10.4	3.8	13,501	32
Normandie	120	180	238	270	302	474	57	7.4	2.2	6,398	10
Nouvelle-Aquitaine	193	303	427	441	393	528	34	7.6	1.4	6,976	9
Occitanie	191	332	495	586	591	720	22	8.0	0.7	9,020	11
Pays de la Loire	199	268	370	394	367	503	37	7.2	1.3	6,988	13
Provence-Alpes-Côte d'Azur	244	419	590	767	907	1092	20	9.2	0.5	11,902	13
Guadeloupe**	44	42	38	51	64	206	220	4.0	2.7	5,190	-2
Guyane	78	90	91	101	119	187	56	6.6	2.5	2,817	-3
Martinique**	165	152	176	174	187	258	38	3.9	1.5	6,665	-17
Mayotte	36	25	25	30	38	113	194	4.7	3.3	2,381	-12
La Réunion	223	255	312	392	581	669	15	12.4	4.4	5,372	-26

*Data corrected for the public holiday (25 december)
 **Data non-interpretable due to social movements in Guadeloupe (W46 & W47) and in Martinique (W47)



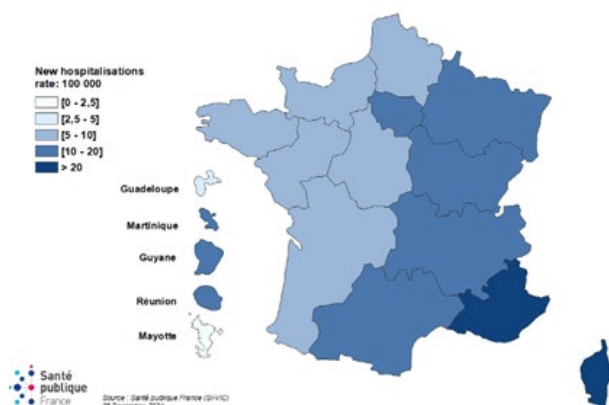
Source: SI-DEP

Hospital and intensive care admissions by date of admission

In metropolitan France in week 51, the weekly rates of [new hospitalisations](#) and new intensive care admissions were stable or falling in the majority of regions. A rise in new hospital admissions was nevertheless observed in Corsica, Île-de-France, Auvergne-Rhône-Alpes, and Provence-Alpes-Côte (+38%, +14%, +12%, and +12%, respectively). New intensive care admissions increased in Provence-Alpes-Côte d'Azur and Normandy, and less markedly in Pays de la Loire and Île-de-France. The highest rates of new hospital admissions were once again observed in Provence-Alpes-Côte d'Azur.

In overseas France, new hospital admissions were the highest and rising in French Guiana. New intensive care admissions were the highest in Martinique, though slightly down. New hospital and intensive care admissions were high and increasing in Reunion Island.

Weekly rate of newly hospitalised COVID-19 patients per 100,000 inhabitants, by region, in week 51, France



Source: SI-VIC, data processing by Santé publique France

Variants

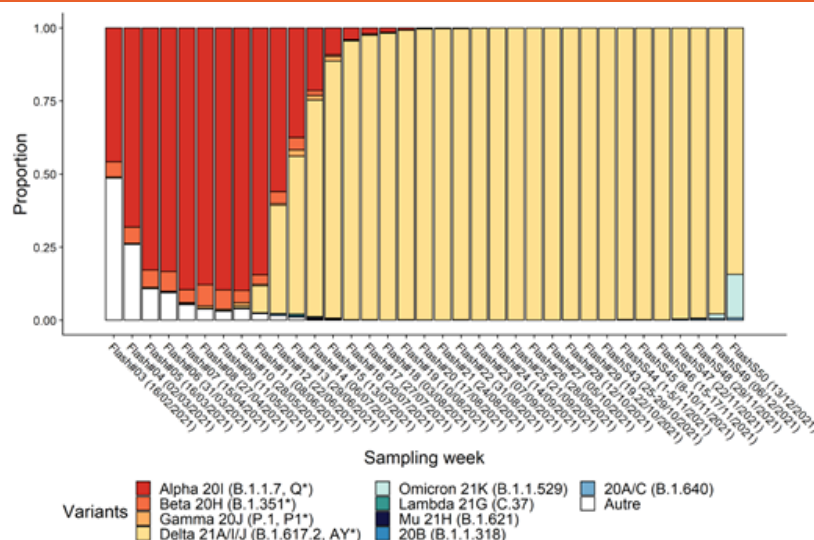
The screening strategy implemented in France aims to detect in a reactive manner any mutations with the suspected presence of SARS-CoV-2 variants of concern (VOC), which have specific characteristics that can change the profile of infection in terms of its transmissibility, severity, or immune escape. Since June 2021, the E484K (A), E484Q (B), and L452R (C) mutations have been targeted (see the [risk assessment](#) from 2/6/2021). Since the emergence of the Omicron variant, screened samples have undergone enhanced monitoring in order to identify specimens with the suspected presence of this variant (profile coded as A0B0C0). Nevertheless, this is not specific to Omicron, as other variants also share this screening profile (e.g., B.1.640). For this reason, the screening strategy was adapted in December, with changes made to the screening kits used by laboratories, which no longer look for the E484Q mutation (B) but instead target mutations specific to the Omicron variant with the addition of a new code (D) in SI-DEP to collect the results.

In week 51, the **proportion of A0C0 samples** increased significantly (39.4% vs 9.3% in week 50), with regional disparities. At the **start of week 52 (Monday 27 December)**, it had risen to **62.4%**. By contrast, the proportion of screened positive samples with the L452R mutation (primarily driven by the Delta variant) dropped to 69.2% in week 51 (vs 89.7% in week 50). The analysis of the results including the specific Omicron mutations (code D) should nevertheless be interpreted with caution given the progressive implementation of this new screening strategy in laboratories, especially as some of them initially investigated these mutations in two phases (with a preference for A0C0 samples). The proportion of Omicron mutations is therefore overestimated, although the trends are interesting. In week 51, 16,198 results had one of the target mutations of Omicron (D1), corresponding to 51% of interpretable results (vs 12% in week 50). At the beginning of week 52 (27-29 December inclusive), the proportion of D1 samples had risen to 68% (20,702 out of 30,530 interpretable results). Overall, these indicators point to the strong acceleration of Omicron.

[Sequencing data](#) confirm the rapid growth in the spread of the Omicron variant in metropolitan France: it represented 1.5% and 15% of interpretable sequences in the Flash Surveys from week 49 (6 December) and week 50 (13 December), respectively (unconsolidated data). This fast evolution is currently being observed in other countries, notably in Europe. On 29 December, the Omicron variant had been detected in all metropolitan and overseas regions (according to the sequencing database EMERGEN and feedback from Regional Units).

The latest risk assessment from the UK confirmed the growth advantage of Omicron over Delta and the fact that Omicron is at least as transmissible as Delta. The significant immune escape of Omicron has also been demonstrated, although the booster dose appears to provide some protection against symptomatic disease. Preliminary results suggest the lower severity of Omicron compared to Delta, although studies are currently underway to confirm these results.

Evolution of the proportion of classified variants (VOC, VOI, and VUM) in the Flash Surveys, Metropolitan France (data on 27 December 2021; unconsolidated data from weeks 48, 49, and 50)



Source: EMERGEN database, data processing by Santé publique France

*VOC: variant of concern; VOI: variant of interest; VUM: variant under monitoring

The **Delta variant** was still identified in 84.3% of 1,501 interpretable sequences in the Flash Survey from week 50 (unconsolidated data), although this proportion has fallen rapidly from 97.9% in the previous week (Flash Survey from week 49, with 3,994 interpretable sequences).

The circulation of the **20A/C variant (B.1.640)**, classified as VUM* since the risk assessment on 12/11/2021, continued in metropolitan France: 0.6% and 0.9% in the Flash Surveys from weeks 49 and 50, respectively (unconsolidated data). As of 27 December 2021, the regions reporting the highest number of cases were Hauts-de-France (188), Île-de-France (171), and Normandy (146) according to the EMERGEN database.

A full update on Omicron and B.1.640 (current knowledge and epidemiological situation) is available in the [updated risk assessment from 15 December 2021](#).

Vaccination

On 28 December 2021, vaccination coverage in the general population based on Vaccin Covid was estimated at 77.0% for a complete primary vaccination series* and 34.4% for the booster dose. In the eligible population aged 12 years and older, 89.6% had received a complete primary vaccination series. In adults aged 18 years and older, 43.7% had received a booster shot, representing 80.7% of those eligible for the booster shot**. In the population aged 65 years and older, 70.6% had received a booster shot, representing 87.9% of those eligible for it.

Vaccination coverage of the booster shot and percentage of the eligible population who received the booster, by age group, France, 28 December 2021

Age group (years)	Vaccination coverage for the booster shot (%)	Eligible population with the booster (%)
18-24	20.8	64.2
25-29	20.8	64.5
30-39	23.9	68.2
40-49	33.5	74.2
50-59	47.1	77.4
60-64	58.1	81.4
65-69	65.8	87.9
70-74	77.1	89.8
75-79	78.8	90.0
80+	65.4	84.8

Source: Vaccin Covid, CNAM, data processing by Santé publique

On 28 December, 93.0% of **residents of nursing homes and long-term care facilities** had received a complete primary vaccination series and 66.5% had received a booster shot. Moreover, 74.6% of residents who were eligible for the booster on 28 December 2021 had received it (vs 73.9% on 21 December 2021).

Vaccination coverage for the booster shot was 44.2% (vs 39.8% on 21 December) for **professionals working in nursing homes or long-term care facilities**, 68.5% (vs 65.2%) for **professionals in private practice**, and 45.3% for **healthcare employees** (vs 41.0%). Vaccination coverage for the booster dose in residents of nursing homes and long-term care facilities as well as health professionals working in these facilities may be underestimated due to the date used for the cohort constitution (March 2021).

On 28 December 2021, 76.2% of **professionals** working in nursing homes and long-term care facilities who were eligible for the booster dose had received it (vs 71.7% on 21 December 2021). This percentage was 86.9% (vs 84.5%) for eligible professionals working in private practice and 79.6% for healthcare employees (vs 76.4%).

On the same date, 76.1% of **people aged 15 years and over living in a vulnerable situation** had completed a primary vaccination series and 33.6% had received a booster dose.

Vaccination coverage data by department are published by [Géodes](#) for metropolitan France. For overseas France, vaccination coverage in the general population is summarised in the following table:

Region	Single vaccine dose (%)	Complete primary vaccination series (%)	Primary vaccination and booster dose (%)
Guadeloupe	36.7	34.8	8.8
French Guiana	30.4	27.2	5.7
Reunion Island	63.1	61.4	16.5
Martinique	38.4	36.5	10.4
Mayotte	53.8	45.4	3.5
Saint Barthélemy	77.9	74.7	22.9
Saint Martin	36.2	33.7	7.7

*The following vaccination schedules are defined as a complete primary vaccination series: two doses of vaccines requiring a double dose for primary vaccination (Pfizer, Moderna, or AstraZeneca vaccines); one dose of vaccines requiring a single dose for primary vaccination (Janssen vaccine); a single vaccine dose in the event of a prior COVID-19 infection; and three vaccine doses excluding the booster shot (particularly in immunocompromised persons).

**The objectives and calculation methods for the two indicators relating to the booster vaccination coverage and the percentage of the eligible population who received the booster shot have been previously [described](#). On 28 December 2021, the time between the primary vaccination and the booster shot was reduced to 3 months for adults aged 18 years and older. This shorter time will be taken into account from next week onwards when estimating the percentage of eligible people who received the booster dose.

Check out the survey of the week

[Monitoring of the cases of paediatric multisystem inflammatory syndrome](#)

For more information on COVID-19, the surveillance systems in place, and vaccination, consult the websites of [Santé publique France](#) and [Vaccination Info Service](#).

For more information on the regional data, see [Regional Epidemiological Updates](#).

Find all the open access data on [Géodes](#)