

OBSERVATORY OF THE IMPACTS OF THE HEALTH CRISIS RELATED TO COVID-19

March 2022

N.B.: This Observatory aims to measure the health and economic consequences of the Covid-19 epidemic in the Principality. It has been set up to complement the reports produced by Monaco Statistics in November 2020 and January 2021.

Thus, this publication presents a monthly analysis of health, mortality and birth data and is enriched quarterly with data on the economy and employment in the Principality.

For this edition:

The health data are stopped at the end of February 2022;

Mortality and birth rate data are updated to February 2022;

The data relating to the economy and employment are stopped at December 2021.

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KEY DATES

	February	March
Monaco 	<p>-On the 10th: 8,956 confirmed cases of COVID-19, including 48 deaths.</p> <p>-On the 28th: Removal of the obligation to wear a mask at school during recess and indoor sports. Food and drink may be consumed outside a dedicated food service area. Resumption of standing cocktails, counter service, standing tables, and locker room service. Coffee breaks and other convivial events between colleagues are now possible. Resumption of combat or contact sports.</p>	<p>-On the 5th: End of the obligation to use telework 3 days a week. However, its application remains recommended.</p> <p>-On the 6th: 9,539 confirmed cases of COVID-19 including 51 deaths.</p> <p>-On the 7th: End of the mask at school for pupils and teachers. Reopening of night schools. Modification of the isolation protocol for family contacts for vaccinated persons. Removal of the obligation of the health pass for the personnel working on building sites. Lifting of the obligation to wear a mask during indoor sports.</p> <p>-On the 14th: End of the health pass for users, clients and employees in all sectors except in health establishments and collective accommodation structures for the elderly. However, the staff covered by the Act of 20 September 2021 remain subject to the vaccination requirement. Removal of the obligation to wear a mask in all outdoor locations.</p>
France 	<p>-On the 2th: Facilities that accommodate seated audiences can operate at full capacity. Teleworking is no longer mandatory but still recommended. Masks are no longer required to be worn outdoors.</p> <p>-On the 10th: 20,451,810 confirmed cases of COVID-19 including 130,732 deaths.</p> <p>-On the 16th: Stand-up concerts resumed, in compliance with the health protocol. In cafés and bars, standing consumption is again authorised. Reopening of discotheques.</p> <p>-On the 28th: Masks are no longer compulsory in enclosed areas subject to the vaccination pass.</p>	<p>-On the 4th: 22,228,657 confirmed cases of COVID-19, including 135,835 deaths.</p> <p>-On the 14th: Application of the vaccination pass suspended in all places where it was required. However, the health pass will remain in force in health establishments, retirement homes and establishments for people with disabilities. Wearing a mask will no longer be compulsory. All places are concerned, except public transport and health establishments.</p>
Italy 	<p>-On the 1st: Travellers over 6 years old entering Italy via France must present a valid health pass.</p> <p>-On the 5th: Activities subject to an enhanced health pass will be accessible to persons with a complete vaccination schedule and a negative test result.</p> <p>-On the 10th: 11,847,436 confirmed cases of COVID-19 including 149,896 deaths.</p>	<p>-On the 4th: 12,910,506 confirmed cases of COVID-19 including 155,399 deaths.</p>
World 	<p>-On the 7th: 10,095,615,243 doses of vaccine administered.</p> <p>-On the 10th: 402,044,502 confirmed cases of COVID-19 including 5,770,023 deaths.</p>	<p>-On the 4th: 440,807,756 confirmed cases of COVID-19 including 5,978,096 deaths.</p> <p>-On the 6th: 10,704,043,684 doses of vaccine administered.</p>

1 Health data

1.1 Covid-19 health monitoring indicators

The health monitoring data for Covid-19 are as of 28 February 2022. They come from the Ministry of Health and Social Affairs, which groups together data from the Department of Health Affairs, the Centre Hospitalier Princesse Grace, the Epidemiological Investigation Unit, the Home Monitoring Unit, town doctors, pharmacies, the Monaco Scientific Center and medical analysis laboratories.

Covid-19 monitoring indicators for Monaco residents as of 28 February 2022

No. of cumulative cases	9,410
<i>of which no. of recontaminations</i>	377
Share of infected residents	23.6%
Cumulative no. of hospitalisations	442
Share of hospitalisations on the no. of cumulative cases	4.7%
Cumulative no. of cases in intensive care	60
Share of cases in intensive care out of the no. of hospitalisations	13.6%
Share of cases in intensive care out of the no. of cumulative cases	0.6%
Cumulative no. of deaths	51
Share of deaths out of the no. of cumulative cases	0.5%

Sources: Ministry of Health and Social Affairs, Monaco Statistics

As of 28 February 2022, the cumulative number of cases since the beginning of the epidemic reached 9,410, including 377 recontaminations. Thus, the proportion of infected residents is 23.6%.

4.7% of cases required hospitalisation, i.e. 442 cases in total, including 60 in intensive care. The average length of hospital stay was 12.9 days overall and 11.5 days for patients who did not stay in intensive care.

The 51 deaths (24 men and 27 women) represent 0.5% of the cumulative cases. The average age at death was 84.3 years overall (82.5 years for men and 85.8 years for women). Two thirds of the deceased residents were aged 80 years and over. 12 deaths concerned people of Monegasque nationality.

1.1.1 Situation in February 2022

Monthly number of Covid-19 cases for Monaco residents

	January 2022	Share	February 2022	Share
No. of unvaccinated cases	1,466	45.9%	487	46.3%
No. of cases with Shareial vaccination scheme	100	3.1%	16	1.5%
No. of cases with full vaccination scheme	953	29.9%	214	20.4%
No. of cases with additional dose vaccination scheme	673	21.1%	334	31.8%
No. of cases	3,192	100%	1,051	100%
<i>of which no. of recontaminations</i>	<i>250</i>	<i>7.8%</i>	<i>86</i>	<i>8.2%</i>

Sources: Ministry of Health and Social Affairs, Monaco Statistics

1,051 new cases of Covid-19 were recorded among residents of Monaco in February 2022. 46.3% of cases (487) concerned unvaccinated residents, a share equivalent to that in January (45.9% for 1,466 cases).

One in five cases (214 patients) involved people with a complete vaccination scheme, compared to 29.9% in December (953 cases). Nearly one in three cases (334) have an additional dose scheme in February, compared to 21.1% (673 cases) in January. It should be noted that the increase in the number of vaccinated people in the population has resulted in a mechanical increase in the number of vaccinated Covid-19 cases.

The number of recontaminations remains high with 8.2% of cases in February after 7.8% in January 2022.

Monthly number of Covid-19-related hospitalisations and resuscitations for residents of Monaco

	January 2022	February 2022
No. of hospital admissions	91	29
No. of hospital admissions not fully vaccinated	26	9
No. of hospital admissions with full vaccination schedule	10	6
No. of hospital admissions with additional dose vaccination scheme	55	14
No. of cases in intensive care	2	0
No. of deaths	9	4

Sources: Ministry of Health and Social Affairs, Monaco Statistics

There were 29 Covid-19-related hospitalisations of residents in February 2022 compared to 91 in the previous month. Of these 29 hospitalisations, 9 were in people who were not fully vaccinated¹, 6 were in residents with a full vaccination scheme⁶ and 14 were in patients with an additional dose vaccination scheme⁷.

In February 2022, there were 4 Covid-19-related deaths.

¹ Unvaccinated or partially vaccinated (one injection of a two-dose protocol).

Covid-19 monitoring indicators for Monaco residents per year (as at 28 February 2022)

	2020	2021	2022
Number of cases	875	4,292	4,243
Number of hospitalisations	81	241	120
Number of resuscitations	19	39	2
Number of deaths	3	35	13
Average age	46.2	39.7	36.9

Sources: Ministry of Health and Social Affairs, Monaco Statistics

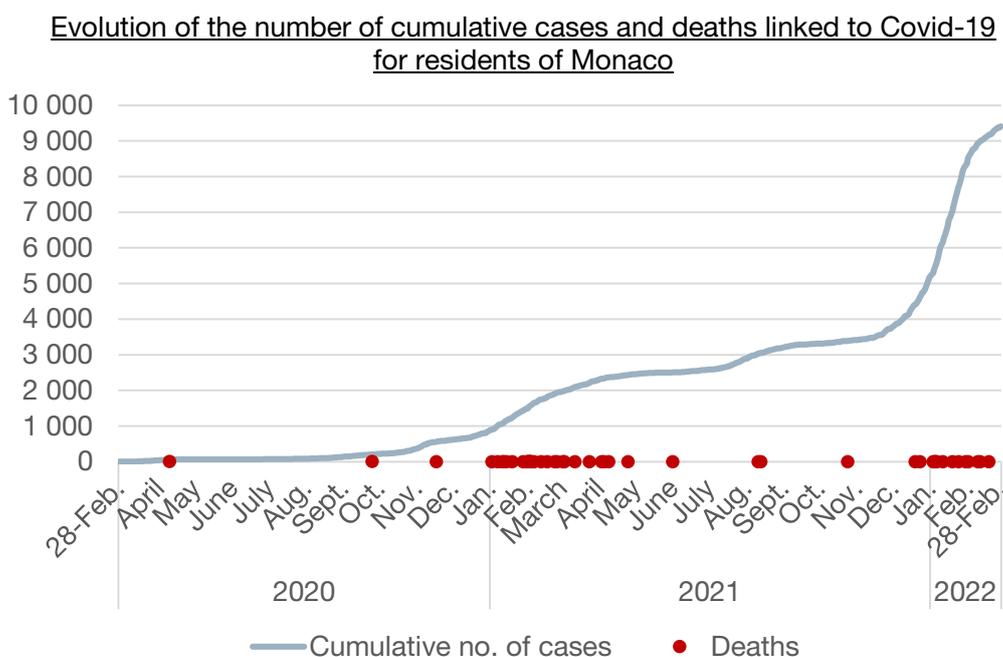
In January and February 2022, 4,243 people were infected with Covid-19, the same number as in 2021 in just 2 months.

By the end of February 2022, the number of hospital admissions is 120, almost 50% higher than for the whole of 2020, but half the number for the whole of 2021.

The number of deaths also remains significantly lower in 2022 at this stage with 13 deaths compared to 35 a year earlier.

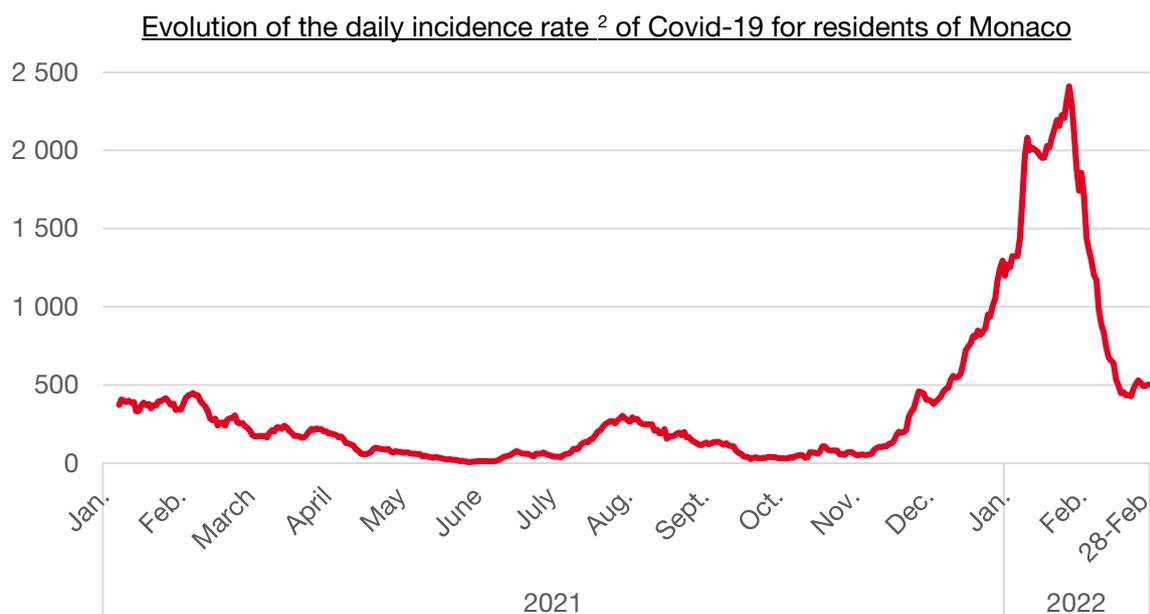
Each year the average age of those infected is falling, from 46.2 in 2020 to 39.7 in 2021 and 36.9 in 2022.

1.1.2 Evolution of the epidemic



Sources: Ministry of Health and Social Affairs, Monaco Statistics

By 28 February 2022, the cumulative number of cases since the start of the pandemic has reached 9,410, almost half of which will occur in 2022.



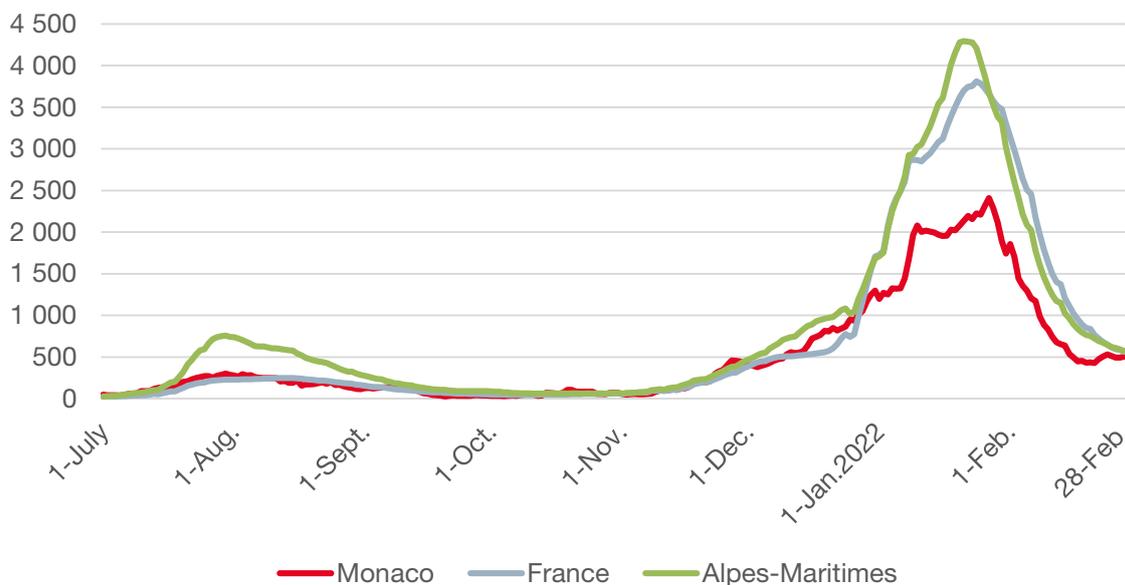
Sources: Ministry of Health and Social Affairs, Monaco Statistics

At the end of January 2022, the incidence rate reached an unprecedented level of 2,409, more than five times higher than in February 2021, the maximum observed until then.

It then fell sharply to around 500 since mid-February.

² The daily incidence rate corresponds to the number of positive tests over the last 7 days per 100,000 inhabitants, i.e.: $100,000 \times \frac{\text{number of positive cases over 7 days}}{\text{estimated number of inhabitants}}$. The most recent estimate of the resident population (as at 31 December 2020) is 38,350 inhabitants.

Changes in the daily incidence rate of Covid-19 in Monaco, France and the Alpes-Maritimes

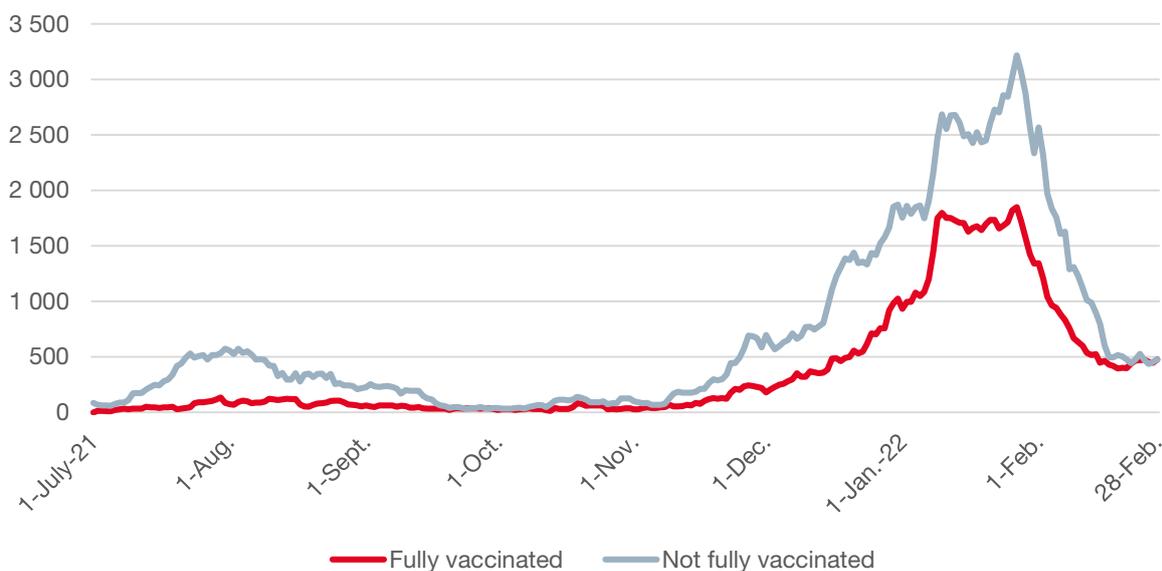


Sources: Ministry of Health and Social Affairs, Santé publique France, Monaco Statistics

In February 2022, the 5th epidemic wave slowed down after having strongly affected all European countries. The incidence rates in Monaco, France and the Alpes-Maritimes reached extremely high levels with peaks of 3,805 on 24 January in France, 4,288 on 21 January in the Alpes-Maritimes and 2,409 on 27 January in Monaco.

On 28 February, the 3 rates were relatively close: slightly above 500.

Changes in the daily incidence rate of Covid-19 for residents of Monaco aged 12 years and over according to vaccination status*



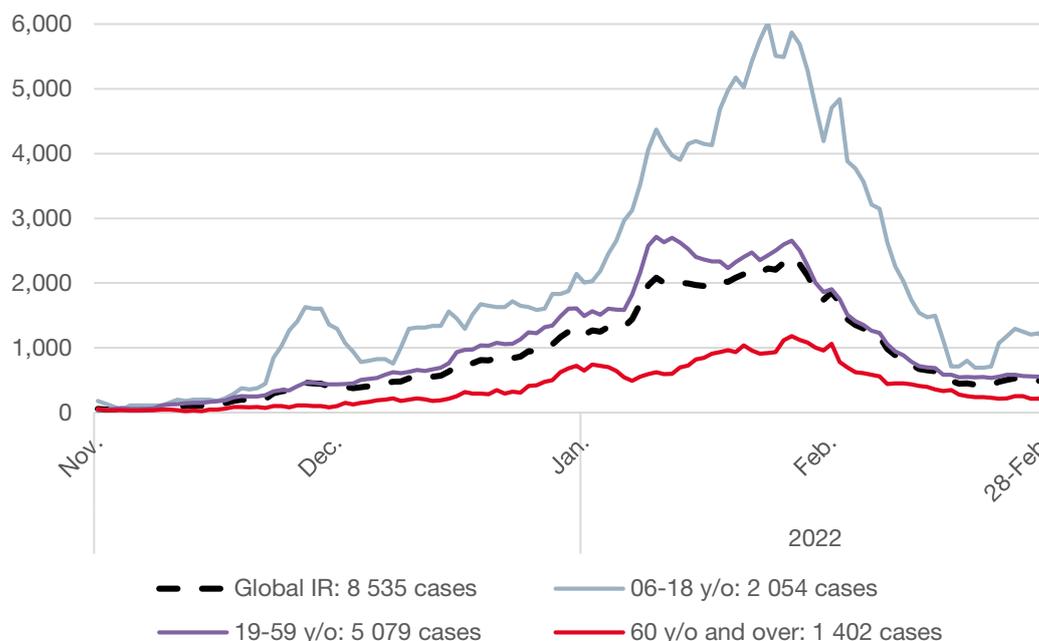
*In this graph, residents with a full vaccination schedule (2nd injection of a two-dose protocol or one injection of a single-dose protocol) are considered fully vaccinated. A resident who is only partially vaccinated (one injection of a two-dose protocol) is considered not fully vaccinated.

Sources: Ministry of Health and Social Affairs, Digital Services Department, Monaco Statistics

The incidence rate of residents not fully vaccinated is higher than that of fully vaccinated residents over the whole period presented (since 1 July 2021).

However, the difference remains significantly higher during the peaks (summer 2021 and winter 2022).

Comparison of incidence rates by age group of Covid-19 of residents



As children under 6 years of age are not systematically tested, they are not represented on this graph.

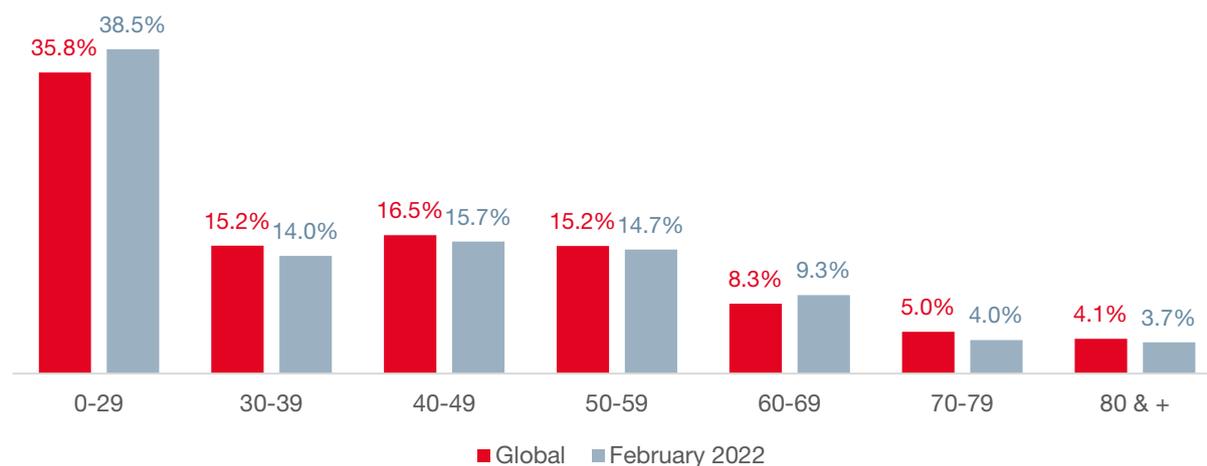
Sources: Ministry of Health and Social Affairs, Monaco Statistics

The evolution of the incidence rates of minors (6-18 years) and over-60s differs from that of the rest of the population:

- From November 2021 onwards, the incidence rate for 6-18 year olds experiences an extremely significant increase. It reaches a maximum of 6,023.8 on 24 January, compared to 178.5 on 1 November. The difference with the global rate had never been so high since the beginning of the pandemic. Then the incidence rate dropped to around 700 between 16 and 21 February. It then rose again to reach 1,093.2 on the 28th.
- The rate for people aged 60 and over, which was comparable to the overall rate until July 2021, has remained significantly lower since then. It stands at 269.2 on 28 February 2022.

The incidence rate for 19-59 year olds, which is relatively close to the overall rate, reaches a maximum of 2,713.1 on 10 January 2022. It was 570.6 on 28 February.

Comparison of the age distribution of Covid-19 cases

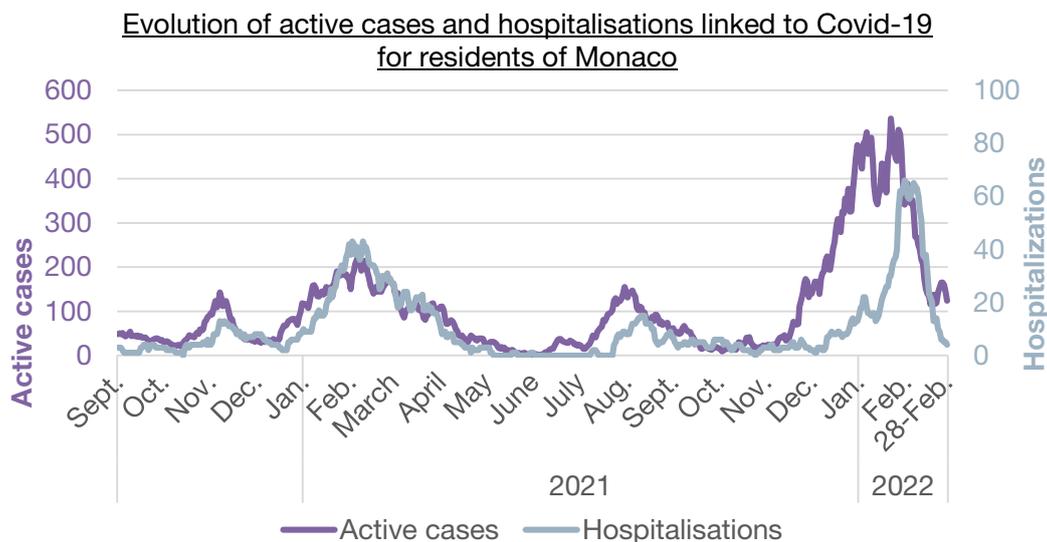


Sources: Ministry of Health and Social Affairs, Monaco Statistics

The age distribution of cases in February 2022 is relatively close to that observed since the beginning of the epidemic.

The largest difference is between those under 30 years of age, who account for 38.5% of cases in February compared to 35.8% overall.

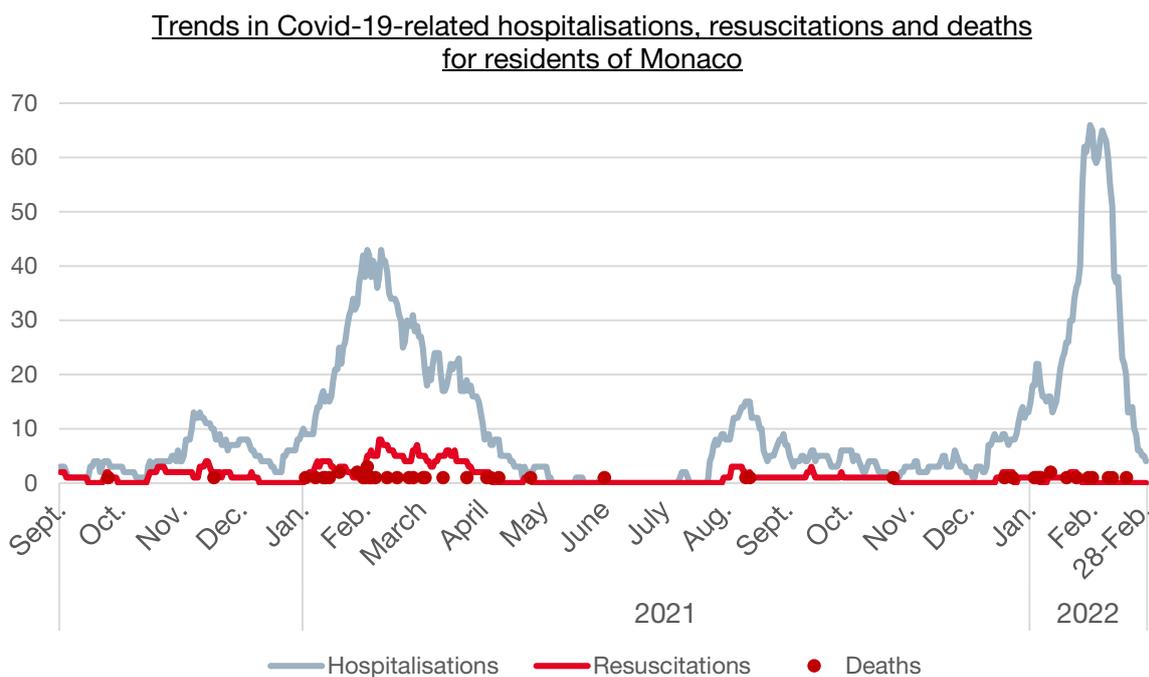
1.1.3 Characteristics of Covid-19-related hospital admissions of Monaco residents



Sources: Ministry of Health and Social Affairs, Monaco Statistics

Until now, the fifth wave has differed from the others by a decorrelation between the number of cases and the number of hospitalisations. However, from January 2022 onwards, the number of hospital admissions rises sharply and reaches a peak of 66 on 1 February 2022.

Thereafter, the number of active cases as well as hospitalisations falls rapidly: on 28 February there are only 4 hospitalisations for 124 active cases.



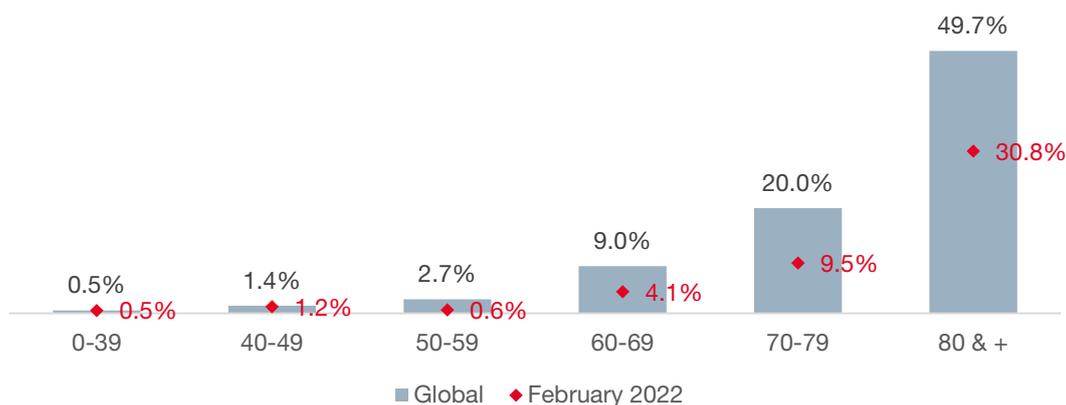
N.B.: Cases in intensive care are also counted as inpatients.

Sources: Ministry of Health and Social Affairs, Monaco Statistics

Between January and February 2022, the wave of hospitalisations (the maximum 66 was reached on 1 February) did not lead to an increase in the number of resuscitations (maximum 2 people between 21 and 24 January and 0 from 27 January).

However, there were 4 deaths in February 2022, well below the 11 deaths in February 2021.

Share of Covid-19-related hospitalisations by age group



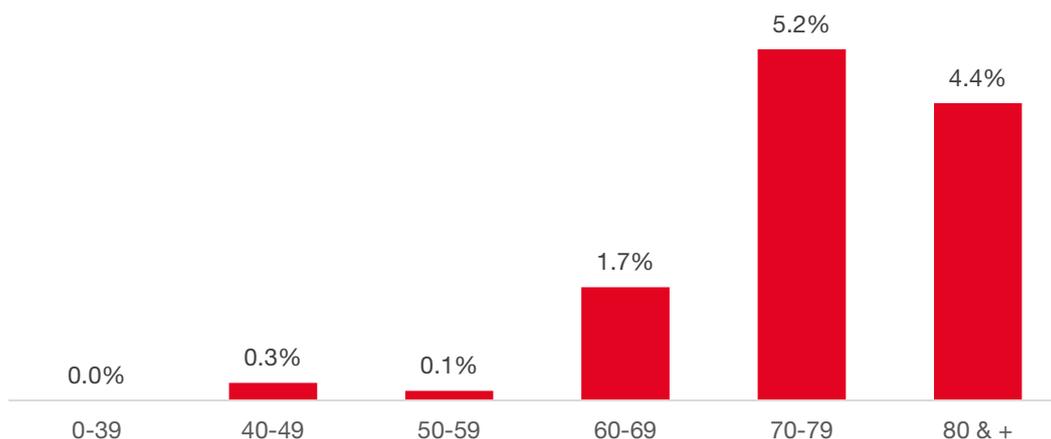
Sources: Ministry of Health and Social Affairs, Monaco Statistics

Interpretation: in February 2022, 30.8% of people over 80 years of age who contracted covid-19 required hospitalisation, compared to 49.7% since the beginning of the epidemic.

The proportion of hospitalisations increases with age. Since the beginning of the epidemic, 0.5% of cases under 40 years of age have been hospitalised compared to 9.0% between 60-69 years of age, 20.0% between 70-79 years of age and almost half after 80 years of age.

In February 2022, the proportion of people hospitalised is lower than the overall figure for each age group.

Share of Covid-19-related ICU hospitalisations by age group



Sources: Ministry of Health and Social Affairs, Monaco Statistics

Hospitalisations in intensive care units exclusively concern people over 40 years old. Since the beginning of the epidemic, they represent 1.7% of cases between 60 and 69 years old, 5.2% of cases between 70 and 79 years old and 4.4% for residents over 80 years old.

No cases of Covid-19 required an ICU stay in February 2022.

1.2 Vaccination

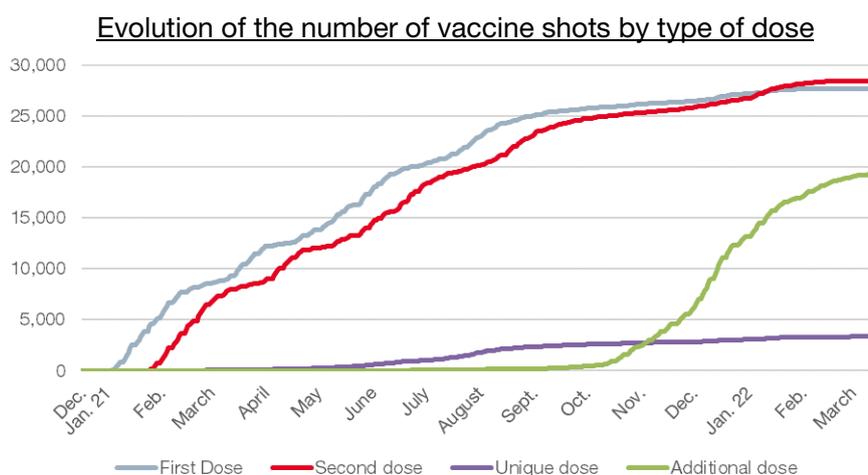
The vaccination campaign started on 31 December 2020 in the Principality³. Only one type of vaccine is currently being administered, Pfizer/BioNTech's Comirnaty, which requires the injection of two doses 21 days apart for people who have not previously been infected by the disease and a single dose for those who have already had Covid-19.

Since 10 June 2021, vaccination has been open to any person aged 12 and over and subsequently to non-residents working in the Principality. At the beginning of January 2022, children aged between 5 and 11 years, resident or attending school in the Principality, at risk of contracting severe forms of Covid-19 or living in the environment of an immunocompromised person could be vaccinated at the National Immunisation Centre.

An additional booster dose can also be given to people aged 18 years and over, provided that it has been more than four months since the last dose of Covid-19 vaccine was given.

Vaccination data is as of 27 February 2022.

1.2.1 Evolution of vaccination



Sources: Ministry of Health and Social Affairs, Digital Services Department, Monaco Statistics

As of 27 March 2022, 78,708 vaccine shots have been administered to people aged 12 years and older. This includes almost 27,700 first doses and almost 28,500 second doses. The number of single doses⁴ is above 3,300 and the number of additional doses is close to 19,300.

Vaccination is gender-equal. Indeed, 50.6% of shots were given to women.

Distribution of shots by country of residence as of 27 March 2022

	Type of doses				Total
	First	Second	Unique	Additional	
Monaco	22,020	22,631	2,035	16,099	62,785
France	5,444	5,633	1,266	3,073	15,416
Italy	141	139	16	56	352
Others*	62	60	6	27	155
Total	27,667	28,463	3,323	19,255	78,708

*Others including not filled in

Sources: Ministry of Health and Social Affairs, Digital Services Department, Monaco Statistics

Of the 78,708 doses administered in total, more than 15,400 were given to people living in France and 352 to Italian residents.

³ Source: <https://covid19.mc/>

⁴ Single doses: People previously infected with Covid-19 are offered a single dose of vaccine, as they retain an immune memory. This single dose of vaccine thus acts as a booster after infection.

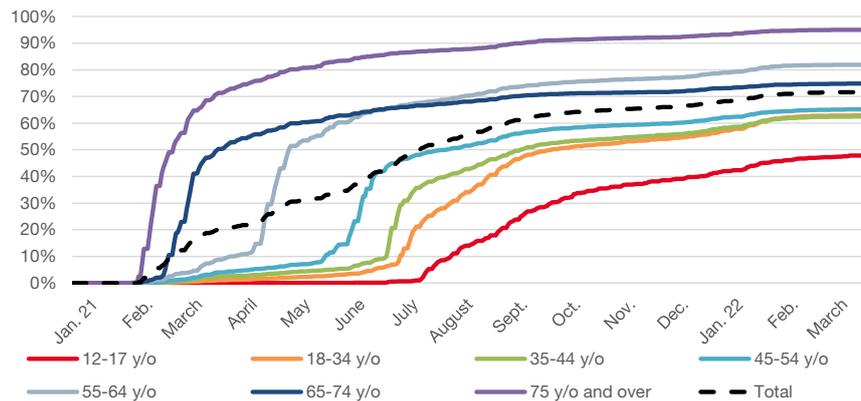
1.2.2 Vaccination coverage

The vaccination coverage presented below concerns the resident population of Monaco. It includes:

- All injections given in the Principality to residents;
- Part of the injections given abroad to residents: on the one hand, cases where the first dose was given abroad and then declared to the Vaccination Centre in order to be able to give the second dose in the Principality and, on the other hand, cases where the 2 doses were given abroad and then declared to the Vaccination Centre in order to request a health pass or to have recourse to serological monitoring.

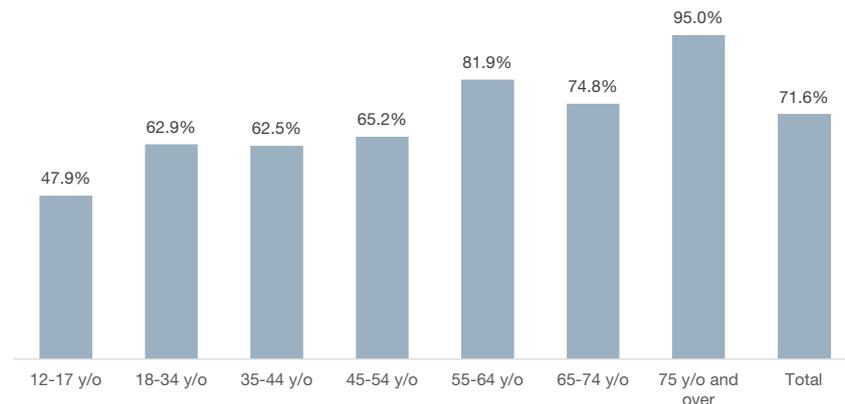
However, it is not possible to know which residents were vaccinated abroad and did not report to the vaccination centre. Thus, the vaccination coverage of residents remains underestimated by this unquantifiable part of residents vaccinated abroad and not declared.

Evolution of the vaccination coverage rate - complete schedule⁵ for residents by age group



Sources: Ministry of Health and Social Affairs, Digital Services Department, Monaco Statistics

Vaccination coverage rate - complete scheme for residents by age group as of 27 March 2022



Sources: Ministry of Health and Social Affairs, Digital Services Department, Monaco Statistics

The vaccination coverage rate - complete schedule for the resident population increases with age. As of 27 March 2022, the vaccination coverage rate - complete schedule is 71.6% for the resident population aged 12 and over.

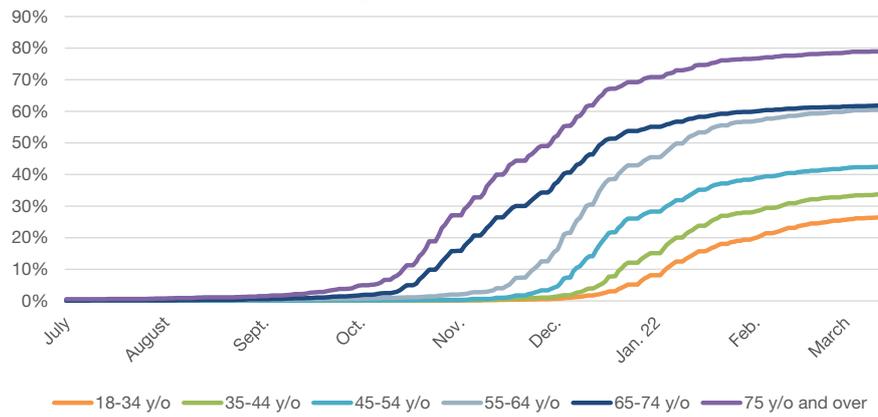
It is above 62% for all age groups from 18 years onwards.

It is close to 82% among 55-64 year olds and 95% among those aged 75 and over.

Nearly one resident in two aged 12-17 has a complete vaccination schedule.

⁵ Vaccination coverage - complete schedule: Share of the population vaccinated with a second shot of a two-dose schedule or one shot of a single-dose schedule.

Evolution of the vaccination coverage rate - additional dose⁶ of residents by age group



N.B.: As the additional dose mainly concerns people aged 18 and over, only these age groups are presented.

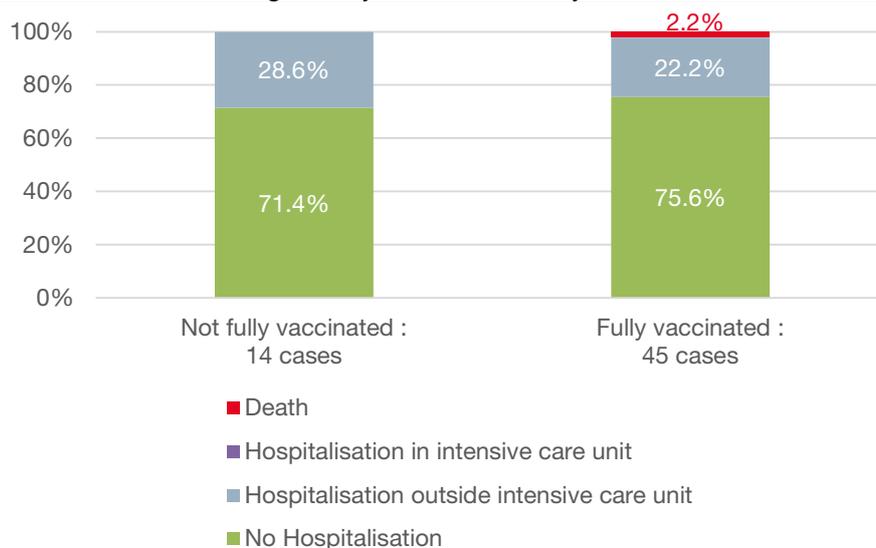
Sources: Ministry of Health and Social Affairs, Digital Services Department, Monaco Statistics

As of 27 March 2022, the vaccination coverage rate - additional dose is 79% for residents aged 75 years and over, and is above 60% for all age groups above 55 years.

⁶ Vaccination coverage - additional dose: Share of the population vaccinated with a third injection of a two-dose schedule or a second injection of a single-dose schedule.

1.2.3 Impact of vaccination on positive cases

Distribution of Covid-19 cases aged 75 years and over by vaccination status* in February 2022



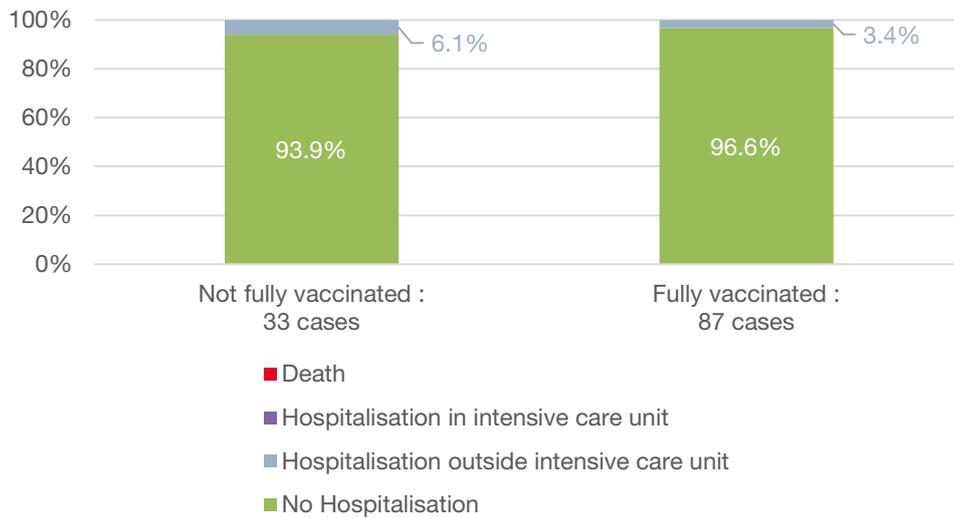
**In this graph, residents with a full schedule (2nd injection of a two-dose protocol or one injection of a single-dose protocol) are considered fully vaccinated. A resident who is only partially vaccinated (one injection of a two-dose protocol) is considered not fully vaccinated.*

Sources: Ministry of Health and Social Affairs, Monaco Statistics

In February 2022, more than 71% of residents (10 people), not fully vaccinated, over 75 years old who contracted covid-19 did not require hospitalisation. However, 4 were hospitalised. There were no deaths.

Of the 45 fully vaccinated cases over 75 years of age, 34 (75.6%) did not require hospitalisation but one person died.

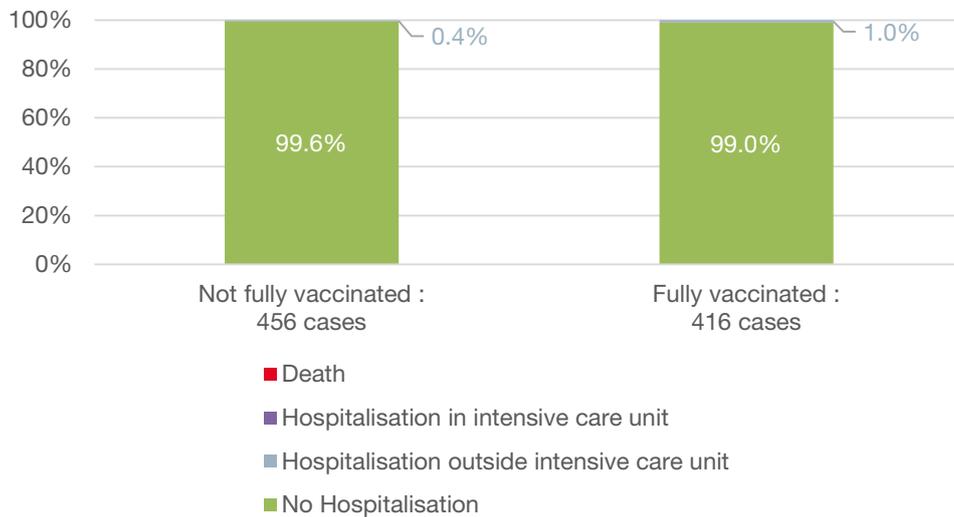
Distribution of Covid-19 cases aged 60-74 by vaccination status⁷ in February 2022



Sources: Ministry of Health and Social Affairs, Monaco Statistics

Among covid cases aged 60-74 years, the share of hospitalisation is 3.4% for fully vaccinated persons while it is 6.1% for non-vaccinated persons.

Distribution of Covid-19 cases aged under 60 by vaccination status⁷ in February 2022



Sources: Ministry of Health and Social Affairs, Monaco Statistics

Of the 872 cases of covid-19 under the age of 60, only 6 people, 4 of whom were fully vaccinated, required hospitalisation.

⁷ In these graphs, residents with a complete scheme (2nd injection of a two-dose protocol or one injection of a single-dose protocol) are considered fully vaccinated. A resident who is only partially vaccinated (one injection of a two-dose protocol) is considered not fully vaccinated.

2 Mortality and birth rate

It is important to note that the deaths and births presented here are in the sense of the actual date of the event: a birth or death occurring at the end of the month but registered by the Town Hall at the beginning of the following month will be considered in the month in which the event occurred.

The data presented in this Observatory are therefore consolidated from one month to the next, which explains the slight differences that may appear in relation to previously published statistics.

The results presented should be interpreted with caution given the small size of the numbers studied.

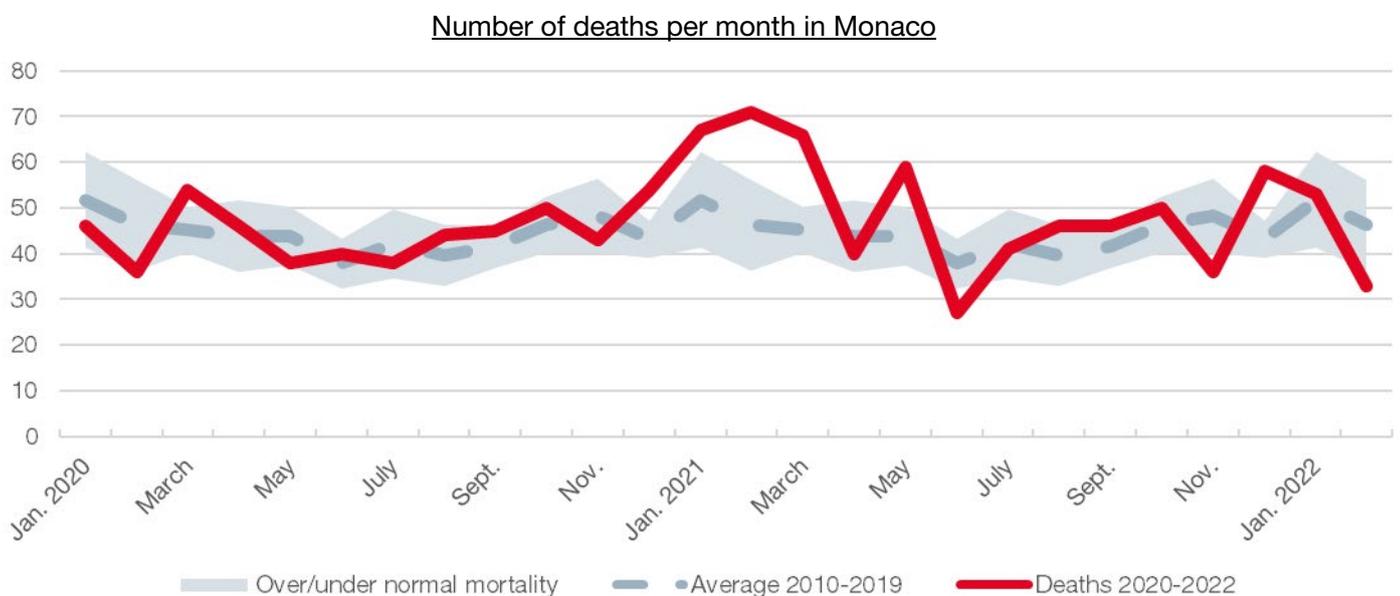
2.1 Analysis of deaths

As a reminder, the cause of death is not available in the Civil Registry data.

The over/under-mortality corresponds to a two-sided confidence interval of the 2010-2019 average of deaths at the 99% threshold following a Student's law. By comparing it with the mortality observed between 2020 and 2022, it makes it possible to represent a significant excess or deficit of deaths compared with the normal.

2.1.1 Deaths in Monaco, all places of residence combined

These are all deaths registered in Monaco, regardless of place of residence.



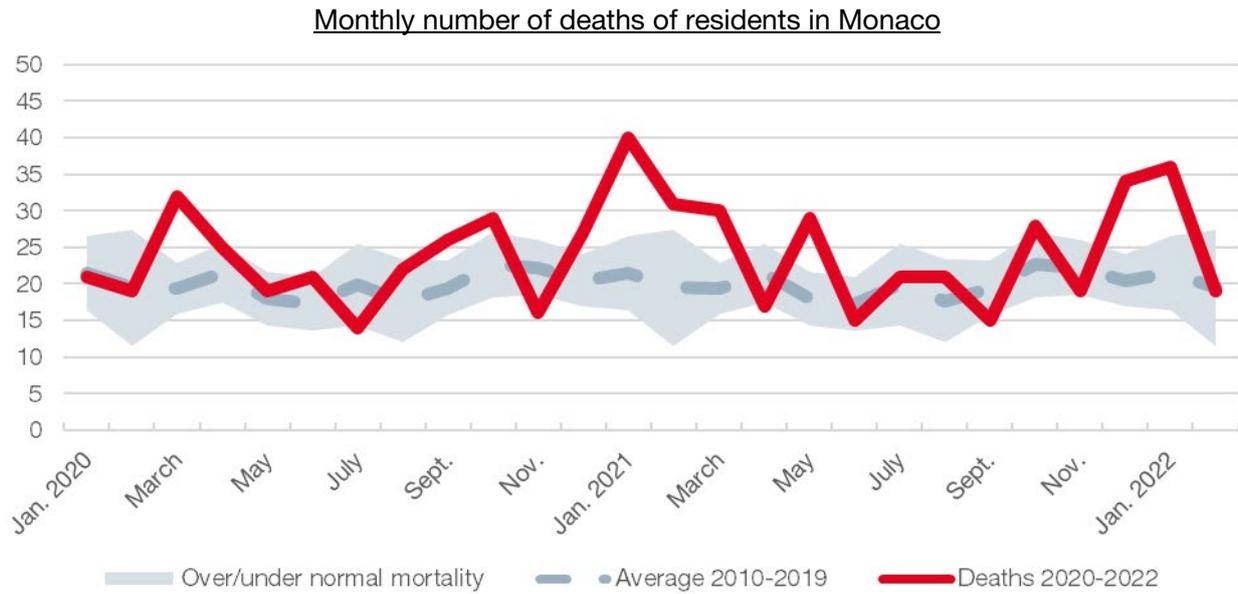
Sources: Town Hall, Monaco Statistics

Reading: in February 2022, 33 deaths were recorded in Monaco compared with an average of 46 between 2010 and 2019, for a normal over/under mortality of between 36 and 56 deaths.

With 33 deaths, the month of February 2022 is lower than the normal under-mortality for 2010-2019. Moreover, there were half as many deaths as in February 2021, when there were 71.

2.1.2 Deaths of residents in Monaco

These are only deaths of residents in Monaco. Deaths of residents outside Monaco are therefore not included.



Sources: Town Hall, Monaco Statistics

Reading: in February 2022, 19 resident deaths were recorded in Monaco compared with an average of 20 between 2010 and 2019, for a normal excess/sub-mortality of between 12 and 27 deaths.

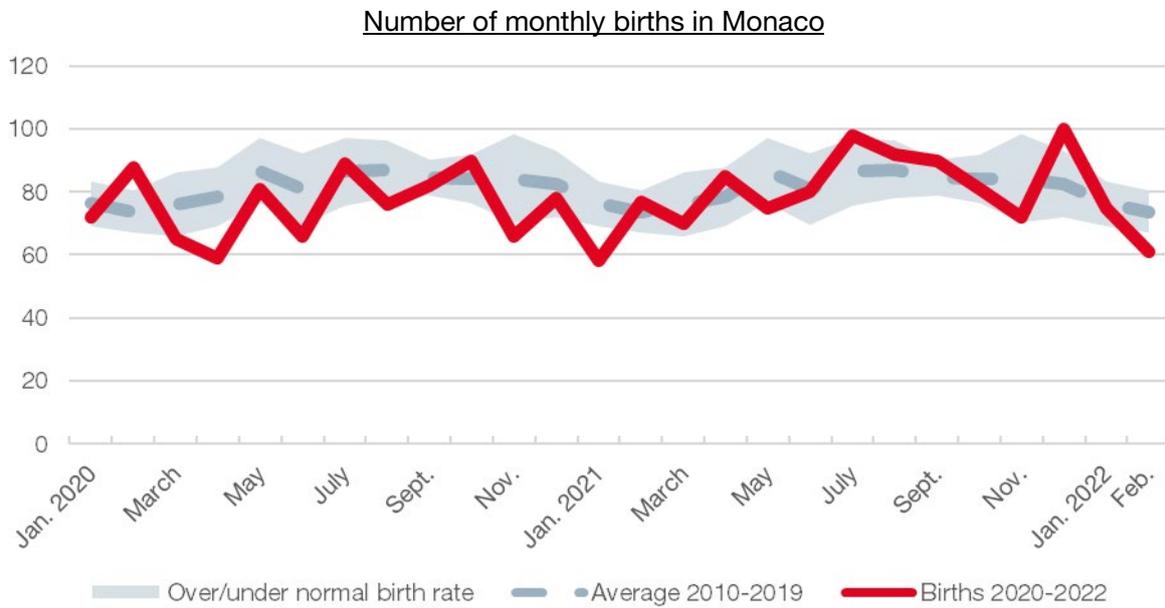
In February 2022, 19 residents died a number very close to the 2010-2019 average and much lower than February 2021, which had 31.

2.3 Analysis of births

The over/under birth rate is a two-sided confidence interval of the average 2010-2019 birth rate at the 99% threshold following a Student's law. By comparing it to the observed birth rate between 2020 and 2022, it allows a significant surplus or deficit of births to be represented in relation to the normal.

2.3.1 Births in Monaco, all places of residence combined

These are all births registered in Monaco, regardless of place of residence.



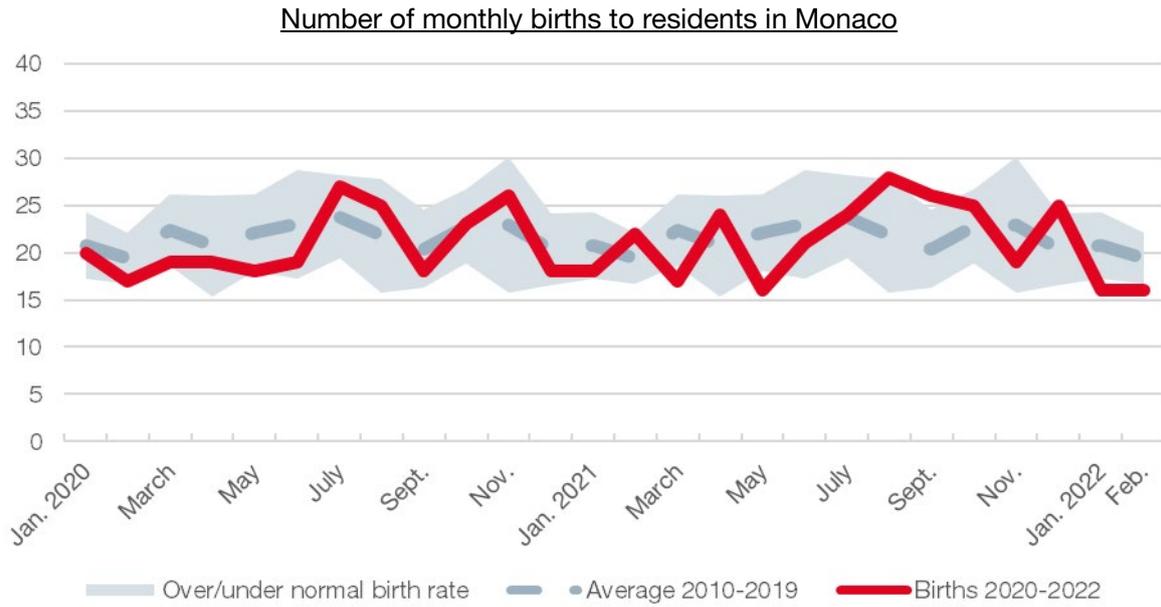
Sources: Town Hall, Monaco Statistics

Reading: in February 2022, 61 births were registered in Monaco compared to an average of 74 between 2010 and 2019, for a normal over/under birth rate of between 67 and 80 births.

The number of births (61) in February 2022 is below the normal low birth rate.

2.3.2 Births of residents in Monaco

These are only births to residents of Monaco (resident father and/or mother).



Sources: Town Hall, Monaco Statistics

Reading: in February 2022, 16 resident births were registered in Monaco compared with an average of 19 between 2010 and 2019, for a normal over/under birth rate of between 17 and 22 births.

In February 2022, 16 resident births (conceived in May 2021 if born at full term) were recorded in Monaco, i.e. slightly fewer than the normal under-birth rate for 2010-2019.

3 Economy

3.1 Revenue⁸



Unit: million euros

Sources: Department of Tax Services, Monaco Statistics

For the first time, Monegasque revenue, excluding Financial and insurance activities, exceeds €16 billion, thanks in particular to the results of the two trade sectors. It is up by 1.9 billion euros compared to 2020 (+13.3%), but the encouraging results of certain sectors of activity compared to last year must be qualified by the health context.

Change in revenue by sector

	Q4 2019	Q4 2020	Q4 2021	Var 20/21	Var 19/21
<i>Financial and insurance activities</i>	1,866.7	1,798.2	1,737.1	-3.4%	↘
Wholesale trade	4,703.2	4,245.4	5,134.6	20.9%	↗
Retail trade	1,686.9	1,536.5	1,926.7	25.4%	↗
Accommodation and food service activities	809.1	423.1	577.2	36.4%	↘
Manufacturing, mining and quarrying, and others industries	807.7	698.3	808.7	15.8%	↗
Real Estate activities	813.4	1,031.2	696.0	-32.5%	↘
Construction	1,927.5	2,039.1	2,143.7	5.1%	↗
Transportation and storage	595.8	453.8	584.4	28.8%	↘
Scientific and technical activities, administrative and support service activities	1,980.3	2,523.2	2,628.0	4.2%	↗
Other service activities	938.6	519.0	743.6	43.3%	↘
Information and communication	626.2	580.9	680.0	17.1%	↗
Public administration, education, human health and social work activities	94.0	89.6	99.9	11.6%	↗
Total	14,982.8	14,140.1	16,022.8	13.3%	↗

Unit: million euros

Sources: Department of Tax Services, Monaco Statistics

The Principality's revenue is €1.0 billion (+6.9%) higher than in 2019. However, a few Major economic sectors (MES) remain below their pre-pandemic levels.

⁸ Calculated on the basis of VAT declarations during the submission period.

Total revenue does not include that derived from financial and insurance activities. As revenue is less relevant an indicator than for other sectors, it is presented for indicative purpose.

3.1.1 Sectors increasing compared to 2020

NAF group of Wholesale trade	Q4 2020	Q4 2021	Difference	%	Var 19/21
Wholesale on a fee or contract basis	1,758.4	2,374.0	615.6	35.0%	↗
Wholesale of food, beverages and tobacco	875.0	983.5	108.5	12.4%	↗
Wholesale of household goods	814.1	929.6	115.5	14.2%	↗
Wholesale of other machinery, equipment and supplies	375.7	377.3	1.6	0.4%	↘
Other specialised wholesale	327.6	367.3	39.6	12.1%	↗
Non-specialised wholesale trade	49.3	53.6	4.2	8.6%	↘
Wholesale of information and communication equipment	43.1	47.3	4.2	9.9%	↗
Wholesale of agricultural raw materials and live animals	2.1	2.0	0.0	-1.3%	↘
Grand total in million euros	4,245.4	5,134.6	889.2	20.9%	↗

Wholesale trade is growing significantly (+€889.2 million, i.e. +20.9 %) and more than two thirds of its growth is due to Wholesale on a fee or contract basis (+€615.6 million, i.e. +35.0 %). The latter are also up by €437.2 million (+22.6 %) compared to 2019, explaining the increase in revenue over the last two years alone (+€431.4 million, i.e. +9.2 %).

NAF group of Retail trade	Q4 2020	Q4 2021	Difference	%	Var 19/21
Retail sale of other goods in specialised stores	644.2	889.6	245.4	38.1%	↗
Sale of motor vehicles	444.7	555.6	110.9	24.9%	↗
Retail sale in non-specialised stores	174.6	176.7	2.1	1.2%	↗
Retail trade not in stores, stalls or markets	78.0	80.4	2.5	3.2%	↗
Retail sale of other household equipment in specialised stores	42.8	49.8	7.0	16.4%	↗
Retail sale of information and communication equipment in specialised stores	42.0	46.9	4.9	11.7%	↗
Retail sale of food, beverages and tobacco in specialised stores	27.1	33.4	6.3	23.1%	↗
Sale of motor vehicle parts and accessories	28.4	31.5	3.0	10.7%	↘
Retail sale of cultural and recreation goods in specialised stores	23.1	28.2	5.1	22.2%	↗
Retail sale of automotive fuel in specialised stores	14.8	16.1	1.2	8.3%	↘
Maintenance and repair of motor vehicles	7.1	8.2	1.1	14.9%	↗
Retail sale via stalls and markets	5.3	6.2	0.9	17.1%	↗
Sale, maintenance and repair of motorcycles and related parts and accessories	4.5	4.2	-0.2	-4.5%	↗
Grand total in million euros	1,536.5	1,926.7	390.2	25.4%	↗

The Sale of motor vehicles and the Retail sale of other goods in specialised stores, which includes jewellery and watch shops as well as clothing, are driving the Retail trade (+€390.2 million, i.e. +25.4 %). It is also significantly higher than in 2019 (+€239.7 million, i.e. +14.2 %).

NAF division of Other service activities	Q4 2020	Q4 2021	Difference	%	Var 19/21
Sports activities and amusement and recreation activities	222.0	314.5	92.5	41.7%	↘
Gambling and betting activities	143.2	229.0	85.8	59.9%	↘
Creative, arts and entertainment activities	67.3	99.8	32.4	48.1%	↘
Other personal service activities	42.5	52.0	9.5	22.4%	↗
Activities of membership organisations	38.0	41.3	3.3	8.7%	↗
Repair of computers and personal and household goods	3.8	5.0	1.1	29.3%	↘
Libraries, archives, museums and other cultural activities	2.3	2.2	-0.1	-3.9%	↘
Grand total in million euros	519.0	743.6	224.6	43.3%	↘

The recovery of Sports activities and Gambling and betting activities allows Other service activities to post the strongest relative growth in 2021 (+43.3 %, i.e. +€224.6 million). However, their revenue remains lower than in 2019 (€743.6 million vs. €938.6 million).

NAF division of Accommodation and food service activities	Q4 2020	Q4 2021	Difference	%	Var 19/21
Accommodation	288.3	408.0	119.6	41.5%	↘
Food and beverage service activities	134.7	169.2	34.5	25.6%	↘
Grand total in million euros	423.1	577.2	154.1	36.4%	↘

Also, the Accommodation and food service activities are not back to their pre-crisis level (-€232.0 million, i.e. -28.7 %), but is still up by 36.4% compared to 2020 (i.e. +€154.1 million).

NAF group of Transportation and storage	Q4 2020	Q4 2021	Difference	%	Var 19/21
Support activities for transportation	293.6	347.0	53.3	18.2%	↘
Sea and coastal freight water transport	32.1	74.1	42.1	131.1%	↗
Freight transport by road and removal services	40.8	48.4	7.5	18.5%	↗
Sea and coastal passenger water transport	26.5	45.5	18.9	71.3%	↗
Other passenger land transport	34.0	38.7	4.7	13.8%	↘
Passenger air transport	21.3	24.7	3.5	16.3%	↘
Other postal and courier activities	3.9	4.4	0.5	13.0%	↗
Warehousing and storage	1.5	1.5	0.0	1.7%	↘
Grand total in million euros	453.8	584.4	130.5	28.8%	↘

Revenue from Transportation and storage increased (+€130.5 million, i.e. +28.8 %) and is close to that of 2019 (+€595.8 million) thanks to the growth of Support activities and Sea and coastal freight and passenger water transport.

NAF division of Manuf., mining and quarrying, and others industries	Q4 2020	Q4 2021	Difference	%	Var 19/21
Manufacture of rubber and plastic products	196.6	241.8	45.2	23.0%	↘
Manufacture of chemicals and chemical products	107.9	128.2	20.3	18.9%	↘
Electricity, gas, steam and air conditioning supply	74.5	81.9	7.4	9.9%	↗
Manufacture of basic pharmaceutical products and pharmaceutical preparations	43.8	52.2	8.4	19.1%	↗
Manufacture of wearing apparel	50.5	49.5	-1.0	-2.0%	↘
Waste collection, treatment and disposal activities; materials recovery	32.3	33.4	1.1	3.4%	↘
Manufacture of other non-metallic mineral products	23.2	32.2	9.0	38.6%	↗
Repair and installation of machinery and equipment	26.0	27.6	1.6	6.1%	↘
Other NAF divisions	143.5	161.9	18.5	12.9%	↘
Grand total in million euros	698.3	808.7	110.4	15.8%	↗

Similarly, Manufacturing, mining and quarrying and others industries (+€110.4 million, i.e. +15.8 %) are back to their 2019 level (€807.7 million), driven by the results of the Manufacture of rubber and plastic products and the Manufacture of chemicals and chemical products.

NAF division of Scientif. and tech. act., admin. and support service act.	Q4 2020	Q4 2021	Difference	%	Var 19/21
Other professional, scientific and technical activities	1,012.9	936.9	-76.0	-7.5%	↗
Activities of head offices; management consultancy activities	449.4	451.5	2.1	0.5%	↘
Rental and leasing activities	226.6	325.8	99.2	43.8%	↗
Architectural and engineering activities; technical testing and analysis	308.7	267.8	-41.0	-13.3%	↘
Employment activities	175.0	221.2	46.2	26.4%	↗
Office administrative, office support and other business support activities	93.5	109.8	16.3	17.5%	↘
Legal and accounting activities	98.3	99.8	1.5	1.5%	↗
Advertising and market research	47.2	67.7	20.5	43.4%	↘
Services to buildings and landscape activities	51.3	59.7	8.4	16.3%	↗
Travel agency, tour operator and other reservation service and related activities	32.0	52.3	20.4	63.7%	↘
Security and investigation activities	20.2	22.9	2.7	13.2%	↘
Scientific research and development	7.0	11.6	4.6	65.1%	↗
Veterinary activities	1.1	1.0	0.0	-3.1%	↗
Grand total in million euros	2,523.2	2,628.0	104.8	4.2%	↗

The revenue of Scientific and technical activities, administrative and support service activities increased (+€104.8 million, i.e. +4.2 %), thanks to the Activities of temporary employment agencies and Rental and leasing activities. In 2020, the Activities of quantity surveyors benefited from an exceptional operation which continued to a lesser degree in 2021. This has the effect of limiting the increase in this MES this year, but boosting growth compared to 2019 (+€647.7 million, i.e. +32.7 %).

NAF division of Construction	Q4 2020	Q4 2021	Difference	%	Var 19/21
Specialised construction activities	1,180.2	1,380.7	200.6	17.0%	↗
Construction of buildings	614.3	604.3	-10.0	-1.6%	↗
Civil engineering	244.6	158.7	-86.0	-35.1%	↘
Grand total in million euros	2,039.1	2,143.7	104.6	5.1%	↗

Construction continues to grow (+€104.6 million, i.e. +5.1 %), driven by Masonry works and building structural works. It is showing growth of +€216.2 million (i.e. +11.2 %) relative to 2019.

NAF division of Information and communication	Q4 2020	Q4 2021	Difference	%	Var 19/21
Telecommunications	223.7	261.7	38.0	17.0%	↗
Motion picture, video and television programme production, sound recording and music publishing activities	156.0	189.7	33.8	21.7%	↗
Computer programming, consultancy and related activities	141.5	153.8	12.3	8.7%	↗
Publishing activities	39.3	53.1	13.8	35.2%	↘
Information service activities	14.6	15.9	1.4	9.5%	↗
Programming and broadcasting activities	5.9	5.8	-0.2	-3.0%	↘
Grand total in million euros	580.9	680.0	99.1	17.1%	↗

Lastly, Information and Communication is experiencing a strong revival in growth (+€99.1 million, i.e. +17.1 %), bringing it above its 2019 level (€626.2 million).

3.1.2 Sectors decreasing compared to 2020

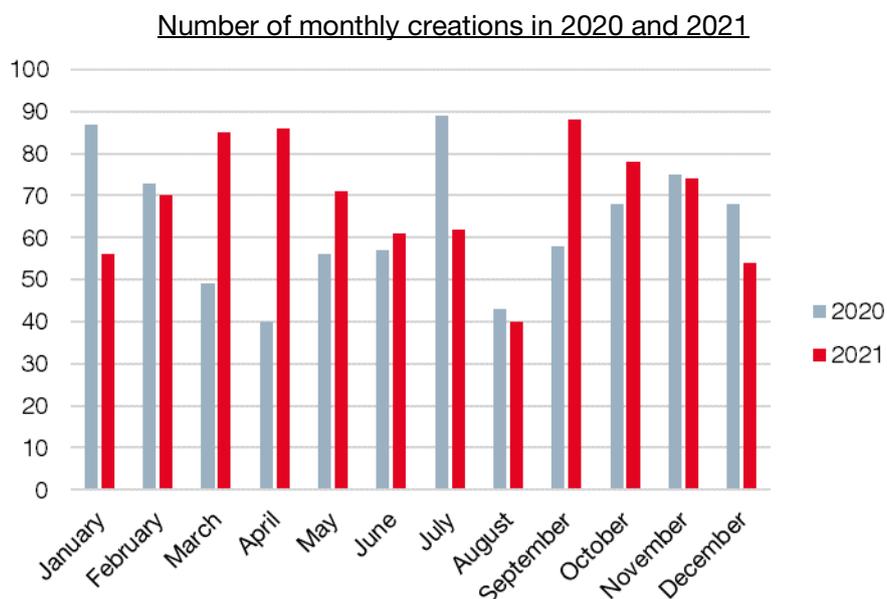
NAF code of Real Estate activities	Q4 2020	Q4 2021	Difference	%	Var 19/21
Buying and selling of own real estate	510.6	298.7	-211.9	-41.5%	↘
Letting of land and other own property	294.9	179.9	-115.1	-39.0%	↘
Real estate agencies	174.7	158.4	-16.3	-9.3%	↘
Letting of dwellings	38.0	38.9	0.8	2.2%	↘
Management of residential building and other real estate on a fee or contract basis	12.4	19.4	7.0	56.9%	↗
Juridical arrangement of immovable property management	0.6	0.8	0.2	35.6%	↘
Grand total in million euros	1,031.2	696.0	-335.2	-32.5%	↘

Real Estate activities is the only sector to decline (-€335.2 million, i.e. -32.5 %), mainly due to the results of Buying and selling of own real estate, followed by Letting of land and other own property. This MES also shows a negative difference with 2019 (-€117.4 million, i.e. -14.4 %).

3.2 Creations and strike-offs establishments

3.2.1 Establishments created

Year-to-date, the number of new establishments is up on last year (825 compared to 763, i.e. +8.1%) but remains lower than in 2019 (882).

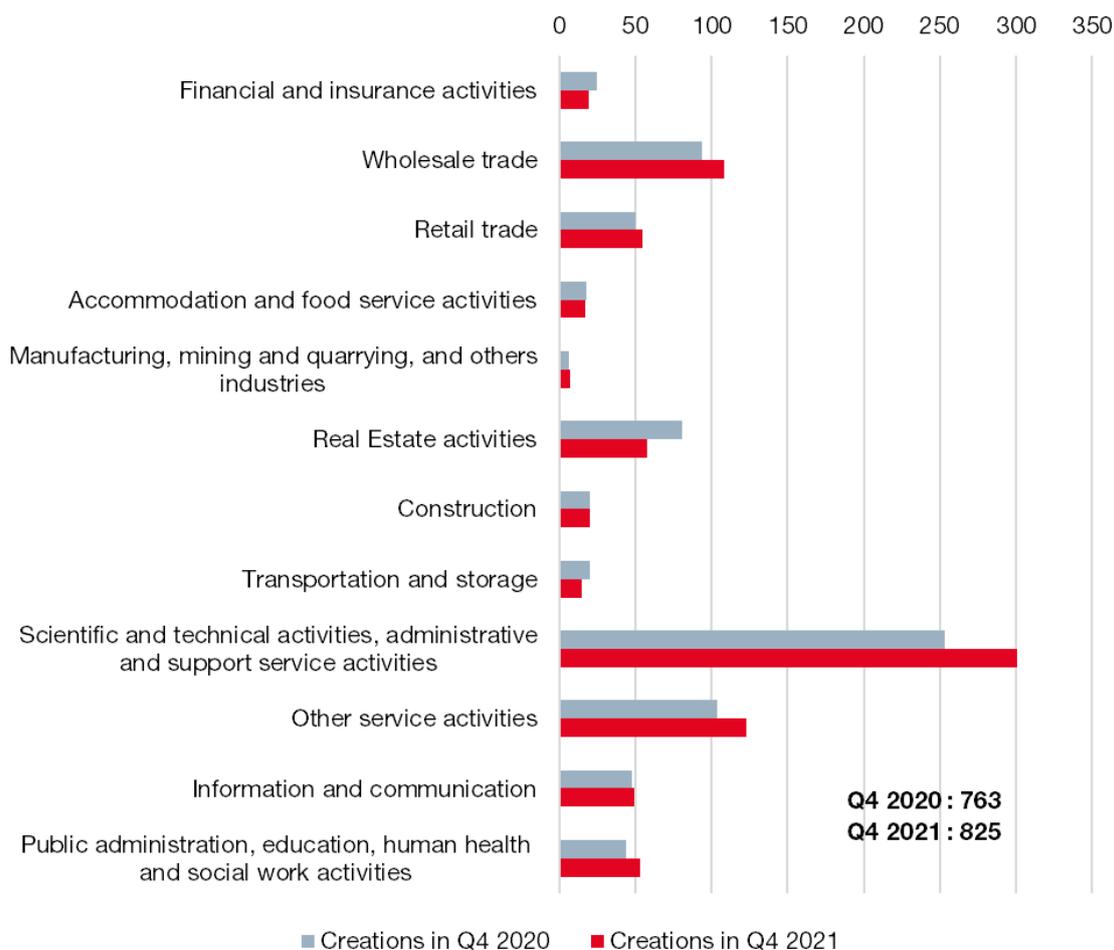


Sources: Business Development Agency, Monaco Statistics

The months of September, April and March recorded the highest number of new establishments (88, 86 and 85 respectively). In total, since the beginning of the year, 62 additional establishments have been created compared to the same period in 2020, representing 825 establishments.

3.2.2 Business started by Major Economic Sector (MES)

Cumulative number of new establishments per MES in Q4 2020 and 2021



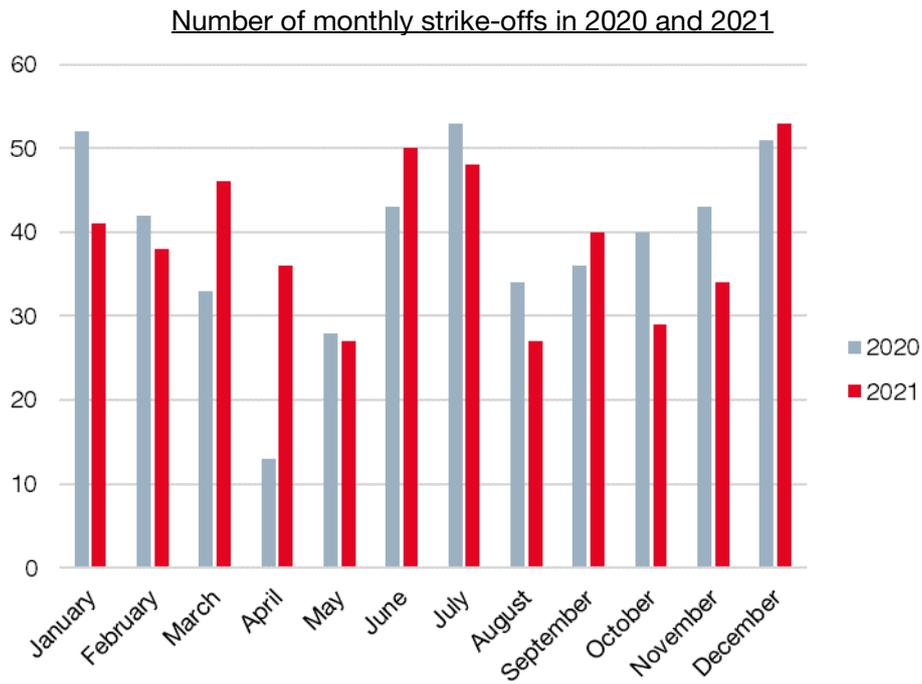
Sources: Business Development Agency, Monaco Statistics

At the end of 2021, the three main sectors account for 64.5% of the establishments created: Scientific and technical activities, administrative and support services (36.5%), which clearly stand out, Other services activities (14.9%) and Wholesale trade (13.1%), i.e. a total of 532 establishments created in these MES.

Real estate activities remain the most affected, with 23 fewer establishments created than in 2020. To a lesser extent, financial and insurance activities have recorded -6 new establishments. Accommodation and food services remain stable with only 1 fewer establishment created. Conversely, Scientific and technical activities, administrative and support services have seen their number of establishments increase the most (+48), Other service activities (+19) and Wholesale trade (+14).

3.2.3 Permanent closure of establishments

The number of permanent closure of establishments is stable (469 against 468, i.e. +0.2%) and remains below its 2019 level (490).

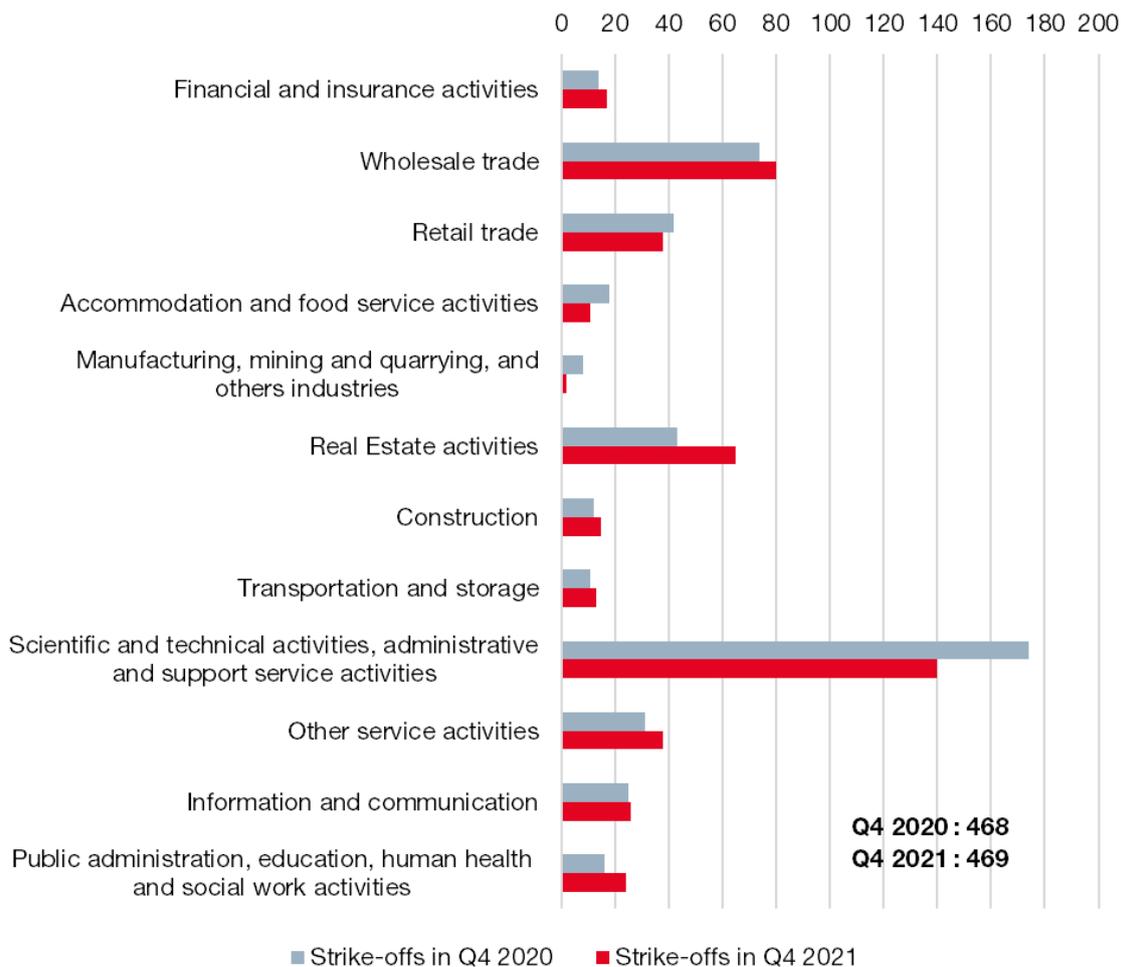


Sources: Business Development Agency, Monaco Statistics

Over the year, 469 establishments were permanently deregistered. The months of December and June recorded the most (53 and 50 respectively). Overall, one additional establishment was deregistered compared to the same period in 2020.

3.2.4 Permanent closures of establishments by MES

Cumulative number of permanent closures per MES in Q4 2020 and 2021



Sources: Business Development Agency, Monaco Statistics

In the fourth quarter of 2021, the three main sectors account for 60.8% of all deregistration: Scientific and technical activities, administrative and support services (29.9%), which clearly stand out, wholesale trade (17.1%) and real estate activities (13.9%), i.e. 285 establishments delisted in these MES.

Real estate activities are the one that records the most definitive delisting (+22) compared to the same period in 2020. Finally, between 2020 and 2021, one sector stands out with fewer delisting than the Others: Scientific and technical activities, administrative and support services (-34).

Eight out of twelve MES had more write-offs in 2021 than in 2020. Real estate has the most (+22). Conversely, between 2020 and 2021, Scientific and technical activities, administrative and support services recorded the fewest (-34). This sharp drop balances the number of deletions between 2020 and 2021.

3.2.5 Balance (business started minus permanent closures)

	Creations in Q4 2021	Strike-offs in Q4 2021	Balance
Financial and insurance activities	19	17	2
Wholesale trade	108	80	28
Retail trade	55	38	17
Accommodation and food service activities	17	11	6
Manufacturing, mining and quarrying, and others industries	7	2	5
Real Estate activities	58	65	-7
Construction	20	15	5
Transportation and storage	15	13	2
Scientific and technical activities, administrative and support service activities	301	140	161
Other service activities	123	38	85
Information and communication	49	26	23
Public administration, education, human health and social work activities	53	24	29
Total	825	469	356

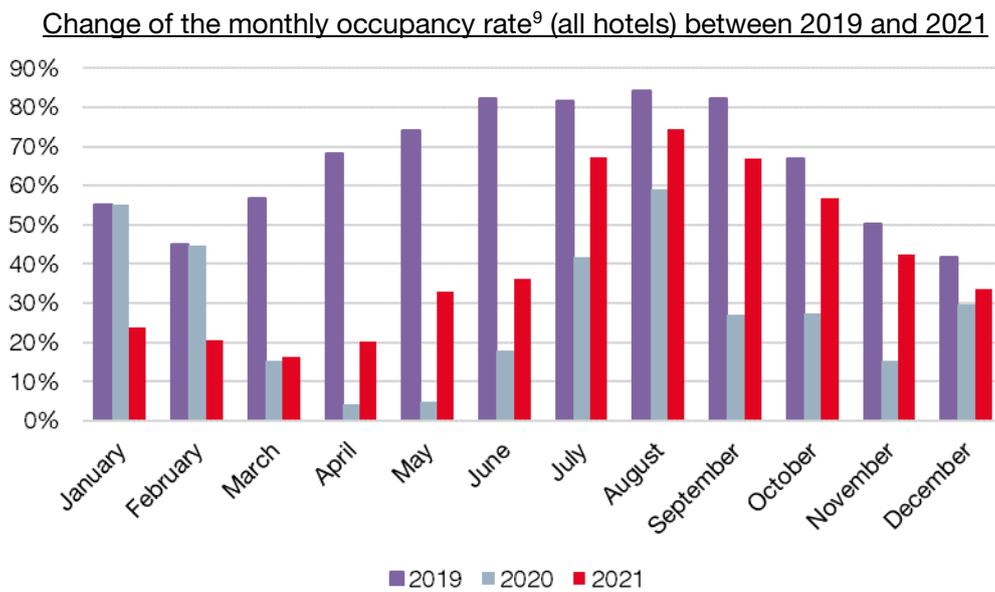
Sources: Business Development Agency, Monaco Statistics

The balance between creations and strike-offs is +356 in 2021 against +295 last year and +392 in 2019.

It reaches +161 in Scientific and technical activities, administrative and support services, +85 in Other service activities and +29 in Administration, education, health and social work. Finally, only Real Estate activities have a negative balance (-7).

3.3 Hospitality

After being affected by the pandemic, tourism indicators are on the rise in 2021, although they remain well below the same period in 2019.



Sources: Tourist and Convention Authority, Monaco Statistics

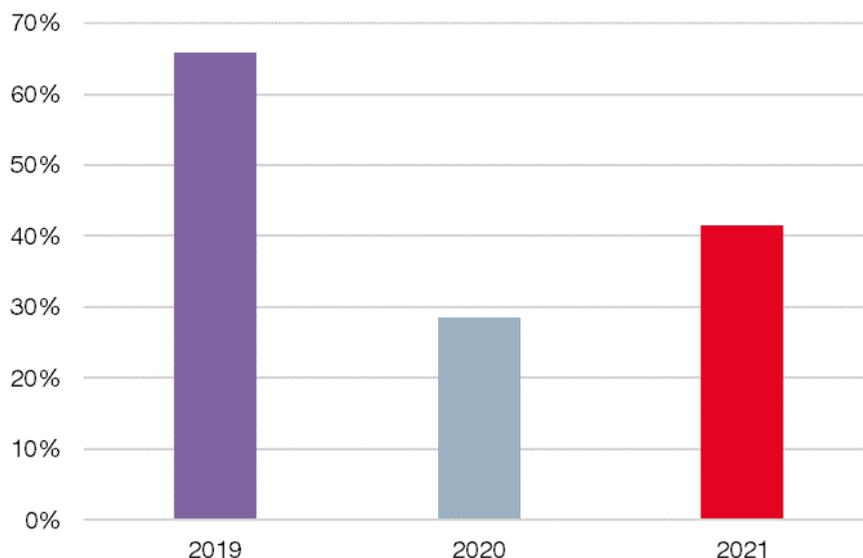
N.B.: Year-round residents of hotels in the Principality are not included in the monthly statistics.

In 2021, the summer period marks the increase in monthly occupancy as holidaymakers return.

At the monthly level, and since the beginning of the year, the occupancy rate has increased. The two half-year periods stand out: while the first remains well below the levels observed in 2019, the second is well above 2020 and close to that of 2019.

⁹ Occupancy rate: ratio between the number of rented rooms and the number of available rooms

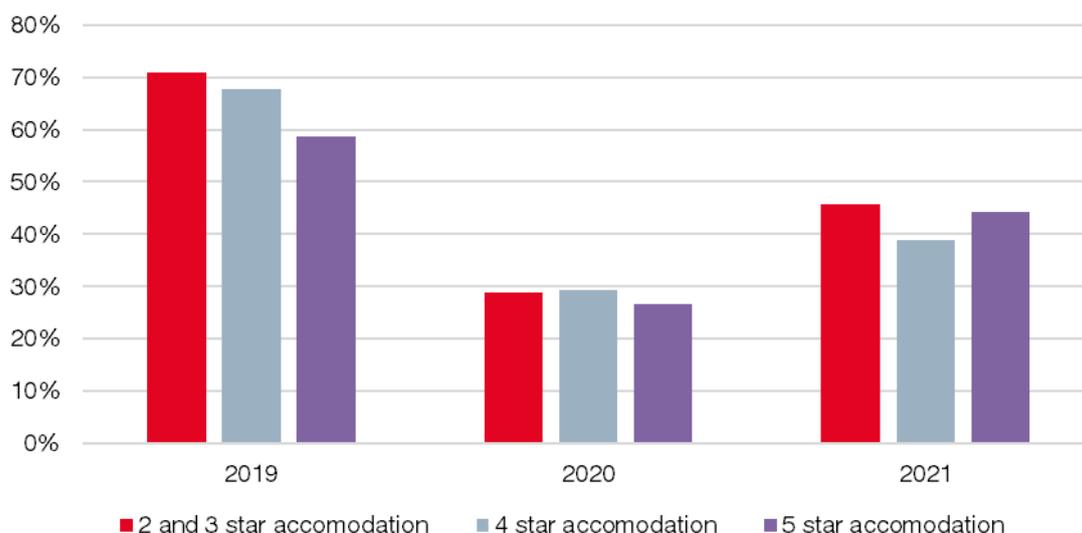
Evolution of the occupancy rate year-to-date



Sources: Tourist and Convention Authority, Monaco Statistics

Year-to-date at the end of 2021, the occupancy rate is increasing (41.6% against 28.5% in 2020). However, it remains well below the pre-crisis level of 65.9% in 2019.

Change in occupancy rates by category, year-to-date



Sources: Tourist and Convention Authority, Monaco Statistics

In 2019, hotel occupancy rates were high across all hotel categories, ranging from 58.8% (5 star accommodation) to 70.8% (2 and 3 star).

In 2020, the occupancy rate collapses with a maximum rate that does not reach 30.0% (4-star accommodation).

In 2021, the occupancy rate increases compared to the same period in 2020 with a peak for 2 and 3 star accommodation (45.8%) followed by 5 stars (44.3%) and 4 stars (39.0%). Although 2 and 3 stars have held up better this year, they only represent 19.0% of the total room supply, whereas 4 stars account for more than half of the room supply in the hotel sector (56.8%).

4 Employment

4.1 Use of the Total Temporary Layoff measure (CTTR)

Introduced in March 2020 to address the economic and employment consequences of the health crisis, the Total Temporary Layoff (CTTR) measure has been extended until 31 December 2021. However, since 1 November 2020, only activities under strong pressure or pressure due to the loss of patronage or the suppression of events are eligible for the CTTR, and provided that the employer has not decided to close its establishment.

Evolution of the number of employees concerned by the CTTR (partial or total) and the share of domestic staff



Sources: *Caisses Sociales de Monaco, Monaco Statistics*

Interpretation: in April 2020, 21,777 employees were covered by the CTTR measure (partial or total); of these, 2.8% were domestic workers.

The CTTR, which involved up to more than 21,000 employees in 2020, was used less and less as 2021 progressed. The number of employees placed on partial or total unemployment, which stood at around 6,000 at the beginning of 2021, fell steadily from the end of the first quarter. At the end of the year, just over 300 people (0.6% of the total employed population) were still affected by this measure, of which less than 80 were on total unemployment (zero hours worked).

Number of employers and employees affected by CTTR (partial or total) by MES in December 2021

	Number of employers	Number of employees
Wholesale trade	< 10	101
Scientific and technical activities, administrative and support service act.	21	64
Accommodation and food service activities	13	61
Retail trade	14	< 50
Other service activities	< 10	< 50
Transportation and storage	< 10	< 50
Information and communication	< 10	< 50
Construction	< 10	< 50
TOTAL	76	338

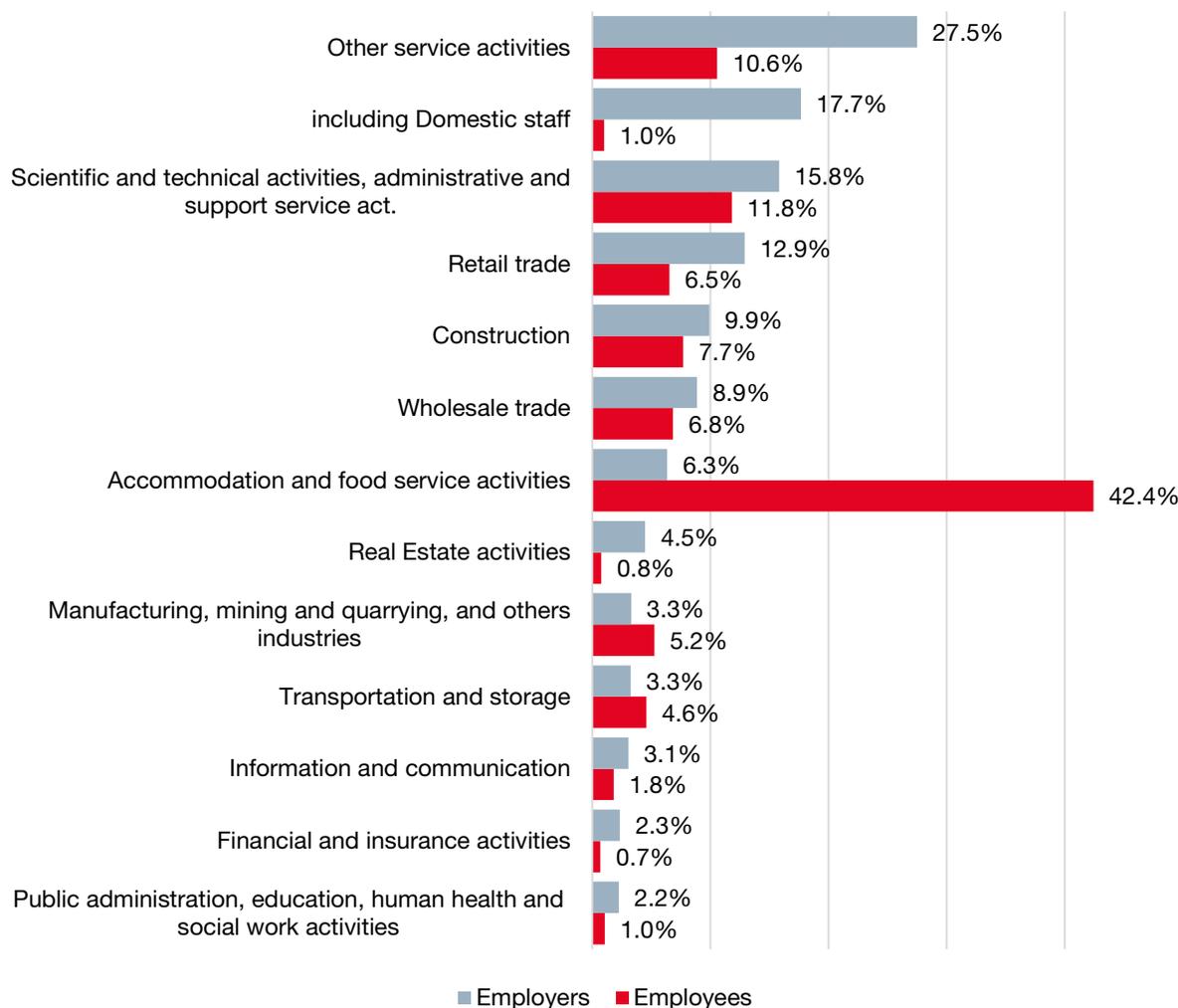
Sources: *Caisses Sociales de Monaco, Monaco Statistics*

Interpretation: in December 2021, 13 employers and 61 employees were concerned by the CTTR measure (partial or total) in the GSA Accommodation and Food Services.

In December 2021, Wholesale Trade is the sector with the highest number of employees in CTTR (partial or total), at around 100 people. Scientific activities, which are among the sectors with the most employers overall, also have the most employers using this measure at the same time (3% of employers in the sector are thus concerned by the CTTR in December 2021).

CTTR applications (whether full or partial unemployment) were granted for 2,946 private sector employers over the period March 2020 to December 2021, representing 42% of private sector employers in Monaco. Other service activities remain the MES that leads over the whole period in terms of number of applications (over 800), while Accommodation and food service activities is the one that has made most use of the measure in proportion (around 9 out of 10 employers in the sector).

Distribution of CTTR applications (partial or total) granted over the period March 2020 - December 2021 by MES



Sources: *Caisses Sociales de Monaco, Monaco Statistics*

Interpretation: of all employers whose CTTR application has been granted, 27.5% are in Other service activities; of all employees placed on CTTR over the period, 10.6% are in this MES.

With 810 applications, of which 520 were for employers of domestic staff alone, the Other service activities sector had the highest number of employers who made use of the CTTR over the period from March 2020 to December 2021 (i.e. 27.5% of all applications). In terms of the number of employees affected by the measure since its inception, Accommodation and food service activities leads with 42.4% of all applications granted for employees in this sector.

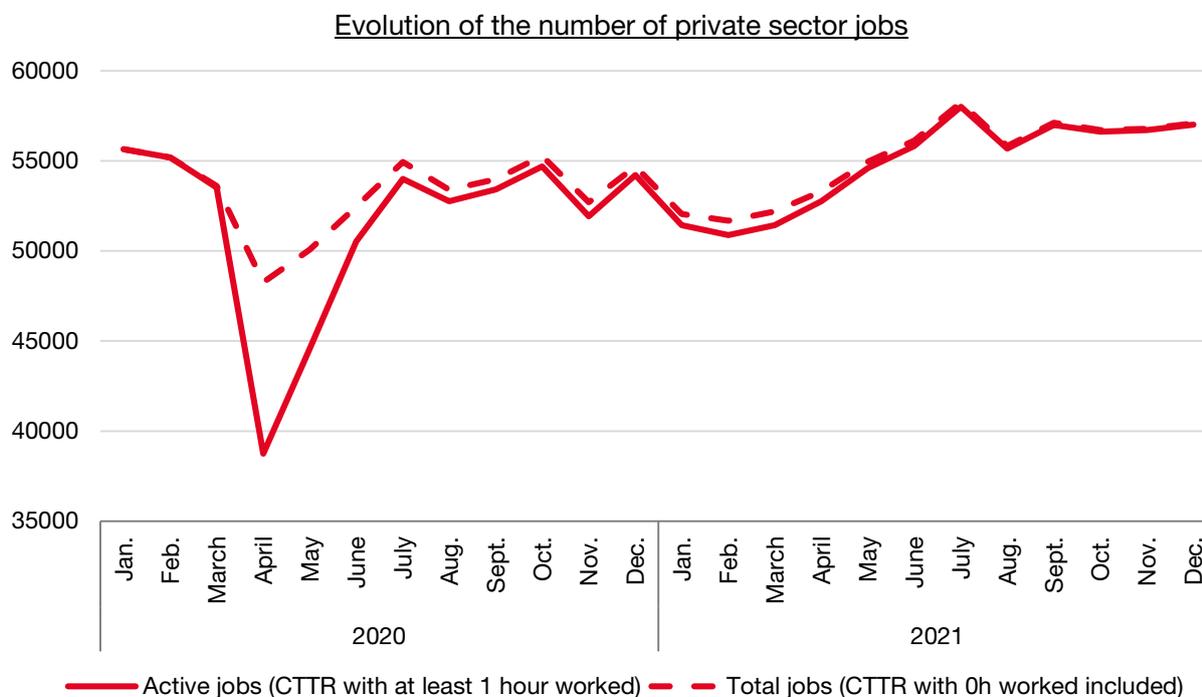
Public administration, education, human health and social work activities and Financial and insurance activities are the sectors that have made the least use of the CTTR measure over the whole period.

4.2 Evolution of private sector employment¹⁰

4.2.1 Employment

In the following analyses, the notion of "active" jobs is used to distinguish, within total employment, the jobs held by employees who are temporarily unemployed. Thus, active jobs correspond to those for which there is at least one hour worked during the month in question.

The total number of jobs includes all jobs, including those on CTTR (whether partial or total), in order to visualise the deadweight loss of jobs over the period.



Sources: *Caisses Sociales de Monaco, Monaco Statistics*

Interpretation: in April 2020, the private sector has 48,234 jobs, of which 38,808 are considered 'active' (at least one hour worked).

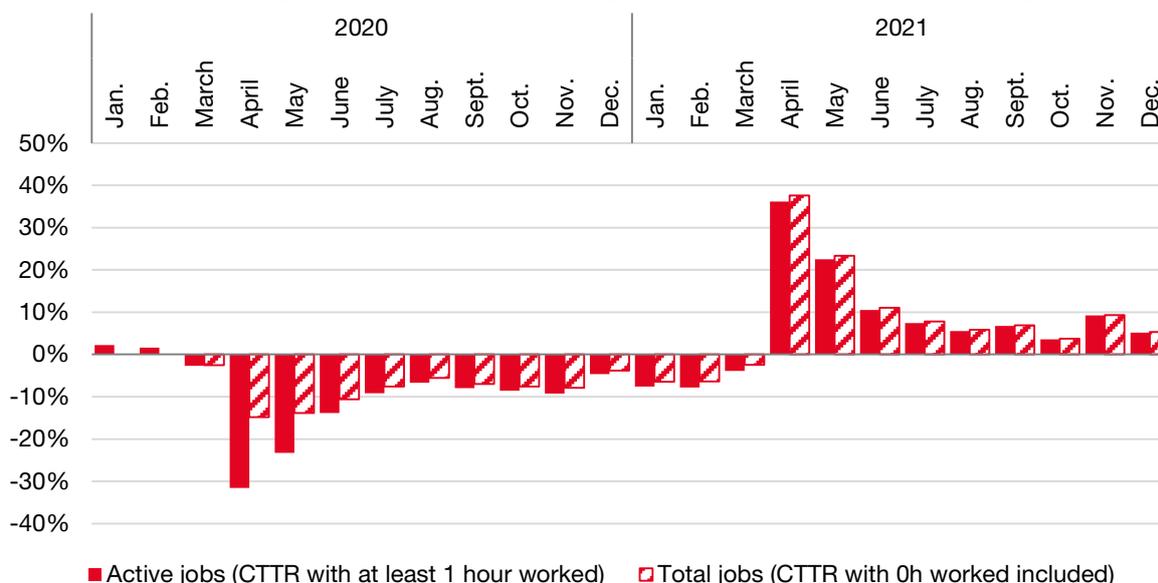
Due to the measures in place in 2020, notably lockdown, the results for 2021 and the previous year must be compared with caution.

After a slight decline and then a rebound from March onwards, private sector employment grew steadily in the first half of 2021. As a result, the number of jobs has remained above the 2020 level but below 2019. In December 2021, the number of active jobs, at almost 57,000, exceeds its pre-crisis level for the first time. This corresponds to 128 more jobs than at the end of Q4 2019 and over 2,000 more than in 2020.

At the same time, the total CTTR (zero hours worked) measure, whose use has been declining over the course of 2021, involved fewer than 80 jobs in December, compared with six times more at the end of the previous year.

¹⁰ The statistics relating to private sector employment are taken from the data provided to Monaco Statistics by the Caisses Sociales de Monaco.

Rate of change in private sector employment compared to the previous year



Sources: Caisses Sociales de Monaco, Monaco Statistics

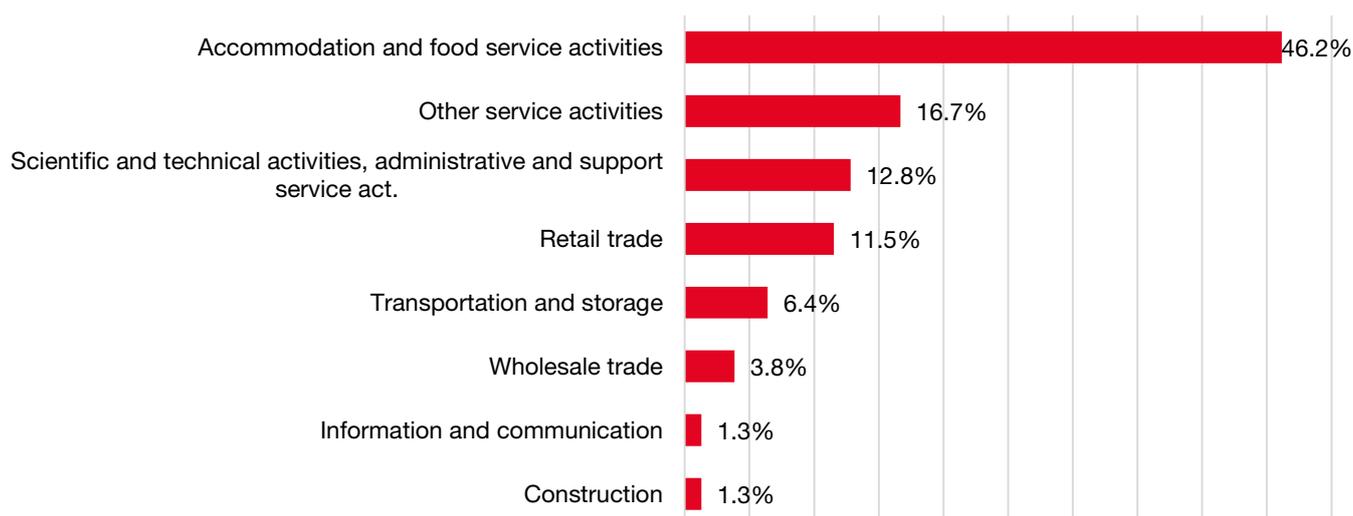
Interpretation: in April 2020, the variation between the number of monthly jobs actually active (excluding CTTR) is -31% compared to April of the previous year (red bar); for the same period, the variation between the total number of jobs (including CTTR) is -15% (hatched bar).

Here again, the 2020 and 2021 results should be compared with caution given the very different economic conditions. After very high rates of change in the number of jobs between the months of April-May 2020 and 2021, logically observed due to the health crisis in the spring of 2020, in the second half of the year the rates of change compared to 2020 oscillate between 4 and 10%. In December 2021, there is an overall increase of 5% in employment compared to December 2020.

4.2.2 Total CTTR jobs (zero hours worked)

At the end of the quarter, less than 80 jobs are fully supported by the CTTR (zero hours worked in the month).

Distribution of CTTR jobs with zero hours worked in December 2021 by GSA



Sources: Caisses Sociales de Monaco, Monaco Statistics

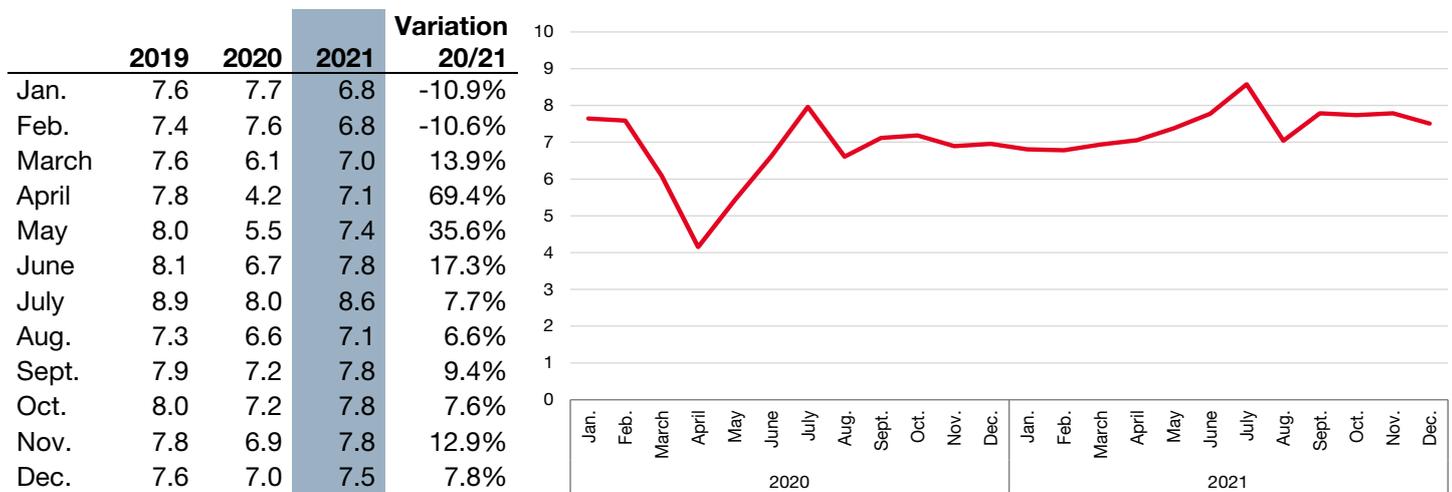
Interpretation: 46.2% of total CTTR jobs (0 hours worked) are in the Accommodation and food service activities MES in December 2021.

In December 2021, almost half of all unemployed jobs are in Accommodation and food services activities. This is followed by Other service activities and Scientific and technical activities, administrative and support service activities, each with around ten jobs. At the same time, four MES out of twelve are not concerned by the total CTTR: Financial and insurance activities, Real Estate activities, Public administration, education, human health and social work activities and Manufacturing, mining and quarrying and others industries.

4.2.3 Hours worked

The comparison of hours worked in the private sector between 2020 and 2021 must again be done taking into account the different economic and health situations.

Monthly evolution of the number of hours worked in the private sector



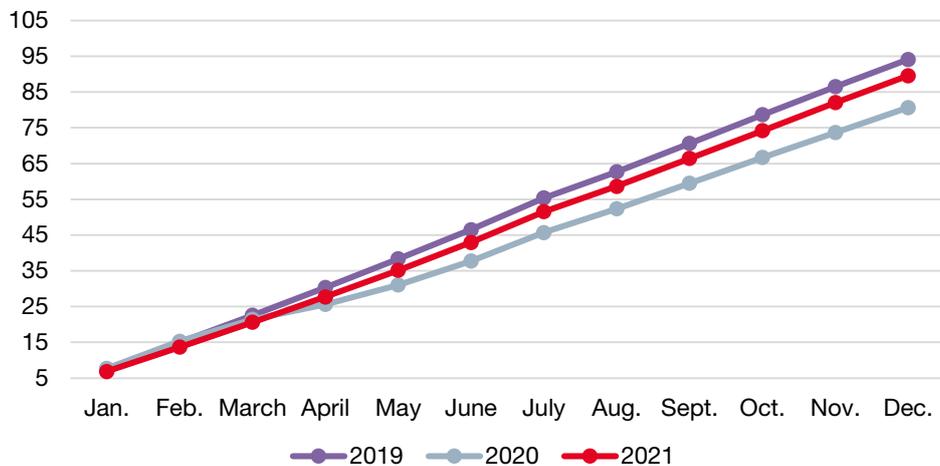
Unit: million hours

Sources: Caisses Sociales de Monaco, Monaco Statistics

Interpretation: in December 2021, the number of hours worked is 7.5 million, compared to 7 million in December 2020 (i.e. a change of +7.8% between the months of the two years).

The monthly volume of hours worked increased from March 2021 onwards, exceeding 7 million each subsequent month. Over the last four months of the year, the number of hours worked approaches 8 million and thus returns to levels equivalent to those of 2019, reducing the gap created by two years of pandemic.

Monthly evolution of cumulative number of hours worked



Unit: million hours

Sources: Caisses Sociales de Monaco, Monaco Statistics

Interpretation: Over the period January to December 2021, the cumulative number of hours worked is 89.6 million, compared with 80.7 million over the period January to September 2020.

The volume of hours worked at the end of 2021 totals almost 90 million, about 9 million more than in the whole of 2020, but 4.5 million fewer than in 2019.

Observatory of the impacts of the COVID-19 health crisis

March 2022

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ISSN-L 2311-6307

ISSN-L 2311-6307