

### Shingles vaccine coverage report (adults eligible from April 2020 to March 2021 and vaccinated to the end of September 2020, December 2020, March 2021, and June 2021): England

Annual report of the financial year 2020 to 2021

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### Main points

The shingles vaccination programme was introduced in September 2013. The routine programme offers the vaccine to those turning 70 and the catch-up programme offers the vaccine to those turning 78. Patients remain eligible for the vaccine until their 80th birthday.

This annual shingles report presents vaccine coverage in cohorts turning 70 to 80 years old between 1 April 2020 and 31 March 2021 measured at the end of September 2020, December 2020, March 2021, and June 2021.

Cumulative shingles vaccine coverage for all adults aged between 70 and 80 years old continues to increase year on year through opportunistic vaccination.

Coverage in the cohort that turned 70 years old was 6.5 percentage points lower in June 2021 than in June 2020. This drop is likely due to the restrictions put in place in response to the coronavirus (COVID-19) pandemic.

When estimates were taken at the end of June coverage was highest among those turning 77 year olds in the 2020 to 2021 financial year (77.9%) and lowest among those turning 70 years old (20.2%) and 71 years old (42.1%).

Due to data resubmissions from GP IT suppliers, data for quarters 1, 2 and 3 has been updated since it was first published. This report therefore replaces the previously published shingles vaccine coverage reports for quarter 1 to quarter 3 of the 2020 to 2021 financial year, and those 3 previous reports have now been withdrawn.

### Introduction

The aim of the routine shingles (herpes zoster) vaccination programme is to prevent severe morbidity from shingles in groups at the highest risk. The shingles vaccination programme began on 1 September 2013, offering the Zostavax shingles vaccine to all 70 years olds, together with a catch-up programme for older cohorts. The catch-up cohort ensures that those who were already 70 when the programme began are still offered the vaccine. Since the programme began, the eligibility criteria have changed several times (Appendix 1). In the 2020 to 2021 financial year, adults became eligible at 70 and 78 years old, although only half of 78 year olds became eligible in this financial year, with the other half being offered vaccination in the first year of the programme in 2013 to 2014 (Table 1). Those who have previously been offered the shingles vaccine remain eligible until their 80th birthday (1, 2, 3, 4).

For the first 5 years of the vaccination programme, vaccine coverage was monitored in England by Public Health England (PHE) through monthly collections via automatic uploads of GP practice-level data using the ImmForm website<sup>1</sup>. To continue to accurately evaluate cumulative vaccine coverage following a change in eligibility criteria on 1 April 2017, PHE changed the monthly collections to quarterly extractions, and vaccine coverage was also calculated each quarter to reflect the new delivery model (<u>Appendix 1</u>). It is important to note that vaccine coverage for adults who have become eligible under the revised criteria is not directly comparable to previous cumulative vaccine coverage estimates using the former eligibility criteria ( $\underline{5}$ ).

As a response to the COVID-19 pandemic, nationwide social distancing measures and specific guidance for elderly groups to shield was initiated from 23 March 2020, disrupting the delivery of the shingles vaccination programme.

As a live viral vaccine, the Zostavax shingles vaccine is contraindicated for immunosuppressed individuals. From 1 September 2021, these individuals will be offered the recombinant Shingrix vaccine.

This annual report presents vaccine coverage in cohorts turning 70 to 80 years old between 1 April 2020 and 31 March 2020.

<sup>1.</sup> ImmForm is the system used by the UKHSA to record vaccine coverage data for some immunisation programmes and to provide vaccine ordering facilities for NHS England.

### **Methods**

The coverage data presented in this report was collected at the GP practice level and was automatically uploaded via participating GP IT suppliers to the ImmForm website each quarter. The data was then validated and analysed by UKHSA to check data completeness, identify, and query any anomalous results and describe epidemiological trends.

Vaccine coverage was defined as the number of patients in each birth cohort, who received the shingles vaccine as a proportion of the total number of registered patients in that birth cohort (denominator).

Cumulative vaccine coverage was calculated for all adults born between 1 April 1940 and 31 March 1950 (that is, adults turning 70 to 80 years old between 1 April 2020 and 31 March 2021) and who were vaccinated by 23 September 2020, 23 December 2020, 23 March 2021 and 23 June 2021, for each financial year birth cohort. A more detailed breakdown of the different cohorts can be found in <u>Table 1</u>.

#### Data quality

GP practices reporting were as follows:

- for data collection in September a total of 6,415 out of a total of 6,628 (96.8%) GP practices reported shingles vaccine coverage data
- for data collected in December 6,563 out of a total of 6,606 (99.3%) GP practices reported shingles vaccine coverage data
- for data collected in March 6,552 out of a total of 6,606 (99.2%) GP practices reported shingles vaccine coverage data
- for data collected in June 6,418 out of a total of 6,574 (97.6%) GP practices reported shingles vaccine coverage data
- all 3 GP IT suppliers (EMIS, TPP and INPS) provided this coverage data

Due to data resubmissions from GP IT suppliers, data for quarters 1, 2 and 3 has been updated since it was first published. This report therefore replaces the previously published shingles vaccine coverage reports for quarter 1 to quarter 3 of the 2020 to 2021 financial year, and those 3 previous reports have now been withdrawn.

### Birth cohorts

Table 1. Birth and shingles vaccine eligibility dates for cohorts included the annual 2020
to 2021 coverage report

Birth range of cohort	Year first eligible for the shingles vaccine	Age in April 2020 to March 2021	Type of cohort	Period first eligible for shingles vaccine
1 April 1940 to 31 March 1941	2018 to 2019	80	Catch-up	April 2018 to March 2019 Patients remain eligible until their 80th birthday
1 April 1941 to 31 March 1942	2019 to 2020	79	Catch-up	April 2019 to March 2020
1 April 1942 to 1 September 1942	2020 to 2021	78	Catch-up	April 2020 to March 2021
2 September 1942 to 31 March 1943	2013 to 2014	78	Routine	September 2013 to August 2014
1 April 1943 to 31 March 1944	2013 to 2014	77	Routine	September 2013 to August 2014 and September 2014 to August 2015
1 April 1944 to 31 March 1945	2014 to 2015	76	Routine	September 2014 to August 2015 and September 2015 to August 2016
1 April 1945 to 31 March 1946	2015 to 2016	75	Routine	September 2015 to August 2016 and September 2016 to August 2017
1 April 1946 to 31 March 1947	2016 to 2017	74	Routine	September 2016 to August 2017
1 April 1947 to 31 March 1948	2017 to 2018	73	Routine	April 2017 to March 2018
1 April 1948 to 31 March 1949	2018 to 2019	72	Routine	April 2018 to March 2019
1 April 1949 to 31 March 1950	2019 to 2020	71	Routine	April 2019 to March 2020
1 April 1950 to 31 March 1951	2020 to 2021	70	Routine	April 2020 to March 2021

### Results

# Vaccine coverage for birth cohorts turning 70 to 80 from quarter 1 to quarter 4 (April 2020 to March 2021)

Cumulative vaccine coverage for each birth cohort (now aged 70 to 78) continues to increase each quarter through opportunistic vaccination (Tables 2, 3, 4, 5 and 6).

From quarter 1 to quarter 4 in 2020 to 2021, there was a median increase of 4.6 percentage points across the different ages. The increase ranged from 16.2 percentage points in the newly eligible 70 year old cohort to 1.2 percentage points in the 77 year old cohort.

Coverage in all age groups was lower than in the 2019 to 2020 financial year (Figure 1). For those turning 70 years old coverage dropped from 26.7% in June 2020 to 20.2% in June 2021.

The highest cumulative coverage when assessed in quarter 4 was observed among those turning 77 years old (77.9%). These patients were first offered the shingles vaccine as the earliest routine birth cohort from 2013 to 2014.

The lowest cumulative coverage when assessed in quarter 4 was observed among cohorts aged 70 (20.2%) and 71 years old (42.1%). These cohorts became eligible in the 2020 to 2021 and 2019 to 2020 routine vaccination programmes, respectively.

Coverage among 78-year olds was 59.9%. Only half of the 78 year old birth cohort were offered the vaccine as part of the routine programme from 2013 to 2014 at 70 years, whilst the other half of this birth cohort were offered the shingles vaccine as part of the catch-up programme in 2020 to 2021.

On average, coverage across the cohorts was lowest in London and highest in the North East and Yorkshire.

Table 2. National cumulative shingles vaccine coverage for adults turning 70 to 80 years old between 1 April 2020 and 31 March 2021 and vaccinated	l by :
Region	

Commissioning region	Practices reporting data	70 year olds (eligible since 2020)	71 year olds (eligible since 2019)	72 year olds (eligible since 2018)	73 year olds (eligible since 2017)	74 year olds (eligible since 2016)	75 year olds (eligible since 2015)	76 year olds (eligible since 2014)	77 year olds (eligible since 2013)	78 year olds (partially eligible since 2013) <sup>2</sup>	79 year olds (eligible since 2019)	80 year olds (eligible since 2018)
London	97.0	3.3	28.6	46.3	54.5	60.3	66.0	70.4	72.0	48.8	31.7	48.1
South West	96.0	4.4	33.2	49.2	57.3	63.4	69.8	74.7	77.1	52.0	35.7	53.3
South East	94.3	4.3	33.5	52.1	59.7	65.9	71.7	76.2	77.7	51.8	37.0	55.9
Midlands	97.2	3.8	31.1	48.6	56.5	62.6	69.5	74.5	77.4	51.6	32.8	50.9
East of England	98.4	4.8	32.9	49.5	56.7	62.2	68.4	74.1	76.2	51.9	34.7	50.8
North West	95.8	3.1	31.3	50.0	57.4	64.3	71.1	75.5	76.6	49.6	32.8	51.7
North East and Yorkshire	98.4	4.3	34.0	51.3	59.2	64.5	70.6	75.5	77.8	52.0	35.3	52.8
Total	96.8	4.0	32.2	49.8	57.5	63.5	69.8	74.6	76.7	51.3	34.4	52.1

#### y 23 September 2020, by NHS England

<sup>&</sup>lt;sup>2</sup> Those aged 78 born between 2 September 1942 and 31 March 1943 were eligible for vaccination since 1 September 2013. Those aged 78 and born between 1 April 1942 and 1 September 1942 were eligible at age 78 as a catch-up cohort in 2020 to 2021.

Table 3. National cumulative shingles vaccine coverage for adults turning 70 to 80 years old between 1 April 2020 and 31 March 2021 and vaccinated by
Commissioning Region

Commissioning region	Practices reporting data	70 year olds (eligible since 2020)	71 year olds (eligible since 2019)	72 year olds (eligible since 2018)	73 year olds (eligible since 2017)	74 year olds (eligible since 2016)	75 year olds (eligible since 2015)	76 year olds (eligible since 2014)	77 year olds (eligible since 2013)	78 year olds (Partially eligible since 2013) <sup>3</sup>	79 year olds (eligible since 2019)	80 year olds (eligible since 2018)
London	99.2	9.5	36.3	49.8	57.0	62.0	67.1	71.2	71.9	52.9	38.5	50.1
South West	99.5	12.3	39.7	52.9	59.9	65.3	71.4	75.9	77.3	56.8	42.3	56.8
South East	99.0	10.2	39.9	54.8	61.5	67.2	72.6	76.7	77.9	56.2	42.9	58.0
Midlands	99.5	10.9	38.2	51.9	58.8	64.2	70.7	75.3	77.2	55.7	39.5	53.7
East of England	99.7	14.0	40.6	53.1	59.3	64.2	69.7	75.0	76.5	56.6	41.5	54.0
North West	99.1	8.8	38.2	53.2	59.5	65.9	72.0	76.1	76.1	53.9	39.4	53.5
North East and Yorkshire	99.6	13.2	41.2	54.6	61.3	66.1	71.6	76.3	77.7	57.2	42.4	55.3
Total	99.3	11.3	39.2	53.0	59.8	65.2	70.9	75.5	76.7	55.8	41.0	54.7

#### by 23 December 2020, by Clinical

<sup>&</sup>lt;sup>3</sup> Those aged 78 born between 2 September 1942 and 31 March 1943 were eligible for vaccination since 1 September 2013. Those aged 78 and born between 1 April 1942 and 1 September 1942 were eligible at age 78 as a catch-up cohort in 2020 to 2021.

Commissioning region	Practices reporting data	70 year olds (eligible since 2020)	71 year olds (eligible since 2019)	72 year olds (eligible since 2018)	73 year olds (eligible since 2017)	74 year olds (eligible since 2016)	75 year olds (eligible since 2015)	76 year olds (eligible since 2014)		78 year olds (partially eligible since 2013) <sup>4</sup>	79 year olds (eligible since 2019)	80 year olds (eligible since 2018)
London	99.2	13.0	37.8	50.5	57.6	62.3	67.4	71.3	72.2	53.8	40.1	50.9
South West	99.8	17.8	41.5	53.9	60.6	66.0	72.0	76.4	77.8	57.9	46.6	58.4
South East	98.6	14.2	41.2	55.3	62.1	67.6	73.0	77.1	78.2	57.4	44.9	59
Midlands	99.5	15.7	39.8	52.7	59.4	64.7	71.1	75.6	77.7	57.0	42.3	54.7
East of England	99.6	19.4	42.4	54.1	60.2	64.9	70.4	75.6	77.1	58.1	45.3	55.3
North West	99.1	11.6	39.3	53.8	60.0	66.3	72.3	76.3	76.4	54.8	40.7	53.9
North East and Yorkshire	98.7	18.5	42.7	55.4	62.1	66.7	72.1	76.7	78.3	58.4	45.8	56.5
Total	99.2	15.8	40.7	53.8	60.4	65.7	71.4	75.8	77.1	56.9	43.8	55.8

Table 4. National cumulative shingles vaccine coverage for adults turning 70 to 80 years old between 1 April 2020 and 31 March 2021 and vaccinated by 23 March 2021, by Clinical **Commissioning Region** 

<sup>&</sup>lt;sup>4</sup> Those aged 78 born between 2 September 1942 and 31 March 1943 were eligible for vaccination since 1 September 2013. Those aged 78 and born between 1 April 1942 and 1 September 1942 were eligible at age 78 as a catch-up cohort in 2020 to 2021.

Table 5. National cumulative shingles vaccine coverage for adults turning 70 to 80 years old between 1 April 2020 and 31 March 2021 and vaccinated	by :
Region	

Commissioning region	Practices reporting data	-	71 year olds (eligible since 2019)	72 year olds (eligible since 2018)	73 year olds (eligible since 2017)	74 year olds (eligible since 2016)	75 year olds (eligible since 2015)	76 year olds (eligible since 2014)	77 year olds (eligible since 2013)	78 year olds (partially eligible since 2013) <sup>5</sup>	79 year olds (eligible since 2019)	80 year olds (eligible since 2018)
London	97.3	19.2	40.1	51.6	58.3	62.9	67.7	71.5	73.2	56.9	43.5	51.4
South West	98.4	21.7	43.0	54.7	61.0	66.4	72.3	76.6	78.5	61.7	50.1	59.8
South East	97.8	19.0	42.3	56.0	62.5	68.0	73.2	77.2	79.2	60.3	48.5	59.9
Midlands	97.4	19.5	41.0	53.3	59.8	65.1	71.3	75.8	78.3	59.8	45.1	55.4
East of England	98.7	22.8	43.3	54.7	60.7	65.2	70.7	75.8	77.6	60.6	47.6	56.3
North West	97.0	17.0	41.0	54.5	60.5	66.7	72.6	76.5	77.4	57.3	43.7	54.6
North East and Yorkshire	97.7	22.3	43.8	56.0	62.5	67.0	72.3	76.8	78.9	61.6	48.0	57.6
Total	97.6	20.2	42.1	54.5	60.9	66.1	71.6	76.0	77.9	59.9	46.7	56.7

y 23 June 2021, by Clinical Commissioning

<sup>&</sup>lt;sup>5</sup> Those aged 78 born between 2 September 1942 and 31 March 1943 were eligible for vaccination since 1 September 2013. Those aged 78 and born between 1 April 1942 and 1 September 1942 were eligible at age 78 as a catch-up cohort in 2020 to 2021.

Born	Age in 2019 to 2020	Age in 2020 to 2021	Cohort type	Coverage in June 2020	Coverage in June 2021	Change in coverage from June 2020 to June 2021
1 April 1949 to 31 March 1950	70	71	Routine cohort	26.7	42.1	15.4
1 April 1948 to 31 March 1949	71	72	Routine cohort	48.2	54.5	6.3
1 April 1947 to 31 March 1948	72	73	Routine cohort	56.4	60.9	4.5
1 April 1946 to 31 March 1947	73	74	Routine cohort	62.7	66.1	3.4
1 April 1945 to 31 March 1946	74	75	Routine cohort	69.2	71.6	2.4
1 April 1944 to 31 March 1945	75	76	Routine cohort	74.2	76	1.8
1 April 1943 to 31 March 1944	76	77	Routine cohort	76.7	77.9	1.2
1 April 1942 to 31 March 1943	77	78	Catch-up and Routine cohort	48.0	59.9	11.9
1 April 1941 to 31 March 1942	78	79	Catch-up cohort	28.4	46.7	18.3
1 April 1940 to 31 March 1941	79	80	Catch-up cohort	50.3	56.7	6.4

#### Table 6. Change in national cumulative shingles vaccine coverage from June 2020 to June 2021 by birth cohort

### Discussion

Cumulative vaccine coverage for each of the earlier routine cohorts (now aged 70 to 78) continues to increase each quarter. However, coverage by age was lower than in 2019 to 2020, including a decrease in coverage of 6.5 percentage points in those turning 70 years old.

The decrease in coverage by age this year compared to the 2019 to 2020 cohort is likely due to the introduction of COVID-19 restrictions which were first initiated on 23 March 2020 and included nationwide social distancing measures and the guidance for elderly groups to shield. Consequently, those turning 70 in the 2020 to 2021 financial year may have been impacted by the first and subsequent lockdowns.

Previous routine and catch-up cohorts remain eligible for vaccination until their 80th birthday and longer-term vaccine coverage data has shown increases in coverage in these cohorts in subsequent years (Table 2) (5). The lower coverage between 78 year olds and younger cohorts (76 to 78 year olds) is likely associated with the eligibility criteria, as only half of the 78 year old cohort were eligible for the vaccine as part of the routine cohort from 2013 to 2014, with the other half becoming eligible as part of a catch-up cohort in 2020 to 2021.

Results assessing the impact of shingles vaccination in the 5 years after the introduction of the programme in England showed large reductions in both GP consultations and hospitalisations for herpes zoster and post-herpetic neuralgia (7). Therefore, GPs must continue to offer the shingles vaccine to all eligible patients, particularly in regions with lower coverage and those impacted by the COVID-19 pandemic.

### Appendix 1. Date and eligibility criteria for the shingles vaccination programme since 1 September 2013

#### 1 September 2013

Eligibility criteria: In the first year of the programme (2013 to 2014), the vaccine was routinely offered to adults aged 70 years on 1 September 2013 (born between 2 September 1942 and 1 September 1943 and to adults aged 79 on 1 September 2013 (born between 2 September 1933 and 1 September 1934) as part of the catch-up campaign.

#### 1 September 2014

Eligibility criteria: In the second year of the programme (1 September 2014 to 31 August 2015), the vaccine was routinely offered to adults aged 70 years on 1 September 2014 (born between 2 September 1943 and 1 September 1944). The second year of the programme also included 2 catch-up cohorts comprised of adults aged 78 on 1 September 2014 (born between 2 September 1935 and 1 September 1936), and adults aged 79 on 1 September 2014 (born between 2 September 1934 and 1 September 1935). In addition, those who became eligible as 70 year olds from 1 September 2013 but had not yet been immunised were also eligible.

#### 1 September 2015

Eligibility criteria: In the third year of the programme (1 September 2015 to 31 August 2016), the vaccine was routinely offered to adults aged 70 years on 1 September 2015 (born between 2 September 1944 and 1 September 1945). The third year of the programme also included a catch-up cohort of adults aged 78 on 1 September 2015 (born between 2 September 1936 and 1 September 1937). In addition, patients who became eligible in the first 2 years of the programme but have not been vaccinated against shingles remain eligible until their 80th birthday (patients aged 71, 72 and 79 on 1 September 2015).

#### 1 September 2016

Eligibility criteria: In the fourth year of the programme (1 September 2016 to 31 August 2017), the vaccine was routinely offered to adults aged 70 years on 1 September 2016 (born between 2 September 1945 and 1 September 1946). The fourth year of the programme also included a catch-up cohort of adults aged 78 on 1 September 2016 (born between 2 September 1937 and 1 September 1938). In addition, patients who became eligible in the first 3 years of the programme but have not been vaccinated against shingles remain eligible until their 80th birthday (patients aged 71, 72, 73 and 79 on 1 September 2016).

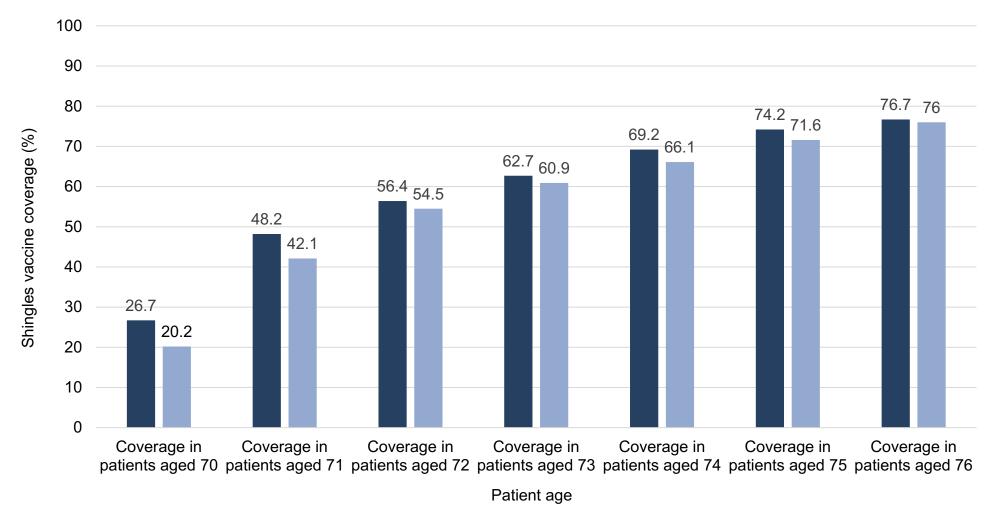
#### 1 April 2017

Eligibility criteria: The eligibility criteria for receiving the shingles vaccine was simplified so that individuals become eligible on their 70th birthday (routine cohort) or their 78th birthday (catchup cohort).

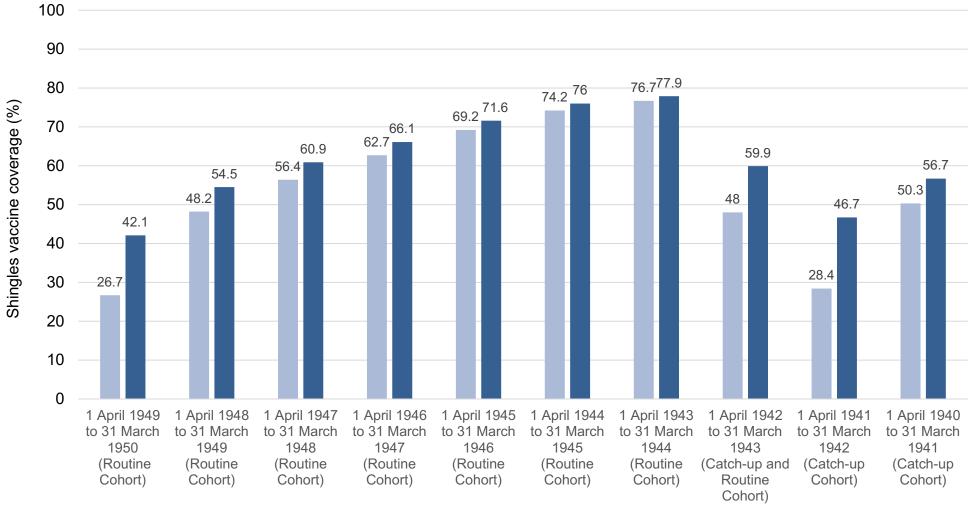
#### 1 September 2020

Eligibility criteria: As of 1 September 2020, all individuals in the catch-up cohorts (born 2 September 1933 to 1 September 1942) have been offered the shingles vaccine as they became 78 years old, thus completing the catch-up programme which started on 1 September 2013.

Figure 1. Comparison of national cumulative shingles vaccine coverage of those turning 70 to 76 from April 2019 to March 2020 measured in June 2020 compared to those turning 70 to 76 from April 2020 to March 2021 measured in June 2021



■ 2019 to 2020 ■ 2020 to 2021





Birth range of cohort

■ 2019 to 2020 ■ 2020 to 2021

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