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Cumulative shingles vaccine coverage report to end of June 2019 (quarter 4) and annual 2018 to 2019 coverage: England

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Cumulative shingles vaccine coverage report to end of June 2019: England

Key points

- cumulative shingles vaccine coverage for all earlier routine cohorts (offered at 70 and now aged 72 to 75 years) continues to increase year-on-year through opportunistic vaccination
- cumulative shingles vaccine coverage at the end of June 2019 for cohorts first offered shingles vaccine prior to the financial year 2018 to 2019 was highest among 75 year olds (75.9%) and lowest among 76 (46.2%) and 71 (49.1%) year olds
- cumulative vaccine coverage at the end of June 2019 among adults turning 70 and 78 years old during quarters 1, 2 3 and 4 of 2018 to 2019 (between 1 April 2018 and 31 March 2019) is 31.9% for the routine 70 year old cohort and 32.8% for the 78 year old catch-up cohort
- vaccine coverage for adults turning 70 and 78 years old during quarter 4 (1 January 2019 to 31 March 2019) show 13.1% and 13.8% vaccine coverage, respectively
- results from this report are not directly comparable to figures from previous years, which were based on a different methodology and eligibility criteria

Introduction

The shingles vaccination programme began on 1 September 2013. The aim of the programme then was to offer routine shingles (herpes zoster) vaccination to all 70 year olds each year, with a catch-up programme for older cohorts each year until 2020 to 2021 to capture individuals born up to 1 September 1942 (i.e. aged 71 to 79 years on 1 September 2013 at the programme launch). For the first five years, vaccine coverage of the vaccination programme was monitored in England by PHE through monthly cumulative collections via automatic uploads of GP practice-level data using the ImmForm website and regular estimates of coverage published on the [PHE website](#) [1].

From 1 April 2017 the eligibility criteria for receiving shingles vaccine changed so that individuals become eligible on their 70th birthday (routine cohort) or their 78th birthday (catch-up cohort). The catch-up programme will continue until 1 September 2021; those born from 2 September 1942 will have already been offered the vaccine as part of the routine programme started on 2 September 2013. All those who have been offered the vaccine either as part of a routine or catch-up cohort will remain eligible to receive shingles vaccine at their GP surgery up to their 80th birthday [2-5].

As a live viral vaccine, the shingles vaccine is contraindicated for immunosuppressed individuals. It is essential to assess the eligibility of individuals prior to offering the shingles vaccine and ensure that those who can benefit are not excluded. Further information on shingles vaccine eligibility is available in the “[Immunisation against infectious disease](#)” book (the Green Book).

To continue to accurately evaluate cumulative vaccine coverage for the routine and catch-up shingles programme delivered in 2018 to 2019, as well as monitor on-going cumulative coverage for all cohorts previously offered vaccine up to the 80th birthday, PHE has changed the monthly specification for the ImmForm data extractions from GP IT systems to quarterly extractions and changed the methodology for the quarterly calculation of vaccine coverage to reflect the new delivery model.

This is the fourth report using the revised specification and presents shingles vaccine coverage data for adults who turned 70 for the routine cohort or 78 for the catch-up cohort between 1 January 2019 and 31 March 2019, evaluated at the end of June 2019. It additionally provides cumulative vaccine coverage among adults that turned 70 and 78 during quarter 1 (from 1 April 2018 to 30 June 2018), quarter 2 (1 July 2018 to 30 September 2018) and quarter 3 (1 October 2018 to 31 December 2018) evaluated at the end of June 2019. 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 from the 2017 to 2018, 2016 to 2017, 2015 to 2016, 2014 to 2015 and 2013 to 2014 programmes [6].

This report also describes cumulative shingles vaccine coverage among adults becoming 70 to 80 years old within the financial year 2018 to 2019, assessed at the end of June 2019.

Methods

This report presents cumulative vaccine coverage for all adults eligible for the shingles vaccine (turning 70 to 76 and 78 to 80 years old between 1 April 2018 and 31 March 2019) vaccinated by 23 June 2019. GP practice-level shingles vaccine coverage data are automatically uploaded via participating GP IT suppliers to the ImmForm¹ website on a quarterly basis. These data are then validated and analysed by PHE to check data completeness, identify and query any anomalous results and describe epidemiological trends.

This quarterly survey extracted coverage estimates as at 23 June 2019 for each financial year birth cohort (1 April to 31 March births) for individuals born between 1 April 1938 and 31 March 1950, ie aged 71 years to 80 years (minus future catch-up cohorts born 1 April 1941 to 1 September 1942 inclusive).

This report presents vaccine coverage for adults who turned 70 (routine cohort) and 78 years old (catch-up cohort) during quarters 1, 2, 3 and 4 (between 1 April 2018 and 31 March 2019) and vaccinated by 23 June 2019 (Table 1). Coverage is presented cumulatively as well as a breakdown for each of the four quarters. The fourth automated quarterly survey measures vaccine coverage as the total number of patients turning 70 or 78 who received the shingles vaccine prior to 23 June 2019 (numerator) as a proportion of the total number of registered patients turning 70 or 78 between 1 April 2018 to 30 June 2018 (quarter 1), 1 July 2018 to 30 September 2018 (quarter 2), 1 October 2018 to 31 December 2018 (quarter 3) and 1 January 2019 to 31 March 2019 (quarter 4), (denominator). By collecting the data in late June, we allowed those eligible in quarter 4 between 3 to 6 months to receive the vaccine, depending on date of birth (Table 1).

¹ ImmForm is the system used by Public Health England to record vaccine coverage data for some immunisation programmes and to provide vaccine ordering facilities for NHS England.

Table 1. Birth range and collection dates for the routine (70 year olds) and catch-up (78 year olds) cohorts for quarters 1, 2, 3 and 4 of 2018 to 2019

Quarter and age	Eligible birth dates	Duration of eligibility at 23 June 2019
<i>Overall Quarters 1,2, 3 and 4</i>		
70	01/04/1948 – 31/03/1949	3-15 months
78	01/04/1940 - 31/03/1941	
<i>Quarter 1</i>		
70	01/04/1948 – 30/06/1948	12-15 months
78	01/04/1940 - 30/06/1940	
<i>Quarter 2</i>		
70	01/07/1948 – 30/09/1948	9-12 months
78	01/07/1940 - 30/09/1940	
<i>Quarter 3</i>		
70	01/10/1948 – 31/12/1948	6-9 months
78	01/10/1940 - 31/12/1940	
<i>Quarter 4</i>		
70	01/01/1949 – 31/03/1949	3-6 months
78	01/01/1941 - 31/03/1941	

Participation and data quality

Cumulative shingles vaccine coverage data for quarter 4 represented a total of 6,565/6,880 (95.4%) GP practices. Data from the smallest IT supplier was not available. This may impact local coverage estimates compared to previous quarters for a small number of Local Teams (LTs) and Clinical Commissioning Groups (CCGs), particularly in South West England.

Results

Cumulative vaccine coverage for financial year (April to March) birth cohorts, as at 23 June 2019

- cumulative vaccine coverage for each of the earlier routine cohorts (now aged 72 to 75) continues to increase each quarter through opportunistic vaccination (Table 2, Figure 1)
- the highest coverage is observed among those turning 75, who were offered the shingles vaccine in the earliest routine cohort five years ago
- the lowest coverage is observed among the cohorts currently aged 71, 76 and 79. Not all were offered the vaccine due to programmatic issues; within the 71 year olds cohort some had already had their 70th birthday before 1 April 2018, when sufficient supply of the vaccine was available, but were too young to have been offered it under the former criteria; half of those aged 76 years old will not be eligible for the vaccine until their 78th birthday as part of the final catch-up cohort, and half of the 79 year old cohort would have already had their 78th birthday when sufficient supply of the vaccine was available

Annual cumulative routine and catch-up coverage, 2018 to 2019 – (turned 70/78 1 April 2018 to 31 March 2019, as at 23 June 2019)

- overall 31.9% of adults that turned 70 and 32.8% of adults that turned 78 during 2018/19 (from 1 April 2018 to 31 March 2019) were vaccinated by the end of June 2019
- due to changes in the methodology for the calculation of vaccine coverage, the data are not directly comparable to cumulative vaccine coverage estimates from previous years

Table 2. National cumulative shingles vaccine coverage for adults turning 71 to 76 (previous routine cohorts) and 79 to 80 (previous catch-up cohorts) years old between 1 April 2018 and 31 March 2019 and vaccinated by end June 2019, by NHS Local Team

NHS England Local Team	Routine Cohort						Catch-up cohort	
	Turning 71 year olds*	Turning 72 year olds	Turning 73 year olds	Turning 74 year olds	Turning 75 year olds	Turning 76 year olds**	Turning 79 year olds***	Turning 80 year olds
	Eligible since 2017	Eligible since 2016	Eligible since 2015	Eligible since 2014	Eligible since 2013	Partially eligible since 2013	Eligible since 2017	Eligible since 2016
Midlands and East (Central Midlands)	47.8	56.2	65.9	72.6	76.5	46.8	49.4	55.2
London	46.0	54.5	62.2	67.8	71.2	44.7	46.8	51.6
North (Cheshire and Merseyside)	47.2	58.2	67.6	74.0	76.6	46.3	49.4	57.1
North (Lancashire)	48.6	58.7	69.0	74.4	77.3	46.4	51.1	56.5
Midlands and East (North Midlands)	50.6	59.2	67.4	73.7	77.1	46.8	51.2	58.0
North (Greater Manchester)	47.3	57.7	66.0	72.5	75.3	45.1	49.2	54.9
Midlands and East (East)	48.2	56.7	64.8	71.6	74.4	44.8	49.9	55.1
South East (Kent, Surrey and Sussex)	48.4	58.8	66.9	72.3	75.3	45.9	51.4	57.8
North (Cumbria and North East)	49.9	59.2	68.6	74.5	77.1	46.5	51.0	57.5
Midlands and East (West Midlands)	48.1	57.2	66.0	72.0	75.4	46.2	50.4	56.0
North (Yorkshire and Humber)	51.4	59.0	66.9	73.2	76.5	46.3	51.5	56.2
South West (South West North)****	52.5	60.8	69.4	74.7	78.1	47.1	54.5	59.8
South West (South West South)****	49.4	58.2	66.7	73.2	76.0	47.4	53.9	59.1
South East (Hampshire, Isle of Wight and Thames Valley)	51.9	61.3	69.7	75.6	79.0	48.1	54.2	61.1
England	49.1	58.1	66.6	72.7	75.9	46.2	50.8	56.6

* Observed coverage is low in the 71 year olds as half (those born 2 September 1947 to 31 March 1948) would have already had their 70th birthday by 1 April 2018 when the sufficient supply of the vaccine was available.

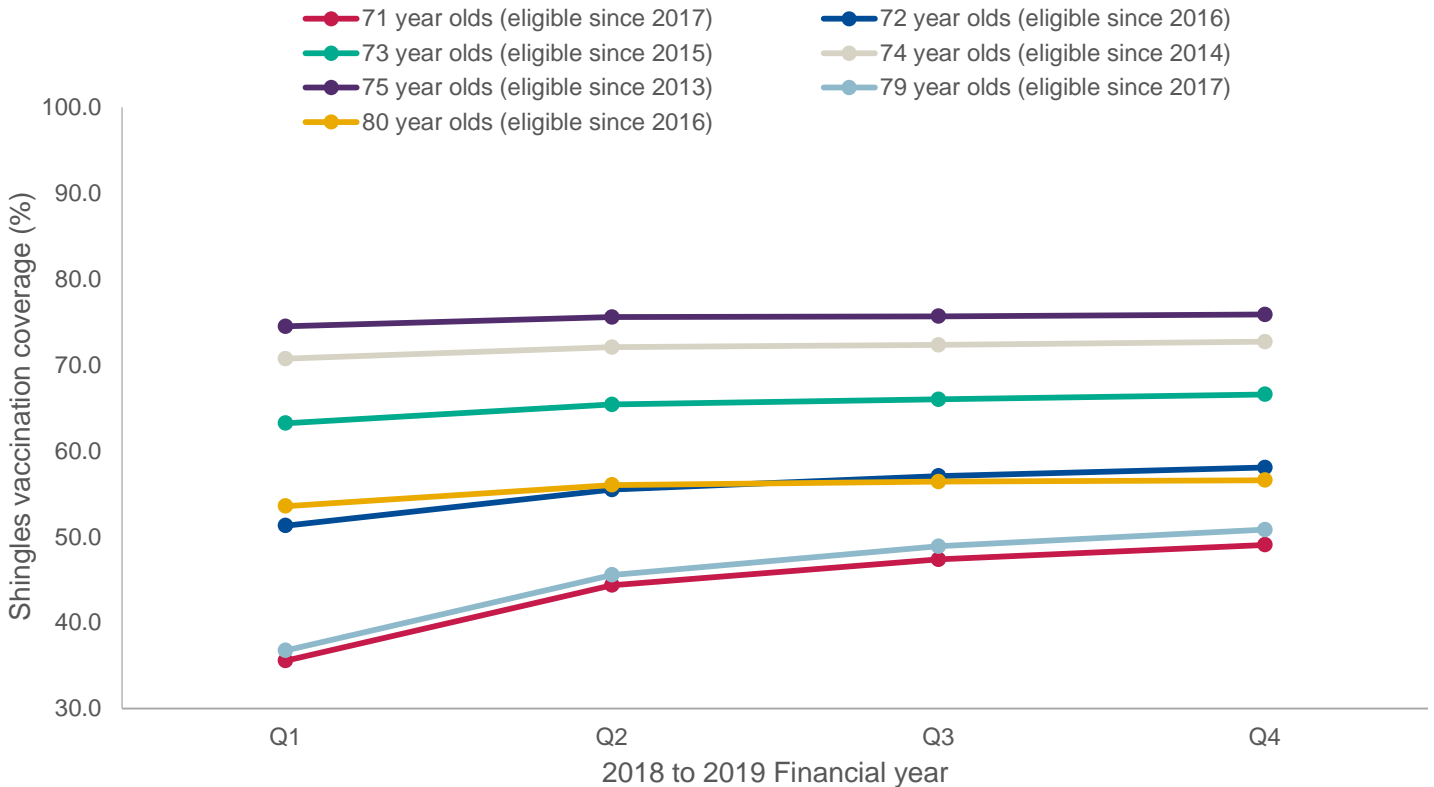
** Observed coverage is low in the 76 year olds as half (those born 1 April 1942 to 1 September 1942) will not become eligible until their 78th birthday in 2020, whereas half (those born 2 September 1942 to 31 March 1943) were offered the vaccine as part of the first routine programme in 2013/14.

*** Observed coverage is low in the 79 year olds as half (those born 2 September 1939 to 31 March 1940) would have already had their 78th birthday by 1 April 2018 when the sufficient supply of the vaccine was available.

No coverage is available for 77 year olds (born 1 April 1941 to 31 March 1942) as they will become eligible for the shingles vaccine on their 78th birthday as part of the catch-up cohort in 2019/20.

**** Data from the smallest IT supplier was not available. This may impact local coverage estimates particularly in South West England.

Figure 1. National cumulative shingles vaccine coverage over quarters 1-4 in the 2018 to 2019 financial year for adults turning 71 to 75 years old between 1 April 2018 and 31 March 2019 and eligible for routine programme since 2013 onwards



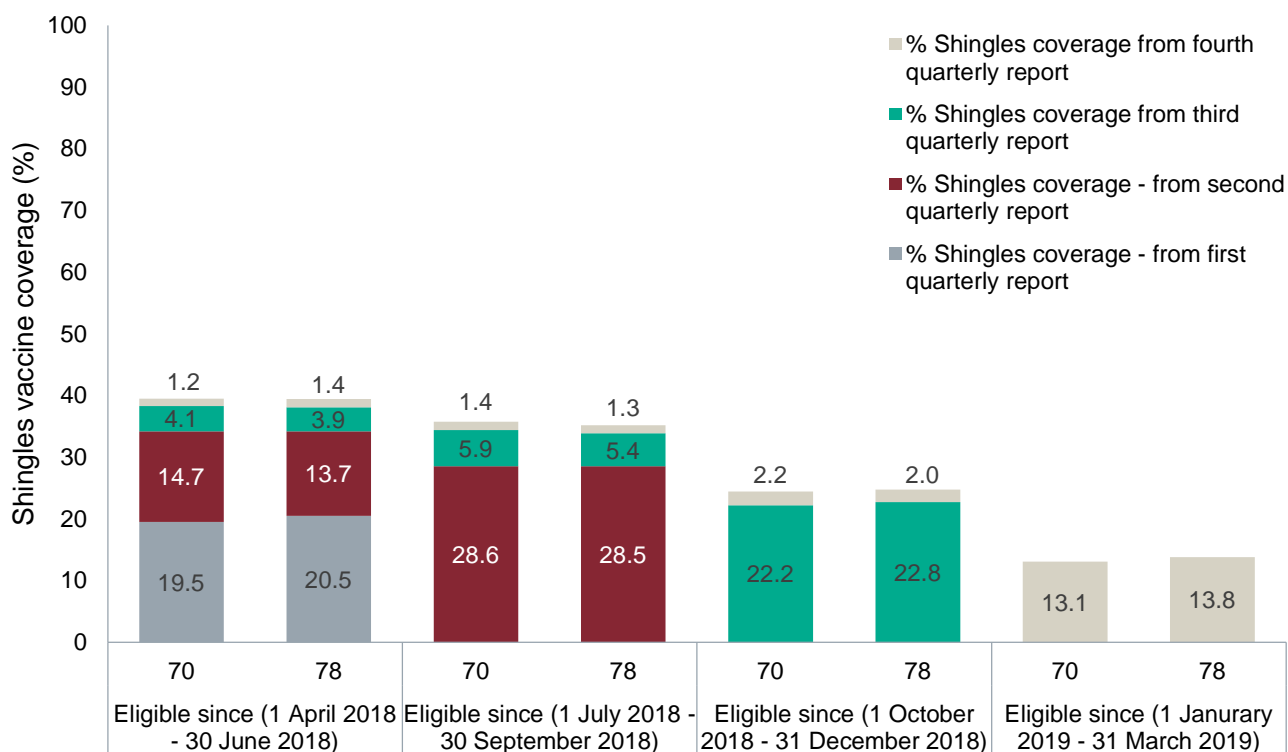
Quarterly routine and catch-up cumulative coverage, quarters 1-4, 2018 to 2019 – (turned 70/78 1 April 2019 to 31 March 2019, as at 23 June 2019)

- 13.1% of adults turning 70 years old during quarter 4 (1 January to 31 March 2019) were vaccinated by the end of June 2019 compared to 22.2% of adults turning 70 during quarter 3, 28.6% of adults turning 70 during quarter 2 and 19.6% of adults turning 70 during quarter 1 after the same eligibility interval (Figure 2)
- 13.8% of adults turning 78 years old during quarter 4 (1 January to 31 March 2019) were vaccinated by the end of June 2019, compared to 22.8% of adults turning 78 during quarter 3, 28.5% of adults turning 78 during quarter 2 and 20.5% of adults turning 78 during quarter 1 after the same eligibility interval (Figure 2)
- By the end of quarter 4, coverage was 24.4% among those turning 70 during quarter 3, 35.8% among those turning 70 during quarter 2 and 39.5% among those turning 70 during quarter 1 (Figure 2)
- By the end of quarter 4, coverage was 24.7% among those turning 78 during quarter 3, 35.2% among those turning 78 during quarter 2 and 39.5% among those turning 78 during quarter 1 (Figure 2)
- Regional coverage by quarter can be found in Table 3 and in [data tables](#).

Table 3. National cumulative shingles vaccine coverage for adults turning 70 and 78 years old between 1 April 2018 to 30 June 2018 (quarter 1), between 1 July 2018 to 30 September 2018 (quarter 2), between 1 October 2018 to 31 December 2018 (quarter 3) and current shingles coverage for adults turning 70 and 78 years old between January 2019 to 31 March 2019 (quarter 4) vaccinated by the end June 2019, by NHS England Local Team

NHS England Local Team	Turning 70 in Quarter 1 (dobs 1/4/48 to 31/6/48)	Turning 70 in Quarter 2 (dobs 1/7/48 to 30/9/48)	Turning 70 in Quarter 3 (dobs 1/10/48 to 31/12/48)	Turning 70 in Quarter 4 (dobs 1/01/49 to 31/03/49)	Turning 78 in Quarter 1 (dobs 1/4/40 to 31/6/40)	Turning 78 in Quarter 2 (dobs 1/7/40 to 30/9/40)	Turning 78 in Quarter 3 (dobs 1/10/40 to 31/12/40)	Turning 78 in Quarter 4 (dobs 1/01/41 to 31/03/41)
NHS England Midlands and East (East)	40.7	37.6	28.2	19.2	40.9	35.5	25.9	16.3
NHS England (London)	34.5	31.0	21.0	10.0	34.5	32.1	21.9	10.7
NHS England Midlands and East (Central Midlands)	39.8	35.2	23.6	14.4	36.6	33.5	25.2	15.4
NHS England Midlands and East (North Midlands)	42.2	38.6	27.0	14.2	41.0	36.2	25.7	15.1
NHS England Midlands and East (West Midlands)	36.7	33.9	22.2	9.4	38.5	33.4	22.3	10.7
NHS England North (Cumbria and North East)	41.3	36.6	24.9	13.6	41.7	37.6	24.8	14.6
NHS England North (Yorkshire and Humber)	40.8	38.4	27.3	16.8	41.3	36.7	27.4	17.7
NHS England North (Cheshire and Merseyside)	38.6	33.4	20.4	7.7	39.7	33.7	21.0	8.4
NHS England North (Greater Manchester)	35.1	33.0	20.9	9.8	36.5	33.6	21.5	9.7
NHS England North (Lancashire)	40.6	35.9	22.5	7.5	39.5	34.8	25.9	9.0
NHS England South East (Hampshire, Isle of Wight and Thames Valley)	42.6	38.8	26.2	12.0	42.6	38.2	26.3	13.9
NHS England South East (Kent, Surrey and Sussex)	37.3	33.4	22.2	10.5	37.4	33.0	23.4	13.3
NHS England South West (South West North)	43.5	37.9	27.6	17.0	43.2	39.4	28.8	17.3
NHS England South West (South West South)	40.7	37.5	25.8	15.2	41.7	36.6	26.6	16.3
ENGLAND	39.5	35.8	24.4	13.1	39.5	35.2	24.7	13.8

Figure 2. National shingles vaccine coverage at end June 2019 for quarter 1 (adults turning 70 and 78 between 1 April 2018 and 30 June 2018), quarter 2 (adults turning 70 and 78 between 1 July 2018 to 30 September 2018), quarter 3 (adults turning 70 and 78 between 1 October 2018 to 31 December 2018) and quarter 4 (adults turning 70 and 78 between 1 January 2019 to 31 March 2019)



Discussion

Comparing cumulative shingles coverage data for this quarter with estimates from previous years is complex due to the new eligibility criteria and coverage calculation methodology. Additionally, the data collection is now based on the financial year (April to March) rather than from September to August as in all previous shingles coverage publications [6]. Nevertheless, coverage in 2018 to 2019 was lower than in the previous year and even among those who became eligible in quarter 1 2018 to 2019 and have been eligible for over 12 months, coverage was below 40%.

Previous routine and catch-up cohorts remain eligible for vaccination until their 80th birthday, and longer term vaccine coverage data has shown coverage in these cohorts increases in subsequent years (Table 2) [6]. A large difference in cumulative coverage was observed between the 71 and 72 year olds (~9%) and between 79 and 80 year olds (~6%) which is in part likely to be associated with the change in eligibility criteria; half of these cohorts would have already had their 70th/78th birthday by 1 April 2018 when sufficient supply of the vaccine became available and may not have been offered the vaccine routinely around their birthday. It is important GPs continue to offer shingles vaccine to all eligible patients, particularly those aged 71 and 79 year olds in April 2018 to March 2019 who may have missed the vaccine when there was a change in the eligibility criteria, to prevent an increased susceptibility to shingles among these cohorts.

Shingles vaccine coverage estimates for those most recently entering the routine or catch-up cohorts, those turning 70 and 78 years old during quarter 4 and vaccinated up to the end of June 2019 is 13.1% and 13.8%, respectively, achieved lower coverage than those who turned 70 and 78 after the same eligibility interval during quarter 3, quarter 2 and quarter 1.

To date, for the 2018 to 2019 quarterly evaluations, the highest initial vaccine coverage occurred during quarter 2 for both those turning 70 and 78 year olds. This is most likely due to more adults receiving both the influenza and the shingles vaccine simultaneously during the influenza season which runs from September through to the following January.

The next quarterly report will present data for quarter 1 of the 2019 to 2020 financial year and will report on all those previously eligible for routine (aged 71 to 77) and catch-up (aged 79 to 80) vaccination as well the first coverage estimates for those turning 70 or 78 between 1 April 2019 and 30 June 2019. The current (2018/19) 70 year olds will be included in the 71 year old cohort, and the current 78 year olds will be in the 79 year old cohort. We expect to see increasing coverage in future evaluations of these cohorts as they continue to receive shingles vaccination.

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