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# Shingles vaccine coverage report for those becoming 70 and 78 years of age in April to September 2018: England

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## Shingles vaccine coverage report for those becoming 70 and 78 years of age in April to September 2018: England

## Key points

- This is the second quarterly shingles report of the fiscal year 2018/19 evaluating shingles vaccine coverage among those who became 70 or 78 years old between 1 April 2018 and 30 September 2018, assessed at the end of December 2018.
- This report provides a vaccine coverage update for those who turned 70 or 78 from 1 April to 30 June 2018 (quarter 1), and the first estimate of vaccine coverage for those who turned 70 or 78 from July 2018 to 30 September 2018 (quarter 2).
- Results from this report are not directly comparable to figures from previous years, which were based on a different methodology and eligibility criteria.
- Overall vaccine coverage among adults turning 70 and 78 years old during quarters
   1 and 2 (1 April 2018 to 30 September 2018) is 31.4% for each cohort.
- Provisional shingles vaccine coverage for adults turning 70 and 78 years old during quarter 2 (from 1 July 2018 to 30 September 2018) show 28.5% and 28.6% vaccine coverage, respectively. Coverage among adults eligible in quarter 2 is greater than coverage achieved at the same point in time during quarter 1. This may be due to the convenience of adults receiving both the shingles and influenza vaccines at the same time during quarter 2.
- Updated vaccine coverage estimates for adults that became eligible for the shingles vaccine during quarter 1 (from 1 April 2018 to 30 June 2018) show 34.2% coverage for both the 70 year old routine cohort and the 78 year old catch-up cohorts compared to 19.6% and 20.5% during quarter 1, respectively.
- Cumulative coverage for the fiscal year was observed highest among 75 year olds and lowest among 71 and 79 year olds.
- Vaccine coverage for each earlier routine cohorts (aged 72 to 75 years) continues to increase year on year through opportunistic vaccination.
- Further quarterly assessments of coverage will be undertaken in March 2019 and June 2019. These data will be published as quarterly reports.

## Introduction

The shingles vaccination programme began on 1 September 2013. The aim of the programme is to offer routine vaccination to all 70 year olds each year, with a catch-up programme for older cohorts each year until 2020/21 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 and individuals become eligible on their 70<sup>th</sup> birthday (routine cohort) or their 78<sup>th</sup> birthday (catch-up cohort) and remain eligible up to their 80<sup>th</sup> birthday [2-5].

GPs may continue to offer immunisation to anyone who was eligible for shingles vaccine in the first five years of the programme but has not yet been vaccinated, up until their 80<sup>th</sup> birthday [2]. This includes people currently aged 71 through to those aged 76 years old with a birthday before 2 September 1942, or 78 to 79 years old [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) [6].

To continue to accurately evaluate vaccine coverage for the shingles programme in 2018/19, PHE has changed the specification for the ImmForm data extractions from GP IT systems and the methodology for the calculation of vaccine coverage to reflect the new delivery model.

This is the second report using the revised specification and presents the initial herpes zoster (shingles) vaccine coverage data for adults who turned 70 for the routine cohort or 78 for the catch-up cohort between 1 July 2018 and 30 September 2018, evaluated at the end of December 2018. This report also provides updated vaccine coverage among adults that turned 70 and 78 years old during quarter 1 (from 1 April 2018 to 30 June 2018), evaluated at the end of December 2018. 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 2017/18, 2016/17, 2015/16, 2014/15 and 2013/14 programmes [7].

## Methods

This report presents overall vaccine coverage for adults who turned 70 and 78 years old during quarters 1 and 2 (between 1 April 2018 and 30 September 2018) and vaccinated by 23 December 2018 (Table 1).

This report also presents vaccine coverage for adults that had their 70<sup>th</sup> and 78<sup>th</sup> birthdays during quarter 2 (between 1 July 2018 and 30 September 2018). Coverage was measured for these cohorts from data collected on 23 December 2018. This allows between 3 to 5 months, depending on the date of birth, for individuals to receive the vaccine (Table 1).

Updated shingles vaccine coverage for adults that had their 70<sup>th</sup> birthday for the routine cohort or 78<sup>th</sup> birthday for the catch-up cohort during quarter 1 (between 1 April 2018 and 30 June 2018) and vaccinated up to 23 December 2019 are also presented in this report (Table 1).

**Table 1.** Birth range and collection dates for both the routine (70 year olds) and catchup (78 year olds) cohorts for guarter one and two of 2018/19

Quarter and age	Eligible birth dates	Data collected up to			
Overall Quarter 1 and 2					
70	01/04/1948 - 30/09/1948	23/12/2018			
78	01/04/1940 - 30/09/1940	23/12/2016			
Quarter 1					
70	01/04/1948 - 30/06/1948	22/42/2040			
78	01/04/1940 - 30/06/1940	23/12/2018			
Quarter 2					
70	01/07/1948 - 30/09/1948	22/42/2049			
78	01/07/1940 - 30/09/1940	23/12/2018			

Further quarterly assessments of coverage in this three-month birth cohort will include vaccine given up to March 2019 and June 2019. These data will likely show increased coverage as individuals will have had more time to be vaccinated and will be published in future quarterly reports.

GP practice-level shingles vaccine coverage data are automatically uploaded via participating GP IT suppliers to the ImmForm<sup>1</sup> 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. The second automated quarterly survey measures vaccine coverage as the total number of patients turning 70 or 78 who received the shingles vaccine prior to 23 December 2018 (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) and 1 July 2018 to 30 September 2018 (Quarter 2) (denominator).

This quarterly survey also extracted coverage estimates as at 23 December 2018 for each fiscal year birth cohort (1 April to 31 March births) for individuals born between 1 April 1938 and 31 March 1950, i.e. aged 71 years to 80 years (minus future catch-up cohorts born 1 April 1941 to 1 September 1942 inclusive).

#### Participation and data quality

A total of 6,490/6,942 (93.5%) GP practices reported shingles vaccine coverage data for quarter 1. Data from one IT provider were unreliable and excluded from this report. As a result, local shingles coverage estimates for a small number of local teams (LTs), Local Authorities (LAs), and clinical commissioning groups (CCGs), particularly in Bury, have reduced, participation from GP practices.

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<sup>&</sup>lt;sup>1</sup> 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.

## Results

## Overall routine and catch-up coverage – (turned 70/78 April to September 2018, as at 23 December 2018)

- overall 31.4% of adults that turned 70 and 78 during both quarters (from 1 April 2018 to 30 September 2019) were vaccinated by the end of December 2018:
   https://www.gov.uk/government/publications/herpes-zoster-shingles-immunisation-programme-2013-to-2014-provisional-vaccine-coverage-data
- 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

## Routine and catch-up coverage for Quarter 2 – (turned 70/78 July to 30 September 2018, as at 23 December 2018)

- 28.6% of adults turning 70 years old during quarter 2 (between 1 July 2018 and 30 September 2018) were vaccinated by the end of December 2018 compared to 19.6% of adults turning 70 years old during quarter 1 at the same point in time (Figure 1)
- 28.5% of adults turning 78 years old during quarter 2 (between 1 July 2018 and 30 September 2018) were vaccinated be the end of December 2018, compared to 20.5% of adults turning 78 years old during quarter 1 at the same point in time (Figure 1)
- vaccine coverage for quarter two by LT ranged from 24.4% (London) to 31.2% (Hampshire, Isle of Wight and Thames Valley) for the routine 70 year old cohort and from 25.3% (Central Midlands) to 32.2% (South West North) for the 78 year old catch-up cohort (Table 2); see data tables

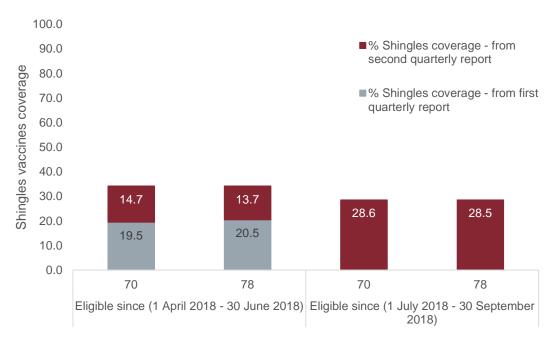
## Updated routine and catch-up coverage for Quarter 1 – (turned 70/78 April to 30 June 2018, as at 23 December 2018)

- 34.2% of adults that turned 70 and 78 years old during quarter 1 (between 1 April 2018 and 30 June 2018) were vaccinated by the end of December 2018, and additional 14.7% and 13.7% respectively compared with coverage in these groups at the end of September 2018(Figure 1)
- vaccine coverage for quarter one by LT ranged from 30.1% (London) to 37.6% (South West North) for the routine 70 year old cohort and from 30.5% (Central Midlands & London) to 37.7% (South West North) for the 78 year old catch-up cohort (Table 2): https://www.gov.uk/government/publications/herpes-zoster-shingles-immunisation-programme-2013-to-2014-provisional-vaccine-coverage-data.

**Table 2**. Updated shingles vaccine coverage for adults turning 70 and 78 between years old 1 April 2018 to 30 June 2018 (Quarter 1) and current shingles coverage for adults turning 70 and 78 years old between 1 July 2018 to 30 September 2018 (Quarter 2) vaccinated prior to 23 December 2018 by NHS England Local Team

NHS England Local Team	Shingles Coverage 70 year olds - Quarter 1	Shingles Coverage 70 year olds - Quarter 2	Shingles Coverage 78 year olds - Quarter 1	Shingles Coverage 78 year olds - Quarter 2	
Midlands and East (Central Midlands)	33.1	27.0	30.5	25.3	
London	30.1	24.4	30.5	26.0	
Cheshire and Merseyside	33.8	26.9	34.7	27.8	
Lancashire	35.1	29.2	33.9	29.7	
Midlands and East (North Midlands)	35.3	29.4	34.3	28.0	
North (Greater Manchester)	33.5	28.0	35.0	28.6	
Midlands and East (East)	33.1	28.4	33.3	27.6	
South East (Kent, Surrey and Sussex)	35.0	28.5	34.9	27.8	
North (Cumbria and North East)	34.8	29.4	35.8	31.1	
Midlands and East (West Midlands)	33.2	28.1	34.8	28.3	
North (Yorkshire and Humber)	34.5	30.3	34.4	29.0	
South West (South West North)	37.6	30.3	37.7	32.2	
South West (South West South)	34.7	29.5	29.5 35.7		
South East (Hampshire, Isle of Wight and Thames Valley)	37.1	31.2 37.2		32.0	
England	34.2	28.6	34.2	28.5	

**Figure 1**. Shingles vaccine coverage for Quarter 1 (adults turning 70 and 78 between 1 April 2018 and 30 June 2018 and vaccinated prior to 23 December 2018) and Quarter 2 (adults turning 70 and 78 between 1 July 2018 to 30 September 2018 and vaccinated prior to 23 December 2018) in England



Age group and eligibility

#### Vaccine coverage for fiscal year (April to March) birth cohorts, as at 23 December 2018

- vaccine coverage for each earlier routine cohorts (aged 72 to 75) continues to increase year on year though opportunistic vaccination (Table 3)
- the highest coverage is observed among 75 year olds, who were offered the shingles vaccine in the earliest routine cohorts five years ago
- the lowest coverage is observed among 71 and 79 year olds, some of whom may not have been offered the vaccine yet as they already had their 70th / 78th birthday before 1 April 2018 when the sufficient supply of the vaccine was available (Table 3)
- lower coverage is also observed among the 76 year olds who will become eligible for the vaccine on their 78<sup>th</sup> birthday as part of the catch-up cohort

**Table 3.** Shingles vaccine coverage for adults turning 71-76 and 79-80 years old between 1 April 2018 and 31 March 2019 and vaccinated prior to 23 December 2018 by NHS Local Team

	Routine Cohort					Catch-up cohort			
NHS England Local Team	71 year olds*	72 year olds	73 year olds	74 year olds	75 year olds	76 year olds**		79 year olds***	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)	43.3	53.8	64.7	71.9	76.1	46.2		44.2	54.3
London	40.6	51.5	60.7	67.0	70.6	44.1		41.6	51.1
North (Cheshire and Merseyside)	42.2	55.1	66.4	73.1	75.8	45.6		43.9	56.6
North (Lancashire)	42.9	55.6	67.3	73.5	76.8	45.8		44.3	55.6
Midlands and East (North Midlands)	45.6	56.5	66.0	72.9	76.7	46.4		45.0	57.2
North (Greater Manchester)	42.6	55.4	65.7	72.6	76.1	45.9		44.5	55.4
Midlands and East (East)	43.7	54.0	63.4	70.9	74.1	44.4		44.5	54.4
South East (Kent, Surrey and Sussex)	44.2	56.7	66.8	72.4	75.8	46.0		47.0	58.1
North (Cumbria and North East)	44.7	56.4	67.2	73.5	76.4	45.9		45.2	56.2
Midlands and East (West Midlands)	43.1	54.7	64.4	71.4	75.0	45.9		45.1	55.5
North (Yorkshire and Humber)	47.2	56.6	65.6	72.4	76.0	45.8		46.2	55.5
South West (South West North)	48.2	58.3	68.1	74.2	77.5	46.9		49.8	59.1
South West (South West South)	45.0	55.6	65.4	72.2	75.2	46.7		48.6	58.1
South East (Hampshire, Isle of Wight and Thames Valley)	46.8	58.6	68.4	74.8	78.8	48.1		48.8	60.3
England	44.4	55.5	65.4	72.1	75.6	45.9		45.6	56.0

<sup>\*</sup> 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 70<sup>th</sup> 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 78<sup>th</sup> birthday as part of the catch-up cohort in 2019/20

<sup>\*\*</sup>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 78<sup>th</sup> 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.

<sup>\*\*\*</sup> 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 78<sup>th</sup> birthday by 1 April 2018 when the sufficient supply of the vaccine was available.

## Discussion

Comparing 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 [7].

Overall vaccine coverage for adults turning 70 and 78 years old during quarters 1 and 2 was 31.4%. Subsequent quarterly reports will include coverage for adults turning 70 and 78 years old in quarter 3 and quarter 4 of the 2018/19 fiscal year.

Shingles vaccine coverage estimates for those turning 70 and 78 years old during quarter 2 and vaccinated up to the end of December 2018 is 28.6% and 28.5%, respectively. Coverage among adults turning 70 and 78 years old during the quarter 2 is 9.1% and 8.0% greater than coverage achieved by those who turned 70 and 78 in quarter 1 at the same point in time during quarter 1, respectively. This may be due to the convenience of adults receiving both the shingles and influenza vaccines at the same time.

The provisional shingles vaccine coverage estimates for those turning 70 and 78 years old during quarter 1 and vaccinated up to the end of December 2018 is 34.2% for those turning 70 and 78 years old between 1 April 2018 to 30 September 2018. Vaccine coverage has increased by 14.7% and 13.7% for 70 and 78 year olds, respectively since quarter 1. Subsequent cumulative quarterly evaluations for these birth cohorts assessed at the end of March and June 2019 should show increasing coverage as vaccinations received later in their 70<sup>th</sup>/78<sup>th</sup> year are captured.

Previous routine and catch-up cohorts remain eligible for vaccination until their 80<sup>th</sup> birthday, and longer term vaccine coverage data has shown increases in coverage in these cohorts in subsequent years (Table 3) [7]. In the quarterly report, a large difference in coverage was observed between the 71 and 72 year olds and between 79 and 80 year olds. The difference was likely in part to be associated to the change in eligibility criteria as half of these cohorts would have already had their 70<sup>th</sup>/78<sup>th</sup> birthday by 1 April 2018 when sufficient supply of the vaccine became available and may not have been offered the vaccine routinely. Since September 2018, vaccine coverage has increased among 71 and 79 year olds thus reducing the difference in coverage observed between 71 and 72 year olds and between 79 and 80 year olds. Nevertheless, it is important that GPs continue to offer the shingles vaccine to all eligible patients from the current and previous cohorts (particularly the 71 and 79 year olds 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.

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