It is now 5 years since the shingles vaccination programme was implemented in England. From 1 September 2013, a single dose of the live attenuated shingles vaccine (Zostavax) was routinely offered to adults aged 70 years on 1 September 2013, and in its first year to those aged 79 years as part of a phased catch-up campaign.

Shingles can be a particularly debilitating illness, especially in older adults and is caused by the reactivation of latent varicella zoster virus (VZV) infection the same virus that causes chickenpox. The risk and severity of shingles increase with age.

Shingles typically presents with a unilateral vesicular rash, usually limited to a single dermatome. An important complication of shingles is persistent pain extending beyond the period of rash known as post-herpetic neuralgia (PHN). The risk of PHN increases with age and is known to contribute significantly to the overall burden of shingles within the population.1

The aim of the shingles vaccination programme is to reduce the incidence and severity of shingles by boosting individuals’ pre-existing VZV immunity. In the first three years of the programme, there has been a significant impact on the burden of disease for shingles and PHN respectively.

It is estimated that amongst the 5.5 million people eligible for the shingles vaccine in the first three years of the programme, there has been 17000 fewer GP consultations for shingles.

Zostavax is currently the only licensed and market authorised shingles vaccine in the UK. As a live vaccine, immunocompromised individuals and those on certain immunosuppressive treatments should not receive the vaccine.

Detailed guidance is available at weblink 18. It is estimated that approximately 3% eligible individuals are contraindicated to receive the shingles vaccine and therefore it is important that all individuals are assessed prior to vaccination to ensure that the overwhelming majority of eligible adults can benefit from this vaccine. Adults remain eligible for vaccination until their 80th birthday.

Despite the success of the programme, uptake of the vaccine has been falling. Adults remain eligible until their 80th birthday and therefore it is important to use every opportunity to ensure eligible individuals who missed out in previous years, are offered vaccine before their 80th birthday. In order to improve uptake, shingles vaccine is being offered ‘all year round’. Individuals become eligible as they turn 70 years (routine cohort) and 78 years (catch up cohort). This is the first year of our ‘Shingles – all year round!’ campaign and we know that many immunisation teams have been working hard to ensure all those eligible are invited to come for their shingles vaccination so that they can get on with life without the pain of shingles. A range of resources are available to support the programme from weblink 1. This includes and we encourage all practices to use these resources to optimise uptake.

Shingles parties

We would like to thank Dr Catherine Heffernan and Rehana Ahmed for contributing a combined approach, which they coordinated in the London region.

Uptake of the shingles vaccination is on the decline in England. The London region has traditionally lagged behind the national average and although the falling-off of uptake isn’t as steep in London as other regions, the NHSE (London) immunisation commissioning team wanted to take steps to reverse it. For the past three years, NHSE (London) with PHE (London), Office of CCGs and MSD have worked in partnership to promote a summer campaign of shingles vaccination. This year we focused on the 70 year old cohort and linked the vaccine to the NHS 70 celebrations.

Combining the hashtags of #nhs70 and #shinglesat70, we merged the promotional materials of both campaigns into a campaign of celebrating NHS turning 70 years by having a Shingles vaccination. We identified the three CCG areas with the highest number of 70 year old patients and within those areas we approached the 6 largest GP practices. Practices were asked to invite their patients who were 70 years old to come to an afternoon shingles vaccination clinic and have some tea and cake to celebrate the NHS turning 70.

We intended that the promotional activity would generate some buzz and that other 70 year olds may become aware or reminded to have their Shingles vaccine. This may be through local media or by word of mouth from those patients invited to attend.

A local supermarket sponsored the cakes and many practices provided their own food and drinks as well. On average 15 patients were vaccinated per clinic and one clinic vaccinated between 25 and 30 people. We had fun using the #shinglesat70 selfie frames and there was quite a party spirit at clinics, as is evident in the ‘selfie’ pictures taken with the props. Money was also raised for local charities too as per the #NHS70 campaign.

An emerging theme for us was ‘if you invite them, they will come’. Many patients we spoke with said they were there because their practice had told them to come. Nearly all had never heard of the vaccine prior to the invite. A few people had needle phobias yet still persisted as they had been invited to be vaccinated and believed that if their doctor had recommended it for them, they should have it. This highlighted to us that while this was a once off promotional activity, there was merit in working with CCGs and general practices in seeing if specific Shingles Vaccine Clinics could be rolled out across London.

This is something we’re currently exploring as part of our Shingles Action Plan. Our summer activity is yet to be evaluated but in terms of absolute numbers, there are approximately 100 people who are now protected against Shingles whom wouldn’t have been if we hadn’t done those 5 July celebrations.

We know that this methodology may not be suitable in other areas but ask that practices explore strategies to improve uptake in their eligible groups.

The Shingles leaflet and postcard are available to order from weblink 1.

**Invite them, and they will come!**

Subscribe to Vaccine Update [here](#), Order immunisation publications [here](#), For vaccine ordering and supply enquiries, email: vaccinesupply@phe.gov.uk
Selective neonatal hepatitis B immunisation:
New resources for primary care staff and patients

A new leaflet for pregnant women who are found to be hepatitis B positive on antenatal screening is available at weblink 3.

The leaflet outlines the risks of mother to child transmission of hepatitis B and how mothers can protect their baby from infection by giving them a course of vaccines starting immediately at birth. The leaflet highlights the importance of making sure their newborn baby is registered promptly with a GP so they can receive the subsequent dose at 4 weeks on time, followed by routine infant immunisations that also protect against hepatitis B at 8, 12 and 16 weeks. The leaflet also reminds the mother that her baby should be tested at 12 months to exclude hepatitis B infection. They are advised to check with the health visitor or practice nurse about getting this blood test done, which can be a heel prick (dried blood spot) sample taken at the same GP visit as their 12 month routine and hepatitis B immunisations.

A hepatitis B aide mémoire for primary care immunisation staff has been published that includes information about testing babies born to hepatitis B infected mothers, it can be viewed at weblink 4. It is aimed at practice nurses, GP and health visitors to ensure arrangements are in place for identifying hepatitis B infected mothers, allowing prompt registration of newborns and timely vaccination at 4 weeks and 12 month testing. It includes a checklist and information on accessing the free infant DBS testing service at Colindale. The identification of a hepatitis B infected mother should also be a prompt to test and vaccinate household and sexual contacts.

The links to these new and existing resources on the routine infant and selective neonatal hepatitis B immunisation programmes are collated in a resource flyer available at weblink 5. These new resources are part of quality improvements to the antenatal screening and neonatal selective immunisation pathways for hepatitis B. A series of regional workshops are being held to inform maternity and primary care staff of the enhanced pathway.

The Hepatitis B leaflet, resources flyer and aide mémoire are available to order.
Hepatitis B pathway workshops

We would like to invite general practice nurses and health visitors to attend a workshop to launch Public Health England’s ‘Enhanced antenatal hepatitis B screening & selective neonatal immunisation pathway’. This series of regional workshops will provide an opportunity for stakeholders involved in the care of women who have hepatitis B and their babies to learn about the planned ‘enhanced antenatal screening and neonatal at risk selective immunisation pathway’ that is to be implemented from April 2019 including:

- a multidisciplinary care and ‘caseload’ approach
- a new care package and resources for screening teams and delivery suites
- maternity interface with primary care
- primary care teams responsibilities
- surveillance and reporting processes

Dates and locations: you can book on any one of 4 workshops held across England

<table>
<thead>
<tr>
<th>Date</th>
<th>Venue</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday 10 October 2018</td>
<td>Bristol Holiday Inn</td>
<td>Bristol City Centre</td>
</tr>
<tr>
<td>Tuesday 16 October 2018</td>
<td>The Metropolitan Hotel</td>
<td>Leeds</td>
</tr>
<tr>
<td>Thursday 1 November 2018</td>
<td>Birmingham Copthorne Hotel</td>
<td>Birmingham</td>
</tr>
<tr>
<td>Tuesday 20 November 2018</td>
<td>Victoria</td>
<td>London</td>
</tr>
</tbody>
</table>

Booking information: To register please email: louise.toal@nhs.net

World Rabies Day – 28 September 2018

World Rabies Day is marked each year to commemorate the anniversary of Louis Pasteur’s death and seeks to continue the work he started on ridding the world of rabies. World Rabies Day is a global day of action for improving rabies awareness and prevention.

Rabies has the highest case fatality rate of any infectious disease in the world and during the next 10 minutes, at least one person will die from rabies, most likely a child, with 98% of all human cases of rabies occurring following the bite of a rabid dog. The tragedy is that rabies is a disease of poverty and neglect, with deaths reported in more than 150 countries but is also entirely preventable through vaccination.

Subscribe to Vaccine update here. Order immunisation publications here. For vaccine ordering and supply enquiries, email: vaccinesupply@phe.gov.uk
The World Rabies Day 2018 theme is Rabies: Share the message. Save a life. Highlighting the importance of education and awareness to prevent rabies.

All animals can get rabies, look and photograph but do not touch. Monkeys and bats are wild animals, not pets, do not feed or touch them even in zoos and temples. Rabid animals do not always show signs of disease. If you are bitten, scratched or licked on broken skin by an animal outside the UK please seek and follow local medical guidance and see a healthcare professional on return to the UK. All bat bites should be treated, even if the skin appears to be unbroken.

For more information please see the links below.

Stay Well this Winter – Help us help you!

The flu marketing campaign will launch 8 October and run until 31 October. The campaign will consist of TV, radio and digital (social and display) advertising supported by search and partnership activity. It will target pregnant women, parents of children aged 2 and 3 years old and adults with long term conditions.

Since 2015, the flu campaign has formed part of a wider winter campaign called Stay Well This Winter (SWTW). In addition to flu messaging the SWTW campaign has encouraged preventative self-care to help ease the pressure on NHS services.

The campaign has been supported each year by local NHS trusts, local authorities, charities and commercial sector partners. This year SWTW will evolve towards a new brand style called Help Us Help You and the flu campaign will be one of the first to roll out under it.

Help Us Help You is an overarching brand which unifies a family of campaigns incorporating messages about flu, staying well in winter, NHS111, pharmacy and GP extended hours.

It encourages people to take appropriate actions (be that getting the flu vaccination or accessing the appropriate service) to better enable the NHS to help them.
More information about the campaign will become available late September so please regularly check the PHE Campaign Resource Centre (weblink 15).
Please contact partnerships@phe.gov.uk if you have any questions.

**Poster and postcard (back to school)**

We would like to formally thank Steve Maddern, Jane Oswin and the team at Wiltshire Council whose original starting school posters provided a great use of the MMR campaign elements and were central in our decision to provide a national resource along similar lines.

**Posters**

These posters are aimed at parents and carers to remind them to check that their child is up to date with their vaccinations. It features the MMR vaccine and the pre-school booster. They are suitable for all GP practices, schools and nursery settings and are available to order at weblink 24.

**Postcards**

The postcards are suitable for all GP, school and nursery staff to send out to parents and carers of children as a reminder to prompt them to check that their child is up to date.

They are available to download from weblink 24 or the Health and Social Care Publications orderline at weblink 23.
Teenage banners for schools, colleges and local authorities

These banners have been developed for use in any location with a digital display system. We are keen that every opportunity is used to remind parents and children to make sure that they are up to date with all their immunisations. We have had many requests for these resources but as ever we rely on you to download them, share them and use them to help spread the message.

These banners are download only and are available at weblink 25 and weblink 26. They are suitable for display systems, websites and social media.

Vaccine supply (centrally supplied)

Supply of UK-licensed BCG vaccine manufactured by AJ Vaccines (formerly the Statens Serum Institut (SSI)) for the national BCG programme

AJ Vaccines resumed supply of the sole UK-licensed BCG vaccine to Public Health England’s (PHE’s) central stockholding. The UK-licensed AJ Vaccines product is now available to order through the ImmForm website. All organisations holding centrally supplied BCG vaccine are asked to use their current stocks of InterVax BCG vaccine before ordering AJ Vaccines BCG Vaccine to minimise vaccine wastage. This is particularly important as supplies for this vaccine remain globally constrained.

BCG vaccine supplied by AJ Vaccines is presented as a powder for reconstitution in a glass vial with synthetic stopper. Each pack ordered contains 10 vials. One vial of reconstituted vaccine contains 1ml, corresponding to 10 doses (of 0.1ml) for adults and children aged 12 months and over or 20 doses (of 0.05ml) for infants under 12 months of age. PHE anticipates having sufficient BCG vaccine for all eligible groups. To help with managing this, ordering is open to all ImmForm account holders at 4 packs per order per week (each pack contains up to 200 infant doses). This order restriction will be kept under review.

To note, that at times the shelf life of this product may be relatively short, therefore it is advised not to create locally held stockpiles. In the event that further packs are required, please contact helpdesk@immform.org.uk.
Reminder about MMR vaccine ordering restriction

There are currently two different vaccines available to order for the MMR programme, M-M-RvaxPro® and Priorix®. Orders for Priorix® continue to be capped at 6 packs per order per week for accounts in England and Wales. Controls are also in place for Scottish customers. This is needed to rebalance central supplies.

The alternative MMR vaccine, M-M-RvaxPro®, remains available to order without restriction. If you specifically require additional Priorix® stock, for example because you serve communities that do not accept vaccines that contain porcine gelatine then please contact the ImmForm Helpdesk for assistance at helpdesk@immform.org.uk or 0844 376 0040.

Complete and routine childhood vaccination schedules Autumn 2018 have been published.

Flu vaccine availability and eligibility for the children’s programme in 2018-19

As in previous years, PHE is centrally supplying flu vaccine for children included in this year’s flu programme, including those aged from six months to less than 18 years old in clinical risk groups. It remains the responsibility of GPs and other providers to order sufficient flu vaccine directly from manufacturers for older eligible patients of the flu programme in 2018-19.

The following vaccines are now available to providers of the children’s flu programme in England via the ImmForm website. Please refer to guidance from your respective health departments for arrangements in Scotland, Wales and Northern Ireland.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluenz Tetra® (LAIV)</td>
<td>AstraZeneca UK Ltd</td>
</tr>
<tr>
<td>Quadrivalent Influenza Vaccine (split virion, inactivated)</td>
<td>Sanofi Pasteur</td>
</tr>
</tbody>
</table>
Eligibility and the type of vaccine to offer children from six months to less than 18 years is as follows:

<table>
<thead>
<tr>
<th>Age on 31 August 2018</th>
<th>Is child eligible for LAIV?</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Under 2 years of age</strong></td>
<td><strong>Universal programme:</strong> No. Only at risk children offered vaccination. <strong>At risk children:</strong> LAIV is not licenced for children under 2 years of age. At risk children over six months of age to be offered suitable quadrivalent inactivated flu vaccine (QIV).</td>
<td>General practice</td>
</tr>
<tr>
<td><strong>Aged 2 – 3 years old</strong>&lt;br&gt;(Born between 1 September 2014 and 31 August 2016)</td>
<td><strong>Universal programme:</strong> All 2 and 3 year olds offered LAIV. Children who turn two after 31 August 2018 are not eligible. Children who were three on 31 August 2018 and turn four afterwards, are still eligible. <strong>At risk children:</strong> Offer LAIV. If child is contraindicated (or it is otherwise unsuitable), then offer suitable quadrivalent inactivated flu vaccine (QIV).</td>
<td>General practice</td>
</tr>
<tr>
<td><strong>Aged 4 – 9 years old</strong>&lt;br&gt;(Born between 1 September 2008 and 31 August 2014)</td>
<td><strong>Universal programme:</strong> All primary school years from reception class to year 5* offered LAIV. <strong>At risk children:</strong> Offer LAIV. If child is contraindicated (or it is otherwise unsuitable), then offer suitable quadrivalent inactivated flu vaccine (QIV). At risk children may be offered vaccination in general practice if the school session is late in the season, parents prefer it, or they missed the school session. Also, some schools may not offer inactivated vaccines to at risk children in whom LAIV is contraindicated.</td>
<td>School</td>
</tr>
<tr>
<td><strong>Aged 10 years old to less than 18 years</strong></td>
<td><strong>Universal programme:</strong> No. Only at risk children offered vaccination. <strong>At risk children:</strong> Offered LAIV. If contraindicated (or it is otherwise unsuitable), then offer suitable quadrivalent inactivated flu vaccine (QIV).</td>
<td>General practice</td>
</tr>
</tbody>
</table>

*Reception class (4 to 5 year olds); Year 1 (5 to 6 year olds); Year 2 (6 to 7 year olds); Year 3 (7 to 8 year olds); Year 4 (8 to 9 year olds); Year 5 (9 to 10 year olds).

**Flu vaccine ordering for the children’s flu programme**

**Information for General Practice**

ImmForm order controls have been in place for general practice for the past 2 years to reduce the amount of Live Attenuated Influenza Vaccine (LAIV), or Fluenz Tetra®, ordered across England but not administered to children.

This approach has been successful in reducing the amount of vaccine which goes unused and therefore similar controls will be in place again this year.
The controls are tailored to each practice, and work by allocating an amount of vaccine based on the number of registered eligible patients. The planned timings and changes to the allocations are set out below in order to assist with local planning. Please note that these controls are subject to change as necessary (i.e. to increase allocations earlier than planned), to respond to the needs of the programme.

The following controls will be applied to those accounts ordering for general practice:

- in the first 4 weeks (until the week ending 19 October) all customers will be able to order up to 40% of the eligible cohort (all 2 and 3 year olds, plus at risk from 4 – <18 years). Requests for extra vaccine will be considered on a case by case basis
- in the next 4 weeks (until week ending 16 November), all practices will be able to order up to last year’s INDIVIDUAL uptake (or remain at 40% if individual uptake was lower). Requests for extra vaccine will be considered on a case by case basis
- after these first 8 weeks all practices will be able to order a set number of packs per week (one order per week) depending on stock levels. Requests for additional vaccine will continue to be considered on a case by case basis

Changes to this schedule may be made in-season to respond to the programme needs. Any changes will be communicated via the news item on the ImmForm front page.

Requests for additional vaccine should be sent to the ImmForm helpdesk (helpdesk@immform.org.uk/ 0844 376 0040) and should be sent in good time before your order cut-off. Out of schedule deliveries will be by exception only.

**Multi Branch Practices and LAIV allocations**

GP practices or groups that operate over multiple sites but are part of the same organisation will have a joint allocation (as in previous years), even where each site has a unique ImmForm account. This means that it is possible for one site to order all of the available vaccine for the group unless there is local agreement in place on how the available amount should be shared. PHE recommend that this agreement is in place before ordering opens to reduce the risk of supply interruption.

Practices should be able to work out how much vaccine they will be allocated during the first 8 weeks, and how it should be split between all sites, using the information above.

If additional vaccine is required then this should be requested in the normal way via the ImmForm helpdesk.
Information for Schools Providers

A default cap of 300 packs (3000 doses) per week, per account will be in place for school providers (as in previous years). This is a limit and not a target. Our advice to hold no more than 2 weeks' worth of stock at any one time still applies, and should be adhered to by all providers. Where a school provider needs to order more than 300 packs (3000 doses) in a week, they need to contact the ImmForm helpdesk to arrange a large order. These will be dealt with on a case by case basis and will be by exception.

Additionally, if a provider covering a large area feels that they need a higher weekly cap than 300 packs (3000 doses) to deliver the programme, they should discuss their vaccine requirements with their Commissioner in the first instance and then with their support, request an increase via the ImmForm helpdesk.

Orders will be monitored regularly and Commissioners will be alerted to any requests for additional vaccine or unusual ordering activity.

We would ask all those responsible for the ordering of LAIV vaccine to review their past ordering and uptake rates, and identify ways in which ordering can be better informed and act on them. This will ensure vaccine is available for those who need it and save the NHS a significant amount of money.

The General Principles for LAIV ordering

- remember that LAIV is supplied in a 10-dose pack
- remember that you can order weekly and receive weekly deliveries
- be realistic about the amount of vaccine that you need, and when you need it
- spread your orders over the course of the flu vaccination season – later ordered stock will have a later expiry date and will last longer
- hold no more than 2 weeks’ worth of stock in your fridge. Local stockpiling can cause delays or restrictions on stock being released to the NHS, and increases the risk of significant loss of stock if there is a cold chain failure in your supply chain or premises

Inactivated flu vaccine ordering

This year, PHE is supplying an inactivated vaccine that is suitable for all children from six months to less than 18 years old. It should be used for eligible children who are contraindicated for Fluenz Tetra® (or it is otherwise unsuitable) AND are in a clinical risk group.

This vaccine is Quadrivalent Influenza Vaccine (split virion, inactivated), and has an order cap of 30 doses per week.
## Influenza vaccines for the 2018-19 season

All Influenza Vaccines Marketed in the UK for the 2018/19 season.

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Product details</th>
<th>Vaccine type</th>
<th>Age indications</th>
<th>Ovalbumin content (micrograms/ml) (micrograms/dose)</th>
<th>Contact details</th>
</tr>
</thead>
<tbody>
<tr>
<td>AstraZeneca UK Ltd</td>
<td>Fluenz Tetra® ▼</td>
<td>Live attenuated, nasal (quadrivalent)</td>
<td>From 24 months to less than 18 years of age</td>
<td>≤0.12 (&lt;0.024/0.2ml dose)</td>
<td>0845 139 0000</td>
</tr>
<tr>
<td>GSK</td>
<td>Fluarix Tetra ▼</td>
<td>Split virion inactivated virus (quadrivalent)</td>
<td>From 6 months</td>
<td>≤0.1 (≤0.05/0.5ml dose)</td>
<td>0800 221 441</td>
</tr>
<tr>
<td>MASTA</td>
<td>Quadrivalent Influenza Vaccine (split virion, inactivated) ▼</td>
<td>Split virion, inactivated virus</td>
<td>From 6 months</td>
<td>≤0.1 (≤0.05/0.5ml dose)</td>
<td>0113 238 7552</td>
</tr>
<tr>
<td>Mylan (BGP Products)</td>
<td>Influvac® sub-unit Imuvac® Influenza vaccine MYL</td>
<td>Surface antigen, inactivated virus (trivalent)</td>
<td>From 6 months</td>
<td>0.2 (0.1/0.5ml dose)</td>
<td>0800 358 7468</td>
</tr>
<tr>
<td></td>
<td>Quadrivalent Influenza vaccine Tetra MYL Quadrivalent Influvac sub-unit Tetra</td>
<td>Influenza virus surface antigen (inactivated)</td>
<td>From 18 years</td>
<td>0.2 (0.1/0.5ml dose)</td>
<td>0800 358 7468</td>
</tr>
<tr>
<td>Pfizer Vaccines</td>
<td>Influenza vaccine (Split Virion, inactivated), pre-filled syringe</td>
<td>Split virion, inactivated virus (trivalent)</td>
<td>From 5 years</td>
<td>≤2 (≤1/0.5ml dose)</td>
<td>0800 089 4033</td>
</tr>
<tr>
<td>Sanofi Pasteur vaccines</td>
<td>Quadrivalent Influenza Vaccine (split virion, inactivated) ▼</td>
<td>Split virion, inactivated virus</td>
<td>From 6 months</td>
<td>≤0.1 (≤0.05/0.5ml dose)</td>
<td>0800 854 430</td>
</tr>
<tr>
<td>Seqirus UK Ltd</td>
<td>Fluad® Surace antigen, in activated Adjuvanted with MF59C.1 (trivalent)</td>
<td>65 years of age and over</td>
<td></td>
<td>≤0.4 (≤0.2/0.5ml dose)</td>
<td>08457 451 500</td>
</tr>
</tbody>
</table>

Note the ovalbumin (egg) content is provided in units of micrograms/ml and micrograms/dose.

None of the influenza vaccines for the 2018-19 season contain thiomersal as an added preservative.

For more information about the table, see [weblink 17](#).
Vaccine supply (non-centrally supplied)

Vaccine supply for the non routine programmes

HEPATITIS A VACCINE

Adult
- **GSK**: There will be intermittent supply of Havrix Adult PFS singles. Havrix adult PFS packs of ten remain available to order
- **Sanofi Pasteur**: Avaxim is currently available for orders without any restrictions
- **MSD**: Limited stocks of VAQTA Adult are currently available

Paediatric
- **GSK**: Havrix Paediatric packs of ten are in supply. Havrix paediatric singles available from end-September
- **MSD**: VAQTA Paediatric is currently available

HEPATITIS B VACCINE

Adult
- **GSK**: Supplies of Engerix B PFS singles and packs of 10 are available. Please note you may have access limited to certain presentations to ensure supply continuity
- **GSK**: Supplies of Engerix B vials singles and packs of 10 are available. Please note you may have access limited to certain presentations to ensure supply continuity
- **GSK**: Fendrix is available
- **MSD**: Limited supplies of HBVAXPRO 10µg are available. Supplies are expected to be restricted until further notice
- **MSD**: Limited supplies of HBVAXPRO 40µg are available. Supplies are expected to be restricted until further notice

Paediatric
- **GSK**: Engerix B Paediatric singles are available
- **MSD**: HBVAXPRO 5µg are available

COMBINED HEPATITIS A & B VACCINE
- **GSK**: Twinrix Adult and Paediatric presentations are available
- **GSK**: Ambirix is available

COMBINED HEPATITIS A & TYPHOID VACCINE
- **Sanofi Pasteur**: Viatim is available to order without any restrictions

TYPHOID VACCINE
- **Sanofi Pasteur**: Typhim is available to order without restrictions
- **PaxVax**: Vivotif is available
RABIES VACCINE
- **GSK:** Rabipur is experiencing supply constraints and therefore supply has been prioritised for post exposure prophylaxis. Resupply anticipated in November 2018
- **Sanofi Pasteur:** Sanofi Pasteur has limited supplies of Rabies vaccine. Please call Customer Services for more information

PPV (Pneumococcal Polysaccharide Vaccine)
- **MSD:** Limited supply is currently available with next replenishment due in October 2018

VARICELLA ZOSTER VACCINE
- **GSK:** Varilrix is currently available
- **MSD:** VARIVAX is currently available
- **MSD:** ZOSTAVAX stocks are currently available for the private market and for the National Immunisation Programme

DIPHTHERIA, TETANUS AND POLIOMYELITIS (inactivated) VACCINE
- **Sanofi Pasteur:** Revaxis is available to order without restrictions

MMR
- **MSD:** Limited stocks of MMR are currently available for the private market and there are stocks available for the National Immunisation Programme

HUMAN PAPILLOMAVIRUS VACCINE
- **MSD:** Stocks of GARDASIL are available for private market sales and for the National Immunisation Programme
- **MSD:** Limited supplies of Gardasil 9 are available. Supplies are expected to be replenished in mid/late September. Further replenishment is expected in October

MENINGITIS ACWY VACCINE
- **GSK:** Menveo is currently unavailable until late 2018
- **Pfizer:** Nimenrix is currently available for private sales. There is no impact on the National Immunisation Programme

YELLOW FEVER
- **Sanofi Pasteur:** Stamaril is available to order without restrictions
Pertussis vaccination programme for pregnant women update: vaccine coverage in England, January to March 2018

This report presents pertussis vaccine coverage in pregnant women in England for the period January to March 2018.

Pertussis vaccine coverage in pregnant women averaged 72.1% across the quarter, 1.7% lower than coverage for the same period in 2017 but continuing at the higher levels seen since April 2016.

Screening and Immunisation Teams should continue to update service providers (including maternities where vaccination is offered in this setting) on the current epidemiology of the disease, the recent changes to and effectiveness of the vaccination programme, and the need to maintain and improve coverage achieved thus far.

The full report and associated data tables can be found [weblink 10].

Pertussis immunisation in pregnancy: vaccine coverage estimates (England)

Shingles and Pneumococcal Polysaccharide Vaccine (PPV) vaccine coverage report published

Provisional cumulative vaccine coverage estimates up to the end of May 2018 show that for those who were aged 70 on 1 September 2017 (routine cohort) coverage was 41% and for those aged 78 (catch-up cohort) coverage was 42%. Compared with the same time last year coverage is 5.0% lower for the routine and 4.5% lower for the catch-up cohort.

This decrease can be partly explained by the change in eligibility criteria from 1 April 2017; patients now become eligible on their 70th or 78th birthday and remain eligible until the 80th birthday. A proportion of those eligible under this new criteria for routine and catch-up vaccination are in cohorts aged 69 and 77 years respectively in the data extraction.
By the end of May 2018, 10.2% of those aged 69 years old on 1 September 2017 had received shingles vaccine (compared to 1.5% of 69 year olds at the end of May 2017). Most of these individuals will have received the vaccine under this revised eligibility criteria. Similarly, by the end of May 2018, 11.4% of those aged 77 years old on 1st September 2017 had received vaccine (compared to 2.1% of 77 year olds at the end of May 2017). After taking account of data for these additional cohorts, the report suggests that coverage has increased compared to that achieved at the end of May 2017, possibly reversing the downward trend seen in previous years.

A special VU issue dedicated to the evaluation of the shingles programme was published in April 2018.

Coverage of PPV in adults aged 65 years and over, vaccinated any time up to and including 31 March 2018, was 69.5%, 0.3% lower compared with 2016/17 and 0.6% lower than 2015/16 and 2014/15. The proportion of adults aged 65 years who were vaccinated in the last 12 months was 11.8%, compared with 16.3% in 2016/17. A national shortage of PPV vaccine is likely to be the main contributor to these decreases.

The impact of the PPV programme on reducing the incidence of vaccine-type invasive pneumococcal disease (IPD) in patients aged 65 years and over has not been evident in surveillance data, due to the vaccine’s modest effectiveness, its existing use in risk groups prior to their entry into the over 65 programme, and the indirect impact of the conjugate vaccines used in children. However, there is evidence of individual protection against the serotypes covered by PPV23. PHE is currently doing a study to further assess effectiveness in the 65 years and over age group and any decline by time since vaccination.

The full Shingles and PPV reports and associated data tables can be found at weblink 11 and weblink 12.

**Annual childhood vaccination coverage statistics for 2017/18 and provisional first quarter data for 2018/19 published**

NHS Digital published the annual childhood vaccination coverage statistics for England 2017/18 on 18 September. A continuation of the decreasing trends in coverage for children up to 5 years was reported. Of the 12 routine vaccinations measured at 12 months, 24 months or 5 years of age that were also measured in 2016/17, 10 have declined in 2017/18 in England compared to the previous year. Some regional variation in coverage across the country is reported with annual levels of immunisation lowest for all routine childhood vaccinations in London and highest in the North East.

Due to data quality issues reported from the London region, the April to June 2018 quarterly COVER report does not include England or UK coverage estimates. However, if London data are excluded, coverage for the April to June 2018 quarter (current) is very similar to the previous quarter’s for all antigens evaluated at 12 months, 24 months and five years (range +/-0.2%).

The full annual and quarterly coverage reports and associated data tables can be found at weblink 13 and weblink 14.
## Weblinks

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