#VaccinesWork for all

World Immunization Week 2020 runs from April 26th-30th. It is the World Health Organisation’s annual celebration of immunisation, best practice, new advances and the work of immunisers across Europe. World Immunization Week (WIW) aims to promote the use of vaccines to protect people of all ages against disease.

Immunization saves millions of lives every year and is widely recognized as one of the world’s most successful and cost-effective health interventions. Yet, there are still nearly 20 million children in the world today who are not getting the vaccines they need.

The theme this year is #VaccinesWorkForAll and the campaign will focus on how vaccines – and the people who develop, deliver and receive them – are heroes by working to protect the health of everyone, everywhere. WIW reminds us of the need to #CarryOnVaccinating and

- demonstrates the value of vaccines for the health of children, communities and the world
- routine immunization is the foundation for strong, resilient health systems and universal health coverage
- highlights the need to build on immunization progress while addressing gaps, including through increased investment in vaccines and immunization

WHO has designated 2020 the International Year of the Nurse and the Midwife, WHO and PHE highlight nurses and midwives for their crucial role as early vaccine champions for new parents and parents-to-be and life course vaccination making sure older adults have their routine protection and we are dedicated to recognising their hard work and supporting them to ensure that we can protect and prevent disease.
The current COVID-19 pandemic has highlighted the importance of a strong, skilled and trained health work force to respond to disease outbreaks. To help them keep our societies healthy, it is crucial that we continue seeking all recommended vaccines and follow national guidelines. We must work together to prevent the spread of disease.

While scientists are working hard to develop a vaccine against COVID-19, we can benefit from the available life-saving vaccines. Health workers are trying their best to offer immunization services where feasible even during the pandemic to prevent dangerous diseases including measles and polio.

This year presents an unprecedented global pandemic which we are all committed to tackling and part of that is maintaining the high uptake of immunisations in the UK.

In the lead up to this year’s World Immunization Week, countries across the globe are in the throes of responding to the COVID-19 pandemic. WHO has released new guidance to help countries protect critical immunization services during the COVID-19 pandemic, so that ground is not lost in the fight against vaccine-preventable diseases.

**Maintaining immunisation services during the COVID19 pandemic to reduce the serious risk of vaccine-preventable disease.**

**General principles**

Whilst preventing the spread of COVID-19 and caring for those infected is a public health priority, it is very important to maintain our national immunisation programme. This will avoid outbreaks of vaccine-preventable diseases and allow us to provide important protection to children and other vulnerable groups. It will also avoid increasing further the numbers of patients requiring health services because of vaccine-preventable diseases.

**General Practices**

Practices will be busy responding to the COVID-19 pandemic and the routine immunisation programme will continue to play an important role in preventing ill-health through causes other than coronavirus infection. The national immunisation programme is highly successful in reducing the incidence of serious and sometimes life-threatening diseases such as pneumococcal and meningococcal infections, whooping cough, diphtheria and measles. It remains important to maintain the best possible vaccine uptake to prevent a resurgence of these infections.

The routine immunisation programme should be maintained including the following important vaccinations:

- routine childhood immunisations, from 8 weeks up to and including vaccines due at one year of age, and selective neonatal hepatitis B vaccination for babies born to hepatitis B infected mothers
- pertussis vaccination in pregnancy
- pneumococcal vaccination for those in risk groups from 2 to 64 years of age and those aged 65 years and over (subject to supplies of PPV23 and clinical prioritisation)
Other non-scheduled vaccinations should still be given opportunistically for example missing doses of MMR. Coronavirus responses may have disrupted immunisation clinics in the past few weeks, so anyone who has missed their scheduled immunisations recently should be invited for vaccination.

Further guidance on the continuation of immunisations is available from NHS England at weblink 1.

In addition, The Royal College of Nursing have published guidance on the management of immunisation clinics during the COVID19 pandemic; see weblink 2.

PHE has received a number of enquiries about the use of Patient Group Directions (PGDs) in Primary Care Networks (PCNs) where practice nurses will be vaccinating children at various general practice sites.

NHS Specialist Pharmacy Services (SPS) have published guidance on this question at weblink 3.

**NEW! Promoting immunisation social media cards**

Three new resources to promote immunisation to pregnant mums and young families. We are going to produce further resources over the coming months.

Please use these resources to promote immunisation on your social media channels, websites and Whatsapp or Facebook groups.

You can download them from the Health Publications website – search for: **2020058 COVID-19 Promoting immunisation social media cards**
**Vaccine Safety Network**

The Vaccine Safety Net (VSN) is a worldwide network of websites, established by the World Health Organization (WHO) in 2003, to verify and promote reliable information on vaccine safety online.

Last year WHO declared vaccine hesitancy among the top ten threats to global health. This year we have seen an abundance of conflicting, potentially harmful and most certainly distracting information at a level deemed to be an infodemic.

The VSN aims to provide the public with science, facts, and reliable information from credible sources. Each member has been evaluated and verified using WHO criteria and are continually re-evaluated and monitored.

For this year’s World Immunization Week, we invite you to join us to spread the facts and not the misinformation and make the public aware of reliable sources of information available in their language, relevant to their region.

> If you are looking for information about vaccines, be sure to consult trusted and credible sources, like your health worker, local health authorities, health institutions like NHS.UK, Public Health England, WHO or the members of the Vaccine Safety Net.”

WHO – Newsroom World Immunization Week Campaign Page; see weblink 4.

**Vaccine Safety Net social media accounts:**
**Twitter:** @VaccineSafetyN | **Pinterest:** Vaccine Safety Net

You can download the graphic below for use on social media at weblink 12.
Managing locally held vaccine stock in primary care

NHS England has recently published guidance on transferring vaccine stock between providers. In summary, the Medicines and Healthcare Products Regulatory Agency (MHRA) has now confirmed that it would not prevent the transfer of locally held vaccine stock from the NHS routine immunisation services during COVID-19, provided that:

- the CCG, PCN or General Practice believes the transfer of vaccine(s) is necessary to support the continued delivery of routine immunisations in primary care during the COVID-19 response and will ensure the effective use of available resource
- the CCG, PCN or General Practice that is holding the vaccine stock has assurance that the vaccine has been stored in the correct temperature-controlled conditions
- confirmed daily record keeping of temperature monitoring is available
- the CCG, PCN or General Practice that requires locally held vaccine supply can verify the assurances given
- the vaccine(s) can be transported appropriately under the right cold chain conditions

Full details can be found in the 20th April edition of the NHS COVID19 Primary Care Bulletin at weblink 5.

School age immunisation programmes

These are currently suspended and will be rescheduled.

Immunisations offered as part of antenatal or post-natal care

Pregnant women should still be offered pertussis vaccine, ideally between 16- and 32-weeks gestation. Where maternity services have been locally commissioned to provide this, they should continue to do so, or if not commissioned to do so, women should be sign-posted to their general practice to receive the vaccine. Maternity and paediatric services should continue to offer targeted BCG vaccine and hepatitis B vaccine (±HBIG) to eligible babies.

Conquering a new enemy: how soldiers are helping the fight against COVID-19

In late March a confirmed case of the novel coronavirus disease-19 (COVID-19) was identified in one soldier with several others showing COVID-19-like symptoms at an army barracks in London. The North West London Health Protection Team (NWL HPT) and colleagues from Public Health England Colindale coordinated with the Army medical team to rapidly investigate the outbreak.

Working swiftly from the moment the NWL HPT were notified: protocols were written, discussions were held and ethical approval was obtained, all within 3 days. On Monday 30 March, they assembled at the Army barracks at 0800 hours and deployed their mobile testing-stall in the gymnasium, ready to test service personnel, their partners and civilian volunteers. In 8 hours 304 tests took place, with volunteers each providing nose swabs, throat swabs and blood samples to test for SARS-CoV-2 and antibodies to the virus.
With military precision this operation saw collaboration between the NWL Health protection team and Army Medics simultaneously running 8 different testing stations throughout the gymnasium. The gathering of samples for testing is vital work that we are proud to be collaborating with the Army on. Each of these precious samples gathered from our participants are being safely processed at PHE Colindale. The results of these tests will be key to understanding the transmission of SARS-CoV-2 and how the immune system fights the virus.

Public Health England extends its gratitude to our colleagues across the UK who are on the front line of testing, helping us to get a better picture of how SARS-CoV-2 behaves and we can combat its effects.

**Pneumococcal Polysaccharide Vaccine (PPV)**

MSD is transitioning to prefilled syringe presentation (PFS) of PPV under the brand name PNEUMOVAX® 23 which will replace all future supply of vials from May 2020. Vials will continue to be available intermittently until May 2020. A combination of growing global demand for pneumococcal polysaccharide vaccines, alongside manufacturing constraints, have led to regular interruptions in supply of PPV to the UK since 2017. The introduction of a PFS presentation of PPV is intended to support the continuity of supply and to help address public health need.

Pneumovax® 23 in the PFS presentation can be ordered in the same way as the PPV in vials; through MSD’s distribution partner AAH online at www.aah.co.uk or by phone on 0344 561 8899. Customers need an AAH account to place an order. For more information about the vaccine, please refer to the Summary of Product Characteristics (SmPC).
Vaccine supply
Routine vaccination programme

PCV13 schedule change reminder

As published in issue 303 (Dec 2019), the PCV13 routine immunisation schedule changed on the 1 January 2020. The change means that babies born on or after 1 January 2020 will have one priming dose of PCV13 at the age of 12 weeks, followed by a booster dose at the age 12 months.

Babies born on or before the 31 December 2019 will continue to be offered two priming doses at the age of 8 and 16 weeks, followed by a booster dose at the age 12 months. Further information is available at [weblink 6].

Please ensure that you keep the change in schedule in mind when ordering Prevenar13 from ImmForm and do not order too much. We recommend that customers hold a maximum of 2-4 weeks stock to minimise the potential for wastage.

Flu vaccine supply for the 2019 to 2020 children’s flu programme

All Fluenz® Tetra now expired

Any stock remaining in fridges should now be disposed and recorded through the ImmForm stock incident page.

Inactivated flu vaccine for children – available to order

The injectable vaccine (Quadrivalent Influenza Vaccine (split virion, inactivated)) remains available to order for eligible children aged from six months to less than 18 years old in England, who are contraindicated for Fluenz® Tetra (or otherwise unsuitable) AND are in a clinical risk group.

This vaccine currently has an order cap of 20 doses per week.

Providing a second dose of flu vaccine after all Fluenz® Tetra has expired

If you still need to give a second dose of flu vaccine four weeks after the first dose (for example, for children in clinical risk groups aged two to under nine years who have not received influenza vaccine before), then it is safe and effective to give inactivated vaccine as a second dose where Fluenz® Tetra is not available.
Maternal Pertussis programme
– Change to dTaP/IPV vaccine

The maternal pertussis immunisation programme commenced in October 2012, initially using Repevax® vaccine (dTaP/IPV). From July 2014, Boostrix®-IPV (dTaP/IPV) has been supplied. Repevax® is now available to order through ImmForm for use in the maternal pertussis immunisation programme instead of Boostrix®-IPV.

This is a temporary change and it is anticipated that supplies will revert back to Boostrix®-IPV in autumn 2020. This change is necessary as PHE is running down all stock of Repevax® before the introduction of Boostrix®-IPV across both the maternal pertussis and the pre-school booster programmes.

There is no other change to the maternal pertussis immunisation programme, further details about this programme can be found in chapter 24 of the Green Book at weblink 7.

Update to Bexsero Patient Information Leaflet

Every pack of Bexsero (Meningitis B vaccine; 10 doses) is supplied with a pad of ten Patient Information Leaflets (PILs), as well as there being a single PIL inside each Bexsero pack. Since late-September 2019, an updated version of the PIL pad has been distributed with Bexsero orders.

Please dispose of the single PIL from inside the pack, as it will be out-of-date. We will advise further when the PIL supplied in the pack is in line with the PIL pad.

MMR vaccine ordering

There are currently two different vaccines available to order for the MMR programme, MMRvaxPRO® and Priorix®. Orders for Priorix® are capped at 10 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, MMRvaxPRO®, 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.
The EU Falsified Medicines Directive (FMD) and Delegated Regulation as applicable to PHE supplied vaccines for the national immunisation programme

Full information on FMD as it applies to centrally supplied vaccines for the National Immunisation Programme can be found in the April 2019 edition of Vaccine update at weblink 8.

ImmForm vaccines in FMD-compliant packs (i.e. subject to the requirements of the Delegated Regulation) are being distributed for all centrally-supplied products (see table below). We would encourage all of our customers to visit the GOV.UK page on FMD at weblink 9 and spend some time becoming familiar with the content and links to various other guidance documents on the implementation of the legislation.

<table>
<thead>
<tr>
<th>Product</th>
<th>Brand name</th>
<th>FMD-compliant packs will be issued which require verification and decommissioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumococcal conjugate vaccine (PCV)</td>
<td>Prevenar13</td>
<td>Live</td>
</tr>
<tr>
<td>DTaP/IPV vaccine for pregnant women</td>
<td>Boostrix-IPV</td>
<td>Live</td>
</tr>
<tr>
<td>Meningococcal Group ACWY vaccine</td>
<td>Nimenrix</td>
<td>Live</td>
</tr>
<tr>
<td>Measles-Mumps-Rubella (MMR) vaccine</td>
<td>MMR VaxPRO</td>
<td>Live</td>
</tr>
<tr>
<td>DTaP/IPV/Hib/HepB vaccine</td>
<td>Infanrix Hexa</td>
<td>Live</td>
</tr>
<tr>
<td>Tuberculosis vaccine (BCG)</td>
<td>BCG Vaccine AJV</td>
<td>Live</td>
</tr>
<tr>
<td>Meningococcal Group B vaccine</td>
<td>Bexsero</td>
<td>Live</td>
</tr>
<tr>
<td>Shingles (Herpes zoster) vaccine</td>
<td>Zostavax</td>
<td>Live</td>
</tr>
<tr>
<td>Hib/MenC vaccine</td>
<td>Menitorix</td>
<td>Live</td>
</tr>
<tr>
<td>Measles-Mumps-Rubella (MMR) vaccine</td>
<td>Priorix</td>
<td>Live</td>
</tr>
<tr>
<td>Rotavirus vaccine</td>
<td>Rotarix</td>
<td>Live</td>
</tr>
<tr>
<td>Human papillomavirus (HPV) vaccine</td>
<td>Gardasil</td>
<td>Live</td>
</tr>
<tr>
<td>DTaP/IPV vaccine for infants</td>
<td>Repevax</td>
<td>Live</td>
</tr>
<tr>
<td>Td/IPV vaccine</td>
<td>Revaxis</td>
<td>Live</td>
</tr>
<tr>
<td>LAIV</td>
<td>Fluenz Tetra</td>
<td>Live</td>
</tr>
<tr>
<td>Quadrivalent inactivated flu vaccine (QIVe)</td>
<td>Quadrivalent Influenza Vaccine (split virion, inactivated)</td>
<td>Live</td>
</tr>
<tr>
<td>Purified protein derivative (Mantoux test)</td>
<td>Tuberculin PPD-2TU</td>
<td>All stock will be in non-FMD packs (as it is unlicensed in UK)</td>
</tr>
</tbody>
</table>
Please note that the barcode on Rotarix batch AROLC284AA (exp. 31/05/2021) is non-serialised and therefore cannot be verified or decommissioned.

If you have identified yourself to PHE as being exempt from decommissioning under Article 23 of the Delegated Regulation and this has been agreed, then you will be supplied with decommissioned vaccine.

Please see our guidance for more information on the roles and responsibilities in relation to FMD and the Delegated Regulation, regarding vaccines and other medicines centrally supplied by PHE to the NHS and other customers. This document is accessible via GOV.UK at weblink 10.

Early notice: May bank holidays delivery and order cut-off changes

Due to the Early May Bank Holiday, there will not be any deliveries or order processing by Movianto UK on Friday 8 May 2020. For spring bank holiday, order cut-offs will be earlier for some customers with delivery days falling after the bank holidays, to allow enough time for order processing. Please see the tables below for revised order cut-off and delivery dates in bold. Customers are reminded to be prepared for the break in deliveries and to order accordingly. Please make sure you have enough room in your fridge for any additional vaccine you wish to stock over this holiday period. Out of Schedule deliveries cannot be arranged for failure to place orders in good time.

<table>
<thead>
<tr>
<th>Usual order cut-off day (by 11.55am)</th>
<th>May Bank Holiday order cut-off dates (by 11.55 am; revisions are in bold)</th>
<th>Delivery Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>Wednesday 29 April 2020</td>
<td>Friday 1 May 2020</td>
</tr>
<tr>
<td>Thursday</td>
<td>Thursday 30 April 2020</td>
<td>Monday 4 May 2020</td>
</tr>
<tr>
<td>Friday</td>
<td>Friday 1 May 2020</td>
<td>Tuesday 5 May 2020</td>
</tr>
<tr>
<td>Monday</td>
<td>Monday 4 May 2020</td>
<td>Wednesday 6 May 2020</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Tuesday 5 May 2020</td>
<td>Thursday 7 May 2020</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Not applicable</td>
<td>No deliveries – Early May Bank Holiday, Friday 8 May 2020</td>
</tr>
<tr>
<td>Thursday</td>
<td>Wednesday 6 May 2020</td>
<td>Monday 11 May 2020</td>
</tr>
<tr>
<td>Friday</td>
<td>Thursday 7 May 2020</td>
<td>Tuesday 11 May 2020</td>
</tr>
<tr>
<td>Monday</td>
<td>Monday 11 May 2020</td>
<td>Wednesday 13 May 2020</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Tuesday 12 May 2020</td>
<td>Thursday 14 May 2020</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Wednesday 13 May 2020</td>
<td>Friday 15 May 2020</td>
</tr>
<tr>
<td>Thursday</td>
<td>Thursday 14 May 2020</td>
<td>Monday 18 May 2020</td>
</tr>
</tbody>
</table>
For the late Spring May Bank Holiday, there will not be any deliveries or order processing by Movianto UK on **Monday 25 May 2020**. The following changes apply:

<table>
<thead>
<tr>
<th>Usual order cut-off day (by 11.55am)</th>
<th>May Bank Holiday order cut-off dates (by 11.55 am; revisions are in bold)</th>
<th>Delivery Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday</td>
<td>Thursday 14 May 2020</td>
<td>Monday 18 May 2020</td>
</tr>
<tr>
<td>Friday</td>
<td>Friday 15 May 2020</td>
<td>Tuesday 19 May 2020</td>
</tr>
<tr>
<td>Monday</td>
<td>Monday 18 May 2020</td>
<td>Wednesday 20 May 2020</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Tuesday 19 May 2020</td>
<td>Thursday 21 May 2020</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Wednesday 20 May 2020</td>
<td>Friday 22 May 2020</td>
</tr>
<tr>
<td>Thursday</td>
<td><strong>Not applicable</strong></td>
<td><strong>No deliveries – Spring Bank Holiday Monday, 25 May 2020</strong></td>
</tr>
<tr>
<td>Friday</td>
<td><strong>Thursday 21 May 2020</strong></td>
<td>Tuesday 26 May 2020</td>
</tr>
<tr>
<td>Monday</td>
<td><strong>Friday 22 May 2020</strong></td>
<td>Wednesday 27 May 2020</td>
</tr>
<tr>
<td>Tuesday</td>
<td><strong>Tuesday 26 May 2020</strong></td>
<td>Thursday 28 May 2020</td>
</tr>
<tr>
<td>Wednesday</td>
<td><strong>Wednesday 27 May 2020</strong></td>
<td>Friday 29 May 2020</td>
</tr>
<tr>
<td>Thursday</td>
<td><strong>Thursday 28 May 2020</strong></td>
<td>Monday 1 June 2020</td>
</tr>
</tbody>
</table>

**Registering for a new or updating your existing ImmForm vaccine ordering account**

When you register for or update an existing ImmForm account, Public Health England as a wholesaler of vaccines need to verify the requesting customer.

Please ensure you have your professional regulatory body registration number or Wholesale Dealers Licence and an organisation code which can be verified when requesting updates or requesting a new vaccine ordering account.

For more information please see the ImmForm Helpsheet – How to register at [weblink](#) 11.
Vaccine supply
Non-routine vaccination programme

HEPATITIS A VACCINE

Adult

- **GSK**: Havrix Adult PFS singles and packs of 10 are available
- **Sanofi Pasteur**: Avaxim PFS singles are available and packs of 10 are available
- **MSD**: VAQTA Adult is available

Paediatric

- **GSK**: Havrix Paediatric PFS singles and packs of 10 are available
- **MSD**: VAQTA Paediatric is available

HEPATITIS B VACCINE

Adult

- **GSK**: Engerix B PFS singles and packs of 10 are available
- **GSK**: Engerix B vials singles are available
- **GSK**: Engerix B vials packs of 10 are unavailable
- **GSK**: Fendrix is available
- **MSD**: HBVAXPRO 10 µg is unavailable until further notice
- **MSD**: HBVAXPRO 40 µg is unavailable until further notice

Paediatric

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

COMBINED HEPATITIS A & B VACCINE

- **GSK**: Limited supplies of Twinrix Adult singles and packs of 10 are available
- **GSK**: Twinrix Paediatric is available
- **GSK**: Ambirix is available

COMBINED HEPATITIS A & TYPHOID VACCINE

- **Sanofi Pasteur**: Viatim is available

TYPHOID VACCINE

- **Sanofi Pasteur**: Supplies of Typhim are currently unavailable. Resupply is anticipated in June 2020
- **Emergent**: Vivotif is available
RABIES VACCINE

- **GSK**: Rabipur is currently available
- **Sanofi Pasteur**: Rabies BP is currently out of stock. An alternative vaccine is available, please contact Sanofi Pasteur directly for more information

Pneumococcal Polysaccharide Vaccine (PPV)

- **MSD**: Limited supplies of Pneumococcal Polysaccharide Vaccine vials are available. (Please see page 12 of the Bug Special Vaccine Update issue 300, October 2019 for further information)
- **MSD**: Supplies of PNEUMOVAX 23 PFS are currently unavailable. Resupply is expected at the end of April 2020

Pneumococcal polysaccharide conjugate Vaccine (PCV)

- **Pfizer**: Prevenar 13 is unavailable. Resupply is anticipated in early May 2020. Supplies for the national immunisation programme are unaffected

VARICELLA ZOSTER VACCINE

- **GSK**: VARILRIX is currently available
- **MSD**: VARIVAX is currently available
- **MSD**: Supplies of ZOSTAVAX are currently unavailable. Resupply is expected Q2 2020. Supplies for the national immunisation programme are unaffected

DIPHTHERIA, TETANUS AND POLIOMYELITIS (inactivated) VACCINE

- **Sanofi Pasteur**: Revaxis is available

DIPHTHERIA, TETANUS, PERTUSSIS (acellular) AND POLIOMYELITIS (inactivated) VACCINE

- **GSK**: Limited supply of Boostrix-IPV is currently available

MMR

- **MSD**: Limited supply of MMRvaxPro is currently available. Resupply expected end of March 2020. Supplies for the national immunisation programme are unaffected
- **GSK**: Priorix is currently available

MENINGITIS ACWY VACCINE

- **GSK**: Menveo is available
- **Pfizer**: Nimenrix is currently available
YELLOW FEVER
- **Sanofi Pasteur**: Stamaril is available

HUMAN PAPILLOMAVIRUS VACCINE
- **MSD**: Limited supply of GARDASIL is available. Supplies for the national immunisation programme are unaffected
- **MSD**: Gardasil 9 is currently available
- **GSK**: Cervarix is currently available

CHOLERA VACCINE
- **Valneva**: Dukoral is available

JAPANESE ENCEPHALYTIS VACCINE
- **Valneva**: Ixiaro is available

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**Weblinks**

weblink 2  https://www.rcn.org.uk/clinical-topics/public-health/immunisation
weblink 4  https://www.who.int/news-room/campaigns/world-immunization-week/world-immunization-week-2020/key-messages
weblink 5  http://createsend.com/t/d-E5434ABA283BEA792540EF23F30FEDED
weblink 12 https://publichealthengland-immunisation.box.com/s/5tcnpebueqpp6dd8jzt58ep9o3a002cf

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