



Public Health
England



NHS public health functions agreement 2019-20

**Service specification No.9
DTaP/IPV and dTaP/IPV pre-school booster immunisation programme**

NHS England and NHS Improvement



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Service specification No.9 DTaP/IPV and dTaP/IPV pre-school booster immunisation programme

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Promoting equality and addressing health inequalities are at the heart of NHS England and NHS Improvement values. Throughout the development of the policies and processes cited in this document, we have:

- Given due regard to the need to eliminate discrimination, harassment and victimisation, to advance equality of opportunity, and to foster good relations between people who share a relevant protected characteristic and those who do not share it (as required under the Equality Act 2010); and
- Given due regard to the need to reduce inequalities between patients in access to, and outcomes from, healthcare services and to ensure services are provided in an integrated way where this might reduce health inequalities (in accordance with the duties under sections 13G and 13N of the NHS Act 2006, as amended).

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Service specification No.09

This is a service specification to accompany the 'NHS public health functions agreement 2019-20' (the '2019-20 agreement').

This service specification is to be applied by NHS England and NHS Improvement in accordance with the 2019-20 agreement. Where a specification refers to any other published document or standard, it refers to the document or standard as it existed at the date when the 2019-20 agreement was made between the Secretary of State and NHS England and NHS Improvement Board, unless otherwise specified. Any changes in other published documents or standards may have effect for the purposes of the 2019-20 agreement in accordance with the procedures described in Chapter 3 of the 2019-20 agreement.

Service specifications should be downloaded in order to ensure that commissioners and providers refer to the latest document that is in effect.

The 2019-20 agreement is available at www.gov.uk (search for 'commissioning public health').

All current service specifications are available at www.england.nhs.uk (search for 'commissioning public health').

This service specification is not intended to replicate, duplicate or supersede any other legislative provisions that may apply. It must always be read in conjunction with the [core service specification](#) and the online version of the [Green Book](#).

1 Purpose of the pre-school booster immunisation programme

- 1.1 This document relates to the DTaP/IPV and dTaP/IPV vaccines which boost a child's protection against the following four preventable childhood diseases: diphtheria, tetanus, poliomyelitis and pertussis (whooping cough). These vaccines (often referred to as the 'pre-school booster') form part of the national childhood immunisation programme, which aims to stop children from developing preventable childhood diseases that are associated with significant mortality and morbidity.
- 1.2 The purpose of the service specification is to enable NHS England and NHS Improvement to commission a pre-school booster programme of sufficient quantity and quality to prevent the infections and outbreaks caused by these organisms. The aim is to achieve high levels of coverage across England as well as within upper tier local government areas and within the context of populations with protected characteristics as defined by the Equality Act 2010.
- 1.3 This specification provides a brief overview of the vaccines including the diseases they protect against, the context, evidence base, and wider health outcomes and should be read alongside the core service specification which underpins national and local commissioning practices and service delivery.
- 1.4 The existing, highly successful programme provides a firm platform on which local services can develop and innovate to better meet the needs of their local population and work towards improving outcomes. This specification is intended to inform a consistent and equitable approach to the commissioning and delivery of the pre-school booster vaccination across England.
- 1.5 [Immunisation against infectious disease](#) (known as 'the Green Book'), issued by Public Health England (PHE) provides guidance and has the latest information on vaccines and vaccination procedures for all the vaccine preventable diseases. This service specification must be read in conjunction with the core service specification, the online version of the Green Book, all relevant official public health letters and with additional evidence, advice and recommendations issued by the [Joint Committee on Vaccination and Immunisation](#) (JCVI).
- 1.6 This service specification is not designed to replicate, duplicate or supersede any relevant legislative provisions that may apply, e.g. the Health and Social Care Act 2012. The specification will be reviewed annually and amended in line with any new recommendations or guidance, and in line with reviews of the Section 7A agreement.

2 Population needs

Background

- 2.1 The DTaP/IPV or dTaP/IPV pre-school booster vaccines are routinely used to sustain long-term protection against diphtheria, tetanus, pertussis and poliomyelitis, following a primary course of vaccination given in infancy.

Diphtheria

- 2.2 Diphtheria is a serious disease that usually starts with infection of the upper respiratory tract or the skin. The organism releases diphtheria toxin, which can quickly cause cardiac, respiratory and neurological complications. In severe cases, it can be fatal and the case-fatality ratio remains high despite modern treatments. Before mass immunisation against diphtheria was introduced in the UK in 1942, there were on average 60,000 cases each year with 4,000 deaths. However, sustained high vaccine coverage has meant that only a small number of generally milder cases are identified each year mostly in partially vaccinated individuals. Currently coverage at 2 years of age is 96%, and above 83% for the pre-school and school leaver booster doses. Despite the success of the diphtheria vaccination programme, fatalities can still occur in unvaccinated individuals and the last child death from diphtheria in the UK was in 2008. Most of the recently reported cases have been imported from the Indian subcontinent or Africa, where diphtheria remains endemic, emphasising the importance of the vaccination.

Tetanus

- 2.3 Tetanus is a painful disease that causes muscle spasm and respiratory paralysis. It is caused when tetanus spores that are found in soil and manure get into the body through open cuts or burns. Tetanus affects the nervous system and can be fatal. The vaccine was introduced nationally in 1961 and by the 1970s the disease had almost disappeared in children under the age of 15. Between 1984 and 2004, there were around 200 reported cases of tetanus, largely in the over 45 year old population, with the highest incidence in adults aged over 65 years. There have also been reported cases of tetanus in injecting drug users. Tetanus cannot be eradicated because the spores are commonly present in the environment, including soil. Tetanus is not spread from person to person.

Pertussis (whooping cough)

- 2.4 Whooping cough is a respiratory disease that causes paroxysms of coughing which may be followed by the characteristic whoop. It is not usually serious in older children, but leads to a prolonged and irritating cough. In babies under one year old the infection can be very serious and sometimes fatal. Before the introduction of immunisation in the 1950s, the average annual number of notifications exceeded 120,000 in the UK. Since the mid-1990s, vaccine coverage has been consistently over 90% by the second birthday, with fewer than 6000 notifications per year. Since the final quarter of 2011, a major increase in cases has been observed, resulting in an increase in deaths and hospitalisations in infants too young to be vaccinated. In response to this outbreak a programme to protect infants by vaccinating women in pregnancy was launched in October 2012. This has resulted in a fall in cases

and deaths in infancy but the numbers of cases in older children and young adults remains high, confirming the continuing need for the booster dose before starting school.

Poliomyelitis (polio)

2.5 Polio is a virus that attacks the nervous system and can lead to permanent paralysis, usually of the lower limbs. If the respiratory muscles are affected then it can be fatal. Before the polio vaccine was introduced, as many as 8000 cases of polio occurred in the UK in epidemic years (the early 1950s). The last case of natural polio acquired in the UK was in 1984. By 2014, polio remains endemic in only a small number of countries. Although the risk of importation to the UK is low, maintaining high vaccine coverage continues to be important.

DTaP/IPV and dTaP/IPV – key details

2.6 The key details are that:

- DTaP/IPV and dTaP/IPV vaccines extend protection against four different diseases – diphtheria, tetanus, pertussis (or whooping cough) and polio;
- the booster vaccine recommended for use in the national programme is supplied centrally and can be ordered from ImmForm;
- they have a strong evidence base, an excellent safety profile and are highly effective; and
- vaccine uptake at five years of age is monitored quarterly as part of the Coverage of Vaccinations Evaluated Rapidly (COVER) programme using data extracted from the Child Health Information Systems (CHIS).

3 Scope

Aims

- 3.1 The aim of the DTaP/IPV and dTaP/IPV vaccinations programme is to extend protection from these preventable infections that are associated with significant mortality and morbidity.

Objectives

- 3.2 The aim will be achieved by delivering an evidence-based population-wide immunisation programme that:
- identifies the eligible population and ensures effective timely delivery with optimal coverage based on the target population;
 - is safe, effective, of a high quality and is independently monitored;
 - is delivered and supported by suitably trained, competent healthcare professionals who participate in recognised ongoing training and development;
 - delivers, manages and stores vaccine in accordance with national guidance; and
 - is supported by regular and accurate data collection using the appropriate returns.

Direct health outcomes

- 3.3 In the context of health outcomes, the DTaP/IPV and dTaP/IPV vaccinations programme aims to:
- protect the health of individuals and the wider population;
 - reduce the number of preventable infections and their onward transmission;
 - achieve high coverage in the target group; and
 - minimise adverse physical/psychological/clinical aspects of immunisation (e.g. anxiety, adverse reactions).

Baseline vaccine coverage

- 3.4 Local services must ensure they maintain and improve current immunisation coverage (with reference to vaccine coverage public health outcomes framework indicators) and should aim for 100% of relevant individuals being offered immunisation in accordance with the Green Book and other official DH/PHE guidance. This includes performance indicators and key deliverables that are set out in Annex B of the NHS Public Health Functions Agreement (Section 7a) for 2019-20.

4 Service description / care pathway

Local service delivery

- 4.1 The delivery of immunisation services at the local level is based on evolving best practice. This section of the document specifies the high-level operational elements of the national pre-school booster programme, based on that best practice that NHS England must use to inform local commissioning, contracts and service delivery. There is also scope to enable NHS England and NHS Improvement and providers to enhance and build on specifications to incorporate national or local service aspirations that may include increasing local innovation in service delivery. However, it is essential, in order to promote a nationally aligned high-quality programme focusing on improved outcomes, increasing coverage and local take-up, that all the core elements as set out in the core service specification are included in contracts and specifications.

Target population

- 4.2 Pre-school booster vaccination should be offered to children aged three years and four months. Typically this vaccine is given alongside the second dose of measles, mumps, rubella (MMR) vaccine as per the routine childhood immunisation schedule set out in the [Green Book](#).

Vaccine schedule

- 4.3 Detailed recommendations on the administration of the vaccine are set out in the relevant chapters of the [Green Book](#).

Vaccine ordering

- 4.4 All centrally procured vaccines must be ordered via the ImmForm online ordering system details of which are given in the core immunisation specification.