Introduction

After clean water, vaccination is the most effective public health intervention in the world for saving lives and promoting good health. Immunisation is the most essential way of protecting people and communities from serious infectious diseases, as well as the individual being protected themselves. Vaccinated people are also less likely to be a source of infection to others.

Many vaccine-preventable childhood diseases are now so rare that it is easy to underestimate the importance of children's vaccinations. However, whooping cough and diphtheria are still a threat. The diseases are rare now, but if children are not vaccinated, they can return with a vengeance.

Currently the European Region of the World Health Organization (WHO) recommends that on a national basis at least 95% of children are immunised against diseases preventable by immunisation and targeted for elimination or control (specifically, diphtheria, tetanus, pertussis, polio, Hib, measles, mumps and rubella). The routine childhood immunisation programme for the UK includes these immunisations recommended by WHO as well as a number of others as defined by Public Health England (PHE) and the complete routine immunisation schedule for health professionals and immunisation practitioners is published annually by PHE.

There are also selective childhood immunisation programmes that target children at particular risk of certain diseases, such as hepatitis B and tuberculosis (TB).

Childhood immunisations (5 years and over) and adult vaccinations provides information on older children and adults. Health Protection provides further information on infectious diseases and other noncommunicable health threats.

Facts, figures and trends

Blackpool has achieved vaccination coverage of over 90% for all the routine childhood vaccinations recommended in the first two years of life (data on rotavirus vaccination is currently not available).

2017/18 data published on the PHE Profiles shows that in Blackpool:

- The number of children who had received the diptheria, tetanus and pertussis (DtaP)/polio (IPV) and haemophilus influenzae type b (Hib) vaccine at the age of 12 months was 1,651 (94.8%).
- The Men B vaccine, introduced in 2015, is offered at eight and sixteen weeks of age, with a booster on or after the first birthday. Men B coverage at 12 months in Blackpool was 1,604 (92.1%) children.
- The number of children who had received the PCV vaccine which protects against pneumococcal infections that can cause pneumonia, septicemia or meningitis at age 12 months was 1,649 (94.7%).
- The number of children who had received the diptheria, tetanus and pertussis (DtaP)/polio (IPV) and haemophilus influenzae type b (Hib) vaccine at the age 2 years was 1,732 (96.3%).
- The number of children who had received the Hib/meningitis C (MenC) booster by 2 years of age was 1,673 (93%).
- The number of children who had received the pneumococcal (PCV) booster vaccine by 2 years of age was 1,650 (91.8%).
- The number of children who had received the first dose of the measles, mumps and rubella (MMR) vaccine by 2 years of age was 1,661 (92.4%).

For information on older children see: Immunisations of children at age 5 years and over.

Figure 2: Percent of children immunised by their 1st birthday: 2014/15
Across Blackpool, immunisation uptake at the age of 1 year is very similar to national averages and slightly above the 95% uptake recommended by the World Health Organization (Figure 2).

However data shows that although rates of immunisation in 2 year old children are still similar to national averages (Figure 3), the trend in coverage has fallen slightly over the last few years (Figure 4). Vaccination coverage is the best indicator of the level of protection a population will have against vaccine preventable communicable diseases. Coverage is closely correlated with levels of disease and monitoring coverage identifies possible drops in immunity before levels of disease rise.

Figure 3: Percent of children immunised by their 2nd birthday: 2014/15

Figure 4: Trend in vaccination coverage, children aged 2 years (%)

Figure 5: Trend in uptake of MMR vaccine, children aged 2 years (%)

Source: PHE, Public Health Outcomes Framework
The trend in uptake of the MMR vaccine in children aged 2 years (Figure 5) which has generally followed the national upward trend has dipped below average recently while the spike in coverage in 2009/10 was due to a 'catch-up' campaign. Despite increases in recent years, MMR coverage in Blackpool and across England is still below the WHO target of 'at least 95%' coverage. Figure 6 shows Blackpool compared with other local authorities in the country. With a coverage rate of 91.8%, Blackpool is ranked 53/149 of upper tier local authorities and is in the second lowest quintile.

Figure 6: Population vaccination coverage - MMR for one dose (2 years old), upper tier local authorities, 2014/15

At a local level, there is variation in the proportion of children immunised in each of Blackpool's GP practices though none are significantly different from the Blackpool average. Figure 7 shows immunisations due at age 1 year and at age 2 years and the proportion of children immunised by each practice in 2015/16. Figure 8 shows proportions immunised by the age of 2 years for selected diseases.

Figure 7: Child Immunisations by GP Practice in Blackpool, 2015/16
There are many reasons why people choose not to immunise themselves or their children. Studies have looked into how parents make decisions on whether to vaccinate their children or not and found that this is related to gaps in their knowledge of vaccine preventable diseases, concerns over vaccine safety and their attitudes towards immunisations, health professionals and health organisations.

Blackpool recognises there is a need to target both overall improvement of immunisation coverage and specifically to improve the low levels of coverage amongst certain groups and in certain places.

Evidence has shown that the groups of children and young people who are most at risk of not being fully immunised are:

- those who have missed previous vaccinations (as a result of parental choice or otherwise)
- looked after children
- those with physical or learning disabilities
- children of teenage or lone parents
- those not registered with a GP
- younger children from large families
- children who are hospitalised or have a chronic illness
- those from some minority ethnic groups
- those from non-English speaking families
- vulnerable children, such as those whose families are Gypsy Travellers, asylum seekers or are homeless.

**National and local strategies**

- Department of Health (2013) immunisation information for health professionals and immunisation practitioners
- The Complete Immunisation Schedule in the UK includes the ages of when the vaccines should be given.
- In September 2009 the National Institute for Health and Clinical Excellence (NICE) published public health guidance ‘Reducing the difference in the uptake of immunisations’ which focuses on increasing immunisation uptake among children and young people aged under 19 years in groups and settings where immunisation coverage is low.
- Department of Health (2009) Healthy Child Programme sets out the universal programme to be commissioned and
Public Health England's vaccination and immunisation snapshot provides a summary of demand, risk factors, provision and outcomes for services in a particular area.

Immunisation against infectious disease 'The Green Book' brings together all documents relating to immunisation against infectious diseases.

[1] Source: WHO, Health21 The health for all policy framework for the WHO European Region