16. CHILDHOOD IMMUNISATION

INTRODUCTION

Immunisation is one of the most effective, safe and cost-effective health interventions. Vaccination policy aims to protect individuals and communities from the risks of infectious diseases. National and local policy aims to achieve high levels of immunisation coverage to create ‘herd immunity’. The whole community is protected when ‘herd immunity’ levels of vaccination coverage are achieved. For most diseases, this is usually around 95% coverage. This level is sufficiently high to prevent any sustained circulation of infections, protecting everyone in the population whether they have been immunised or not.

Immunisation rates in Islington and London have been consistently lower than the national average, and well below ‘herd immunity’ levels, meaning there is greater risk of outbreaks of preventable diseases such as measles, mumps or rubella.

WHAT ARE THE KEY ISSUES?

The reported uptake of vaccination in parts of England, including Islington and London, has been significantly lower in recent years compared with long-term trends, and significantly below the ‘herd immunity’ levels necessary to prevent outbreaks. Some of the reduction in vaccination rates has been associated with public anxiety created by reports possibly linking the MMR vaccination with autism and irritable bowel disease. Although the reports have been comprehensively discredited, there has been lasting impact on MMR vaccination coverage. Rates have improved but have continued to be significantly below the other universal childhood immunisations.

Another, more local, factor relates to population mobility which adds to difficulties in ensuring immunisation status is represented accurately on child health systems so that true levels of coverage can be reported and unimmunised children can be accurately identified and followed up.

Deprivation is also an important factor in Islington. National evidence shows that inequalities in immunisation uptake have been persistent and result in lower coverage in children and young people from disadvantaged families and
communities. Unimmunised, or only partially immunised children, are more likely to live in disadvantaged areas and are less likely to use primary care services.

Groups where there is greater vulnerability include:

- Babies of pregnant women who are not immunised against rubella or who are carriers of hepatitis B virus.
- Asylum seekers.
- Homeless families.
- Looked after children/children in care.
- Children with physical or learning difficulties.
- Children of teenage or lone parents.
- Children not registered with a GP.
- Younger children from large families.
- Children who are hospitalised.
- Some ethnic groups - however the relationship between ethnicity, social class, deprivation and level of immunisation uptake is complex.

THE ISLINGTON PICTURE

Childhood immunisation rates have tended to be lower in Islington than the national average and lower than the recommended level of 95% cover necessary to prevent outbreaks, as the two figures below show. Islington’s immunisation rates have however shown increases since 2006/07, with significant improvements in the past year. The most recent rates are now well above the London average and the gap with England has been significantly narrowed. There are still inequalities in immunisation uptake within Islington, particularly affecting disadvantaged families and children. Measles Mumps Rubella (MMR) vaccination continues to be lower than the other vaccinations.

Diphtheria/ Tetanus/ Whooping Cough/ Polio/ Hib (Flu) and Meningitis coverage in Islington

There has been a sustained local increase in Diphtheria/Tetanus/Whooping Cough (DTP) uptake of over ten percentage points since mid 2007/08. The coverage rate for DTP for one year olds in Islington increased to 91.8% by Quarter 1 2009/10, significantly higher than in London (82.7%) and about the same as England (91.9%).
Figure 16.1: Coverage of Diphtheria/ Tetanus/ Whooping Cough/ Polio/ Hib meningitis vaccination measured at age one year, Islington, London and England, 2006/07 – Quarter one 2009/10

Source: HPA COVER quarterly vaccine coverage tables

**Measles Mumps and Rubella (MMR)**

In 2008/09, the uptake of MMR in Islington among two year olds was 78.5%, higher than London at 76.7% but lower than England at 86.3%. In Quarter 1 of 2009/10, the MMR rate locally had increased further to 82%, compared with a rate of 86.3% nationally. Even with improving immunisation rates, following a decade of relatively low vaccination uptake there are a large number of children and young people who are not protected against MMR.
Tuberculosis (TB)
The Islington's universal neonatal BCG programme was implemented in May 2007. In 2008/09, 2,043 BCG vaccinations were given.

Hepatitis B and rubella
Vaccination coverage rates for neonatal/infant Hepatitis B and postpartum MMR remain below expected levels.

HPV
The 2008/09 academic year was the first year of the human papillomavirus (HPV) vaccination programme. In Islington 66% of girls in Year 8 received all three doses of the vaccine, higher than London, but lower than England at 70%.

FUTURE TRENDS
The national immunisation programme has grown in recent years, with the introduction of new vaccines to prevent a wider range of infectious diseases, and further expansion of the programme over time can be expected. Alongside the introduction of new vaccines, there has also been a growing emphasis on catch-up programmes. These have sought to boost community-level protection among
children and young people against diseases where immunisation rates have been significantly below herd immunity levels and so reduce the risk of community outbreaks.

London, particularly inner London, has shown consistently lower levels of immunisation coverage than the rest of the country. The actions put in place locally over the past year described below will need to be sustained in the long term to ensure rates continue to show improvement. Delivery of immunisation therefore will continue to be a significant programme for primary care services and for health visiting and school health services. Services working in institutional settings such as schools have an important role in catch-up programmes and in support of new vaccinations for older children.

SERVICES CURRENTLY PROVIDED IN ISLINGTON

The majority of primary childhood immunisations are carried out by GP practices, with others carried out by universal child health services. In Islington, 31 out of 38 practices provide immunisations and immunisations are also carried out in clinics at health centres and Children’s Centres. The neonatal BCG programme is delivered in designated health centres by universal children’s services. Most GP and community child health clinics are held during the week, and a Saturday clinic has been set up to offer improved access. During October 2009 the Saturday clinic gave 52 immunisations to 30 children.

Immunisations for children aged over five years old, including targeted BCG, are provided within a schools-based programme with the support of Islington schools and Cambridge Education. The new HPV vaccination programme for girls was introduced last year. It is designed to protect young women from the most common types of HPV that cause cervical cancer, which is the one of the biggest preventable killers of young women in the UK. During the first year of the programme, school health services led the introduction and immunisation of girls in Year 8 in Islington’s secondary schools. Catch-up for those not immunised will be offered alongside the programme in the 2009/10 school year.

Neonatal Hepatitis B vaccination is mainly provided by maternity services at UCLH and The Whittington Hospital with follow-up vaccines given through paediatric outpatient appointments.
The looked after children team assess the immunisation status of all children and ensure immunisations are completed. In 2008, the team ensured 89% of looked after children were fully immunised.

NATIONAL DRIVERS FOR SERVICE PROVISION

The national immunisation programme covers courses of primary immunisations, together with booster doses to maintain ongoing immunity, for a range of diseases such as Measles Mumps Rubella, Hib meningitis, diphtheria, tetanus, polio, whooping cough and meningitis C. Primary courses of the vaccines are given at specified ages and, for some vaccines, boosters (additional doses) are given to maintain the duration of immunity. As well as the universal national immunisations, neonatal hepatitis B vaccination is given to babies born to mothers who are hepatitis B positive, to reduce the risk of mother-to-child transmission, and neonatal BCG vaccination for TB is given to babies in areas with higher levels of TB.

Islington’s immunisation strategy has been based on models of effective practice, including programmes developed by Heart of Birmingham and Luton PCTs. Both areas have driven up immunisation rates through:

- Coordinated programmes informed by improved data flow, accuracy and quality.
- Targeting areas and groups with lower immunisation rates with improved access to clinics and opening hours.
- Follow-up of unimmunised children.

National evidence shows that patient reminder and recall systems in primary care settings are effective in improving immunisation rates. NICE guidance (2009) makes six recommendations to reduce inequalities and increase immunisation uptake among children and young people in groups and settings where immunisation coverage is low. The actions include ensuring staff are trained to a high level, ensuring relevant and appropriate information is available to parents, and ensuring immunisation of babies at risk of hepatitis B, as well as other actions already detailed above.
PROGRESS SINCE LAST YEAR’S JSNA

In recognition of the need to improve the uptake of childhood immunisations, a significant programme of development is underway which has resulted in an initial substantial improvement in immunisation, as described above. Actions to increase uptake of immunisations are set out in Islington’s Childhood Immunisation Strategy and Action Plan (2009), which has invested and targeted resources to:

- Establish an immunising team, headed by an immunisation specialist and to include a nurse co-ordinator and administration post.
- Further develop immunisation clinics within Children’s Centres, and improve access to the clinics.
- Enhance data quality and accuracy, leading to improved targeting and follow up of unimmunised children.
- Ensure there is a robust governance structure supporting delivery of the strategy.

OPPORTUNITIES FOR DEVELOPMENT

Opportunities for development to improve the uptake of childhood immunisations include:

- Data flow, accuracy and quality. Discrepancies remain between the child health system and GP systems for childhood immunisations. Data quality, flow and recording are being addressed as part of a wider immunisation strategy aimed at increasing uptake of immunisations in Islington. As part of the development, consideration should be given to local flexibility to align the primary care payments system for immunisation with the reporting system.

- Improving access to clinics and immunisations, including for example, clinic times and domiciliary vaccination with families who are harder to engage with.

- Issues specific to the BCG vaccination for older children to improve timeliness of vaccination. This is partly linked to staff turnover, and training to read the Mantoux test results. There is one paediatrician available to supervise practice, however opportunities to become competent in the reading of
RECOMMENDATIONS

- To improve the data flow, collection and analysis of immunised and unimmunised children, bringing together data from primary care, universal children's services and other relevant sources.

- To review the use of patient reminder and recall systems in order to improve immunisation rates.

- To improve the offer and availability of immunisation services, working through primary care, community health and children’s settings as indicated.

- To ensure the delivery of immunisation at home (domiciliary visits) for harder to engage families.

- To promote and raise awareness of the facts about immunisation across children's workforce and settings.

- To implement the immunisation strategy and action plan in partnership with all stakeholders including primary care.

FURTHER INFORMATION

Immunisation. A comprehensive and carefully researched information website about immunisation, vaccines and the diseases they protect against.

www.immunisation.nhs.uk/

Guidance on differences in the uptake of immunisations (including targeted vaccines) in people younger than 19 years. NICE guidance PH21 (2009)

www.nice.org.uk/PH21

http://www.cochrane.org/reviews/en/ab003941.html