

**Report to Health in Hackney  
Scrutiny Commission on  
Section 7a Immunisation  
Programmes in City &  
Hackney 2018**



## **Report on Section 7a Immunisation Programmes in London Borough of City & Hackney 2018**

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Classification: OFFICIAL

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## 1 Aim

- The purpose of this paper is to provide an overview of coverage and uptake of Section 7a 0-5s childhood immunisation programmes in the London Borough of City and Hackney for 2018.
- Section 7a immunisation programmes are 18 publicly funded immunisation programmes that cover the life-course:
  - Antenatal and targeted new-born vaccinations
  - Routine Childhood Immunisation Programme for 0-5 years
  - School age vaccinations
  - Adult vaccinations such as the annual seasonal influenza vaccination
- This paper focuses on those immunisation programmes provided for 0-5 years under the national Routine Childhood Immunisation Schedule.
- Members of the Health in Hackney Scrutiny Commission are asked to note and support the work NHSE (London) and its partners such as Public Health England (PHE) and the local authority are doing to increase vaccination coverage and immunisation uptake in City and Hackney.

## 2 Roles and responsibilities

- *The Immunisation & Screening National Delivery Framework & Local Operating Model* (2013) sets out the roles and responsibilities of different partners and organisations in the delivery of immunisations.
- Under this guidance, NHS England (NHSE), through its Area Teams (known as Screening and Immunisation Teams), is responsible for the routine commissioning of all National Immunisation Programmes under the terms of the Section 7a agreement. In this capacity, NHS England is accountable for ensuring that local providers of services deliver against the national service specifications and meet agreed population uptake & coverage levels. NHS England is also responsible for monitoring providers' performance and for supporting providers in delivering improvements in quality and changes in the programmes when required.
- Public Health England (PHE) Health Protection Teams lead the response to outbreaks of vaccine preventable disease and provide expert advice to NHSE screening and immunisation teams in cases of immunisation incidents. They also provide access to national expertise on vaccination and immunisation queries. In City and Hackney, this function is provided by the PHE North East Health Protection Team.
- Clinical Commissioning Groups (CCGs) have a duty of quality improvement, and this extends to primary medical care services delivered by GP practices, including delivery of childhood immunisation services.

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- Across the UK, the main providers of childhood immunisation are GP practices. In City and Hackney, all general practices are contracted to deliver childhood immunisations for children aged 0-5 through their primary care contract.
- Immunisation data is captured on Child Health Information System (CHIS) for City and Hackney as part of the NEL CHIS Hub (provided by NELFT). Data is uploaded into CHIS from GP practice records via a data linkage system provided by QMS. The CHIS provides quarterly and annual submissions to Public Health England for their publication of statistics on 0-5s childhood immunisation programmes. This is known as Cohort of Vaccination Evaluated Rapidly (COVER) and these statistics are official statistics.
- Local Authorities (LAs) are responsible for providing independent scrutiny and challenge of the arrangements of NHS England, Public Health England and providers.
- Apart from attendance at Health and Social Care Overview Panels and at Health and Well-Being Boards, NHSE (London) also provides assurance on the delivery and performance of immunisation programmes via quarterly meetings of Immunisation Performance and Quality Boards. There is one for each Strategic Transformation Partnership (STP) footprint. The purpose of these meetings is to quality assure and assess the performance of all Section 7a Immunisation Programmes across the STP in line with Public Health England (PHE) standards, recommendations and section 7a service specifications as prepared by PHE with NHS England commissioning. All partners are invited to this scrutiny meeting, including colleagues from the Local Authority, CCG, CHIS, NHSE, PHE Health Protection and Community Provider service leads. Data for City and Hackney is covered in the NEL STP Immunisation Performance and Quality Boards.
- Directors of Public Health across London also receive quarterly reports from the London Immunisation Partnership and updates via the Association of Directors of Public Health. It is through these communication channels that progress on the Bi-annual London Immunisation Plan (2017-19) and its accompanying annual Flu Plans are shared.

### 3 Headlines for London

- Historically and currently, London performs lower than national (England) averages across all the immunisation programmes.
- London faces challenges in attaining high coverage and uptake of vaccinations due to high population mobility, increasing population, fragmented commissioning and provision of health care, increasing fiscal pressures and demands on health services and a decreasing vaccinating workforce.
- Under the London Immunisation Partnership (formerly the London Immunisation Board), NHS England London Region (NHSE London) and Public Health England London Region (PHE London) seek to ensure that the London population are protected from vaccine preventable diseases and are working in

partnership with local authorities, CCGs and other partners to increase equity in access to vaccination services and to reduce health inequalities in relation to immunisations.

## 4 Routine Childhood Immunisation Schedule (0-5 years)

- The routine childhood immunisation programme protect against:
  - Diphtheria, Tetanus, Pertussis (whooping cough), Polio, Haemophilus influenza type b (given as the '6 in 1' DTaP/IPV/Hib/HepB vaccine)
  - Pneumococcal disease, (PCV)
  - Meningococcal group C disease (Men C)
  - Meningococcal group B disease
  - Measles, mumps and rubella (MMR)
- Children aged 1 year should have received 3 doses of 6 in 1 (called the primaries) and 2 doses of Men B. If eligible, they may also be offered the targeted BCG and Hep B.
- At 12 months, they are offered first dose of MMR and the boosters of PCV, Hib/Men C and Men B.
- At 2 years and again at 3 years, children are offered annual child influenza vaccine.
- From 3 years 4 months to 5 years, children are offered 2<sup>nd</sup> dose of MMR and preschool booster (which is the fourth dose of the diphtheria/tetanus/pertussis/polio course).

## 5 What is COVER and how is it produced?

- COVER monitors immunisation coverage data for children in UK who reach their first, second or fifth birthday during each evaluation quarter – e.g. 1<sup>st</sup> January 2012 to 31<sup>st</sup> March 2012, 1<sup>st</sup> April 2012 – 30<sup>th</sup> June 2012. Children having their first birthday in the quarter should have been vaccinated at 2, 3 and 4 months, those turning 2 should have been vaccinated at 12/13 months and those who are having their 5<sup>th</sup> birthday should have been vaccinated before 5 years, ideally 3 years 3 months to 4 years. This is an important point to note as often COVER statistics are used to take action to improve uptake in general practice populations or communities. However, you are using data is between 6 months and 18 months out of date and opportunities to ensure that those cohorts have been immunized in accordance with the routine immunisation schedule have been missed.
- There are known complexities in collecting data on childhood immunisations. Indeed, since 2013, London's COVER data is usually published with caveats and drops in reported rates are always due to data collection or collation issues for that quarter. Production of COVER statistics in London involves a range of individuals and organisations with different roles and responsibilities.

## 5.1 Role of Child Health Information Service (CHIS)

- London has four CHIS Hubs – North East London (provider is North East London Foundation Trust, NELFT), South East London (provider is Health Intelligence), South West London (provider is Your Health Care) and North West London (provider is Health Intelligence). These Hubs are commissioned by NHS England to compile and report London's quarterly and annual submissions to PHE for COVER.
- A 'script' or algorithm is utilized to electronically extract anonymous data from the relevant data fields to compile the reports for COVER within the caveats specified – for example for first dose of MMR any child who had their MMR vaccination before their first birthday are not included and so appear unvaccinated.
- CHIS Hubs are commissioned to check the reports run and are expected to refresh the reports before final submission to PHE.
- CHIS Hubs are also commissioned to 'clean' the denominator by routinely doing movers in and movers out reports. This is to ensure that the denominator is up-to-date with the children currently resident in London. They are also expected to account for the vaccinations of unregistered children in London. Historically and currently, there are ongoing issues with CHIS Hubs keeping up-to-date with movers in and removals which is picked up in contract performance meetings with the NHSE (London) commissioners.

## 5.2 Role of Data Linkage Systems

- Immunisation data is extracted from London's general practices' IT systems and uploaded onto the CHIS systems. This isn't done directly by the CHIS Hubs. Instead data linkage systems provided by three different providers provide the interface between general practices and CHIS. Two of these providers – QMS and Health Intelligence – are commissioned by NHS England whilst 4 CCGs in outer North East London commission a separate system.
- Since the primary purpose of CHIS is to hold health information on individual children, the immunisation data extracted from general practices is patient identifiable data (PID). As a result, data sharing agreements is required between each general practice and CHIS. In 2017, NHSE (London) Immunisation Commissioning Team and CHIS Hubs worked to ensure that data sharing agreements were signed and agreed – for example Health Intelligence managed to secure 99% data sharing agreements (DSAs) in North West London. Introduction of GDPR in mid-2018 meant that DSAs had to be resigned and this was reported by the NEL CHIS Hub to their commissioner as having had an impact on their data submission for Q1 2018/19 and again for Q2 2018/19.

- NHS (London) Immunisation Commissioning Team receives data linkage reports from QMS and Health Intelligence. This provides a breakdown by general practice of the uptake of vaccinations in accordance to the COVER cohorts and cohorts for Exeter (for payments). This information is utilized by the team as part of the 'COVER SOP', to check against the COVER submissions by CHIS in order to question variations or discrepancies.

### 5.3 Role of General Practice

- While data linkage systems provide an automated solution to manual contact between CHIS and general practices, data linkage does not extract raw data. General practices have to prepare the data for extraction every month. This will vary between practices how automated the process is but it can be dependent upon one person to compile the data in time for the extraction by the data linkage system providers and should this person be on annual or sick leave, there will be missing data.
- General practices have to prepare data for four immunisation data systems – COVER, ImmForm (although this is largely done by their IT provider of Vision, EMIS or TPP SystemOne, all of whom are commissioned by their CCG), CQRS (the payments system run by NHS England for the payment of administration of the vaccine) and Exeter (payments system, whereby practices receive targeted payments for achieving 70% or 90% uptake of their cohorts – these cohorts are different to the COVER cohorts of children). Preparation of data for the systems again will vary between practices but this can be time and resource intensive.
- The aggregated immunisation data in each practice is dependent upon the quality of patient records. When a practice nurse vaccinates a child, the record of the vaccination should be recorded onto the GP IT system and into the child's hand held personal record (the Redbook). In the past, a duplicate copy was taken from the Redbook and sent to CHIS but this is no longer widespread practice. It is anticipated that the e-Redbook will provide that secondary source to triangulate immunisation data going forward. There can be variation in when the nurse inputs the information – can be at the individual appointment or at the end of a clinic. There is also an array of codes that can be used to code the vaccination (if a code different to what the data linkage system recognises is utilised, it results in the child looking unvaccinated) and there are difficulties with coding children who received their vaccinations abroad or delays in information on vaccinations given elsewhere in UK being uploaded onto the system in time for the data extraction. (During 2015/16, the team visited 300 practices to uncover the issues in vaccinating 0-5 year olds and these were the main factors vocalised by practice managers.)
- Whilst NHSE (London) immunisation commissioning team verify and pay administration of vaccines that are part of the Section 7a immunisation programmes, they do not commission general practices directly. Vaccination services, including call/recall (patient invite and reminder systems) are



contracted under the General Medical Services (GMS) contract. This contract is held by primary care commissioning directorates of NHSE. To date, there is a lack of clarity on what levers NHSE (London) Immunisation Commissioning Team (with primary care colleagues) can use to ensure robust high quality data for extraction for COVER and that practices are undertaking adequate call/recall.

## 6 City and Hackney and the challenges

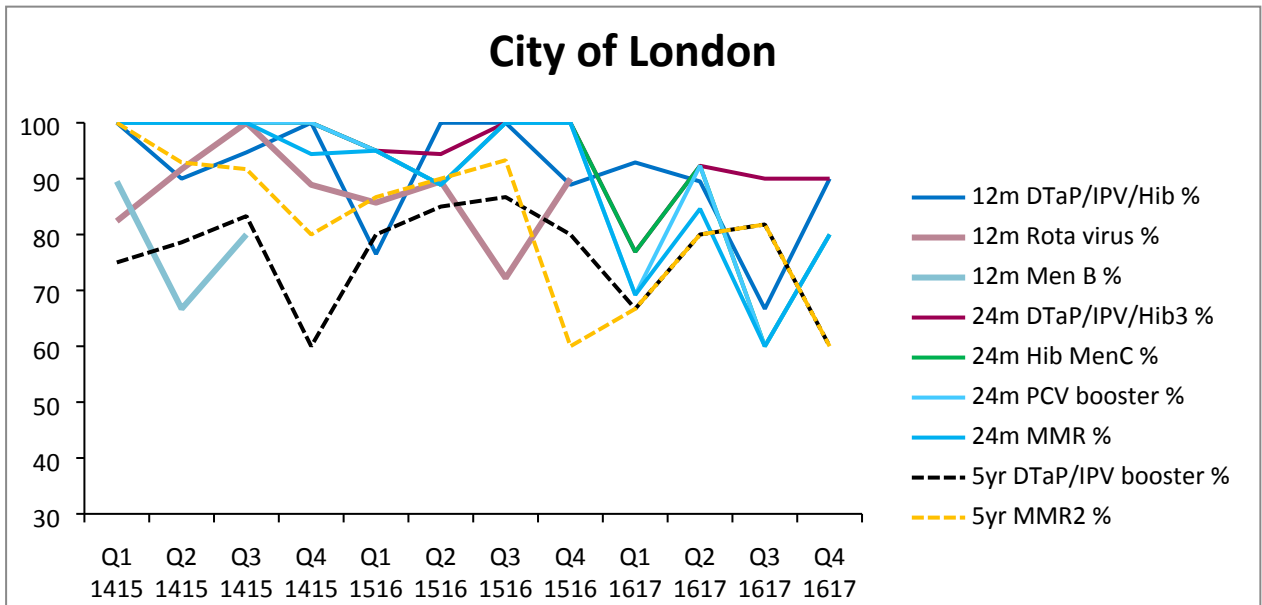
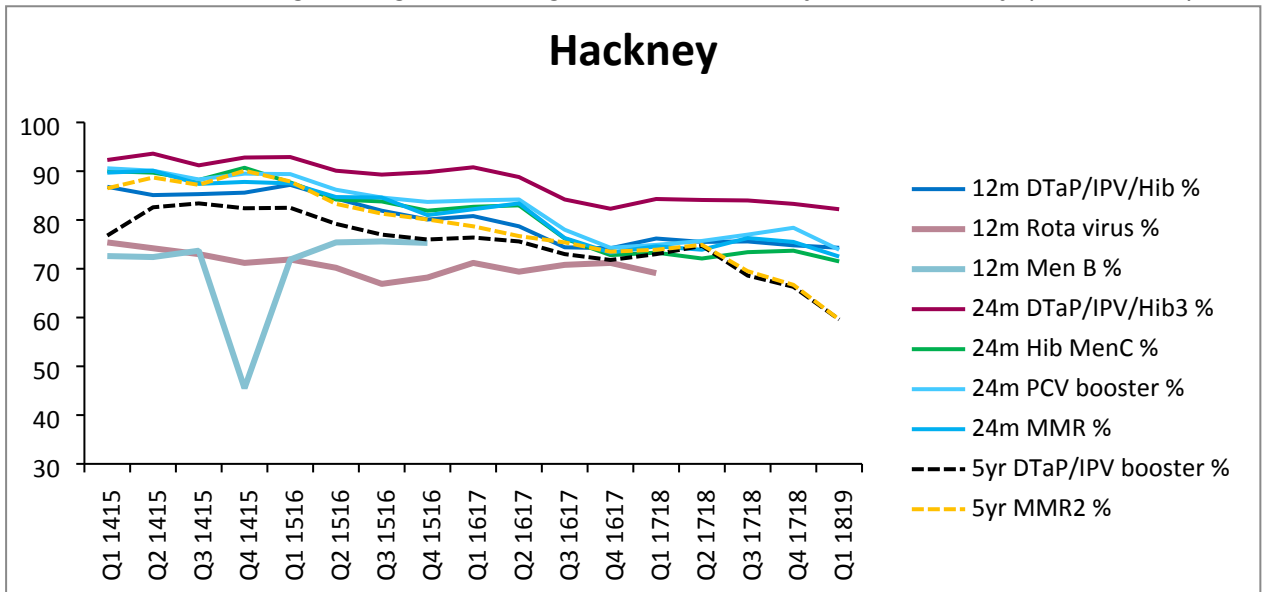
- City and Hackney is affected by the same challenges that face London region. London has in recent years delivered significantly poorer uptake than the remainder of the country. Reasons for the low coverage include:
  - Complexities in data collection for COVER statistics
  - the increasing birth rate in London which results in a growing 0-5 population and puts pressure on existing resources such as GP practices
  - London's high population mobility which affects data collection and accuracy
  - Inconsistent patient invite/reminder (call-recall) systems across London
  - Declining vaccinating workforce
  - Increasing competing health priorities for general practice
- London's high population turnover is a big factor. There is a 20-40% annual turnover on GP patient lists which affects the accuracy of the denominator for COVER submissions, which in City and Hackney's case inflates the denominator (i.e. number of children requiring immunisation) resulting in a lower uptake percentage. A 2017 audit by London's CHIS providers showed that by the age of 12 months, 33% of infants moved address at least once.
- However, despite London's percentage uptake being lower than other regions, London vaccinates almost twice as many 0-5 year olds than any other region. If you look at MMR2 as an indicator of completion of programme, London reported 79.5% uptake for 2016/17 compared to England's 87.6%. We vaccinated 100,293 five year olds with MMR2 in 2016/17, down from 104,031 in 2015/16 but more than any other region – South East (the next biggest region) vaccinated 99,434 (86.2% coverage).
- It could be argued that with a bigger denominator, London has a bigger number of unvaccinated children. However, only a proportion of these 'unvaccinated' children are truly unvaccinated, the others have been vaccinated abroad (there are known difficulties recording these) or within UK (records may not be updated in time for the data extraction). These vaccinations have not been captured on data systems. Similarly, there are children who are vaccinated outside the schedule (either early or late) and are not included in the cohorts reported.

### 6.1 City and Hackney's uptake and coverage rates

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- Like many other London boroughs, City and Hackney has not achieved the World Health Organisation recommended 95% coverage for the primaries and MMR to provide herd immunity (i.e. the proportion of people that need to be vaccinated in order to stop a disease spreading in the population).
- Figure 1 provides a snapshot of all City and Hackney's 0-5 immunisation programmes. Whilst City of London fluctuates widely due to small numbers. Figures for Hackney are unusual. Typically, uptake of vaccinations are close together indicating a good quality of service provision for the age one cohort and then drop off between age 1 and age 2 and again by age 5 which indicates the system ability to call/recall and track children. However, in Hackney uptake for the 12 month cohort is considerably lower than the rest of London – 75.6% for 2017/18 compared to 89.2% for London – but the uptake of primaries if measured at 24 months is higher, thus indicating late vaccinations. Overall the rates for Hackney are declining across all cohorts. As this is not reflected across London, this suggests the decline is due to additional factors to data quality, although the dip in Q1 2017/18 was a data quality issue due to migrating CHIS systems to 4 CHIS hubs.

Figure 1  
COVER rates for Age 1, Age 2 and Age 5 cohorts in City and Hackney (2011-2016)

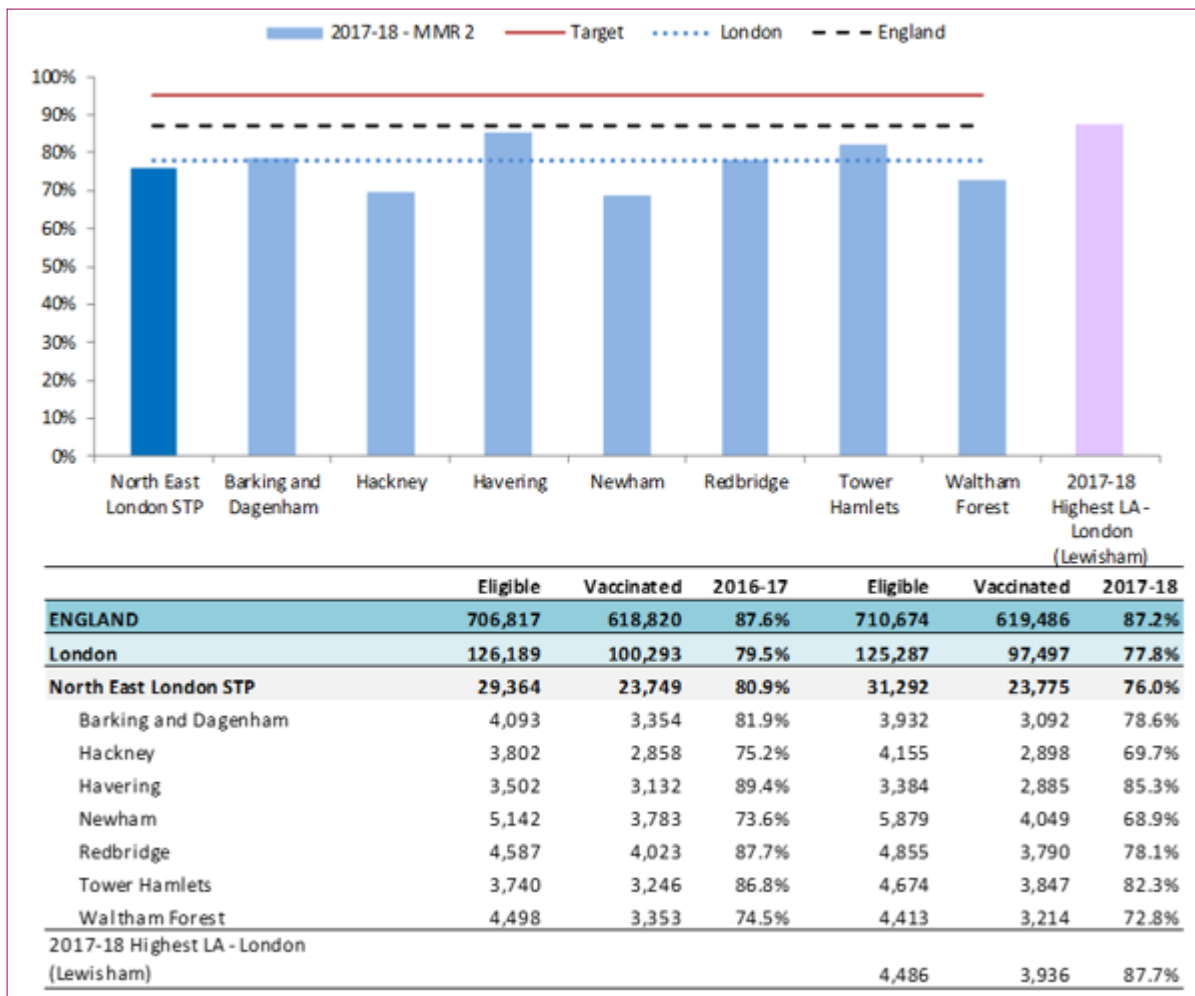


Source: PHE (2018)

- Immunisation uptake can be compared with geographical neighbours as immunisation uptake is affected by service provision and neighbouring boroughs in NEL historically have similar general practice provision and thereby provide a better comparison than statistical neighbours. However, we have included a statistical neighbour comparison for the completion of the 0-5s immunisation schedule – MMR2 and preschool booster in Figures 2 and 2. It can be seen here that Hackney is just above Newham at the bottom of its geographical neighbours. All rates in London were affected in 2017/18 by the migration of CHIS systems, yet throughout the past five years, Hackney has been below London averages.

Figure 2

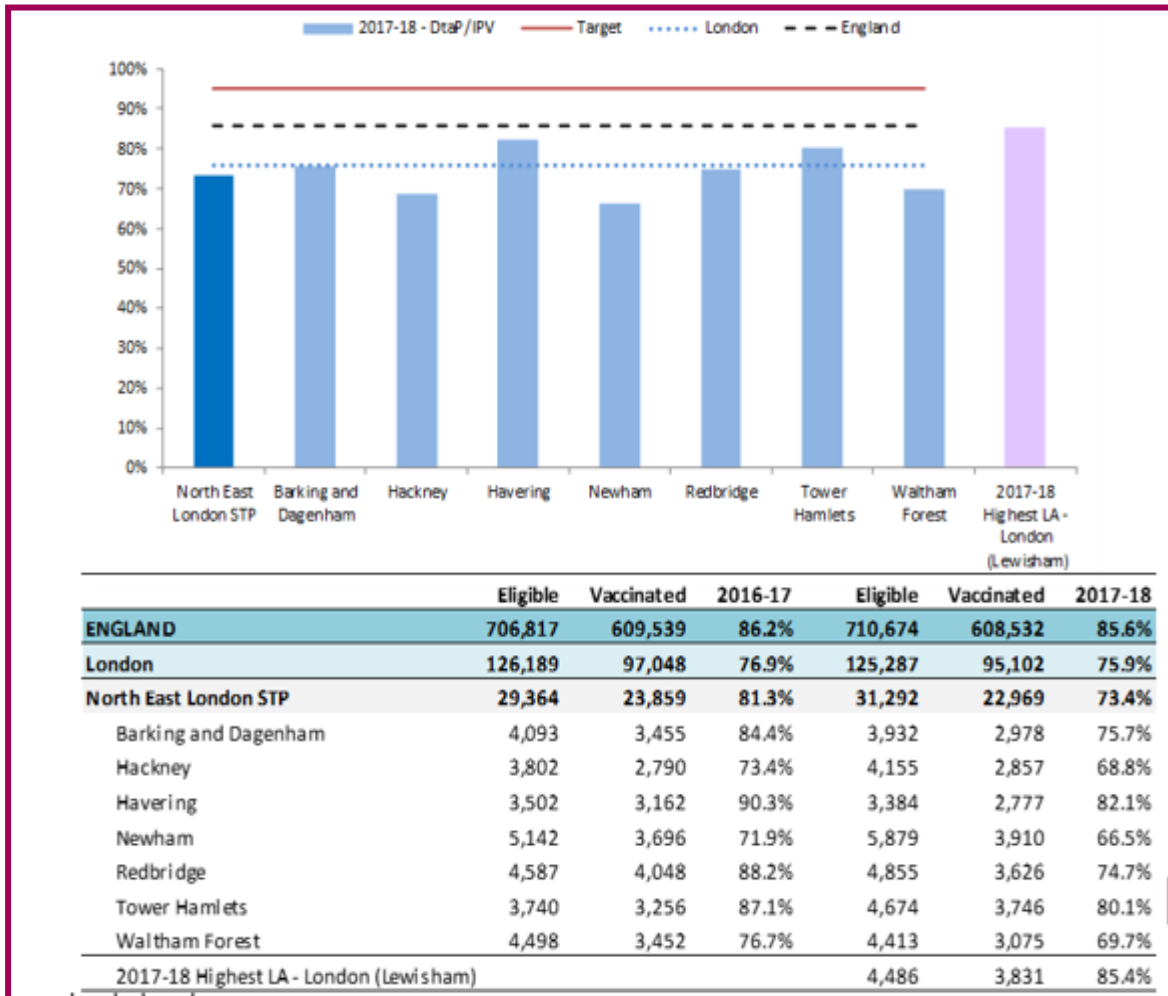
*Hackney compared to its geographical neighbours for MMR 2 (completed MMR coverage) using annual data for the age 2 cohort for years 2016/17 and 2017/18*



Source: PHE (2018)

Figure 3

Hackney compared to its geographical neighbours for 'Preschool Booster' using annual data for the Age 5 cohort for years 2016/17 and 2017/18



Source: PHE (2018)

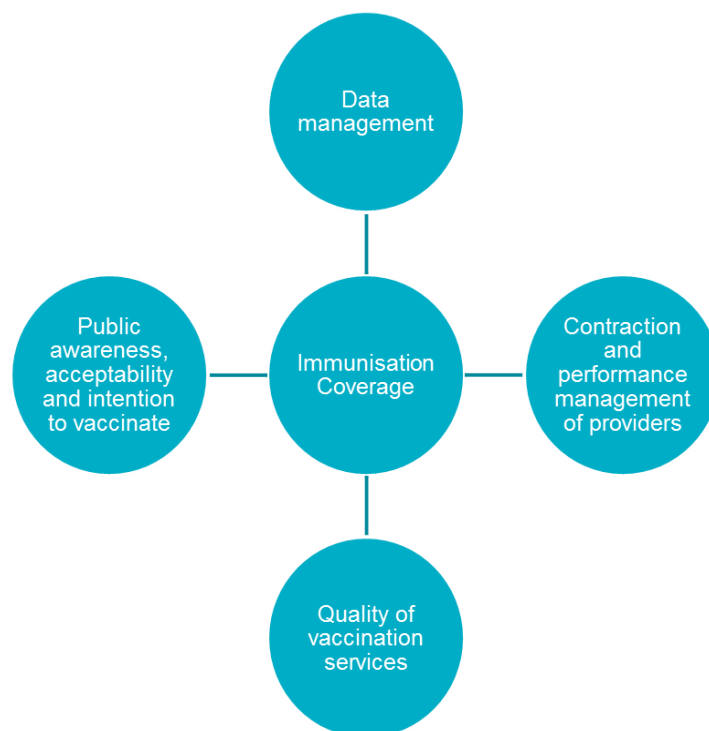
## 6.2 What are we doing to increase uptake of COVER?

- City and Hackney like other London boroughs performs below England averages for completed routine childhood immunisations as indicated by MMR 2<sup>nd</sup> dose and preschool booster. This is also below the recommended WHO 95% recommended uptake levels. Improving uptake rates in City and Hackney is being undertaken by pan London endeavours as well as local borough partnership work between CCG, local authority, PHE and NHSE London.
- Increasing coverage and uptake of the COVER reported vaccinations to the recommended 95% levels is a complex task. Figure 4 illustrates the interconnecting domains across which work needs to be undertaken in order to increase uptake and coverage.
- Under the London Immunisation Partnership (formerly Board), PHE and NHSE (London) have been working together to improve quality of vaccination services, increasing access, managing vaccine incidents and improving information management, such as better data linkages between Child Health Information Systems (CHIS) and GP systems. This year so far there have been two deep dives – one into school age vaccinations in June and another into production of COVER in October 2018. These deep dives result in action plans taken forth by the sub-group of the London Immunisation Partnership – the London Immunisation Business Group – and these plans are then evaluated for impact by another sub-group Evaluation, Analytics and Research Group. A health inequalities strategy for immunisations – Serving the Under-served – was drafted and consulted upon this year and is due to be published later this year. This outlines what PHE (London) and NHSE (London) are going to do with their partners to reduce inequities in uptake across London.
- The London wide Immunisation Plan for 2017/19 included sub-sets of plans such as improving parental invites/reminders across London, which the evidence repeatedly states as the main contributor to improving uptake of 0-5s vaccinations. A census of London's 1401 GP practices resulted in the production of 0-5s call/recall best practice pathway and a 0-5s best practice pathway. Under the London Immunisation Partnership PHE and NHSE (London) are evaluating the impact of these pathways over the next few months. Another strand of work is to grow a vaccinator workforce in London. This includes a webinar offer from PHE (London) which practice nurses can access to ensure that they are kept up-to-date with the recommended annual updates.
- As well as these pan London approaches, NHSE (London) have been working locally with PHE health protection teams, CCGs and local public health teams in local authorities to identify local barriers and vulnerable or underserved groups (e.g. travelling community and Haredi community in Hackney) and to work together to improve public acceptability and access and thereby increase vaccine uptake. NHSE (London) is also working with the GP Confederation in City and Hackney to improve provision of 0-5s immunisations. This includes working with vaccine ambassadors to help parents make informed choices (a

key finding from the body of evidence on ‘vaccine hesitancy’) and supporting a pilot of digitalised patient invite/reminder processes. This builds upon the support from the CCG to increase capacity in the workforce to deliver immunisations.

- In October 2018, NHSE (London) with the Strategic Transformation Partnership (STP) for NEL hosted a devolution workshop into the opportunities that place based commissioning provides for improving immunisations. Two pragmatic approaches emerged from the discussions on how to make children ‘school ready’ in terms of immunisations. We will be sharing and working to implement these approaches.

*Figure 4  
Infographic of action plan to improve immunisation coverage by working in partnership on each of the four areas below*



## 7 Conclusions

- NHSE (London) continues to work on delivering the WHO European and national strategies to improve coverage and to eliminate vaccine preventable diseases. In London this is done through the London Immunisation Plan which is reviewed annually by the London Immunisation Partnership.
- City and Hackney are amongst the lowest uptake in London and NHSE are working with the GP Confederation and partners to target this borough and support general practices in delivering vaccination services.
- Quarterly assurance is provided on City and Hackney through the NEL Immunisation Performance and Quality Board where challenges and solutions can be discussed around the performance data and the surveillance data.