hscic Health & Social Care Information Centre

Benefits case study

‘NHS Immunisation Statistics’ publication

Protecting children and older people against infectious diseases

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1 Version History

Version	Date	Summary of key changes
1.0	16/09/2015	First release.

2 Introduction

2.1 Purpose of case study

Annually, since 2005, the Health and Social Care Information Centre (HSCIC) has produced the 'NHS Immunisation Statistics' publication.

The most recent publication, *NHS Immunisation Statistics, England 2013-14*[1], was released on 25 September 2014 and covered 2013-14 immunisations. Prior to 2005, the Department of Health (DH) was responsible for producing these publications. [2]

The primary purpose of this case study is to describe:

- how stakeholders, such as DH, NHS England and Public Health England (PHE), have used the NHS Immunisation Statistics publication; and
- whether those uses have delivered improved outcomes and measurable benefits (measurable improvements) for commissioners, providers, patients and other stakeholders.

A secondary purpose of this case study is to demonstrate practical uses of the NHS Immunisation Statistics publication, which stakeholders could replicate locally or use as a catalyst for making effective uses of the publication, all with the aim of improving immunisation services (and, thus, improving coverage of immunisation programmes).

2.2 Alignment between publication and measurable benefits

The annual NHS Immunisation Statistics publication provides information that enables DH, commissioners (such as NHS England), immunisation providers (such as community healthcare trusts) and other stakeholders to monitor coverage of national immunisation programmes and make informed changes to the commissioning and delivery of immunisation services. In some cases the changes lead to improved health outcomes and measurable benefits. This case study aims to show the connection between the publication and the identified outcomes and benefits. Using an example presented in this case study, the diagram below provides a graphical representation of this alignment.

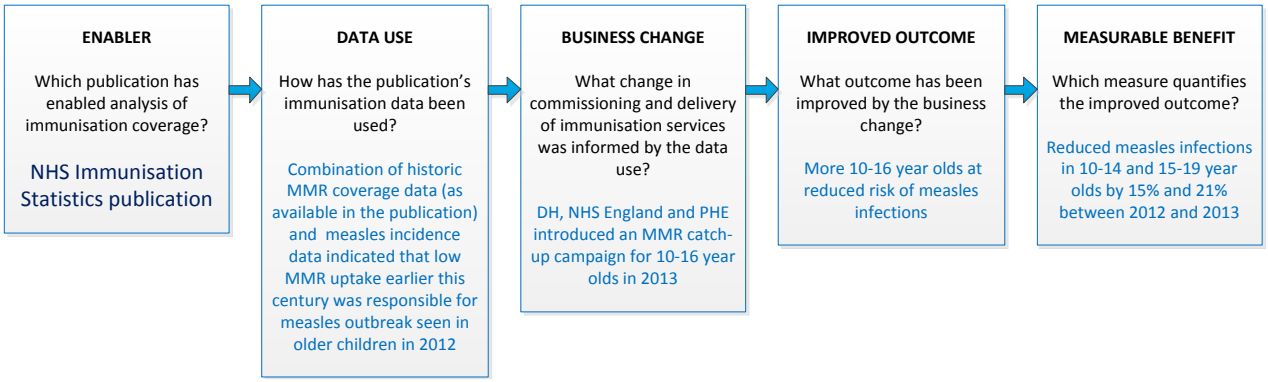

Figure 1: Alignment of the NHS Immunisation Statistics publication to benefits

3 NHS Immunisation Statistics publication overview

3.1 Immunisation programmes covered by the NHS Immunisation Statistics publication

The NHS Immunisation Statistics publication provides information on immunisation coverage for routine childhood immunisation programmes, the neonatal hepatitis B immunisation programme and the seasonal influenza immunisation programme (coverage data for seasonal influenza is only published for people in the 65-and-over at-risk group). Further detail on the specific immunisations covered by the publication is available in Appendix A.

3.2 NHS Immunisation Statistics, England 2013-14 key findings

A selection of key findings set out in the *NHS Immunisation Statistics, England 2013-14* publication is as follows:

- National coverage figures reported for most routine childhood vaccinations fell slightly in 2013-14. There was some regional variation in coverage across the country.
- Levels of immunisation for most routine childhood vaccinations, as measured at one, two and five years, were highest in the North East. Coverage levels were lowest in London for all routine childhood vaccinations.
- Immunisation against influenza (seasonal flu) in people who are 65 and over dipped slightly to 73.2% in 2013-14 (73.4% in 2012/13). The World Health Organization (WHO) target is 75%. Coverage level was highest in the North West and lowest in London.

3.3 Data sources

The NHS Immunisation Statistics publication is based on three data sources:

1. Cover of Vaccination Evaluated Rapidly (COVER) programme – COVER collects data quarterly and annually for routine childhood immunisation programmes and the neonatal hepatitis B immunisation programme. The four quarterly submissions inform

PHE's quarterly COVER programme reports (*Quarterly Vaccination Coverage Statistics)*[3], which the UK Statistics Authority (UKSA) has designated as 'Official Statistics', and the annual submission informs HSCIC's NHS Immunisation Statistics publication, which the UKSA has designated as 'National Statistics'.

2. ImmForm system – the ImmForm system collects data on a selection of immunisation programmes, including the seasonal influenza immunisation programme.[4]
3. KC50 collection - the KC50 collection has been under suspension since 2012-13. To 2011-12 though, it collected data for three vaccinations:
    - Bacillus Calmette-Guerin (BCG) – for all ages
    - Tetanus, diphtheria and polio (Td/IPV) – for 13-18 year olds
    - Measles, mumps and rubella (MMR) – for 13-18 year olds

The three data sources are described in more detail in Appendix B.

4 NHS Immunisation Statistics publication driver

Under Section 7A of the National Health Service Act 2006, as inserted by the Health and Social Care Act 2012, a 'Section 7A agreement'[5] has been created between the Secretary of State (SoS) for Health and NHS England. The agreement sets out the arrangements under which the SoS delegates responsibility for certain elements of their public health functions to NHS England, including the commissioning of childhood and seasonal flu immunisation programmes[6].

To fulfil the purposes of the Section 7A agreement, DH, PHE and the NHS are required to collaborate with each other and the HSCIC to gain access to timely and objective information.[7] This information requirement forms the publication's driver.

It should be noted, though, that the Section 7A agreement has only been in existence since April 2013, so the Section 7A agreement driver does not extend back to the publication's inception. It is assumed that the initial driver, which dates back to the mid-1980s or even before then, when DH was responsible for producing immunisation statistics, was to publish national and commissioner-level immunisation coverage data to help stakeholders monitor delivery of immunisation programmes, assess conformance against national and international targets and help drive improvements in services.

5 NHS Immunisation Statistics publication objective

The primary objective of the NHS Immunisation Statistics publication is to **enable** government agencies, commissioners and immunisation providers to improve coverage of immunisation programmes, with the aim of protecting people against vaccine-preventable diseases.

In line with the responsibilities set out in the *Immunisation & Screening National Delivery Framework and Operating Model*[8], each partner organisation within the system for the delivery of public health services uses the NHS Immunisation Statistics publication for the following purposes:

- DH uses the publication data to gain a national strategic oversight of immunisation programmes, which includes evaluating the success of immunisation policies and, where necessary, implementing appropriate changes. Furthermore, DH also uses the publication to hold NHS England to account through their framework agreement (the Section 7A agreement).
- PHE, in its role in leading the evaluation of the national immunisation programmes, uses the publication to monitor long-term trends in immunisation coverage. PHE also works in partnership with DH and NHS England to deliver system leadership, policy and service specification development.
- NHS England uses the publication data to monitor immunisation coverage to assess its own commissioning activities and providers' immunisation service delivery activities. NHS England regional and area teams[i] to specifically monitor immunisation rates for their areas.
- Local authorities, which are the leaders of the local public health system, use the publication data to monitor immunisation coverage within its own areas, in its role in improving and protecting the health of local people and communities.
- Immunisation providers, such as community healthcare trusts, use the publication data to compare and contrast immunisation rates, with the aim of improving local immunisation rates.

Although not referenced in the Operating Model, clinical commissioning groups (CCGs) use the NHS Immunisation Statistics publication to assess local general practitioner (GP) practice cohorts' immunisation services.

6 Publication users and uses

This section describes how a selection of stakeholders have specifically used the annual NHS Immunisation Statistics publication.

6.1 Department of Health (DH)

Publication uses

Use 1 – Supporting ministers

The NHS Immunisation Statistics publication is used to support ministers in a number of ways, including dealing with correspondence and parliamentary business. It is also used to inform policy decisions that ministers make (see Use 3 for further information).

[i] From April 2015, each NHS England area team was integrated into one of four NHS England regional teams (London, Midlands and East, North and South)

Use 2 – Review by the 'Tripartite' Immunisation Programme Board

The NHS Immunisation Statistics publication is vital to DH in supporting the implementation and delivery of immunisation programmes. Together with PHE's quarterly COVER programme reports, the annual publication is considered by the 'Tripartite' (DH, PHE and NHS England) Immunisation Programme Board (IPB). If, as part of the IPB review, any concerns are identified, for example, decreases in coverage, the IPB considers what action might be needed to address those concerns. The IPB is currently considering how best to address the 2013-14 findings. NHS England is responsible for taking appropriate action to address national and local concerns.

Use 3 – Considering policy options

The quarterly and annual immunisation data may also be used in conjunction with other data, such as that on incidence of vaccine preventable diseases, for considering policy options. For example, the combination of annual immunisation data on historic measles, mumps and rubella (MMR) vaccine uptake at 2 and 5 years (see Figure 3 below for 2 year MMR coverage trend) and the data on disease incidence for measles, indicated that low MMR uptake earlier this century was responsible for the measles outbreak seen in older children in 2012. DH, NHS England and PHE used these data to inform the decision to introduce a national MMR vaccination catch-up campaign in England in 2013. The campaign aimed to increase one-dose MMR vaccine coverage among 10-16 year olds to 95% by 30 September 2013.[9]

The scenario above is a very good example of HSCIC publication trend data being used several years down the line to aid decision making. In this case, the use led to a very clear improved health outcome for the public i.e. protecting more 10-16 year olds from measles infection (data on MMR coverage for 10-16 year olds is not captured by the COVER or the KC50 data collections. PHE undertook a special evaluation project to gather this data [10]).

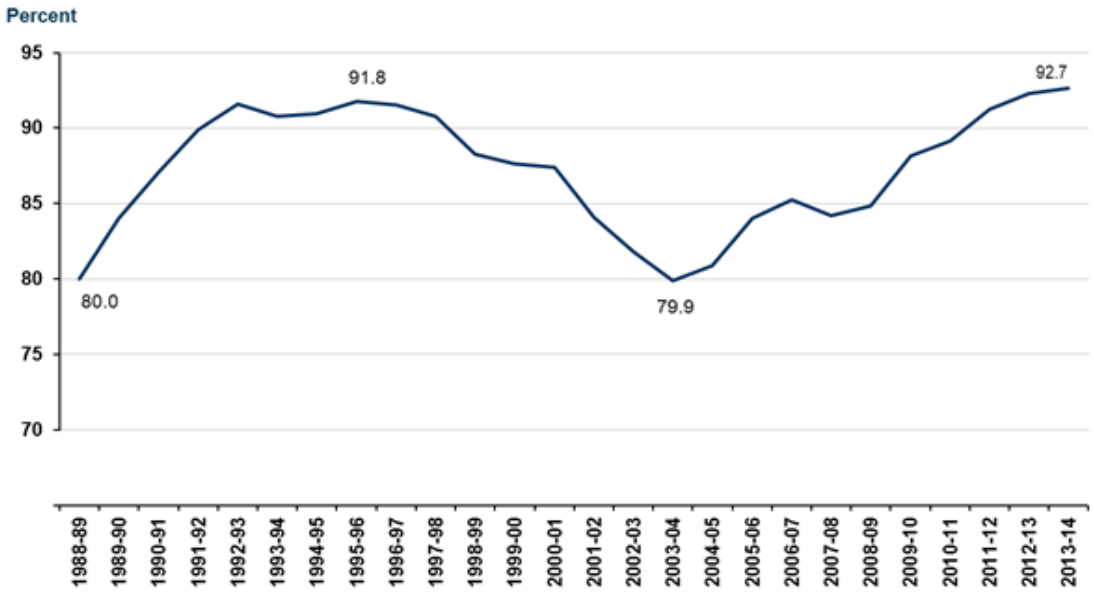

Figure 3: MMR dose 1 coverage at 24 months[11]

Improved outcome and measurable benefit

The introduction of the MMR catch-up campaign in 2013 has contributed to the following improved outcome and measurable benefits:

Improved outcome			
Protected more 10-16 year olds from measles infection			
Measurable benefits			
1. Intermediate benefit realised from introducing the MMR catch-up campaign: Estimated increase in the proportion of 10-16 year olds vaccinated with MMR. 2. End benefit realised as a result of the estimated increase in MMR vaccinations in 10-16 year olds: Reduction in the number of measles cases in England in 2013 in the 10-14 and 15-19 year age groups[ii] 3. The estimated increase in MMR vaccination in 10-16 year olds is perceived to have prevented the spread of measles in other age groups. This, in turn, is expected to have contributed to the following benefit: • Overall reduction in the number of measles cases in England in 2013.			
Metrics evidencing benefits			
Metric 1: Percentage of 10-16 year olds in England estimated to have been vaccinated with at least one dose of MMR vaccine[12] :			
31 March 2013	~ 20 Aug 2013		
94.73%	95.25% (20,000 more 10-16 year olds estimated to have been vaccinated)		
Metric 2: Number of measles cases confirmed in England for people aged between 10-14 and 15-19[13] [14] (this data includes cases confirmed by oral fluid IgM antibody tests and/or PCR and other laboratory reported cases):			
Year	10-14 year olds	15-19 year olds[iii]	All ages
2009	204	84	985
2010	60	51	372[iv]
2011	231	163	1,068
2012	393	228	1,912
2013	333 (**-15.3%,** when compared to 2012)	180 (**-21.1%,** when compared to 2012)	1,413 (**-26.1%,** when compared to 2012)
2014	4	6	111

[ii] Published measles data is grouped into various age bands. There isn't a 10-16 year age band, so the baseline and benefit is based on 10-14 and 15-19 year age bands
[iii] Ibid
[iv] The 2010 total includes one case where the region is 'not known'

Quote

"NHS Immunisation Statistics reports are an important data source for the Department of Health (DH). These comprehensive statistics help to inform the development and evaluation of government policy, and help to assess the delivery of different vaccination programmes. The reports also provide the official source of statistics DH uses to respond to public and parliamentary business."

DH

6.2 Public Health England (PHE)

PHE is the expert national public health agency that fulfils the SoS for Health's statutory duty to protect health and address inequalities, and execute their power to promote the health and wellbeing of the nation.[15] In this role, PHE functions to protect the public's health from infectious diseases and other hazards to health[16], and, in exercising this function, uses the NHS Immunisation Statistics publication in the following ways:

Publication uses

Use 1 - Reporting to World Health Organization (WHO)

The NHS Immunisation Statistic publication has been designated by the UKSA as 'National Statistics', meaning the statistics presented in the publication comply with UKSA's Code of Practice for Official Statistics. "Designation can be interpreted to mean that the statistics: meet identified user needs; are produced, managed and disseminated to high standards; and are explained well" (UKSA)[17].

The WHO encourages countries to collect data to monitor the performance, quality and safety of immunisations, through a range of indicators, including immunisation coverage.[18] With the high standards that accompany the NHS Immunisation Statistics publication, PHE uses the publication data to report the UK-wide immunisation coverage statistics to the WHO. The WHO, in turn, uses the data to monitor the operations and effectiveness of national immunisation programmes, with the aim of guiding vaccination policies and programmes and ensuring immunisation targets are being reached[19].

The WHO website also enables other countries to benchmark against UK's (and other countries') immunisation coverage figures.

Use 2 - Trend analysis

PHE uses its quarterly COVER programme reports to monitor immunisation coverage in 'real-time'. This enables PHE, DH and NHS England to quickly identify areas with low coverages and investigate the causes behind these changes. Where appropriate, corrective actions are introduced.

The NHS Immunisation Statistics publication enables PHE to monitor year-on-year changes in immunisation coverage and highlight any issues that require escalation. For instance, the *NHS Immunisation Statistics, England 2013-14* publication reported that national coverage figures for most routine childhood vaccinations slightly decreased,

when compared with the previous year. PHE raised this with NHS England commissioners and DH colleagues, through the tripartite IPB. The IPB is currently considering how best to address the slight dip in coverage. NHS England is responsible for taking appropriate action to address all national and local concerns.

Use 3 - Child health profiles

On an annual basis, PHE produces a child health profile for each local authority in England. These profiles provide a snapshot of health and wellbeing across five domains. The 'health protection' domain contains two indicators that are sourced from the NHS Immunisation Statistics publication. These are:

- Diphtheria, tetanus, acellular pertussis [v], polio and *Haemophilus influenzae* type b (DTaP/IPV/Hib) at age 2
- MMR at age 2

The child health profiles are aimed at enabling local stakeholders to work in partnership to plan and commission evidence-based services, in order to meet local needs. Additionally, they are also aimed at helping local stakeholders identify and learn from better performing areas.

Quote

"This publication provides definitive annual UK data for national and international vaccine coverage analyses."

Joanne White, Clinical Scientist (Epidemiology), PHE and Dr. Vanessa Saliba, Consultant Epidemiologist, PHE

6.3 NHS England

6.3.1 Public Health Commissioning

Use 1 – Provide assurances to DH on the delivery of the Section 7A agreement

NHS England's Public Health Commissioning team uses the NHS Immunisation Statistics publication to provide assurance and evidence that NHS England is effectively commissioning the immunisation programmes set out in the Section 7A agreement.

Use 2 – Inform the Public Health Commissioning Intentions framework

In commissioning the Section 7A agreement, NHS England publishes *Public Health Commissioning Intentions*[20]. This document gives healthcare commissioners and providers notice of NHS England's commissioning intentions for the coming year.[21] NHS England uses the NHS Immunisation Statistics publication data and other information sources, such as soft intelligence, to support the development of priorities and areas of

[v] acellular pertussis (aP) is also known as whooping cough

focus for delivery. One example where these data have been used for such a purpose is the consideration of Commissioning for Quality and Innovations (CQUINs), for inclusion in *Commissioning Intentions.* To date though, no CQUINs have been based on the NHS Immunisation Statistics publication.

Use 3 – Inform the planning process for delivering the immunisation function of the Section 7A agreement

NHS England uses the NHS Immunisation Statistics publication to inform the planning process for delivering the immunisation programmes set out in the Section 7A agreement. It does this by:

- setting up plans to improve service provision of, and access to, immunisation services
- identify underperforming areas and gaining assurance from NHS England's Public Health Commissioning teams that they have plans in place for improving performance. Under the new NHS England structure, which came into effect in April 2015, there are 4 NHS England regional teams and 13 NHS England local teams (12 local teams plus the London Local Team). Each local team sits under a regional team and consists of a Public Health Commissioning Team.

Use 4 – Inform the Public Health Oversight Group

The internal NHS England governance structure consists of a Public Health Oversight Group, which provides specific oversight for the delivery of the Section 7A agreement. NHS England's regional public health leads use the NHS Immunisation Statistics Publication, together with the COVER programme reports, to report their region's immunisation coverage to the Public Health Oversight Group. Where coverage is below the regional and/or national average, the Public Health leads provide assurances that plans are in place for improving performance.

Use 5 – Inform the work of the Screening and Immunisation Assurance Group

There are specific assurance groups that support the Public Health Oversight Group. One of these is concerned with screening and immunisation programmes. The Screening and Immunisation Assurance Group uses the NHS Immunisation Statistics publication, together with PHE's quarterly COVER programme reports, to report on immunisation coverage, and work with NHS England's public health commissioning teams to improve the quality and delivery of immunisation programmes.

6.3.2 NHS England London

Publication uses

NHS England has set up four regional teams (North of England, Midlands and East of England, London and South of England) to deliver commissioning responsibilities locally.[22] NHS England's London regional team ('NHS England London') has used the NHS Immunisation Statistics publication, together with the quarterly COVER programme reports, to inform the following activities:

- Produce annual immunisation reports to monitor progress on immunisation rates and make appropriate commissioning decisions – NHS England London has established a London Immunisation Board to provide strategic direction for immunisations in London. The Board is accountable to the Director of Operations and Delivery at NHS England London and to the Public Health Oversight Group.[23]

  NHS England London produces quarterly and annual immunisation reports, for consideration by the London Immunisation Board. The annual immunisation report, which covers childhood, adolescent, maternal and adult immunisation programmes, uses the NHS Immunisation Publication to report immunisation coverage rates for routine childhood and 65-and-over seasonal flu vaccinations. It sets out:

  - London and England-wide immunisation trends for the last 6 six years
  - the breakdown of immunisation coverage at primary care trust (PCT) level for all London-based PCTs (in the future, this will be a borough-level breakdown)
  - commentary for each immunisation, including a description on how immunisation coverages compare across London boroughs.

  Appropriate commission decisions subsequently stem from these reviews.

- Produce the draft London Immunisation 5-year Strategic Plan 2014/15-2018/19 – the draft plan has used the NHS Immunisation Statistics publication data to establish baselines and develop 5 year targets and trajectories for childhood immunisations. As an example, NHS England London was able to project that, if the region implemented all the suggested interventions, such as improving data flows and linkages between maternity, GP and CHIS systems, immunisation coverage at age one would increase by 1.5 percentage points by 2018/19.

- Produce the annual action plans – in London, each borough produces an immunisation action plan, which sets out how the borough will aim to improve immunisation coverage and reduce inequities in access to immunisation services. These borough-specific plans are multi-agency and involve collaboration of key partners: local authorities, CCGs, NHS England London and PHE. The action plans use the NHS Immunisation Statistics publication to produce local immunisation coverage trajectories.

- Inform improvement areas - recently, the publication data has been used to identify the GP practice cohorts that have immunisation coverage rates below the London average (GP practice-level immunisation coverage rates generated from local CHISs),

which local commissioners (NHS England local area teams[vi]) have used to determine which practices require support in increasing vaccine uptake.

Improved outcome

Local commissioners' support to GP practices is anticipated to have contributed to the following improved outcome:

- GP practices updating processes to improve immunisation services, which is expected to increase coverage of childhood immunisations.

6.4 Public Health Outcomes Framework (PHOF)

Publication use

The *Public Health Outcomes Framework for England, 2013-16* sets out a vision "to improve and protect the nation's health and wellbeing, and improve the health of the poorest fastest"[24]. This vision is supported by two outcomes:

- increase healthy life expectancy
- reduce differences in life expectancy and healthy life expectancy between communities[25]

These outcomes are underpinned by four domains and each domain is made up of various indicators. The 'population vaccination coverage' indicator (Indicator 3.3), which aligns to the Health Protection domain (domain 3), contains sub-indicators related to childhood, adolescent and adult vaccinations. The data for the majority of these vaccinations are based on the NHS Immunisation Statistics publication and PHE's quarterly COVER programme reports. [26]

6.5 Leeds Community Healthcare NHS Trust

Publication uses

Leeds Community Healthcare NHS Trust provides a range of community services for adults and children, including a Children Looked After and Safeguarding Service. [27] The Health Team, which is part of this service, is responsible for co-coordinating health services and providing care for children and young people in the care system.[28]

Based on local data, in 2008, the Health Team assessed the immunisation status of looked after children. The assessment showed that only 51% of children were up-to-date with immunisations. A subsequent study showed that the cause of low immunisation coverage was gaps in data collection, rather than actual immunisations. Although the provision of the immunisation service was not highlighted as a concern, to mitigate the risk of missed immunisations and, also, increase vaccination uptake, the Health Team updated the process for assessing looked after children's immunisation status. This change consisted of reviewing each child's immunisation status at the point the child is referred to the Children Looked After and Safeguarding Service.

[vi] Local area teams were part of the pre-April 2015 NHS England structure

In 2013, the Health Team undertook another study to assess how well looked after children's' immunisation statuses were being reviewed upon referral. The study showed that all 130 looked after children included in the study sample had received the relevant vaccinations. The study made use of the NHS Immunisation Statistics 2012-13 publication's MMR data for 5 year olds to show that the 100% coverage rate for 5 year olds on first and second dose MMR was much higher than the national average of 87.7%[29]. 2012-13 NHS Immunisation Statistics data therefore formed a key tool in measuring the effectiveness of the 2008 practice change.

Improved outcome

Assessing the effectiveness of the 2008 practice change, which in part, was based on 2012-13 NHS Immunisation Statistics publication data, has enabled the Health Team to continue with the 2008 operational change. Although, this, technically, is not considered an operational change or an improved outcome, the continuation of the process does ensure that risks to missed immunisations are mitigated.

7 Uses of PHE's quarterly COVER programme reports

The majority of stakeholders included in this case study also routinely use PHE's quarterly COVER programme reports. Other stakeholders (which are not included in the case study), such as NHS England's Lancashire & Greater Manchester area team, only predominantly use PHE's quarterly COVER programme reports. The key reasons for this is because the quarterly reports are released more frequently (i.e. quarterly) and more closer to the quarter-end.

8 Contributions

This case study document received contributions from, and/or has been reviewed by:

- Ruth Groom, Specialist Nurse for Looked After Children, Leeds Community Healthcare NHS Trust
- Robert Freeman, Policy Manager, Immunisation Branch, DH
- Michelle Parkinson, Head of Policy, Immunisation Branch, DH
- Cheryl Cavanagh, Programme lead for Immunisation, Public and International Health Directorate – Health Science and Bioethics Division, DH
- Sarah Otto, Immunisation Officer, Public and International Health Directorate – Health Science and Bioethics Division, DH
- Dr Vanessa Saliba, Consultant Epidemiologist, PHE
- Joanne White, Clinical Scientist (Epidemiology), PHE
- Dr Sandra Anglin, Assistant Head of Public Health Commissioning, Commissioning Operations directorate, NHS England

- Catharine Hefferman, Principal Advisor on Commissioning Early Years, Immunisation and Vaccinations Services, NHS England London
- Robyn Wilson, Senior Information Analyst, Screening and Immunisations Team, Population Health, HSCIC
- Pritpal Rayat, Section Head, Screening and Immunisations Team, Population Health, HSCIC

9 Appendix A – Infectious diseases covered by the publication

The table below sets out the infectious diseases and the corresponding vaccines that are covered by the *NHS Immunisation Statistics* publication. As supplementary information, the table also highlights the data collection framework the vaccination coverage data is collected in.

Infectious diseases protected against	Vaccine	Age vaccination given (as per the NHS Vaccination schedule)	Data collection
Diphtheria, tetanus, acellular pertussis (aP)[vii], polio and *Haemophilus influenzae* type b (DTaP/IPV/Hib)	DTaP/IPV/Hib vaccine (also known as '5-in-1')	Three doses by 4 months	COVER
Diphtheria, tetanus, acellular pertussis and polio (DTaP/IPV)	DTaP/IPV vaccine (also known as 'DTaP/IPV', 'pre-school booster' and '4-in-1')	1 dose between 3 years and 4 months - 5 years	COVER
Measles, mumps and rubella (MMR)	MMR vaccine	Two doses by 5 years	COVER
Meningococcal serogroup C (MenC)	MenC vaccine	1 dose at 3 months	COVER
Haemophilus influenzae type b and Meningococcal group C (Hib/MenC)	Hib/MenC vaccine	A booster dose between 12-13 months	COVER
Pneumococcal disease	Pneumococcal conjugate (PCV) vaccine	Three doses by 12-13 months	COVER
Hepatitis B	Hepatitis B vaccine	Four doses by 12 months for children at high risk of hepatitis B infection [30]	COVER
Tuberculosis (TB)	Bacillus Calmette-Guerin (BCG)	1 dose at any age for persons in 'at-risk' groups	KC50[viii]
Tetanus, diphtheria and polio (Td/PV)	Td/IPV vaccine (also known as '3-in-1')	A booster dose between 13 and 18 years	KC50[ix]
Measles, mumps and rubella (MMR)	MMR vaccine	1 dose at 13-18 years[x]	KC50
Seasonal Influenza (flu) for adults aged 65 and over	Flu vaccine	1 dose at 65 or over	ImmForm

[vii] acellular pertussis (aP) is also known as whooping cough
[viii] Data on BCG vaccination for 'under 1s' is in the process of migrating over to the COVER collection.
[ix] Data on Td/IPV vaccination is in the process of migrating over to the COVER collection.
[x] MMR vaccination between 13-18 years is not part of the NHS vaccination schedule.

10 Appendix B – Data sources

The NHS Immunisation Statistics publication uses three data sources to generate the publication. These data sources are the COVER programme, the ImmForm system and the KC50 collection (the KC50 collection has been under suspension since 2012-13). These data sources are described in more detail below.

10.1 COVER programme

The COVER programme, which commenced in 1987, collects data on vaccine coverage for routine childhood immunisation in England for children aged one, two and five. The data is extracted quarterly and annually from local child health information systems (CHISs) and submitted to PHE. The data collection is facilitated by CHIS suppliers. [31] The four quarterly submissions source PHE's quarterly COVER programme reports (*Quarterly Vaccination Coverage Statistics)*[32], which the UKSA has designated as 'Official Statistics', and the annual submission is used to produce HSCIC's NHS Immunisation Statistics publication, which the UKSA has designated as 'National Statistics'.

In 2003, the COVER collection was approved as an information standard by the Information Standards Board (ISB) [33]. In 2014, the standard was updated, with the changes reflected in an Information Standards Notice (ISN).[34]

10.2 ImmForm system

ImmForm is a web-based system provided by PHE to record vaccine coverage data for a selection of immunisation programmes, including the seasonal influenza immunisation programme, and provide vaccine ordering facilities for the NHS.[35]

10.3 KC50 collection

The KC50 collection was operated by HSCIC and gathered data from providers and commissioners for three vaccinations:

- Bacillus Calmette-Guerin (BCG) – data was captured on number of people vaccinated with the BCG vaccine, with a breakdown for four age groups:
    - under 1
    - 1 - 5
    - 6 - 15
    - 16 and over

  The BCG vaccination immunises people against tuberculosis (TB).
- Tetanus (T), diphtheria (d) and polio (IPV) – data was captured for number of 13-18 year olds vaccinated with the Td/IPV vaccine. The data was broken down for each age year between 13 and 18 (i.e. eight age groups).

- Measles, mumps and rubella (MMR) – data was captured on number of 13-18 year olds vaccinated with the MMR vaccine (data on childhood MMR vaccination coverage at 24 months and 5 years is captured by COVER). The data was broken down for each age year between 13 and 18 (i.e. eight age groups)

Due to data quality issues, the KC50 data collection has been under suspension since 2012-13.[36]

11 References

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