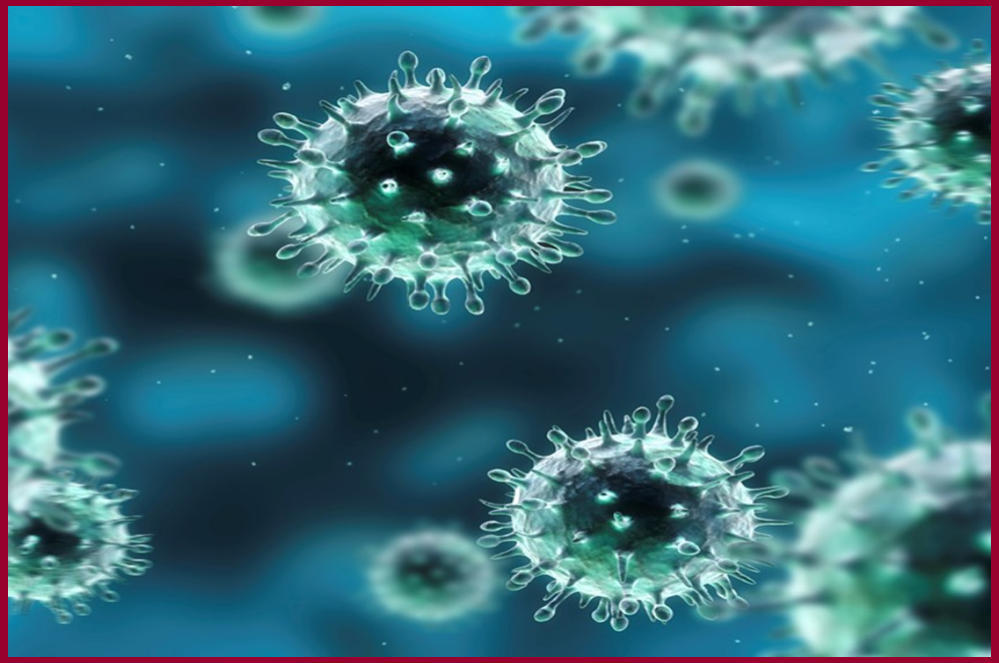
Public Health England

NHS England

Flu and Vaccination Programmes- Leicester City



Chloe Leggat, Screening and Immunisation Co-ordinator, Leics., Lincs., Northants 2017

Public Health England

NHS England

What is flu?

Illness caused by a virus – 3 main types, many sub-types (strains)

Can affect anyone - for most people influenza infection is just a nasty experience but for some it can lead to more serious illnesses

The most common complications of influenza are:

bronchitis (an infection of the bronchi - the main airways of the lungs)

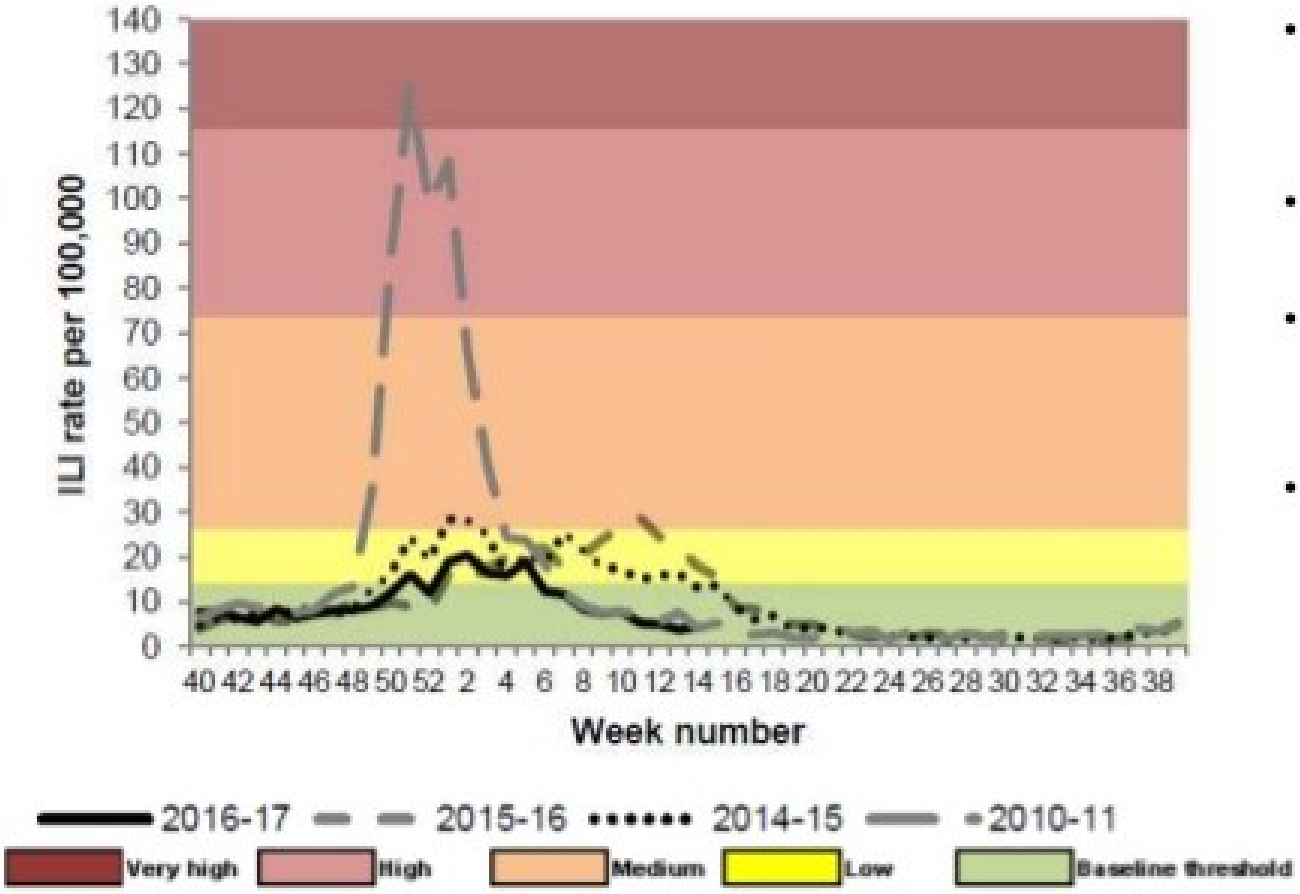
bacterial pneumonia (an infection of the smaller airways)

children often get otitis media (an infection of the middle ear)

These illnesses may require treatment in hospital and can be life threatening especially in the very young, the elderly, in pregnancy, and to those with underlying illnesses

Huge pressure on NHS services – GP and A&E attendance, hospital admissions

Flu epidemiology



Weekly all age GP influenza-like illness rates for 2016 to 2017 and past seasons, England (RCGP)

- flu activity usually between September to March (weeks 37 and 15)
- impact of flu varies from year to year
- moderate levels of influenza activity seen in 2016/17 season
- biggest impact in older adults, increased numbers of care homes outbreaks and excess mortality seen particularly in the 65+ year olds

high number admissions to hospital and ICU/HDU admissions – although lower than seen in the past two seasons

Public Health England

NHS England

Review of burden of flu in children

- average flu season: estimated 0.3% to 9.8% of 0-14 year old children present to a GP with flu
- incidence rates can be markedly higher in the younger age groups
- influenza-associated hospitalisation rates:
  - 83-1,038/ 100,000 children 0-59 months old (highest in <6m)
  - 16-210/100,000 children 5-17 years
- children more vulnerable to infection than adults when exposed
- children with flu contribute to the burden of flu in all age groups because they are more likely to pass on the infection than adults

Public Health England

NHS England

Screening and immunisation- Section 7a remit

- **all 2 and 3 year olds in primary care (with live attenuated influenza vaccine LAIV)**
- **all primary school children in LLR (with LAIV)**
- **those aged six months to under 65 years in clinical risk groups (detail on next slide)**
- **pregnant women – at any stage of pregnancy - and in each pregnancy**
- **those aged 65 years and over**
- **those in long-stay residential care homes**
- **carers**
- **Frontline health and social care workers – employers' responsibility**

Public Health England

At risk groups

NHS England

- **Everyone aged 6 months to <65 years with a serious medical condition:**
- **Chronic (long-term) respiratory disease, such as severe asthma, chronic obstructive pulmonary disease (COPD) or bronchitis**
- **Chronic heart disease, such as heart failure**
- **Chronic kidney disease at stage three, four or five (i.e. more severe)**
- **Chronic liver disease, e.g. cirrhosis, chronic hepatitis B**
- **Chronic neurological disease, such as Parkinson's disease or motor neurone disease, or learning disability**
- **Diabetes (both types, regardless of treatment)**
- **Poorly functioning or absent of the spleen**
- **A weakened immune system due to disease (such as HIV/AIDS) or treatment (such as cancer treatment)**
- **Morbidly obese (defined as BMI of 40 and above)**

Public Health England

NHS England

Vaccination

- Annual vaccination required due to unstable (changing) nature of flu viruses
- Resource intensive and challenging, almost year-round work-stream
- Programmes focussed on those who are:
- most likely to get flu
- become seriously ill if they get flu
- mostly likely to spread flu to others
- 2 types of vaccine:
- Live attenuated influenza vaccine (LAIV) – nasal spray (“Fluenz®”): protects against 4 strains, licensed for those aged 2 - <18 years
- Inactivated influenza vaccine - given by injection: for everyone else; several different products, most are trivalent (protect against 3 strains), two of them are quadrivalent (protect against 4 strains) including the one given to children

Public Health England

NHS England

Flu vaccine uptake rates 2015/16 – 2016/17

	2016/17	2015/16	Uptake ambition 2017/18
Patients aged 65 years or older	**70.5%**	71.0%	75%
Patients aged six months to under 65 years in risk groups (excluding pregnant women without other risk factors)	**48.6%**	45.1%	55% (maintain higher rates where this has already been achieved)
Pregnant women	**44.9%**	42.3%	55% (maintain higher rates where this has already been achieved)
Health care workers	**63.2%**	50.6%	75%
Children aged two years old (including those in risk groups)	**38.9%**	35.4%	40-65% (eligible children aged 2 to 8 years)
Children aged three years old (including those in risk groups)	**41.5%**	37.7%	
Children aged four years old (including those in risk groups)	**33.9%**	30.0%	

Public Health England

NHS England

Rationale for vaccinating children against flu

Extension of the seasonal flu vaccination programme to all children aims to appreciably lower the public health impact of flu by:

- **providing direct protection** thus preventing a large number of cases of flu in children
- **providing indirect protection** by lowering flu transmission from children:
  - to other children
  - to adults
  - to those in the clinical risk groups of any age

Reducing flu transmission in the community will avert many cases of severe flu and flu-related deaths in older adults and people with clinical risk factors

Annual administration of flu vaccine to children is expected to substantially reduce flu-related illness, GP consultations, hospital admissions and deaths

Public Health England

NHS England

Changes for 2017/18

One of the virus strains in the vaccine has been changed (The A/California/7/2009 (H1N1)pdm09-like virus has been replaced by an A/Michigan/45/2015 (H1N1)pdm09-like virus)

The addition of a payment for vaccinating those with morbid obesity (defined as BMI of 40 or above) with no co-morbidities

4 year olds/ children in reception year at school will move to the school aged immunisation service

Public Health England

NHS England

Vaccination uptake in children

Chloe Leggat, Screening and Immunisation Co-ordinator, Leics., Lincs., Northants 2017

2016/17 childhood flu uptake

- All 2, 3 and 4 year olds were offered vaccination through GP surgeries. National uptake increased in all three ages from 2015/16 season:
  - 38.9% for two year olds
  - 41.5% for three year olds
  - 33.9% for four year olds

- 55.4% overall uptake for children in school years 1, 2 and 3
  - 57.6% school year 1
  - 55.4% school year 2
  - 53.3% school year 3

Flu vaccine pilot success

In flu vaccine pilot areas (2014/15) where primary school age children were given the nasal spray vaccine we saw:

Public Health England

94%

Primary school aged children: GP influenza like illness consultation rates 94% lower

74%

Primary school aged children: A&E respiratory attendances 74% lower

93%

Primary school aged children: Hospital admissions due to confirmed influenza 93% lower

59%

Adults: GP influenza like illness consultation rates 59% lower

Public Health England

NHS England

Past and present barriers to flu vaccination uptake

Schools

- New service
- School pupil data
- Myths- gives you flu / doesn't work
- Porcine gelatine
- Anti vaccination lobby- letters to heads
- Perceived as minor illness
- Poor strain matching

General practice

- Performance and processes
- Needle phobia
- Myths
- Porcine gelatine (pre school)
- Anti vaccination lobby (social media)
- Perceived as minor illness
- Patient targeting
- Poor strain matching

Public Health England

NHS England

School flu immunisation activity- LLR

- LPT visited 375 schools and units over 10 weeks
- Offered vaccination to 78,602 children
- Vaccinated 47,464 children
- Uptake LLR 60.39%
- 529 children referred to pharmacy mop-up programme -379 vaccinated

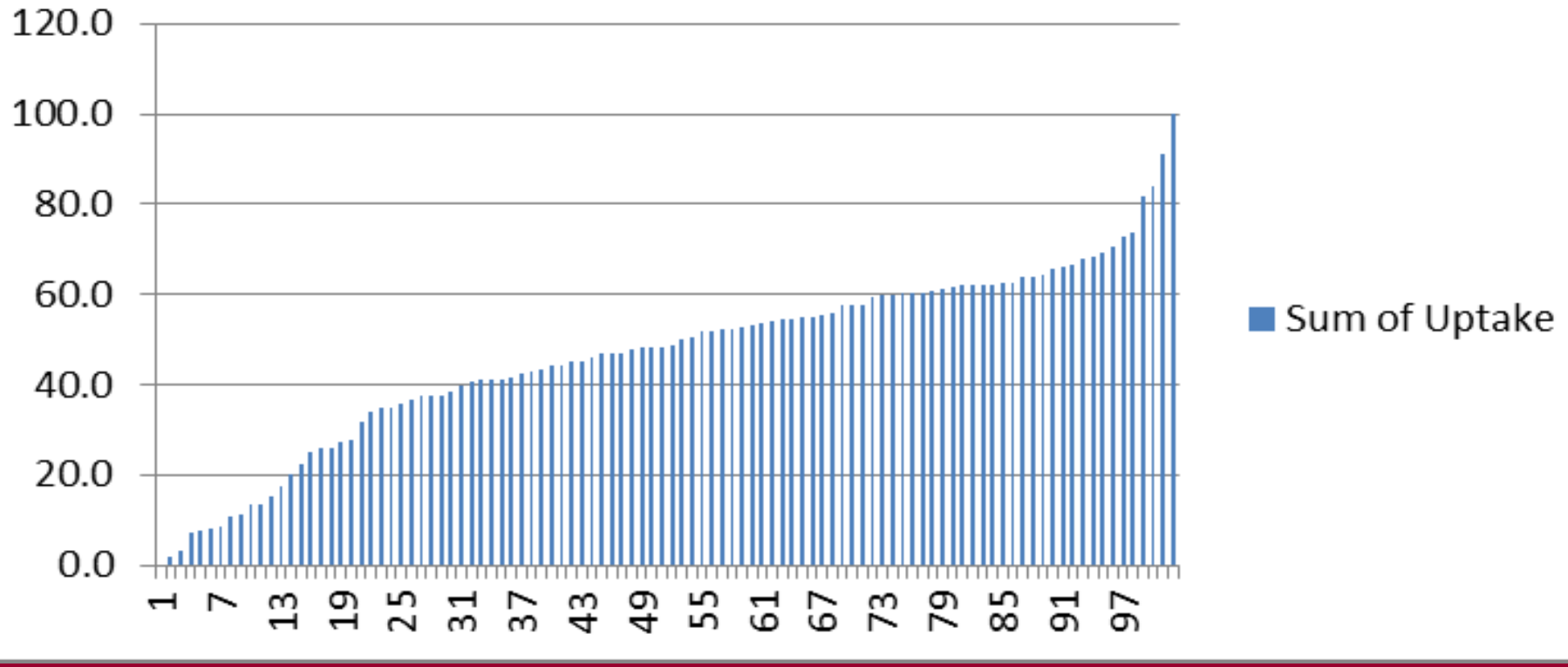
Uptake Leicester City

- 102 schools
- 28,420 eligible and offered
- 12,711 vaccinated (46.6%)

Public Health England

NHS England

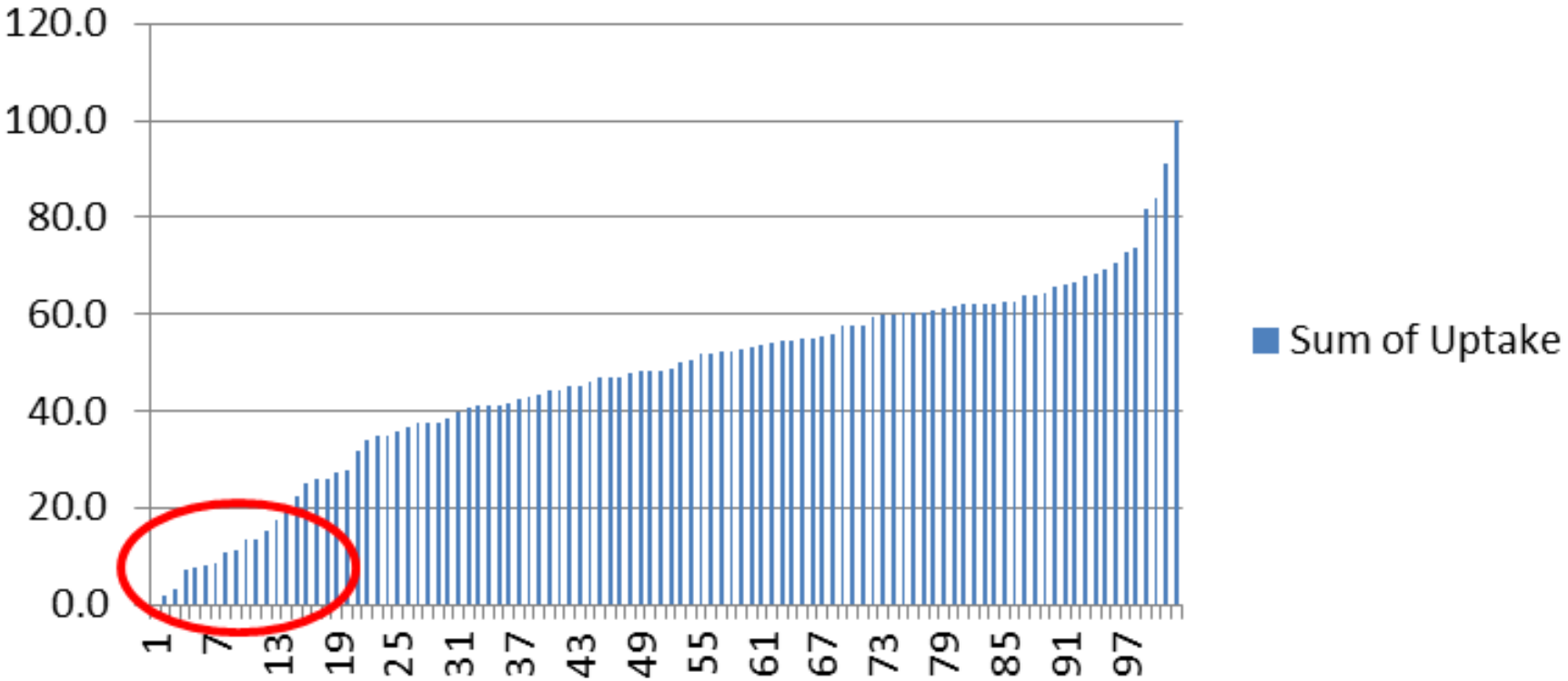
Individual school uptake Leicester City 16/17



Public Health England

NHS England

Individual school uptake Leicester City 16/17



Public Health England

NHS England

Improving uptake in schools

Steps taken

Early communications

Better planning

Relationships with schools improving

Ofsted

Pharmacy mop up system

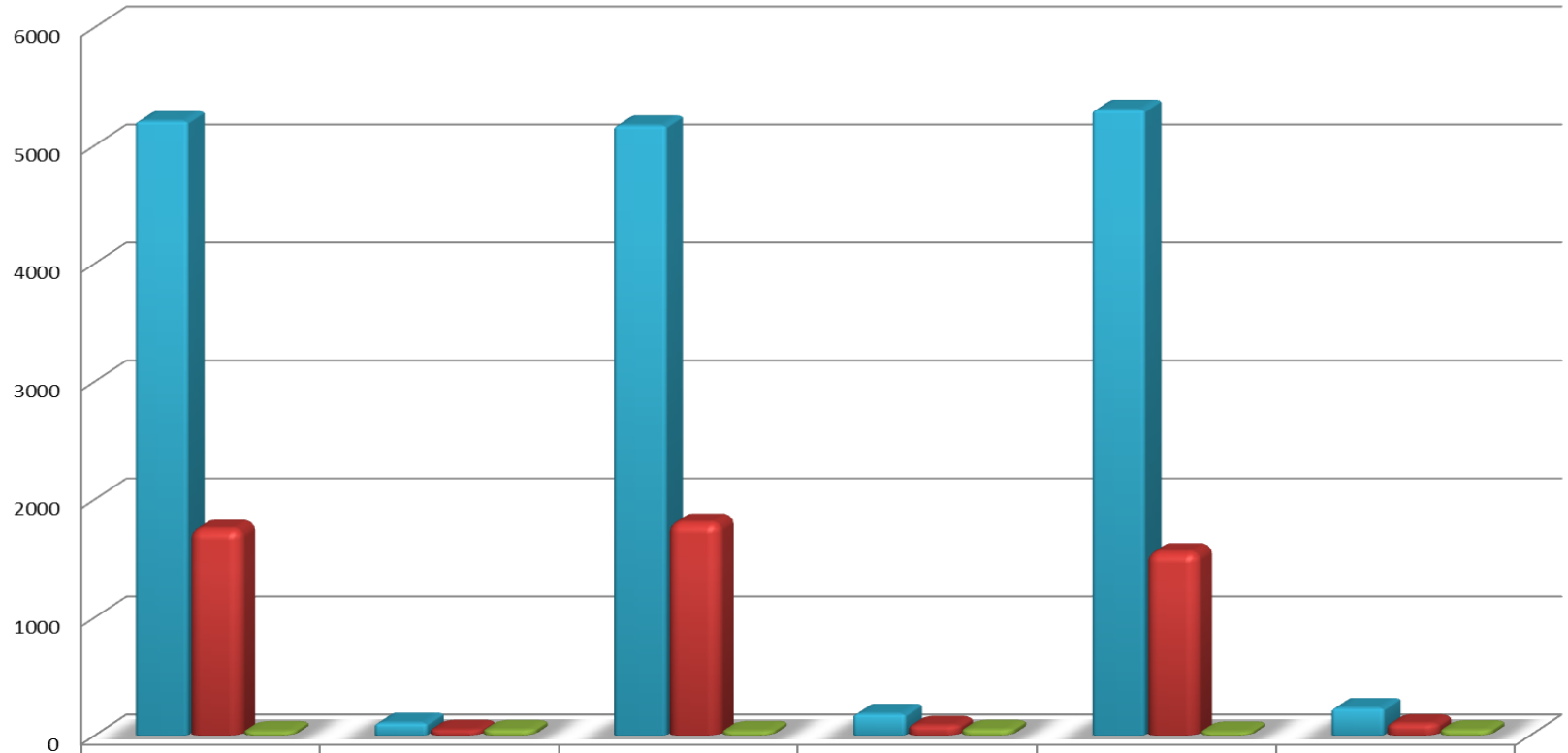
Class lists/ census data

Getting better year on year

Public Health England

NHS England

Flu Immunisation in 2,3 and 4 year olds Leicester City GP's 2016-2017

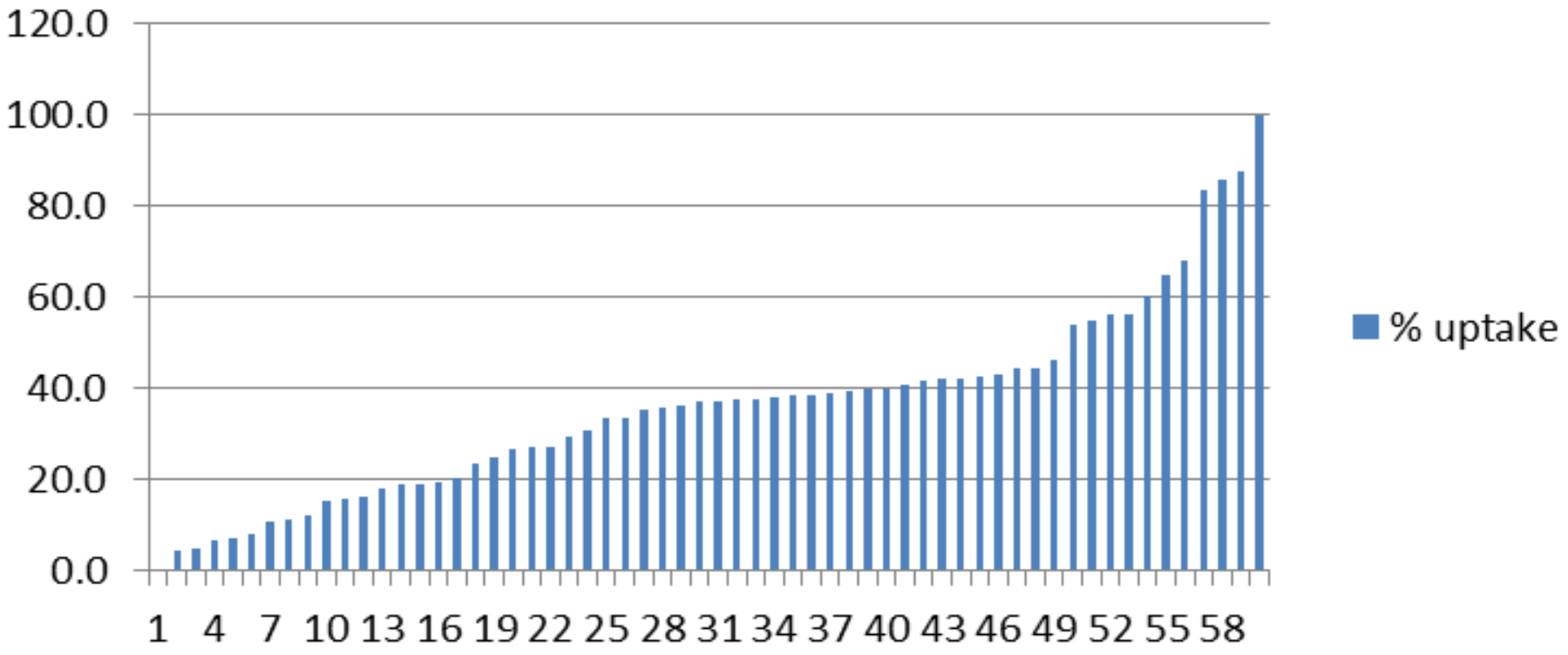


	2 year olds	2 year olds in clinical risk group	3 year olds	3 year olds in clinical risk group	4 year olds	4 year olds in clinical risk group
Patients registered	5205	106	5168	182	5301	232
No. vaccinated	1749	47	1803	84	1552	99
% uptake	33.6	44.3	34.9	46.2	29.3	42.7

Public Health England

NHS England

% flu vaccination uptake for 2 year olds in GP practices in Leicester City



Public Health England

NHS England

Improving uptake in general practice

- Identify lead member of staff
- Thorough planning
- Goal setting- Immform weekly update
- Identify all children
- Invitation – personalised to all children
- Clinics/appointments
- SIT letter to all 2 & 3 year olds
- Flu and pertussis in midwifery

Public Health England

NHS England

Expected circulating strains

Trivalent vaccines for use in the 2017/18 influenza season (northern hemisphere winter) contain the following:

- an A/Michigan/45/2015 (H1N1)pdm09-like virus; (replaces A/California/7/2009 (H1N1)pdm09-like virus)
- an A/Hong Kong/4801/2014 (H3N2)-like virus;

  B/Brisbane/60/2008-like virus.

Quadrivalent vaccines containing two influenza B viruses contain the above three viruses and a B/Phuket/3073/2013-like virus

Public Health England

NHS England

Health protection headlines

- Harsh flu season Australia New Zealand A/Hong Kong/4801/2014 (H3N2)-

  poor immunogenicity in elderly to this strain in the vaccine last year
- Estimated 60% protection in children when vaccinated with quadrivalent vaccine
- H1N1 persistently circulating in India – numerous deaths mostly in western state of Maharashtra and neighbouring Gujarat is the worst affected
- Good mood?
- Time of day?

Public Health England

NHS England

Supplementary slides

Public Health England

NHS England

SEVEN ELEMENTS TO RUNNING A SUCCESSFUL FLU CAMPAIGN

NHS

COMMUNICATION

- Tailor your strategy to your organisation
- Mix up your communications channels – Twitter, intranet, email
- Keep staff updated throughout your campaign

BALANCED FLU TEAM

- Include staff from all parts of your organisation
- Get a good skills mix – think communications to clinical
- A diverse team will strengthen your campaign

SUPPORT – ALL HANDS ON DECK

- Have a champion to provide leadership at a senior level
- Seek involvement from the board to the ward
- Get buy-in from management to lead by example

MYTHBUSTING

- Include mythbusting in your communications
- Use clinical evidence for support
- Challenge misconceptions

PEER VACCINATION

- Use peer vaccinators
- Train clinical directors to vaccinate staff
- Utilise staff on adapted working / light duties

ACCESSIBILITY

- Set up a mobile flu vaccination clinic
- Reimburse your staff if they buy their jab externally
- Hold drop-in clinics at staff events

REWARDS

- Use incentives in your campaign
- Incentives don't need to cost a lot – be creative
- A small treat can have a big impact

flufighter

Public Health England

A leading workforce campaign delivered by NHS Employers

Fluenz Tetra® composition 2017/18

Active ingredients:

- A/Michigan/45/2015 (H1N1)pdm09-like virus;
- A/Hong Kong/4801/2014 (H3N2)-like virus
- B/Phuket/3073/2013-like virus
- B/Brisbane/60/2008-like virus

Excipients:

- Sucrose
- Dibasic potassium phosphate
- Monobasic potassium phosphate
- Gelatin (porcine type A)
- Arginine hydrochloride
- Monosodium glutamate monohydrate
- Water for injections

Residues:

- Egg proteins (eg ovalbumin)
- Gentamicin

Image courtesy of AstraZeneca

Public Health England

NHS England

LAIV and 'viral shedding'

Some parents have expressed concerns that:

- as the flu vaccine is squirted out of the applicator as a fine mist, the room will be filled with flu vaccine virus, which could infect others
- children who receive the vaccine will actively 'shed' live flu virus for several days or even weeks after vaccination, thus putting others at risk of infection

They should be reassured that:

- the vaccine does not create an external mist of vaccine virus in the air when children are being vaccinated and others in the room should not be at risk of 'catching' the vaccine virus
- administration of the intranasal vaccine delivers just 0.1ml of fluid straight into each nostril and almost all the fluid is immediately absorbed into the child's nose
- although vaccinated children are known to shed virus a few days after vaccination, the vaccine virus that is shed is less able to spread from person to person than natural flu infection
- the amount of virus shed is normally below the levels needed to pass on infection to others and the virus does not survive for long outside of the body. This is in contrast to natural flu infection, which spreads easily during the flu season

Public Health England

NHS England

Porcine gelatine

- the LAIV contains a highly purified form of gelatine derived from pigs
- gelatine is used in LAIV as a stabiliser - it protects the live viruses from the effects of temperature
- gelatine is commonly used in a range of pharmaceutical products, including many capsules and some vaccines
- some faith groups do not accept the use of porcine gelatine in medicinal products
- there is no other live attenuated vaccine available that does not contain porcine gelatine. The manufacturer of LAIV (Fluenz Tetra®) tested 40 potential stabilisers – gelatine was chosen because without it, stability was significantly reduced
- current policy is that, for universal vaccination of healthy individuals, there is no suitable alternative to Fluenz Tetra®. The purpose of the childhood programme is to interrupt transmission and therefore indirectly protect the whole population. This is best achieved by offering LAIV (Fluenz Tetra®)
- see www.gov.uk/government/news/vaccines-and-gelatine-phe-response for more information on vaccines and gelatine

Public Health England

NHS England

Increasing flu immunisation uptake among children

Best practice guidance for general practice

Staff responsibilities

- every practice should have **a lead member of staff** with responsibility for running the flu immunisation campaign and all staff should know who the lead person is
- all staff should understand the reason for the programme and have access to PHE resources
- every member of the practice should know their role and responsibilities
- get all staff involved in promoting the vaccine message to parents
- hold regular meetings so that all staff know the practice plan and progress
- include health visitors, midwives, pharmacists and other healthcare professionals linked to your practice in your planning
- use NHS Employers website free resources to put your pictures on a poster (so all staff and parents know who can provide immunisation)

Public Health England

NHS England

Increasing flu immunisation uptake among children

Best practice guidance for general practice

Practice goals

- set a higher goal than the previous season
- create computer searches to measure uptake and assess progress towards the goal
- calculate practice income depending on uptake
- advertise the practice goal and have a 'Blue Peter' style 'Totaliser'

Identifying eligible children

- the lead member of staff to **identify eligible children**
- check accuracy of searches and coding to ensure all eligible children are identified
- make sure the correct flu vaccination codes are in your system and that staff are aware –don't let hard work go unmeasured
- create IT system reminders so that opportunistic immunisation happens
- create a system for opportunistic identification of eligible children attending the practice for other clinics or with parents and siblings – use flags or sticky notes to alert staff. Don't send a child away unimmunised

Public Health England

NHS England

Increasing flu immunisation uptake among children

Best practice guidance for general practice

Invitation/contacting parents

- **send a personalised invitation** to eligible children – use the parent's and child's names, sign your name at the bottom
- phone calls can be more effective than letters; and try text messages for reminders
- ensure that staff phoning patients have a script but can also answer questions and address concerns
- plan phone calls after 4pm when more working parents might be available
- send letters if telephone contact is not possible
- set a date – invite every eligible child before the end of October
- **be tenacious** – make multiple contacts until child is immunised

Public Health England

NHS England

Increasing flu immunisation uptake among children

Best practice guidance for general practice

Clinics and appointments

- plan to have completed all routine immunisation activity by Christmas
- use time after Christmas to mop-up unimmunised children, particularly children in at-risk groups. If clinically indicated vaccination can be given up to the end of March
- decide whether you will give timed appointments, run an open access clinic or invite parents to make appointments
- allow online booking for appointments
- consider family friendly clinic/appointment times such as after school 3.30pm to 6.30pm, Saturday mornings, or October half term – consider health fairs or parties – incorporating flu vaccination with other vaccines, health checks, health visitor advice
- create a child friendly environment; including room for pushchairs
- consider other clinics and busy waiting rooms

Public Health England

NHS England

Increasing flu immunisation uptake among children

Best practice guidance for general practice

Promote the vaccination offer to parents

- ensure every parent has a **personalised invitation** for their child
- display PHE child flu immunisation posters and leaflets in the reception and waiting rooms
- create attractive displays in waiting rooms. Consider posters or banners outside the practice – on a notice board, walls or even on the roof
- place prominent information about the child flu immunisation programme on the practice website
- engage with the local primary school – ask if they can give leaflets to parents with preschool age children and/or display posters on school/parent notice boards
- engage with local pre-school nurseries, children's centres, libraries, toddler groups in your area. Ask staff to put up posters and issue leaflets to parents of children who are 2 years old and older. Highlight the benefits of their children being immunised to these preschool groups and nurseries