



EAST RIDING
OF YORKSHIRE COUNCIL



Public Health
England

Influenza outbreaks in East Riding care homes evaluation

**Association of the Directors of Public Health
Sector-Led Improvement Conference**

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Thanks to Mike McDermott (Associate Director), Tim Allison (Director of Public Health), Nicholas Aigbogun (Consultant in Communicable Disease Control)

Why is flu important?

- Virus, influenza A and B, causes respiratory illness, is **not** the same as the common cold
- Spanish flu 1918 affected an estimated 500 million people, caused 20 to > 50 million deaths worldwide
- H1N1 Swine Flu (2009) estimated up to 575,400 deaths (CDC, 2017)
- Spread by infectious droplets, through the air, direct contact, indirect contact through surfaces
- When you can spread the infection: whilst have symptoms
- Time from catching flu to getting symptoms: two days (range 1-4) (Public Health England, 2017a)

Why is flu in care homes important?

- Influenza carries a higher risk of death and illness in older people
- People living in care homes are more vulnerable due to
 - age
 - more likely to have other medical problems
 - ease of spread
- Can lead to home being temporarily closed

Regional annual report

- 134 outbreaks of influenza-like illness in 2017/18, increase from 63 in 2016/17
- 2/3 of all reported outbreaks were in care home settings
- 75% of outbreak-associated cases were reported from care homes
- Further work required locally to understand the factors contributing to outbreaks in Yorkshire and Humber (Utsi et al., 2018)

Surveillance of influenza in care homes

- Influenza is not notifiable, no national surveillance system that captures influenza activity in care homes (PHE, 2017a)
- Outbreaks (two or more cases arising within the same 48-hour period with a link to the care home) should be notified to Public Health England
 - important for monitoring the situation
 - important for ensuring the home gets sufficient advice and support

What can we do about it?

- PREVENTABLE
- Vaccination – protects the person vaccinated, stops spread to others
- Infection control – hand hygiene, isolation or keeping those with symptoms separate from those without, clean linen and laundry, decontamination of equipment

Flu vaccination eligibility 2017/18

(Annual flu letter)

- **In long-stay residential care homes**
- Aged 65 years and over
- Carers
- Aged six months to under 65 years in clinical risk groups
- Pregnant women
- Children aged two to eight (but not nine years or older) on 31 August 2017
- All primary school-aged children in former primary school pilot areas

- **Frontline health and social care workers should be provided with flu vaccination by their employer.** This includes staff in all NHS trusts, general practices, **care homes**, and domiciliary care.

- From October 2017, NHS England set aside £10m to extend provision of flu vaccines to include more than one million **care home workers, has been confirmed it will also be offered and extended to hospice staff in 2018**

Prevention and control of infection in care homes

“Prevention and control of infection in care homes – an information resource” (DH, 2013)

- Effective hand washing
- Isolation of infected residents
- Clean linen and laundry, decontamination of equipment

Public Health England – **“Management of outbreaks of influenza-like illness in care homes” (PHE, 2017a)**

- Hand hygiene is key - reinforce ‘Catch it, Bin it, Kill it,’
- Separate staff for those residents with symptoms versus those without
- Unwell staff members advised not to work for two days after their last contact with the home
- Visitors with symptoms of influenza-like illness should not be allowed into the home
- Consider part or whole home closure – 5 days from onset of the most recent case

Objectives

- To quantify the number of influenza outbreaks in care homes in the East Riding compared with other parts of Yorkshire and the Humber
- To quantify vaccination levels for flu in the East Riding and compare this with other similar areas
- To identify any other factors that appear to influence levels of flu outbreaks in care homes in the East Riding

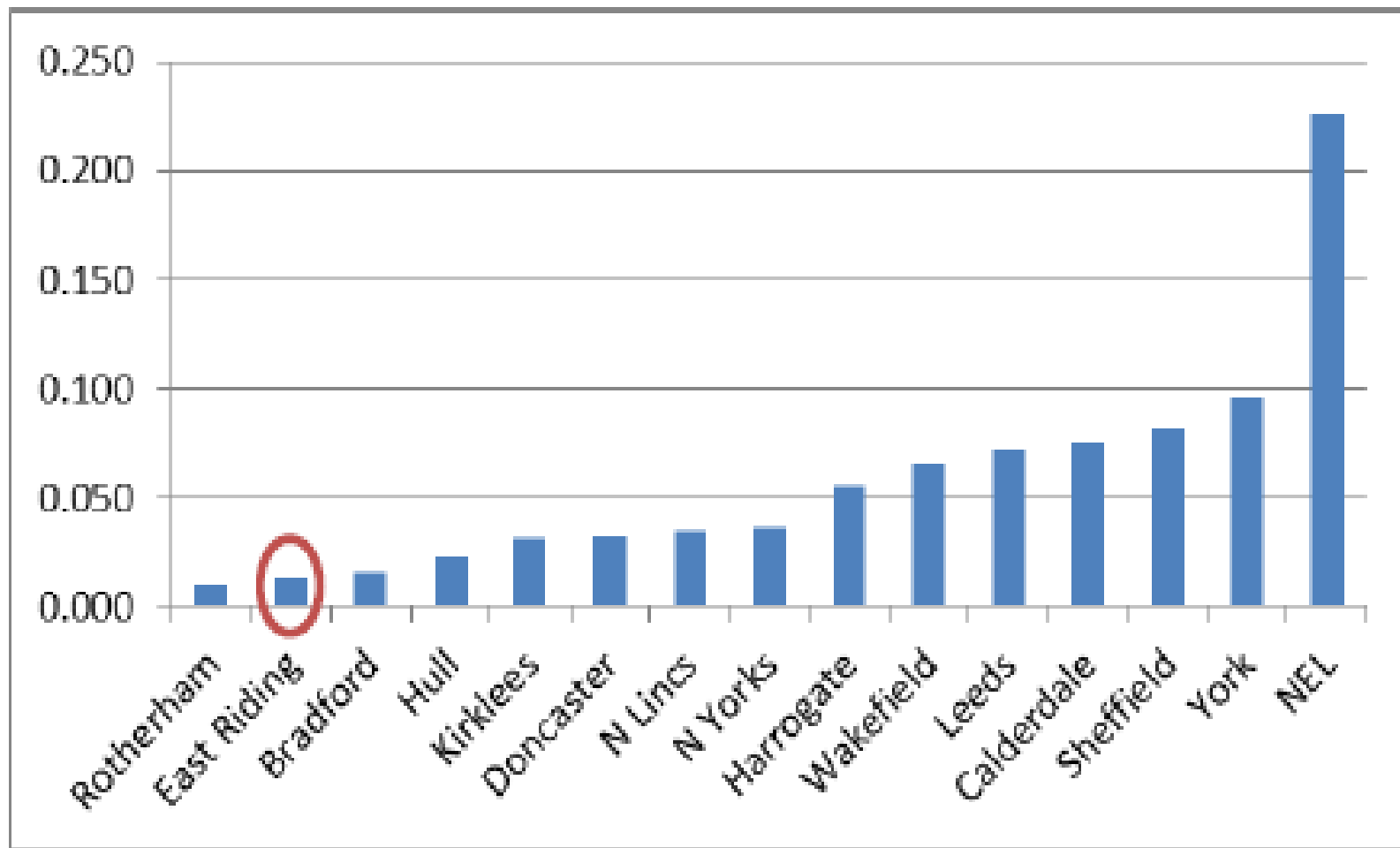
Methods

- Outbreak mapping of flu (numbers per care home)
- Vaccination rates
- Care home survey

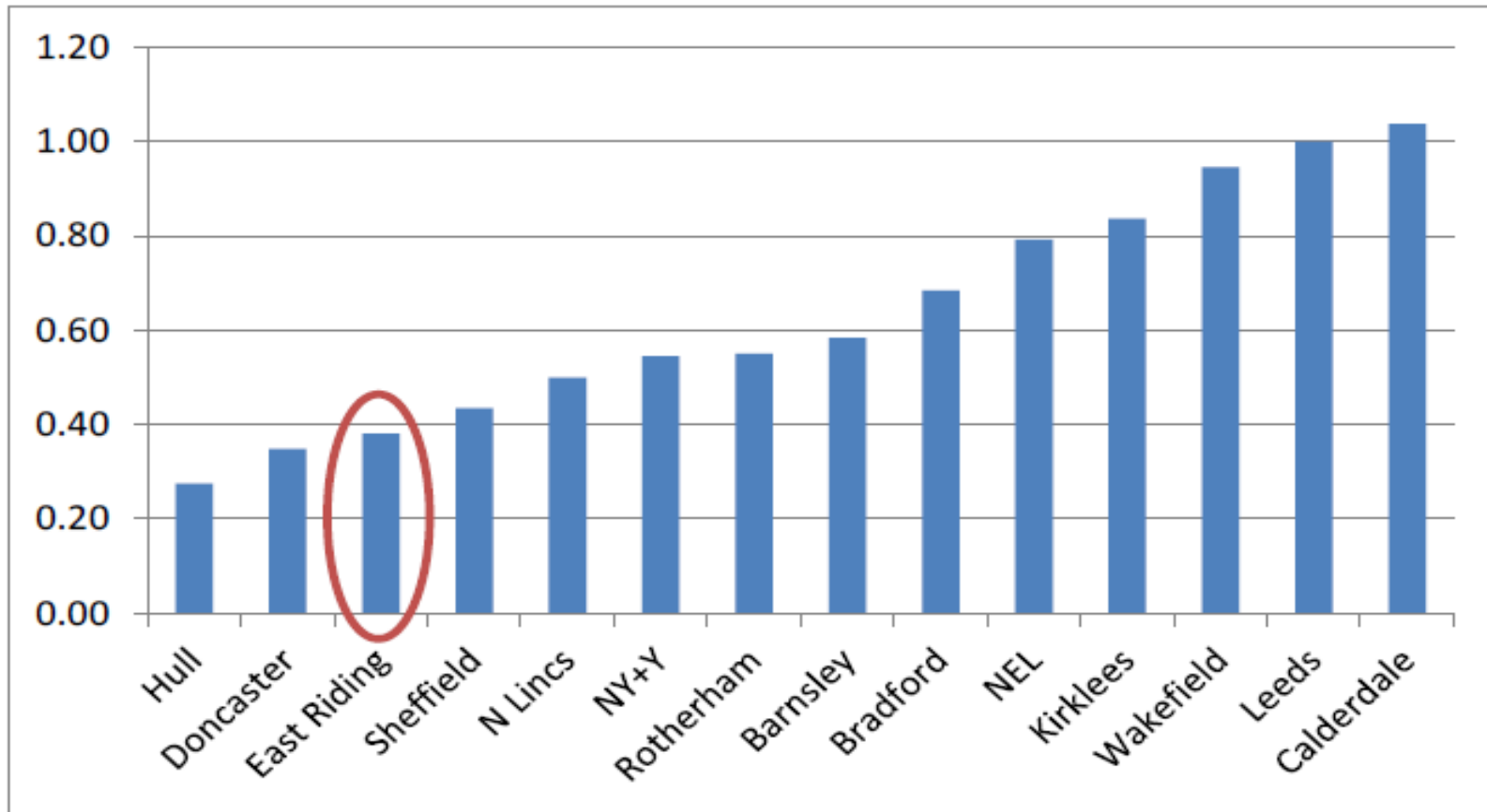
Outbreaks

- There were two flu outbreaks in care homes in the East Riding, both from 2015:
 1. Influenza-like illness (influenza A), January 2015.
12/42 residents and 5 staff affected
 2. Influenza-like illness (influenza B), May 2015.
21/35 affected residents affected, 4 deceased (not all from flu). 10/70 staff affected

Rate of influenza-like illness outbreaks per care home, Jan '15 – Jul '17



Rate of gastroenteritis outbreaks per care home, 01 Jan '16 – 16 Nov '17



Vaccination rates in East Riding

Indicator	Period	East Riding			Region England			England	
		Recent Trend	Count	Value	Value	Value	Worst/ Lowest	Range	Best/ Highest
3.03xiv - Population vaccination coverage - Flu (aged 65+) <75% ≥75%	2017/18	↓	57,404	71.2%	73.7%*	72.6%	58.4%		80.8%
3.03xv - Population vaccination coverage - Flu (at risk individuals) <55% ≥55%	2017/18	↓	17,475	47.7%	50.3%*	48.9%	37.4%		62.2%
3.03xviii - Population vaccination coverage - Flu (2-4 years old) - historical method <40% 40% to 65% ≥65%	2016/17	–	3,374	40.7%	37.9%*	38.1%	19.2%		52.4%

2017/18	East Riding	National
Age 2	48.0%	42.8%
Age 3	49.5%	44.2%
School age	77.7%	59.5%
Pregnant women	47.6%	47.2%

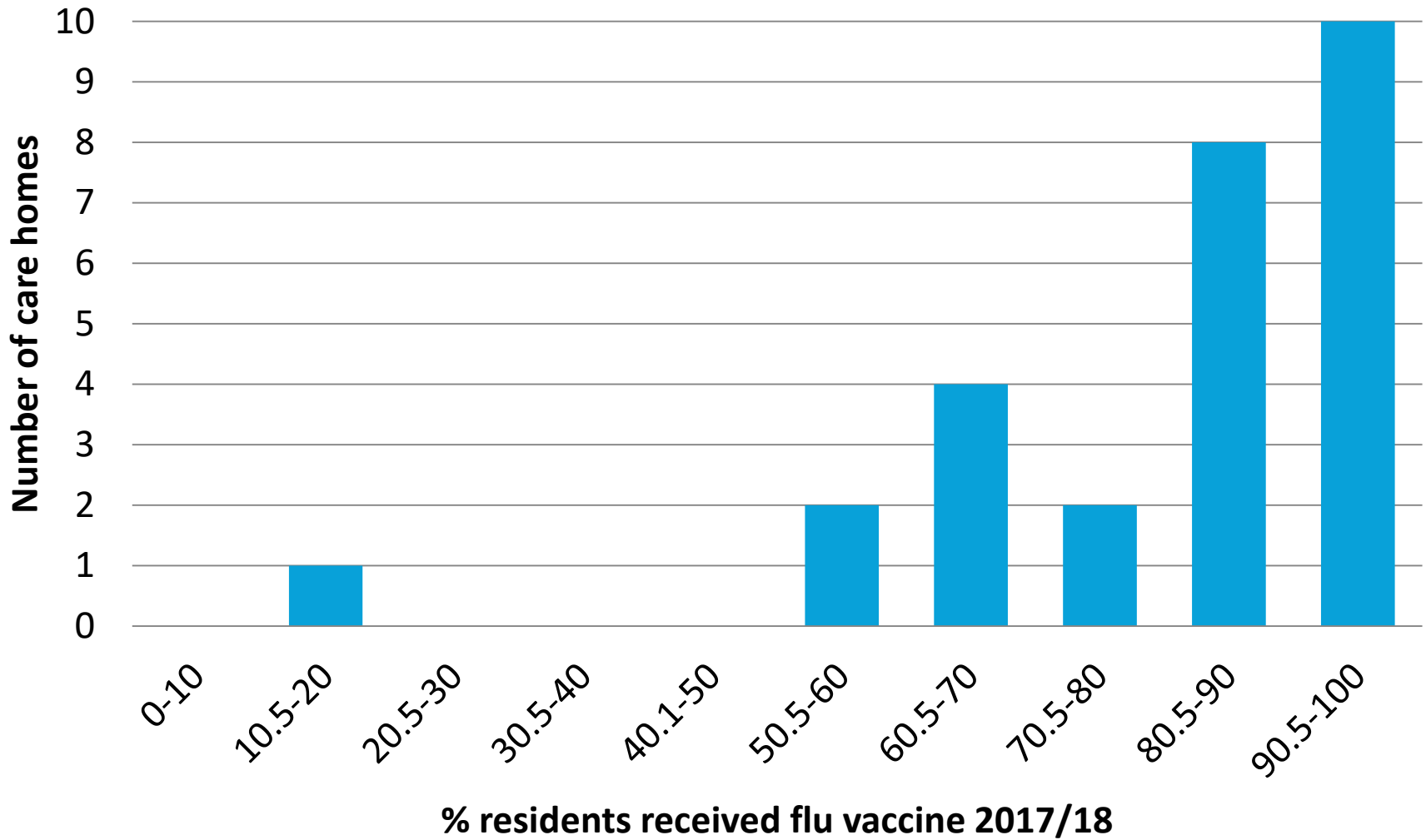
Care Home Survey

- Response rate 27/142 (19%)
- All had at least one single room, just under half did not have any multi-occupancy rooms

Resident vaccination rates 2017/18

- Average 30 registered residents (range 5 to 89)
- 677/817 (82.9%) residents vaccinated, (range 14.3% to 100%)
- 2/3 (66.7%) reported 80 to 100% residents had the flu vaccine
- All except one (a new care home) reported more than 50% had received the flu vaccine
- For 2016/17 estimated 84% received flu vaccine

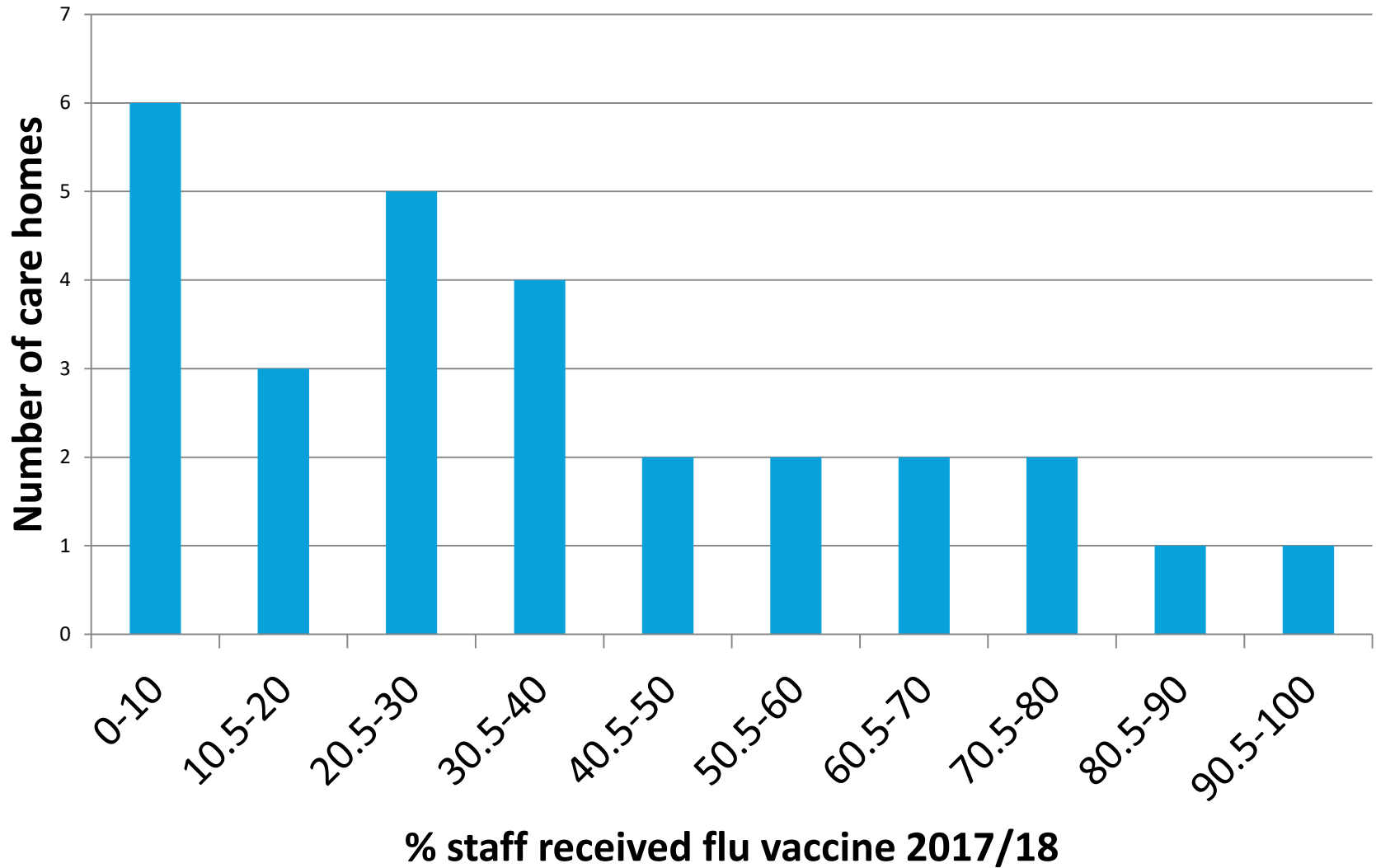
Resident vaccination rates 2017/18



Staff vaccination rates 2017/18

- Average 32 staff per care home
- 259/861 staff (30.1%) vaccinated, 10.1% via care home, 20% from elsewhere
- Only 1 care home reported all staff directly involved in the care of residents were vaccinated
- 74% reported less than half of eligible staff had received a flu vaccination
- For 2016/17 estimates were around 26.5%

Staff vaccination rates 2017/18



Care home manager perceptions on measures that reduce influenza in their care home

- (23/26, 88.5%) reported “infection control” or a related term such as “hand hygiene”, “regular cleaning of surfaces” and “cleanliness”, and within infection control 7 specifically mentioned personal protective equipment (PPE)
- Flu vaccination was commented on by 10/26 (38.5%) of respondents
- Other responses included guidance for family/visitors (5/26), staff training/awareness (4/26), staff staying home when unwell (2/26)

Care home manager perceptions on barriers to reducing influenza in their care home

- Individuals/residents refusing the vaccine as a barrier or staff unable to access the vaccine
- Staff pressures e.g. symptomatic staff still working, cost of covering staff off sick with agency staff
- Isolating people that are unwell
- Challenges of working with their particular client group
- Other barriers e.g. medical staff coming into the home

Key findings

- Reported outbreaks of influenza are lower in East Riding care homes
- Vaccination rates for over-65s and other at-risk groups under 65 are lower than the target, vaccination rates for children are higher
- Survey response rate of 19%
- Survey found high reported vaccination rates (over 80%) for residents but low vaccination rates (less than a third) for care home staff in direct contact with residents

Key findings

- Most care home managers reported the importance of infection control in preventing spread of influenza
- Less than half of care home managers reported the importance of influenza vaccination in preventing influenza.
- Barriers to preventing influenza included
 - difficulties for staff accessing the vaccination through the NHS scheme
 - resident factors such as vaccine refusal and the challenge of isolating people with symptoms,
 - staff factors such as financial pressures to continue to work when symptomatic
 - care home factors such as financial pressures to cover staff absence due to illness

What actions have we taken?

- Findings shared with our seasonal flu co-ordination group
- good work around infection control and vaccination rates of residents
- raise the profile of vaccination and promote staff vaccination
- ongoing work to increase vaccination uptake
- Findings shared with Care Home Managers – Care Sector Forum
- Findings shared with Public Health England

Thanks

- Care home staff that participated in this survey
- Janet Smith (Public Health Lead – Older People, Health Protection)
- Naomi Stoddart (Quality Development and Monitoring Assistant)
- Kerry Hooley/Victoria Bastiman (Consultation/Research Officers)
- Tatiana Fernandez (Foundation Year Doctor in Public Health)
- Simon W Parker (Senior Data Development Officer)

References

- CDC Past Pandemics <https://wwwnc.cdc.gov/eid/article/12/1/05-0>
- Annual flu letter
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/600880/annual_flu_letter_2017to2018.pdf
- Public Health England, 2017a. PHE guidelines on the management of outbreaks of influenza-like illness (ILI) in care homes
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664972/Influenza-like_illness_in_care_homes.pdf
- Public Health England, 2017b. Sources of UK flu data: influenza surveillance in the UK Available at: URL <https://www.gov.uk/guidance/sources-of-uk-flu-data-influenza-surveillance-in-the-uk>
- Department of Health, 2013. Prevention and control of infection in care homes: an information resource. Available at:
<https://www.gov.uk/government/publications/infection-prevention-and-control-in-care-homes-information-resource-published>
- Utsi, L, Hufton, R, Coole, L. Influenza and Respiratory Disease in Yorkshire and Humber 2017-18: Annual Report. Public Health England, July 2018