APPENDIX C

PROJECT PLAN - IMPROVING CHILD IMMUNISATION SEPTEMBER 2023

1. **Background**

Vaccination in children is separated into under 5's vaccinations, delivered almost exclusively by general practices, and school age vaccinations delivered in Lincolnshire by the School Aged Immunisation Team (SAIS) which is based in Lincolnshire Community Health Services (LCHS). Currently immunisations are commissioned by NHS England with responsibility being transferred to the integrated care board (ICB) over the next 2 years.

The rates of immunisation for routine childhood (<18) vaccinations have been stagnant or falling nationally, this picture is mirrored within Lincolnshire (Table 1). Rates of under 5 vaccinations vary based on the timing of vaccinations with those delivered later having lower uptake. School aged immunisations have fluctuating performance but have dropped significantly since COVID and have not recovered to previous levels.

Vaccine	Target timings	17/18	18/19	19/20	20/21	Trend
DTaP/IPV/Hib/HepB 3 dose primary course	12m	93.5%	93.7%	91.8%	92.1%	Decreasing
	24m	95%	94%	92.2%	92.9%	Decreasing
	5y	94.8%	95%	95.4%	95.5%	Increasing
DTaP/IPV booster	5y	85.9%	86.1%	84%	84.5%	Decreasing
Hib/ MenC	24m	91.3%	89.9%	90.5%	90.5%	Decreasing
	5y	90.2%	90.8%	91.7%	91.4%	No significant change
MenB 2 dose primary course	12m	93.6%	93.9%	92.6%	92.6%	Decreasing
MenB booster	24m	-	86.1%	88.7%	88.8%	Increasing
MMR dose 1	24m	91.2%	90.5%	90.6%	90.5%	Decreasing
	5y	93.9%	93.6%	94.9%	94.6%	No significant change
MMR dose 2	5y	85.2%	85%	84.4%	85.4%	No significant change
PCV	12m	94%	94.3%	93.3%	Not available	Decreasing
PCV booster	24m	90.4%	89.2%	90.7%	90.5%	No significant change
Rotavirus, 2 doses	12m	91.4%	91%	90.9%	91.2%	No significant change

Note: 95% Target met =

Table 1: Vaccination rates for under 5's vaccinations in Lincolnshire by year 17/18 - 20/21

To address this, we have formed a multiagency working task and finish group, with members from LCC, the Lincolnshire ICB, NHS England, local primary care networks, primary care practices and SAIS,. Within LCC we have representation from public health and children's services.

2. What the data shows

Data for all childhood vaccinations aside from seasonal influenza is aggregated at the GP surgery level, for under 5's vaccinations we have extracted and analysed this data looking for predictors of vaccination. We have been working with the Child Health Information Service (CHIS) providers for data aggregated at a school level but are still awaiting the complete version of this.

In summary, factors that best predicted vaccination were two GP surgery characteristics, the size of the practice list, the larger the list the lower the vaccination rate, and satisfaction scores, the lower the satisfaction the lower the vaccination rate. Modelled deprivation, the higher the deprivation the lower the vaccination rate, had some effect but was lower than the two GP surgery characteristics. There is also clear geographical variation, with generally lower rates around Boston, inner Lincoln, along the East Coast and the south of the county (Figure 1). However, there are also examples of higher performing practices within these geographies. This together suggested GP factors such as methods of recall, and other systems for ensuring vaccination had a significant role in determining vaccination rates.

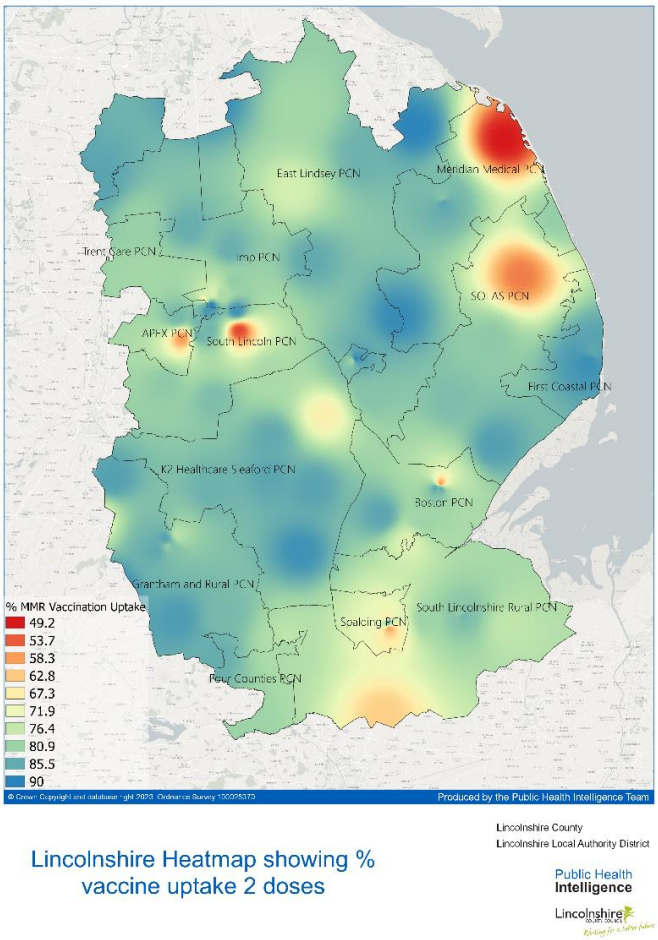

Figure 1: *MMR vaccination uptake mapped to PCN.*

Whilst we do not have the equivalent data at a school level for the school age immunisations, we do know that the conversion rate, the percentage of those consented who ultimately get vaccinated, is high at >95%. We also know that parents actively rejecting vaccination is low <1%, the issue is

engaging parents and obtaining consent. For this latest school year consent for vaccination was ~70% for all vaccines, Table 2.

Vaccine	Consent (%)
Human papilloma virus (HPV)	70.9
Meningitis ACWY	70.6
Tetanus, diphtheria, polio	70.6

Table 2: Consent % by vaccine for 2022/23 school year

3. Project plans and status

In addition to reviewing the local data we have reviewed the published literature and national guidelines, as well as queried regional colleagues for alternative models of vaccination and vaccination interventions. Through this we have converged on nine projects that have received agreement from all members of the group. Ownership of the projects is split between LCC, ICB and SAIS to ensure no one organisation dominates and does all the work. For under 5's vaccinations we have three projects, four for school aged vaccinations and two that are common to both. They are described below alongside an update on completed and current actions.

Under 5's vaccination projects

1. Learning from best practice enablers/barriers from GP practices

We know GP process and procedures have an influence on vaccination rates, but we do not know what specific behaviours, barriers and enablers exist in primary care to aid or hinder vaccination. To address this, we have identified 20 GP practices from across the county ranging from high to low vaccination uptake, to interview to better understand what is driving vaccination performance. We have selected practices based on the data and system intelligence to contain both high and low performing practices alongside areas of higher and lower deprivation.

We plan to combine the learning from these interviews into an intervention that can be applied to a small number of high impact practices (large patient list with low performance) to test if we can improve rates using observed best practice. Five practices have been interviewed thus far, and we are now identifying potential practices for intervention with our ICB and PCN partners.

2. Mapping services relevant to vaccination and providing timely relevant vaccination information.

Many services not directly providing vaccination can provide up to date information and health promotion materials around vaccination. There was however no structured approach to this within the county. We identified a list of services and using the wider networks of the group members identified the right contacts to disseminate appropriate information. Information has thus far been distributed to family hubs, A&E, paediatric outpatients and health visitors.

3. Community engagement for under 5's vaccinations.

To compliment project 1, we plan to run community engagement events to better understand what barriers and enablers exist for parents to get their children vaccinated. We have four arms to our community engagement strategy.

1. A questionnaire to be distributed through contacts developed within the group in both email and poster form. The questionnaire has been developed by the health protection team and is themed around barriers and enablers to vaccination.

2. Attendance at pre-existing events to promote vaccination and discuss with the community their thoughts and attitudes around vaccination. We have seven events booked in collaboration with children's services. The engagement is being led by two health protection nurses.
3. The health protection nursing team are also leading on deeper engagement within the Boston area, targeted at among others, Eastern European communities. This is being assisted by local PCN and district council colleagues.
4. We will commission an external partner to perform 1:1 interview and focus groups targeted at people who have not engaged with childhood vaccination, to better understand the reasons why they have not had their children vaccinated. We are focussing this work on Boston, the East Coast and inner Lincoln.

School age vaccination projects

4. Optimising process and consent through communication with schools and parents.

A common theme in our group discussion was the lack of consistency in the interaction between the SAIS and schools. In addition, the communication to parents is clearly underperforming given the low levels of engagement with the consent process. To address both issues, we have brought together education and SAIS alongside public health to review how SAIS and schools effectively communicate with each other and how SAIS best communicates with parents and children. From these meetings we have four current outcomes.

1. Through advice of children's services, SAIS have modified when they contact schools to book in both visits and potential assemblies. They are also planning to provide training in the form of webinars based on the positive feedback children's have received in their own training to schools.
2. SAIS are amending their documentation reflecting the feedback given in the group and will bring the modified version back to the group for discussion.
3. To address communication to parents we will be discussing in more detail a small number of schools with persistently low uptake rates. We will use these to think critically how information is presented to parents alongside alternative methods aimed at increasing uptake.
4. We have booked a provisional slot on the next head teacher briefings. Here we will present the modified guidance to schools as well as reiterating the importance of vaccination in tackling disease and improving health. We will present a united message from public health, children's services and SAIS.

5. Alternative consent methods for school age immunisations.

Currently consent is sought for each individual vaccination in school age children. However, consent is held for several years, for example if the SAIS has consent for the HPV vaccine for a child but cannot vaccinate them in the normal time for that vaccine, they will continue to identify that child in subsequent visits to the school and attempt to vaccinate them. We are suggesting piloting consenting for multiple vaccinations in a single consent process and then retaining that consent for the subsequent years and monitor how this effects consent rates. We have had discussions with the consent platform provider and have found a technical solution, SAIS is currently producing a paper for its internal governance committee to approve the change in practice. Once this has been

approved, we are planning to pilot the new consent in a small number of schools in this academic year before considering expanding to cover other vaccinations.
We are also supporting the SAIS team in developing their model for Gillick competency, a process of consenting children who are assessed as competent without explicit parental consent. This is not currently done in Lincolnshire but is recommended by NICE.

6. Community engagement for school age vaccinations.
To both better understand the reasons for lack of engagement and trail some of potential changes to methods of communication and consent we will be engaging with parents and children of secondary school age. We plan to focus these events in schools with lower consent levels.

7. Learning from best practice in other regions (school age).
There are two regions Hertfordshire and West Berkshire which achieve 100% immunisation in school age children, we are in contact with their immunisation leads to discuss how this is achieved.

Projects Common to both age groups

8. MMR elimination working group
NHS England recently mandated an MMR elimination plan be developed, ICB colleagues are leading on this but have agreed to use the child immunisation group members and the wider forum to work on the plan.

9. Refining and improving available data sources.
Our lack of line level data precludes us from directly measuring subgroups within the population that have historically shown lower levels of vaccination in national surveys and in recent COVID vaccination programs. In Lincolnshire we have access to the PHM dataset which contains line level GP data. It is planned to scope out extracting this data for this project.

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