The wider impact of COVID-19 on timeliness of childhood vaccinations

Using data to build a learning child health system in north east London

Professor Carol Dezateux

Clinical Effectiveness Group

Institute of Population Health Sciences, QMUL

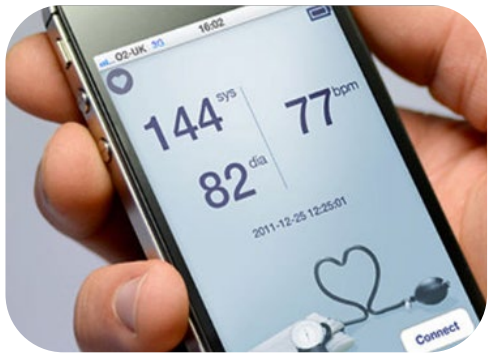
Barts and The London School of Medicine and Dentistry

Funded by BARTS CHARITY funding extraordinary healthcare

Queen Mary University of London

Research EnAbled Learning: REAL–Health Child Health programme

ceg
Clinical Effectiveness Group



Developing a learning health system for better child health in East London

Funded by BARTS CHARITY funding extraordinary healthcare

ceg
Clinical Effectiveness Group

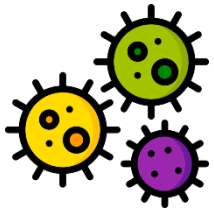
VISION : **Actionable research** to improve the health and well-being of children and the adults they become & reduce inequalities

FOCUS: Childhood vaccinations; childhood obesity

DATA ***Clinical Effectiveness Group:*** real-time primary care data
Discovery Programme: real-time integrated primary, acute care, community & social care data

SYSTEM: Scalable learning health system (***data***)
Evaluating clinical or public health interventions (***knowledge***)
Quality improvement (***practice***)

Background



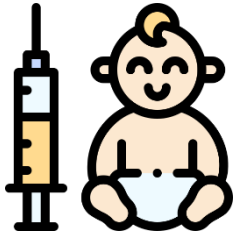
Concern has been expressed about the impact of the COVID-19 pandemic on uptake of childhood vaccinations, including MMR

In the UK, this is occurring in the context of historically low uptake of MMR vaccine which resulted - in 2019 - in the UK losing its measles 'elimination status'

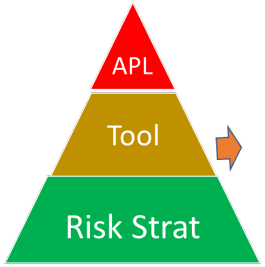
Timely vaccination, as well as high uptake, is essential if children are to achieve full protection from vaccination

Funded by BARTS CHARITY funding extraordinary healthcare

Aims of today



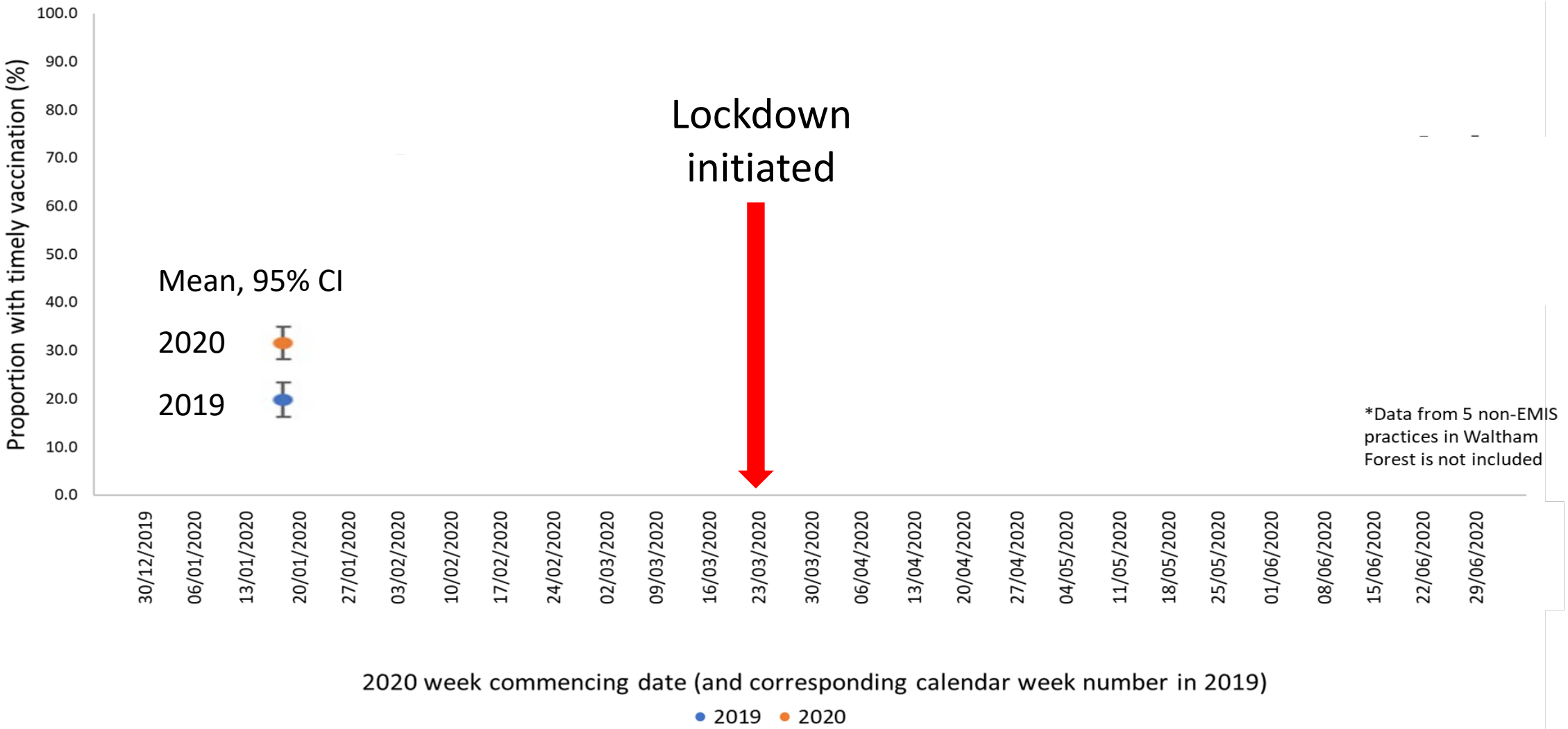
- Report timeliness of first MMR vaccination for Newham, Waltham Forest, Tower Hamlets and City & Hackney in context of COVID:
- Timeliness: 12-15 months (*Walton et al 2017*)
- Cross-sectional and longitudinal



- Describe CEG's **Active Patient Link Tool**
- Role in improving timeliness of vaccinations as part of REAL Child Health data-enabled learning health system

% children eligible for timely first MMR at start of each week

City & Hackney, Newham, Tower Hamlets and Waltham Forest*

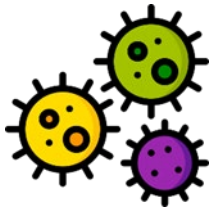


Barts and The London School of Medicine and Dentistry

Funded by BARTS CHARITY funding extraordinary healthcare

Queen Mary University of London

Longitudinal data: first MMR all 4 CCGs*

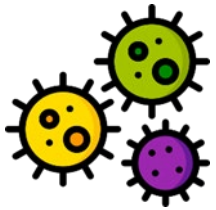


COVID-19 cohort:
turned 12 months between 1st January & 31st March 2020
N= 4147

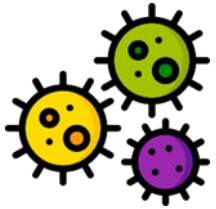
Control cohort:
turned 12 months between 1st January & 31st March 2019
N=4119

*excludes data from 5 non-EMIS practices in WF; excludes children who left the practice before run date July 2020

Summary

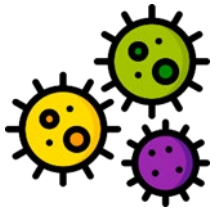


Initial fall in proportion of timely first **MMR vaccination** following lockdown – remains **below 2019 levels in all CCGs, esp C&H and N**



Overall **one third of children are not receiving a timely MMR** vaccination in these four CCGs

Barts and The London School of Medicine and Dentistry
Funded by BARTS CHARITY funding extraordinary healthcare
Queen Mary University of London



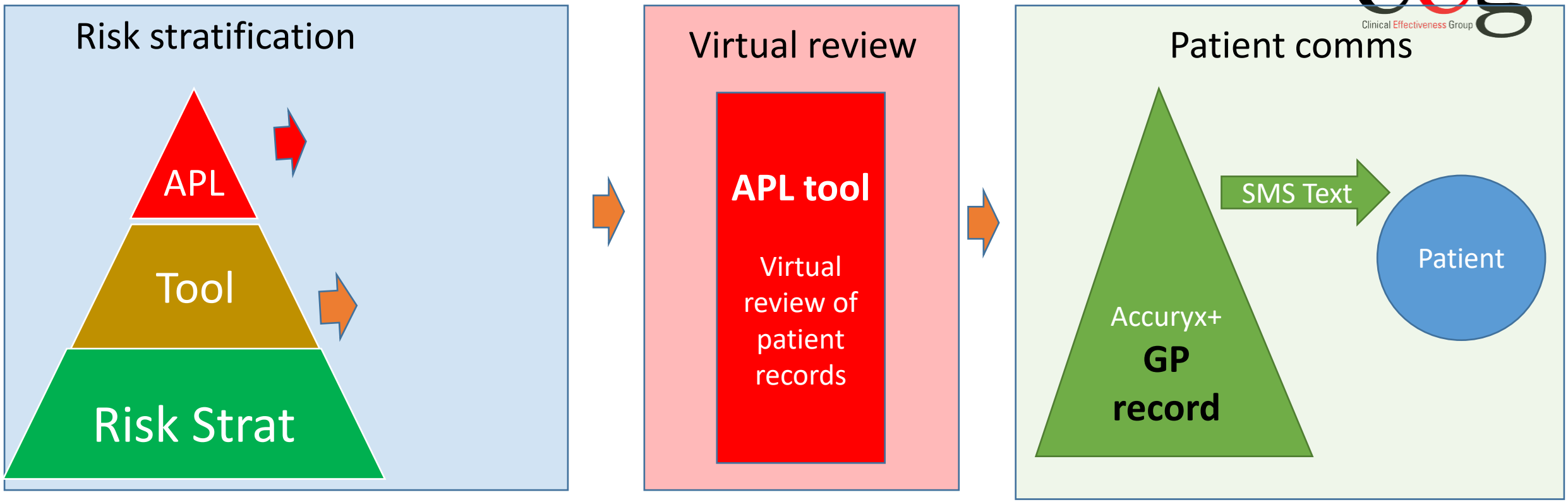
What about flu???

ceg
Clinical Effectiveness Group

Seasonal flu vaccination data: 2019/2020

Org Name (CCG= Clinical Commissioning Group)	Aged 2 and NOT IN a clinical risk group[5]			Aged 3 and NOT IN a clinical risk group[5]		
	Patients registered	Number vaccinated	% Vaccine Uptake	Patients registered	Number vaccinated	% Vaccine Uptake
NHS CITY AND HACKNEY CCG	**4,020**	912	**22.7**	**4,046**	885	**21.9**
NHS NEWHAM CCG	**5,478**	1,497	**27.3**	**5,317**	1,444	**27.2**
NHS TOWER HAMLETS CCG	**4,061**	1,161	**28.6**	**3,917**	1,192	**30.4**
NHS WALTHAM FOREST CCG *	**4,086**	1,194	**29.2**	**4,012**	1,136	**28.3**

Active Patient Link (APL) Tool



APL Tool risk filters
– choose one
or any combination

Enables risk stratification & virtual record review

8 WEEKS ☐ HexA ☐ Rotavirus ☐ MenB ☐ All

12 WEEKS ☐ DTaP ☐ Rotavirus ☐ PCV ☐ All

16 WEEKS ☐ DTaP ☐ MenB ☐ All

12 MONTHS ☐ MMR ☐ Hib/MenC ☐ PCV ☐ MenB ☐ All

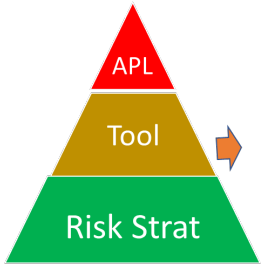
3 YEARS ☐ MMR ☐ 4in1 ☐ All

☐ Complete
☐ Due this week
☐ Overdue >1 week
☐ Overdue >4 weeks

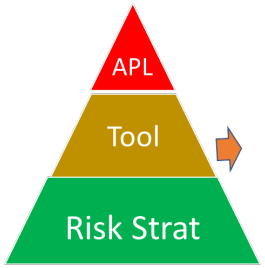
ceg
Clinical Effectiveness Group

				8 weeks			12 weeks			16 weeks		12 months				3 years 4 months	
Name	EMIS no.	…	DOB	DTaP 1	Rotavirus 1	MenB 1	DTaP 2	PCV 1	Rotavirus 2	DTaP 3	MenB 2	Hib/MenC	MMR 1	MenB 3	PCV 2	MMR 2	4in1
Jane	1234		01/01/2020	26/02/2020	★												
John	9876		01/04/2020	27/05/2020													

APL tool options

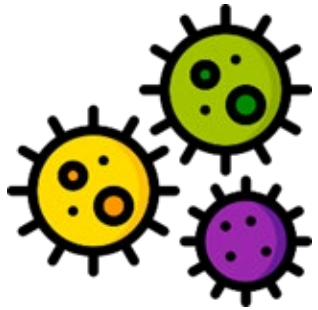


Stratification by vaccine type, weeks overdue, ethnic group, clinical risk group, ?other



Virtual patient review page content: previous reactions, medications, clinical risk, ?other

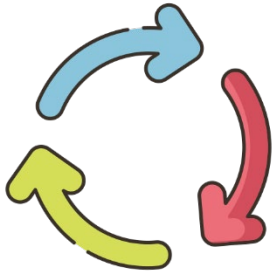
Key messages



Evidence for COVID-19 impact on MMR vaccine timeliness

Timeliness is an important public health goal

APL tool can support timeliness and new QOF



A data-enabled learning child health vaccination system

Barts and The London School of Medicine and Dentistry
Funded by BARTS CHARITY funding extraordinary healthcare
Queen Mary University of London

Acknowledgements

- CEG colleagues
- Patients
- Barts Charity, HDRUK, CCG funding for CEG

Supported by

b+tlc BARTS CHARITY

Funding extraordinary healthcare