



Children's Out-Patients and Child Development Centre Reopening

Rapid Quality Improvement

On March 23 the UK government announced a national lockdown to limit the spread of COVID-19. This meant all elective hospital activity was postponed. This is a brief outline of the challenges faced in restarting the Great North Children's Hospital (GNCH) outpatient department (COPD) and Children Development Centre (CDC) to accommodate government mandated social distancing to prevent the spread of COVID-19.



Reopening Children's Outpatients

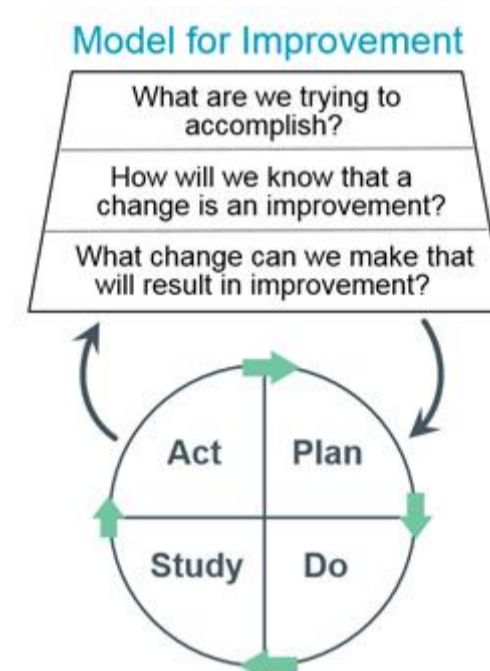
Aim

Re-engineer children's out-patient services for the COVID-19 era so patients

- 1) Are safe. Feel safe
- 2) Get the care they need

Major Stakeholders

- Patients and their families
- Multi-disciplinary teams with their different needs who use this shared space
- Outpatient staff and management team



Outcome Measures

- Patient Feedback
- Waiting time from referral to consultation (face-to-face & remote) and to treatment

Process Measures

- Activity level
- Staff feedback

Balancing Measures

- 'Was Not Bought' rate
- Separate major pieces of work are being done by colleagues at GNCH looking at various side effects of lockdown on children. For example: Are children presenting to our ED later and more ill than before? Changing patterns of safeguarding referrals

Situation as of 26th June 2020

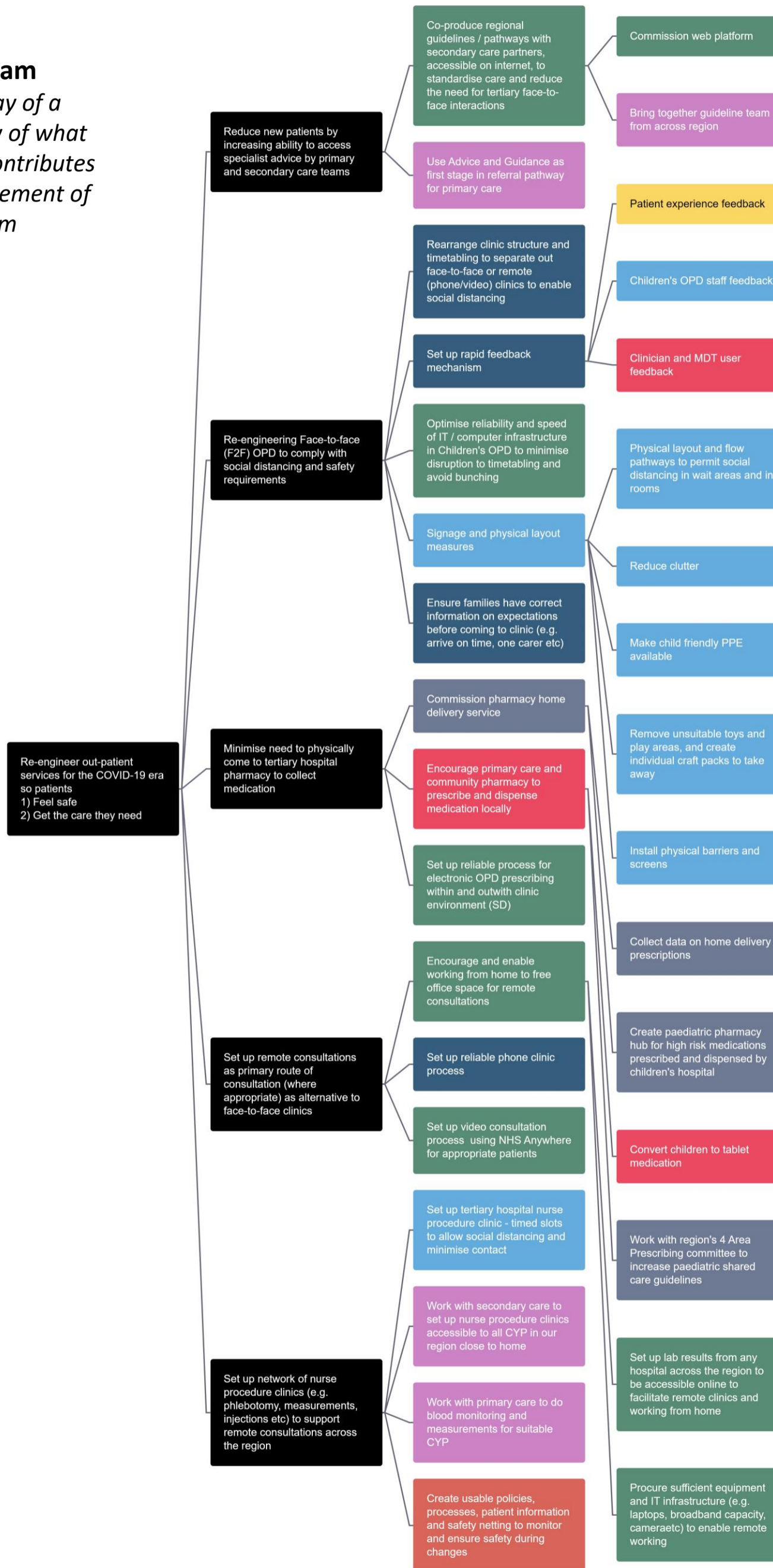
AIM

PRIMARY DRIVERS

SECONDARY DRIVERS

CHANGE IDEAS

Driver diagram
a visual display of a team's theory of what "drives," or contributes to, the achievement of the project aim



Reallocation of COPD/CDC Capacity

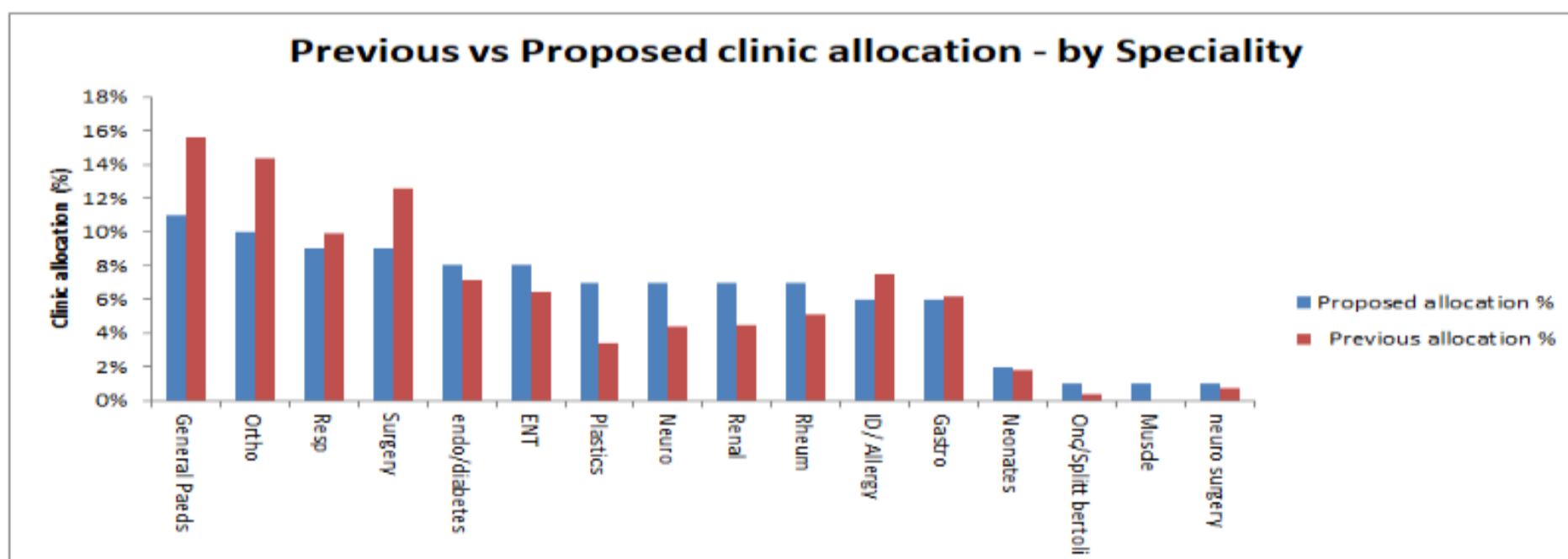
To fairly reallocate paediatric outpatient clinic slots, the previous level of outpatient activity by specialty was determined using pre-COVID clinic lists. From this we allocated similar total number of clinic slots to each specialty.

Previously the five clinic sub-areas (A, B, C, D and CDC) were mixed specialties with a lot of crowding. In the new structure each specialty amalgamated their weekly clinics in whole sub-area. Specialties were asked to re-organise and maximise clinic slots using a blend of remote (phone/video) and face-to-face encounters. In a short time re-organisation occurred in the background for multi-professional healthcare staff to alter their pre-existing busy schedules to fit into the new template.

Slots were staggered with sufficient gaps to prevent patient bunching in each sub-area. Approximately 180 patients could be seen per day (18 patients in AM and 15 per PM slot, per area) alongside the procedure clinic). Compared to pre-COVID, this was in a 55% reduction in face-to-face outpatient capacity.

Outpatient clinics		THE great north CHILDREN'S HOSPITAL																		
Area	Monday AM		Monday PM		Tuesday AM		Tuesday PM		Wednesday AM		Wednesday PM		Thursday AM		Thursday PM		Friday AM		Friday PM	
	WEEK A	A LT WEEK B	WEEK A	A LT WEEK B	WEEK A	A LT WEEK B	WEEK A	A LT WEEK B	WEEK A	A LT WEEK B	WEEK A	A LT WEEK B	WEEK A	A LT WEEK B	WEEK A	A LT WEEK B	WEEK A	A LT WEEK B	WEEK A	A LT WEEK B
A	Rheum / Surgery	General Paeds / Surgery	Surgery / Surgery	Surgery / Surgery	Plastics / Neuro surgery	Endo/diabetes / Endo/diabetes	Endo/diabetes / Endo/diabetes	Gastro / Gastro	Surgery / Surgery	Rheum / Surgery										
B	ENT / Rheum	Plastics / Plastics	Plastics / Plastics	Endo/diabetes / Endo/diabetes	ENT / ENT	Plastics / Gastro	Renal / Renal	Plastics / ENT	ENT / ENT	ENT / ENT										
C	Renal / Resp	ID/Allergy / ID/Allergy	Renal / Renal	Resp / Resp	Renal / Renal	Resp / Resp	Resp / Resp	Endo/diabetes / Endo/diabetes	Resp / Resp	General paeds / Rheum										
D	Ortho / General Paeds	Ortho / General paeds	General Paeds / ID/Allergy	General paeds / General paeds	Rheum / Rheum	neral Paæ / Gastro	Ortho / Ortho	Ortho / Ortho	Ortho / Ortho	Ortho / Ortho										
CDC	Neuro / Neonates	Neuro / Gastro	Neuro / Neuro	Neonates / Onc/spitt bertoli	Neuro / Neuro	Gastro / Muscle	General paeds / ID/Allergy	Neuro / Rheum	General paeds / General paeds	ID/Allergy / ID/Allergy										

The updated GNCH COPD Clinic Schedule



Comparison of clinic allocation by specialty pre and post distancing measures

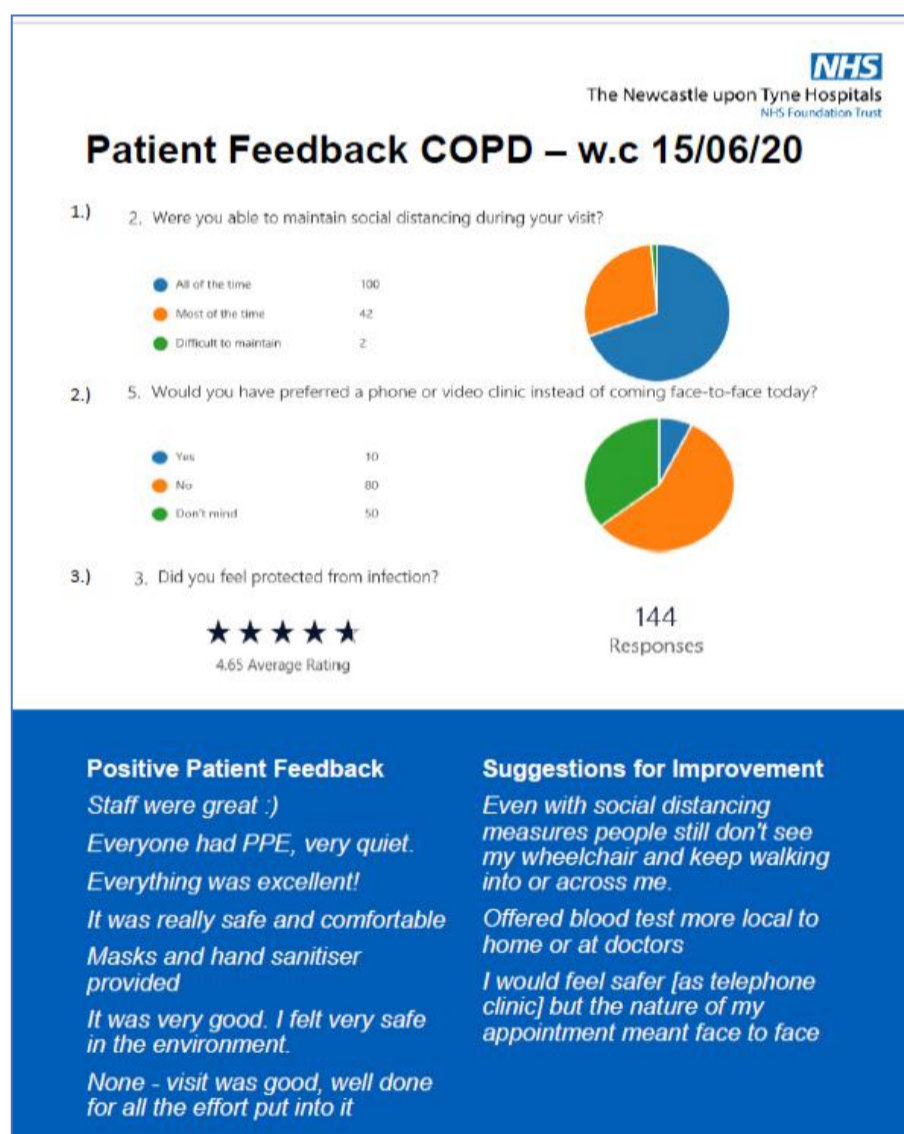


Measurement of Patient Feedback

To ensure patients felt safe and comfortable attending face-to-face appointments at the GNCH, all attending patients were invited to complete a short anonymous survey (right).

These were handed out at reception, a QR code was added linked to the online survey to enable touch-free responses online via smartphone. We found a combination of paper and online version captured the most feedback

(Above) The survey distributed by staff to collect patient feedback

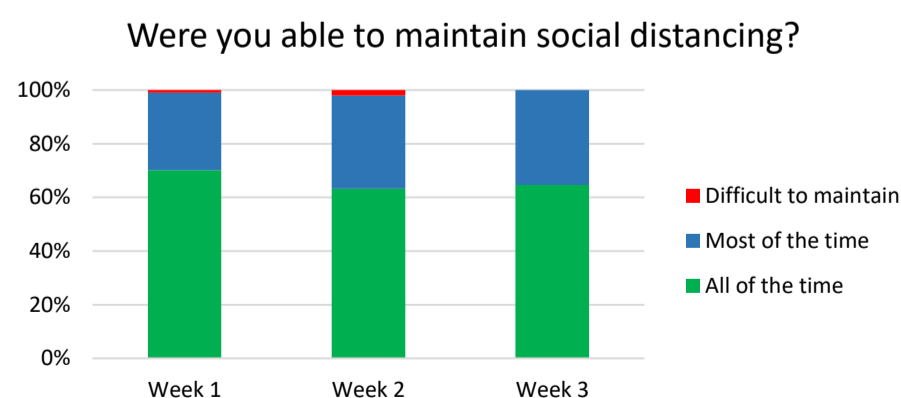


(Above) Summary patient feedback data for week of 15 June

Responses were collated weekly and distributed to outpatient and management staff to rapidly inform improvements.

As of 25 June we received 169 responses from patients and parents over three weeks of data collection.

Feedback was positive and patients felt secure and safe from infection whilst attending face to face outpatient appointments. Data also reassured us that we had selected the right patients for face-to-face appointments.

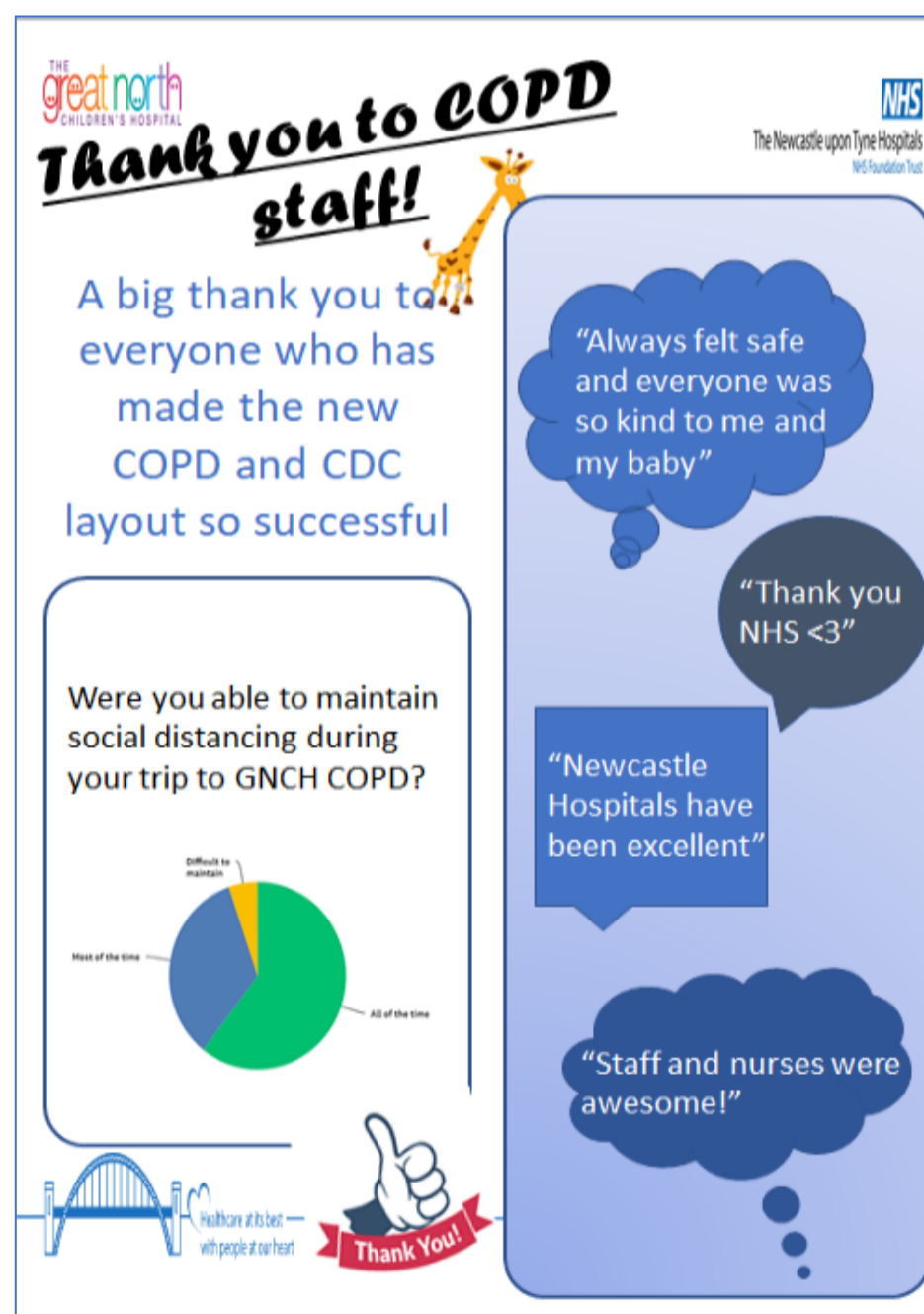
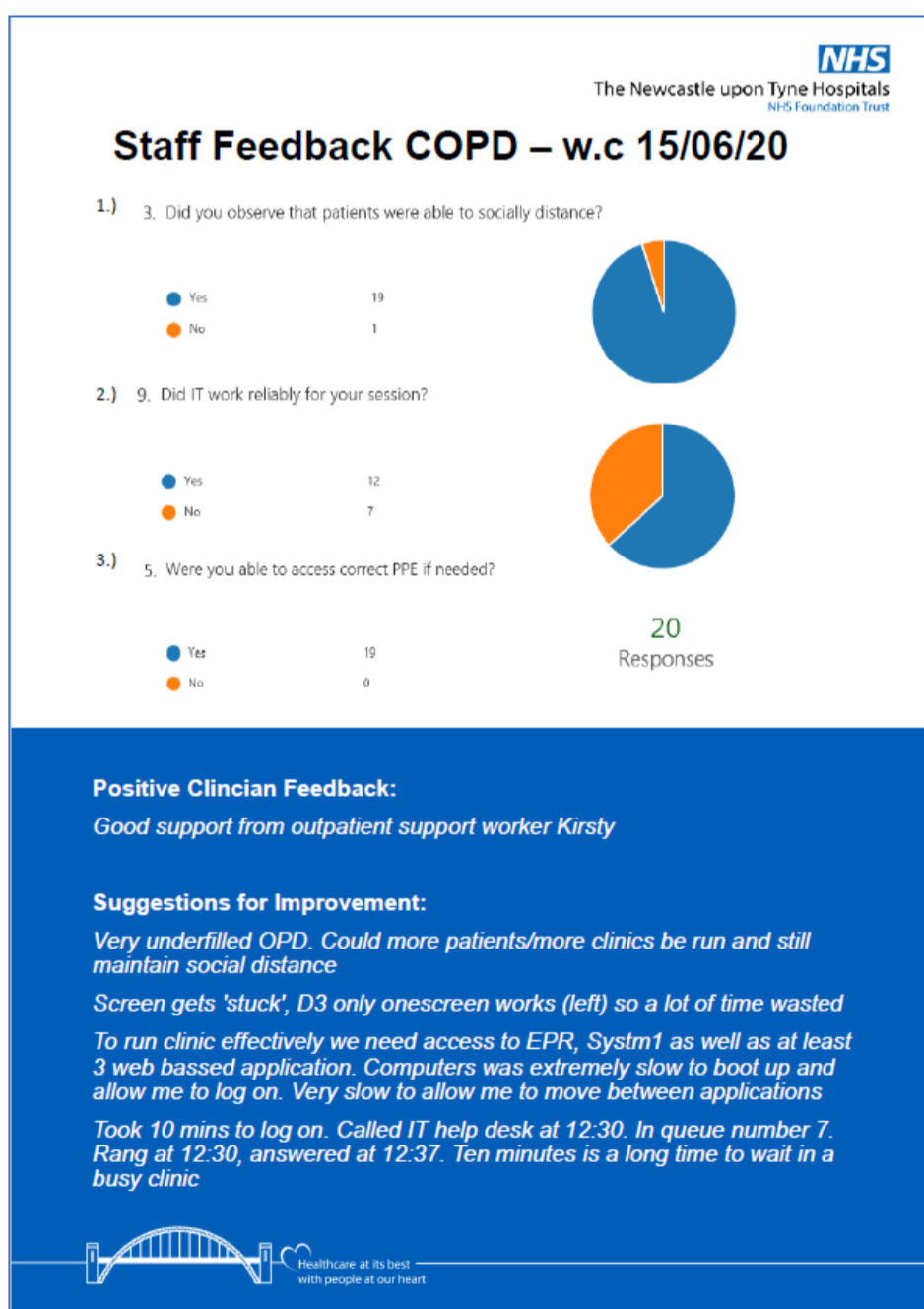
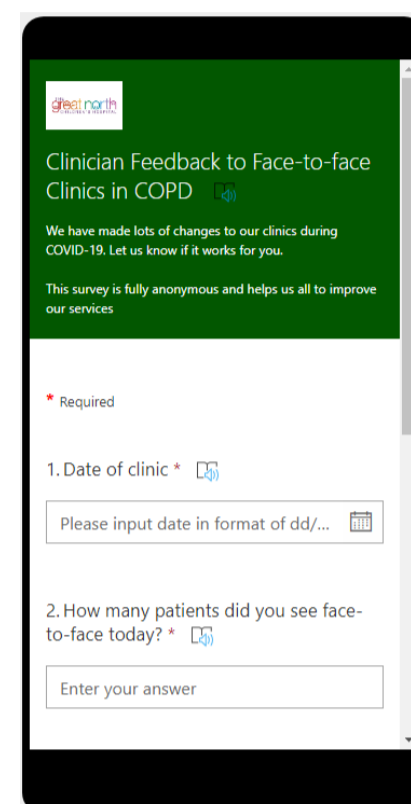


Measurement of Staff Feedback

Equally important was feedback from the multi-disciplinary healthcare teams who use out-patients. A similar online survey link was emailed to all relevant clinical staff each week attached to the previous week's feedback. Paper copies were also available within the clinic rooms. This empowered users to suggest improvements and allow their voices to be heard during these rapid changes.

Staff feedback was collated weekly and directly informed efforts to improve both scheduling, layout and all processes. For example, it was identified that computer and IT delays impacted on patient flow and resulted in bunching – this was escalated as a priority and new computers are now being installed.

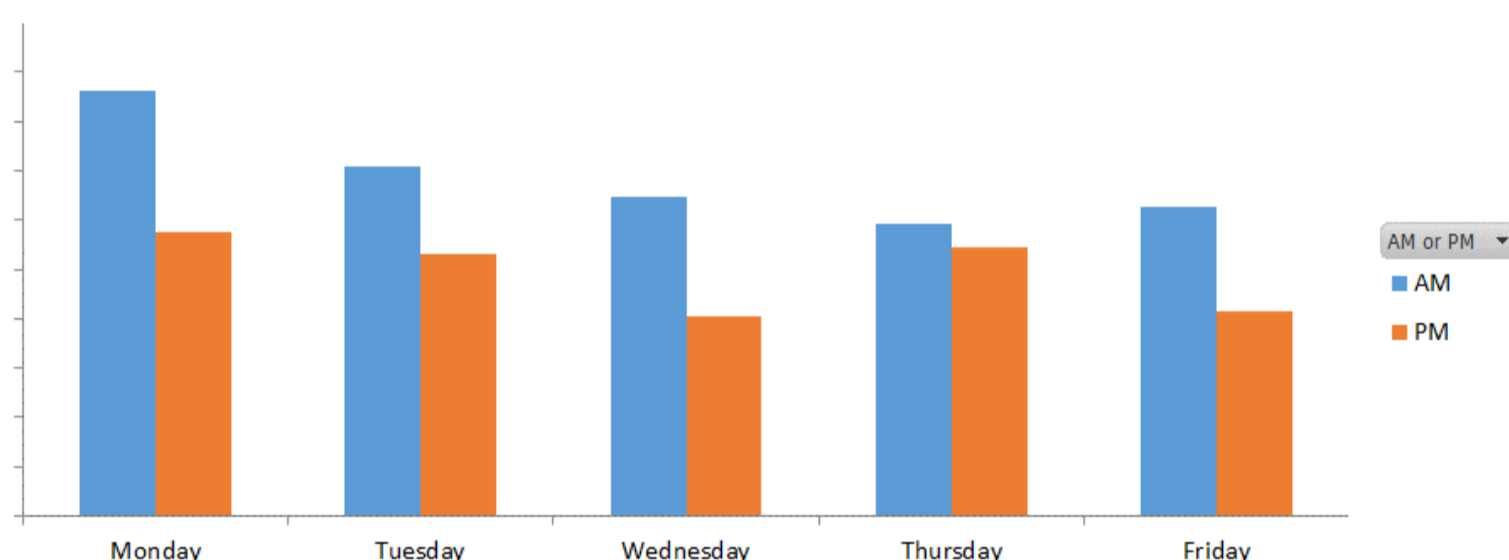
The many positive feedbacks was a great motivator to outpatient staff who owned the data and owned the change.



Activity Measures for Improvement

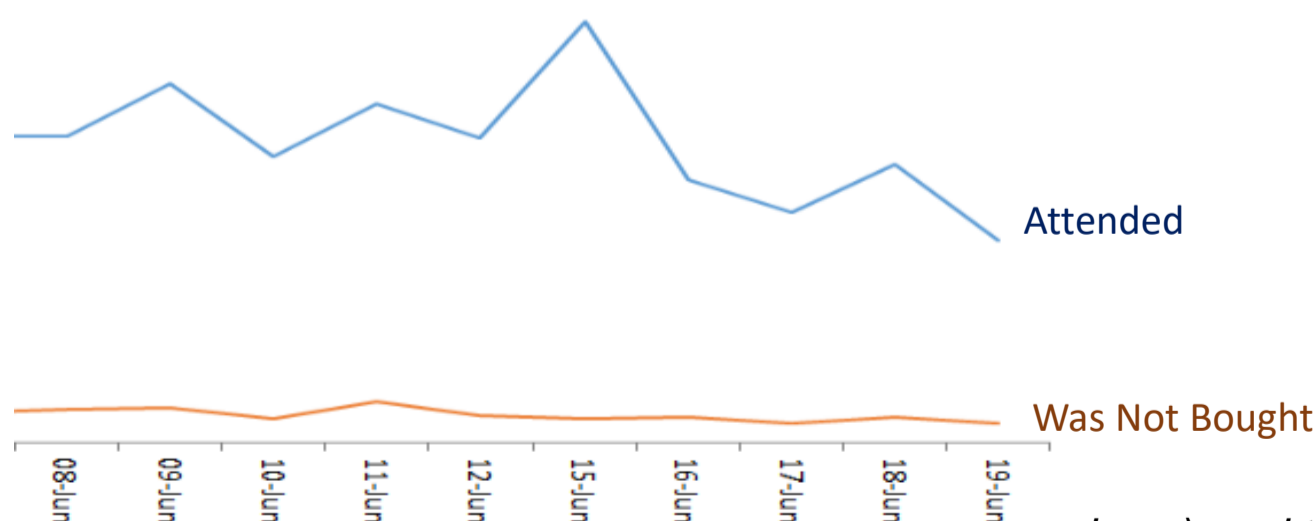
Useful data has always been automatically collected by our appointment systems and they can be used for improvement and refinement. An information service request was submitted after reopening and continues to be monitored. Activity level can rapidly be used to make fine adjustments to level quieter and busier times.

Face-to-face attendance by time and day of week



Reassuringly the 'Was Not Bought' remained low (see below) after reopening which indicates we are likely to be selecting the right patients to come face-to-face and that teams were being contacted by families if they wish to have a remote consultation instead. Equally important is that for some children, being seen face-to-face is important for safeguarding purposes.

'Was Not Bought' rate since reopening



COPD and CDC face-to-face attendance day of the week and time of month (above), and the attendance and WNB rate by date is shown (below).



What we have learnt so far:

1. Outpatient never closed during COVID. Our staff worked very hard to keep essential and urgent face-to-face consultations before reopening and this needs to be acknowledged. Reopening just meant increasing activity in a planned way to maximise capacity.
2. Infrastructure to support remote consultations (especially regional nurse procedure clinics and home medication delivery) need to be in place and useable to create the capacity for face-to-face consultation
3. The change period was unsettling. Twice weekly, then weekly, GNCH COVID updates/consultations was a great enabler for a smooth restart
4. Listen to feedback from users (patients and staff) as they can see the barriers, and the solutions.
5. Live data collection enabled rapid improvements and real-time feedback

Thank you to:

All the clinical teams at Great North Children's Hospital for their patience and support. Special thanks to all staff in Children's Out-patients and Child Development Centre. Jo Fell and Becky George who made this all possible. Chris Vickers for facilitating the QI aspect and James Holt for QI data collection and analysis.