

# Modelling Covid 19

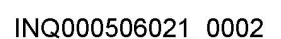
Estimation errors discussion paper 29 Jan 21

For discussion only – needs verification

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### Example - PPE



## PPE team applied uncertainty figures to the forecasts

- These were to allow for uncertainty of delivery from unproven counterparties, potential quality issues and delays in shipment
- Figures differed by channel – most certain existing NHS suppliers, least certain new Chinese sources through intermediaries









Work Team	PO Quantity Materialisation	Quality Pass Rate	Overall Confidence level	Delivery Delay (Days)
SCCL	95%	100%	95%	7
SCCL expansion	95%	95%	90%	7
Trusts	95%	95%	90%	
China Buy	95%	80%	76%	7 (+20-40 for EXW)
RoW Buy	95%	80%	76%	7 (+20-40 for EXW)
New Opportunities	95%	80%	76%	7 (+20-40 for EXW)
UK Make	95%	80%	76%	14

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*Figures from 1 Jun 20*

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# The actual Demand signal projected 90 days ahead – while we were buying 150 days ahead

Buying signal 13 May 20		Modelled requirement <sup>1</sup>	Planning signal to current COVID <sup>2</sup>	Revised Social Care interactions <sup>3</sup>	Resumption of NHS services <sup>4</sup>	Revised scenario <sup>5</sup>	Revised scenario PPE position (after all additional opportunities)	Increase vs. current scenario
	Aprons	1.71 BN	- 287m	- 189m	+ 490m	1.73 BN	323m surplus	↑ +14m
	Body Bags	90,000	-	-	-	90,000	-	-
	Clinical Waste Bags	48m	- 27m	-	+ 45m	66m	28m	↑ +18m
	Eye Protectors	356m	- 45m	-	+ 135m	446m	139m surplus	↑ +90m
	FFP3 Respirator	33m	- 15m	-	+ 27m	45m	86m surplus	↑ +12m
	Face Mask IIR	439m	- 38m	-	+ 94m	494m	988m surplus	↑ +56m
	Gloves	3.72 BN	- 598m	- 379m	+ 810m	3.55 BN	2.19 BN	↓ -167m
	Gowns	33m	-15m	-	+ 29m	47m	267m surplus	↑ +14m

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## Issues – ‘Whiplash’ effect propagates through to buying behaviour

- Uncertainties in estimates multiply up – to give a much bigger error bar for operational activity
- Duration of confidence of estimate may be much shorter than lead times of activity
- Limited ability to feed back ‘actual’ data and correct forecast dynamically