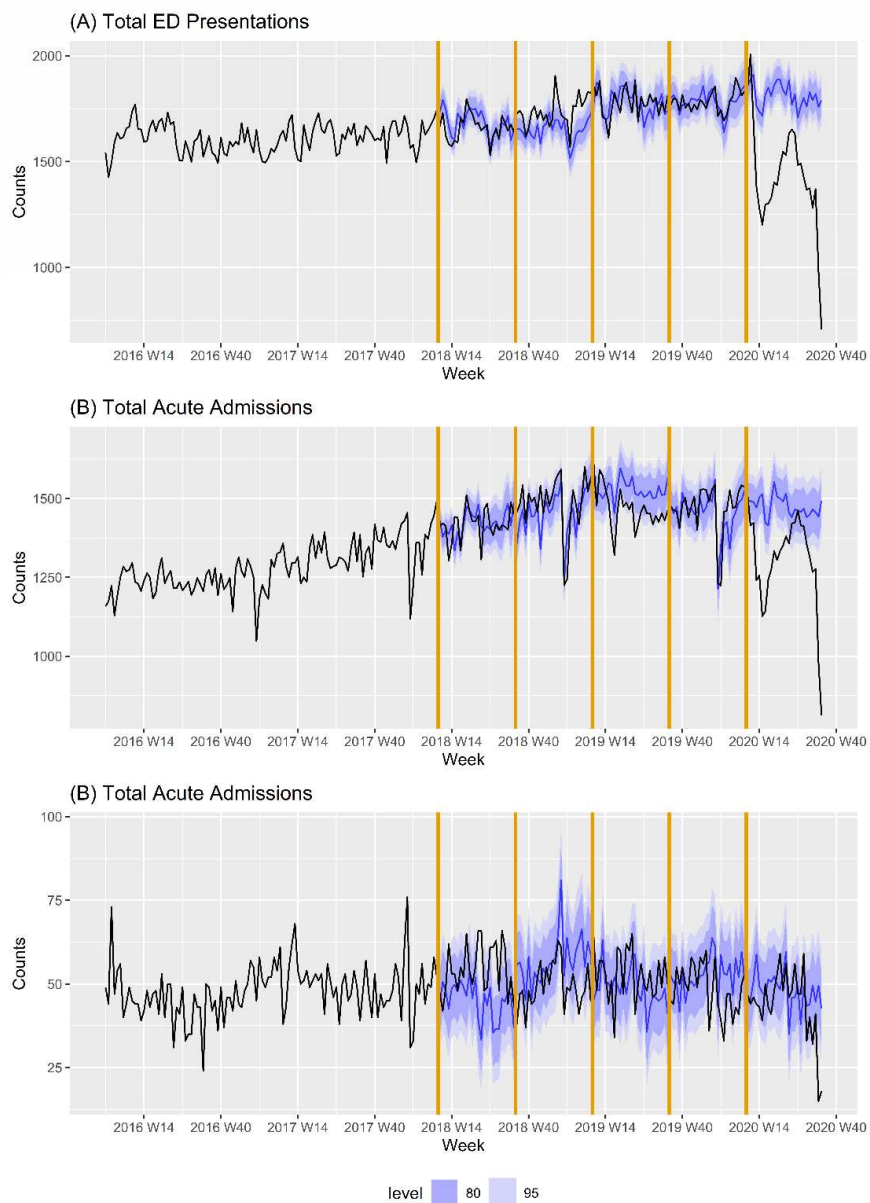
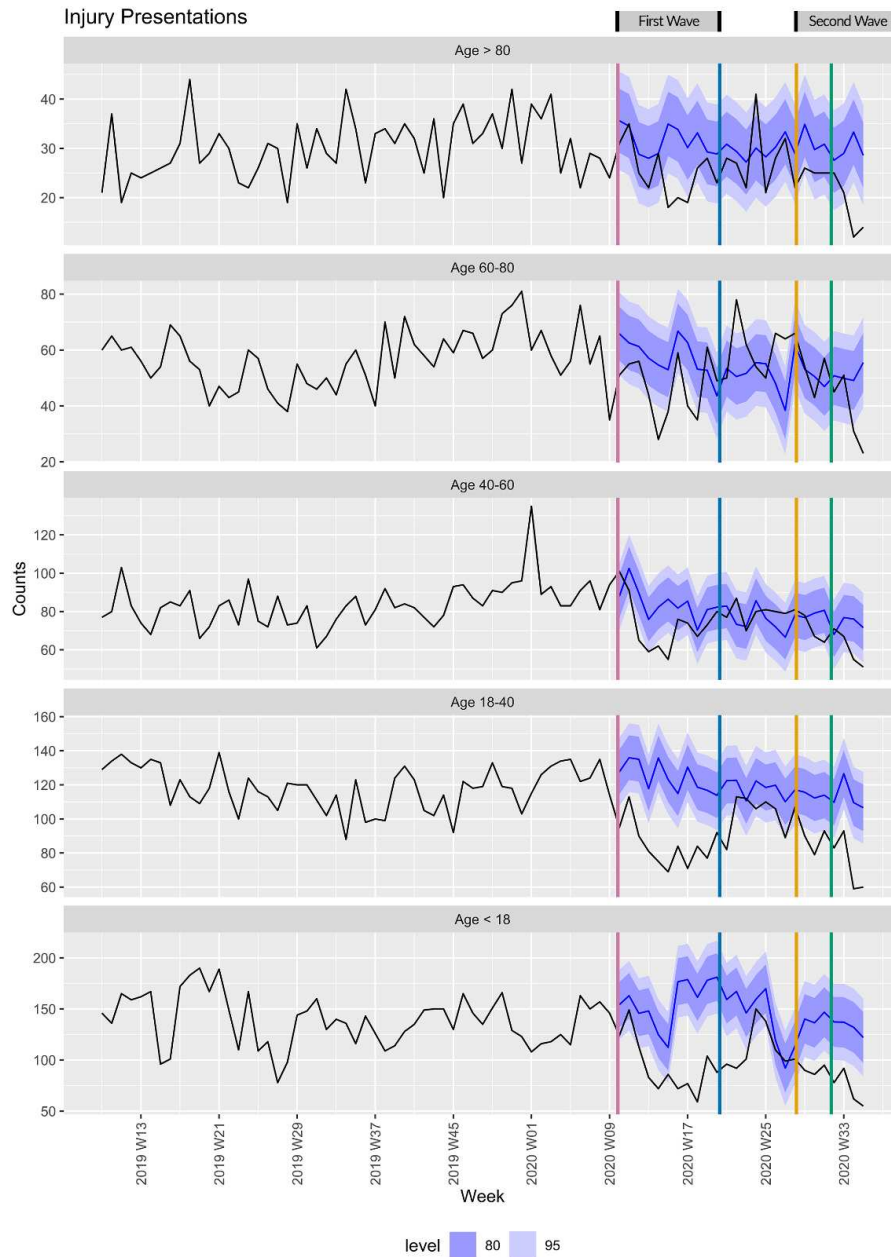


**Supplemental Figure S1: Model performance pre-COVID.** Vertical lines demarcate five independently estimated 26 week periods, based on preceding data. The last 26 week period represents the study period explored in the main text. Forecasts do capture the patterns of the observed series, very rarely are actual observations outside prediction intervals. There is a clear difference between the relationship between forecasts and actual observations for the four 26-week periods pre-COVID and the 26 week period following the onset of the pandemic.



**Supplemental Figure S2: Injury Presentations to ED by Age.** Injury was defined as any presentation which included non-null 'injury cause', 'activity when injured' or 'location of injury' data in the Electronic Medical Record.



**Supplemental Table 1 – Patient characteristics by presentation frequency, ED and Admitted Patients: Sep-March 2019, Sep-March 2020**

N, (% of row) unless otherwise specified		March-Sept 2019							March-September 2020						
		Mean Age (SD)	Male	Charlson 3+	Frailty 15+	IRSAD Quintiles 1-2	IRSAD Quintiles 4-5	Married / Partnered	Median Age (IQR)	Male	Charlson >=3	Frailty 15+	IRSAD Quintiles 1-2	IRSAD Quintiles 4-5	Married / Partnered
Admissions prev. 12 Months	0-2	48.7 (26)	14,084 (57%)	2,020 (8%)	852 (3%)	3,986 (16%)	8,921 (36%)	11,594 (47%)	46.9 (26)	9,575 (57%)	412 (7%)	179 (3%)	2,713 (16%)	6,130 (36%)	7,944 (47%)
	3+	63.2 (20)	1,010 (52%)	692 (36%)	597 (31%)	422 (22%)	607 (32%)	840 (44%)	66.4 (20)	38 (40%)	24 (25%) <sup>++</sup>	16 (17%) <sup>#</sup>	34 (36%) <sup>^</sup>	26 (27%)	43 (45%)
ED prev. 12 months	0-2	49.3 (26)	14,061 (57%)	2,169 (9%)	903 (4%)	3,963 (16%)	8,995 (37%)	11,735 (48%)	47.0 (26)	9,471 (57%)	406 (7%)	172 (3%)	2,669 (16%)	6,087 (36%)	7,897 (47%)
	3+	55.8 (26)	1,033 (55%)	543 (29%)	546 (29%)	445 (24%)	533 (28%)	699 (37%)	48.5 (25)	142 (51%)	30 (13%)	23 (10%)	78 (18%)	69 (25%)	90 (33%)

<sup>^</sup>Chi2 test for independence across time periods for frequent presenters:  $\text{Chi}^2=9.8604$ ,  $P = 0.002$

<sup>#</sup> Chi2 test for independence across time periods for frequent presenters:  $\text{Chi}^2= 10.1320$   $Pr = 0.017$

<sup>++</sup> Chi2 test for independence across time periods for frequent presenters:  $\text{Chi}^2= 9.1121$   $Pr = 0.011$