Data Supplement S1. Supplemental material

Appendix S1: Individual Hospital Characteristics, 12/29/19 to 3/7/20

	All	Hospital 1	Hospital 2	Hospital 3	Hospital 4	Hospital 5	Hospital 6	Hospital 7
Inpatient Beds, n	1,766	894	198	N/A*	392	159	98	25
ED Visits, n	60,421	17,312	7,272	4,645	14,437	8,091	7,132	1,532
Admit Rate (%)	24.0%	30.3%	28.4%	8.5%	26.0%	22.1%	15.0%	11.8%
Age, median	41	47	37	30	40	48	33	39
Female Gender (%)	55.7%	54.9%	56.9%	57.6%	54.4%	56.0%	57.9%	53.2%
Race (%)								
White	69.2%	47.1%	73.5%	79.4%	78.6%	85.2%	69.5%	94.3%
Black	19.1%	35.7%	16.8%	12.7%	8.3%	5.7%	25.8%	3.7%
Latinx Ethnicity (%)	18.4%	13.2%	33.1%	27.2%	20.5%	14.2%	12.0%	11.0%
Insurance (%)								
Commercial	41.0%	41.7%	39.6%	43.3%	43.2%	45.3%	31.0%	35.3%
Medicaid	26.6%	22.2%	29.2%	35.9%	25.5%	18.2%	39.7%	30.8%
Medicare	24.4%	26.3%	21.5%	12.5%	24.8%	30.6%	21.7%	27.1%
Self-Pay	6.9%	8.5%	8.6%	7.6%	5.7%	4.4%	6.5%	5.5%

*Hospital 3 is a freestanding ED and does not have inpatient beds.

Appendix S2: List of ICD-10 Diagnoses for Major Classes

The following Major Diagnosis Classes are composed of specific clinical diagnoses (e.g. appendicitis), as identified by the Agency for Healthcare Research and Quality Clinical Classifications Software Refined (AHRQ CCSR) using the primary ICD-10 code associated with the emergency department visit. More information on AHRQ CCSR mapping to specific ICD-10 diagnosis codes can be found at: https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp

Cardiac:
CIR011: Coronary atherosclerosis and other heart disease
CIR015: Other and ill-defined heart disease
CIR016: Conduction disorders
CIR017: Cardiac dysrhythmias

Surgical:
DIG0009: Appendicitis and other appendiceal conditions
DIG012: Intestinal obstruction and ileus
DIG017: Biliary tract disease

Neurologic:
CIR020: Cerebral infarction
CIR021: Acute hemorrhagic cerebrovascular disease
CIR024: Other and ill-defined cerebrovascular disease
NVS0009: Epilepsy; convulsions

Orthopedic:
INJ004: Fracture of the upper limb, initial encounter
INJ0005: Fracture of the lower limb (except hip), initial encounter
INJ006: Fracture of the neck of the femur (hip), initial encounter
INJ007: Dislocations, initial encounter

Gastrointestinal:
DIG001: Intestinal infection
DIG005: Gastroduodenal ulcer
DIG007: Gastritis and duodenitis
DIG011: Regional enteritis and ulcerative colitis
DIG013: Diverticulosis and diverticulitis
DIG018: Hepatic failure
DIG020: Pancreatic disorders (excluding diabetes)
DIG021: Gastrointestinal hemorrhage
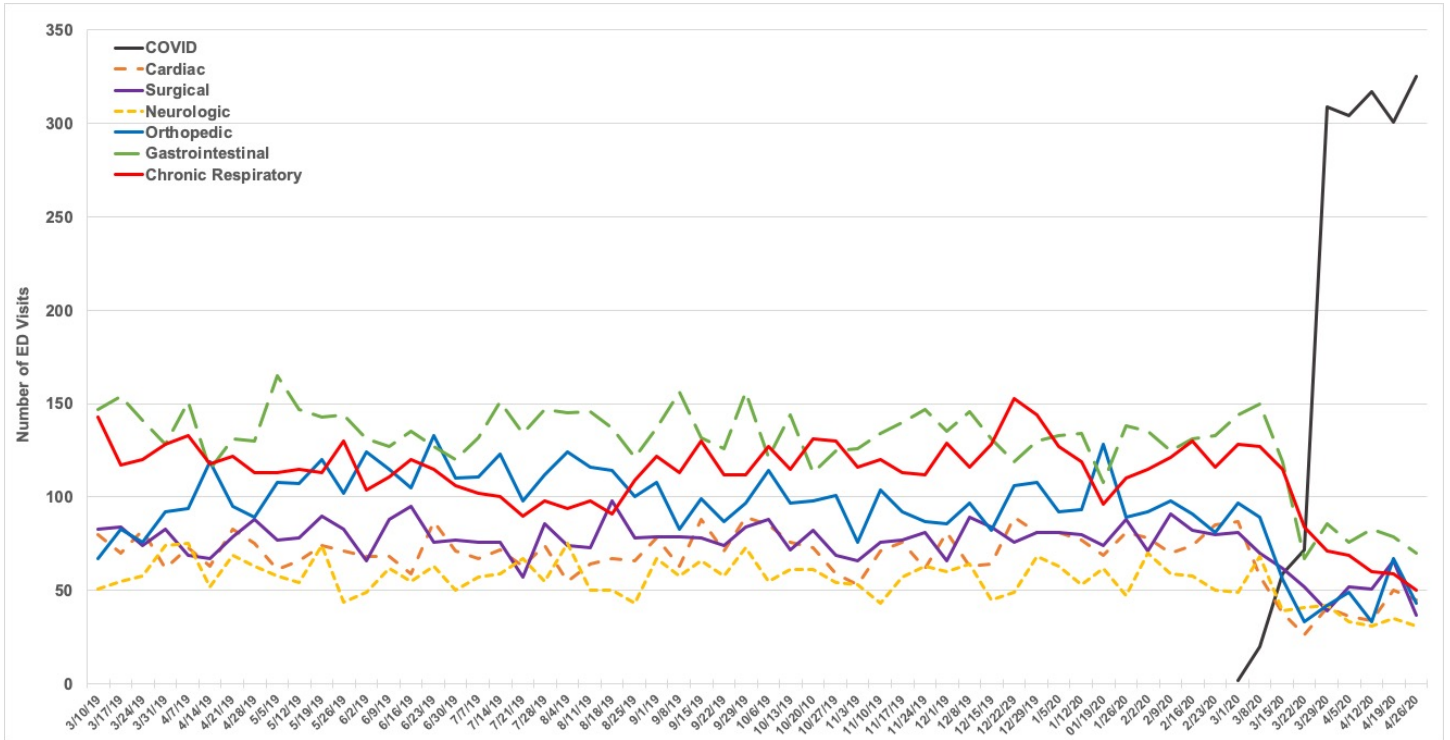INF007: Hepatitis

Chronic Respiratory:
CIR019: Heart failure
RSP008: Chronic obstructive pulmonary disease and bronchiectasis
RSP009: Asthma

COVID-19:
Note: COVID-19 is not included in the AHRQ Clinical Classifications Software Refined system. We used the following ICD-10 codes as per CDC guidance:
> U07.1: COVID-19
> B97.29: Other coronavirus as the cause of diseases classified elsewhere
> B97.21: SARS-associated coronavirus infection
> Z20.828: Contact with and (suspected) exposure to other viral communicable diseases
> R68.89: Exposure to SARS-associated coronavirus

Appendix S3: Weekly Emergency Department Visits for Serious Diagnoses in the Historical Control, Pre-Pandemic, and Early Pandemic Periods, by Major Class

Appendix S4: Comparison of Emergency Department Visits in the Early Pandemic Period Compared to Pre-Pandemic and Historical Controls, by Major Diagnosis Class

Major Diagnosis Class	Early Pandemic 3/8/20 to 5/2/20	Reference Groups	
		Pre-Pandemic 12/29/19 to 3/7/20	Historical Control 3/10/19 to 4/27/19
Cardiac			
Weekly Visits, mean	41.0	78.3	73.5
IRR* (95% CI)		0.52 (0.44-0.62)	0.56 (0.47-0.67)
Surgical			
Weekly Visits, mean	53.6	80.9	78.4
IRR (95% CI)		0.66 (0.57-0.77)	0.68 (0.58-0.80)
Neurologic			
Weekly Visits, mean	40.0	57.9	62.1
IRR (95% CI)		0.69 (0.56-0.86)	0.64 (0.51-0.81)
Orthopedic			
Weekly Visits, mean	51.5	96.9	89.4
IRR (95% CI)		0.53 (0.41-0.69)	0.58 (0.44-0.75)
Gastrointestinal			
Mean Weekly Visits	91.3	131.1	137.1
IRR (95% CI)		0.70 (0.56-0.86)	0.67 (0.54-0.83)
Chronic Respiratory			
Mean Weekly Visits	79.4	120.6	124.3
IRR (95% CI)		0.66 (0.52-0.84)	0.64 (0.50-0.81)

*IRR: Incidence Rate Ratios for the Early Pandemic period, with the Pre-Pandemic and Historical Control periods serving as referents. All comparisons $p \leq 0.001$.
95% CI: 95% confidence interval