PIONEER
Health Data Research Hub

Socioeconomic And Environmental Factors And Outcomes Of Acutely Unwell Patients

Data range for infographic: 01.02.2020-28.02.2022
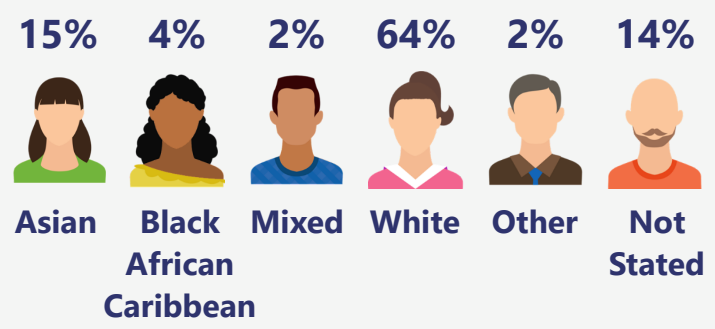**Other extended time periods are available on request**

A highly granular dataset of 8,803 spells admitted to intensive care unit curated by PIONEER, including demography, comorbidity and physiology/acuity, all investigations and treatments, deprivation indices, geolocation and weather data.
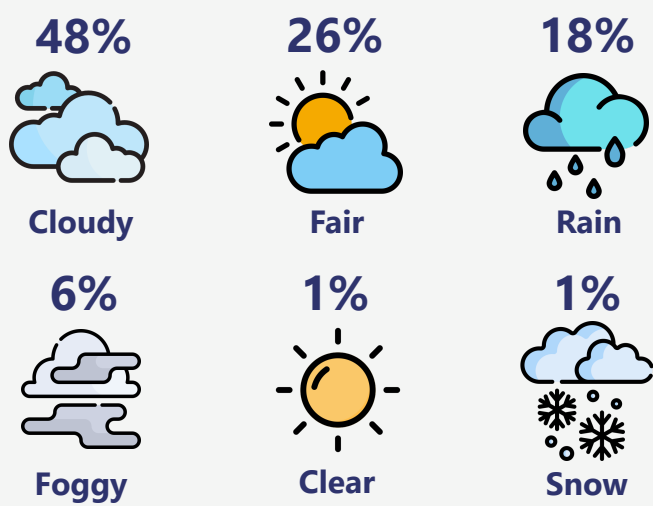
Demographic

The dataset includes:
- Young adults **8%** (ages 0-24)
- Adults **57%** (ages 25-64)
- Older adults **35%** (ages 65+)

Based on the index of multiple deprivation map, **46%** of the population are from most deprived areas and **11%** of patients are from least deprived areas.

15%	4%	2%	64%	2%	14%
Asian	Black African Caribbean	Mixed	White	Other	Not Stated

Weather

Weather 7 days prior to hospitalisation

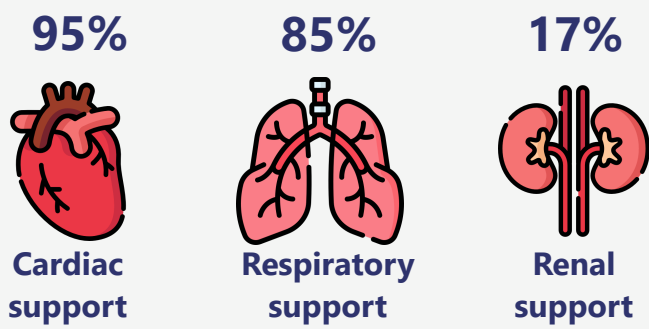| 48%	26%	18%
Cloudy	Fair	Rain
6%	**1%**	**1%**
Foggy	Clear	Snow

Weather data from 58 different weather stations across the UK, including weather data such as:
- Humidity
- Wind speed and direction
- Total precipitation and sunshine
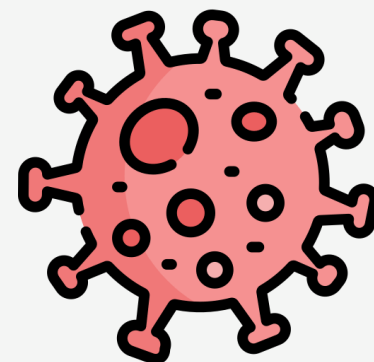- Dew point
- Air pressure

And more.

Intensive care unit

Spells with ICU support

95%	85%	17%
Cardiac support	Respiratory support	Renal support

61K days worth of critical care data and an average of length of stay of **6** days in ICU. An average APACHE II score of **14.7**.

Other ICU details are available.

COVID19

Over **1K** admissions with COVID19 confirmed. The average length of stay of COVID admissions is **27** days.

Inpatient care

- **8,803 Hospitalised spells;** containing **8,500** patients admitted to intensive care unit
- **187K** days worth of hospital data with an average in-hospital length of stay of 21 days
- In-hospital mortality rate of 18% and 78% of patients surviving 12 months after discharge
- The median National Early Warning Score in ICU is 4 and the median Clinical Frailty Scale is 2

Ventilation

Over **8M** ventilation parameters recorded with **58%** of patients on oxygen and **37%** of patients intubated.

Other ventilation details are available.

Measurements

Over **18M** patient observational data recorded including vital signs, NEWS2, GCS, ICNARC score and more.
13M Laboratory tests recorded including full blood count, liver function tests and more.

Other associated data available upon request

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