

# Have inpatient demographics changed since the covid-19 pandemic? A comparative study of admissions at Severn Hospice.

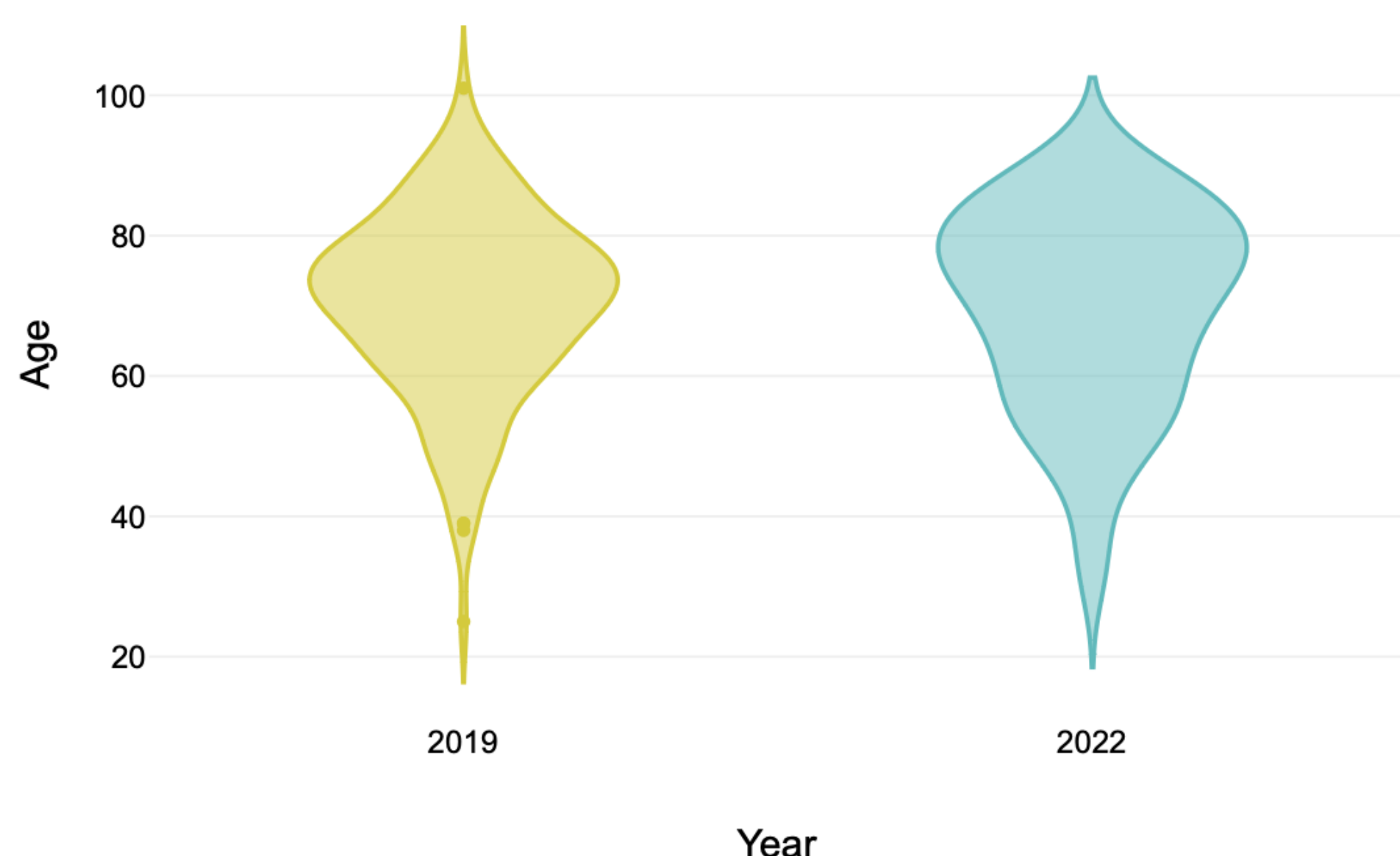
Dr Emily Heyting, Professor Derek Willis.

## Aims

Anecdotally, staff expressed that more inpatients at Severn hospice are 'younger', and that this has come about since the Covid-19 Pandemic. I aimed to look at admissions data to see if this was the case, and if there were any other significant demographic changes.

## Method

Records were reviewed for inpatients admitted between 1<sup>st</sup> July and 30<sup>th</sup> September 2019 and 2022. Age at admission and main diagnoses were recorded.

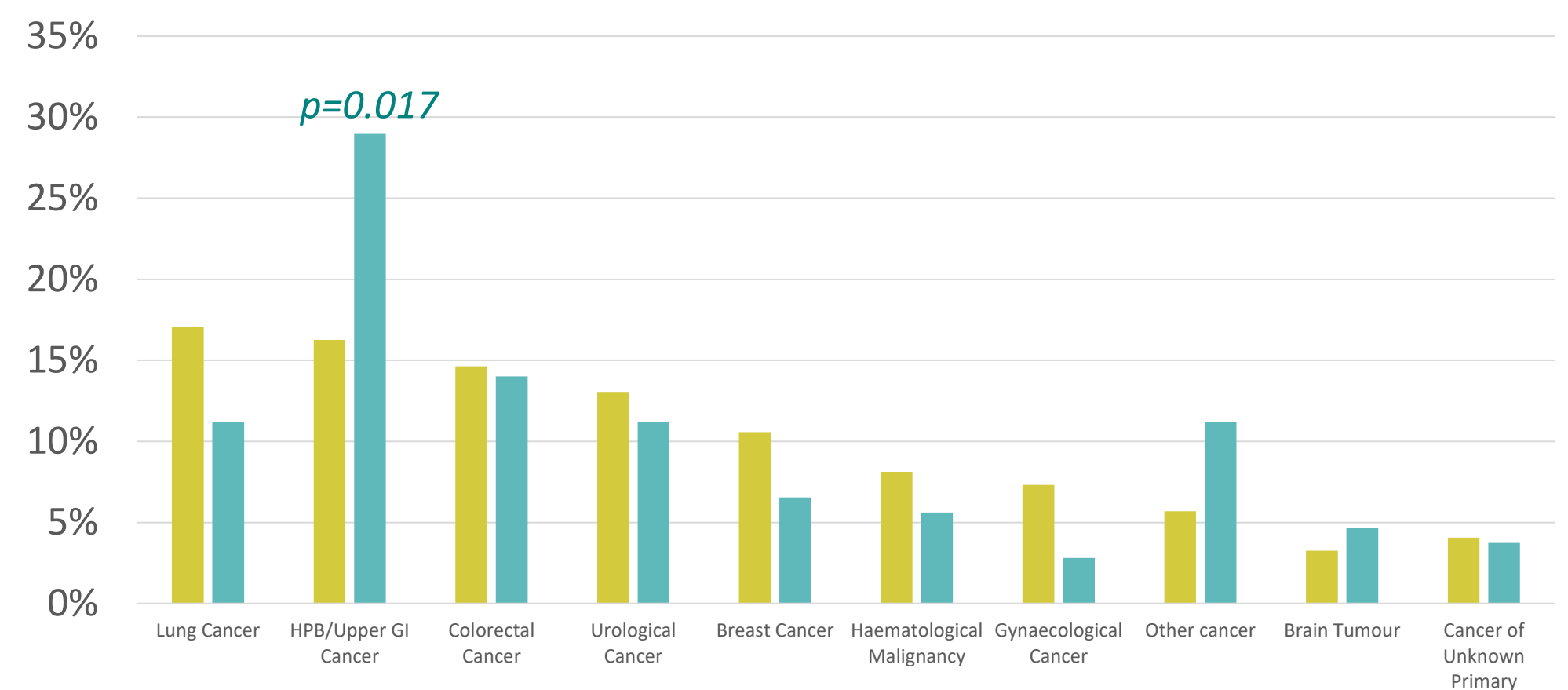


**Figure 1.** Violin plot illustrating changes in distribution of inpatient ages in 2019 and 2020.

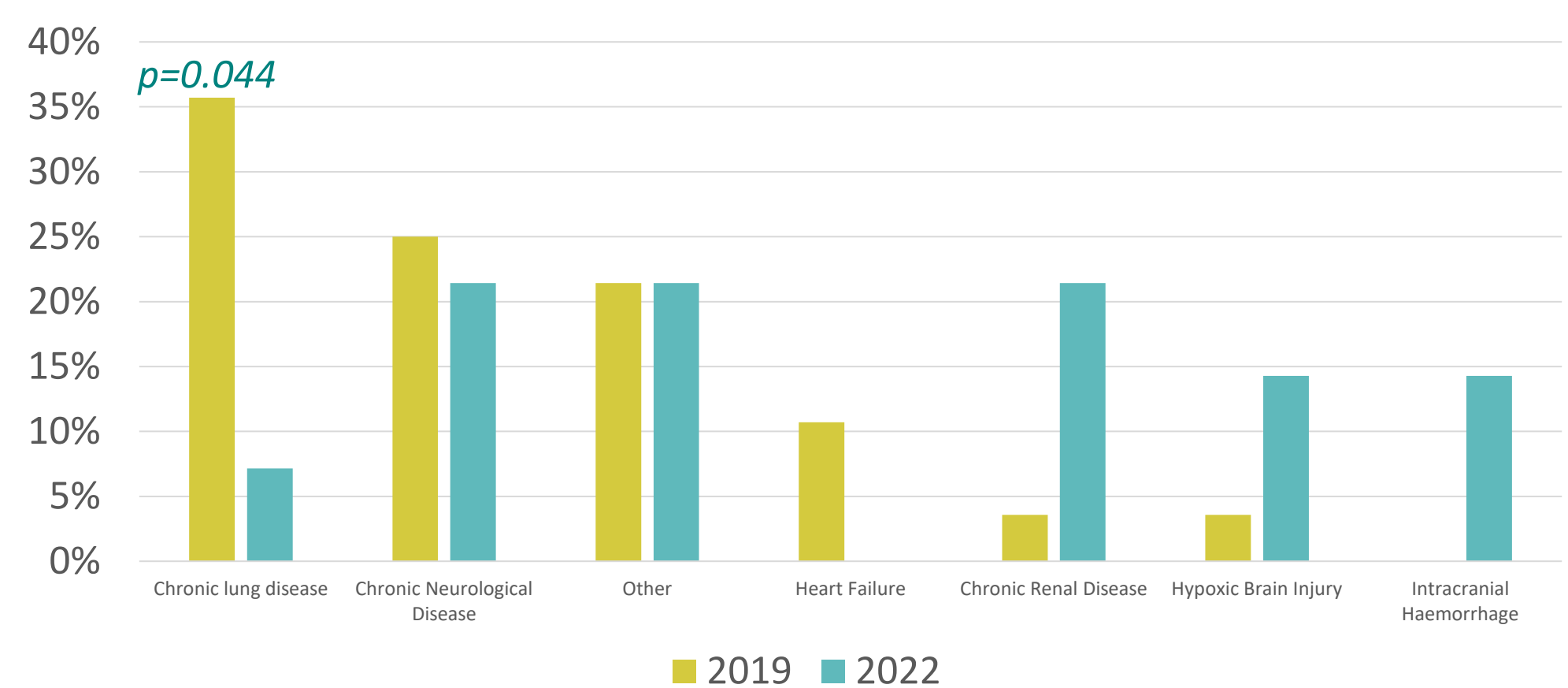
## Analysis

Shapiro Wilk test to determine normality of data. Mann Whitney U test used to compare ages of the groups. Violin plots used to examine distribution of ages between groups. Chi Squared test used to compare how many in each group were under the age of 60 years, and to examine difference in main diagnosis between groups.

## Proportions of Cancer Subtypes



## Proportions of Non-Malignant Primary Diagnosis



**Figures 2&3.** Bar charts comparing proportions of main diagnosis in sampled inpatients in 2019 and 2020.

## Results

2019 N=150, 2022 N=121. Median age went from 71 in 2019 to 73 in 2022 ( $p=0.452$ ). Distribution plots showed a widening age distribution from 2019 to 2022. There was a near significant increase in the proportion of patients aged under 60 from 19% to 26% ( $p=0.076$ ). Significantly more patients had upper gastrointestinal tract malignancies ( $p=0.017$ ) and significantly less had non-malignant chronic respiratory disease (0.044).

## Conclusions

Whilst average inpatient age did not change significantly, changes to distribution of ages means more 'young' patients are being cared for. This may have implications for staff wellbeing and service provision needs, such as supporting more under 18 relatives of patients. Future work could look to establish what these service needs are, staff well-being needs, and if a similar trend is present in community services.