



Memorial Sloan Kettering
Cancer Center

A PANDEMIC'S EFFECT ON CANCER WORRY IN H&N CANCER

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ABSTRACT

A head and neck cancer diagnosis, its treatments and surveillance are stressful experiences for most patients. Recently the global pandemic of SARS-CoV-2 was superimposed on cancer care. How COVID-19 influenced “cancer worry” in head and neck cancer is unclear.

As part of routine clinical care at MSK, patients report cancer worry as a component of the FACE-Q Head and Neck Cancer Module, our patient-reported outcomes (PROs) program. Cancer worry scores were analyzed from Feb 1, 2019 through Jan 31, 2022.

There were 5158 surveys in the pre-COVID era (Feb ‘19-Feb ‘20), 4541 surveys during the first year of COVID in the U.S. (Mar ‘20-Feb ‘21), and 3967 surveys in the following year (Mar ‘21-Jan ‘22). On an adjusted analysis, scores between pre-COVID and the 1st year were significantly different ($p=0.027$). NYC hospitalization and death rates peaked in April 2020 and again to a lesser extent in January 2021. Cancer worry score was mildly and significantly correlated with the NYC death rate ($R=0.40$, $p=0.04658$).

These data show that there was a correlation on cancer worry in head and neck cancer during the COVID pandemic that significantly decreased over time. How this influenced access to care and outcomes could be hypothesized on. Cancer worry is influenced by external events and integration of PROs in clinical care allows for early identification of patients at risk so that additional support can be provided.

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INTRODUCTION

- Cancer worry is a top concern of patients with H&N cancer yet is an under evaluated issue^{1,2}
- Cancer worry has been shown to have a negative influence on HRQOL in patients with H&N cancer²⁻⁵
- How COVID-19 influenced “cancer worry” in head and neck cancer has not been previously studied

METHODS AND MATERIALS

- Patients routinely report cancer worry as part of the FACE-Q Head and Neck Cancer Module
- Scores are converted into Rasch scores from 0-100, with higher scores indicating more cancer worry
- Cancer worry scores were analyzed from Feb 1, 2019—Jan 31, 2022
- Mean scores were scaled by the sample size of each month to account for differences in response numbers between months
- Monthly scores were compared using Pearson’s correlation to the publicly available NYC death and hospitalization rates

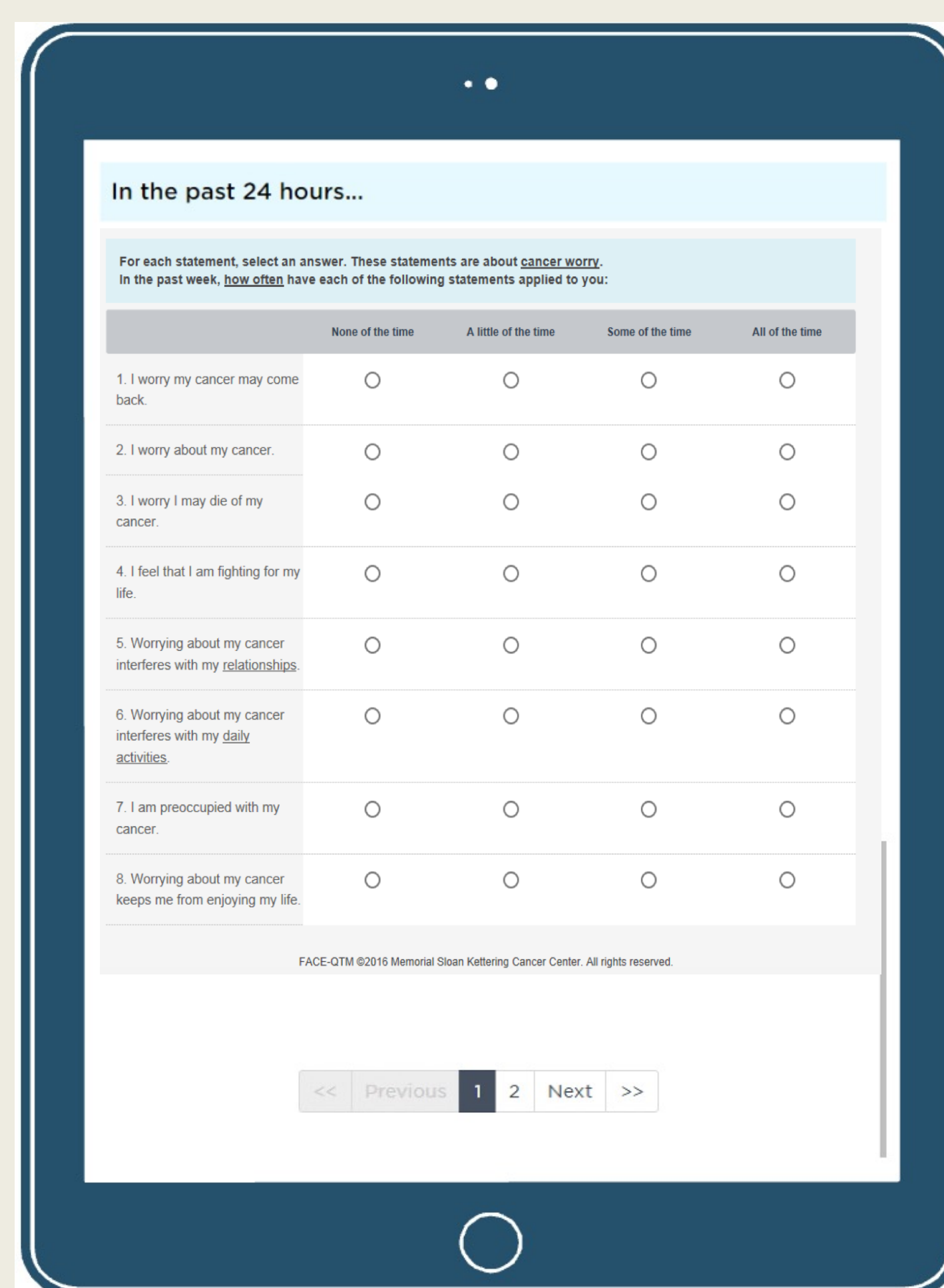


Figure 1. 8-item Cancer worry scale

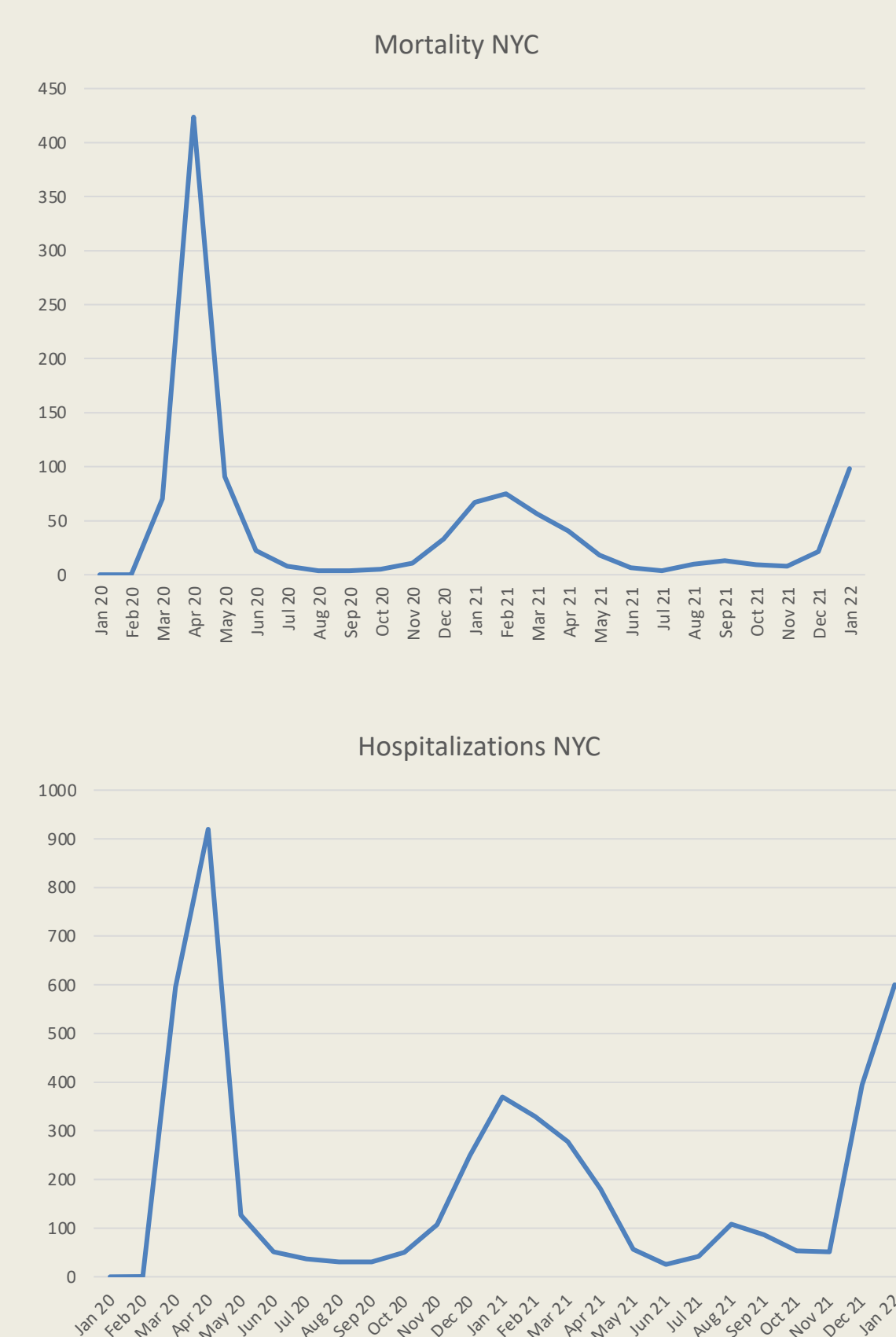


Figure 2. NYC hospitalization and death rates peaked in April 2020 and again to a lesser extent in January 2021

RESULTS

- Pre-COVID era (Feb 2019—Feb 2020):
 - 5158 surveys
 - Median score 29% (IQR 16, 45)
- First year of COVID in the U.S. (Mar 2020—Feb 2021):
 - 4541 surveys
 - Median score 29% (IQR 16, 42)
- Second year of COVID in the U.S. (Mar 2021—Jan 2022):
 - 3967 surveys
 - Median score 29% (IQR 16, 45)
- Cancer worry was mildly correlated with death rate (**Figures 1-3**).
- Median scores were significantly different between pre-COVID and 1st year of COVID ($p<0.001$) and between pre-COVID and 2nd year of COVID ($p<0.001$).
- After adjusting for patient covariates (age, gender, race) and distress scores (as measured by PROMs), only scores between pre-COVID and the 1st year remained significant ($p=0.027$) (**Figure 4**).
- Over time, predicted cancer worry scores decreased using linear mixed effects modeling.

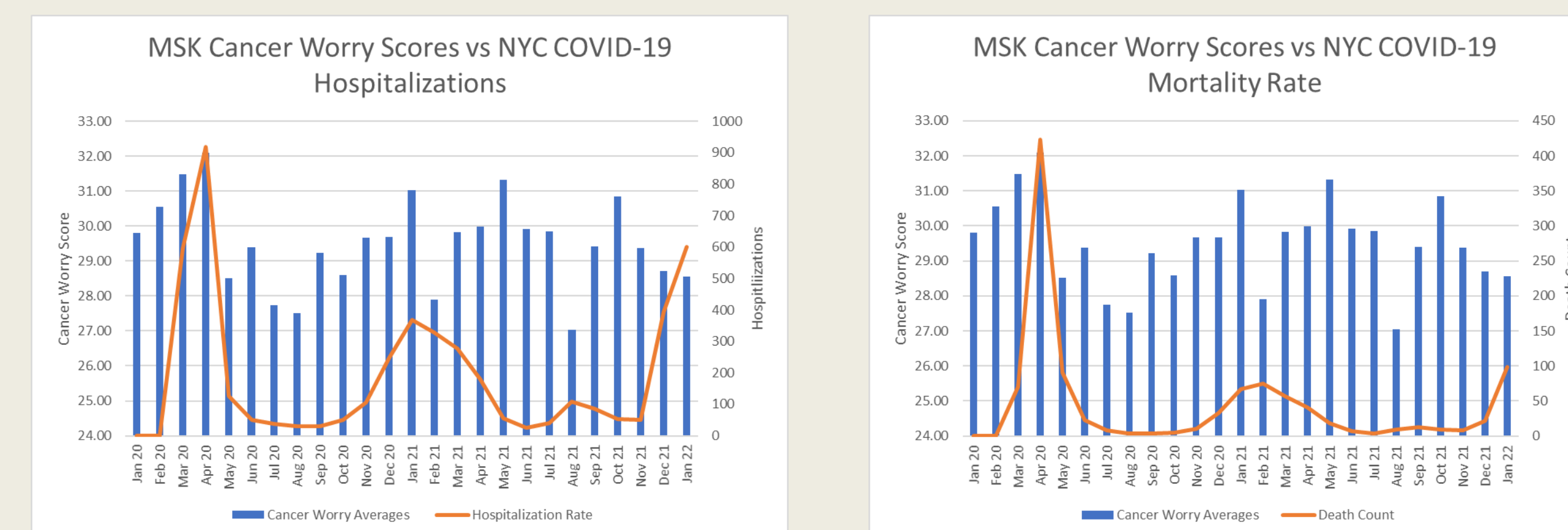


Figure 3. Cancer worry was mildly correlated with the NYC hospitalization rate but this was not significant ($R=0.35$, $p=0.08677$). Cancer worry was mildly and significantly correlated with the NYC death rate ($R=0.40$, $p=0.04658$)

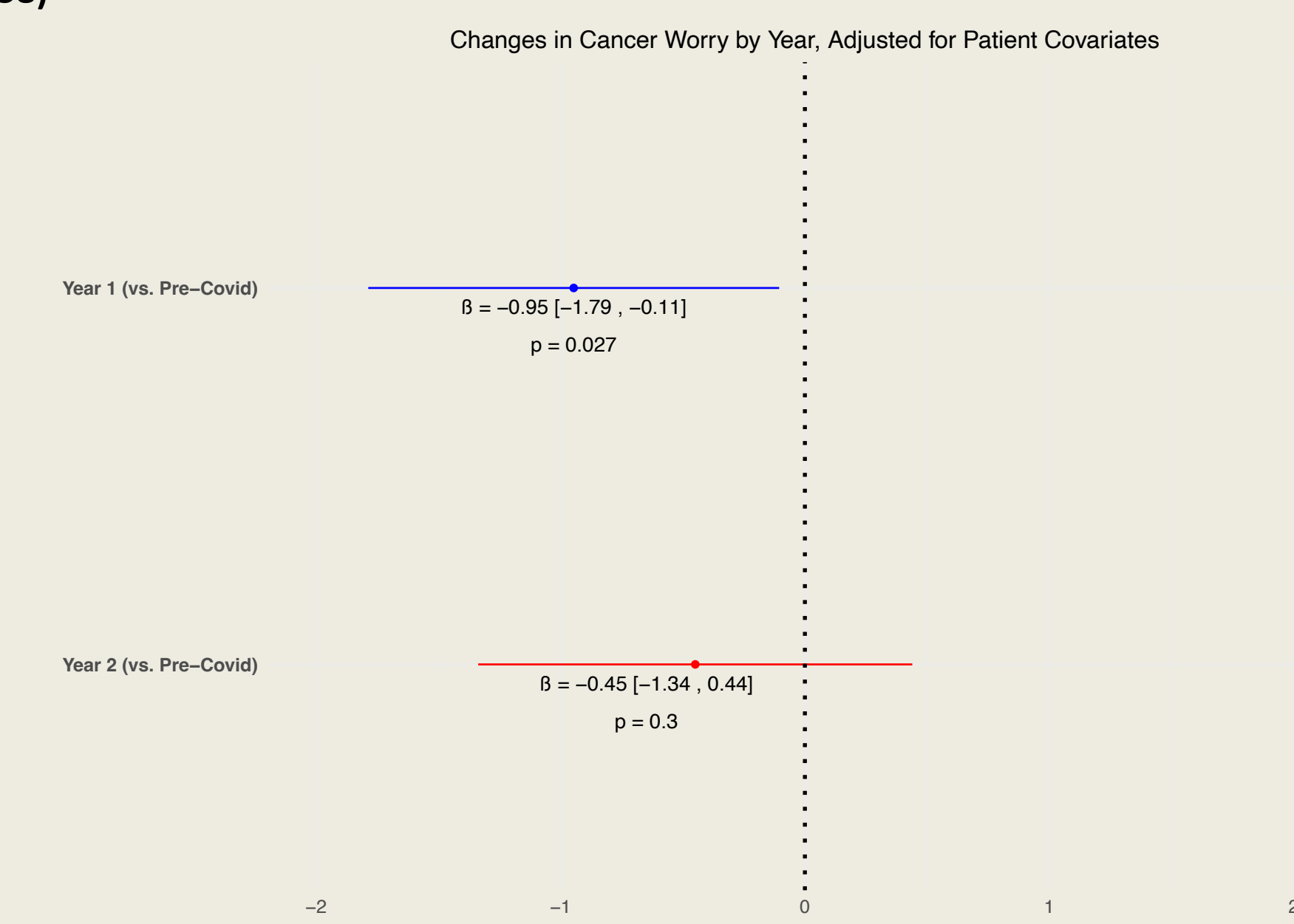


Figure 4. Cancer worry scores were significantly different in Year 1 of COVID vs. pre-COVID scores

CONCLUSIONS

- There was a correlation on cancer worry in head and neck cancer during the COVID pandemic that significantly decreased over time
- Cancer worry is influenced by external events and integration of PROs in clinical care allows for early identification of patients at risk so that additional support can be provided

REFERENCES

1. Cracchiolo J, Klassen A, Young-Afat D et al. Leveraging patient-reported outcomes data to inform oncology clinical decision making: introducing the FACE-Q Head and Neck Cancer Module. *Cancer*. 2019;125:863-872.
2. Rogers S, Scott B, Lowe D et al. Fear of recurrence following head and neck cancer in the outpatient clinic. *Eur Arch Otorhinolaryngol*. 2010;267:1943-1949.
3. Ghazali N, Cadwallader E, Lowe D et al. Fear of recurrence among head and neck cancer survivors: Longitudinal trends. *Psycho-Oncology*. 2013;22:807-813.
4. Riggauer J, Blaser D, Elicin O et al. Risk Factors for Fear of Recurrence in Head and Neck Cancer Patients. *Laryngoscope*. 2023;133(7):1630-1637.
5. Handschel K, Naujoks C, Kubler N et al. Fear of recurrence significantly influences quality of life in oral cancer patients. *Oral Oncology*. 2012;48(12):1276-1280.