Patients with Cancer and COVID-19: We identified patients with cancer and COVID-19 by searching for active patients with cancer who fit at least one of the following three criteria: 1. Positive laboratory tests for SARS-CoV-2 or other β-coronaviruses (e.g., SARS, MERS) 2. ICD-10 diagnosis codes for COVID-19 disease 3. ICD-10 diagnosis codes for viral pneumonia attributable to ‘Other coronavirus’ or of ‘Unknown etiology’ after Feb 1, 2020.

An active patient with cancer is one who has an ICD-9 or ICD-10 diagnosis code for a malignant neoplasm and at least two clinical encounter records (e.g., a clinical visit and/or drug administration) in the practice’s EHR in the 12 month period ending on the date of analysis (i.e. June 15, 2019 – June 15, 2020). All data is de-identified prior to analysis.

Of the 35 CancerLinQ practices providing electronic data updates, 26 practices provided diagnostic reports of COVID-19 disease as described in criteria 2 or 3 above or testing information for SARS-CoV-2/COVID-19 disease. Of these, 21 practices had at least 1 patient with apparent COVID-19 disease as defined by at least one of the three criteria above and cancer.

We then summarized the distribution of the patients with cancer and COVID-19 by race, gender, ethnicity, and primary cancer diagnosis. For comparability purposes, we have included distribution of all active patients with cancer, denoted as ‘Underlying Cancer Population’ from the 26 practices above.

Population sizes for COVID-19 Cancer Cases and Underlying Cancer Population are 590 and 440,244 respectively.

Results:

Figure 1: Distribution of gender for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.

Figure 2: Distribution of race for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020. We have combined ‘Native Hawaiian or Pacific Islander’ and ‘Native American or American Indian’ into ‘Other race.’

Figure 3: Distribution of ethnicity for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.

Figure 4: Distribution of age for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.

Figure 5: Primary neoplastic diagnosis for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020. Diagnoses present in 0 or small numbers of COVID-19 patients have been aggregated into ‘Other.’

Figure 6: Distribution of age at death for COVID-19 Cancer Cases and Underlying Cancer Population at the CancerLinQ practices reporting COVID-19 results since Feb 1, 2020.