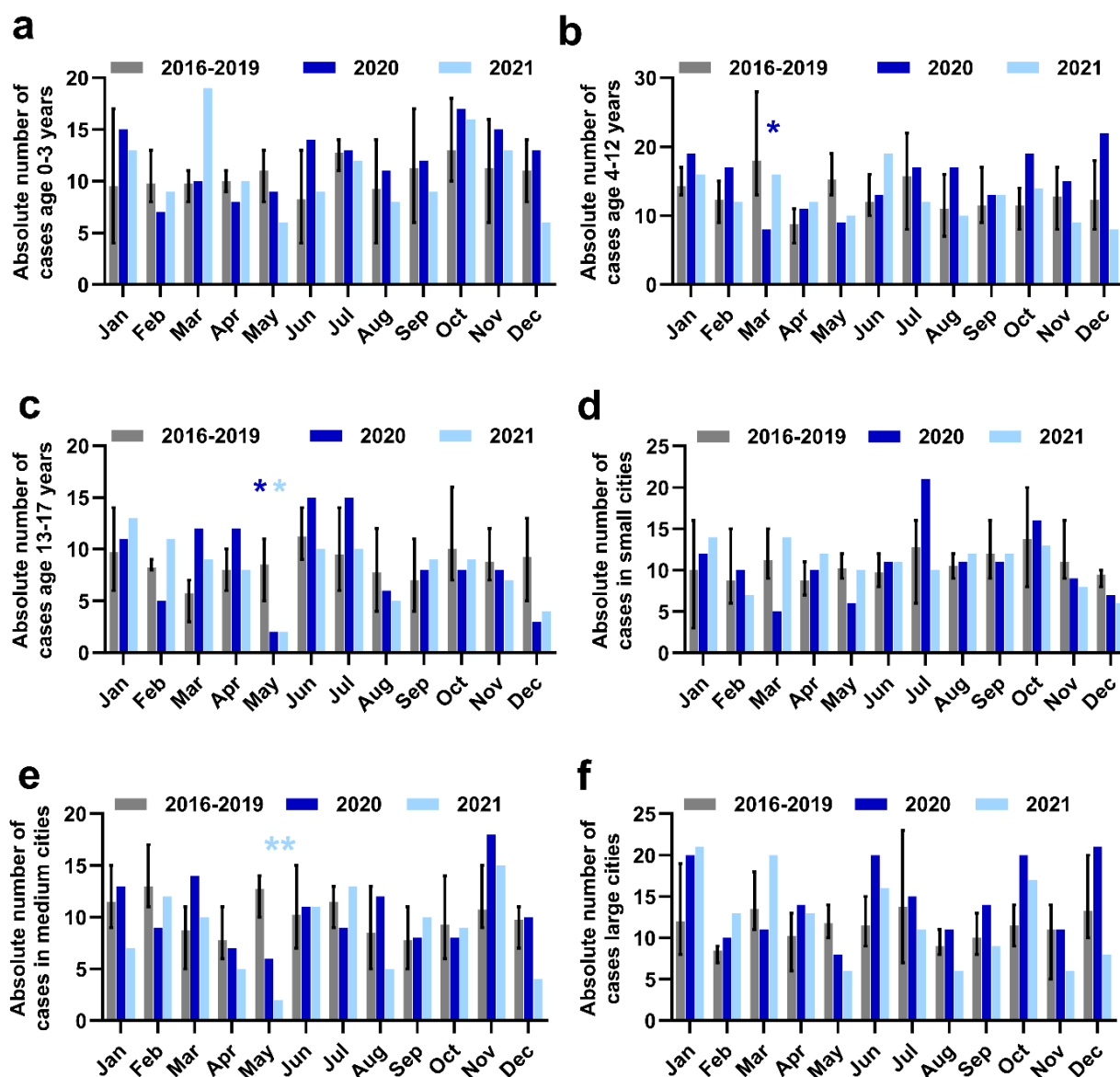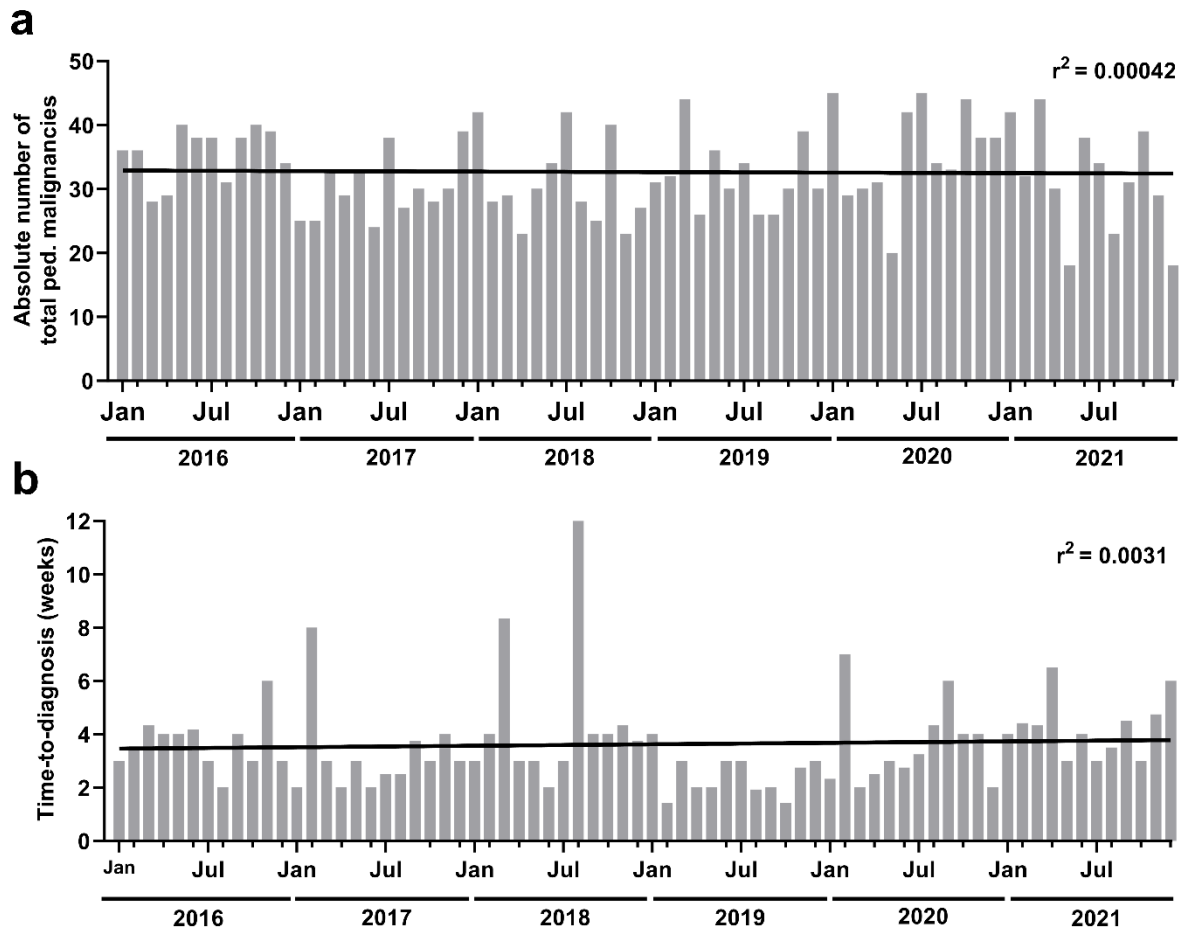# Supplementary Methods

Cross-correlation

Cross-correlation was calculated with the function *ccf* in the R package *stats*. Considering the sample size of the dataset, the time lag I, expressed in weeks, ranged from -16 to 16 weeks, corresponding to the default setting calculated by the function *ccf*. The time series were shifted for different lags to find out how the correlations change and find one value of I at which the correlation is highest or lowest. The maximum value was reported in the manuscript. The 95% confidence interval was estimated from the results of the cross-correlation performed in R.
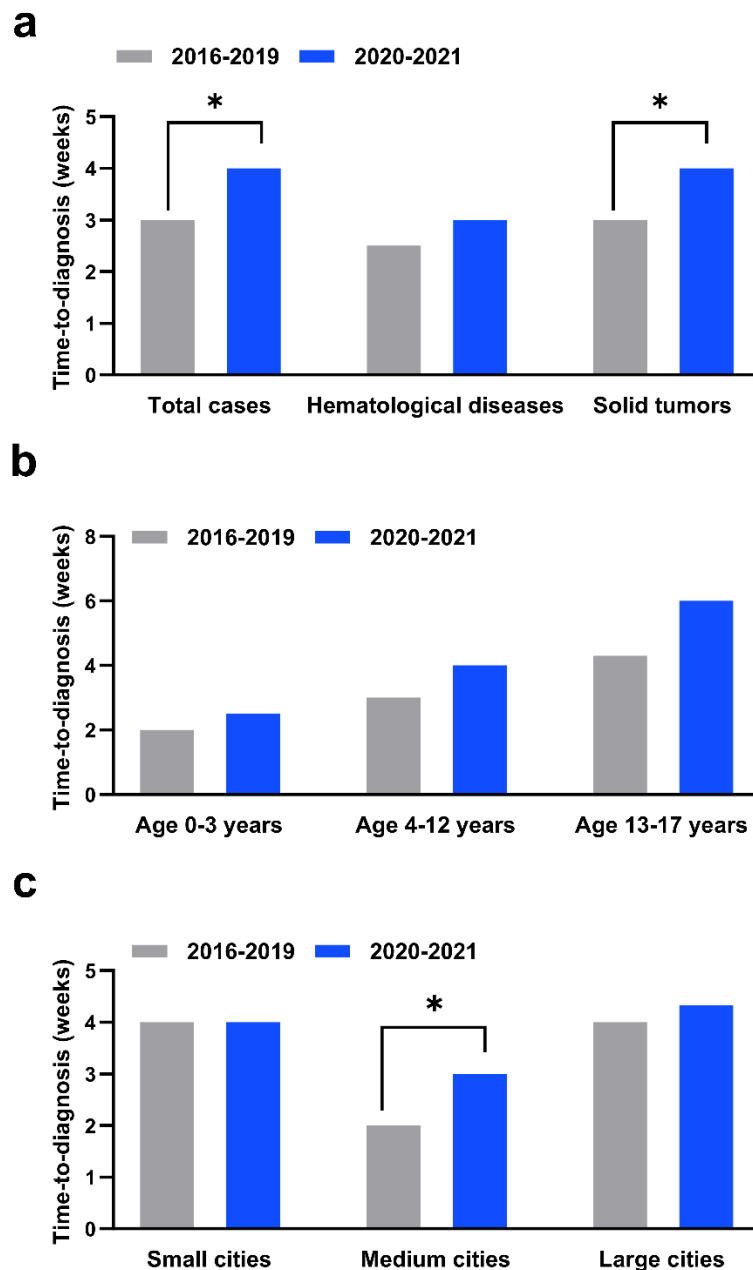
Supplementary Figures

Supplementary Figure 1: Diagnoses of pediatric malignancies during the pandemic.
Absolute numbers of newly diagnosed childhood cancer cases during the pandemic are shown per calendar month in comparison to the mean number of diagnoses from pre-pandemic years 2016-2019. Numbers are shown divided by age groups (a-c), and urbanity of clinical sites (d-f). Age groups are defined as 0-3 years (toddlers), 4-12 years (children) and 13-17 years (adolescents). Urbanity of clinical sites is defined by the number of residents in the city of the clinical sites. Small cities are defined as <150,000 residents, medium cities <500,000 residents and large cities >500,000 residents. Whiskers represent the respective minimum and maximum number of cases diagnosed in that month in 2016-2019. *: p<0.05, **: p<0.01
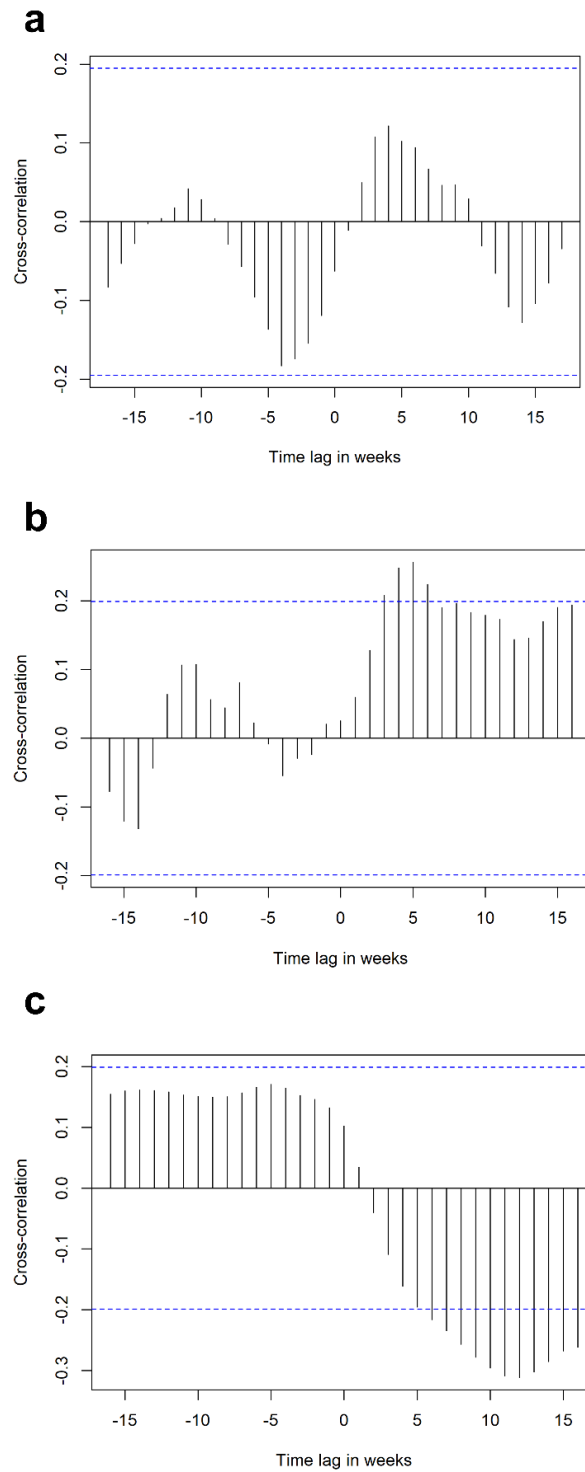
Supplementary Figure 2: Temporal Trends of Cancer Incidence and TTD

Absolute numbers of newly diagnosed childhood cancer cases (a) and median Time-to-diagnosis (b) are shown per calendar month throughout the observation period 2016-2021 including simple linear regression line and coefficient of determination r^2.

Supplementary Figure 3: Change in Time-to-diagnosis (TTD) during the SARS-CoV-2 pandemic.

Median TTD is shown for the pre-pandemic years 2016-2019 and during the pandemic years 2020-2021 for total cases of pediatric malignancies, hematological diseases and solid tumors (a), age groups (b), and urbanity of clinical sites (c). Diagnostic groups are defined according to the International Classification of Childhood Cancer, Third Edition (ICCC-3), leukemia/lymphoma include diagnostic groups 1-2, and solid tumors include diagnostic groups 3-12. Age groups are defined as 0-3 years (toddlers), 4-12 years (children) and 13-17 years (adolescents). Urbanity of clinical sites is defined by the number of residents in the city of the clinical sites. Small cities are defined as <150,000 residents, medium cities <500,000 residents and large cities >500,000 residents. *: $p < 0.05$

Supplementary Figure 4: Cross-correlation between time-series.
Cross correlation between SARS-CoV-2 incidence and pediatric cancer incidence (a), stringency index (SI) and pediatric cancer incidence (b), and SARS-CoV-2 incidence and SI (c). Time lags range from -16 to 16 weeks. The dashed line shows the width of the 95% confidence interval, i.e. all bars crossing the line indicate significant findings.