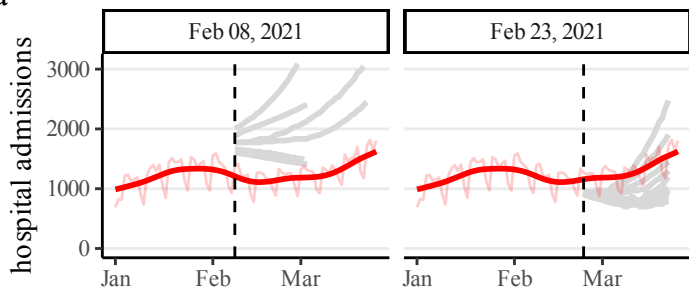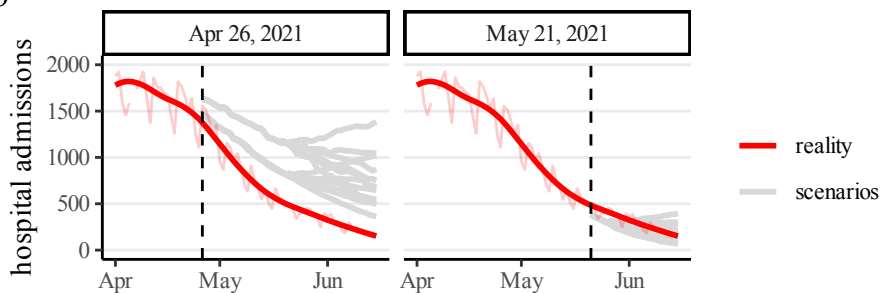vertical line: publication date