

Background

This chartpack updates a prior analysis we released on [December 8](#) regarding hospital demand and supply in North Carolina during the COVID-19 pandemic.¹ Please refer to that brief for definitions of key terms and the regional structure, as well as details on our methods and data sources.

In our December 8 brief, we continued our use of the concept of a hospital capacity “runway,” that is, the number of weeks until demand for hospital services is expected to meet or exceed the available supply of staffed beds, assuming current conditions continue. Today’s updated results incorporate data through Saturday, December 19.

Key Takeaways

- Compared to our analysis from two weeks ago, we have seen some moderate overall improvement. The acute hospital bed “runway” across North Carolina has extended somewhat to an 8-week runway now, up from the 6-week runway projected based on early December’s conditions. Thus, based on the most recent data, if present conditions continue, the need for acute hospital beds in North Carolina will reach the limit of staffed capacity in about two months.
- This moderately longer runway illustrates how slowing the hospitalization growth rate makes a difference: in the last two weeks, the growth rate was lower (12.2%) than the prior rate (19.9%) seen in the two weeks before December 5.
- Statewide, the runway of staffed Intensive Care Unit (ICU) beds remains unchanged from our prior brief (at about a 4-week runway if present conditions continue). Two weeks have passed since the last brief, so an unchanged runway projection means conditions have actually improved statewide relative to two weeks ago, though a one-month runway of staffed ICU beds statewide is still concerning.
- Although the statewide numbers are slightly better now than they were two weeks ago, there are still several notable regional trends to monitor:
- The regional runways for staffed ICU beds in the Asheville, Triad, and Charlotte regions are each under 3 weeks.
- In our last brief’s analysis, the Charlotte region had four weeks of staffed ICU runway. We now project a 2-week staffed ICU runway in Charlotte, which is consistent with the 4-week runway projected in the prior brief two weeks ago; thus, conditions have not materially improved there.

Key Takeaways (continued)

- Notably, near the intersection of the three Western regions (Asheville, Triad, and Charlotte), hospitals in the counties surrounding the city of Hickory (not shown) are especially close to reaching ICU capacity, with less than one week of runway available if present conditions continue.
- There are concerns in other regions, too. In the Wilmington region, the acute hospitalization growth rate is now 34.3% as measured in the two prior weeks compared to just 12.3% in the two weeks prior to December 5.
- The COVID-19 situation in North Carolina remains concerning, particularly in certain “hotspot” areas. All across North Carolina, there are ongoing concerns about the availability of health care workforce to staff hospital beds.
- Of course, conditions can and often do change. When they do, the calculated hospital runway projection estimates also change, sometimes for the better (e.g., Greenville) and sometimes for worse (e.g., Wilmington acute and Triad ICU).
- Hospitals respond to peak demands in a number of ways, including by transferring patients to other hospitals with more capacity or shifting health care personnel from one region to another to fill gaps. However, if many hospitals in a given region face shortages, opportunities to transfer patients or personnel are likewise limited.
- Given the likelihood of holiday travel and gatherings seeding new COVID-19 cases (and eventually, more hospitalizations), these trends remain important to regularly monitor and manage. Notably, COVID-19 case growth has moderated overall, especially over the last week, an important, positive development.

¹ For this update, we use data furnished through a data use agreement with the North Carolina Department of Health and Human Services. The authors of this brief conducted this work independently, on a volunteer basis. The findings and conclusions in this brief are those of the authors and do not necessarily represent the views of the North Carolina Department of Health and Human Services or the authors’ institutions.

Available Hospital Capacity and “Runway” in North Carolina: Late December Update

Exhibit A Acute beds - regional runway, from shortest to longest

Region	No.	Color in exhibit 1	Runway (weeks)	Recent hospitalization growth rate	Acute beds occupied by COVID-19 patients	Available acute beds
Wilmington	2	Orange	3.8	34.3	128	267
Asheville	6	Yellow	5.8	22.7	229	530
Triad	5	Green	6.3	14.3	601	796
Fayetteville	3	Red	7.3	13.7	358	553
Triangle	4	Lt. blue	8.3	11.3	420	602
Charlotte	7	Purple	10.6	9.8	816	1,384
Greenville	1	Navy	non-positive growth	-0.9	225	562
Statewide			8.6	12.2	2,777	4,694

The following pages are a chartpack, with each page consisting of acute and ICU runway charts for one region, with the pages in the following order:

- Statewide
- Greenville (1)
- Wilmington (2)
- Fayetteville (3)
- Triangle (4)
- Triad (5)
- Asheville (6)
- Charlotte (7)

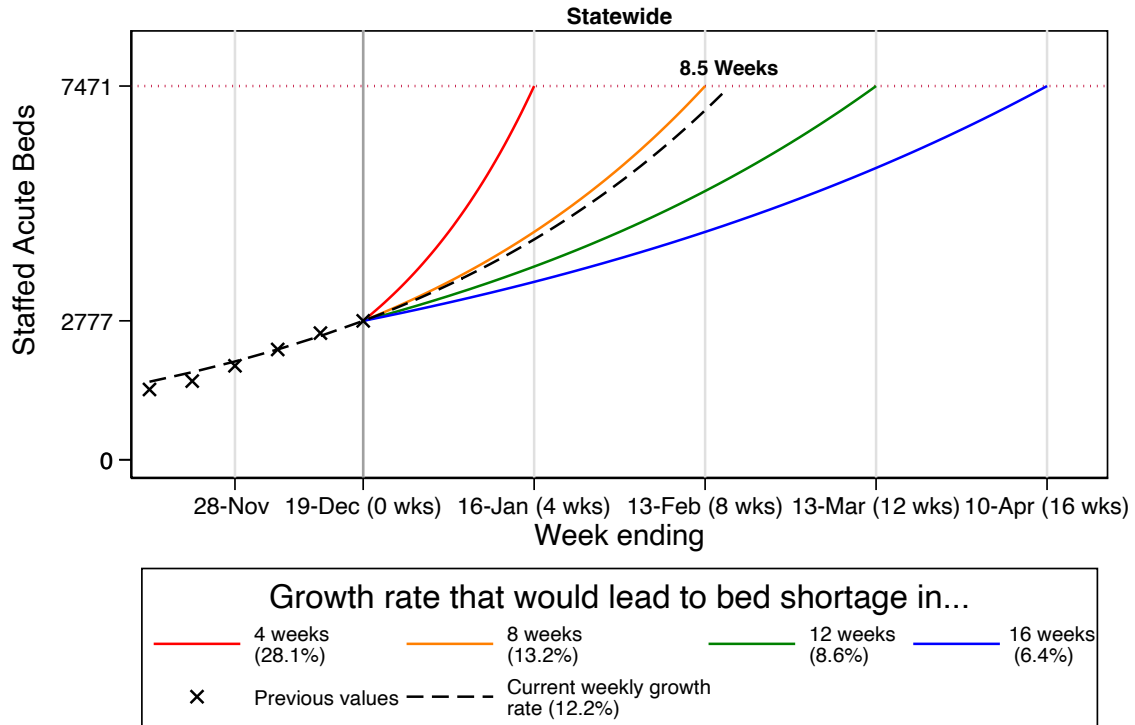


Exhibit B ICU beds - regional runway, from shortest to longest

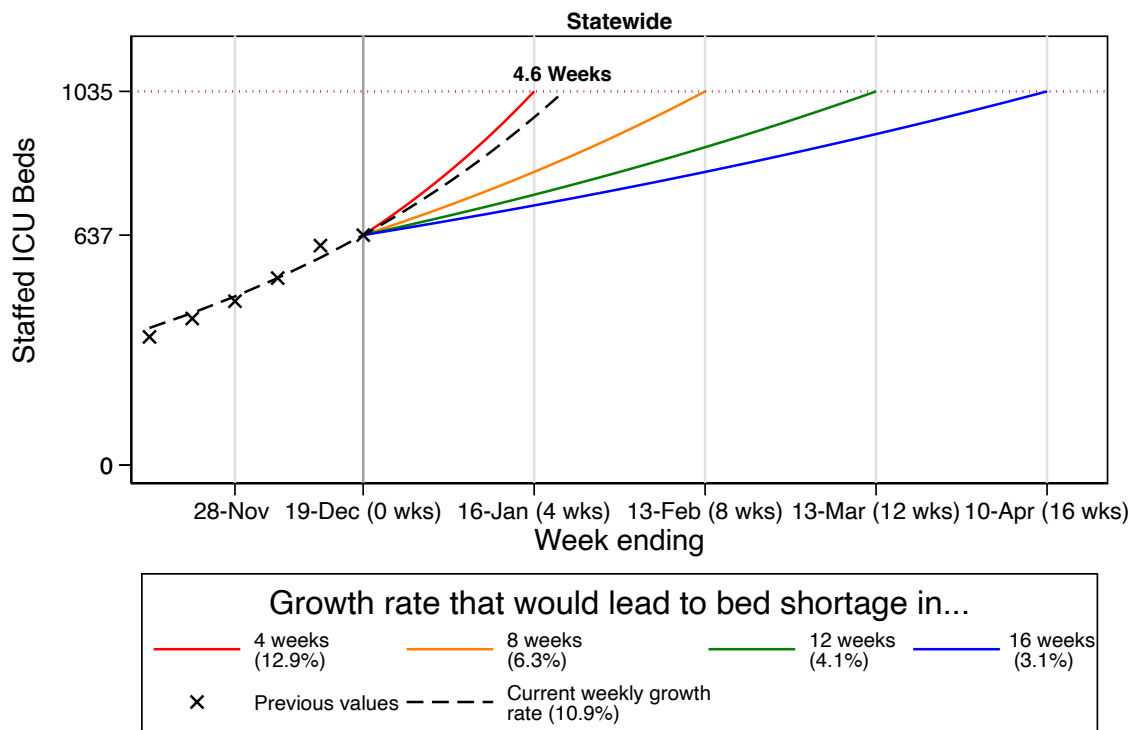
Region	No.	Color in exhibit 1	Runway (weeks)	Recent ICU occupancy growth rate	ICU beds occupied by COVID-19 patients	Available ICU beds
Asheville	6	Yellow	2.2	21.7	83	46
Triad	5	Green	2.3	14.2	137	48
Charlotte	7	Purple	2.5	15.3	178	76
Fayetteville	3	Red	8.9	7.6	59	54
Wilmington	2	Orange	18.9	5.4	20	34
Triangle	4	Lt. blue	21.5	3.0	104	93
Greenville	1	Navy	non-positive growth	0.0	56	47
Statewide			4.7	10.9	637	398

Available Hospital Capacity and “Runway” in North Carolina: Late December Update

Growth curves required to hit capacity within various weeks

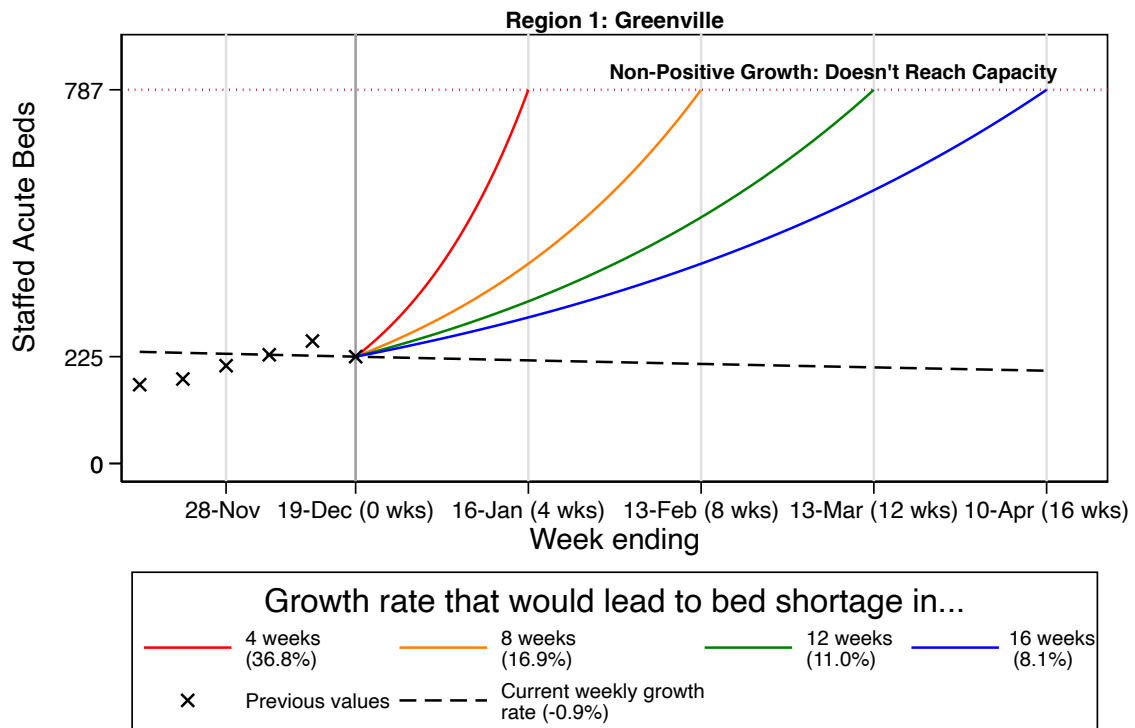


Growth curves required to hit capacity within various weeks

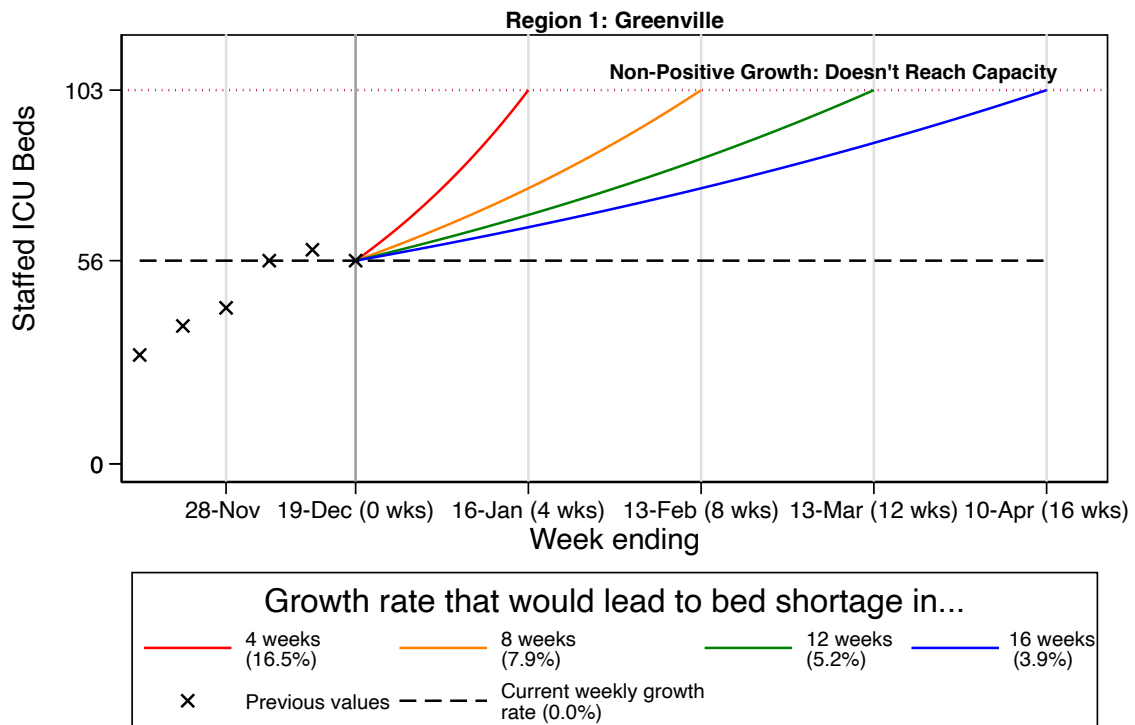


Available Hospital Capacity and “Runway” in North Carolina: Late December Update

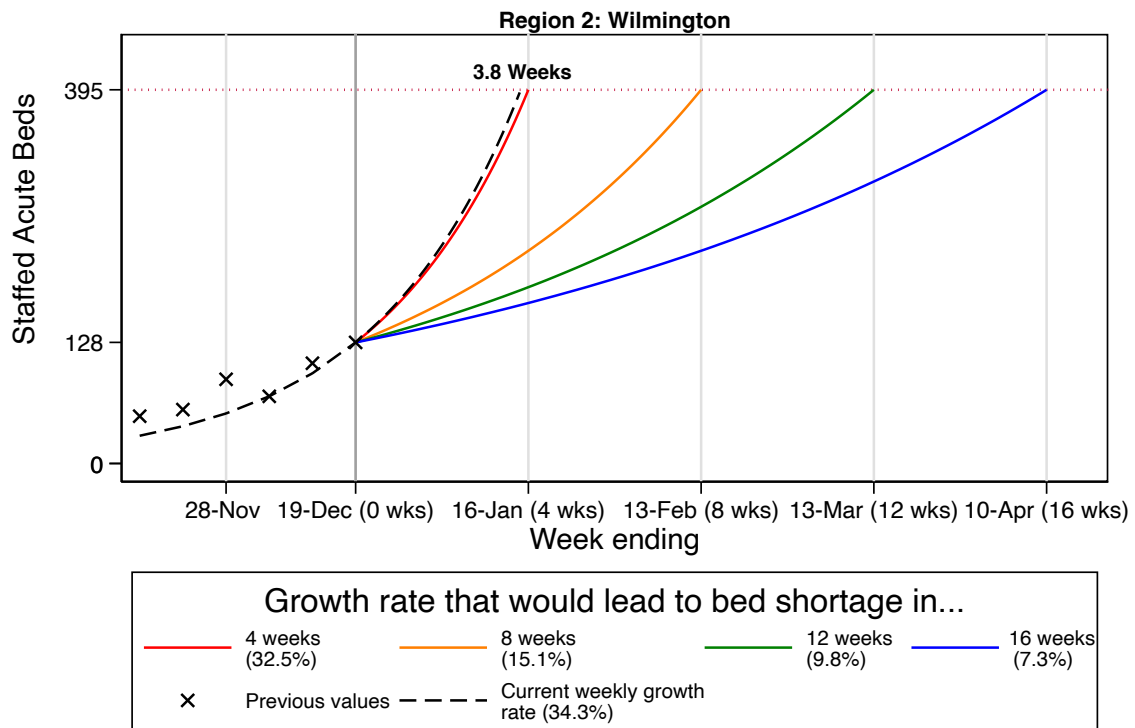
Growth curves required to hit capacity within various weeks



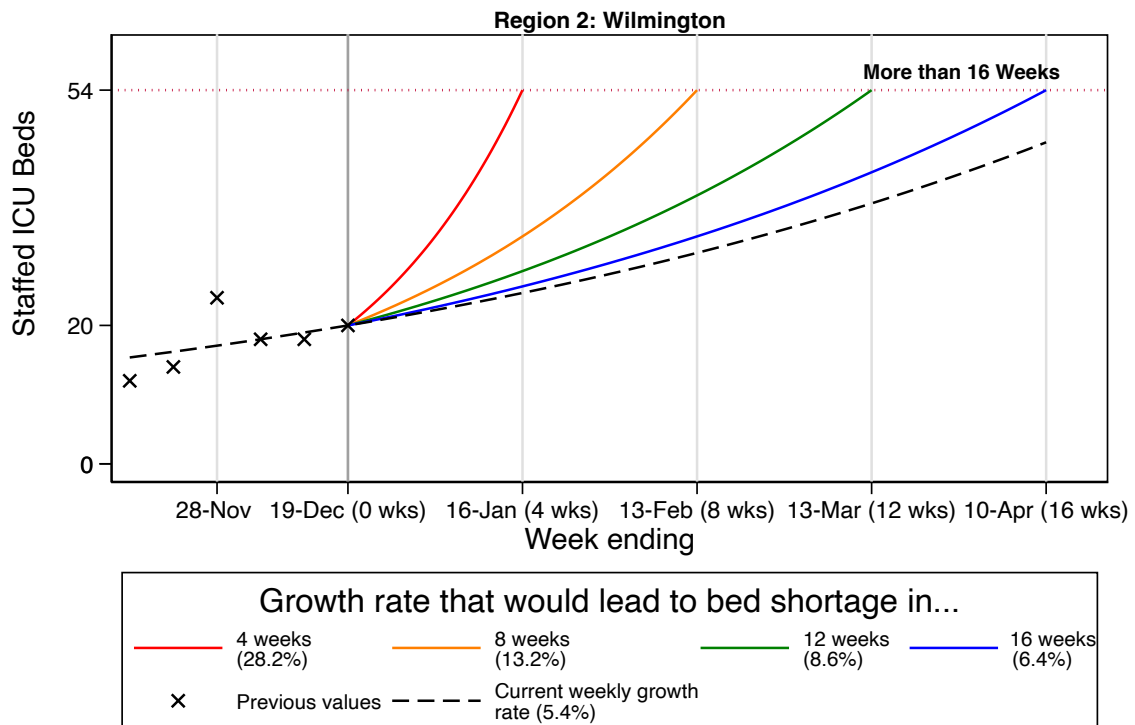
Growth curves required to hit capacity within various weeks



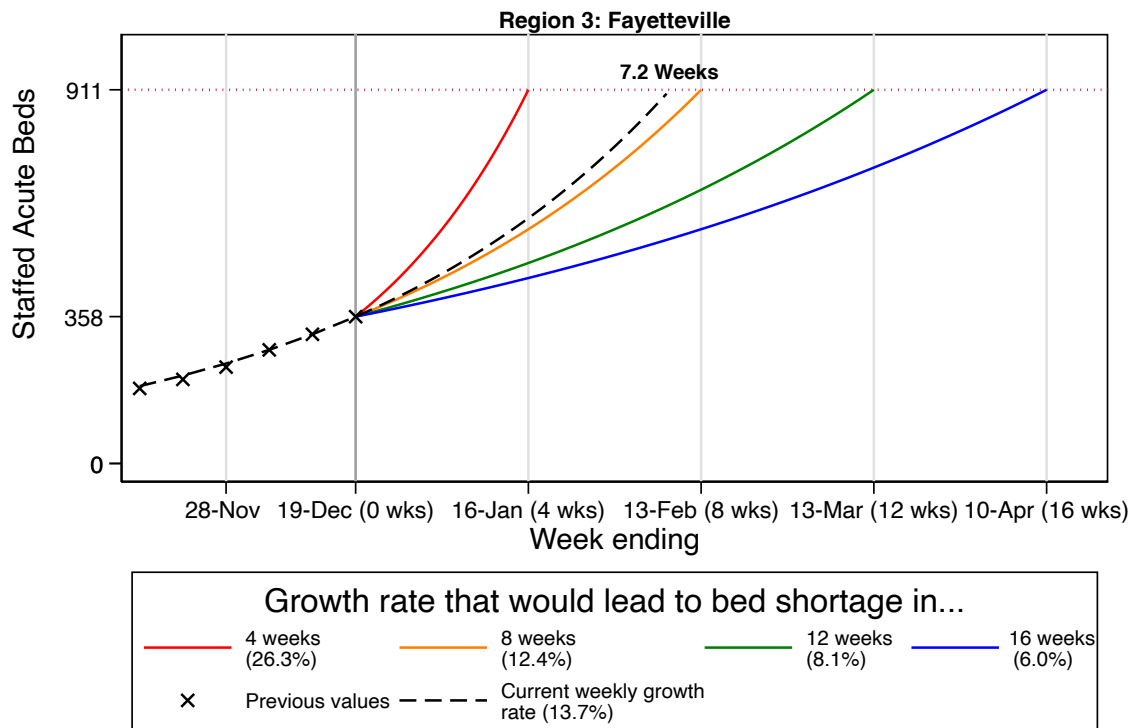
Growth curves required to hit capacity within various weeks



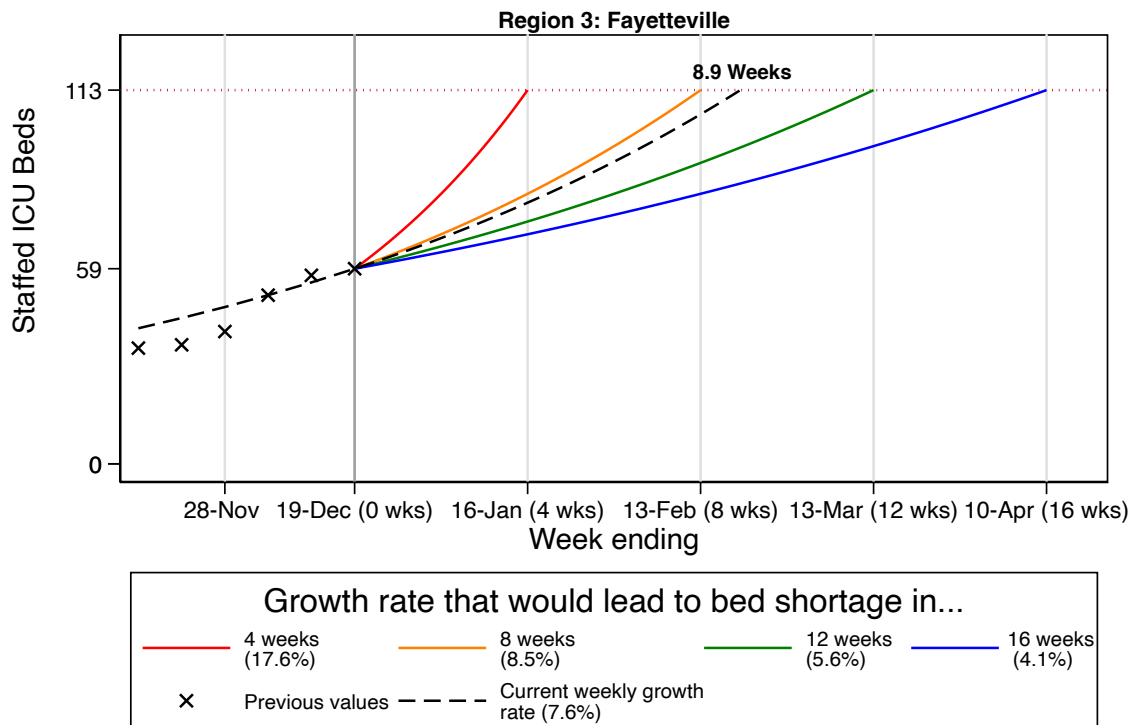
Growth curves required to hit capacity within various weeks



Growth curves required to hit capacity within various weeks

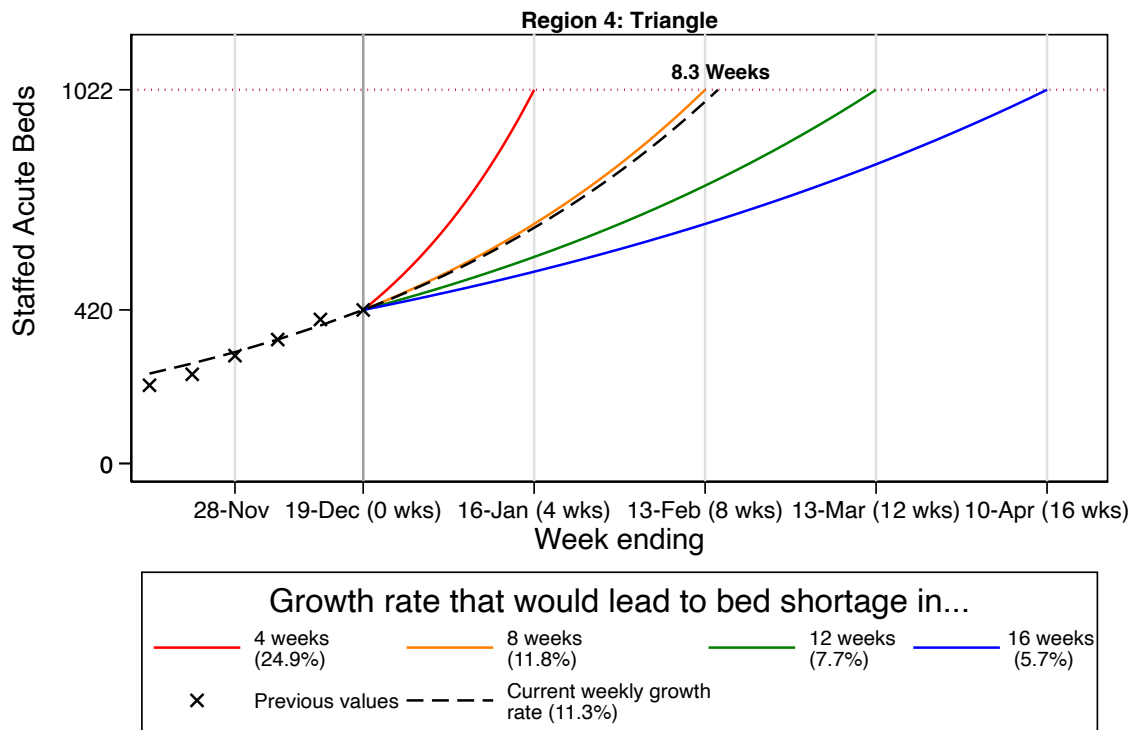


Growth curves required to hit capacity within various weeks

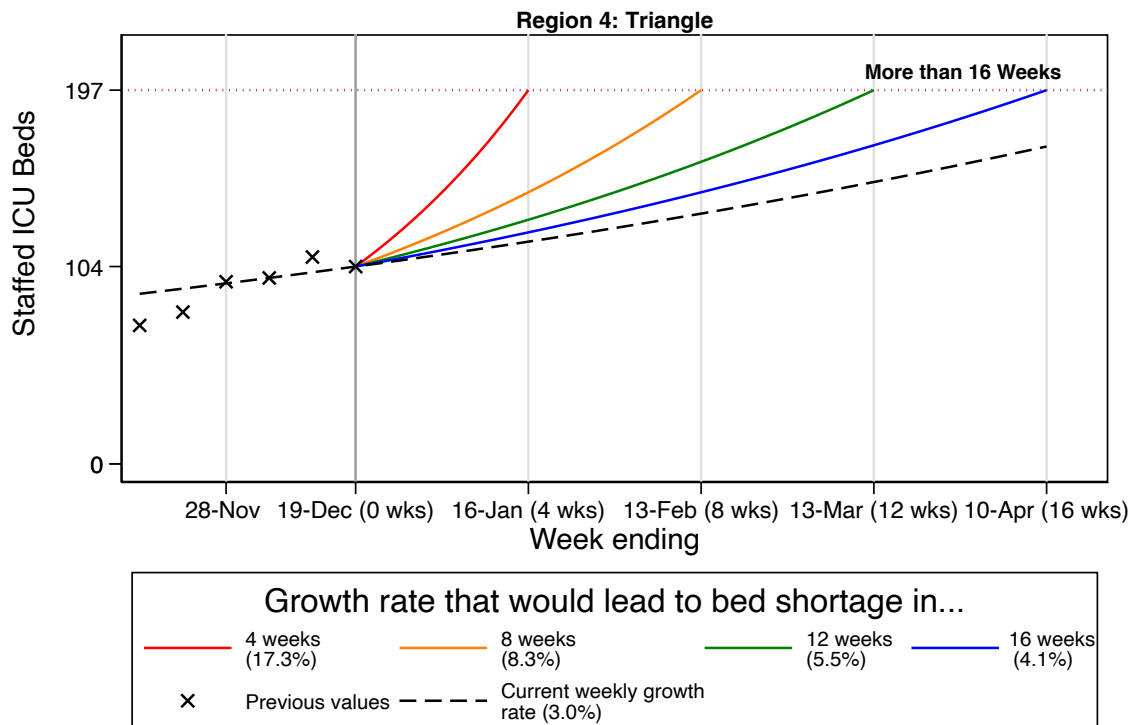


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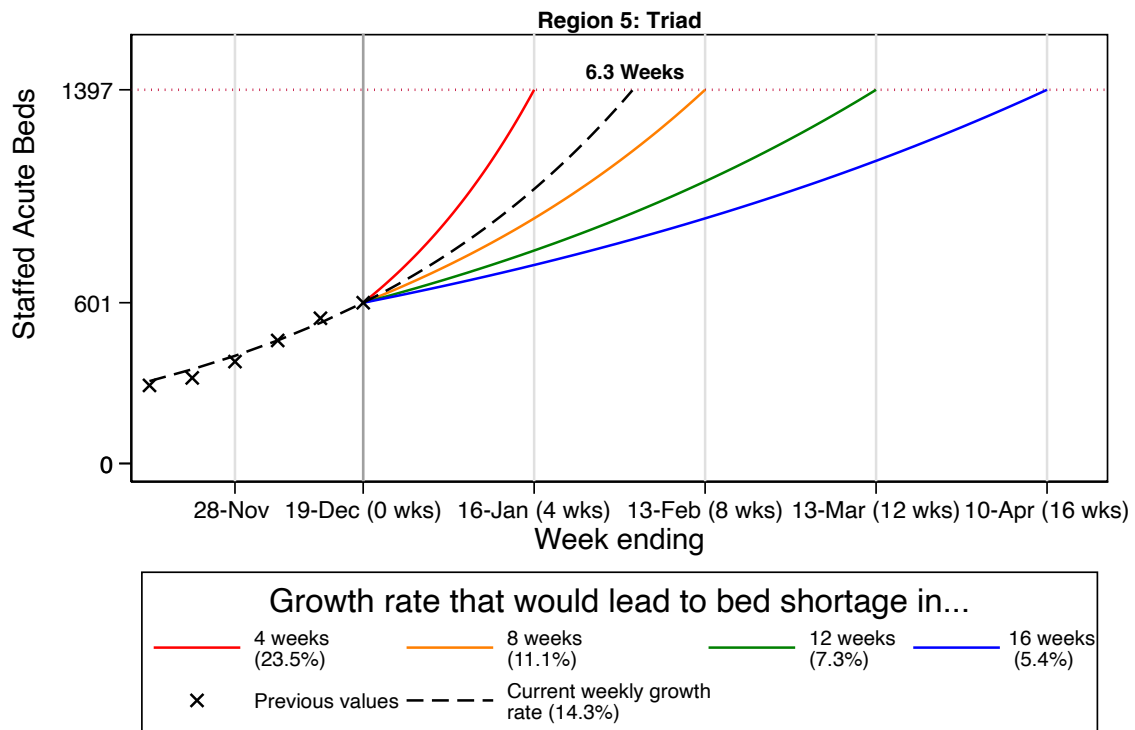
Growth curves required to hit capacity within various weeks



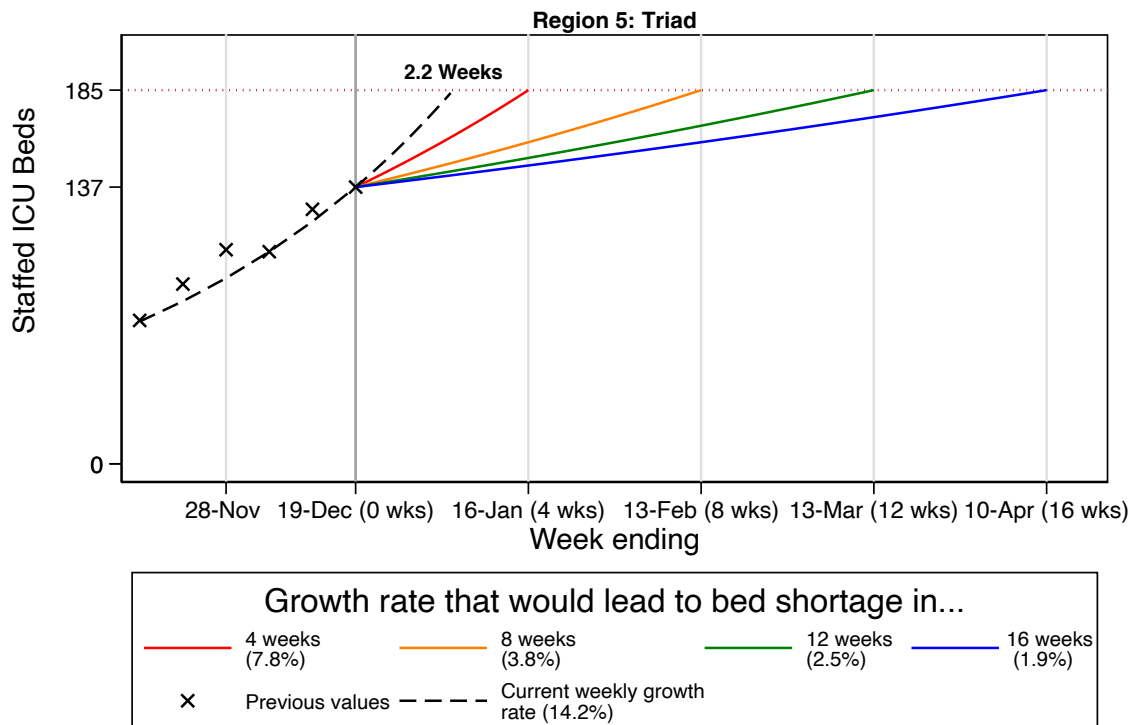
Growth curves required to hit capacity within various weeks



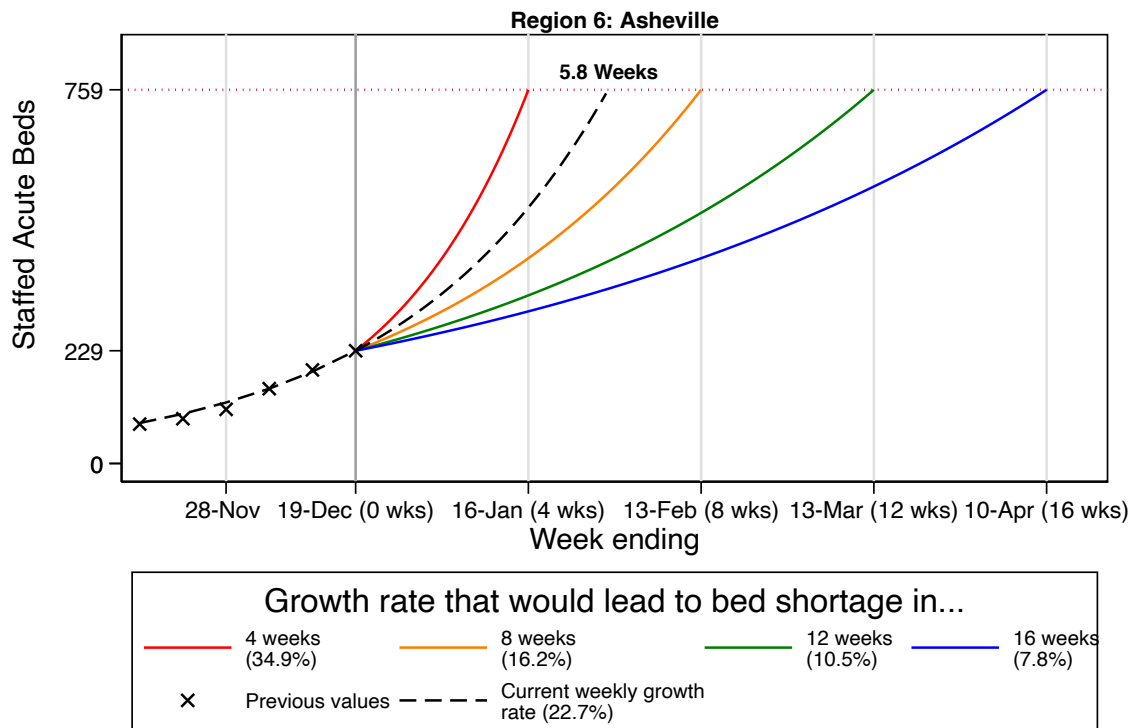
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