RUPRI Center for Rural Health Policy Analysis
Rural Data Update

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County-Level 14-Day COVID-19 Case Trajectories

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Background

This document updates maps and tables for the Rural Data Brief "County-Level 14-Day COVID-19 Case Trajectories" (https://ruprihealth.org/publications/policybriefs/2020/County COVID Trajectories.pdf). This data brief looks at the new case counts in every US county between October 18, 2020, and October 31, 2020, to quantitatively evaluate 14-day trends in metropolitan, nonmetropolitan, and noncore counties. Previous versions of this document can be found at: https://ruprihealth.org/publications/policybriefs/2020/COVID_Projects.html

Data on confirmed COVID-19 cases were obtained from the Johns Hopkins University COVID-19 Data Repository[1]. The number of cases in each county was aggregated for each week in the two-week period, and the totals for each week were compared. To minimize the impact of counties with very minor real variation in weekly counts, those with a change in case count of two or fewer (either increase or decrease) were coded as "Same number, both weeks." Counties that saw more than a 25 percent increase or decrease in number of cases between the weeks were labelled "notable" (including counties that went from 3 or more to none [notable decrease] and counties that went from none to 3 or more [notable increase]). Counties in the 50 states and the District of Columbia were classified as metropolitan, nonmetropolitan, or noncore based on Urban Influence Codes[2].

Table 1. 14-day trends[a] in newly confirmed COVID-19 cases, by county geography: 10/18/2020 – 10/31/2020

	Metropolitan (n = 1,166)		Nonmetropolitan (n = 641)		Noncore (n = 1,335)	
No cases reported	7	(0.6%)	5	(0.8%)	37	(2.8%)
Decreasing, notable[b]	116	(9.9%)	98	(15.3%)	264	(19.8%)
Decreasing, not notable	178	(15.3%)	91	(14.2%)	125	(9.4%)
Same number, both weeks[c]	107	(9.2%)	73	(11.4%)	270	(20.2%)
Increasing, not notable	276	(23.7%)	106	(16.5%)	110	(8.2%)
Increasing, notable	482	(41.3%)	268	(41.8%)	529	(39.6%)

[a]Comparison of number of new cases in first week of 14-day period with new cases in second week.
[b]"Notable" trends indicate weekly changes in new cases exceeding (either increasing or decreasing) 25 percent.
[c]Includes counties with an absolute change in count of two or fewer.

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Table 2. 14-day trends[a] in newly confirmed COVID-19 cases, in counties with any cases, by county geography: 10/18/2020 – 10/31/2020

	Metropolitan (n = 1,159 of 1,166)		Nonmetropolitan (n = 636 of 641)		Noncore (n = 1,298 of 1,335)	
Any decrease	294	(25.4%)	189	(29.7%)	389	(30.0%)
Notable decrease[b]	116	(10.0%)	98	(15.4%)	264	(20.3%)
Same number, both weeks[c]	107	(9.2%)	73	(11.5%)	270	(20.8%)
Any increase	758	(65.4%)	374	(58.8%)	639	(49.2%)
Notable increase[b]	482	(41.6%)	268	(42.1%)	529	(40.8%)
Increase of 100% or more	93	(8.0%)	70	(11.0%)	231	(17.8%)

[a]Comparison of number of new cases in first week of 14-day period with new cases in second week.
[b]"Notable" trends indicate weekly changes in new cases exceeding (either increasing or decreasing) 25 percent.
[c]Includes counties with an absolute change in count of two or fewer.

Figure 1.

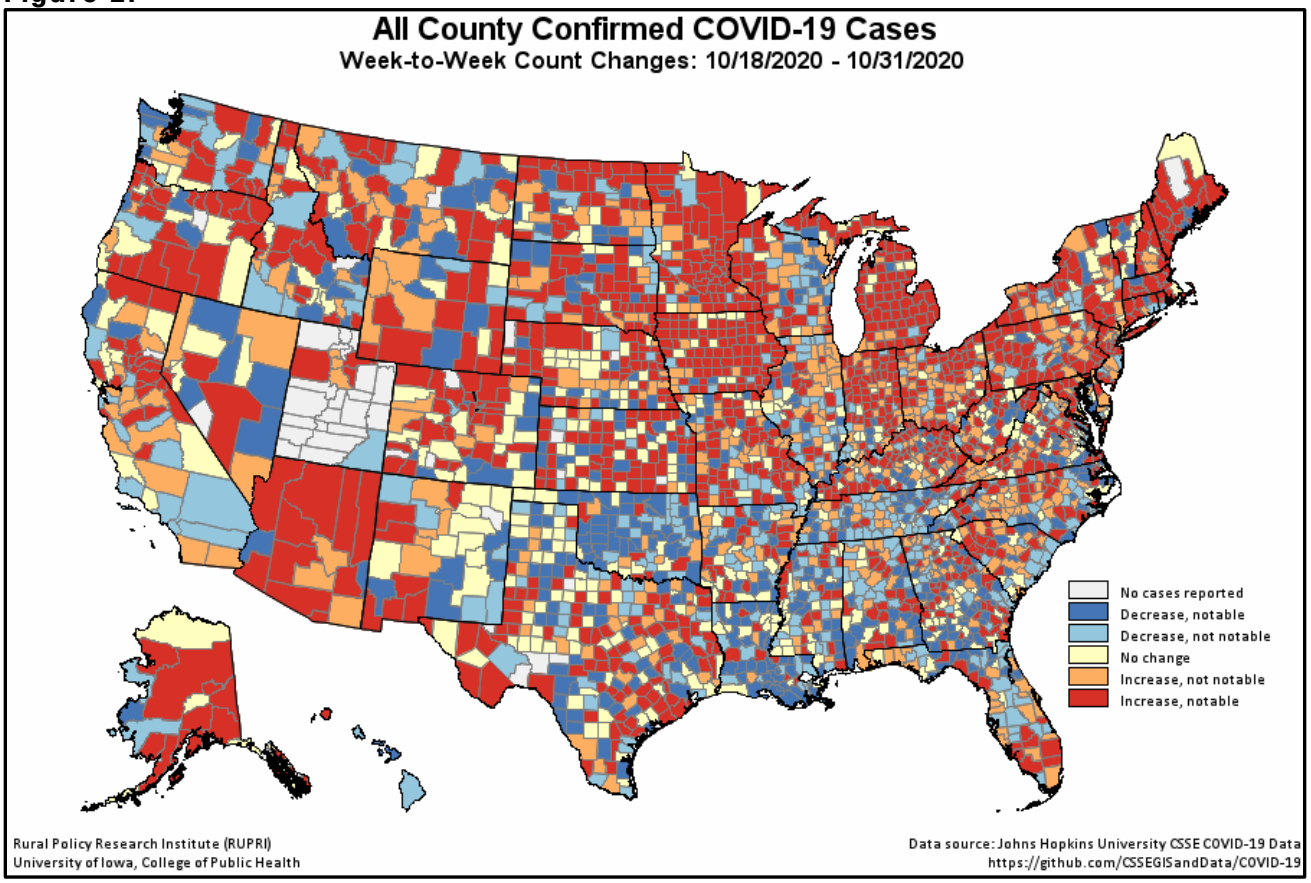


Figure 2.

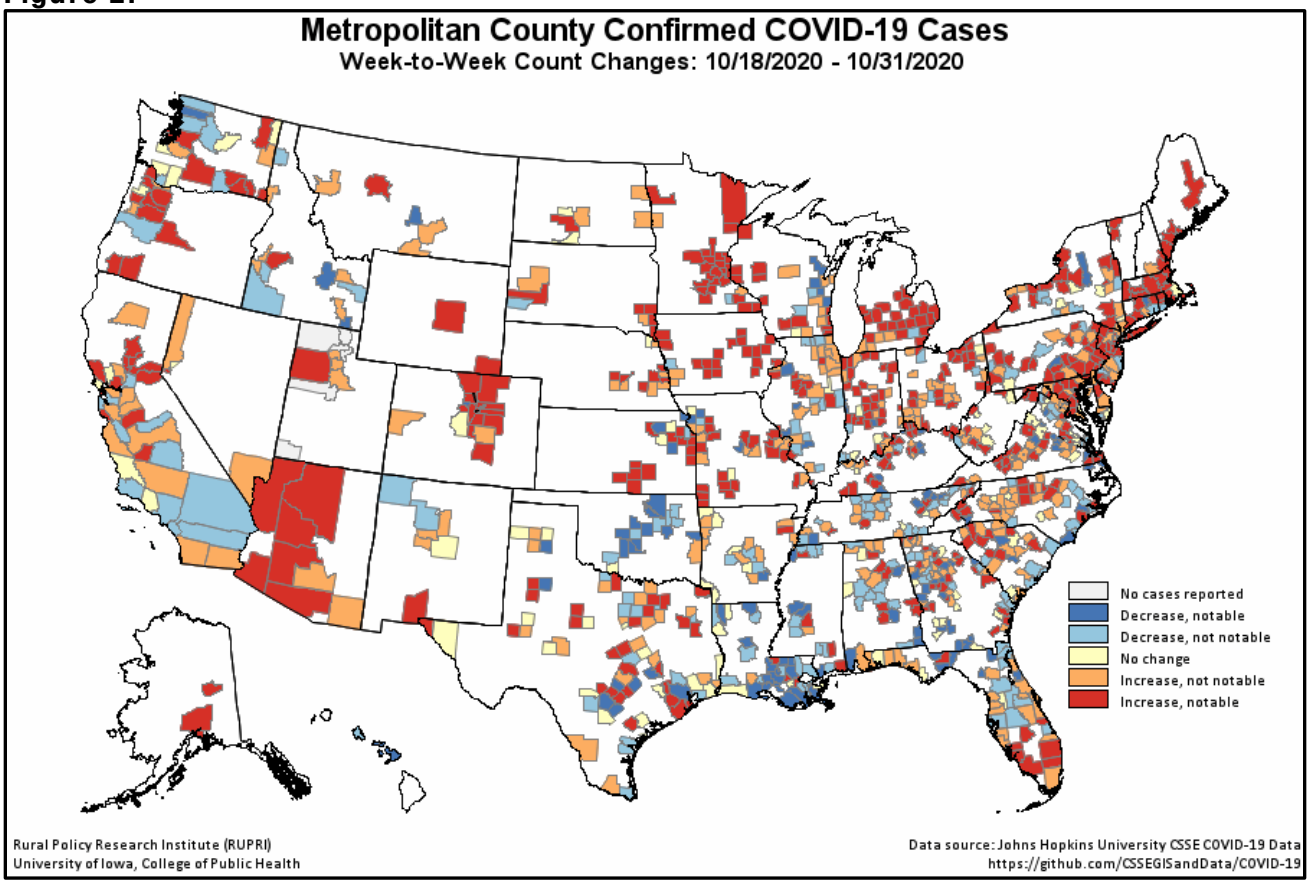


Figure 3.

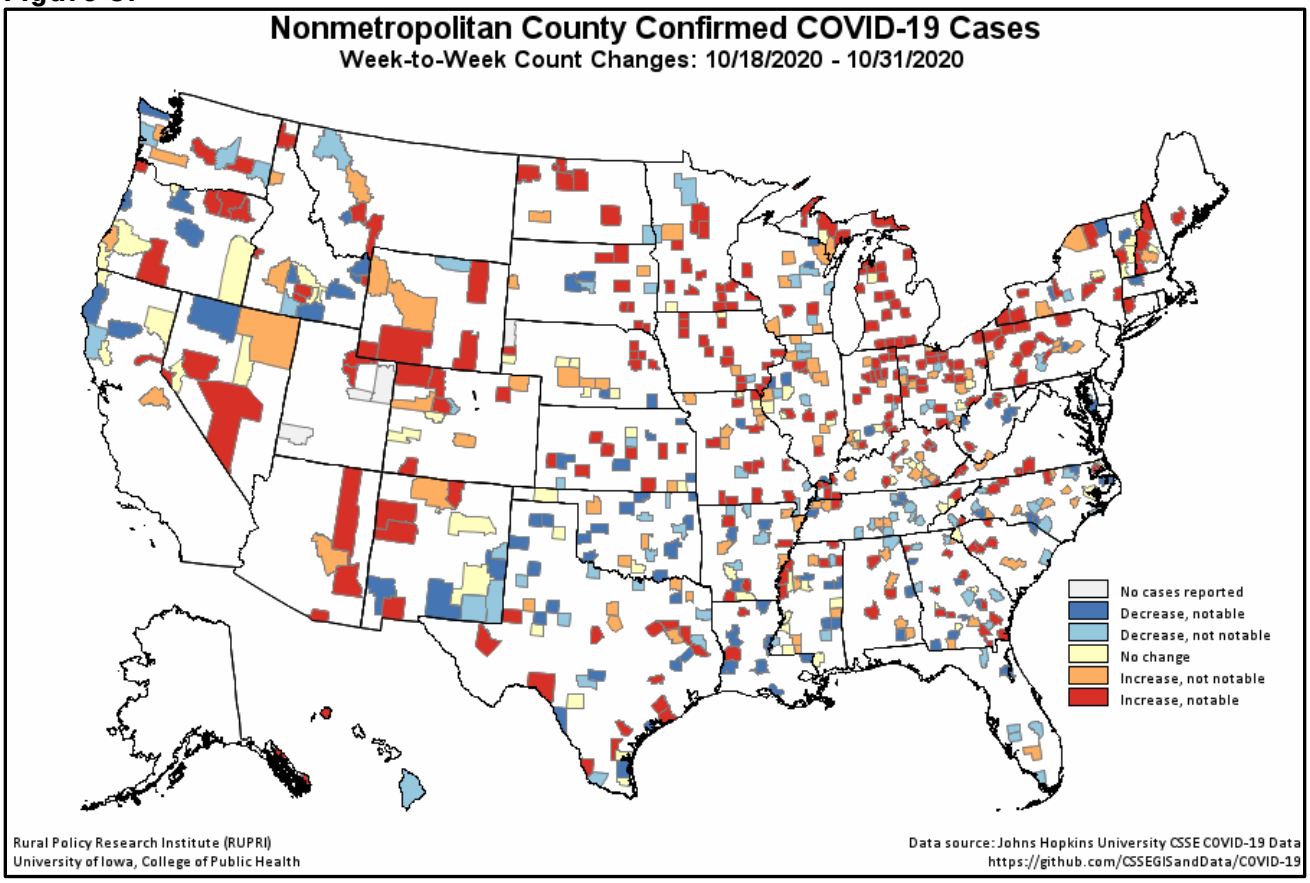
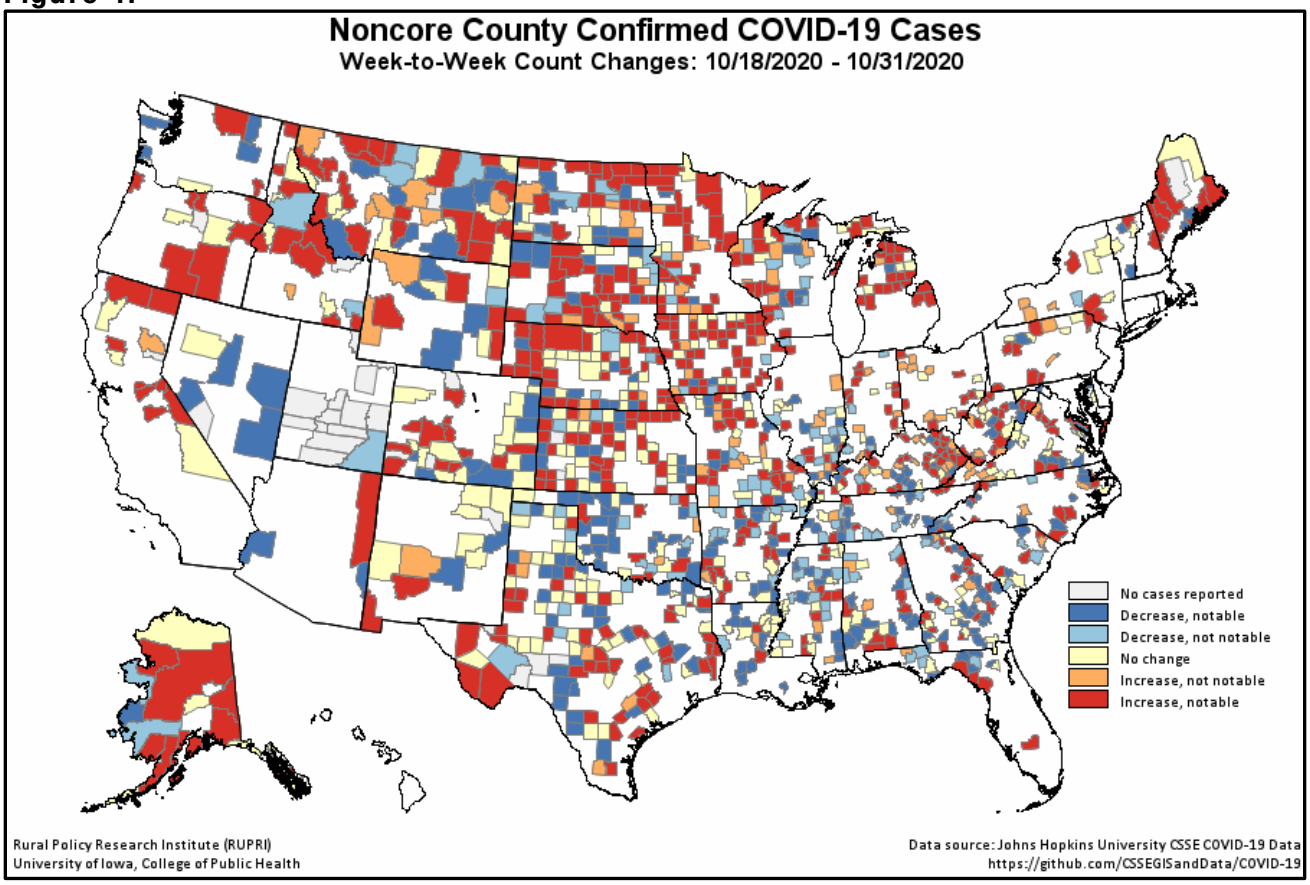


Figure 4.



[1] COVID-19 case and death data for this ongoing report were previously obtained from USAFacts.org. Reports after 8/15/2020 use data from the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University. While both sources employ similar approaches and resources to produce their data, the Johns Hopkins data is released in a more timely fashion making it more suitable for use in these reports.

[2] U.S. Department of Agriculture, Economic Research Service (2019). "Urban Influence Codes." Retrieved May 20, 2020 from https://www.ers.usda.gov/data-products/urban-influence-codes/.