Data columns for models 11.2.1 and 12.4:

Name	Model	Type	Source	Description
AirPollution	both	static	CHR	Particulate matter raw value
Cases	both*	dynamic	USAFacts	Cases
CountyCaseRate	11.2.1*	dynamic	USAFacts	7-day case rate
CountyDeathRate	11.2.1*	dynamic	USAFacts	7-day death rate
DaytimePopDensity	both	static	ArcGIS2	DPOPDENSCY
Deaths	both*	dynamic	USAFacts	Deaths
Diabetes	both	static	CHR	Diabetes prevalence raw value
DistancingGrade	both	dynamic	Unacast	Total grade converted to number
Mobility	11.2.1*	static	ArcGIS2	X7001_A (average travel)
Obesity	both	static	CHR	Adult obesity raw value
PctBeds	11.2.1	static	HIFLD	# Beds / CHR Population raw value
PctBeds	12.4	dynamic	HHS-CPR	% inpatient beds occupied
PctBlack	both	static	CHR	% Non-Hispanic Black raw value
PctCases	11.2.1*	dynamic	USAFacts	Cases / CHR Population raw value
PctDeaths	11.2.1*	dynamic	USAFacts	Deaths / Cases
PctDeaths2	11.2.1*	dynamic	USAFacts	Deaths / CHR Population raw value
PctGE65	both	static	SVI	EP_AGE65
PctNative	both	static	CHR	% American Indian & Alaska Native raw value
PctNoIns	both	static	ArcGIS1	B27010_calc_pctNoInsE
PctVentilators	12.4	dynamic	HHS-CPR	% ventilators in use
PrematureDeath	both	static	CHR	Premature death raw value
Sick	both	dynamic	USAFacts	(Cases[day] – Cases[day-14]) / CHR Pop * 1000
Smoking	both	static	CHR	Adult smoking raw value
Spread	both	dynamic	USAFacts	(Cases[day] – Cases[day-14]) / Cases[day]
StateCaseRate	11.2.1*	dynamic	USAFacts	7-day case rate
StateDeathRate	11.2.1*	dynamic	USAFacts	7-day death rate
StatePctTested	11.2.1	dynamic	HHS-T	# Tests / CHR Population raw value
StateTestRate	11.2.1*	dynamic	HHS-T	7-day testing rate
SVIHousing	both	static	SVI	RPL Theme 4
SVIMinority	11.2.1*	static	SVI	RPL Theme 3
SVISocioeconomic	both	static	SVI	RPL Theme 1
Testing	12.4	dynamic	HHS-CPR	RT-PCR tests per 100k – last 7 days
Traffic	both	static	CHR	Traffic volume raw value
Vaccines	12.4	dynamic	HHS-CPR	1 - % vaccinated population

Notes:

* Indicates presence in model data file but not used when computing PVI score.

Rate computations are (x[day] / x[day - n])^(1/n) for n-day change

Data sources:

ArcGIS1	ArcGIS map with American Community Survey data (Insurance)
ArcGIS2	ArcGIS map with American Community Survey data (Travel)
CHR	County Health Rankings (2020) (Note: 2021 data now available but not used)
HHS-CPR	HHS Community Profile Reports
HHS-T	HHS State-level PCR testing results timeseries
HIFLD	Homeland Infrastructure Foundation-Level Data (Hospitals)
SVI	Social Vulnerability Index (2018)
Unacast	Unacast social distancing scoreboard
USAFacts	USAFacts.org covid count data

Model 12.4 imputation:

PctBeds and PctVentilators missing data are imputed as the mean of the 8 geographically nearest counties (based on centroid coordinates) that have valid data.

Vaccines missing data imputation has several steps.

1) County level data is available and used beginning 4/12/2021

2) Missing county data (and all data prior to 4/12) is imputed first from the "States" data sheet, column "People who are fully vaccinated as % of total population"

3) If that state data column isn't available, column "People initiating vaccination as % of adult population" will be used instead

Model generation:

Models are generated nightly (~10 p.m. ET) using the most recently available data. However, data streams are not always up to date, so a weekly refresh is done to the GitHub site early Sunday a.m. and then the dashboard incorporates those changes Sunday night. The refreshed models will use data from the prior day, e.g., a model for 5/19 will use dynamic data from 5/18.