

# week11

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## Quarto

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see <https://quarto.org>.

## Running Code

When you click the **Render** button a document will be generated that includes both content and the output of embedded code. You can embed code like this:

```
— Attaching core tidyverse packages — tidyverse 2.0.0 —
✓ dplyr      1.1.2      ✓ readr      2.1.4
✓ forcats    1.0.0      ✓ stringr    1.5.0
✓ ggplot2     3.4.3      ✓ tibble     3.2.1
✓ lubridate  1.9.2      ✓ tidyr      1.3.0
✓ purrr       1.0.2
— Conflicts — tidyverse_conflicts() —
✖ dplyr::filter() masks stats::filter()
✖ purrr::flatten() masks jsonlite::flatten()
✖ dplyr::lag() masks stats::lag()
! Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts
to become errors

Rows: 53
Columns: 25
$ fips      <chr> "02", "01", "05", "04", "06", "08", "09...
$ country   <chr> "US", "US", "US", "US", "US", "US", "US...
$ state      <chr> "AK", "AL", "AR", "AZ", "CA", "CO", "CT...
$ county     <lgl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
$ hsa        <lgl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
$ hsaName    <lgl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
$ level      <chr> "state", "state", "state", "state", "st...
$ lat        <lgl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
$ locationId <chr> "iso1:us#iso2:us-ak", "iso1:us#iso2:us-...
$ long       <lgl> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
$ population <int> 731545, 4903185, 3017804, 7278717, 3951...
$ hsaPopulation <int> NA, NA, NA, NA, NA, NA, NA, NA, NA, NA,...
$ metrics    <df[,14]> <data.frame[26 x 14]>
$ riskLevels <df[,6]> <data.frame[26 x 6]>
$ cdcTransmissionLevel <int> 2, 4, 3, 3, 1, 4, 4, 1, 4, 4, 2, 3,...
$ communityLevels <df[,2]> <data.frame[26 x 2]>
$ actuals     <df[,19]> <data.frame[26 x 19]>
$ annotations <df[,30]> <data.frame[26 x 30]>
$ lastUpdatedDate <chr> "2023-10-30", "2023-10-30", "2023-10...
$ url         <chr> "https://covidactnow.org/us/alaska-ak",...
```

```

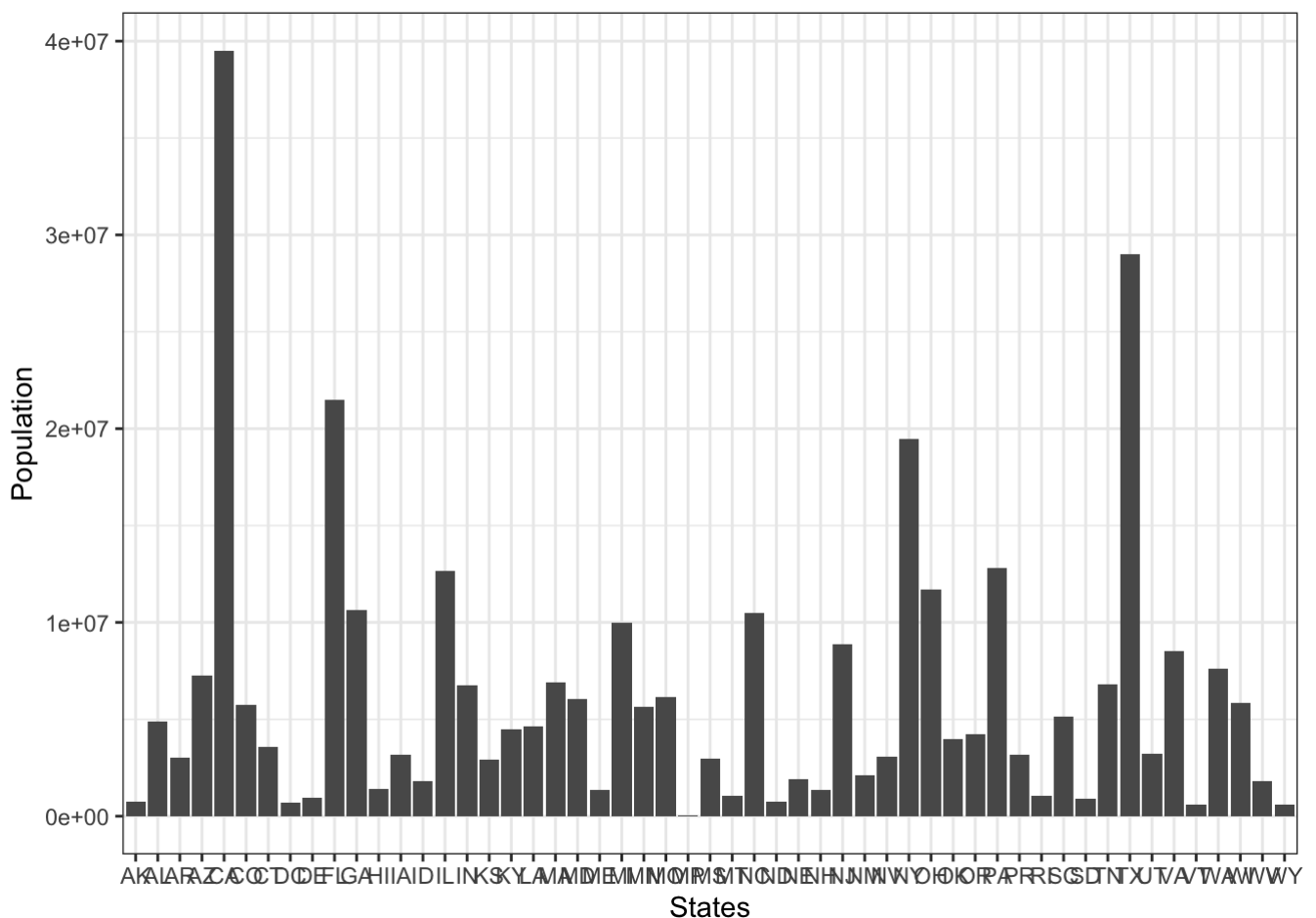
$ metricsTimeseries      <list> [<data.frame[1334 x 14]>], [<data.fr...
$ actualsTimeseries      <list> [<data.frame[1334 x 20]>], [<data.f...
$ riskLevelsTimeseries   <list> [<data.frame[1334 x 3]>], [<data.fr...
$ cdcTransmissionLevelTimeseries <list> [<data.frame[1334 x 2]>], [<data.frame[...
$ communityLevelsTimeseries <list> [<data.frame[1334 x 3]>], [<data.frame[...

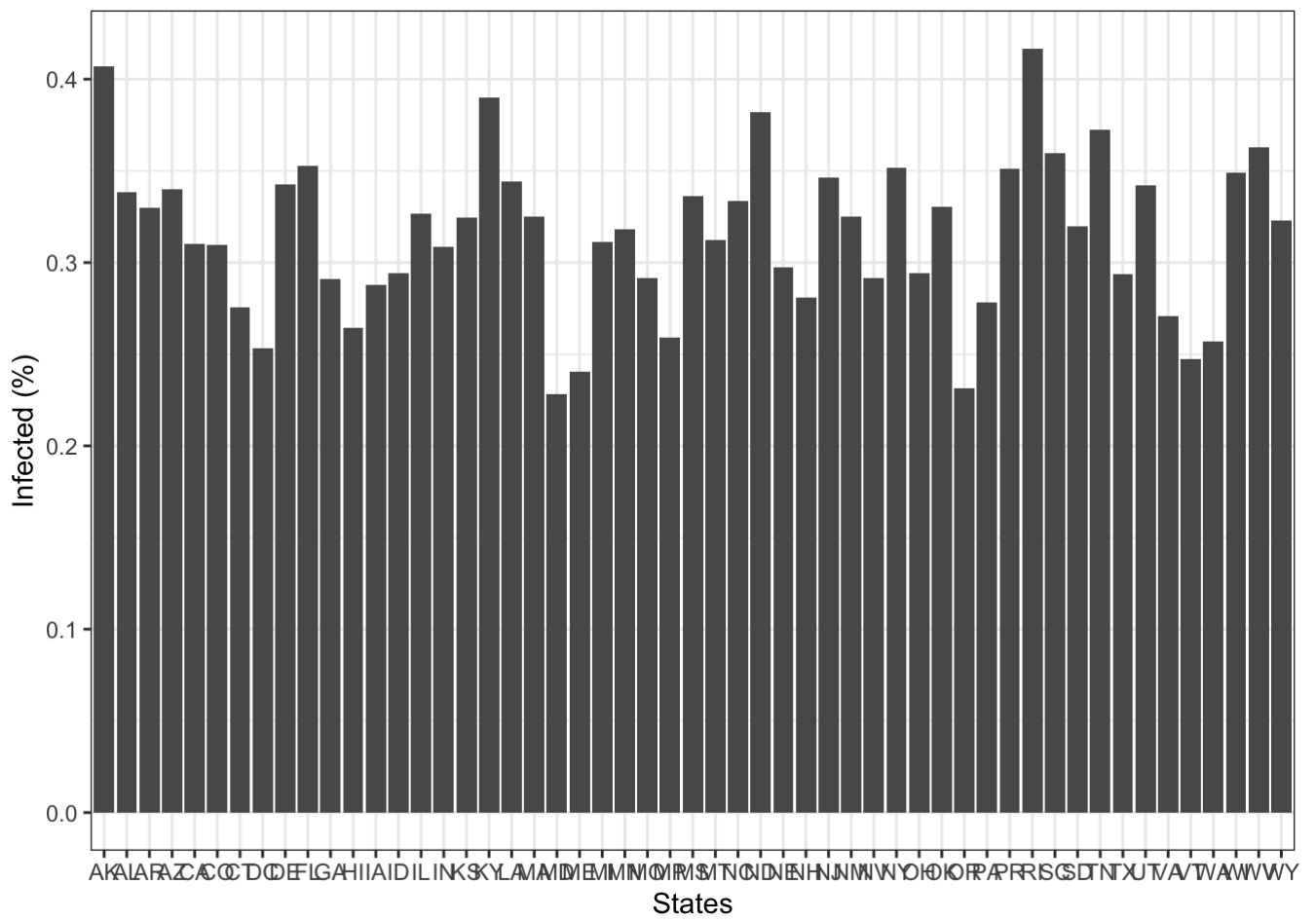
```

- What is the population in various states of U.S.A?
- What fraction of the population was infected ?
- What fraction of infected persons recovered ?
- What fraction of the population is currently vaccinated ?
- What was the transmission-like in the various states ?
- How did the disease progress since it started ?

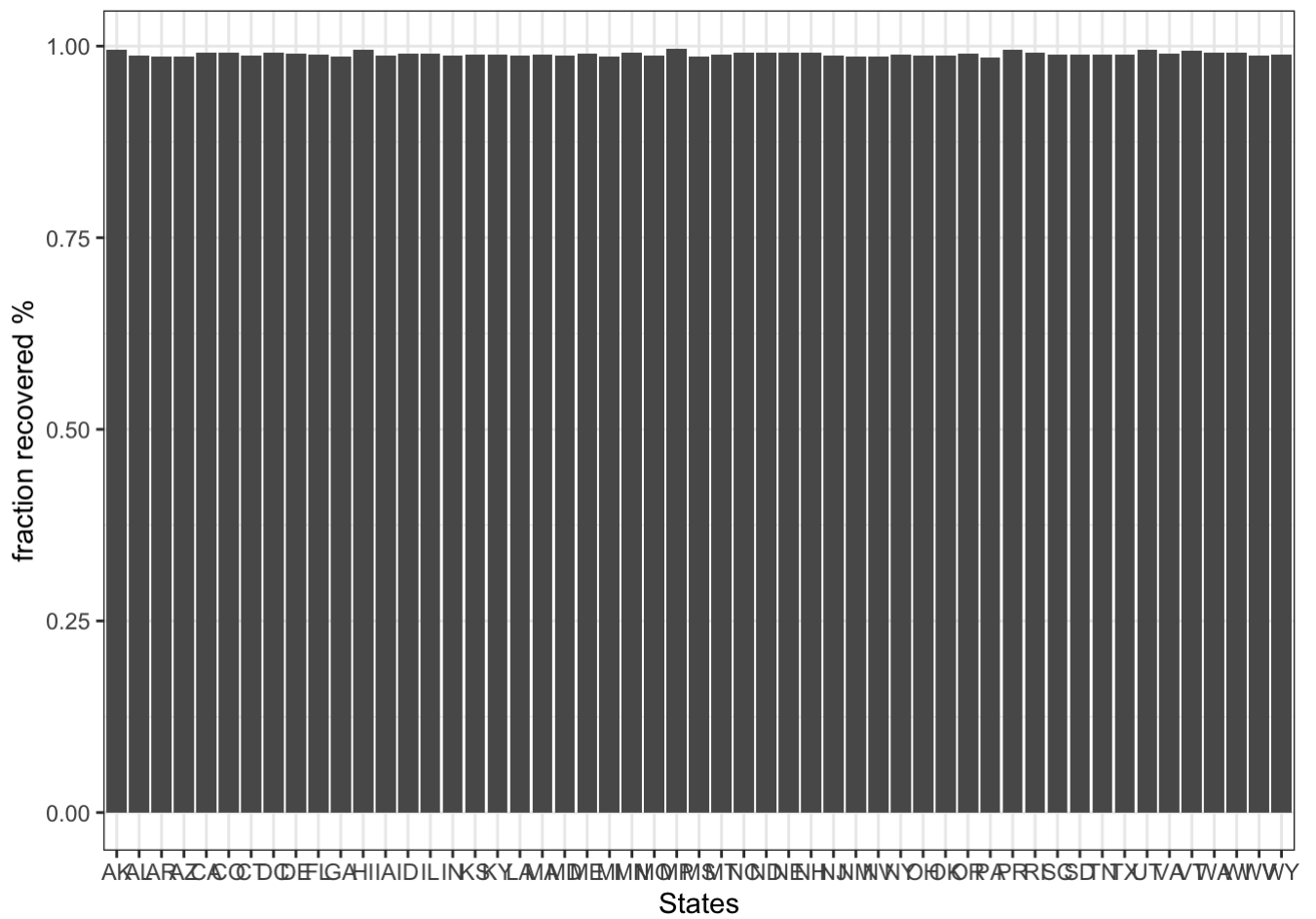
# A tibble: 6 × 6

	Date	Alaska	California	New_Jersey	Tennessee	District_of_Columbia
	<chr>	<int>	<int>	<int>	<int>	<int>
1	2020-03-01	0	0	0	0	0
2	2020-03-02	0	0	0	0	0
3	2020-03-03	0	0	0	0	0
4	2020-03-04	0	0	0	0	0
5	2020-03-05	0	0	0	0	0
6	2020-03-06	0	0	0	0	0



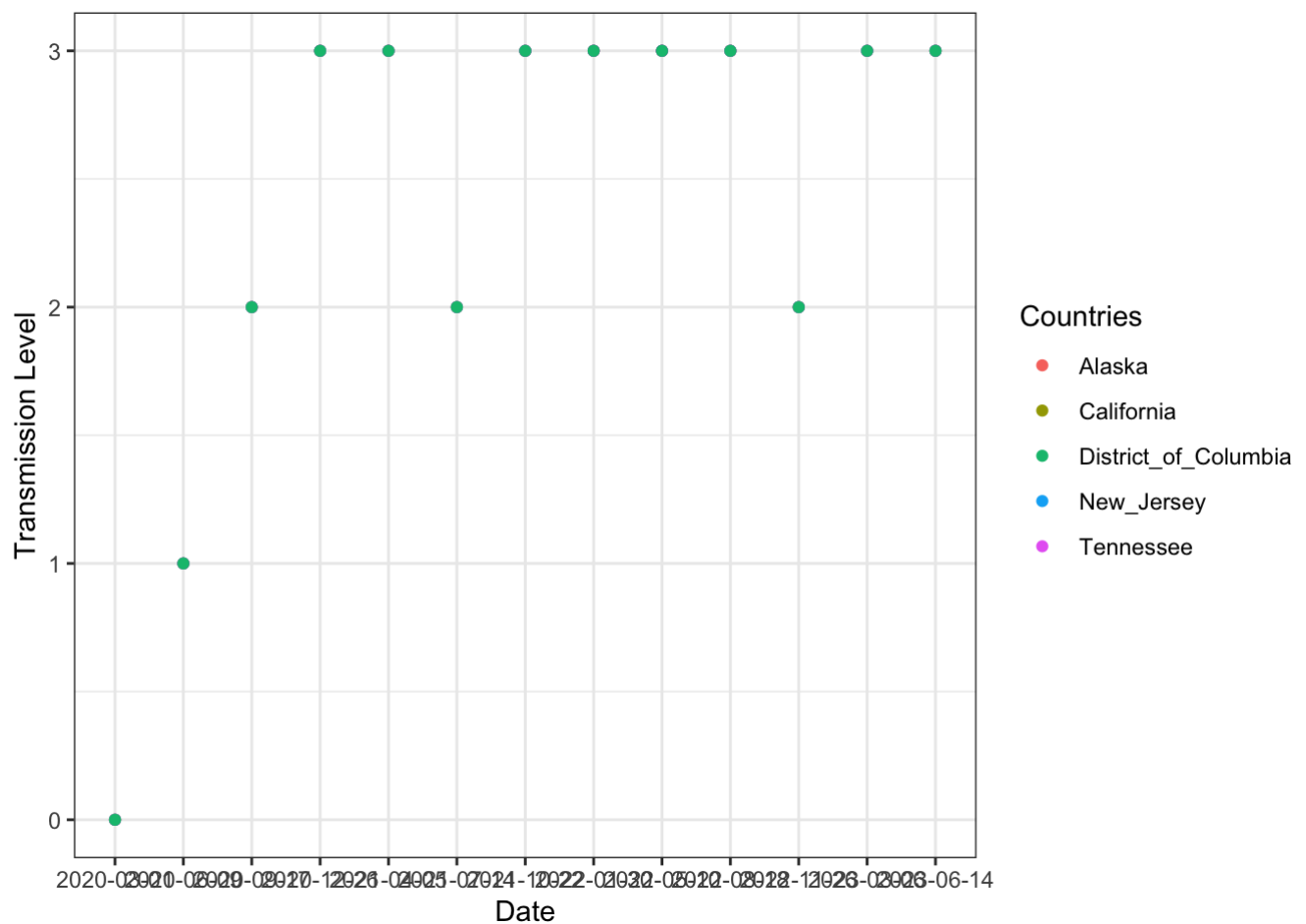
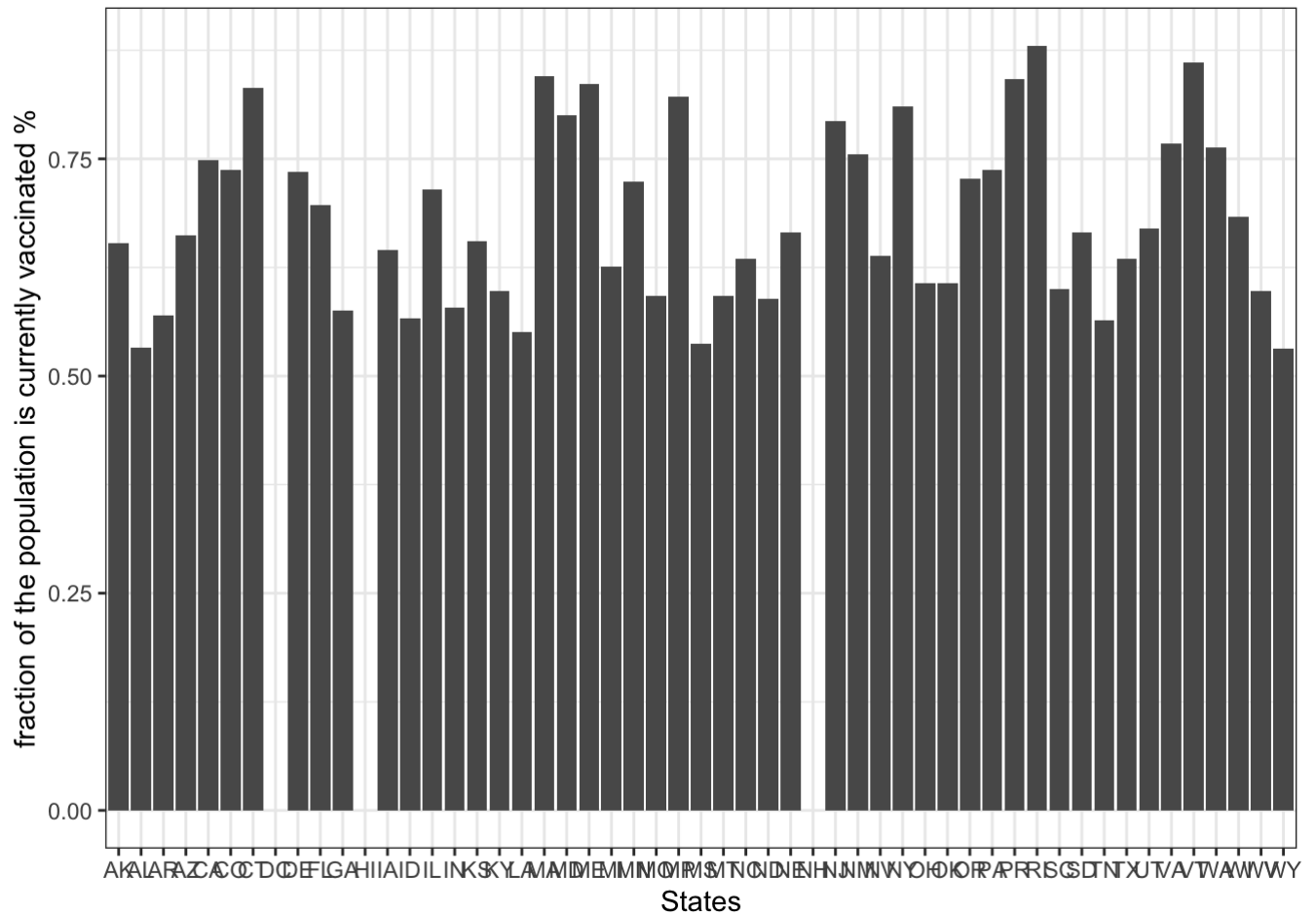


[1] 0.3154977



[1] 0.9896543

Warning: Removed 3 rows containing missing values (`position\_stack()`).



Attaching package: 'cowplot'

The following object is masked from 'package:lubridate':

stamp

Warning: Removed 2 rows containing missing values (`geom\_point()`).

Removed 2 rows containing missing values (`geom\_point()`).

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