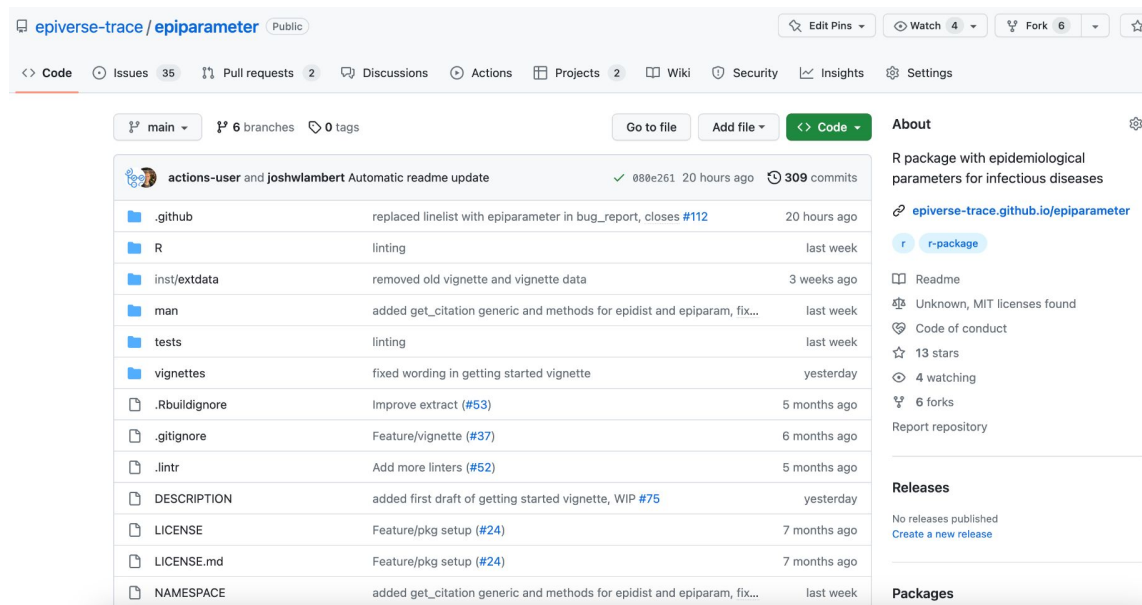# {epiparameter}

April 2023

Project Aims

The Epiverse epiparameter project aims to facilitate outbreak analysis by providing a modular and interoperable software tool and database to integrate into epidemiological pipelines.

It has two central components:

1. Build a, hitherto lacking, library of epidemiological parameters

2. Develop an package for working with epidemiological parameters

Structure of project

- Everything is housed in a single R package: {epiparameter}

- The project is open-source and developed on Github

https://github.com/epiverse-trace/epiparameter
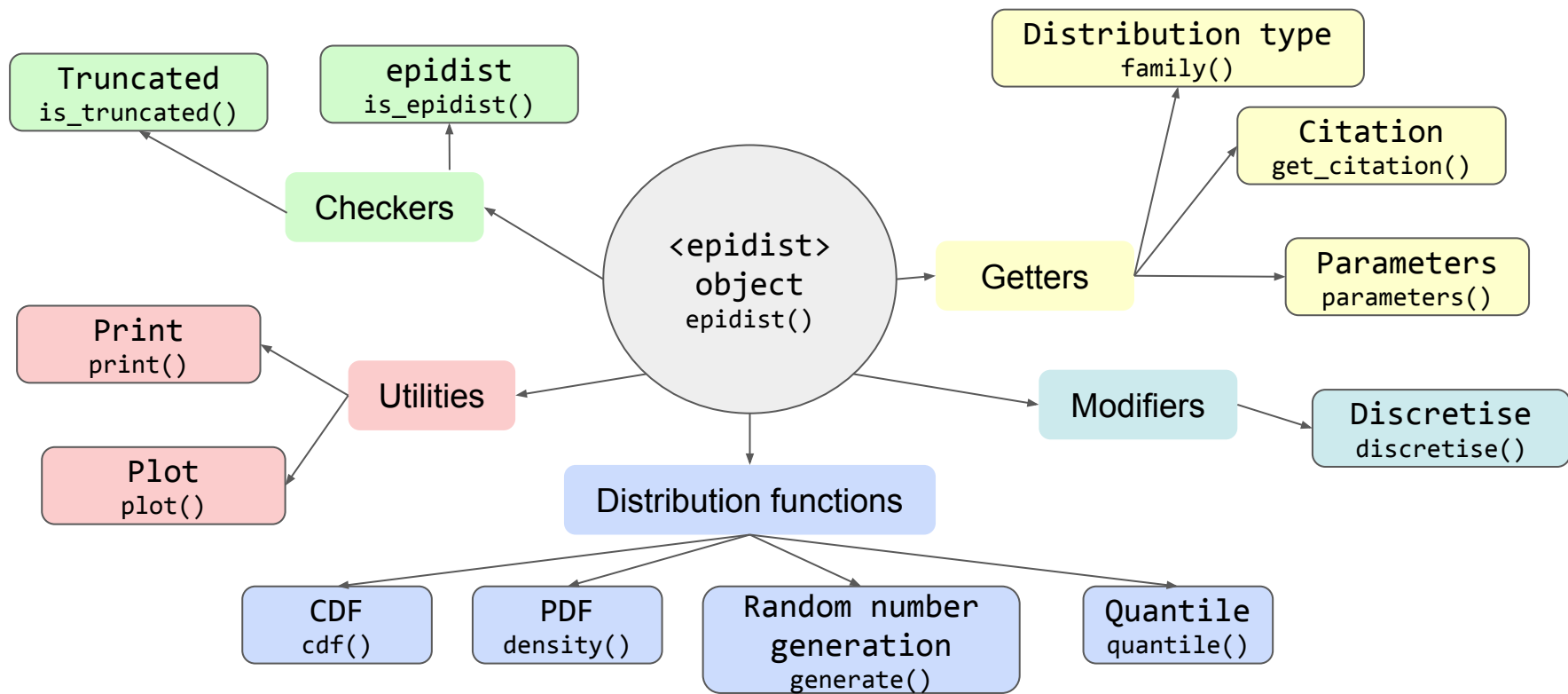
Technical details

- {epiparameter} adds three (S3) classes for working with epidemiological parameters
  - `<epidist>`
  - `<epiparam>`
  - `<vb_epidist>`

- Continuous integration (using Github Actions)
  - Checks package is working and passes testing suite
  - Parameter database validation

Technical details

Data objects/classes as interoperable units

Documentation

https://epiverse-trace.github.io/epiparameter/

Applications

Reproduction number estimation

Transmissibility data pipeline

{readepi} → {linelist} → {incidence2}

{epiparameter}

{R0}

{EpiNow2}

{EpiEstim}

Applications

Case-fatality ratio estimation
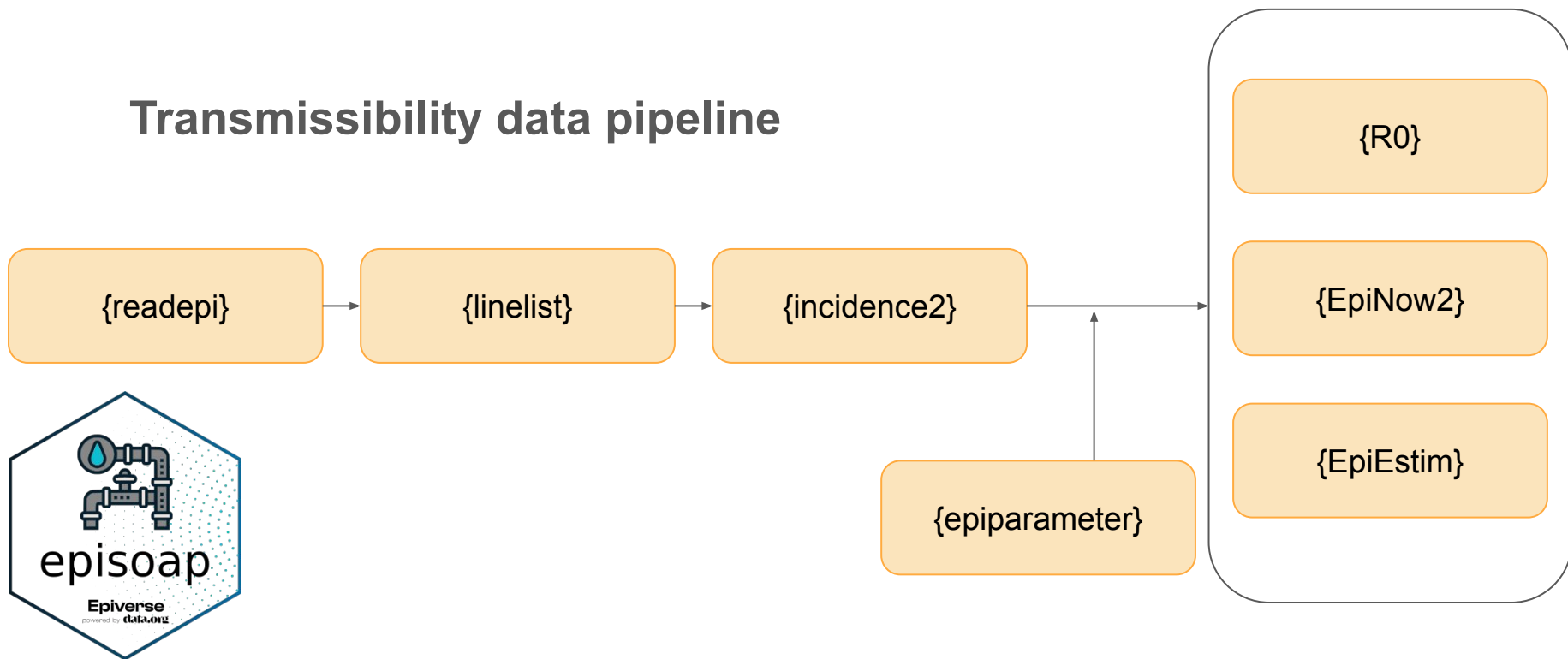
Severity data pipeline
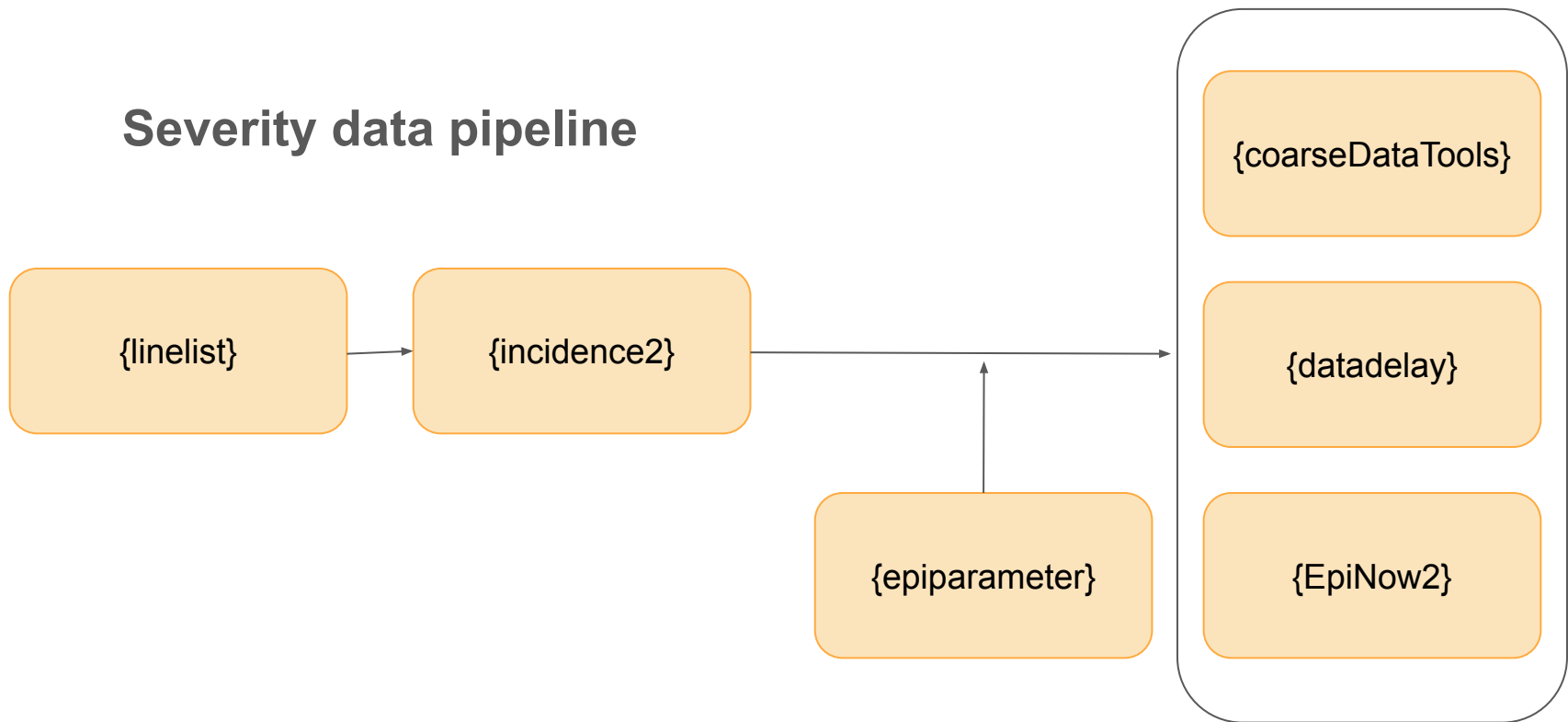
Contributors and community

GitHub engagement
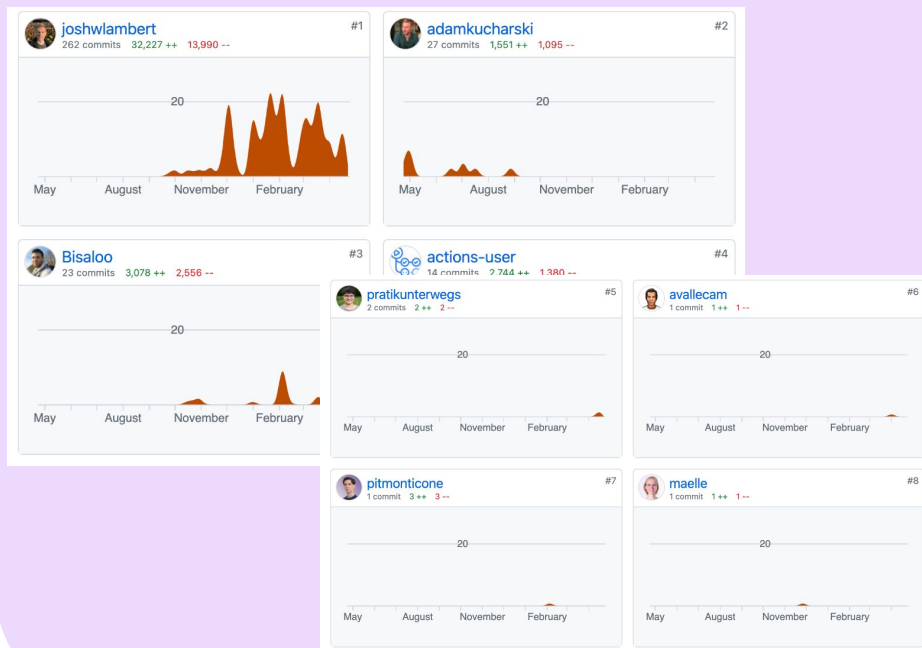
Direct community engagement

Thank you for listening

Any questions?