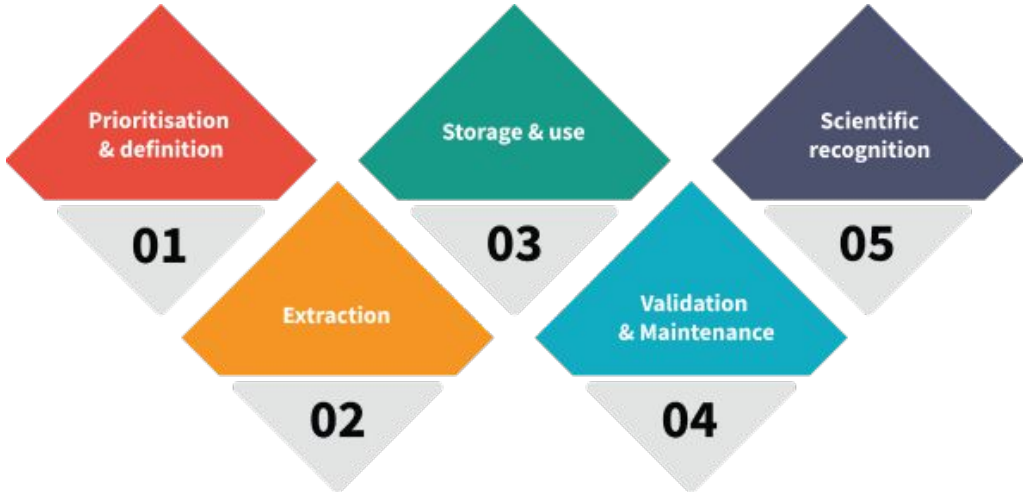
Epiparameter Collaboration Workstream 3: Storage & Use

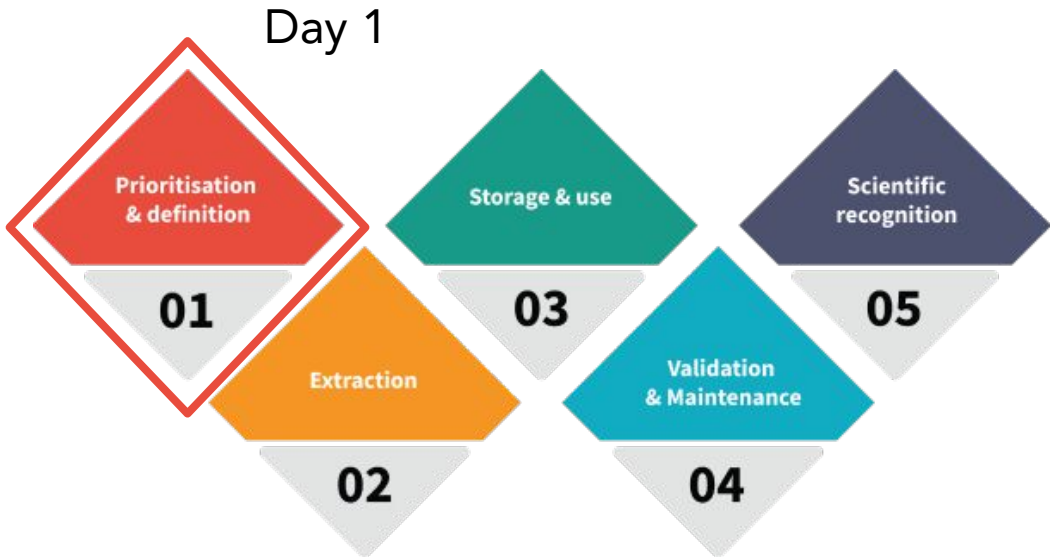
Intro to the `{epiparameter}` R package

Pt. I
Epiparameter Collaboration
Workstream 3: Storage & Use

Collaboratory Epiparameter Community



Collaboratory Epiparameter Community



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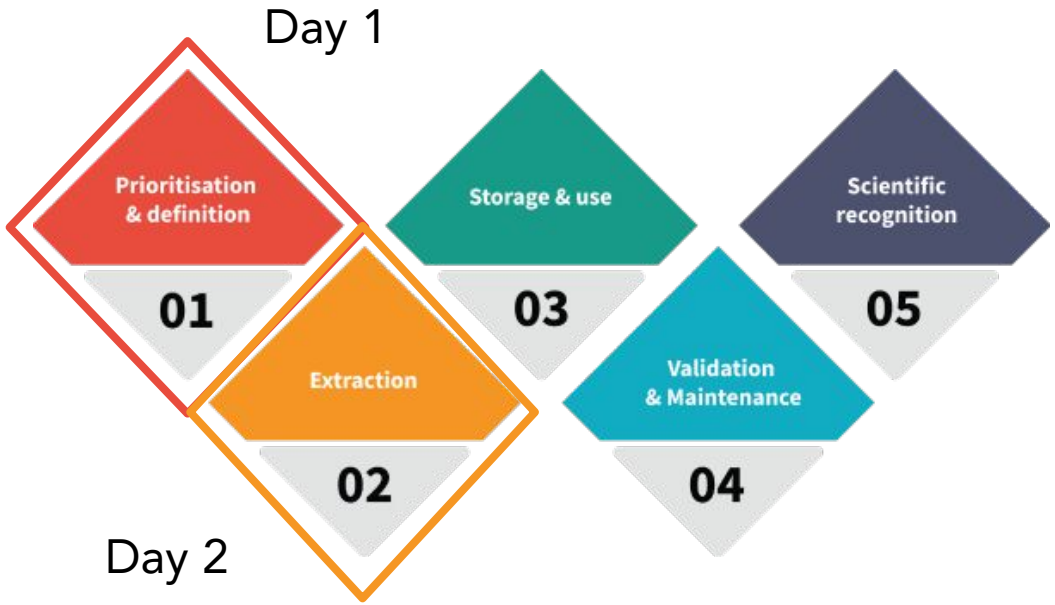

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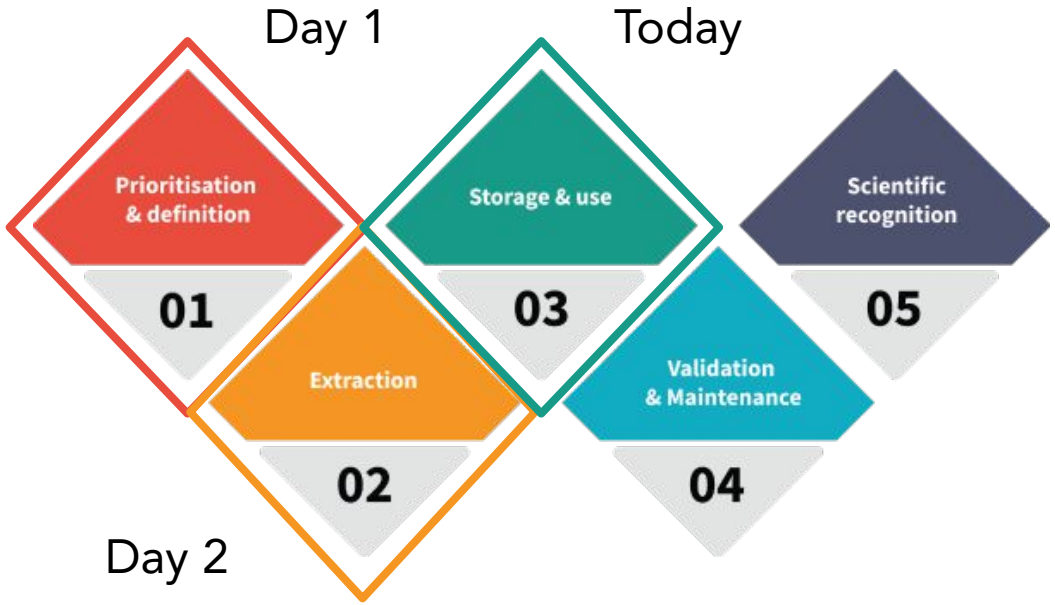

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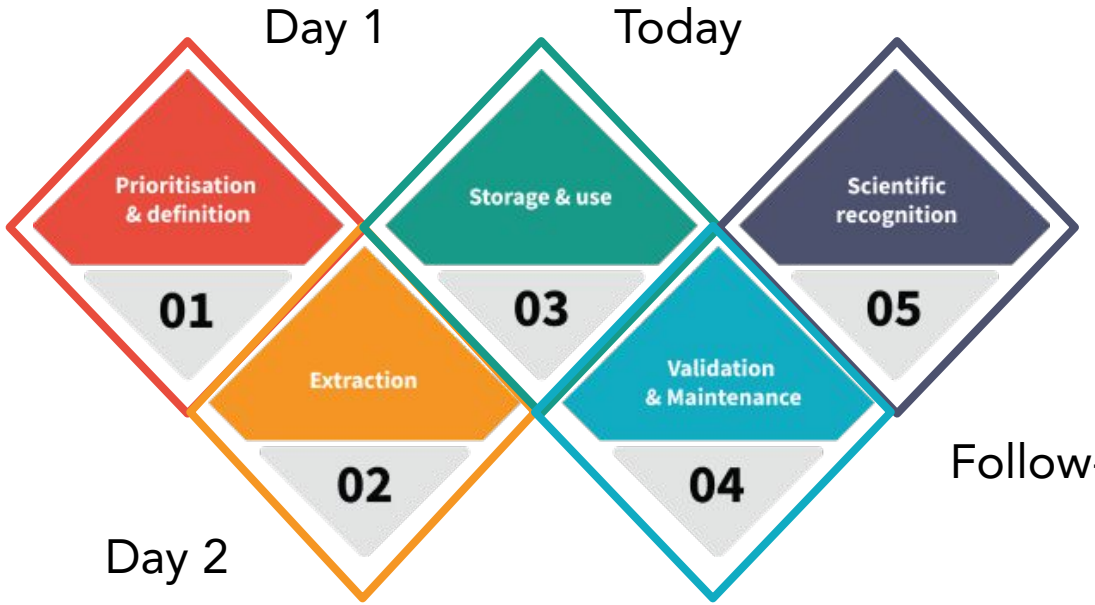


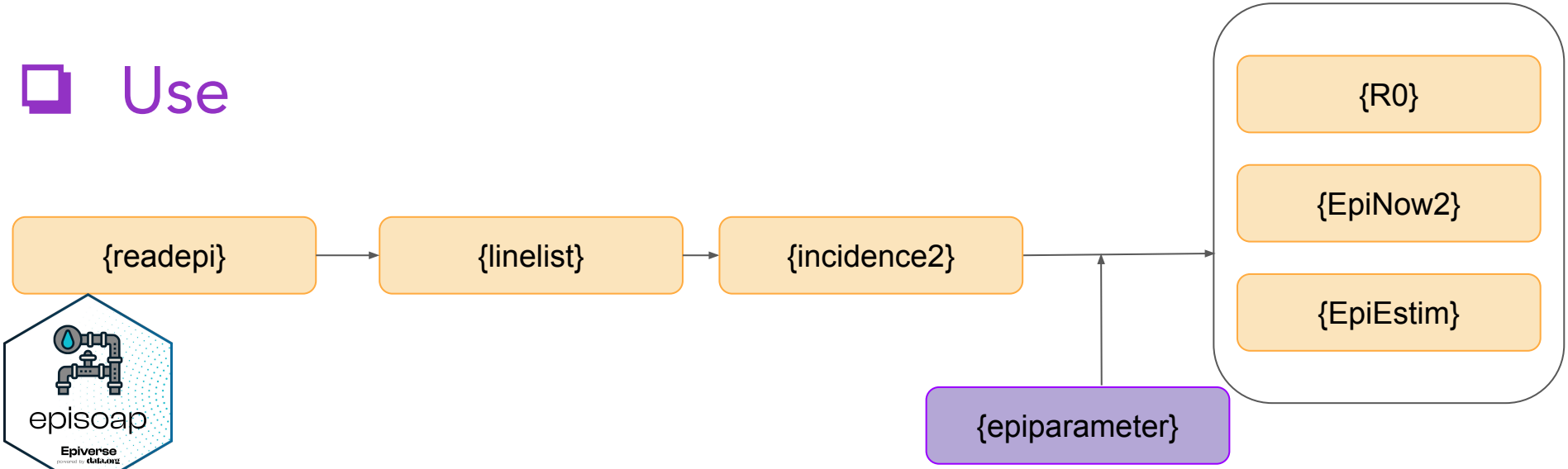
Workstream 3

Storage & use

03

Storage

Use



Pt. II
A brief intro to the `{epiparameter}` R package

Project Aims

Objective of the `{epiparameter}` project is to facilitate outbreak analysis by providing:

- A library of epidemiological parameters

- Modular and interoperable tool to integrate into epidemiological pipelines.

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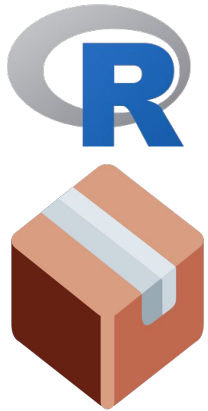

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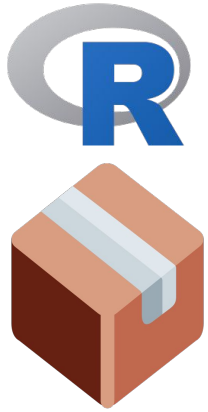
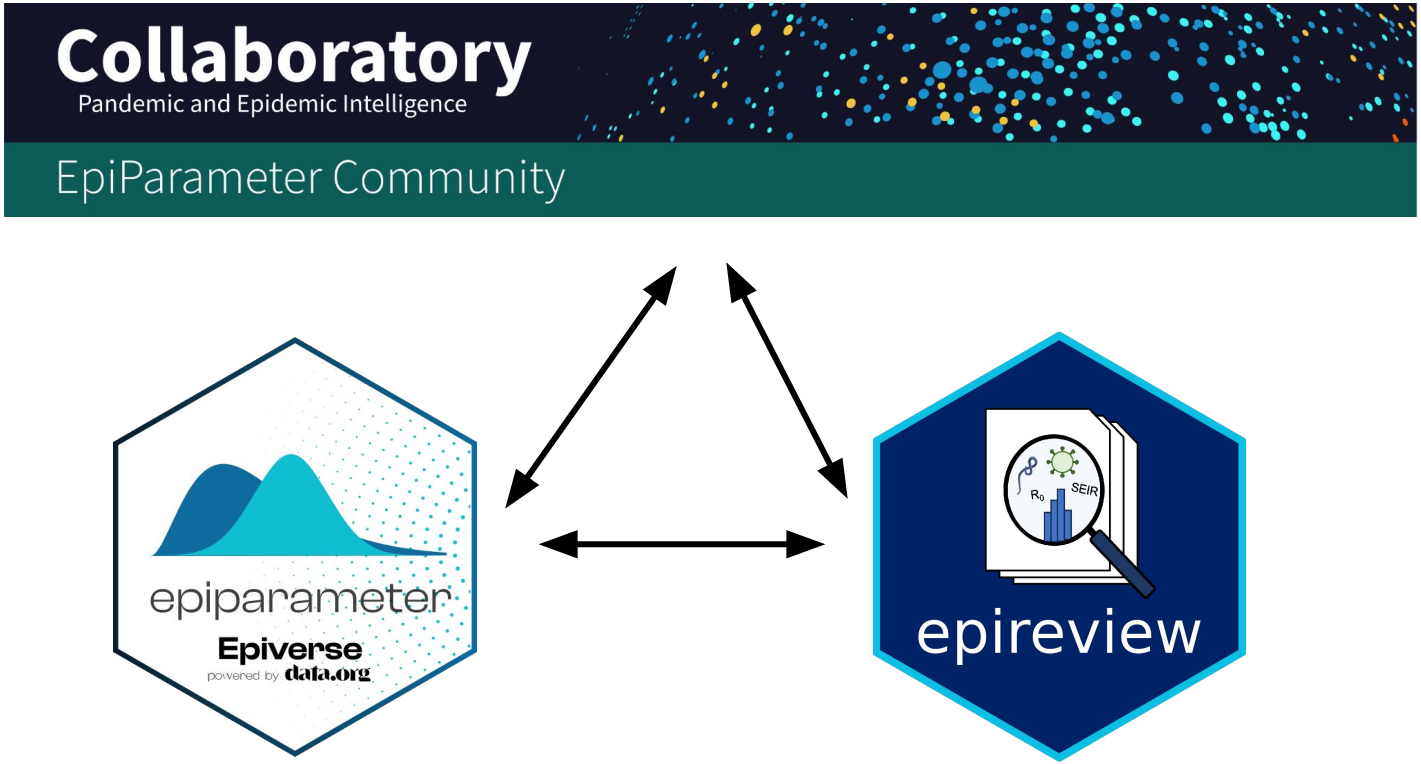
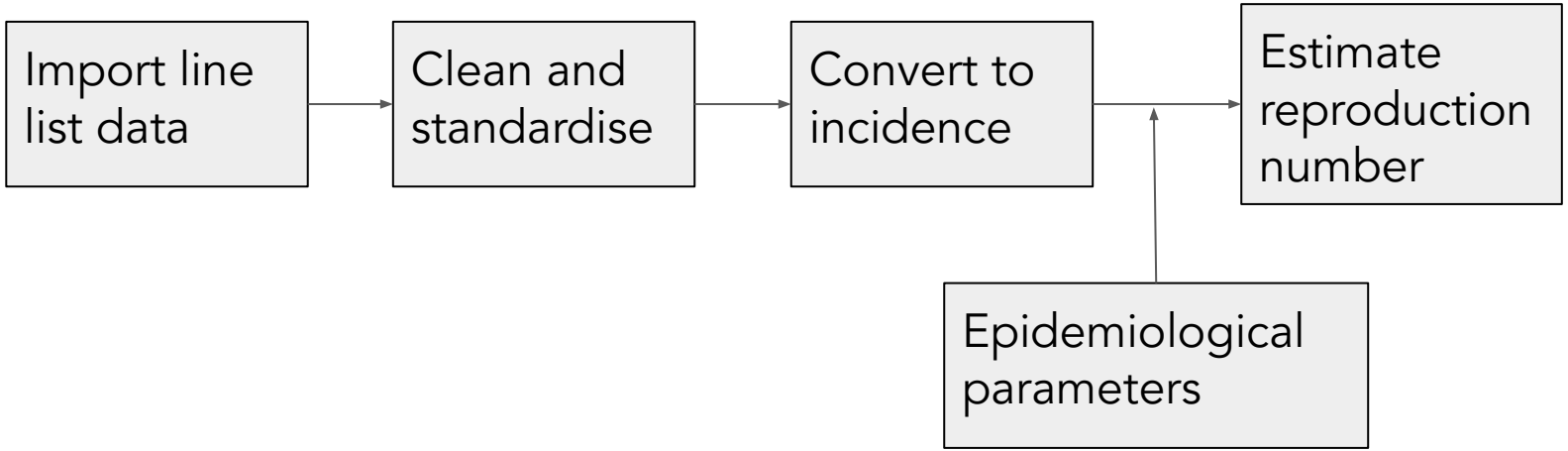


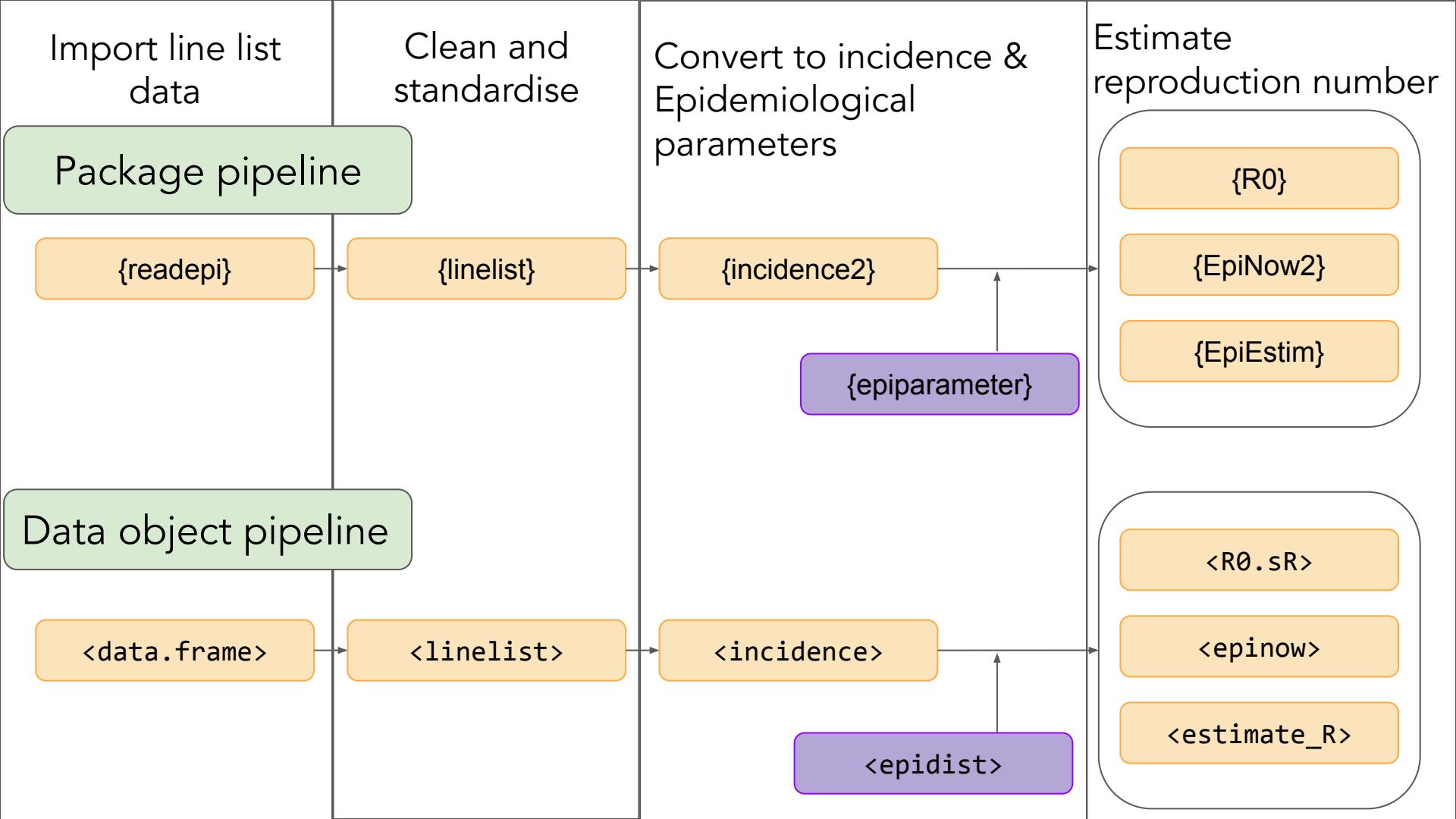
Fully open-source development of code and parameter library on GitHub

Redefining the project scope

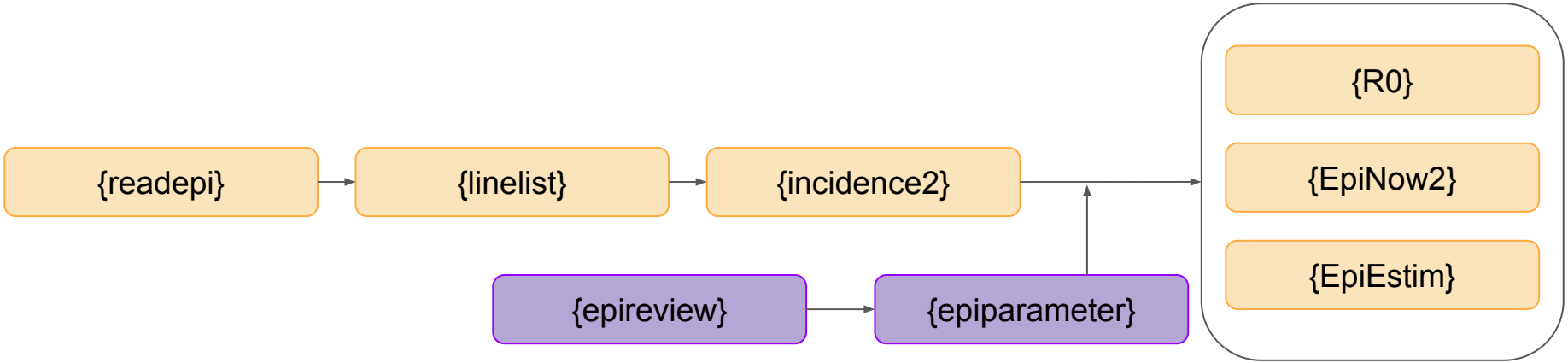


Epidemiological task workflow




Import line list data
Clean and standardise
Convert to incidence & Epidemiological parameters
Estimate reproduction number
Package pipeline
{readepi}
{linelist}
{incidence2}
{epiparameter}
{R0}
{EpiNow2}
{EpiEstim}
Data object pipeline
<data.frame>
<linelist>
<incidence>
<epidist>
<R0.sR>
<epinow>
<estimate_R>

Epidemiological task workflow



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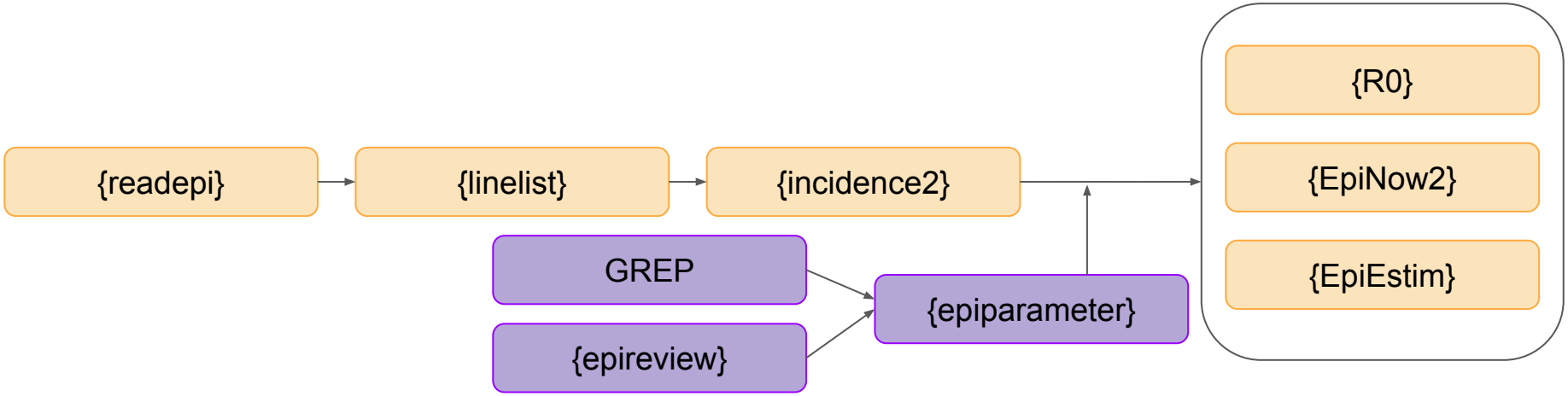
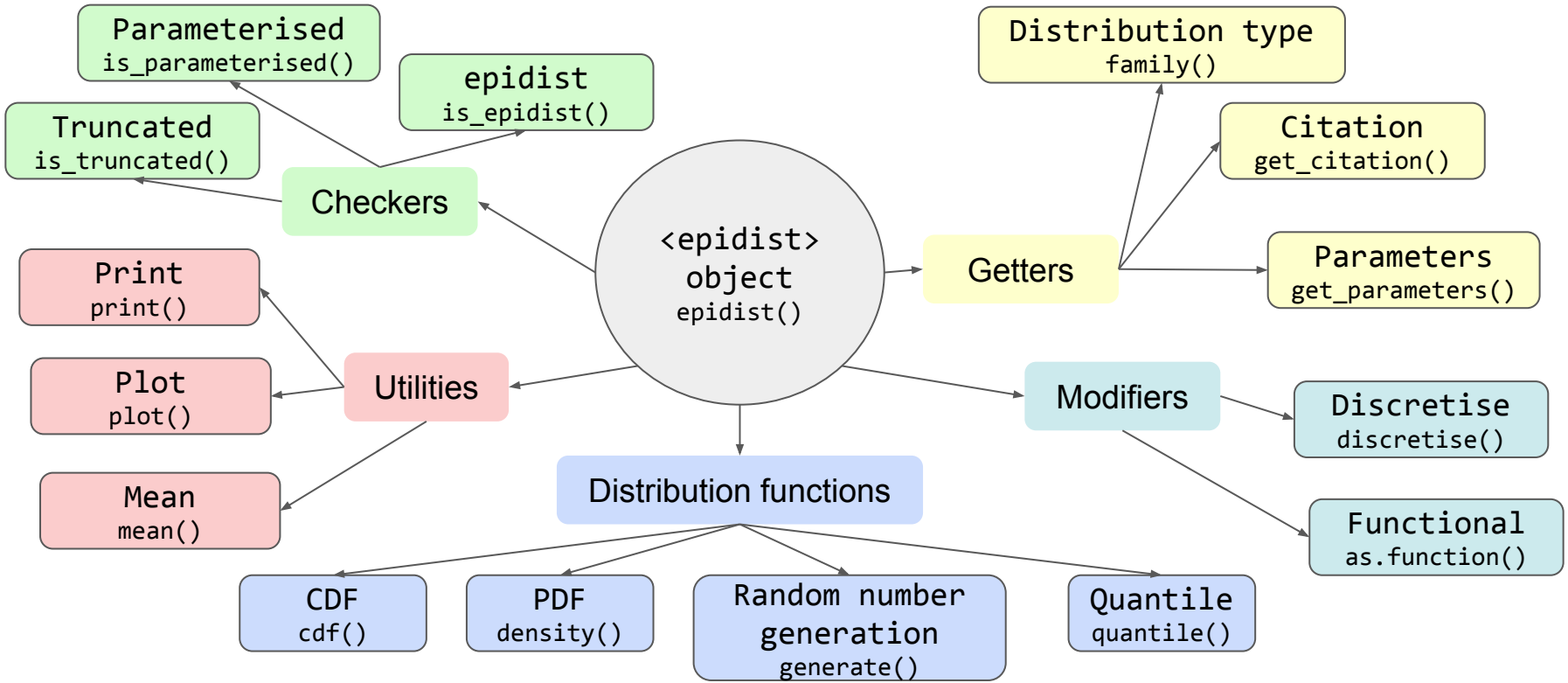


Benefits and shortcuts of data objects



Epidemiological parameters from `{epiparameter}` & `{epireview}`

- Access parameter library: `epidist_db()`
- Manually create parameter object: `epidist()`
- Convert {epireview} data to parameter object: `as_epidist()`

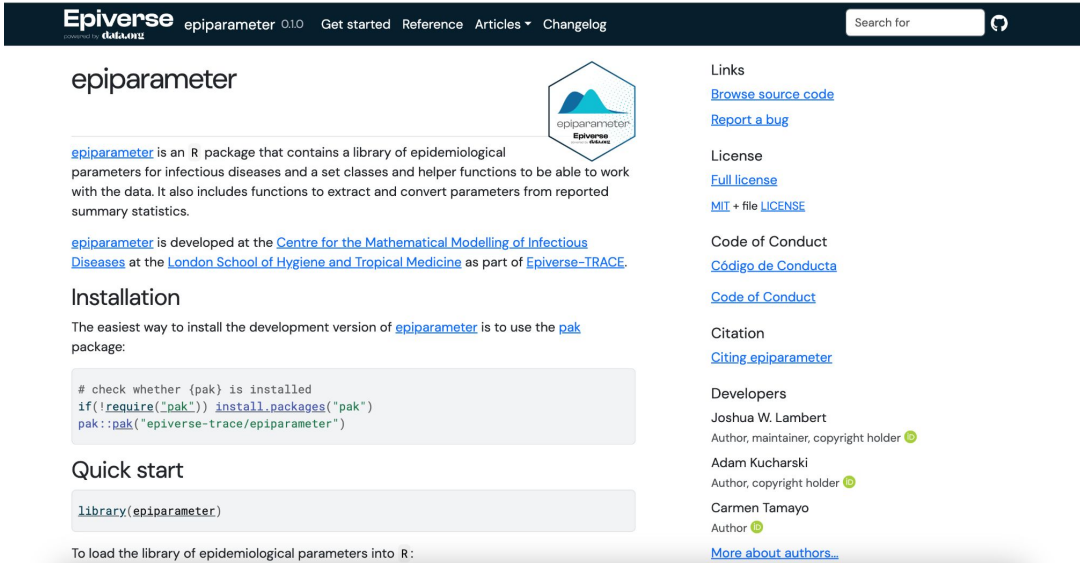
Other functionality from `{epiparameter}`

- Parameter conversion to and from summary statistics:
  `convert_params_to_summary_stats()` &
  `convert_summary_stats_to_params()`

- Parameter extraction from quantiles or range:
  `extract_param()`

Documentation

- ❑ Get Started
- ❑ Extraction & Conversion
- ❑ Data Collation Protocol
- ❑ Extraction Bias
- ❑ Design Principles



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

Pt. III
Overview of Day 3

Rationale for today's exercises

Day 1

Idea for EpiParameter workshop: explore range of tasks for which users will access the GREP database and assess this database's adequacy when applied to these tasks

Day 3

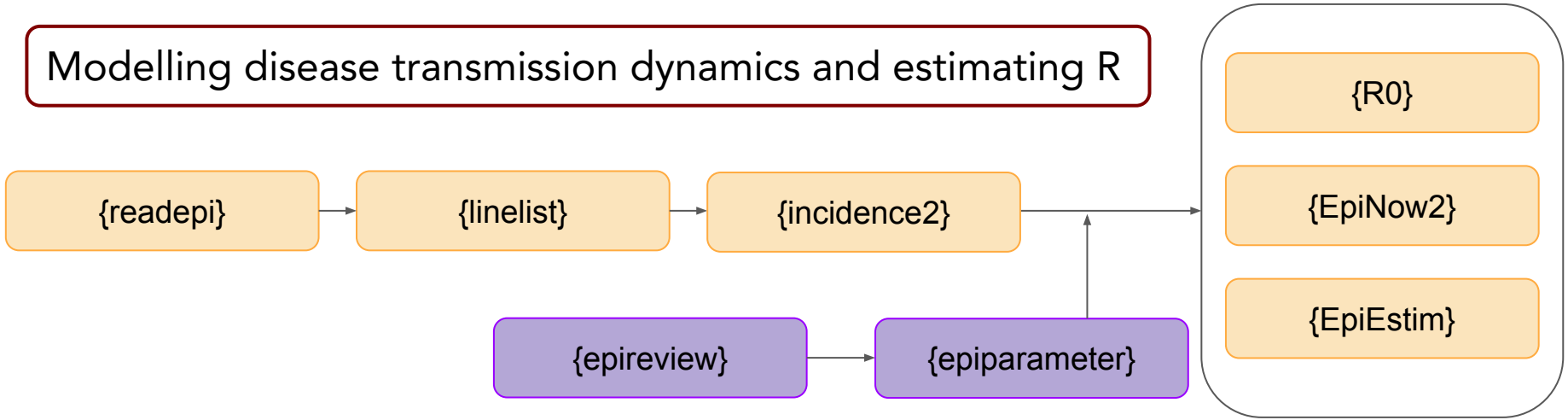
Apply existing EpiParameter databases and tooling to answer use cases and assess the their adequacy when applied to these tasks

Day 3: Assessing tooling for storage and use

Morning session		
9:00 – 9:10	Introduction to the Epiverse {epiparameter} project	Plenary session
9:10 – 9:30	Introduction to the {epiparameter} R package	Plenary session
9:30 – 11:00	Testing use cases to evaluate existing tools	Working groups
11:00 – 11:30	*Coffee break*	
11:30 – 13:00	Continue testing use cases, adding feedback to google document or on GitHub	Working groups
Afternoon session		
14:00 – 15:30	Working groups finalise reviewing and prepare something (slides and/or oral presentation) to share with the wider group.	Working groups
15:30 – 15:45	*Coffee break*	
15:45 – 16:30	Working group presents to the wider group to share their findings. Discussion time in this session can help outline high priority requirements for the GREP or R packages.	Working groups
16:30 – 16:45	Closing remarks by project leads: Julia, Lisa, Adam, Anne	Plenary session
16:45 – 17:00	Farewell	Plenary session

9:30 – 11:30	Testing use cases to evaluate existing tools	Working groups

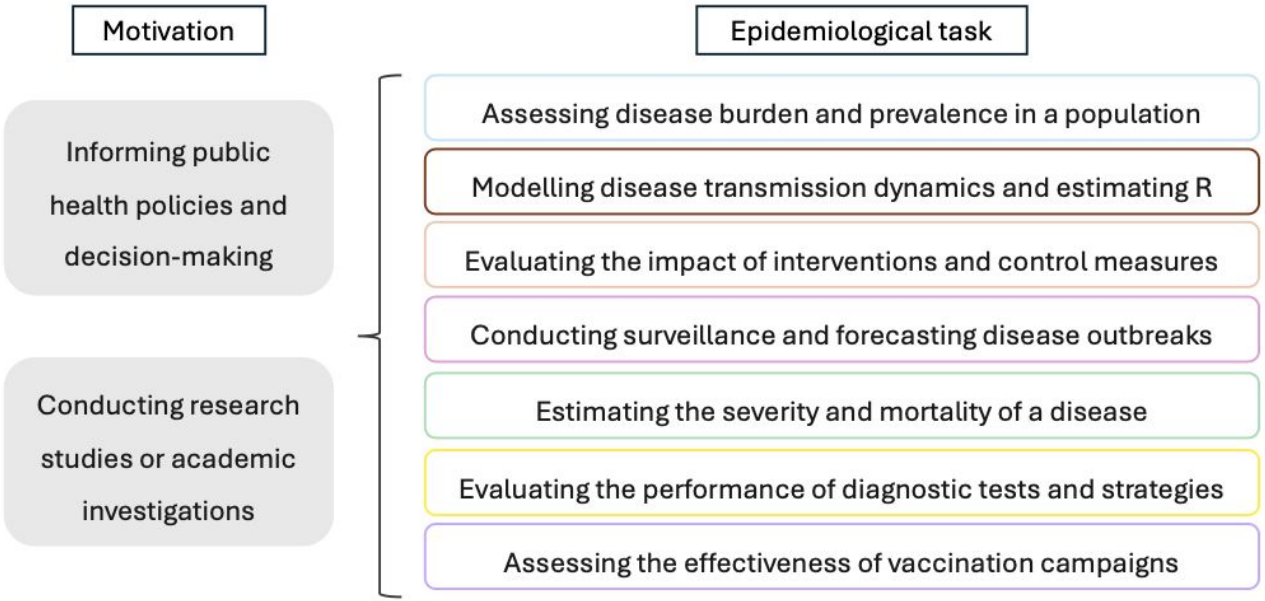
Analytics pipeline



11:30 – 12:00	*Coffee break*

9:30 – 11:30	Testing use cases to evaluate existing tools	Working groups

Analytics pipeline



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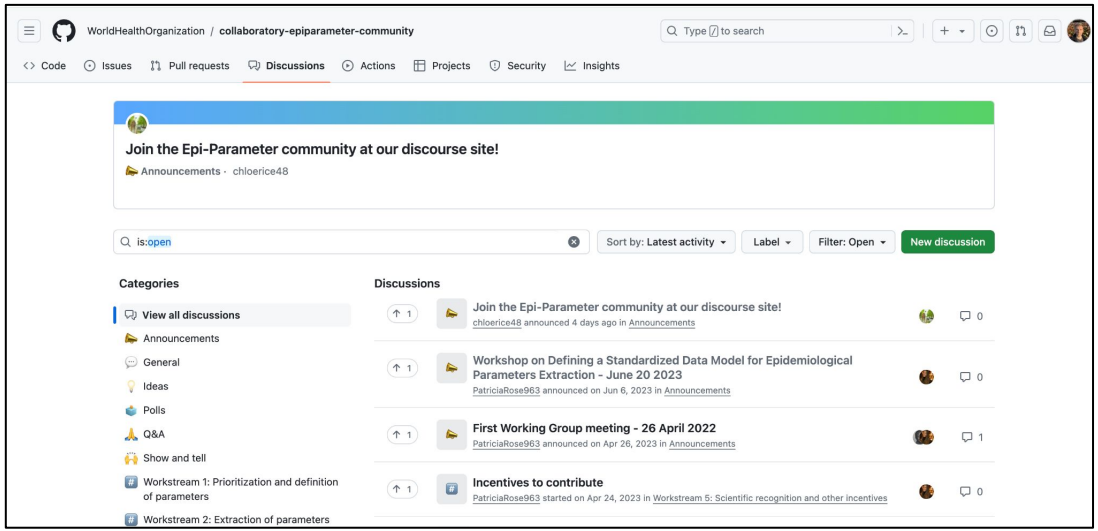
Issues

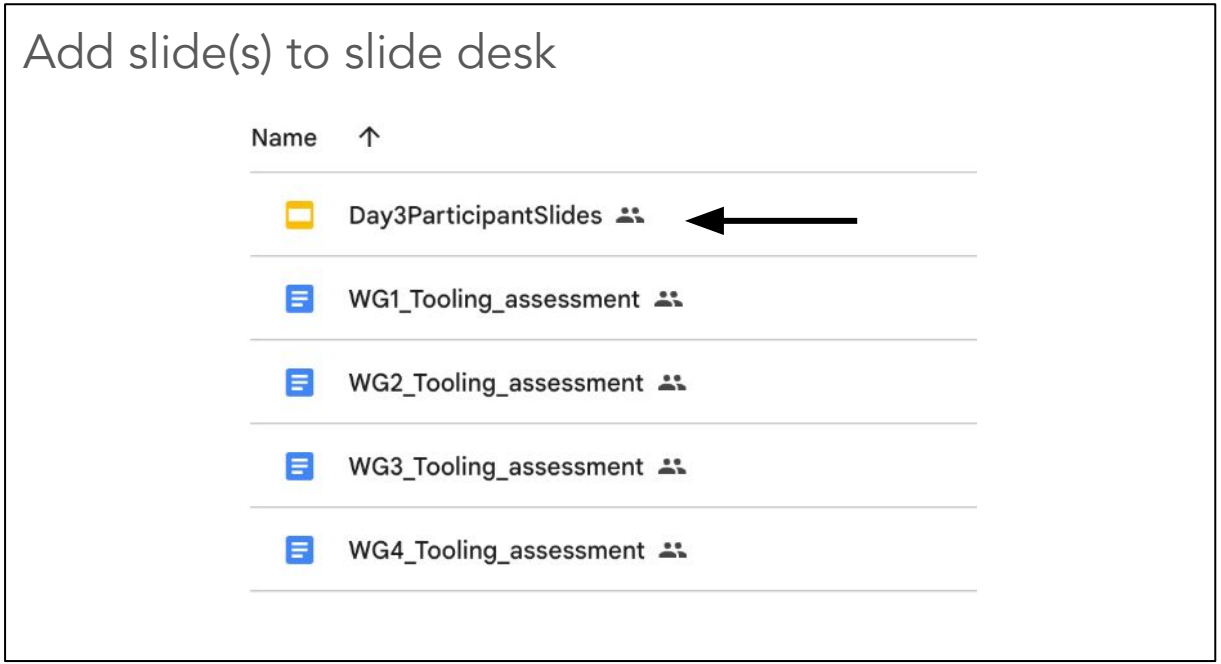
Pull requests

Discussion board



https://github.com/WorldHealthOrganization/collaboratory-epiparameter-community/discussions

14:00 – 15:30	**Working groups finalise reviewing and prepare something (slides and/or oral presentation) to share with the wider group.**	**Working groups**



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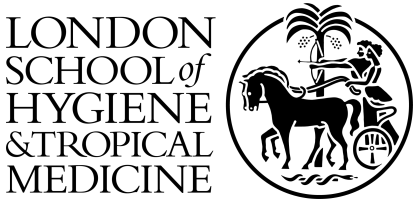
Thanks for listening

Any Questions?



data.org