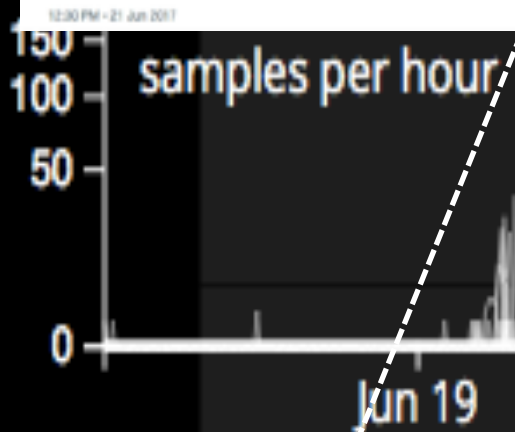- Partition a pathogen tree into **terminal** and **internal** branches

- **Terminal branches** potentially include "dead-end" lineages, i.e. those which are maladaptive

- **Internal branches** include at least one "*transmission*" (intra-species) or "*replication*" (intra-host) events: stronger action of selection

- Focusing on a subset of branches can allow one to interpret dN/dS more precisely

Worldwide MetaSUB collection
2016 = 6,058 samples
2017 = 7,309 samples
2018 = 6,104 samples
2019 = 9,320 samples
2020 = 7.991 samples
2021 = 6,242 samples
2022 = 4,392 samples
2023 = 2,830 samples

samples per hour

150
100
50
0

Jun 19   Jun 26   Jul 03   Jul 10   Jul 17   Jul 24   Jul 31   Aug 07