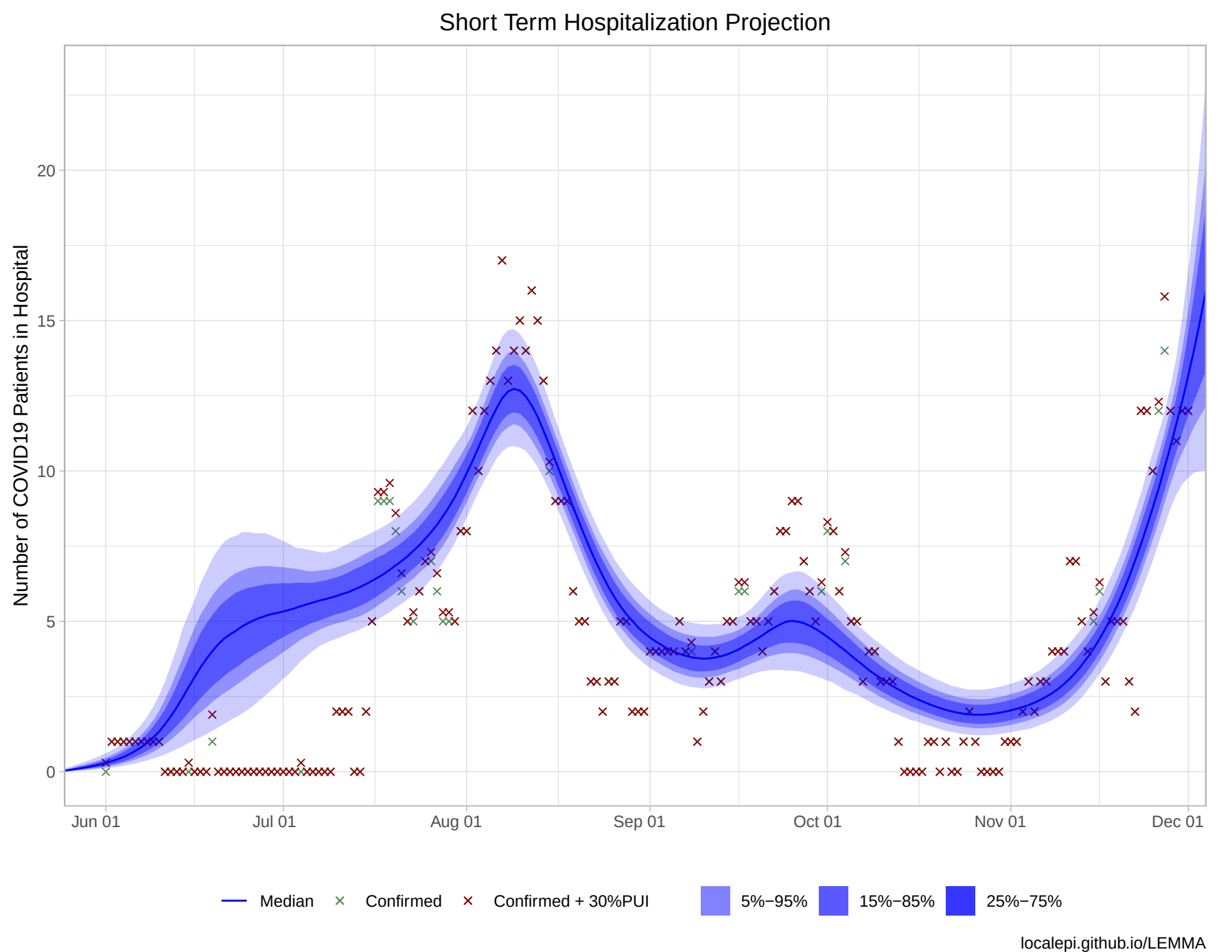
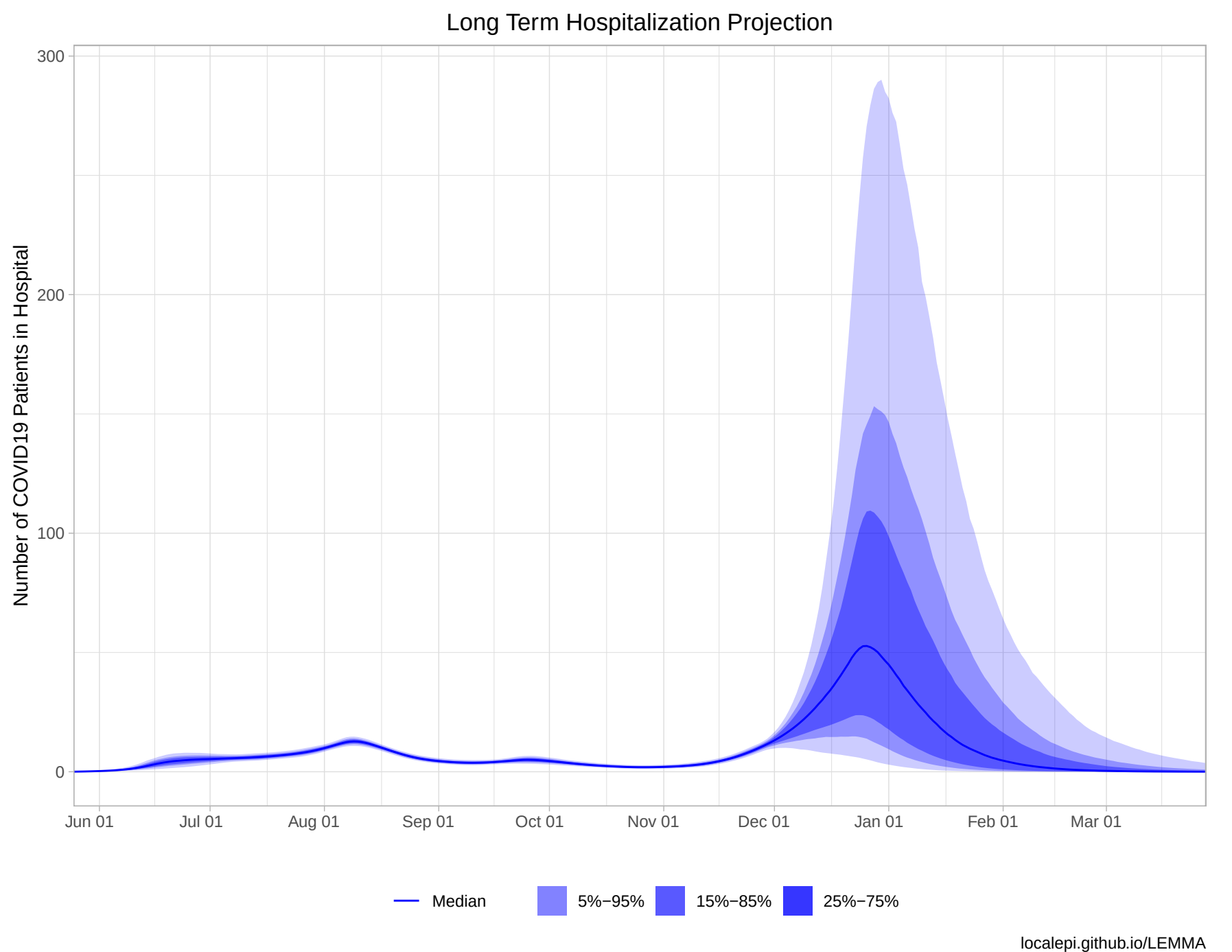
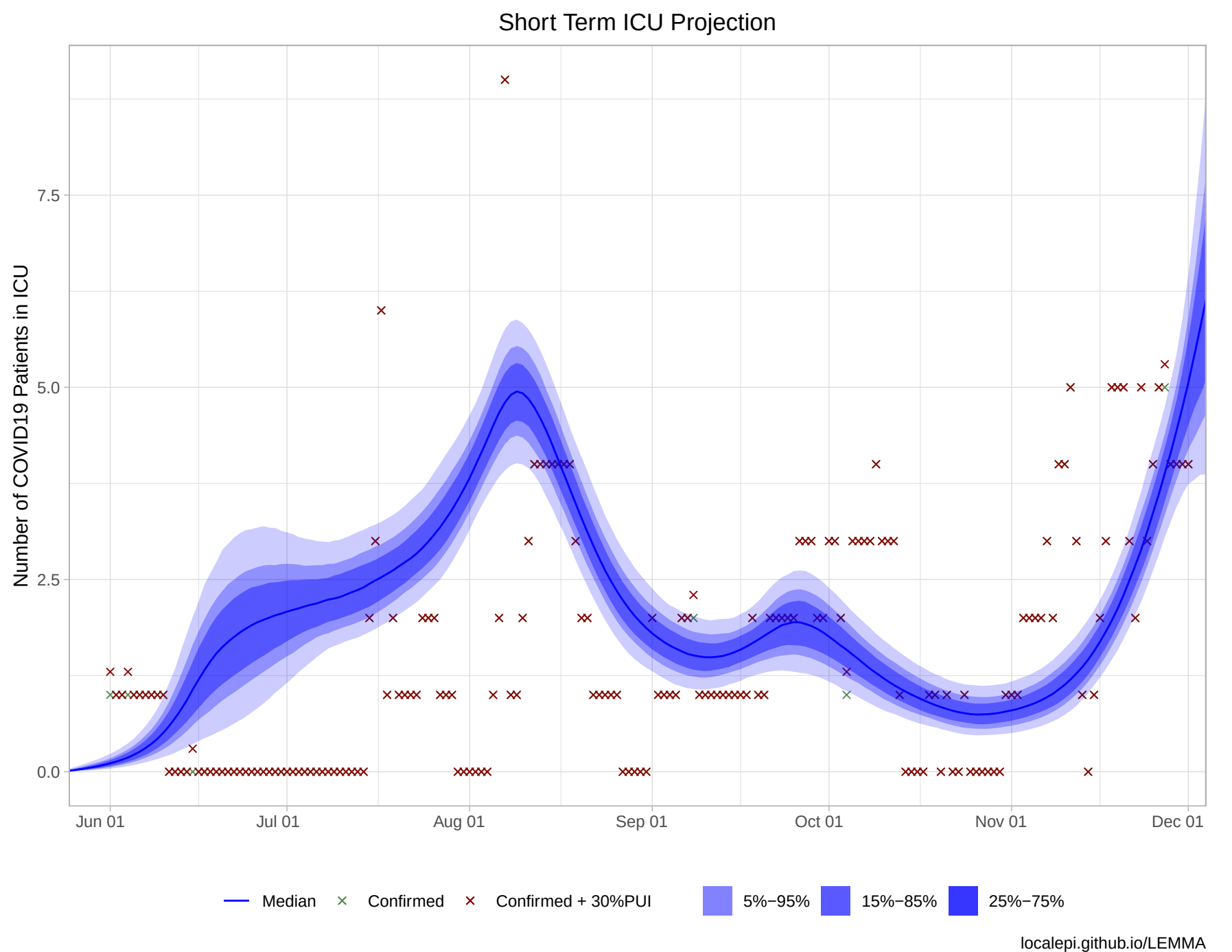
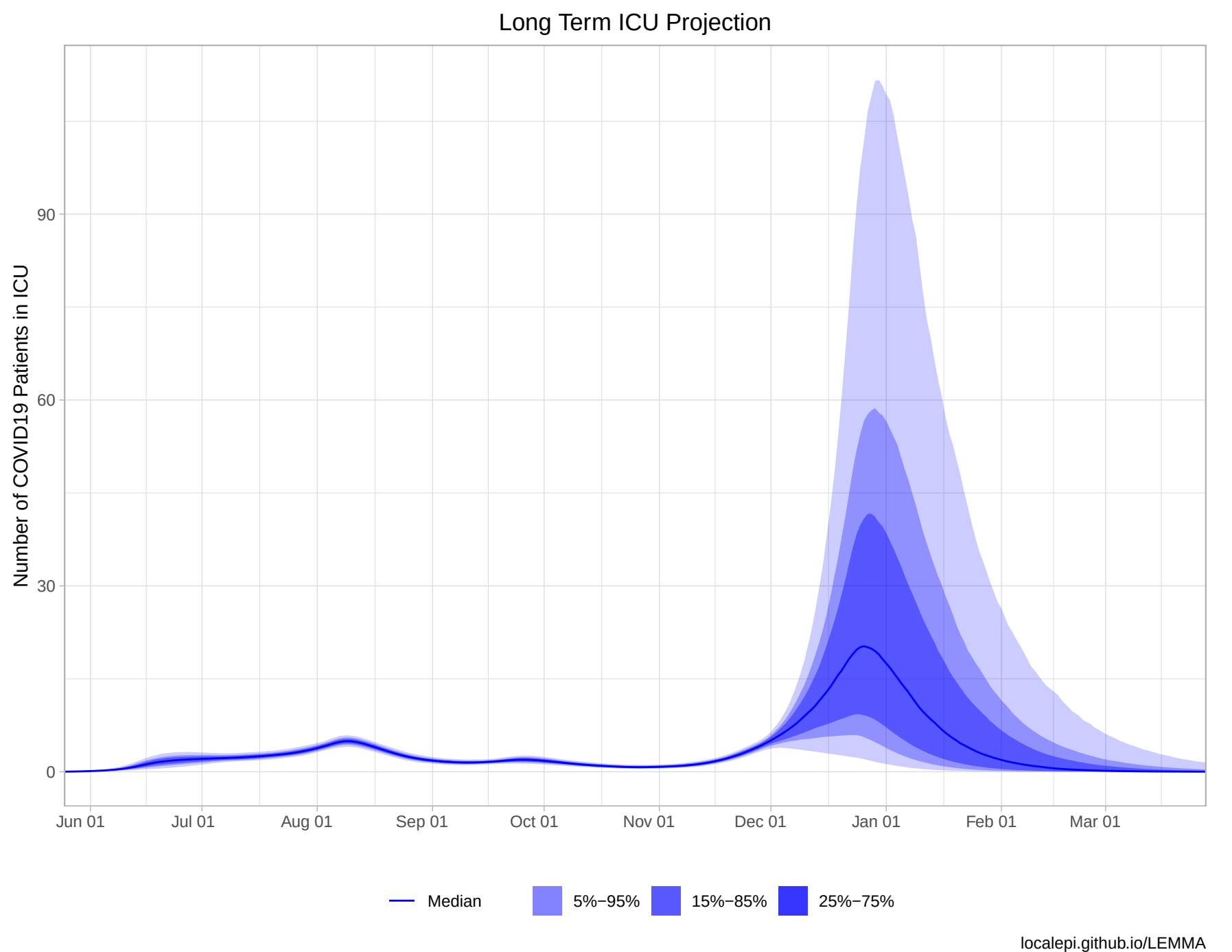
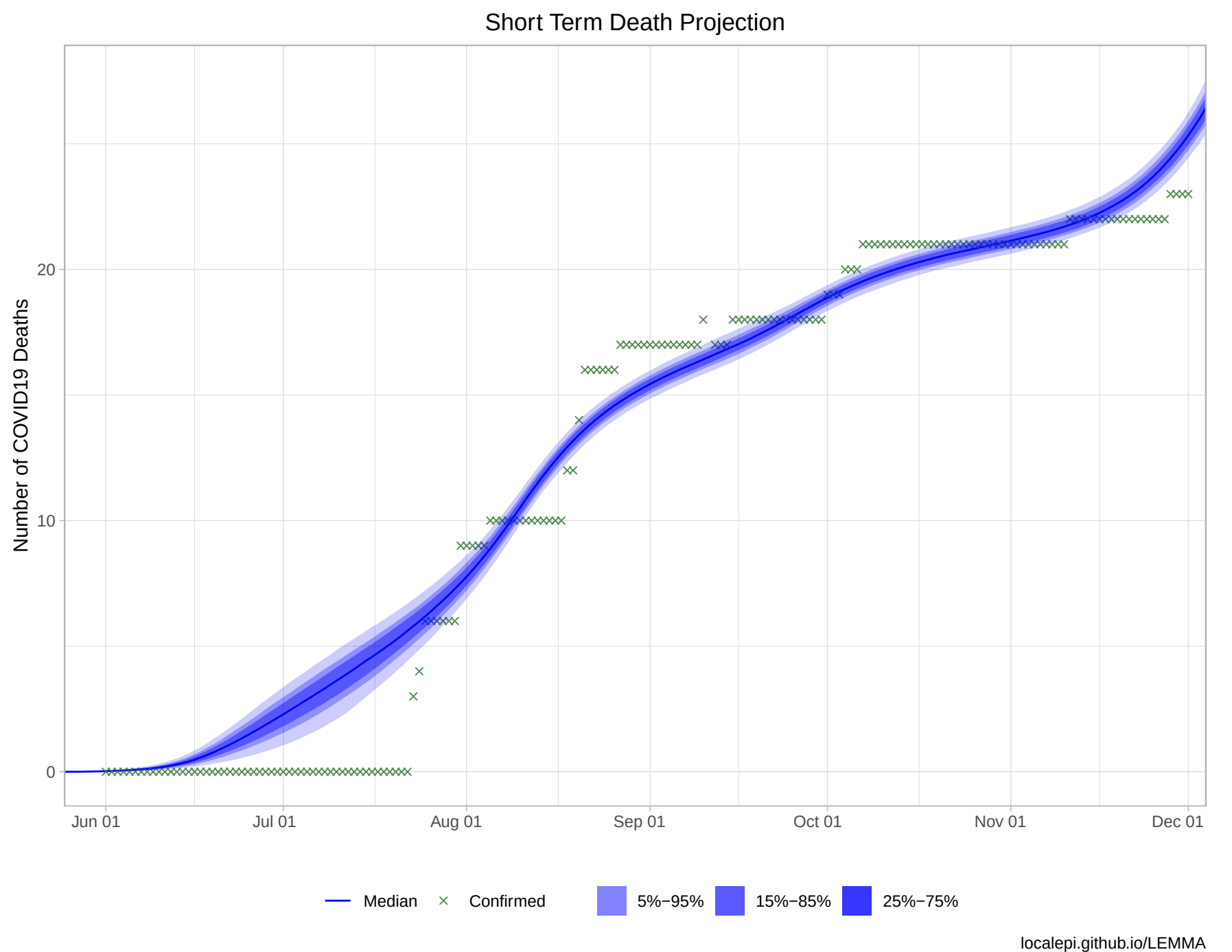
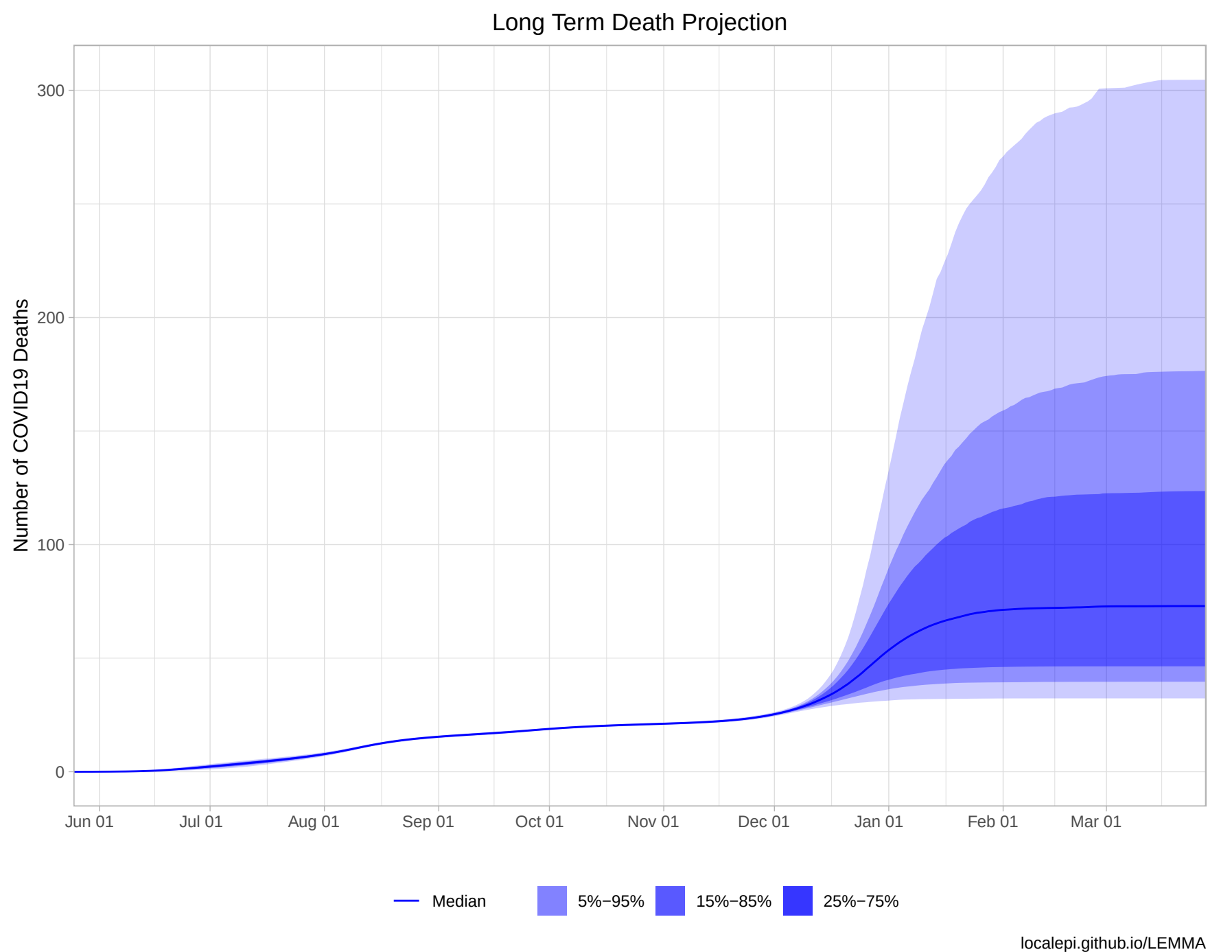

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
5
10
15
20
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

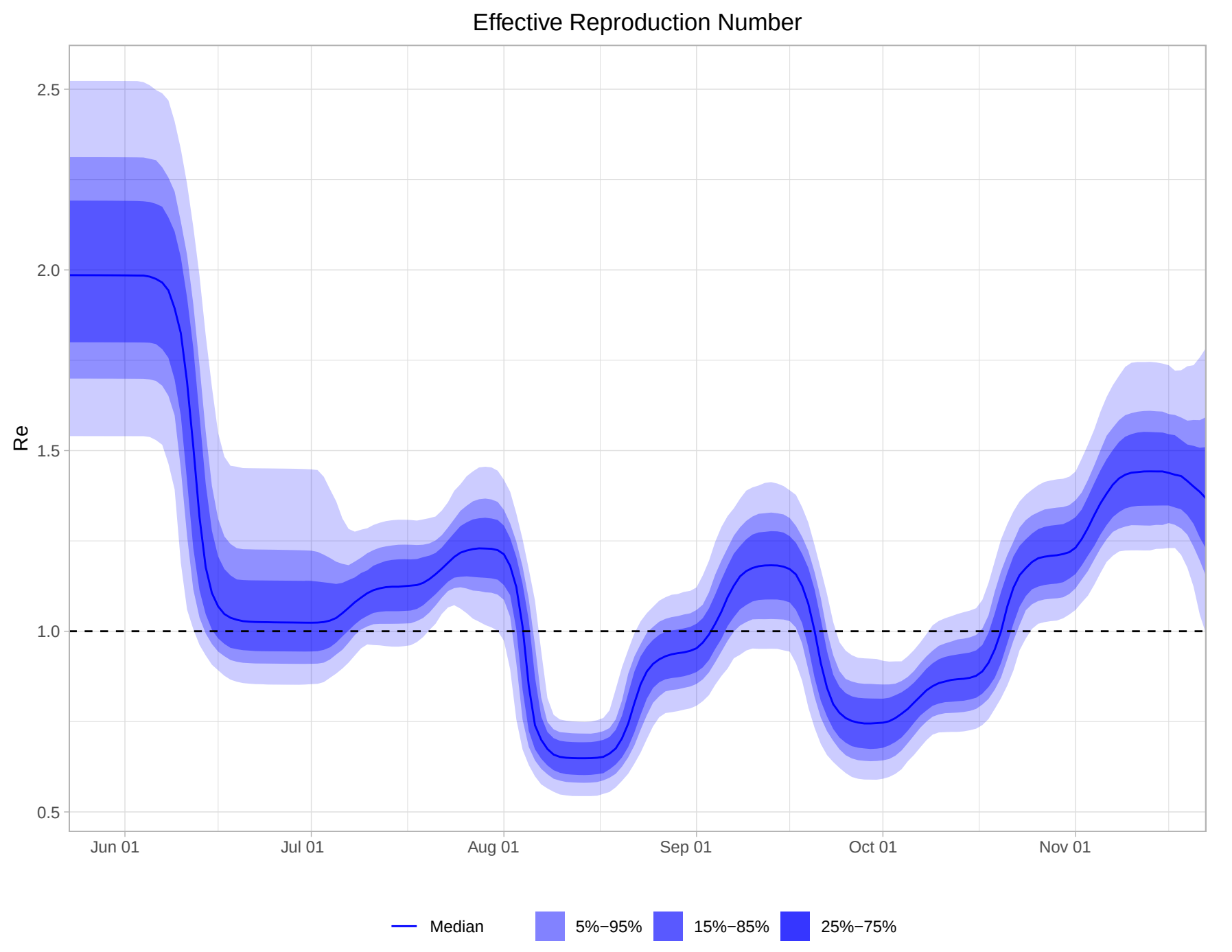

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
300
200
100
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
0.0
2.5
5.0
7.5
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Long Term ICU Projection
Number of COVID19 Patients in ICU
90
60
30
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

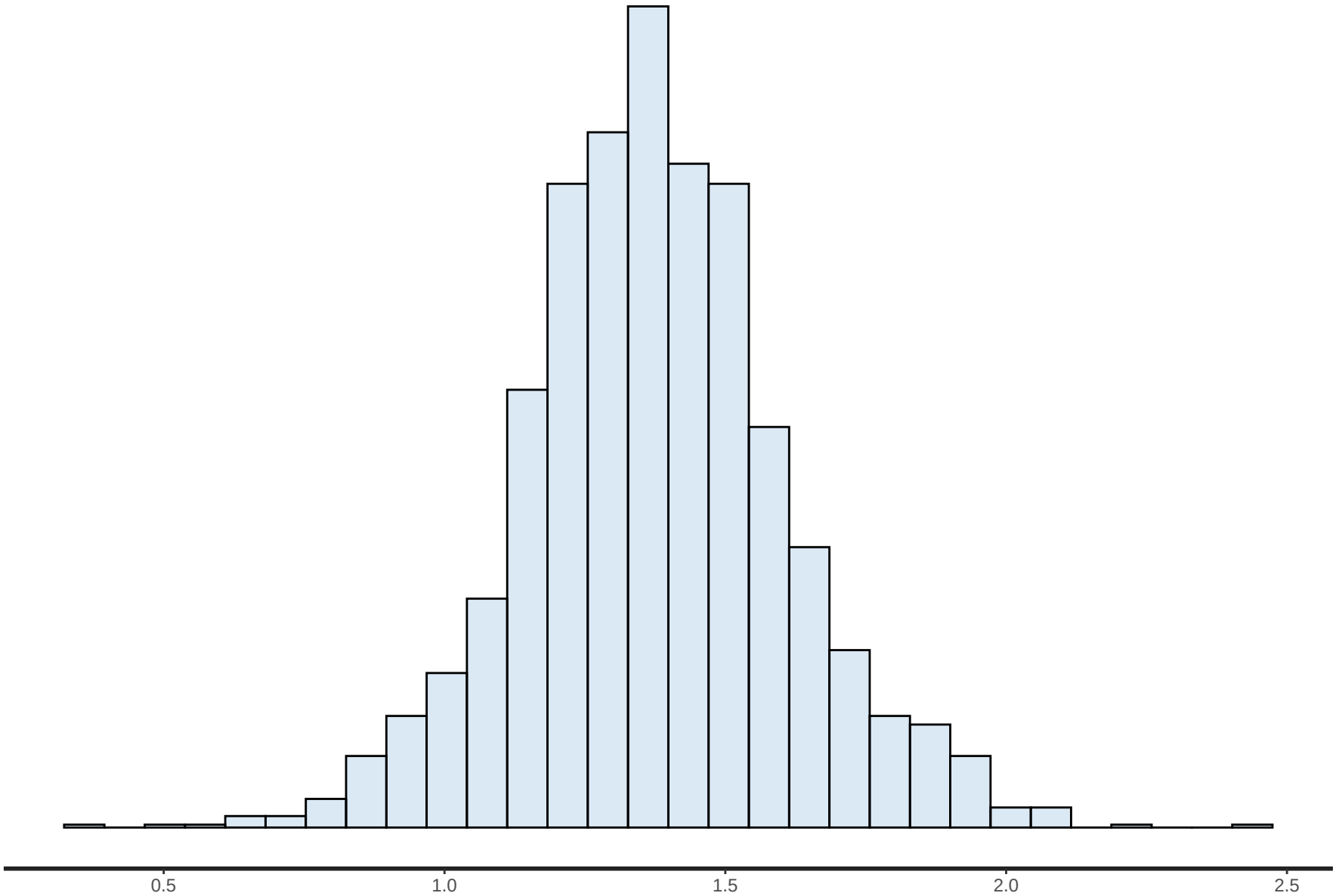

Short Term Death Projection
Number of COVID19 Deaths
0
10
20
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

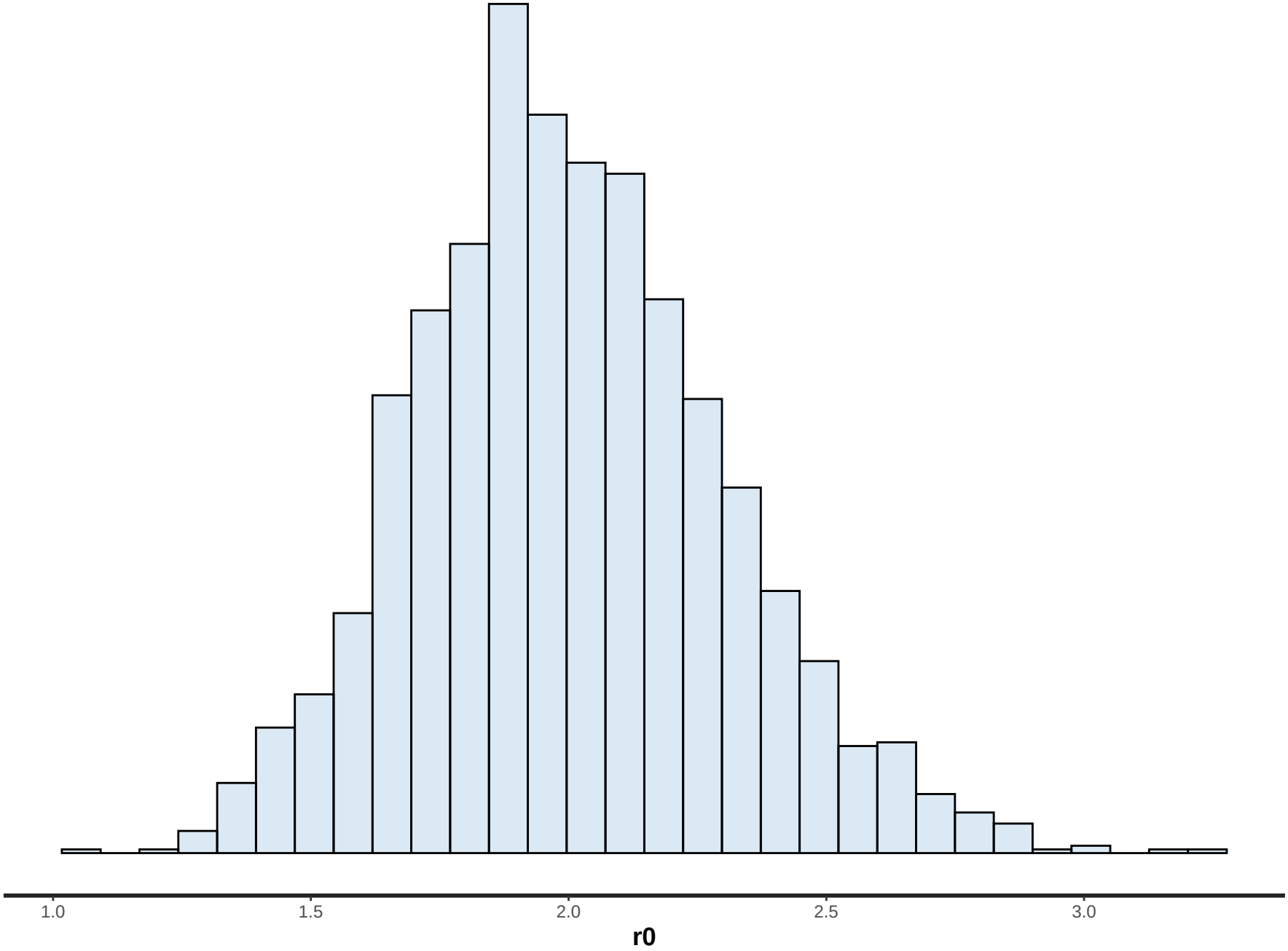

Long Term Death Projection
Number of COVID19 Deaths
300
200
100
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

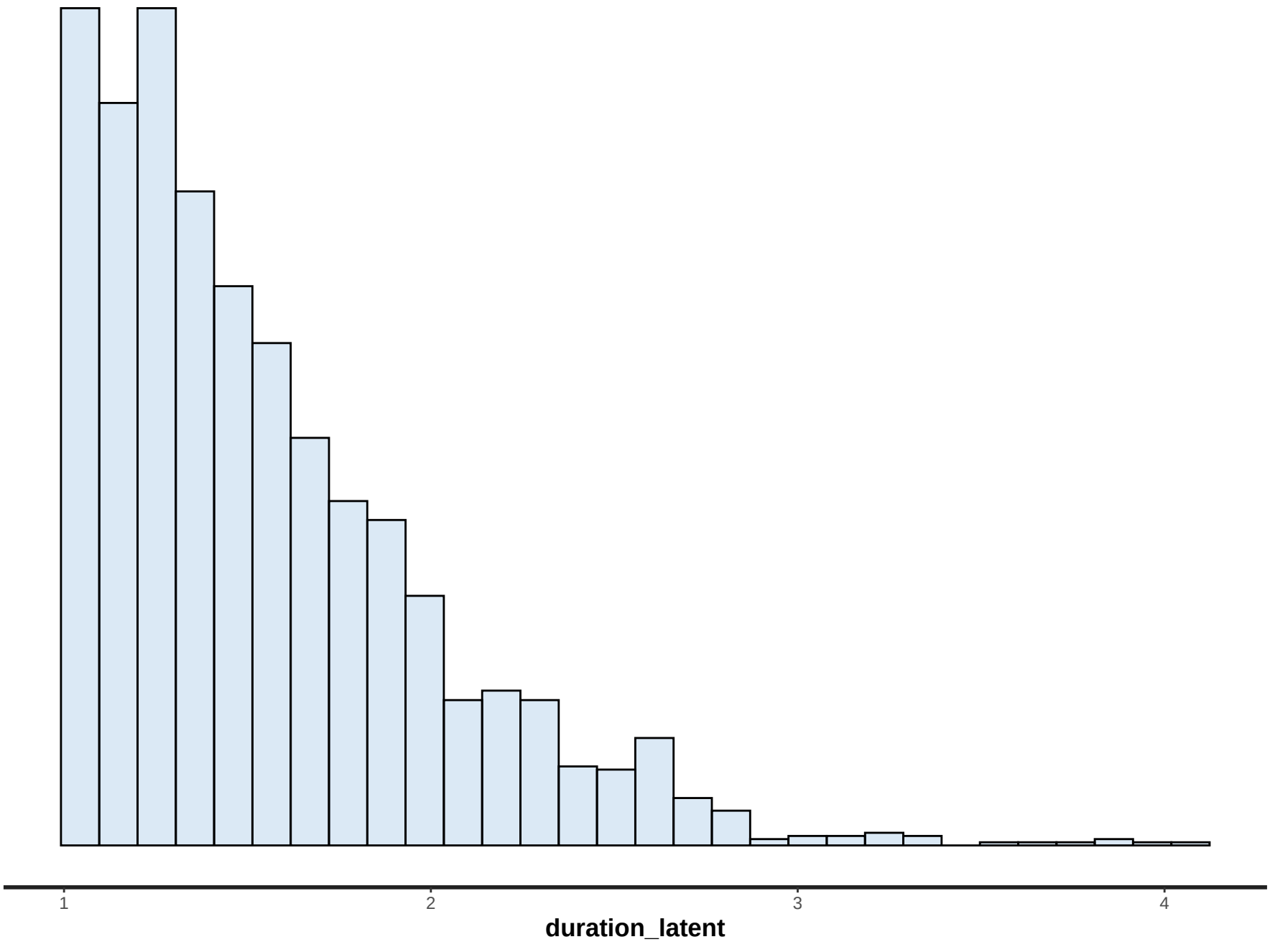

Effective Reproduction Number
Re
2.5
2.0
1.5
1.0
0.5
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
5%−95%
15%−85%
25%−75%

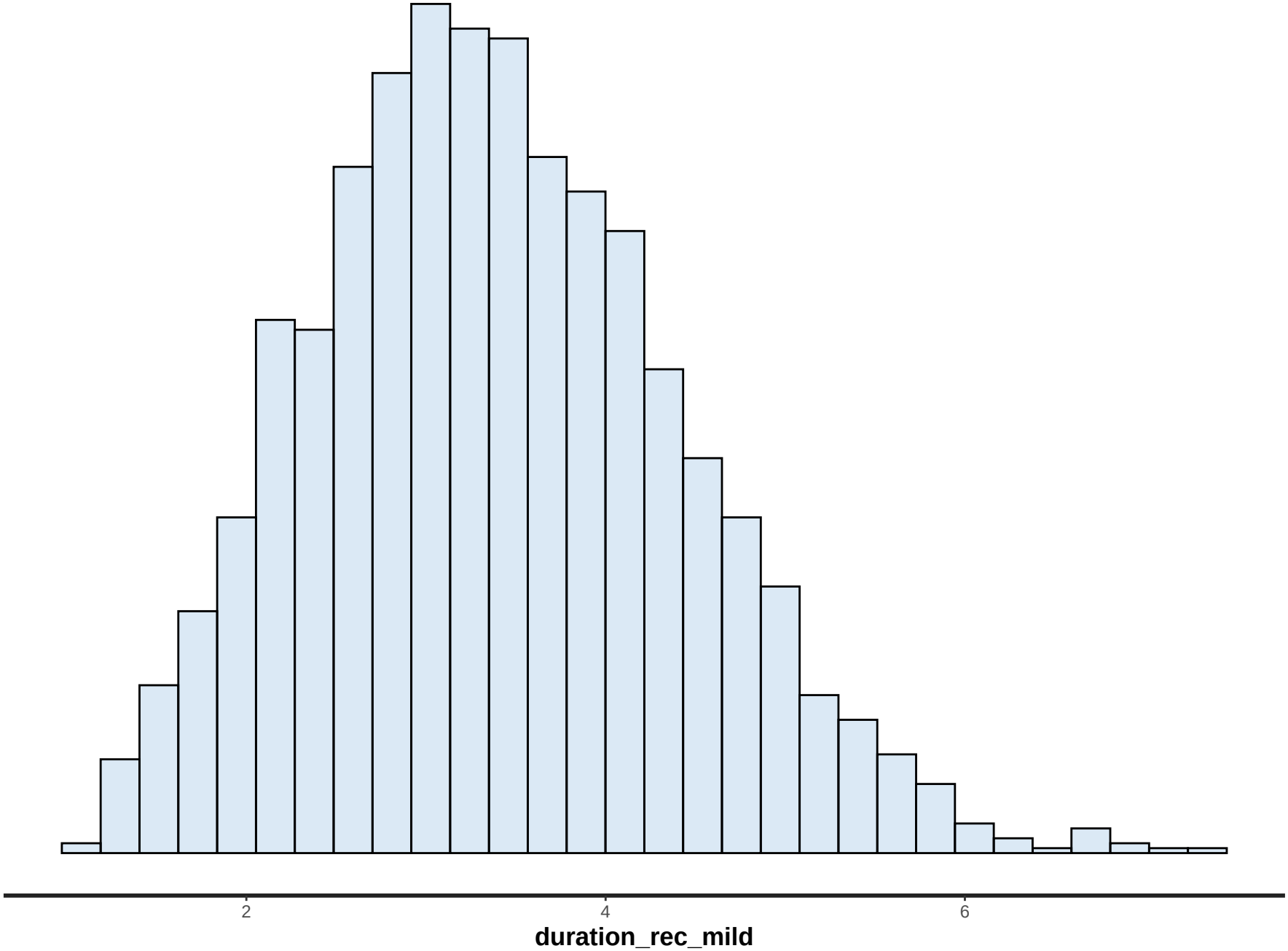
Rt as of 2020−11−22

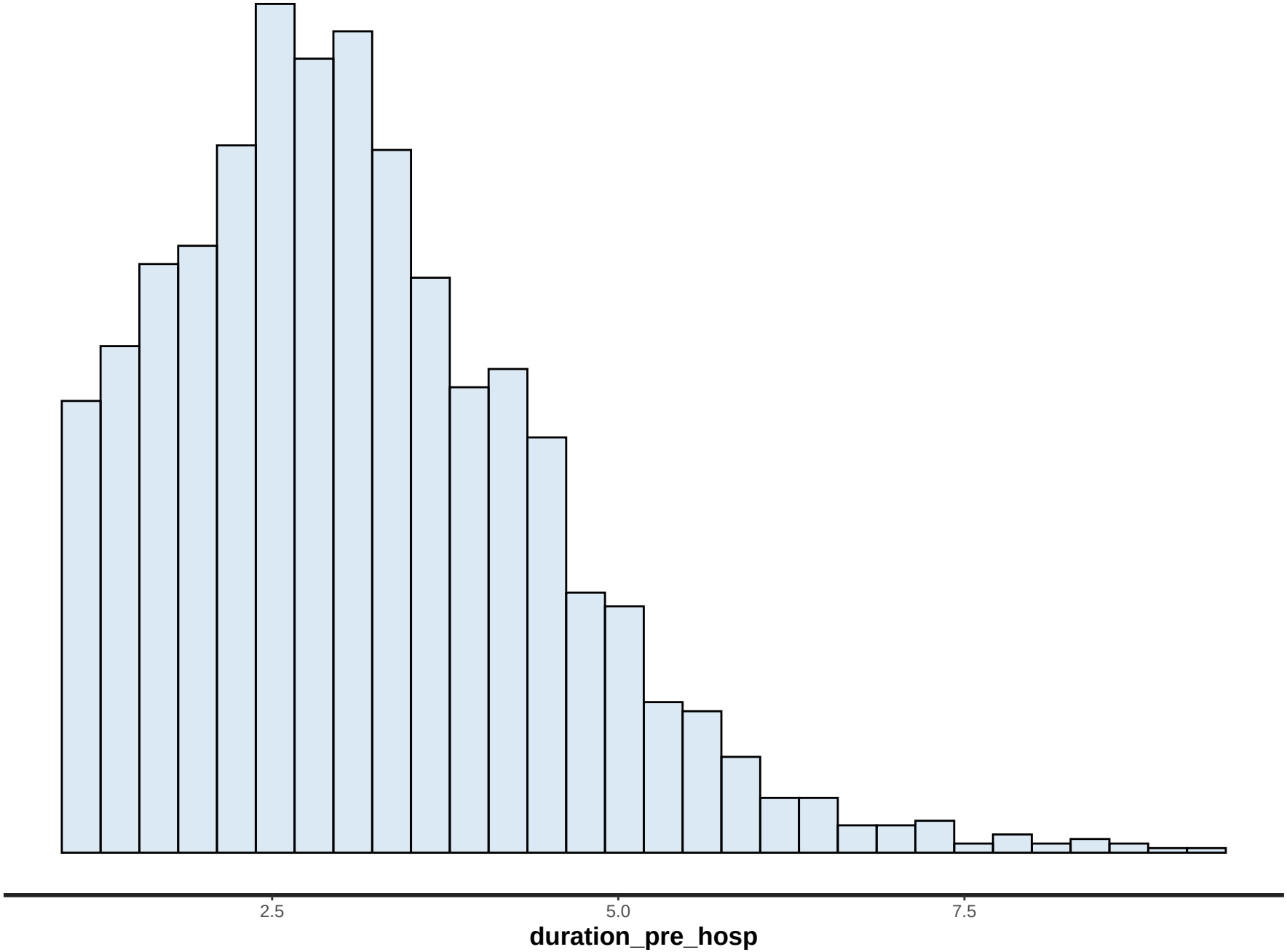
5%	10%	25%	50%	75%	90%	95%
0.99	1.10	1.23	1.37	1.51	1.67	1.78

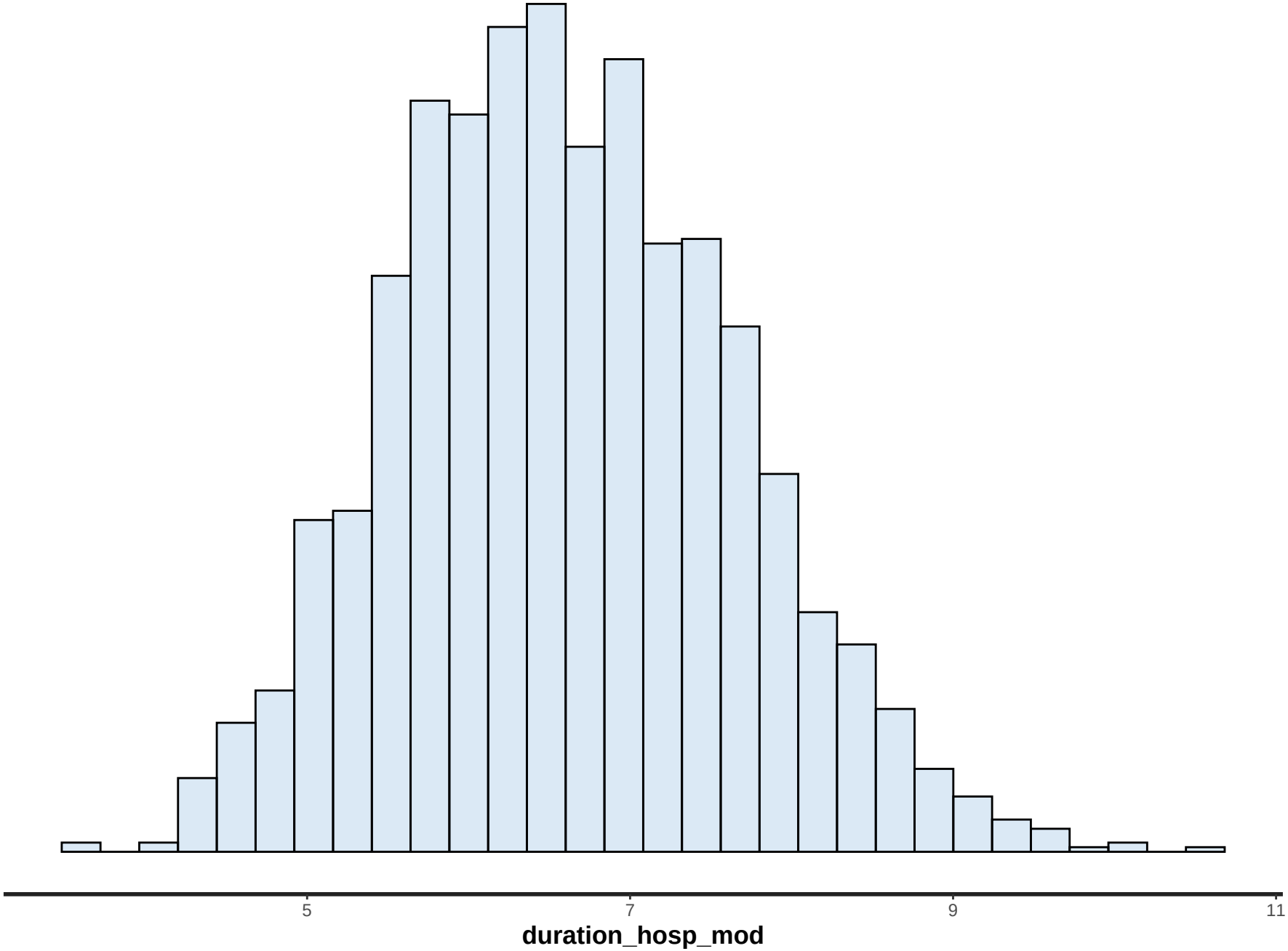


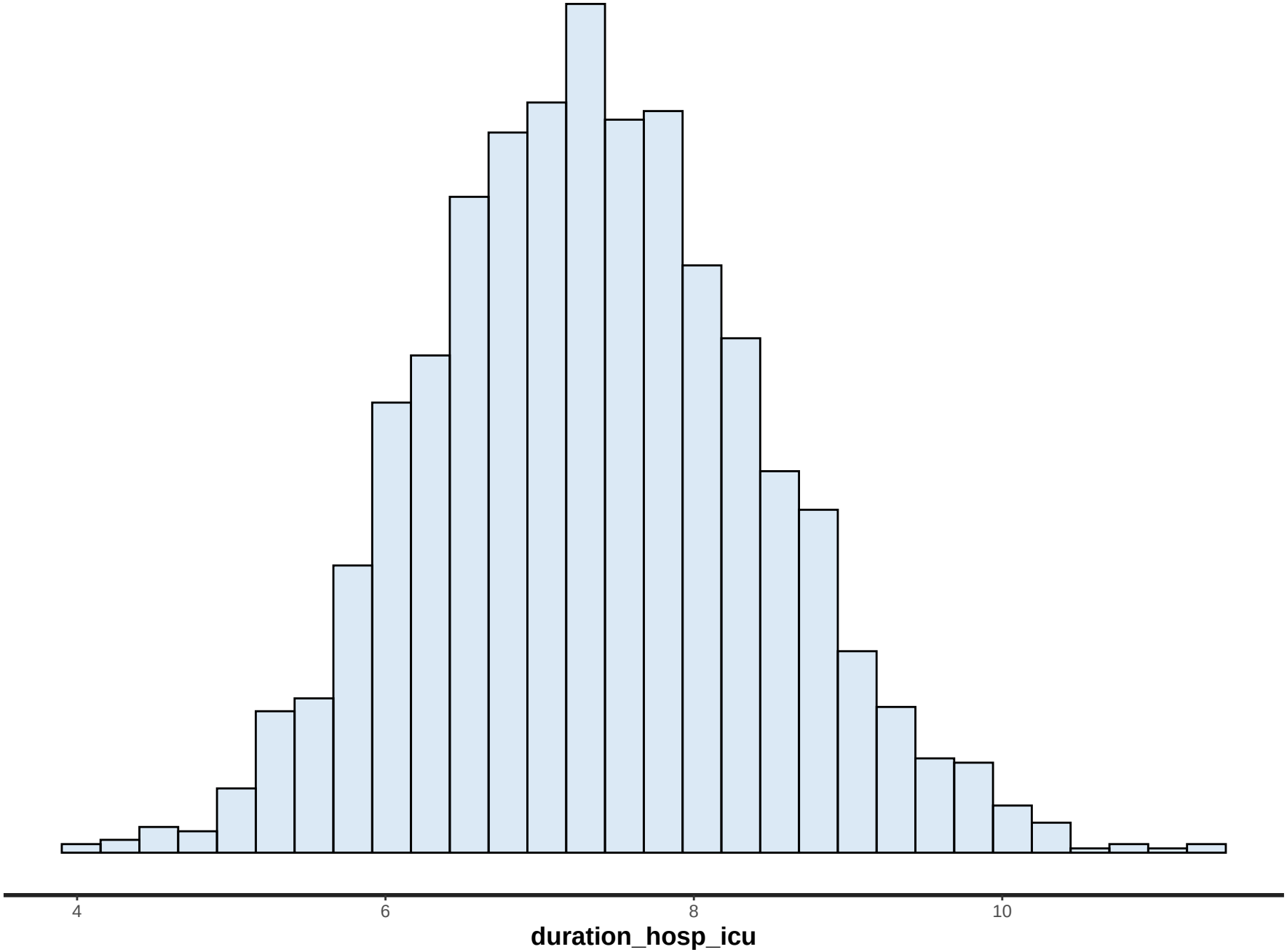

1.0
1.5
2.0
2.5
3.0
r0

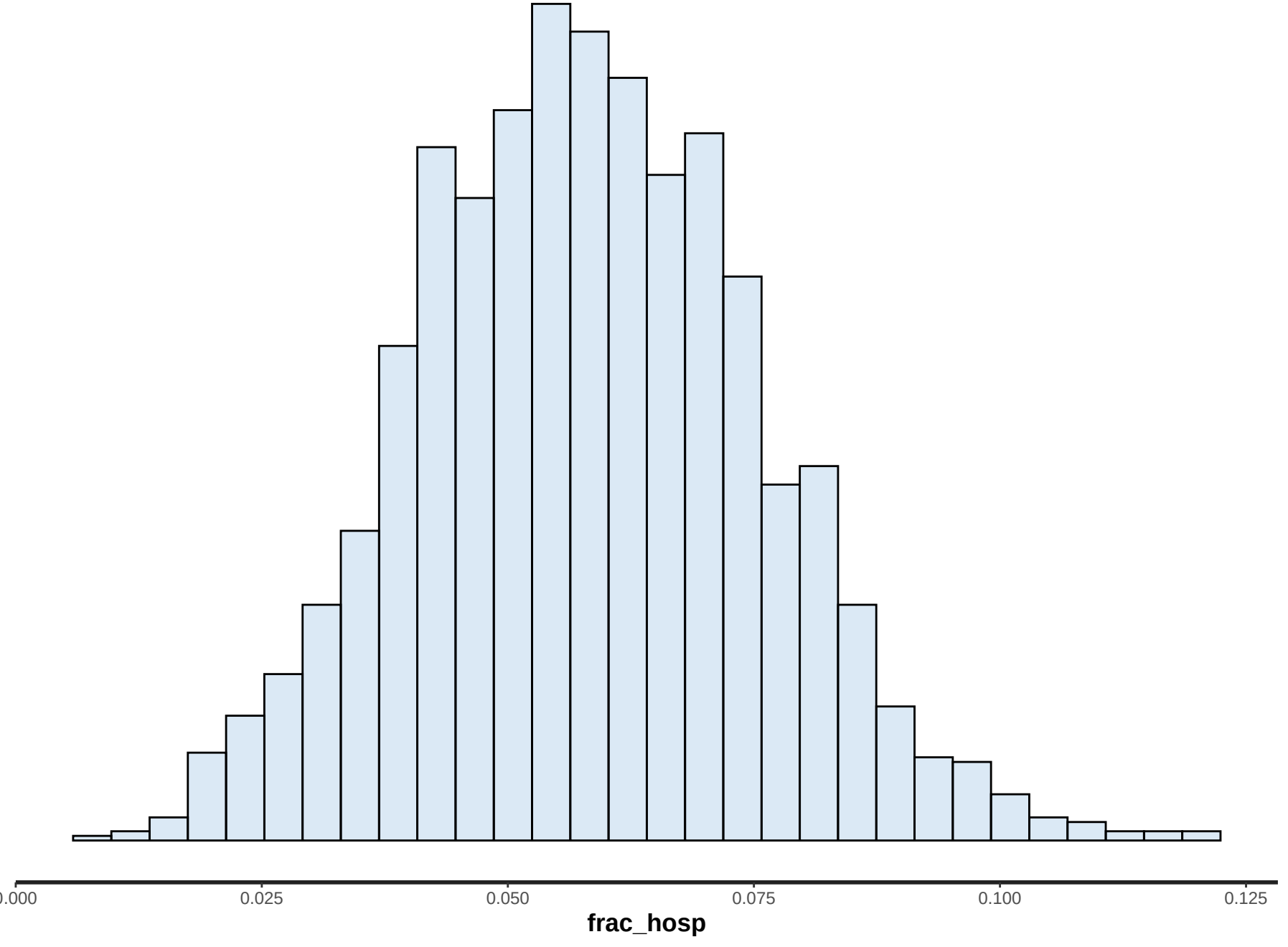

1
2
3
4
duration_latent

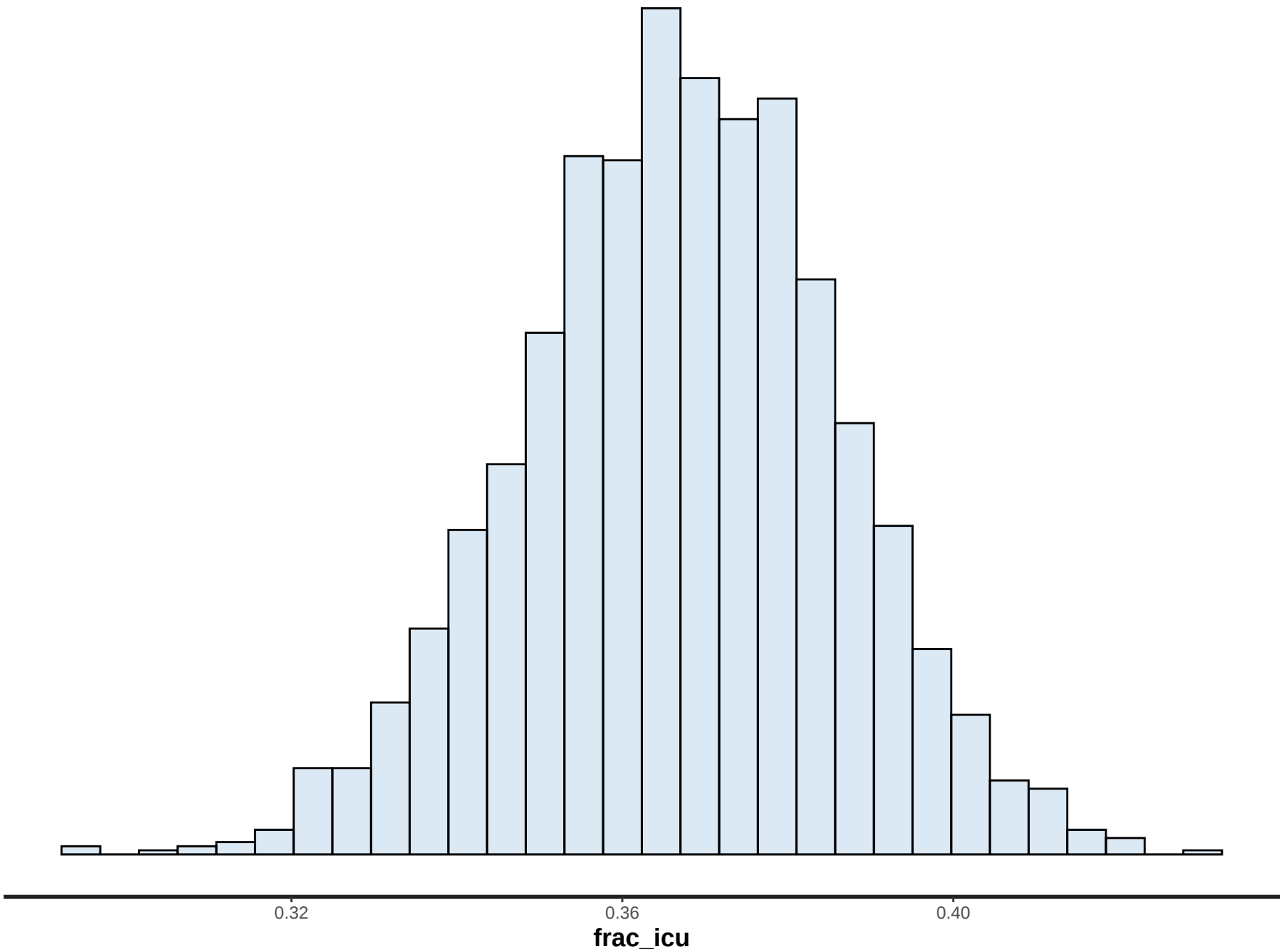

2
4
6
duration_rec_mild

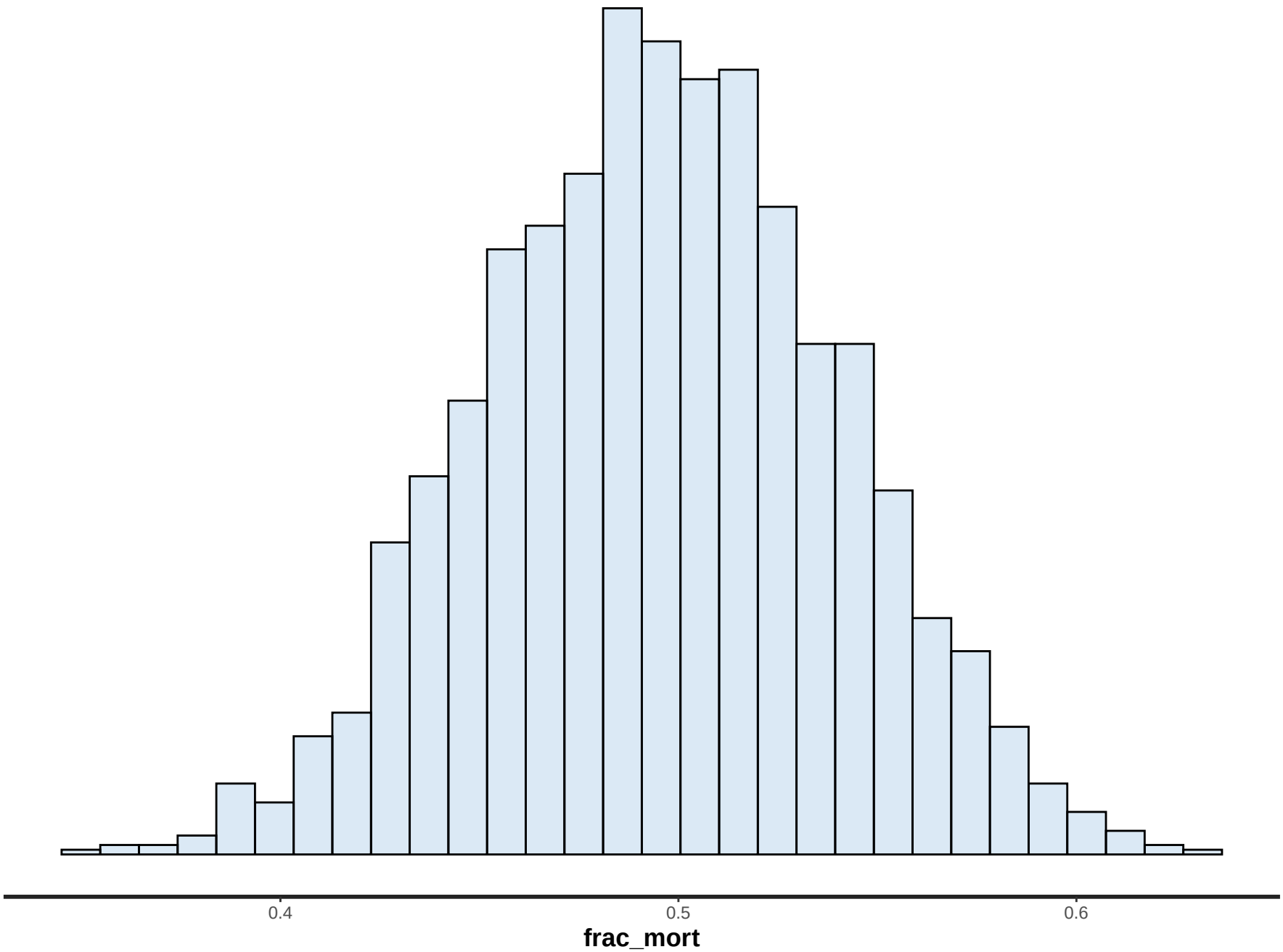

2.5
5.0
7.5
duration_pre_hosp

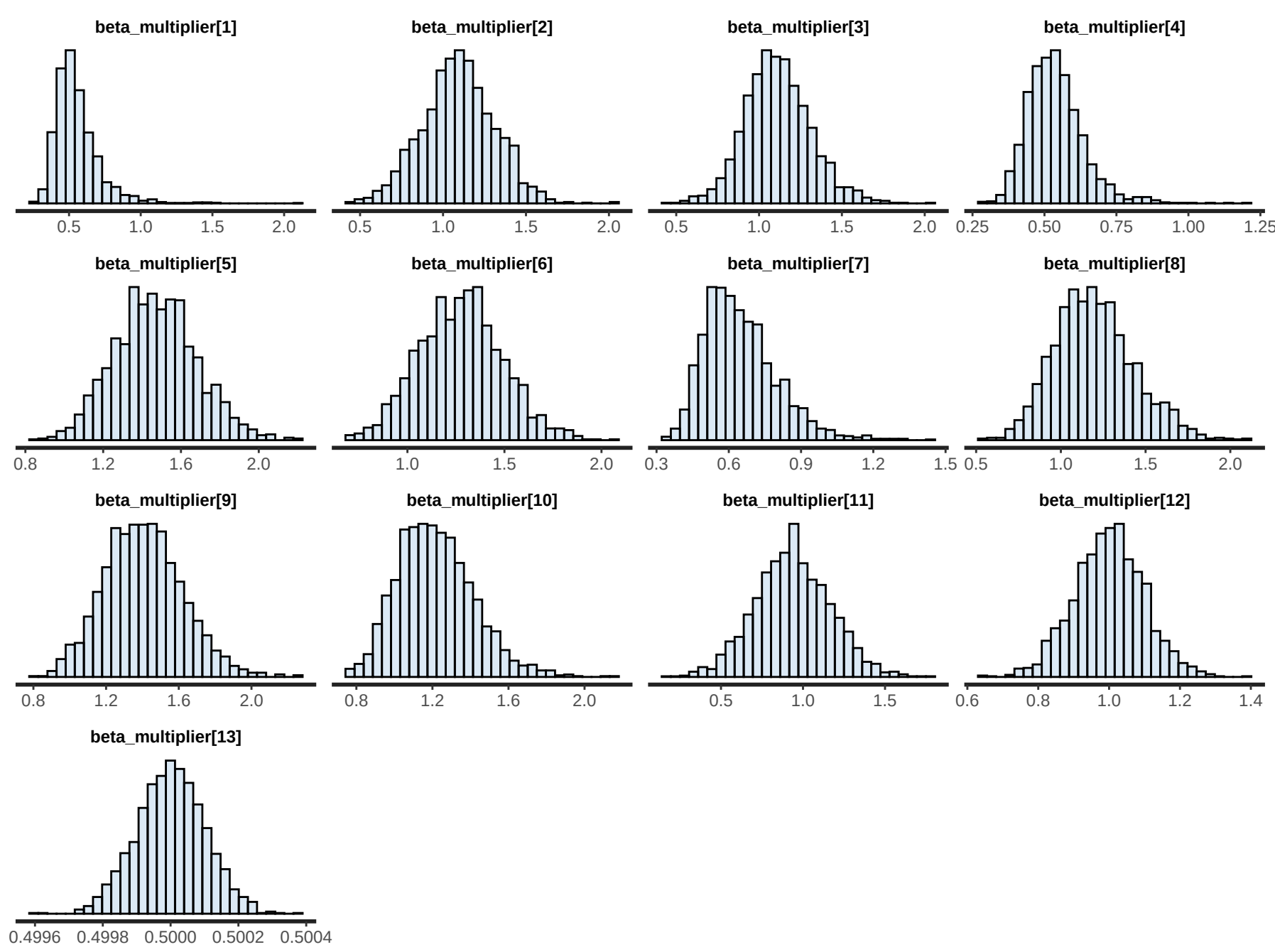

5
7
9
11
duration_hosp_mod

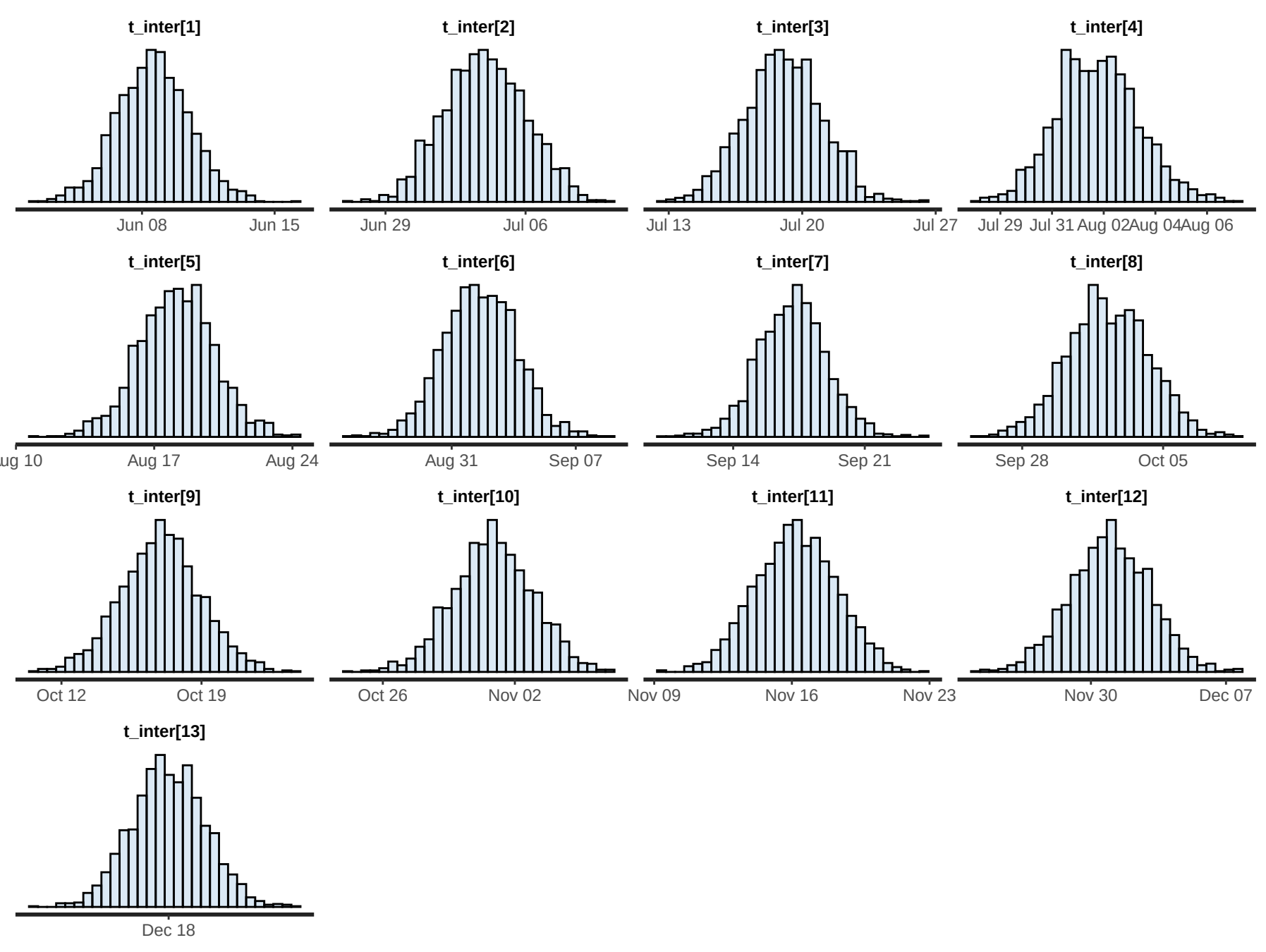

4
6
8
10
duration_hosp_icu

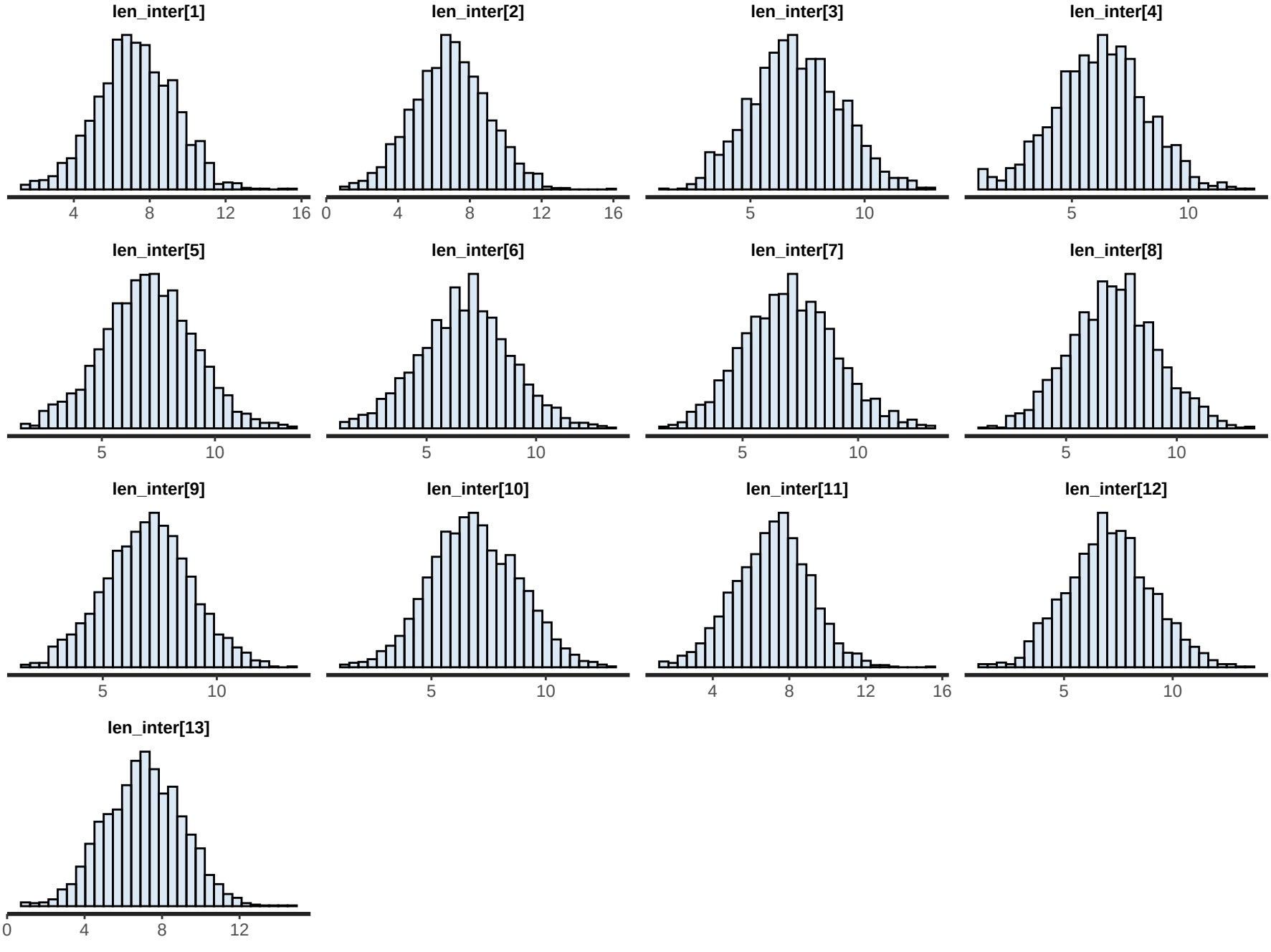

0.000
0.025
0.050
0.075
0.100
0.125
frac_hosp

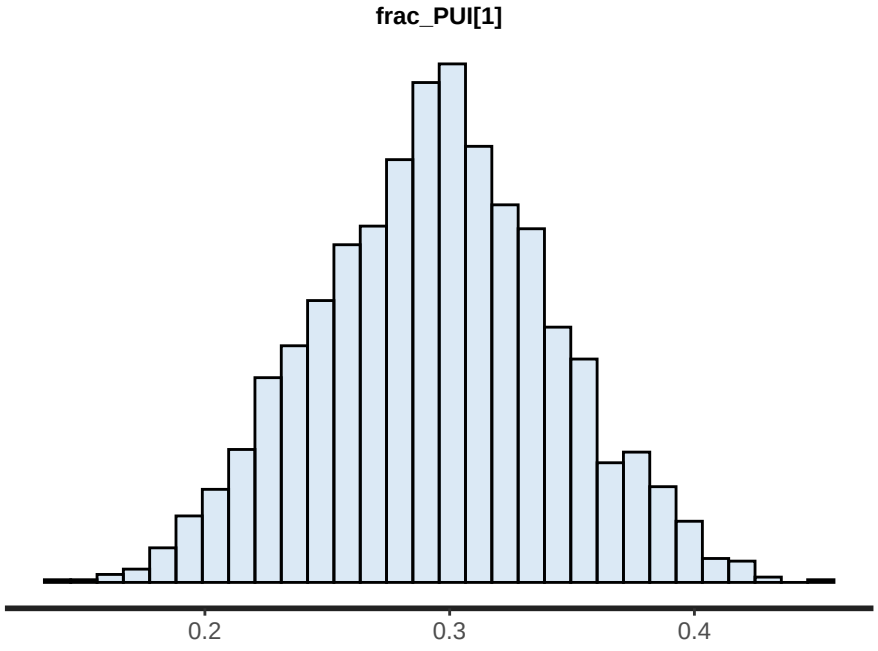

0.32
0.36
0.40
frac_icu

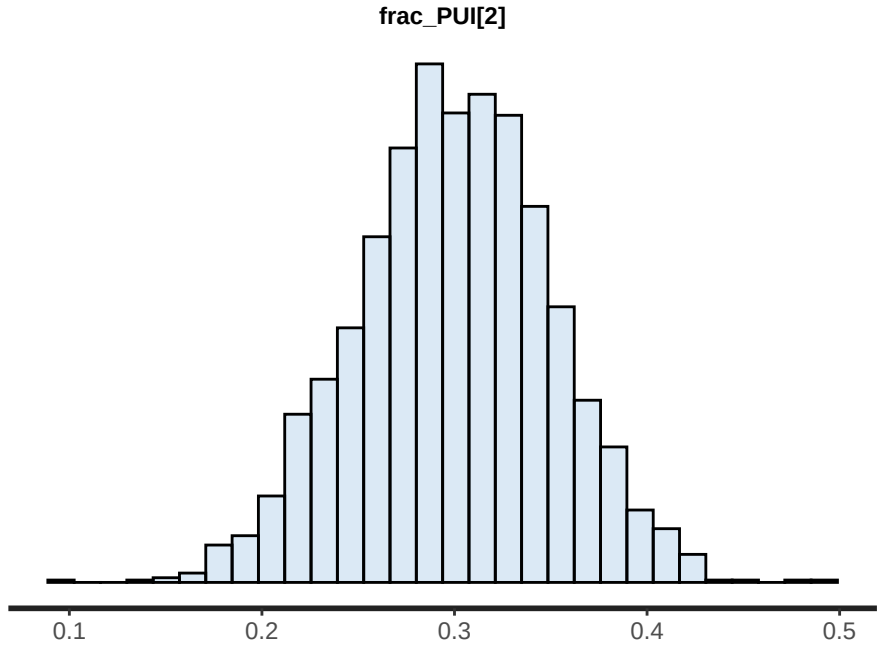

0.4
0.5
0.6
frac_mort

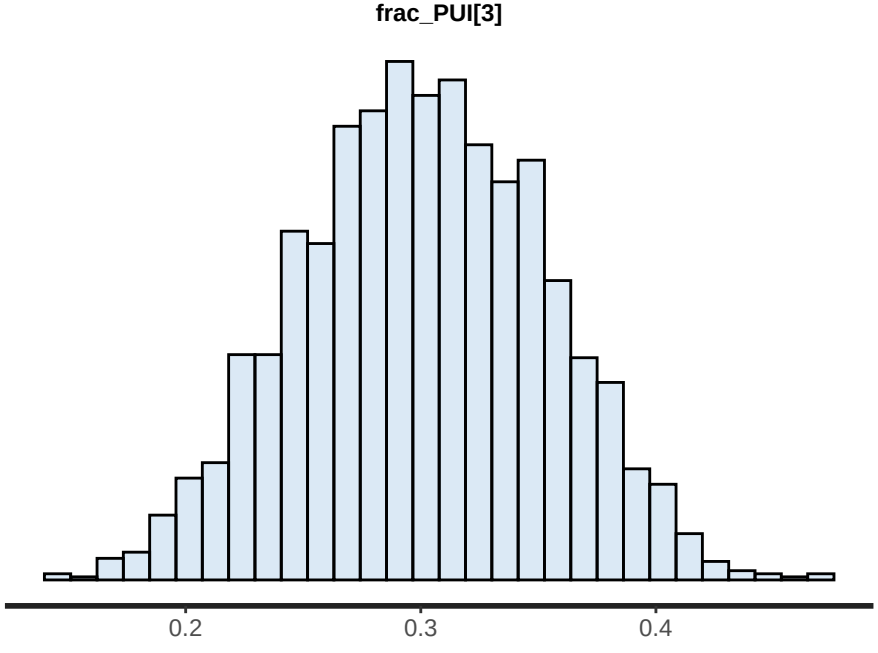

beta_multiplier[1]
0.5
1.0
1.5
2.0
beta_multiplier[2]
0.5
1.0
1.5
2.0
beta_multiplier[3]
0.5
1.0
1.5
2.0
beta_multiplier[4]
0.25
0.50
0.75
1.00
1.25
beta_multiplier[5]
0.8
1.2
1.6
2.0
beta_multiplier[6]
1.0
1.5
2.0
beta_multiplier[7]
0.3
0.6
0.9
1.2
1.5
beta_multiplier[8]
0.5
1.0
1.5
2.0
beta_multiplier[9]
0.8
1.2
1.6
2.0
beta_multiplier[10]
0.8
1.2
1.6
2.0
beta_multiplier[11]
0.5
1.0
1.5
beta_multiplier[12]
0.6
0.8
1.0
1.2
1.4
beta_multiplier[13]
0.4996
0.4998
0.5000
0.5002
0.5004

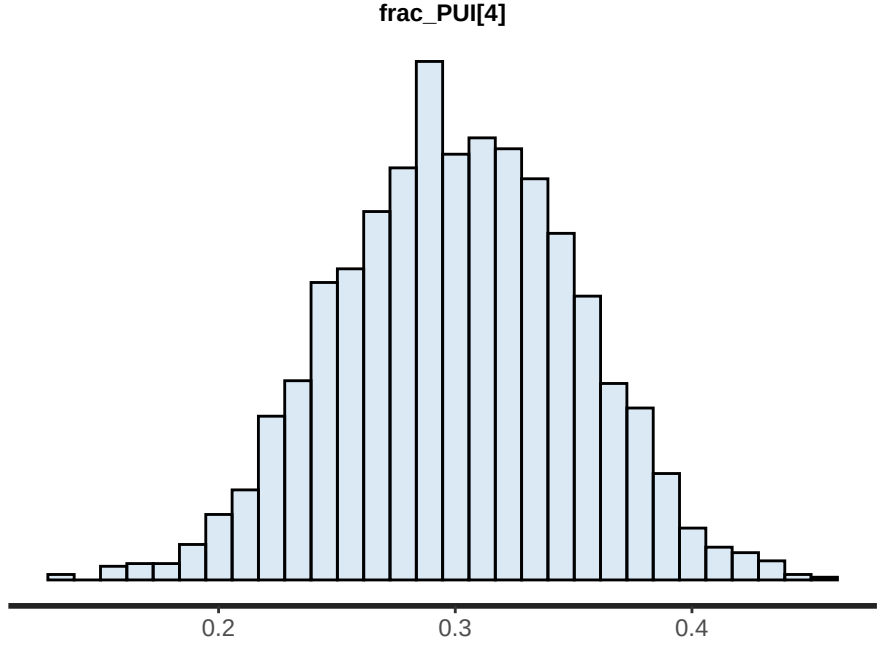

t_inter[1]
Jun 08
Jun 15
t_inter[2]
Jun 29
Jul 06
t_inter[3]
Jul 13
Jul 20
Jul 27
t_inter[4]
Jul 29
Jul 31
Aug 02
Aug 04
Aug 06
t_inter[5]
ug 10
Aug 17
Aug 24
t_inter[6]
Aug 31
Sep 07
t_inter[7]
Sep 14
Sep 21
t_inter[8]
Sep 28
Oct 05
t_inter[9]
Oct 12
Oct 19
t_inter[10]
Oct 26
Nov 02
t_inter[11]
Nov 09
Nov 16
Nov 23
t_inter[12]
Nov 30
Dec 07
t_inter[13]
Dec 18

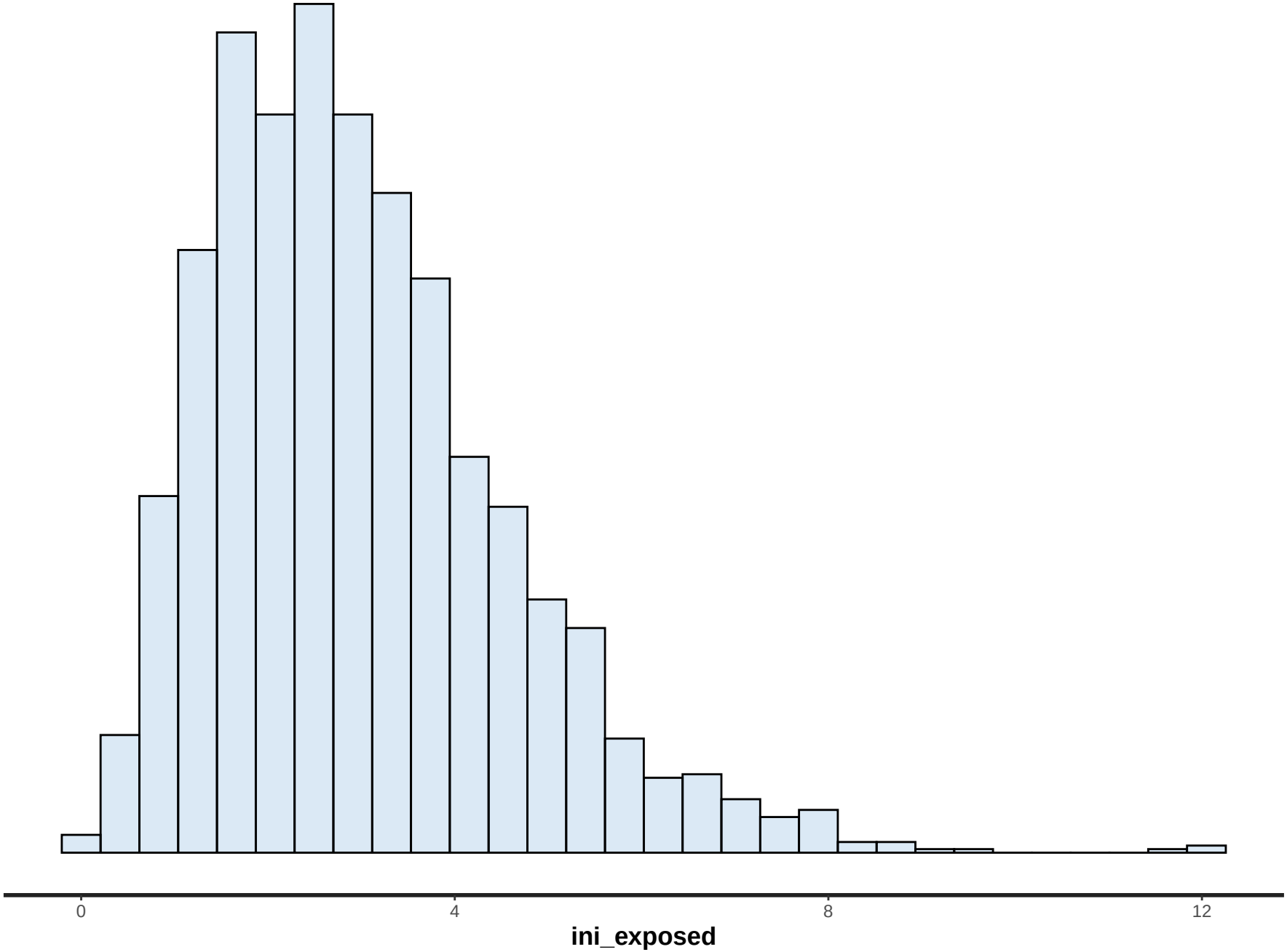

len_inter[1]
4
8
12
16
len_inter[2]
0
4
8
12
16
len_inter[3]
5
10
len_inter[4]
5
10
len_inter[5]
5
10
len_inter[6]
5
10
len_inter[7]
5
10
len_inter[8]
5
10
len_inter[9]
5
10
len_inter[10]
5
10
len_inter[11]
4
8
12
16
len_inter[12]
5
10
len_inter[13]
0
4
8
12

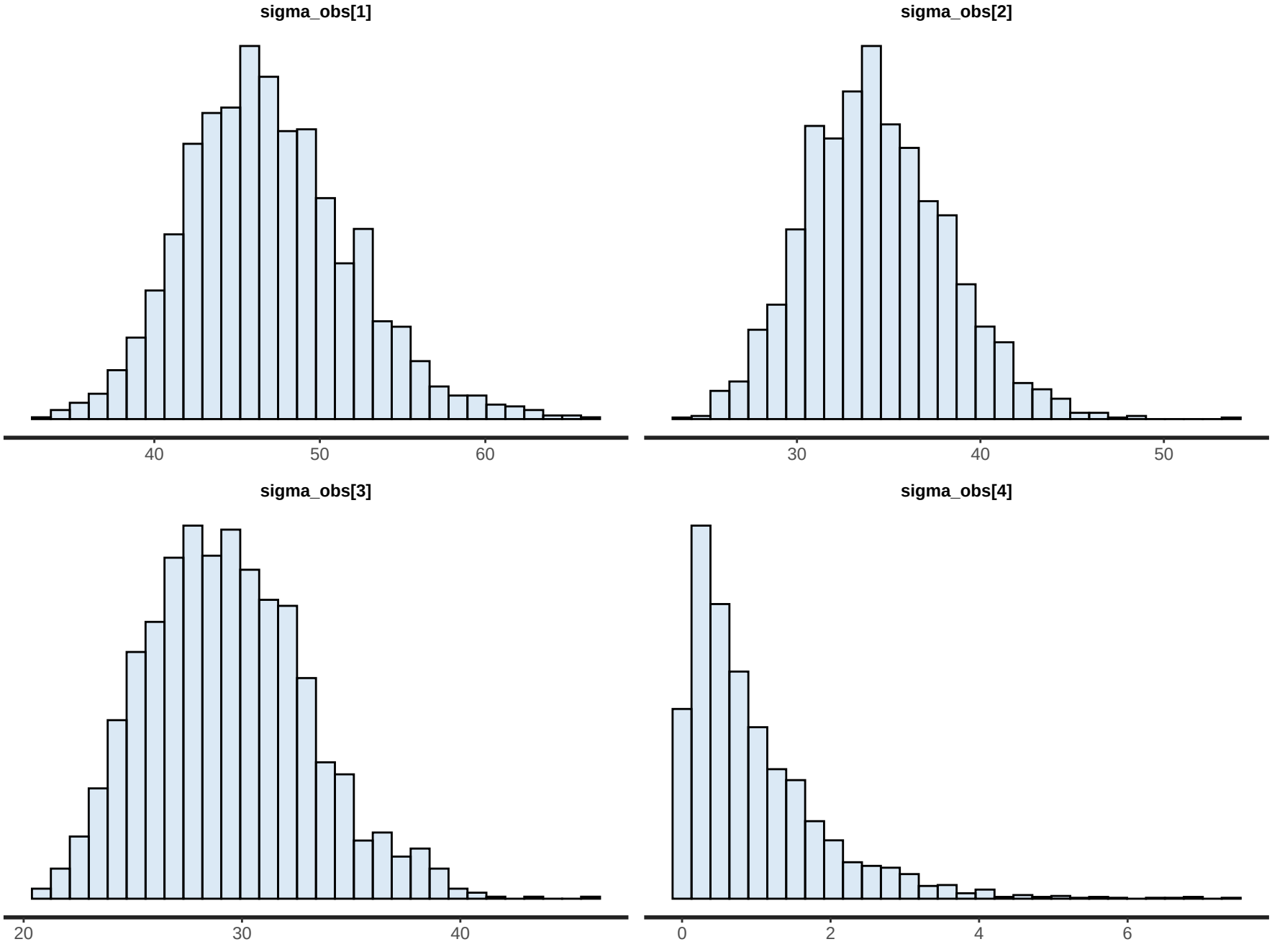

frac_PUI[1]
0.2
0.3
0.4


frac_PUI[2]
0.1
0.2
0.3
0.4
0.5


frac_PUI[3]
0.2
0.3
0.4


frac_PUI[4]
0.2
0.3
0.4


0
4
8
12
ini_exposed


sigma_obs[1]
40
50
60
sigma_obs[2]
30
40
50
sigma_obs[3]
20
30
40
sigma_obs[4]
0
2
4
6