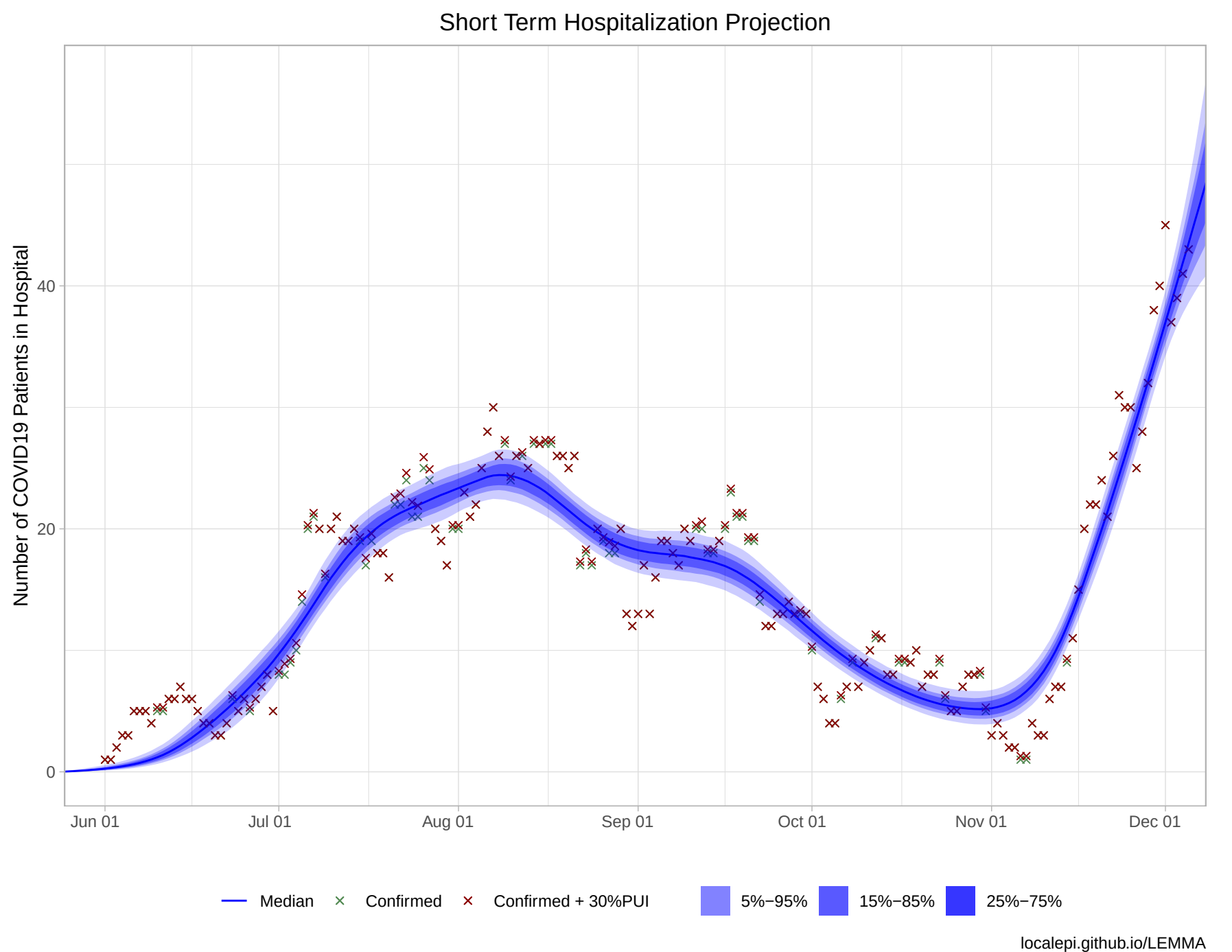
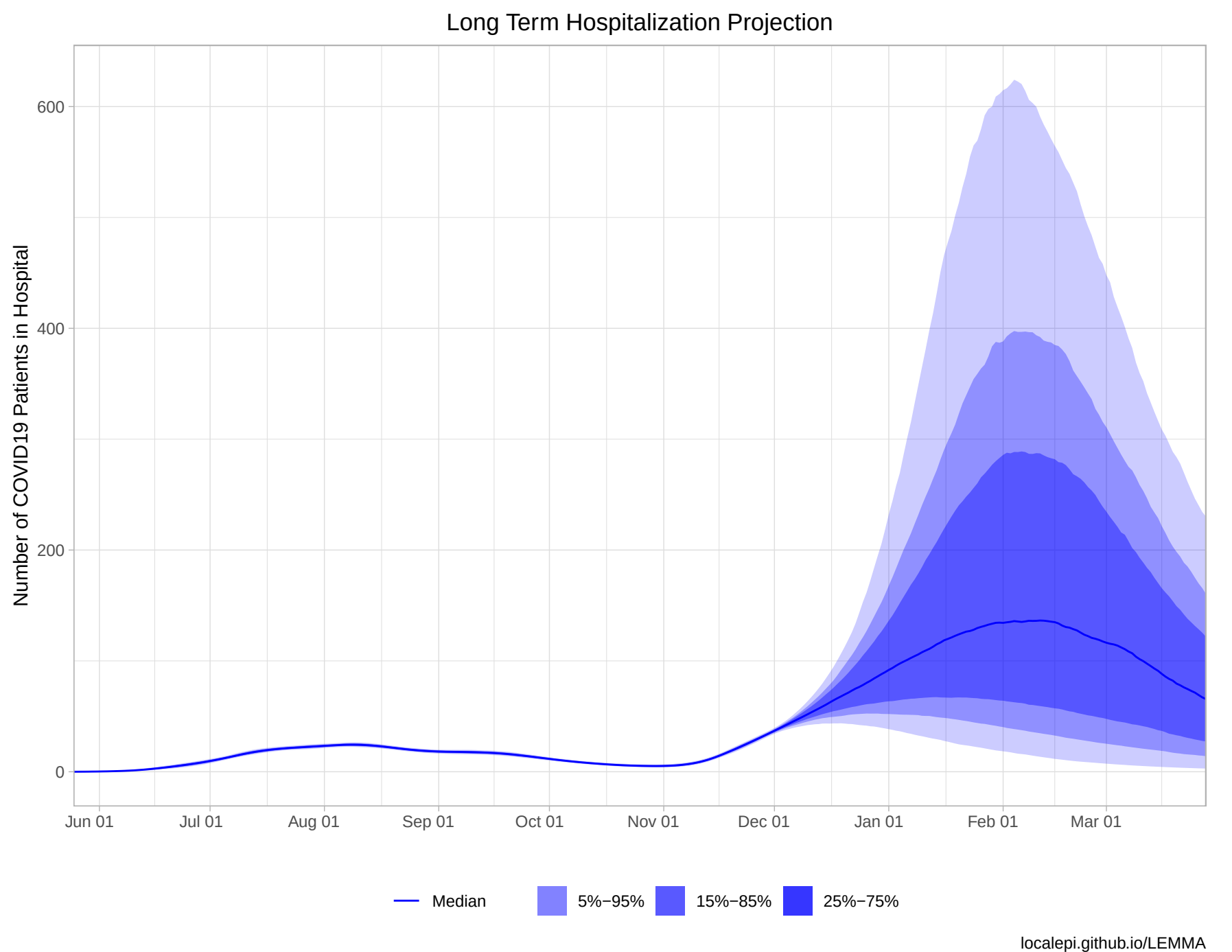
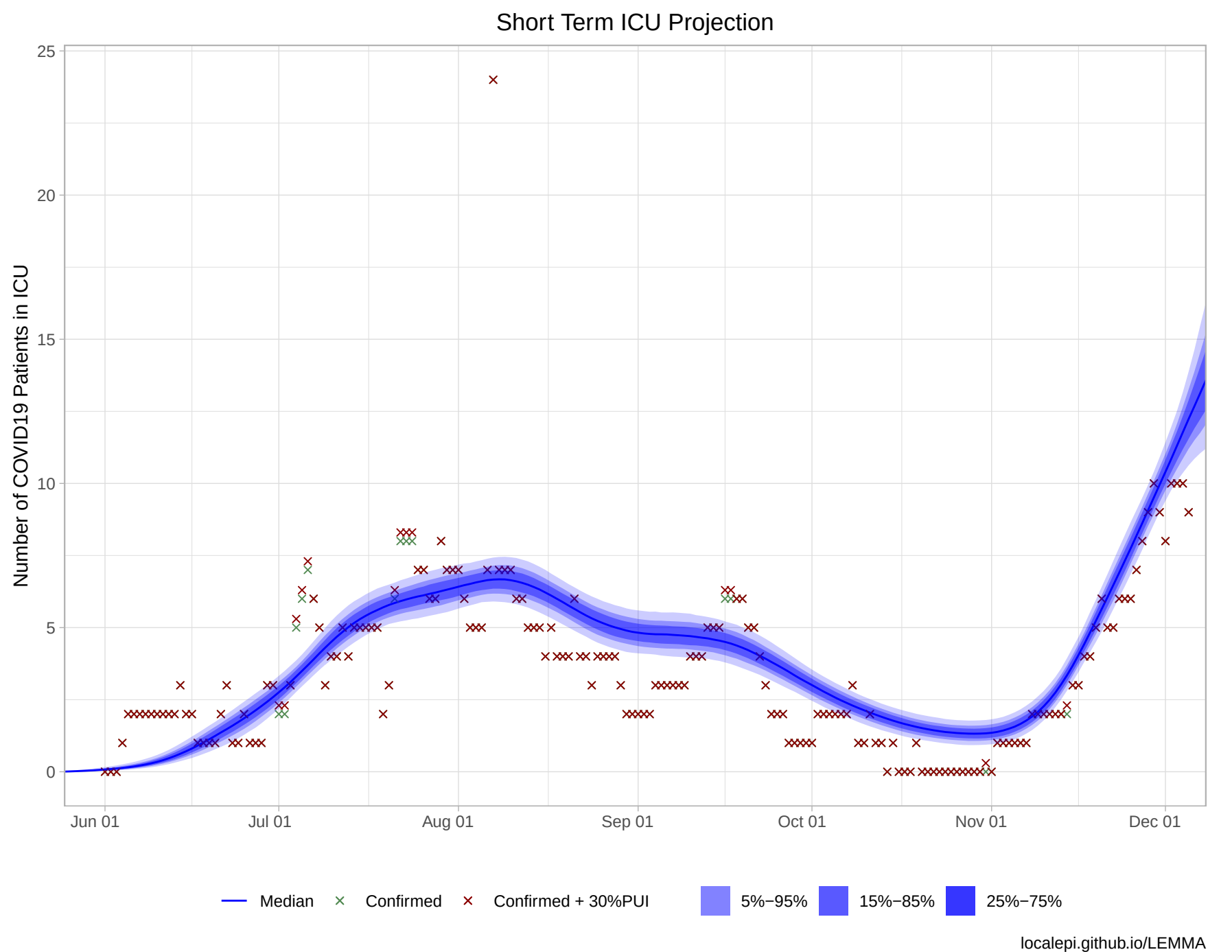
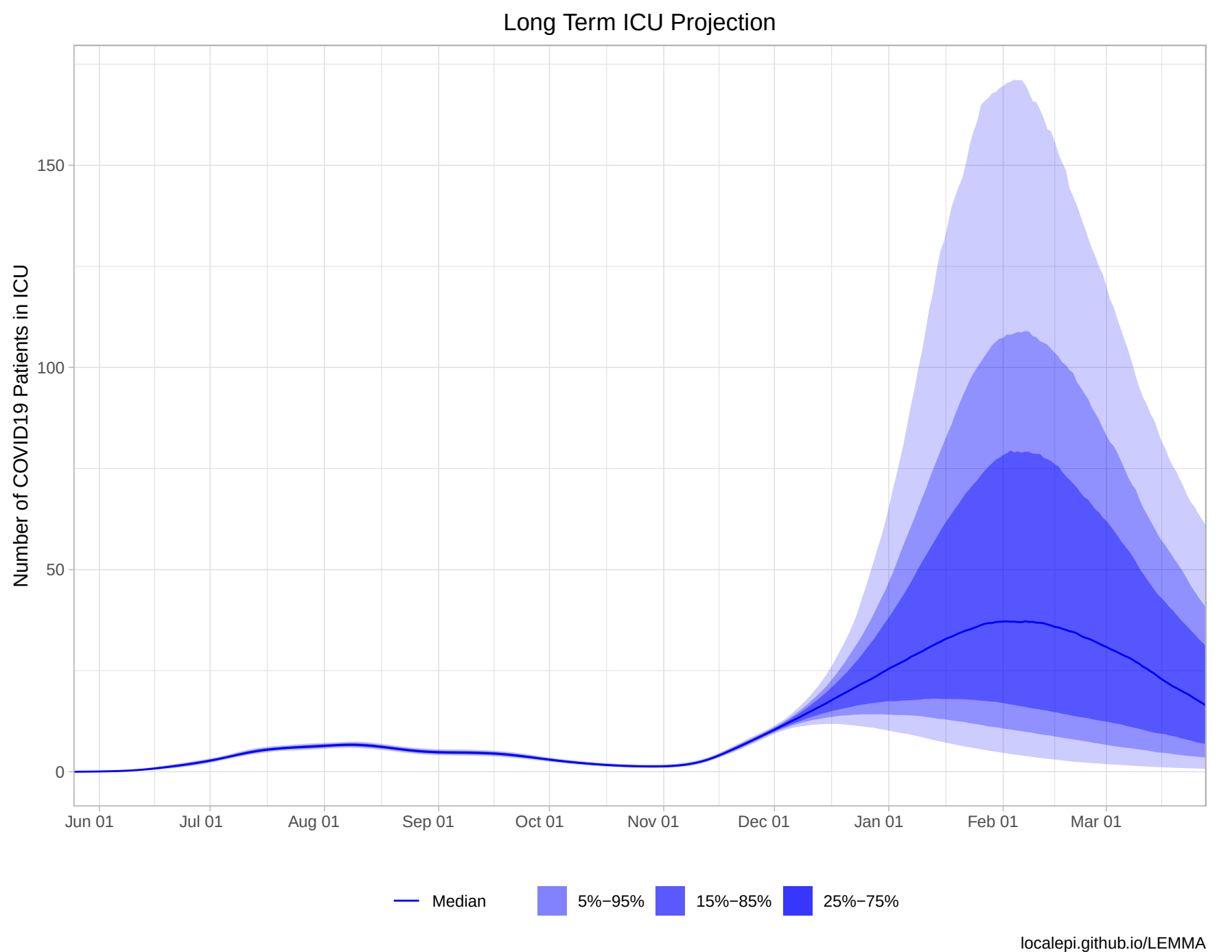
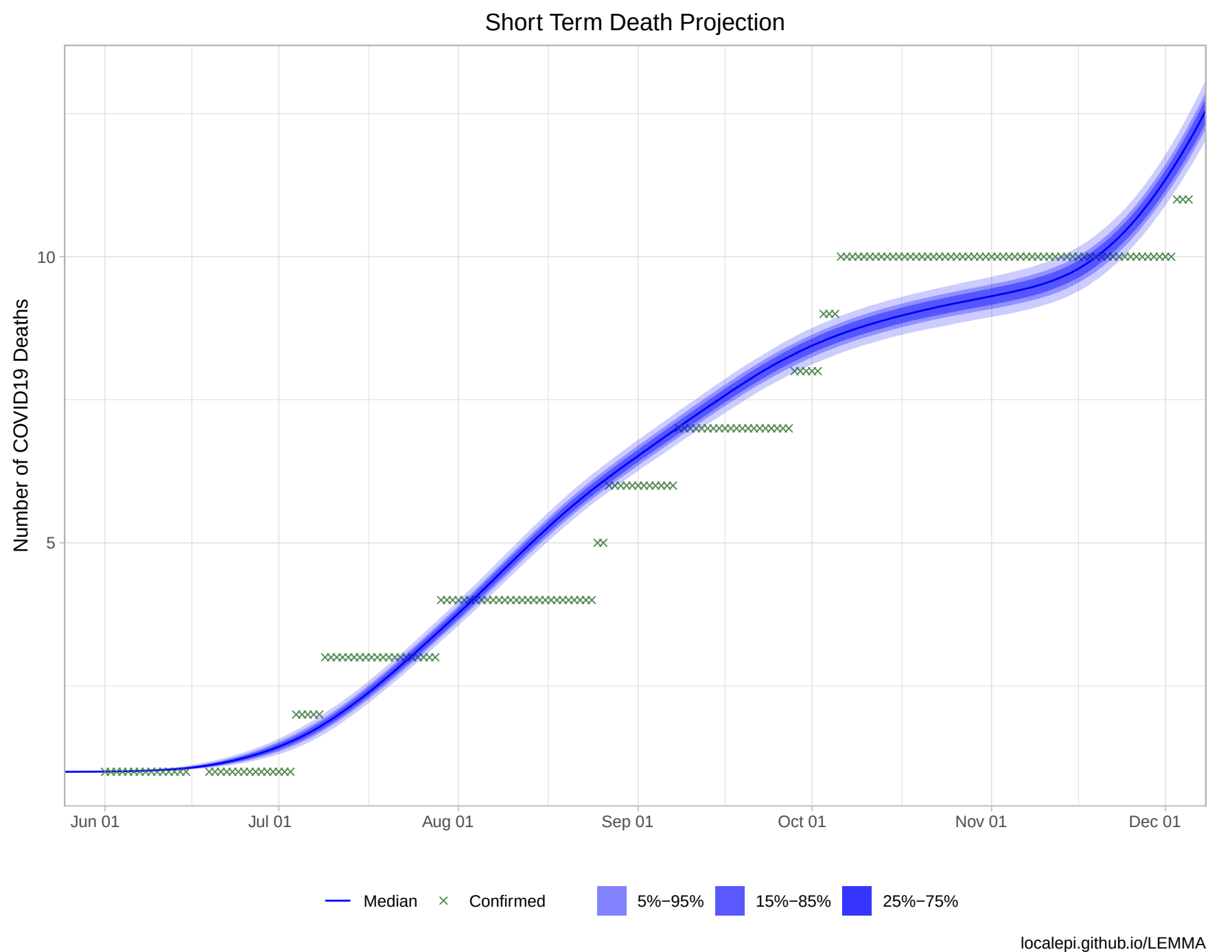
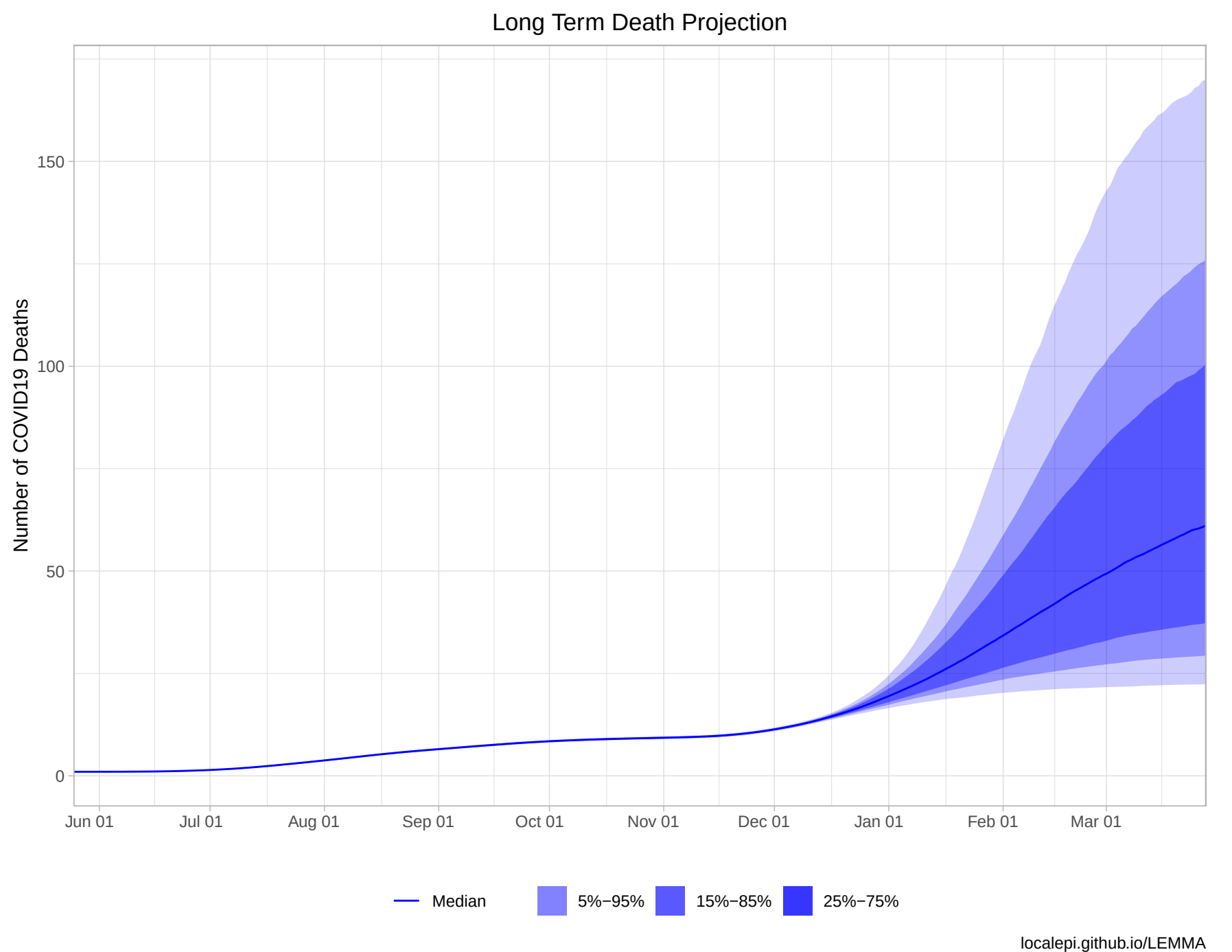

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
20
40
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

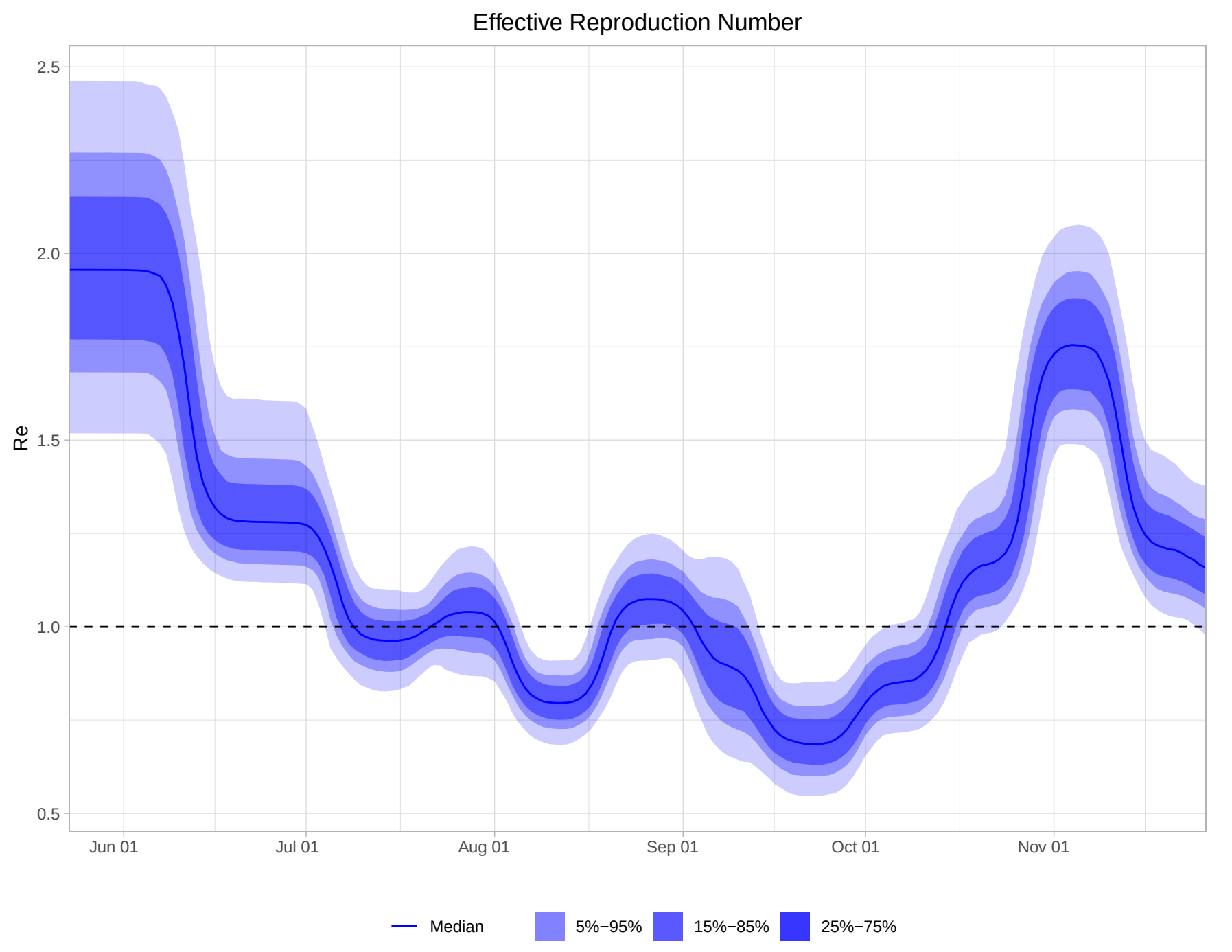

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
600
400
200
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
25
20
15
10
5
0
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
150
100
50
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

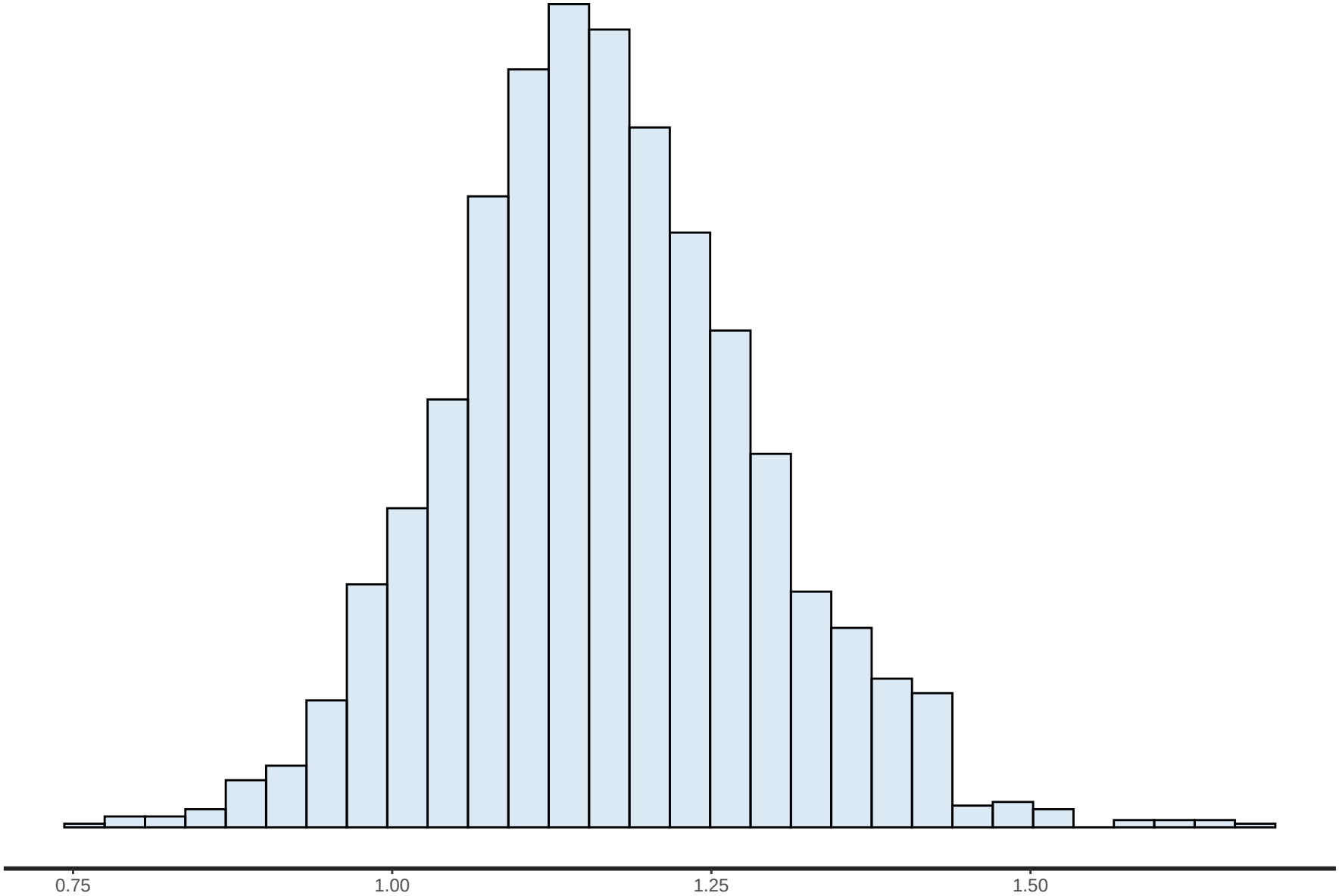

Short Term Death Projection
Number of COVID19 Deaths
10
5
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

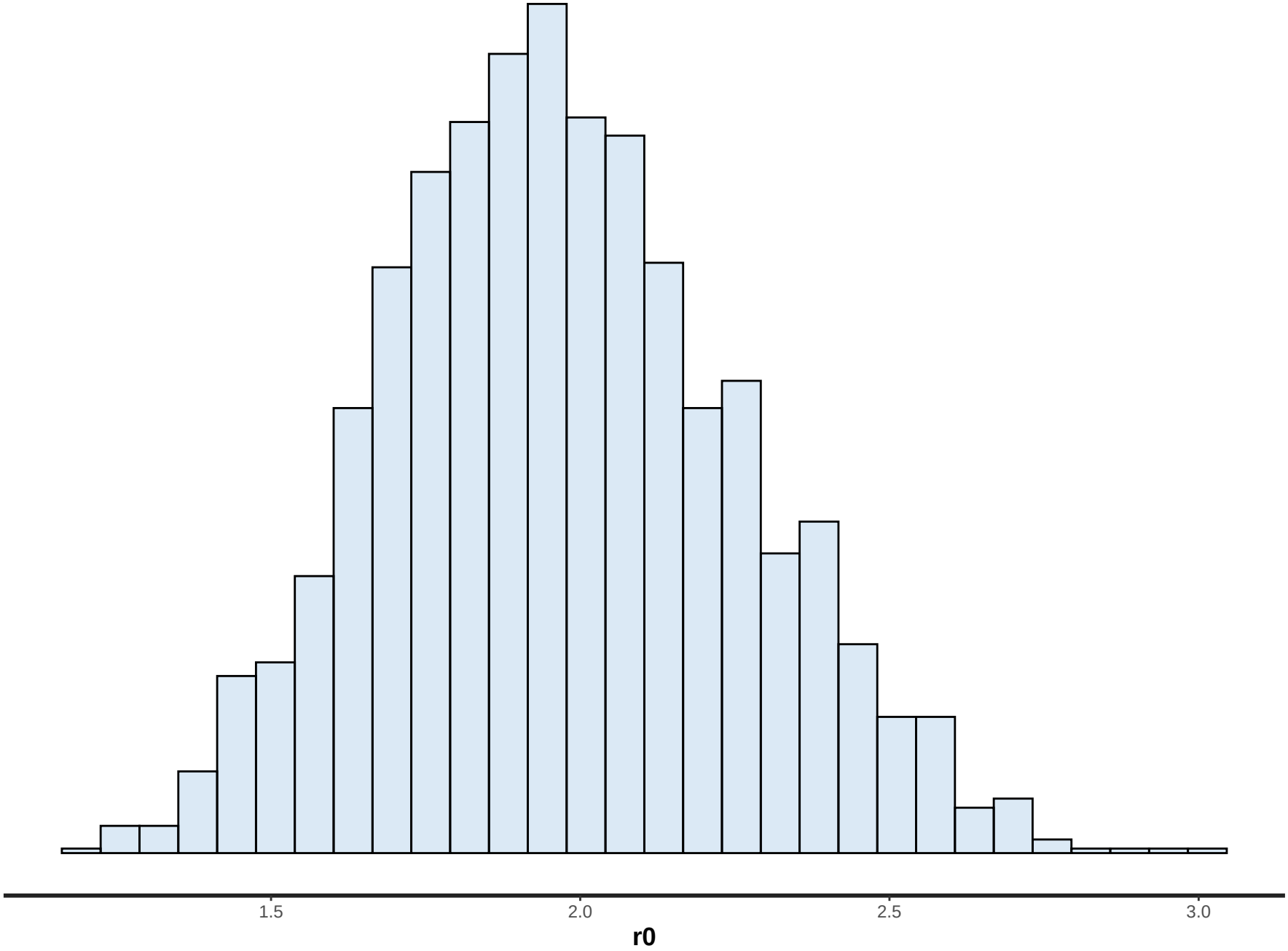

Long Term Death Projection
Number of COVID19 Deaths
150
100
50
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

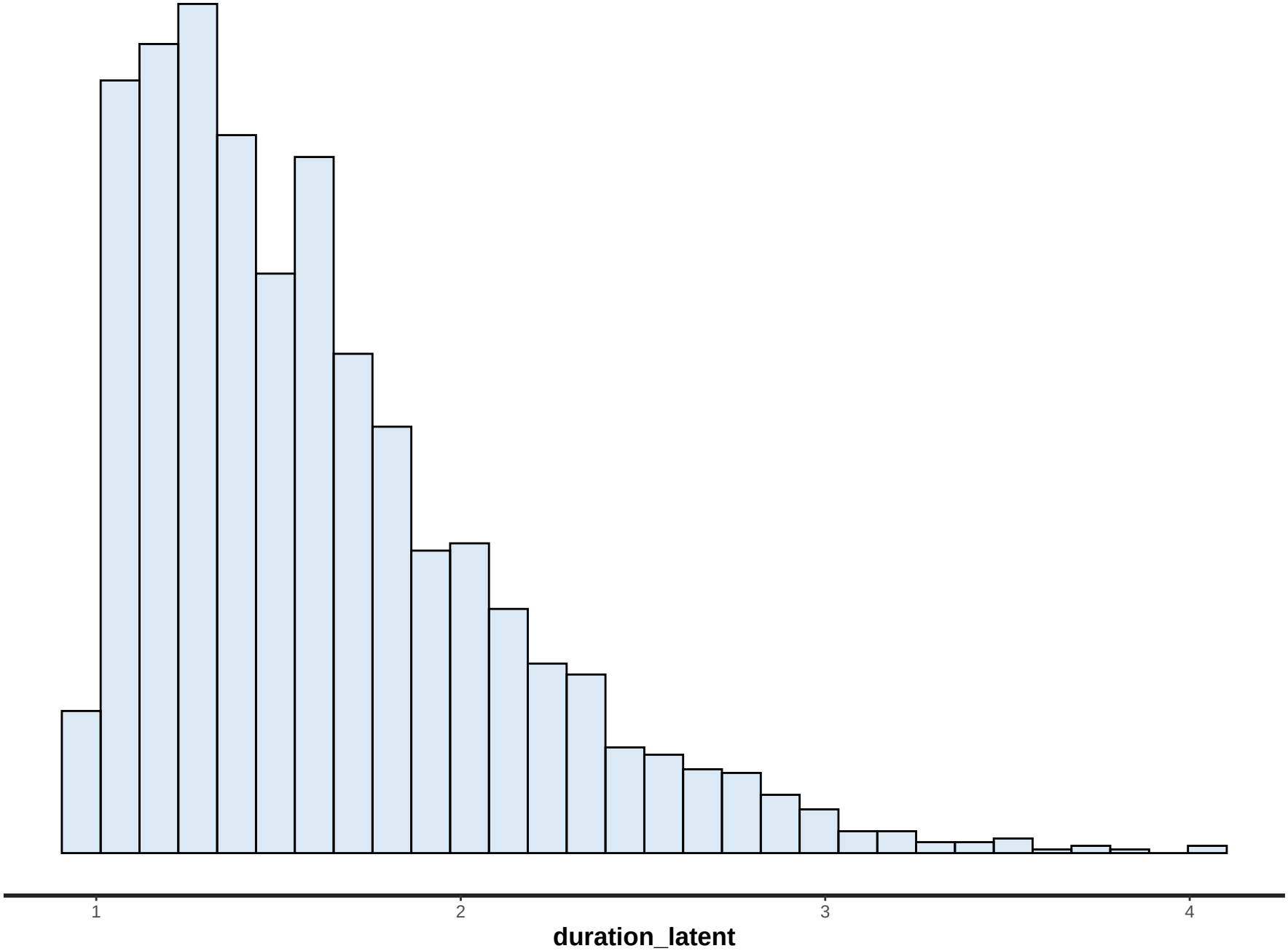

Effective Reproduction Number
Re
2.5
2.0
1.5
1.0
0.5
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
5%−95%
15%−85%
25%−75%

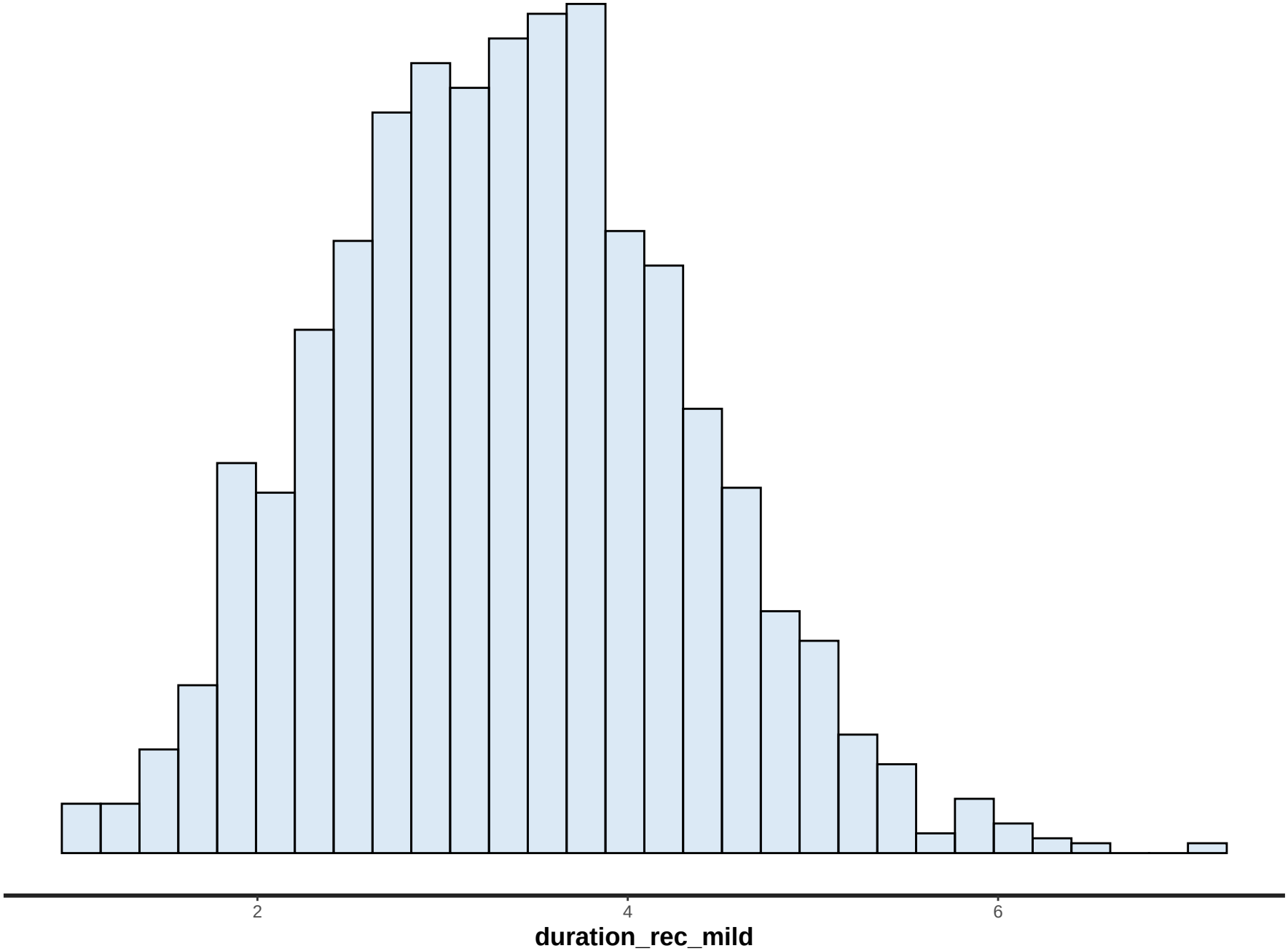
Rt as of 2020−11−26

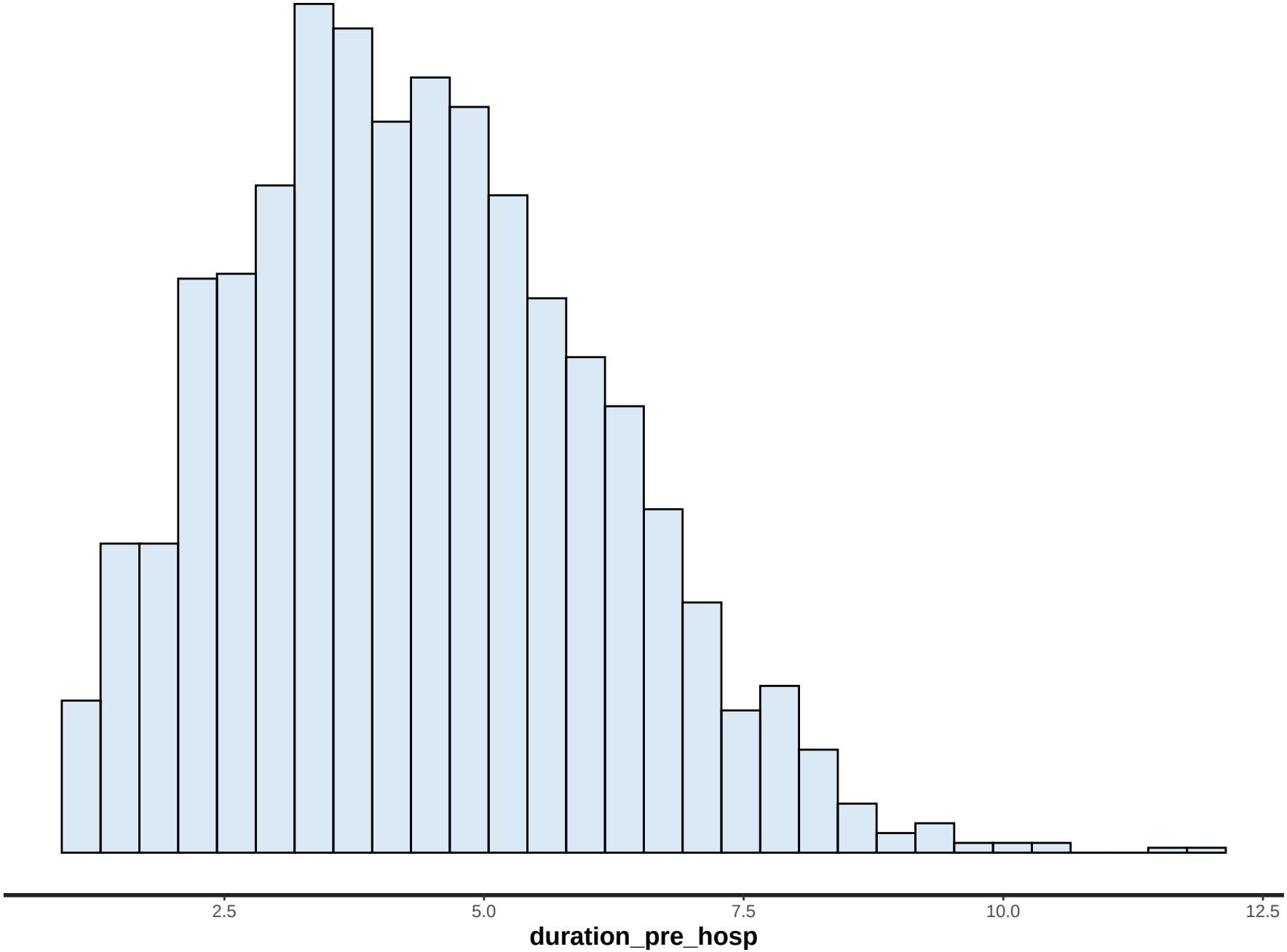
5%	10%	25%	50%	75%	90%	95%
0.98	1.02	1.09	1.16	1.24	1.32	1.38

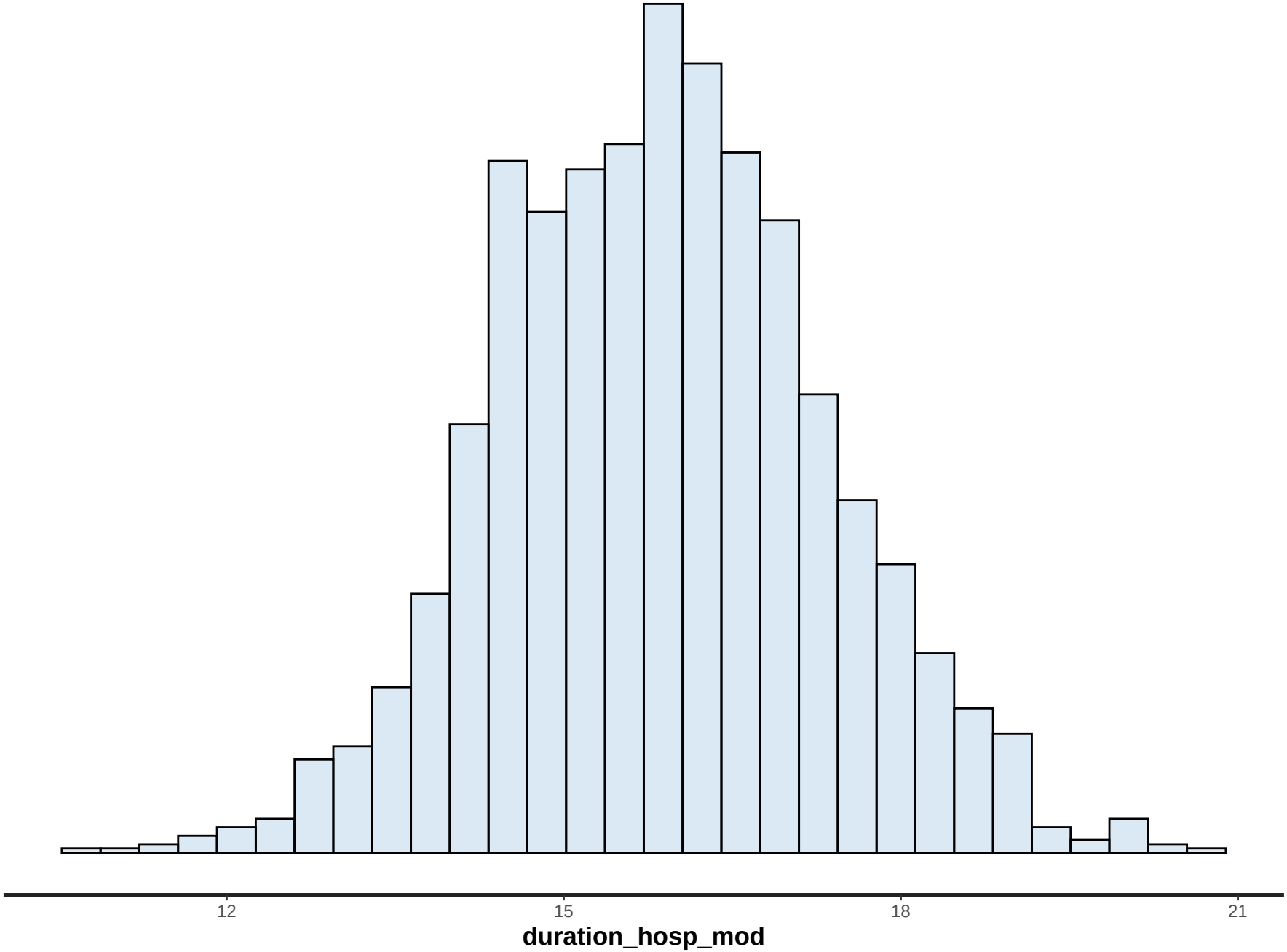


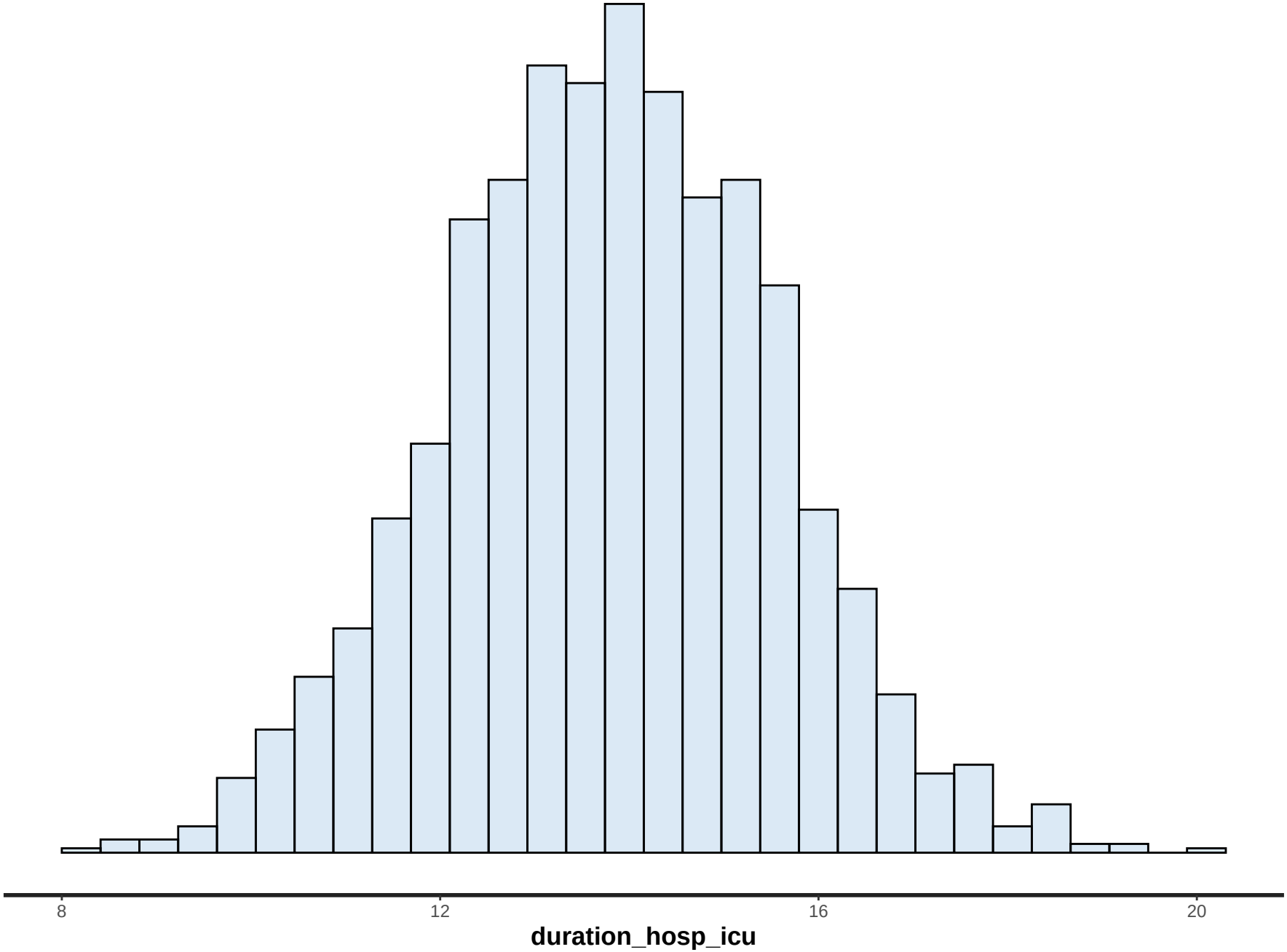

1.5
2.0
2.5
3.0
r0

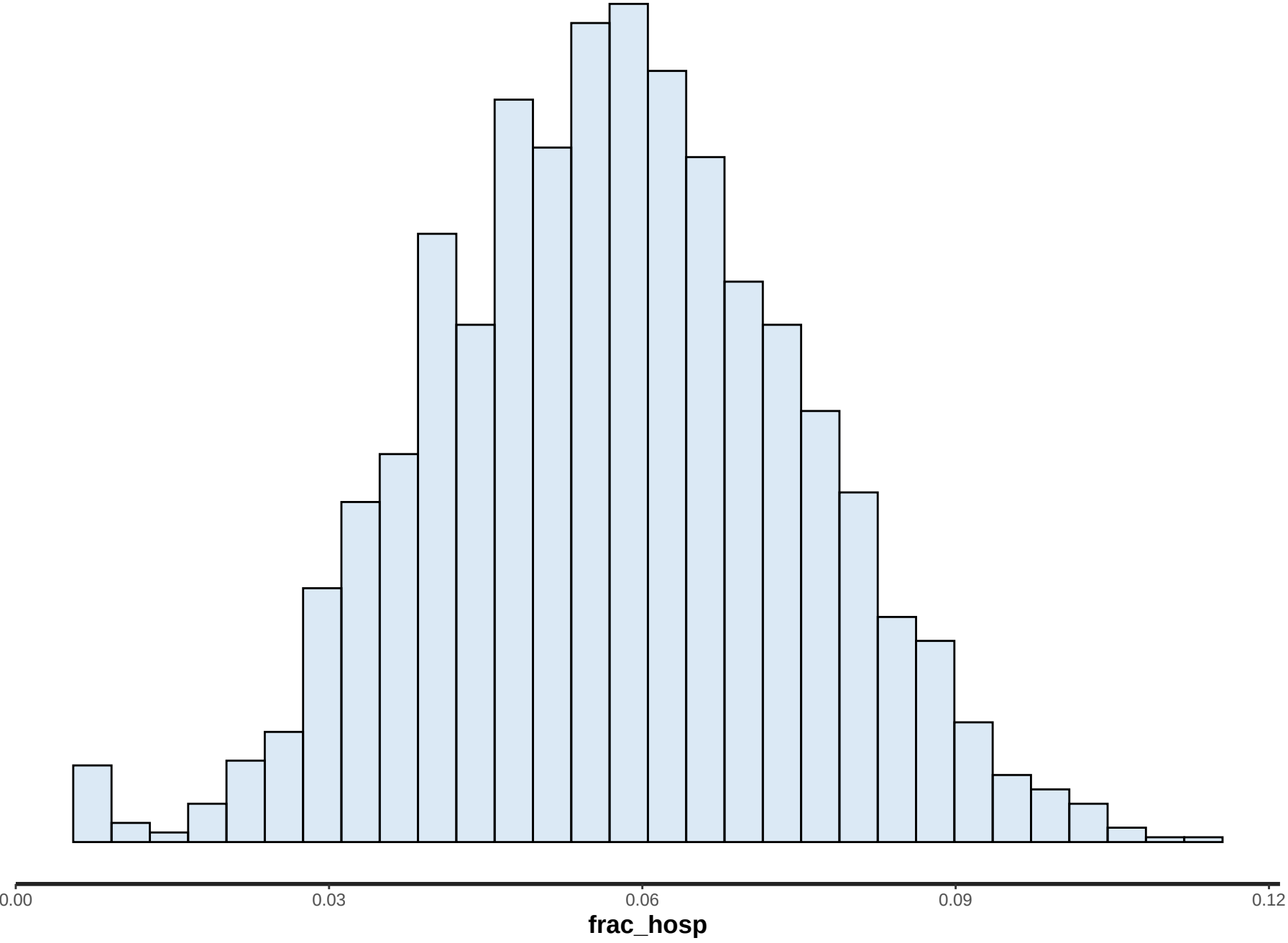

1
2
3
4
duration_latent

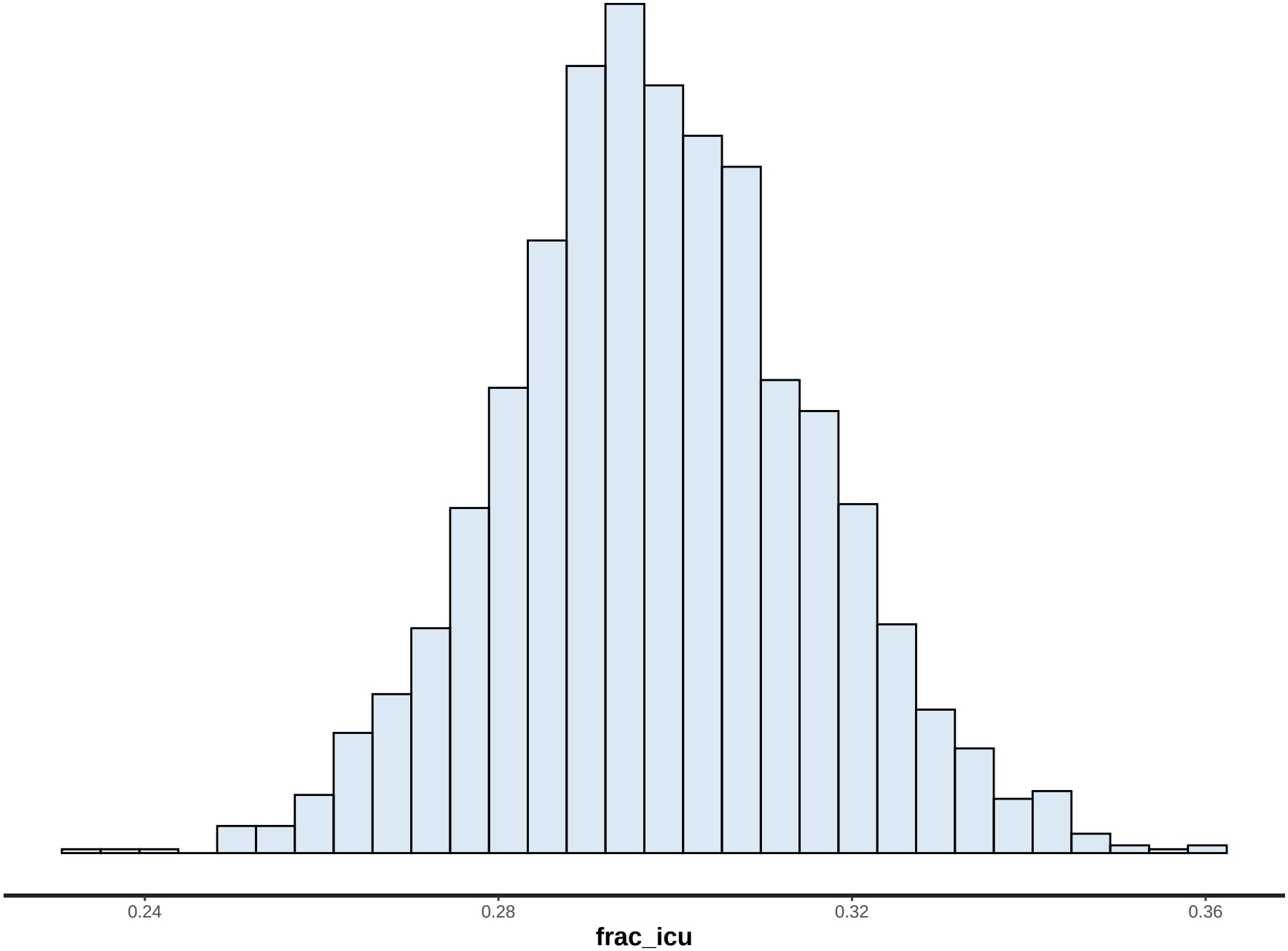

2
4
6
duration_rec_mild

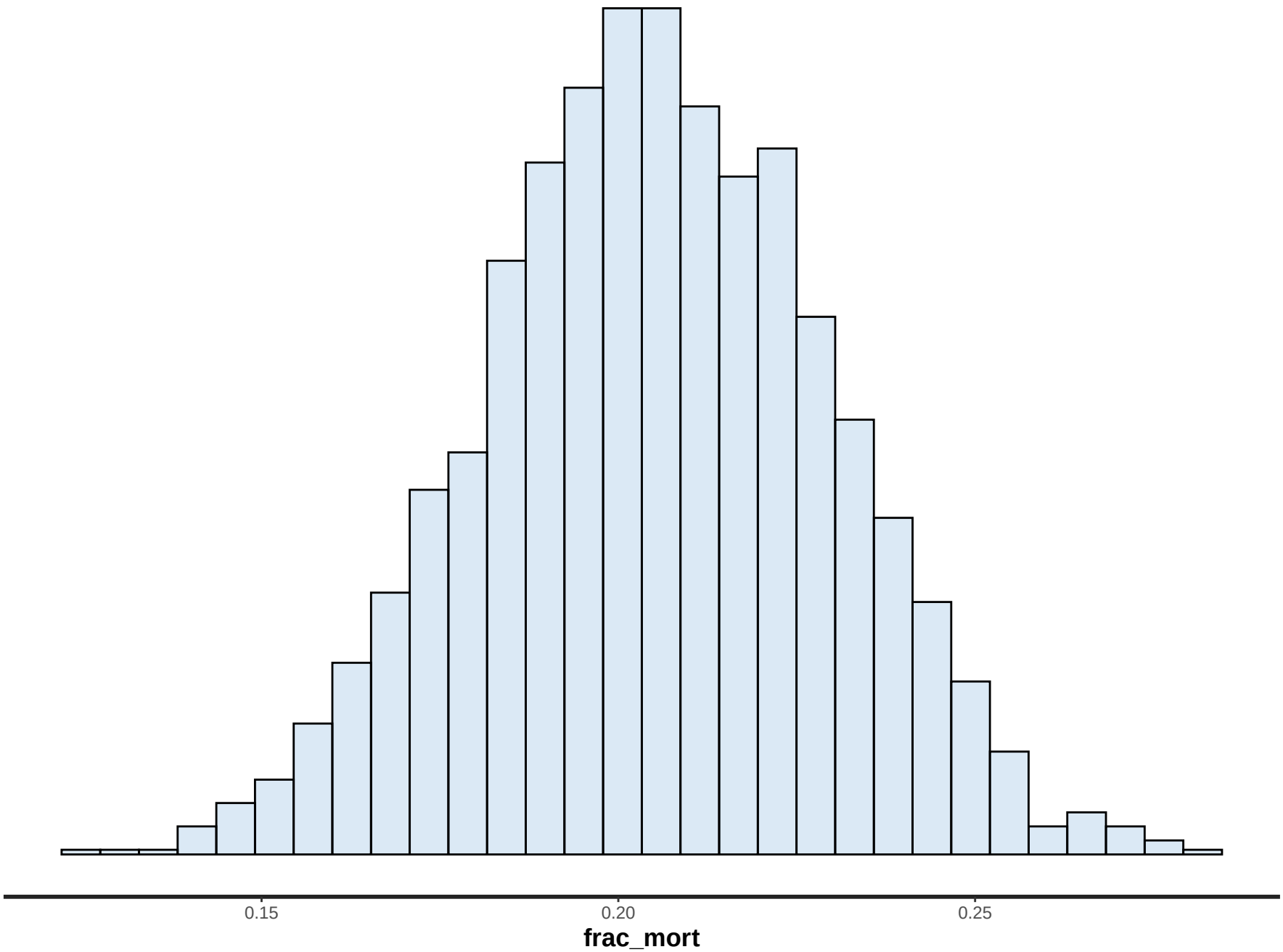

2.5
5.0
7.5
10.0
12.5
duration_pre_hosp

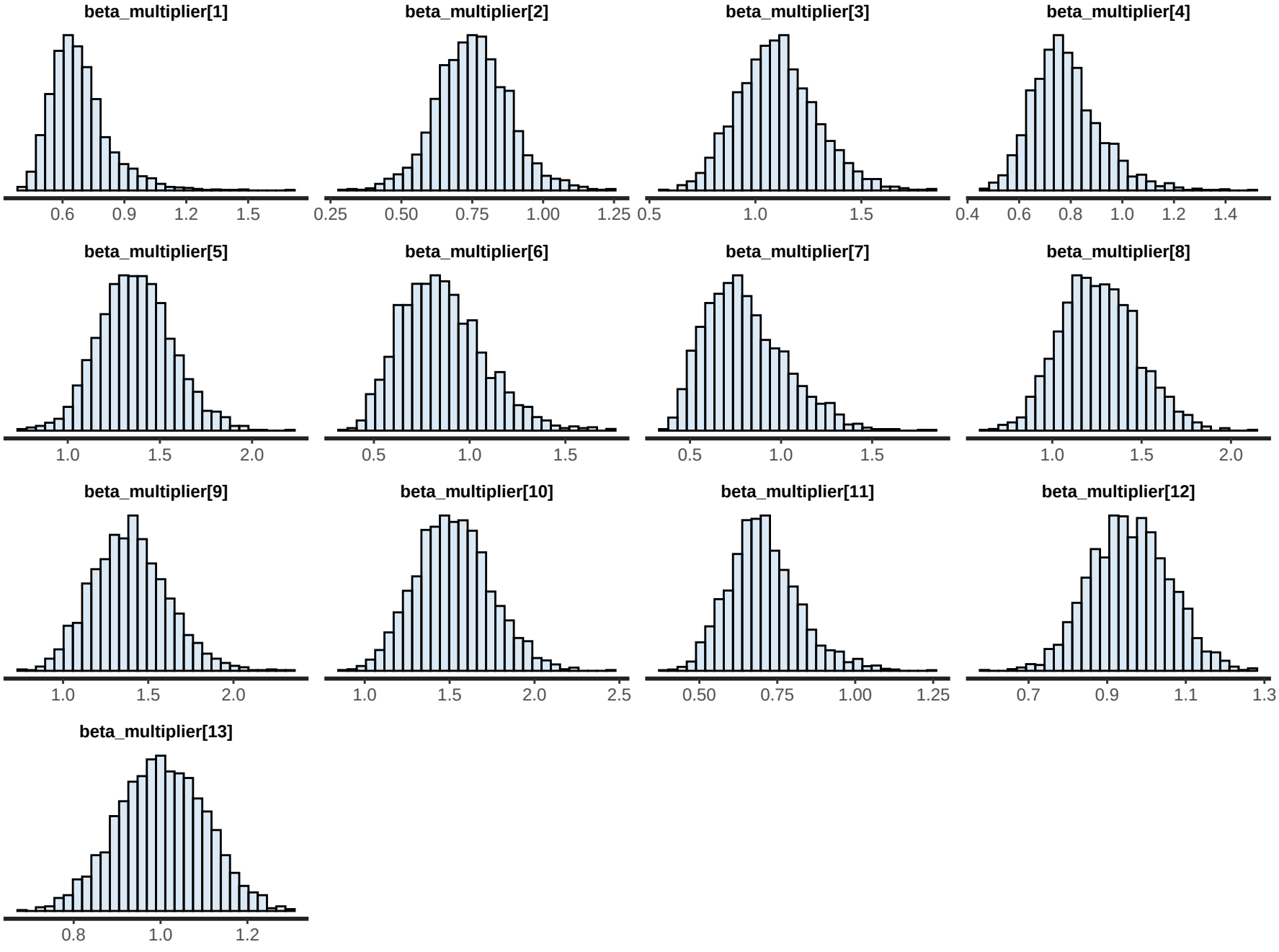

12
15
18
21
duration_hosp_mod

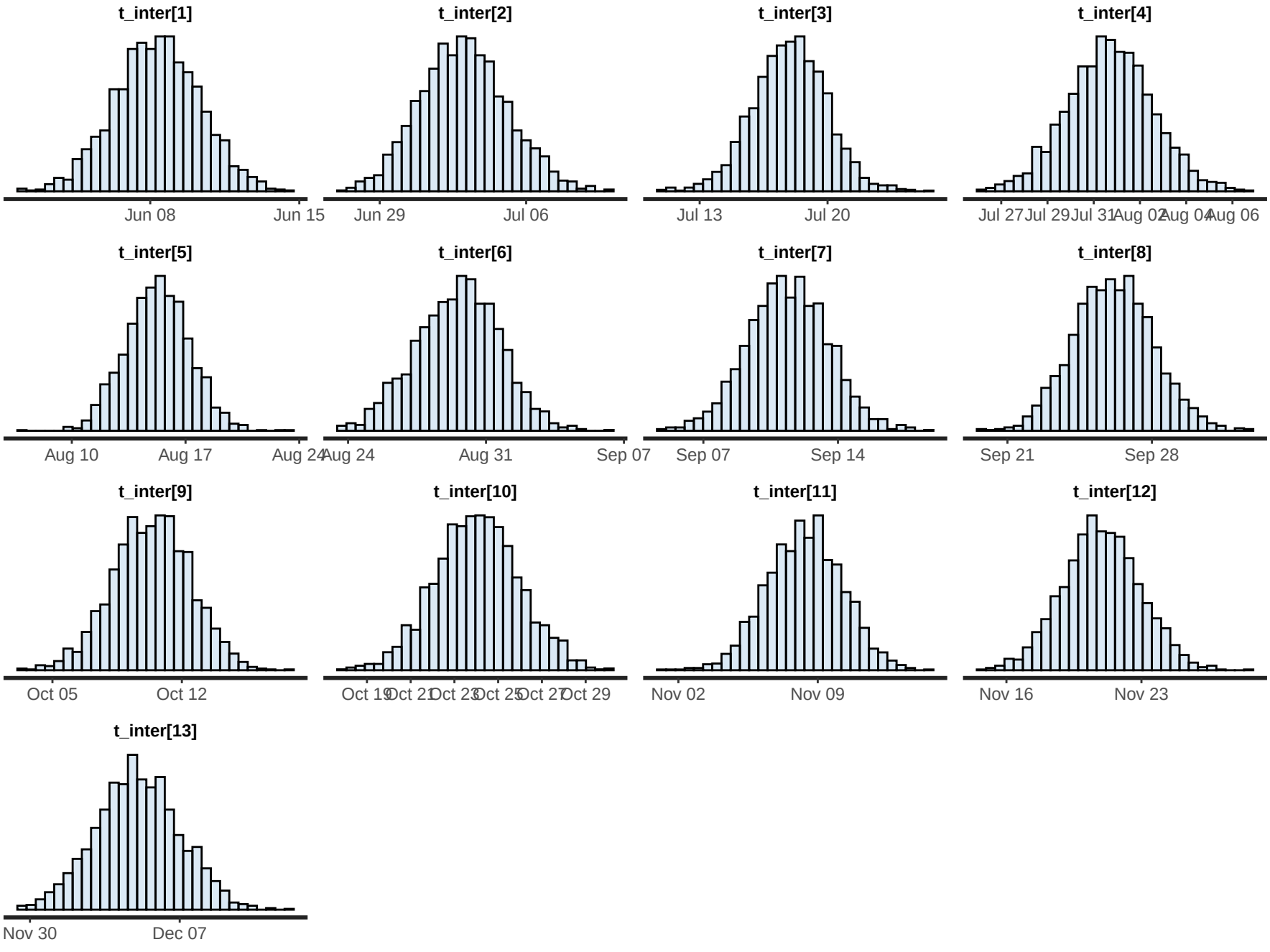

8
12
16
20
duration_hosp_icu

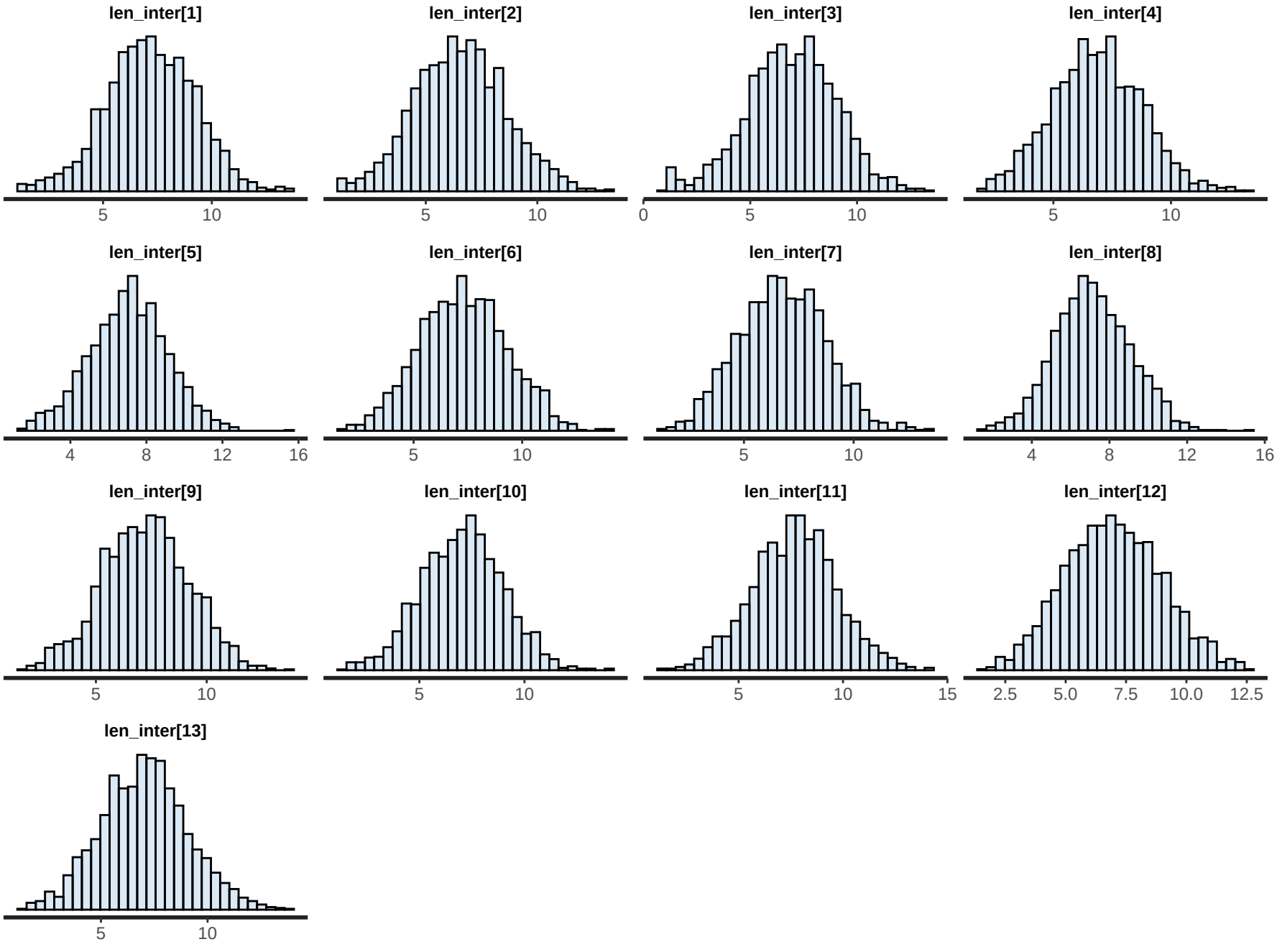

0.00
0.03
0.06
0.09
0.12
frac_hosp

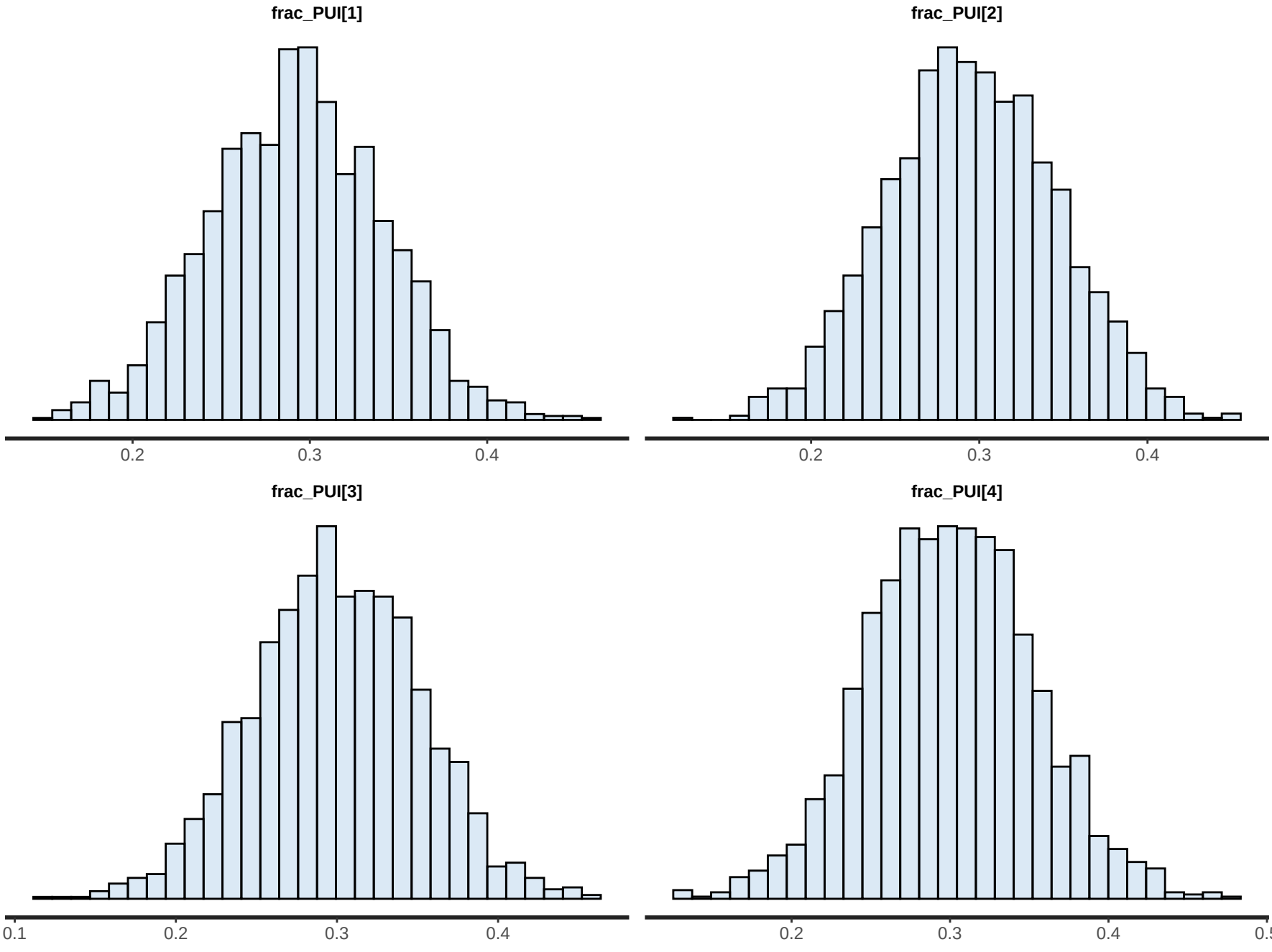

0.24
0.28
0.32
0.36
frac_icu

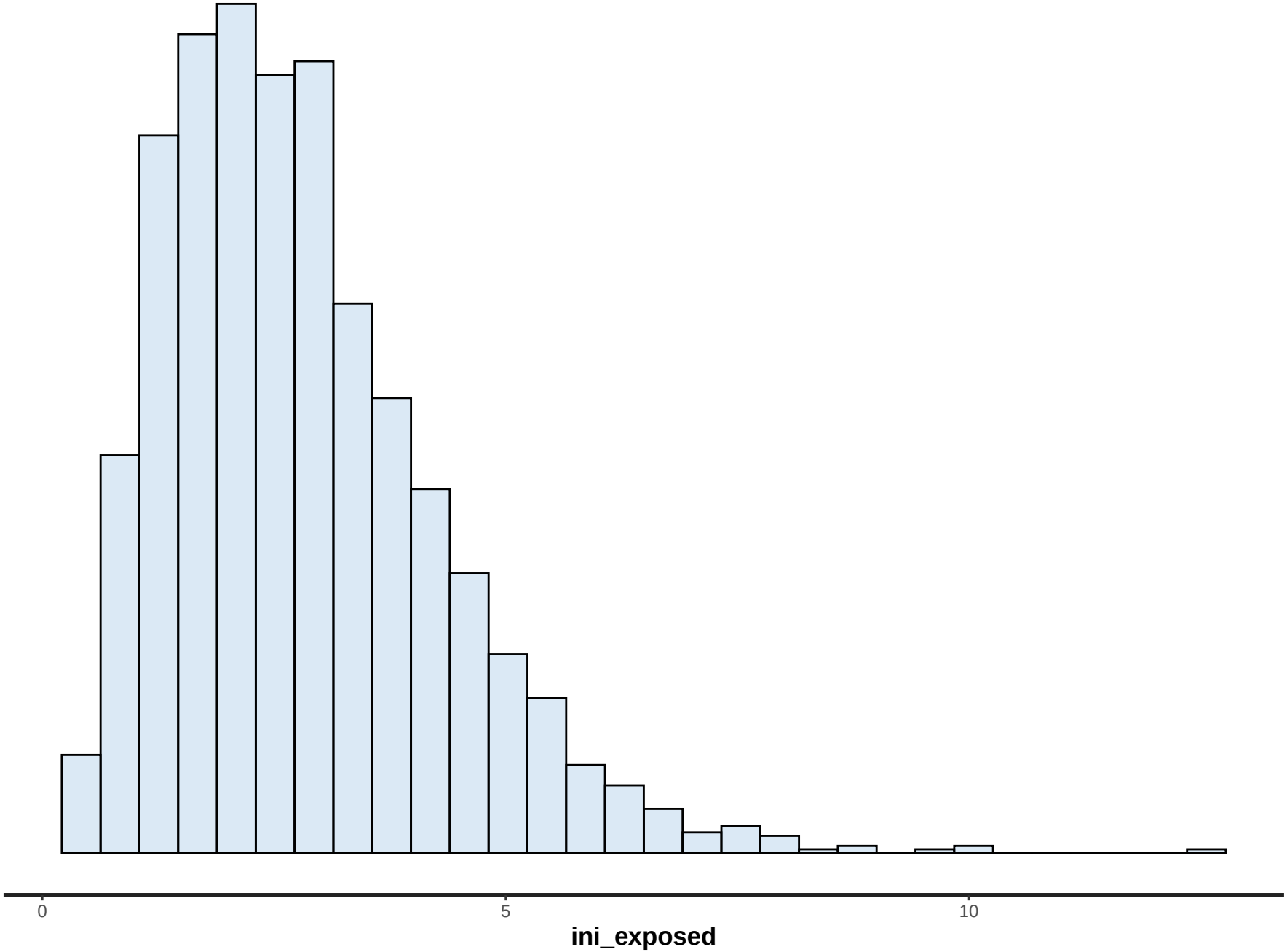

0.15
0.20
0.25
frac_mort

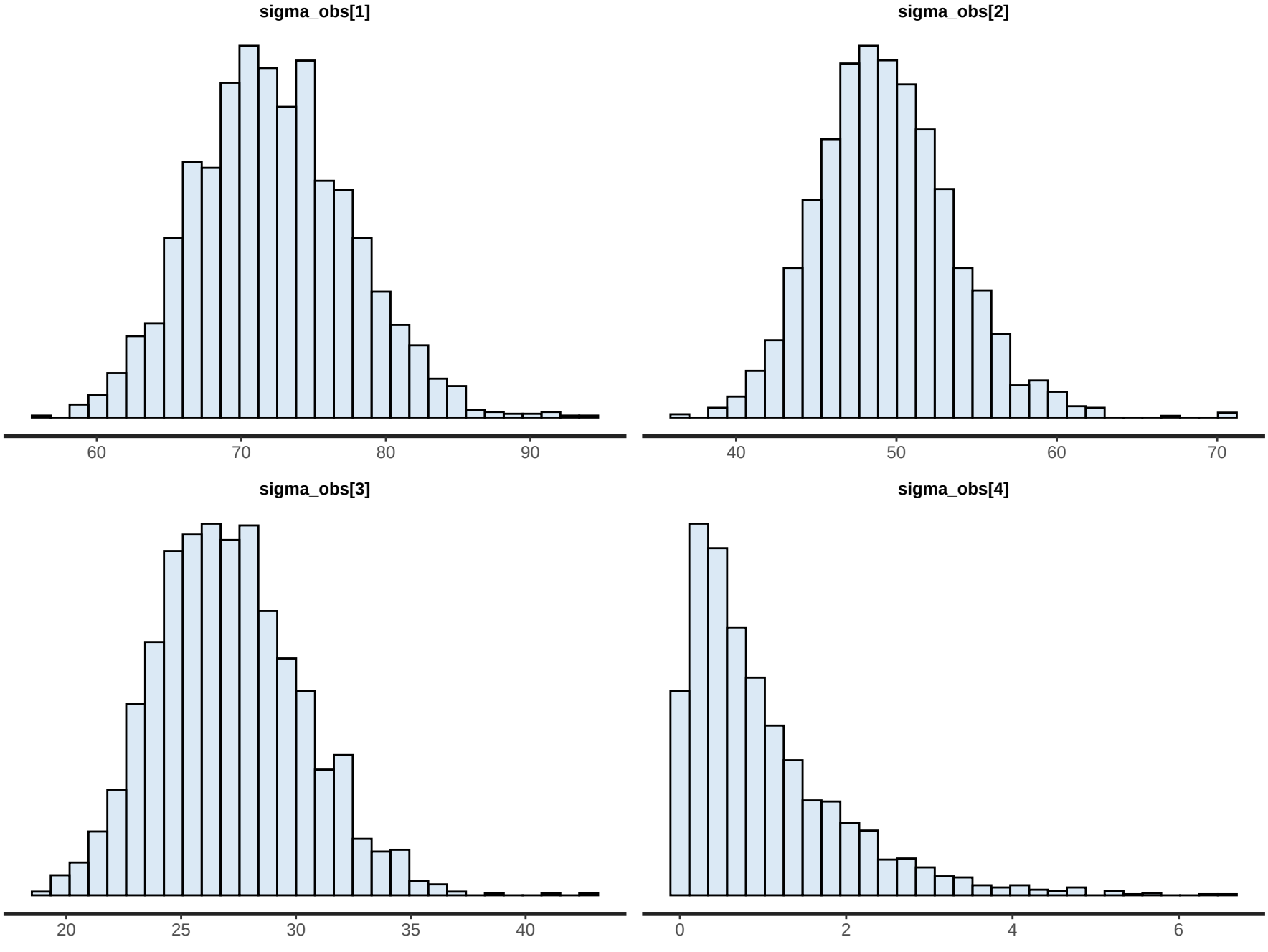

beta_multiplier[1]
0.6 0.9 1.2 1.5
beta_multiplier[2]
0.25 0.50 0.75 1.00 1.25
beta_multiplier[3]
0.5 1.0 1.5
beta_multiplier[4]
0.4 0.6 0.8 1.0 1.2 1.4
beta_multiplier[5]
1.0 1.5 2.0
beta_multiplier[6]
0.5 1.0 1.5
beta_multiplier[7]
0.5 1.0 1.5
beta_multiplier[8]
1.0 1.5 2.0
beta_multiplier[9]
1.0 1.5 2.0
beta_multiplier[10]
1.0 1.5 2.0 2.5
beta_multiplier[11]
0.50 0.75 1.00 1.25
beta_multiplier[12]
0.7 0.9 1.1 1.3
beta_multiplier[13]
0.8 1.0 1.2


t_inter[1]
Jun 08
Jun 15
t_inter[2]
Jun 29
Jul 06
t_inter[3]
Jul 13
Jul 20
t_inter[4]
Jul 27
Jul 29
Jul 31
Aug 02
Aug 04
Aug 06
t_inter[5]
Aug 10
Aug 17
Aug 24
t_inter[6]
Aug 24
Aug 31
Sep 07
t_inter[7]
Sep 07
Sep 14
t_inter[8]
Sep 21
Sep 28
t_inter[9]
Oct 05
Oct 12
t_inter[10]
Oct 19
Oct 21
Oct 23
Oct 25
Oct 27
Oct 29
t_inter[11]
Nov 02
Nov 09
t_inter[12]
Nov 16
Nov 23
t_inter[13]
Nov 30
Dec 07


len_inter[1]
5
10
len_inter[2]
5
10
len_inter[3]
0
5
10
len_inter[4]
5
10
len_inter[5]
4
8
12
16
len_inter[6]
5
10
len_inter[7]
5
10
len_inter[8]
4
8
12
16
len_inter[9]
5
10
len_inter[10]
5
10
len_inter[11]
5
10
15
len_inter[12]
2.5
5.0
7.5
10.0
12.5
len_inter[13]
5
10


frac_PUI[1]
0.2
0.3
0.4
frac_PUI[2]
0.2
0.3
0.4
frac_PUI[3]
0.1
0.2
0.3
0.4
frac_PUI[4]
0.2
0.3
0.4
0.5


0
5
10
ini_exposed


sigma_obs[1]
60
70
80
90
sigma_obs[2]
40
50
60
70
sigma_obs[3]
20
25
30
35
40
sigma_obs[4]
0
2
4
6