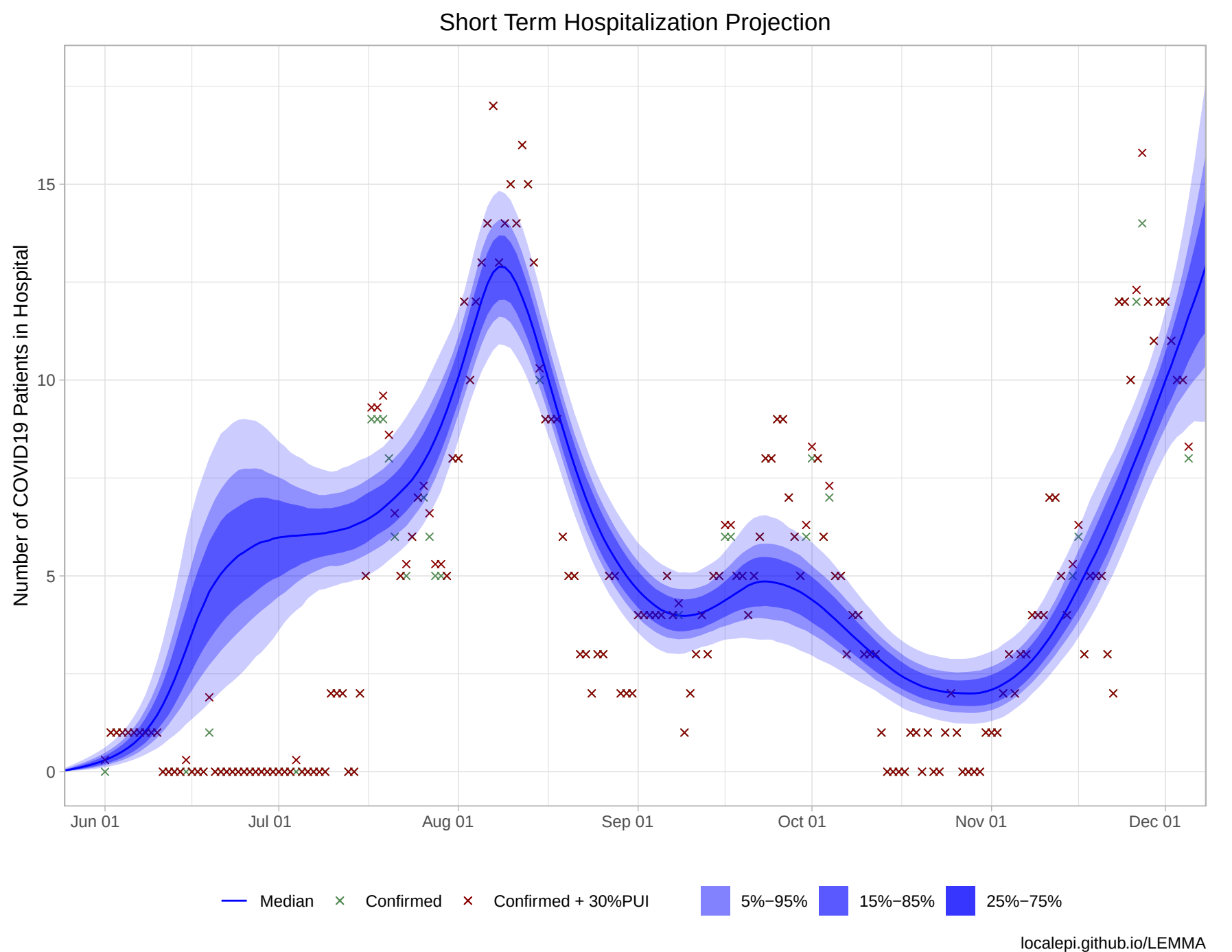
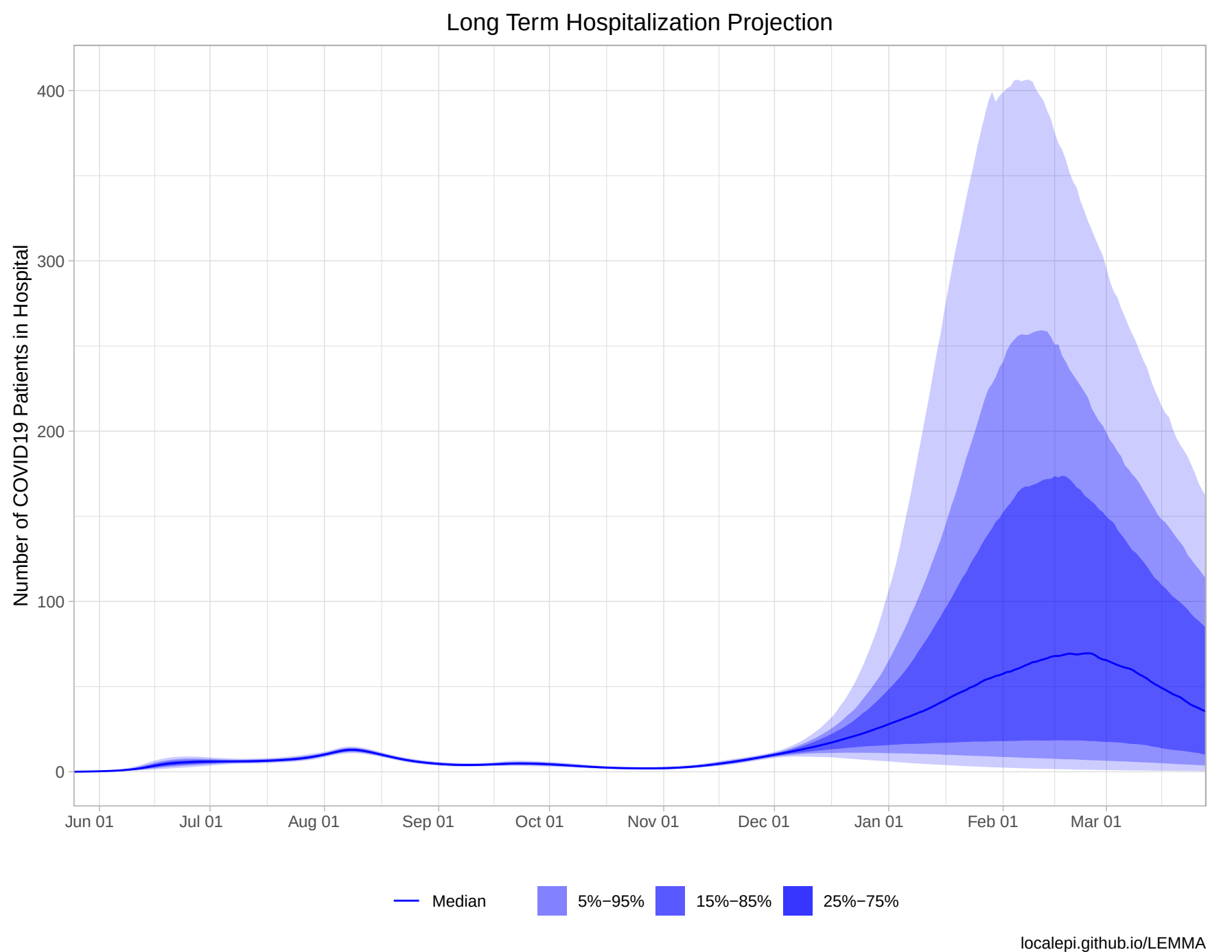
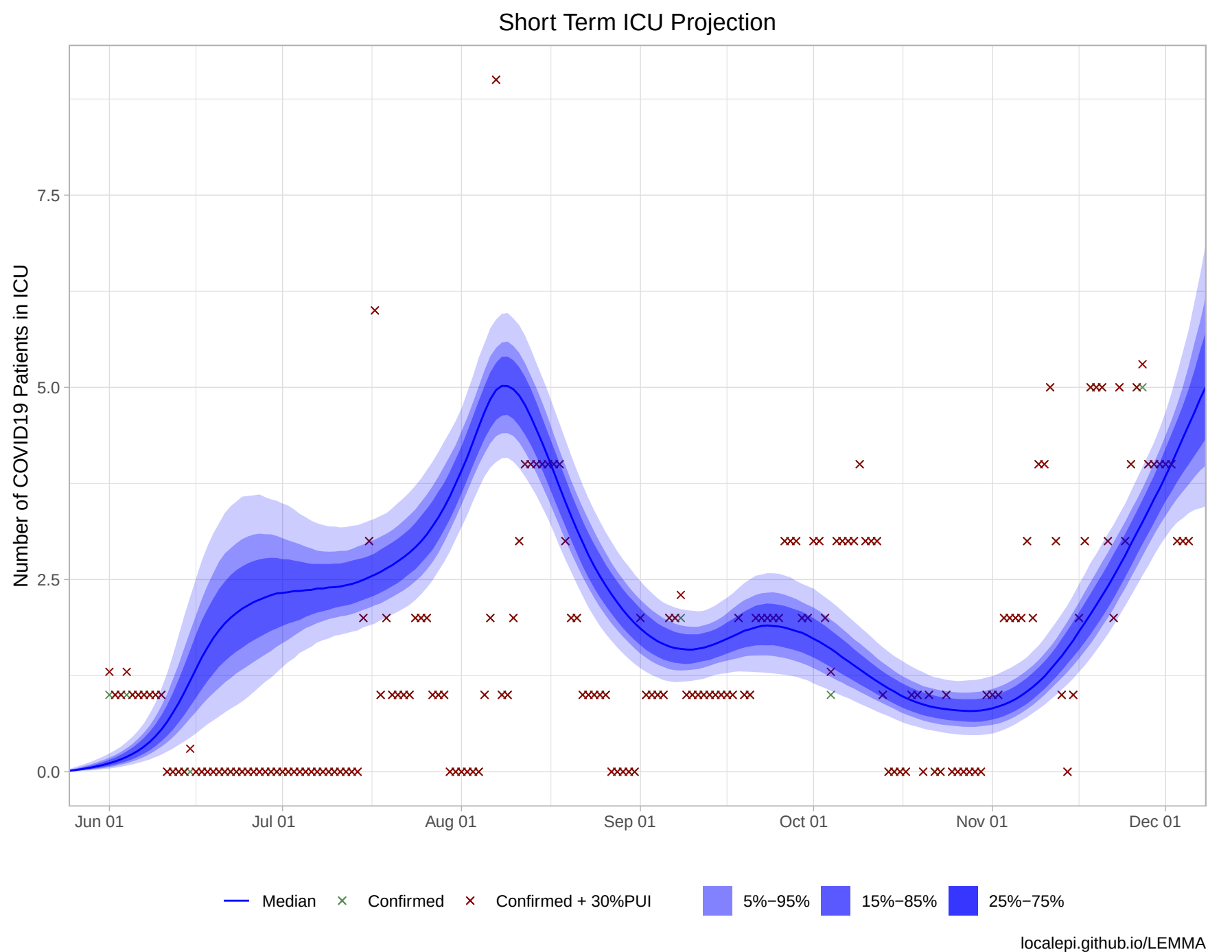
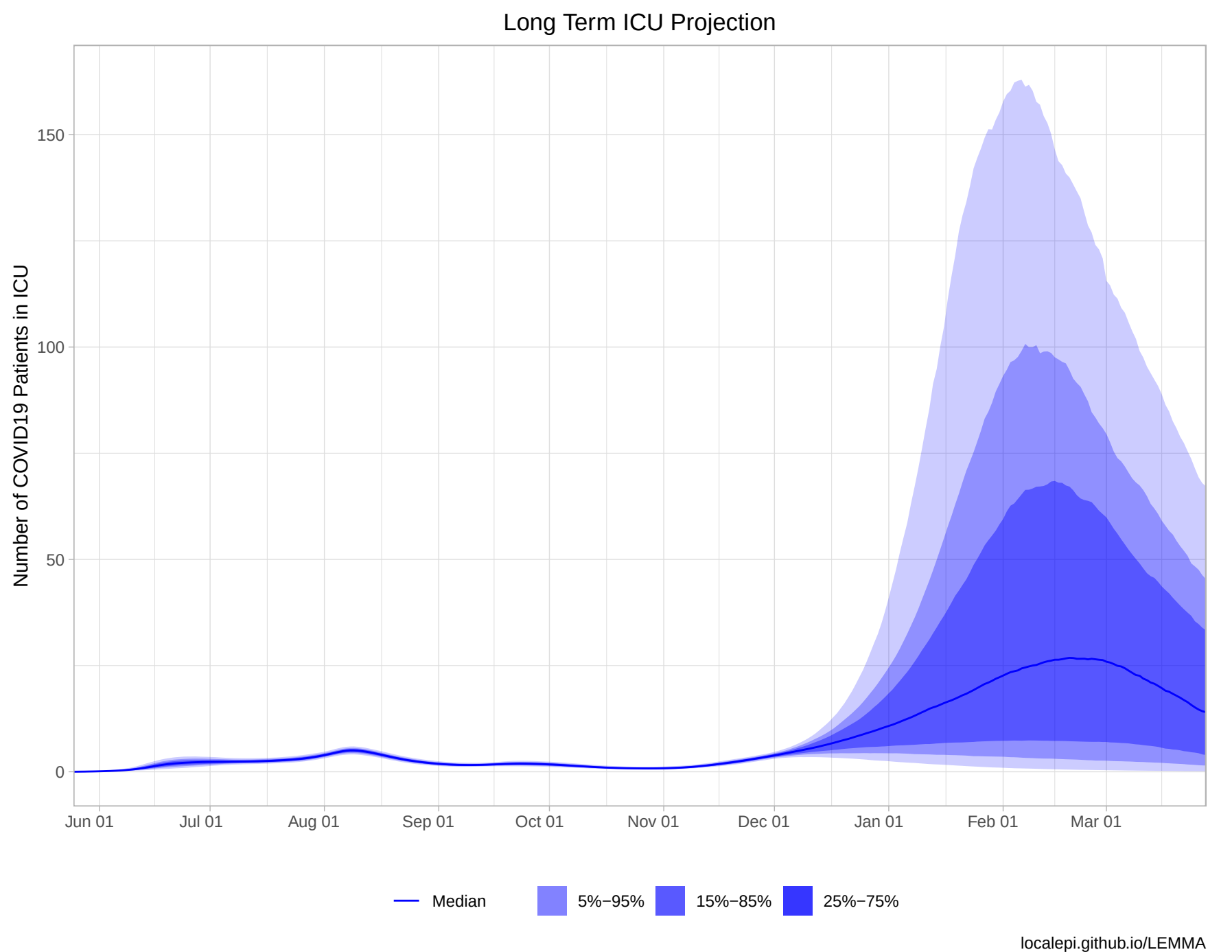
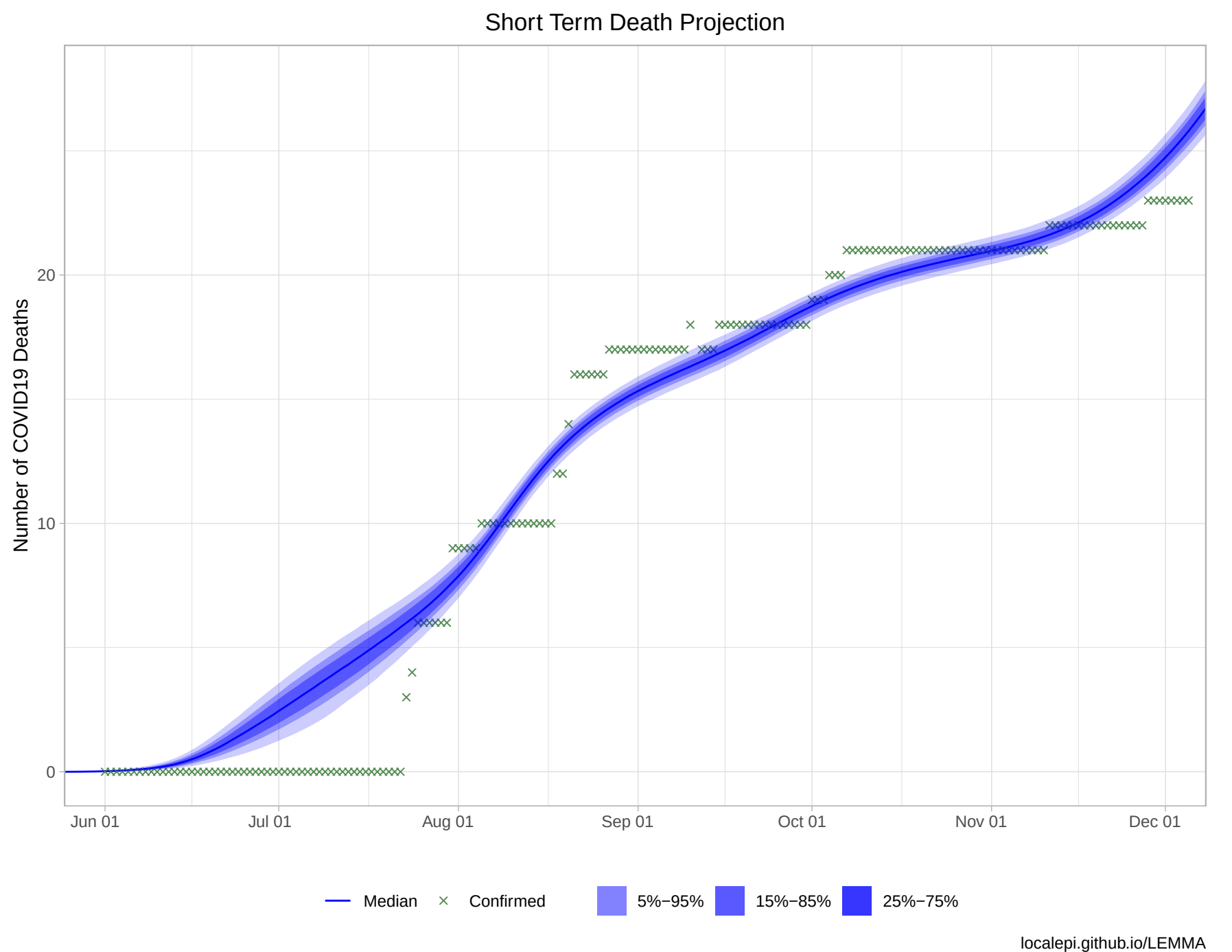
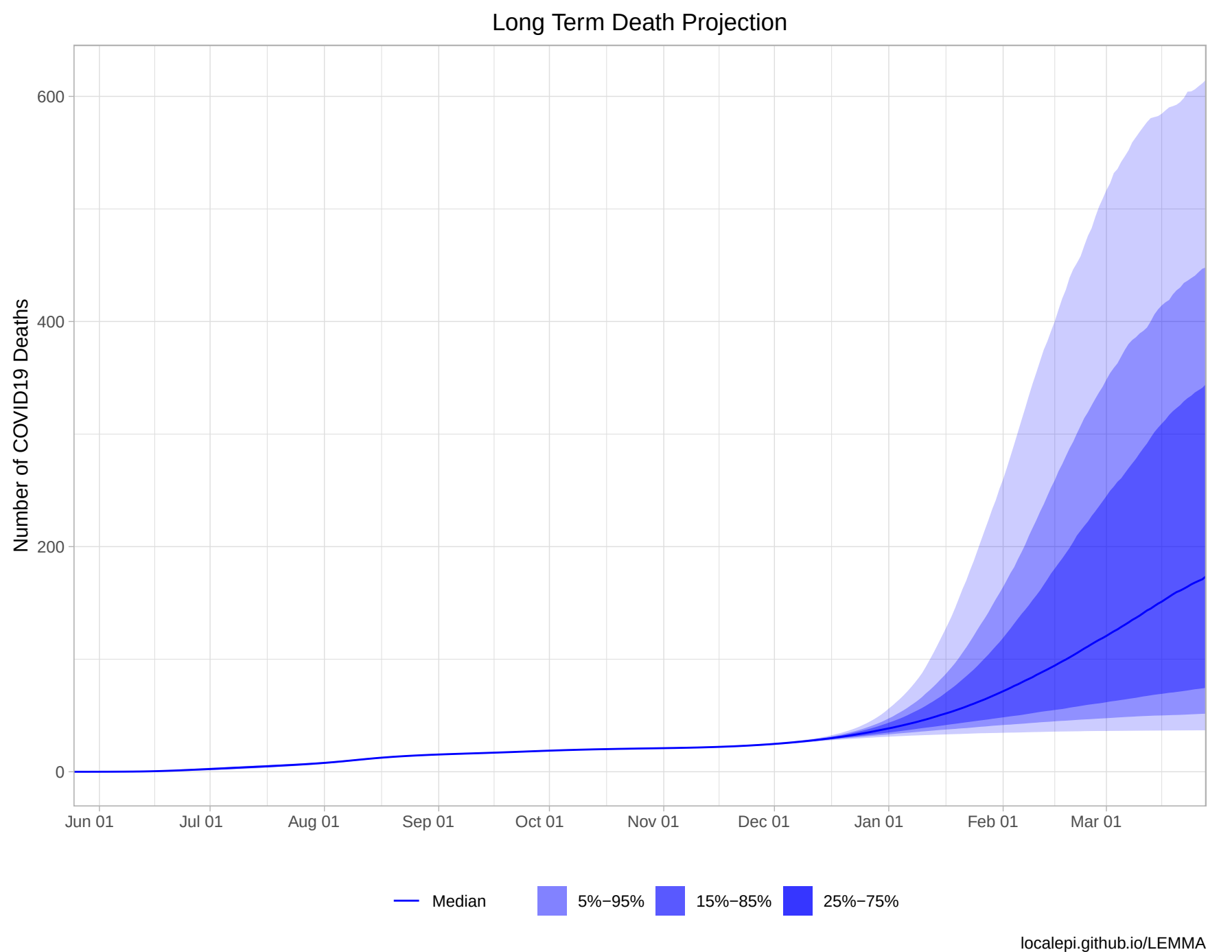

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
5
10
15
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

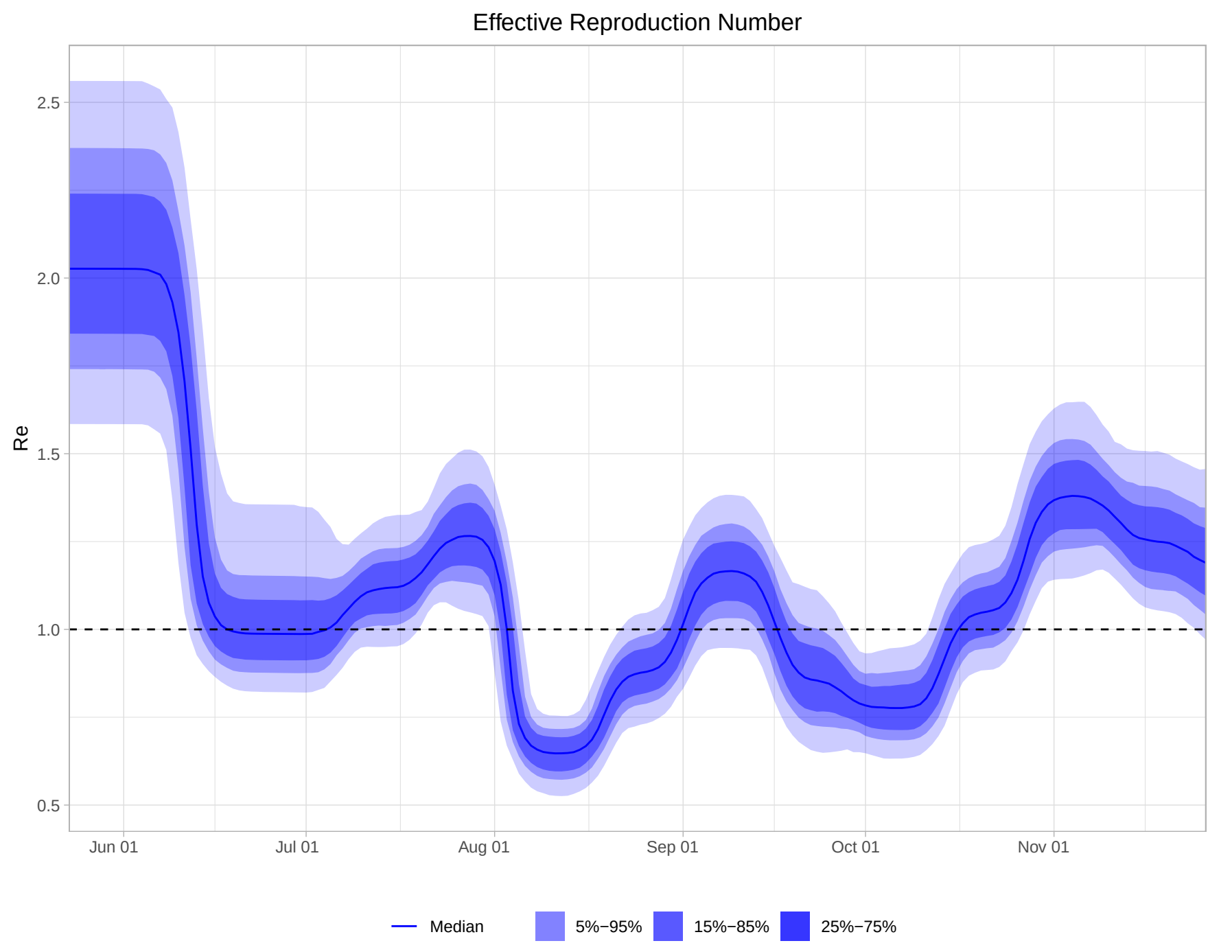

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
400
300
200
100
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
7.5
5.0
2.5
0.0
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

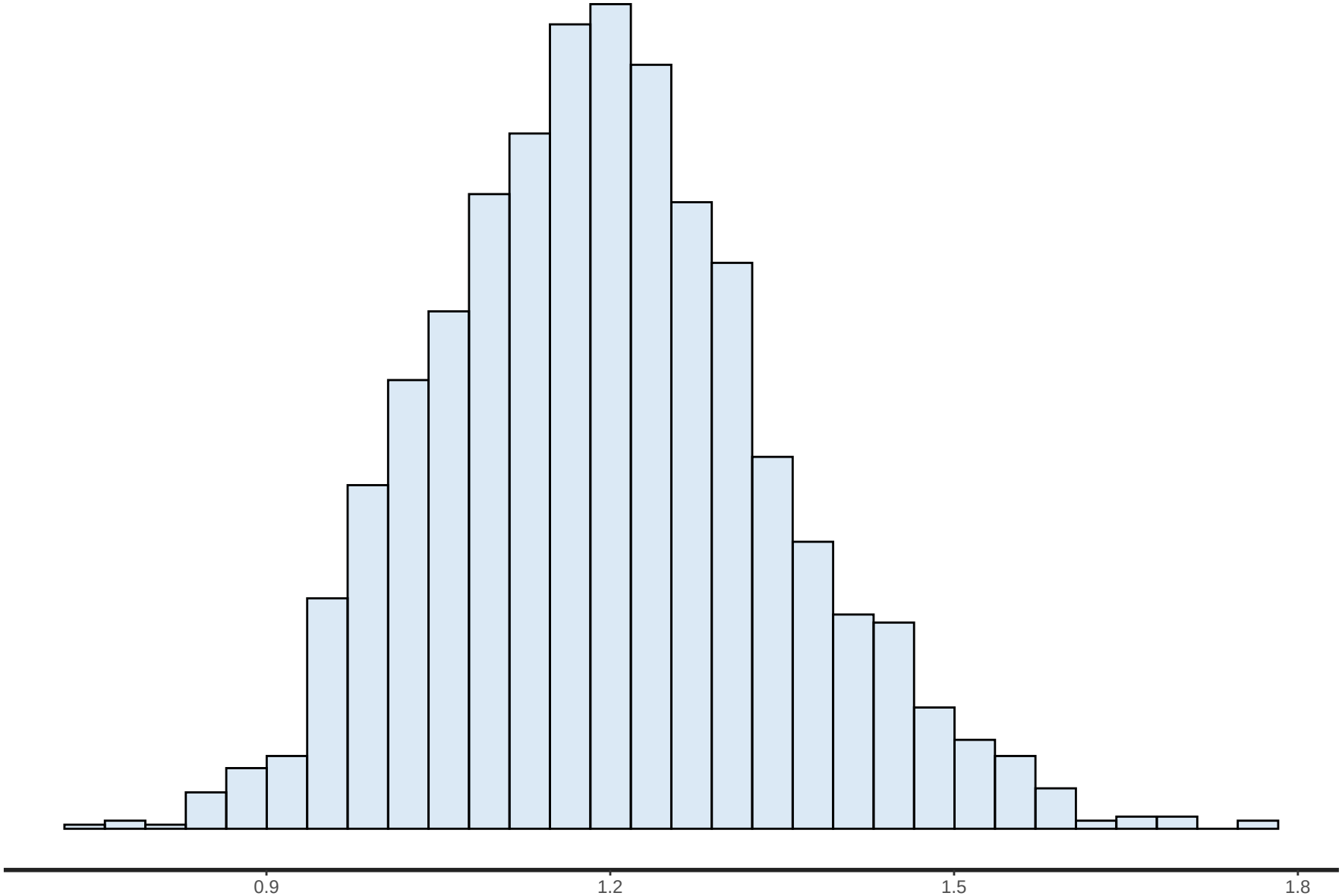

Short Term Death Projection
Number of COVID19 Deaths
0
10
20
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

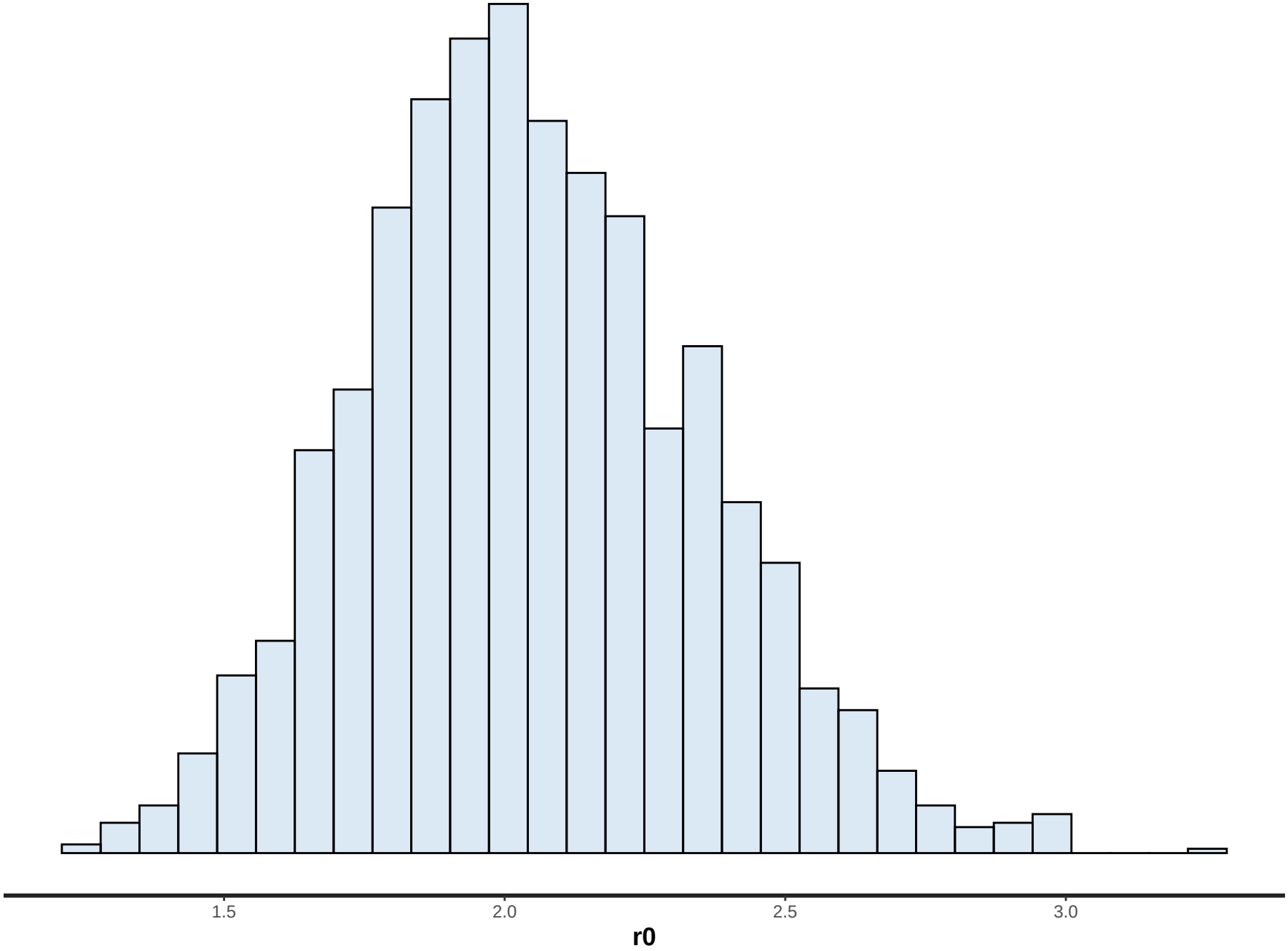

Long Term Death Projection
Number of COVID19 Deaths
600
400
200
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

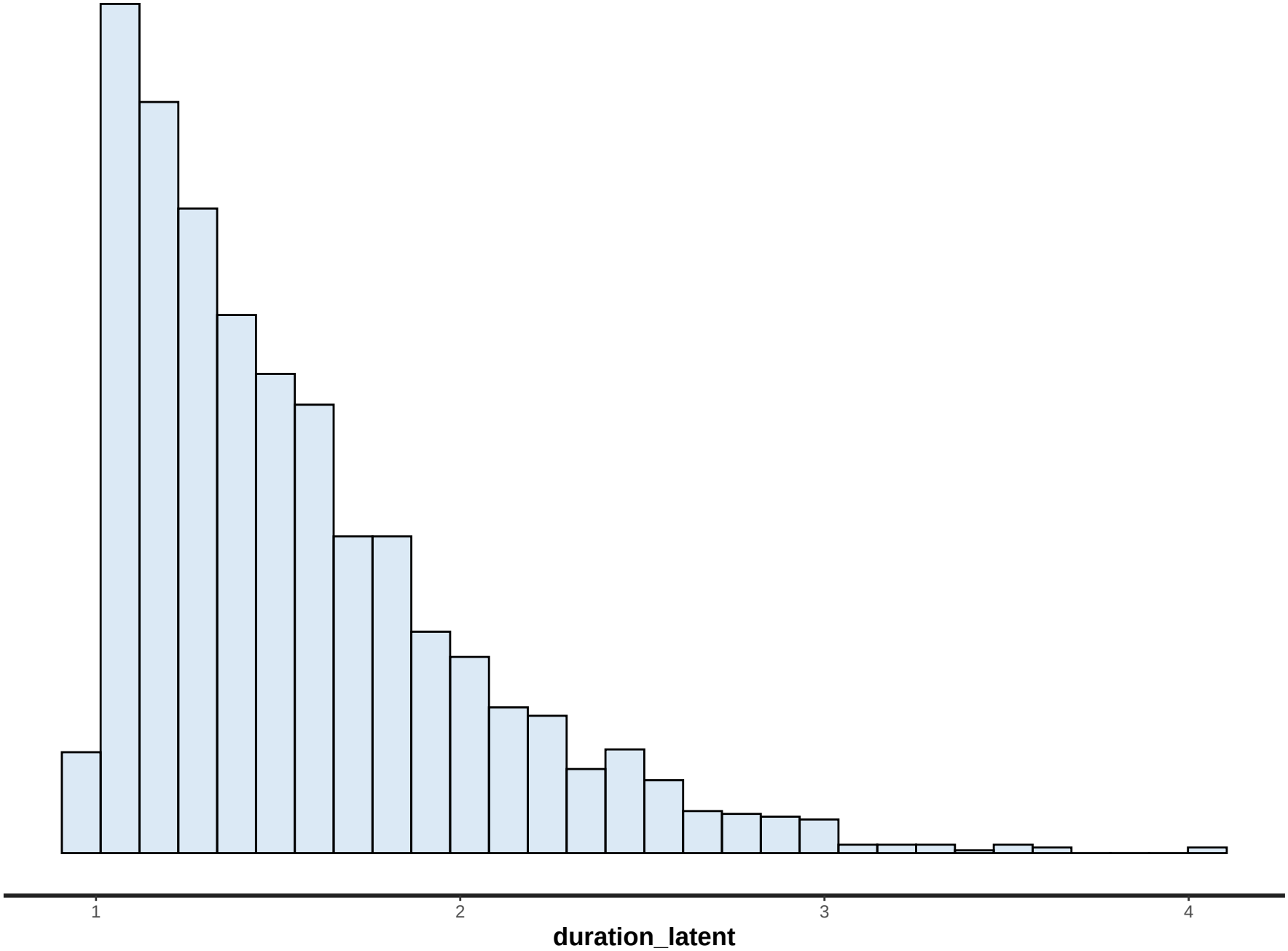

Effective Reproduction Number
Re
2.5
2.0
1.5
1.0
0.5
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
5%−95%
15%−85%
25%−75%

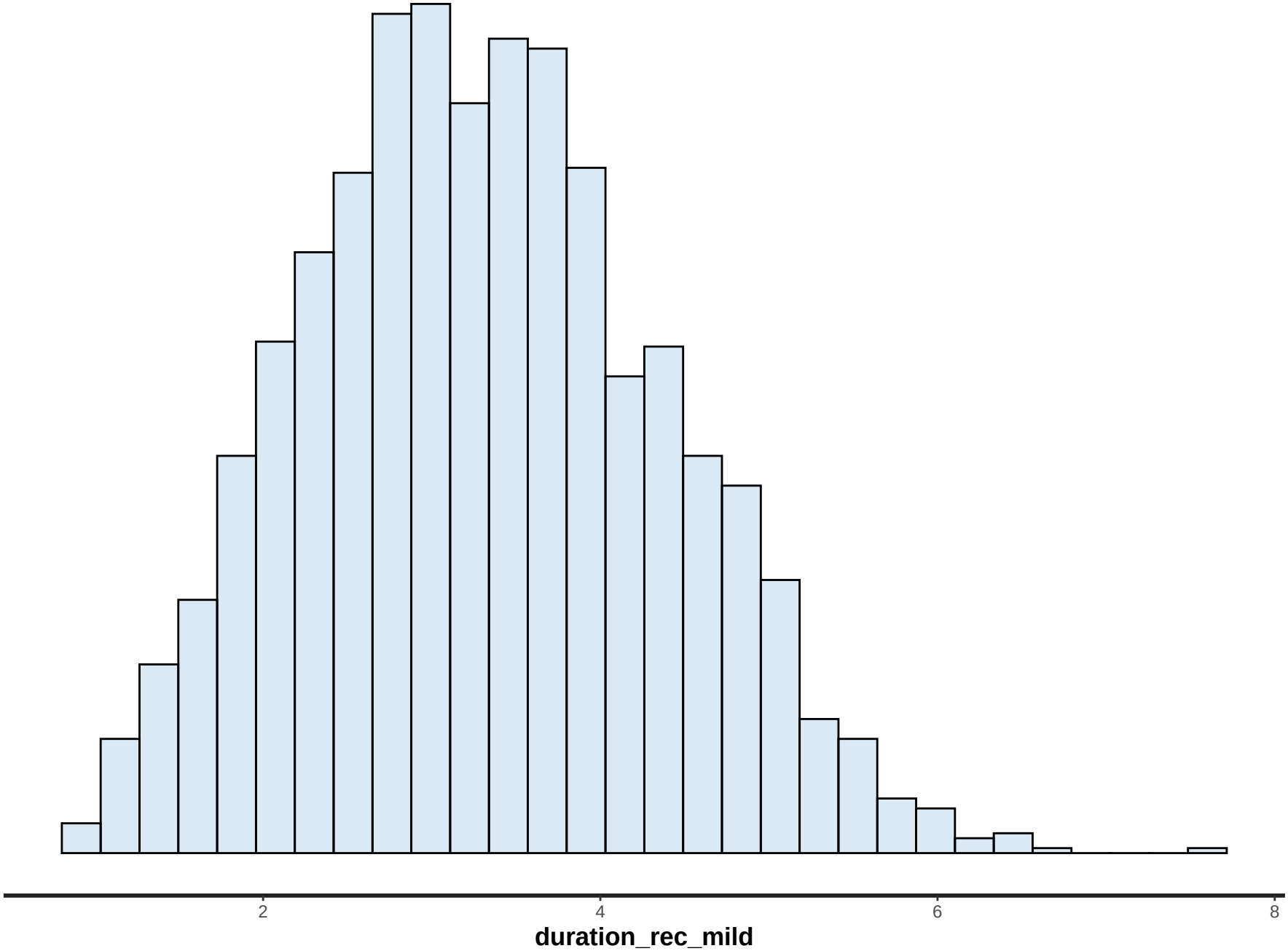
Rt as of 2020−11−26

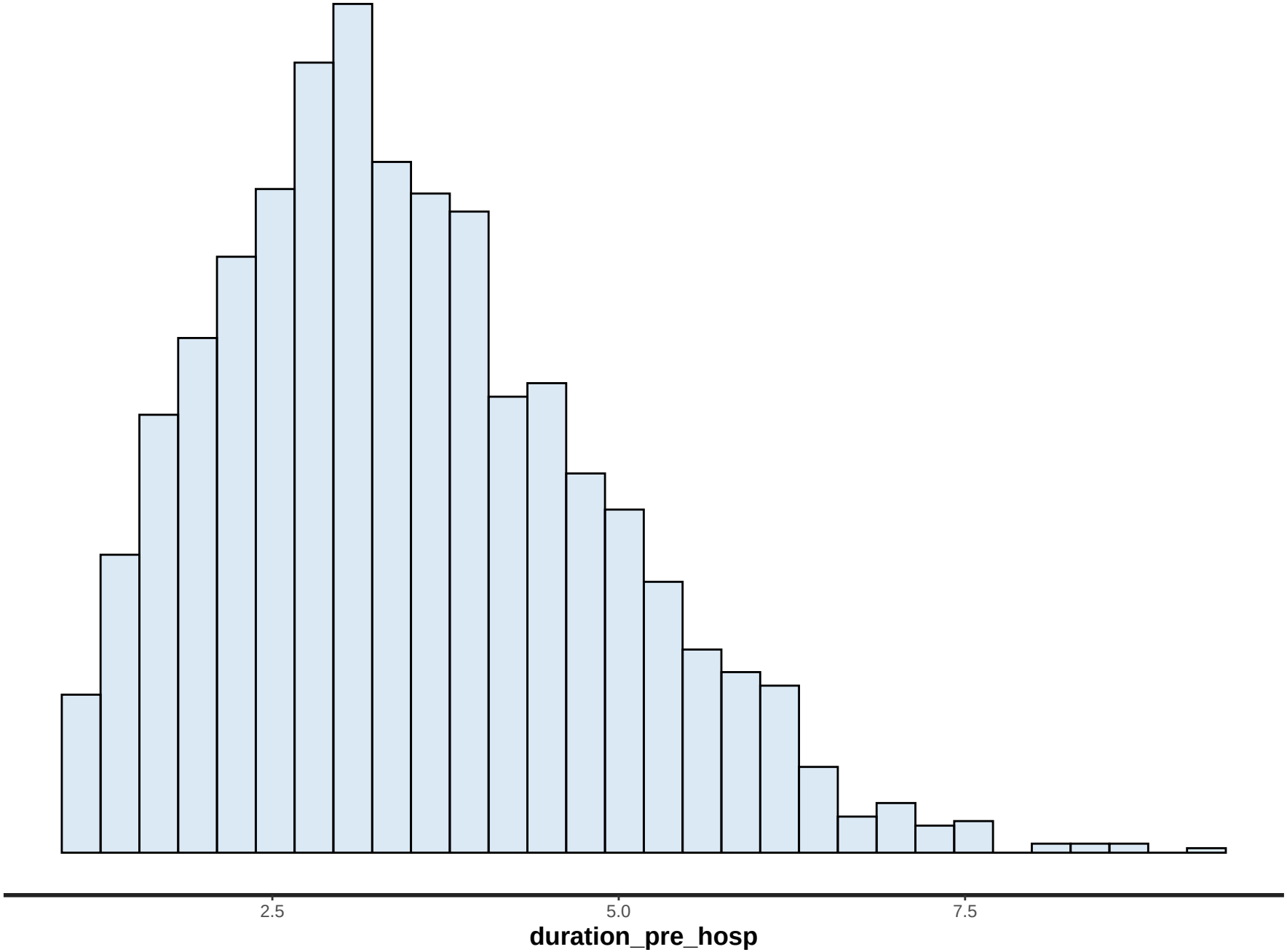
5%	10%	25%	50%	75%	90%	95%
0.97	1.01	1.10	1.19	1.29	1.39	1.46

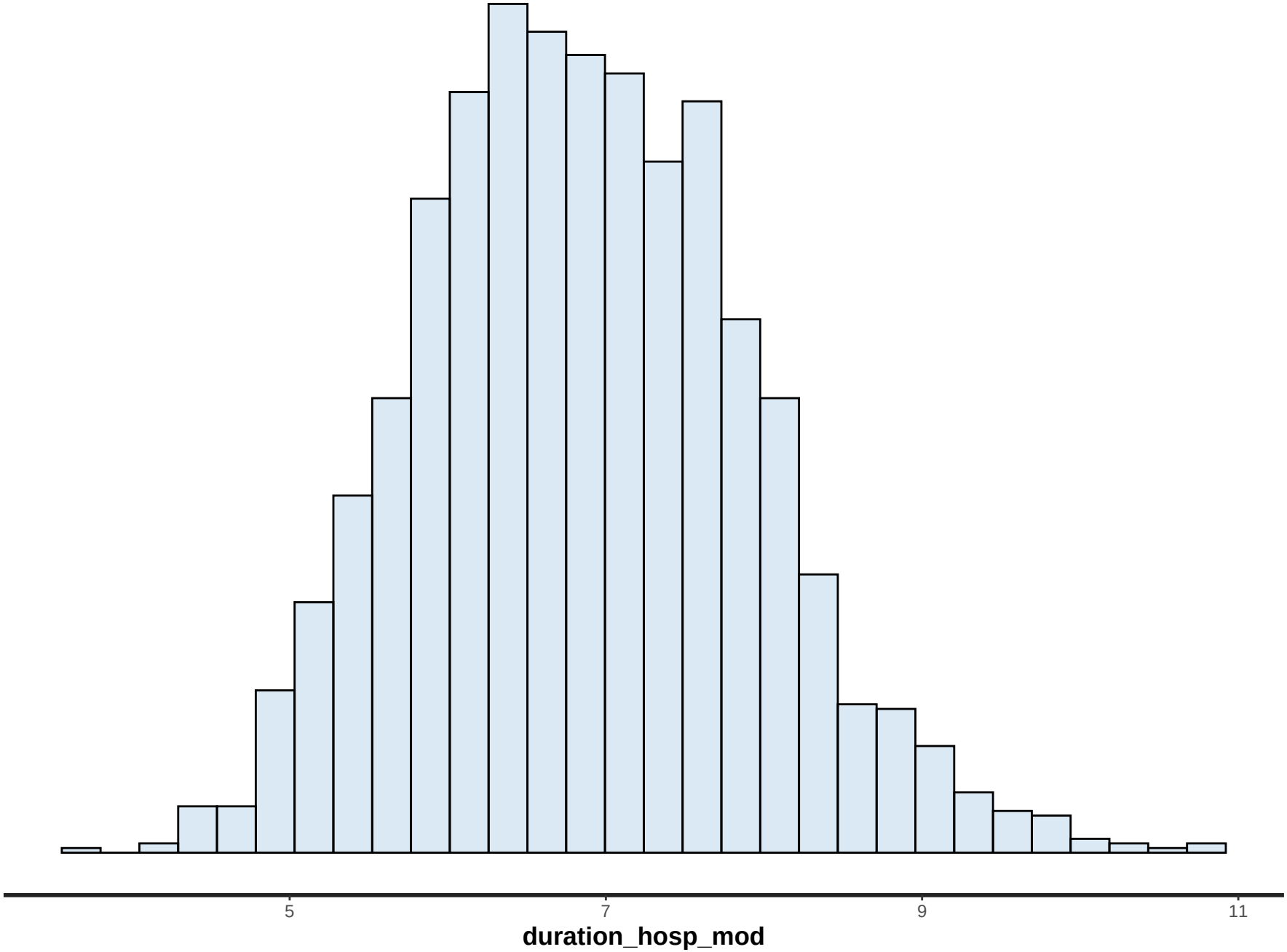


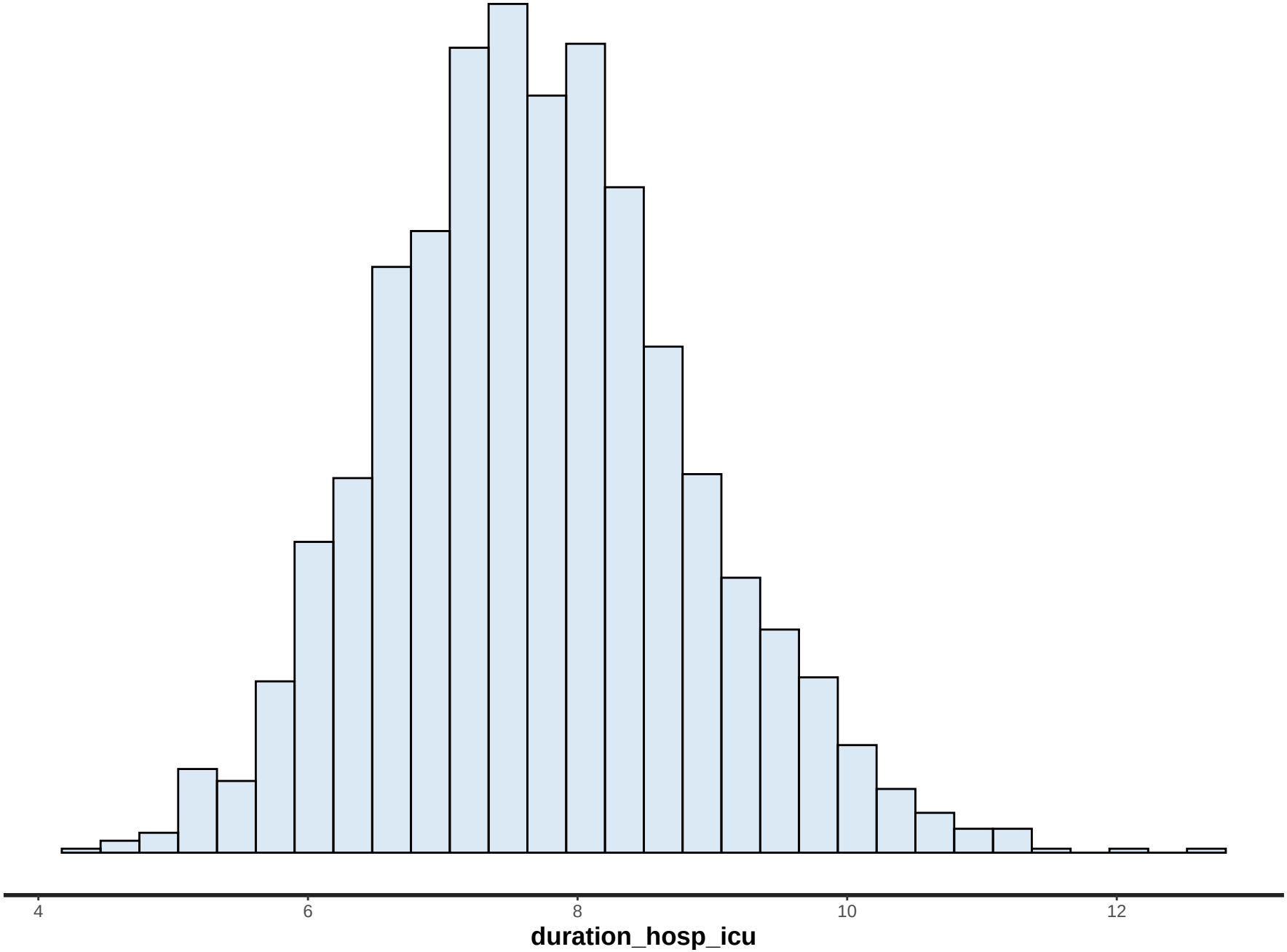

1.5
2.0
2.5
3.0
r0

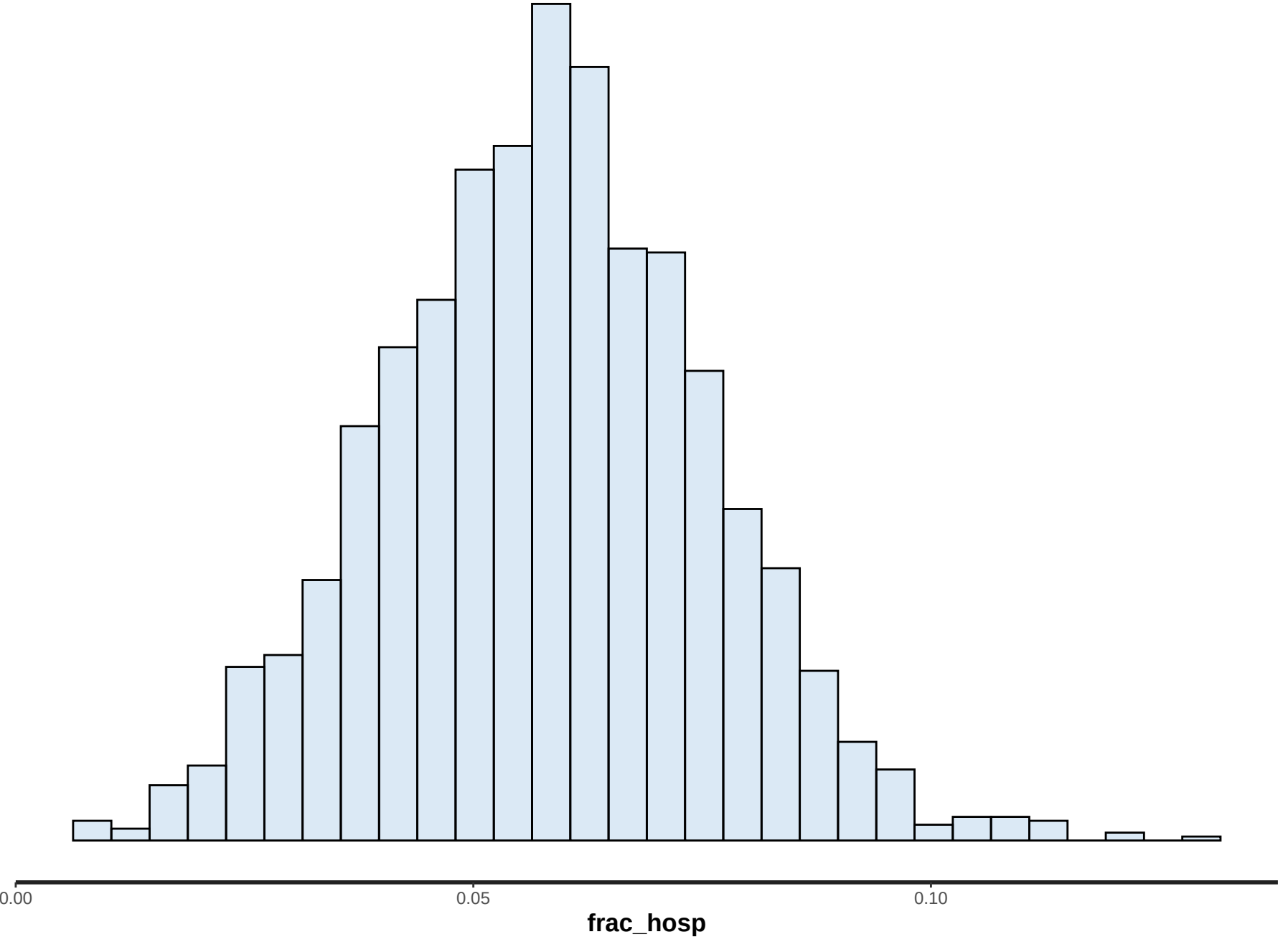

1
2
3
4
duration_latent

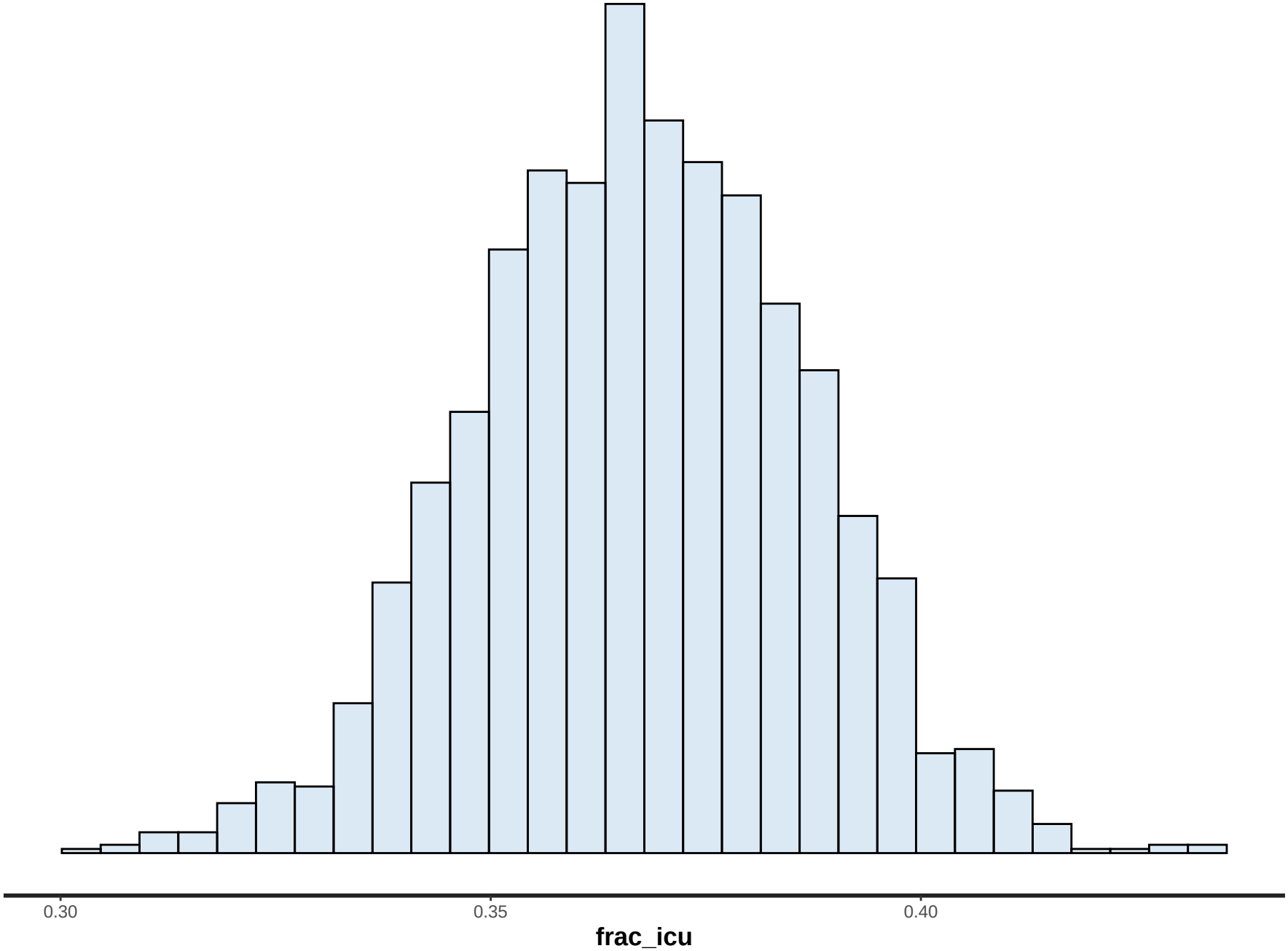

2
4
6
8
duration_rec_mild

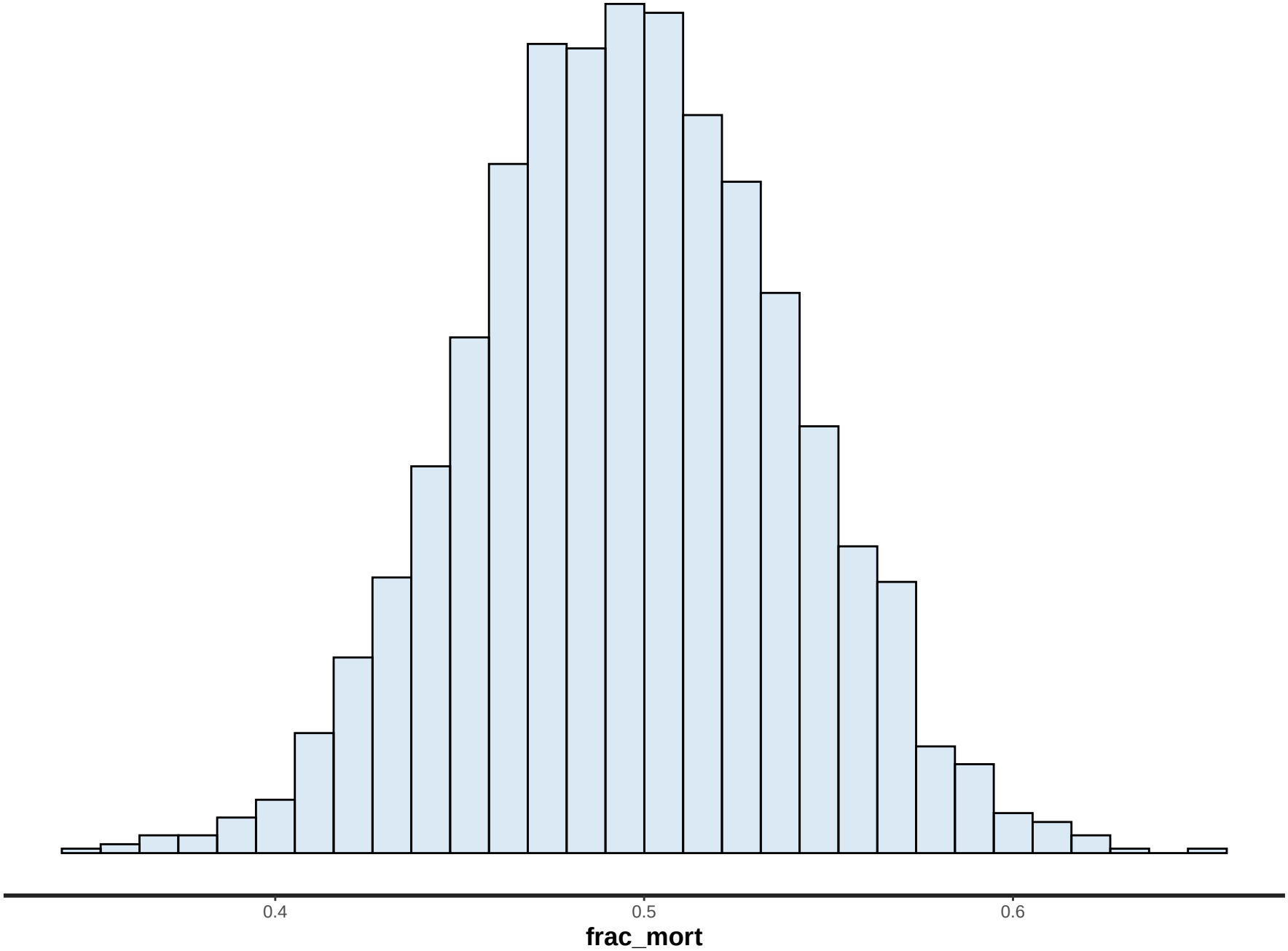

2.5
5.0
7.5
duration_pre_hosp

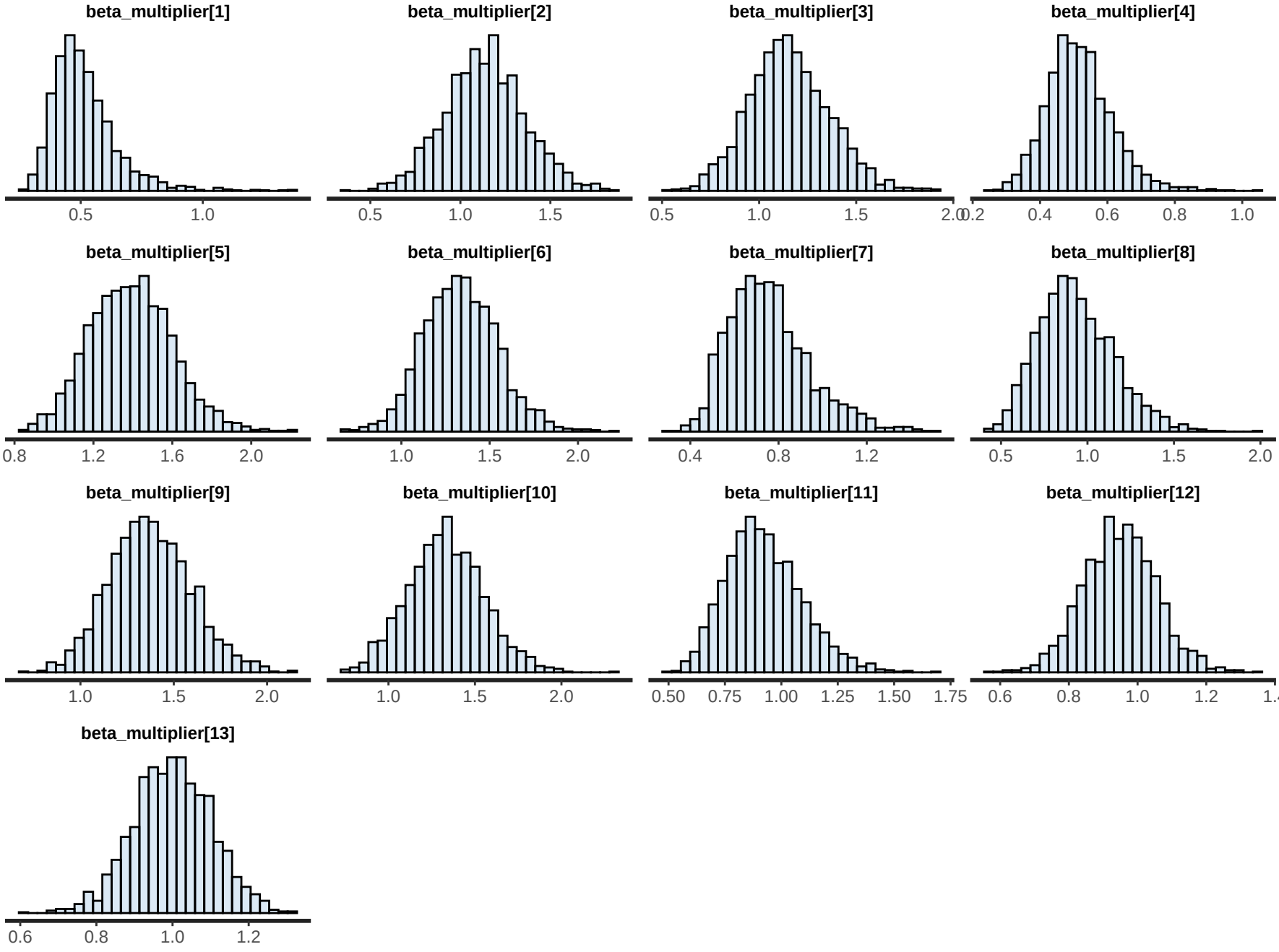

5
7
9
11
duration_hosp_mod

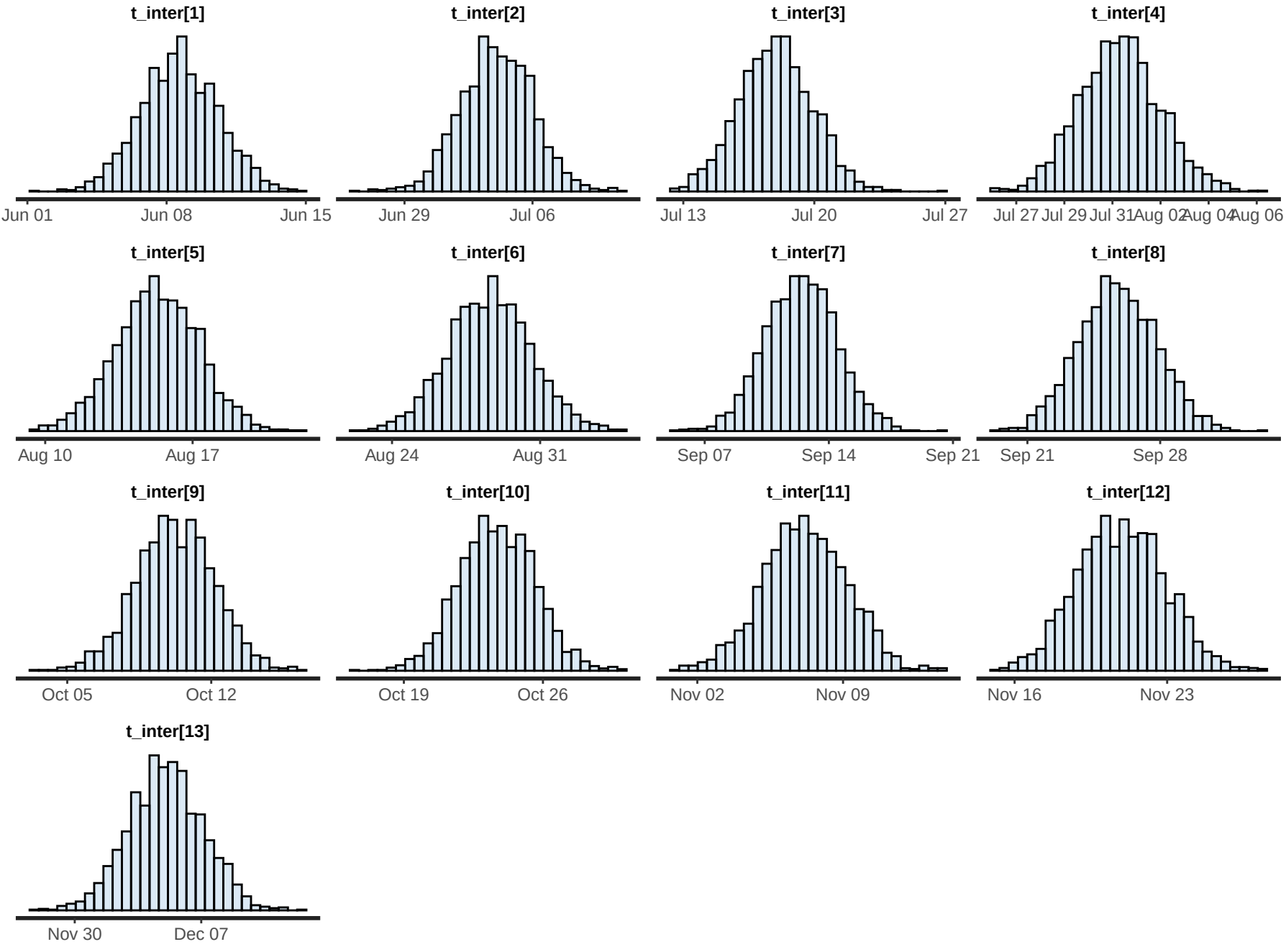

4
6
8
10
12
duration_hosp_icu

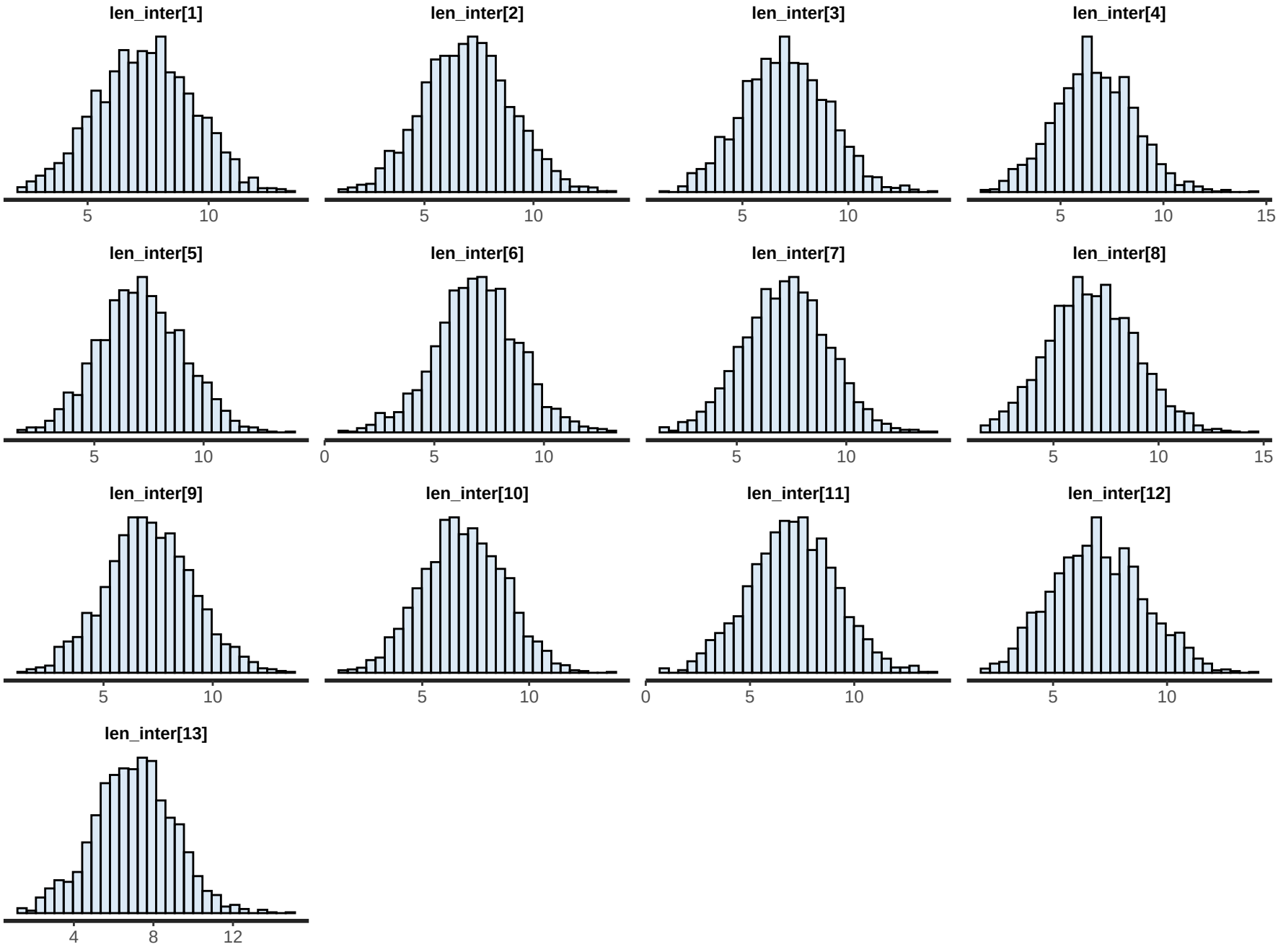

0.00
0.05
0.10
frac_hosp

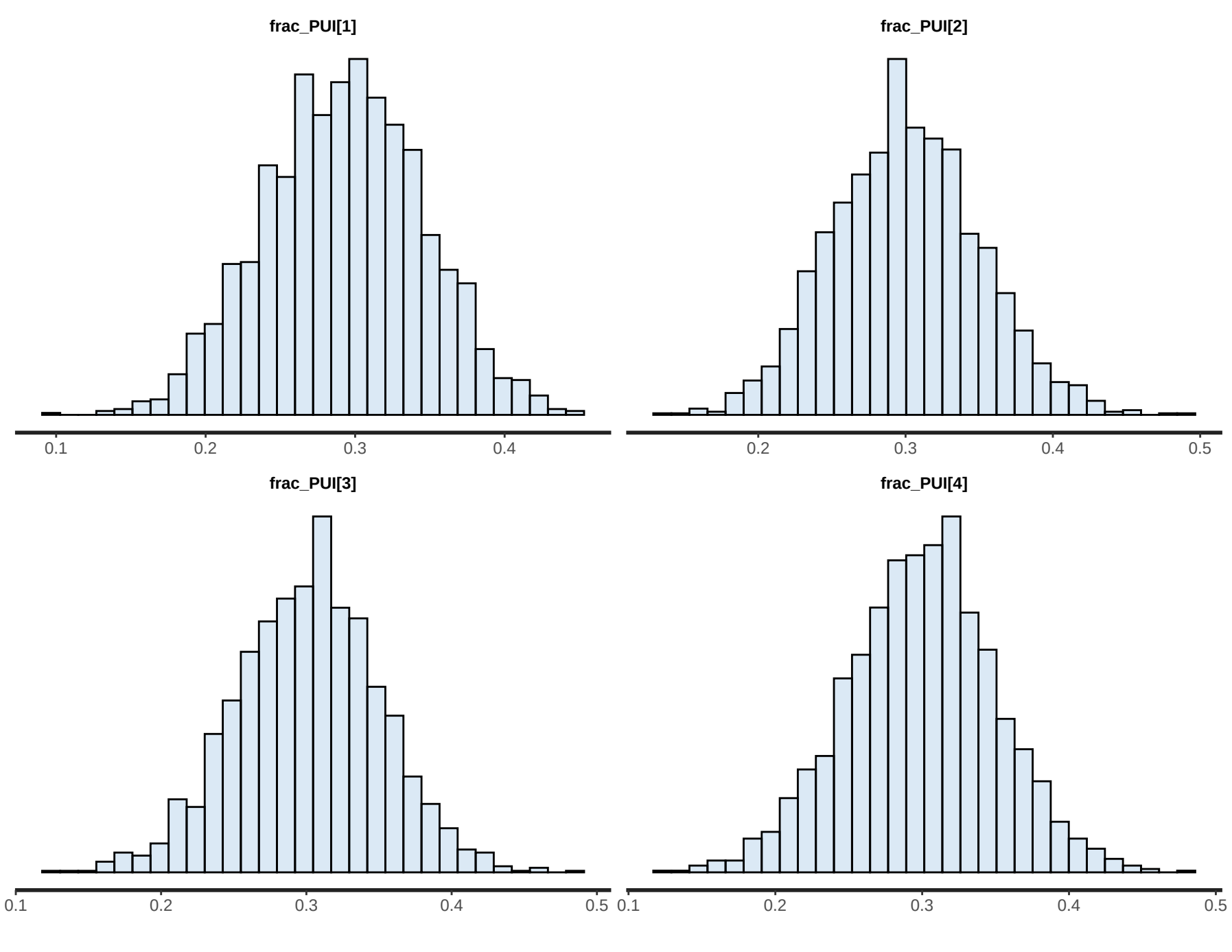

0.30
0.35
0.40
frac_icu

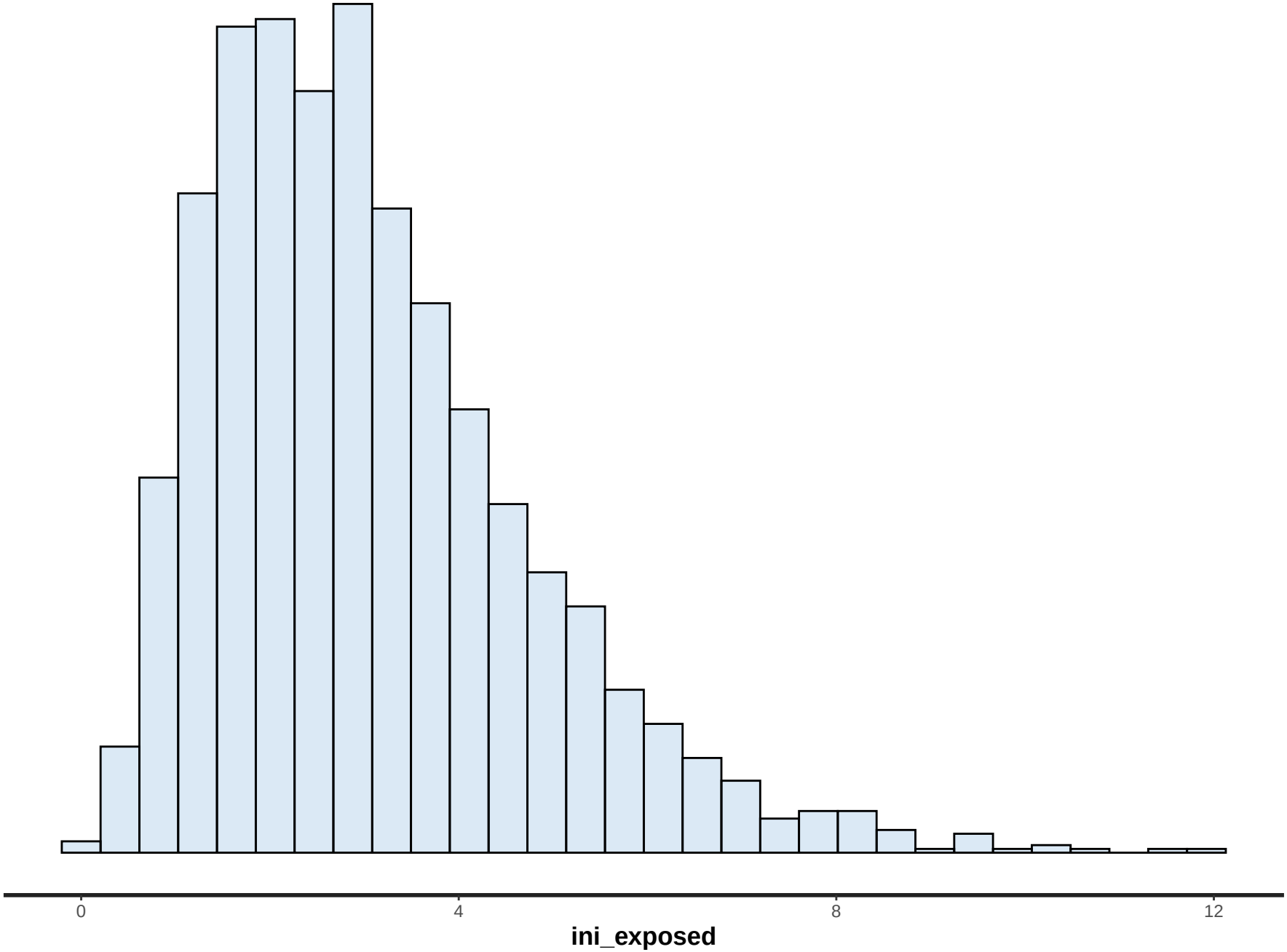

0.4
0.5
0.6
frac_mort

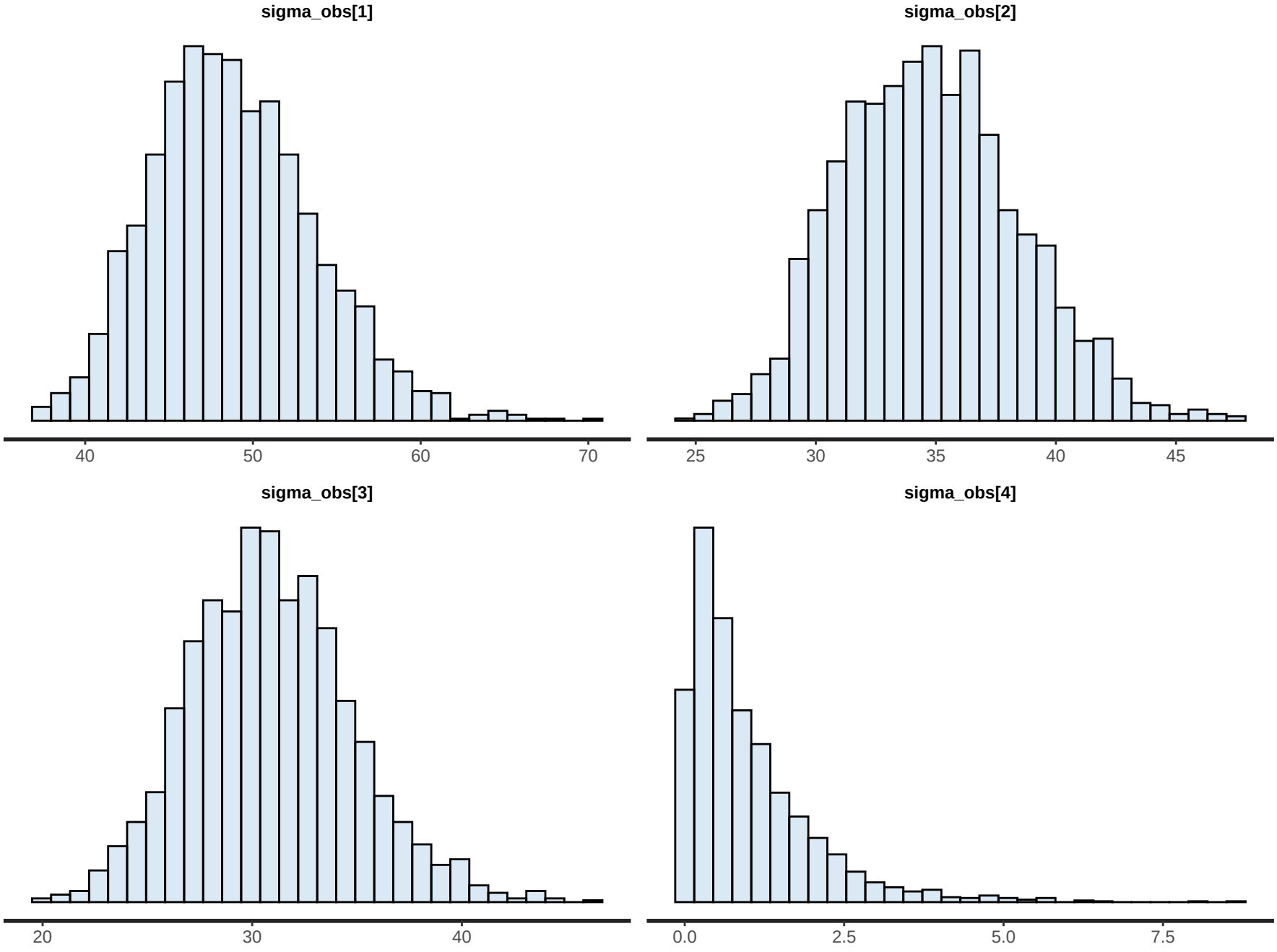

beta_multiplier[1]
0.5
1.0
beta_multiplier[2]
0.5
1.0
1.5
beta_multiplier[3]
0.5
1.0
1.5
2.0
beta_multiplier[4]
0.2
0.4
0.6
0.8
1.0
beta_multiplier[5]
0.8
1.2
1.6
2.0
beta_multiplier[6]
1.0
1.5
2.0
beta_multiplier[7]
0.4
0.8
1.2
beta_multiplier[8]
0.5
1.0
1.5
2.0
beta_multiplier[9]
1.0
1.5
2.0
beta_multiplier[10]
1.0
1.5
2.0
beta_multiplier[11]
0.50
0.75
1.00
1.25
1.50
1.75
beta_multiplier[12]
0.6
0.8
1.0
1.2
1.4
beta_multiplier[13]
0.6
0.8
1.0
1.2


t_inter[1]
Jun 01
Jun 08
Jun 15
t_inter[2]
Jun 29
Jul 06
t_inter[3]
Jul 13
Jul 20
Jul 27
t_inter[4]
Jul 27
Jul 29
Jul 31
Aug 02
Aug 04
Aug 06
t_inter[5]
Aug 10
Aug 17
t_inter[6]
Aug 24
Aug 31
t_inter[7]
Sep 07
Sep 14
Sep 21
t_inter[8]
Sep 21
Sep 28
t_inter[9]
Oct 05
Oct 12
t_inter[10]
Oct 19
Oct 26
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]
5
10
len_inter[4]
5
10
15
len_inter[5]
5
10
len_inter[6]
0
5
10
len_inter[7]
5
10
len_inter[8]
5
10
15
len_inter[9]
5
10
len_inter[10]
5
10
len_inter[11]
0
5
10
len_inter[12]
5
10
len_inter[13]
4
8
12


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


0
4
8
12
ini_exposed


sigma_obs[1]
40
50
60
70
sigma_obs[2]
25
30
35
40
45
sigma_obs[3]
20
30
40
sigma_obs[4]
0.0
2.5
5.0
7.5