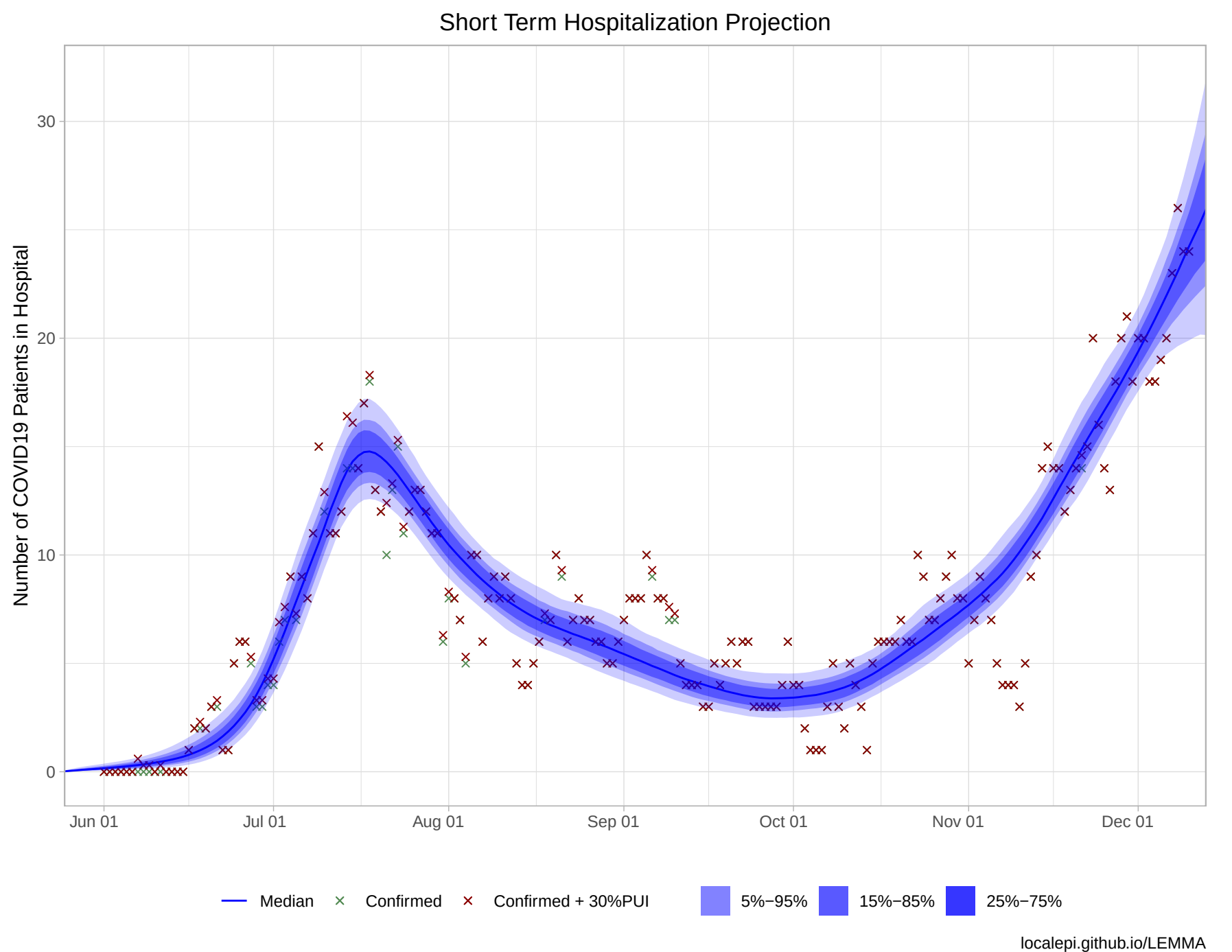
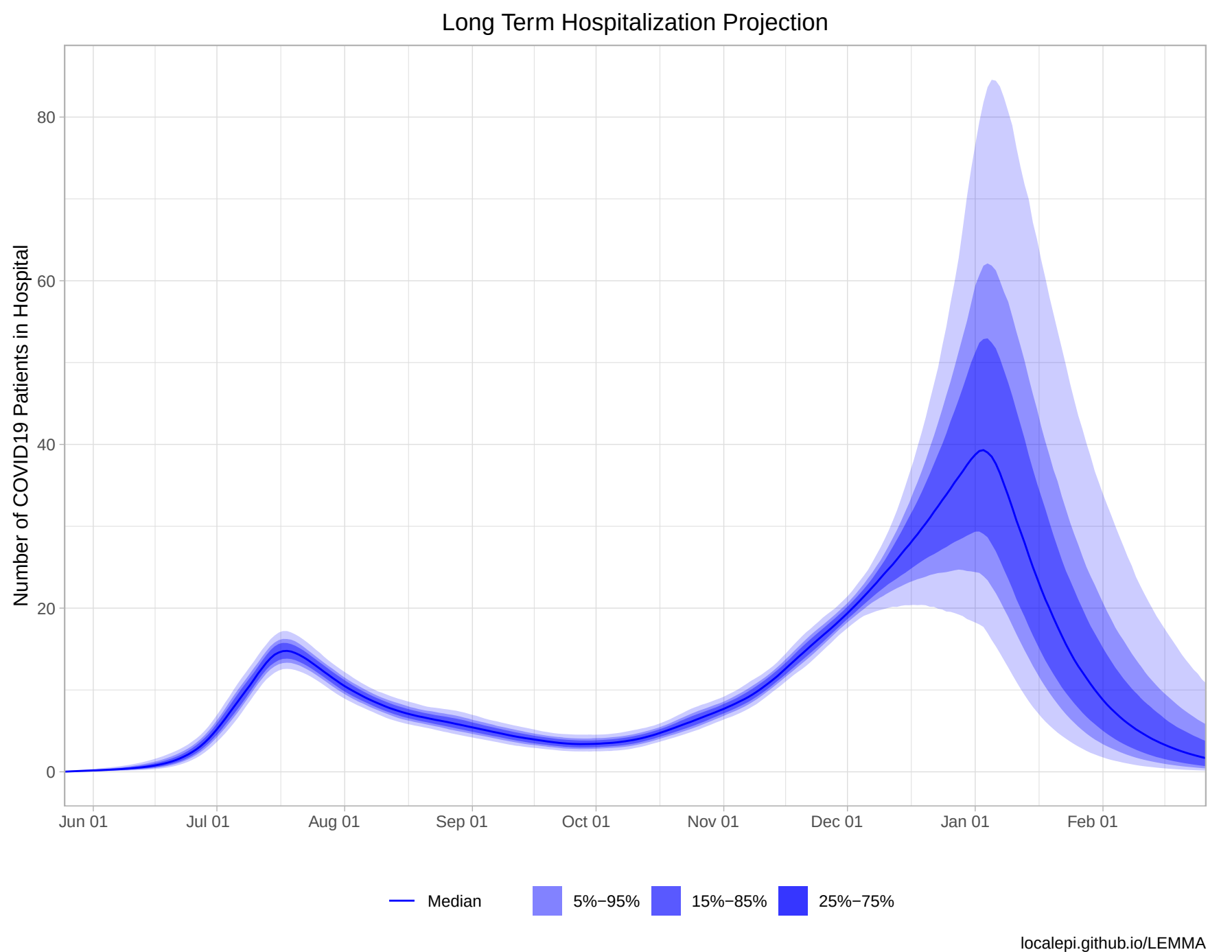
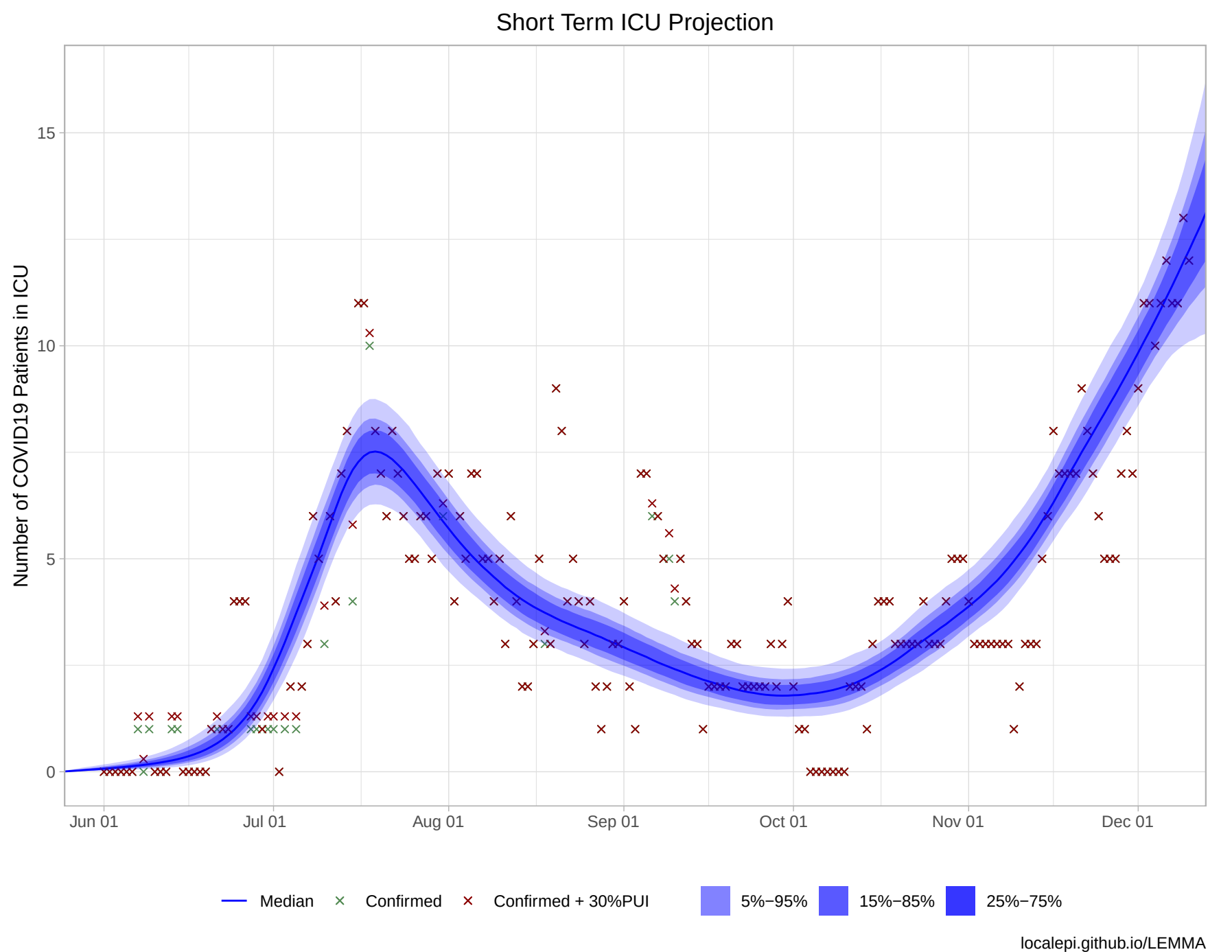
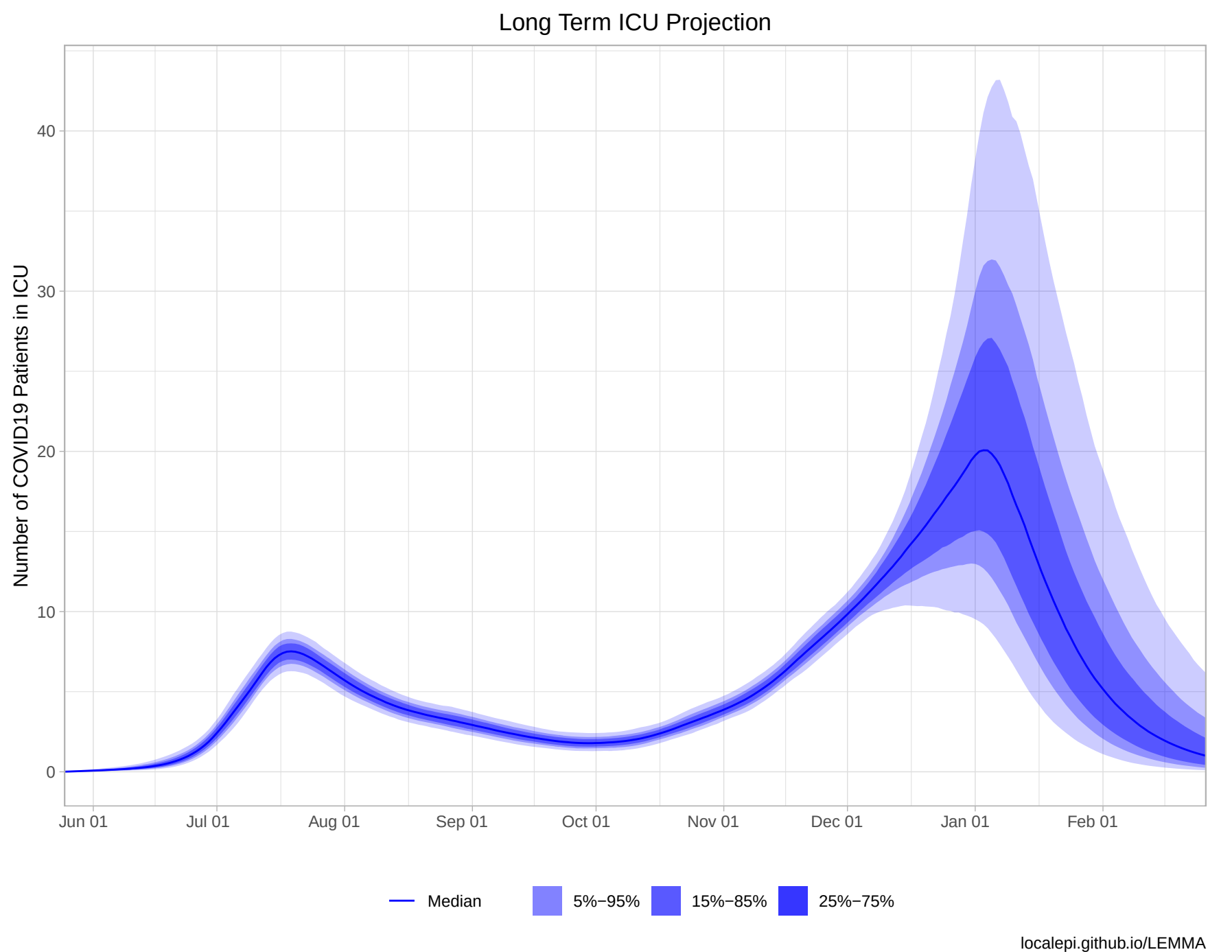
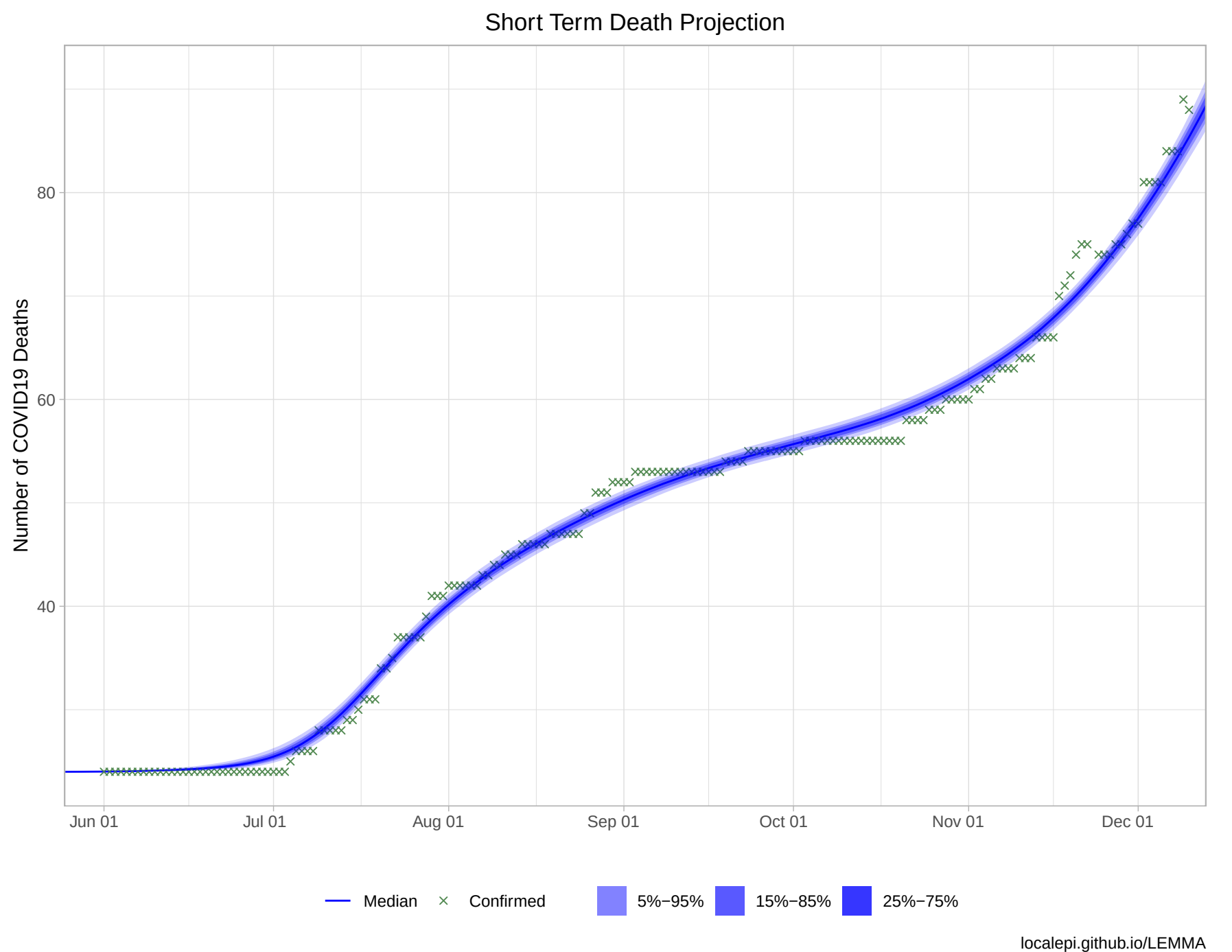
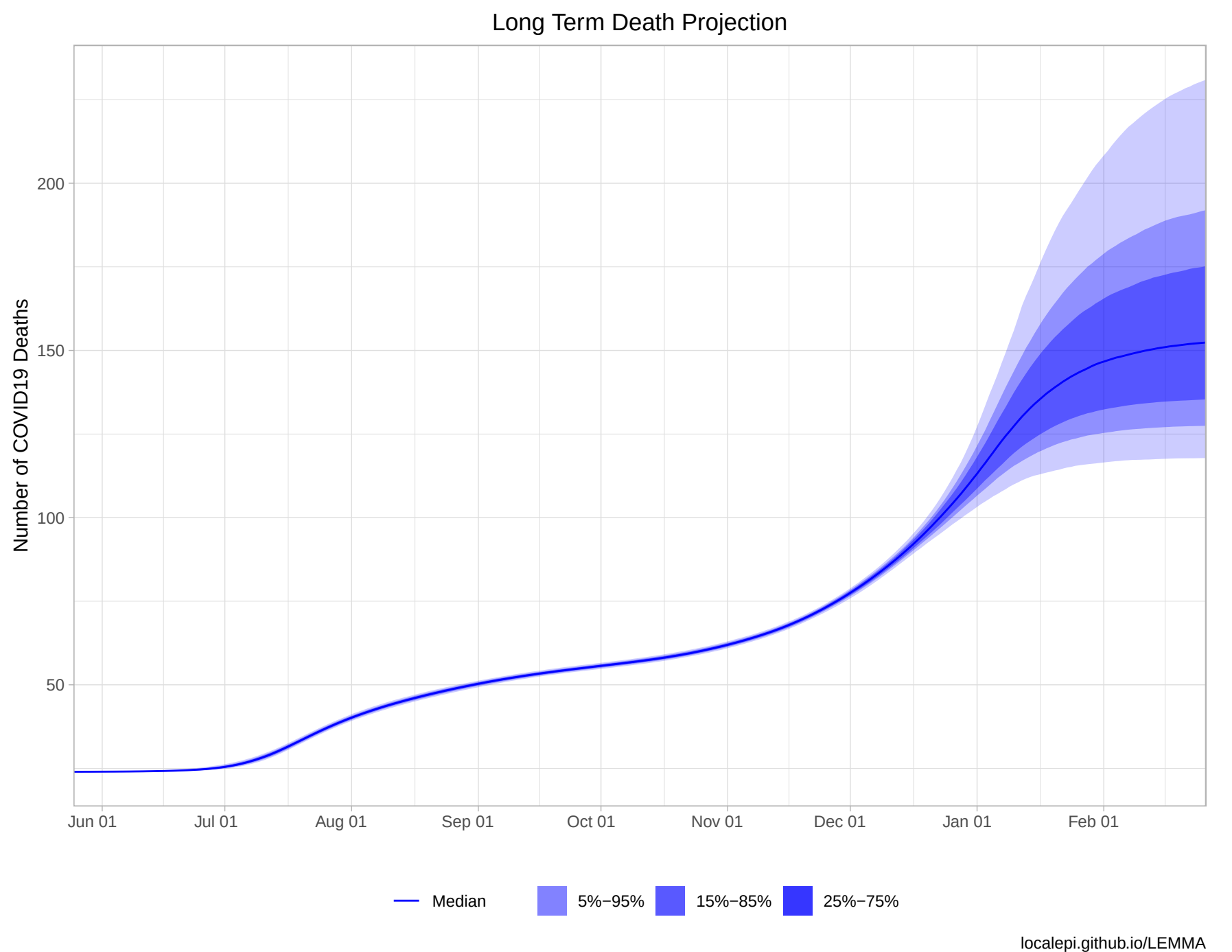

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
10
20
30
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

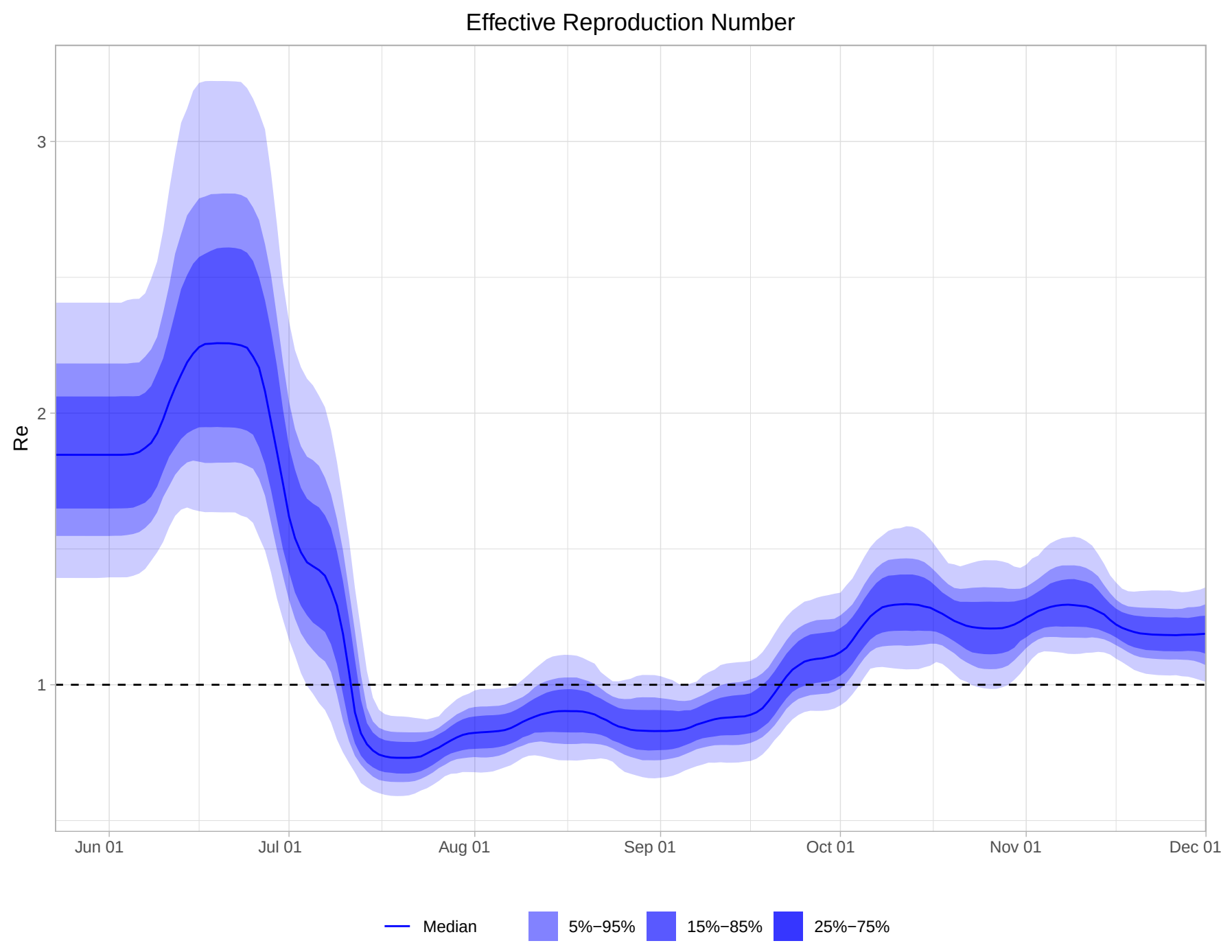

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
20
40
60
80
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
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 ICU Projection
Number of COVID19 Patients in ICU
0
10
20
30
40
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

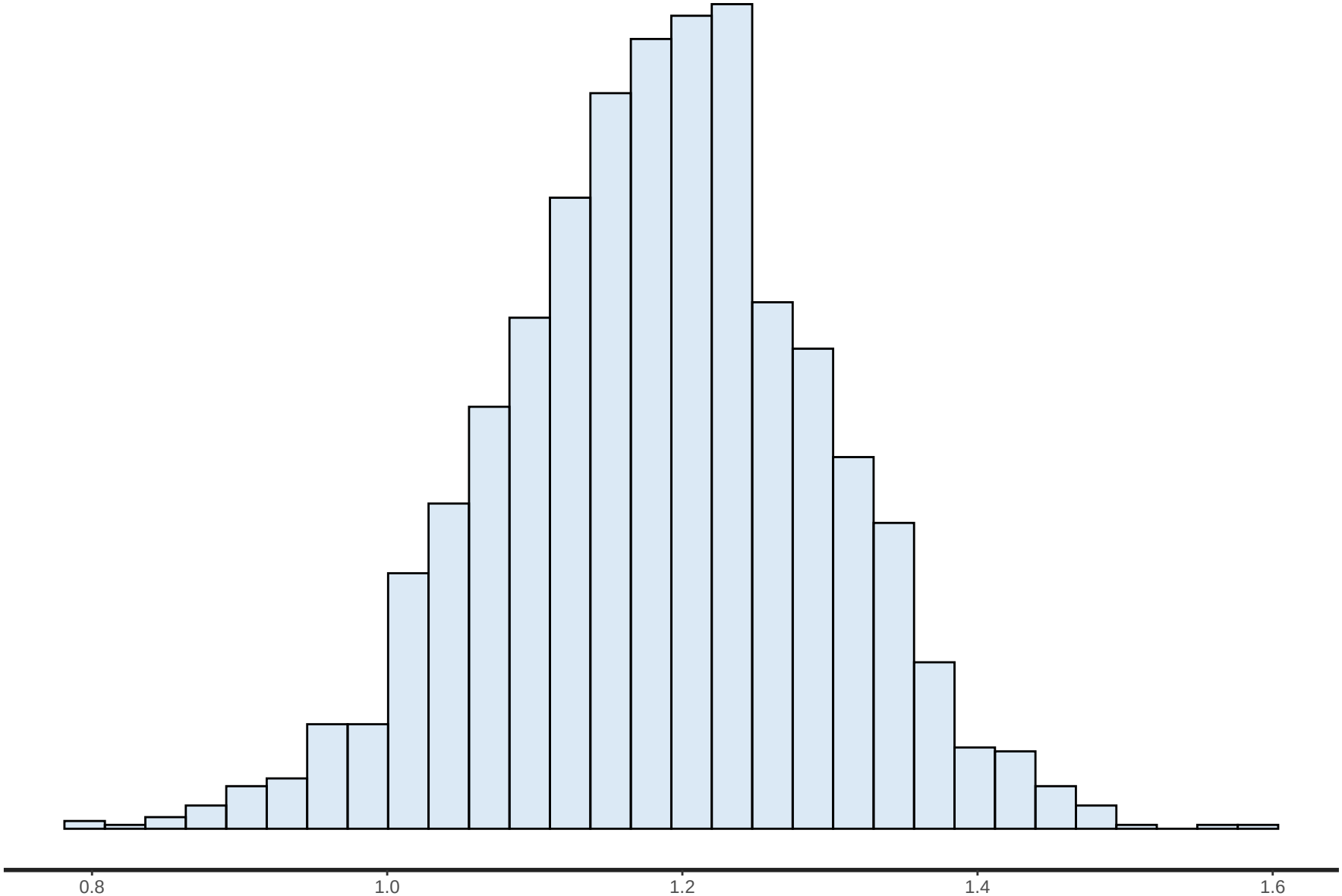

Short Term Death Projection
Number of COVID19 Deaths
80
60
40
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

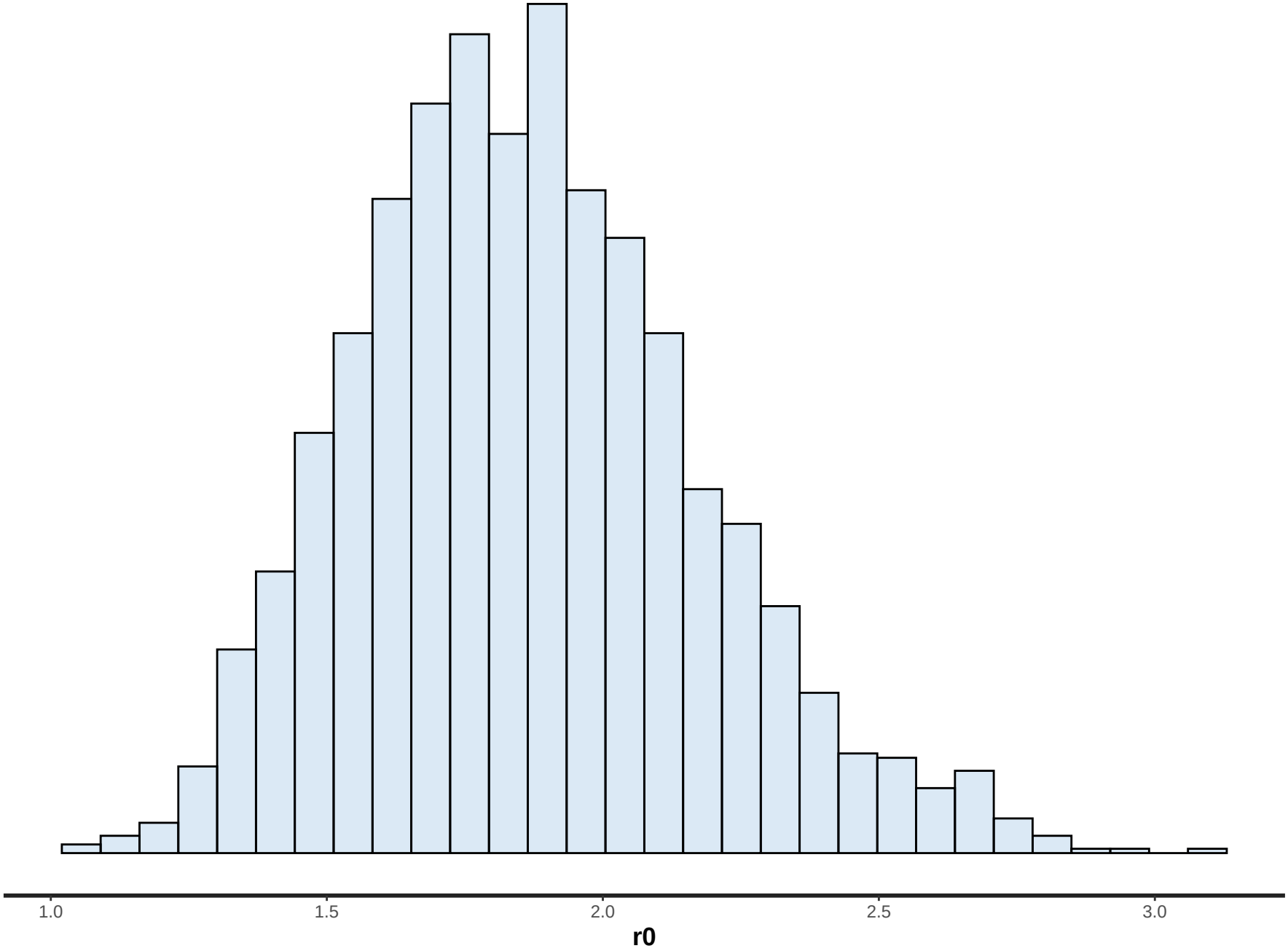

Long Term Death Projection
Number of COVID19 Deaths
200
150
100
50
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

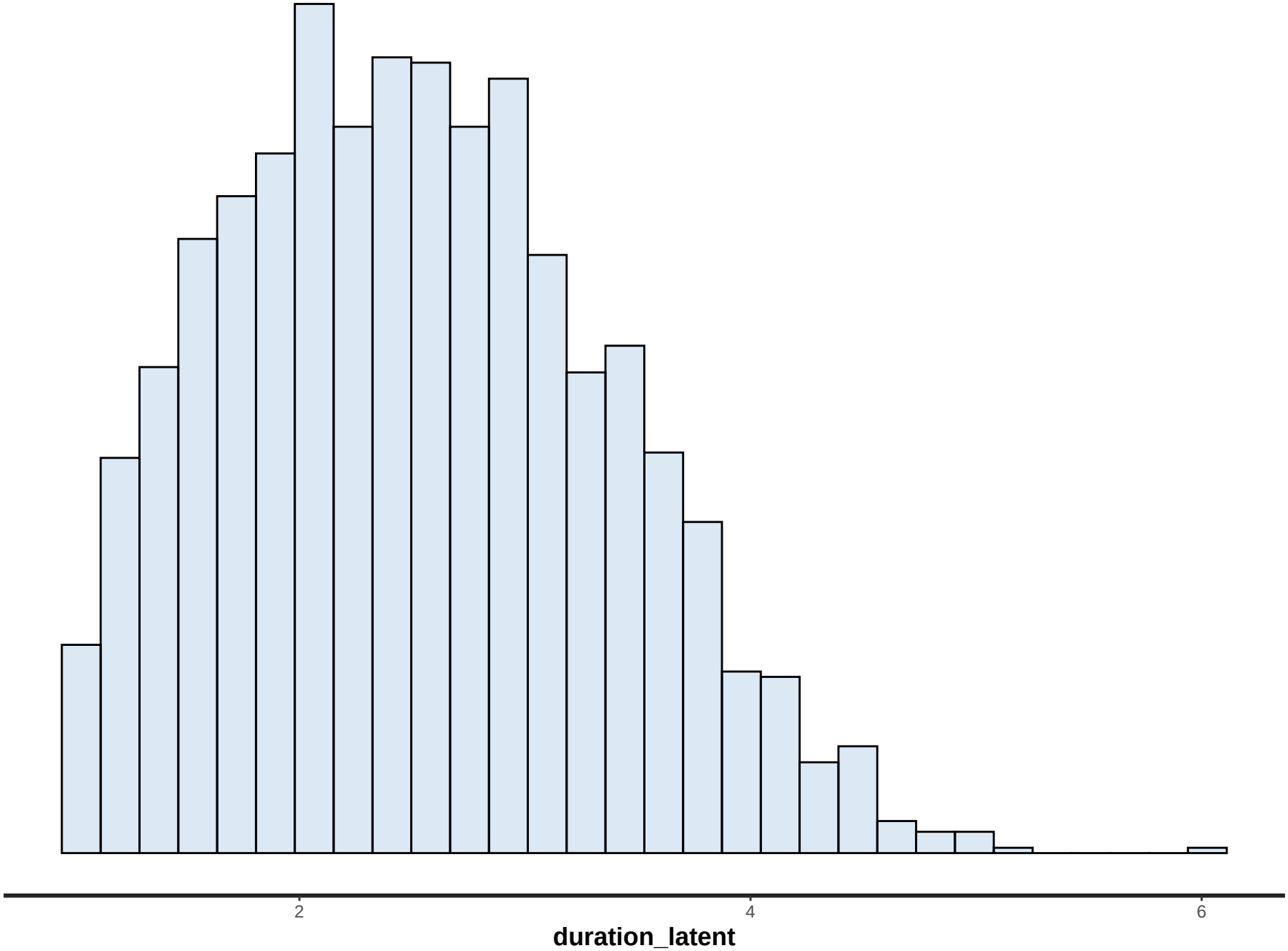

Effective Reproduction Number
Re
3
2
1
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

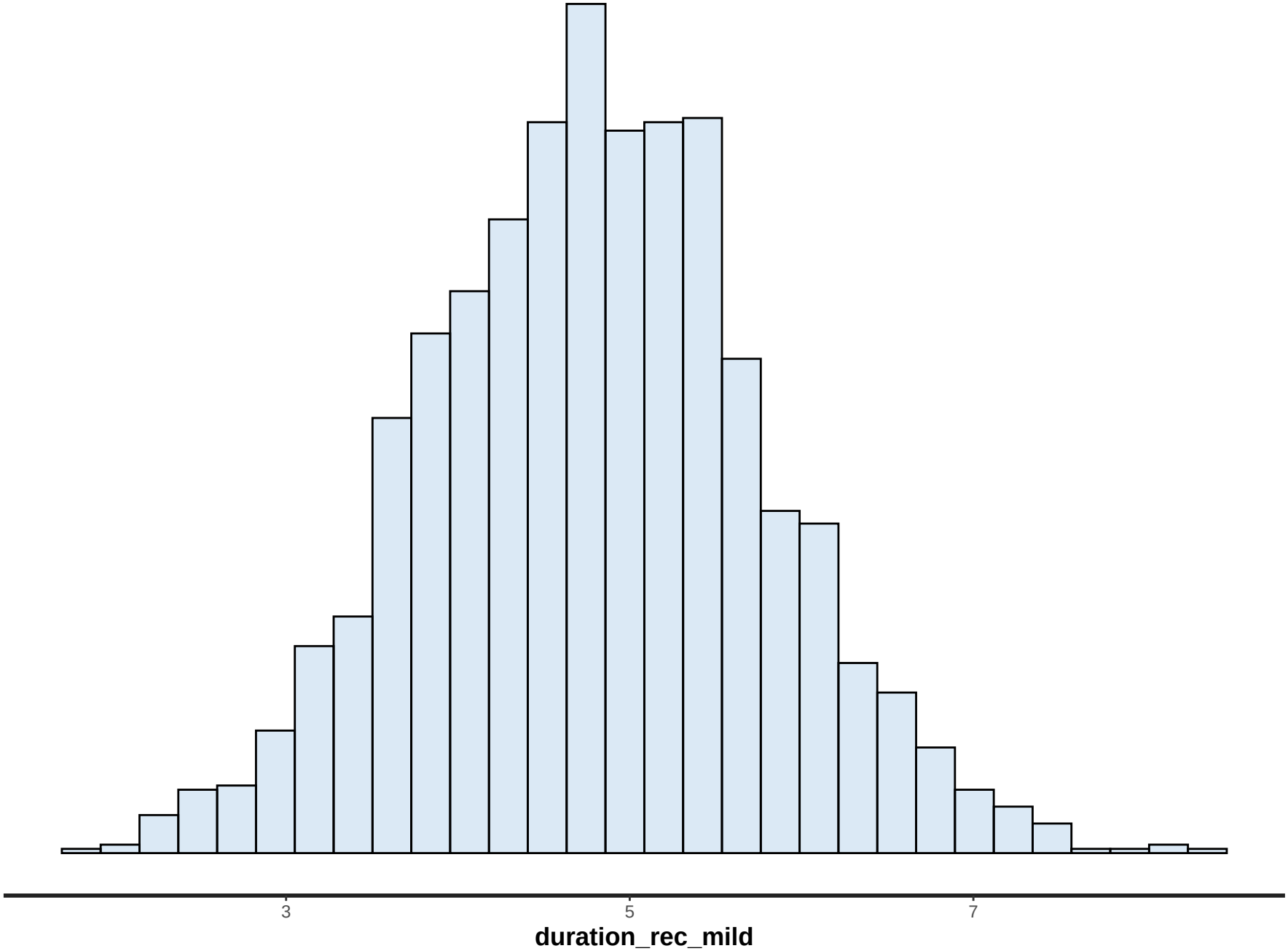
Rt as of 2020−12−01

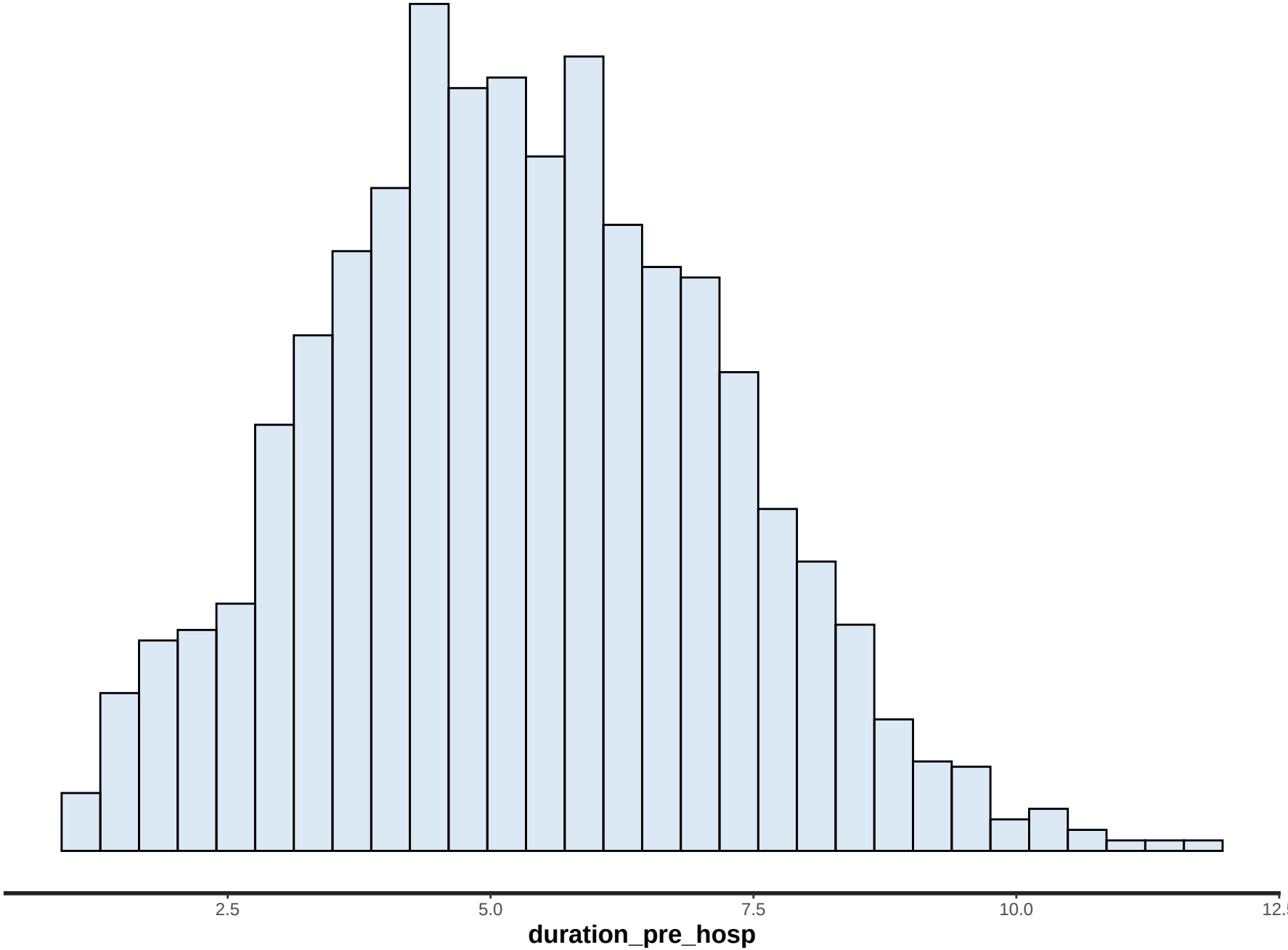
5%	10%	25%	50%	75%	90%	95%
1.01	1.04	1.11	1.19	1.25	1.32	1.36

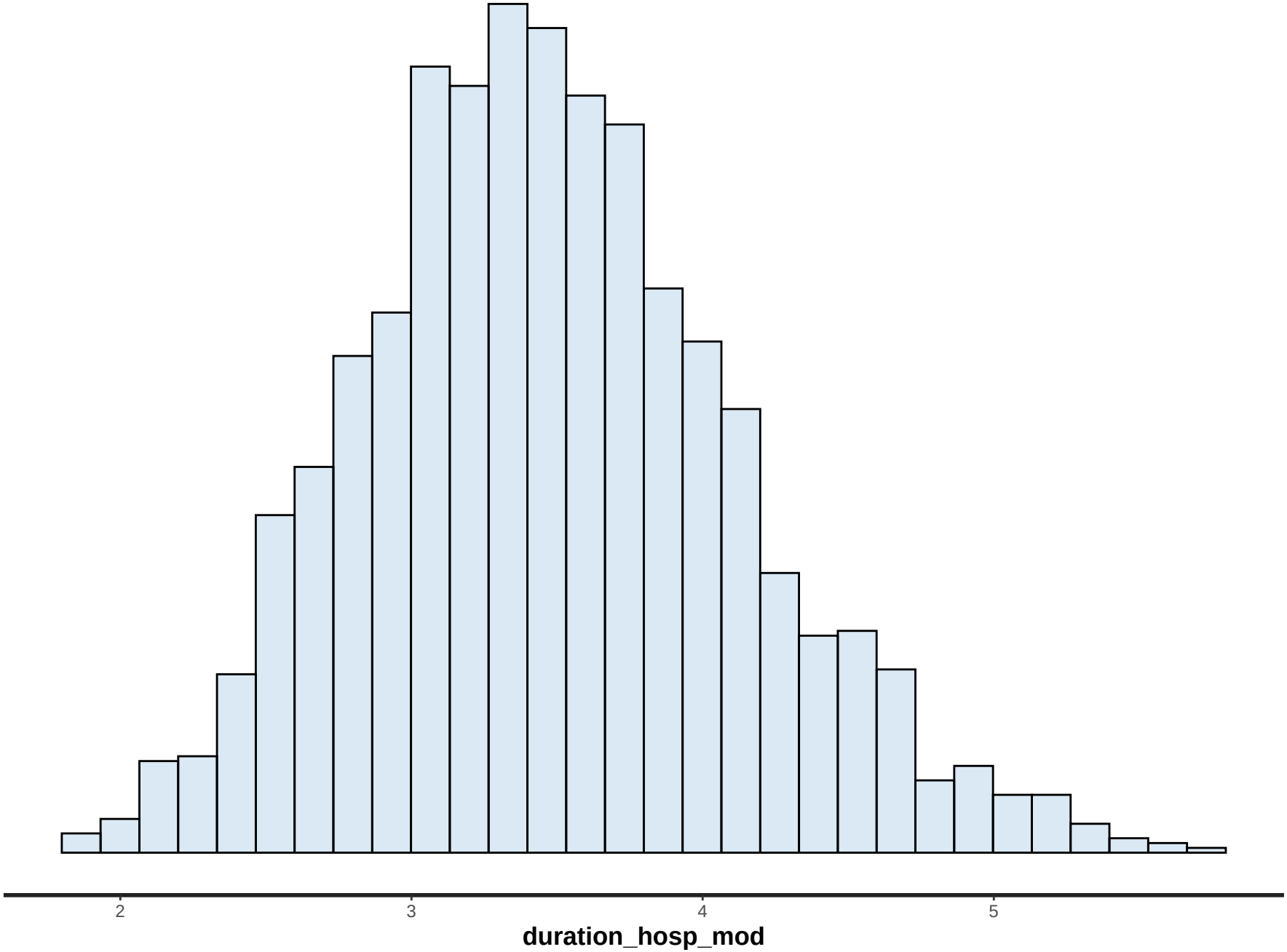


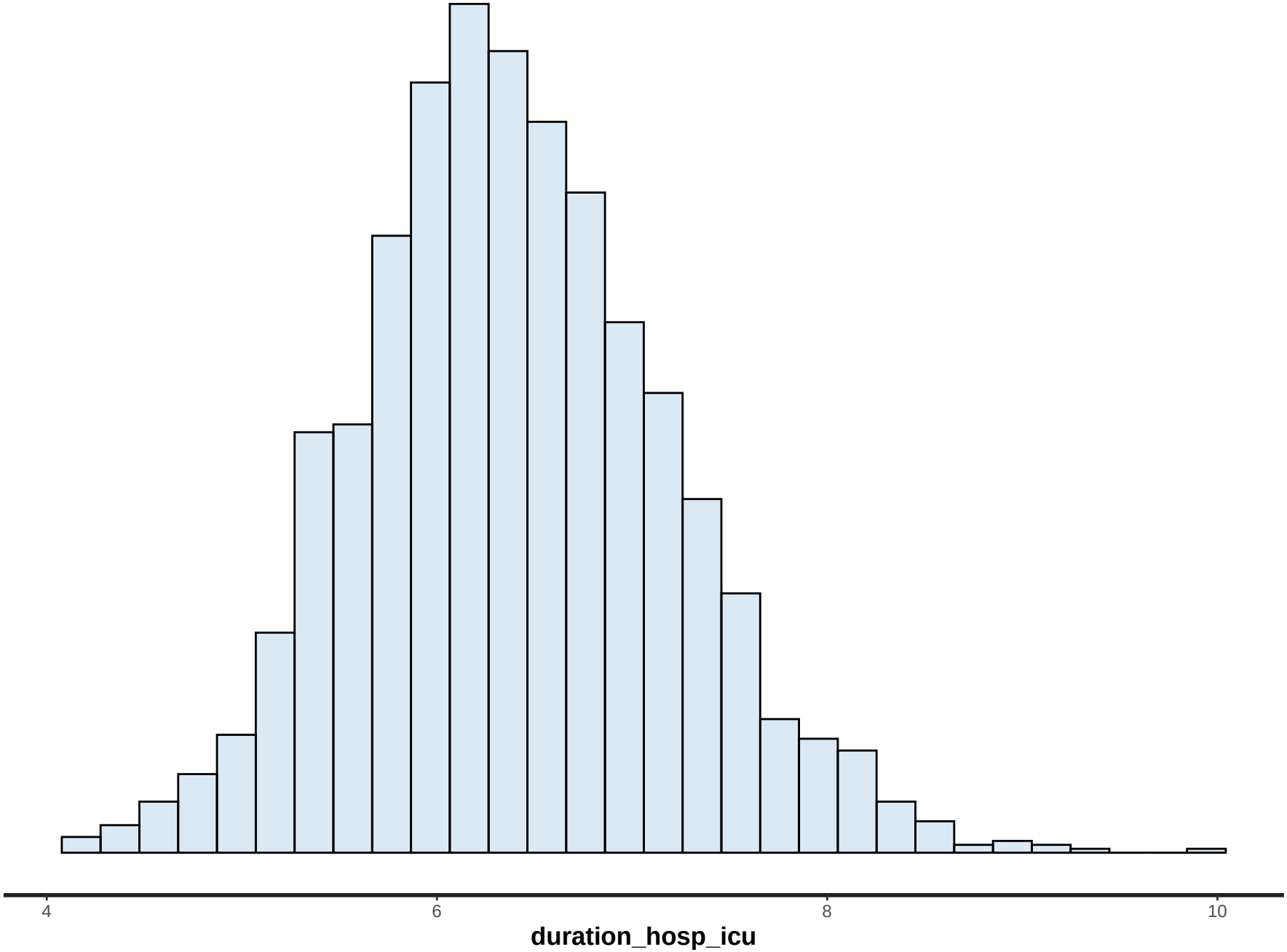

1.0
1.5
2.0
2.5
3.0
r0

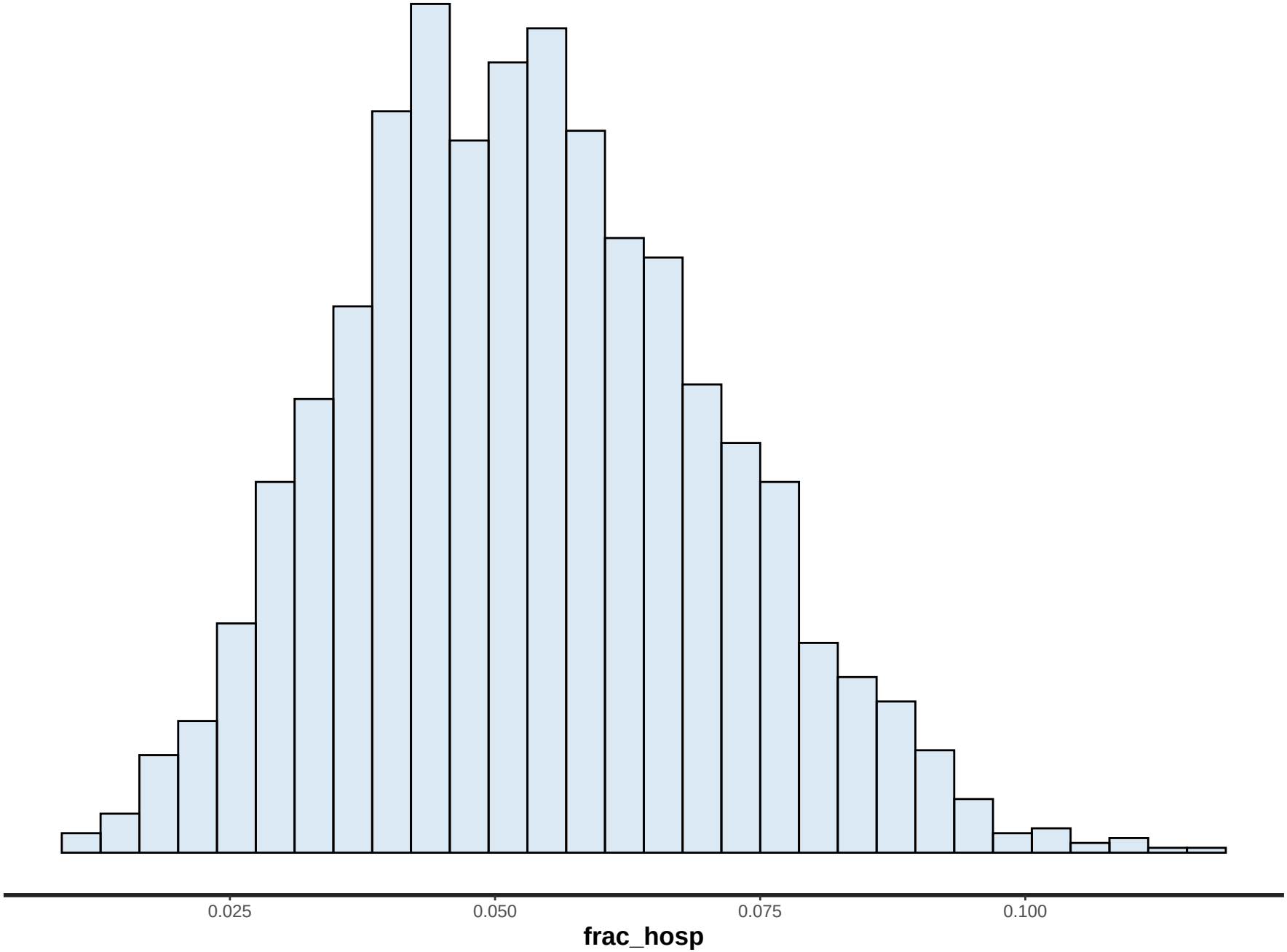

2
4
6
duration_latent

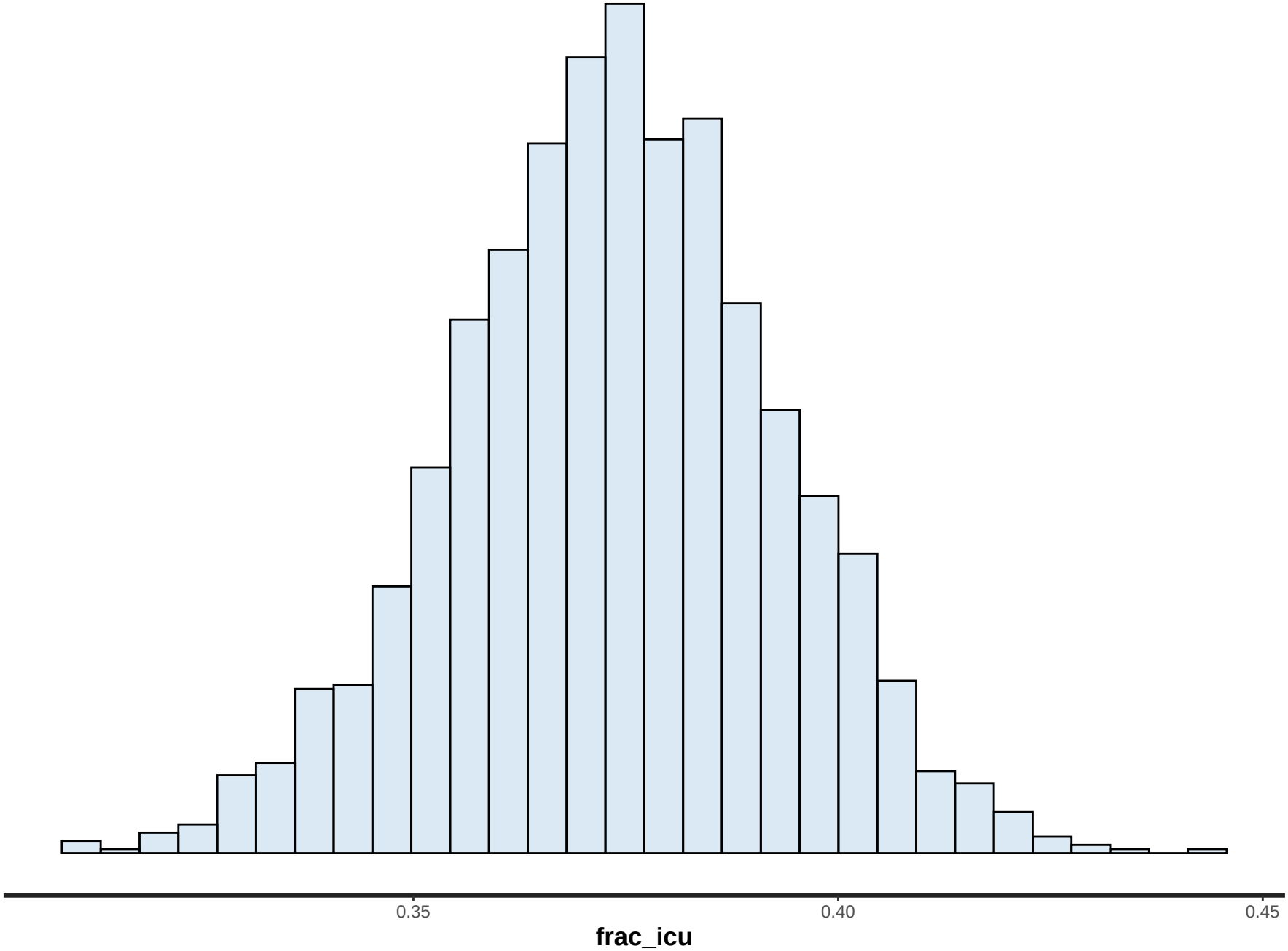

3
5
7
duration_rec_mild

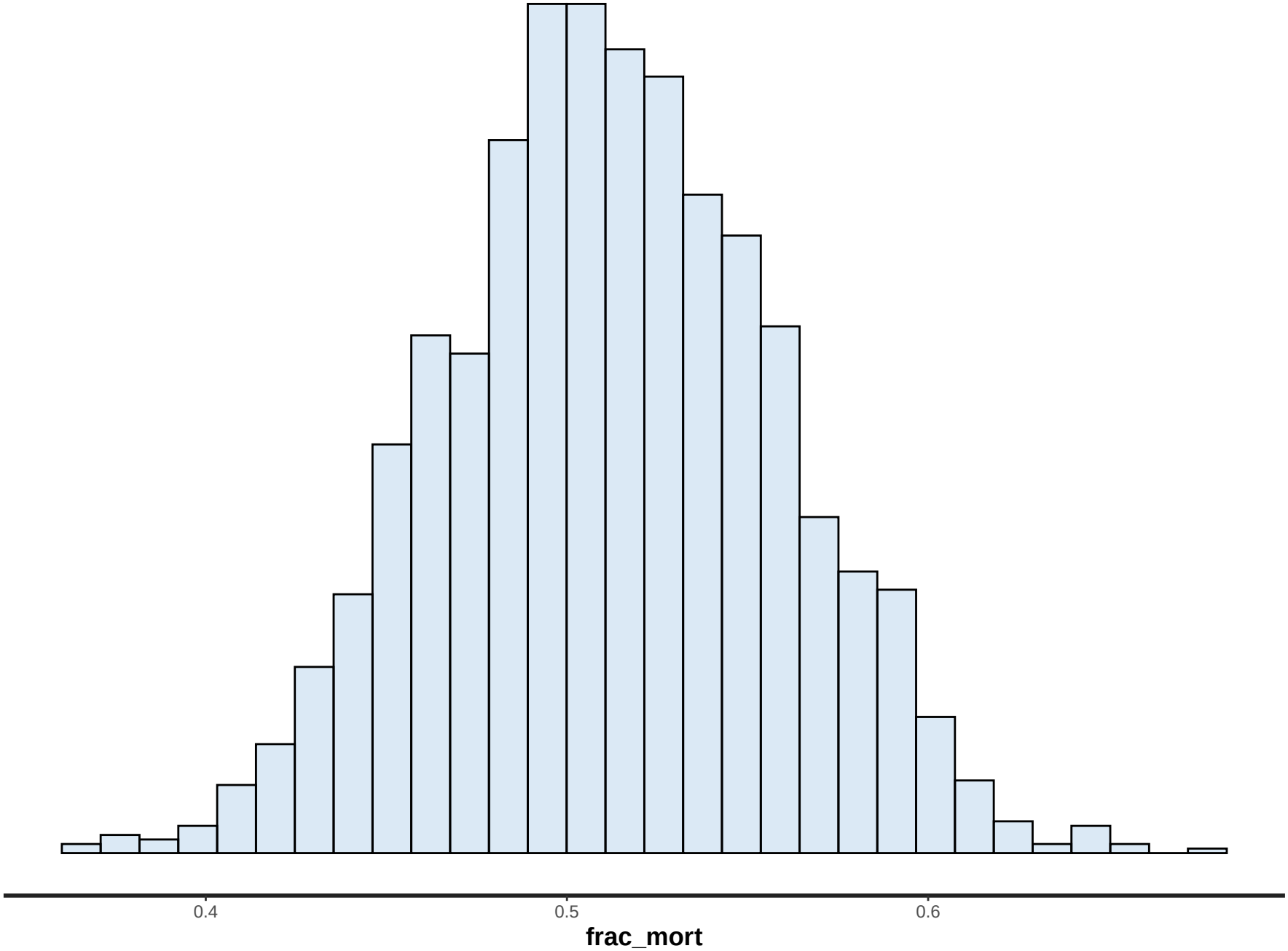

2.5
5.0
7.5
10.0
12.5
duration_pre_hosp

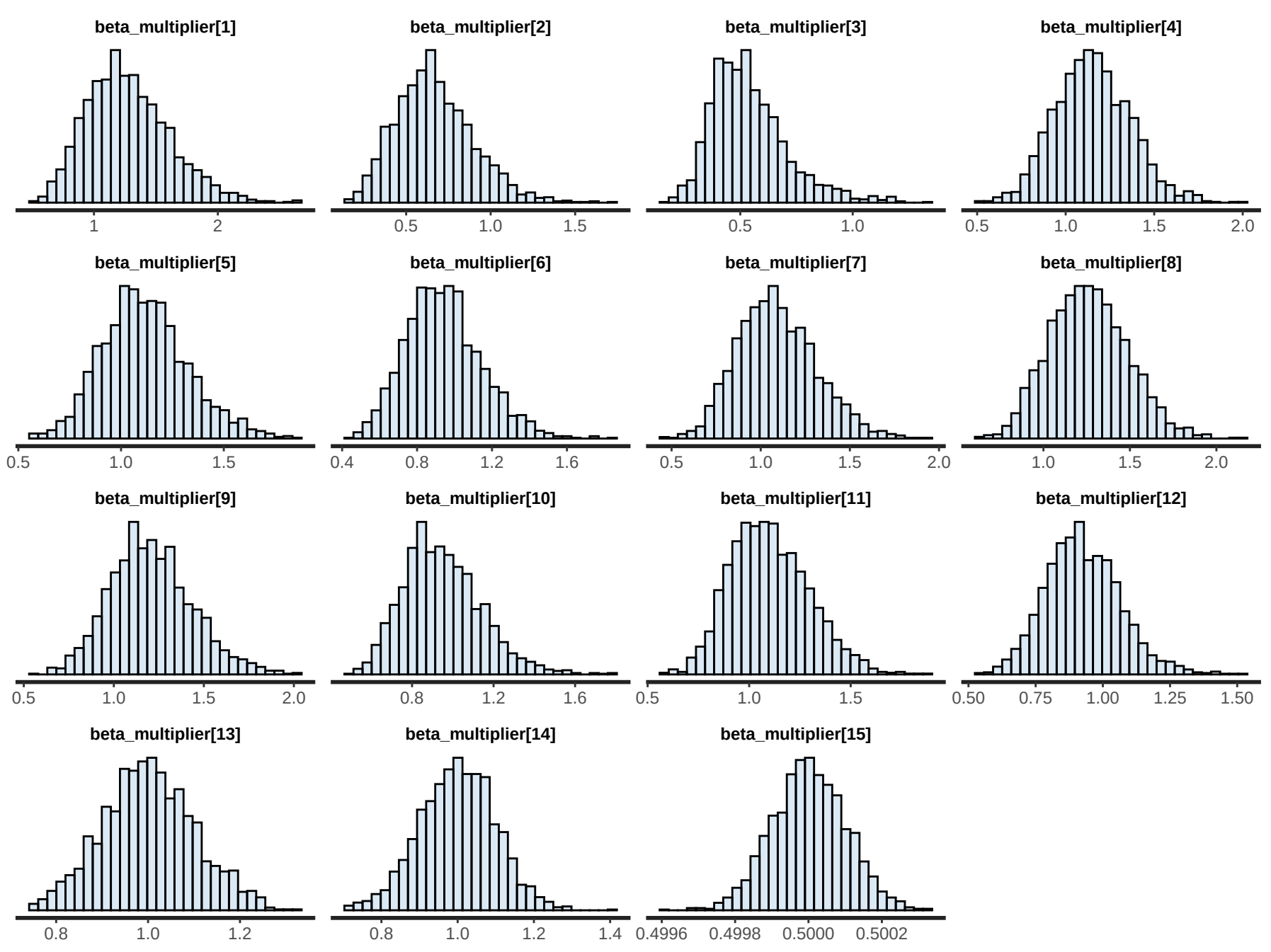

2
3
4
5
duration_hosp_mod

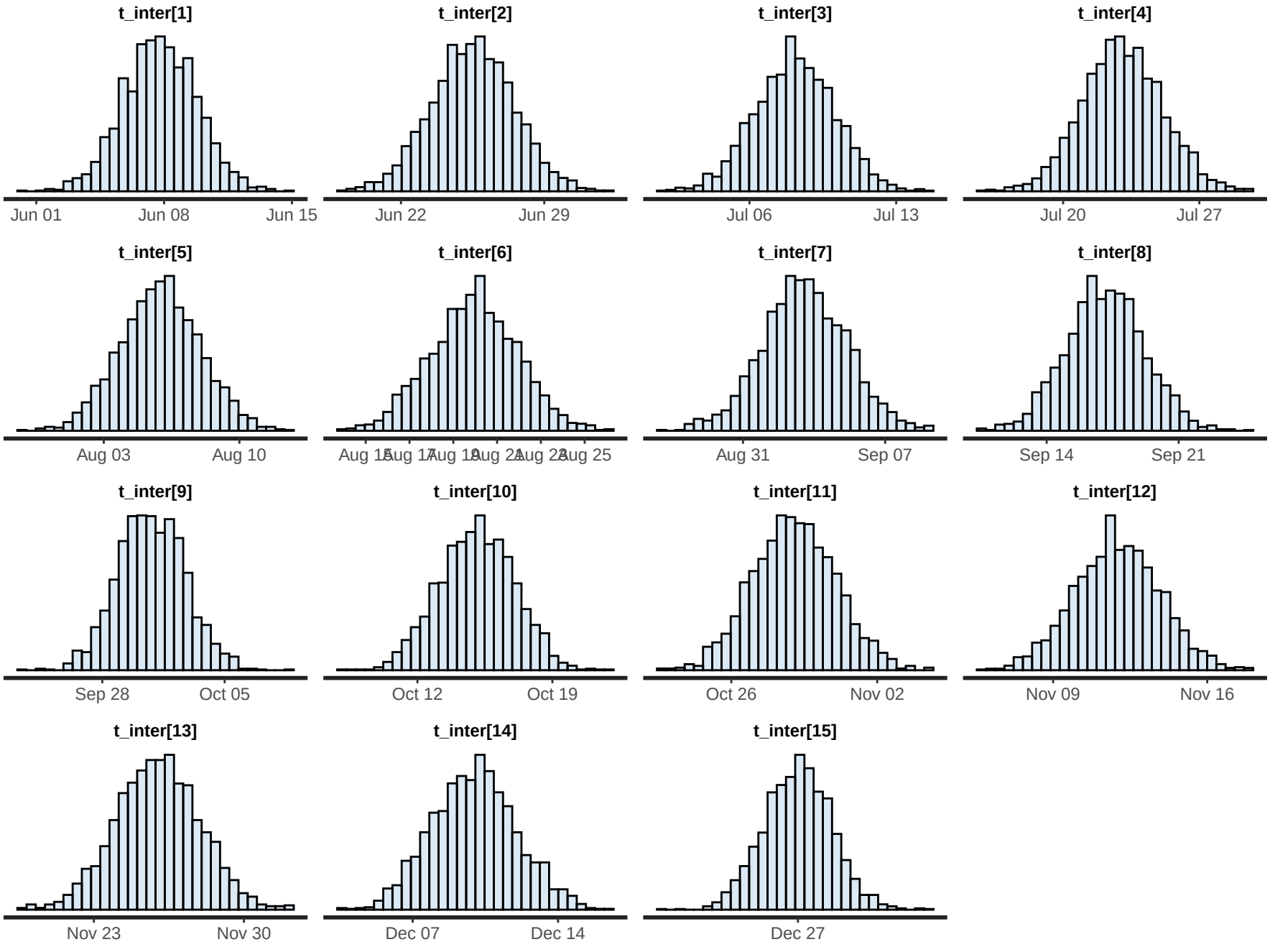

4
6
8
10
duration_hosp_icu

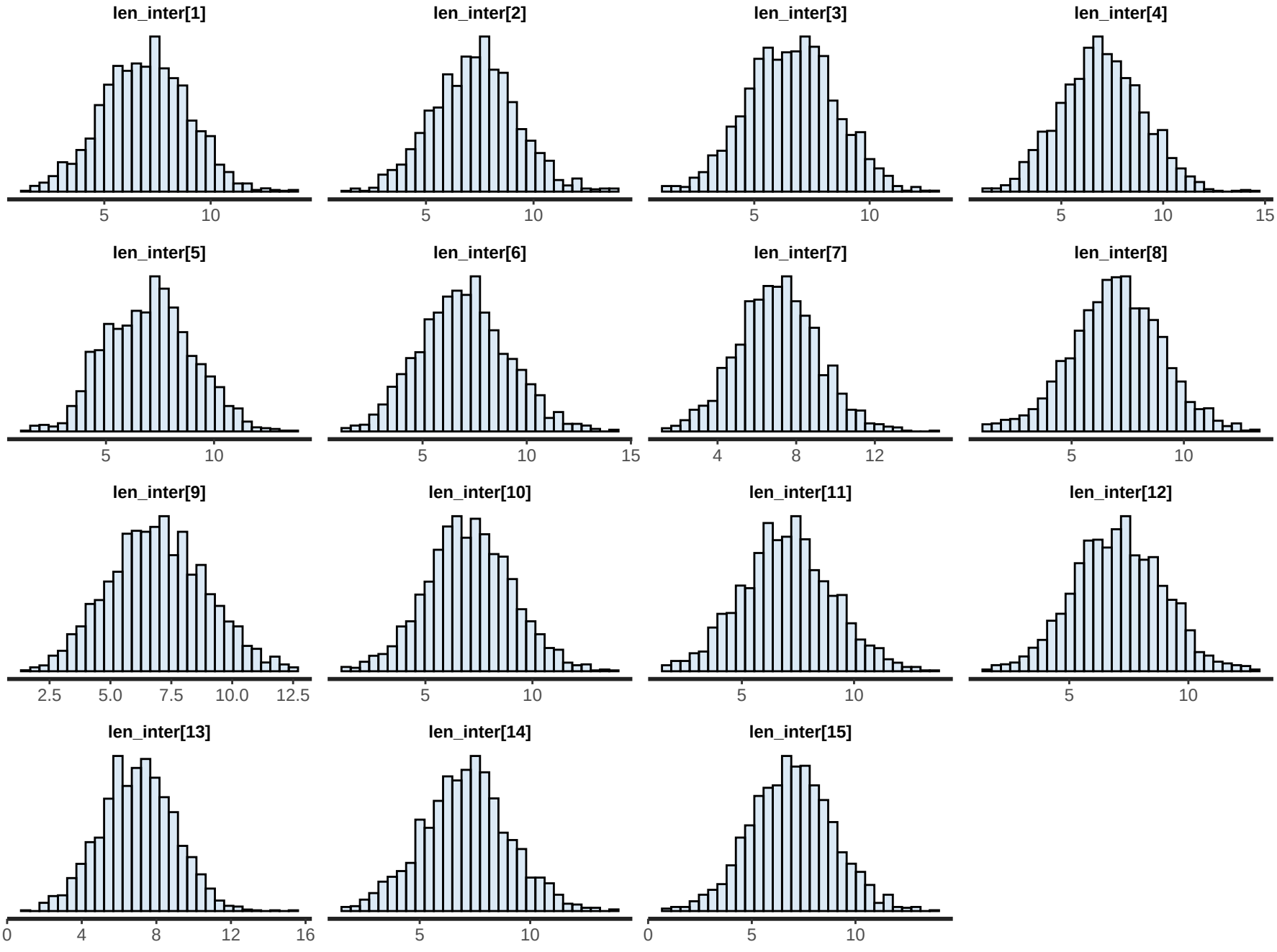

0.025
0.050
0.075
0.100
frac_hosp

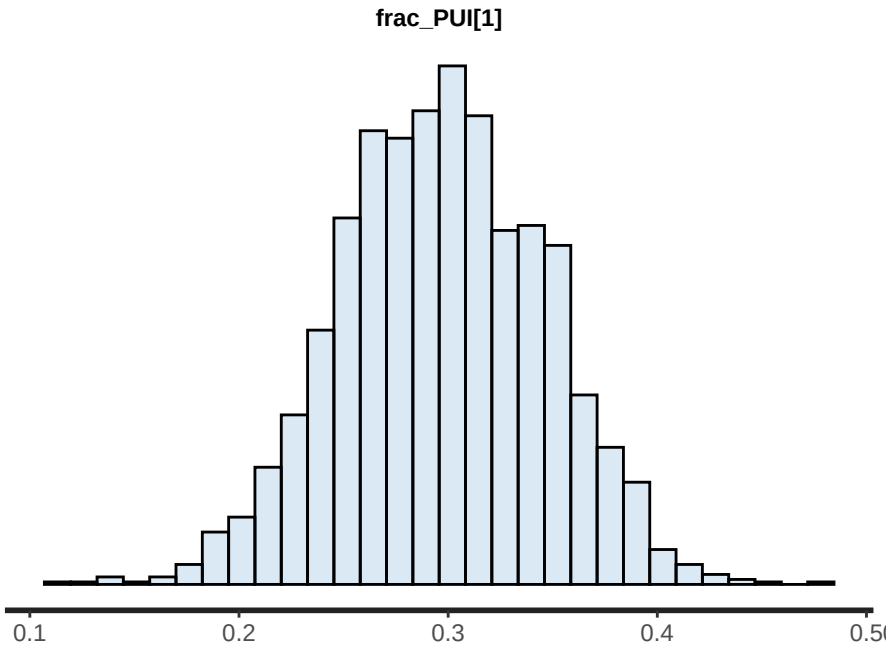

0.35
0.40
0.45
frac_icu

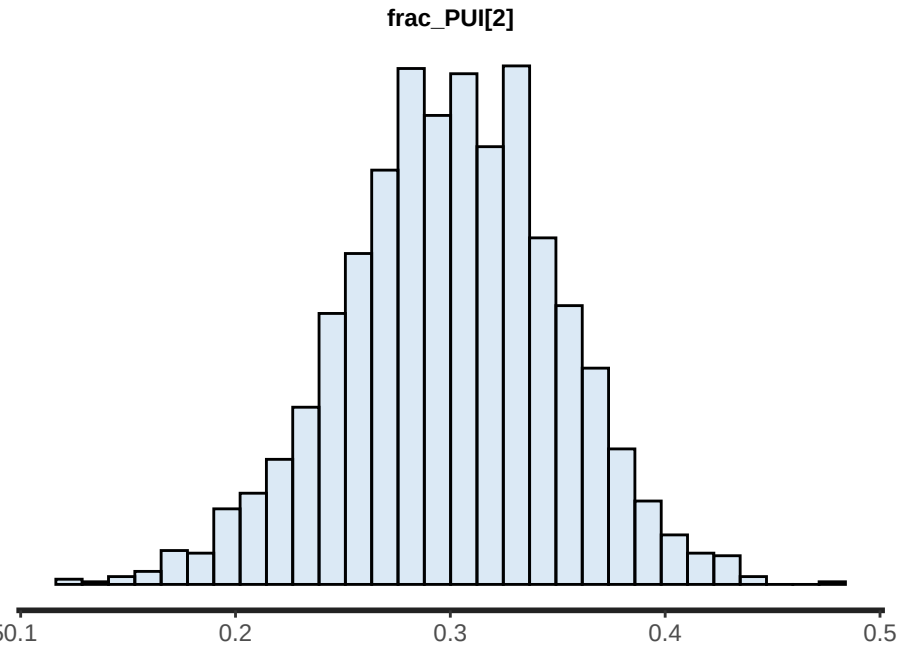

0.4
0.5
0.6
frac_mort

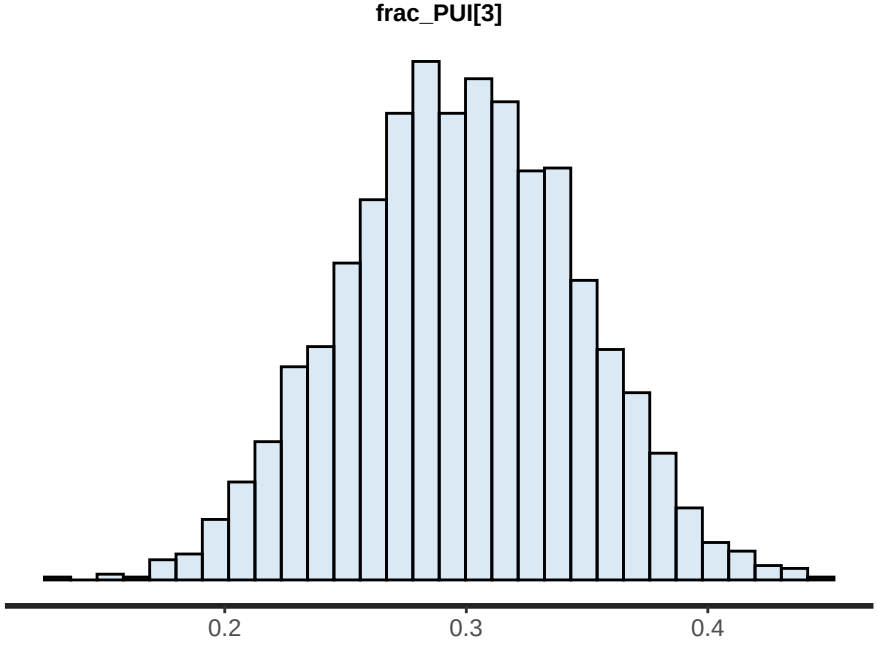

beta_multiplier[1]
1
2
beta_multiplier[2]
0.5
1.0
1.5
beta_multiplier[3]
0.5
1.0
beta_multiplier[4]
0.5
1.0
1.5
2.0
beta_multiplier[5]
0.5
1.0
1.5
beta_multiplier[6]
0.4
0.8
1.2
1.6
beta_multiplier[7]
0.5
1.0
1.5
2.0
beta_multiplier[8]
1.0
1.5
2.0
beta_multiplier[9]
0.5
1.0
1.5
2.0
beta_multiplier[10]
0.8
1.2
1.6
beta_multiplier[11]
0.5
1.0
1.5
beta_multiplier[12]
0.50
0.75
1.00
1.25
1.50
beta_multiplier[13]
0.8
1.0
1.2
beta_multiplier[14]
0.8
1.0
1.2
1.4
beta_multiplier[15]
0.4996
0.4998
0.5000
0.5002

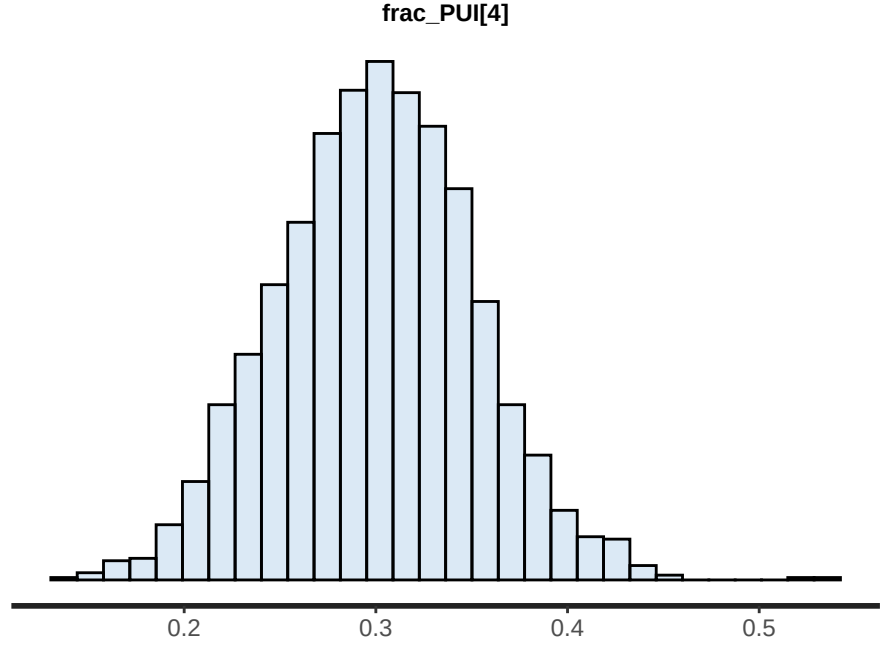

t_inter[1]
Jun 01
Jun 08
Jun 15
t_inter[2]
Jun 22
Jun 29
t_inter[3]
Jul 06
Jul 13
t_inter[4]
Jul 20
Jul 27
t_inter[5]
Aug 03
Aug 10
t_inter[6]
Aug 15
Aug 17
Aug 19
Aug 21
Aug 23
Aug 25
t_inter[7]
Aug 31
Sep 07
t_inter[8]
Sep 14
Sep 21
t_inter[9]
Sep 28
Oct 05
t_inter[10]
Oct 12
Oct 19
t_inter[11]
Oct 26
Nov 02
t_inter[12]
Nov 09
Nov 16
t_inter[13]
Nov 23
Nov 30
t_inter[14]
Dec 07
Dec 14
t_inter[15]
Dec 27

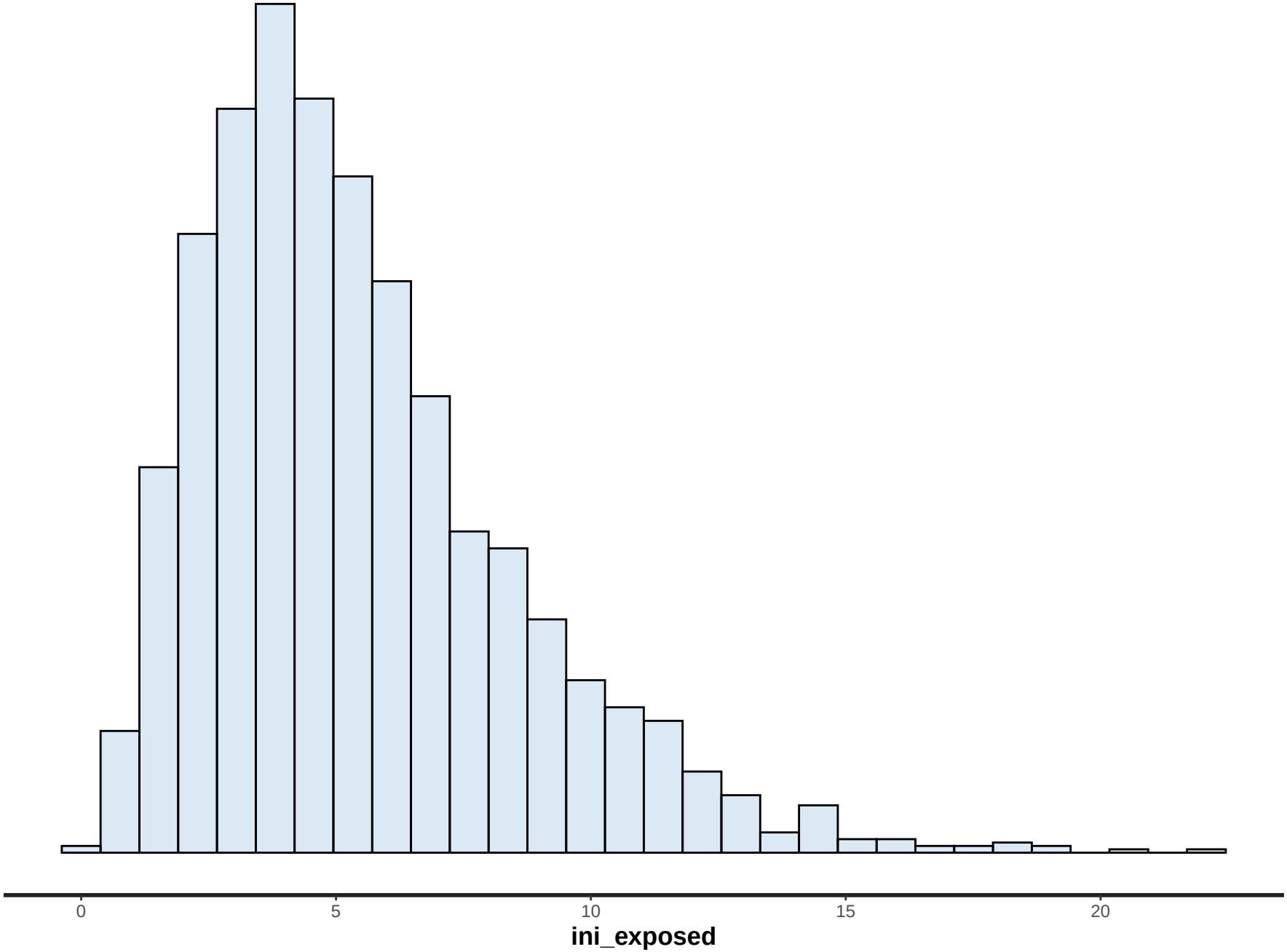

len_inter[1]
5
10
len_inter[2]
5
10
len_inter[3]
5
10
len_inter[4]
5
10
15
len_inter[5]
5
10
len_inter[6]
5
10
15
len_inter[7]
4
8
12
len_inter[8]
5
10
len_inter[9]
2.5
5.0
7.5
10.0
12.5
len_inter[10]
5
10
len_inter[11]
5
10
len_inter[12]
5
10
len_inter[13]
0
4
8
12
16
len_inter[14]
5
10
len_inter[15]
0
5
10

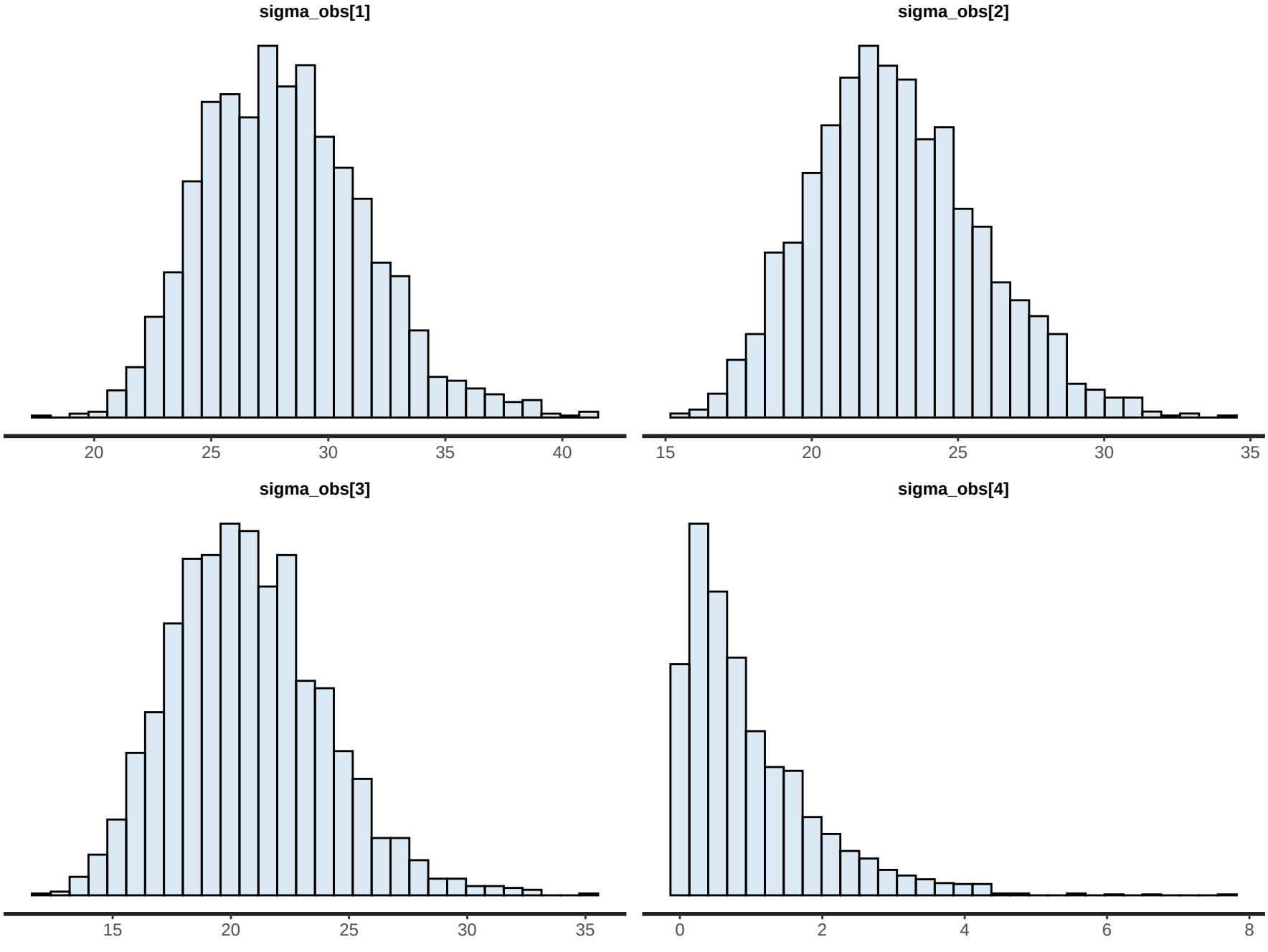

frac_PUI[1]
0.1
0.2
0.3
0.4
0.5


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
0.5


0
5
10
15
20
ini_exposed


sigma_obs[1]
20
25
30
35
40
sigma_obs[2]
15
20
25
30
35
sigma_obs[3]
15
20
25
30
35
sigma_obs[4]
0
2
4
6
8