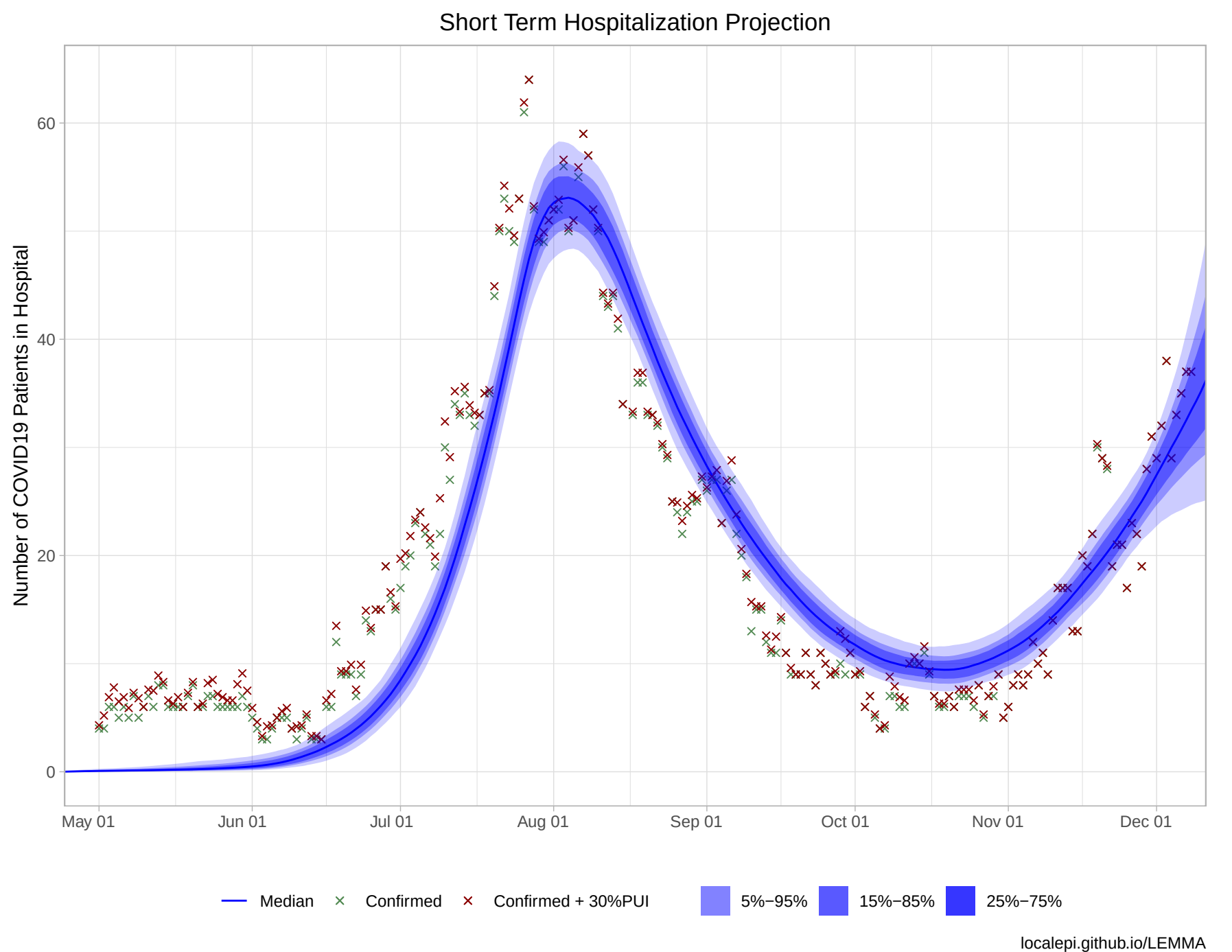
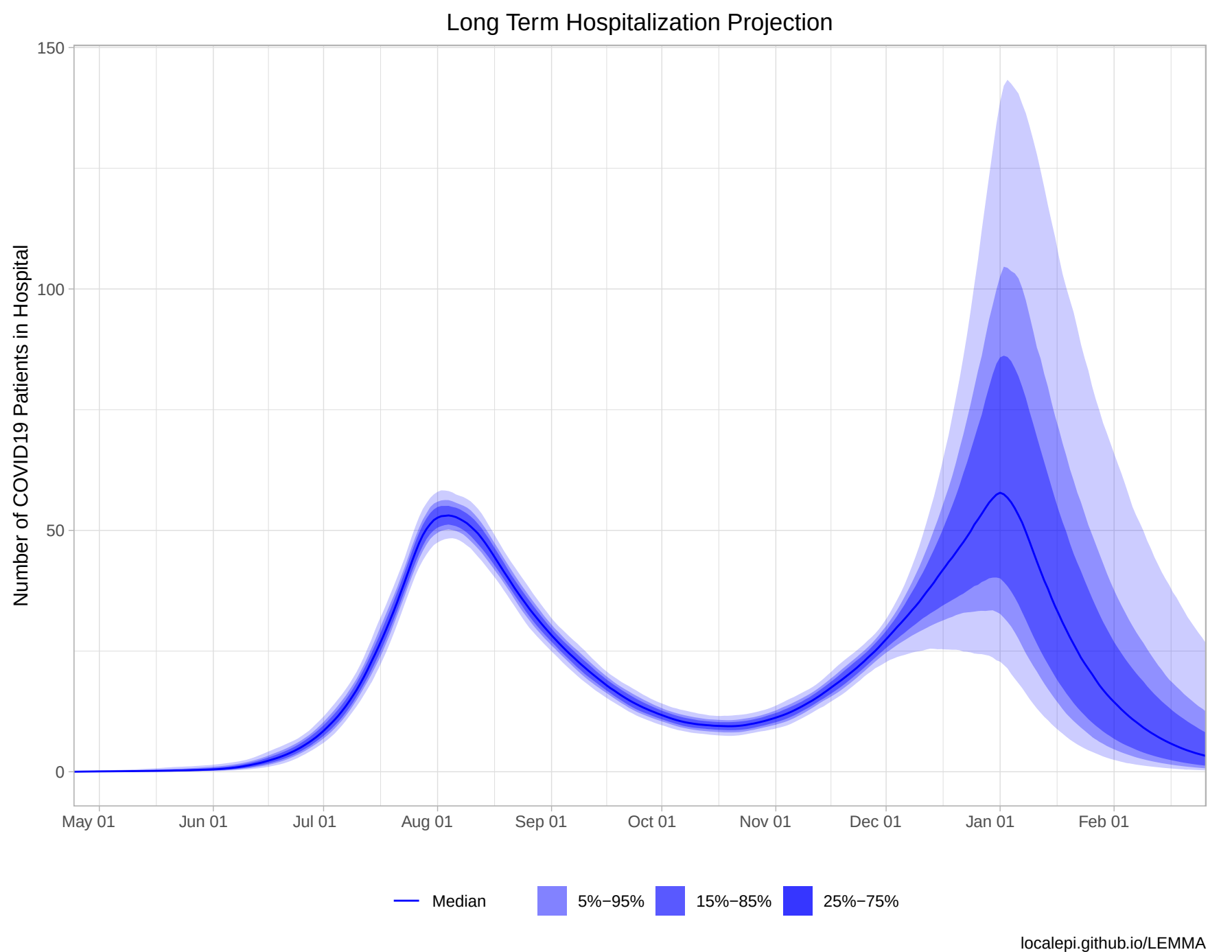
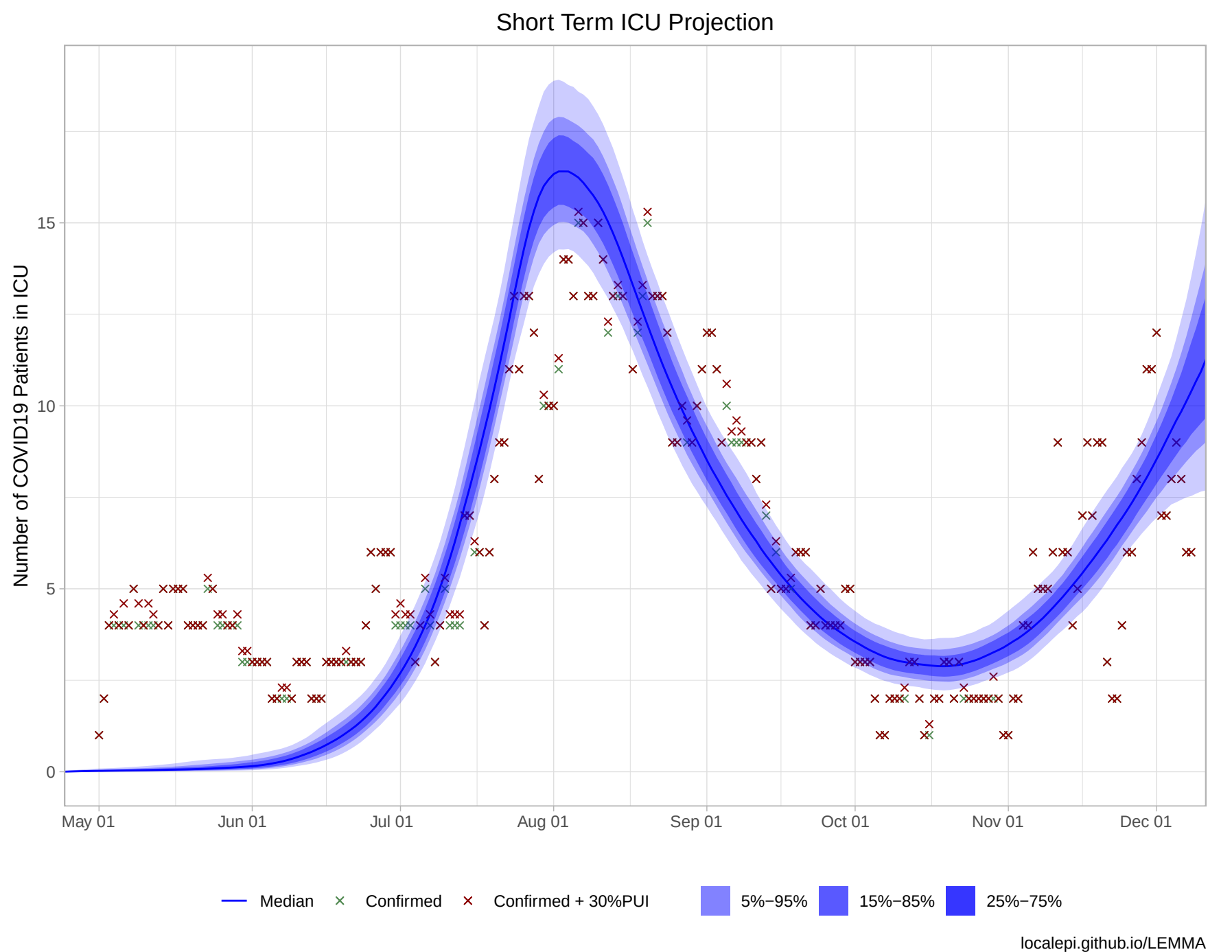
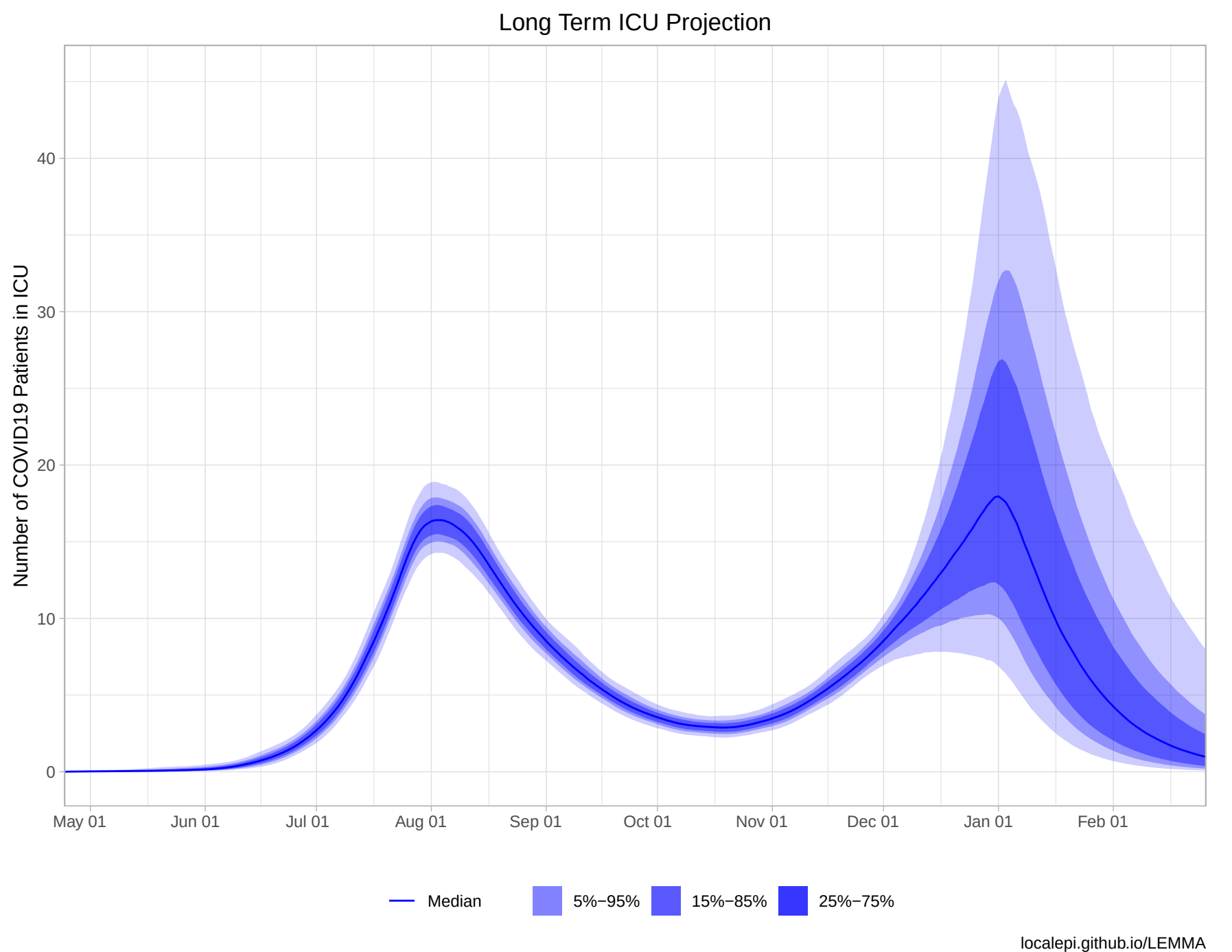
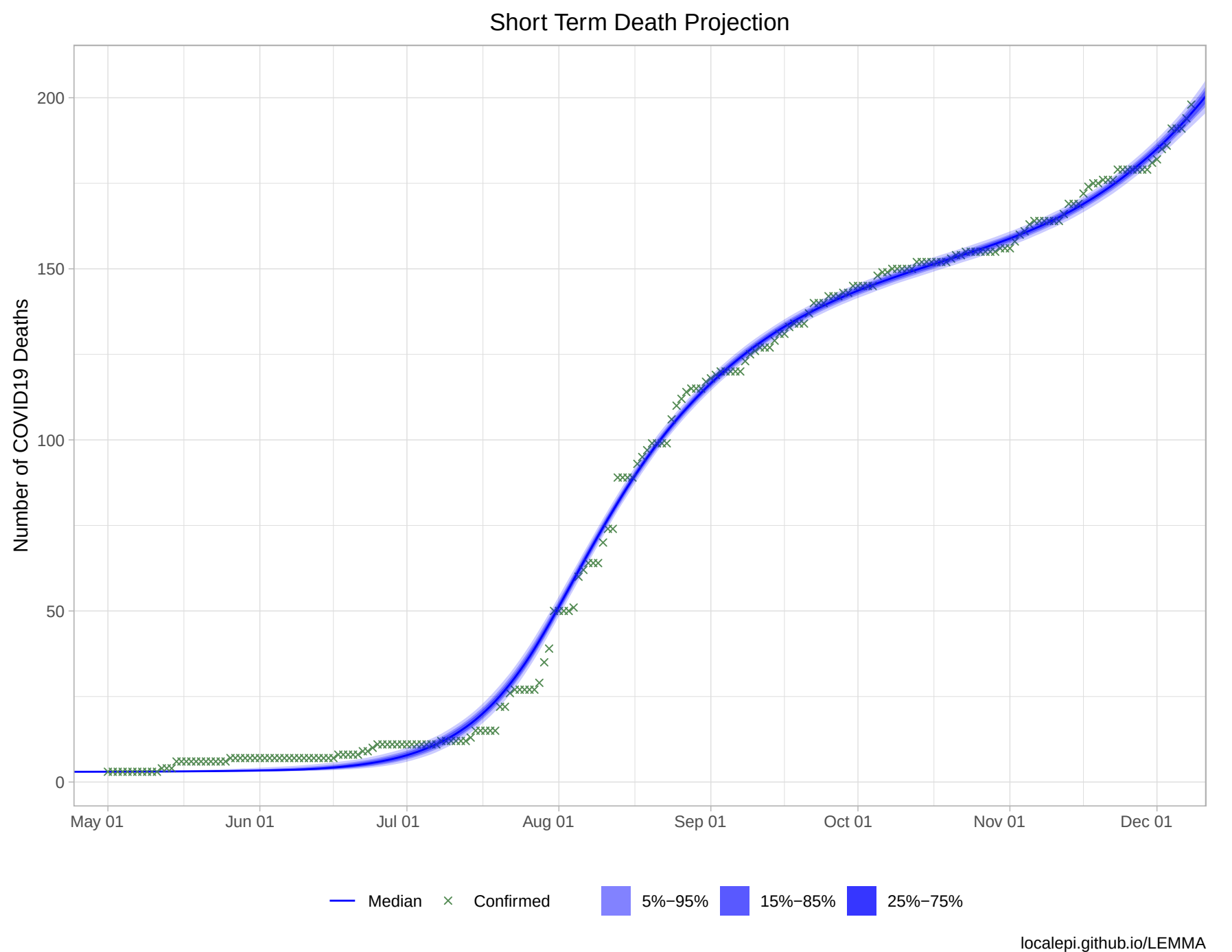
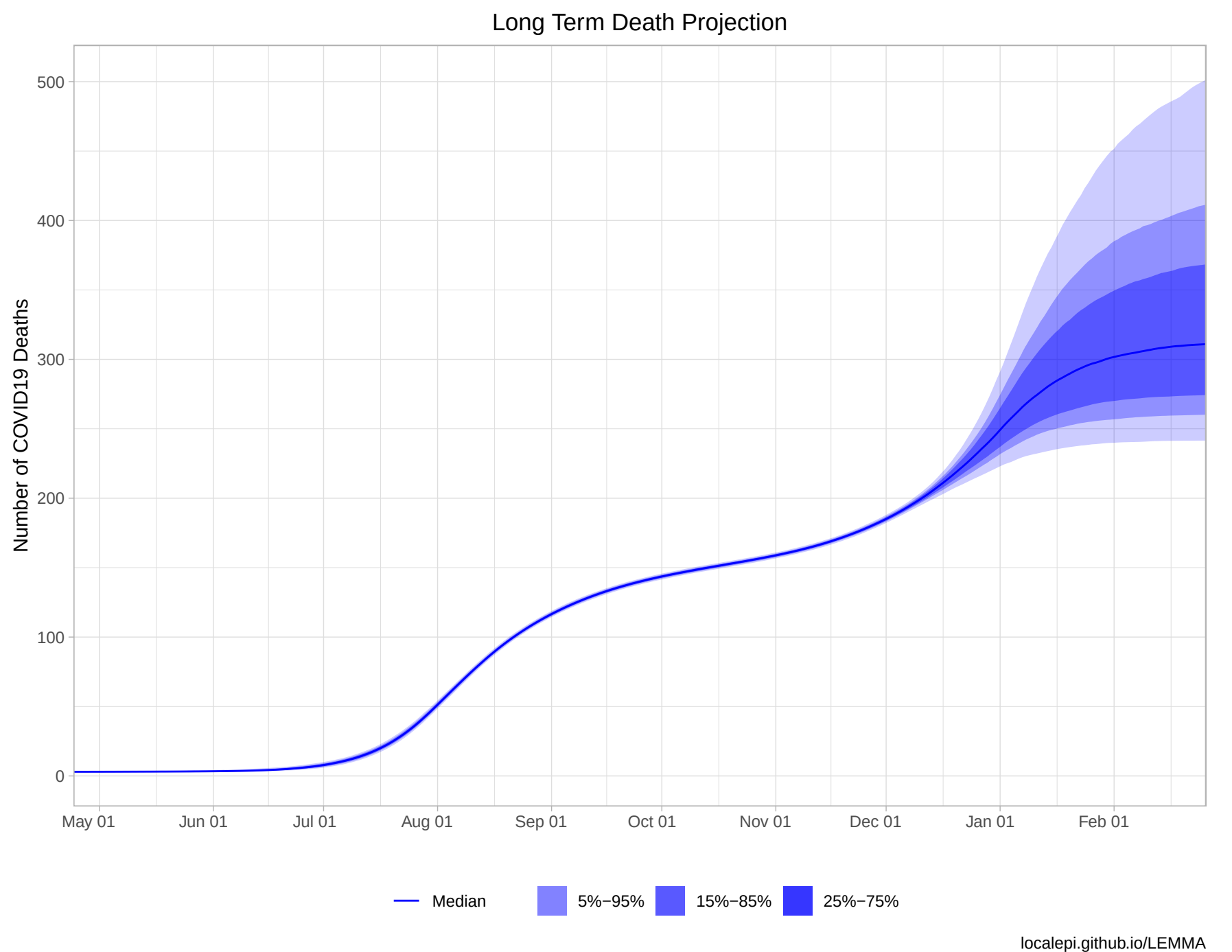

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
20
40
60
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

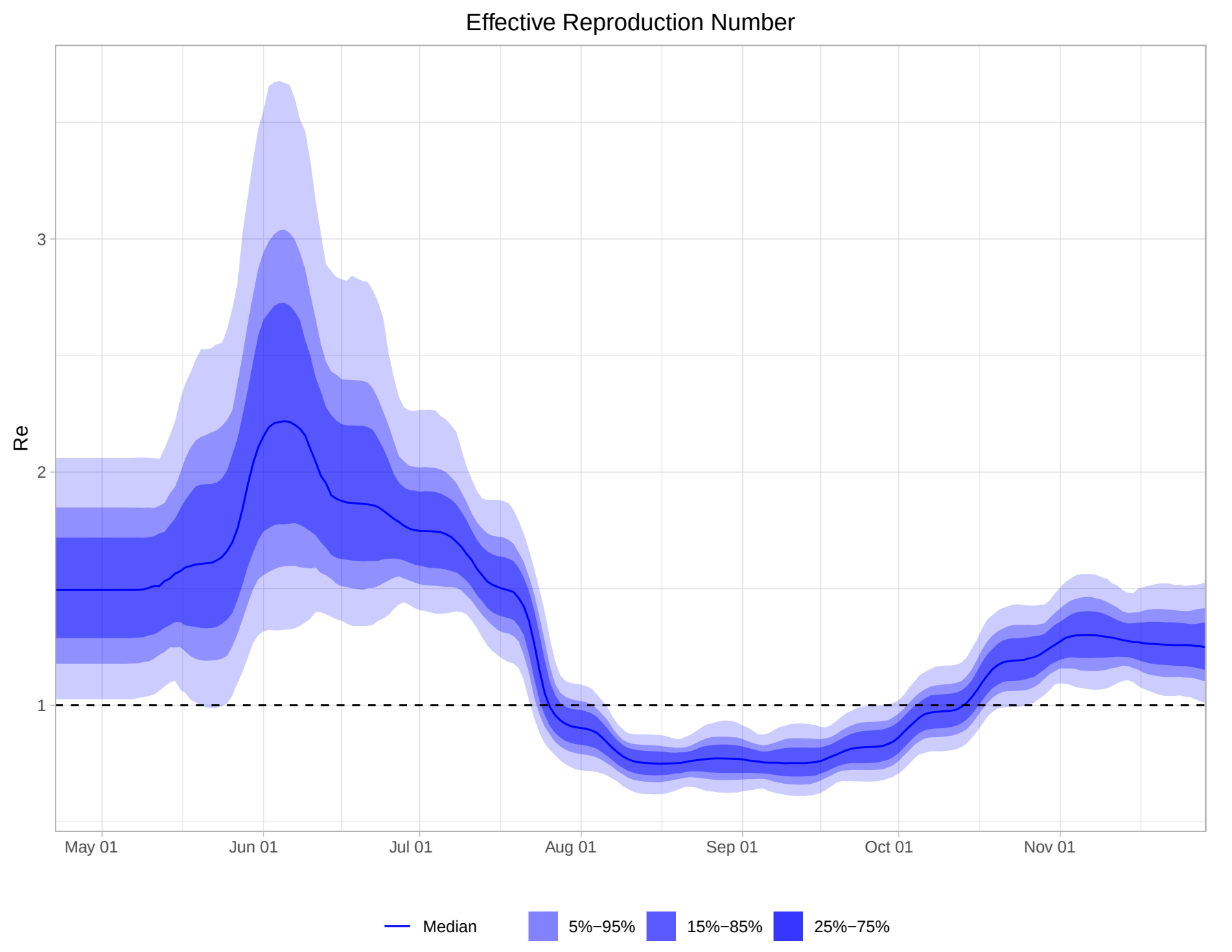

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
150
100
50
0
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
0
5
10
15
May 01
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
May 01
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

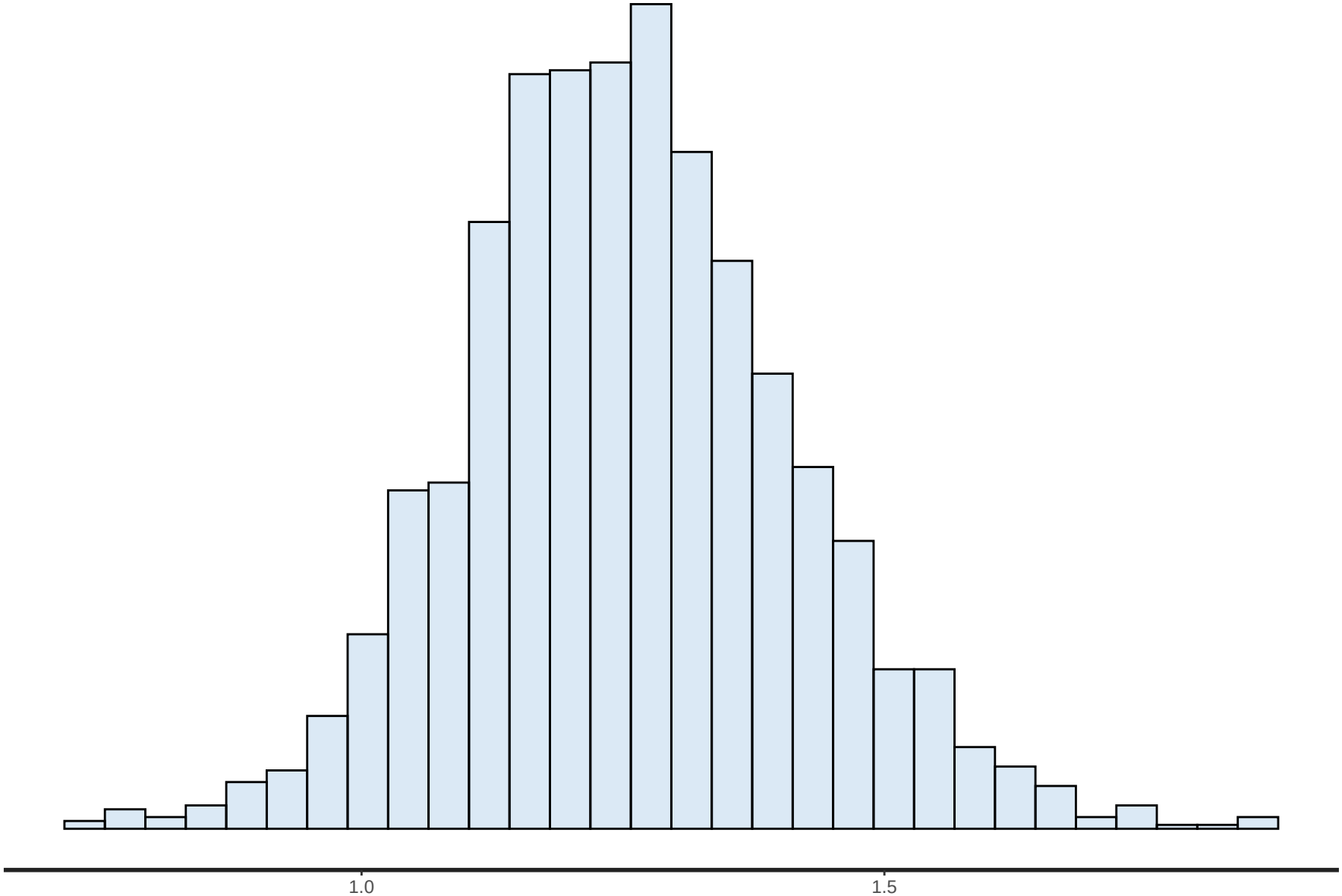

Short Term Death Projection
Number of COVID19 Deaths
200
150
100
50
0
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

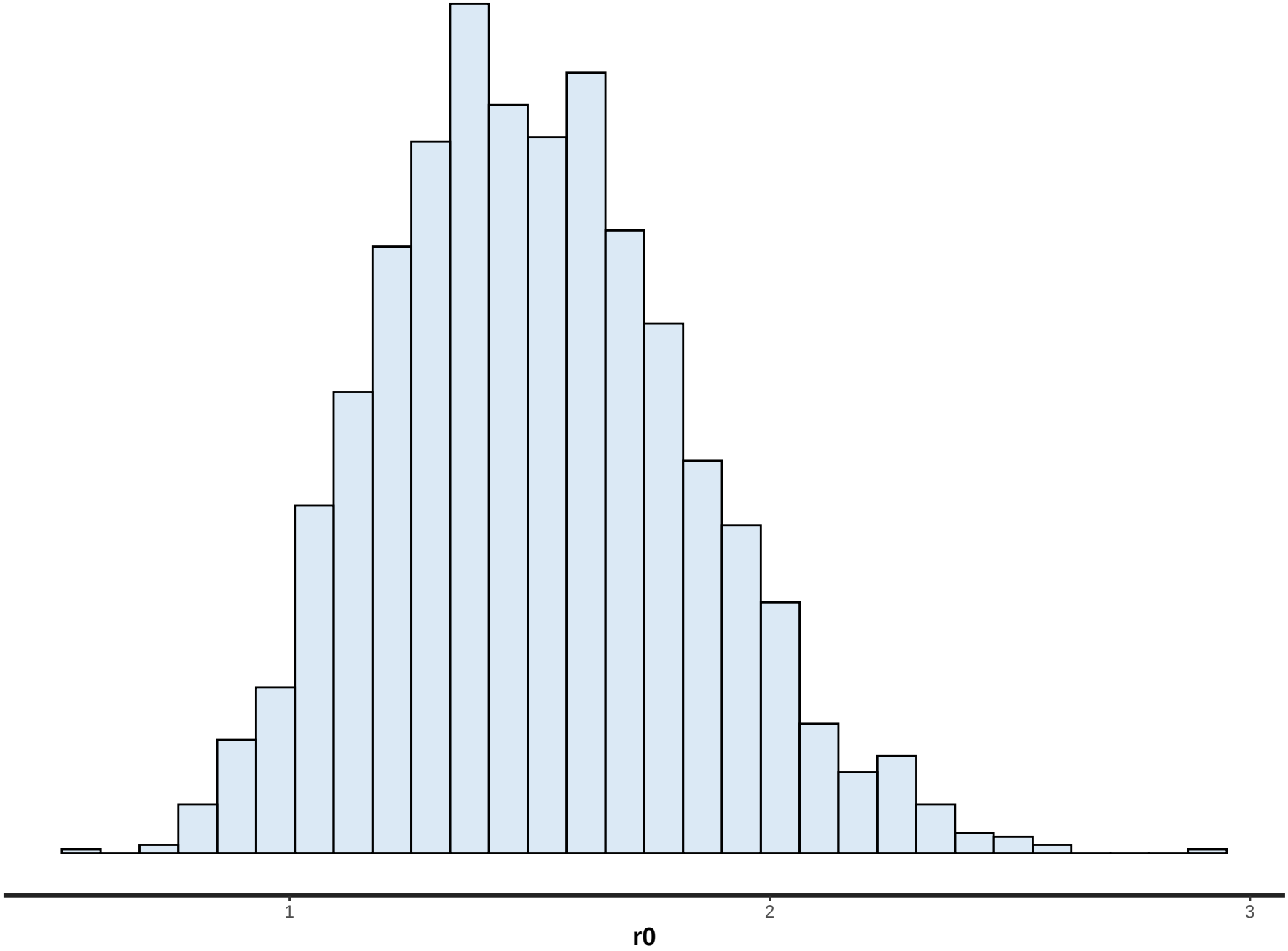

Long Term Death Projection
Number of COVID19 Deaths
500
400
300
200
100
0
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

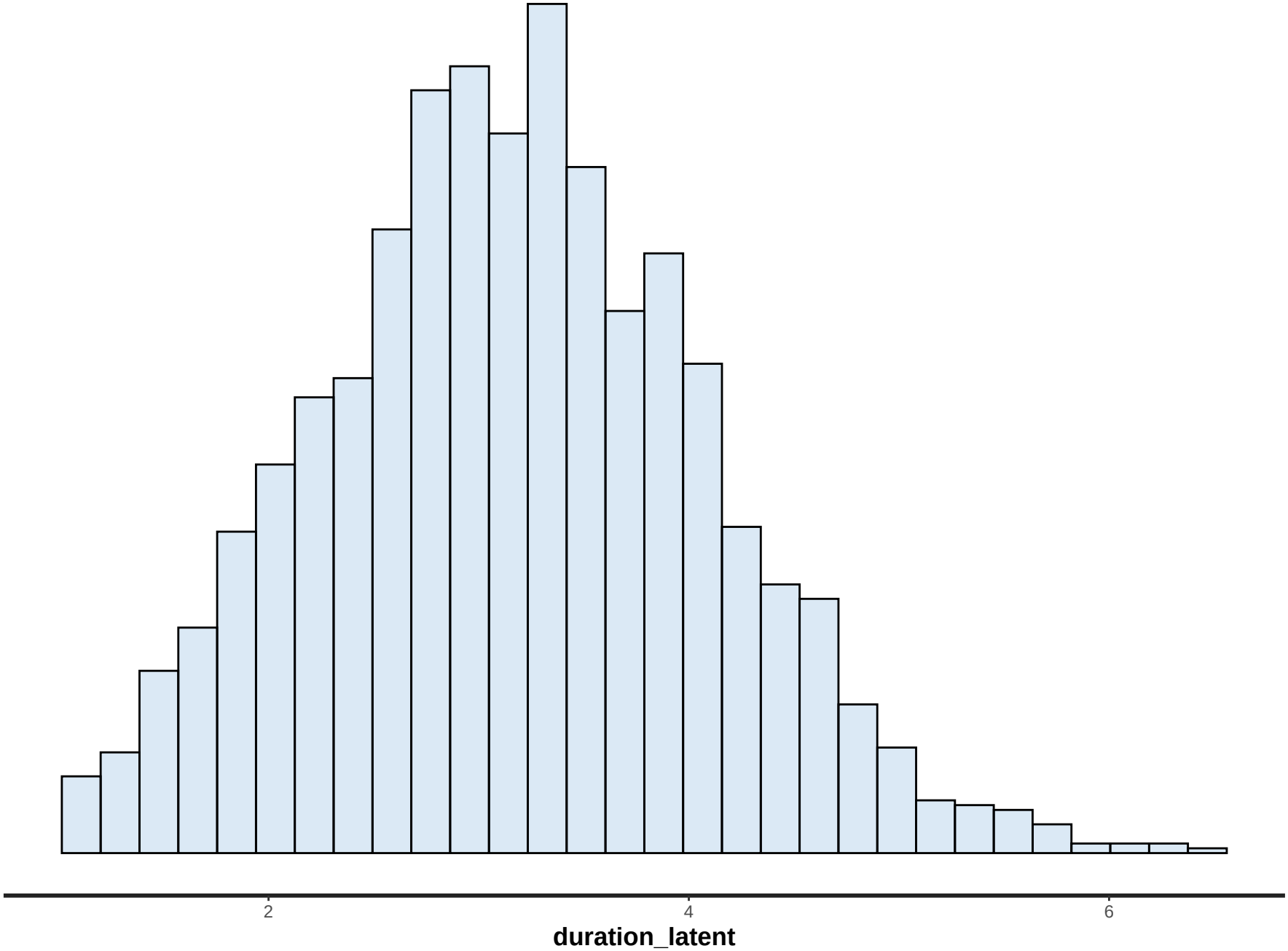

Effective Reproduction Number
Re
3
2
1
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
5%−95%
15%−85%
25%−75%

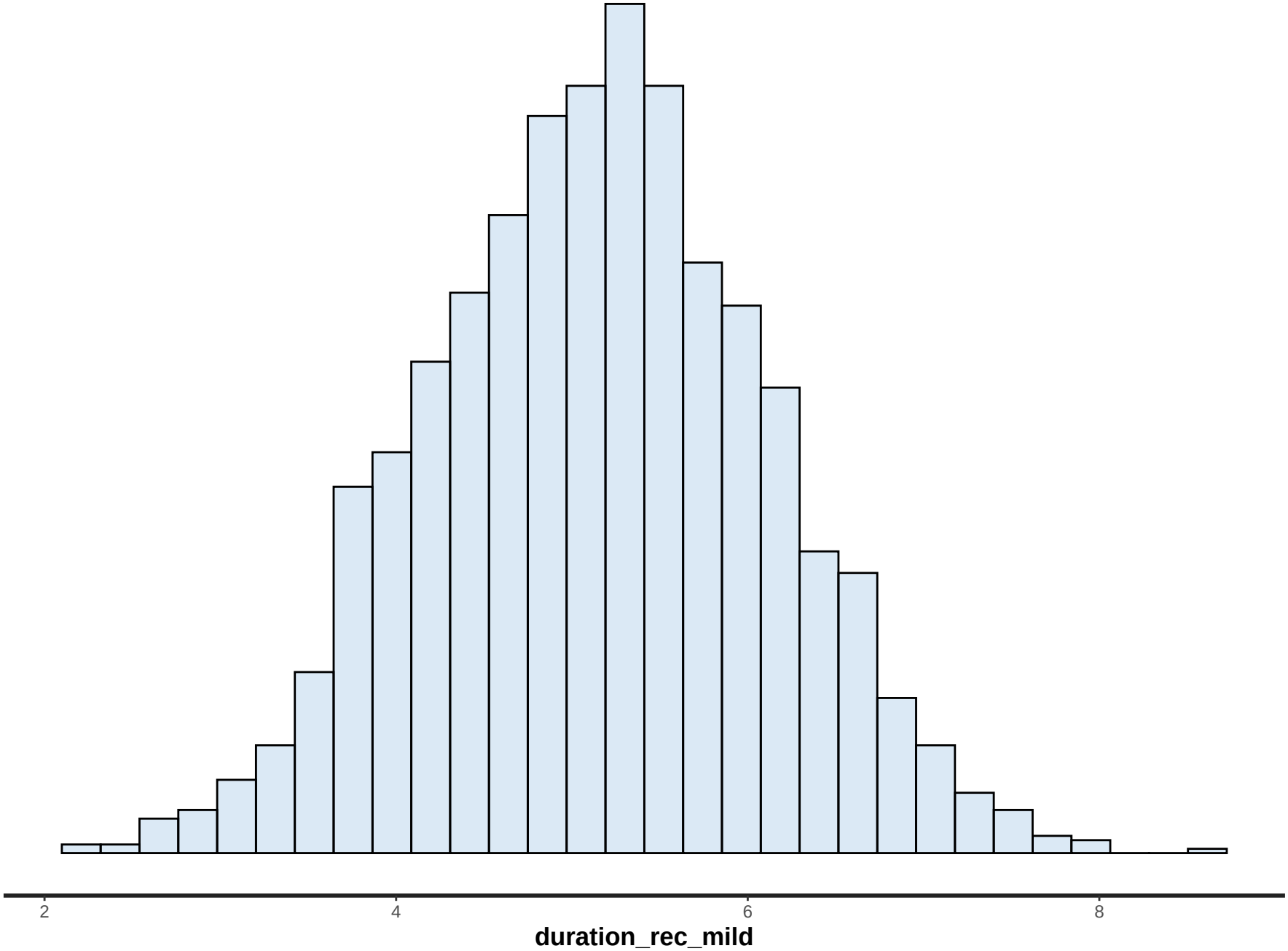
Rt as of 2020−11−29

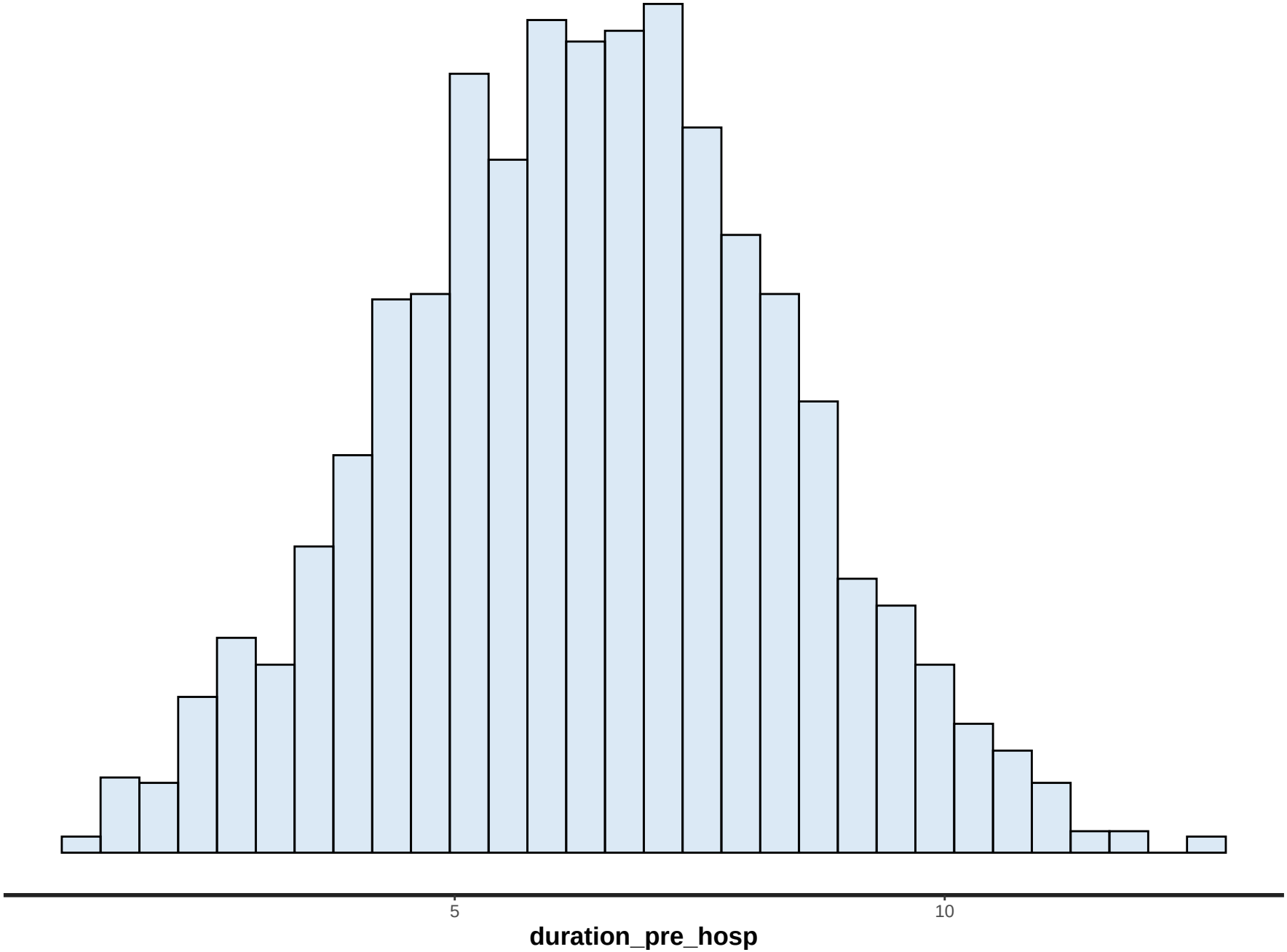
5%	10%	25%	50%	75%	90%	95%
1.01	1.06	1.15	1.25	1.35	1.46	1.53

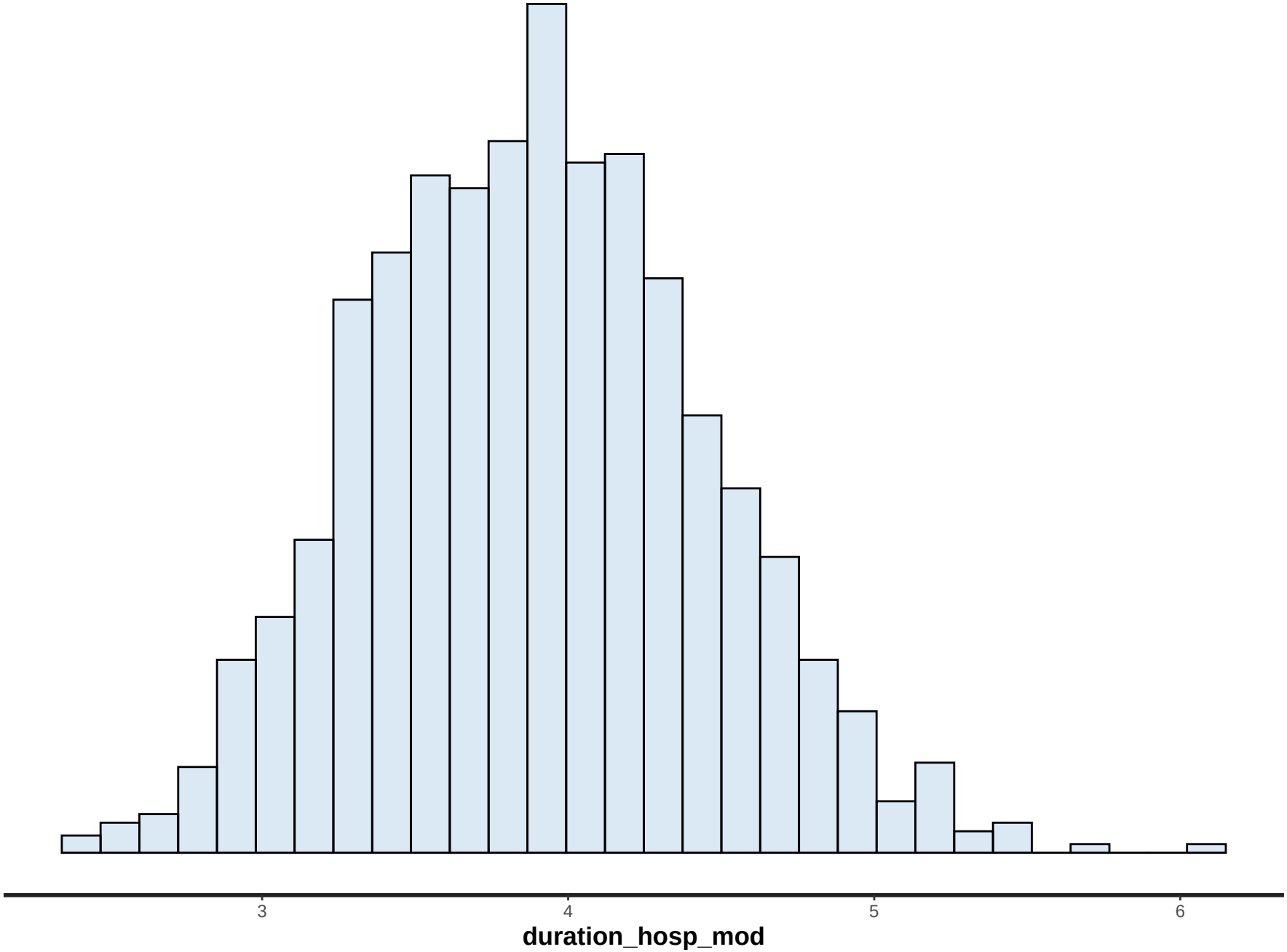


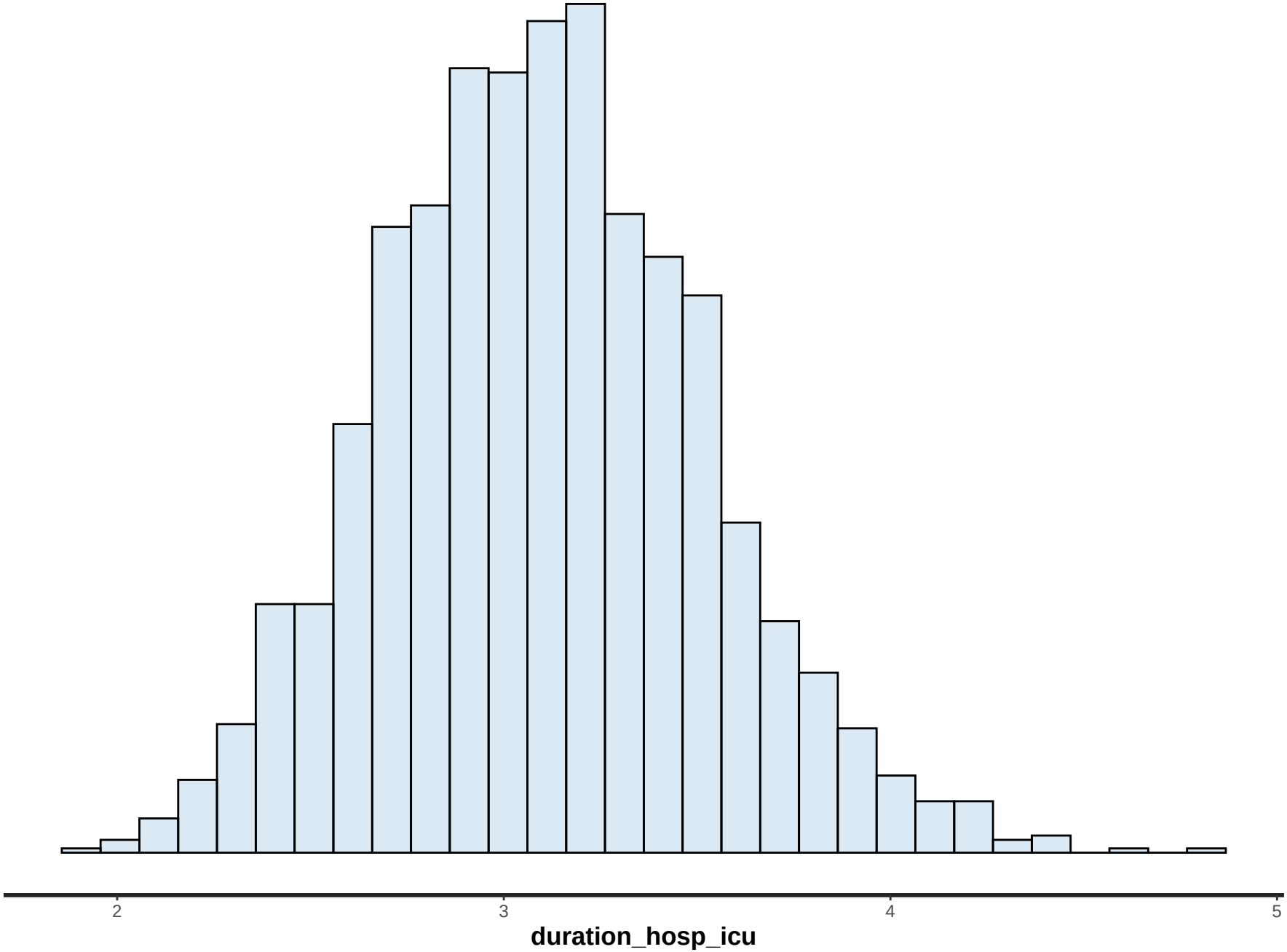

1
2
3
r0

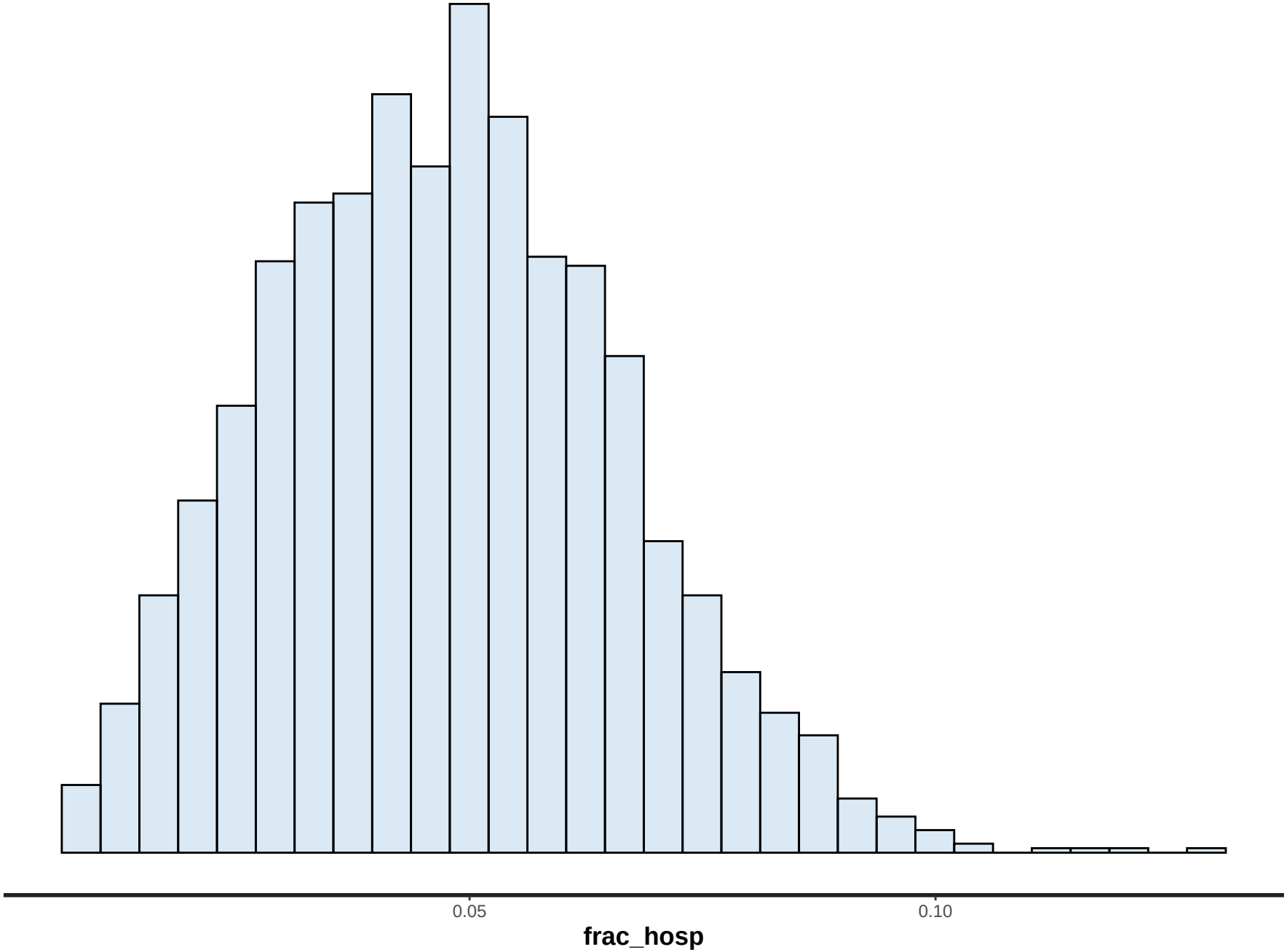

2
4
6
duration_latent

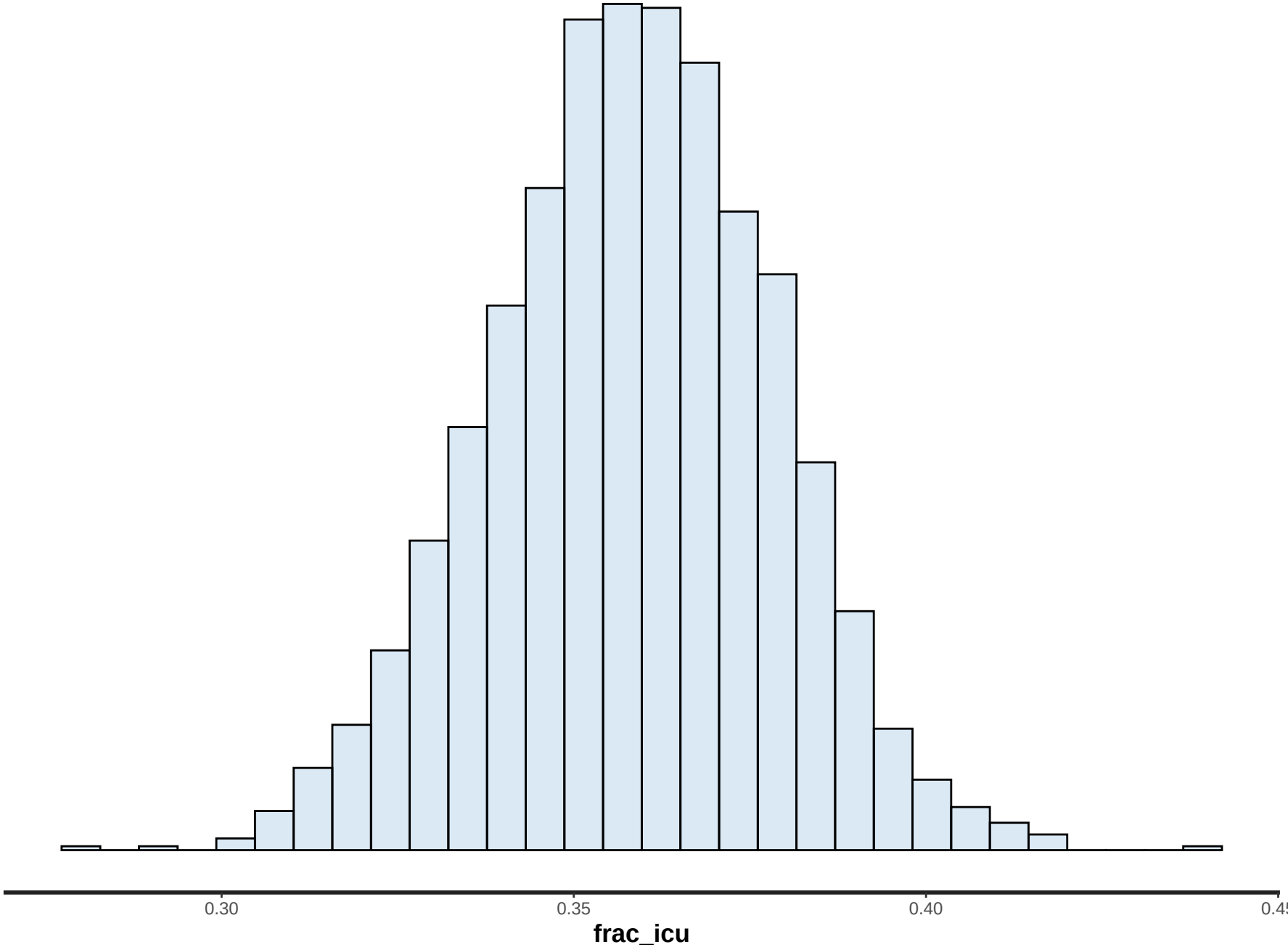

2
4
6
8
duration_rec_mild

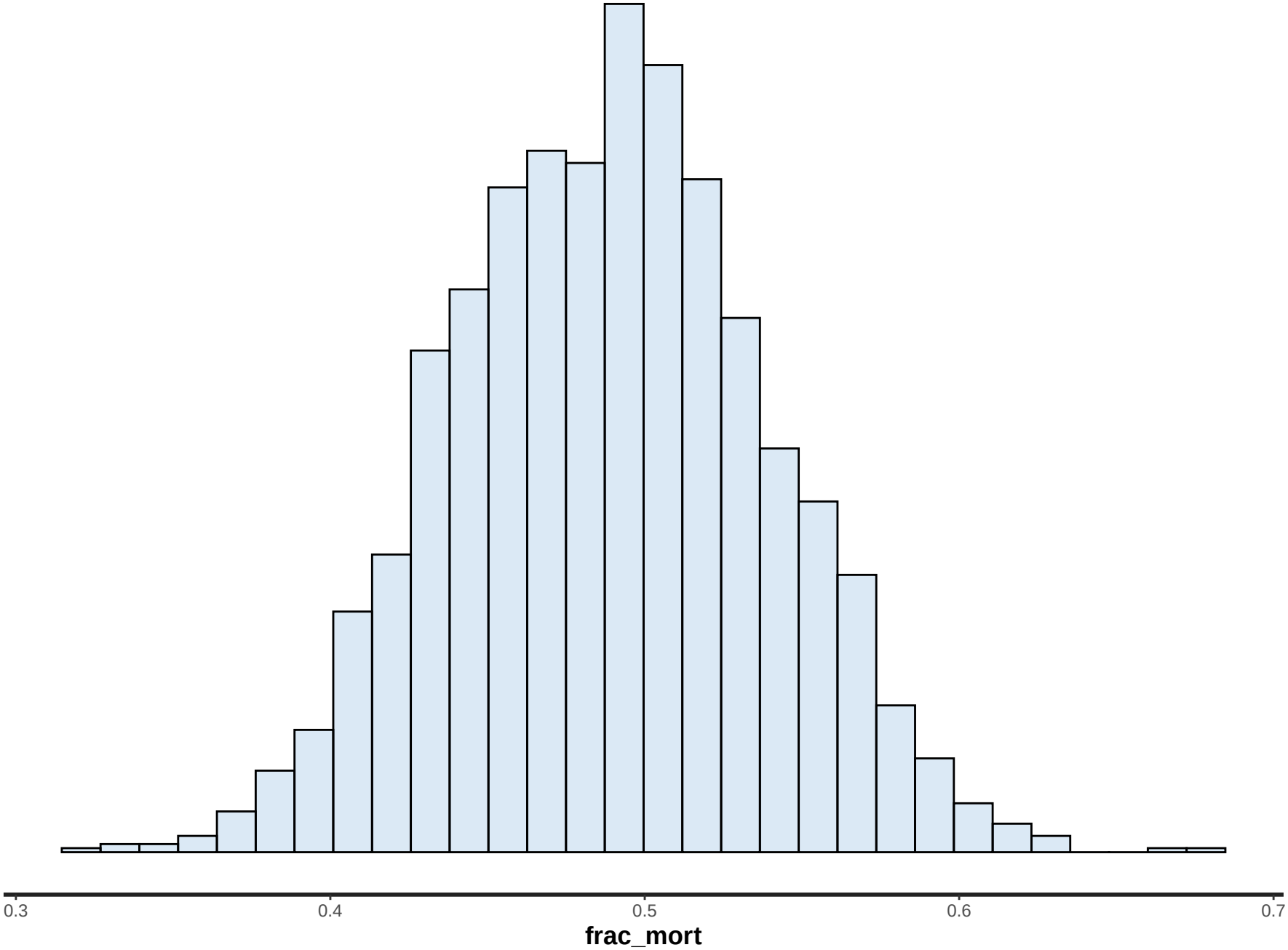

5
10
duration_pre_hosp

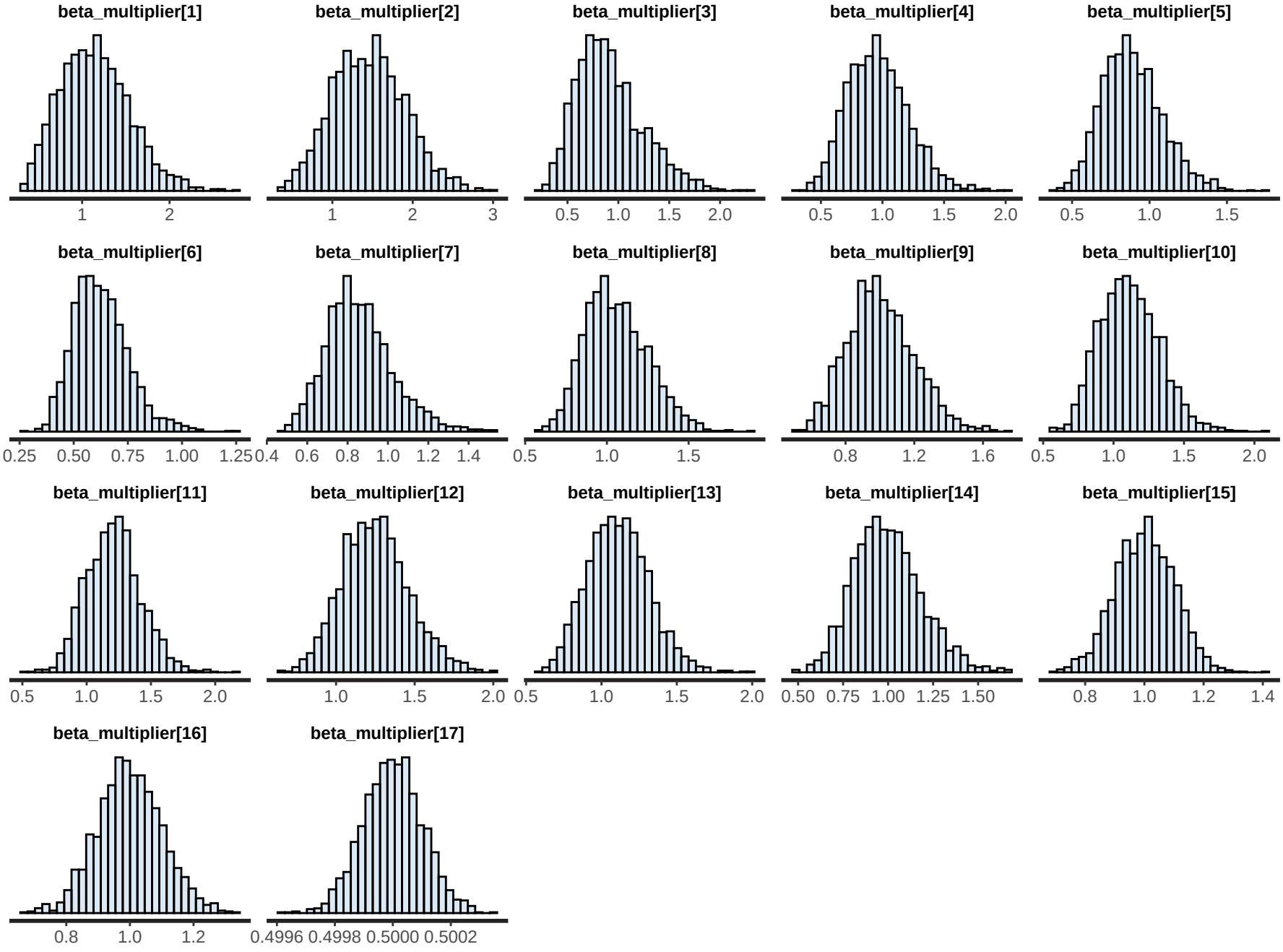

3
4
5
6
duration_hosp_mod

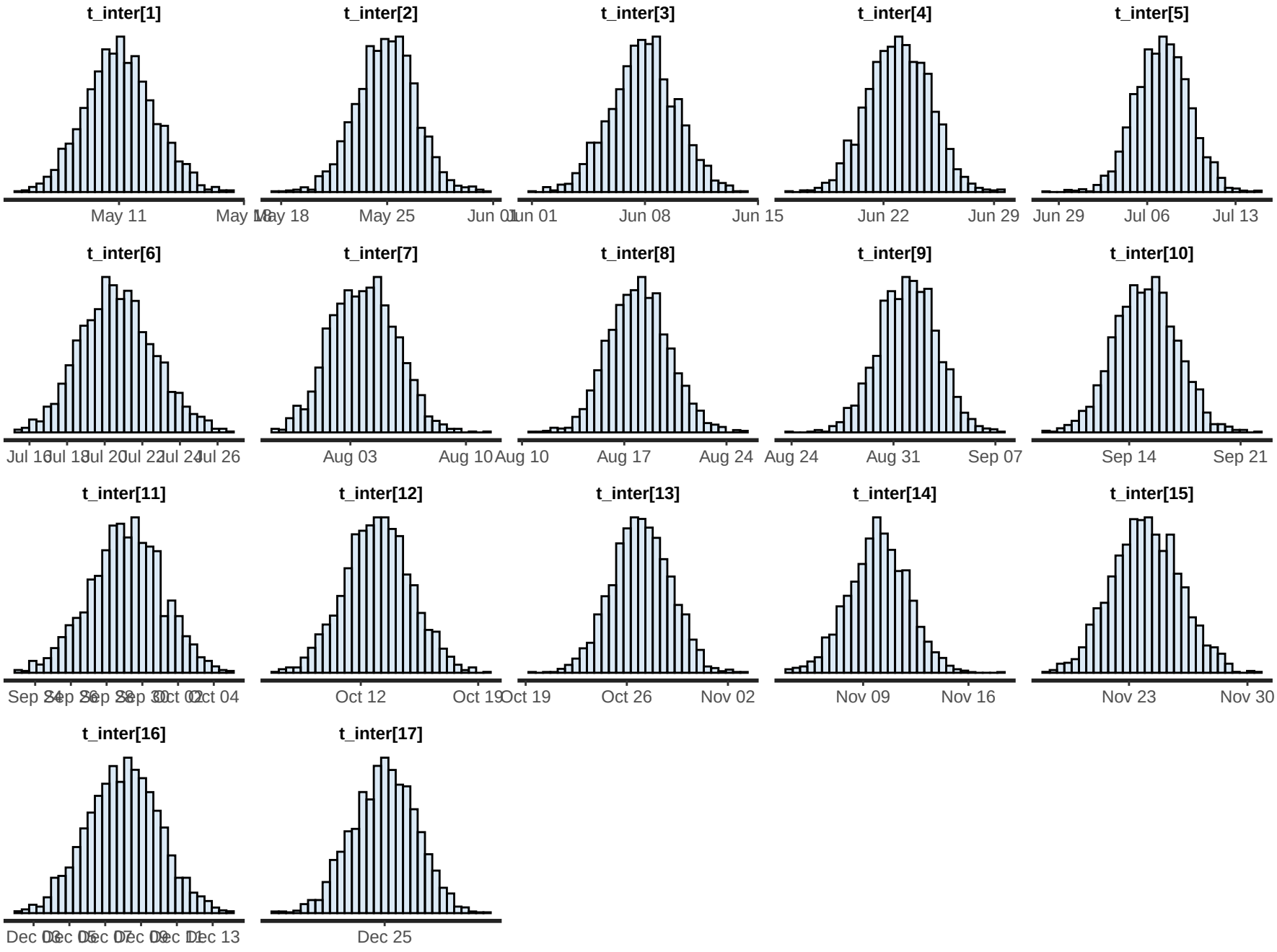

2
3
4
5
duration_hosp_icu

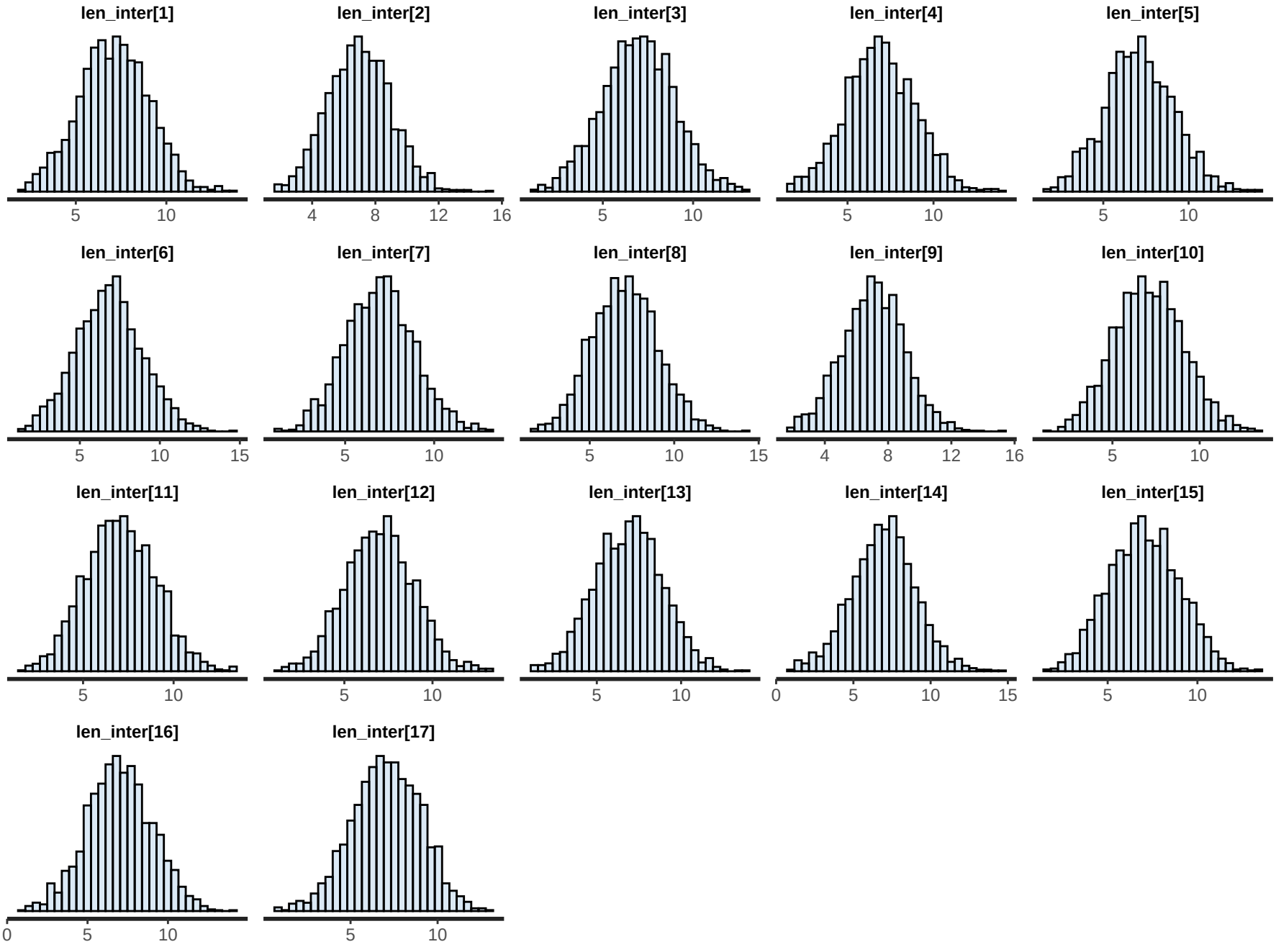

0.05
0.10
frac_hosp

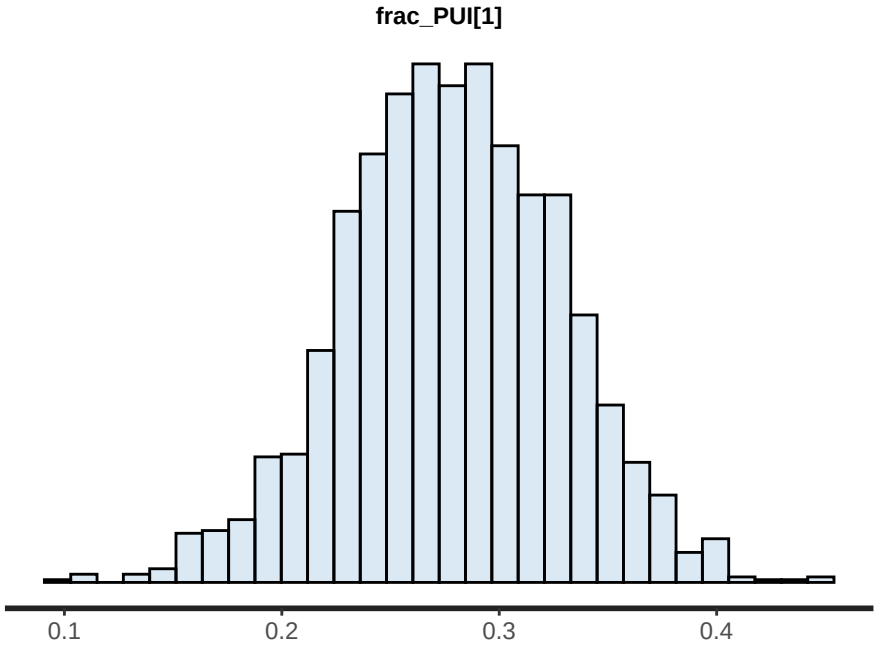

0.30
0.35
0.40
0.45
frac_icu

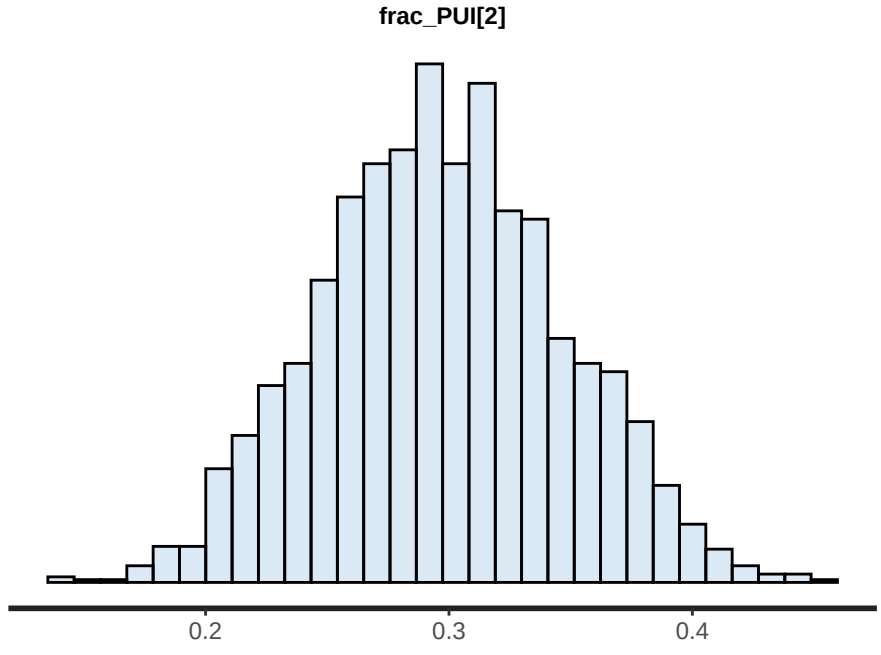

0.3
0.4
0.5
0.6
0.7
frac_mort

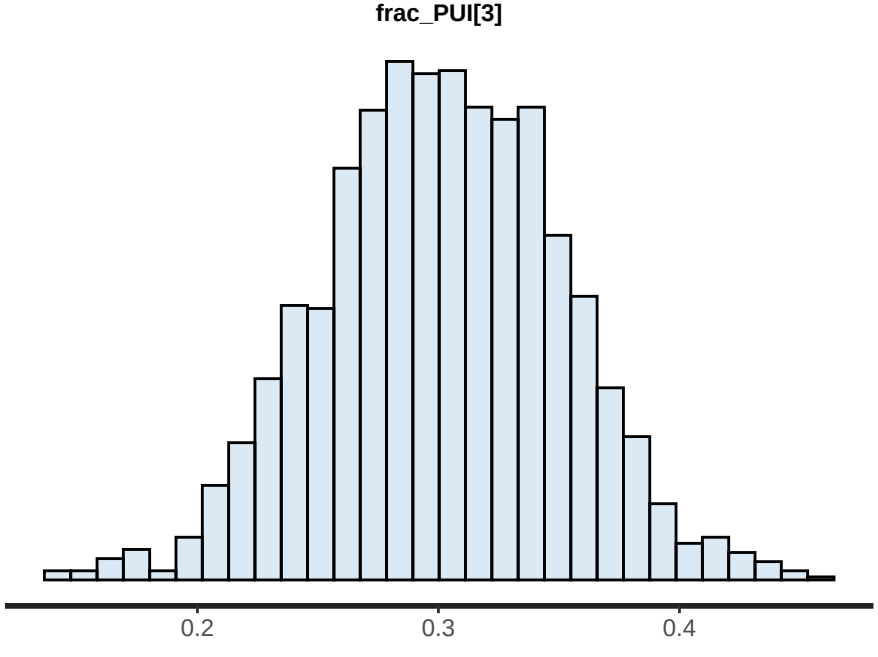

beta_multiplier[1]
1
2
beta_multiplier[2]
1
2
3
beta_multiplier[3]
0.5
1.0
1.5
2.0
beta_multiplier[4]
0.5
1.0
1.5
2.0
beta_multiplier[5]
0.5
1.0
1.5
beta_multiplier[6]
0.25
0.50
0.75
1.00
1.25
beta_multiplier[7]
0.4
0.6
0.8
1.0
1.2
1.4
beta_multiplier[8]
0.5
1.0
1.5
beta_multiplier[9]
0.8
1.2
1.6
beta_multiplier[10]
0.5
1.0
1.5
2.0
beta_multiplier[11]
0.5
1.0
1.5
2.0
beta_multiplier[12]
1.0
1.5
2.0
beta_multiplier[13]
0.5
1.0
1.5
2.0
beta_multiplier[14]
0.50
0.75
1.00
1.25
1.50
beta_multiplier[15]
0.8
1.0
1.2
1.4
beta_multiplier[16]
0.8
1.0
1.2
beta_multiplier[17]
0.4996
0.4998
0.5000
0.5002

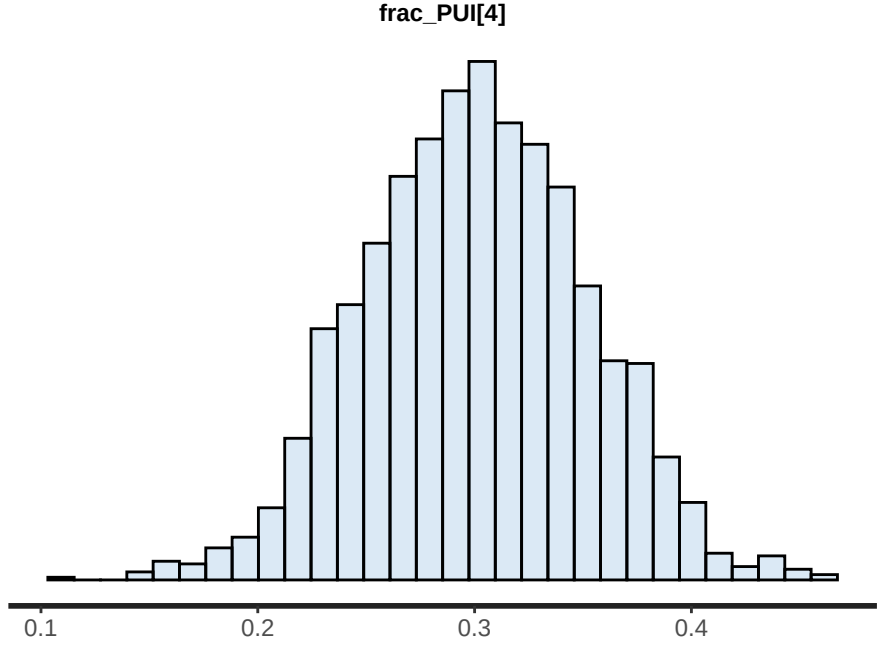

t_inter[1]
May 11
t_inter[2]
May 18
May 25
Jun 01
t_inter[3]
Jun 01
Jun 08
Jun 15
t_inter[4]
Jun 22
Jun 29
t_inter[5]
Jun 29
Jul 06
Jul 13
t_inter[6]
Jul 16
Jul 18
Jul 20
Jul 22
Jul 24
Jul 26
t_inter[7]
Aug 03
Aug 10
t_inter[8]
Aug 10
Aug 17
Aug 24
t_inter[9]
Aug 24
Aug 31
Sep 07
t_inter[10]
Sep 14
Sep 21
t_inter[11]
Sep 24
Sep 26
Sep 28
Sep 30
Oct 02
Oct 04
t_inter[12]
Oct 12
Oct 19
t_inter[13]
Oct 19
Oct 26
Nov 02
t_inter[14]
Nov 09
Nov 16
t_inter[15]
Nov 23
Nov 30
t_inter[16]
Dec 03
Dec 05
Dec 07
Dec 09
Dec 11
Dec 13
t_inter[17]
Dec 25

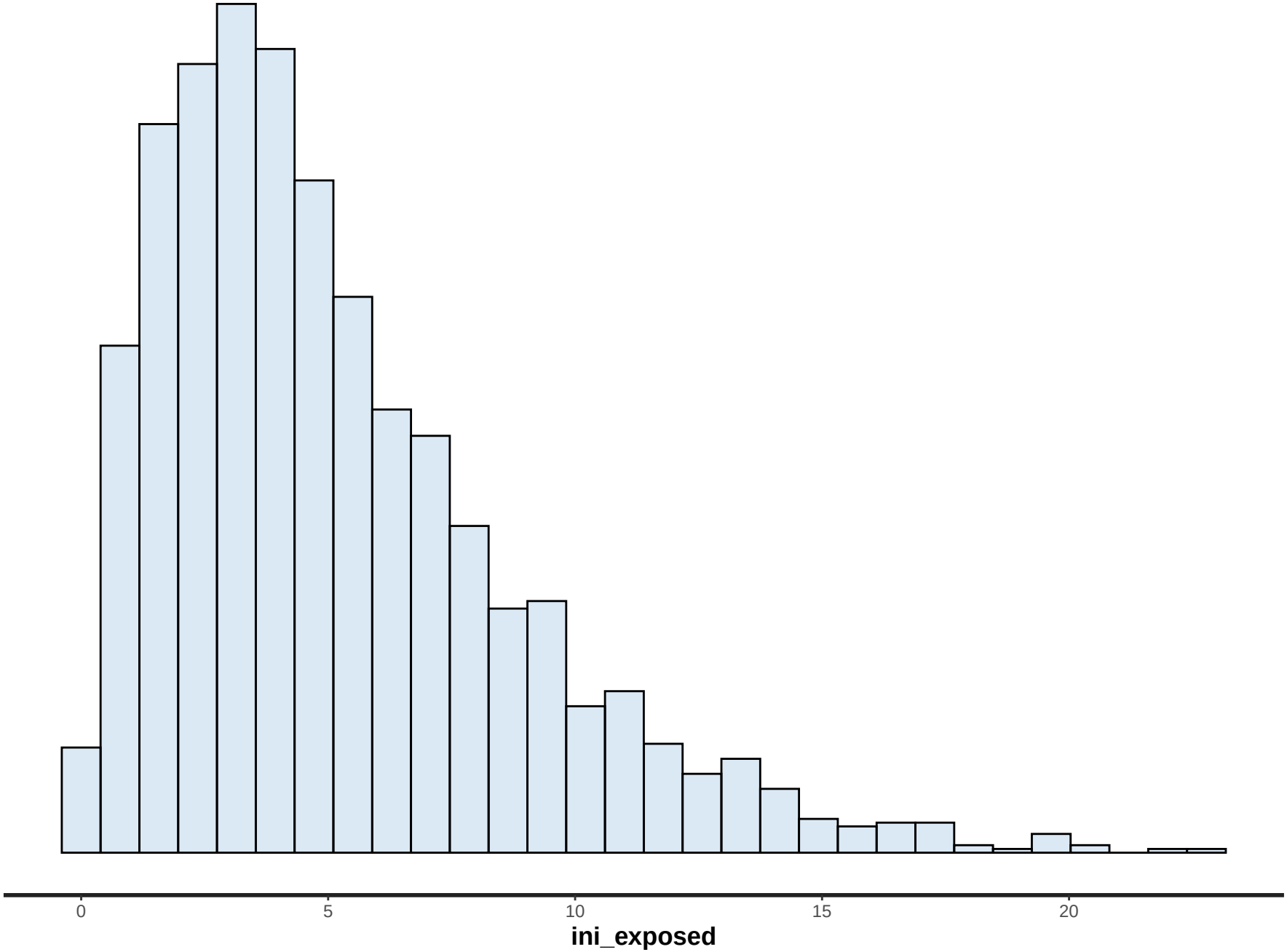

len_inter[1]
5
10
len_inter[2]
4
8
12
16
len_inter[3]
5
10
len_inter[4]
5
10
len_inter[5]
5
10
len_inter[6]
5
10
15
len_inter[7]
5
10
len_inter[8]
5
10
15
len_inter[9]
4
8
12
16
len_inter[10]
5
10
len_inter[11]
5
10
len_inter[12]
5
10
len_inter[13]
5
10
len_inter[14]
0
5
10
15
len_inter[15]
5
10
len_inter[16]
0
5
10
len_inter[17]
5
10

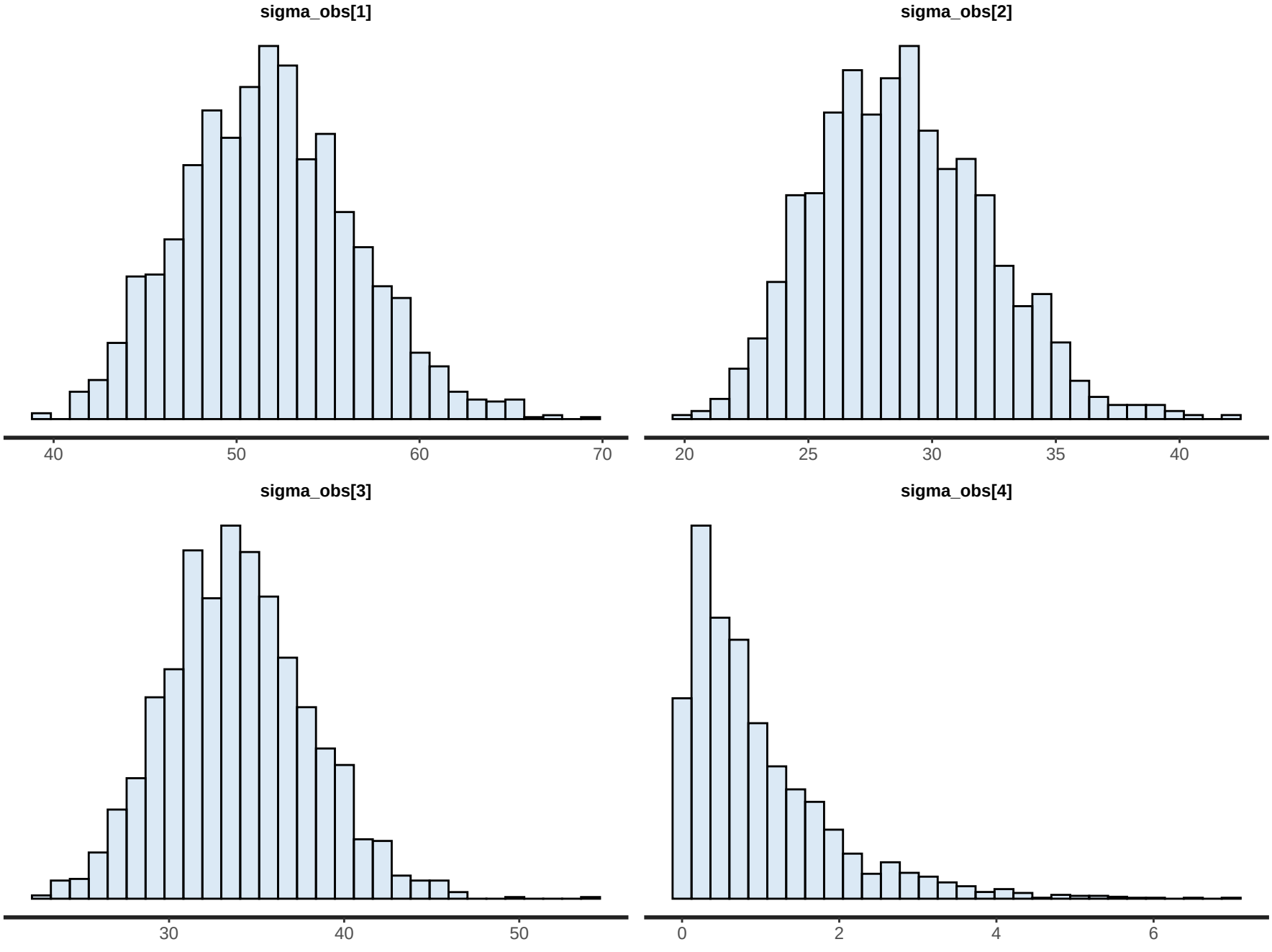

frac_PUI[1]
0.1
0.2
0.3
0.4


frac_PUI[2]
0.2
0.3
0.4


frac_PUI[3]
0.2
0.3
0.4


frac_PUI[4]
0.1
0.2
0.3
0.4


0
5
10
15
20
ini_exposed


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