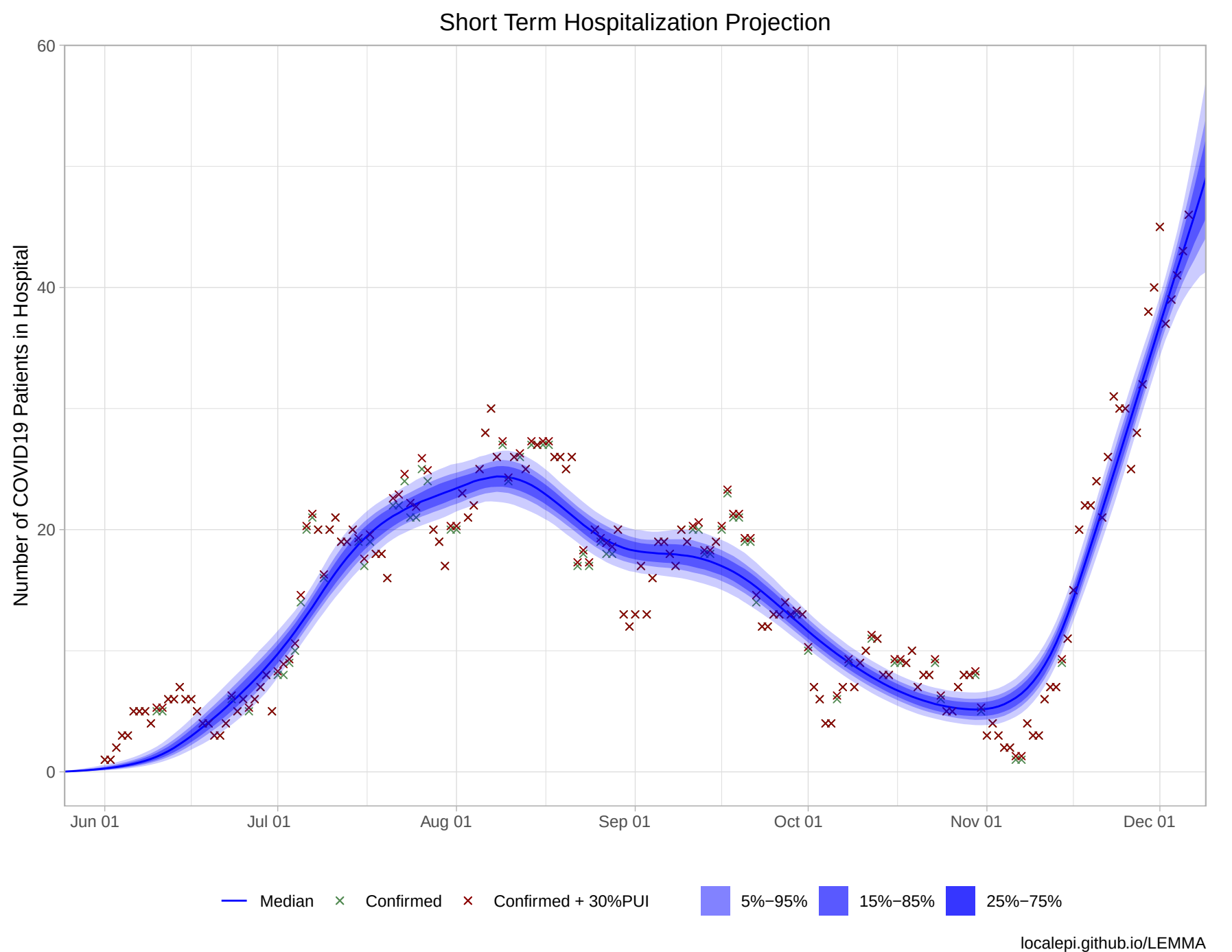
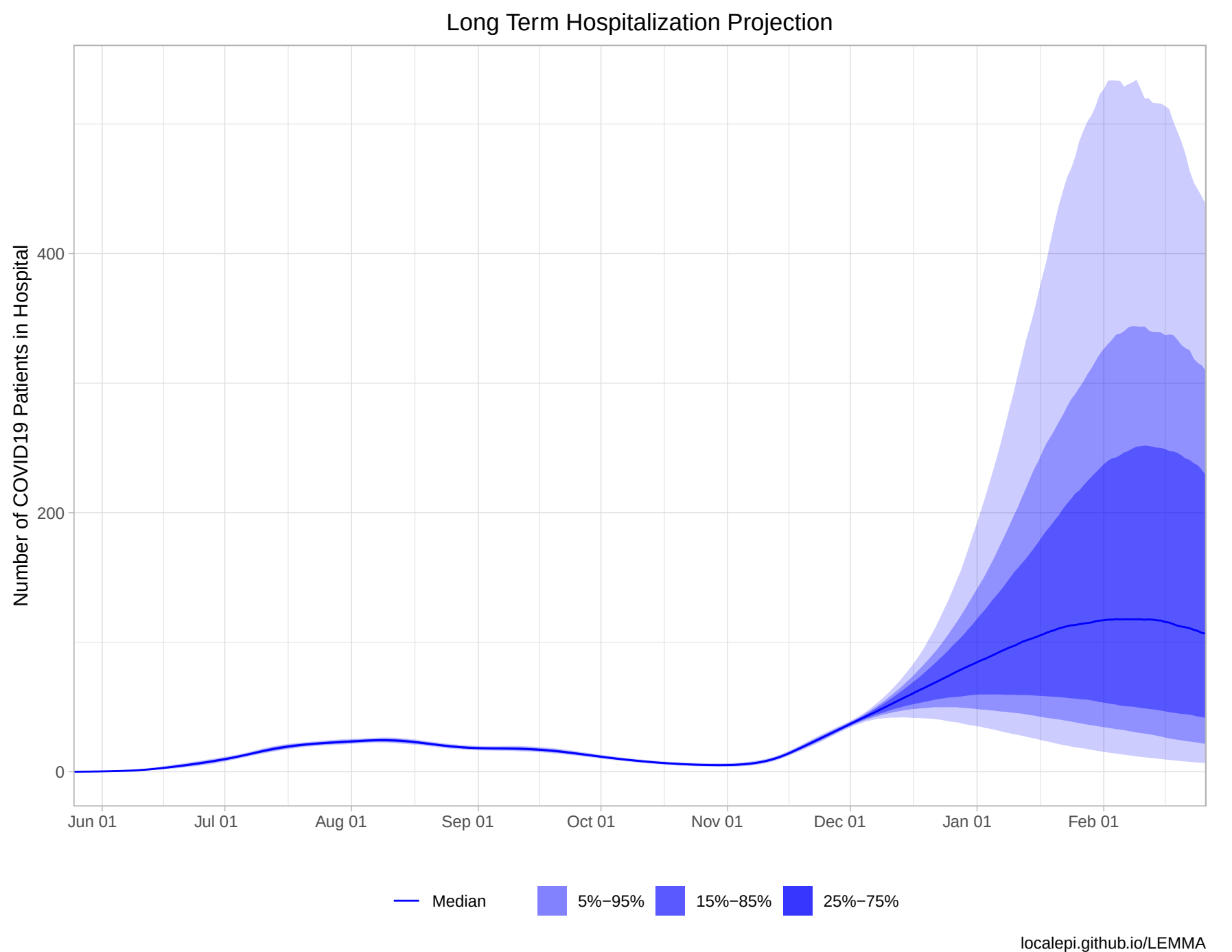
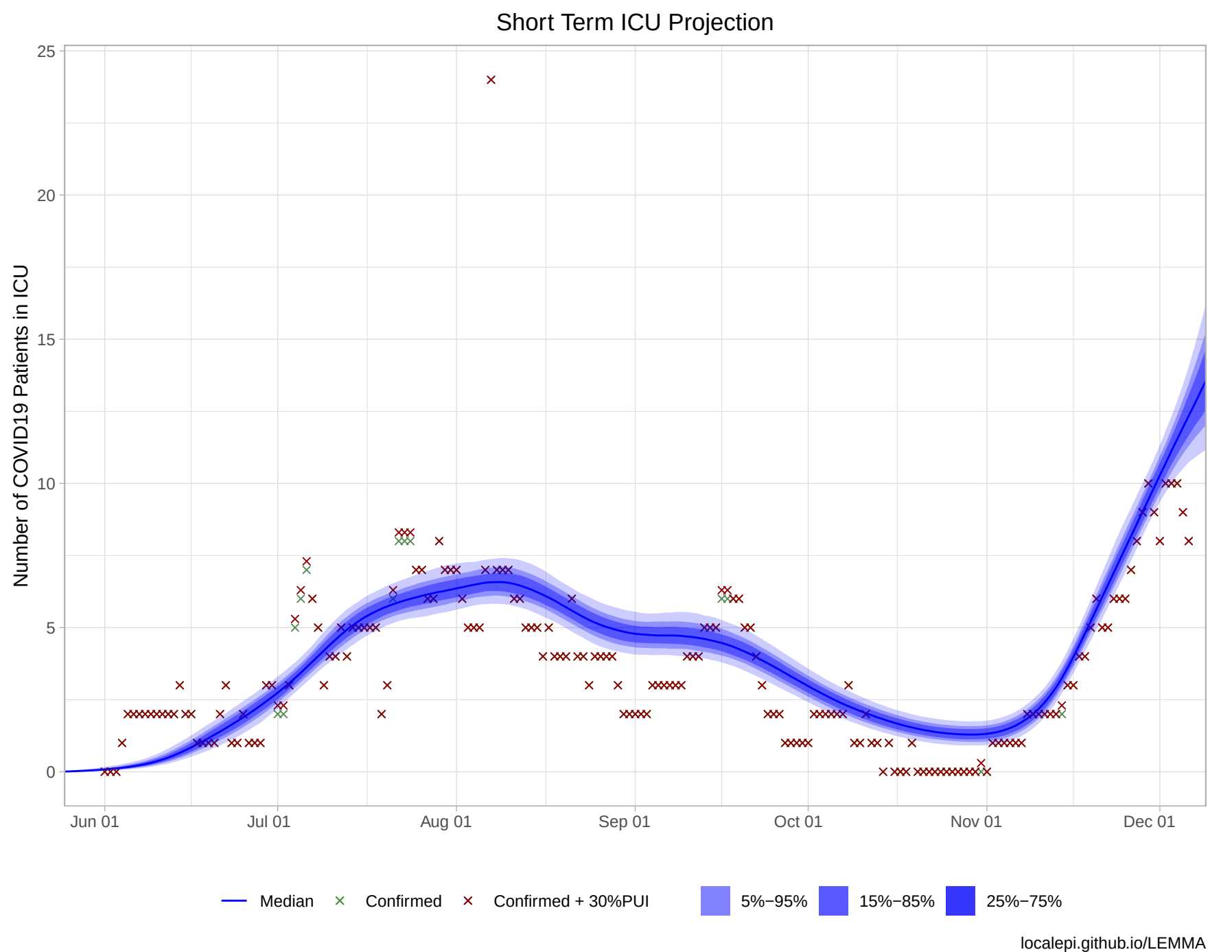
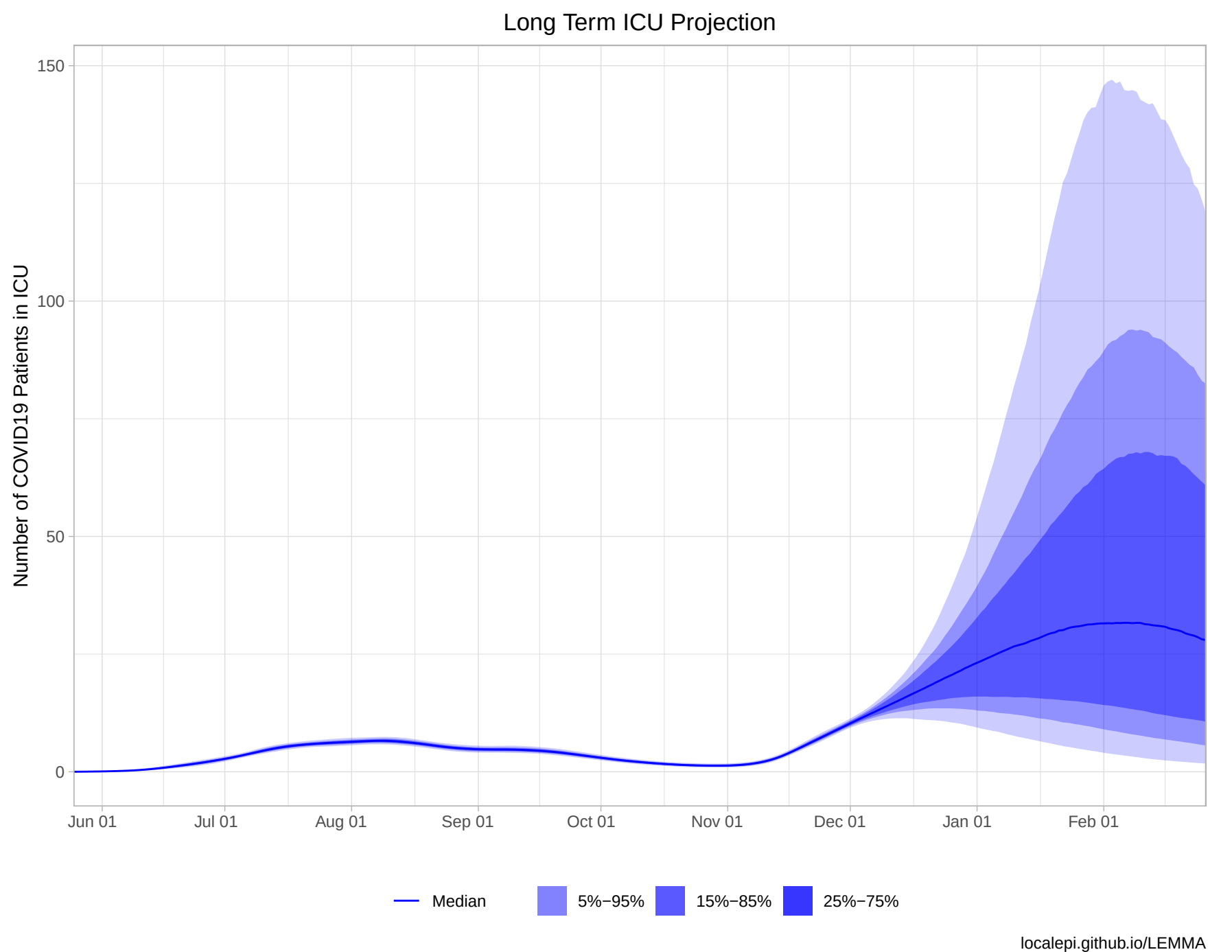
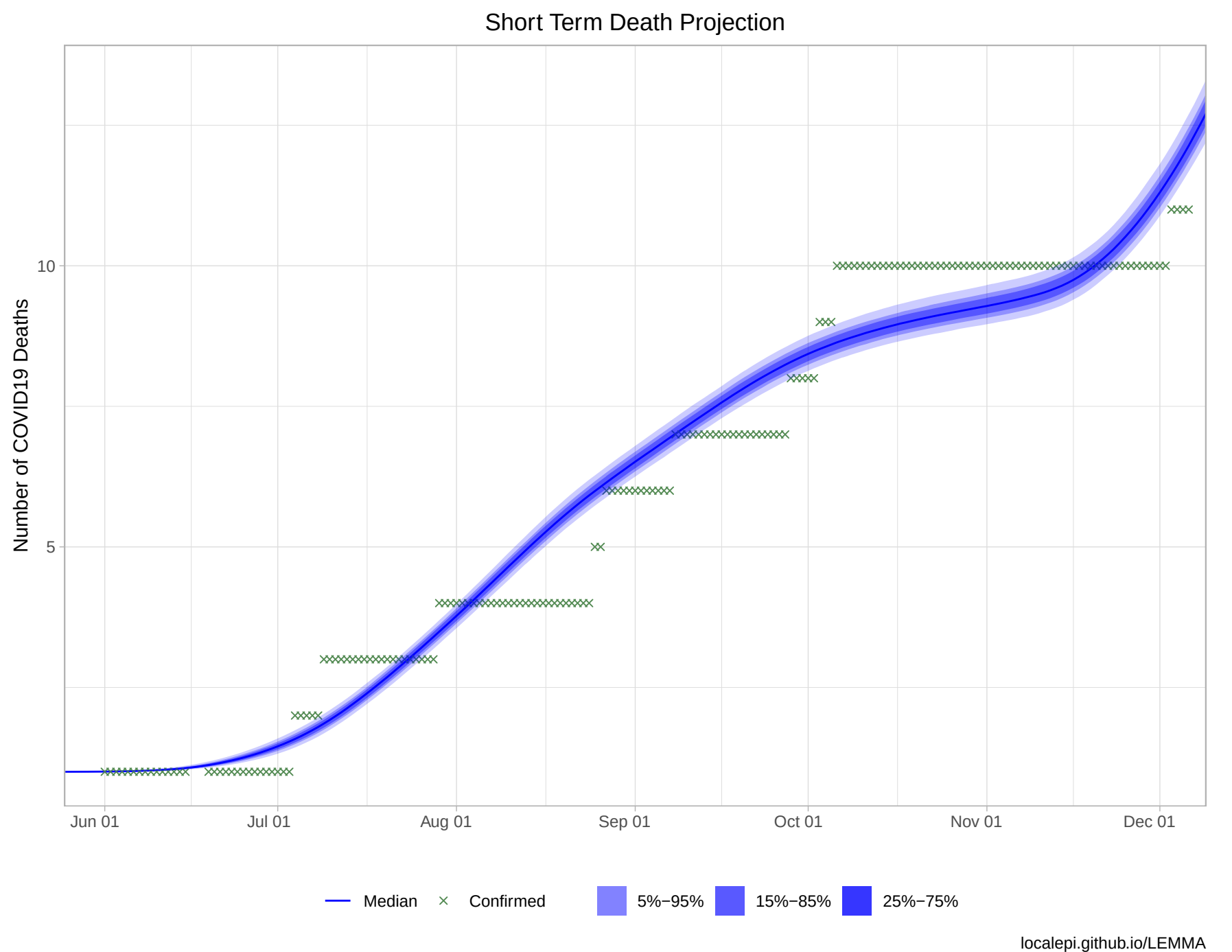
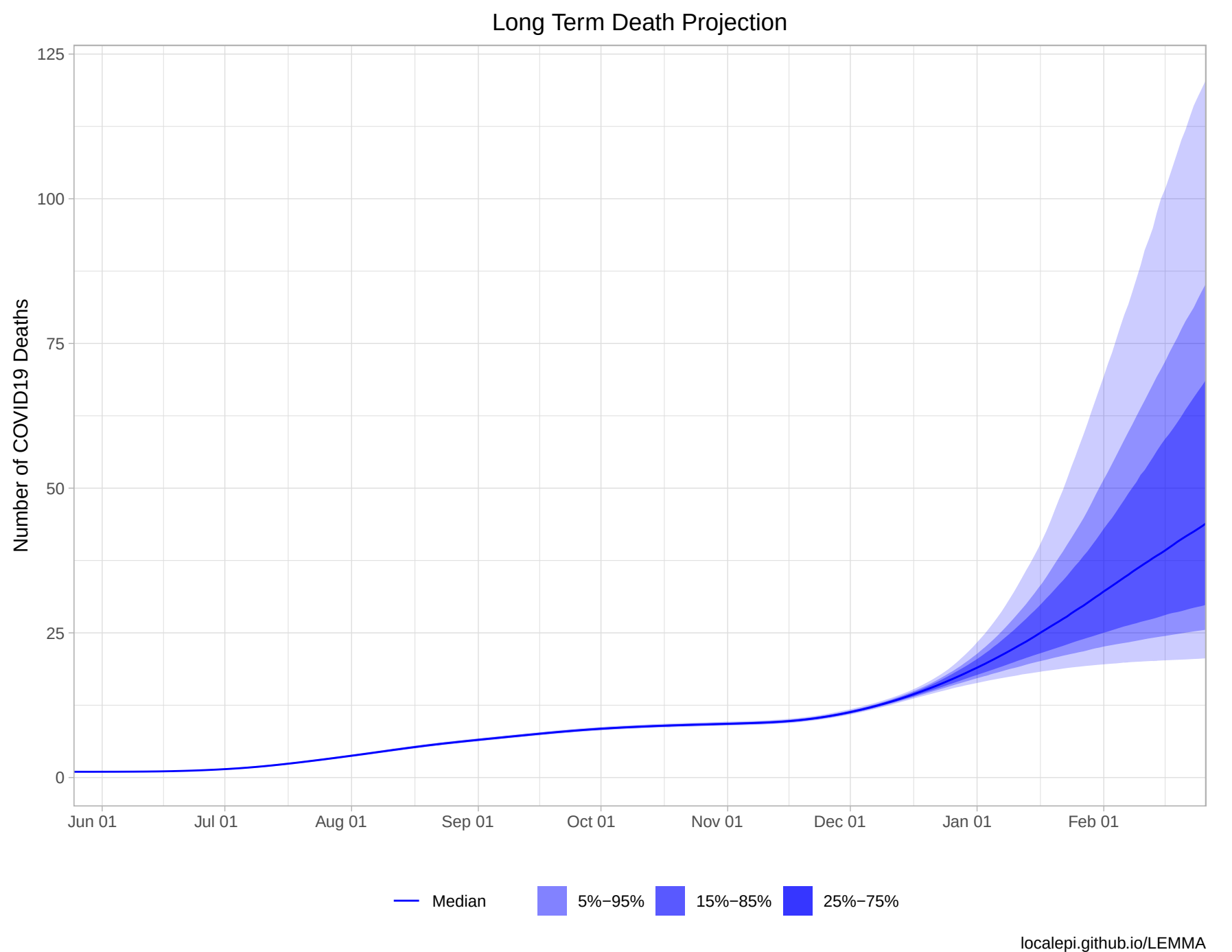

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
60
40
20
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

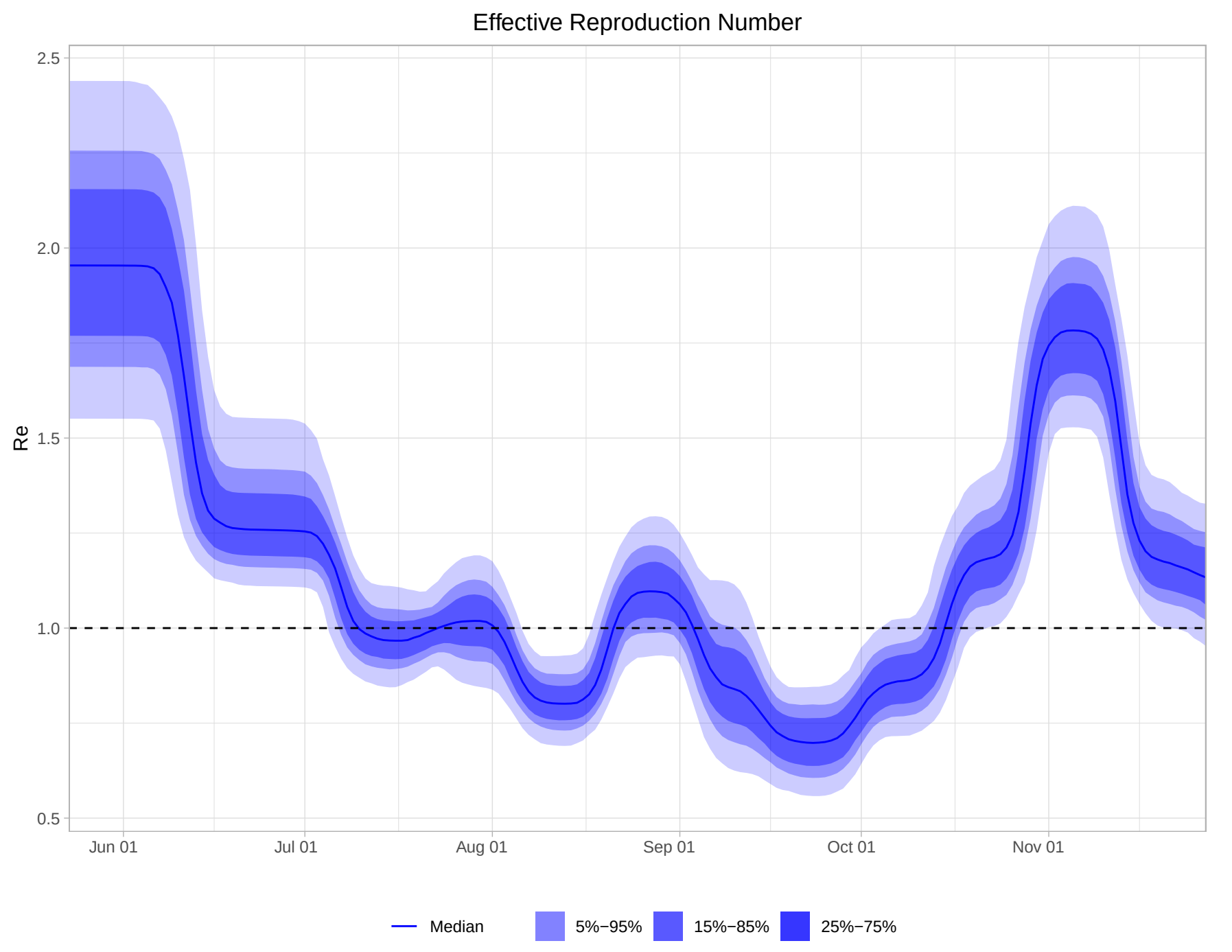

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
400
200
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
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
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

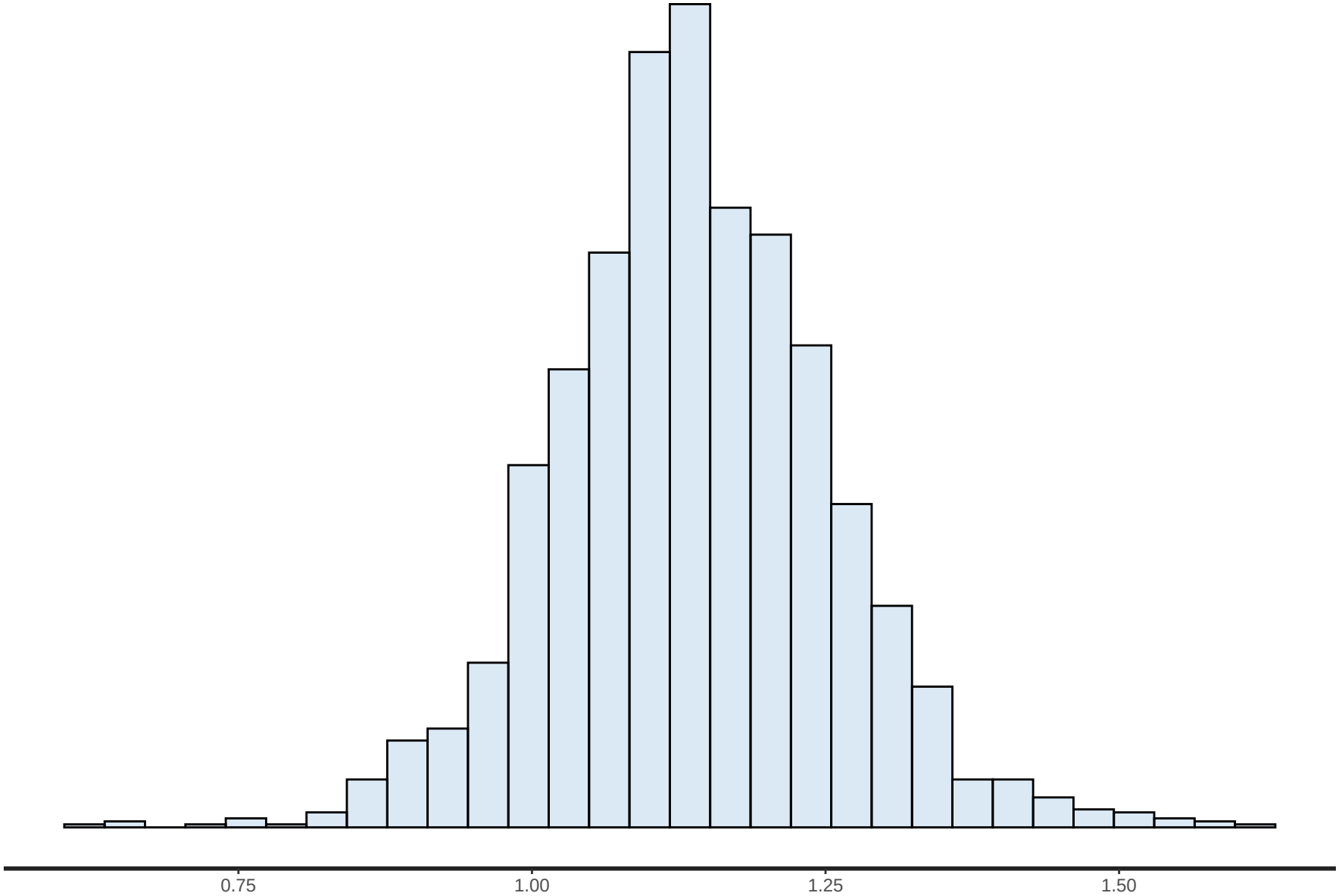

Short Term Death Projection
Number of COVID19 Deaths
10
5
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

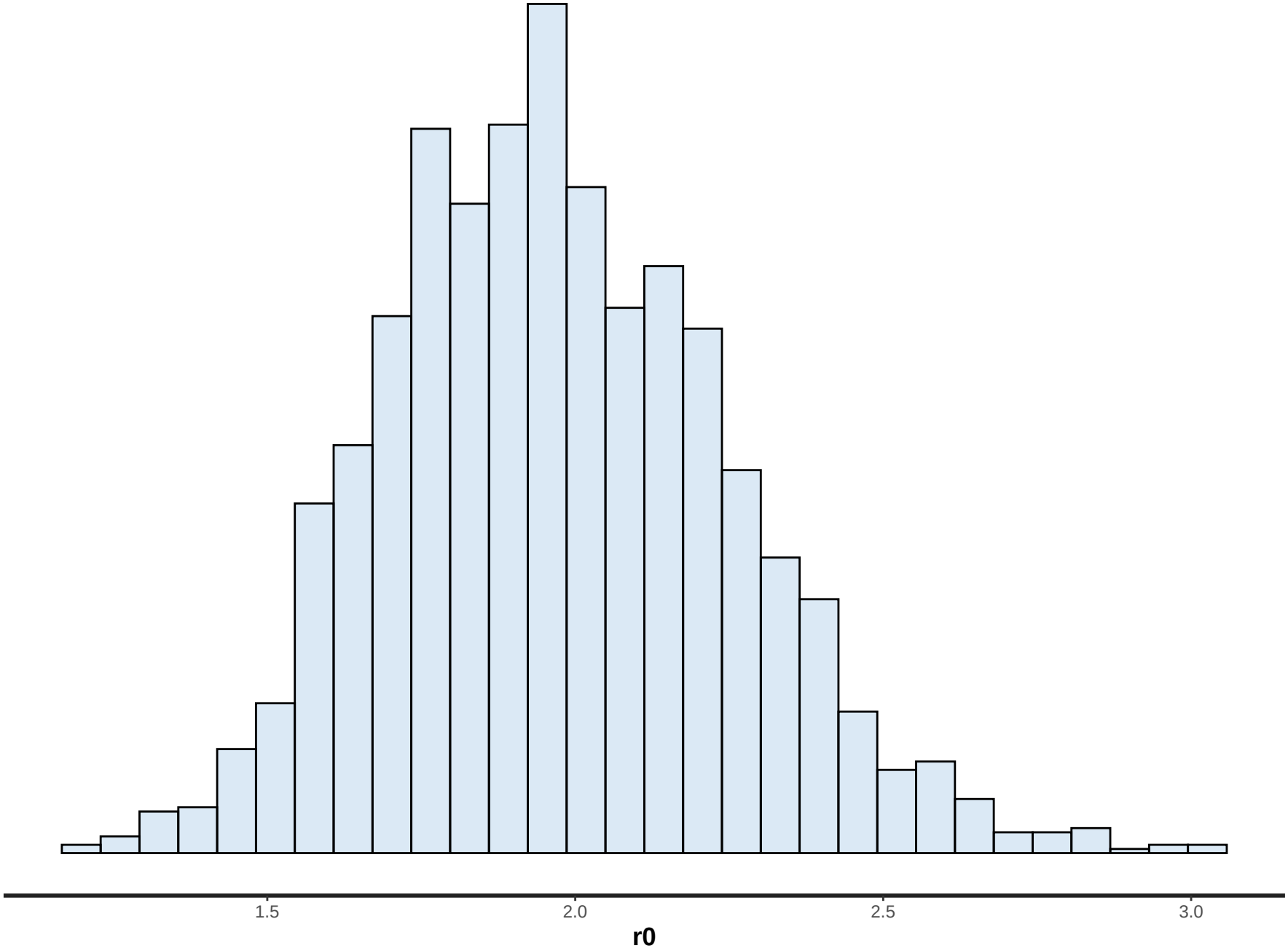

Long Term Death Projection
Number of COVID19 Deaths
125
100
75
50
25
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

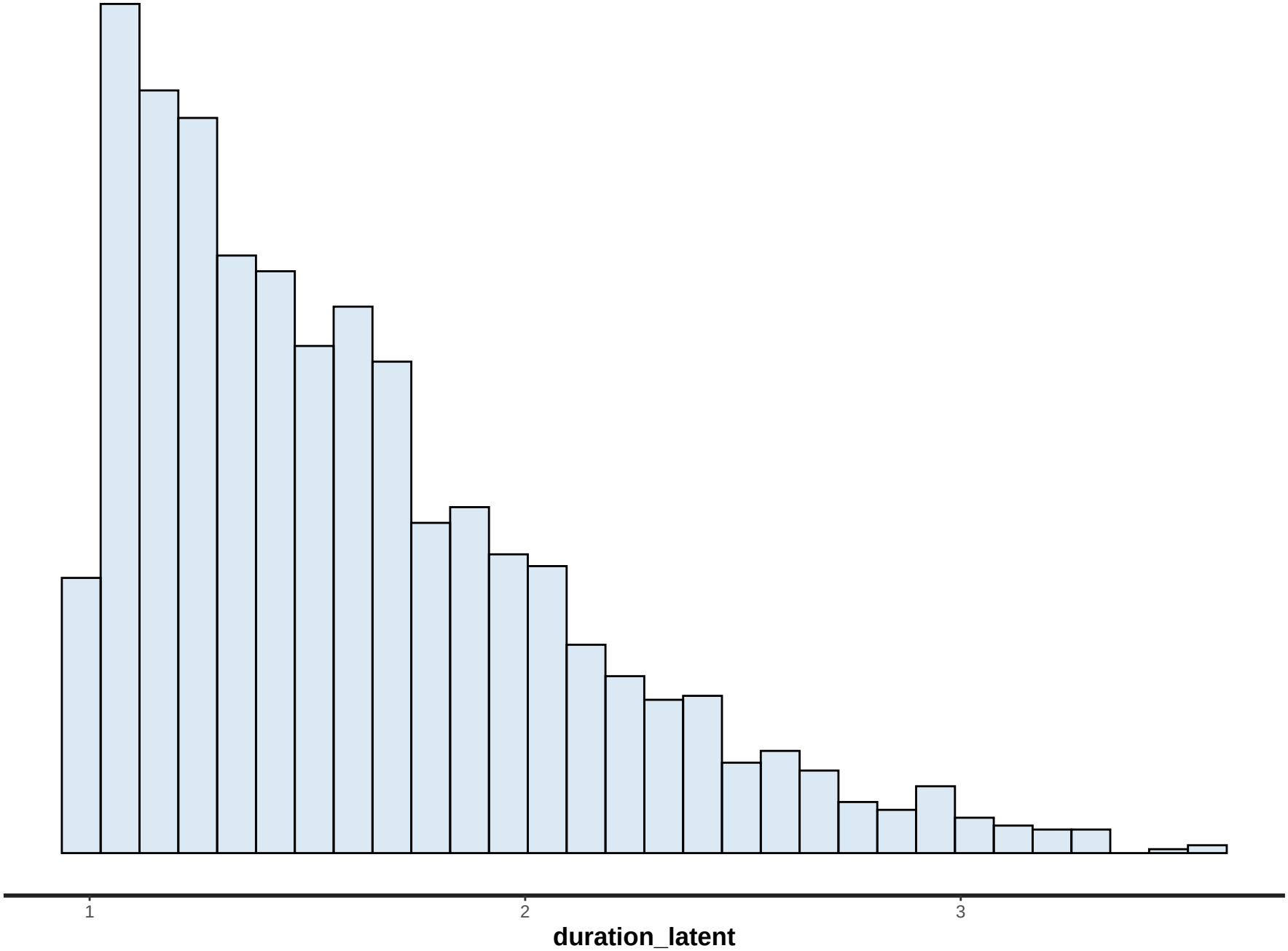

Effective Reproduction Number
Re
2.5
2.0
1.5
1.0
0.5
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
5%−95%
15%−85%
25%−75%

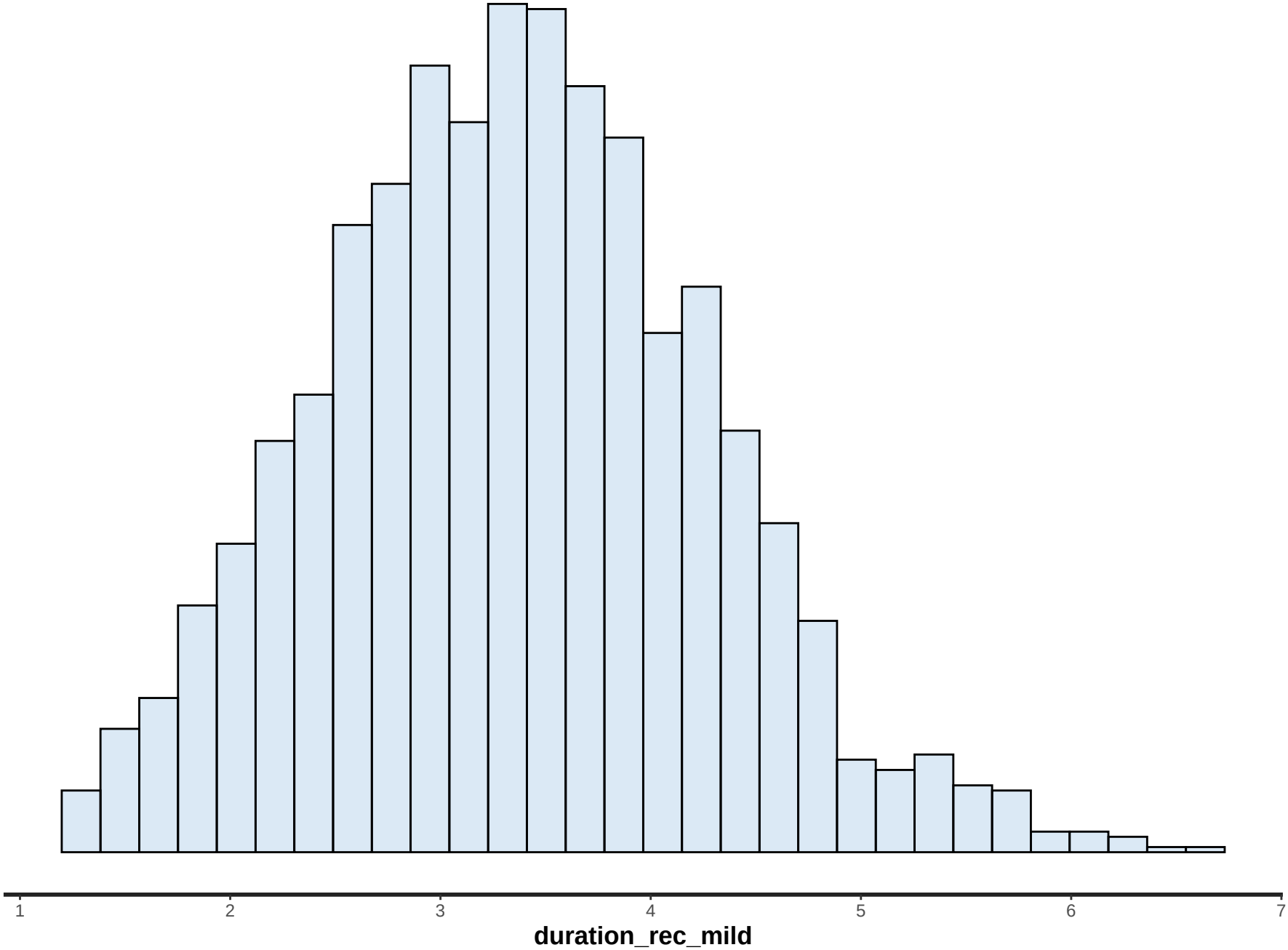
Rt as of 2020−11−27

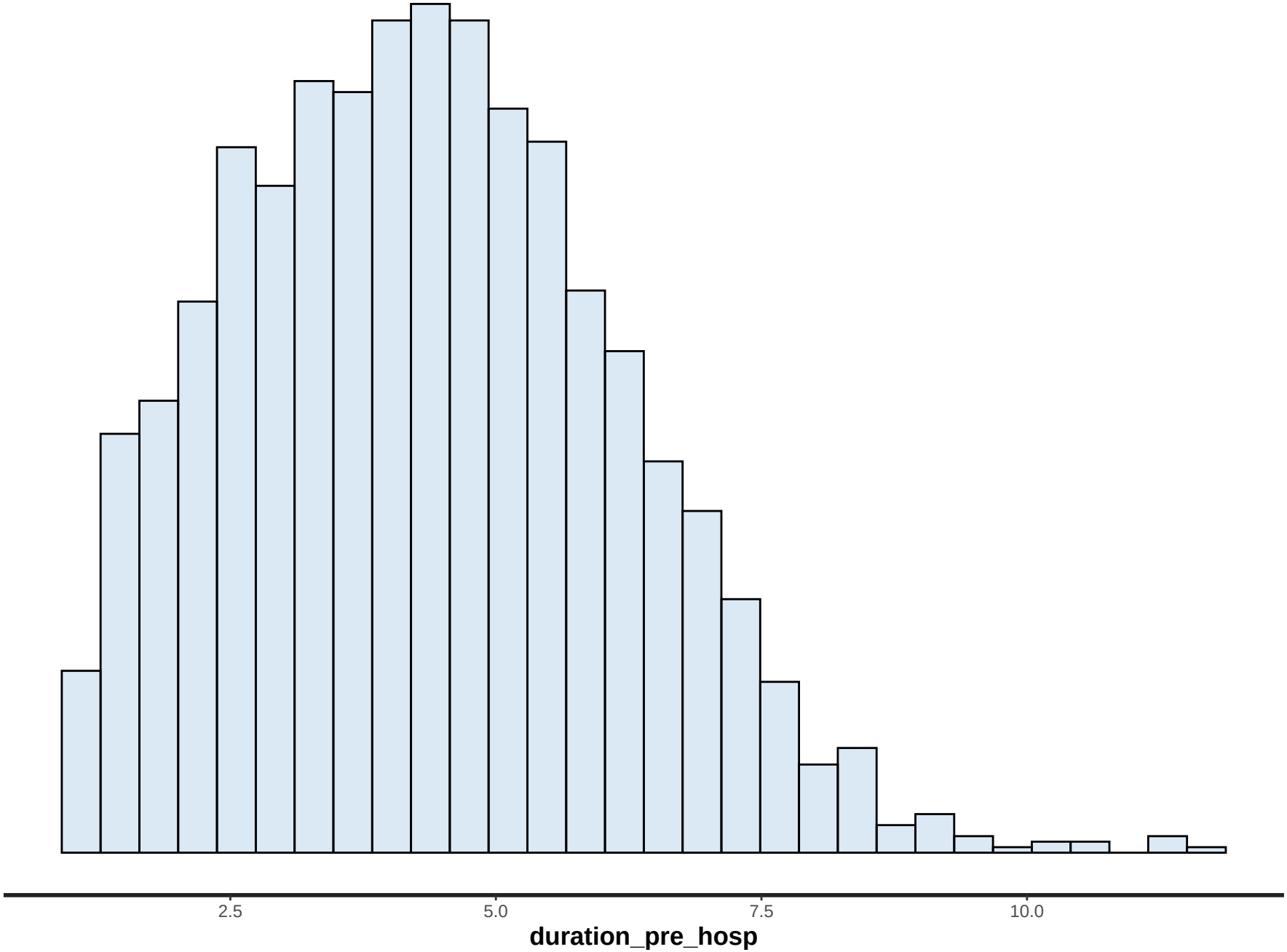
5%	10%	25%	50%	75%	90%	95%
0.95	1.00	1.06	1.13	1.21	1.28	1.33

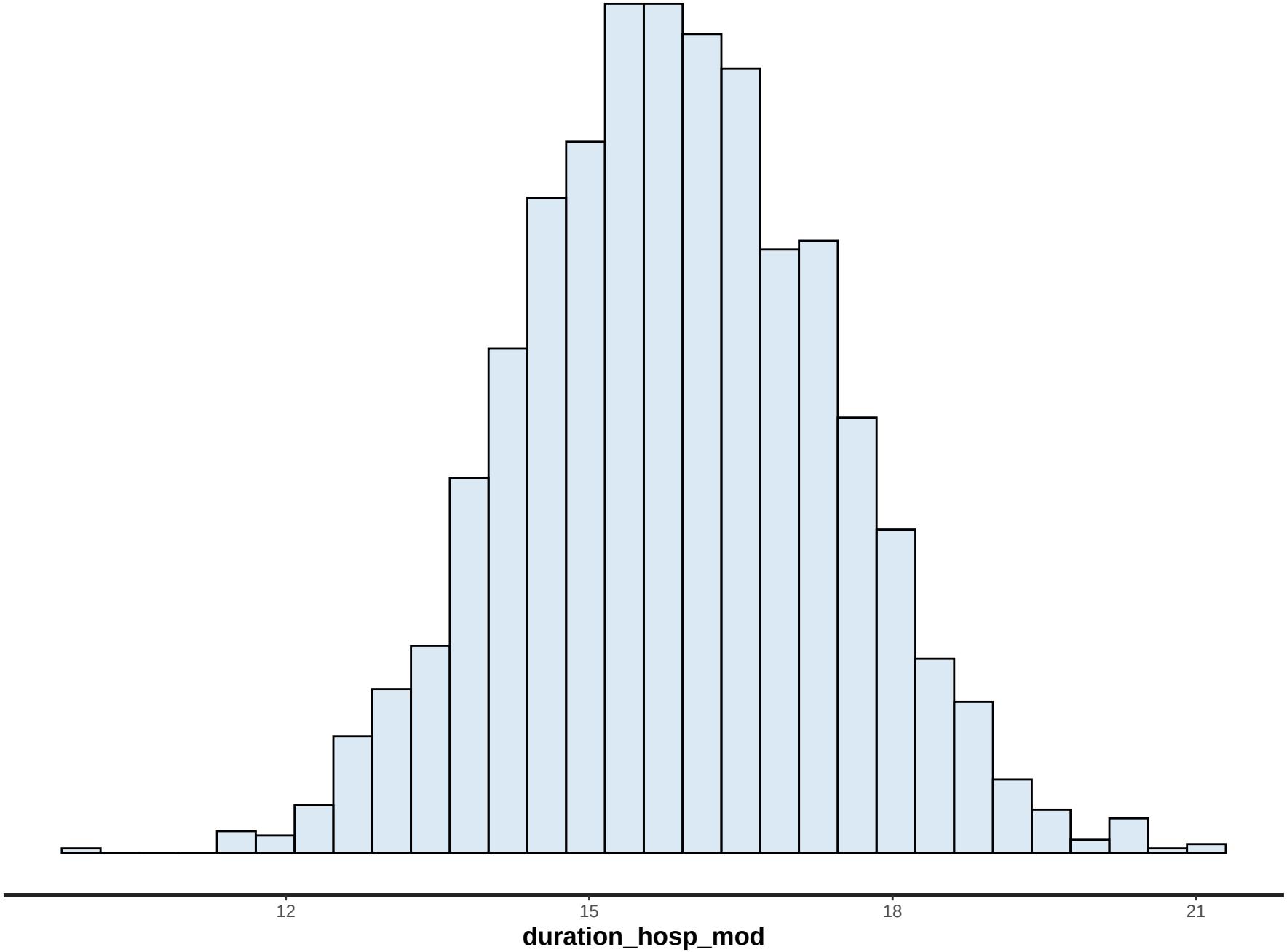


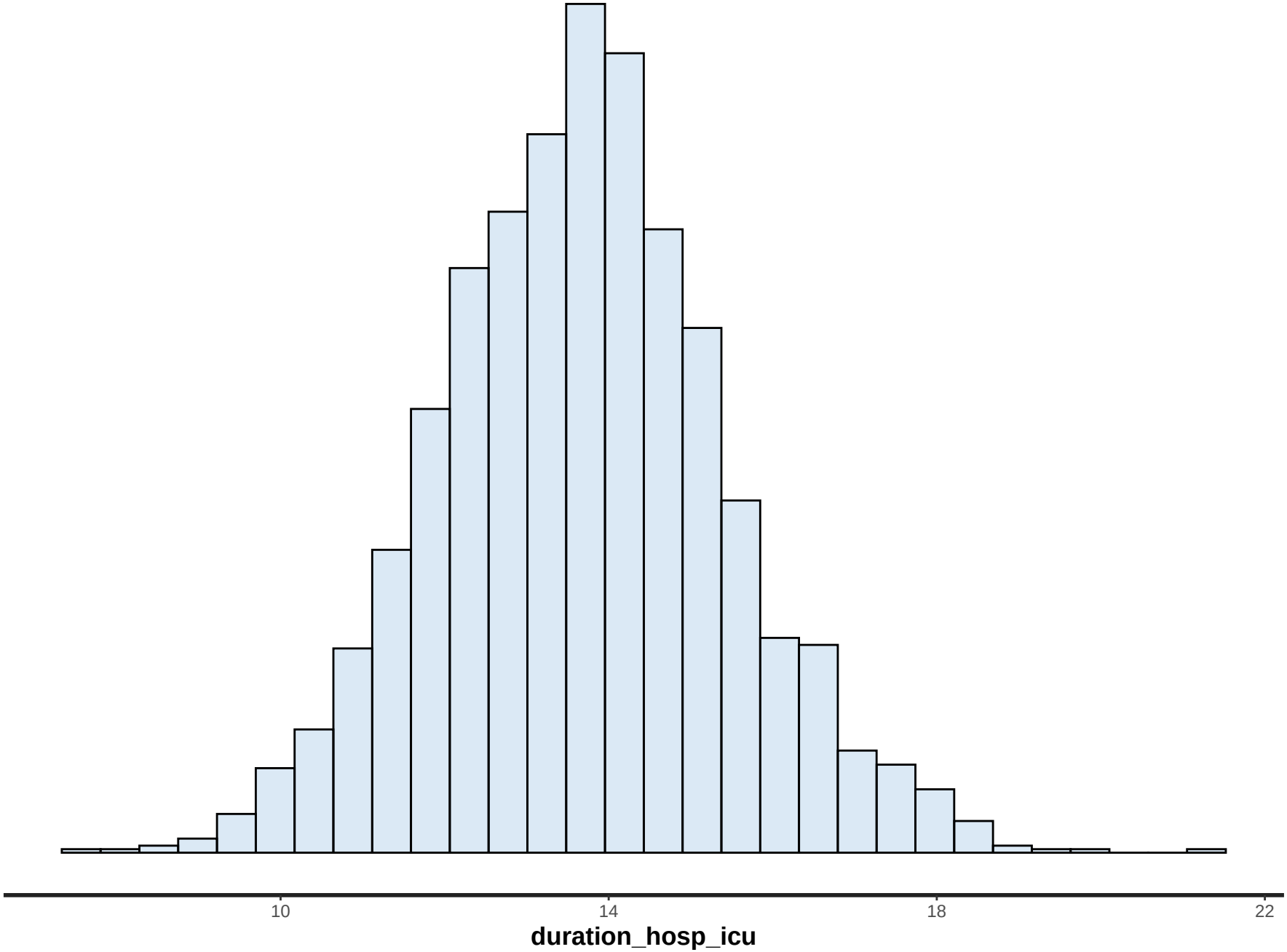

1.5
2.0
2.5
3.0
r0

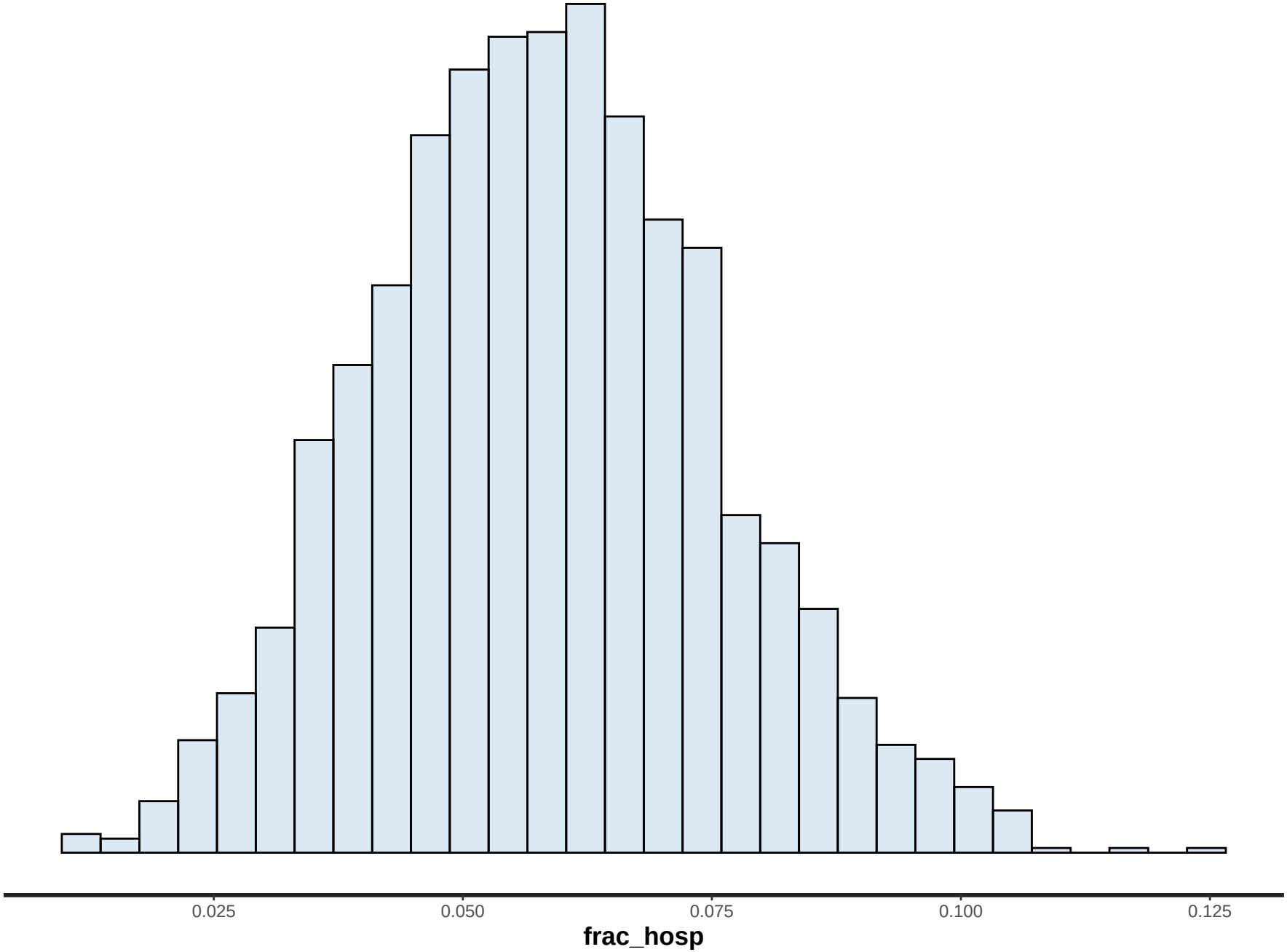

1
2
3
duration_latent

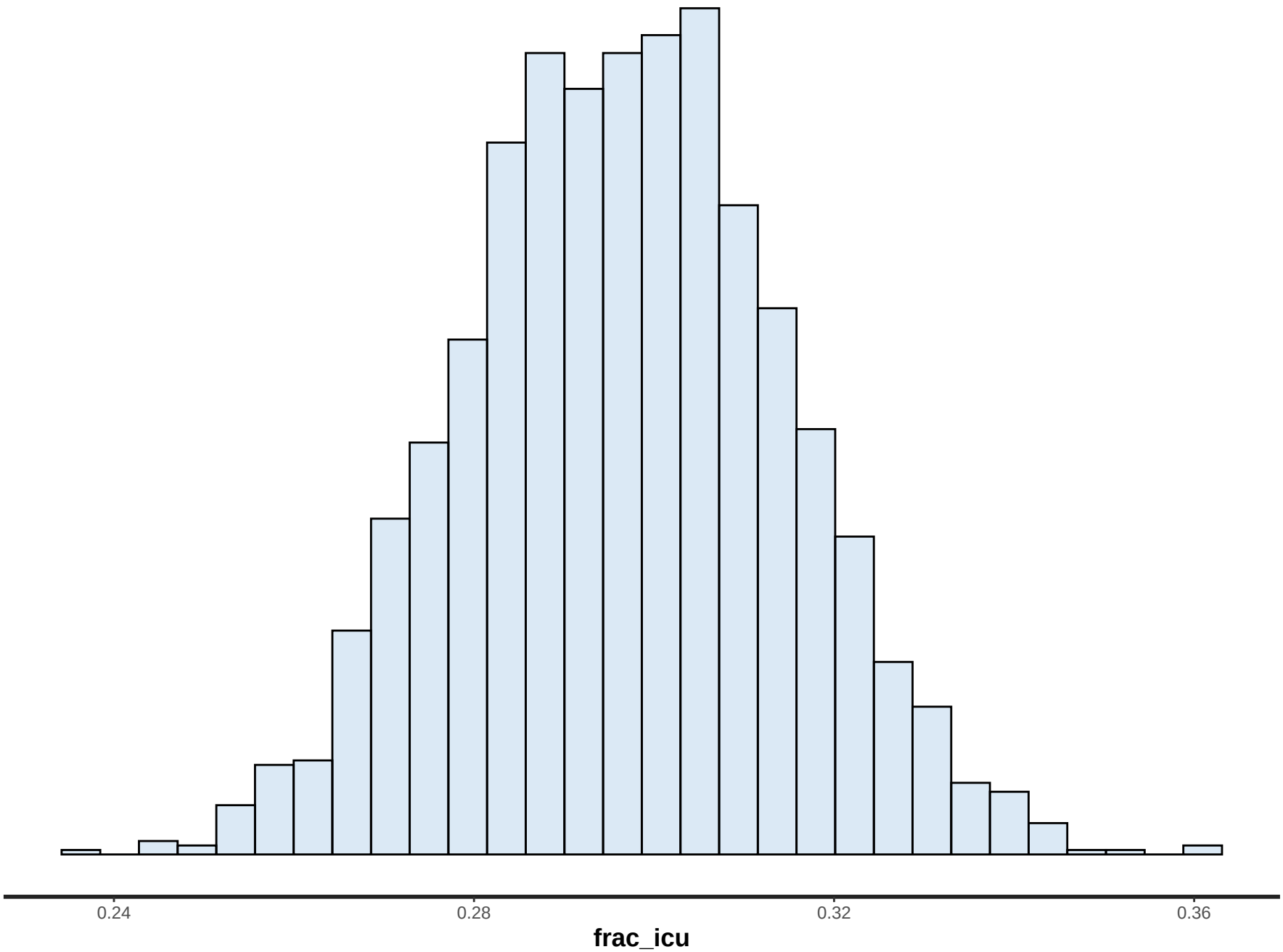

1
2
3
4
5
6
7
duration_rec_mild

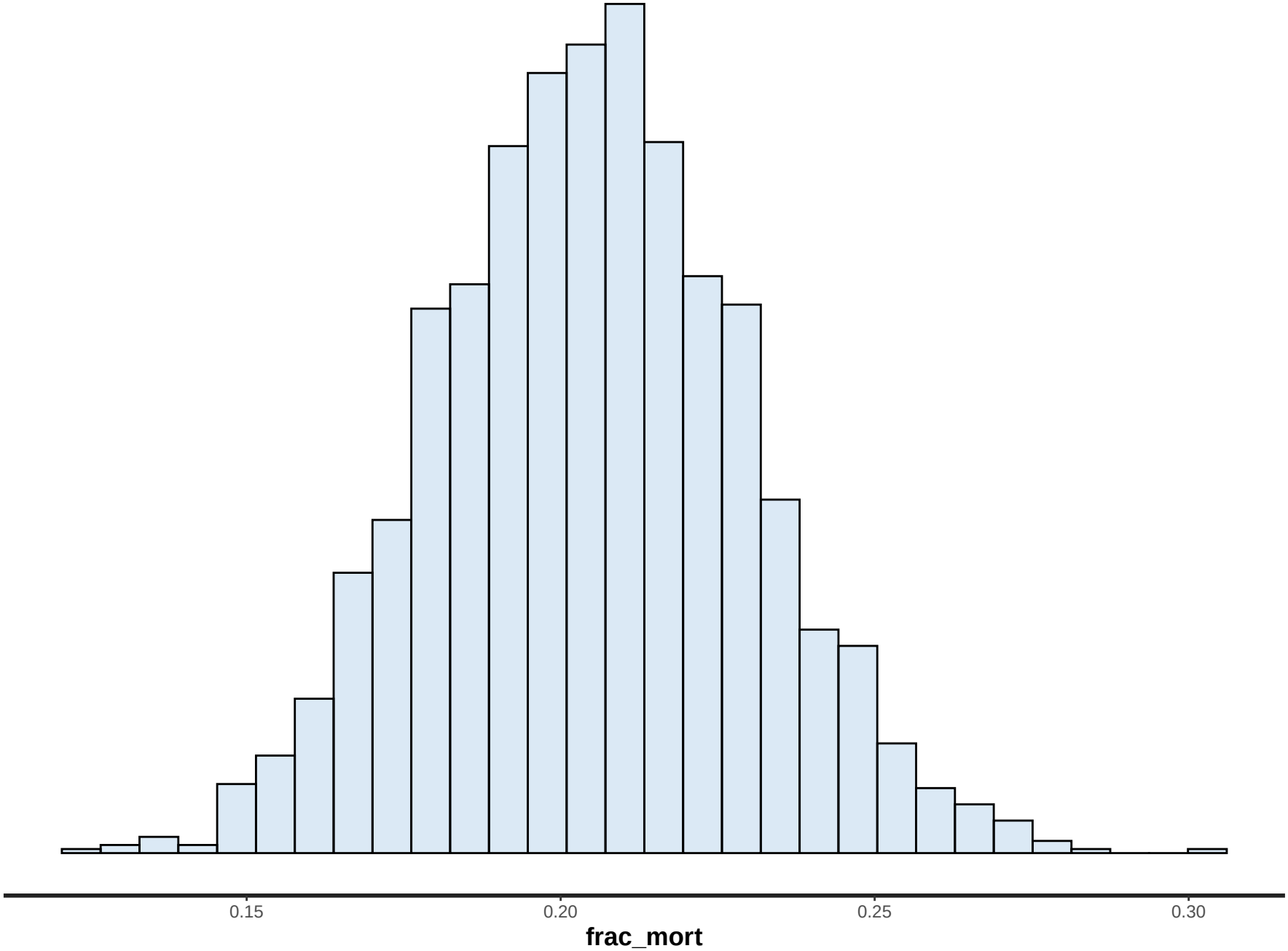

2.5
5.0
7.5
10.0
duration_pre_hosp

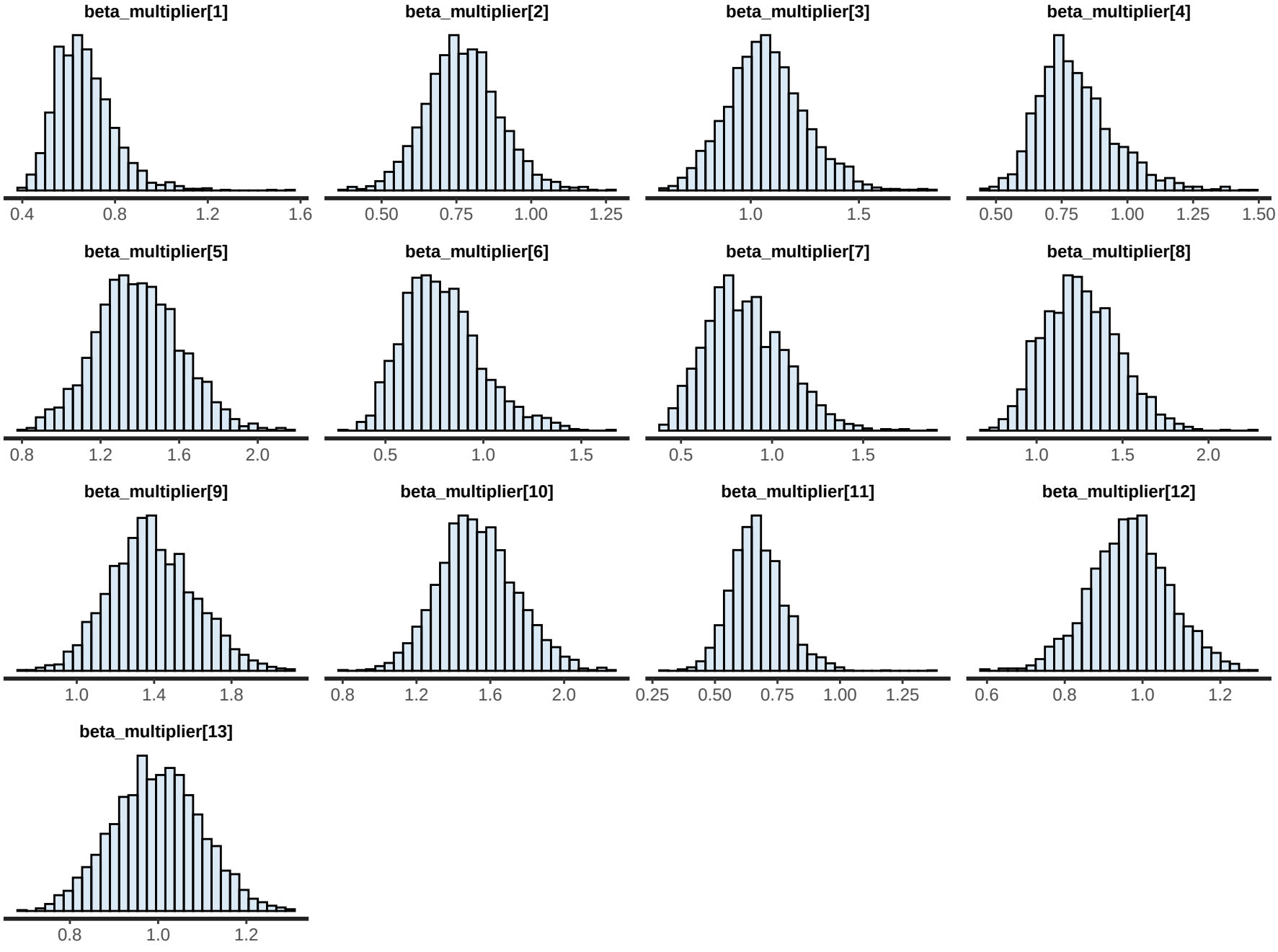

12
15
18
21
duration_hosp_mod

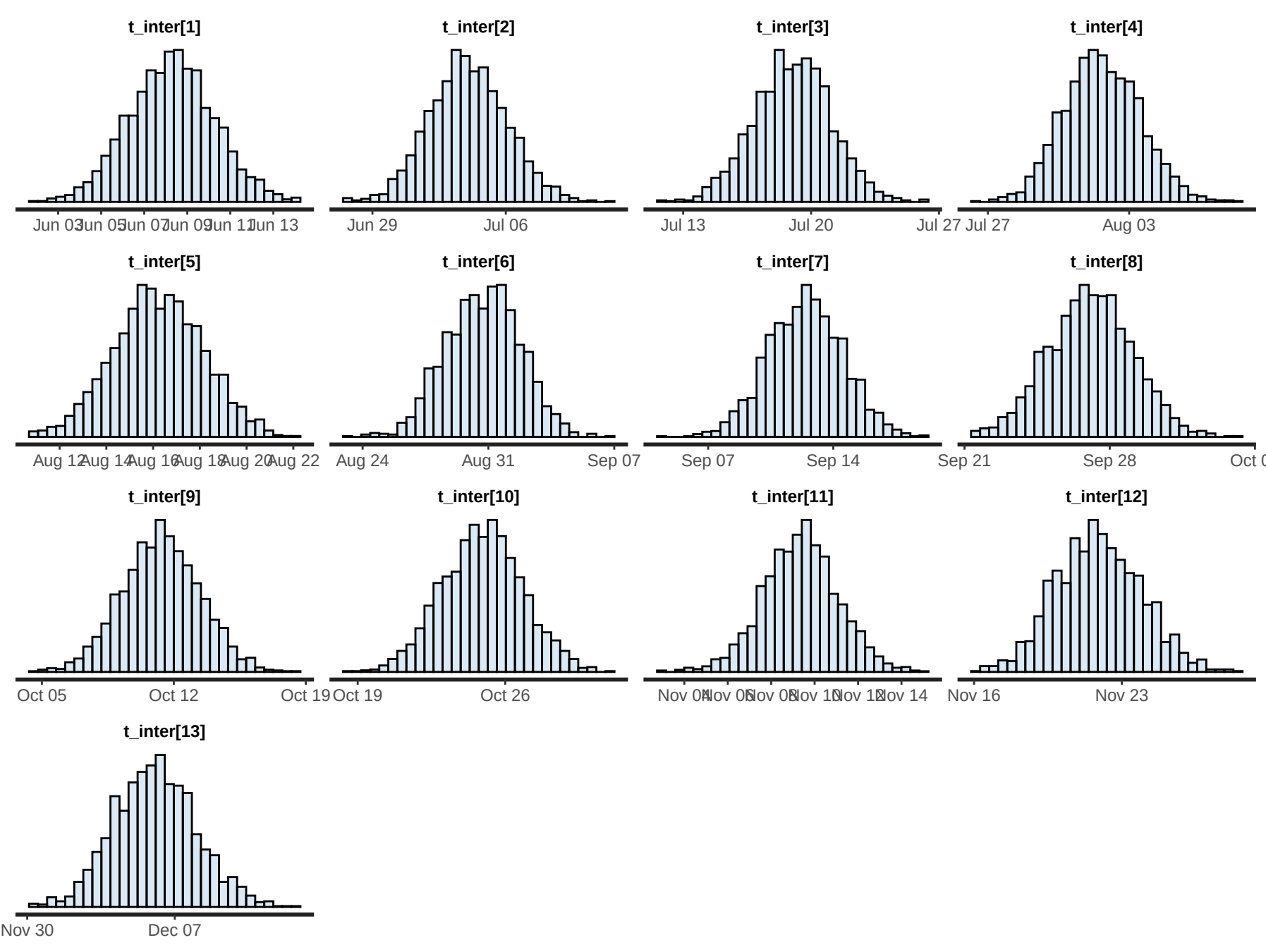

10
14
18
22
duration_hosp_icu

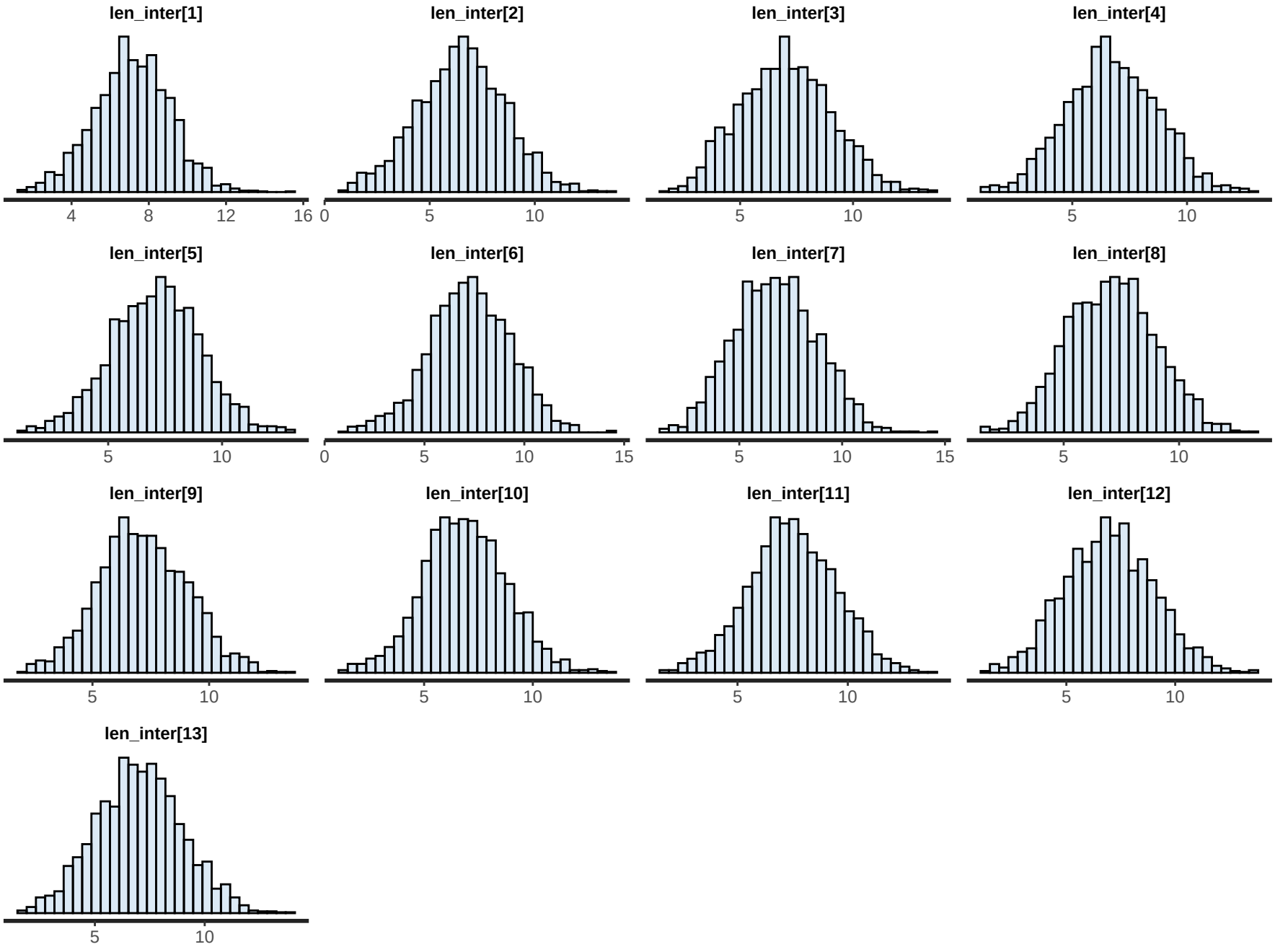

0.025
0.050
0.075
0.100
0.125
frac_hosp

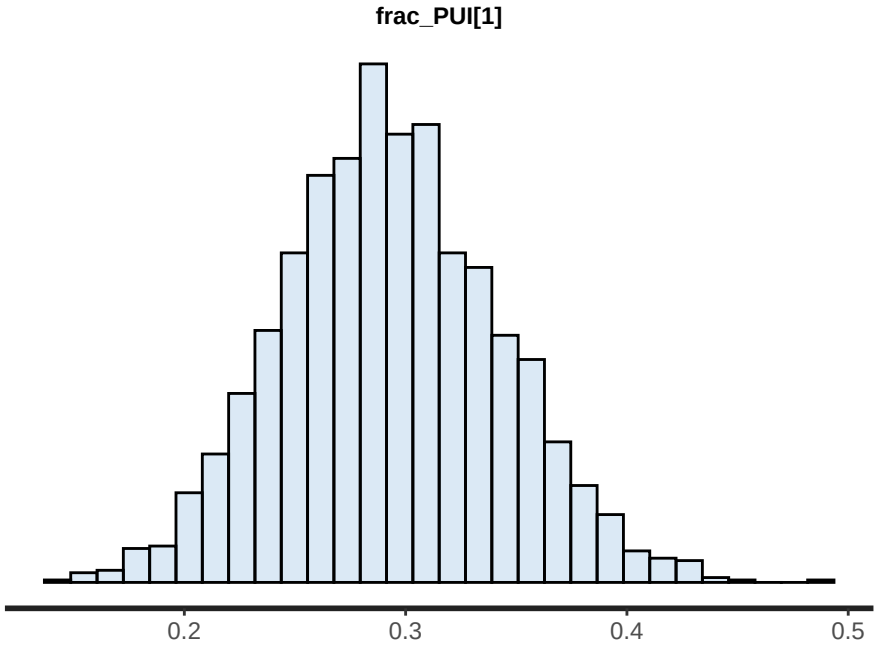

0.24
0.28
0.32
0.36
frac_icu

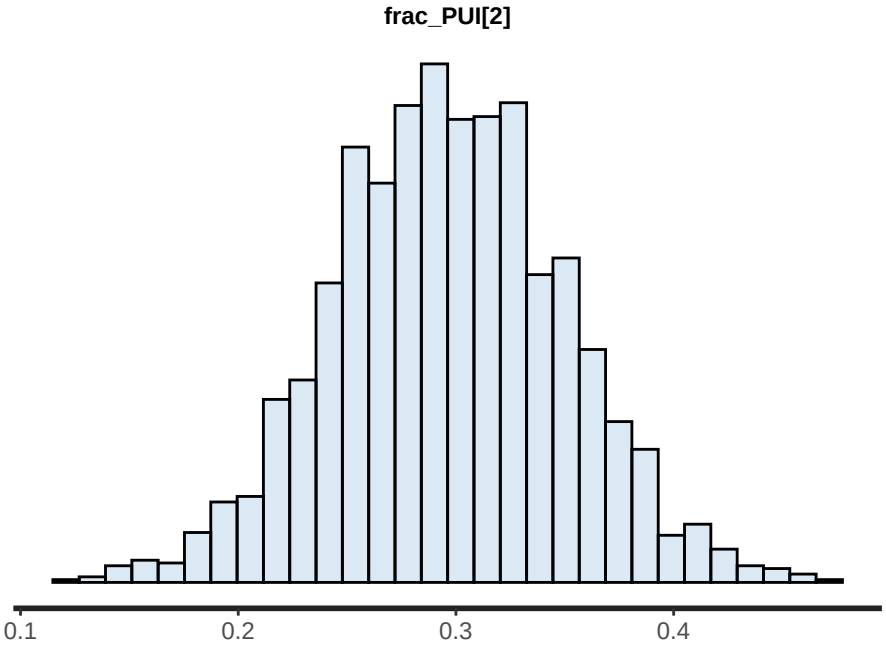

0.15
0.20
0.25
0.30
frac_mort

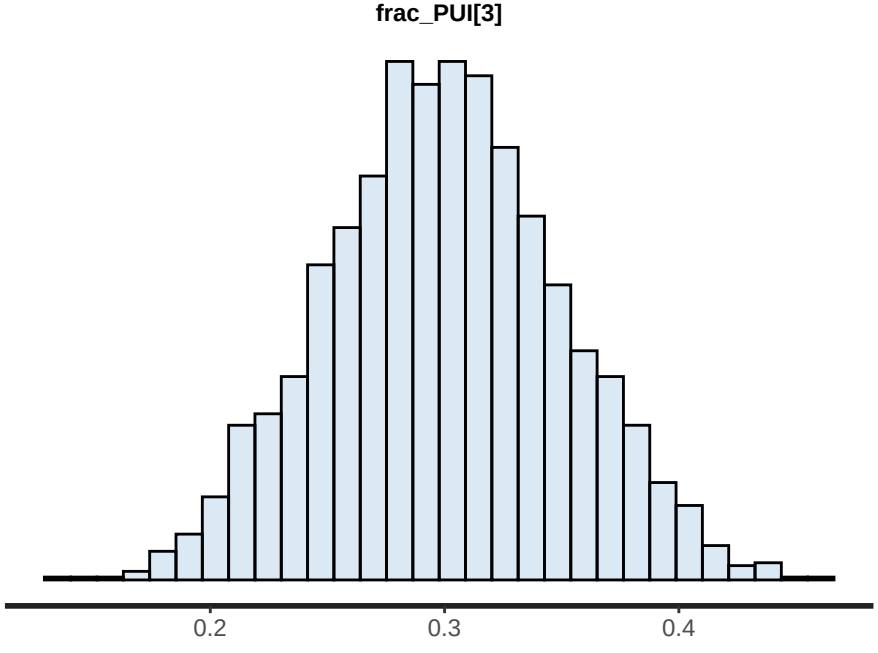

beta_multiplier[1]
0.4
0.8
1.2
1.6
beta_multiplier[2]
0.50
0.75
1.00
1.25
beta_multiplier[3]
1.0
1.5
beta_multiplier[4]
0.50
0.75
1.00
1.25
1.50
beta_multiplier[5]
0.8
1.2
1.6
2.0
beta_multiplier[6]
0.5
1.0
1.5
beta_multiplier[7]
0.5
1.0
1.5
beta_multiplier[8]
1.0
1.5
2.0
beta_multiplier[9]
1.0
1.4
1.8
beta_multiplier[10]
0.8
1.2
1.6
2.0
beta_multiplier[11]
0.25
0.50
0.75
1.00
1.25
beta_multiplier[12]
0.6
0.8
1.0
1.2
beta_multiplier[13]
0.8
1.0
1.2

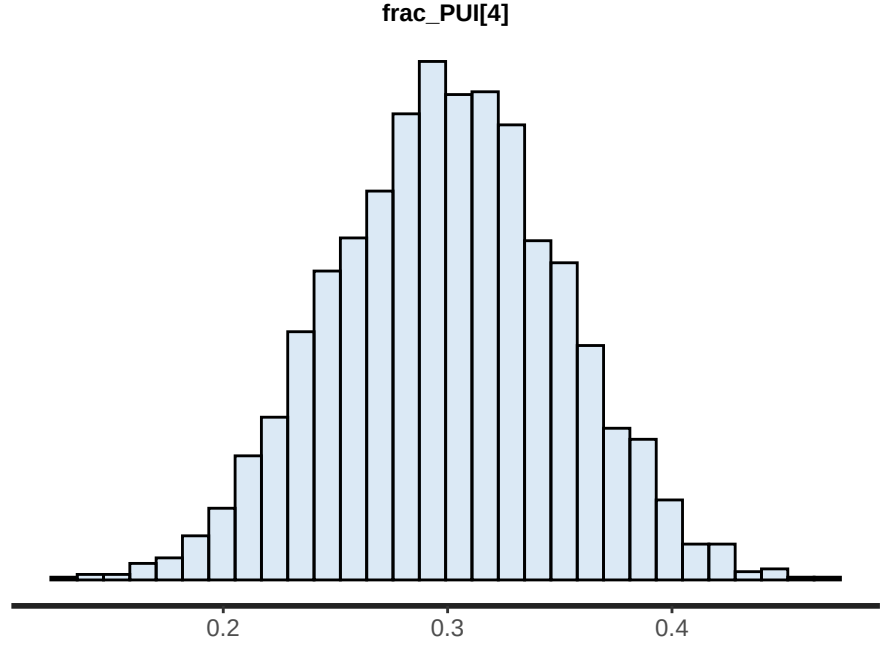

t_inter[1]
Jun 03
Jun 05
Jun 07
Jun 09
Jun 11
Jun 13
t_inter[2]
Jun 29
Jul 06
t_inter[3]
Jul 13
Jul 20
Jul 27
t_inter[4]
Jul 27
Aug 03
t_inter[5]
Aug 12
Aug 14
Aug 16
Aug 18
Aug 20
Aug 22
t_inter[6]
Aug 24
Aug 31
Sep 07
t_inter[7]
Sep 07
Sep 14
t_inter[8]
Sep 21
Sep 28
t_inter[9]
Oct 05
Oct 12
Oct 19
t_inter[10]
Oct 19
Oct 26
t_inter[11]
Nov 04
Nov 06
Nov 08
Nov 10
Nov 12
Nov 14
t_inter[12]
Nov 16
Nov 23
t_inter[13]
Nov 30
Dec 07

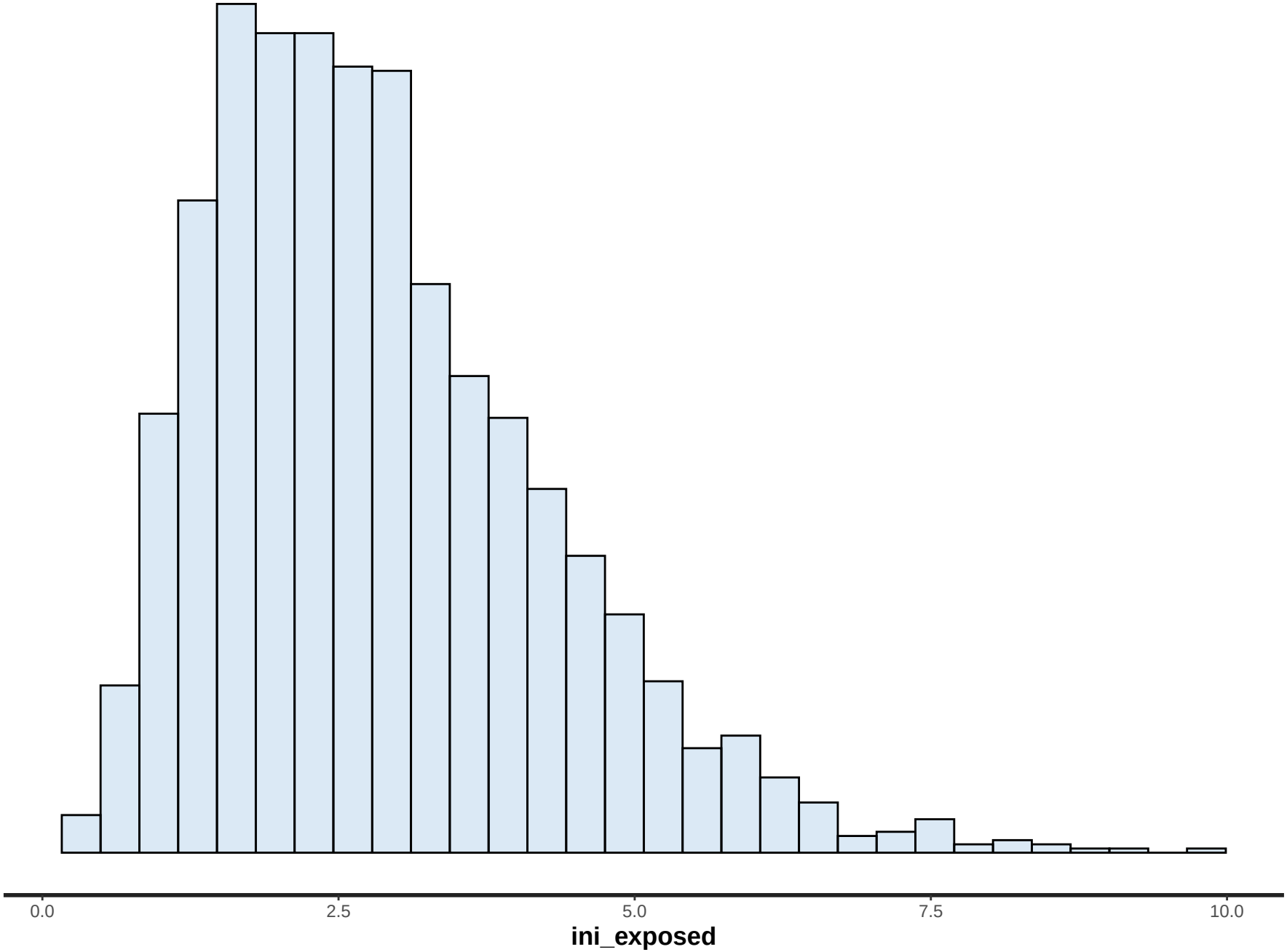

len_inter[1]
4
8
12
16
len_inter[2]
0
5
10
len_inter[3]
5
10
len_inter[4]
5
10
len_inter[5]
5
10
len_inter[6]
0
5
10
15
len_inter[7]
5
10
15
len_inter[8]
5
10
len_inter[9]
5
10
len_inter[10]
5
10
len_inter[11]
5
10
len_inter[12]
5
10
len_inter[13]
5
10

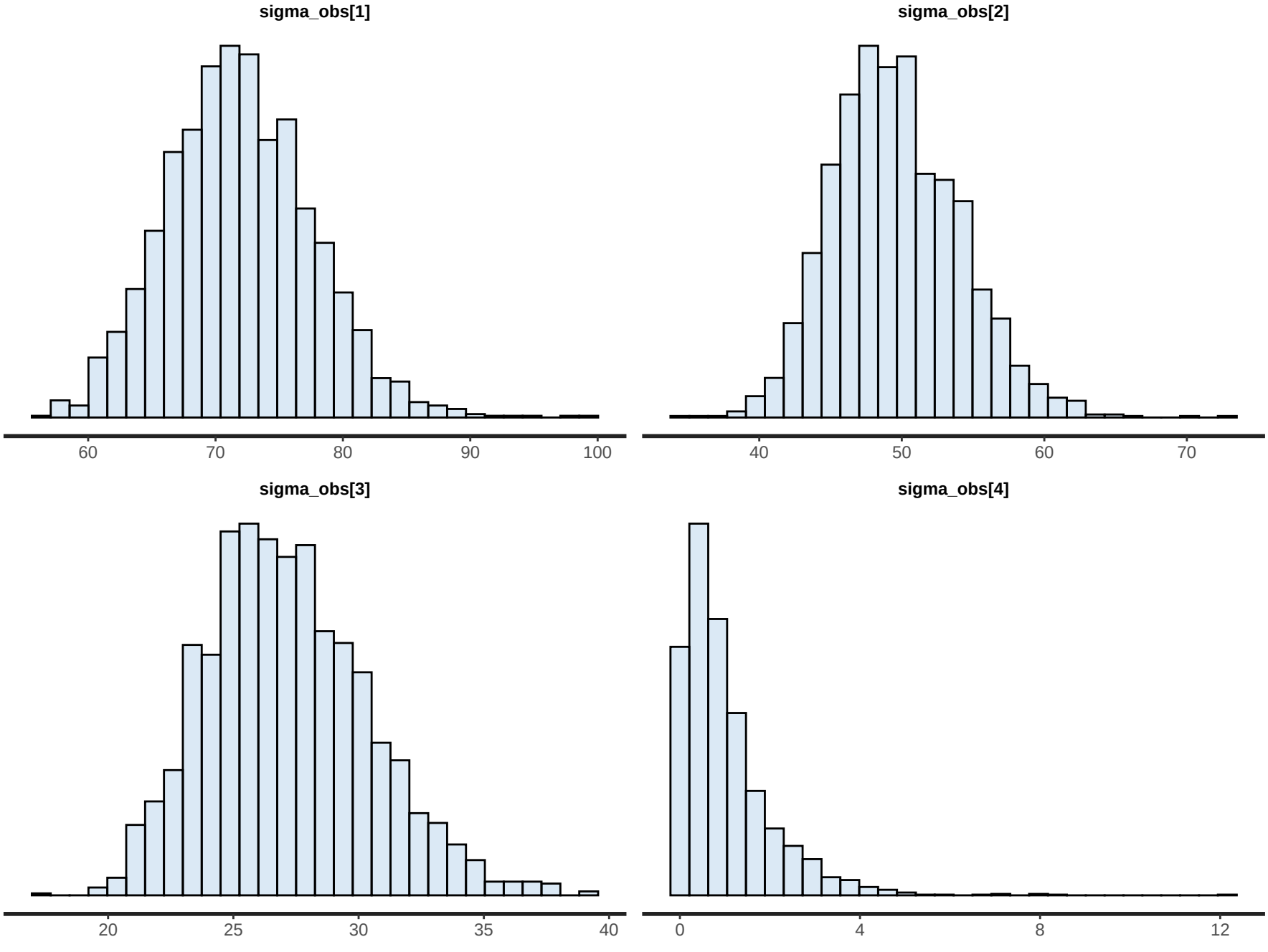

frac_PUI[1]
0.2
0.3
0.4
0.5


frac_PUI[2]
0.1
0.2
0.3
0.4


frac_PUI[3]
0.2
0.3
0.4


frac_PUI[4]
0.2
0.3
0.4


0.0
2.5
5.0
7.5
10.0
ini_exposed


sigma_obs[1]
60
70
80
90
100
sigma_obs[2]
40
50
60
70
sigma_obs[3]
20
25
30
35
40
sigma_obs[4]
0
4
8
12