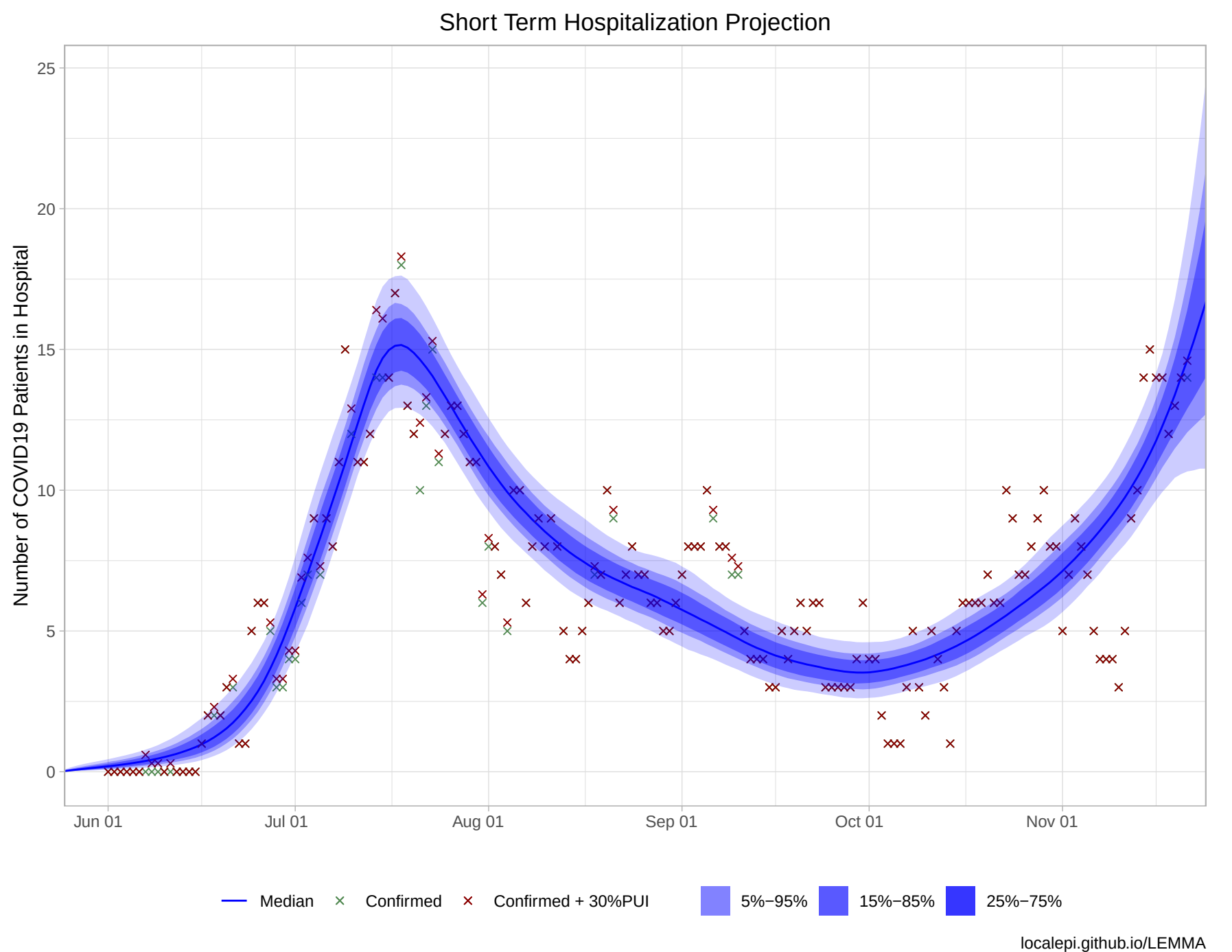
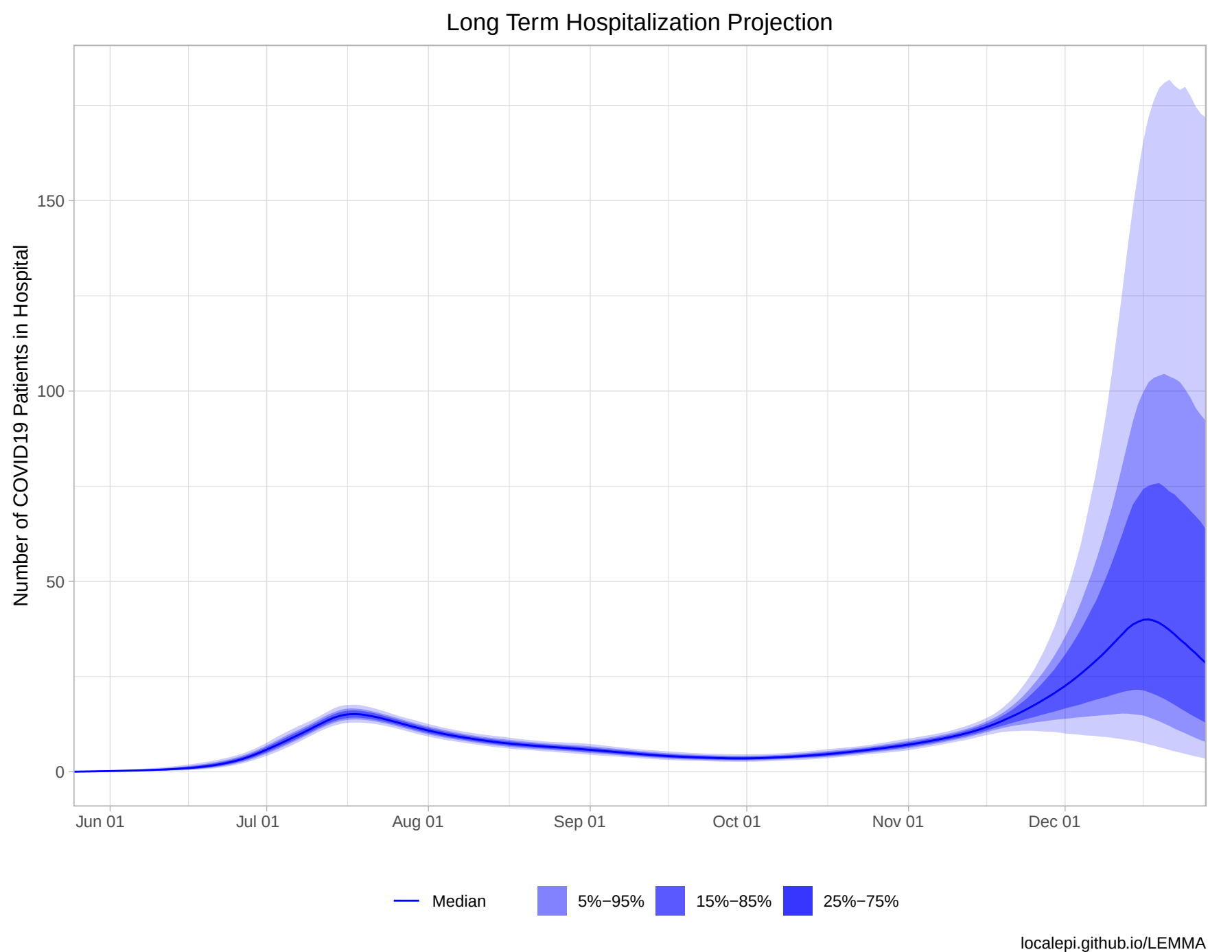
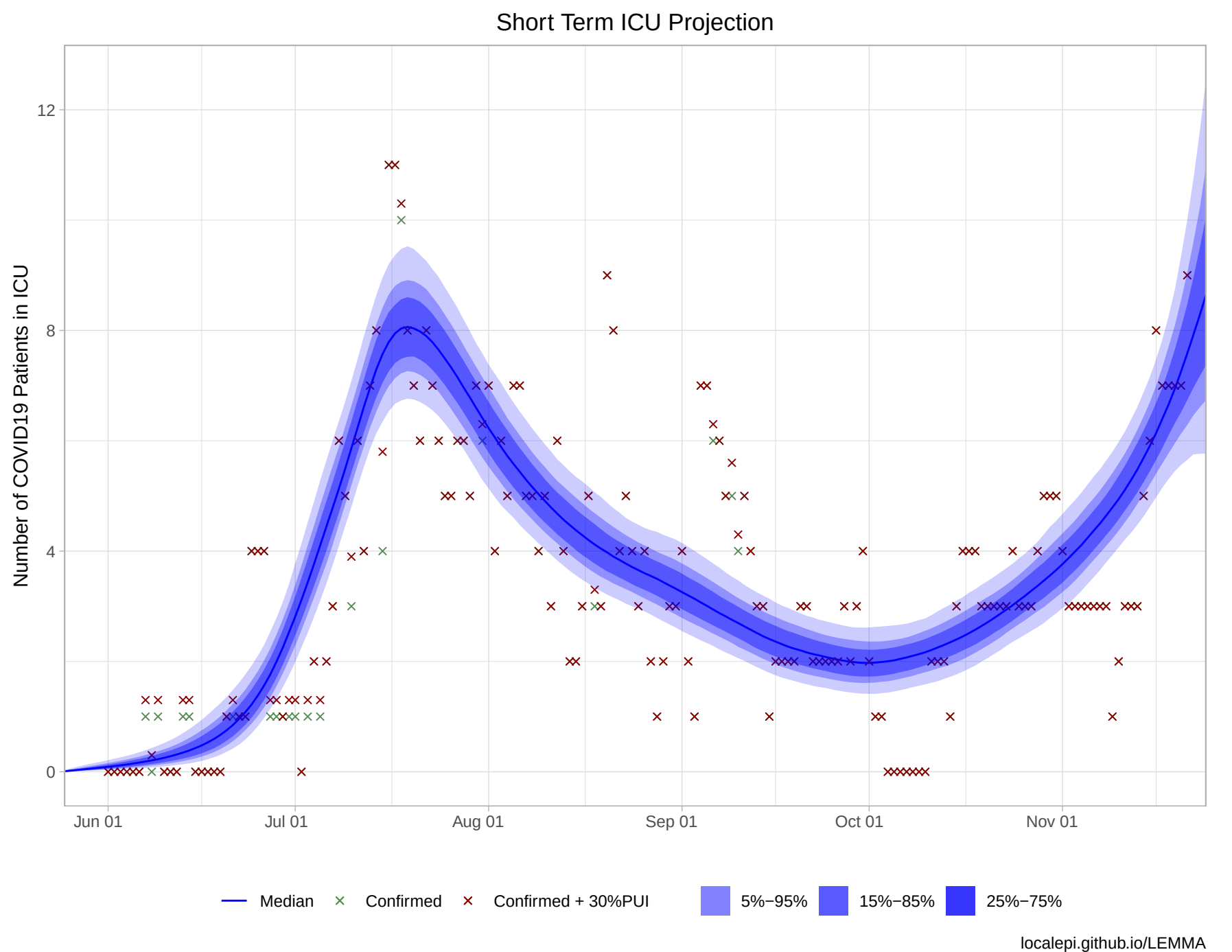
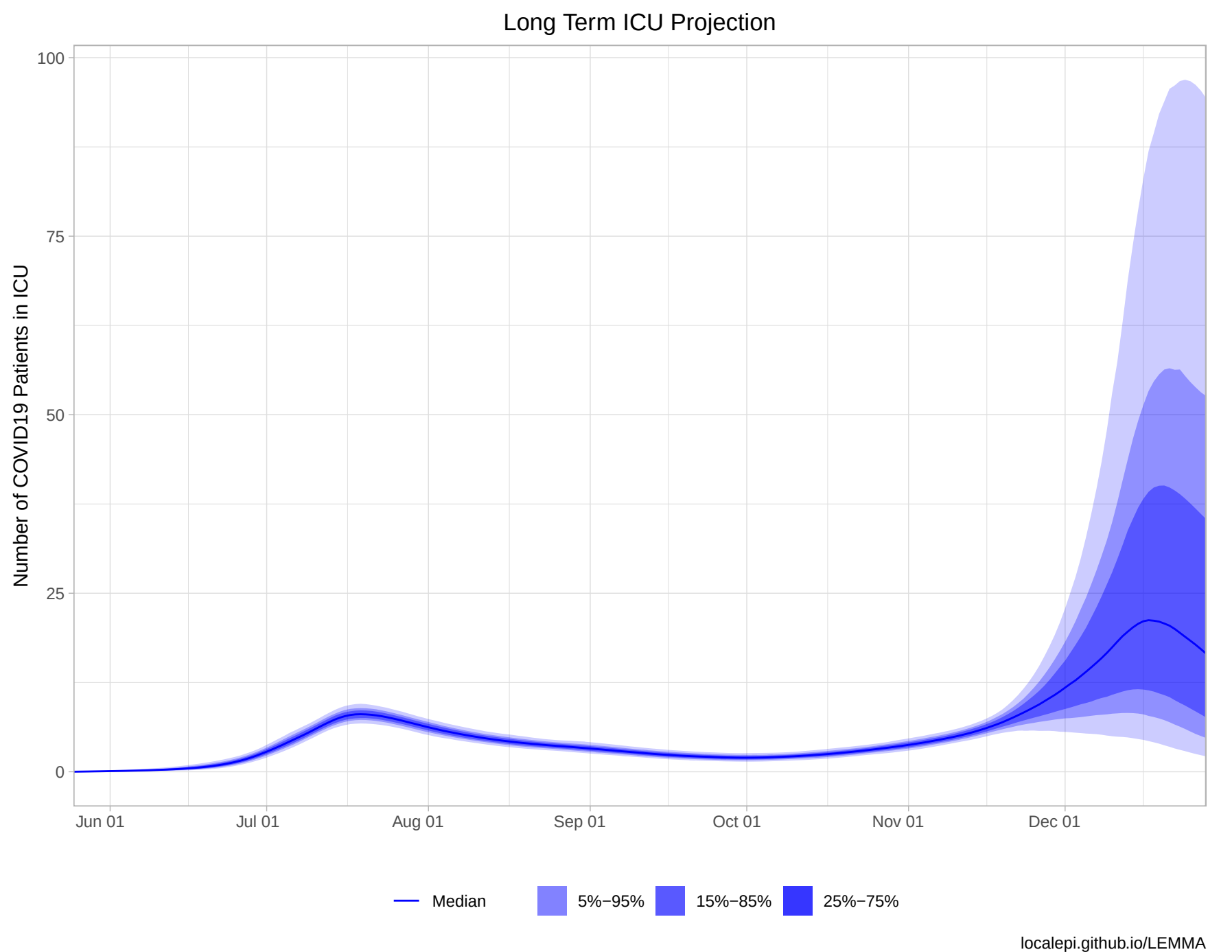
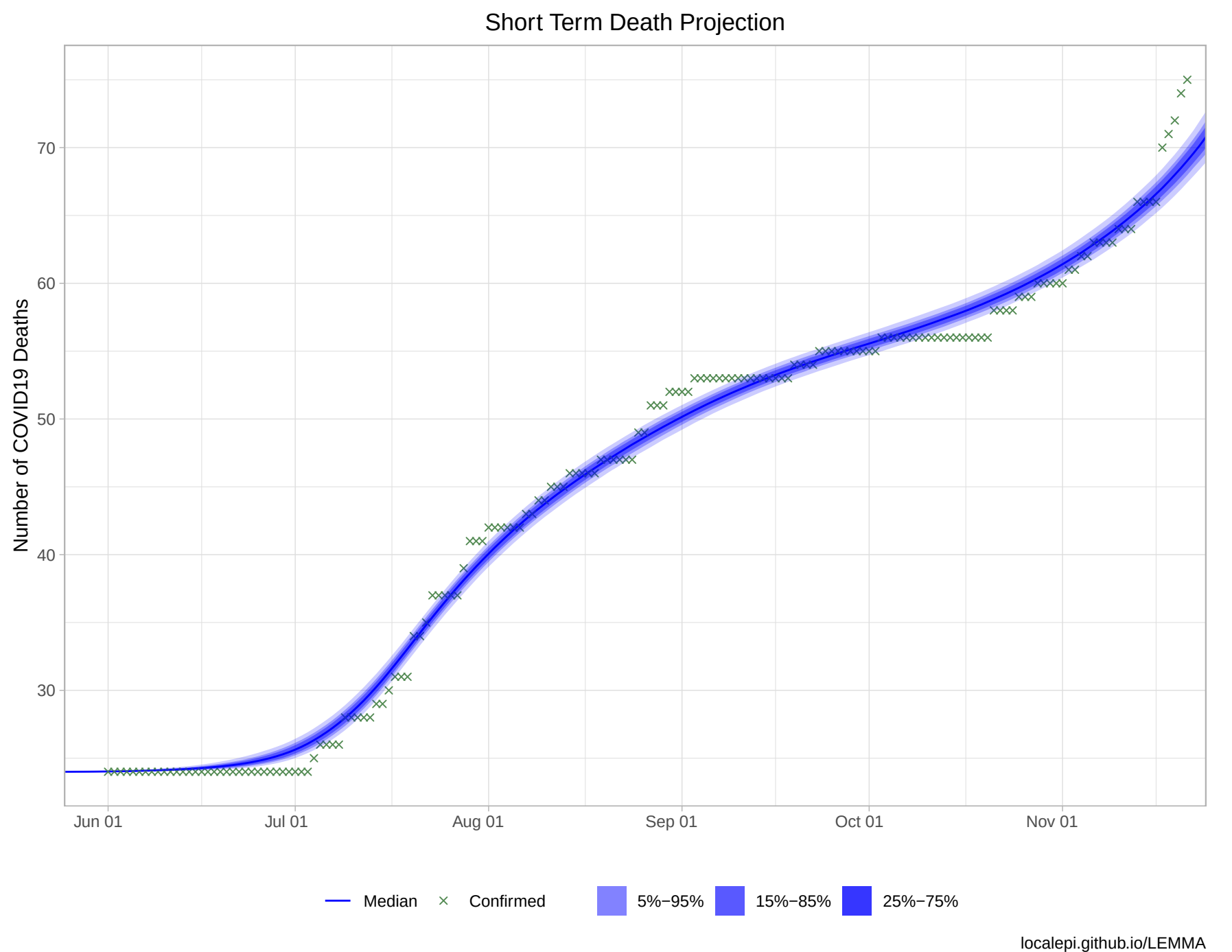
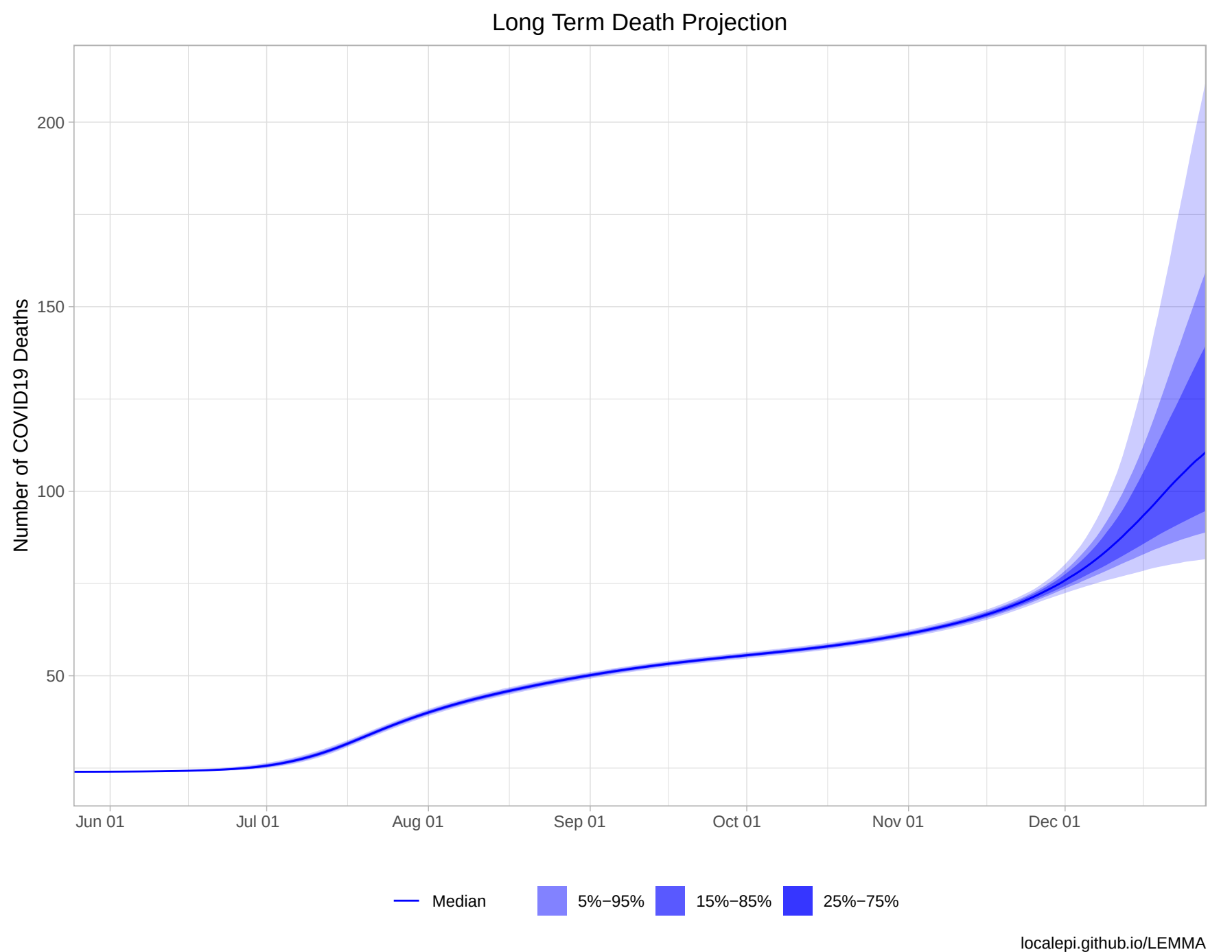

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
25
20
15
10
5
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

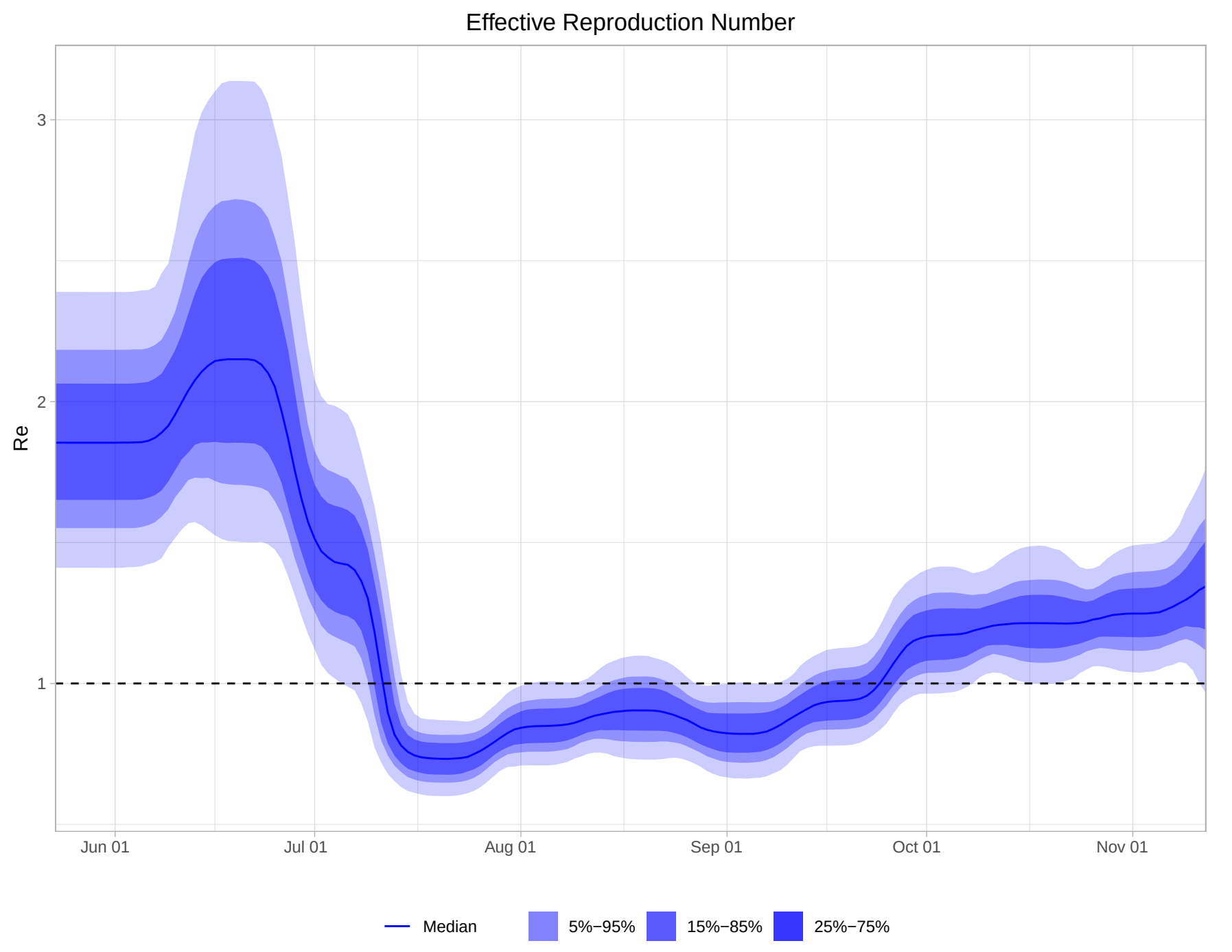

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
150
100
50
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
12
8
4
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 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
100
75
50
25
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

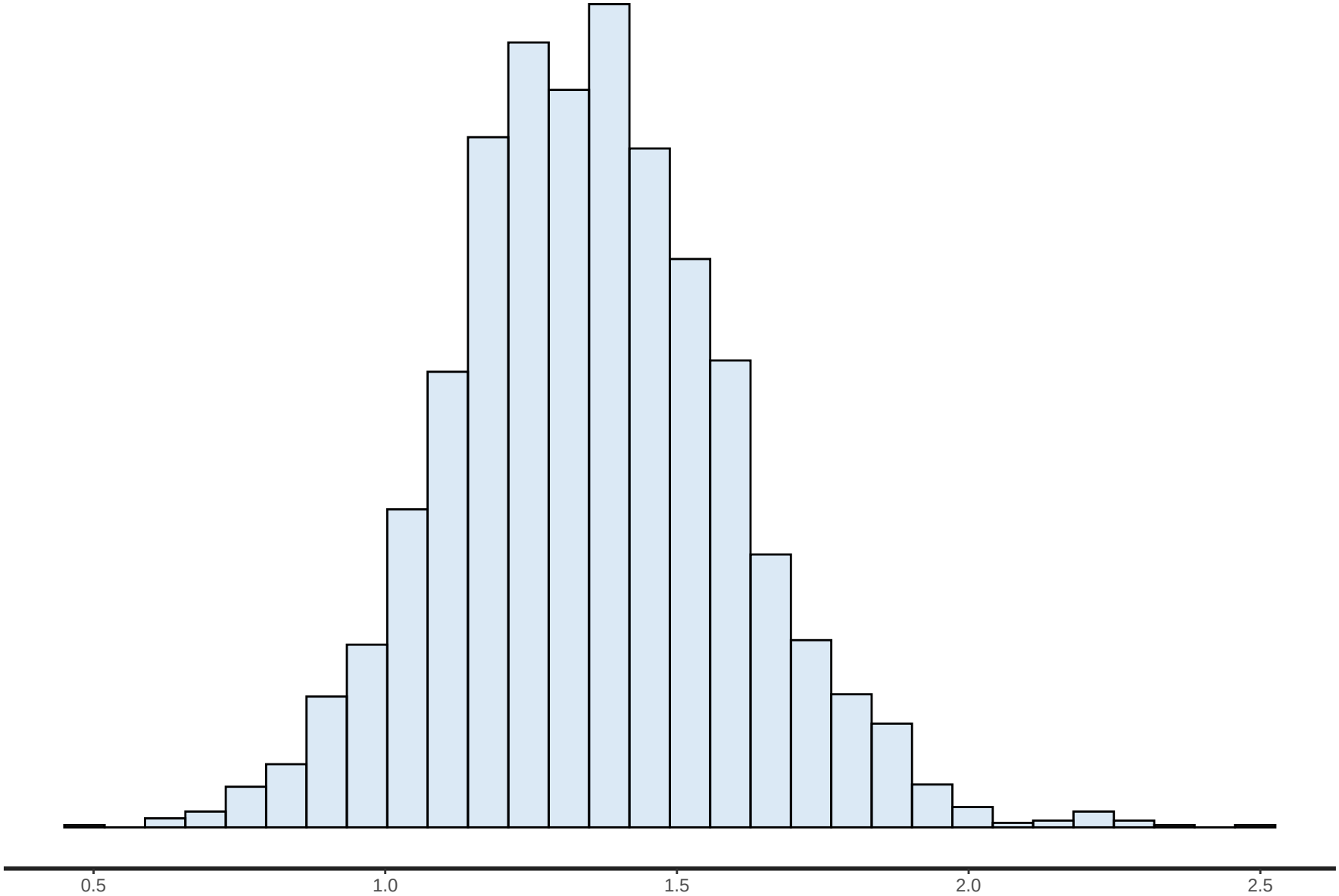

Short Term Death Projection
Number of COVID19 Deaths
70
60
50
40
30
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

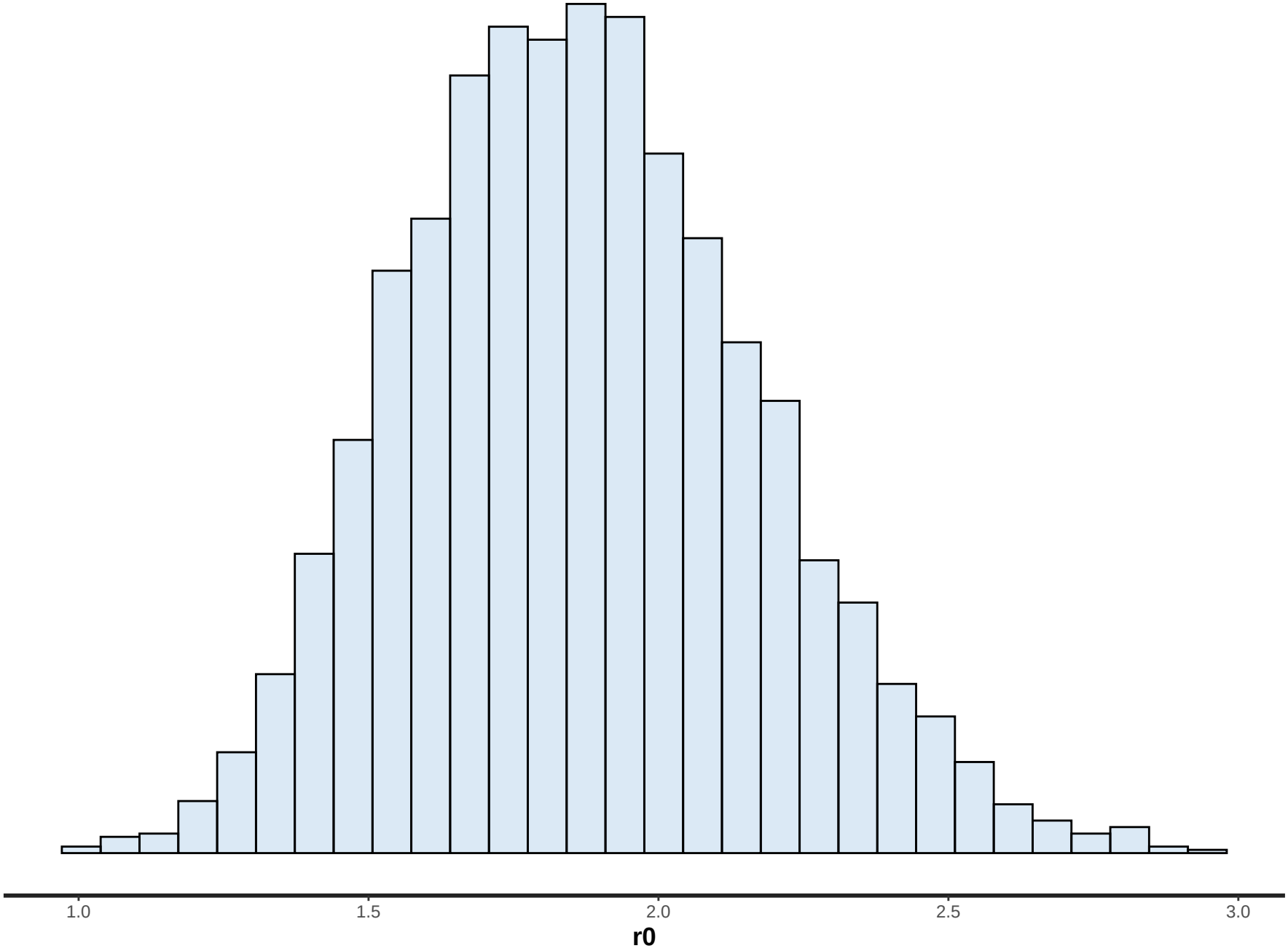

Long Term Death Projection
Number of COVID19 Deaths
200
150
100
50
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

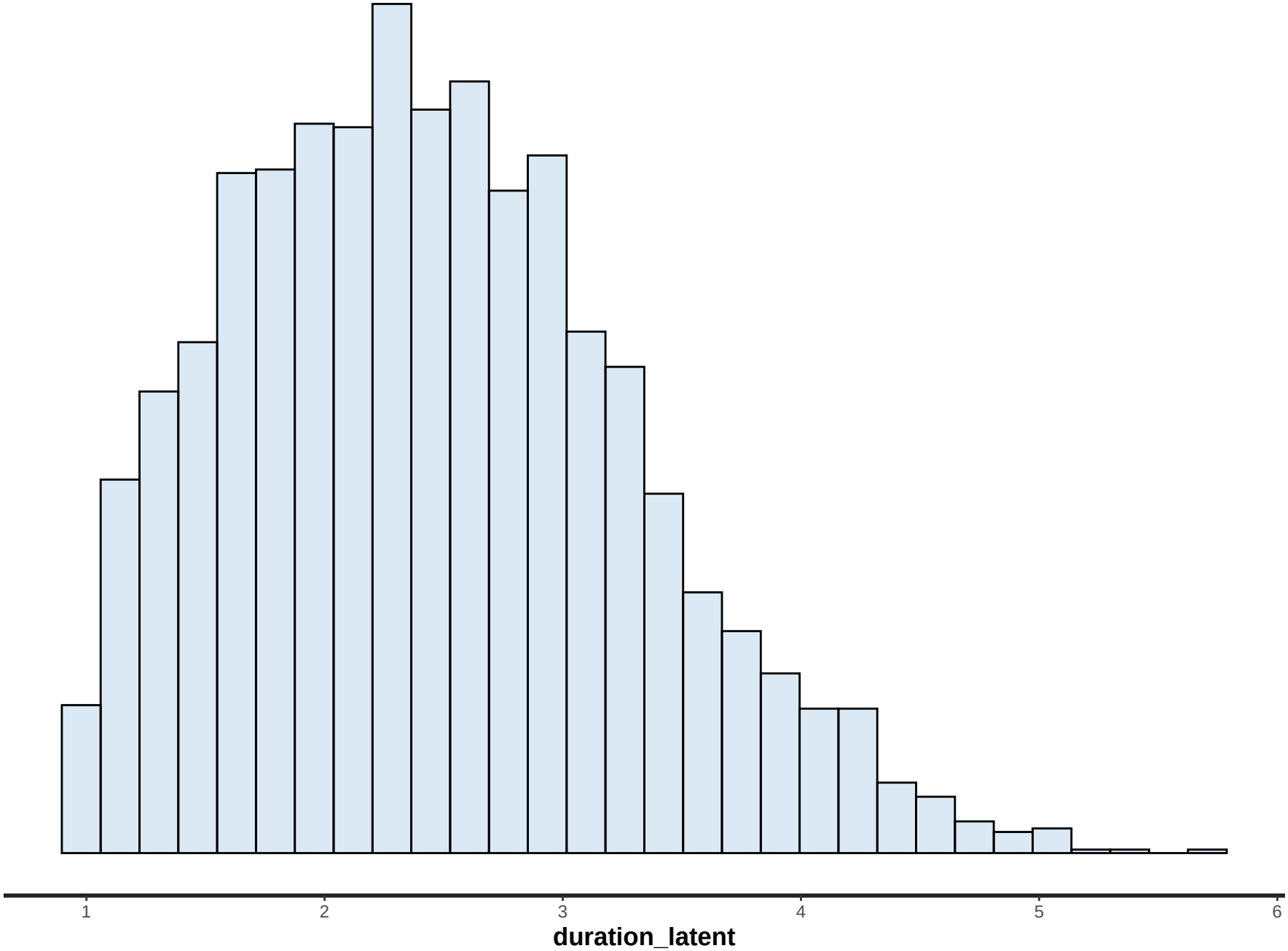

Effective Reproduction Number
Re
3
2
1
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
5%−95%
15%−85%
25%−75%

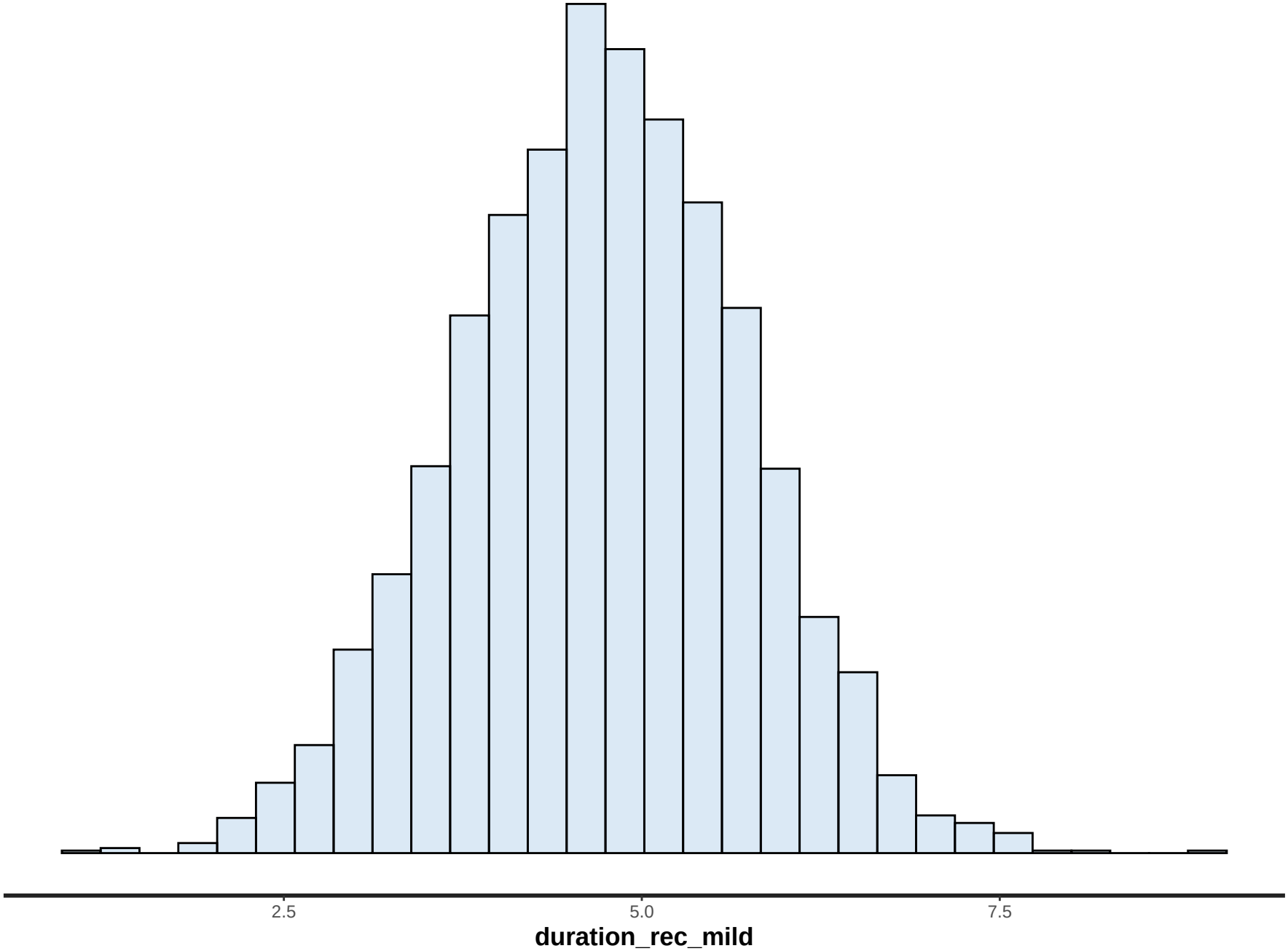
Rt as of 2020−11−12

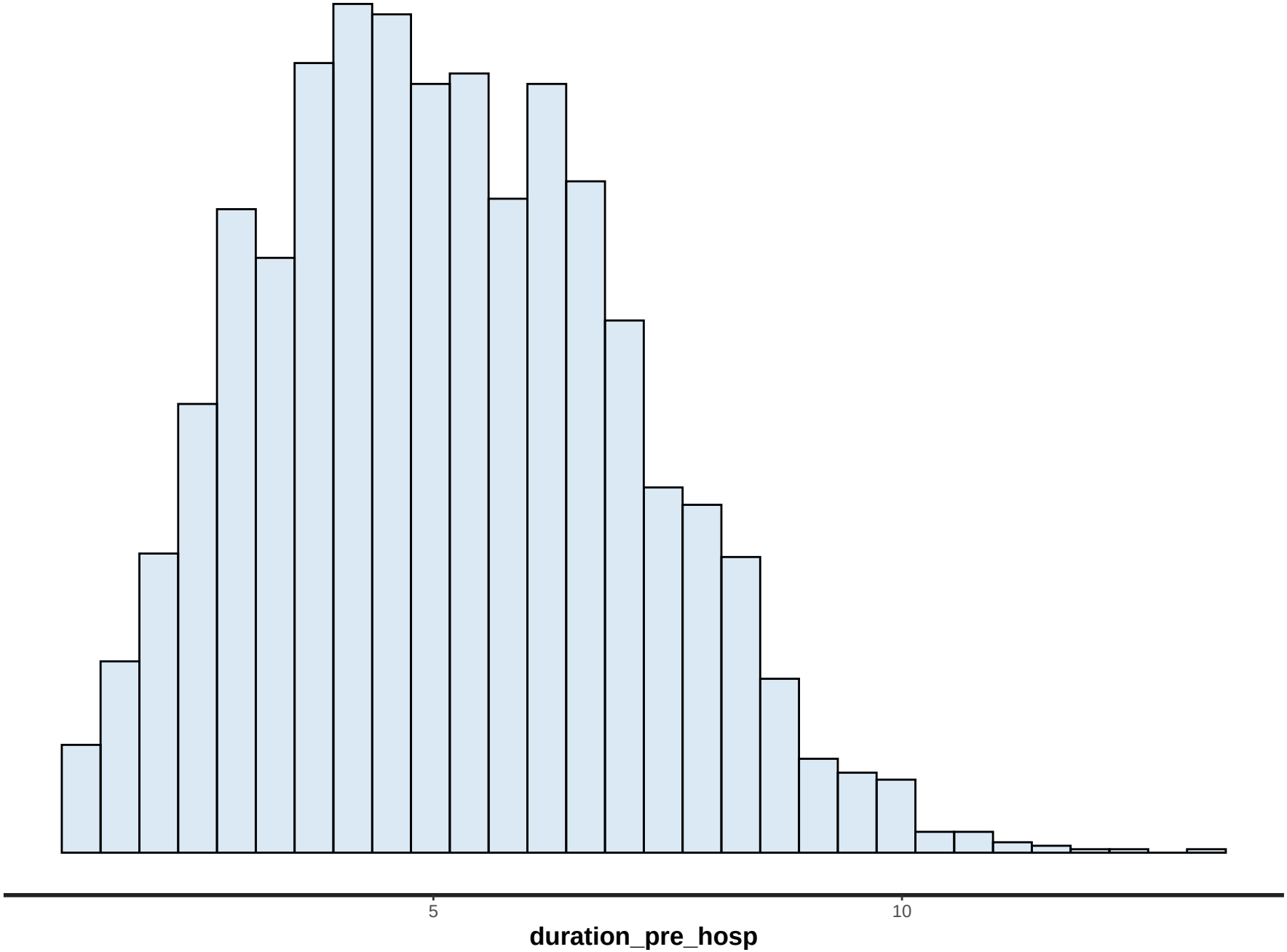
5%	10%	25%	50%	75%	90%	95%
0.97	1.06	1.19	1.34	1.51	1.65	1.76

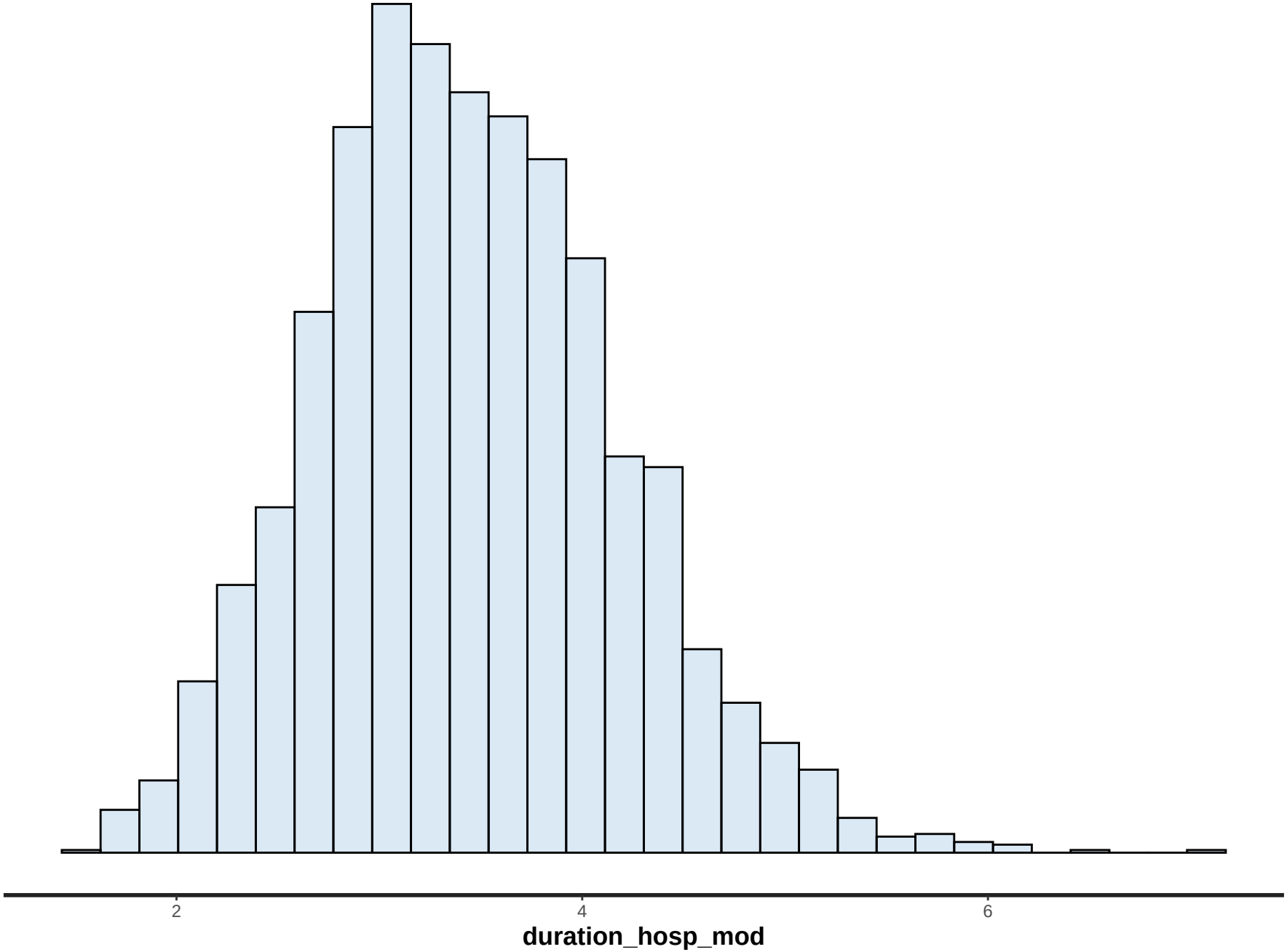


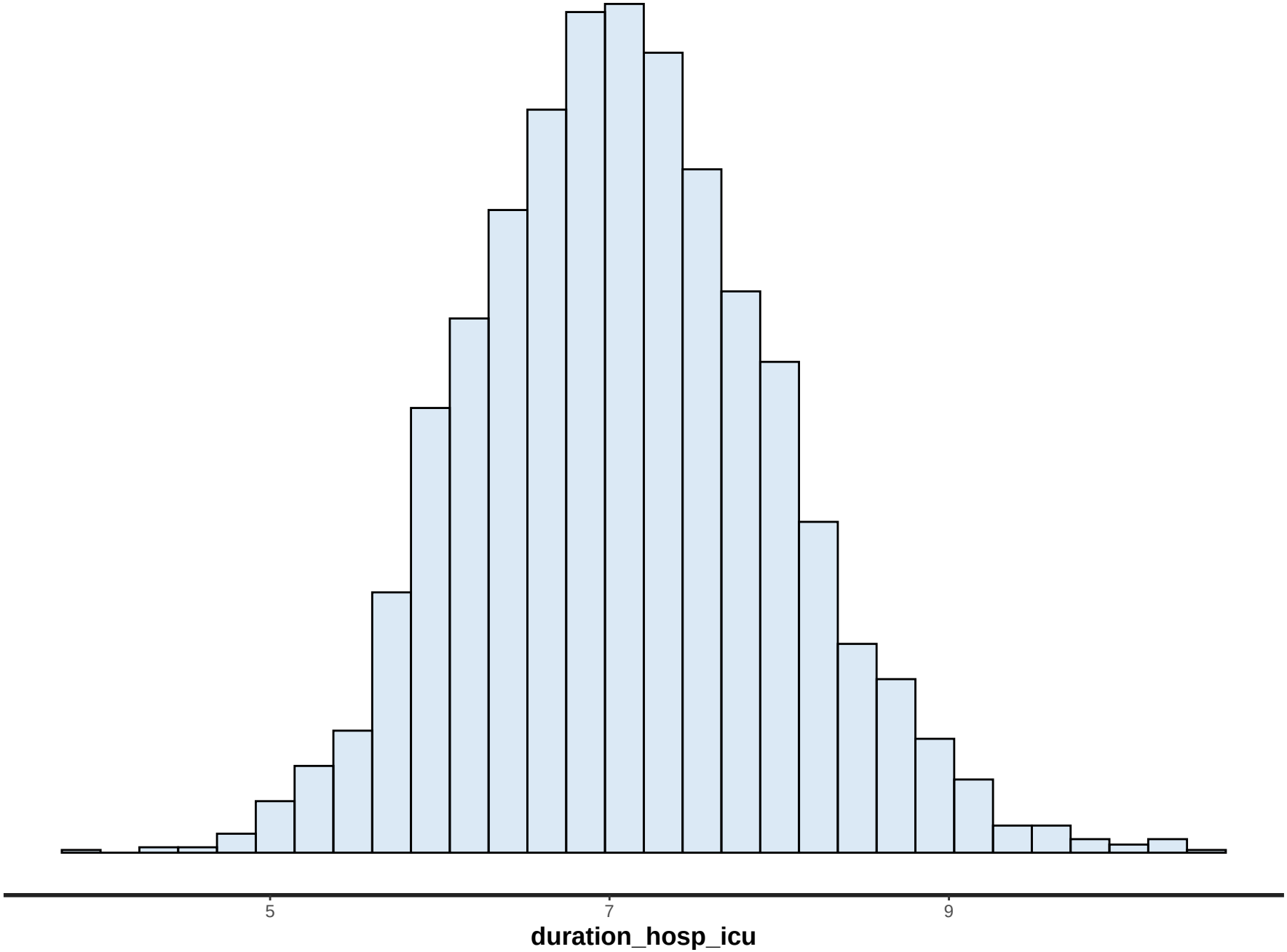

1.0
1.5
2.0
2.5
3.0
r0

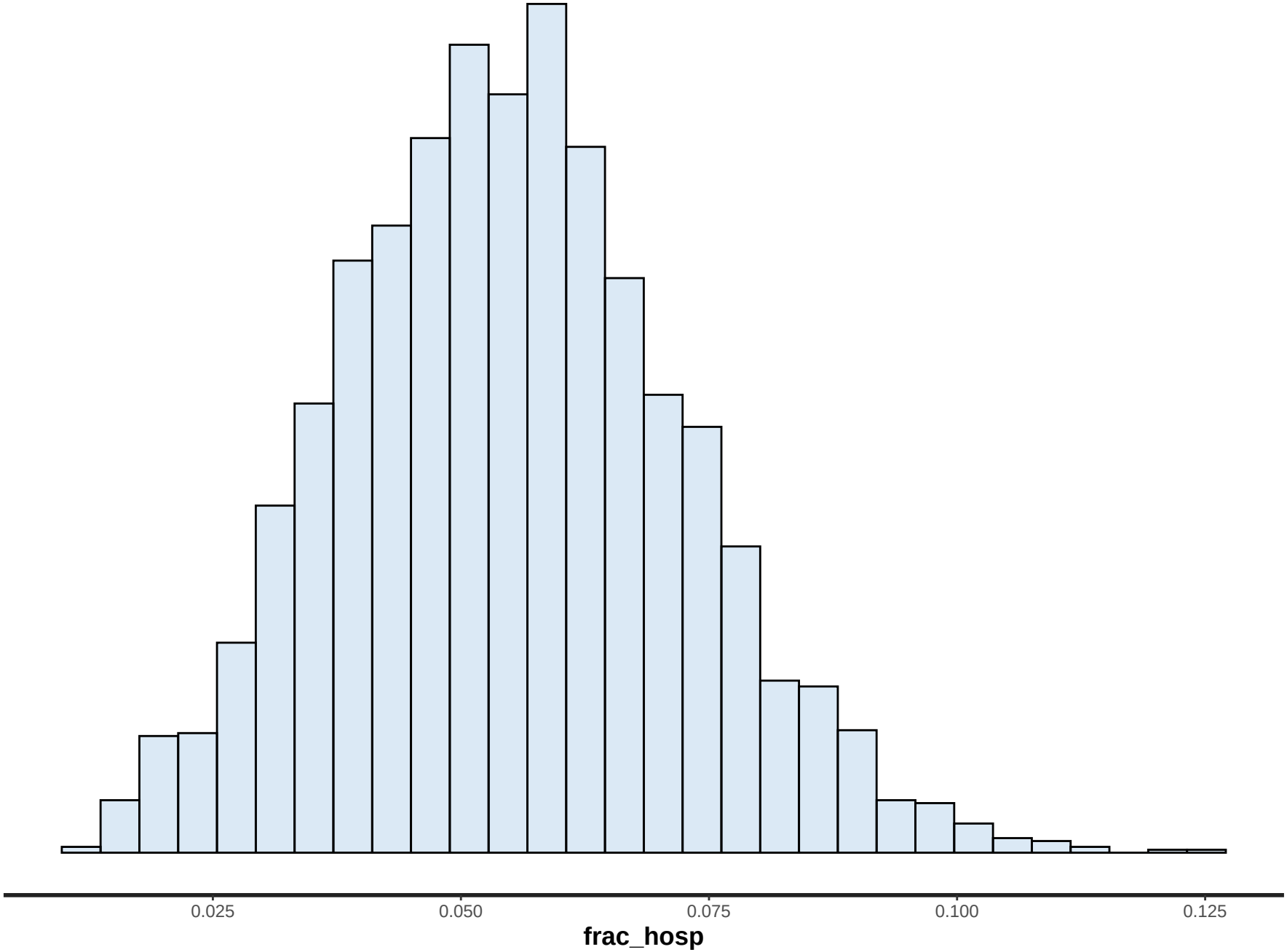

1
2
3
4
5
6
duration_latent

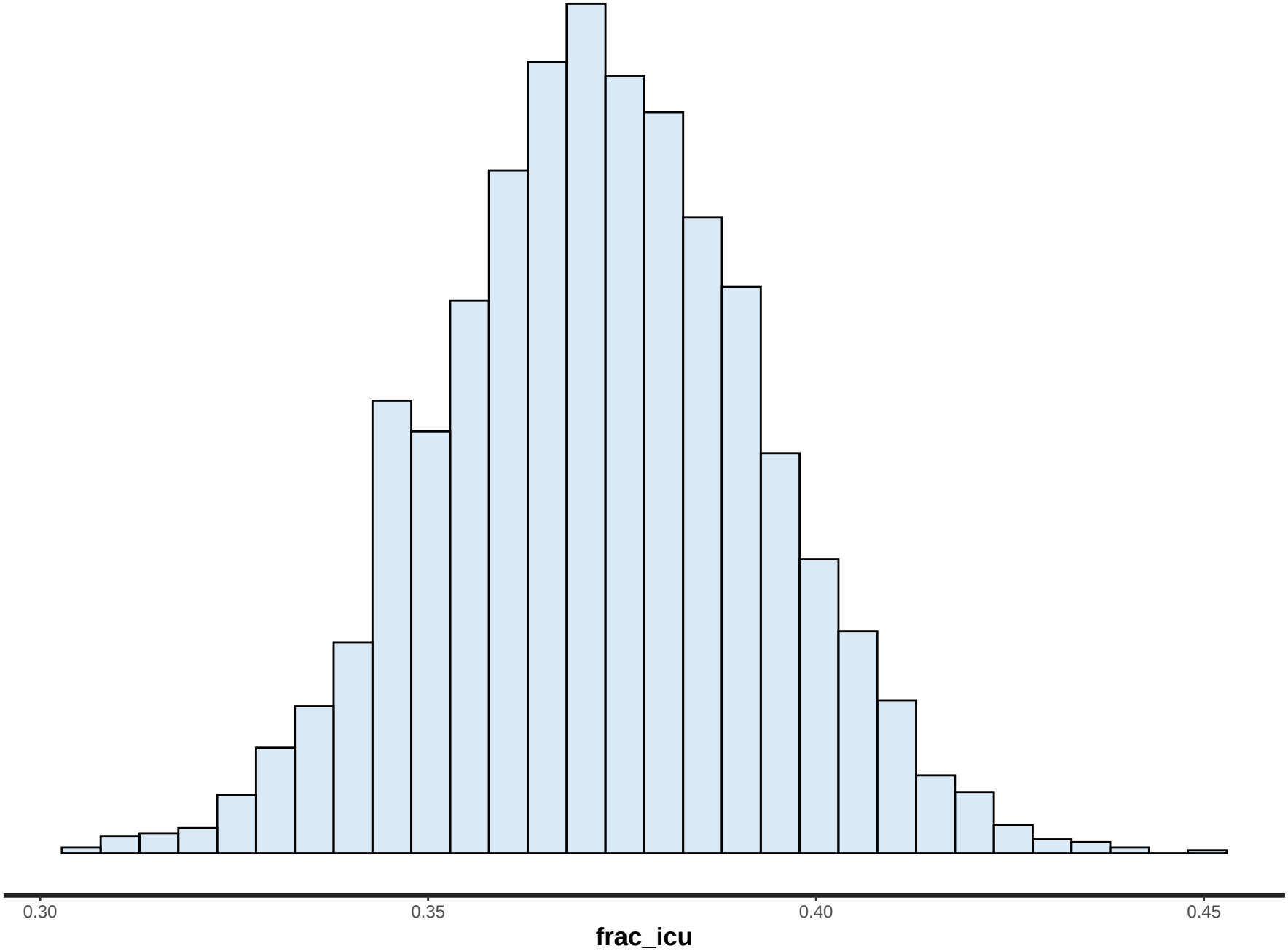

2.5
5.0
7.5
duration_rec_mild

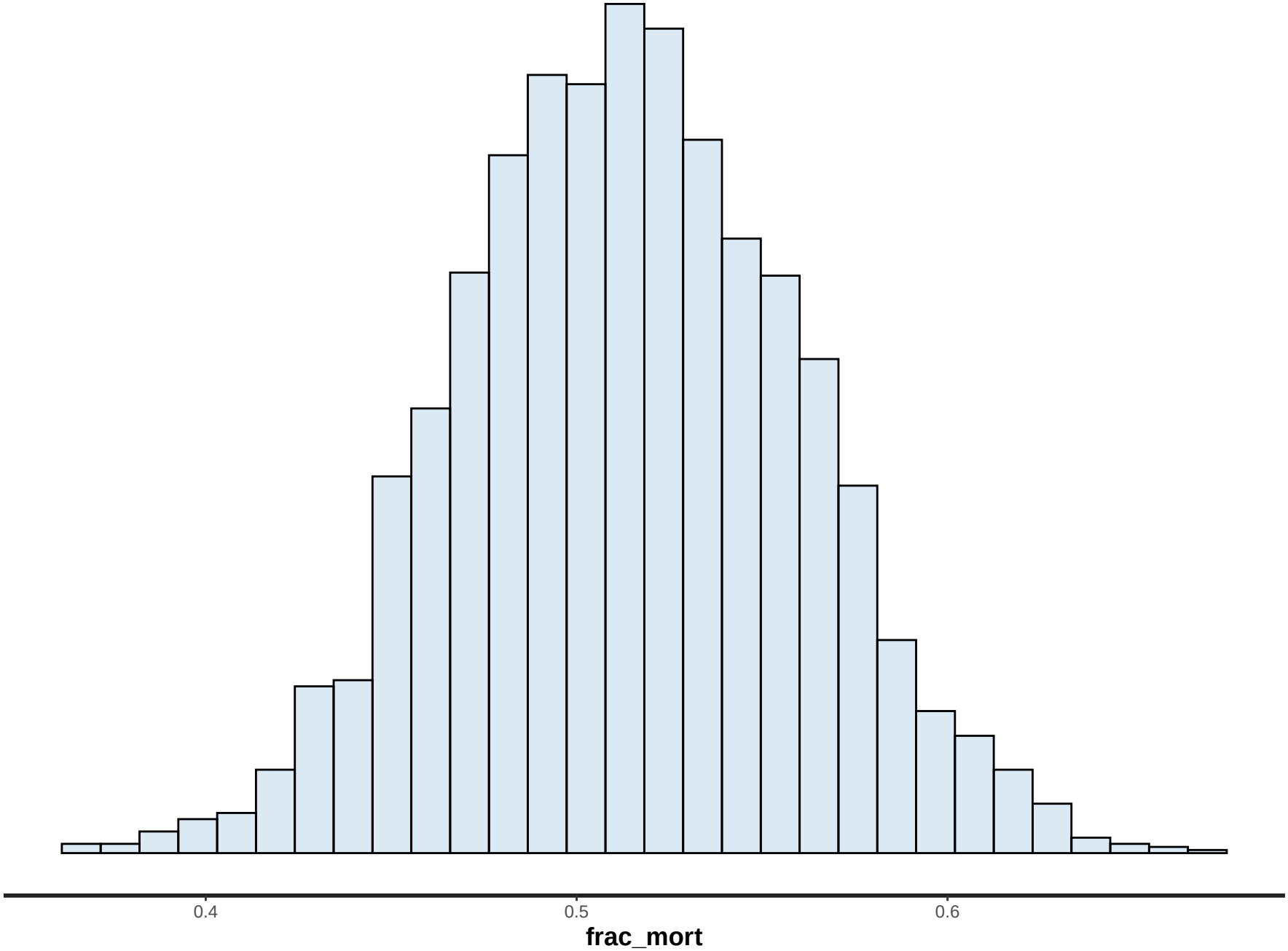

5
10
duration_pre_hosp

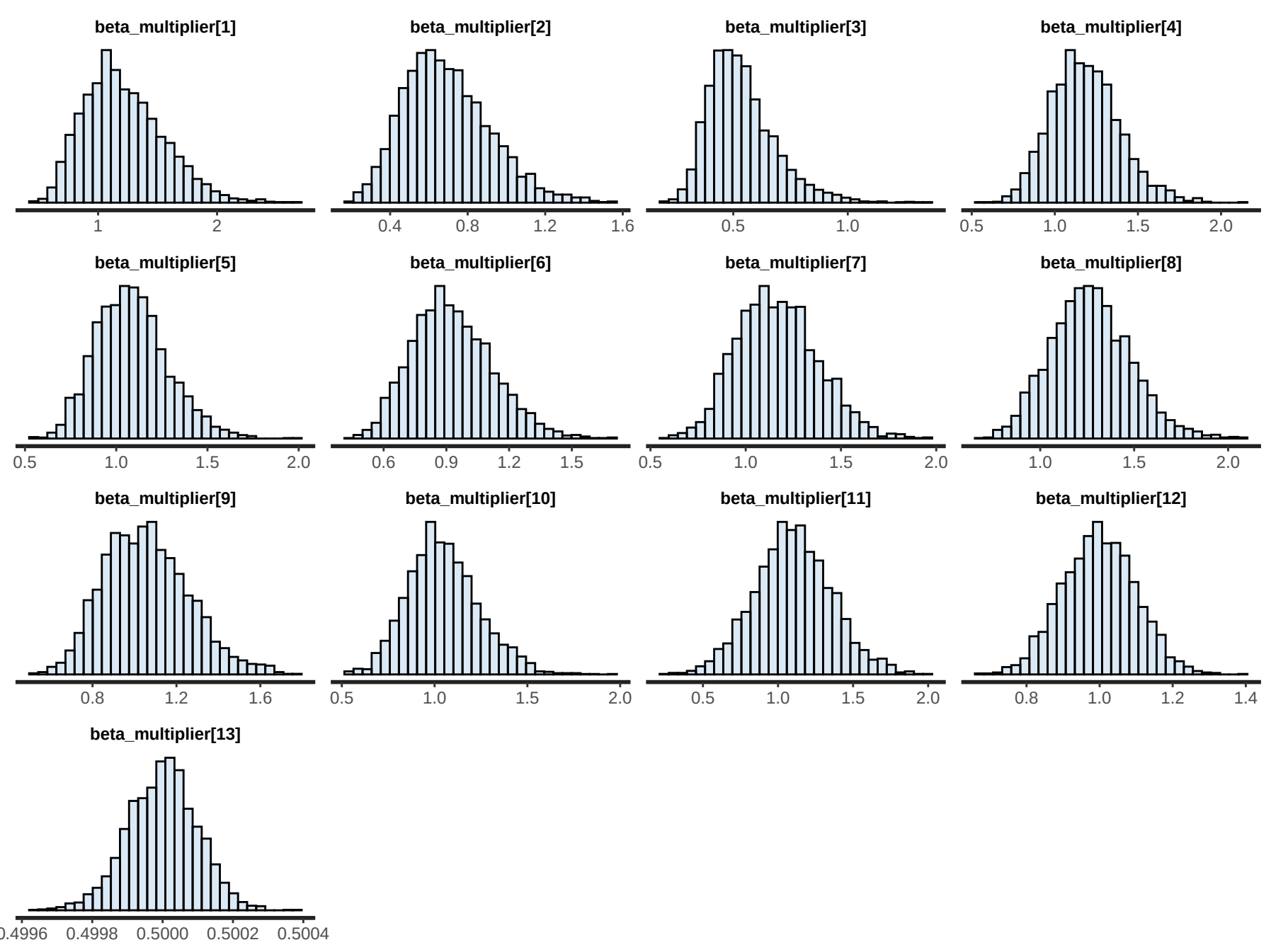

2
4
6
duration_hosp_mod

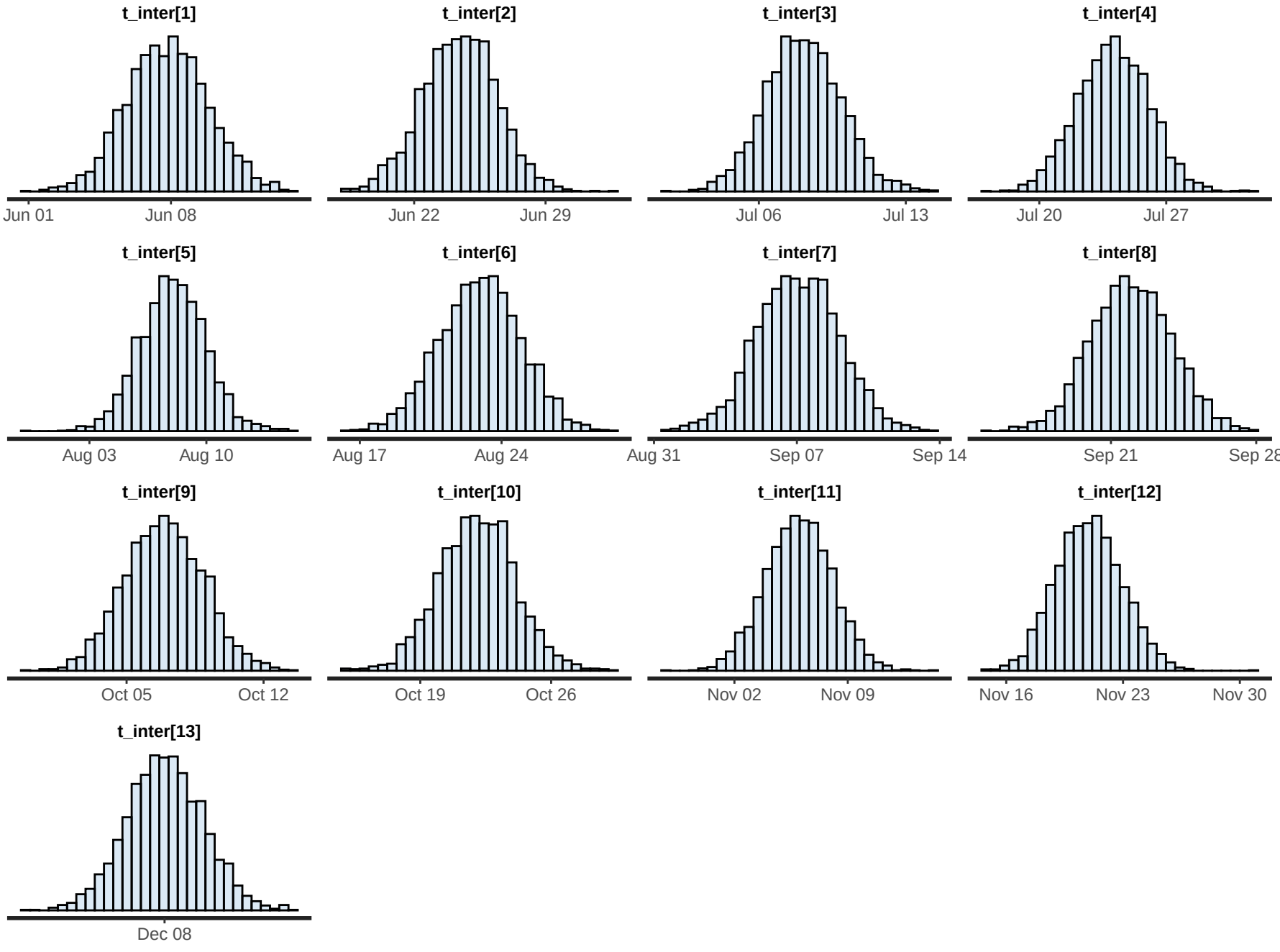

5
7
9
duration_hosp_icu

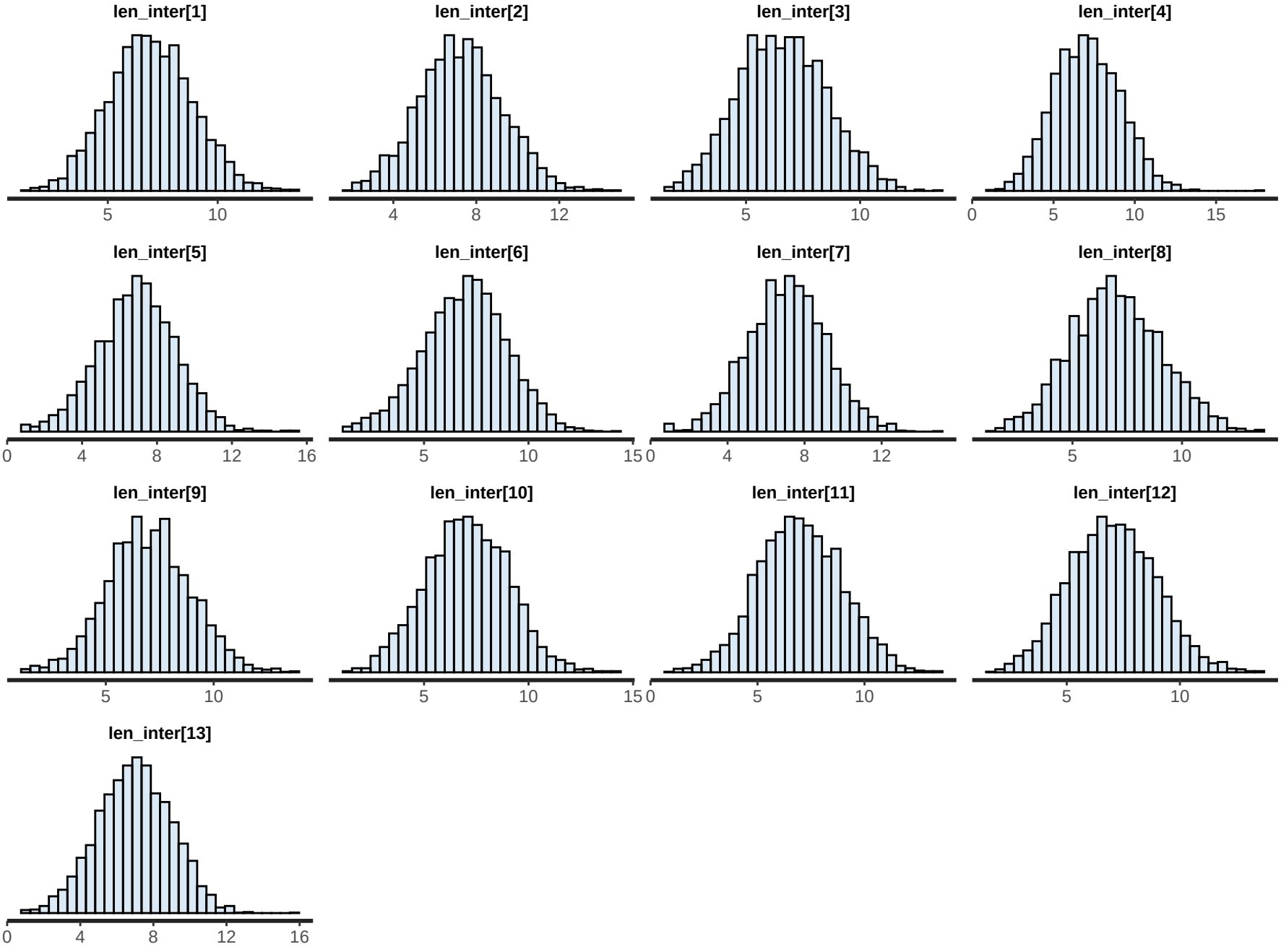

0.025
0.050
0.075
0.100
0.125
frac_hosp

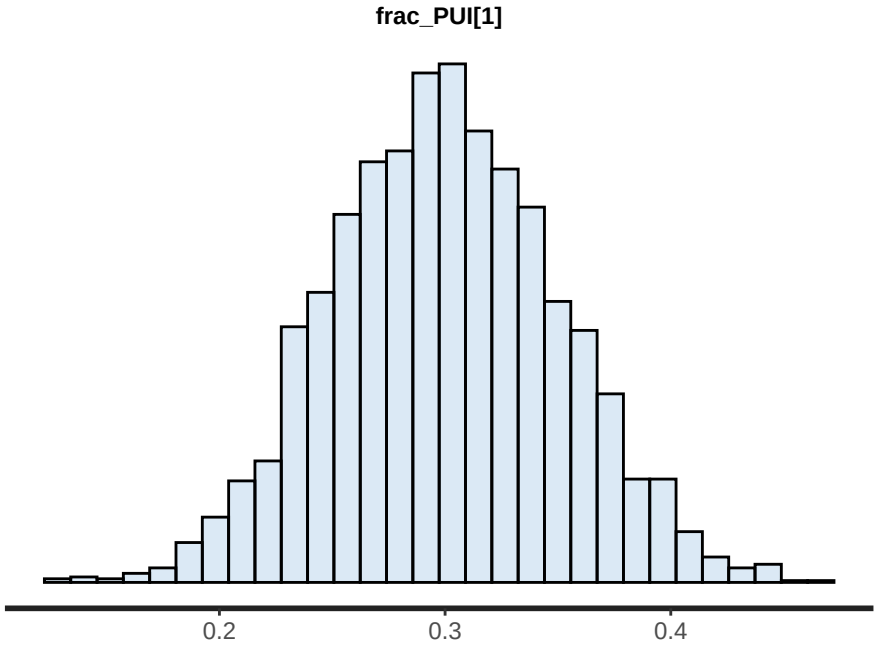

0.30
0.35
0.40
0.45
frac_icu

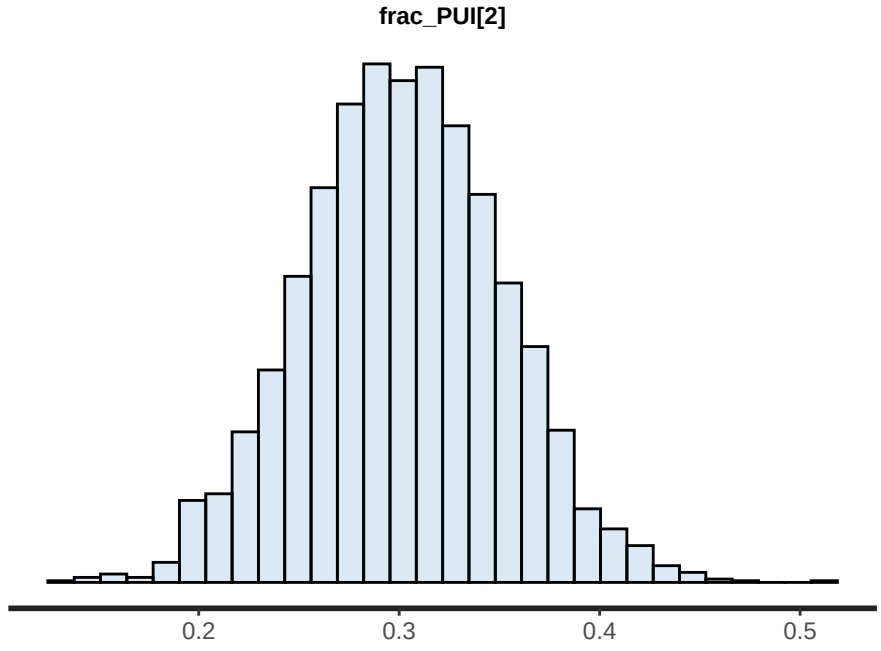

0.4
0.5
0.6
frac_mort

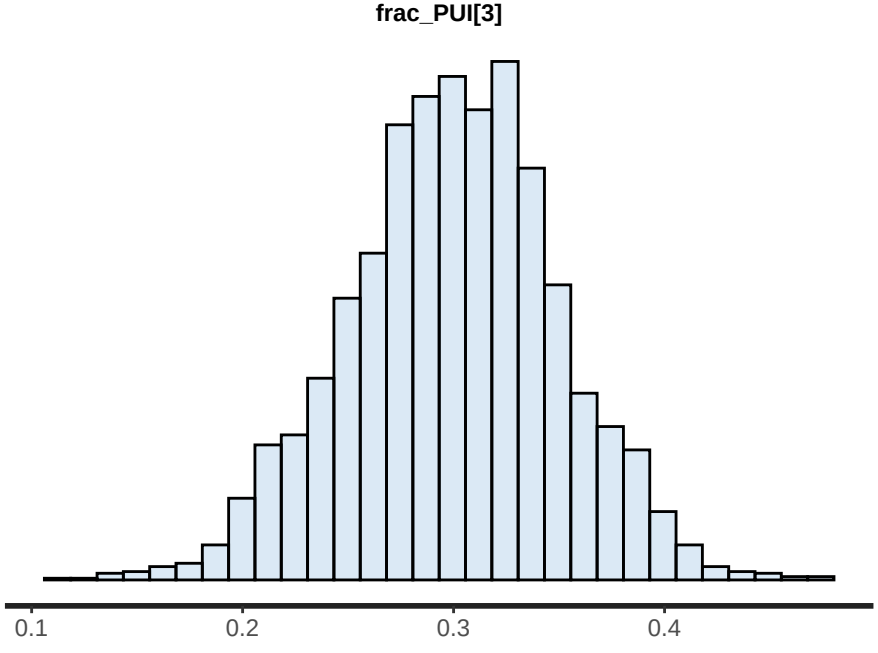

beta_multiplier[1]
1
2
beta_multiplier[2]
0.4
0.8
1.2
1.6
beta_multiplier[3]
0.5
1.0
beta_multiplier[4]
0.5
1.0
1.5
2.0
beta_multiplier[5]
0.5
1.0
1.5
2.0
beta_multiplier[6]
0.6
0.9
1.2
1.5
beta_multiplier[7]
0.5
1.0
1.5
2.0
beta_multiplier[8]
1.0
1.5
2.0
beta_multiplier[9]
0.8
1.2
1.6
beta_multiplier[10]
0.5
1.0
1.5
2.0
beta_multiplier[11]
0.5
1.0
1.5
2.0
beta_multiplier[12]
0.8
1.0
1.2
1.4
beta_multiplier[13]
0.4996
0.4998
0.5000
0.5002
0.5004

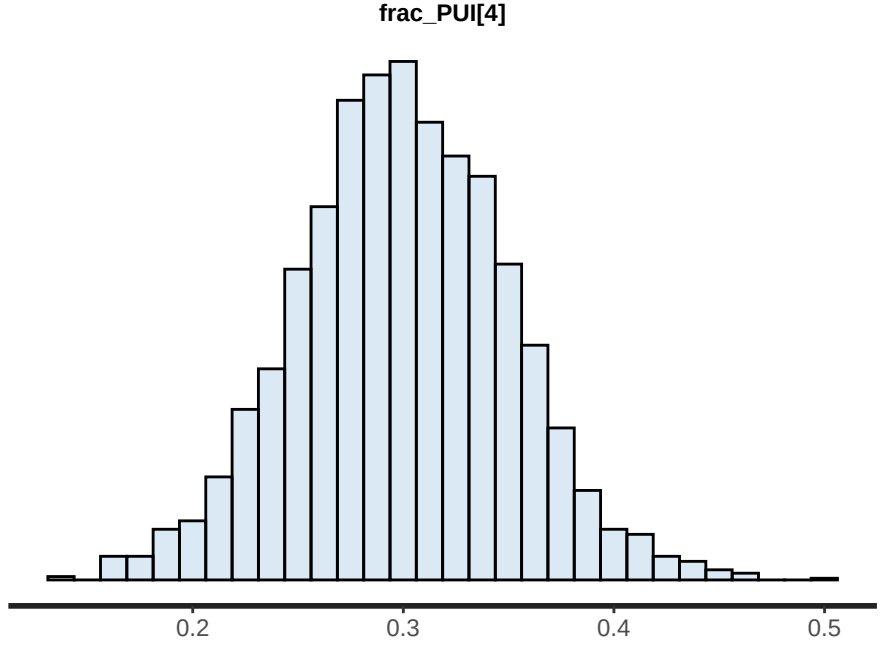

t_inter[1]
Jun 01
Jun 08
t_inter[2]
Jun 22
Jun 29
t_inter[3]
Jul 06
Jul 13
t_inter[4]
Jul 20
Jul 27
t_inter[5]
Aug 03
Aug 10
t_inter[6]
Aug 17
Aug 24
t_inter[7]
Aug 31
Sep 07
Sep 14
t_inter[8]
Sep 21
Sep 28
t_inter[9]
Oct 05
Oct 12
t_inter[10]
Oct 19
Oct 26
t_inter[11]
Nov 02
Nov 09
t_inter[12]
Nov 16
Nov 23
Nov 30
t_inter[13]
Dec 08

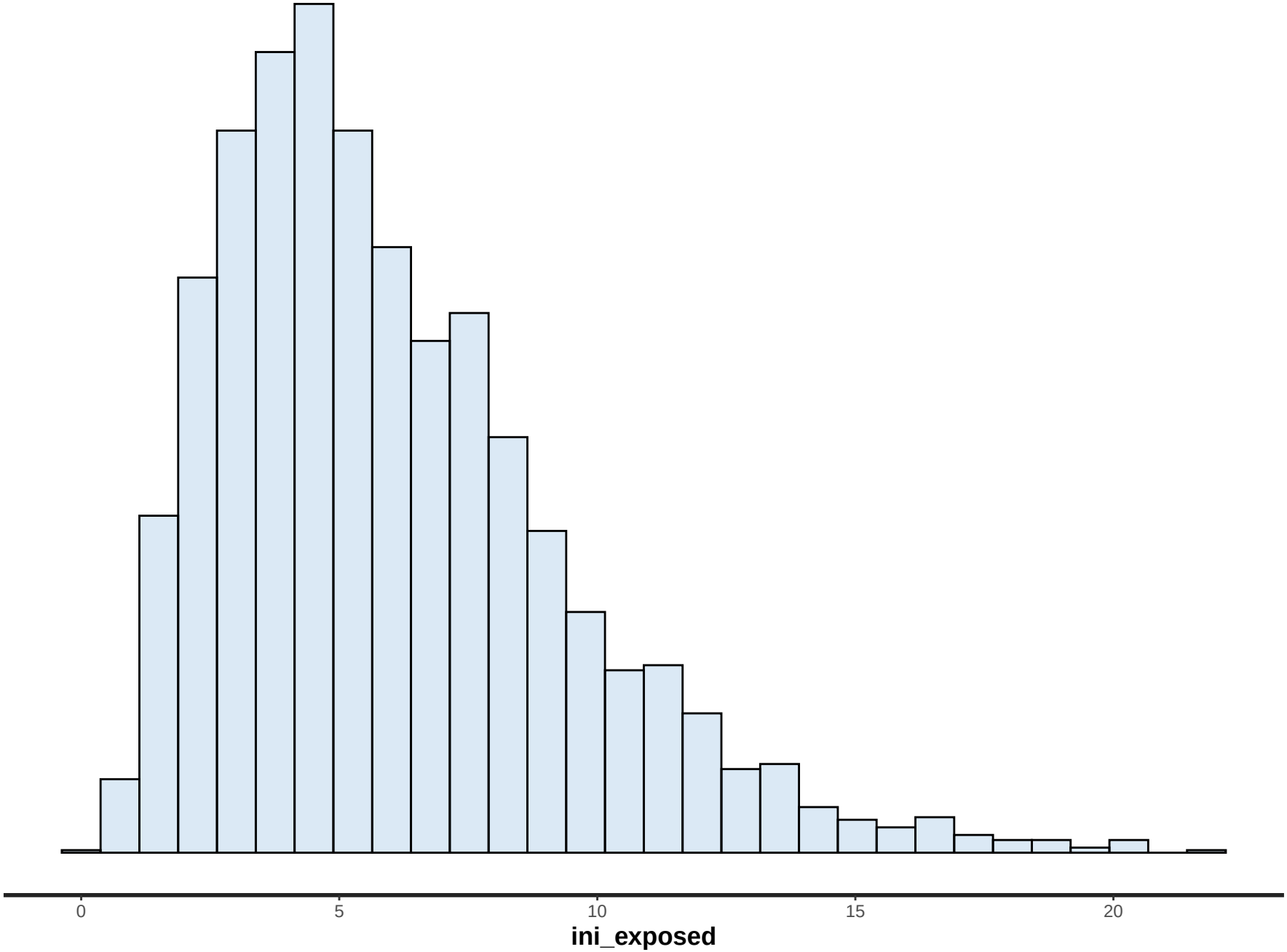

len_inter[1]
5
10
len_inter[2]
4
8
12
len_inter[3]
5
10
len_inter[4]
0
5
10
15
len_inter[5]
0
4
8
12
16
len_inter[6]
5
10
15
len_inter[7]
0
4
8
12
len_inter[8]
5
10
len_inter[9]
5
10
len_inter[10]
5
10
15
len_inter[11]
0
5
10
len_inter[12]
5
10
len_inter[13]
0
4
8
12
16

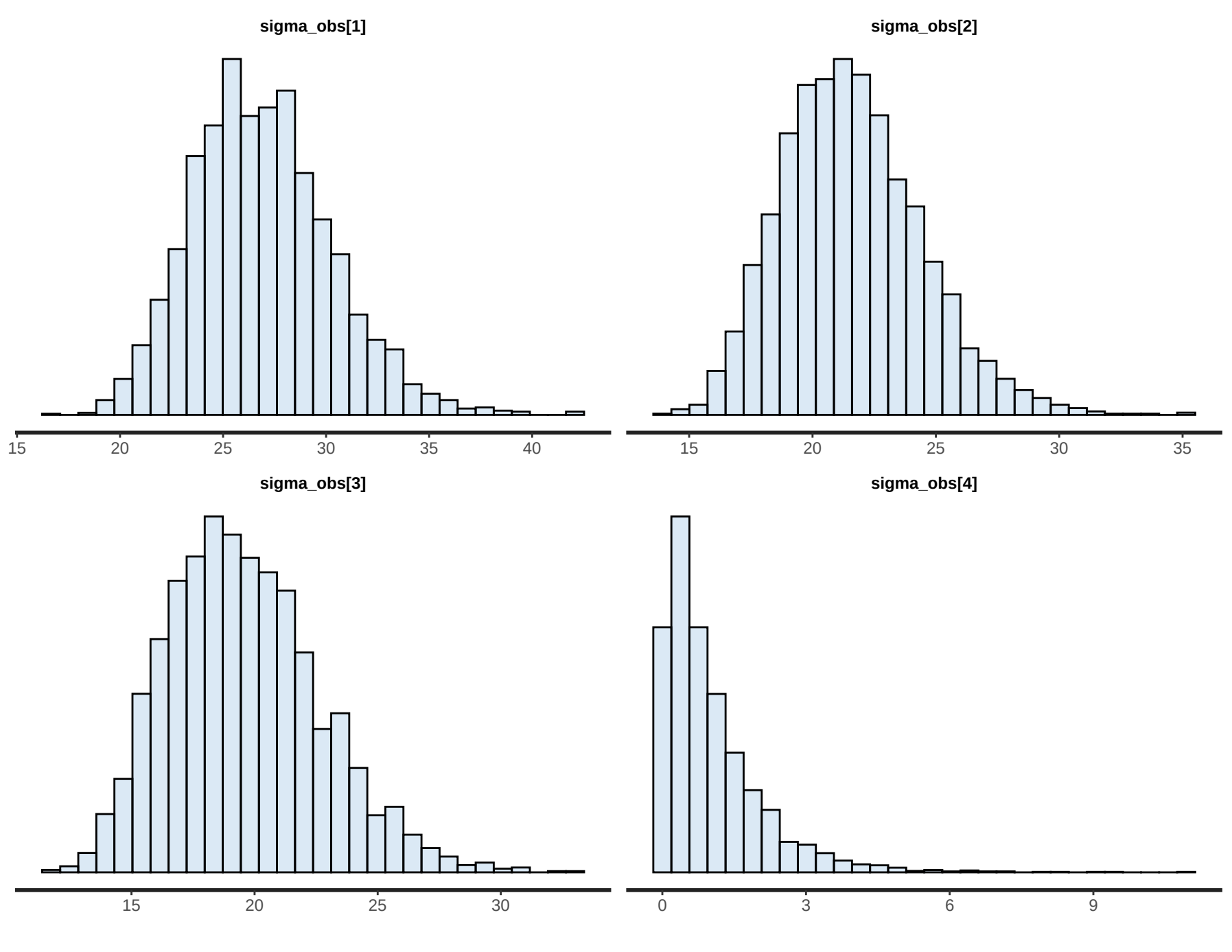

frac_PUI[1]
0.2
0.3
0.4


frac_PUI[2]
0.2
0.3
0.4
0.5


frac_PUI[3]
0.1
0.2
0.3
0.4


frac_PUI[4]
0.2
0.3
0.4
0.5


0
5
10
15
20
ini_exposed


sigma_obs[1]
15
20
25
30
35
40
sigma_obs[2]
15
20
25
30
35
sigma_obs[3]
15
20
25
30
sigma_obs[4]
0
3
6
9