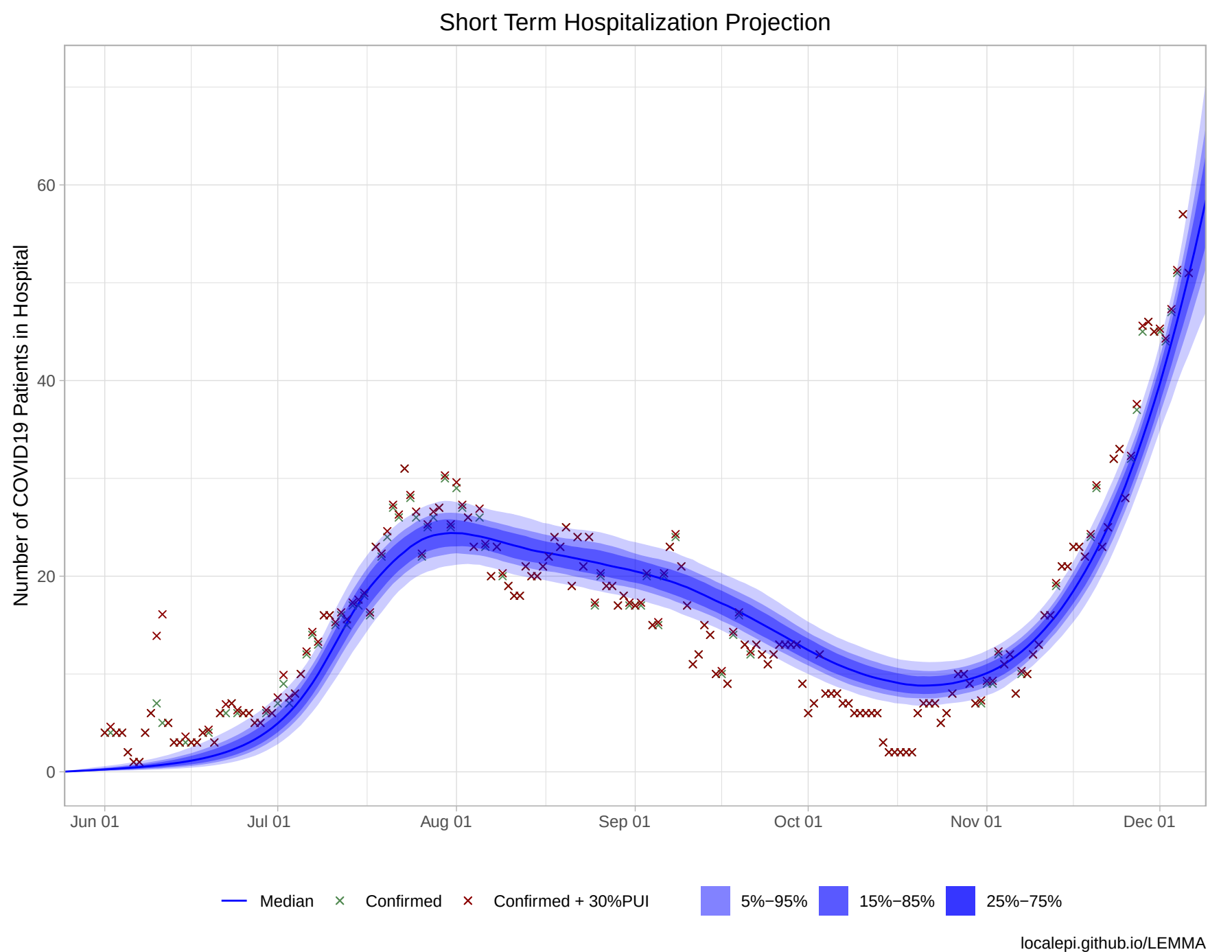
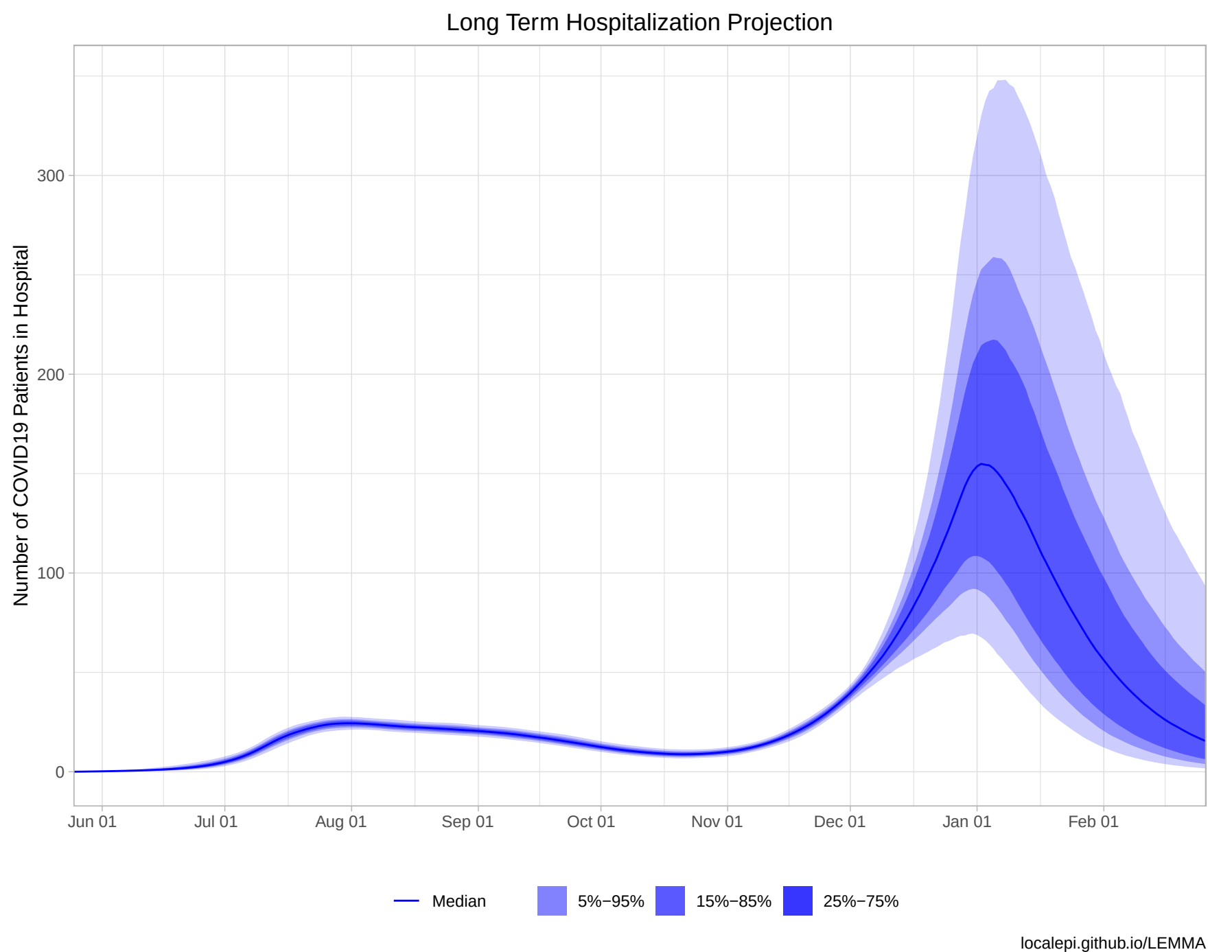
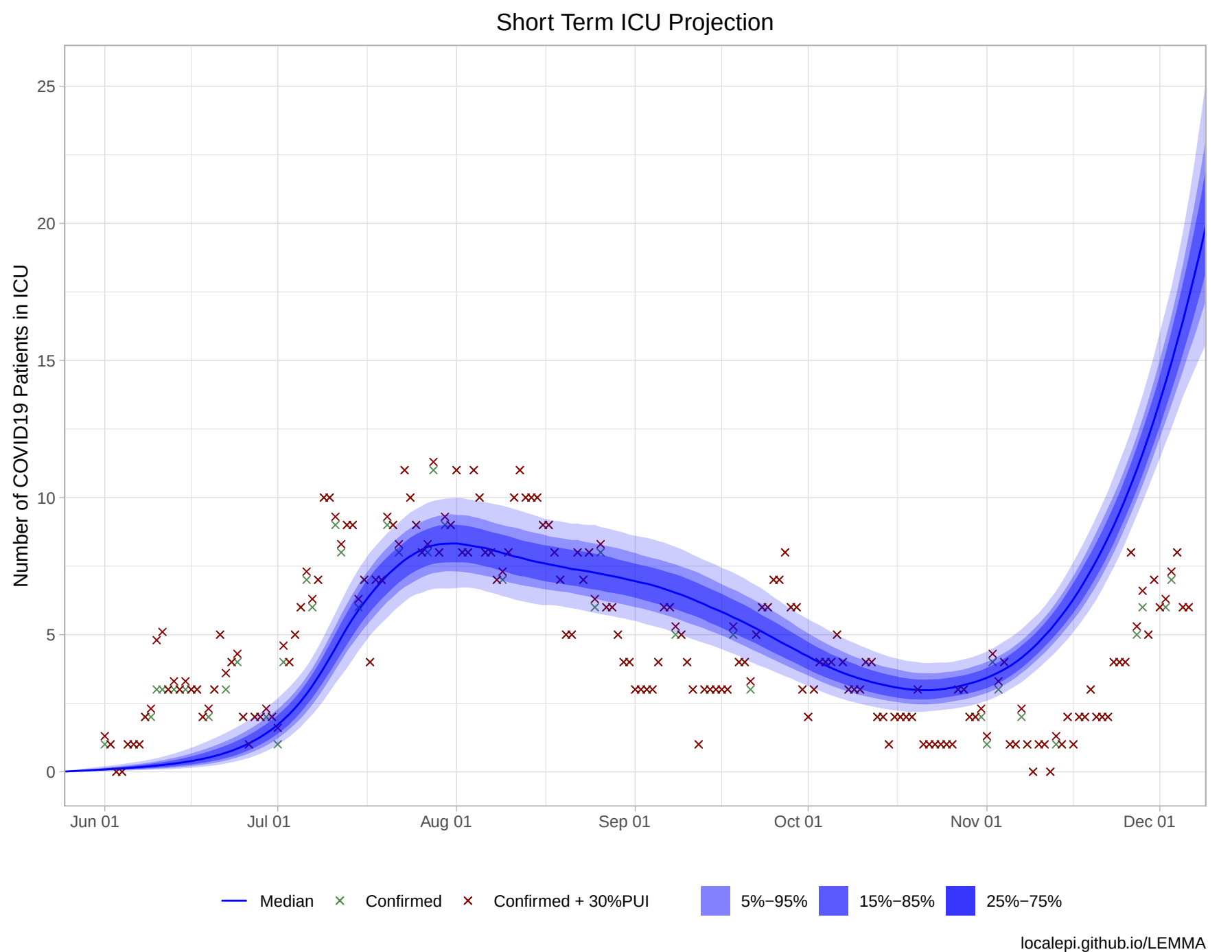
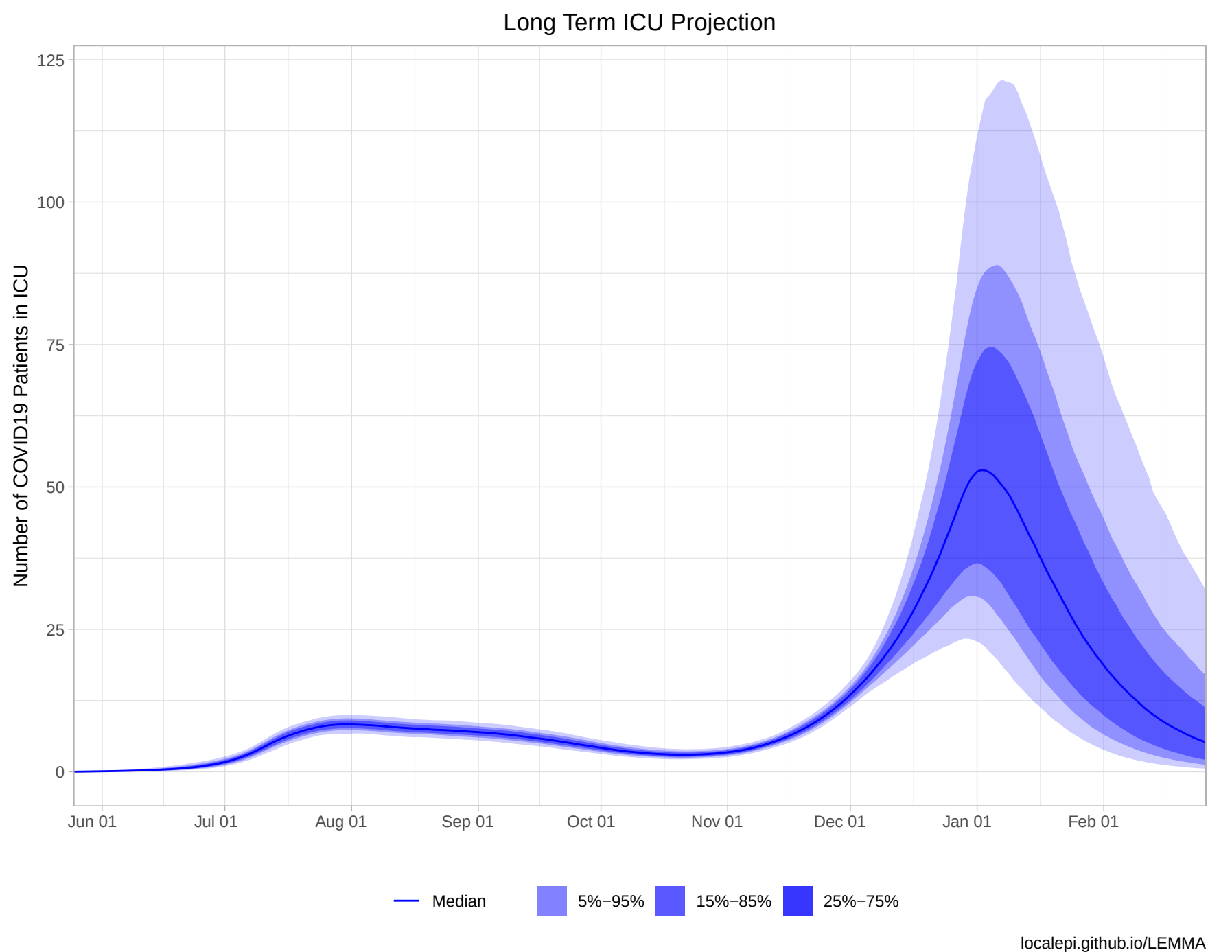
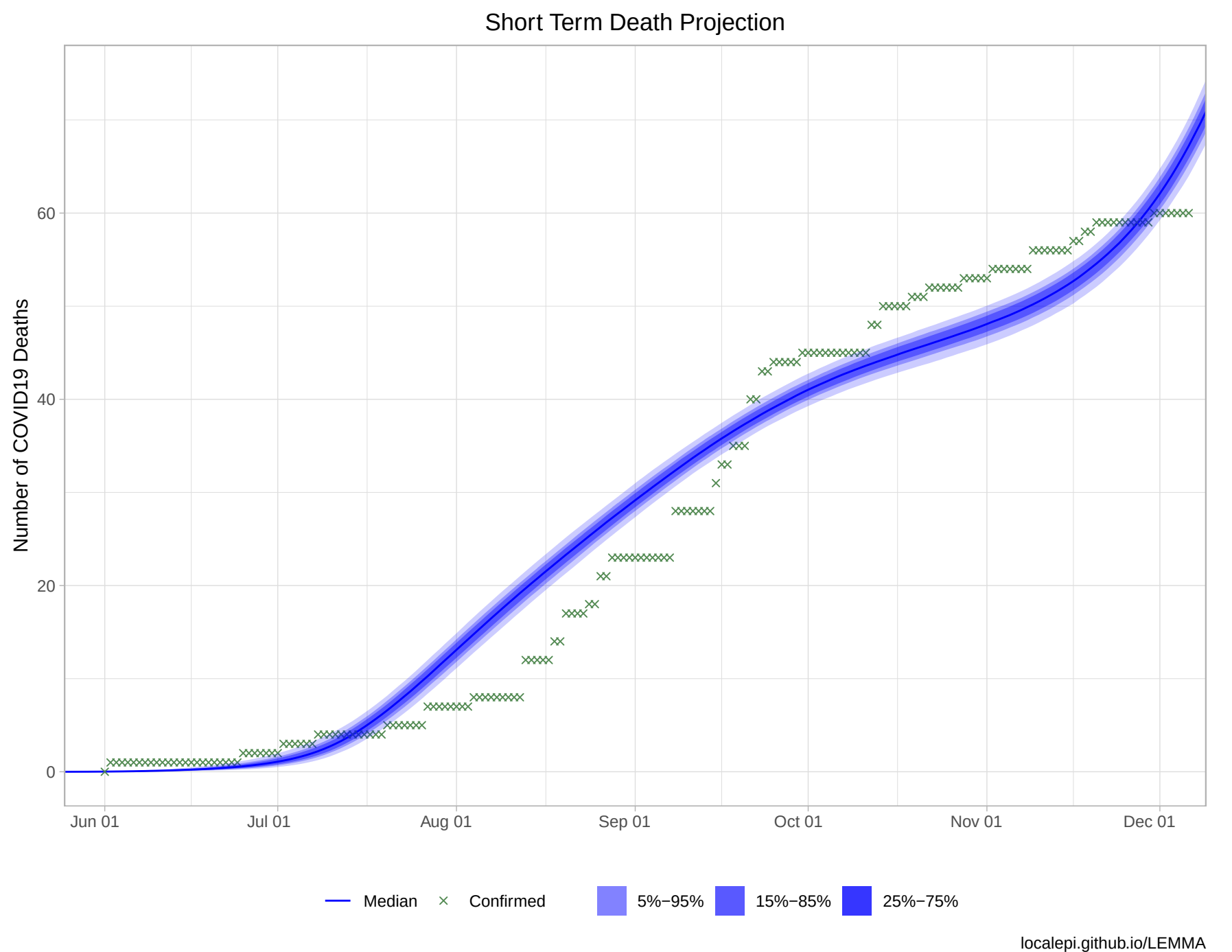
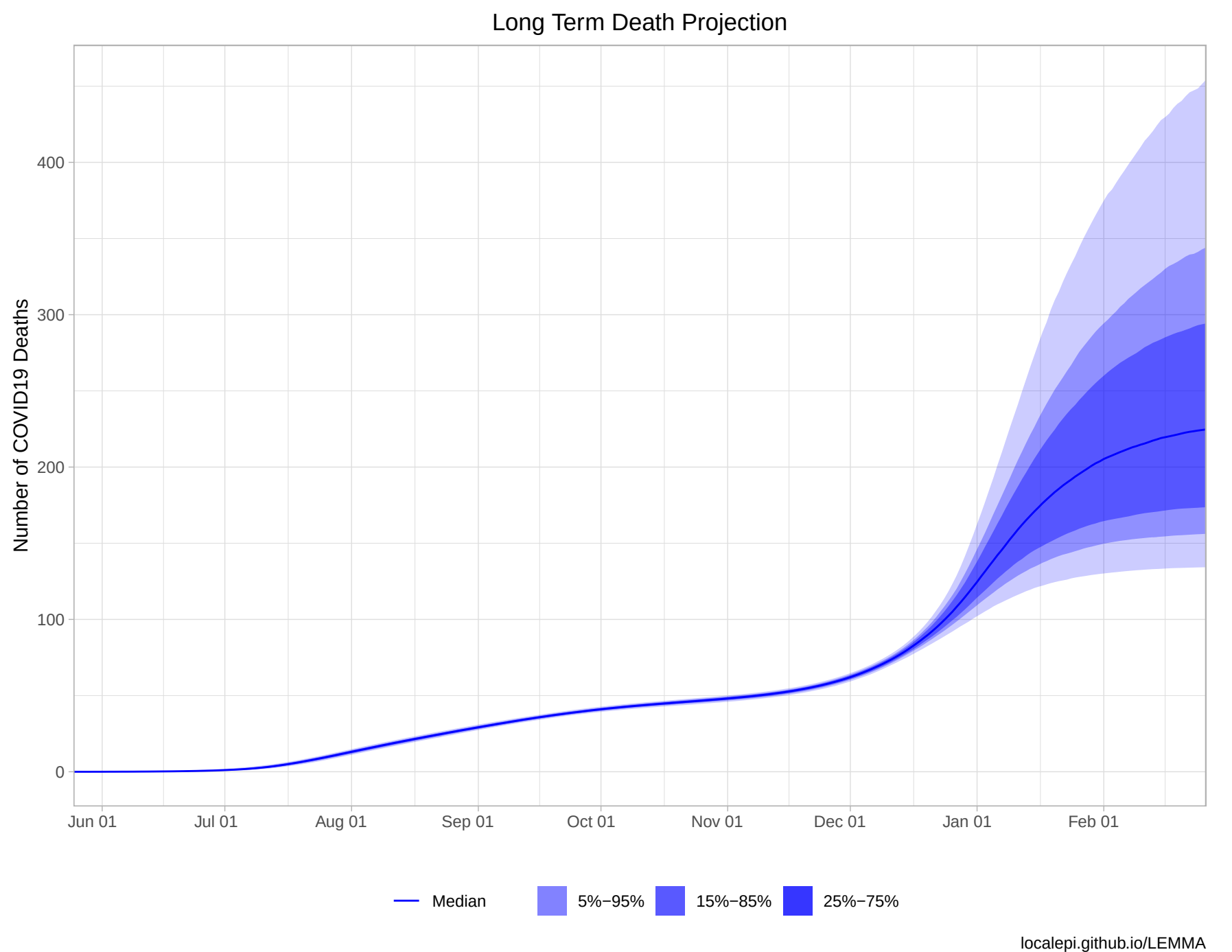

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
20
40
60
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

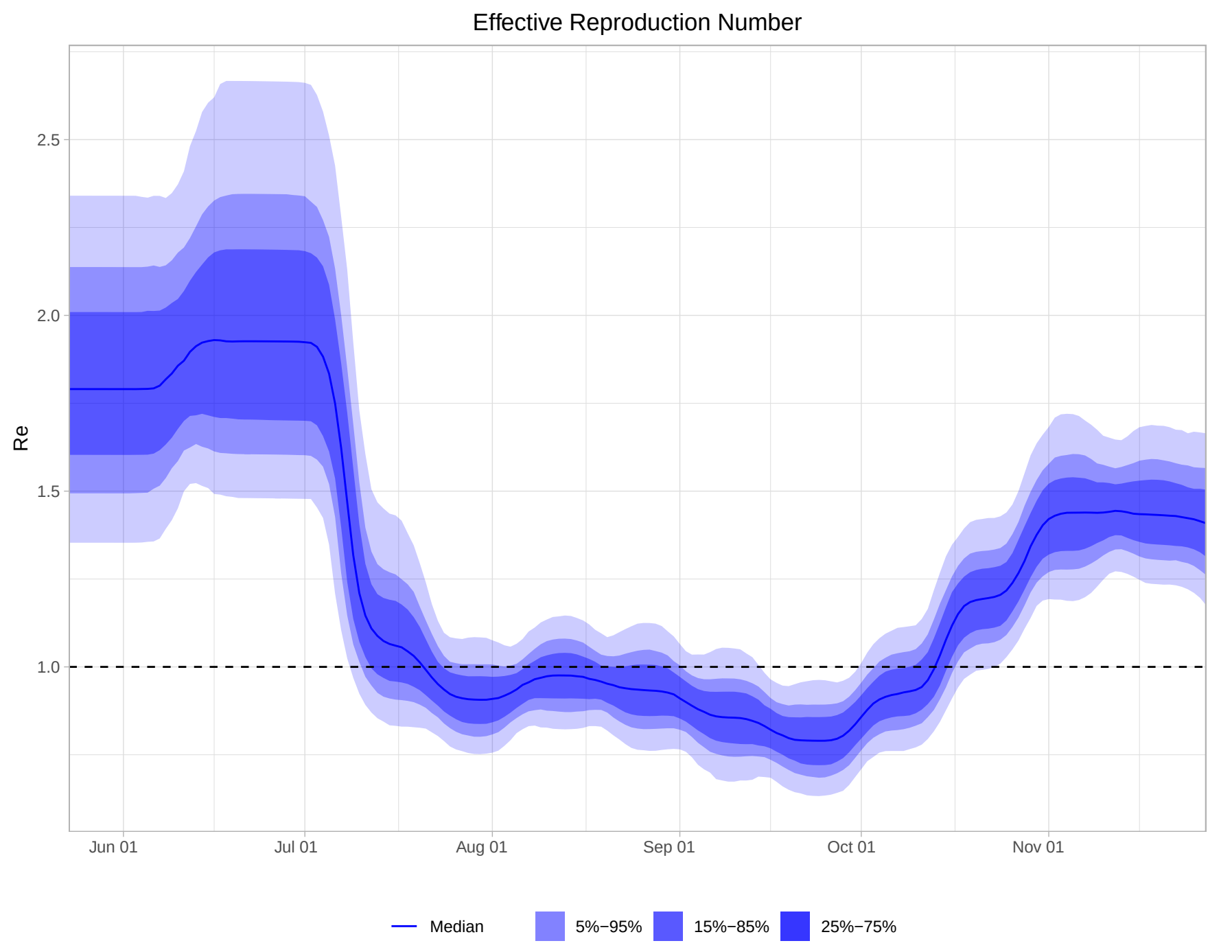

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
300
200
100
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


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
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

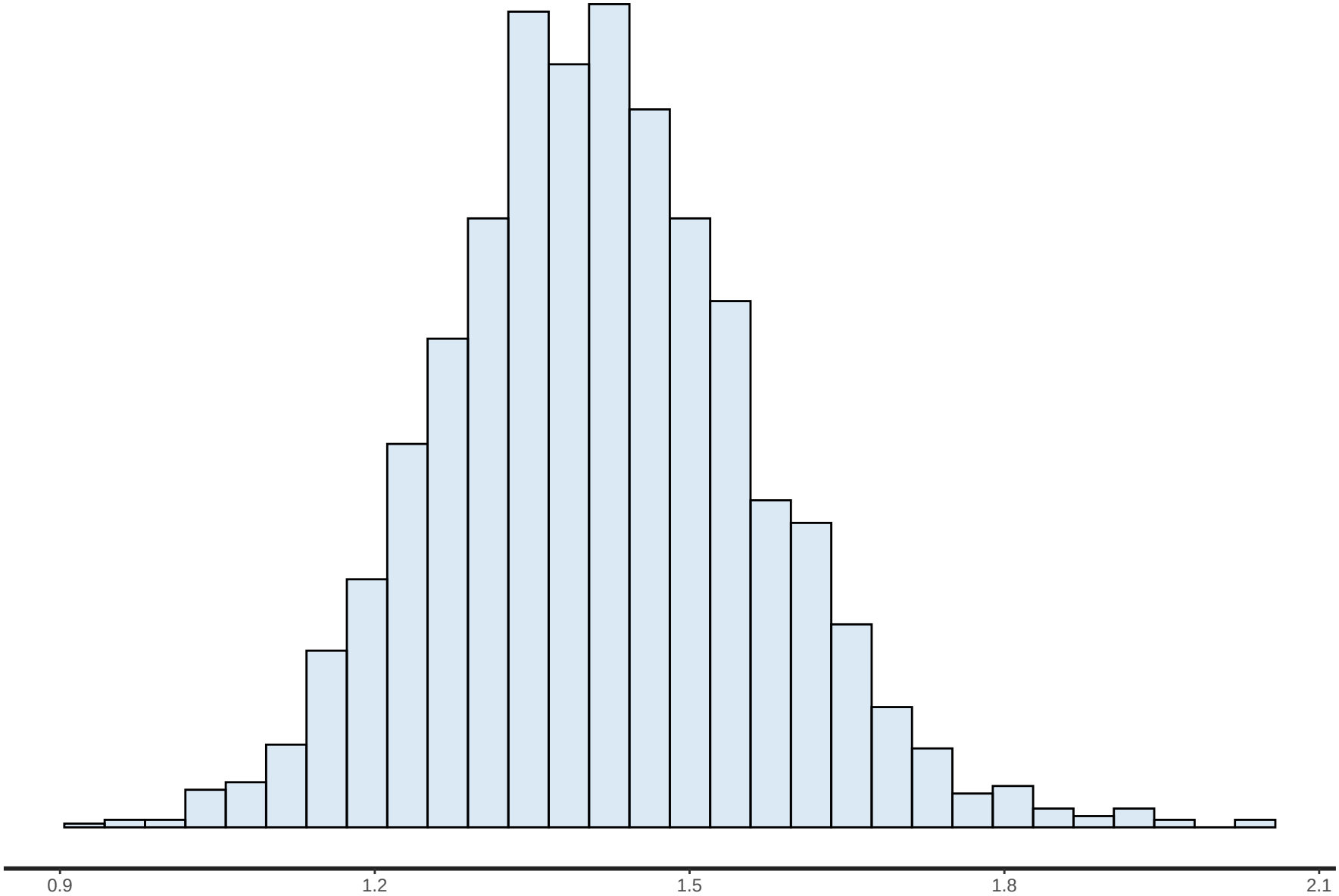

Short Term Death Projection
Number of COVID19 Deaths
0
20
40
60
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

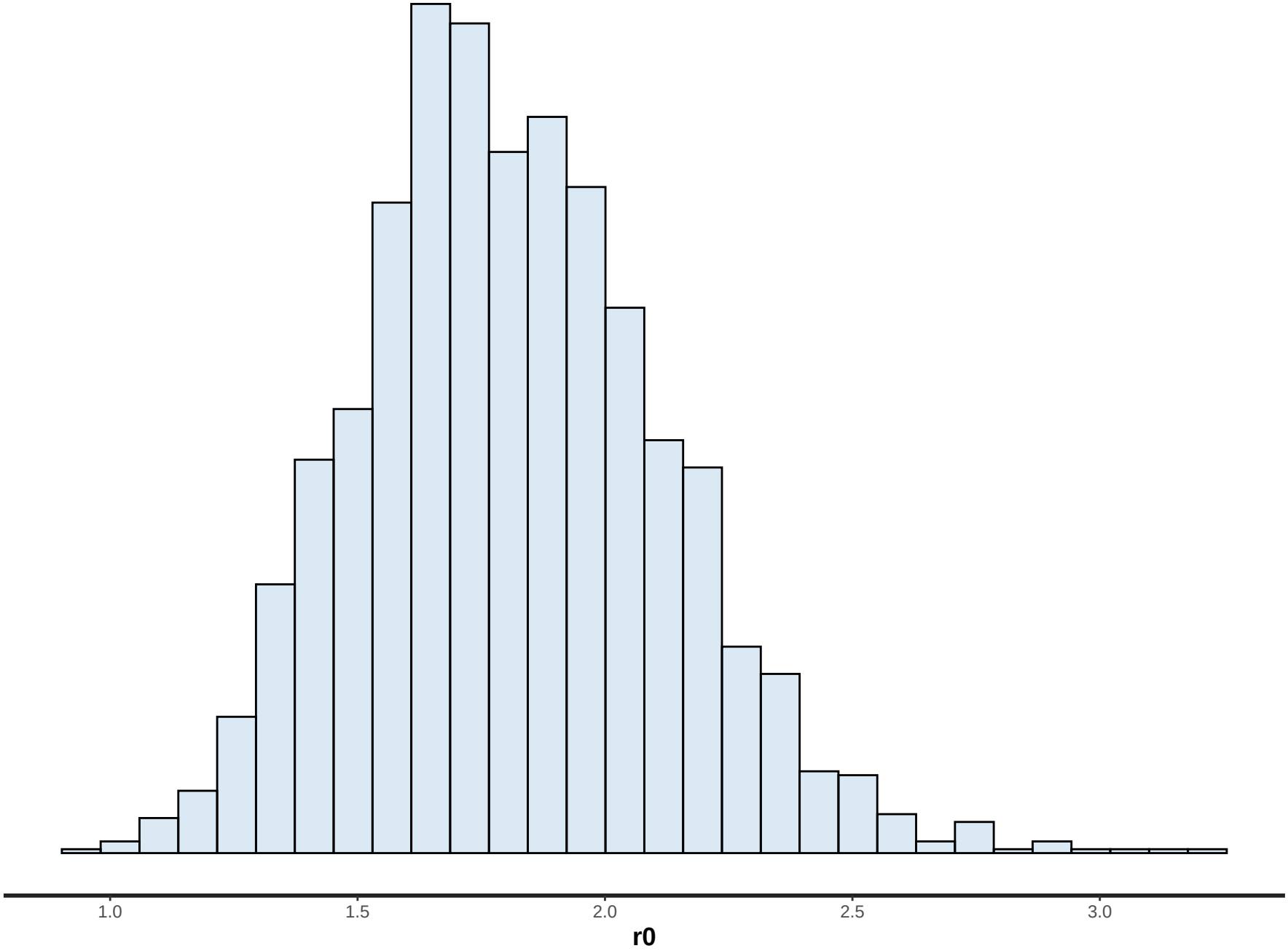

Long Term Death Projection
Number of COVID19 Deaths
400
300
200
100
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

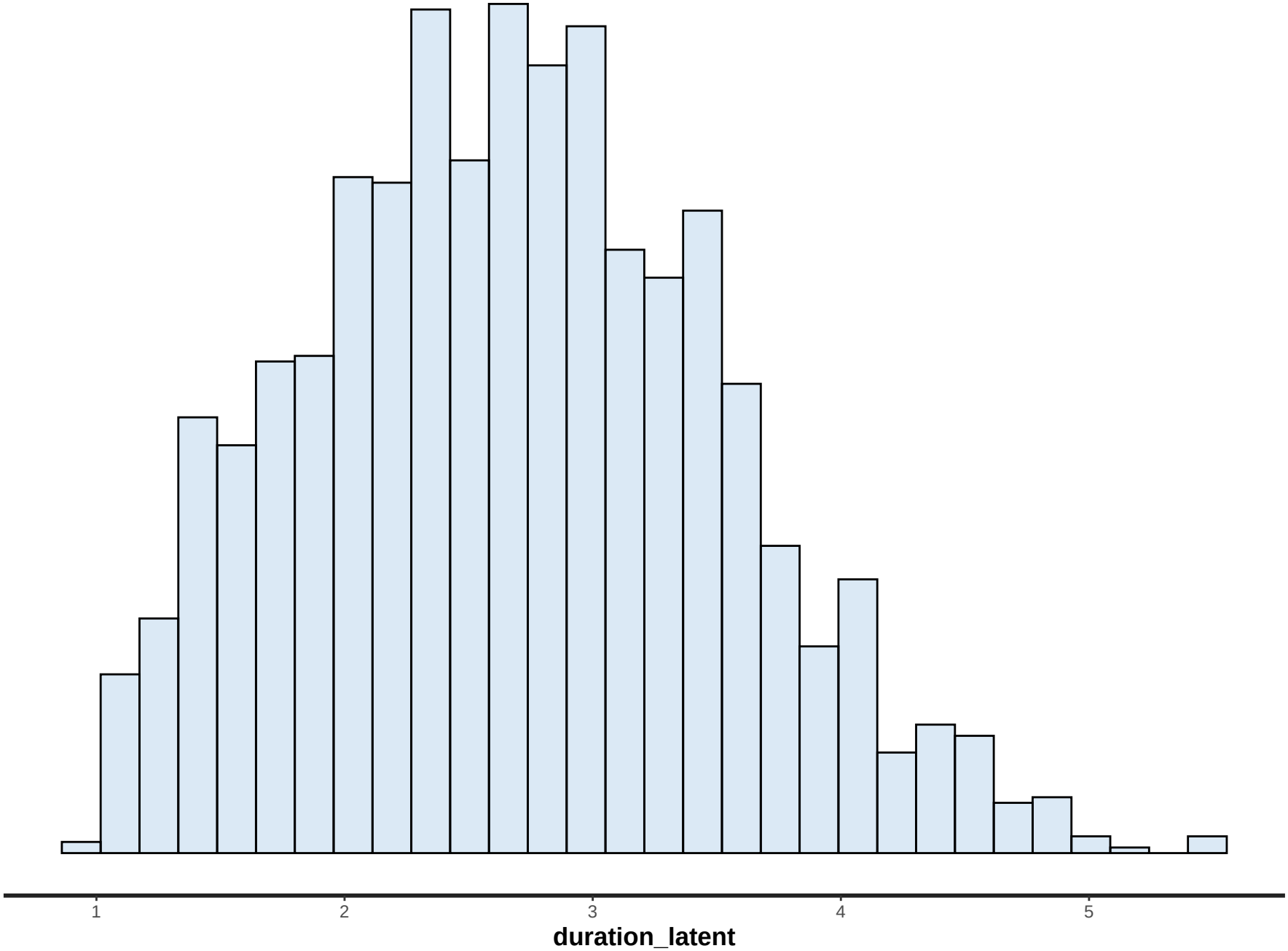

Effective Reproduction Number
Re
2.5
2.0
1.5
1.0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
5%−95%
15%−85%
25%−75%

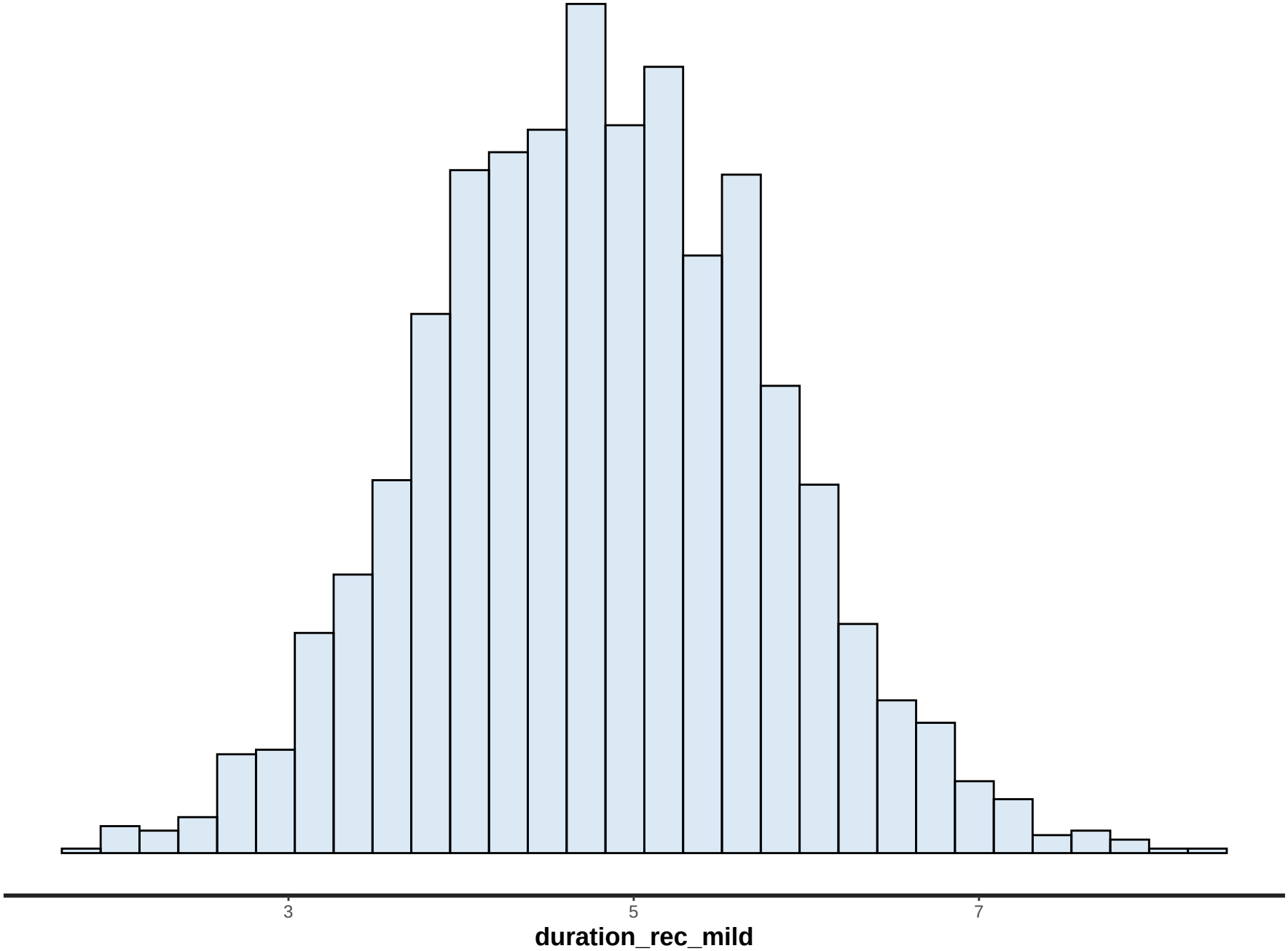
Rt as of 2020−11−27

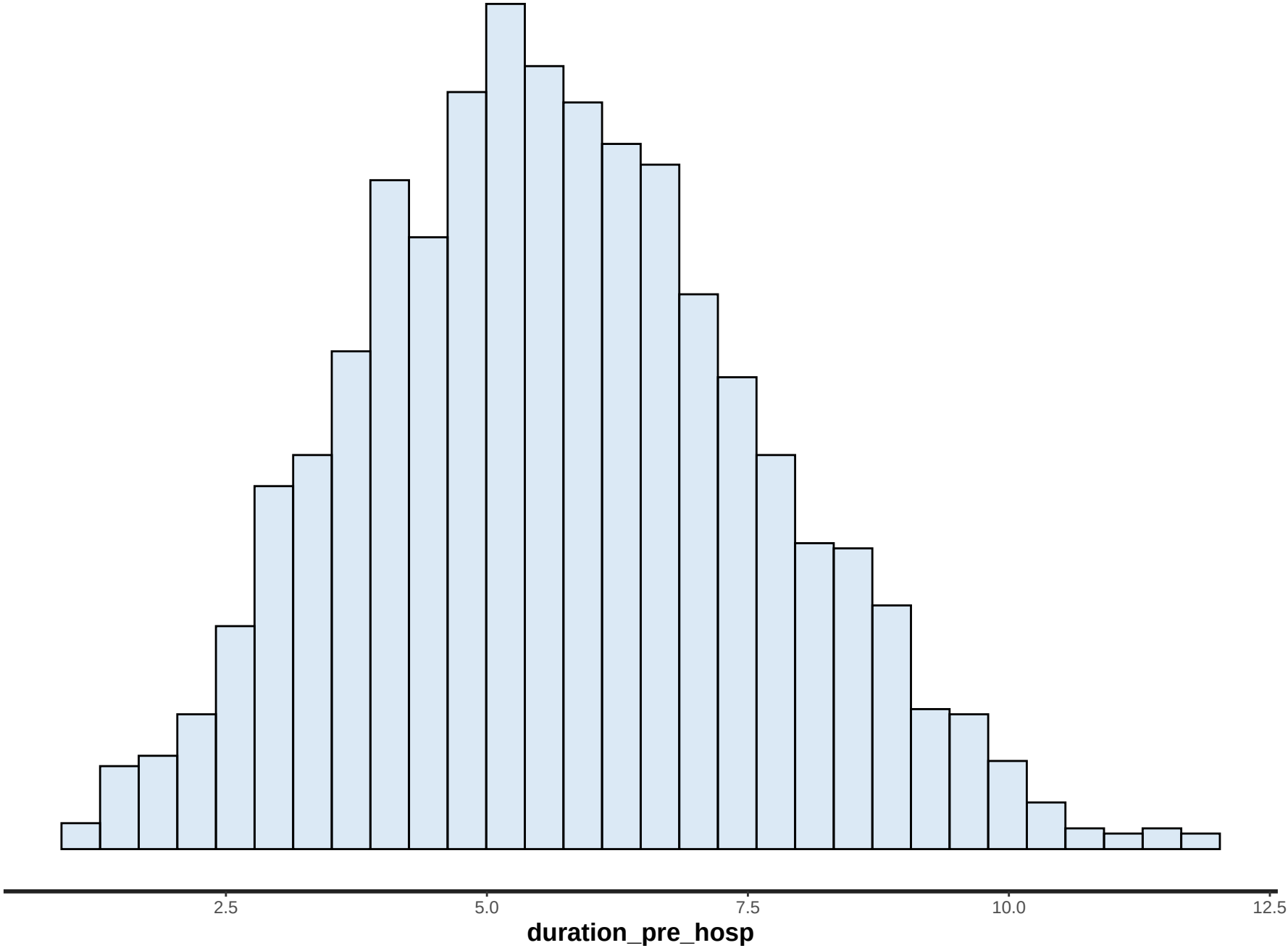
5%	10%	25%	50%	75%	90%	95%
1.18	1.23	1.31	1.41	1.50	1.61	1.66

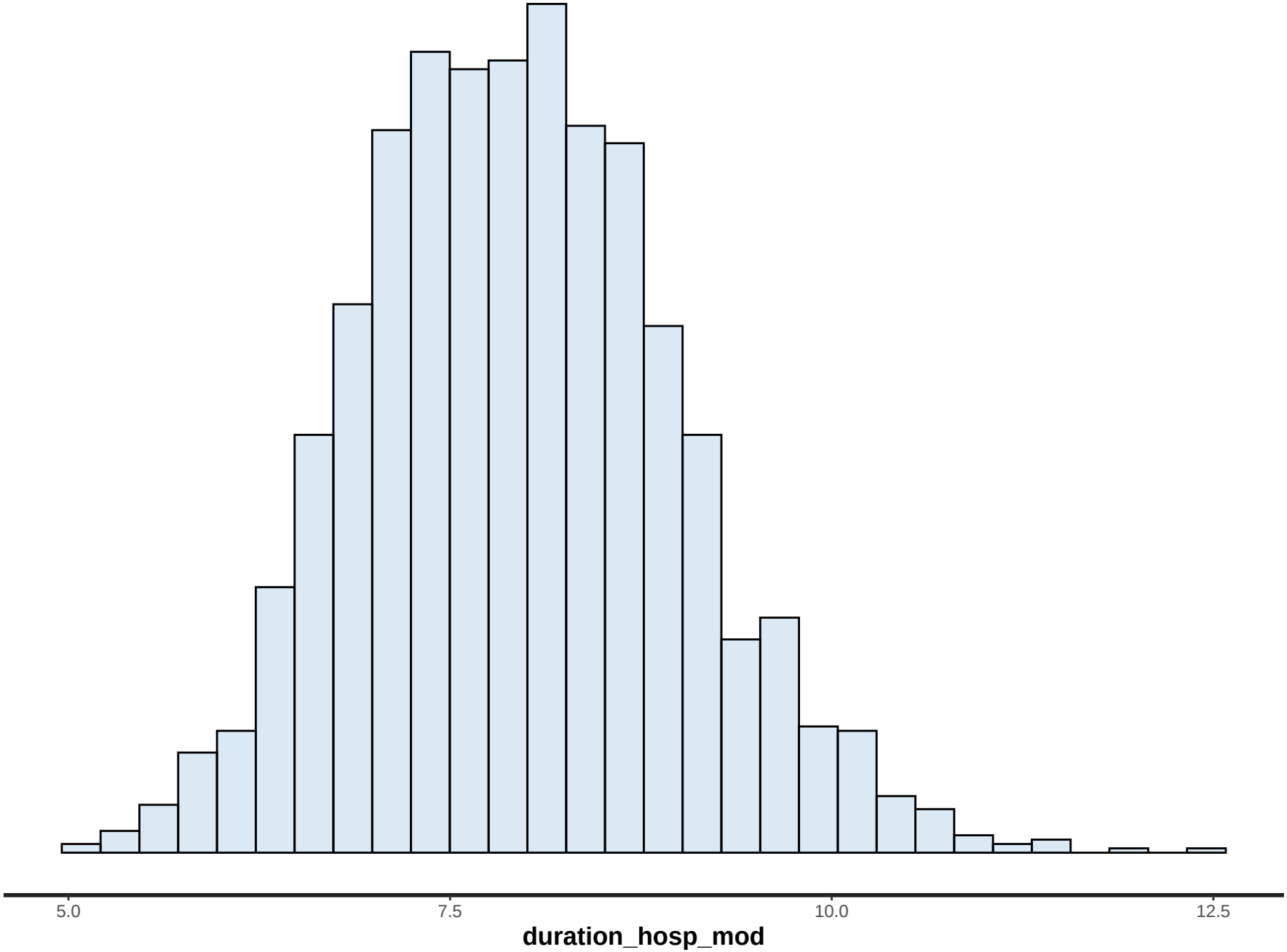


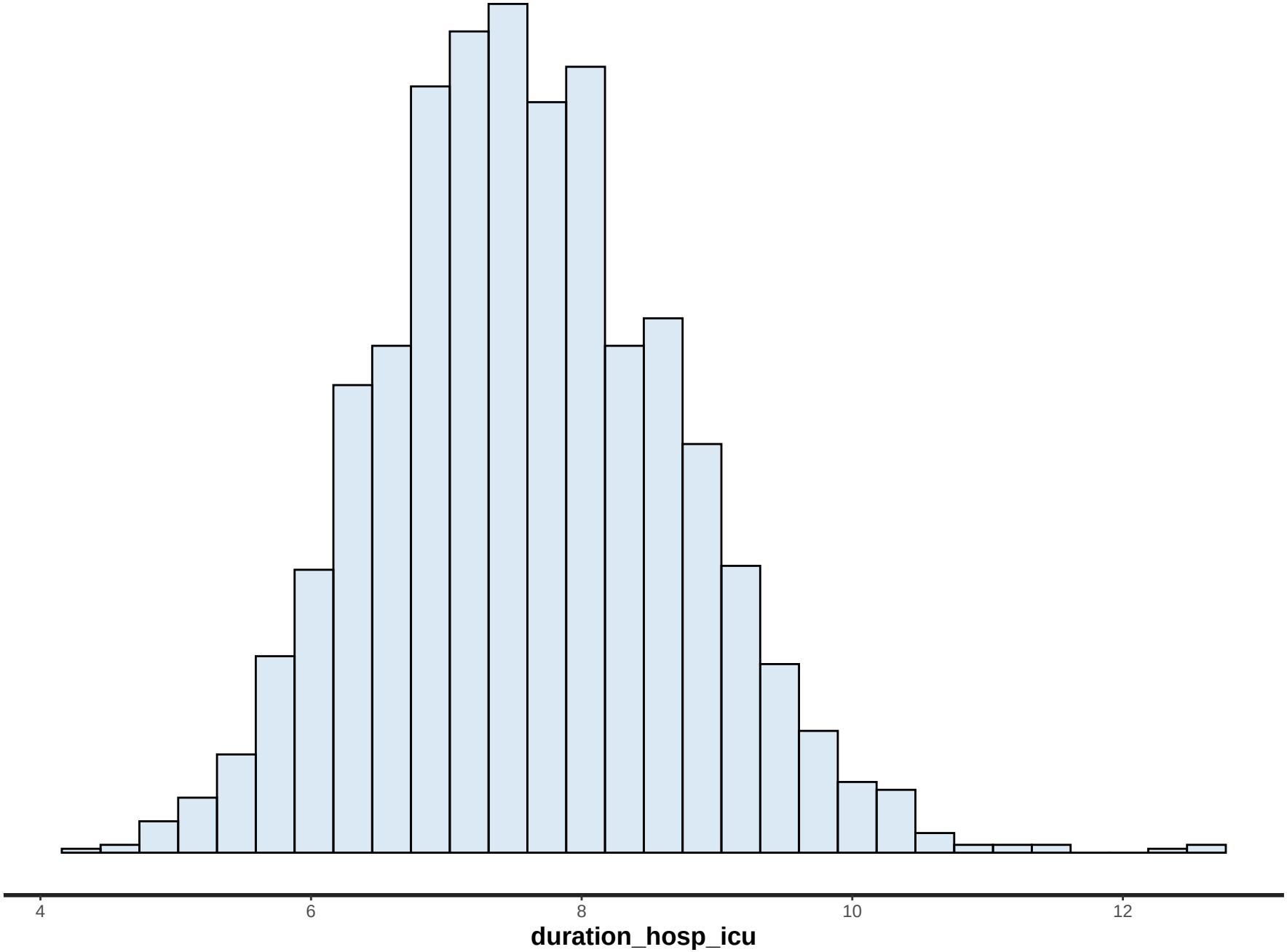

1.0
1.5
2.0
2.5
3.0
r0

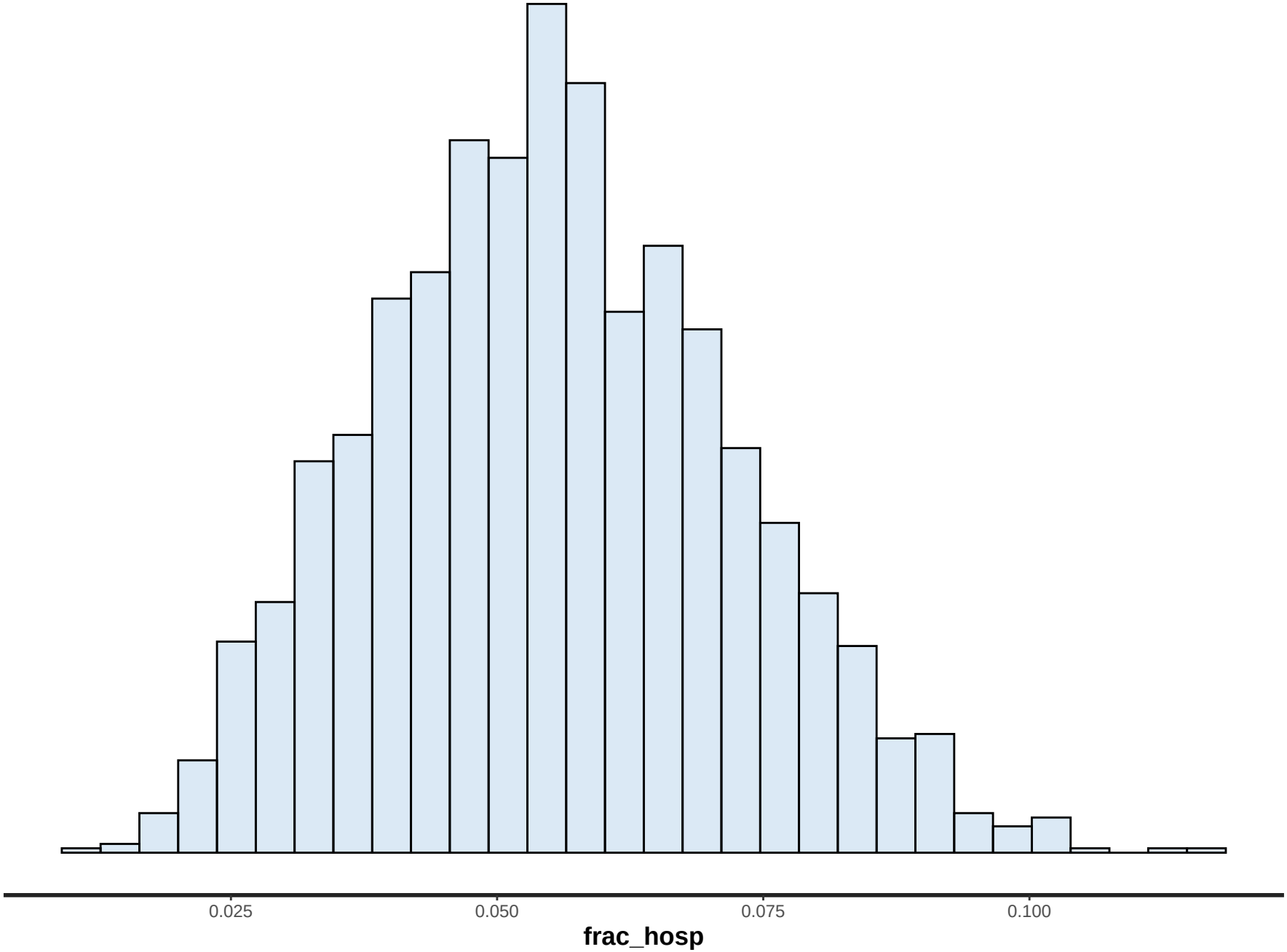

1
2
3
4
5
duration_latent

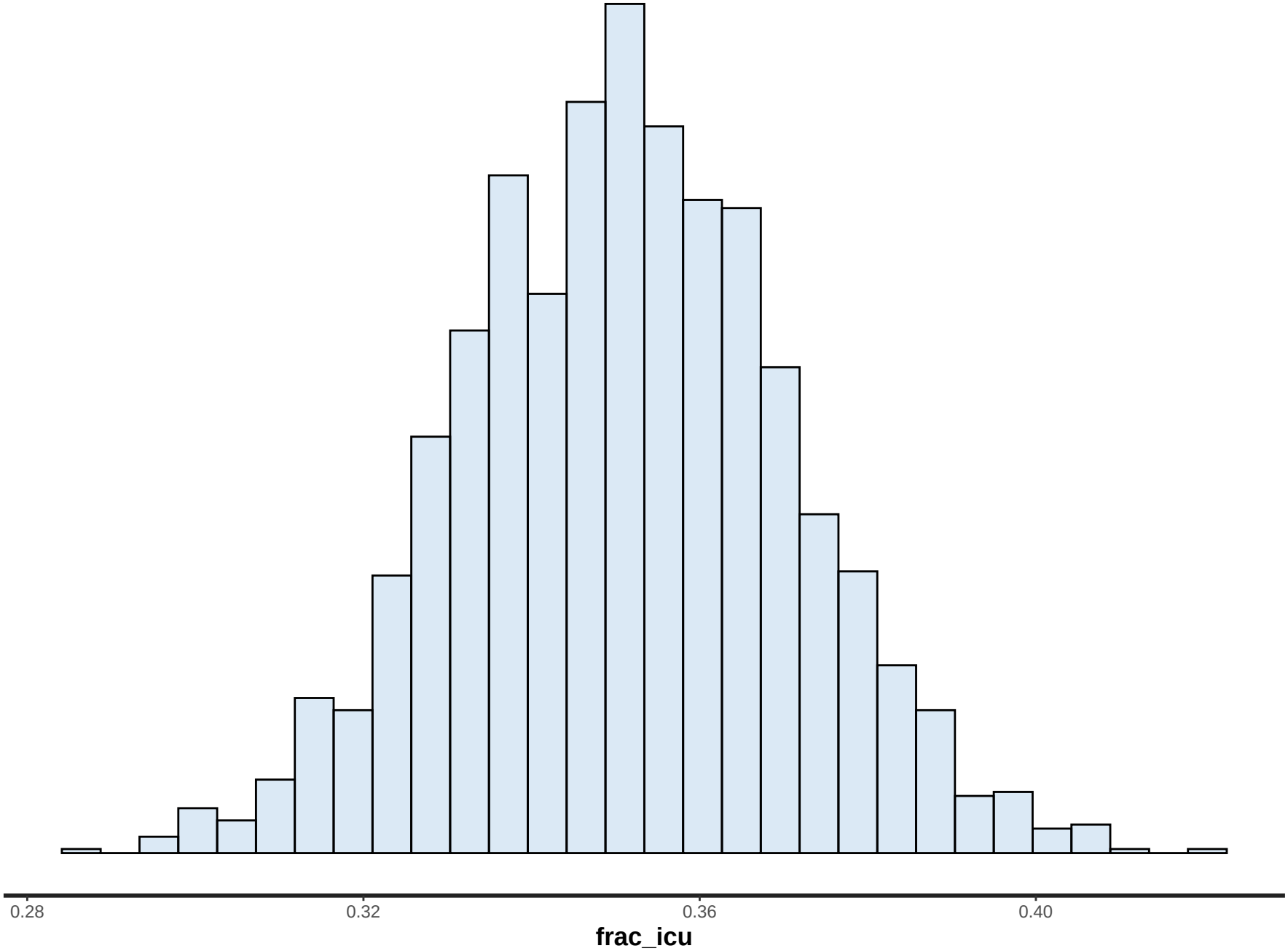

3
5
7
duration_rec_mild

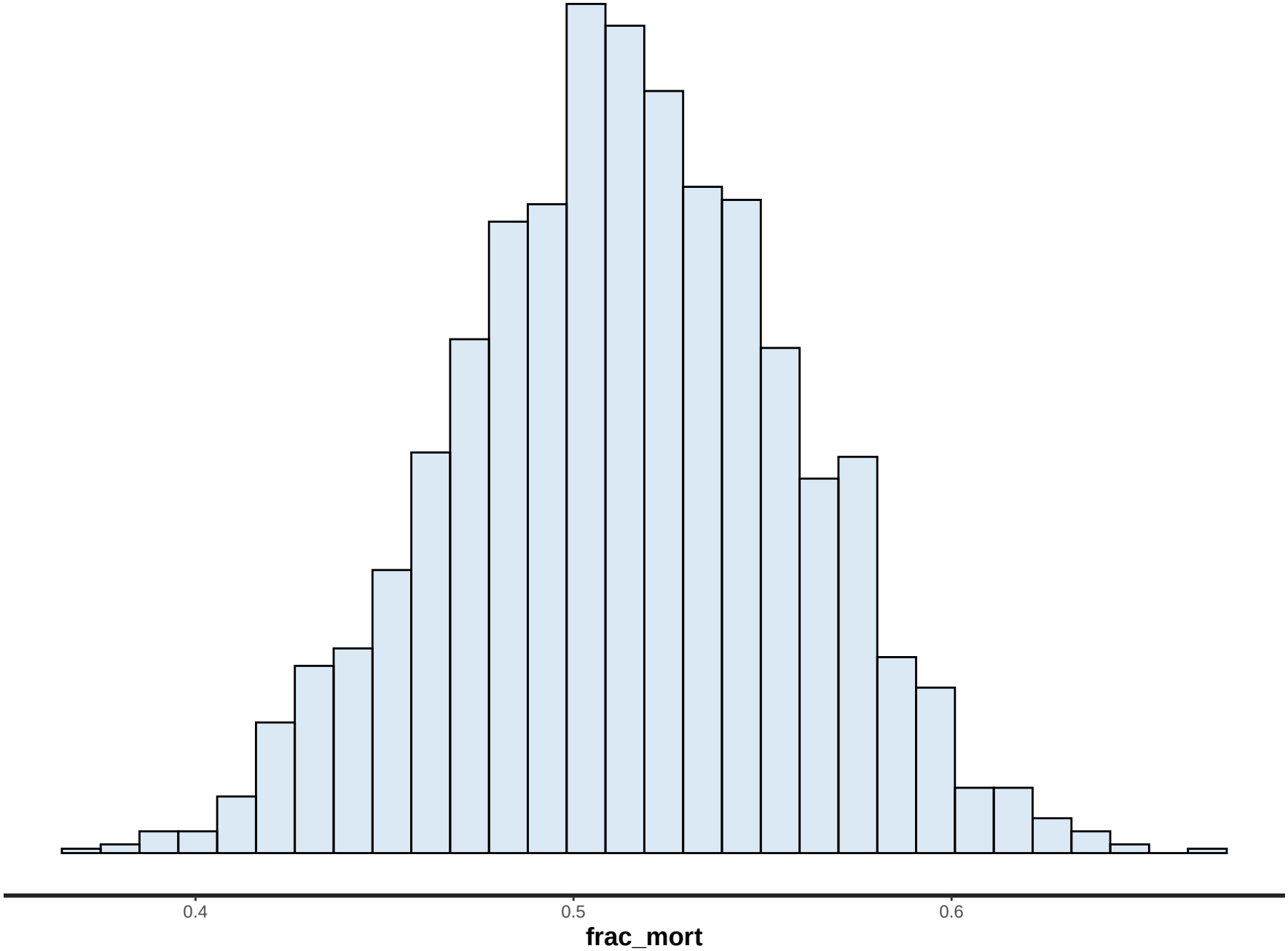

2.5
5.0
7.5
10.0
12.5
duration_pre_hosp

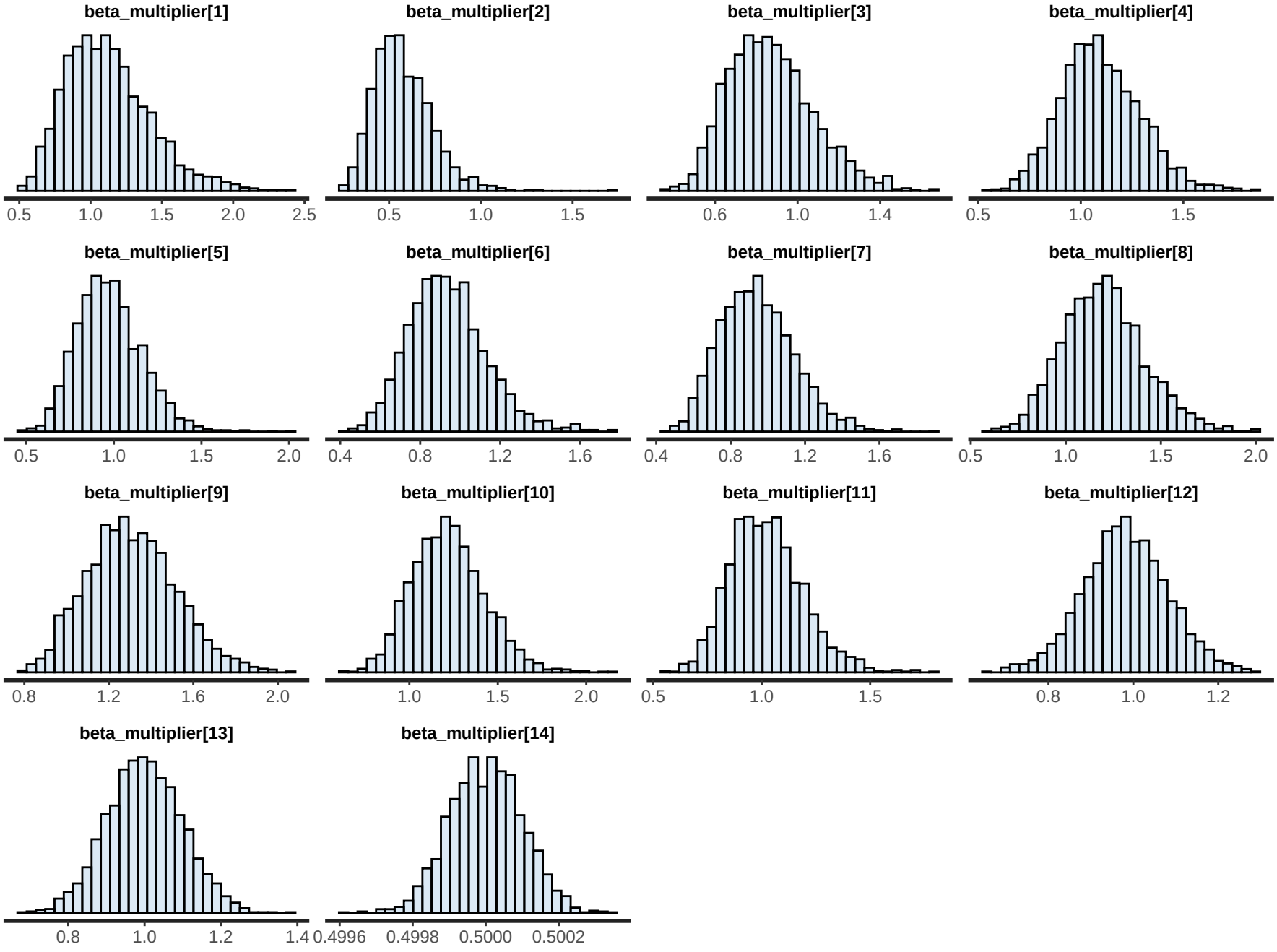

5.0
7.5
10.0
12.5
duration_hosp_mod

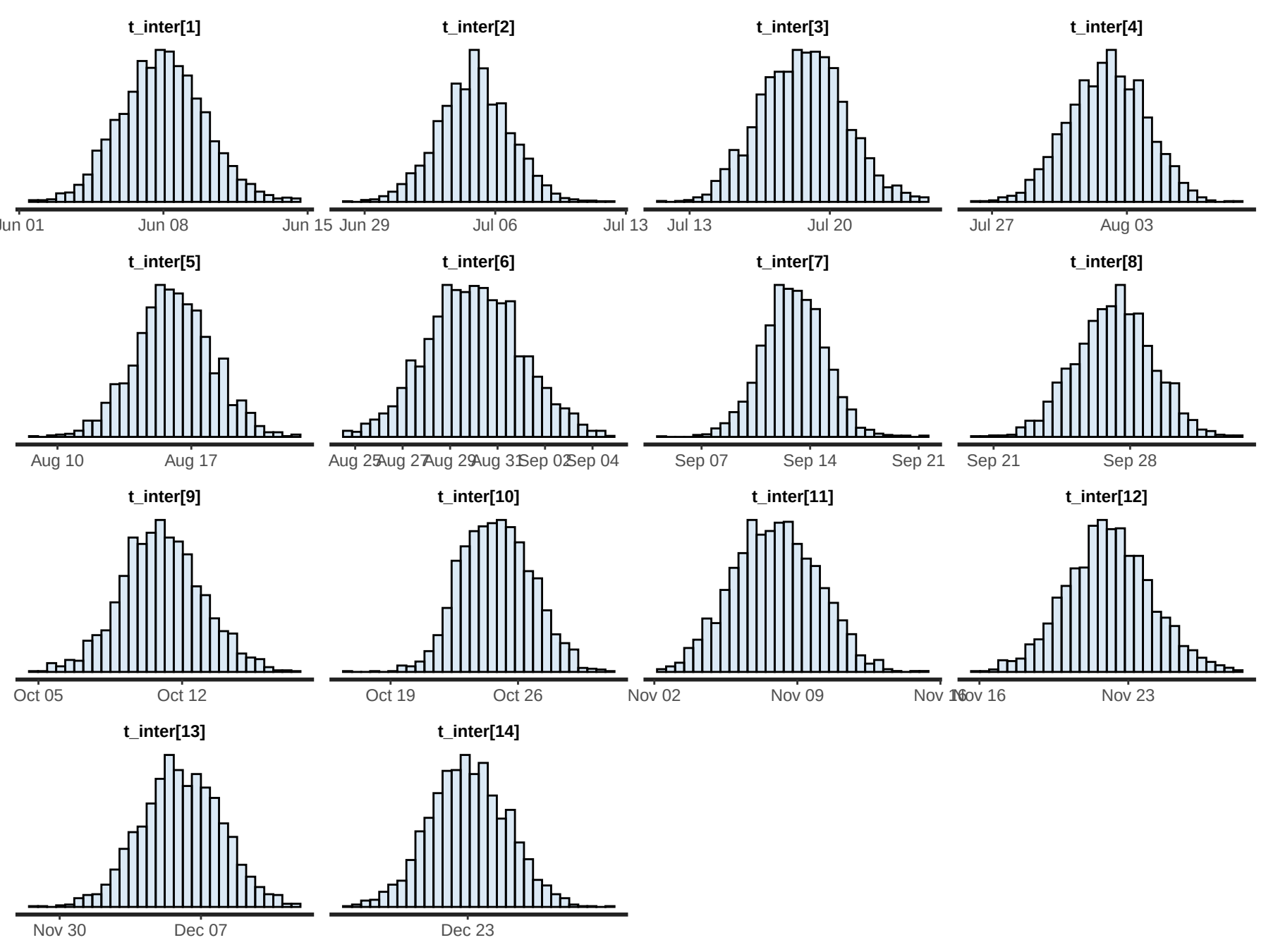

4
6
8
10
12
duration_hosp_icu

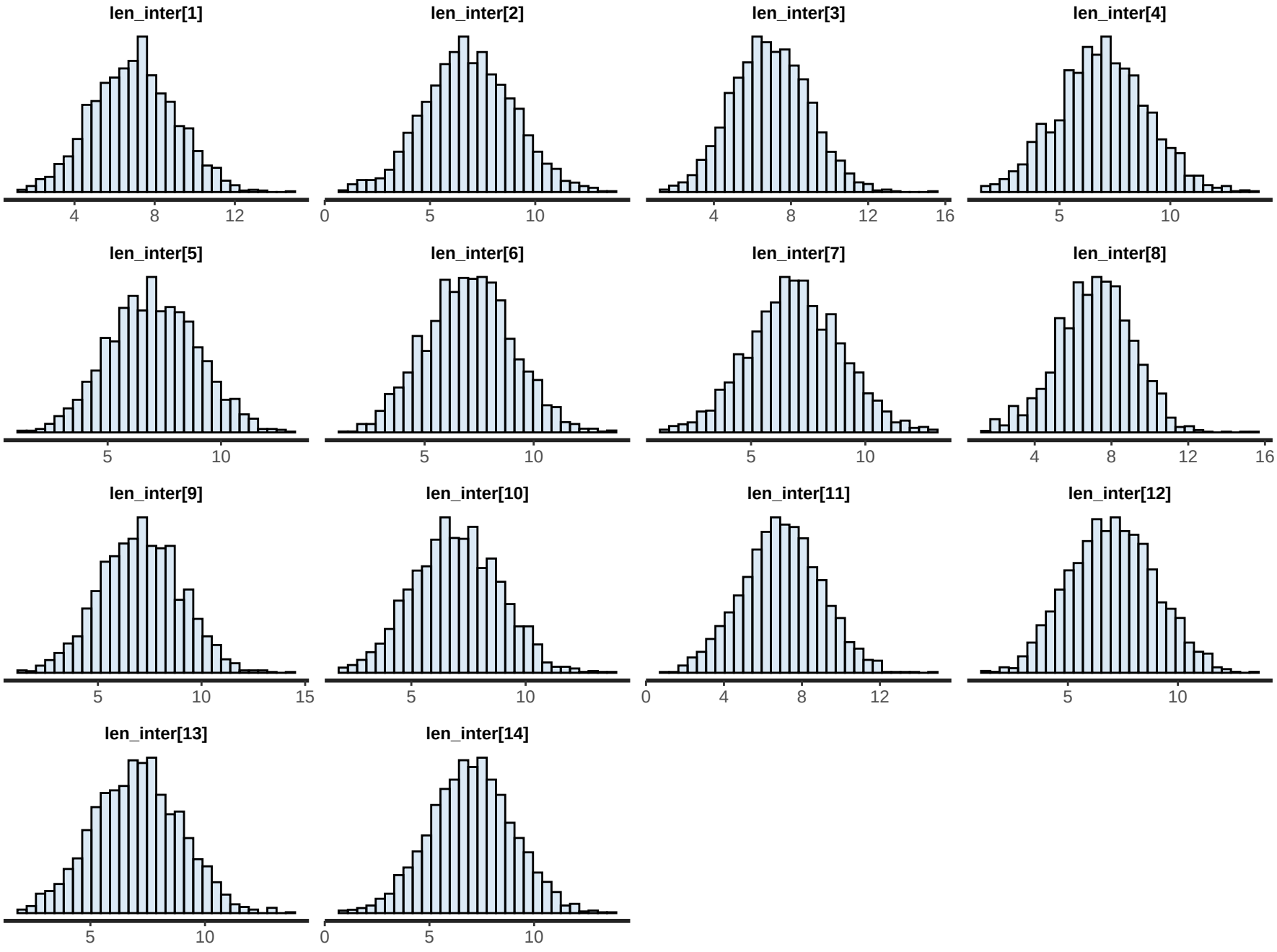

0.025
0.050
0.075
0.100
frac_hosp

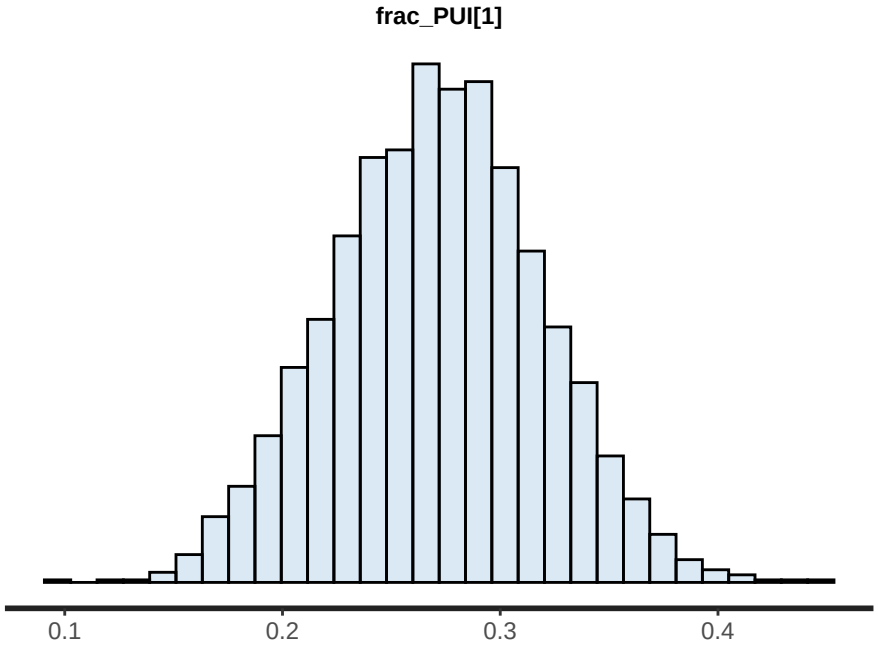

0.28
0.32
0.36
0.40
frac_icu

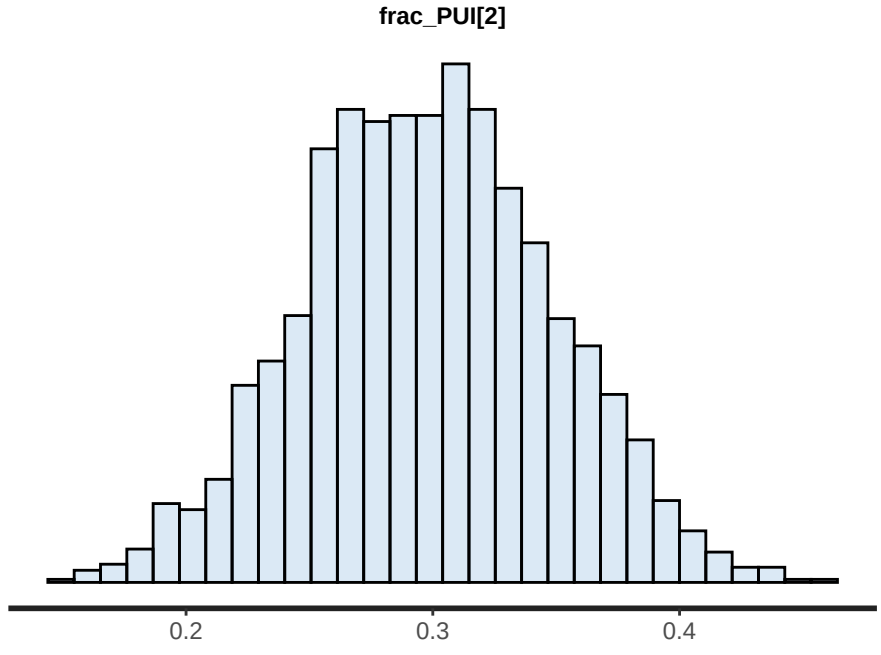

0.4
0.5
0.6
frac_mort

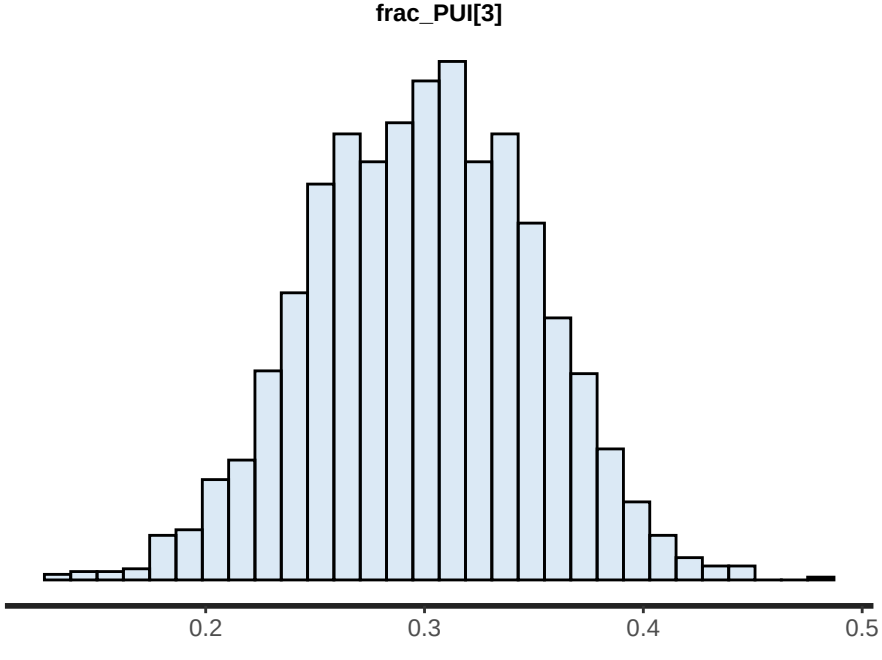

beta_multiplier[1]
0.5 1.0 1.5 2.0 2.5
beta_multiplier[2]
0.5 1.0 1.5
beta_multiplier[3]
0.6 1.0 1.4
beta_multiplier[4]
0.5 1.0 1.5
beta_multiplier[5]
0.5 1.0 1.5 2.0
beta_multiplier[6]
0.4 0.8 1.2 1.6
beta_multiplier[7]
0.4 0.8 1.2 1.6
beta_multiplier[8]
0.5 1.0 1.5 2.0
beta_multiplier[9]
0.8 1.2 1.6 2.0
beta_multiplier[10]
1.0 1.5 2.0
beta_multiplier[11]
0.5 1.0 1.5
beta_multiplier[12]
0.8 1.0 1.2
beta_multiplier[13]
0.8 1.0 1.2 1.4
beta_multiplier[14]
0.4996 0.4998 0.5000 0.5002

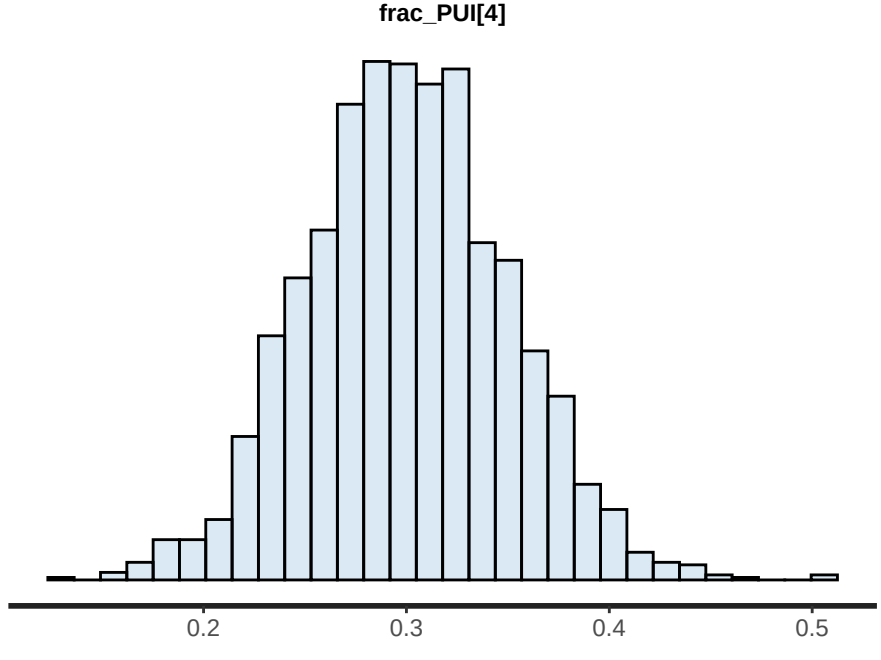

t_inter[1]
Jun 01
Jun 08
Jun 15
t_inter[2]
Jun 29
Jul 06
Jul 13
t_inter[3]
Jul 13
Jul 20
t_inter[4]
Jul 27
Aug 03
t_inter[5]
Aug 10
Aug 17
t_inter[6]
Aug 25
Aug 27
Aug 29
Aug 31
Sep 02
Sep 04
t_inter[7]
Sep 07
Sep 14
Sep 21
t_inter[8]
Sep 21
Sep 28
t_inter[9]
Oct 05
Oct 12
t_inter[10]
Oct 19
Oct 26
t_inter[11]
Nov 02
Nov 09
Nov 16
t_inter[12]
Nov 16
Nov 23
t_inter[13]
Nov 30
Dec 07
t_inter[14]
Dec 23

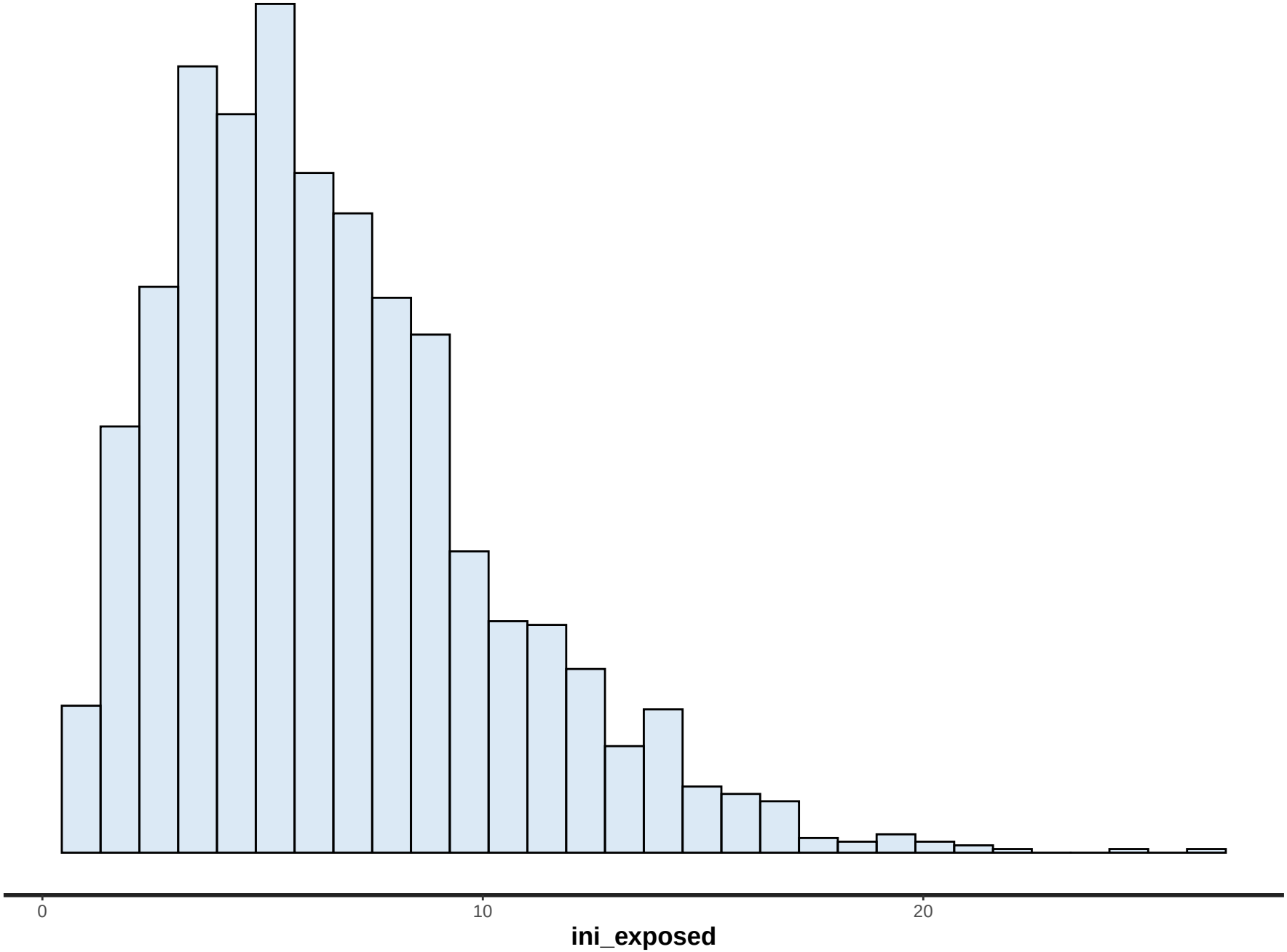

len_inter[1]
4 8 12
len_inter[2]
0 5 10
len_inter[3]
4 8 12 16
len_inter[4]
5 10
len_inter[5]
5 10
len_inter[6]
5 10
len_inter[7]
5 10
len_inter[8]
4 8 12 16
len_inter[9]
5 10 15
len_inter[10]
5 10
len_inter[11]
0 4 8 12
len_inter[12]
5 10
len_inter[13]
5 10
len_inter[14]
0 5 10

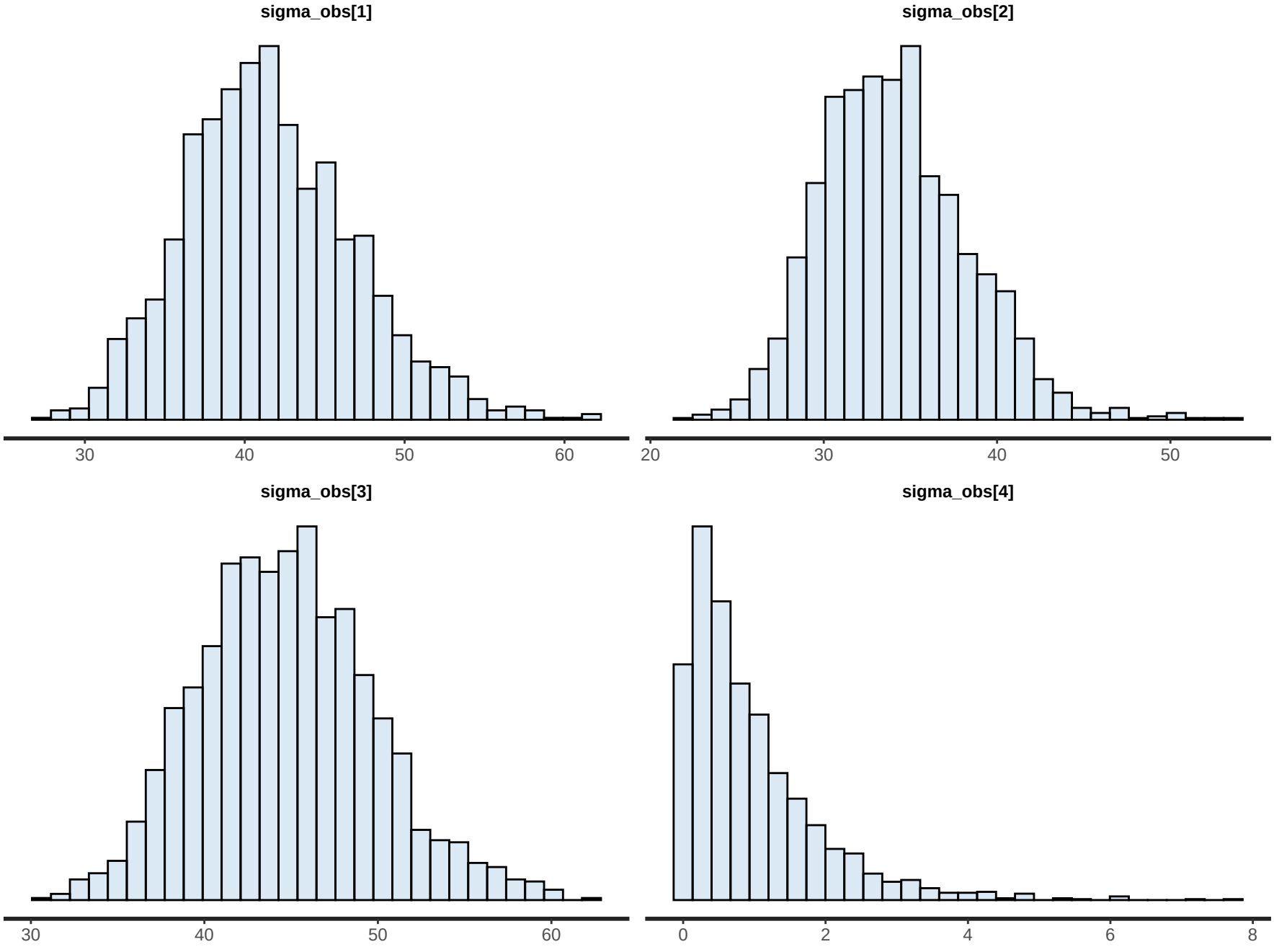

frac_PUI[1]
0.1
0.2
0.3
0.4


frac_PUI[2]
0.2
0.3
0.4


frac_PUI[3]
0.2
0.3
0.4
0.5


frac_PUI[4]
0.2
0.3
0.4
0.5


0
10
20
ini_exposed


sigma_obs[1]
30
40
50
60
sigma_obs[2]
20
30
40
50
sigma_obs[3]
30
40
50
60
sigma_obs[4]
0
2
4
6
8