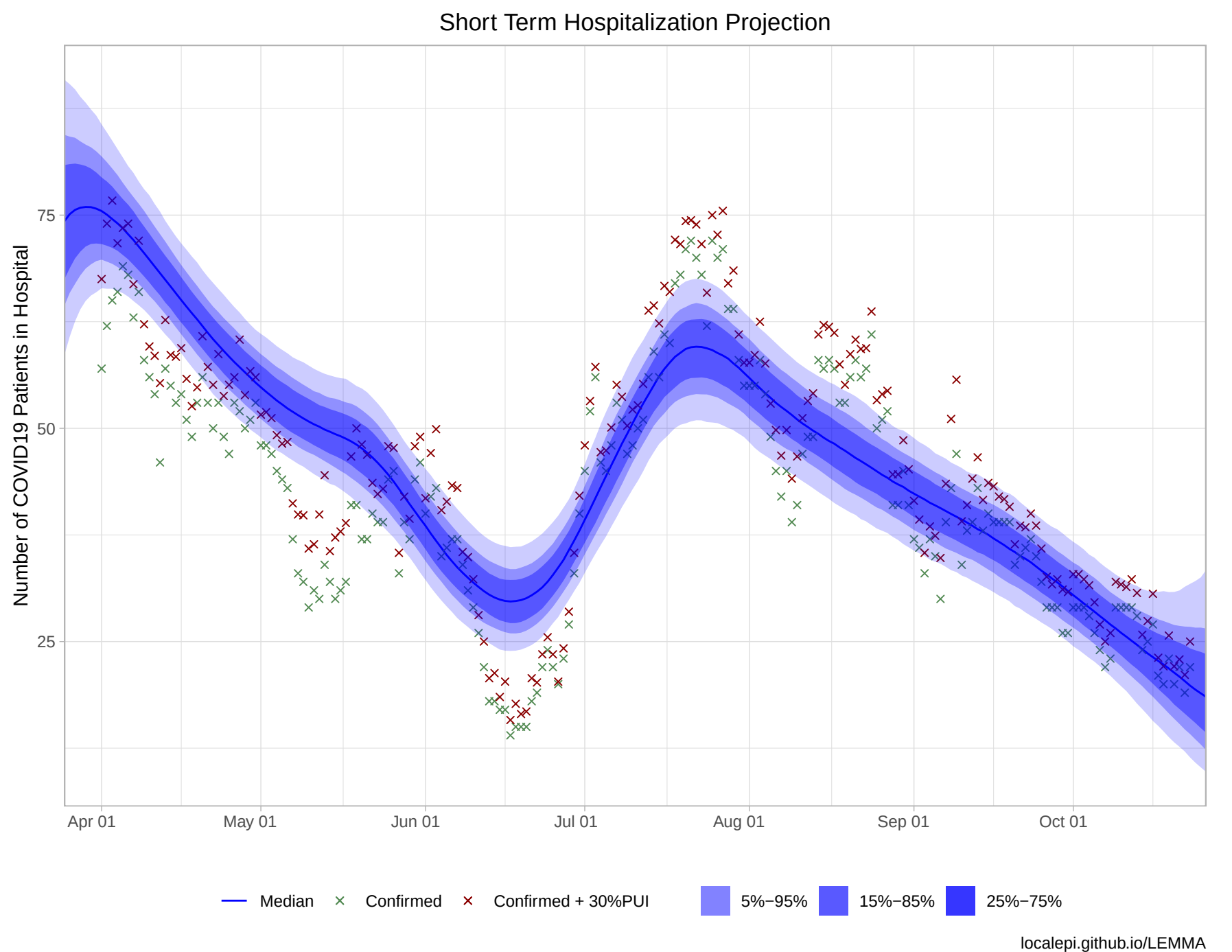
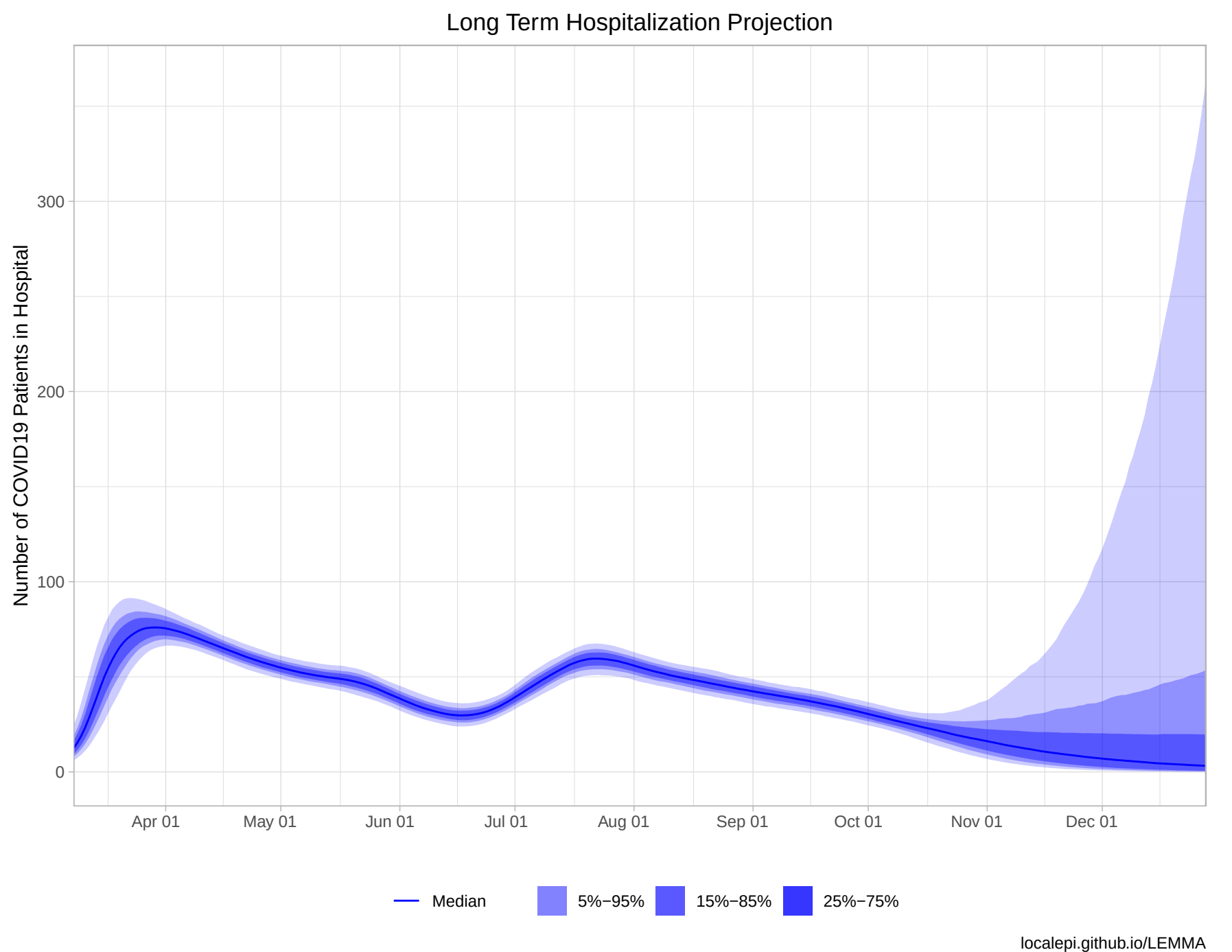
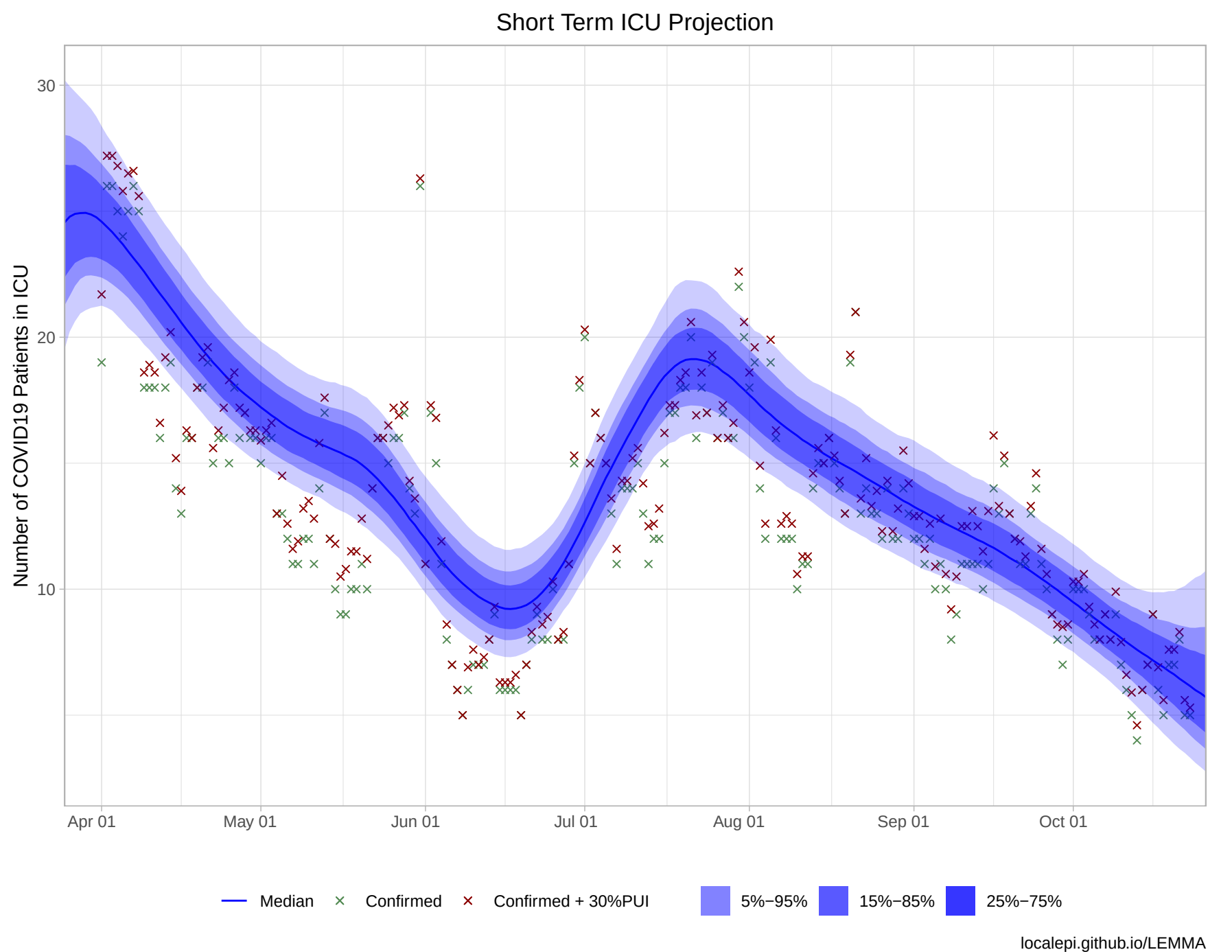
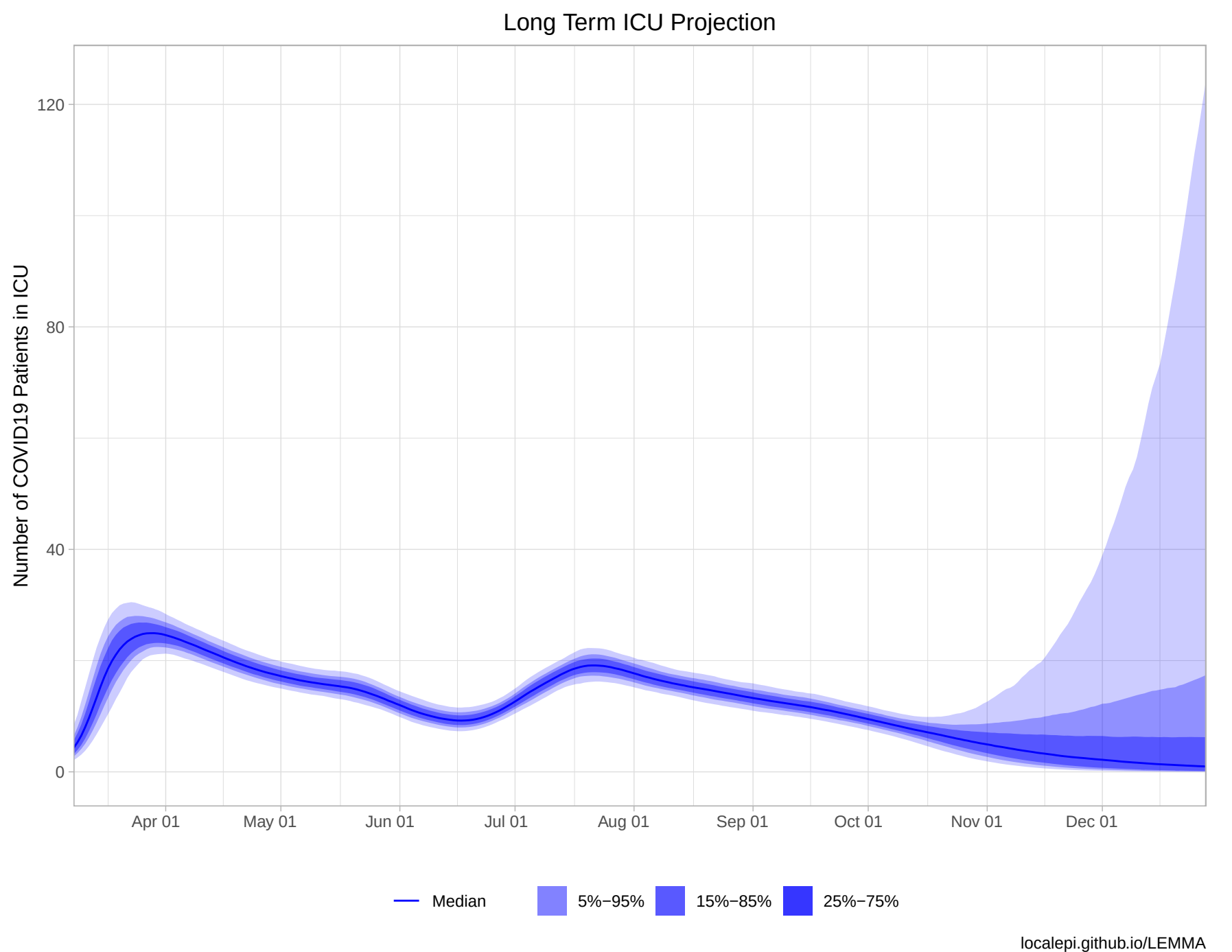
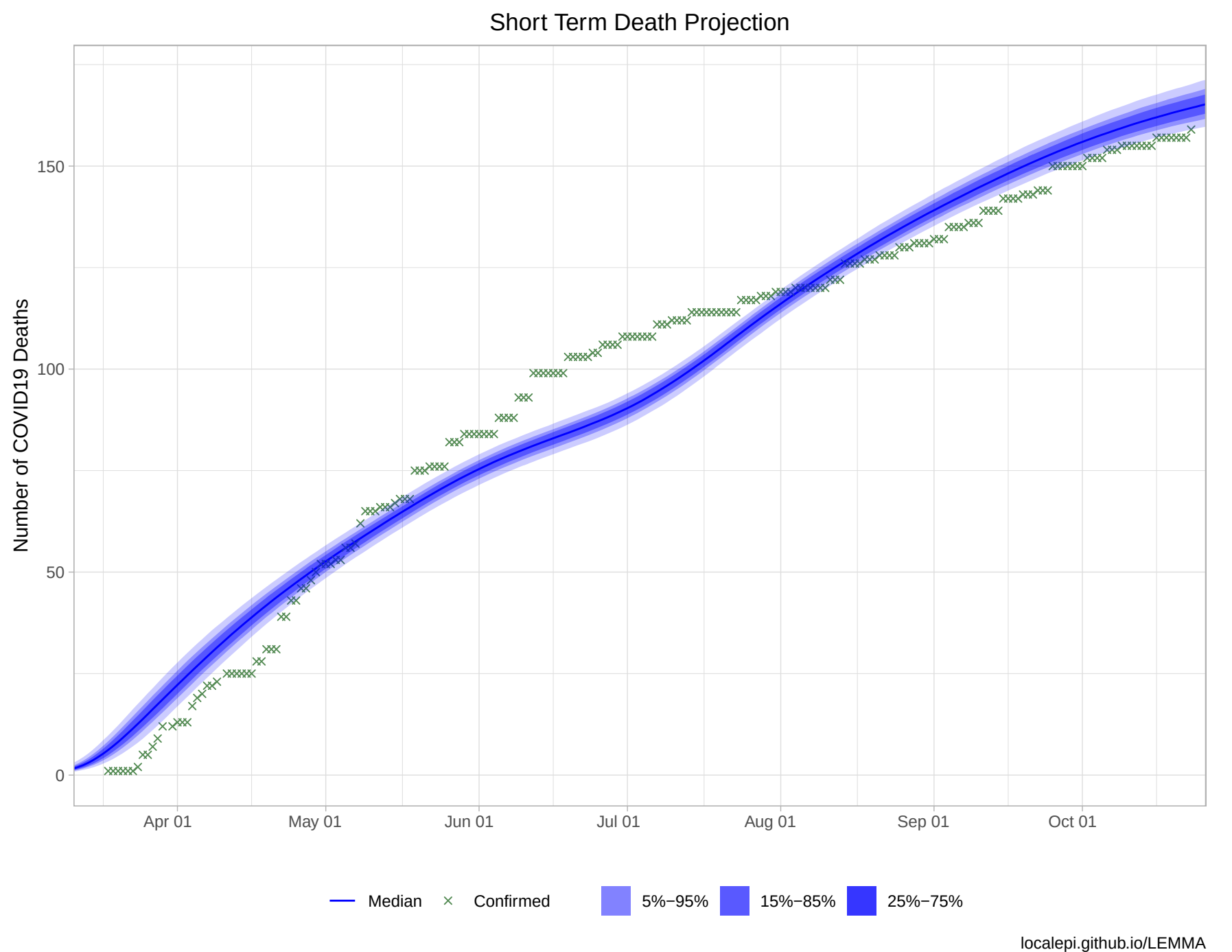
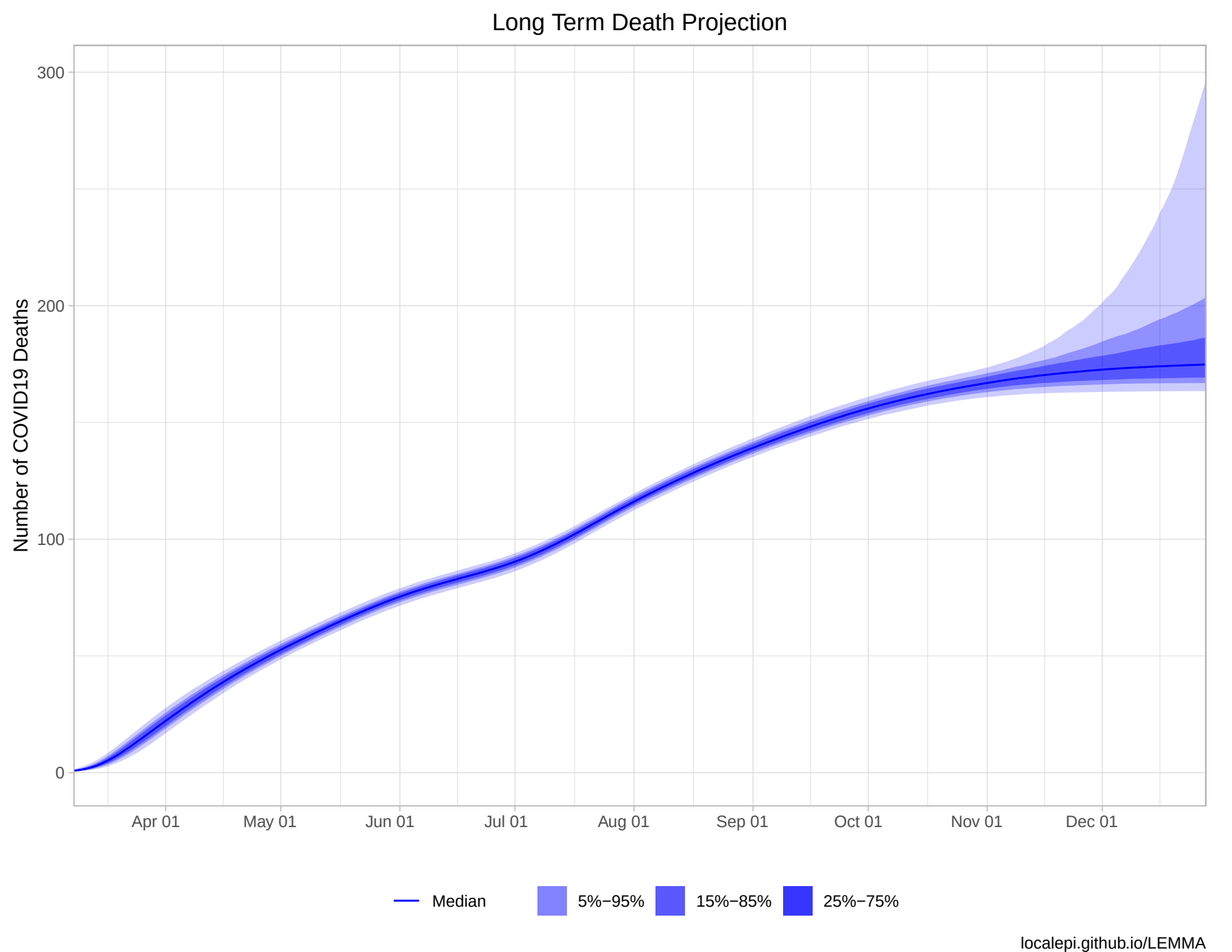

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
75
50
25
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

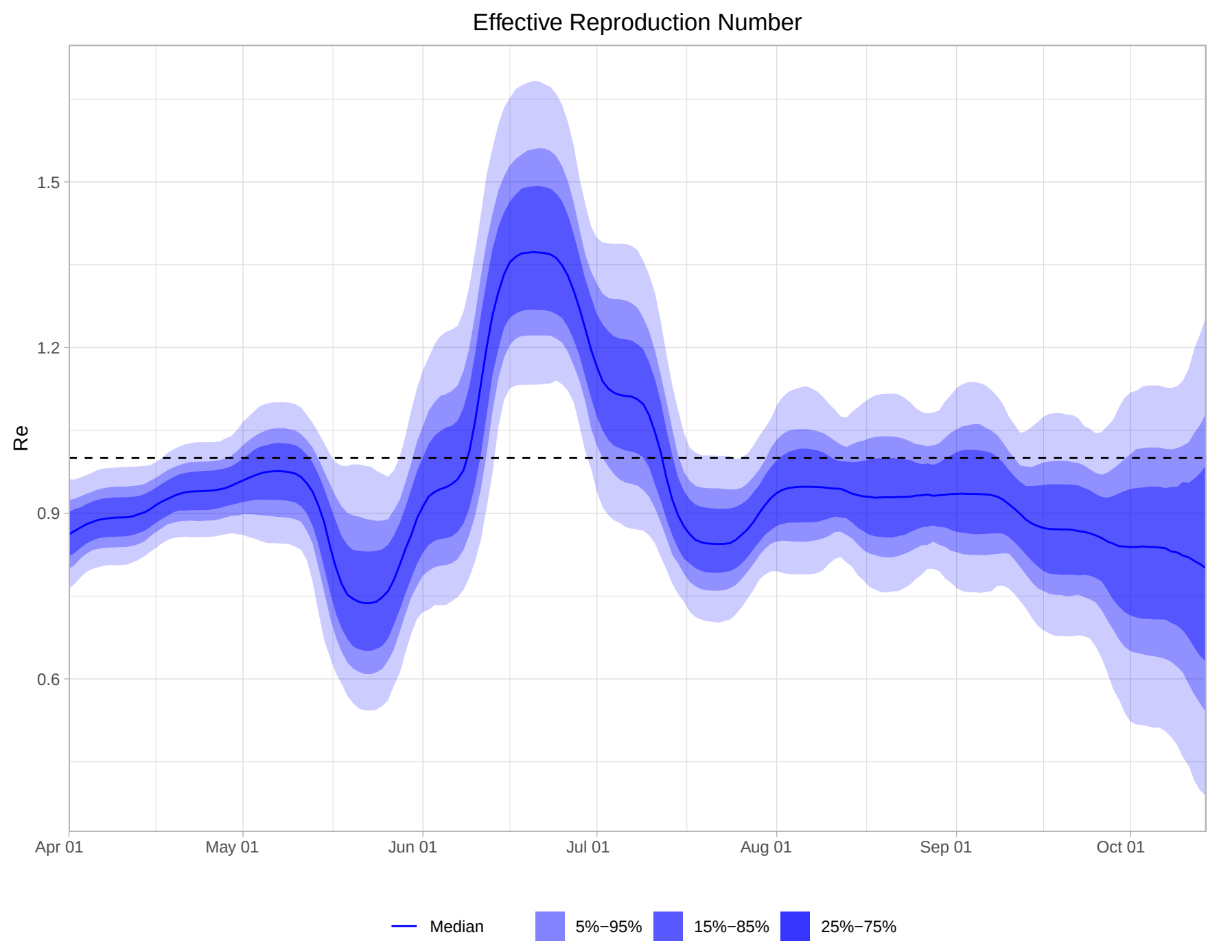

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
30
20
10
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 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
120
80
40
0
Apr 01
May 01
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

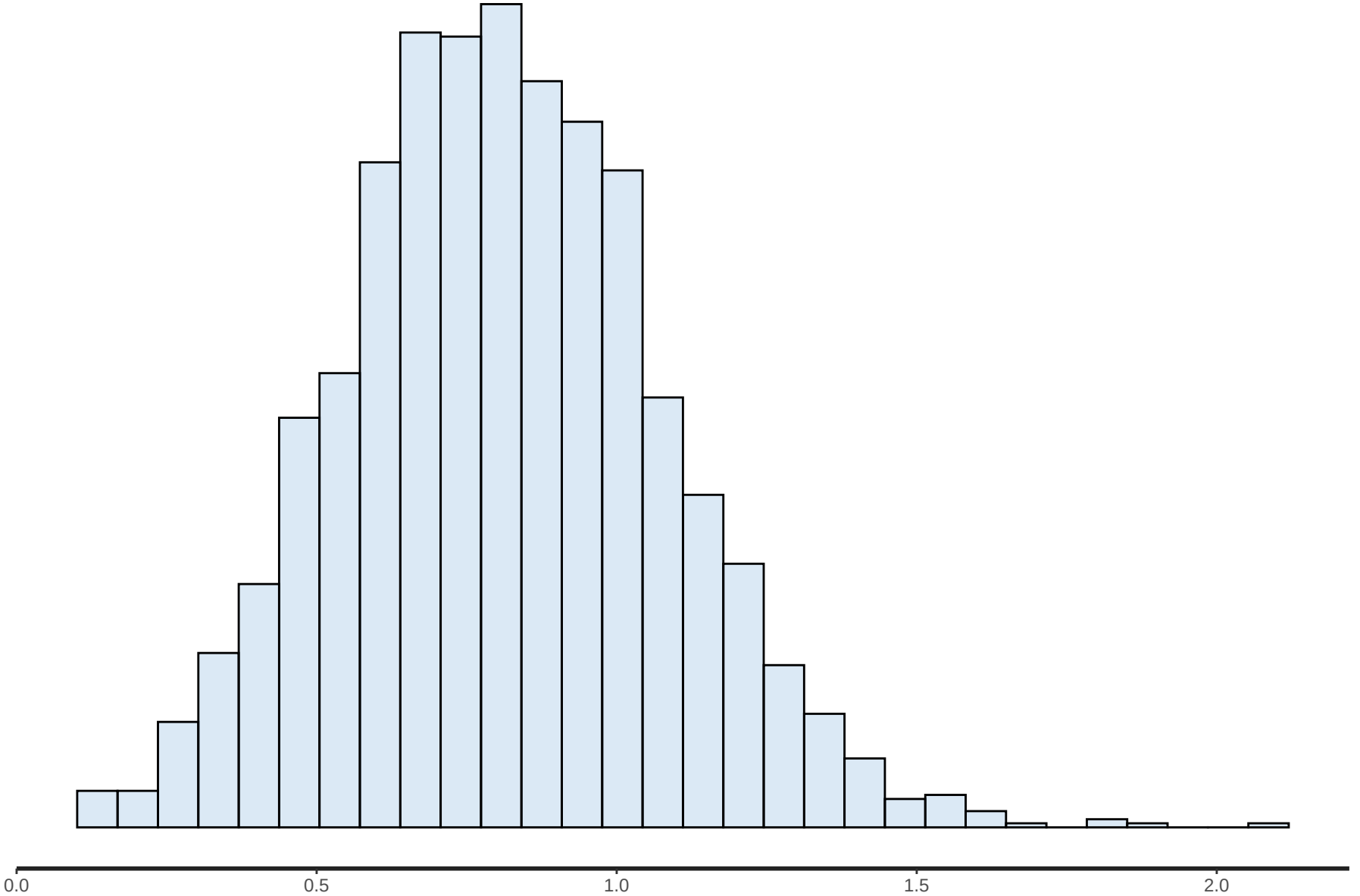

Short Term Death Projection
Number of COVID19 Deaths
0
50
100
150
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

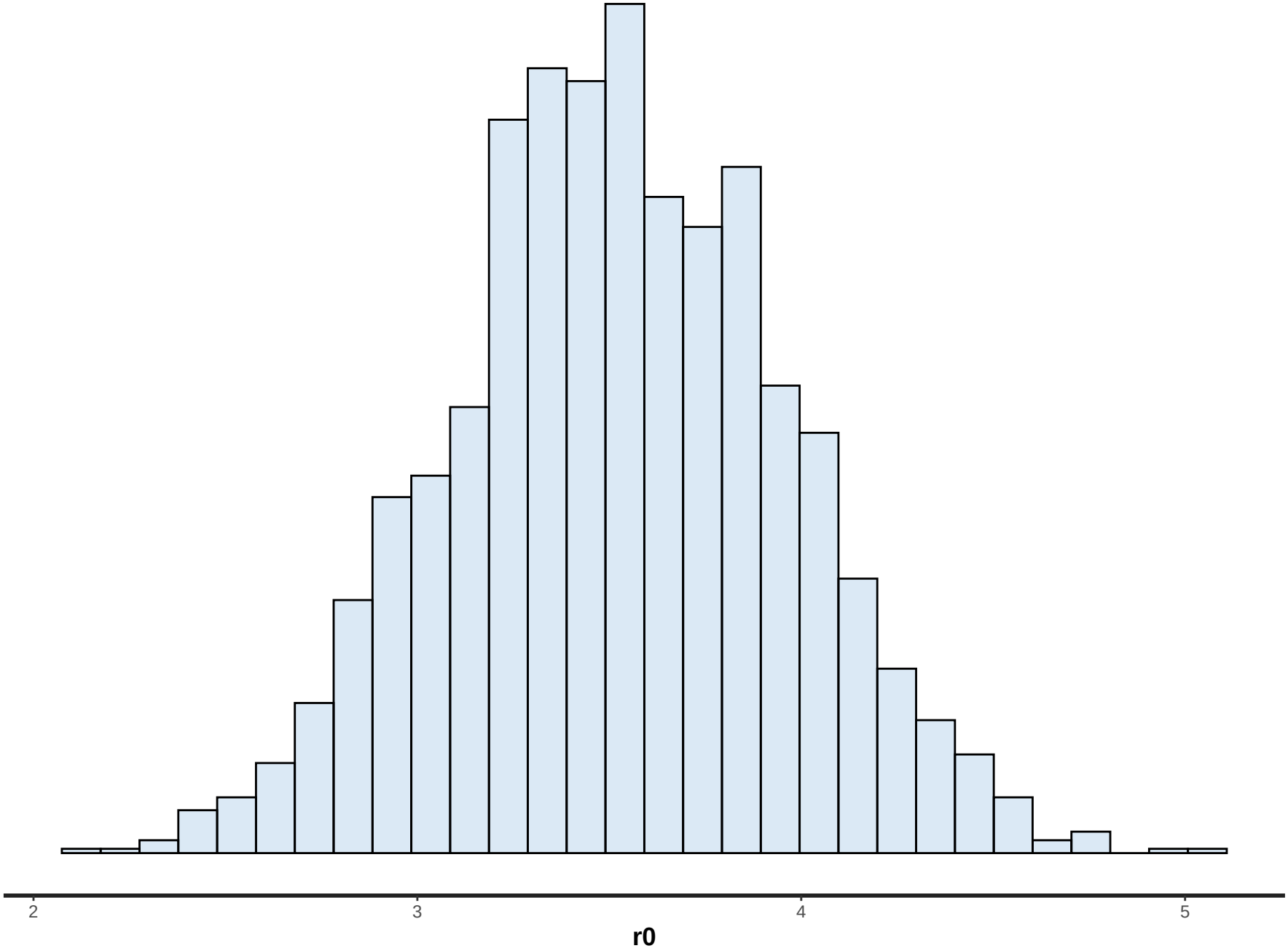

Long Term Death Projection
Number of COVID19 Deaths
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

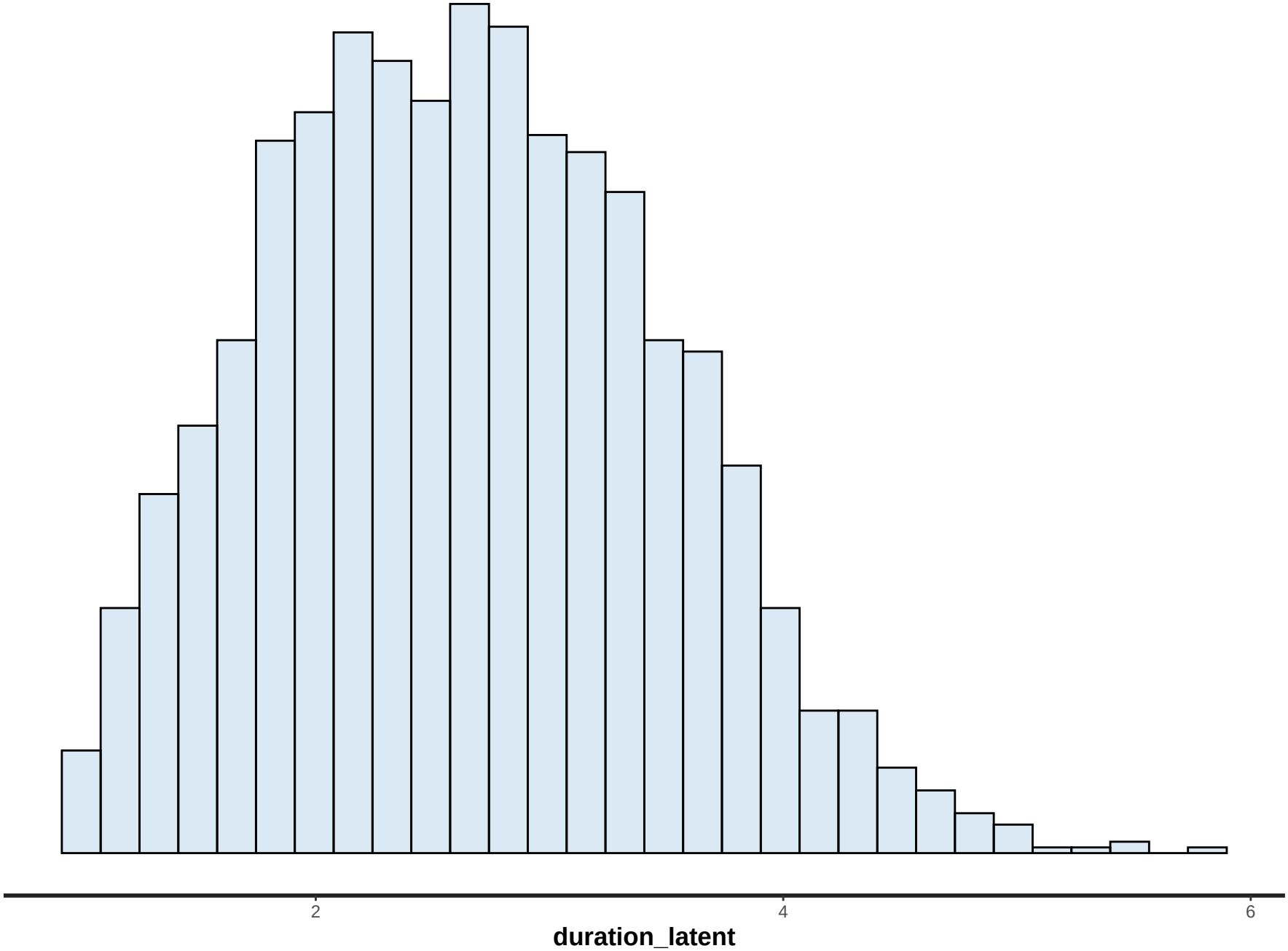

Effective Reproduction Number
Re
1.5
1.2
0.9
0.6
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Median
5%−95%
15%−85%
25%−75%

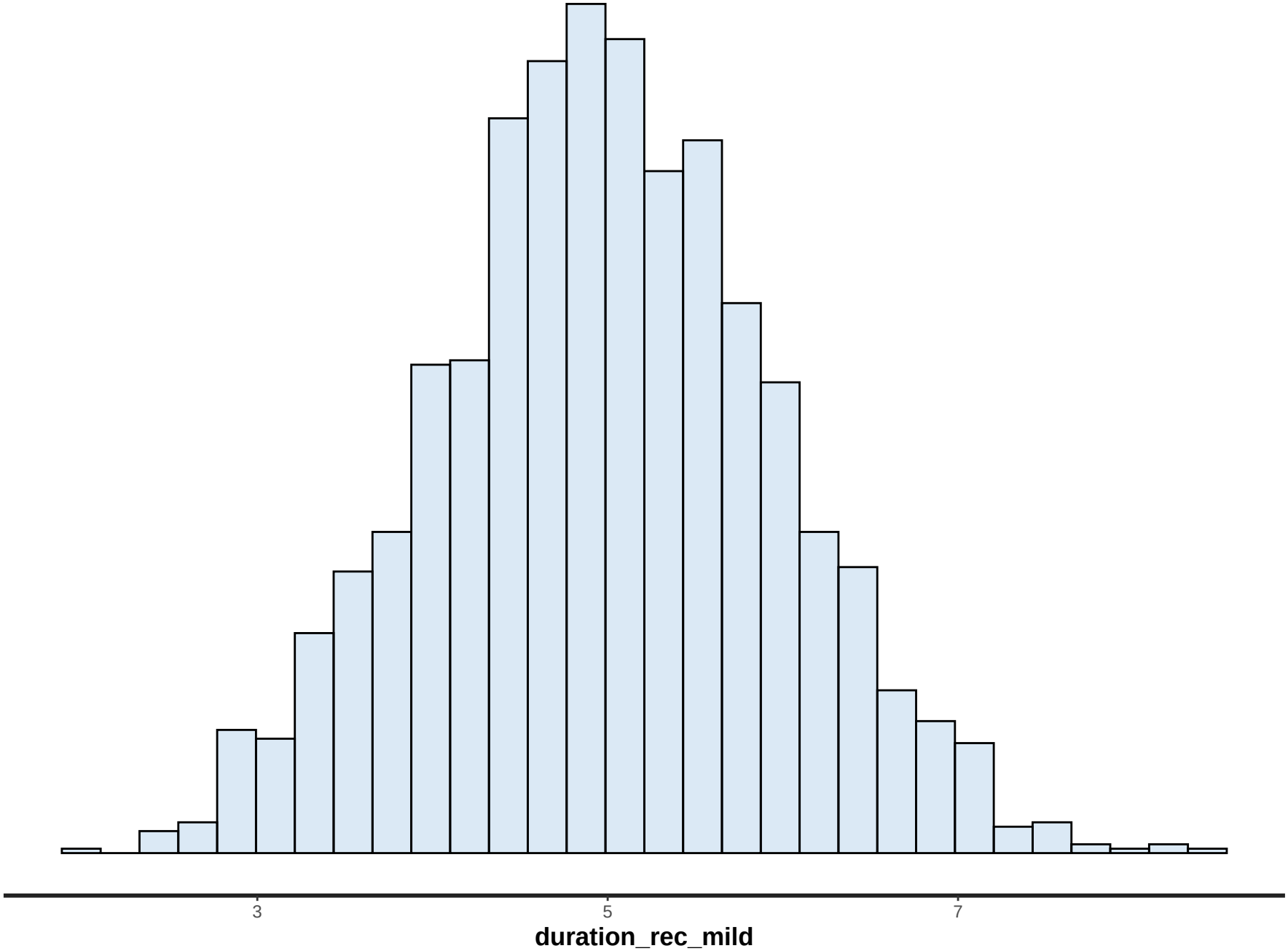
Rt as of 2020−10−14

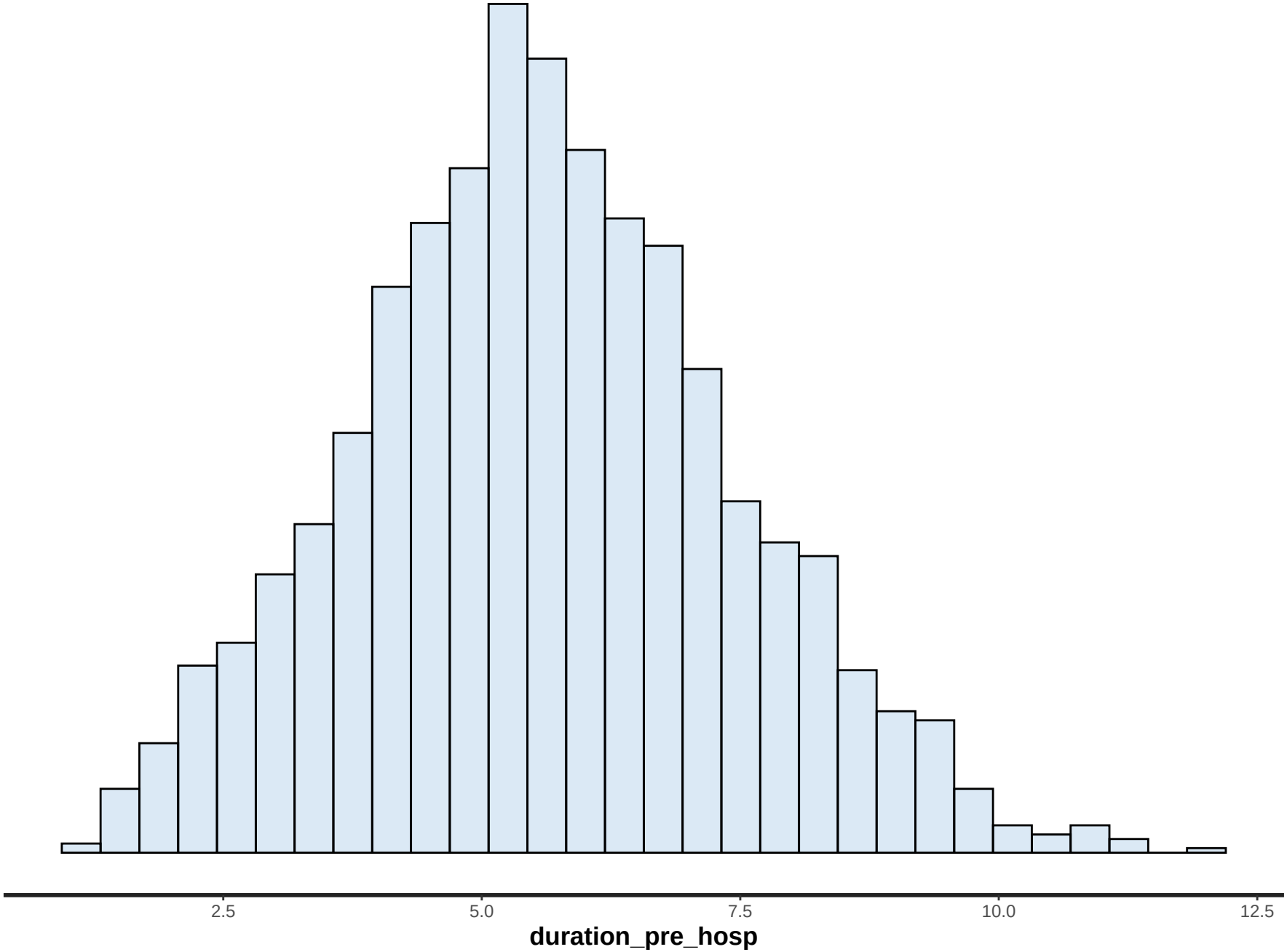
5%	10%	25%	50%	75%	90%	95%
0.39	0.48	0.63	0.80	0.99	1.16	1.25

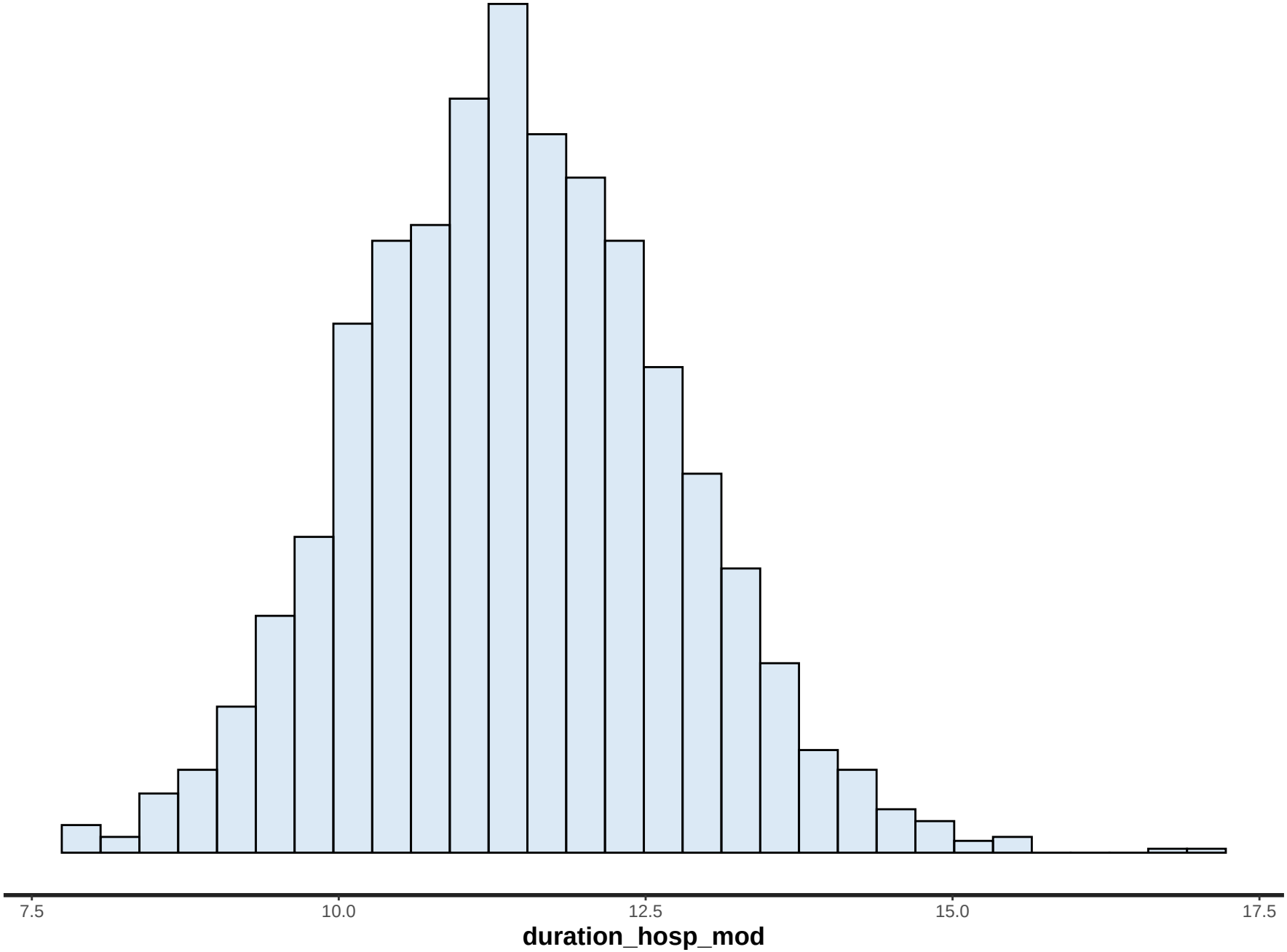


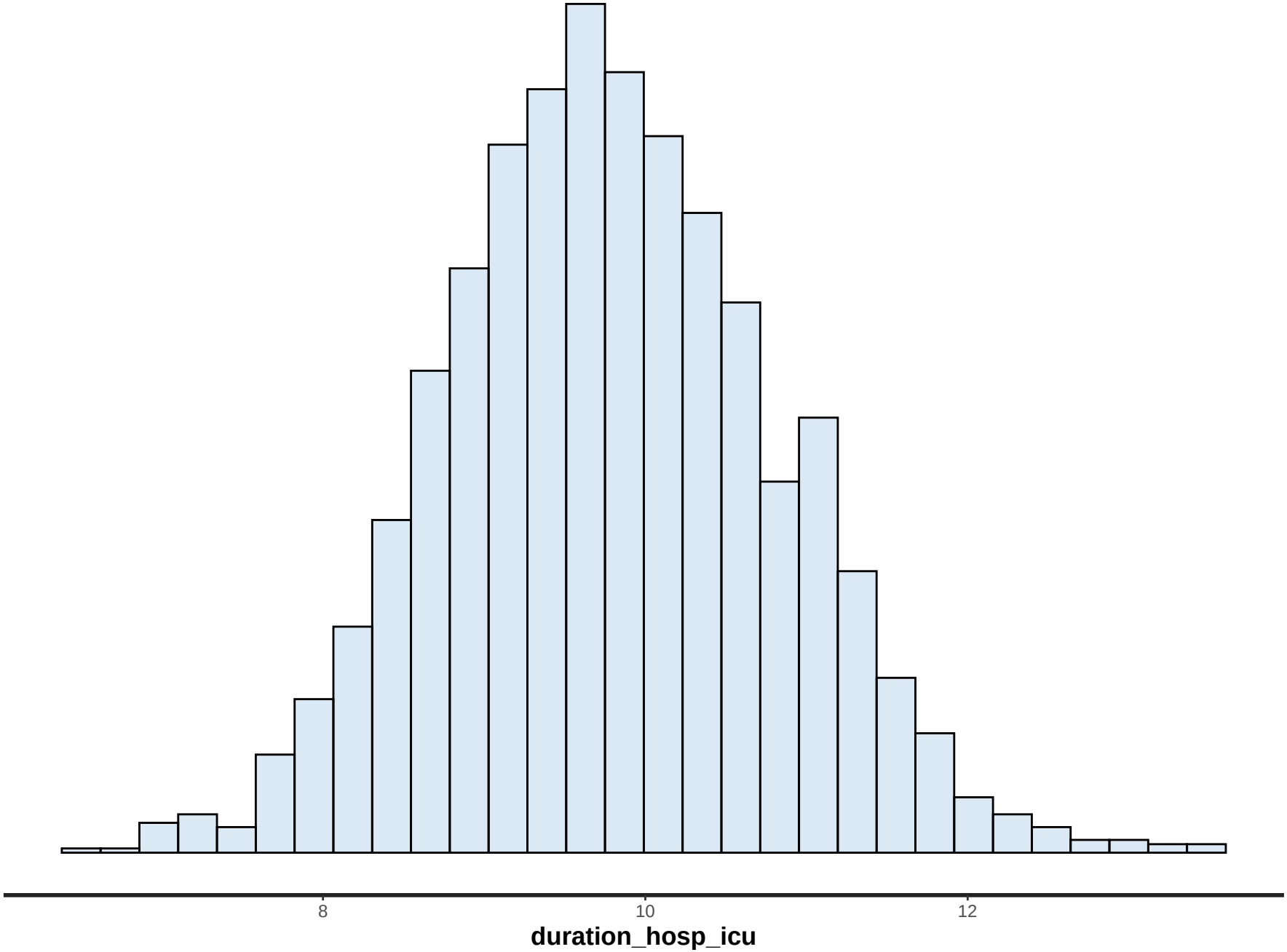

2
3
4
5
r0

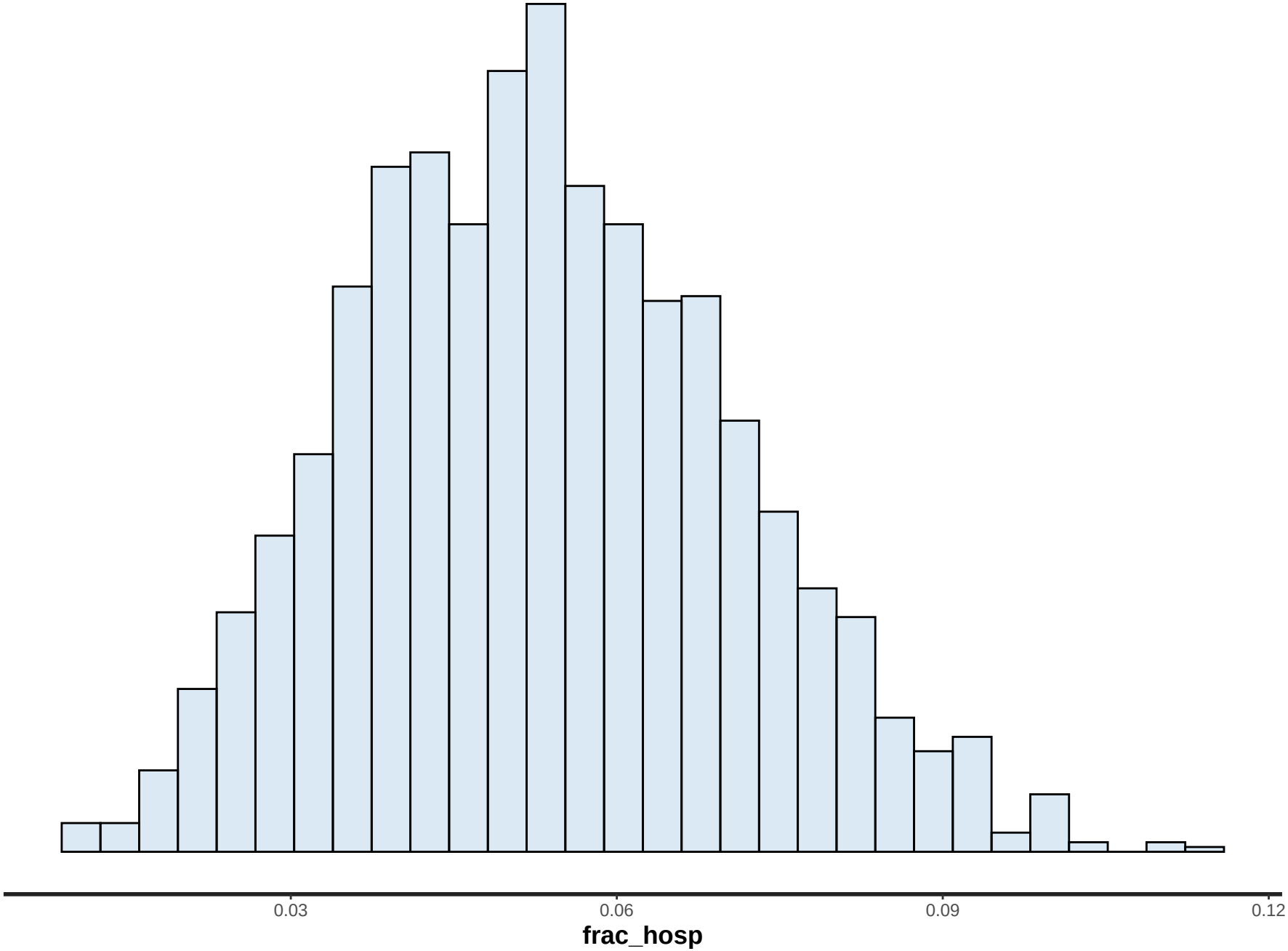

2
4
6
duration_latent

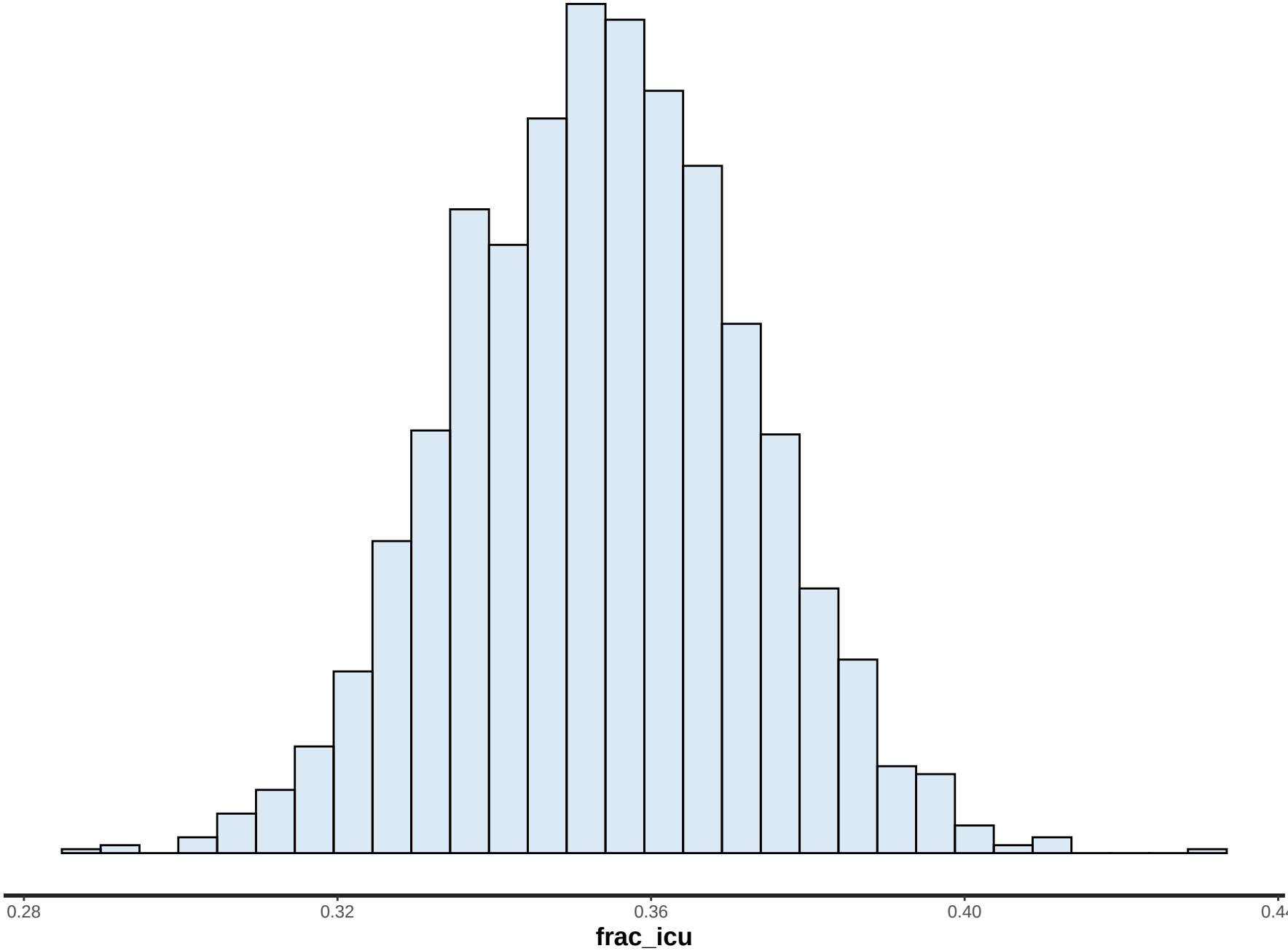

3
5
7
duration_rec_mild

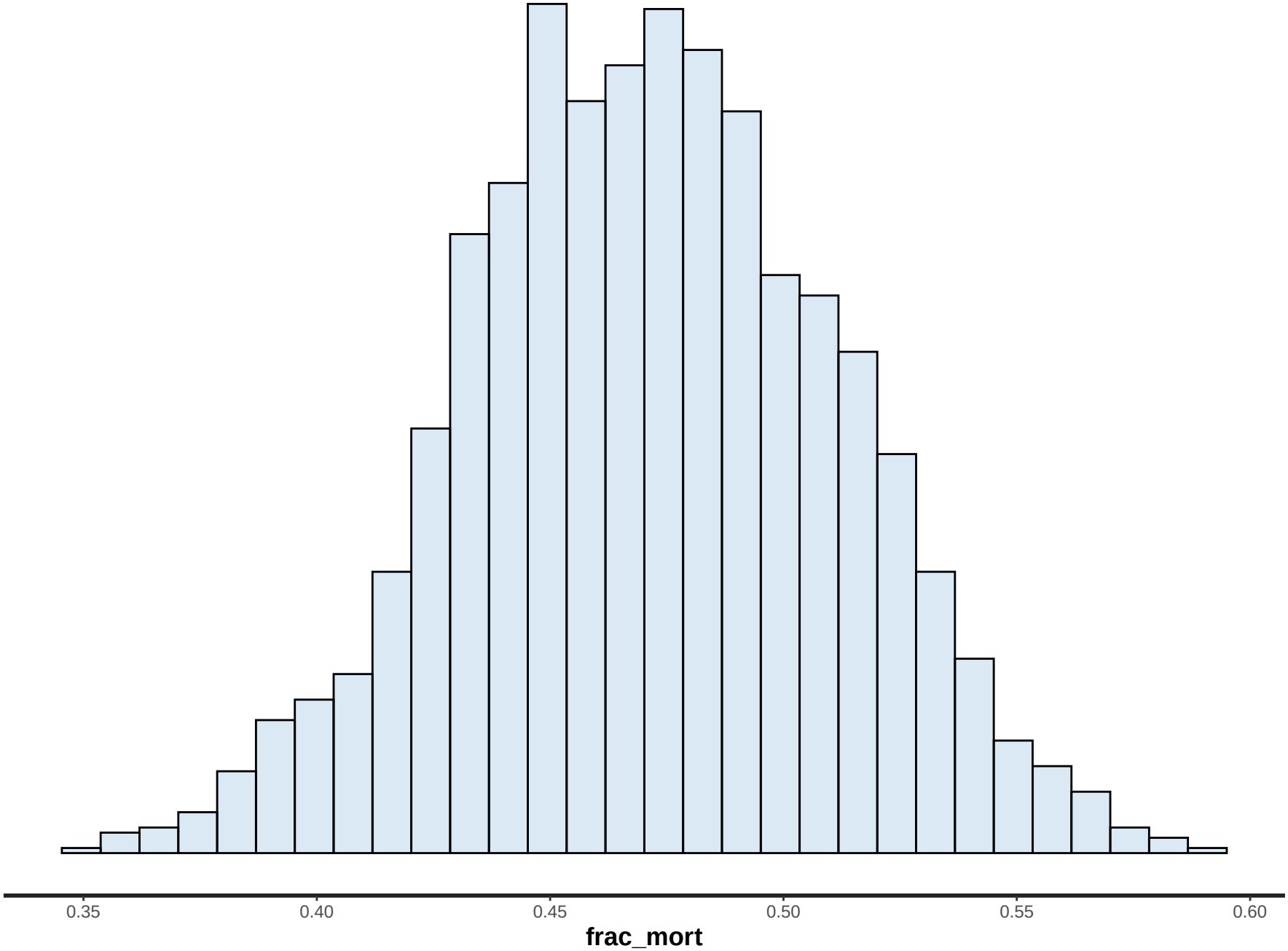

2.5
5.0
7.5
10.0
12.5
duration_pre_hosp

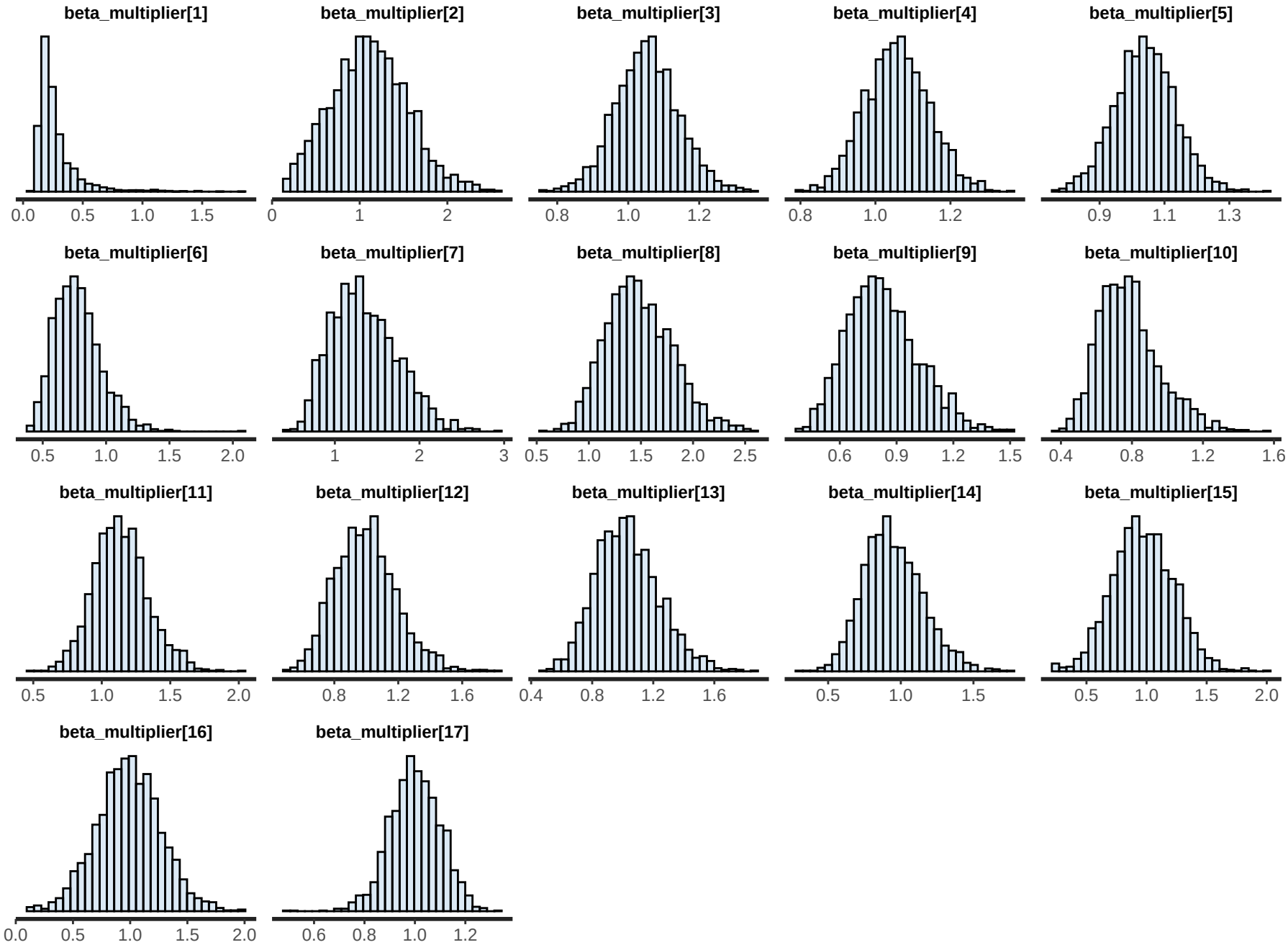

7.5
10.0
12.5
15.0
17.5
duration_hosp_mod

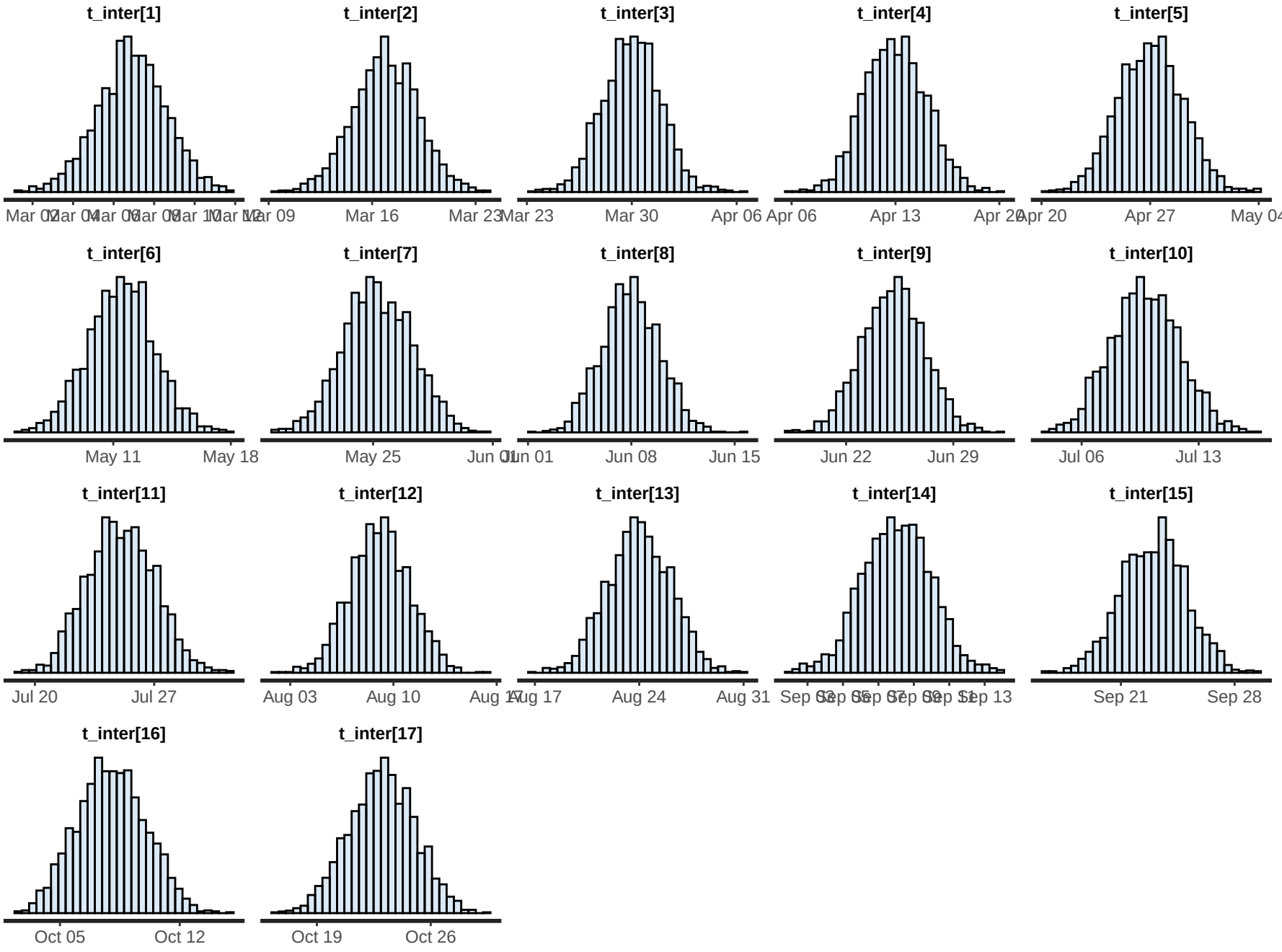

8
10
12
duration_hosp_icu

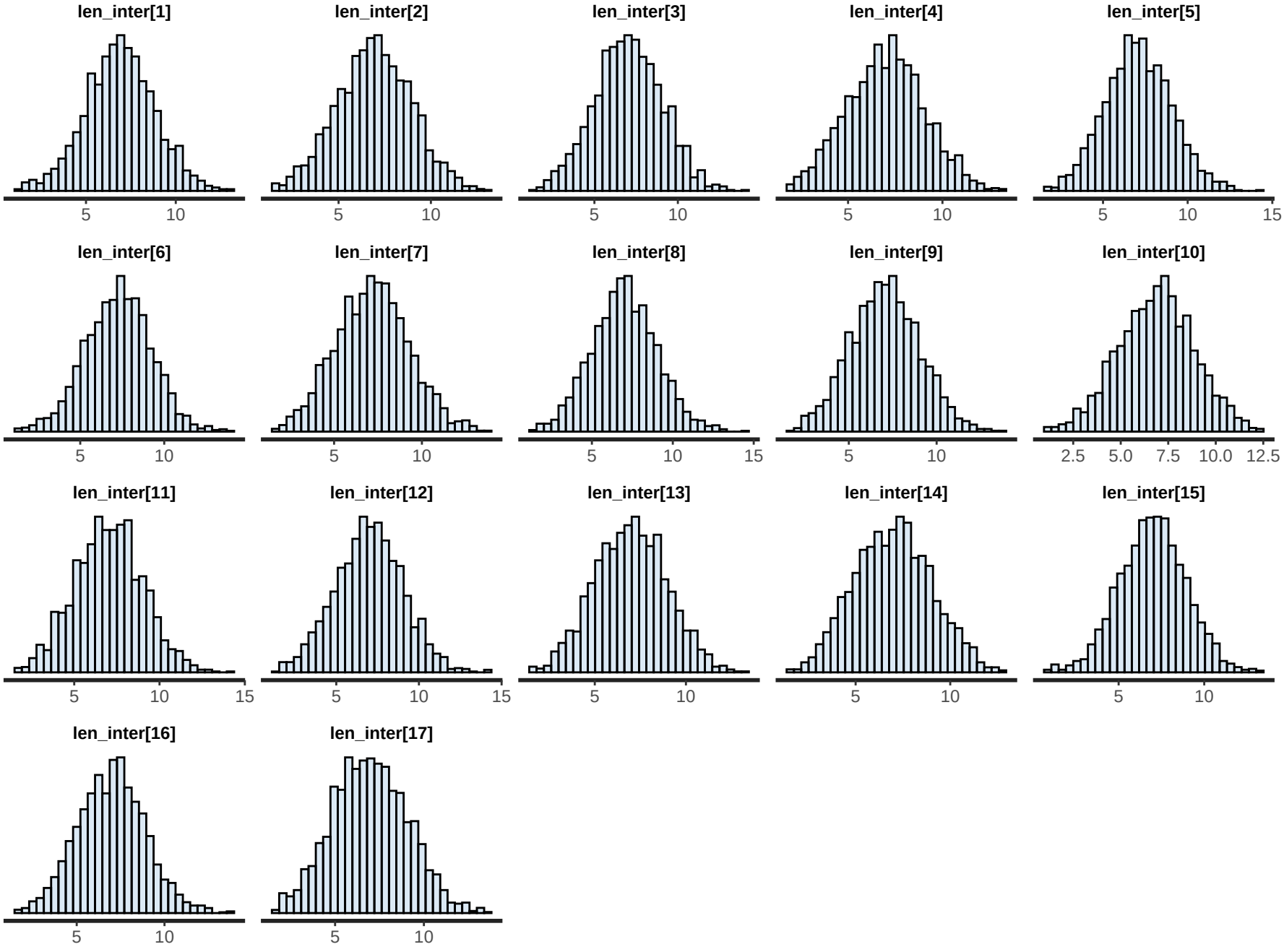

0.03
0.06
0.09
0.12
frac_hosp

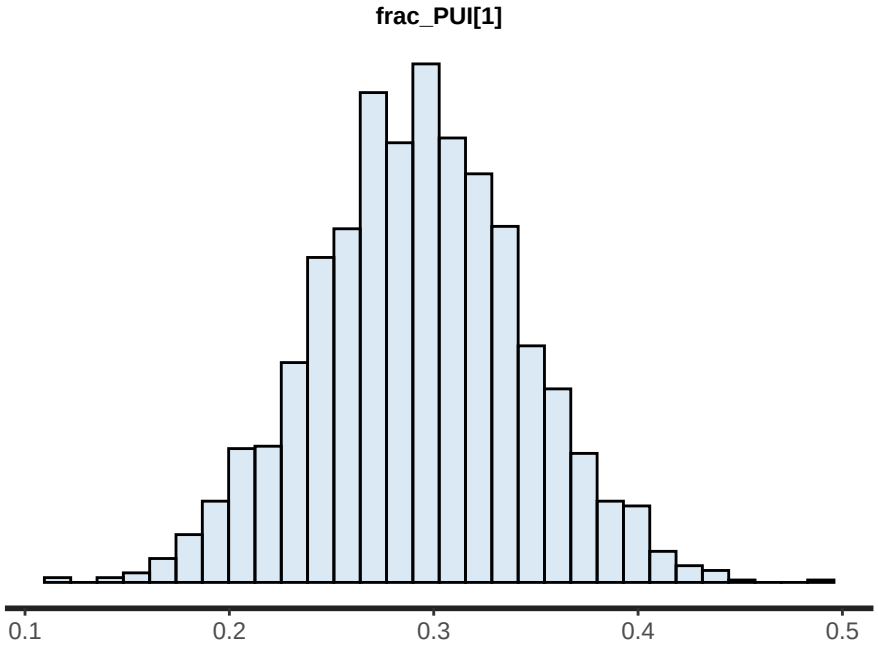

0.28
0.32
0.36
0.40
0.44
frac_icu

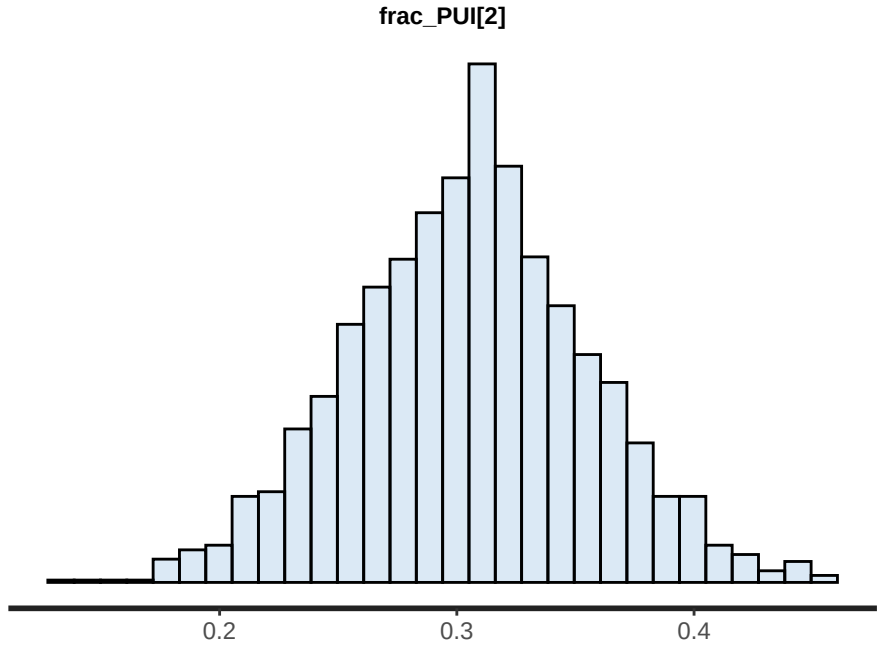

0.35
0.40
0.45
0.50
0.55
0.60
frac_mort

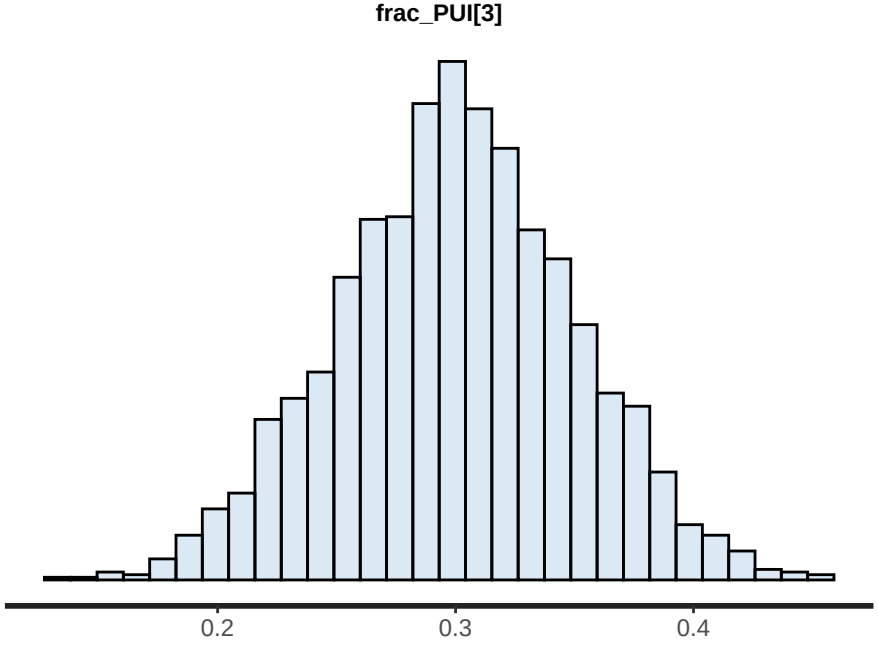

beta_multiplier[1]
0.0 0.5 1.0 1.5
beta_multiplier[2]
0 1 2
beta_multiplier[3]
0.8 1.0 1.2
beta_multiplier[4]
0.8 1.0 1.2
beta_multiplier[5]
0.9 1.1 1.3
beta_multiplier[6]
0.5 1.0 1.5 2.0
beta_multiplier[7]
1 2 3
beta_multiplier[8]
0.5 1.0 1.5 2.0 2.5
beta_multiplier[9]
0.6 0.9 1.2 1.5
beta_multiplier[10]
0.4 0.8 1.2 1.6
beta_multiplier[11]
0.5 1.0 1.5 2.0
beta_multiplier[12]
0.8 1.2 1.6
beta_multiplier[13]
0.4 0.8 1.2 1.6
beta_multiplier[14]
0.5 1.0 1.5
beta_multiplier[15]
0.5 1.0 1.5 2.0
beta_multiplier[16]
0.0 0.5 1.0 1.5 2.0
beta_multiplier[17]
0.6 0.8 1.0 1.2

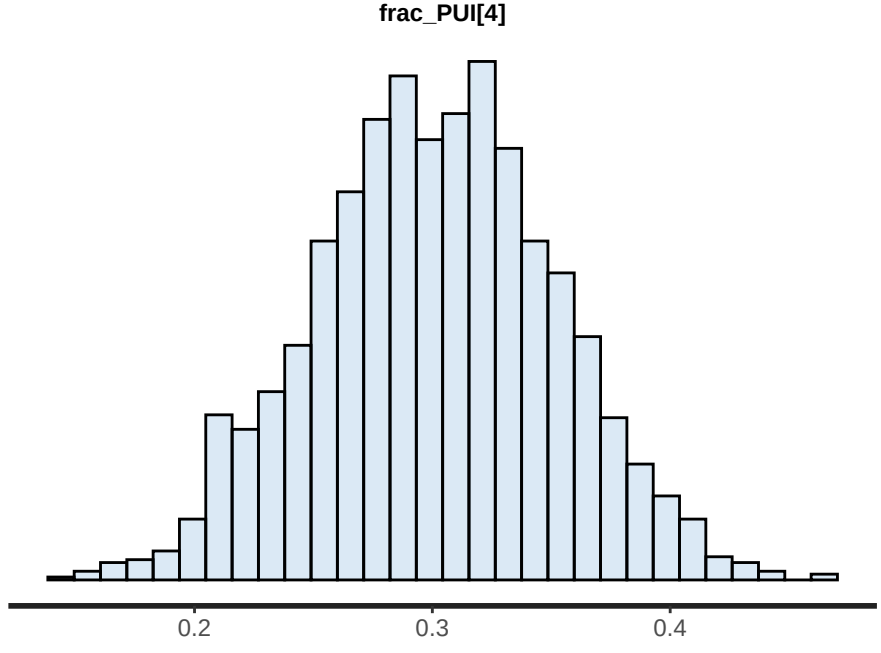

t_inter[1]
Mar 02
Mar 04
Mar 06
Mar 08
Mar 10
Mar 12
t_inter[2]
Mar 09
Mar 16
Mar 23
t_inter[3]
Mar 23
Mar 30
Apr 06
t_inter[4]
Apr 06
Apr 13
Apr 20
t_inter[5]
Apr 20
Apr 27
May 04
t_inter[6]
May 11
May 18
t_inter[7]
May 25
Jun 01
t_inter[8]
Jun 01
Jun 08
Jun 15
t_inter[9]
Jun 22
Jun 29
t_inter[10]
Jul 06
Jul 13
t_inter[11]
Jul 20
Jul 27
t_inter[12]
Aug 03
Aug 10
Aug 17
t_inter[13]
Aug 17
Aug 24
Aug 31
t_inter[14]
Sep 13
t_inter[15]
Sep 21
Sep 28
t_inter[16]
Oct 05
Oct 12
t_inter[17]
Oct 19
Oct 26


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


frac_PUI[1]
0.1
0.2
0.3
0.4
0.5


frac_PUI[2]
0.2
0.3
0.4


frac_PUI[3]
0.2
0.3
0.4


frac_PUI[4]
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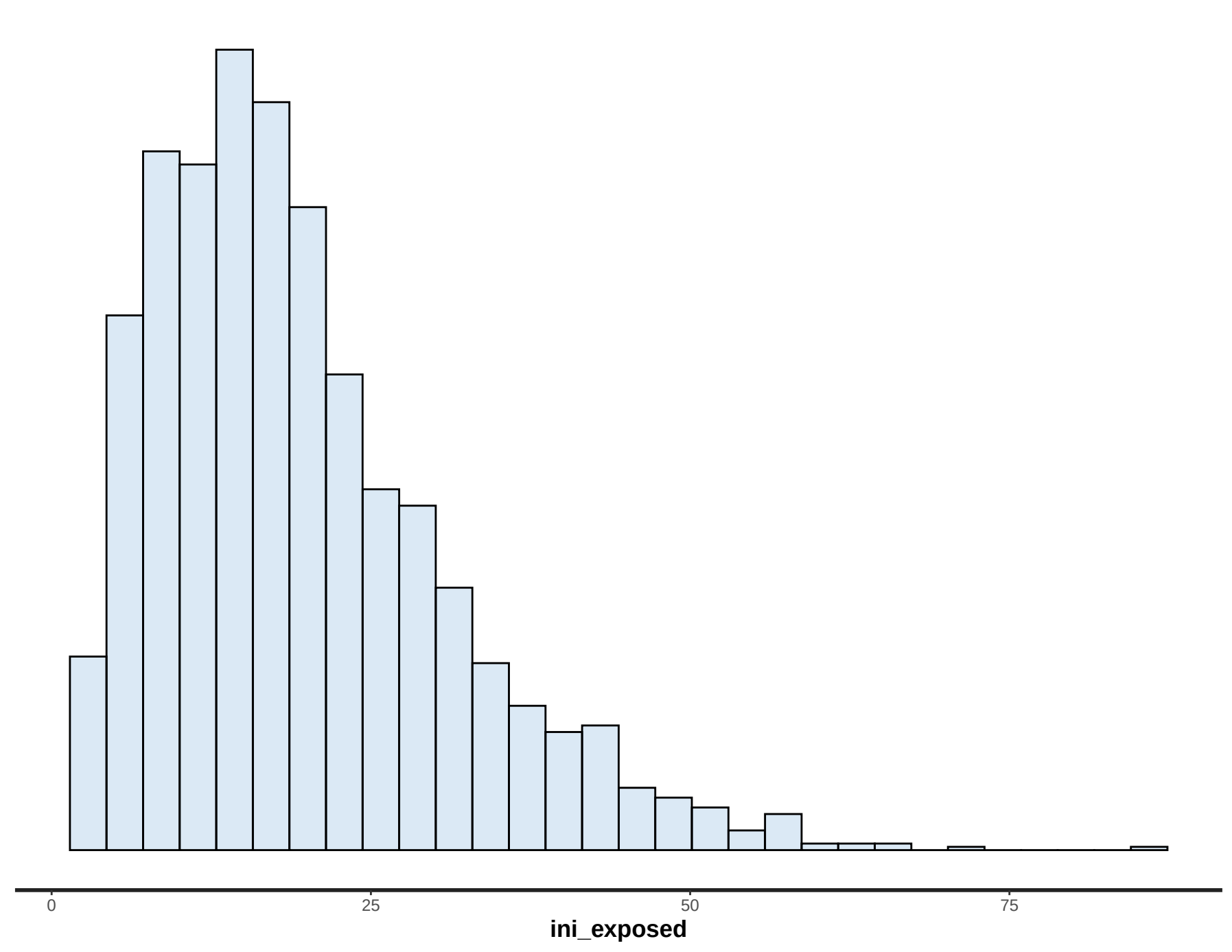
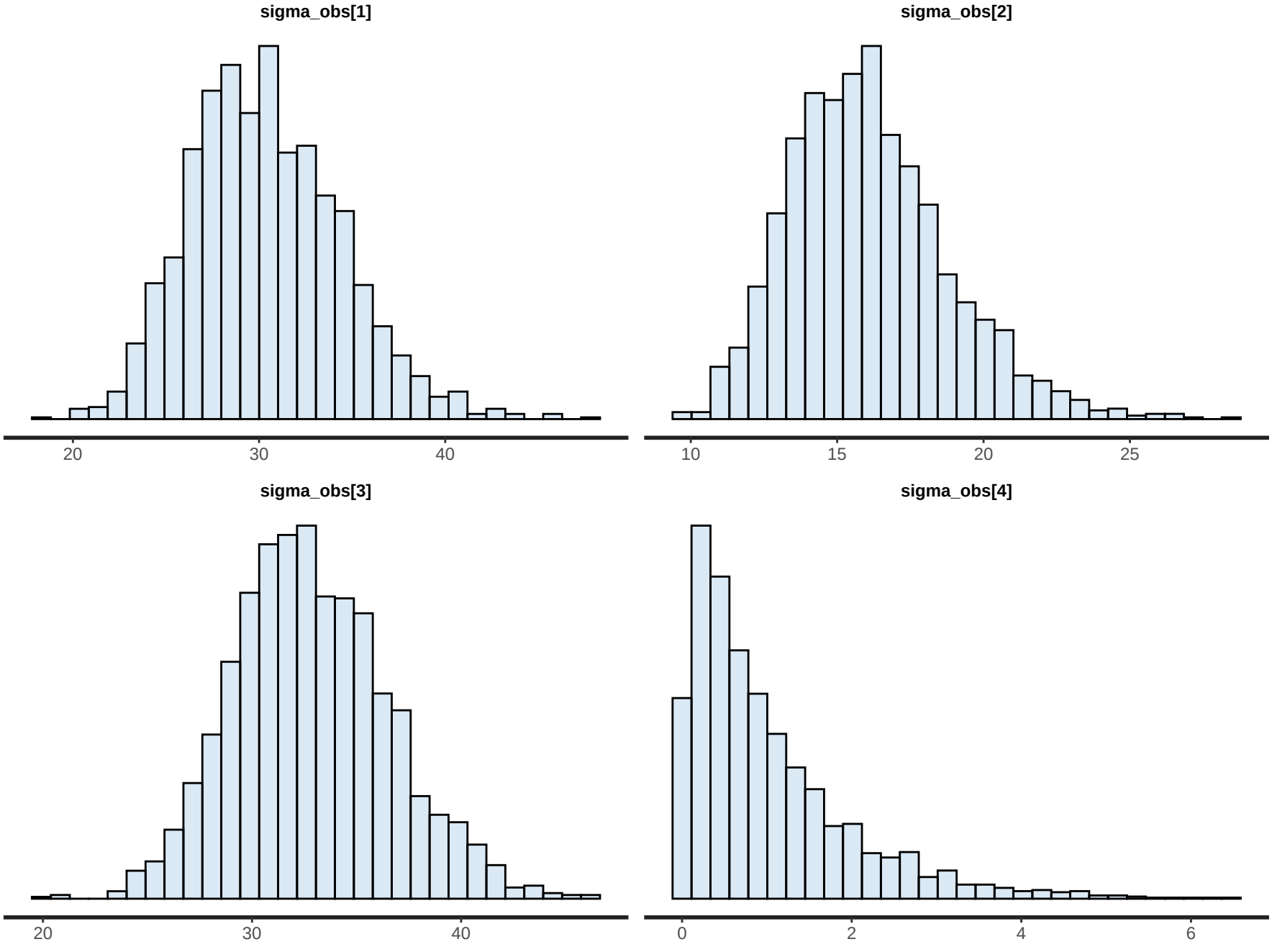
0.3
0.4


0
25
50
75
ini_exposed


sigma_obs[1]
20
30
40
sigma_obs[2]
10
15
20
25
sigma_obs[3]
20
30
40
sigma_obs[4]
0
2
4
6