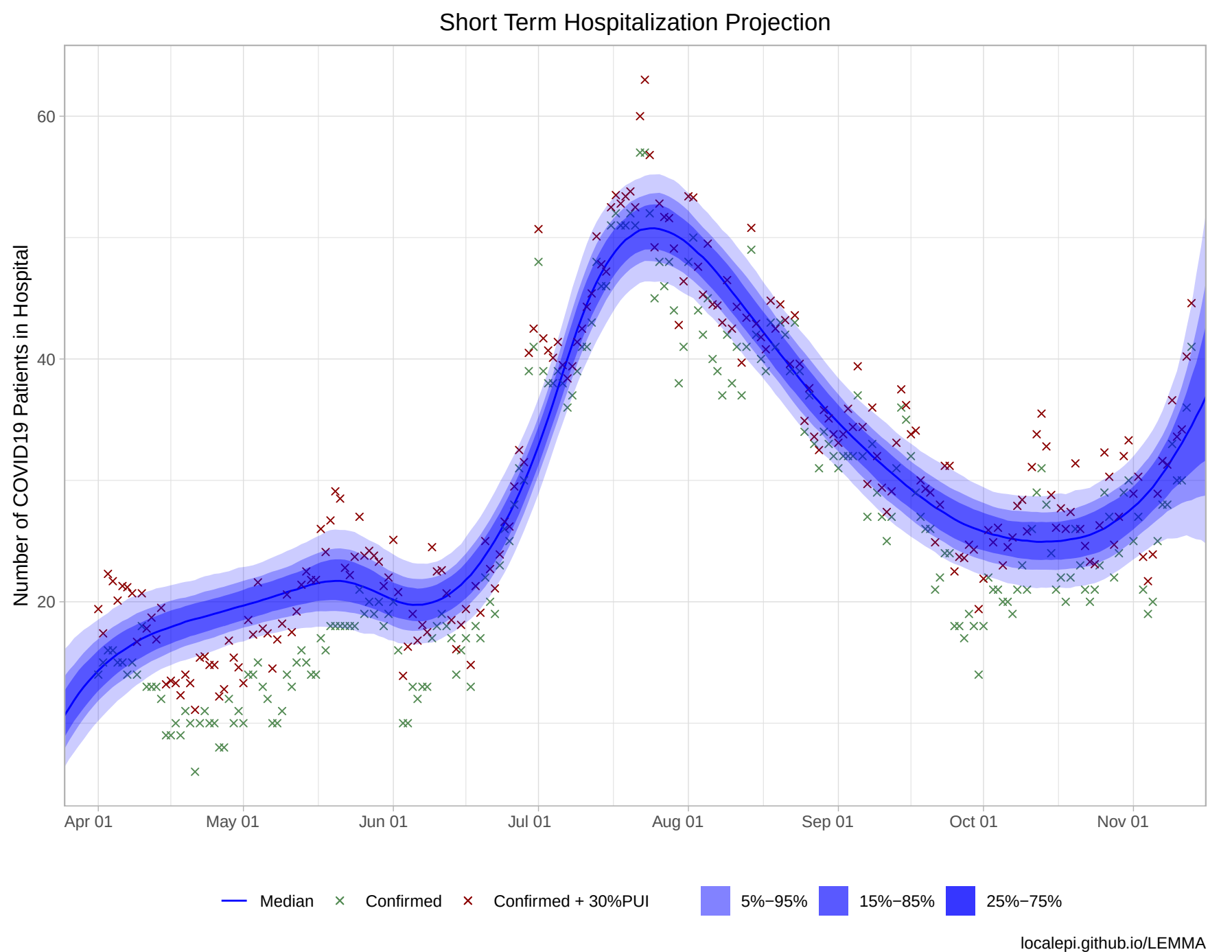
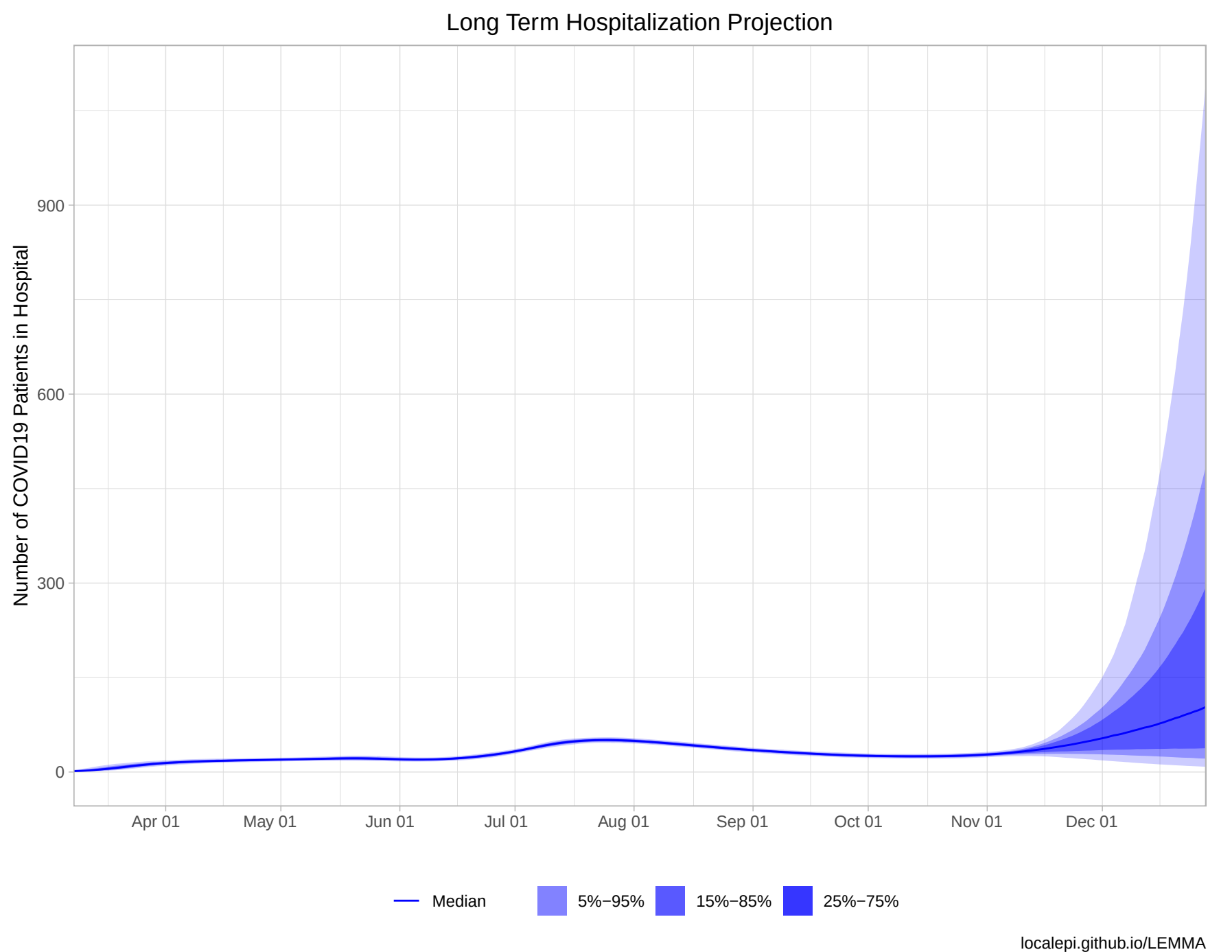
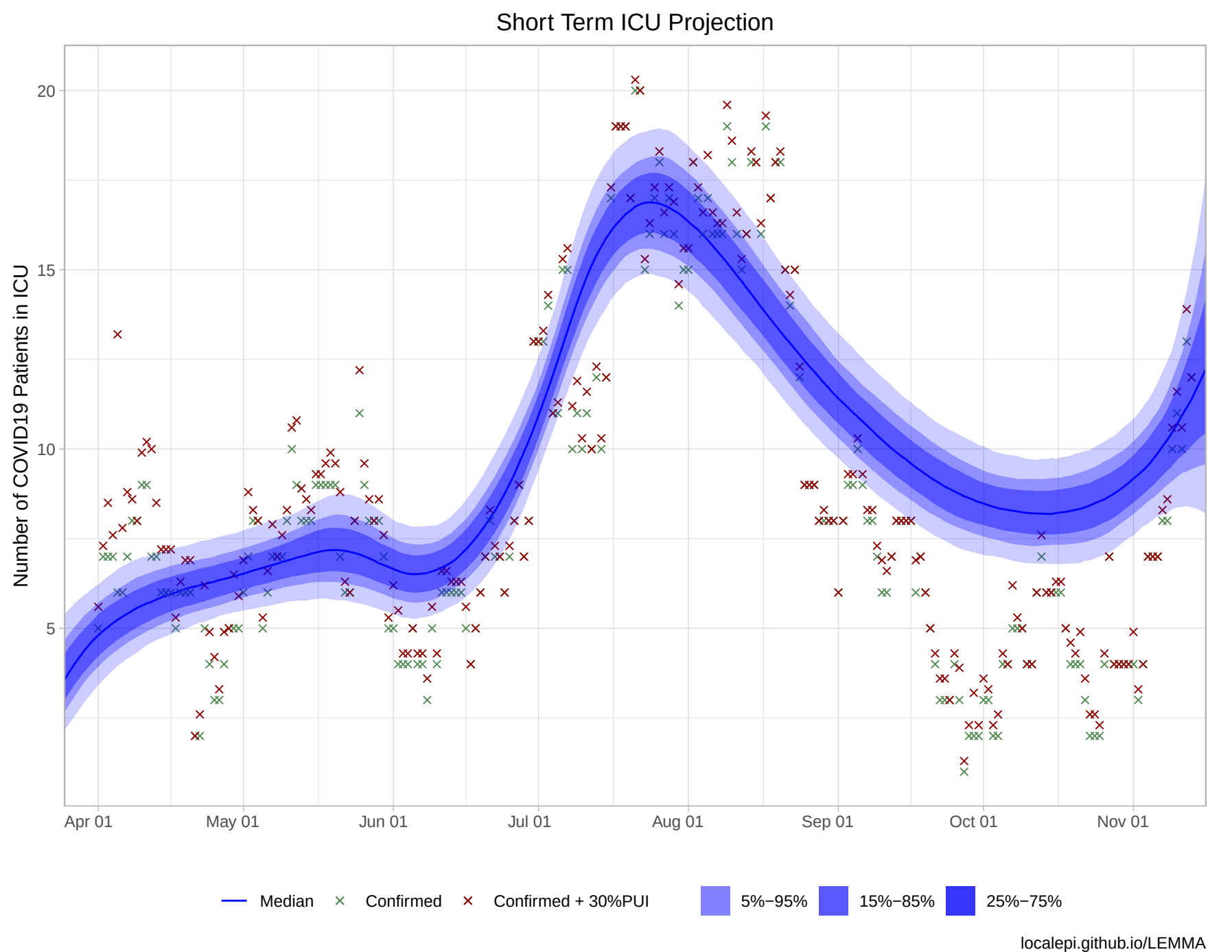
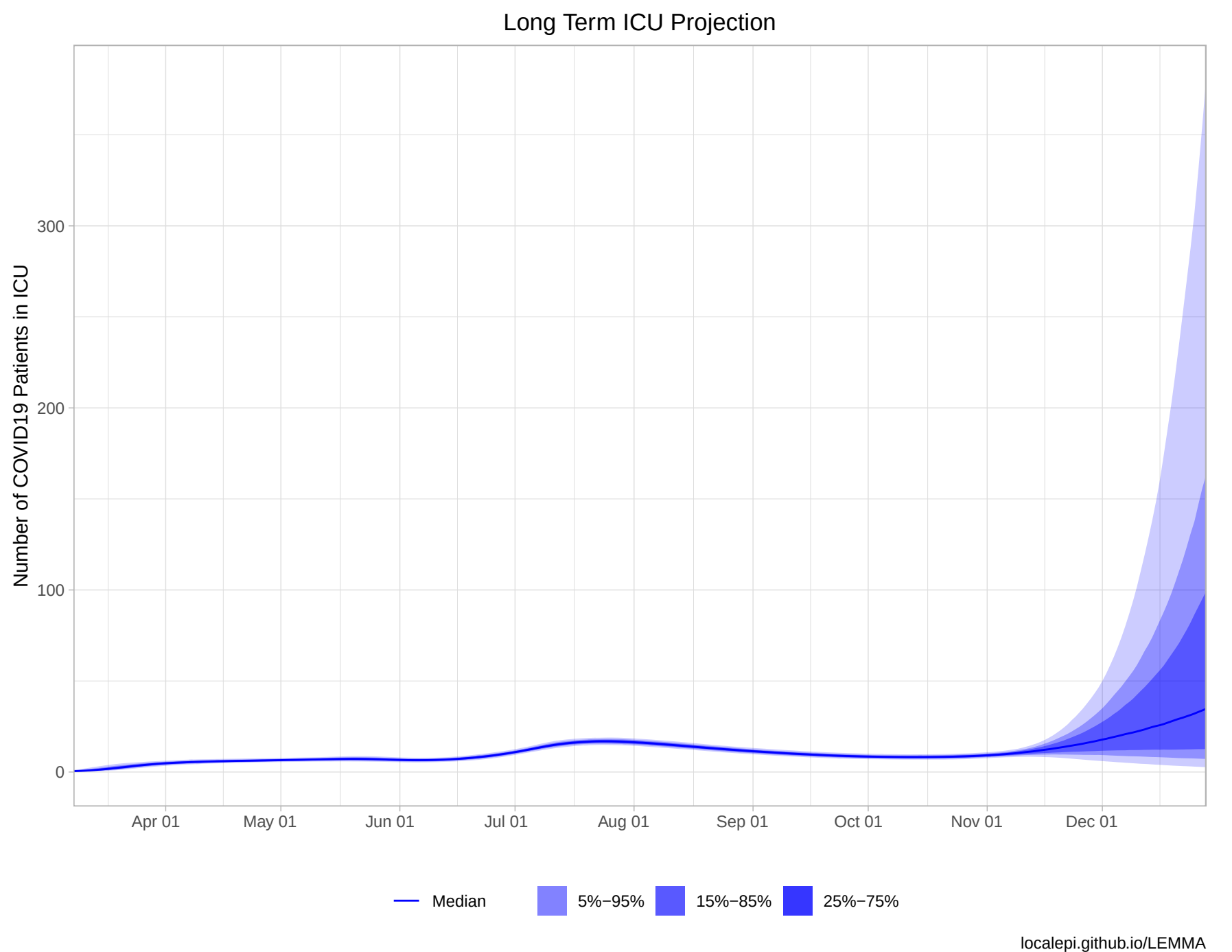
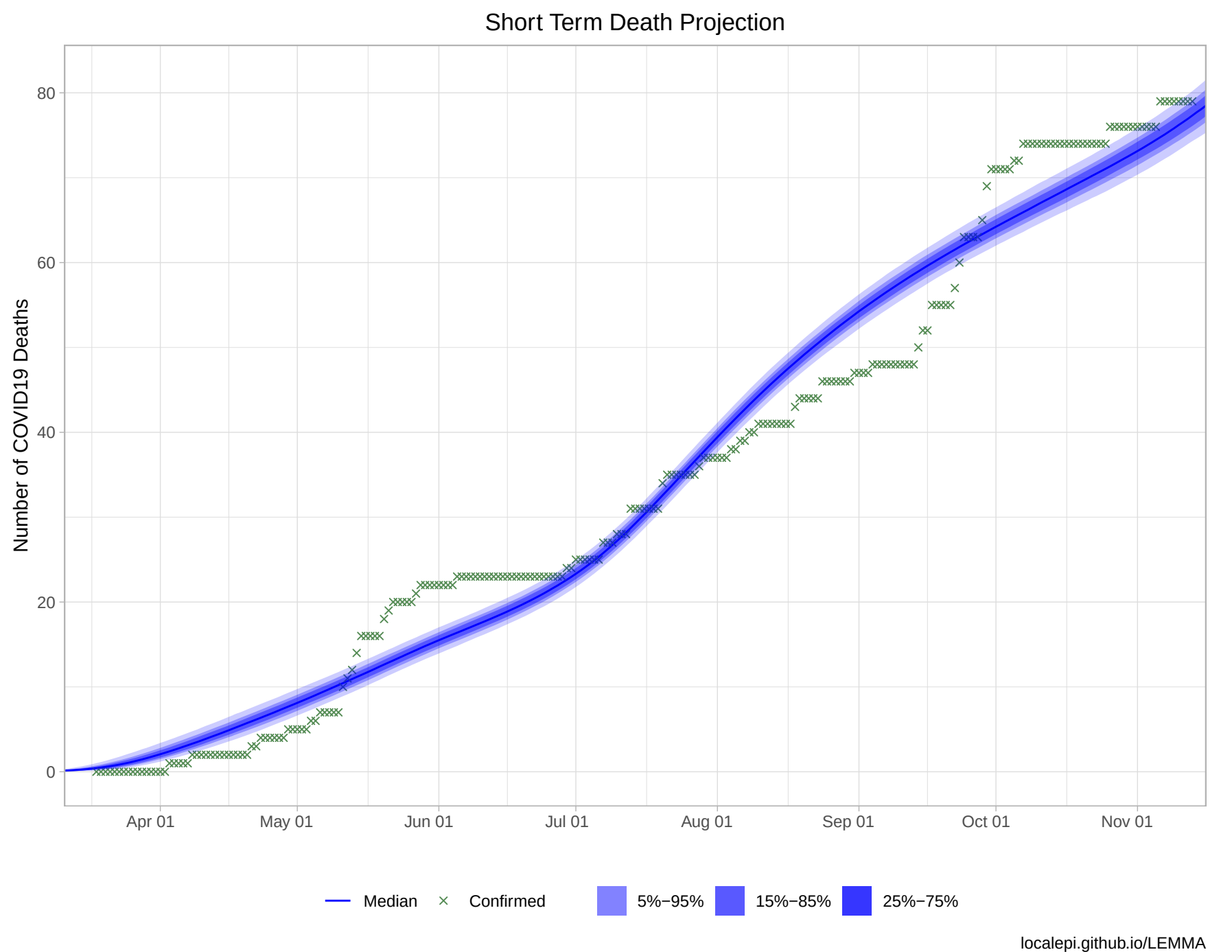
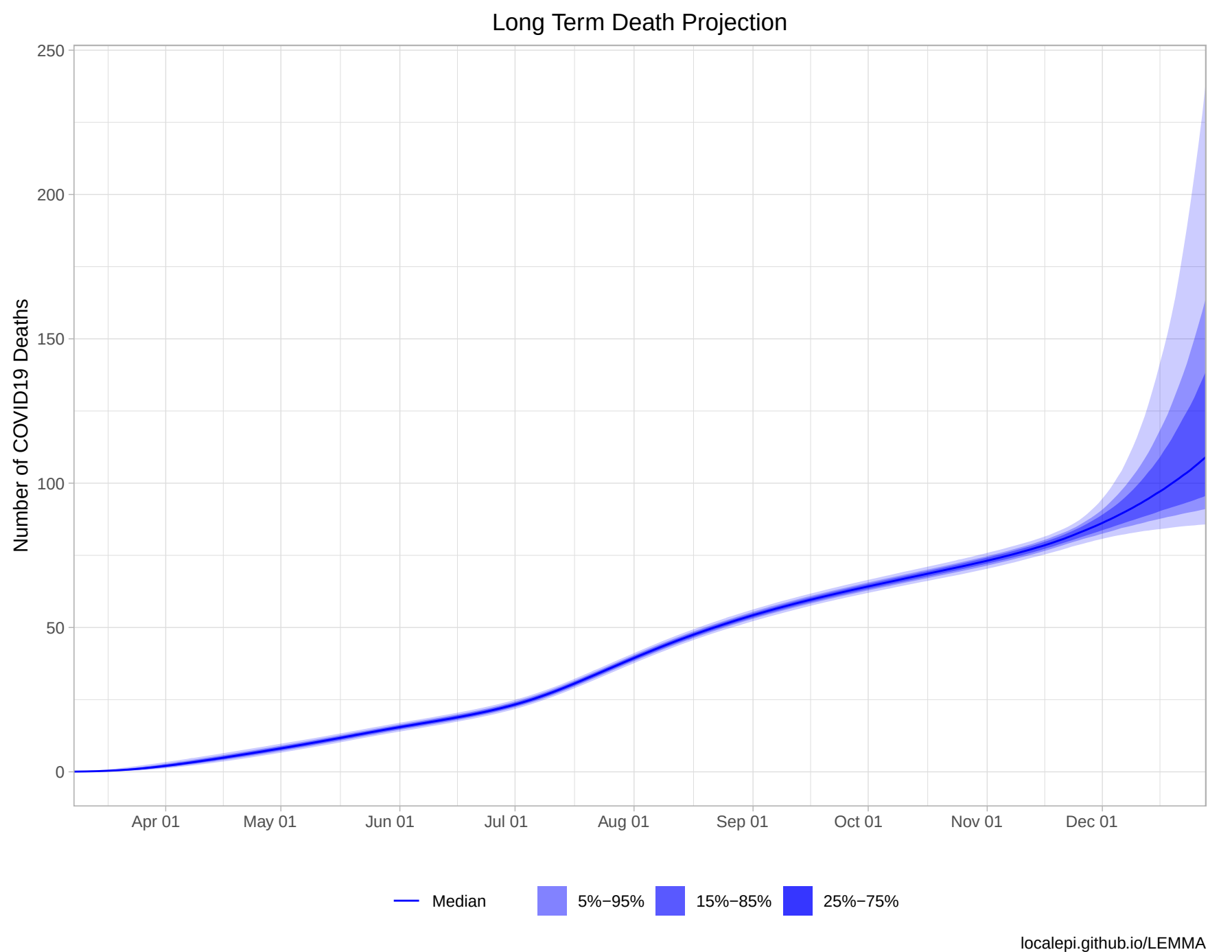

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
60
40
20
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

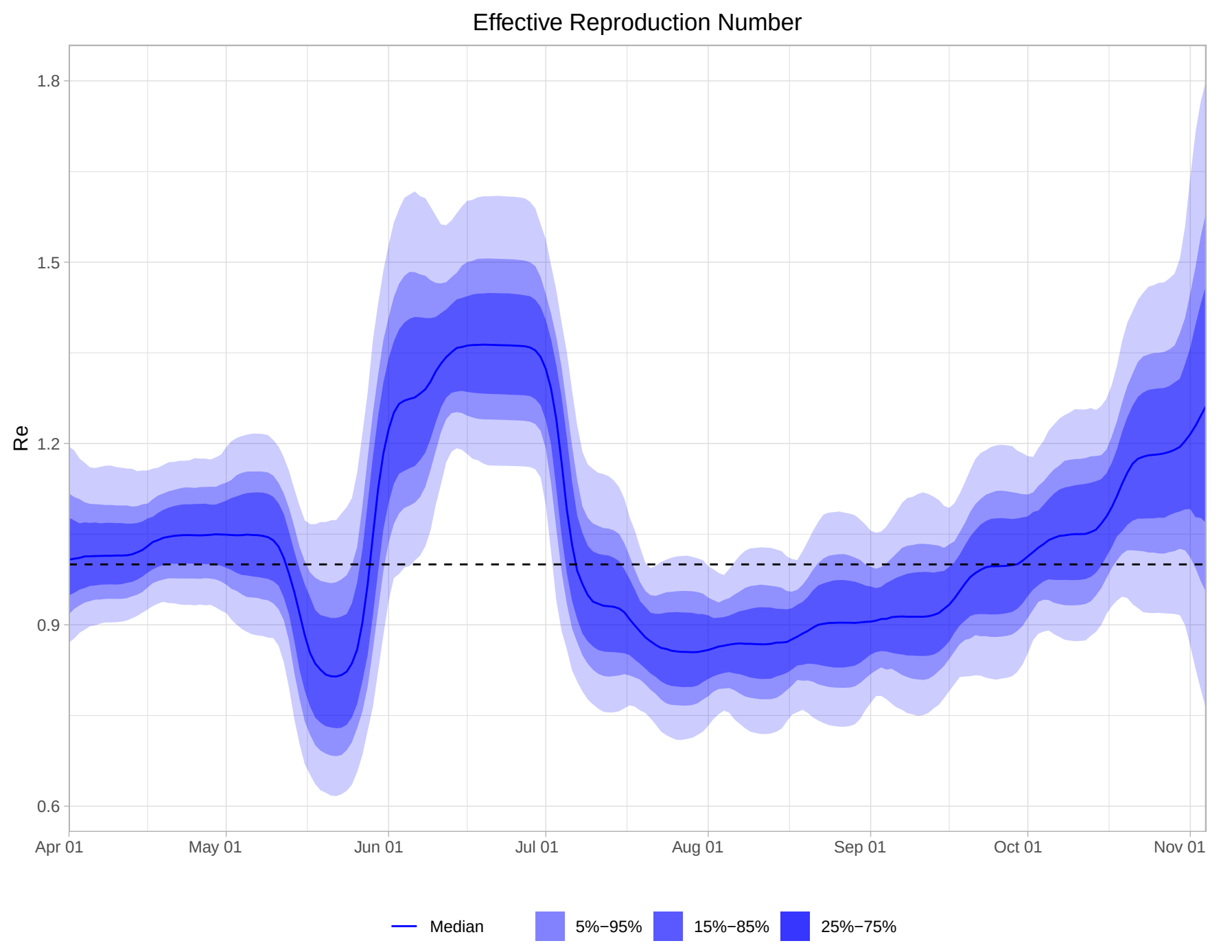

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
900
600
300
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
20
15
10
5
Apr 01
May 01
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
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

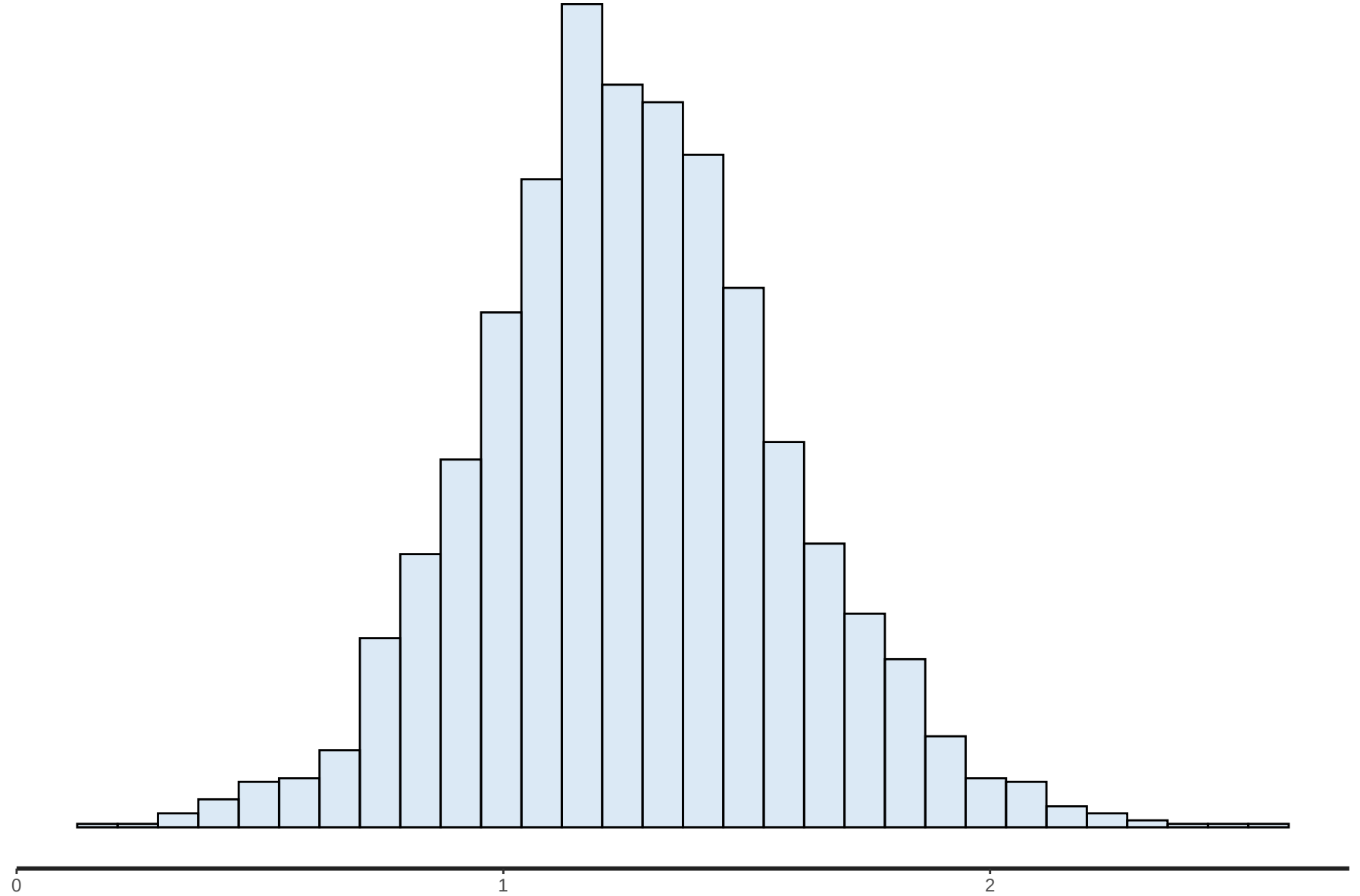

Short Term Death Projection
Number of COVID19 Deaths
0
20
40
60
80
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

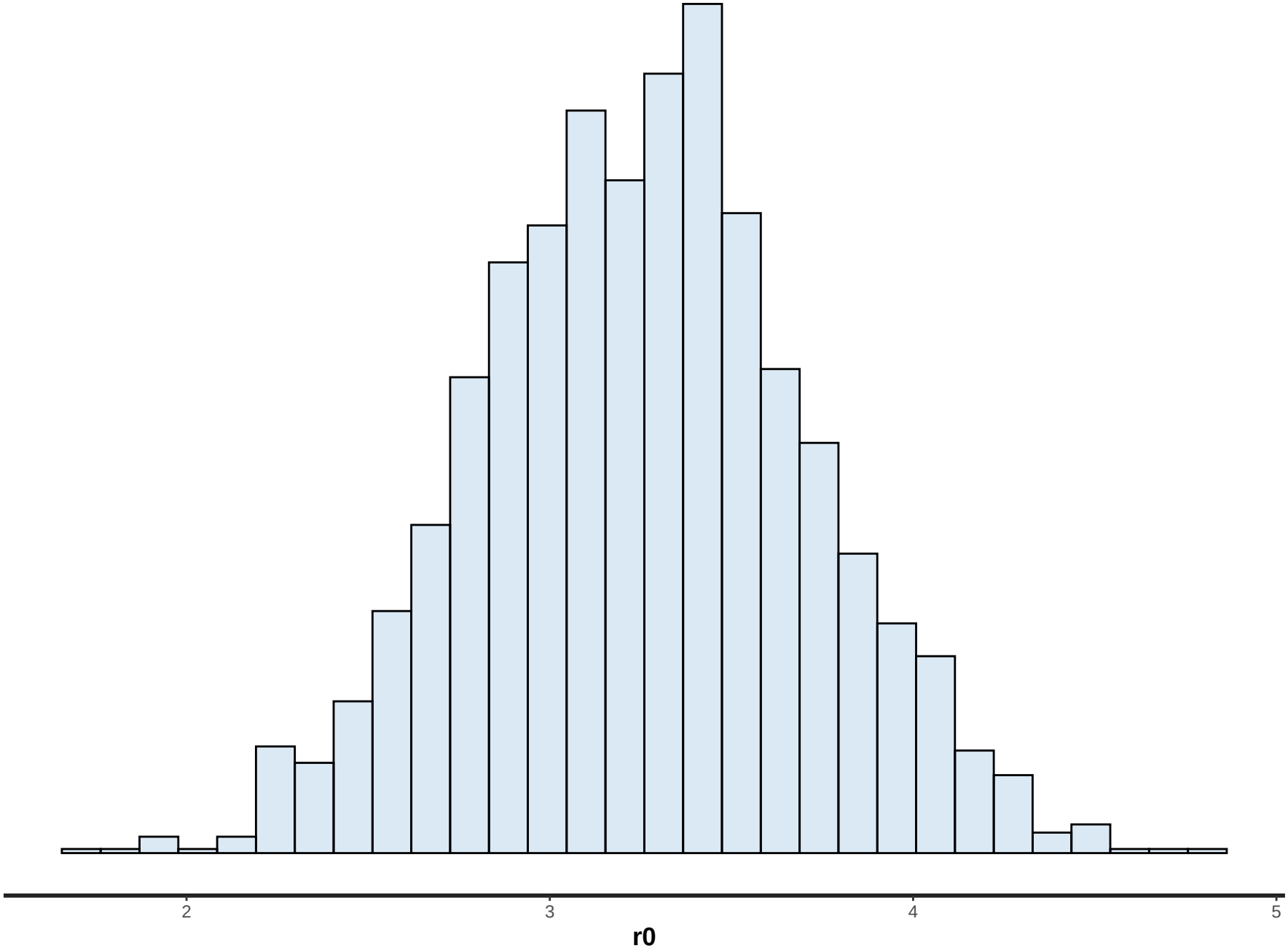

Long Term Death Projection
Number of COVID19 Deaths
250
200
150
100
50
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

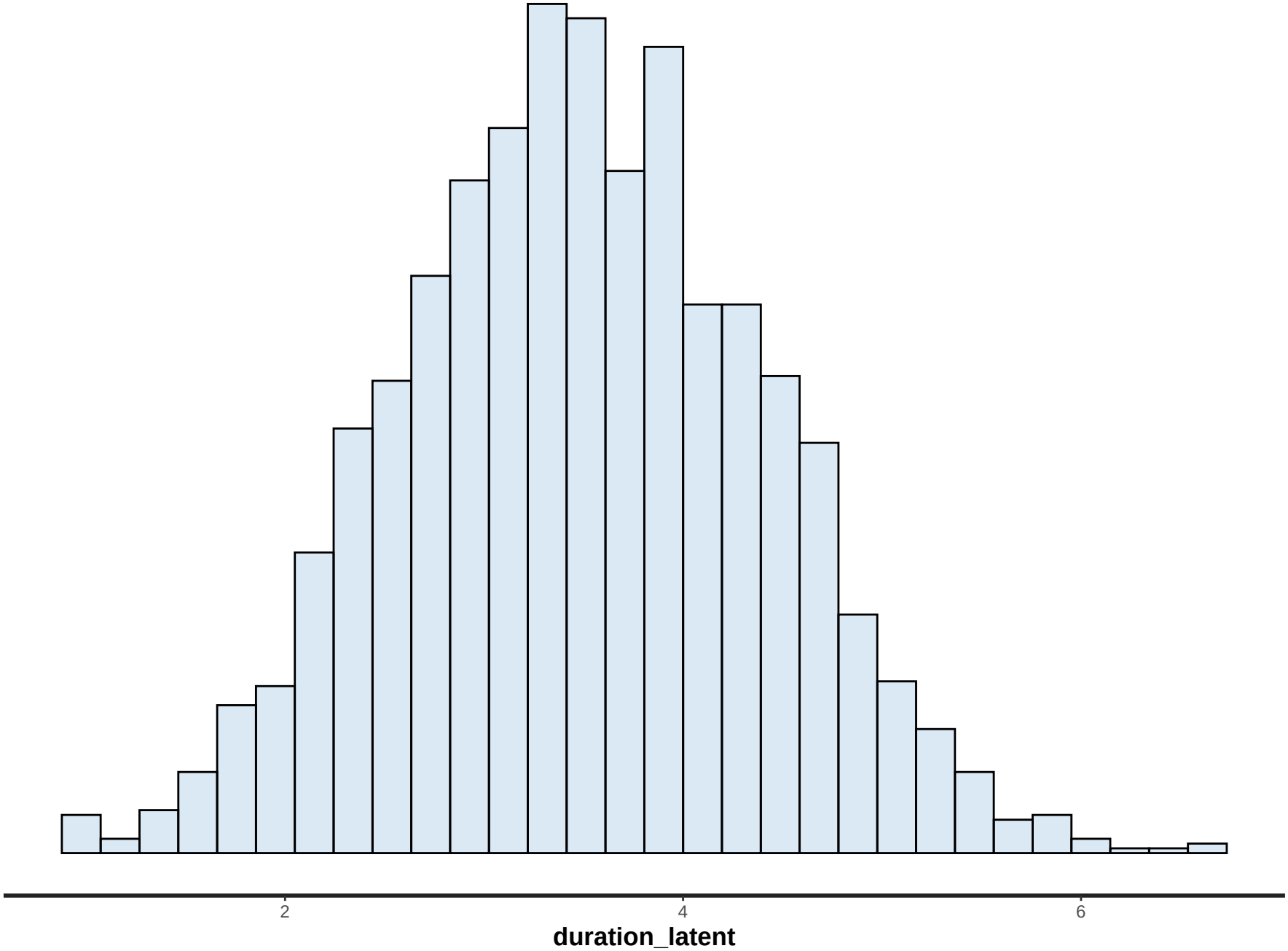

Effective Reproduction Number
Re
1.8
1.5
1.2
0.9
0.6
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
5%−95%
15%−85%
25%−75%

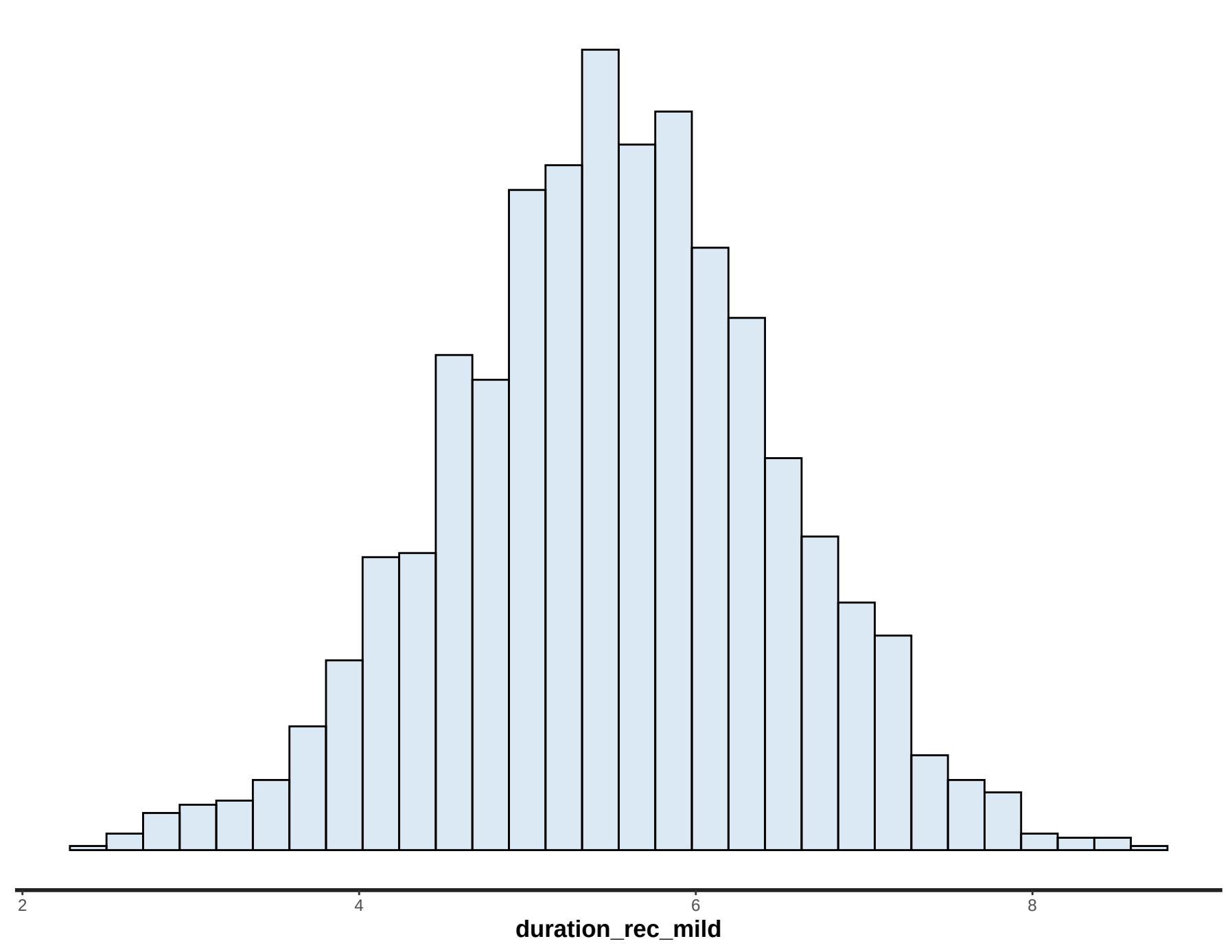
Rt as of 2020−11−04

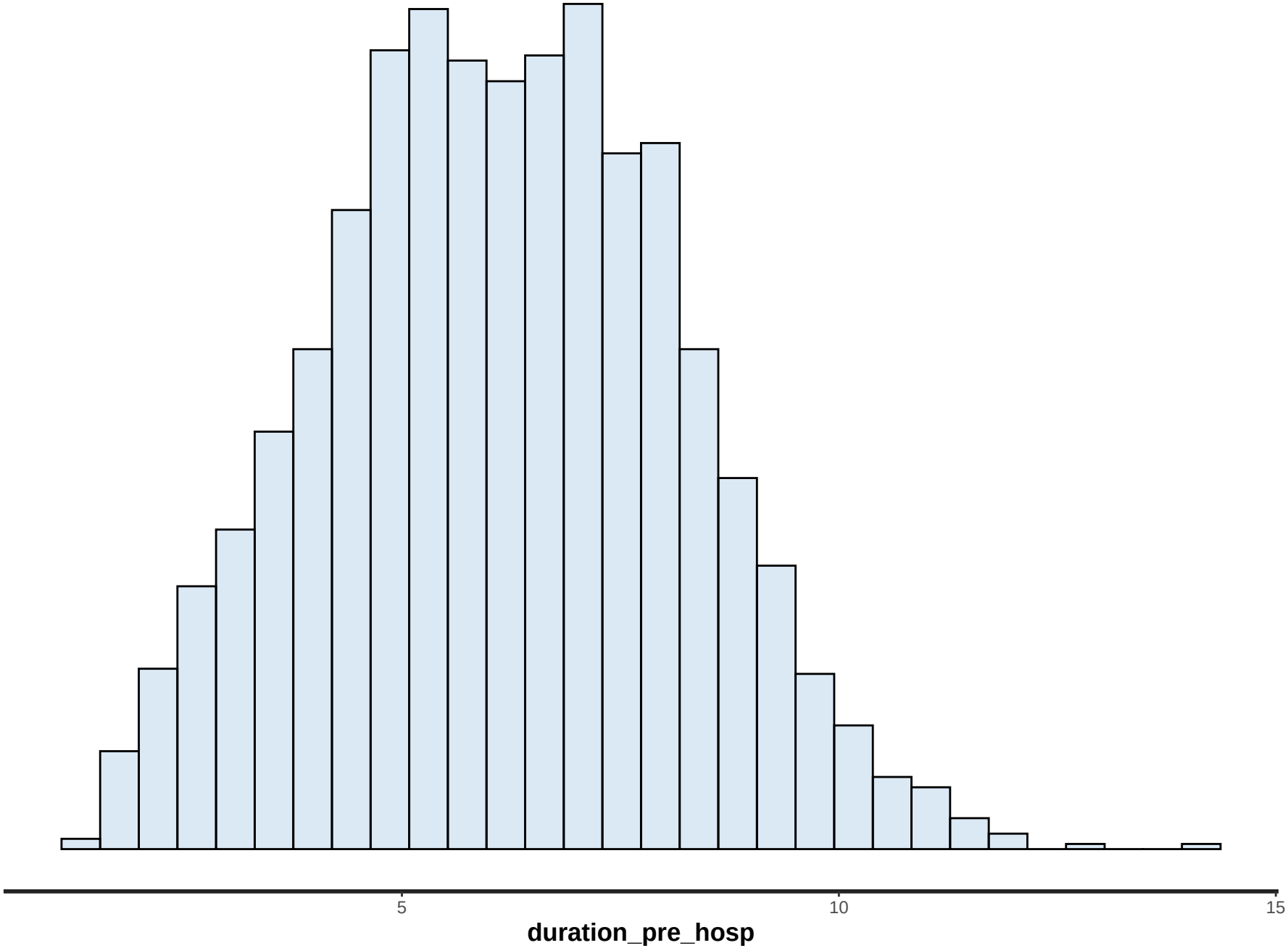
5%	10%	25%	50%	75%	90%	95%
0.76	0.87	1.07	1.26	1.46	1.67	1.80

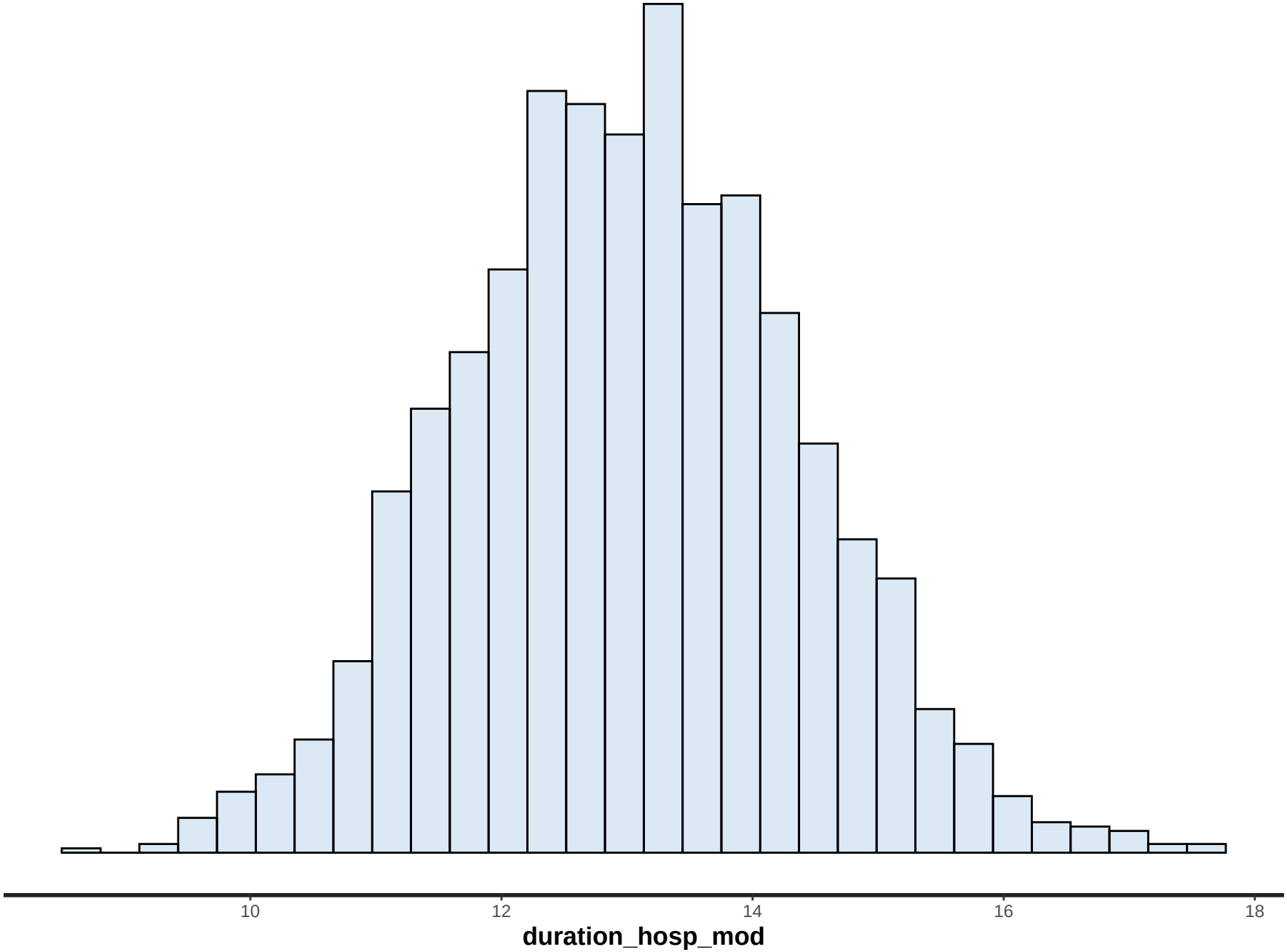


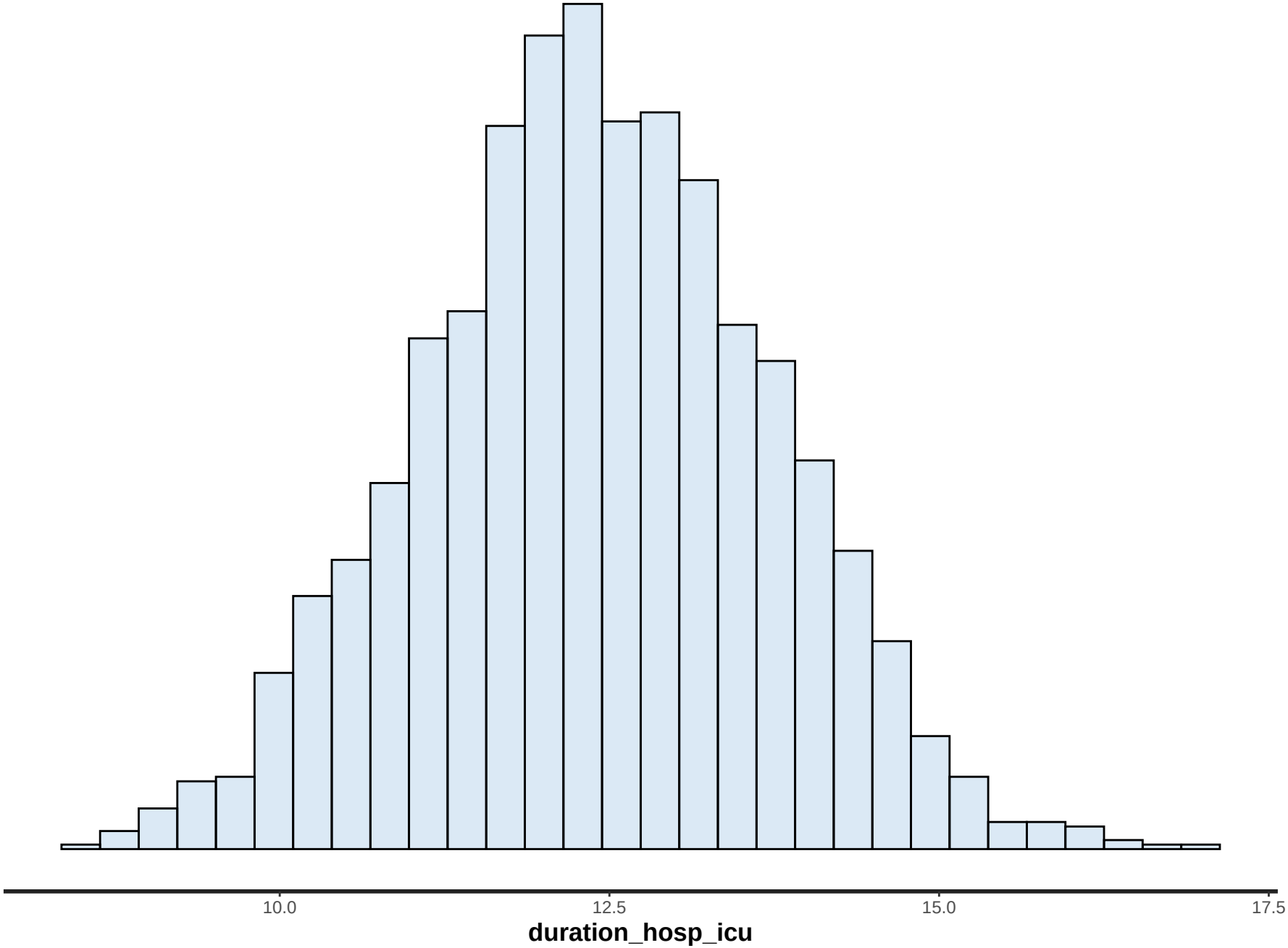

2
3
4
5
r0

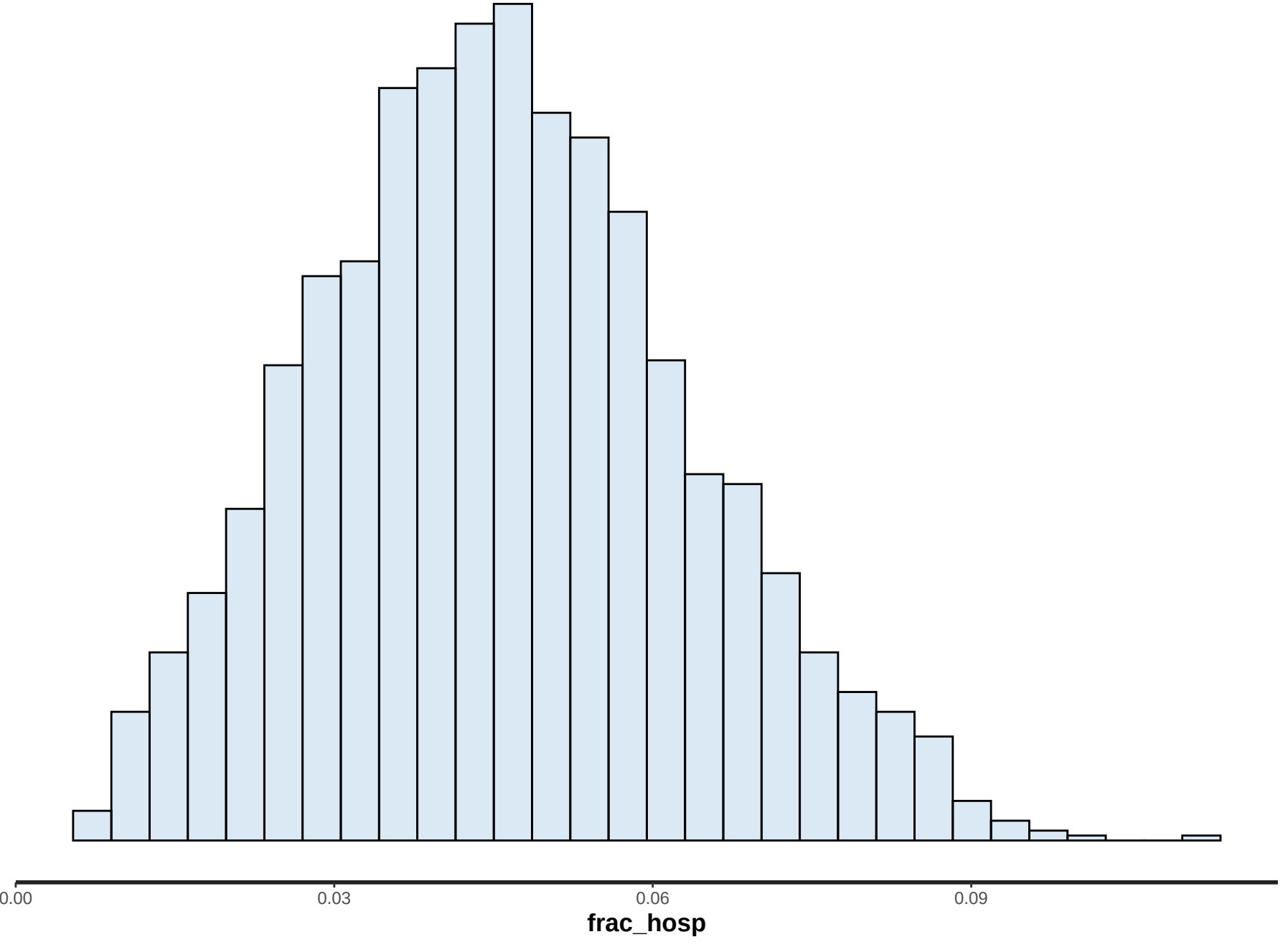

2
4
6
duration_latent

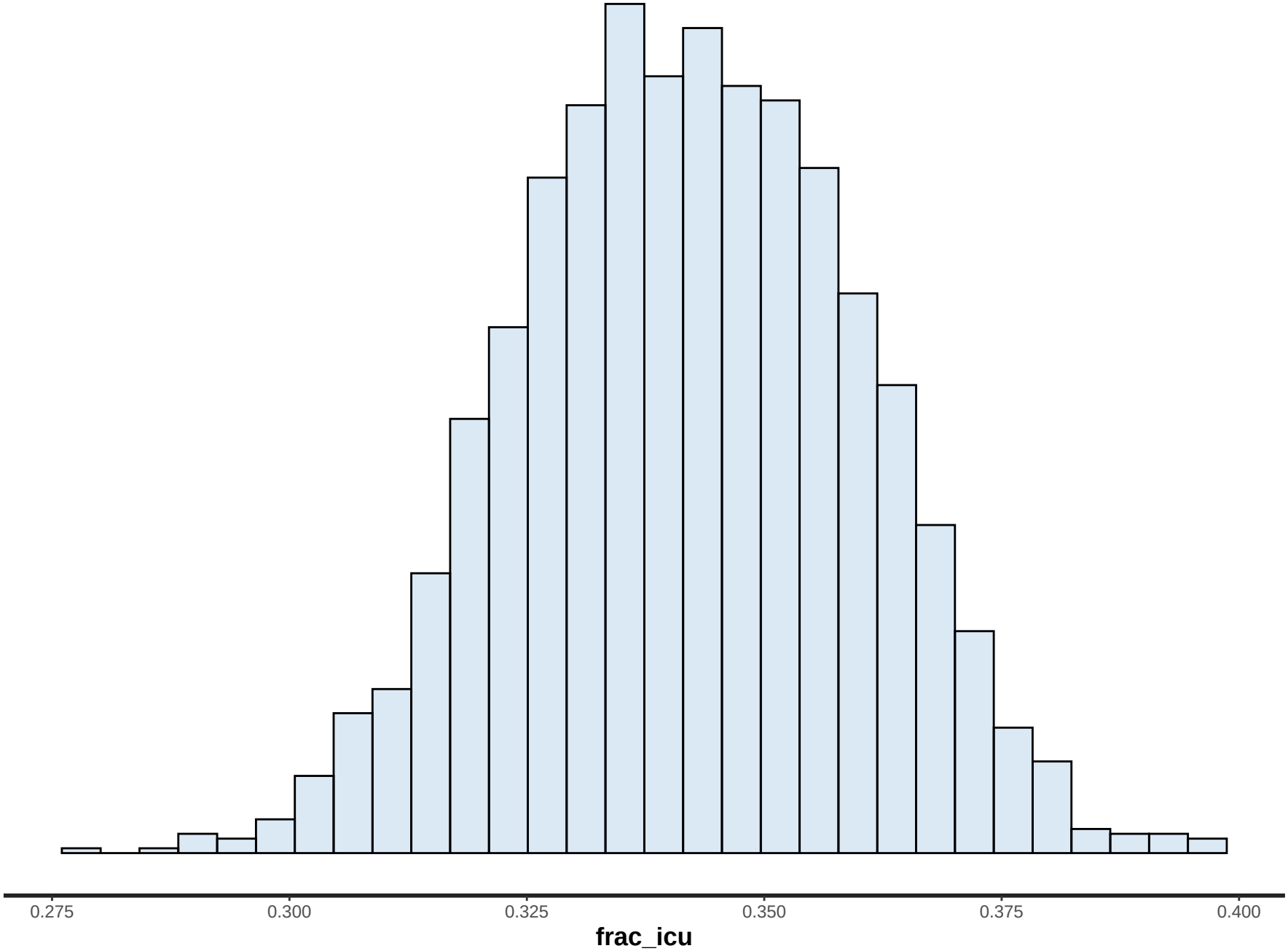

2
4
6
8
duration_rec_mild

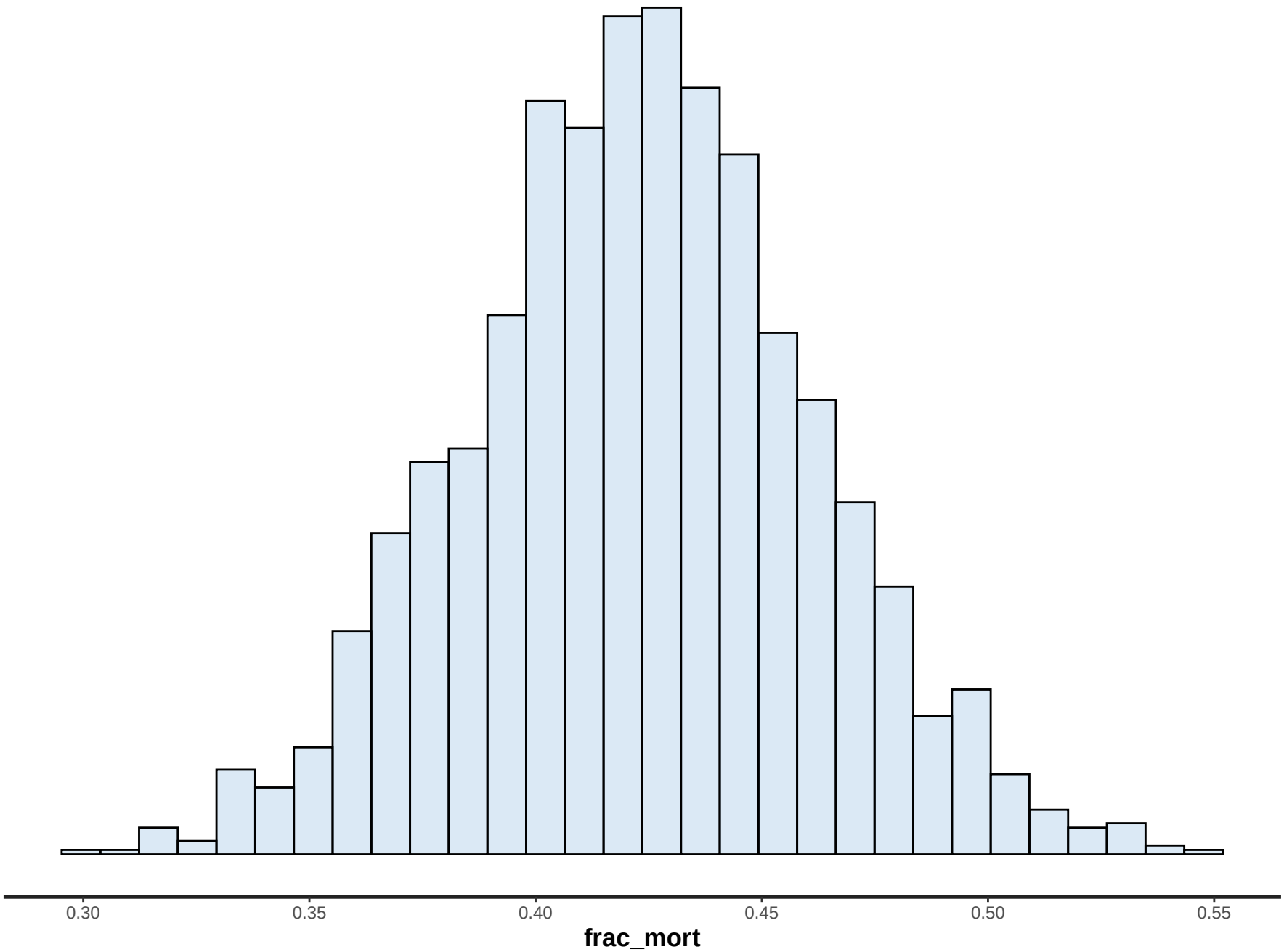

5
10
15
duration_pre_hosp

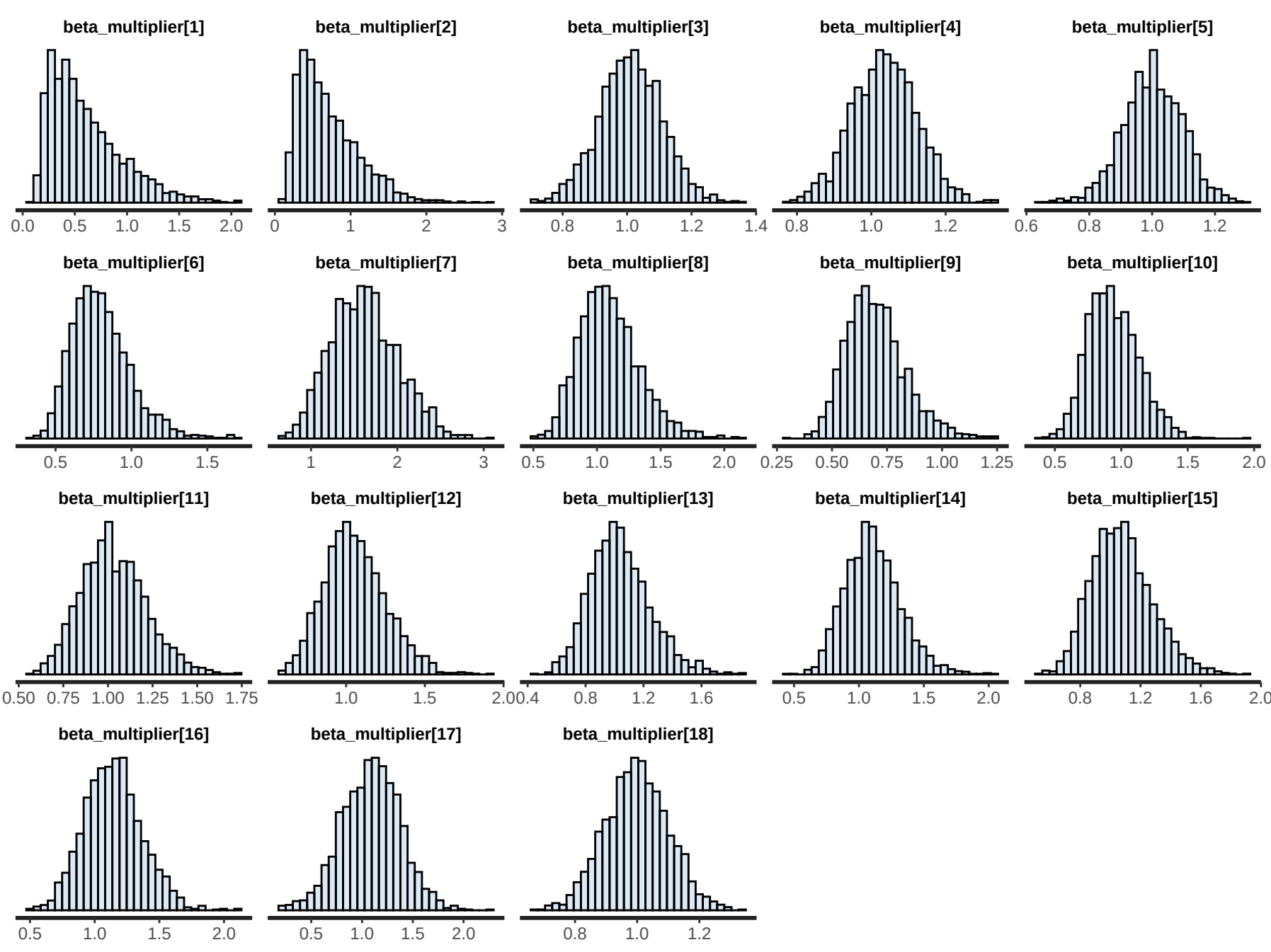

10
12
14
16
18
duration_hosp_mod

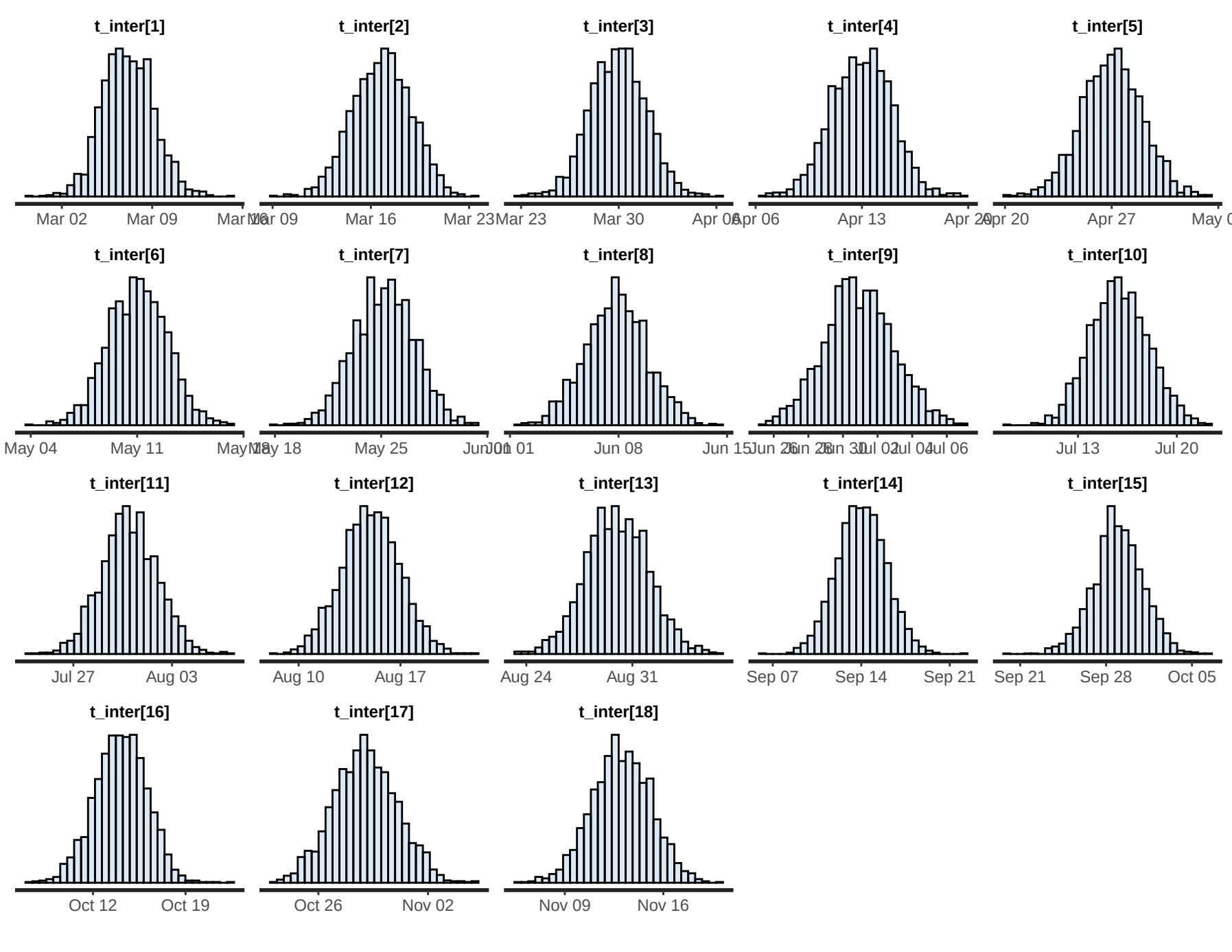

10.0
12.5
15.0
17.5
duration_hosp_icu

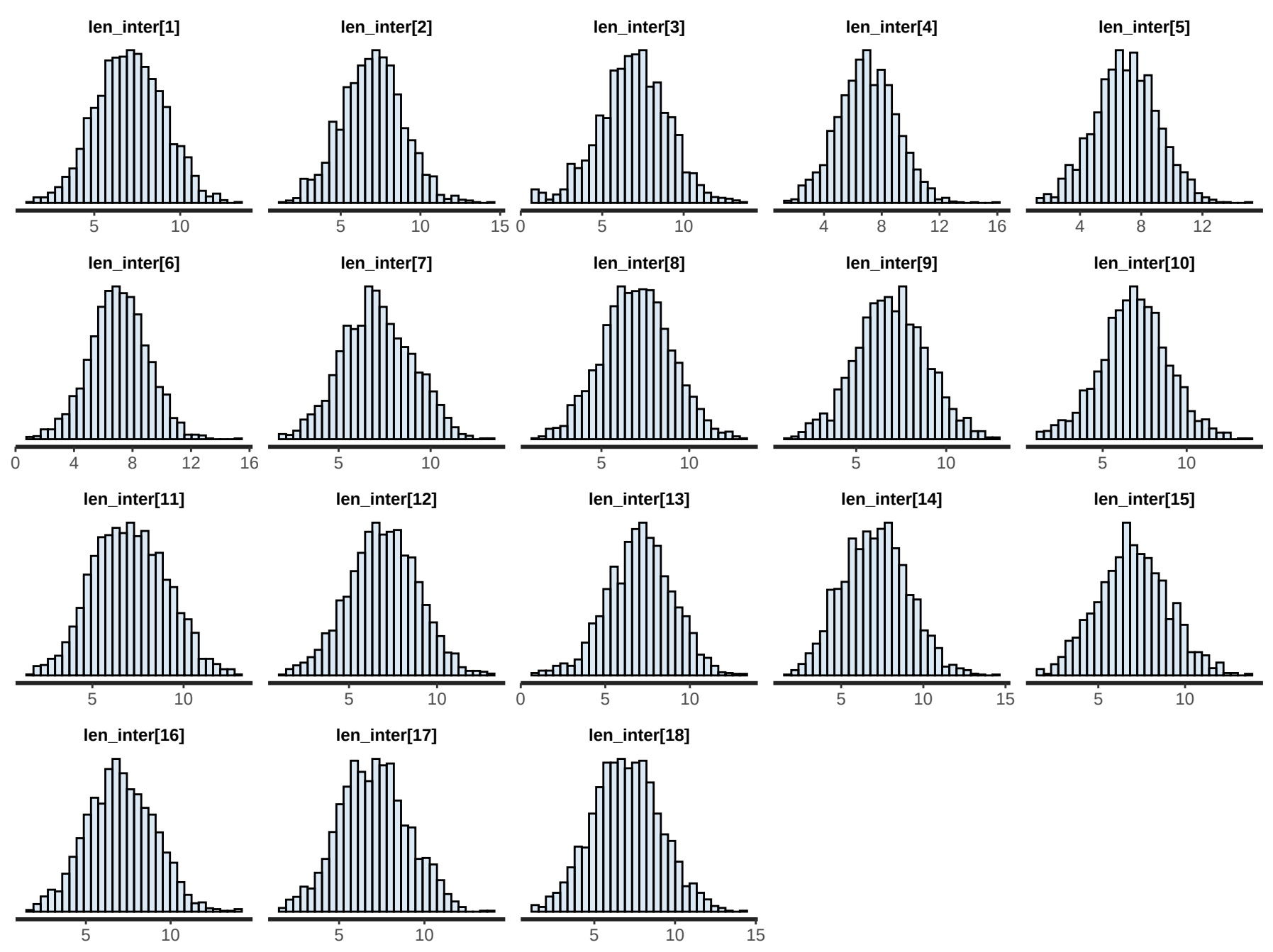

0.00
0.03
0.06
0.09
frac_hosp

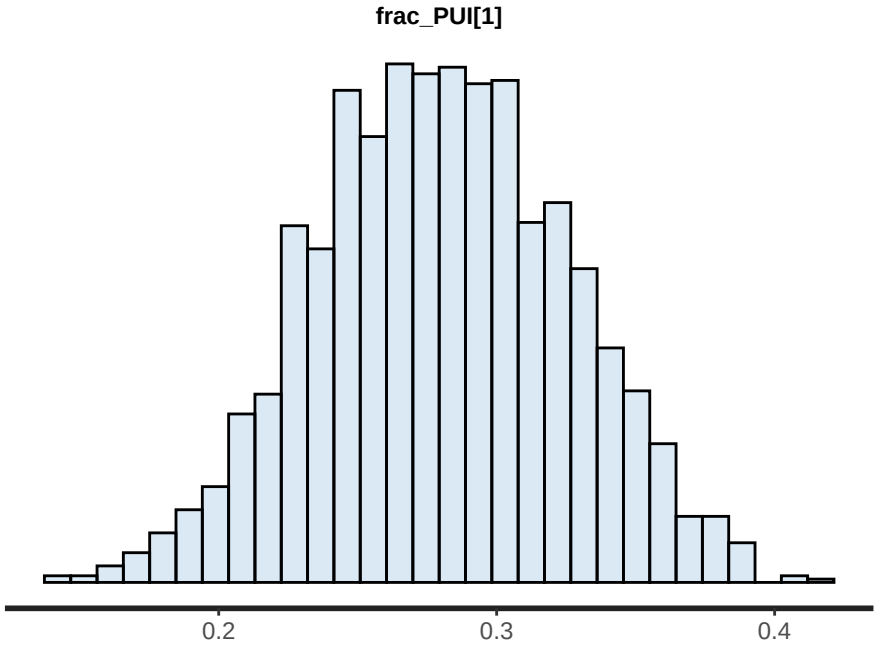

0.275
0.300
0.325
0.350
0.375
0.400
frac_icu

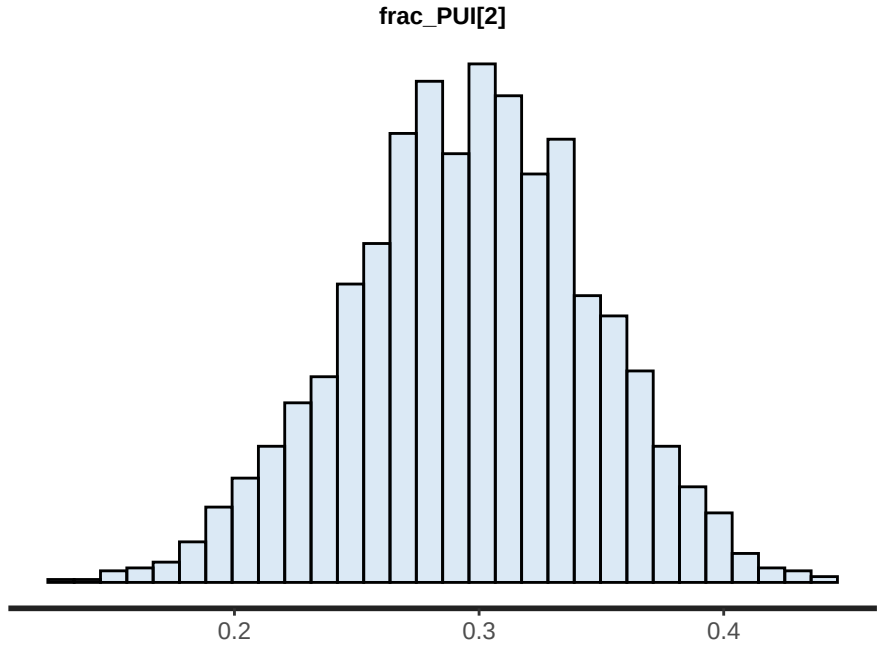

0.30
0.35
0.40
0.45
0.50
0.55
frac_mort

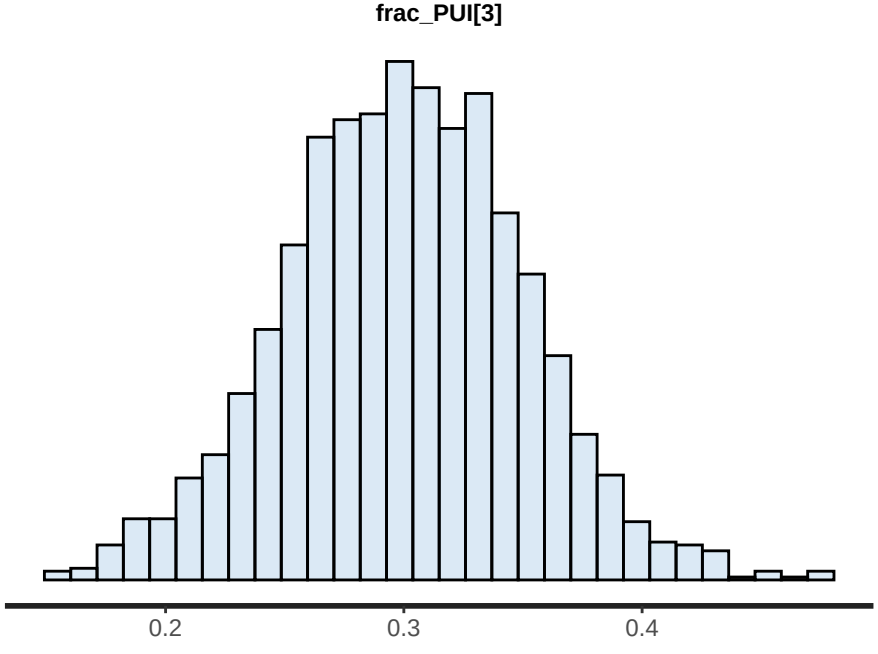

beta_multiplier[1]
0.0 0.5 1.0 1.5 2.0
beta_multiplier[2]
0 1 2 3
beta_multiplier[3]
0.8 1.0 1.2 1.4
beta_multiplier[4]
0.8 1.0 1.2
beta_multiplier[5]
0.6 0.8 1.0 1.2
beta_multiplier[6]
0.5 1.0 1.5
beta_multiplier[7]
1 2 3
beta_multiplier[8]
0.5 1.0 1.5 2.0
beta_multiplier[9]
0.25 0.50 0.75 1.00 1.25
beta_multiplier[10]
0.5 1.0 1.5 2.0
beta_multiplier[11]
0.50 0.75 1.00 1.25 1.50 1.75
beta_multiplier[12]
1.0 1.5 2.00
beta_multiplier[13]
0.4 0.8 1.2 1.6
beta_multiplier[14]
0.5 1.0 1.5 2.0
beta_multiplier[15]
0.8 1.2 1.6 2.0
beta_multiplier[16]
0.5 1.0 1.5 2.0
beta_multiplier[17]
0.5 1.0 1.5 2.0
beta_multiplier[18]
0.8 1.0 1.2


t_inter[1]
Mar 02
Mar 09
t_inter[2]
Mar 09
Mar 16
Mar 23
t_inter[3]
Mar 23
Mar 30
t_inter[4]
Apr 06
Apr 13
t_inter[5]
Apr 20
Apr 27
t_inter[6]
May 04
May 11
t_inter[7]
May 18
May 25
t_inter[8]
Jun 01
Jun 08
t_inter[9]
Jun 26
Jul 02
Jul 04
Jul 06
t_inter[10]
Jul 13
Jul 20
t_inter[11]
Jul 27
Aug 03
t_inter[12]
Aug 10
Aug 17
t_inter[13]
Aug 24
Aug 31
t_inter[14]
Sep 07
Sep 14
Sep 21
t_inter[15]
Sep 21
Sep 28
Oct 05
t_inter[16]
Oct 12
Oct 19
t_inter[17]
Oct 26
Nov 02
t_inter[18]
Nov 09
Nov 16


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]
len_inter[18]


frac_PUI[1]
0.2
0.3
0.4


frac_PUI[2]
0.2
0.3
0.4


frac_PUI[3]
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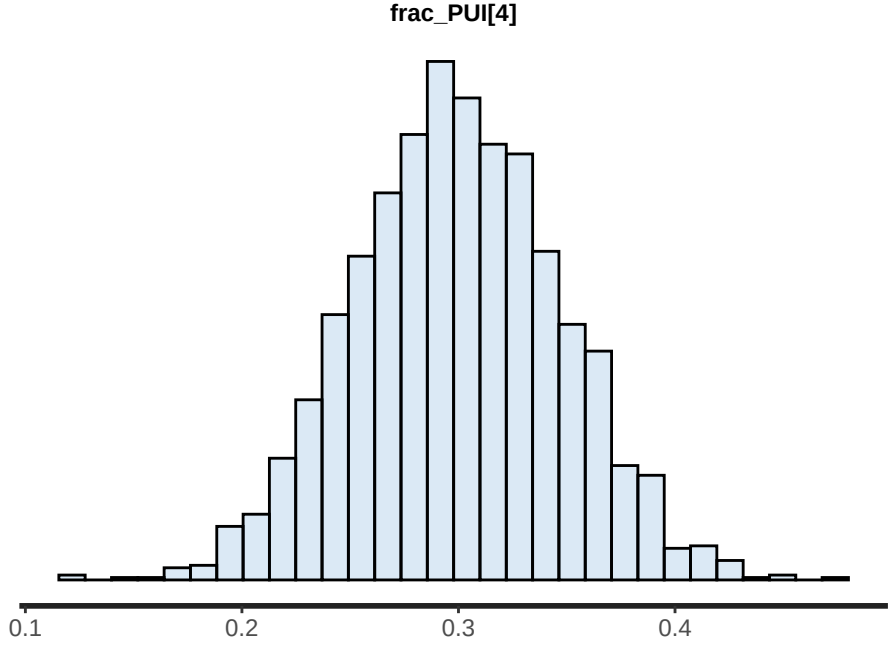
0.3
0.4


frac_PUI[4]
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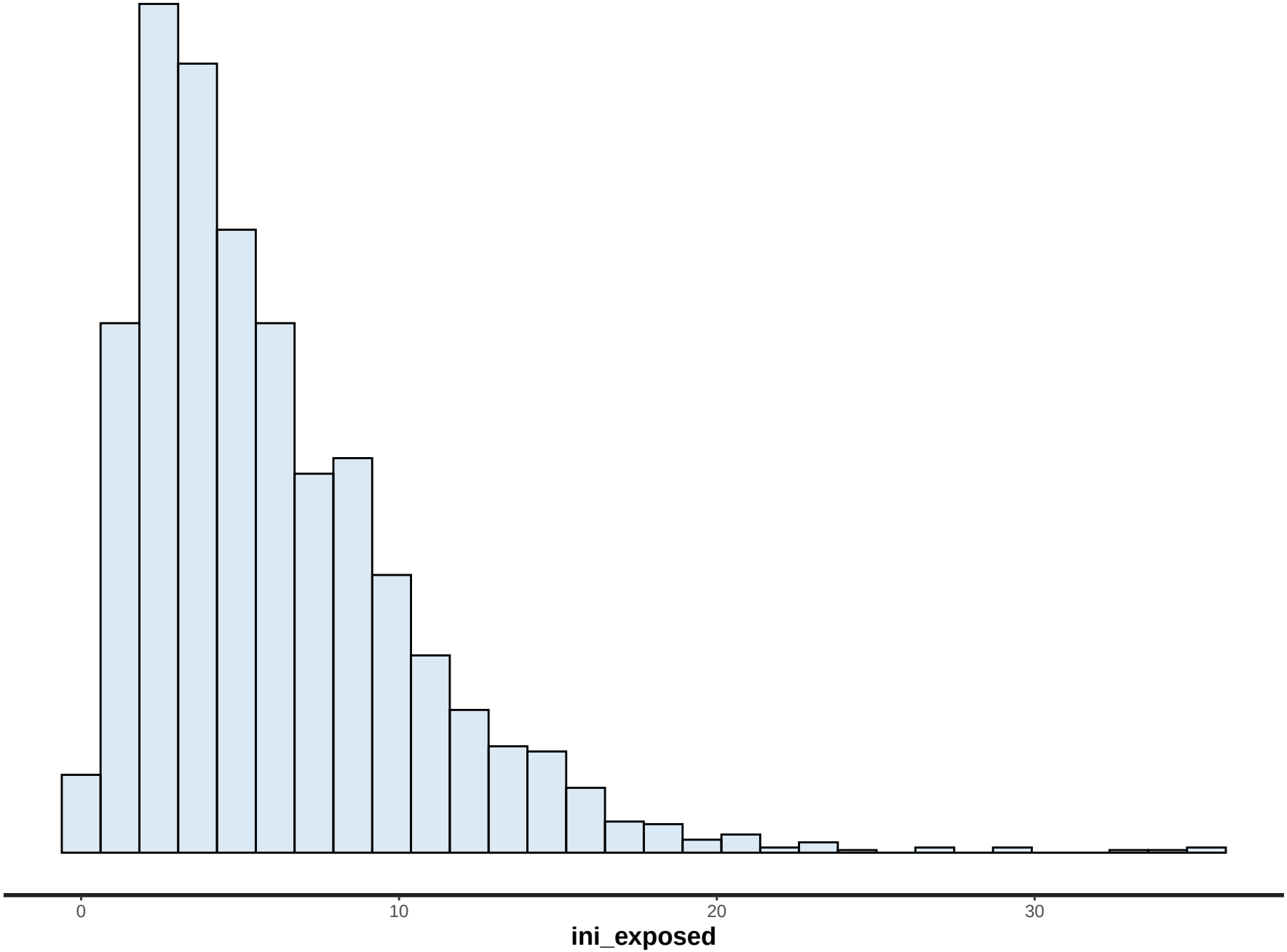
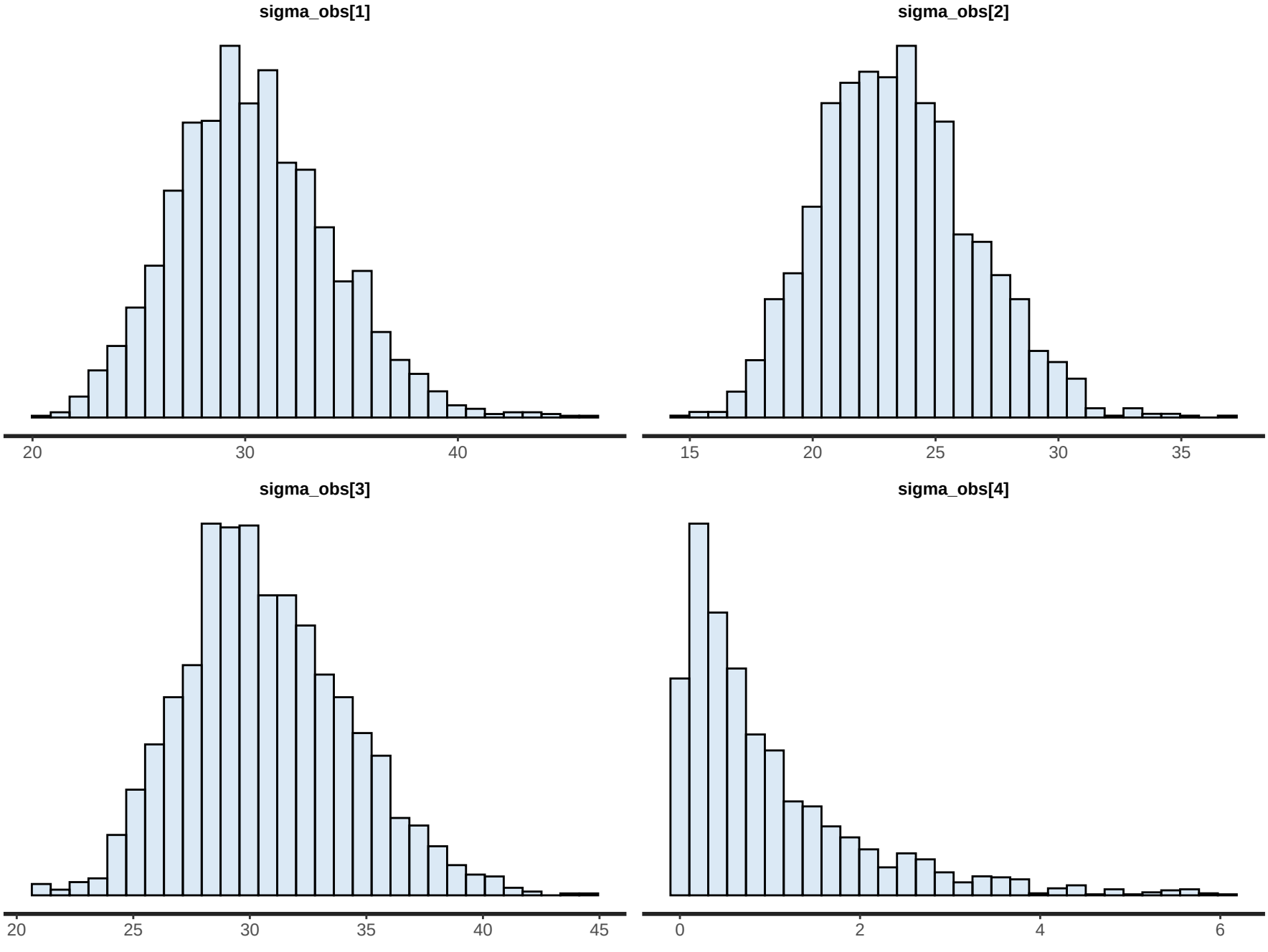
0.2
0.3
0.4


0
10
20
30
ini_exposed


sigma_obs[1]
20
30
40
sigma_obs[2]
15
20
25
30
35
sigma_obs[3]
20
25
30
35
40
45
sigma_obs[4]
0
2
4
6