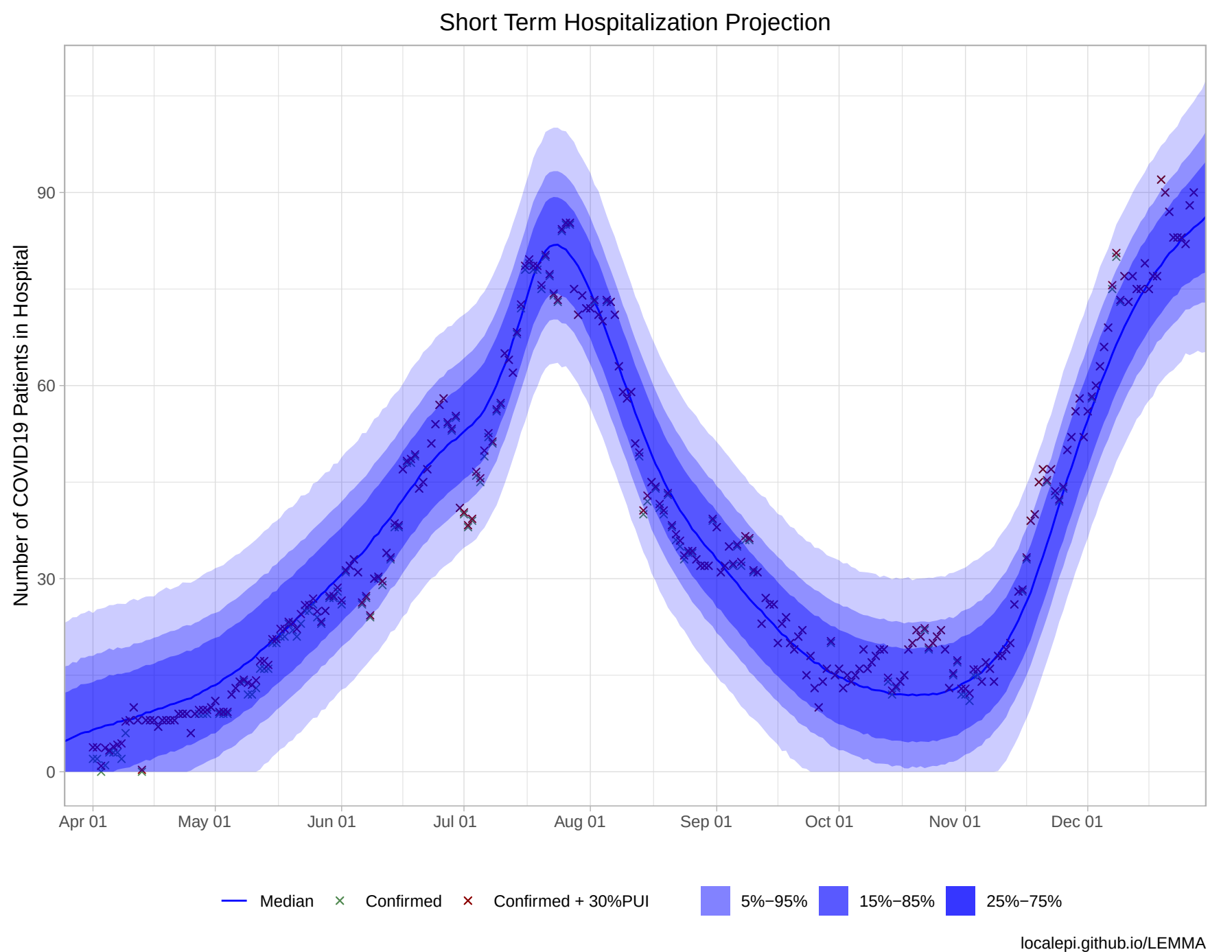
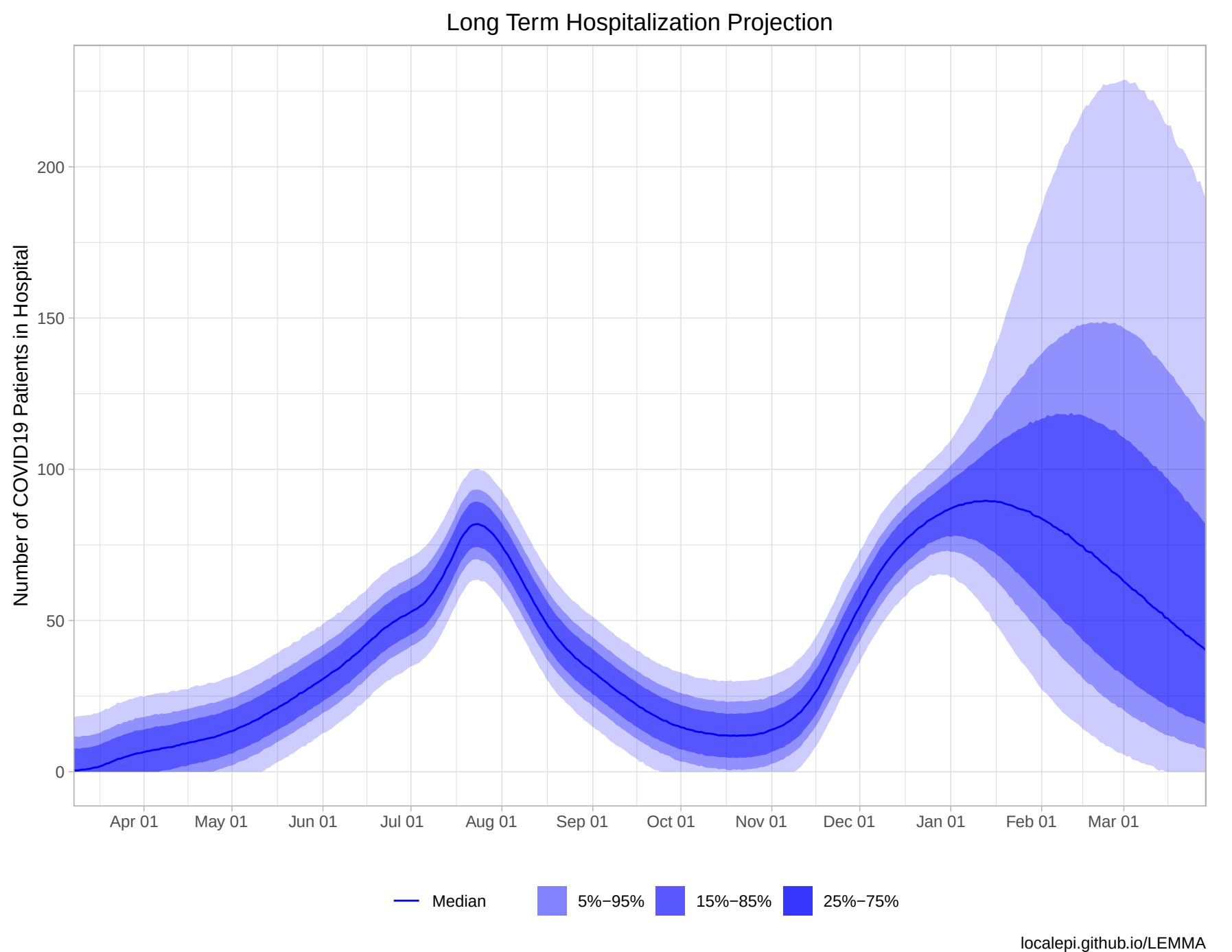
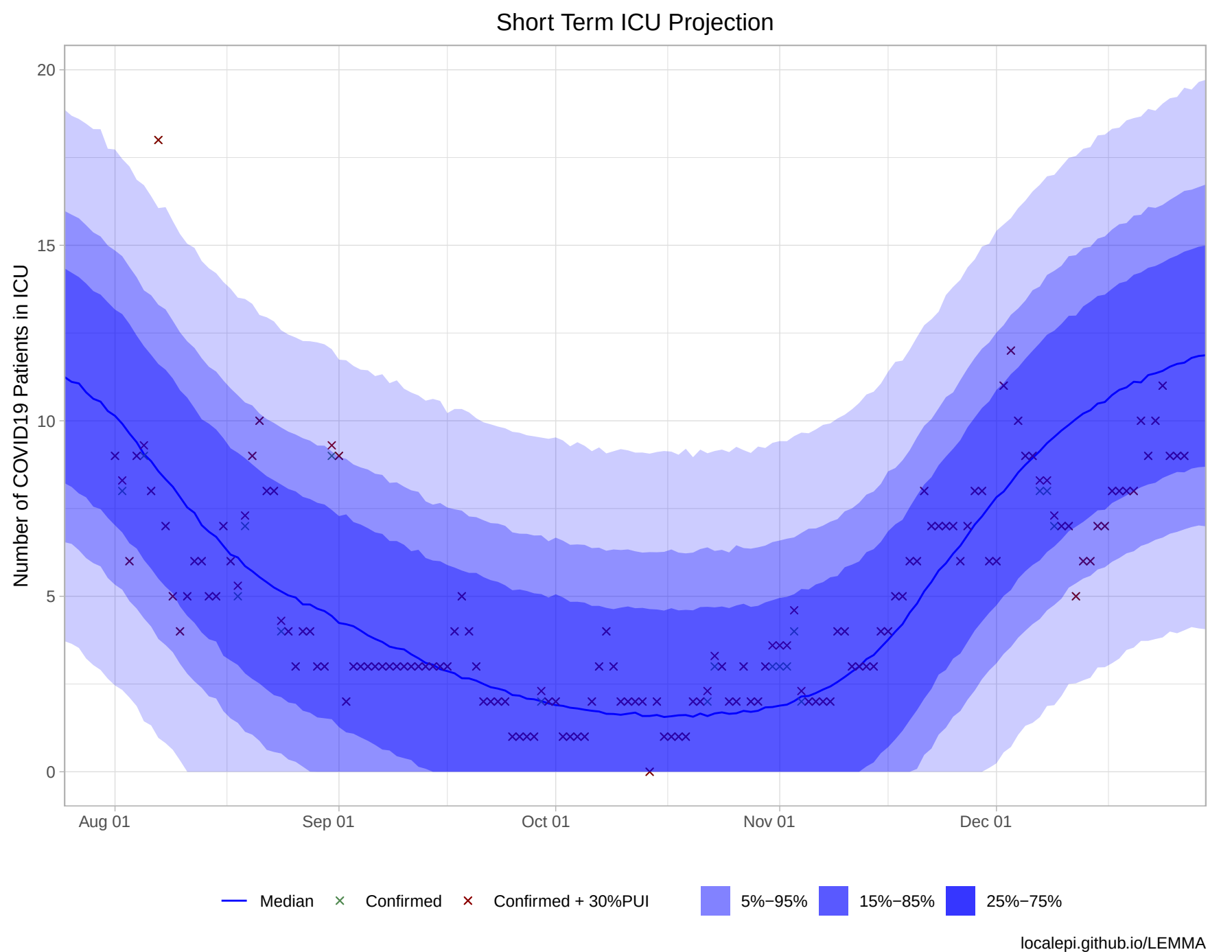
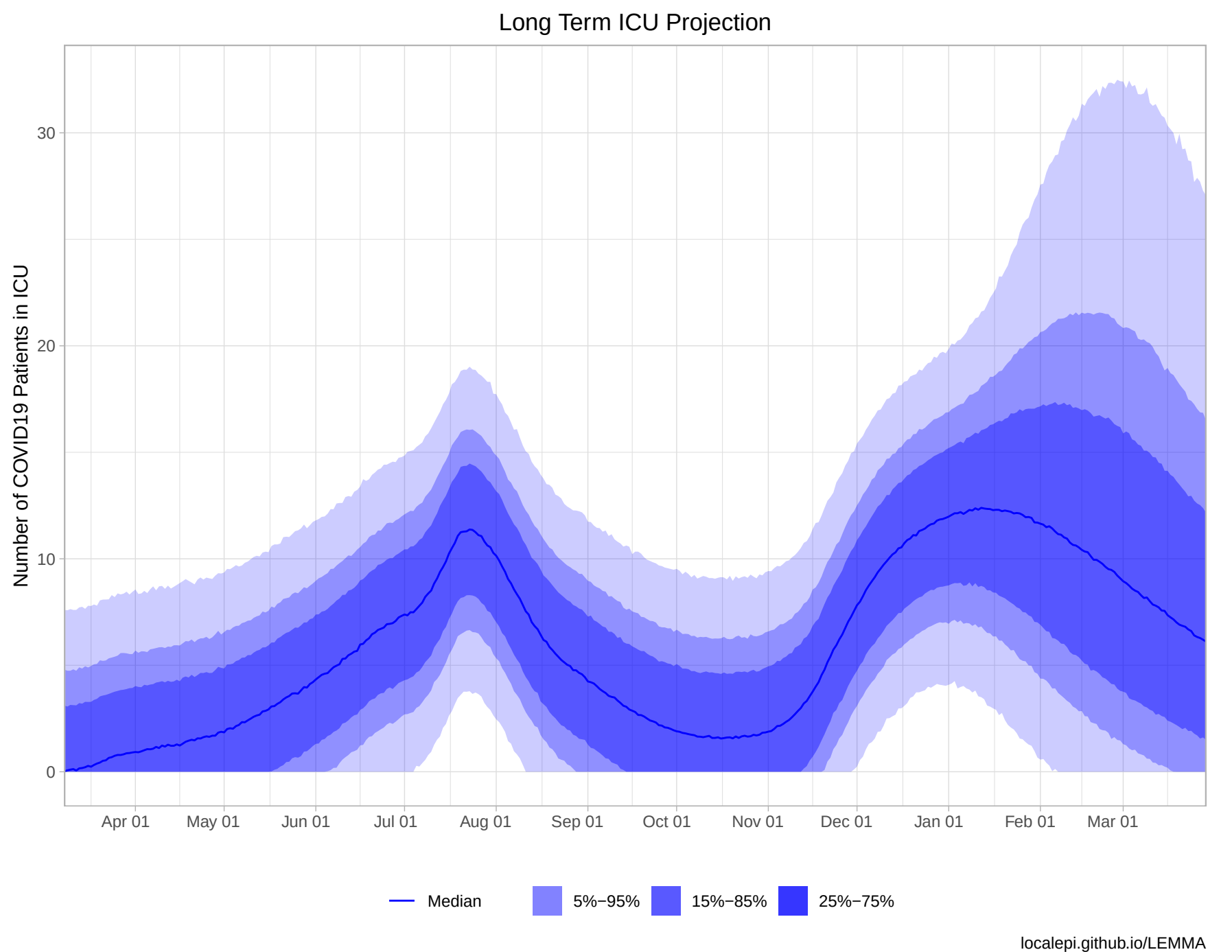
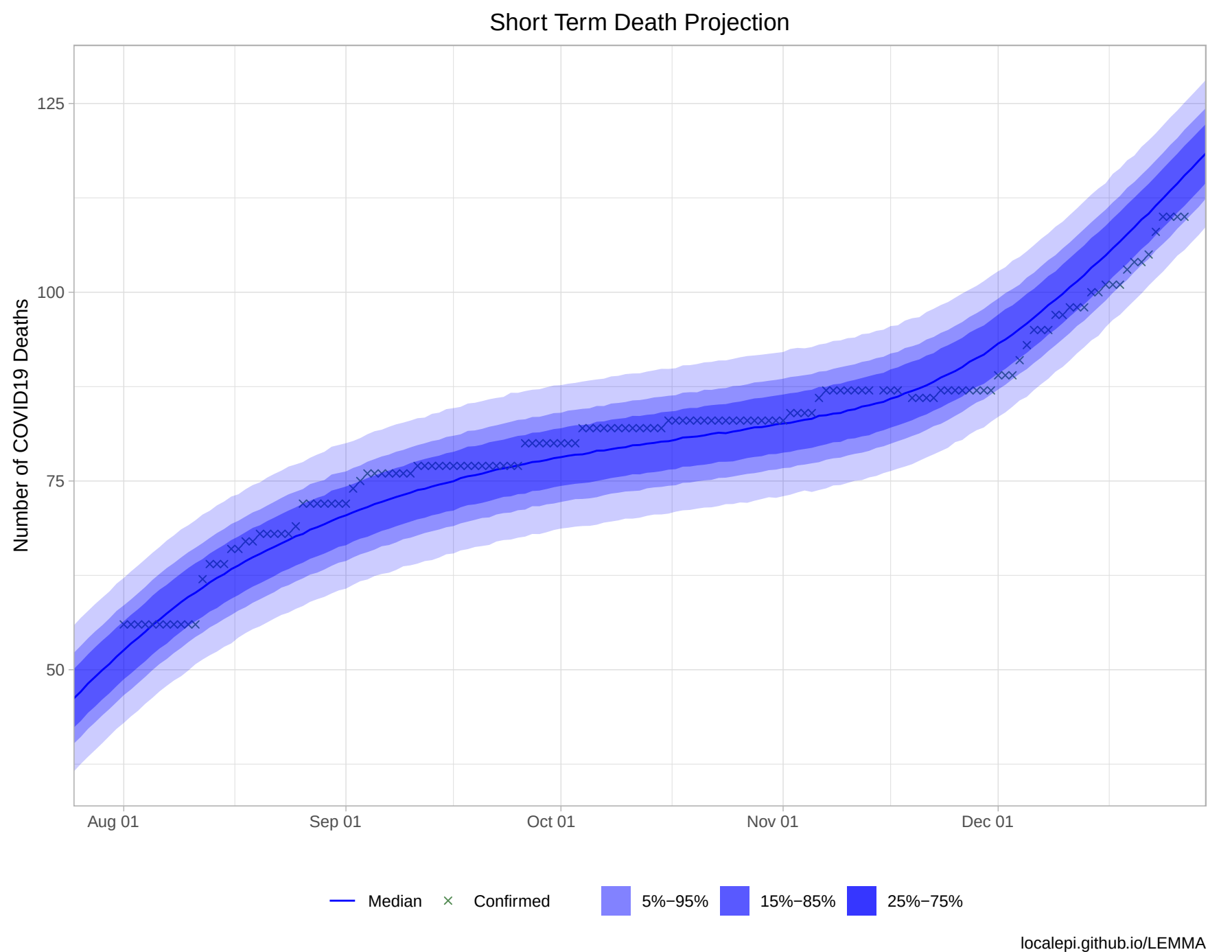
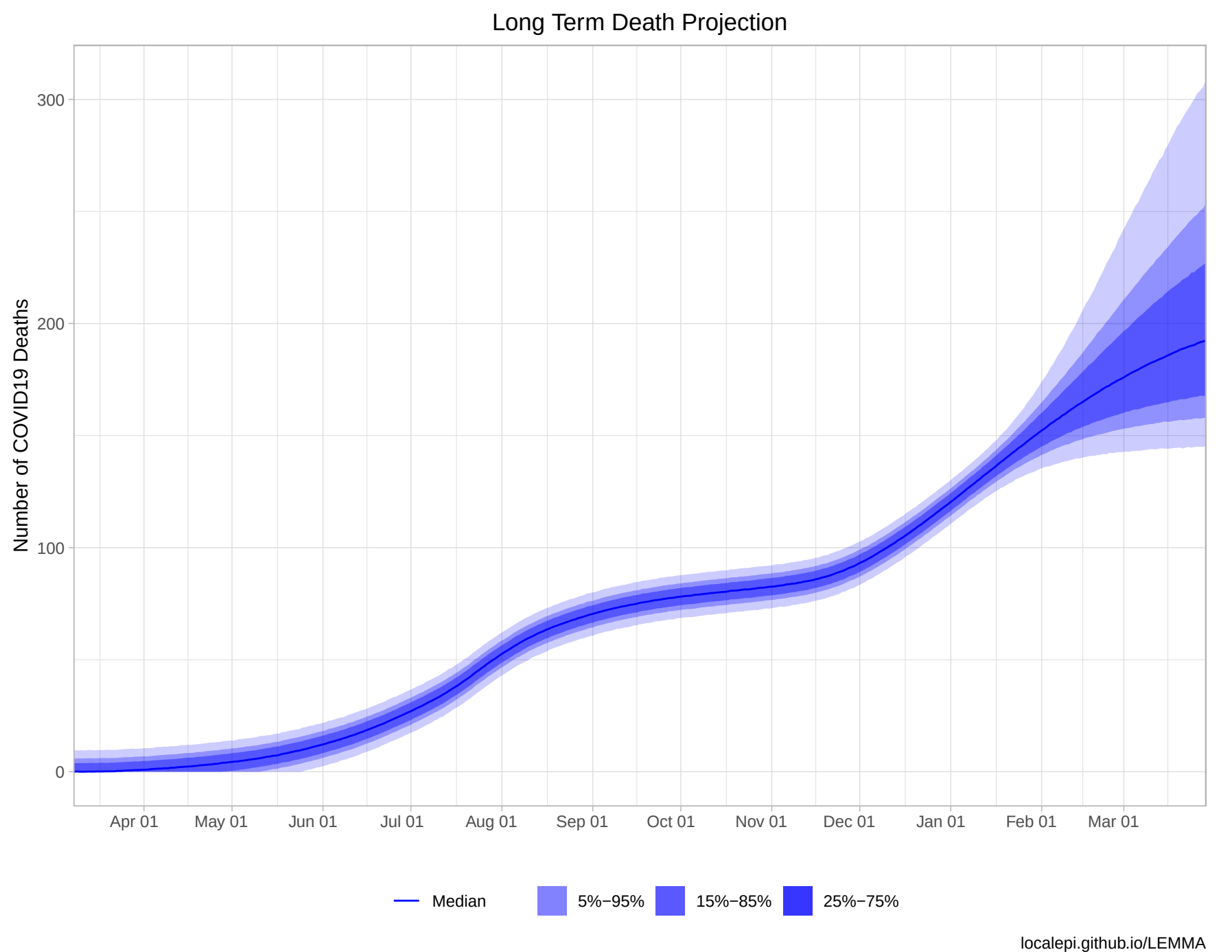

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
30
60
90
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

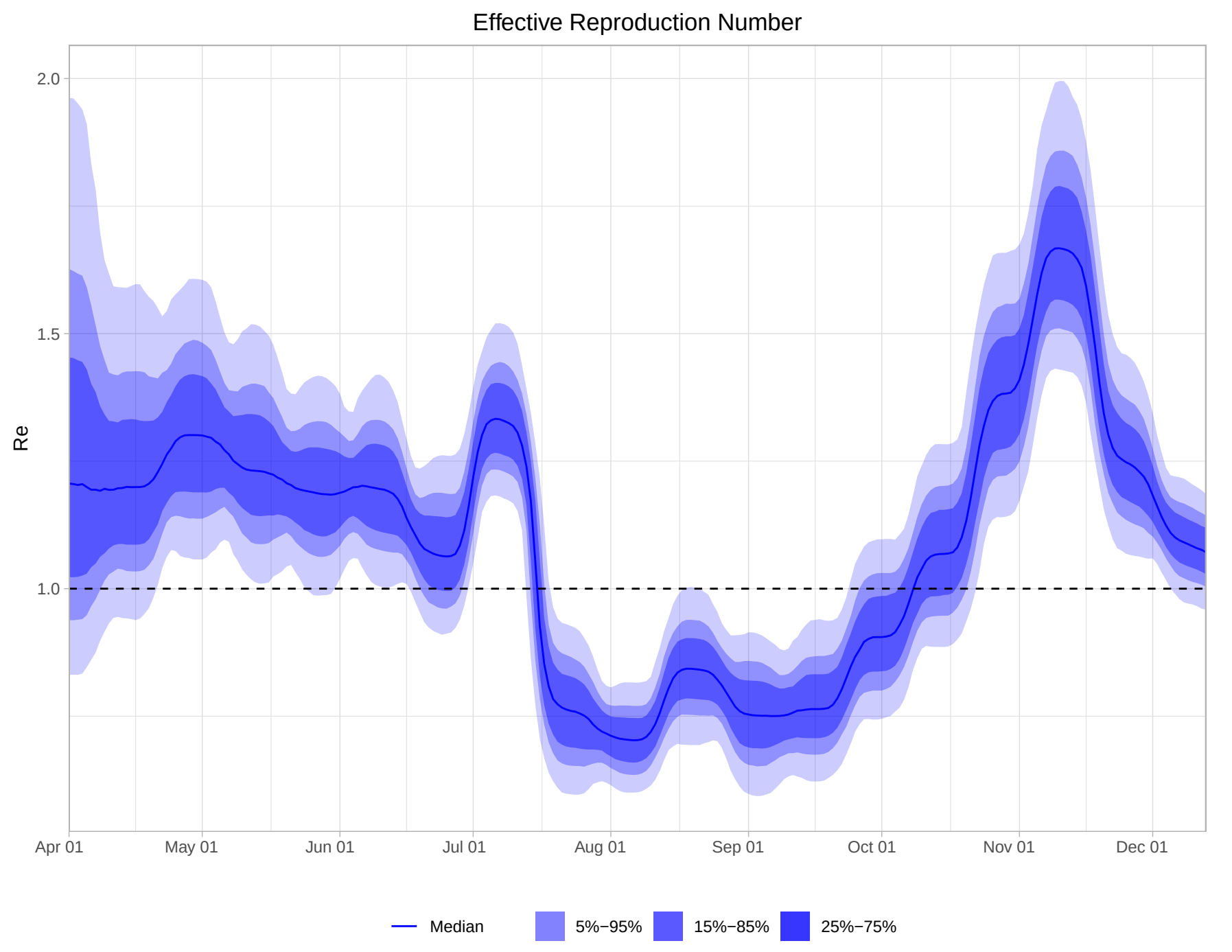

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
50
100
150
200
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
20
15
10
5
0
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
0
10
20
30
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

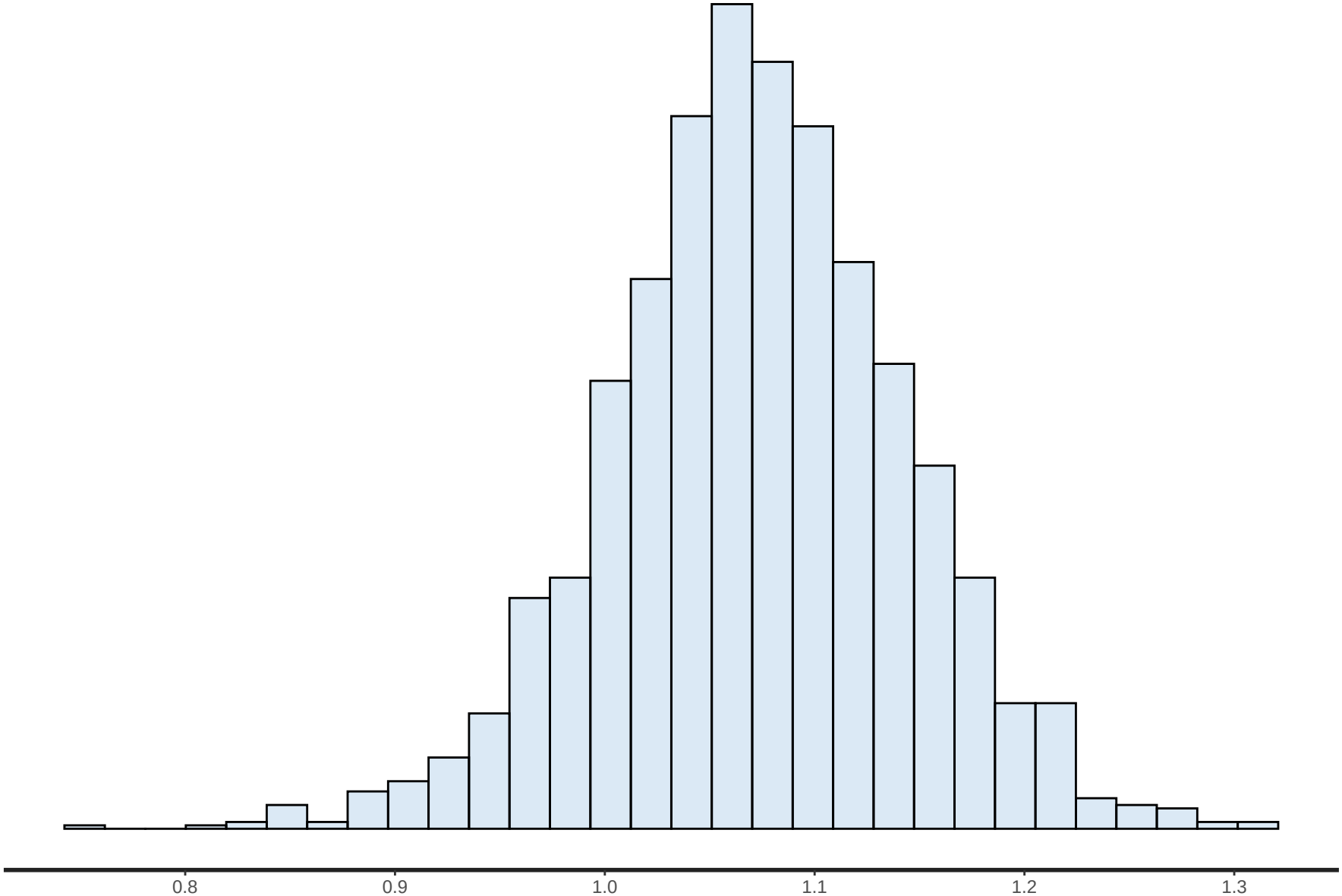

Short Term Death Projection
Number of COVID19 Deaths
125
100
75
50
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

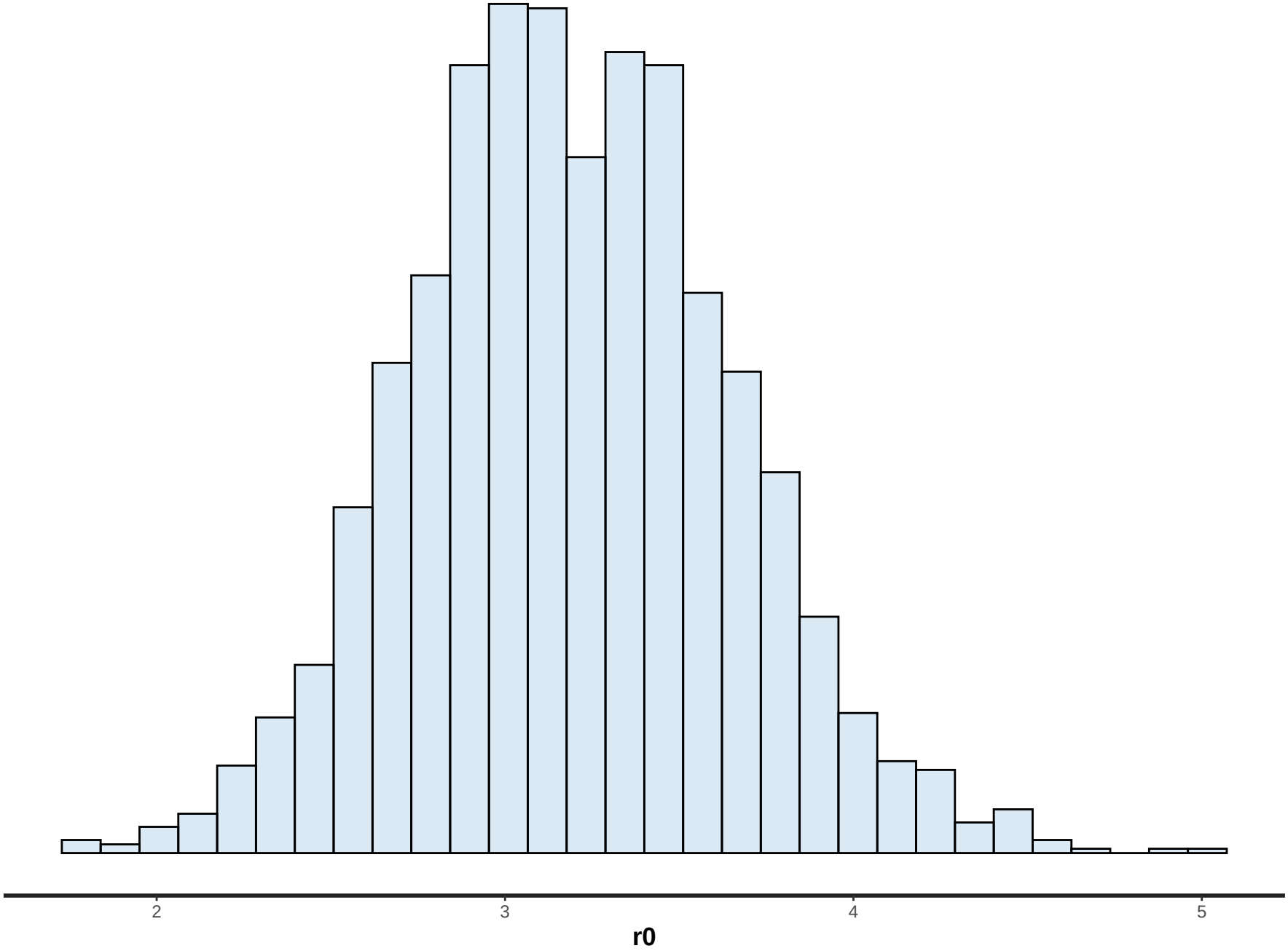

Long Term Death Projection
Number of COVID19 Deaths
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

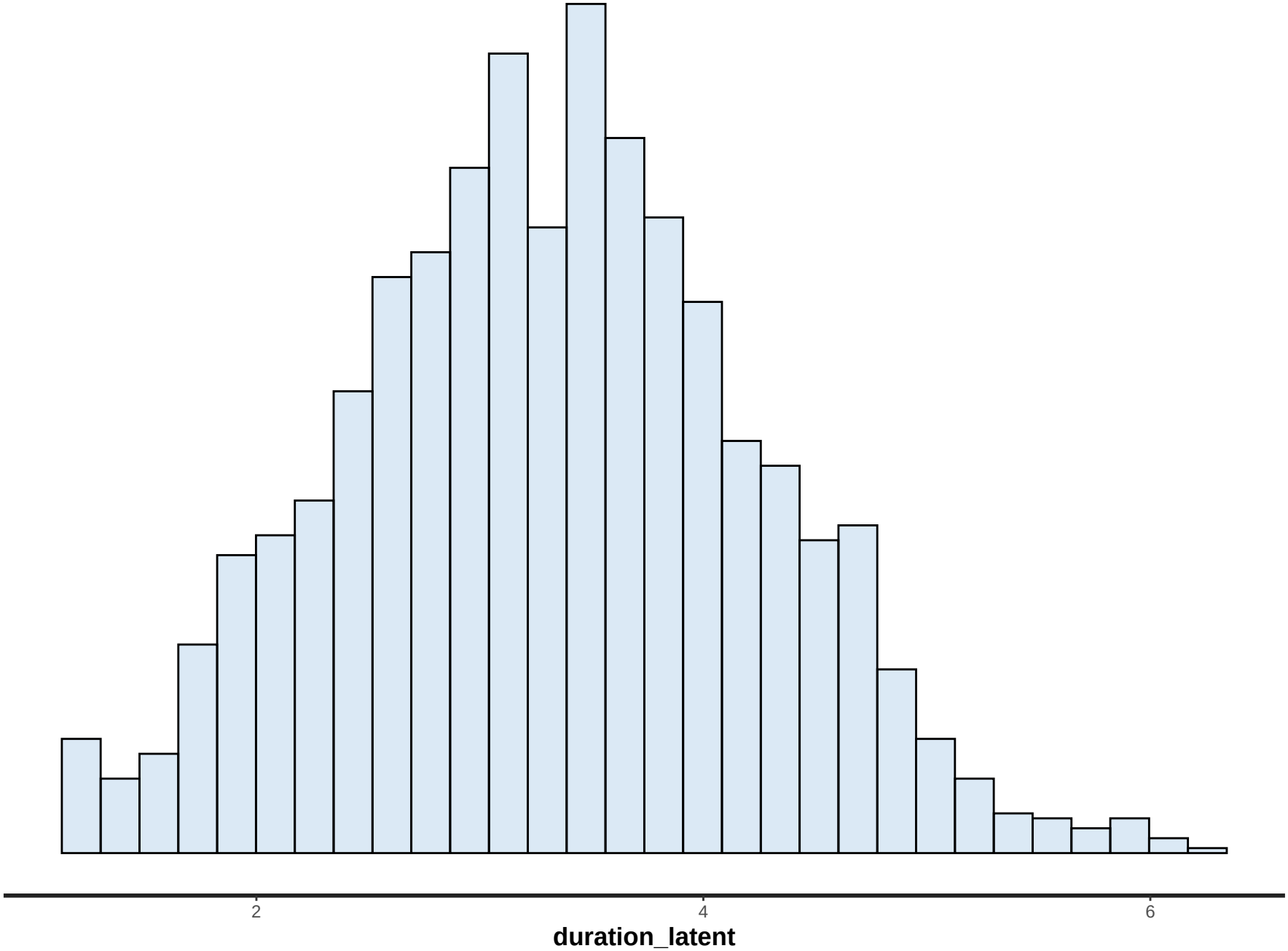

Effective Reproduction Number
Re
2.0
1.5
1.0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

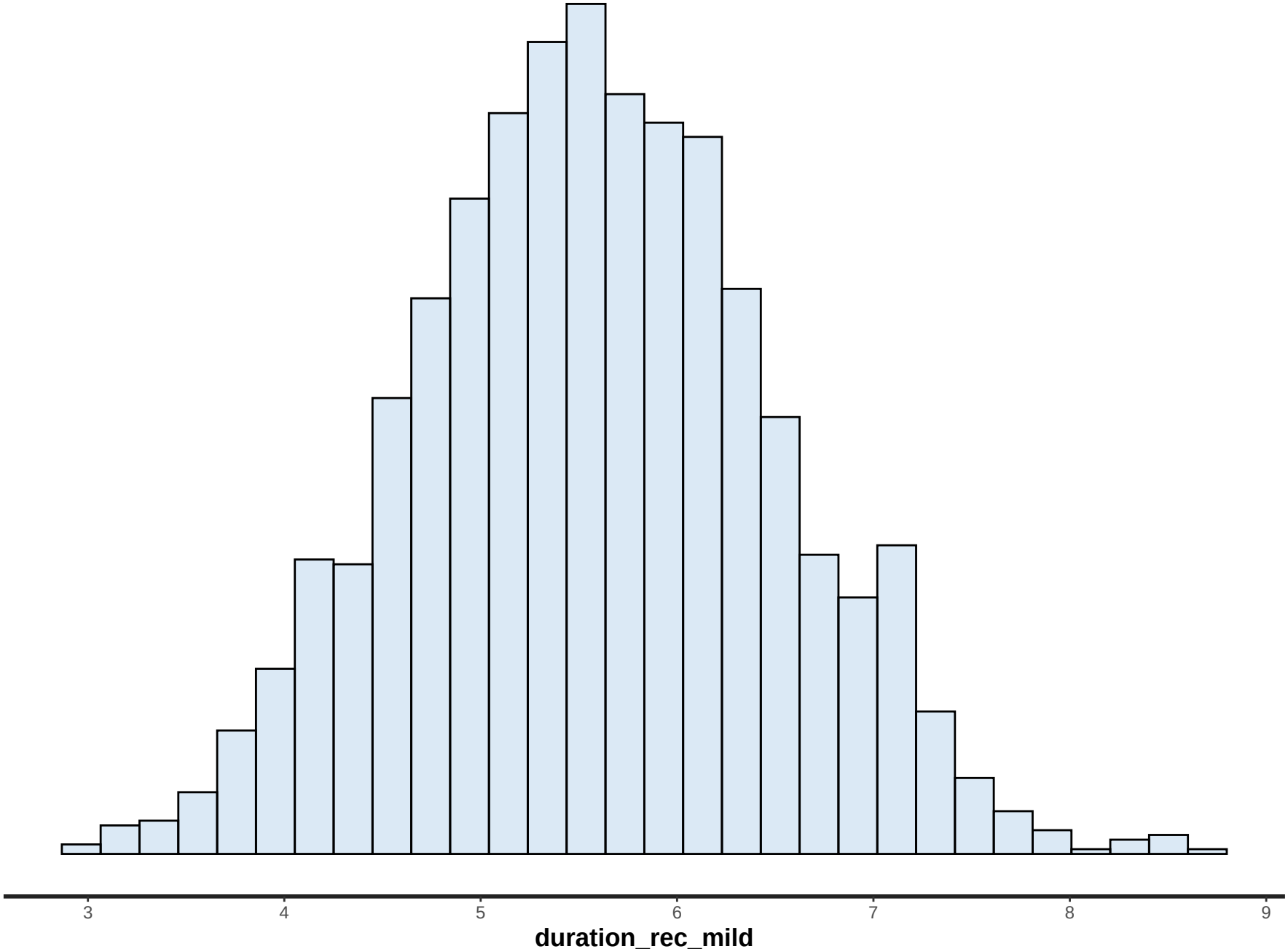
Rt as of 2020−12−13

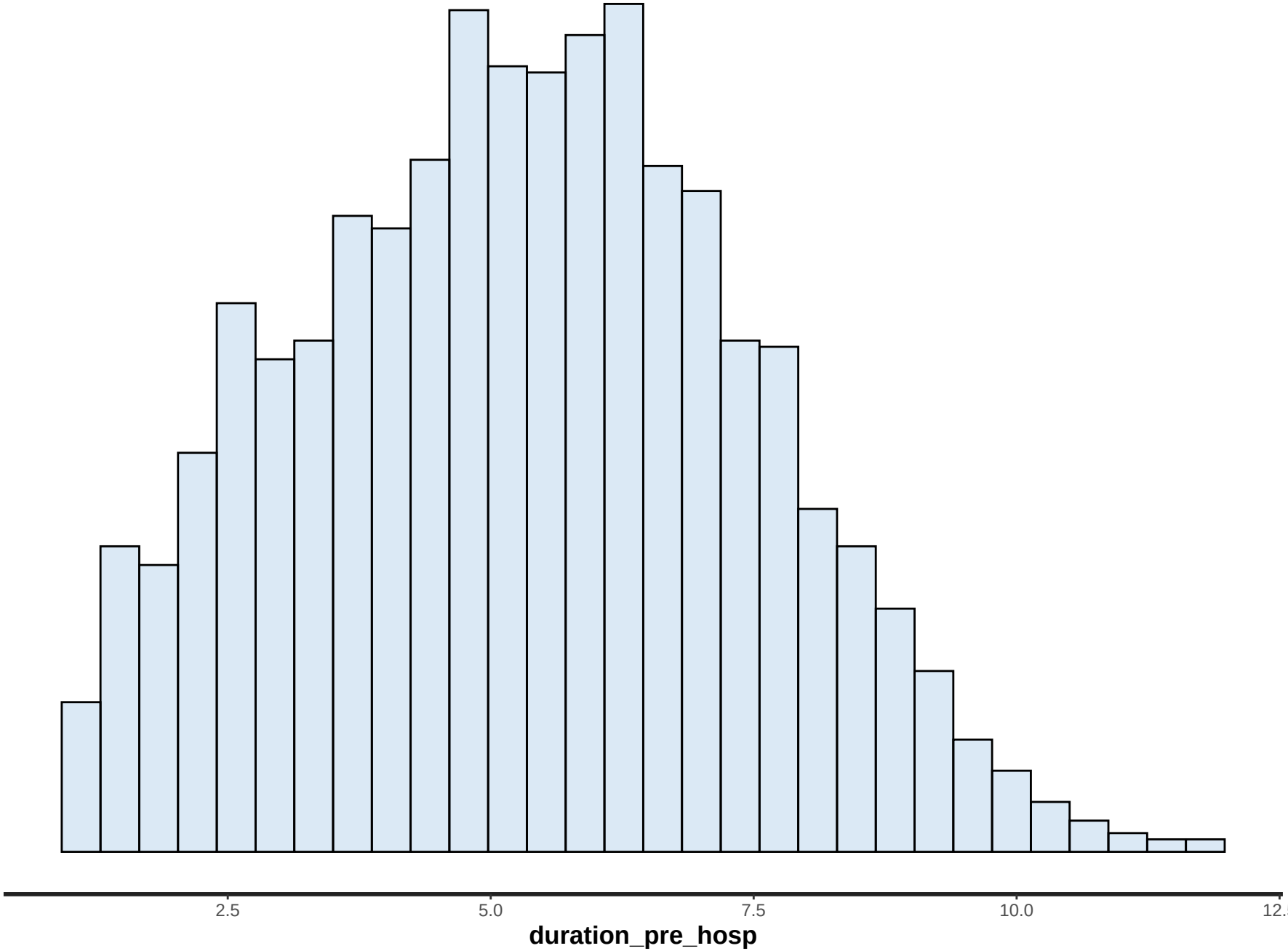
5%	10%	25%	50%	75%	90%	95%
0.96	0.98	1.03	1.07	1.12	1.16	1.19

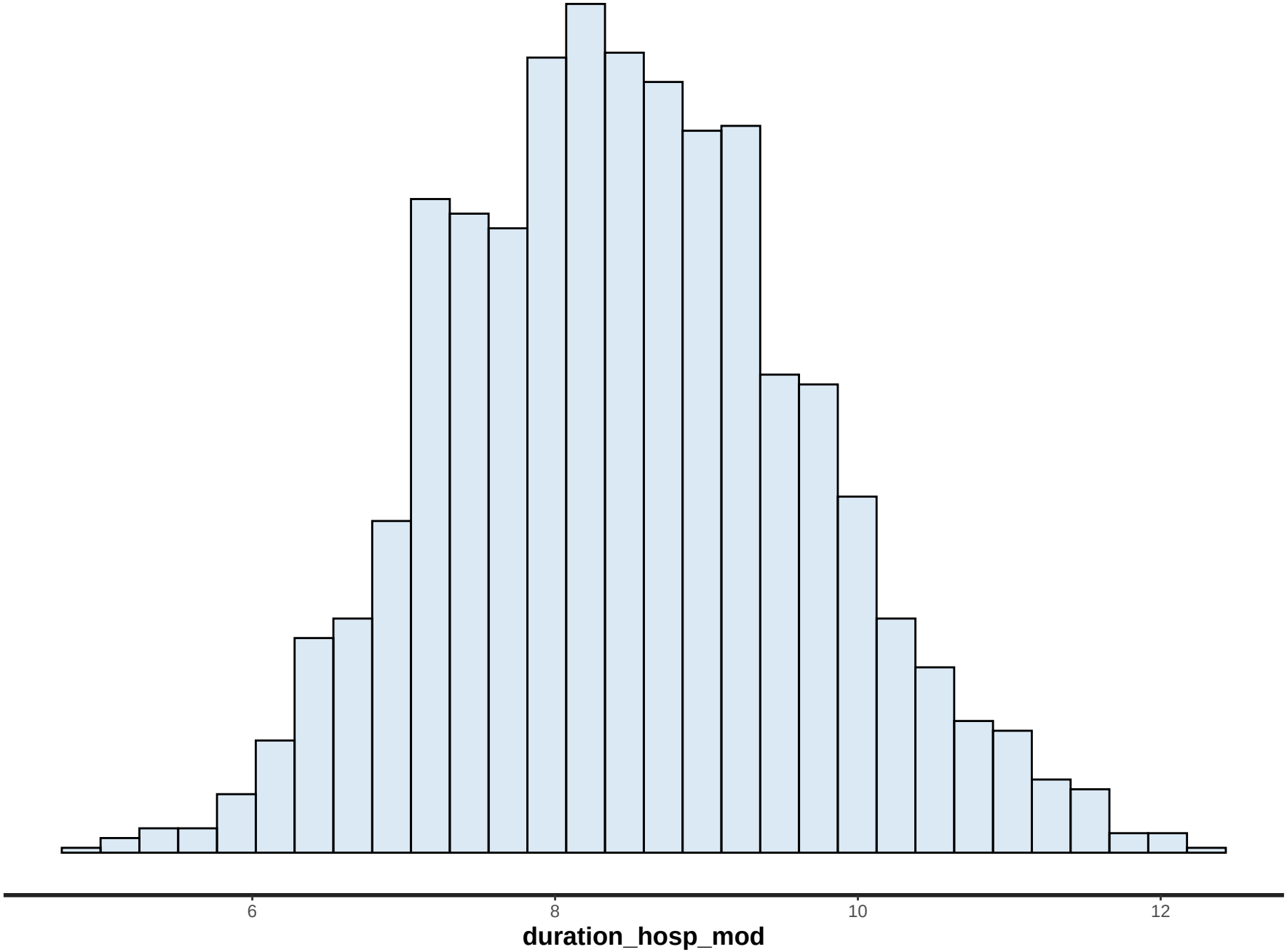


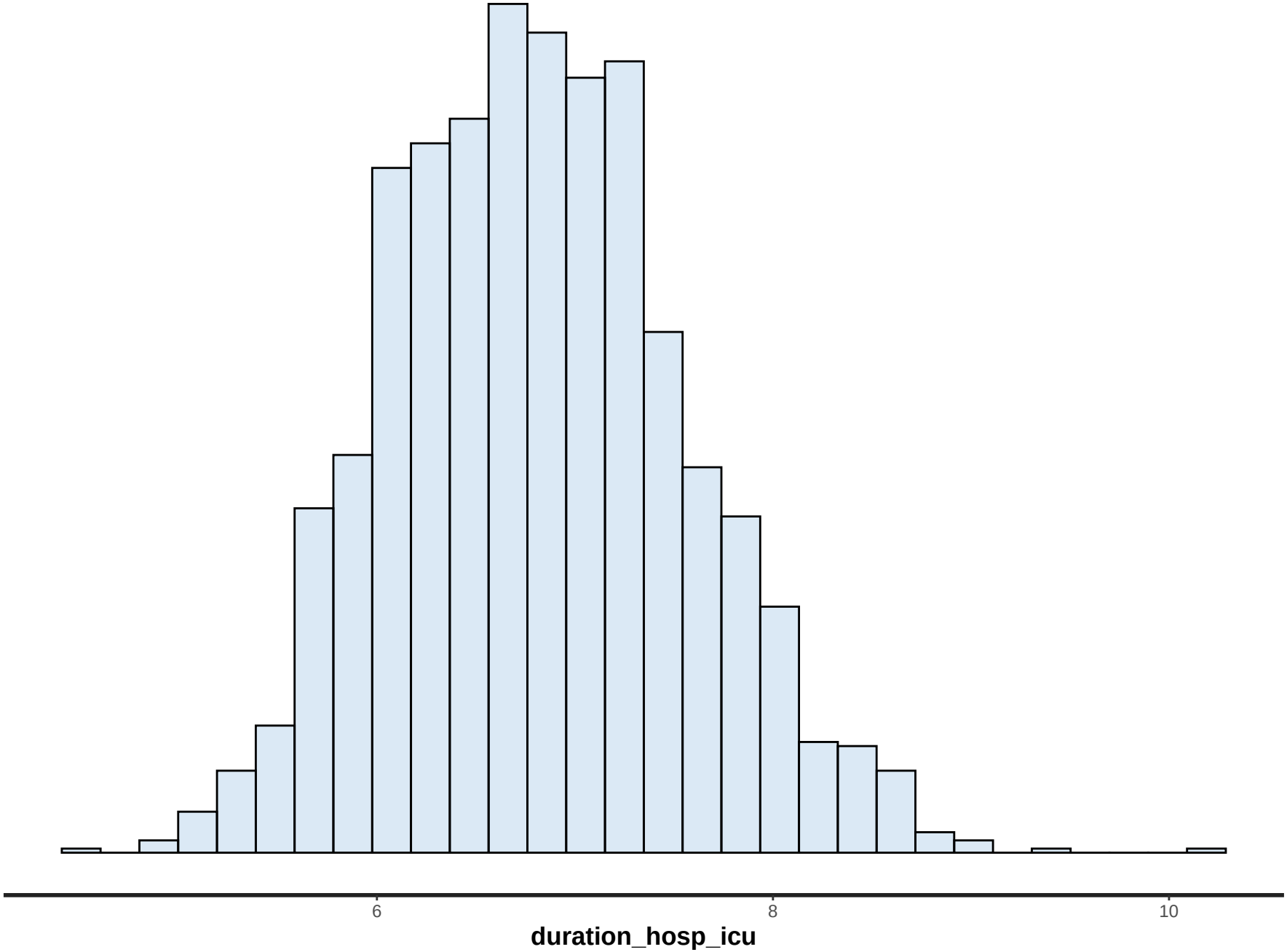

2
3
4
5
r0

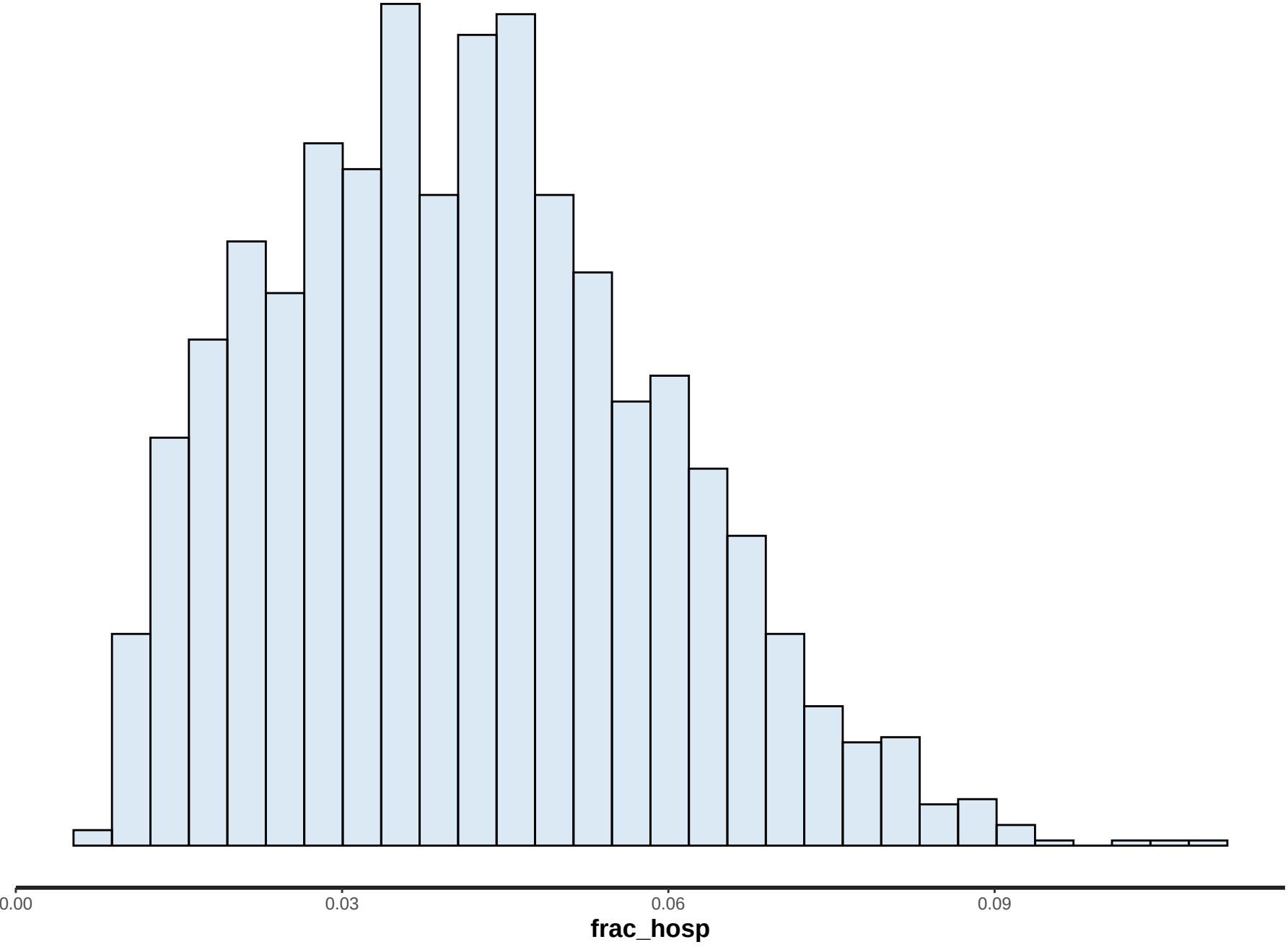

2
4
6
duration_latent

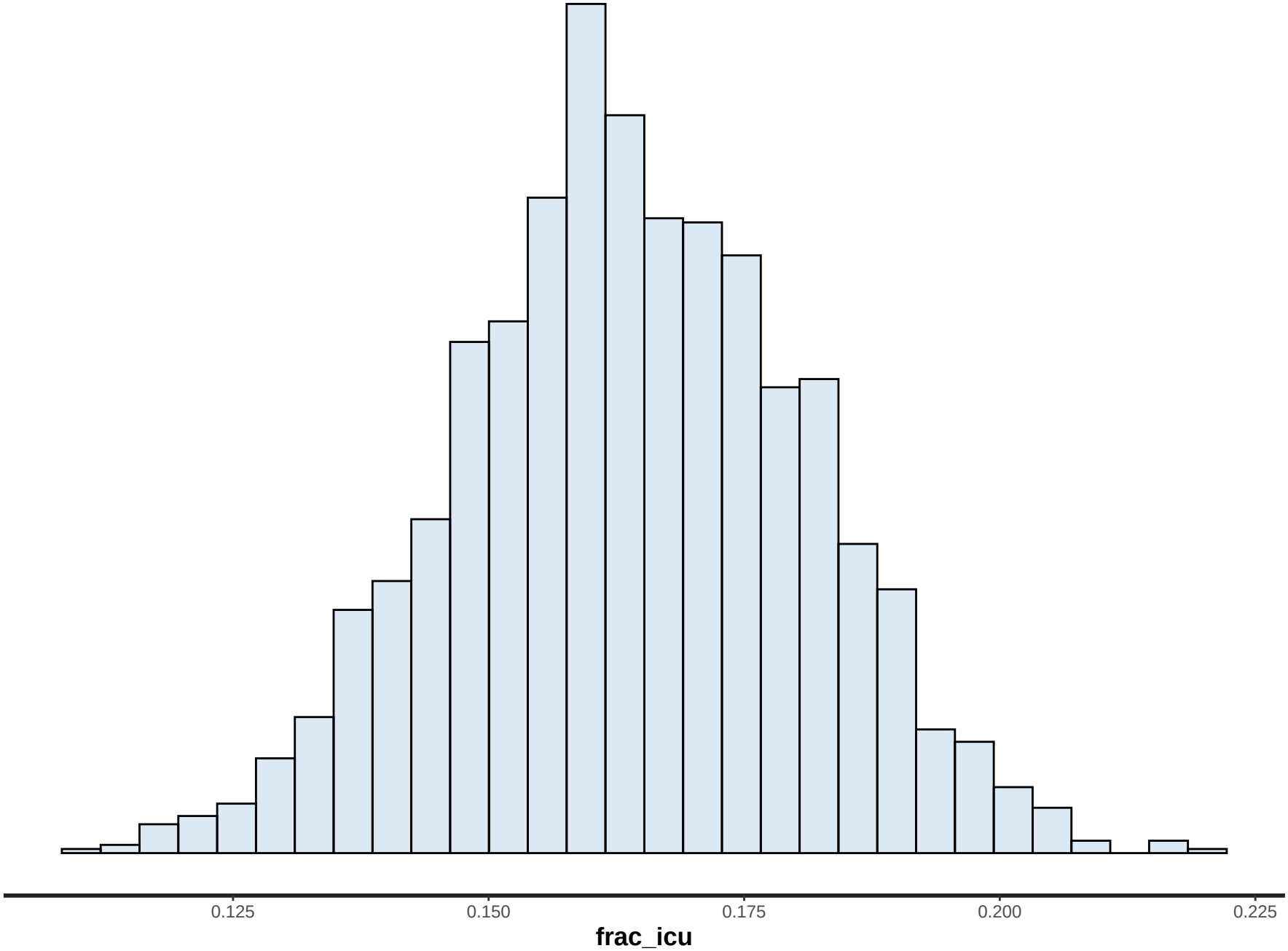

3
4
5
6
7
8
9
duration_rec_mild

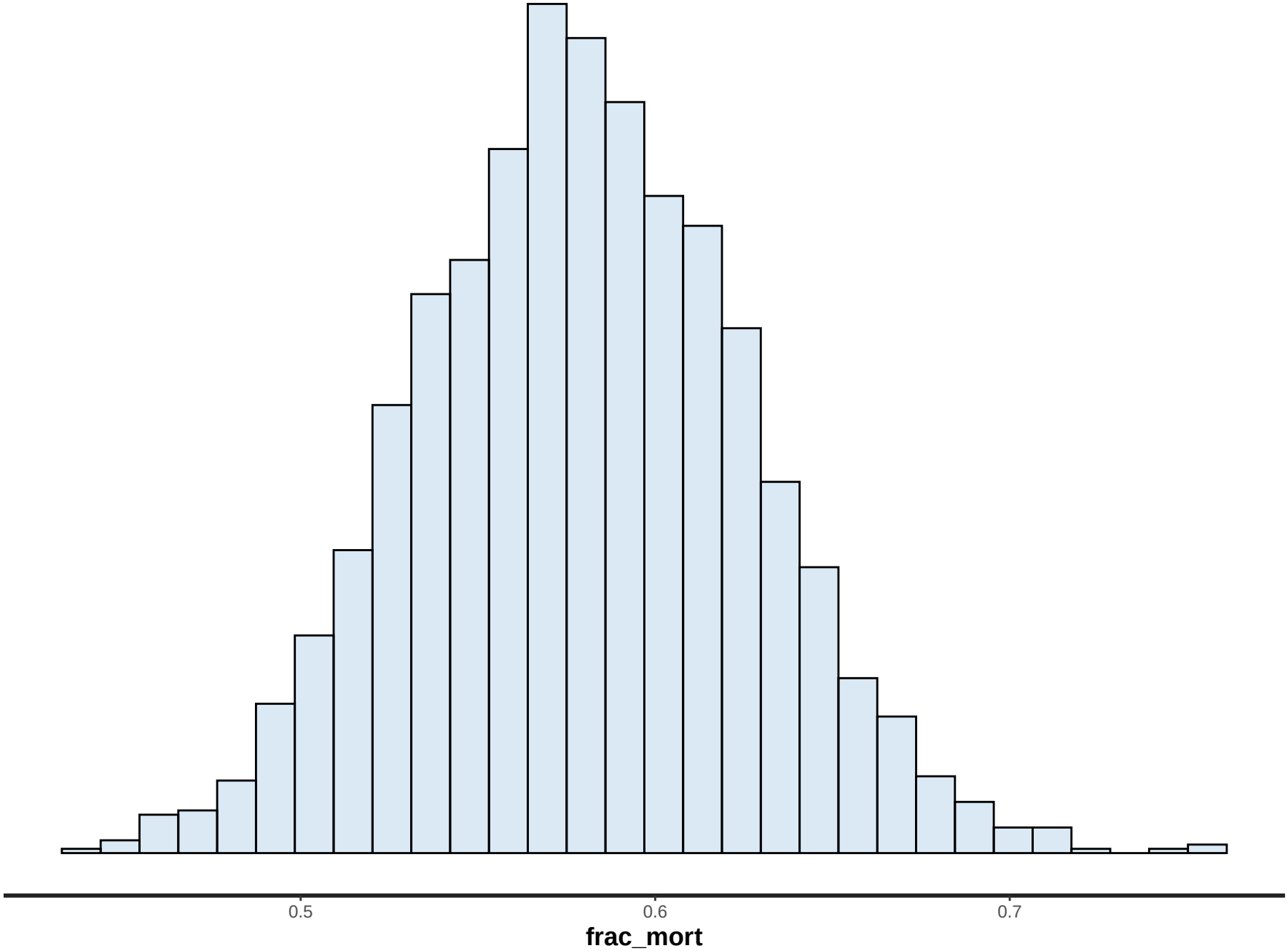

2.5
5.0
7.5
10.0
12.5
duration_pre_hosp

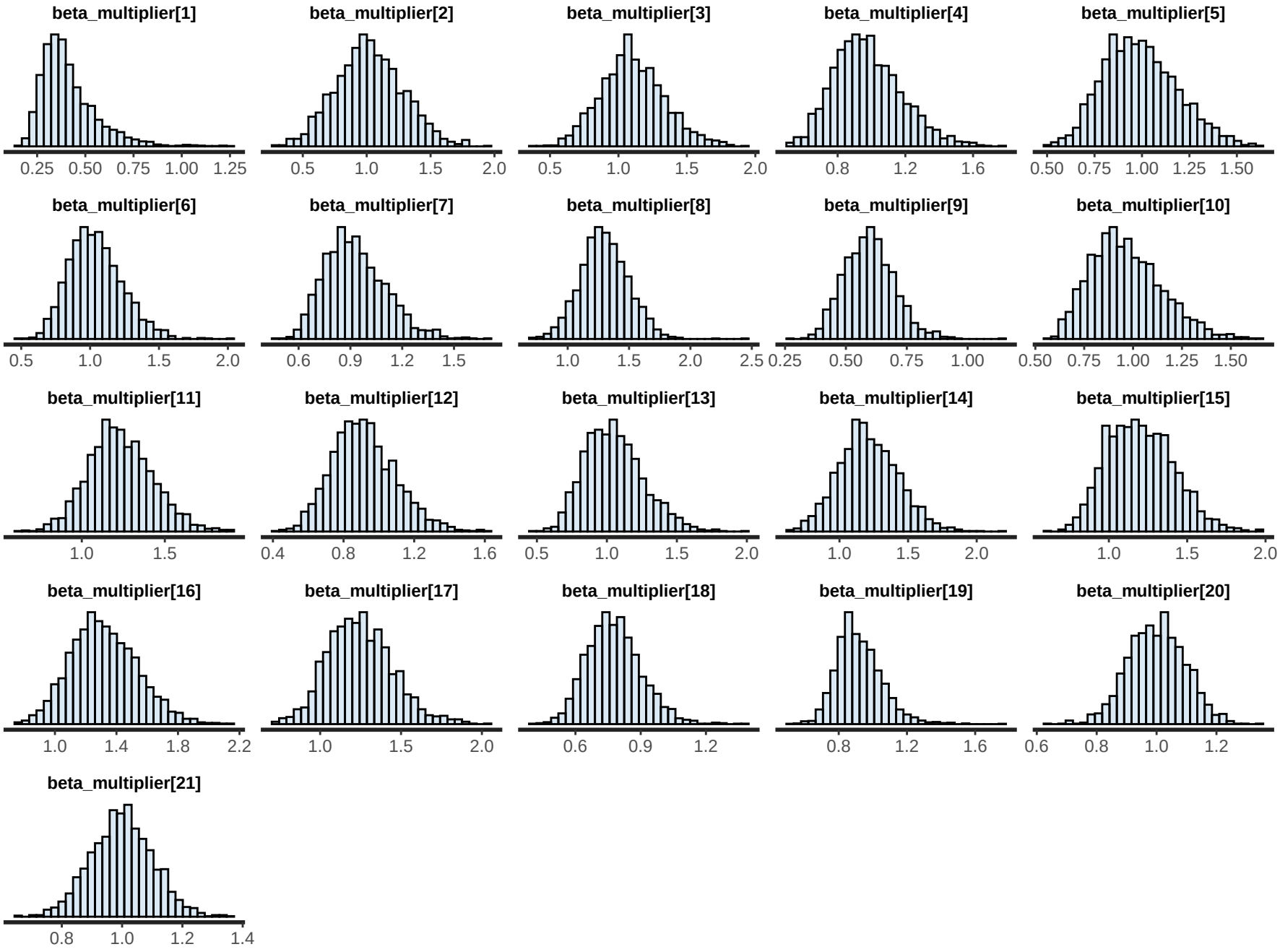

6
8
10
12
duration_hosp_mod


6
8
10
duration_hosp_icu


0.00
0.03
0.06
0.09
frac_hosp


0.125
0.150
0.175
0.200
0.225
frac_icu


0.5
0.6
0.7
frac_mort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0.25 0.50 0.75 1.00 1.25
beta_multiplier[2]
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beta_multiplier[3]
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beta_multiplier[4]
0.8 1.2 1.6
beta_multiplier[5]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[6]
0.5 1.0 1.5 2.0
beta_multiplier[7]
0.6 0.9 1.2 1.5
beta_multiplier[8]
1.0 1.5 2.0 2.5
beta_multiplier[9]
0.25 0.50 0.75 1.00
beta_multiplier[10]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[11]
1.0 1.5
beta_multiplier[12]
0.4 0.8 1.2 1.6
beta_multiplier[13]
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beta_multiplier[14]
1.0 1.5 2.0
beta_multiplier[15]
1.0 1.5 2.0
beta_multiplier[16]
1.0 1.4 1.8 2.2
beta_multiplier[17]
1.0 1.5 2.0
beta_multiplier[18]
0.6 0.9 1.2
beta_multiplier[19]
0.8 1.2 1.6
beta_multiplier[20]
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beta_multiplier[21]
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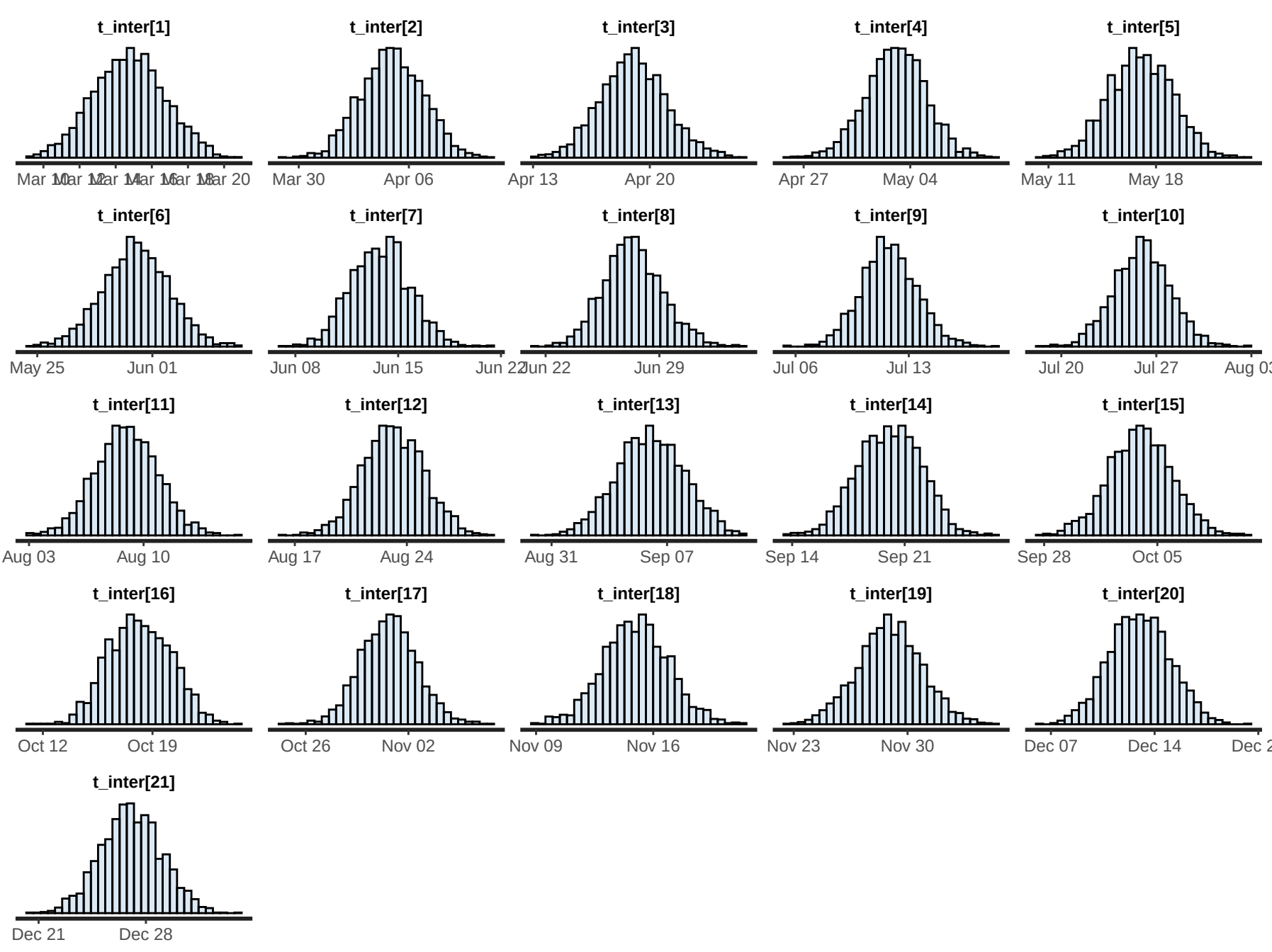
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Mar 10
Mar 12
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Mar 16
Mar 18
Mar 20
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Mar 30
Apr 06
t_inter[3]
Apr 13
Apr 20
t_inter[4]
Apr 27
May 04
t_inter[5]
May 11
May 18
t_inter[6]
May 25
Jun 01
t_inter[7]
Jun 08
Jun 15
Jun 22
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Jun 22
Jun 29
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Jul 06
Jul 13
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Jul 20
Jul 27
Aug 03
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Aug 03
Aug 10
t_inter[12]
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Aug 31
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Oct 19
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Nov 23
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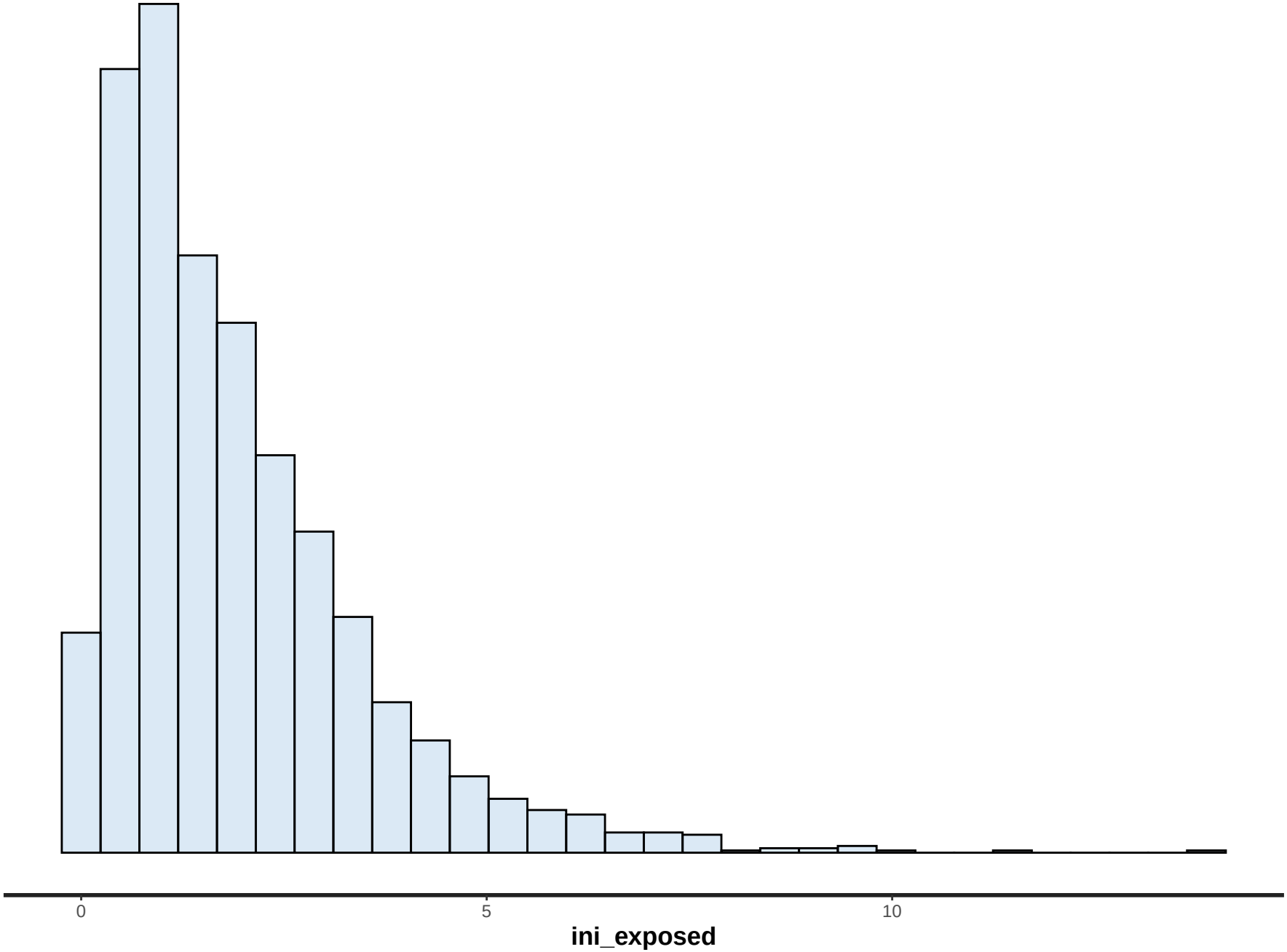
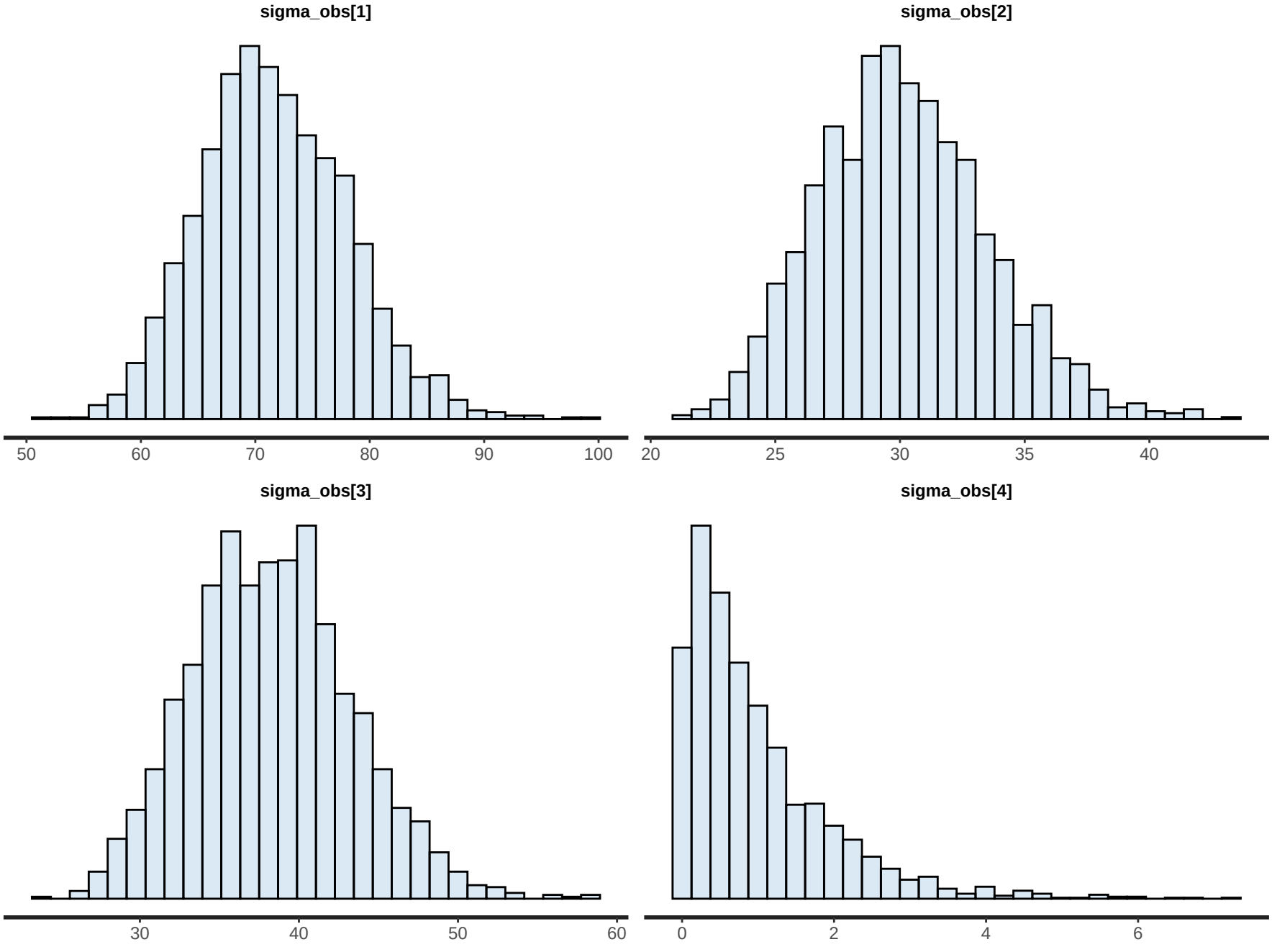
Dec 07
Dec 14
Dec 2
t_inter[21]
Dec 21
Dec 28


0
5
10
ini_exposed


sigma_obs[1]
50
60
70
80
90
100
sigma_obs[2]
20
25
30
35
40
sigma_obs[3]
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40
50
60
sigma_obs[4]
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2
4
6