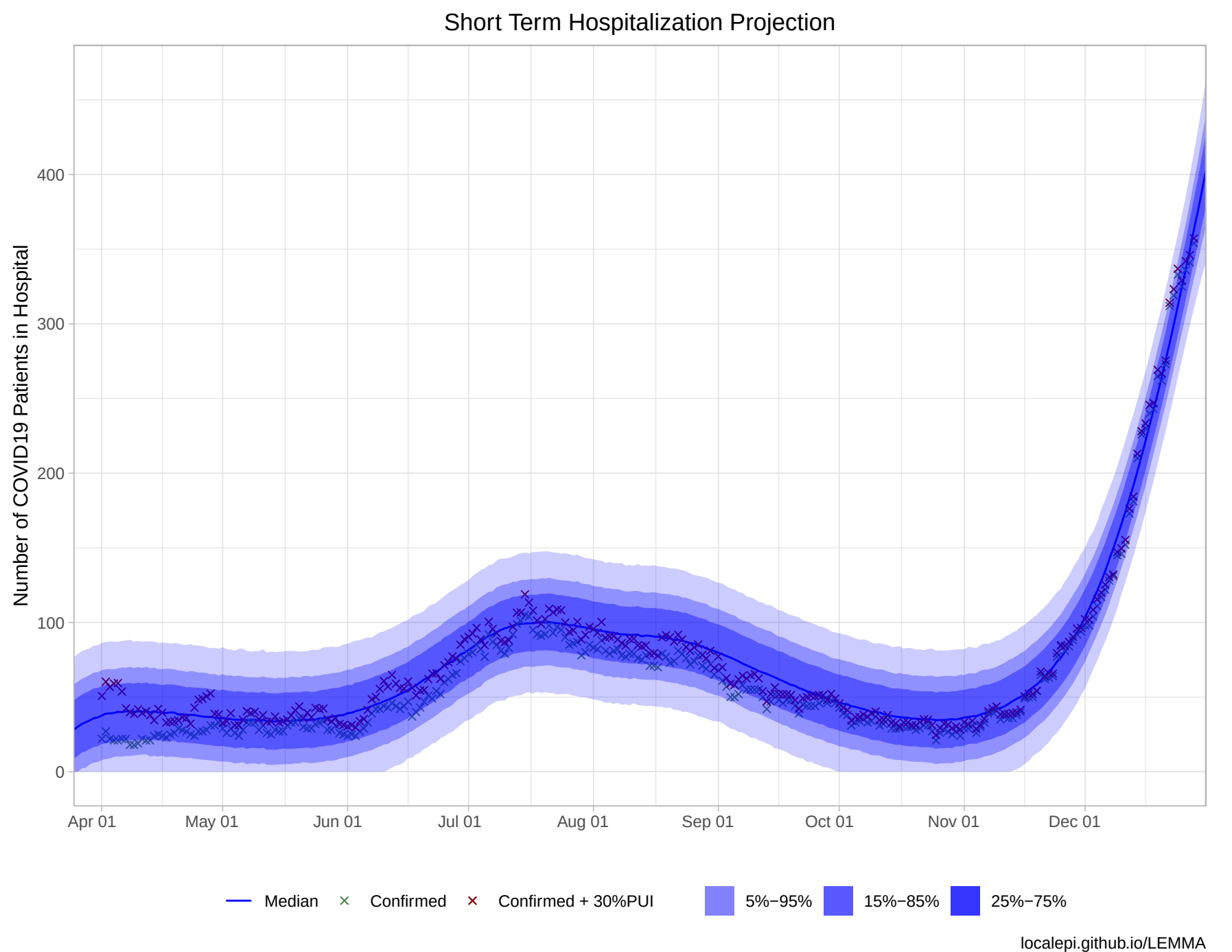
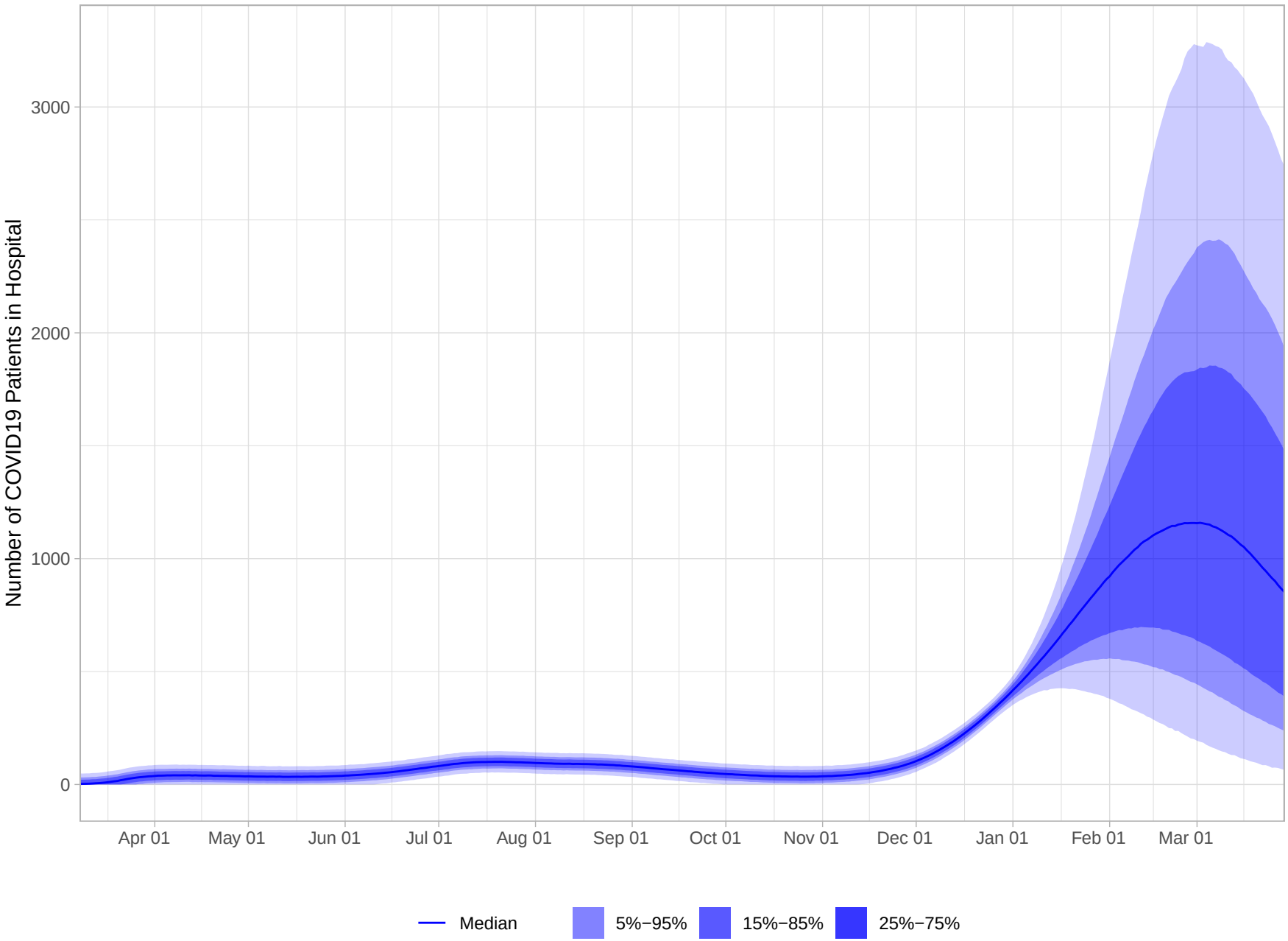
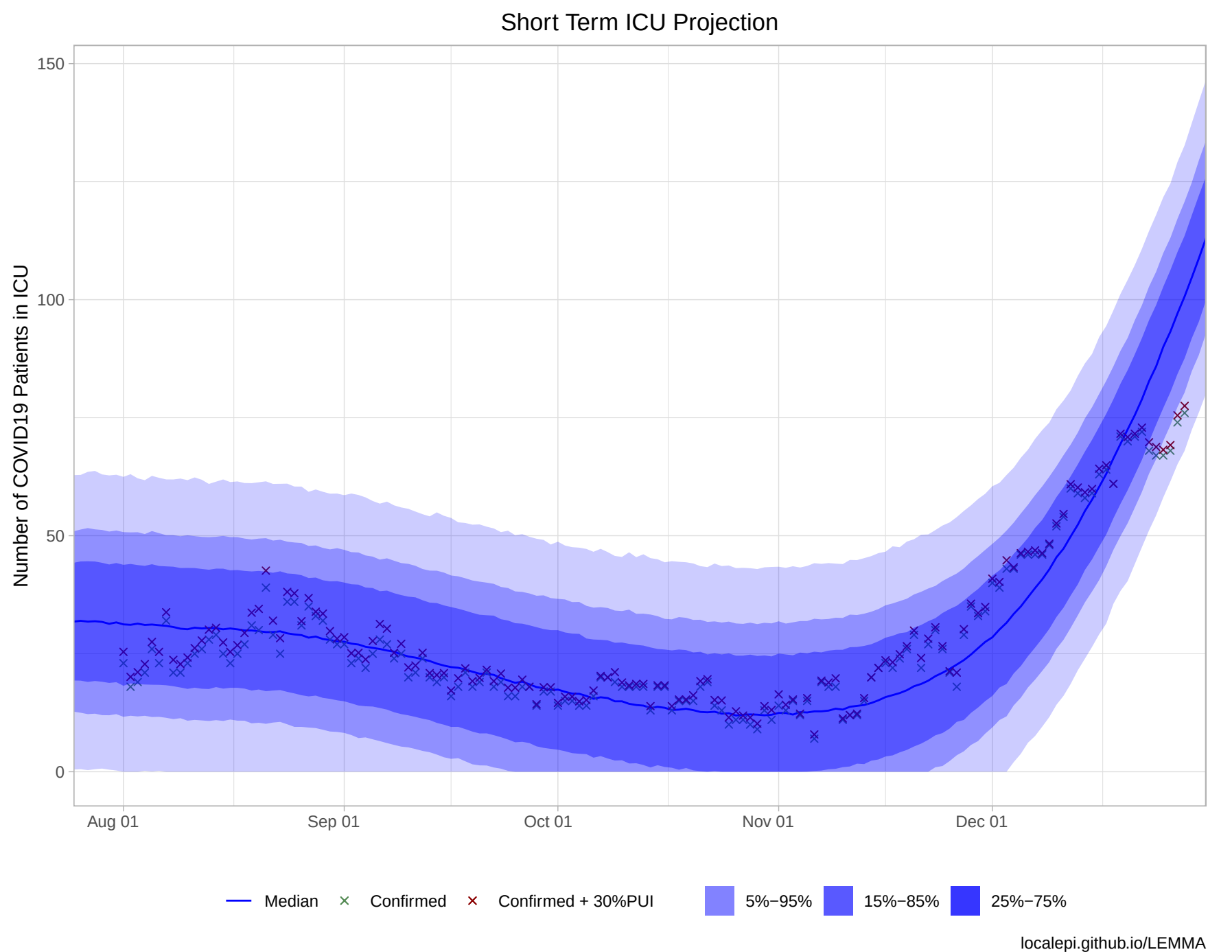
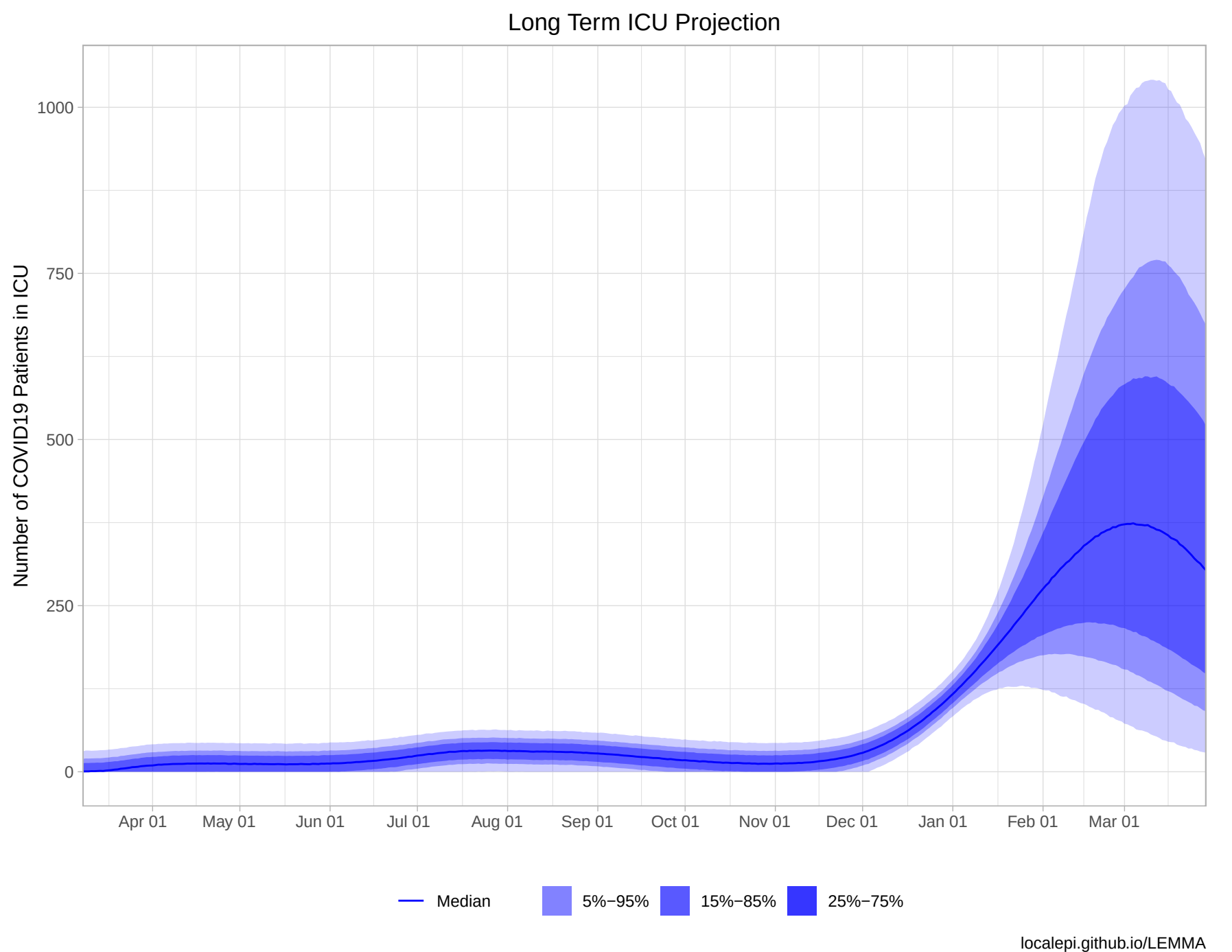
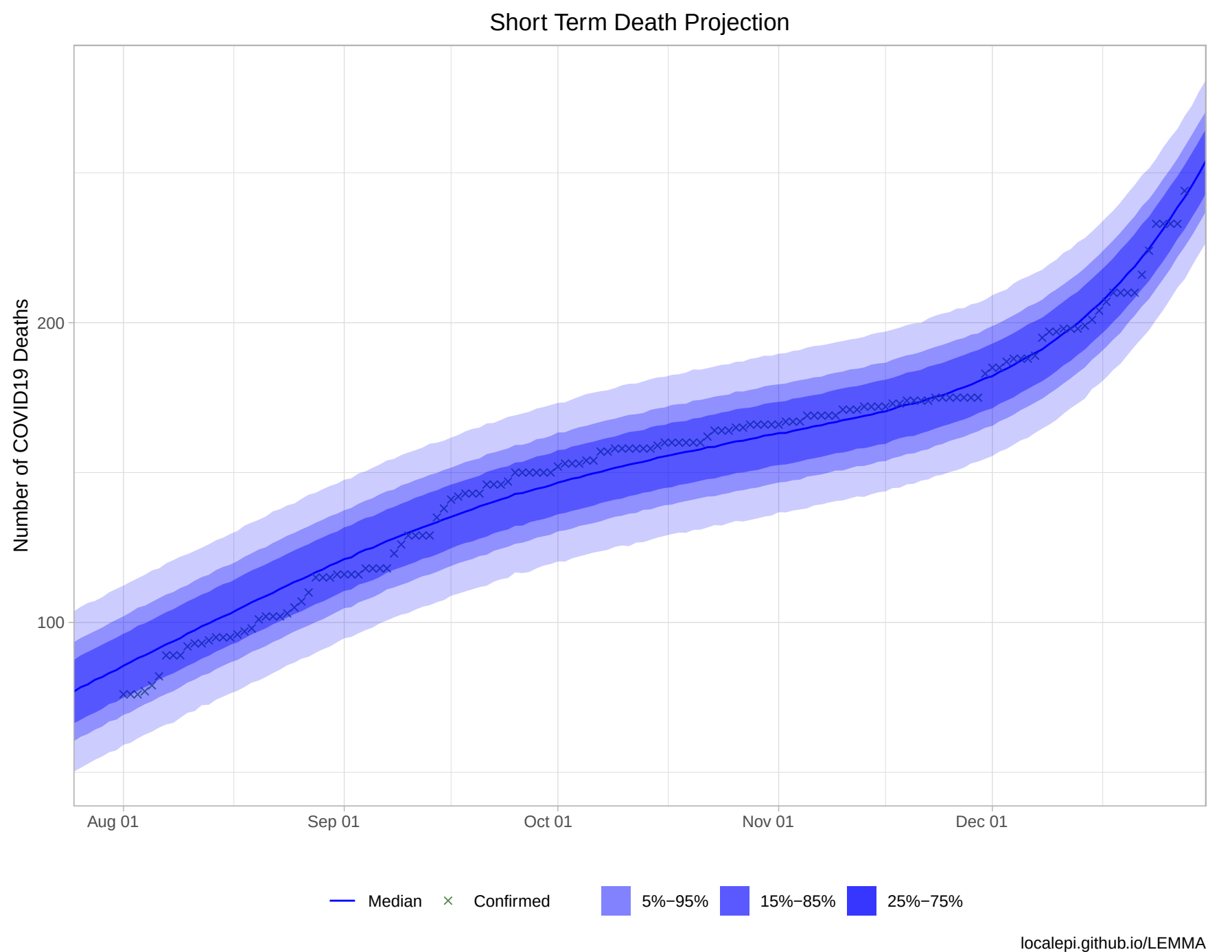
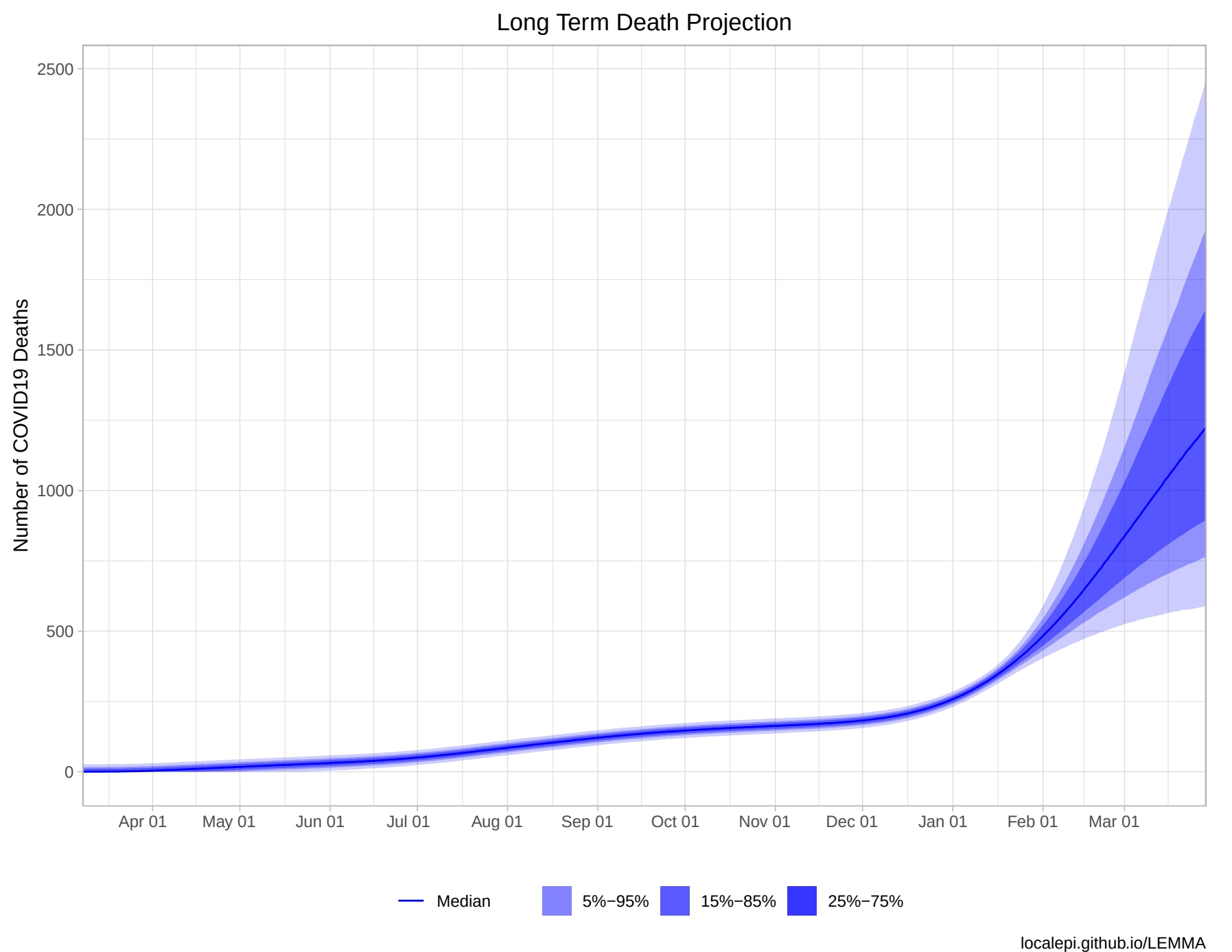

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
100
200
300
400
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

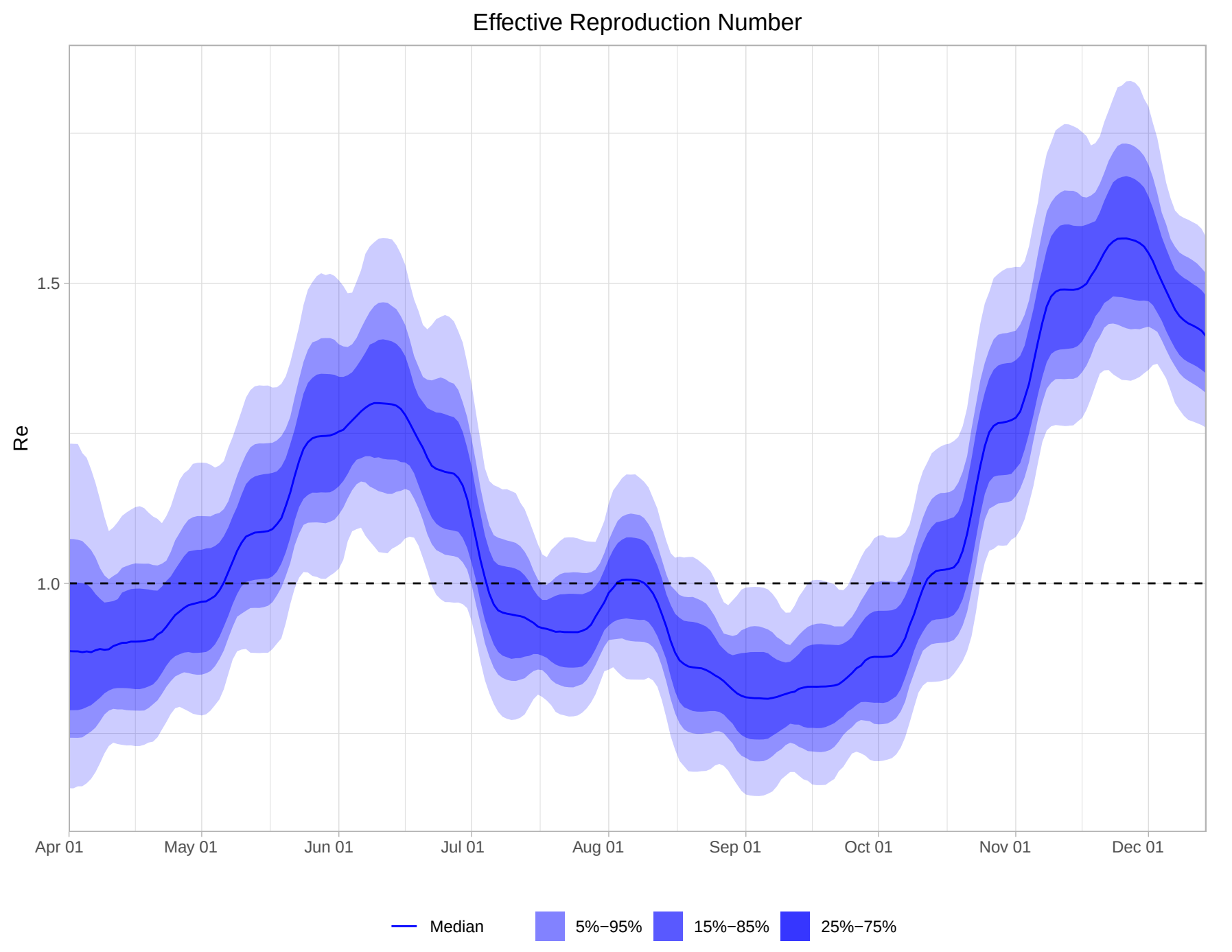

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
3000
2000
1000
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
150
100
50
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
1000
750
500
250
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

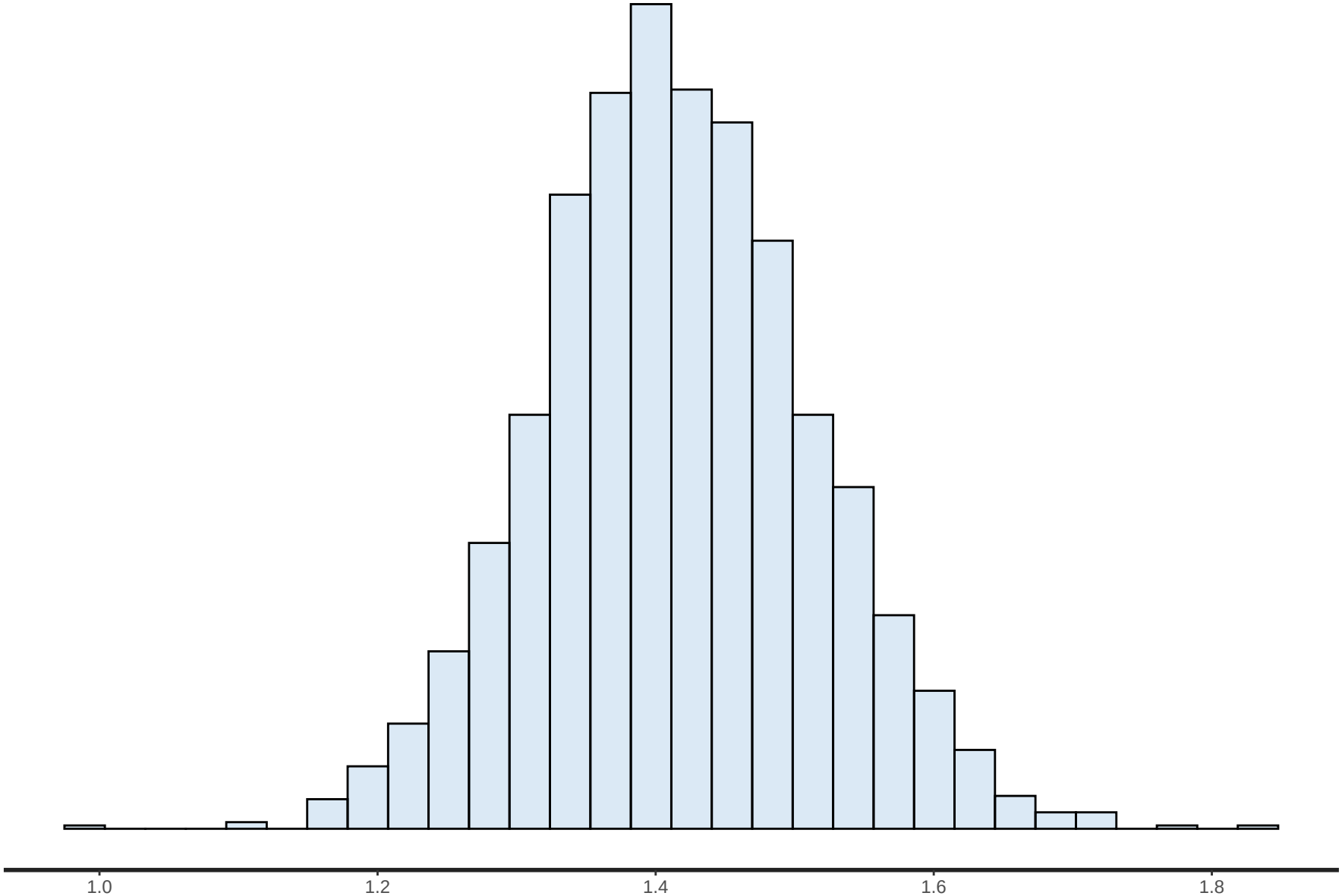

Short Term Death Projection
Number of COVID19 Deaths
200
100
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

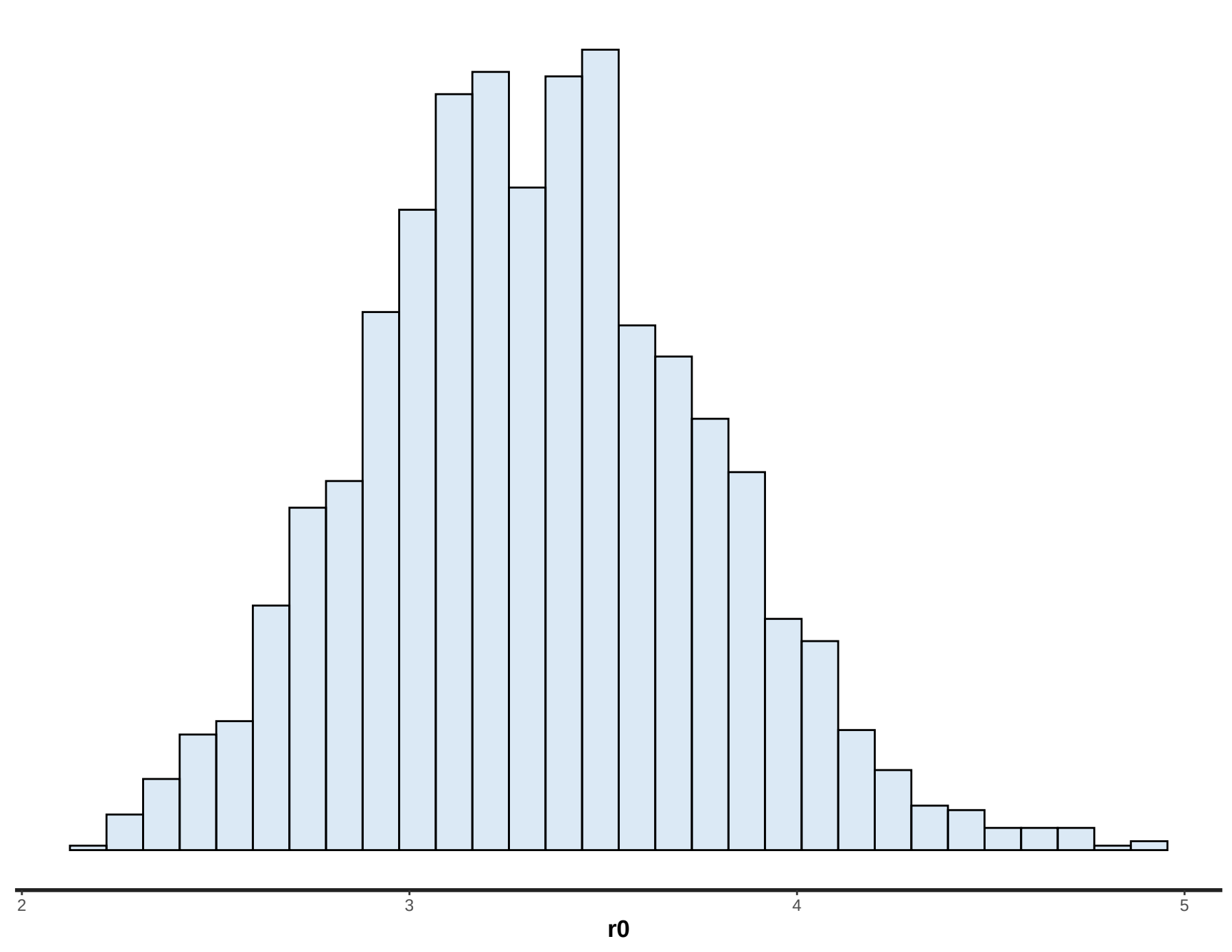

Long Term Death Projection
Number of COVID19 Deaths
2500
2000
1500
1000
500
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

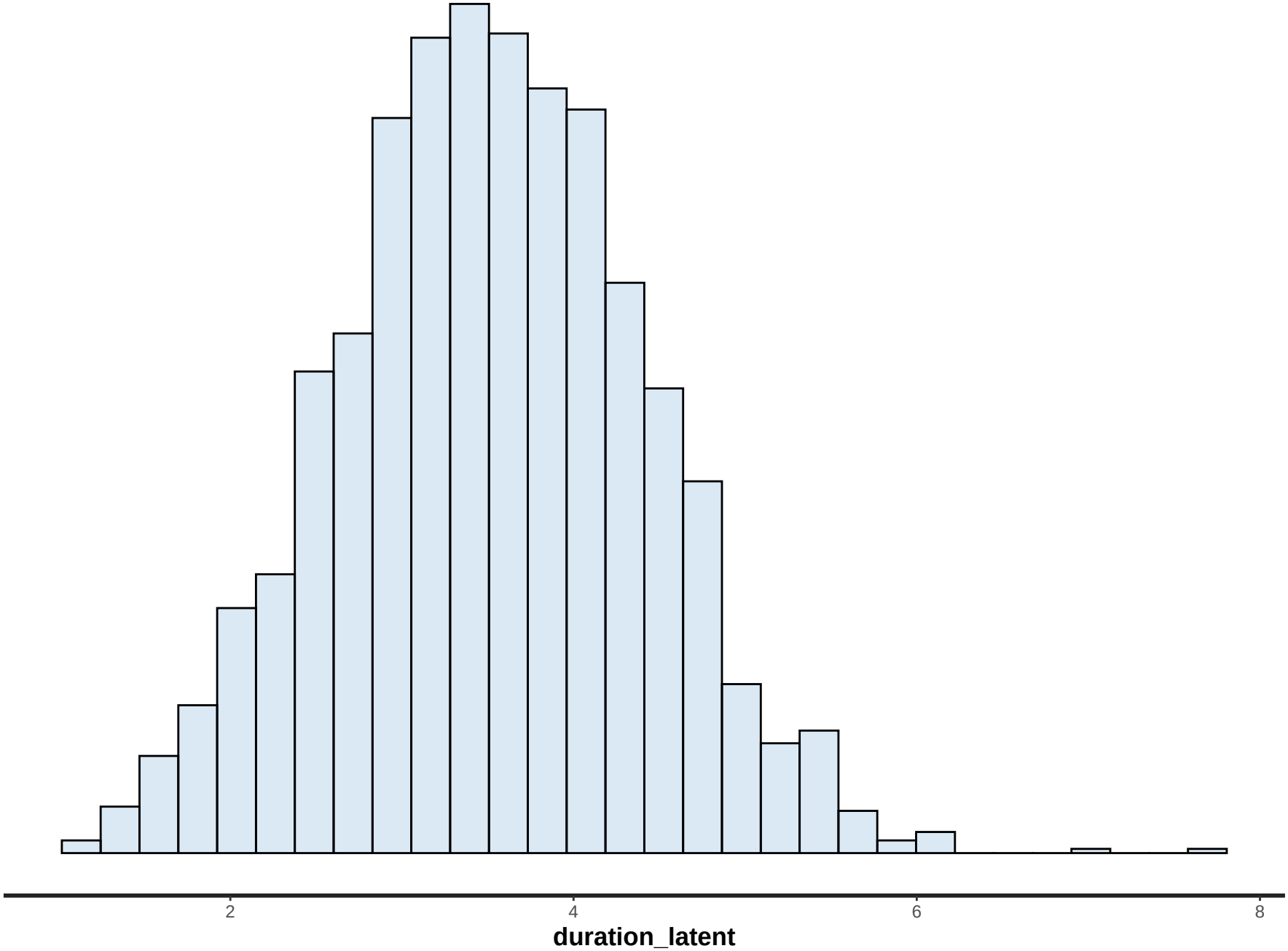

Effective Reproduction Number
Re
1.5
1.0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

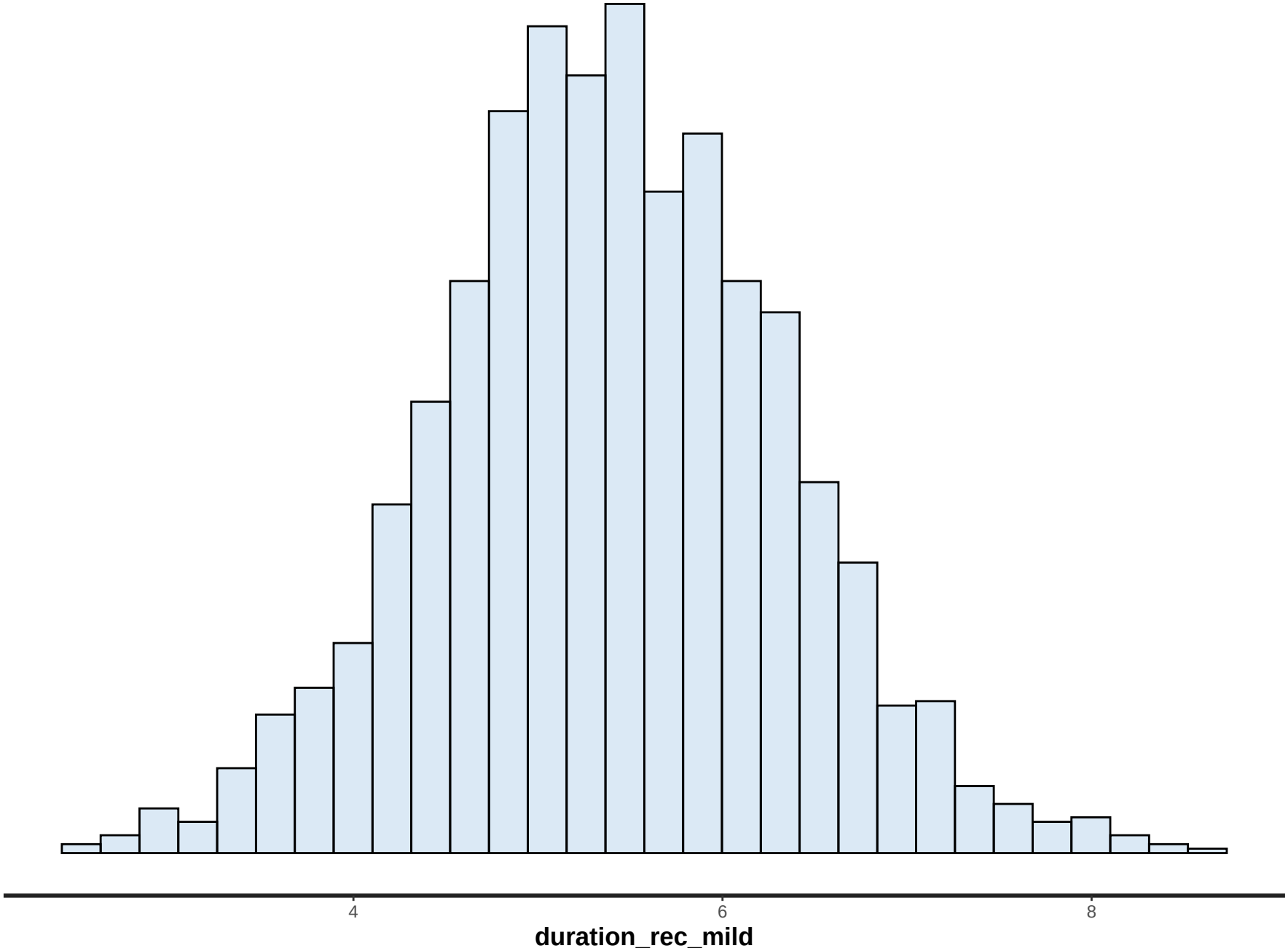
Rt as of 2020−12−14

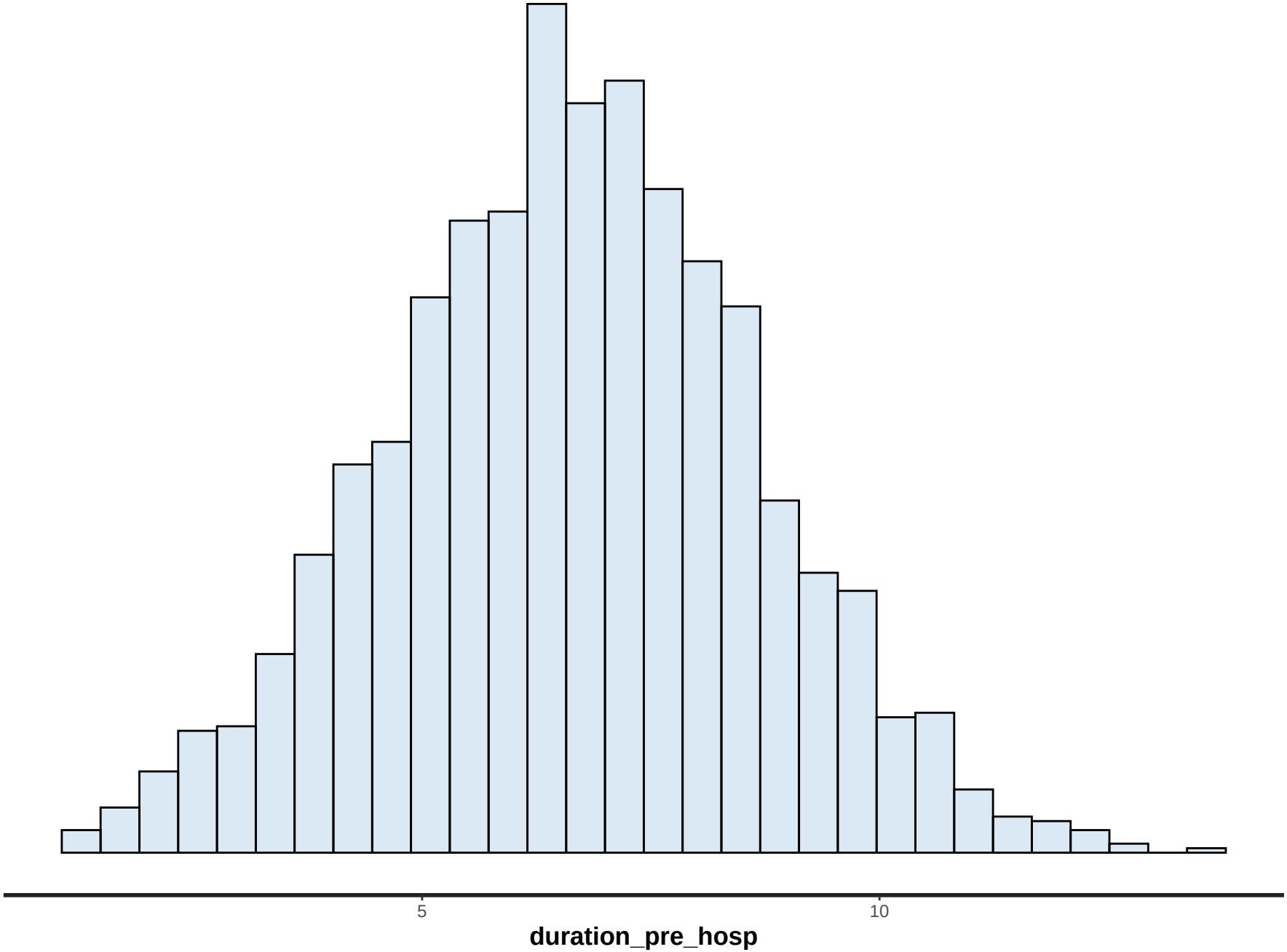
5%	10%	25%	50%	75%	90%	95%
1.26	1.29	1.35	1.41	1.48	1.54	1.58

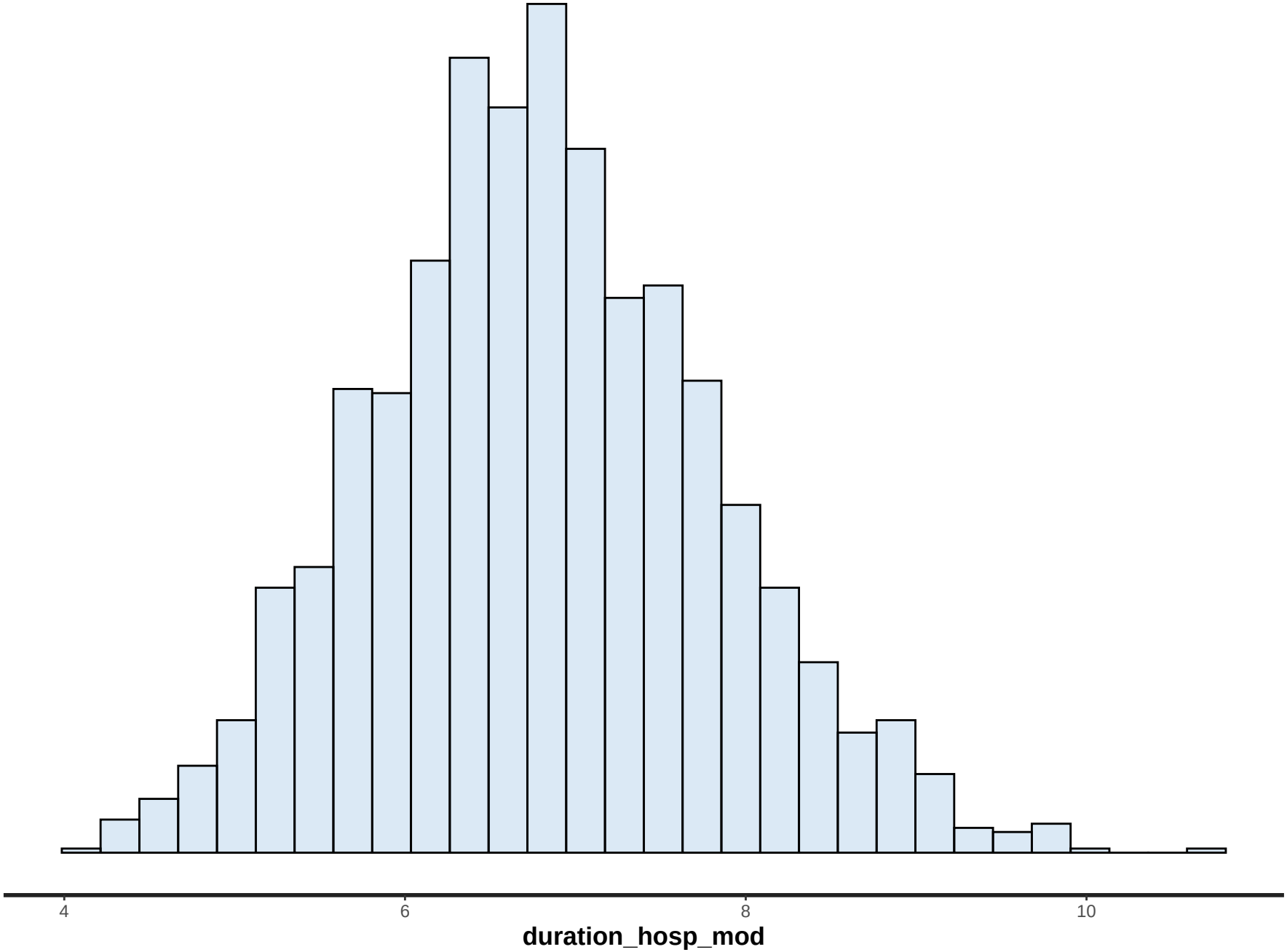


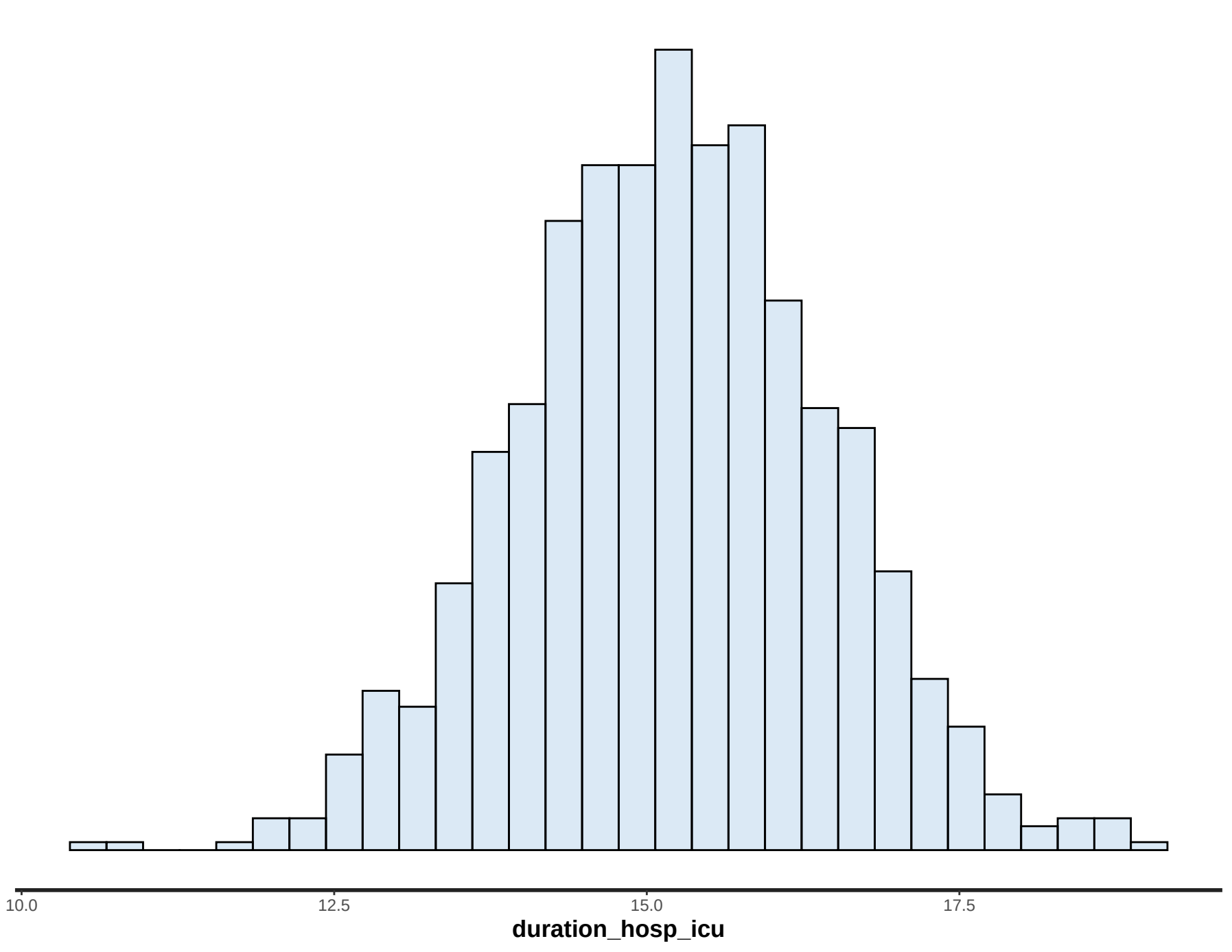

2
3
4
5
r0

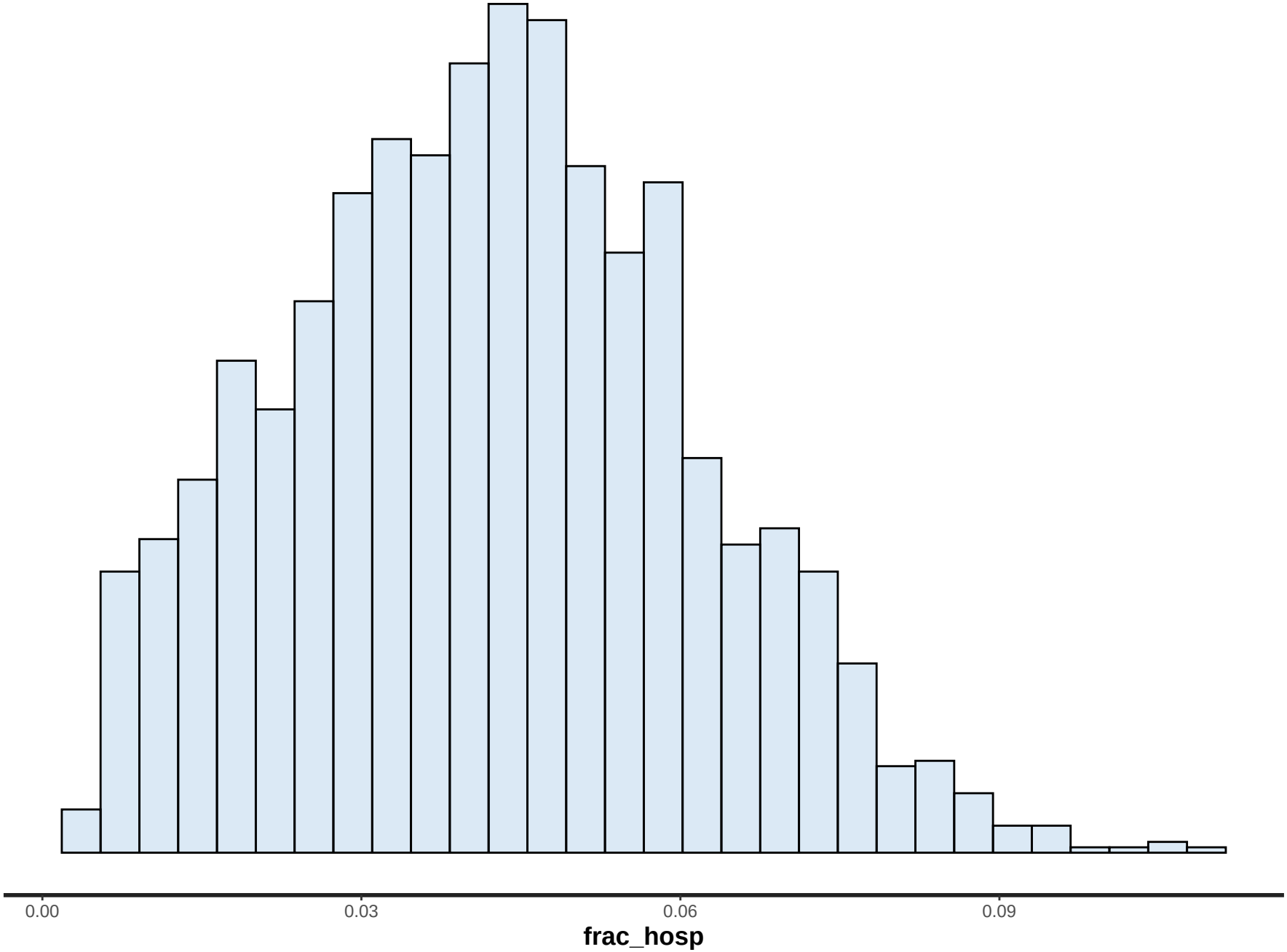

2
4
6
8
duration_latent

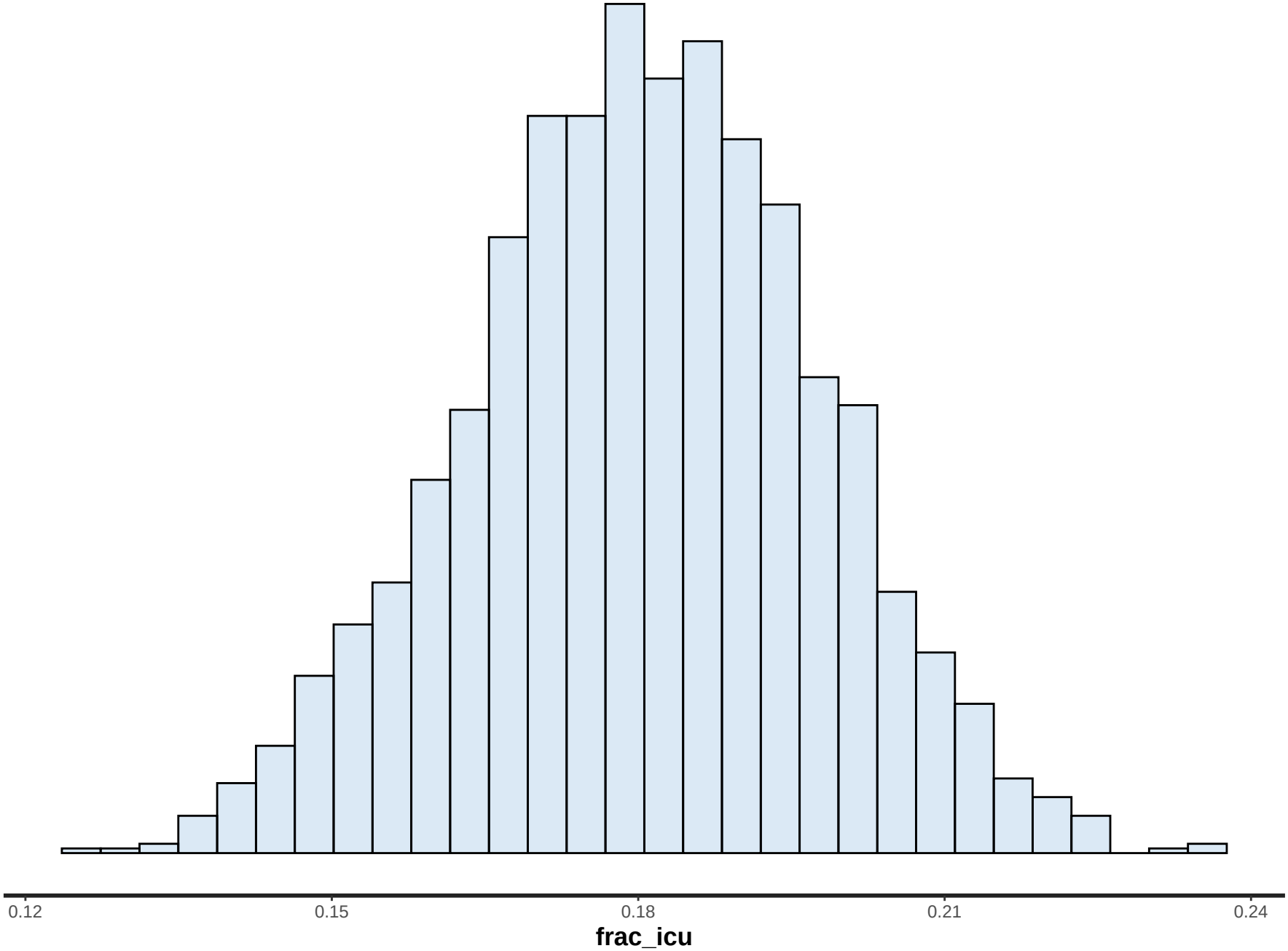

4
6
8
duration_rec_mild

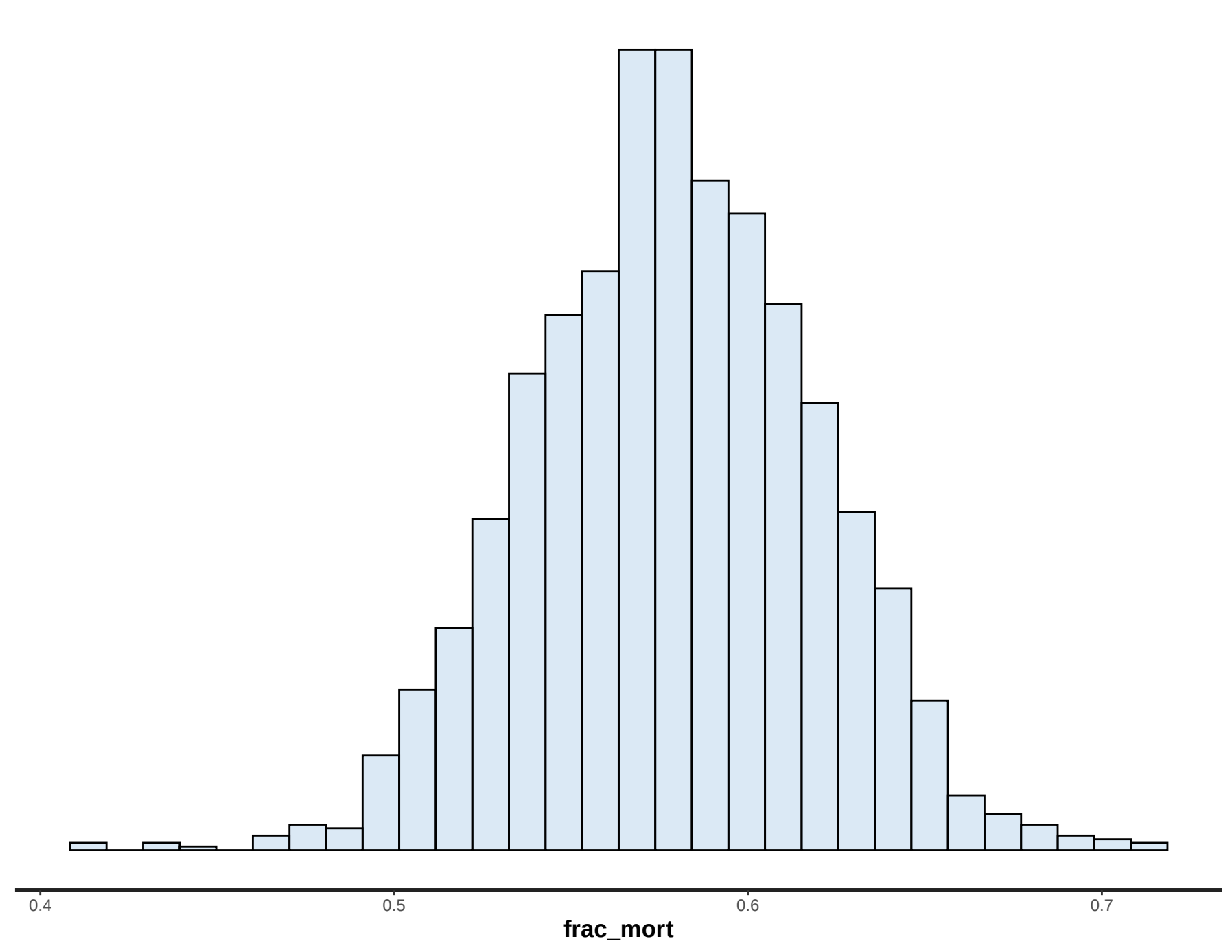

5
10
duration_pre_hosp

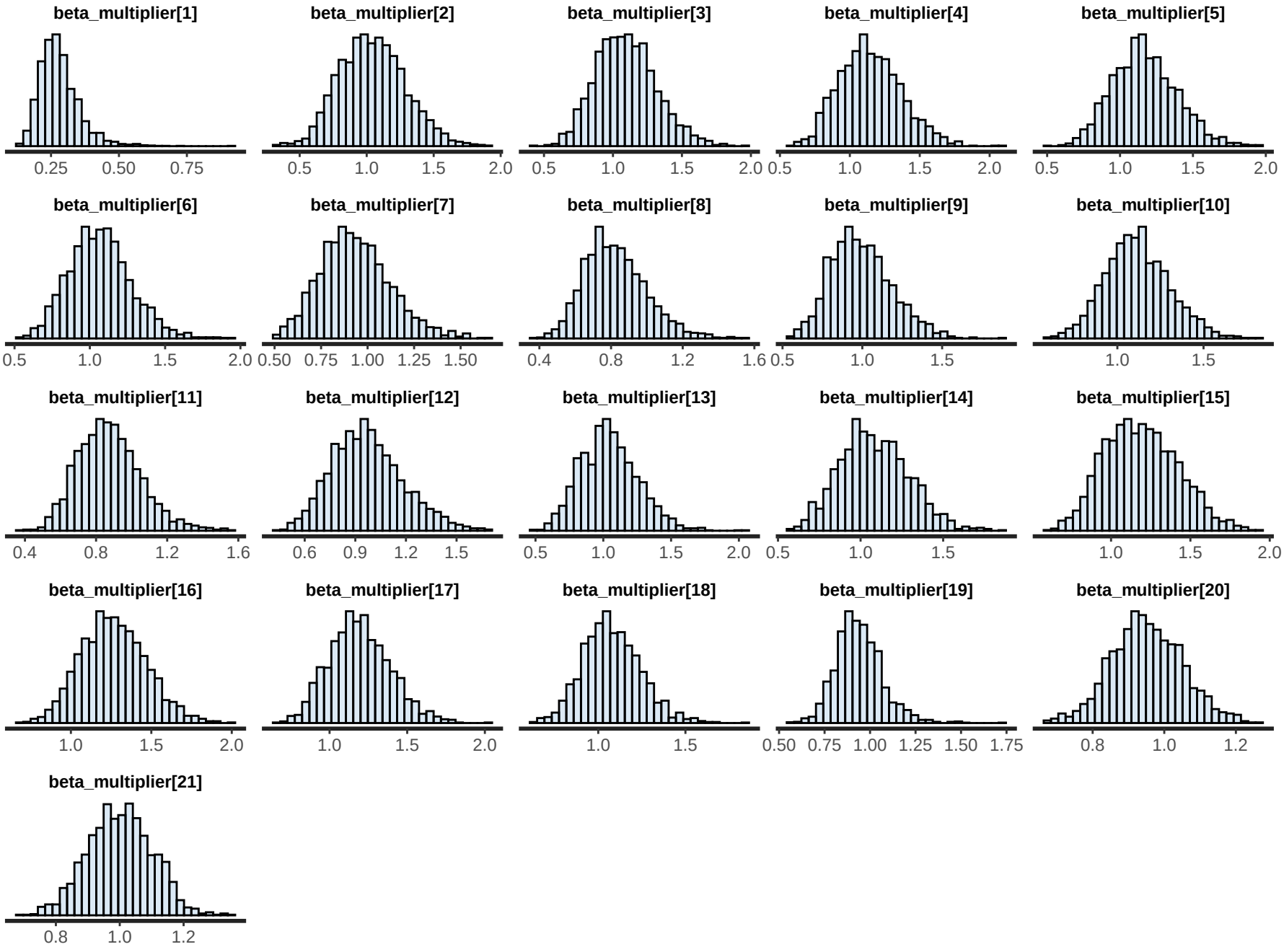

4
6
8
10
duration_hosp_mod


10.0
12.5
15.0
17.5
duration_hosp_icu


0.00
0.03
0.06
0.09
frac_hosp


0.12
0.15
0.18
0.21
0.24
frac_icu


0.4
0.5
0.6
0.7
frac_mort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0.25 0.50 0.75
beta_multiplier[2]
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beta_multiplier[3]
0.5 1.0 1.5 2.0
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]
0.5 1.0 1.5 2.0
beta_multiplier[7]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[8]
0.4 0.8 1.2 1.6
beta_multiplier[9]
0.5 1.0 1.5
beta_multiplier[10]
1.0 1.5
beta_multiplier[11]
0.4 0.8 1.2 1.6
beta_multiplier[12]
0.6 0.9 1.2 1.5
beta_multiplier[13]
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beta_multiplier[14]
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beta_multiplier[15]
1.0 1.5 2.0
beta_multiplier[16]
1.0 1.5 2.0
beta_multiplier[17]
1.0 1.5 2.0
beta_multiplier[18]
1.0 1.5
beta_multiplier[19]
0.50 0.75 1.00 1.25 1.50 1.75
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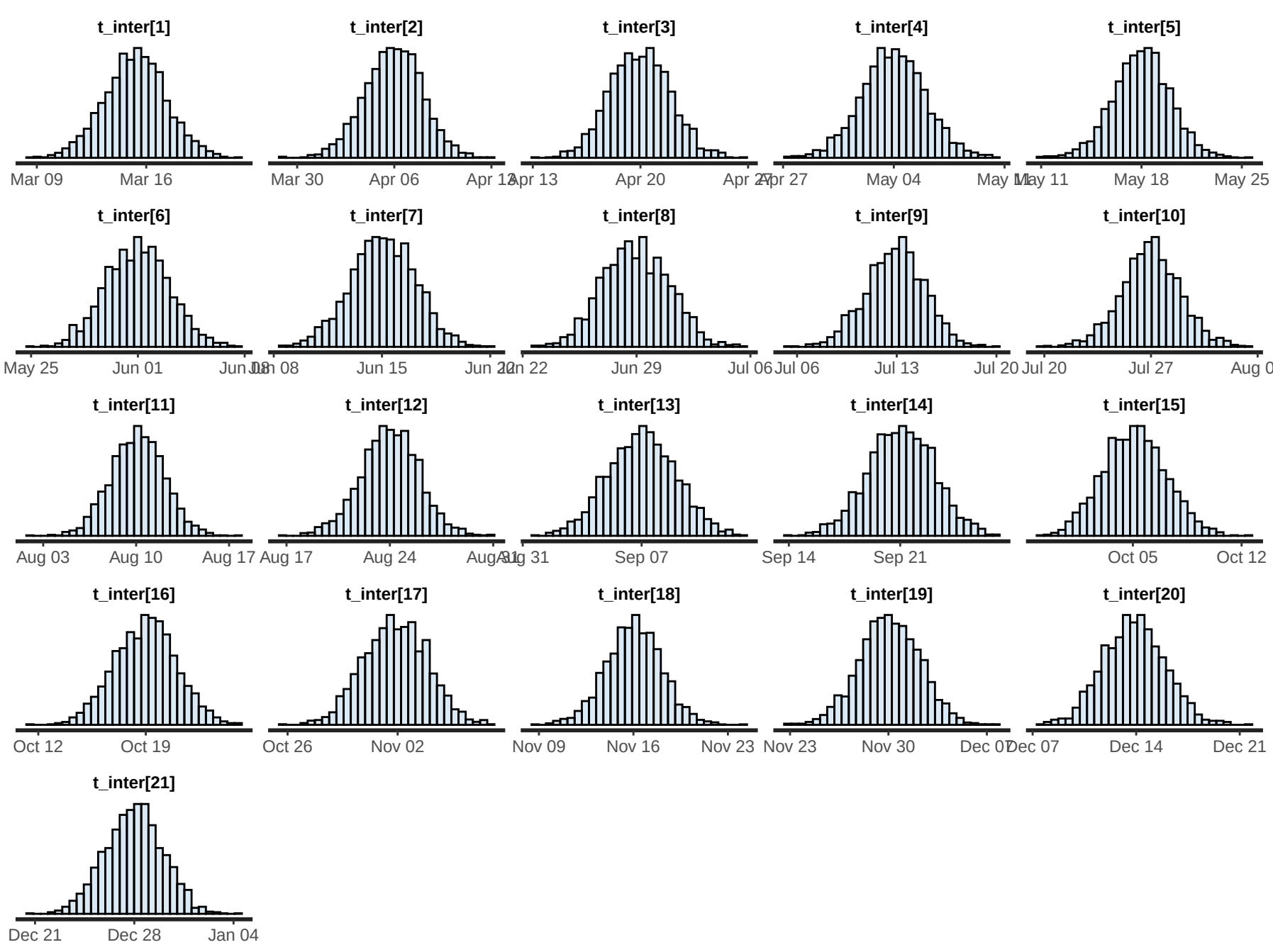
beta_multiplier[21]
0.8 1.0 1.2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Mar 09
Mar 16
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Mar 30
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Apr 13
Apr 20
t_inter[4]
Apr 27
May 04
t_inter[5]
May 11
May 18
May 25
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May 25
Jun 01
t_inter[7]
Jun 08
Jun 15
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Jun 22
Jun 29
Jul 06
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Jul 13
Jul 20
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Jul 20
Jul 27
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Aug 03
Aug 10
Aug 17
t_inter[12]
Aug 17
Aug 24
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Aug 31
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Sep 21
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Oct 05
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Oct 26
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Nov 09
Nov 16
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Dec 07
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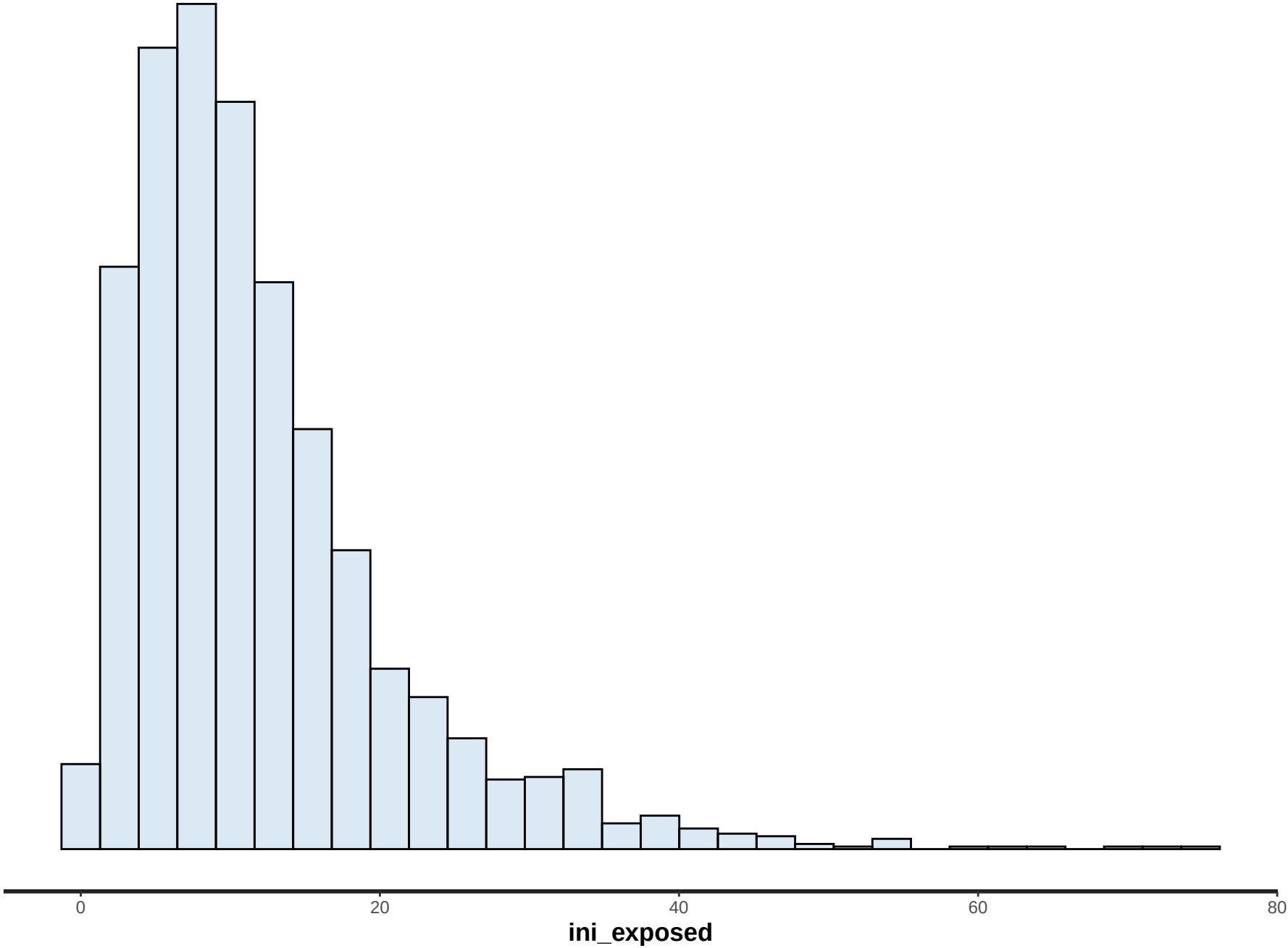
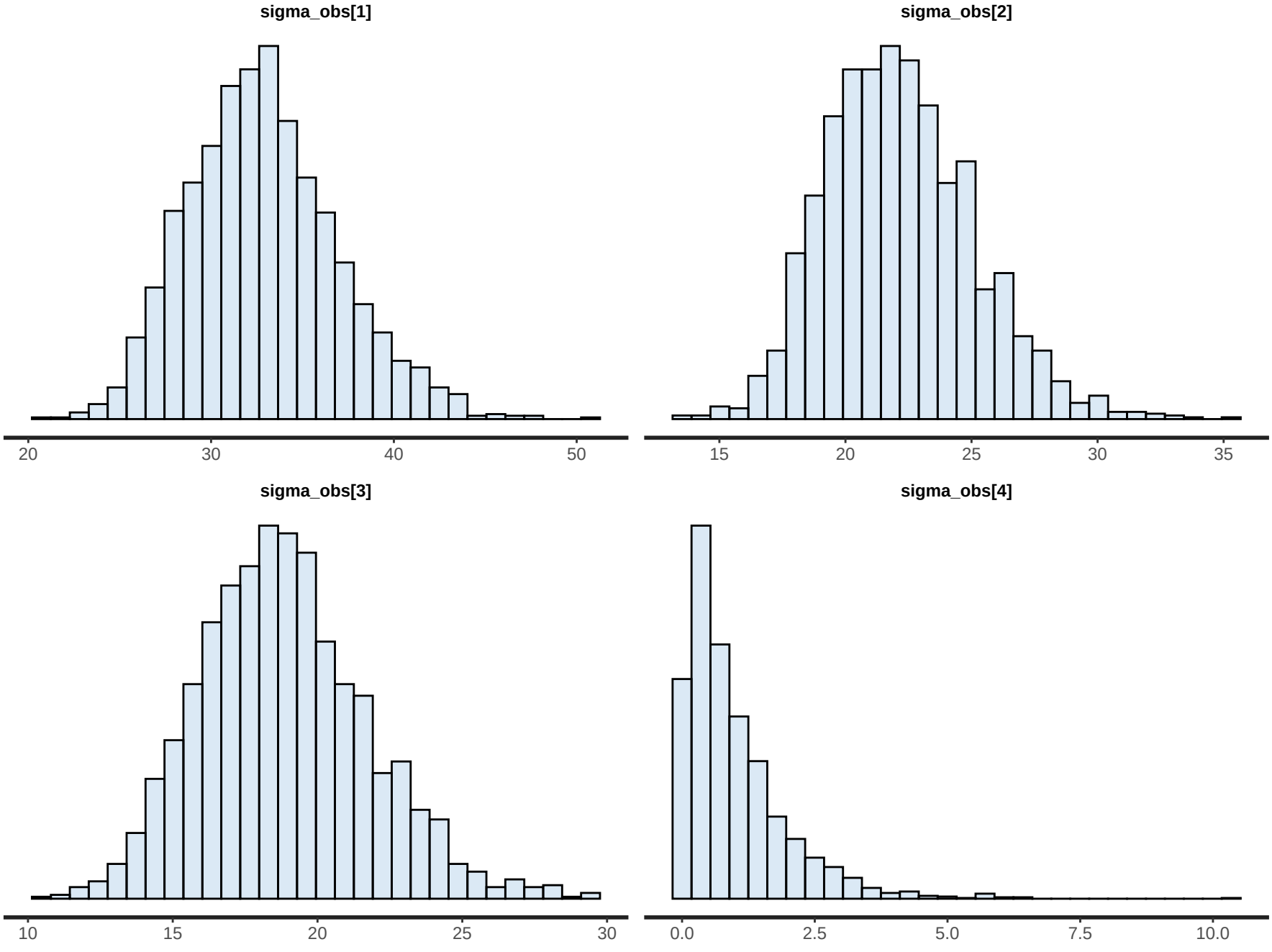
Dec 21
Dec 28
Jan 04


0
20
40
60
80
ini_exposed


sigma_obs[1]
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30
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sigma_obs[2]
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25
30
sigma_obs[4]
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2.5
5.0
7.5
10.0