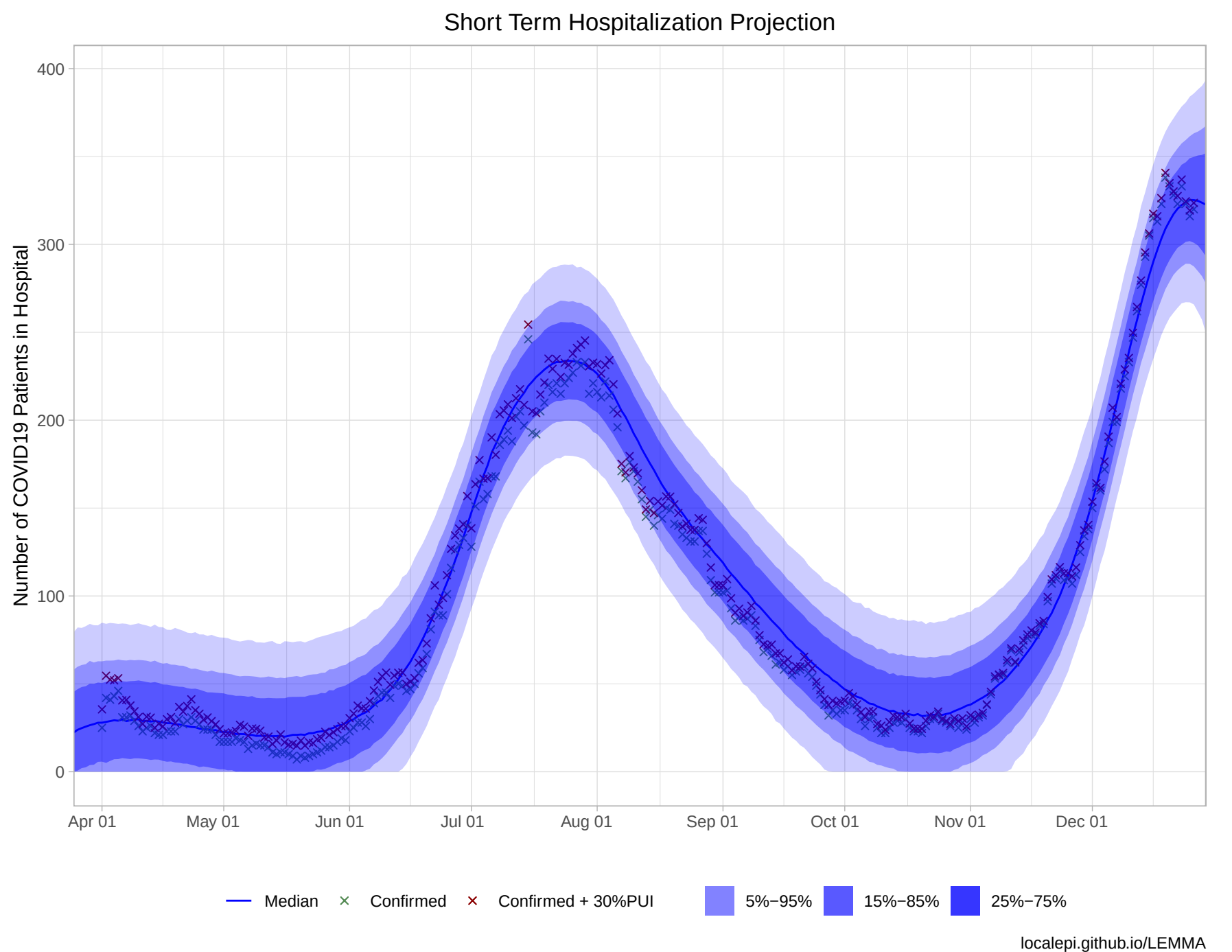
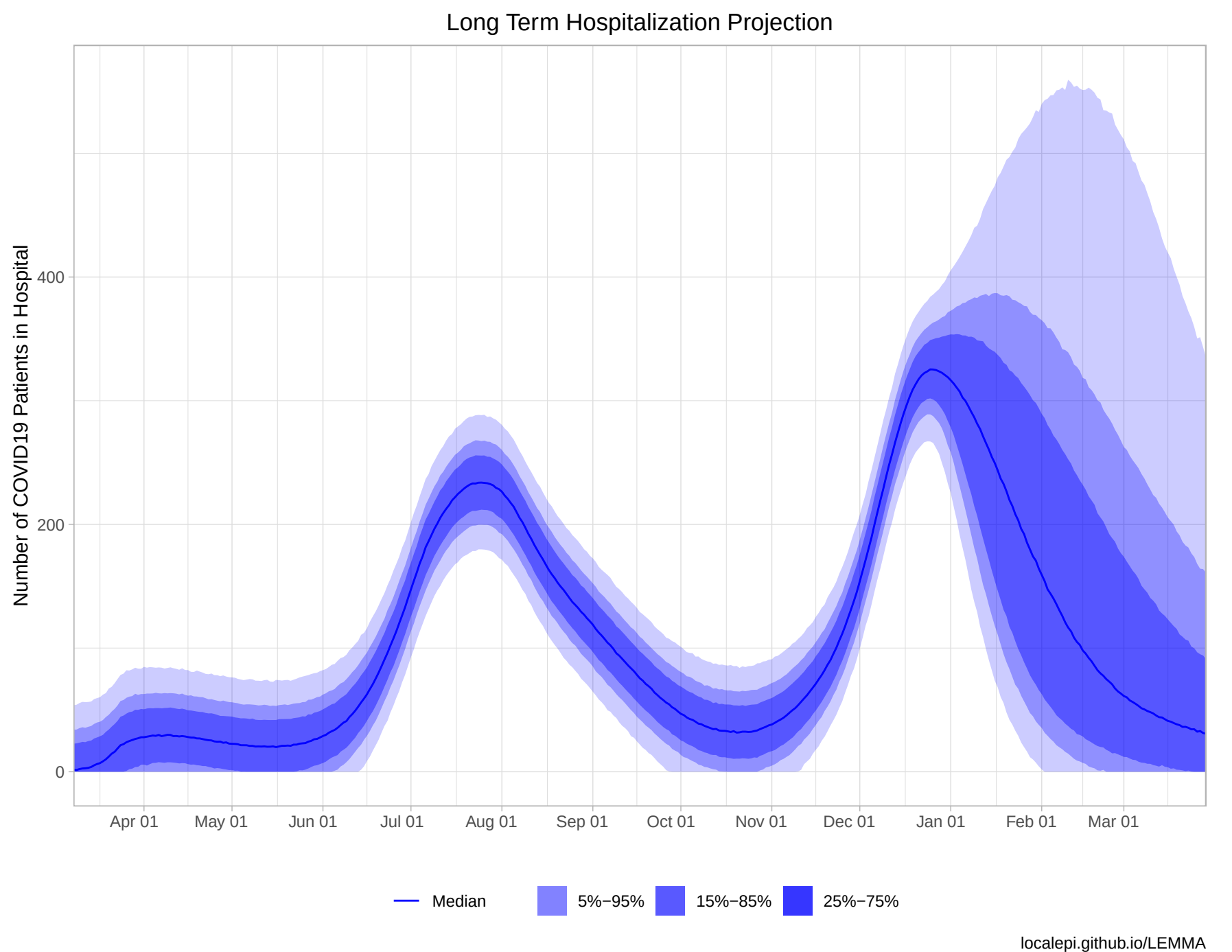
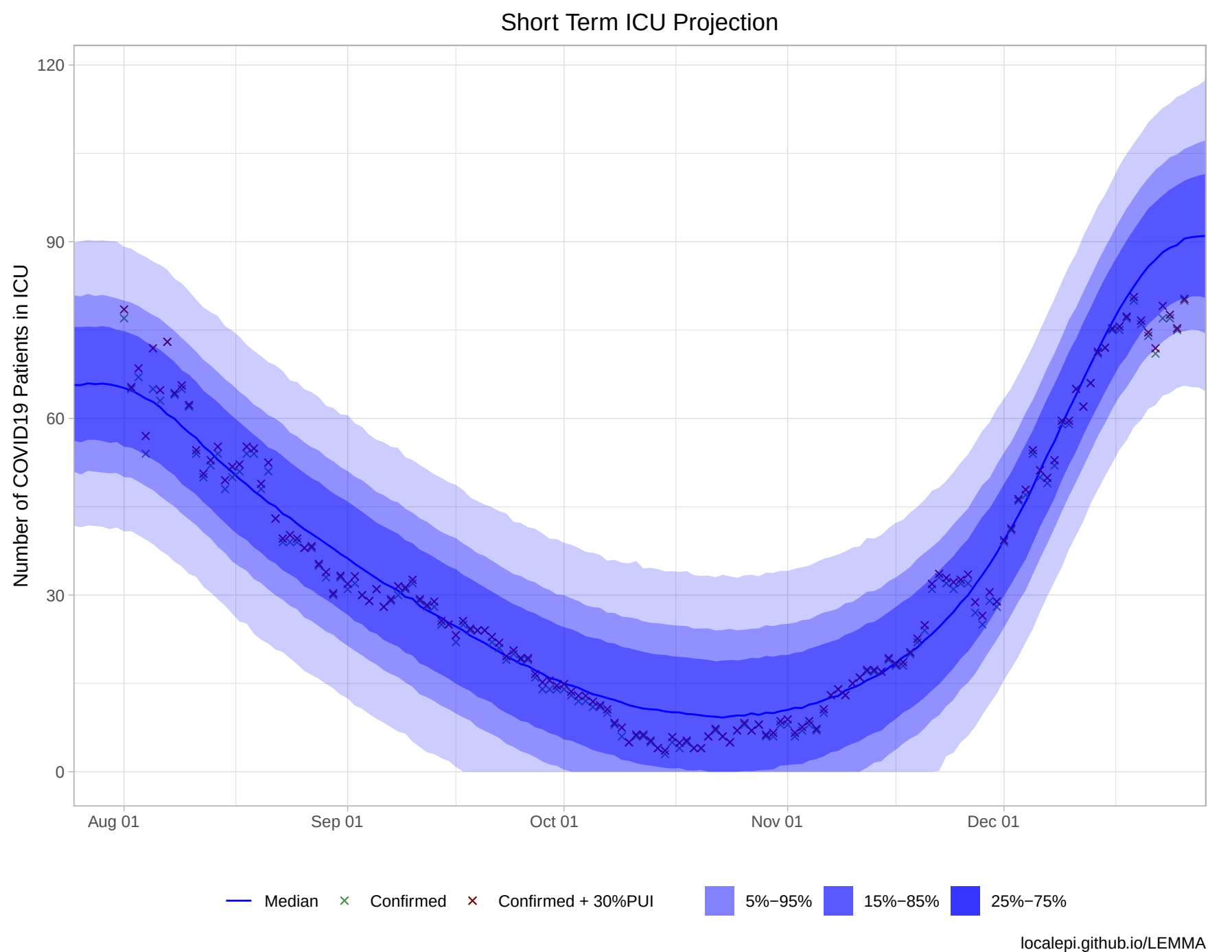
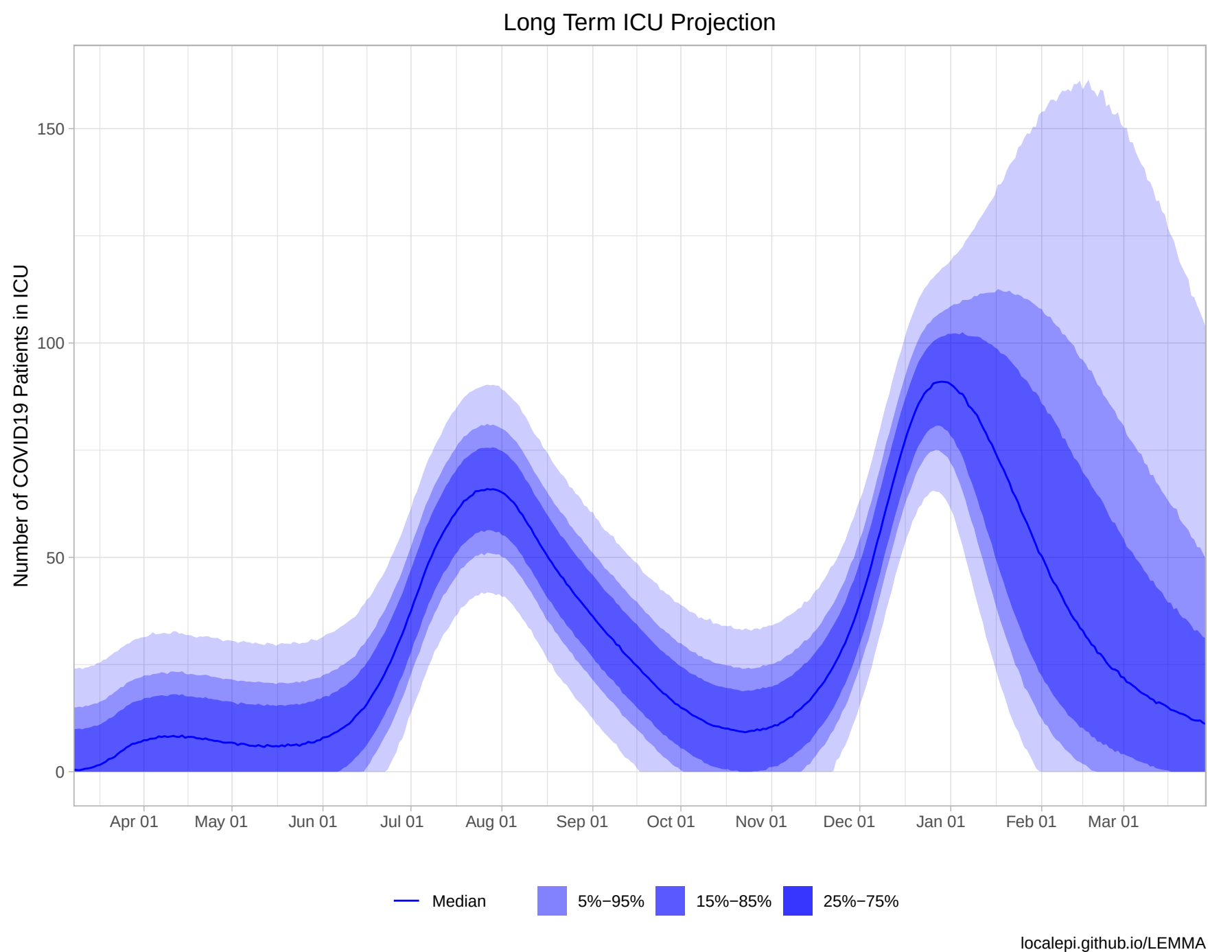
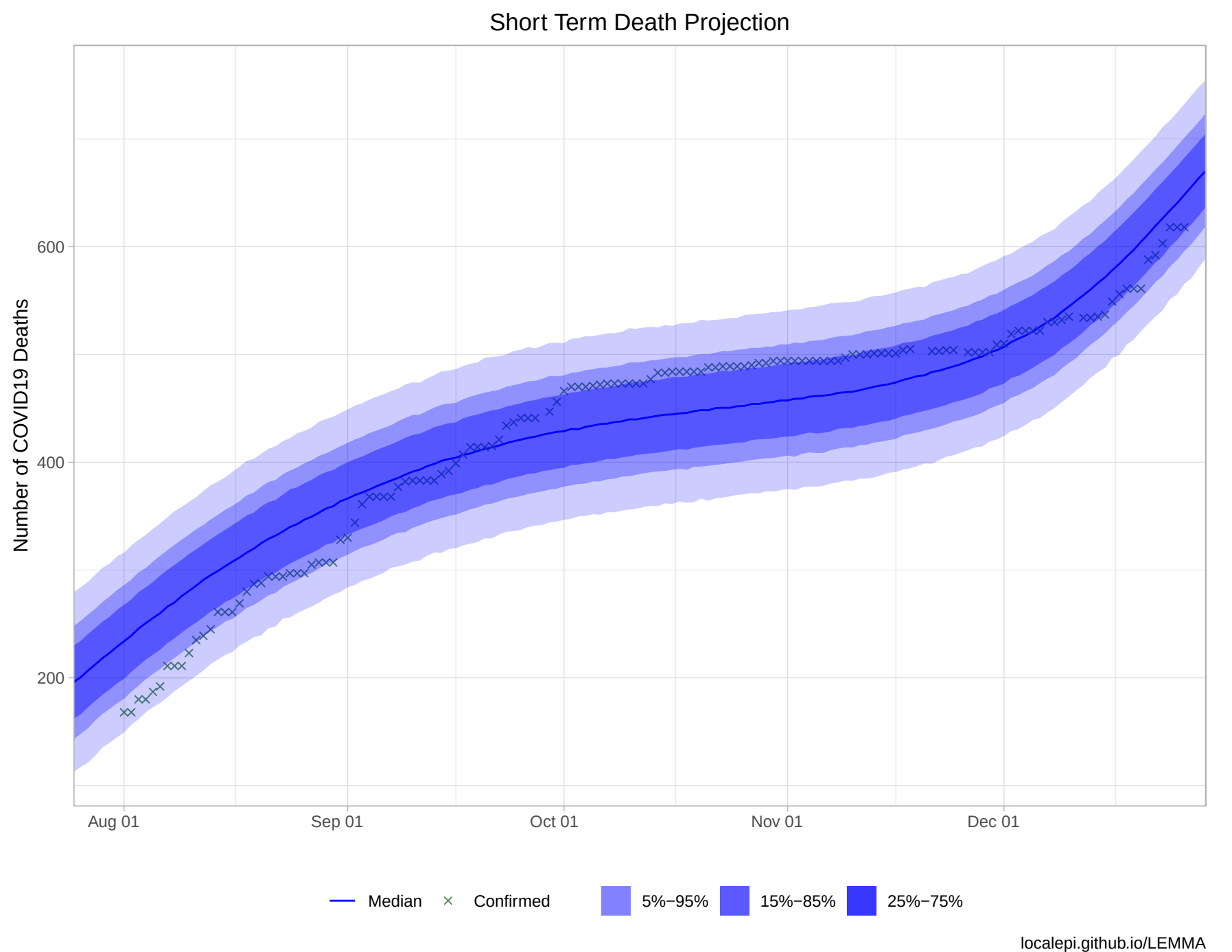
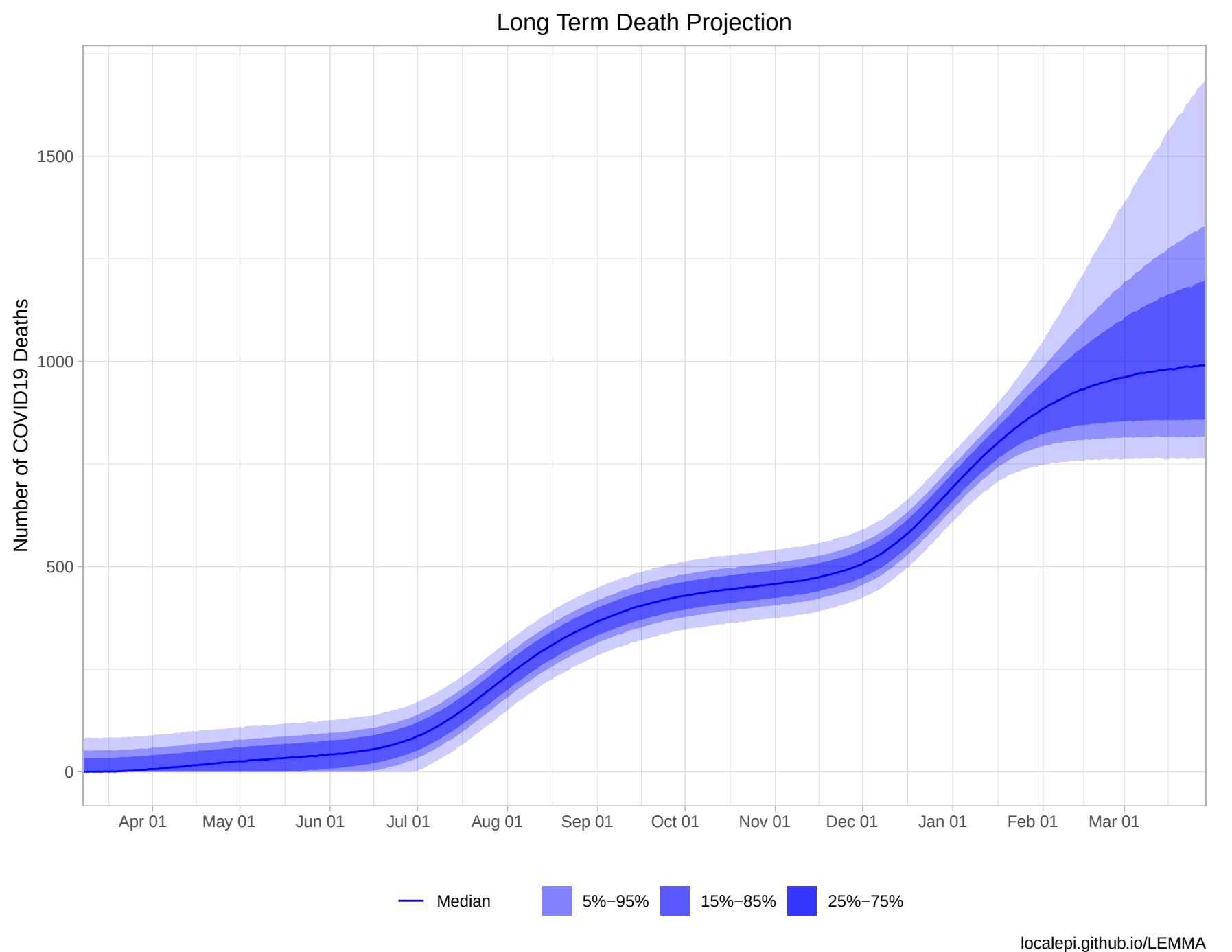

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
400
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

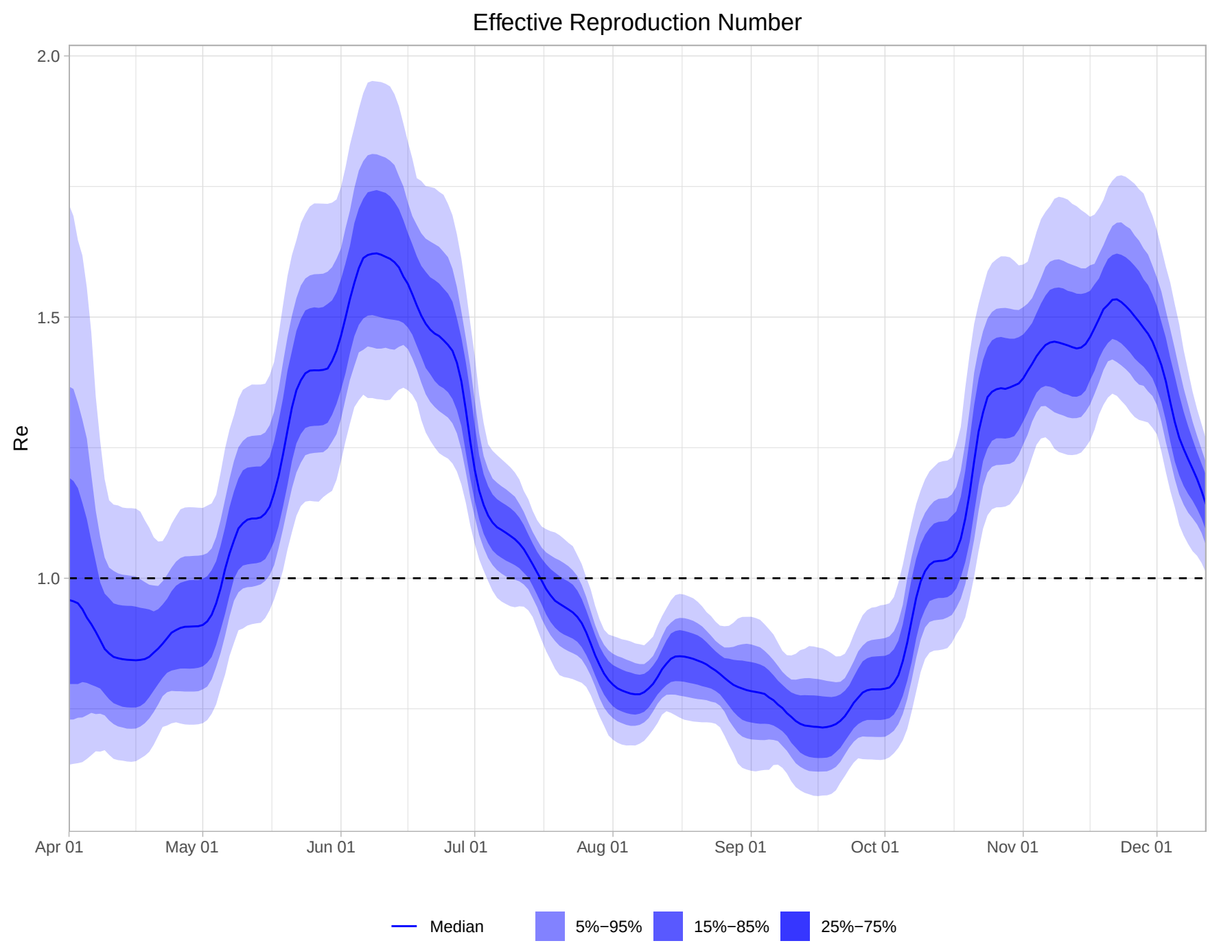

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
400
200
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
120
90
60
30
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
150
100
50
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

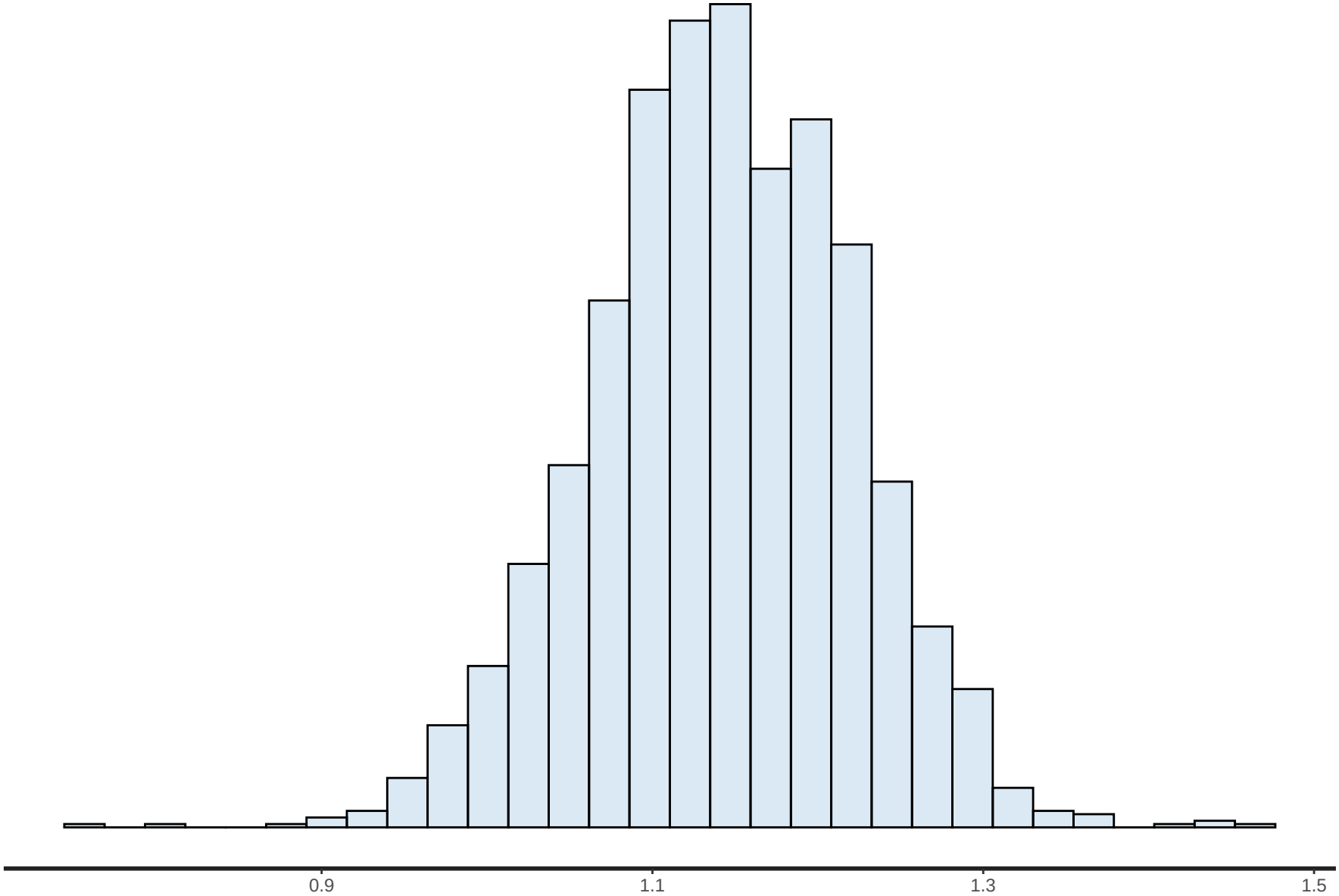

Short Term Death Projection
Number of COVID19 Deaths
600
400
200
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

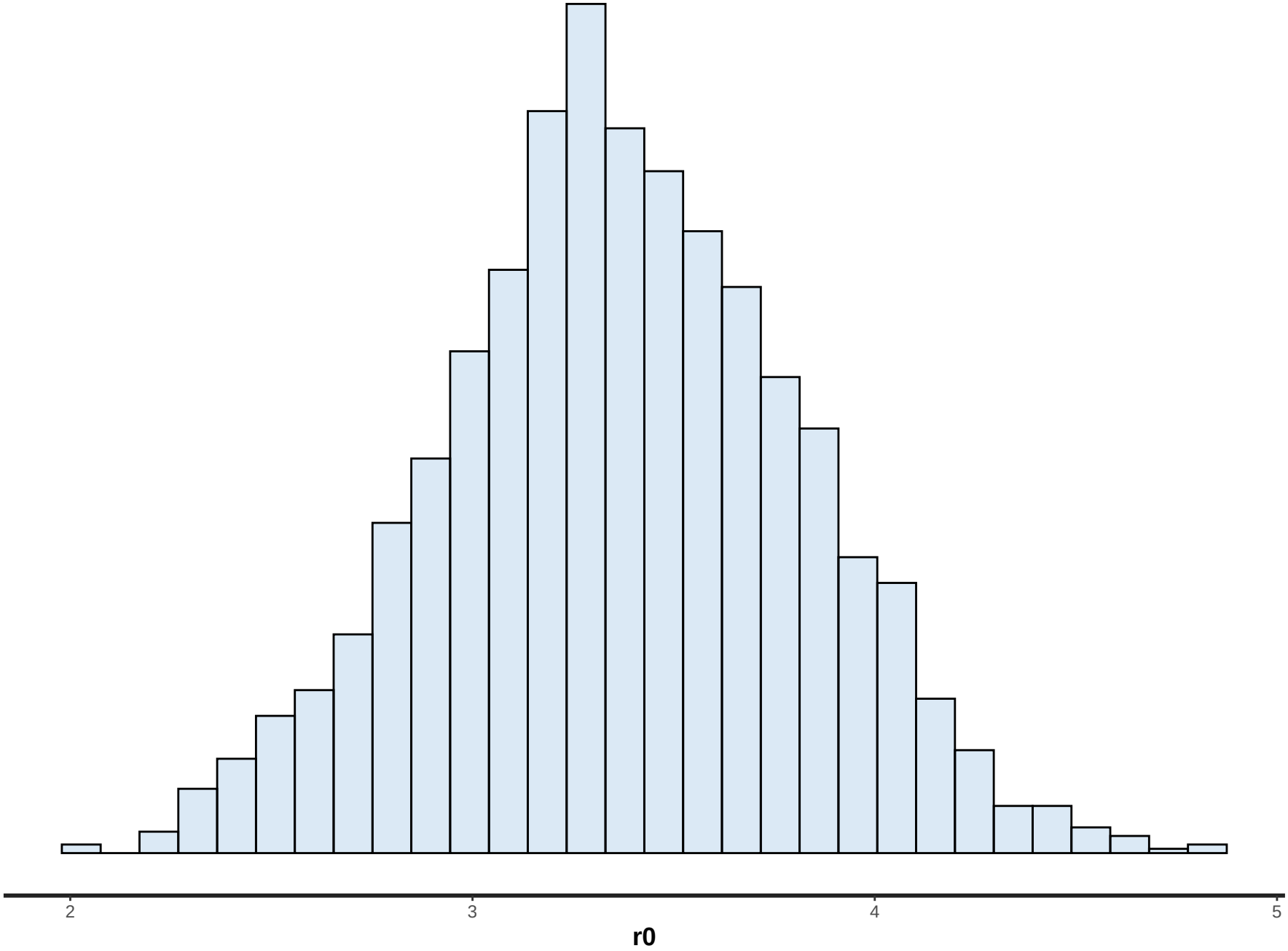

Long Term Death Projection
Number of COVID19 Deaths
1500
1000
500
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

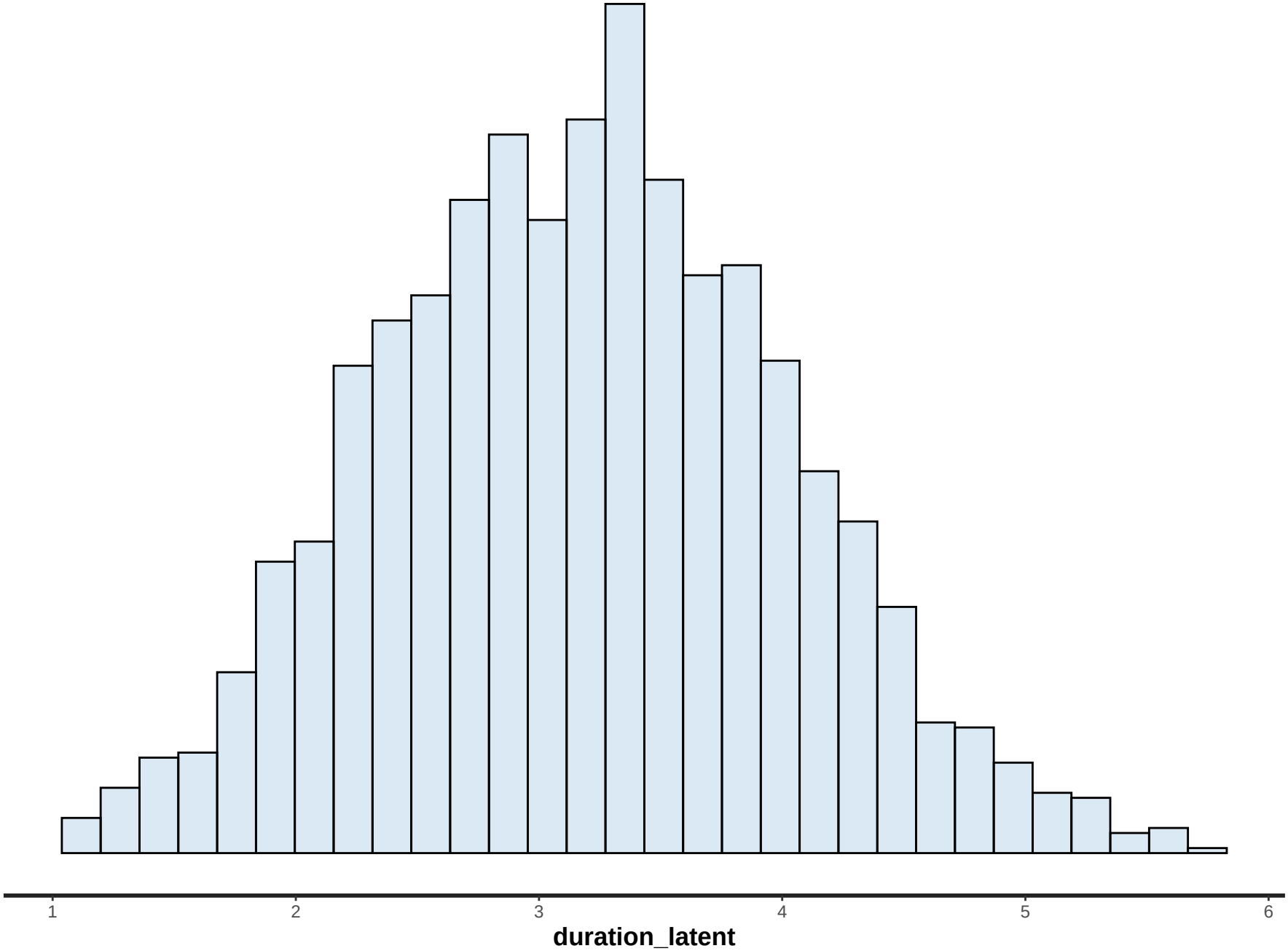

Effective Reproduction Number
2.0
1.5
1.0
Re
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

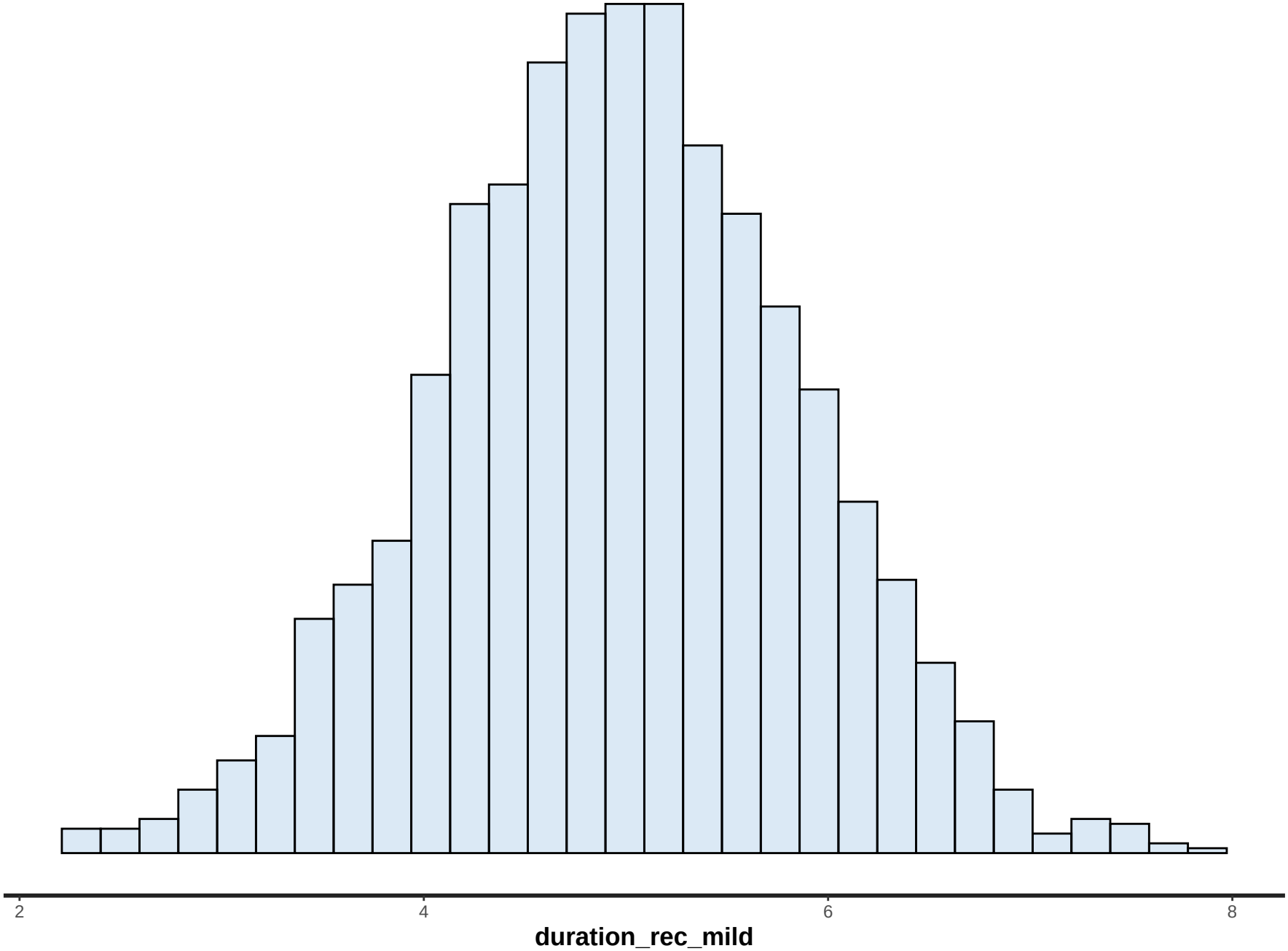
Rt as of 2020−12−12

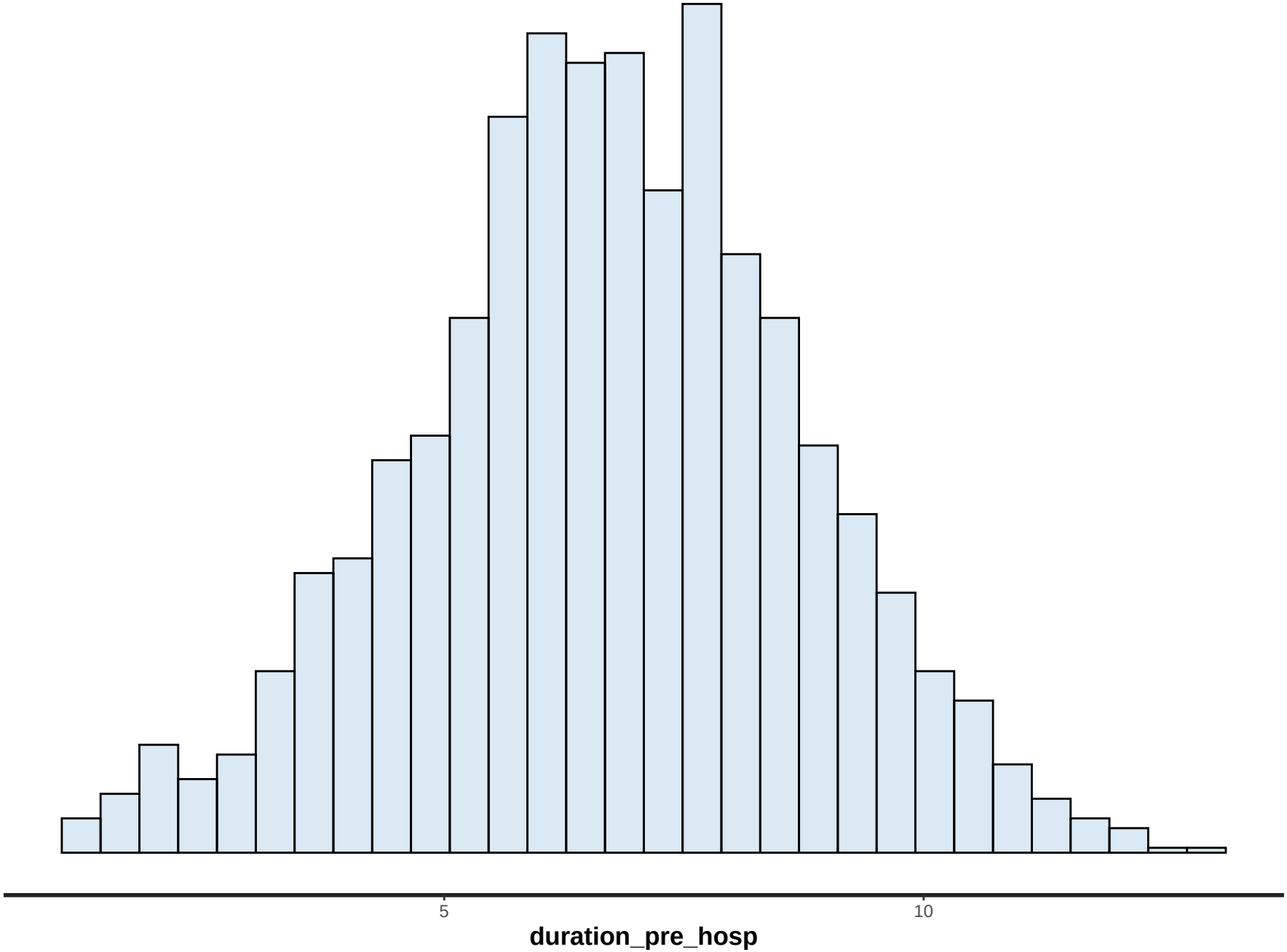
5%	10%	25%	50%	75%	90%	95%
1.01	1.04	1.09	1.14	1.20	1.24	1.27

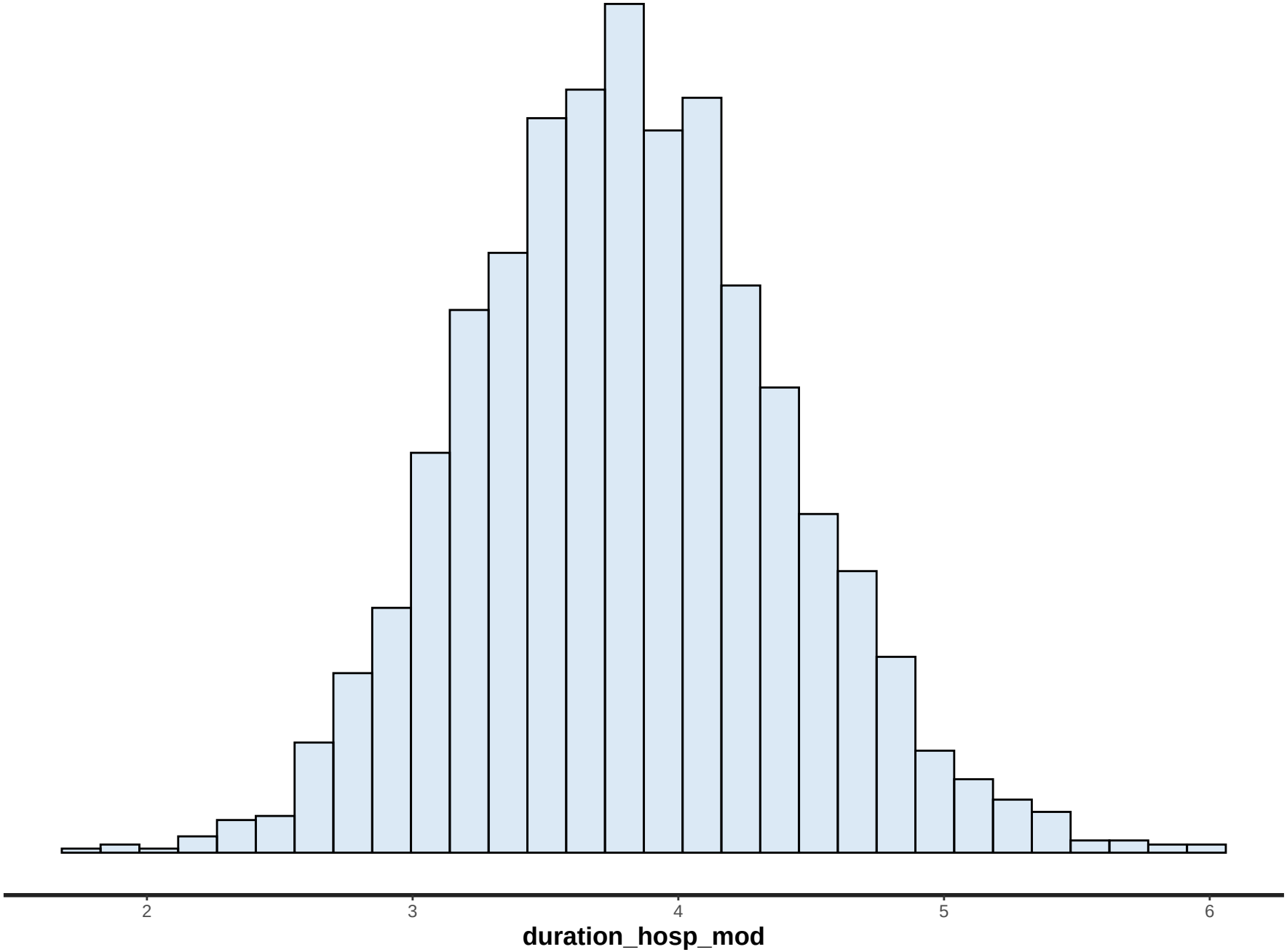


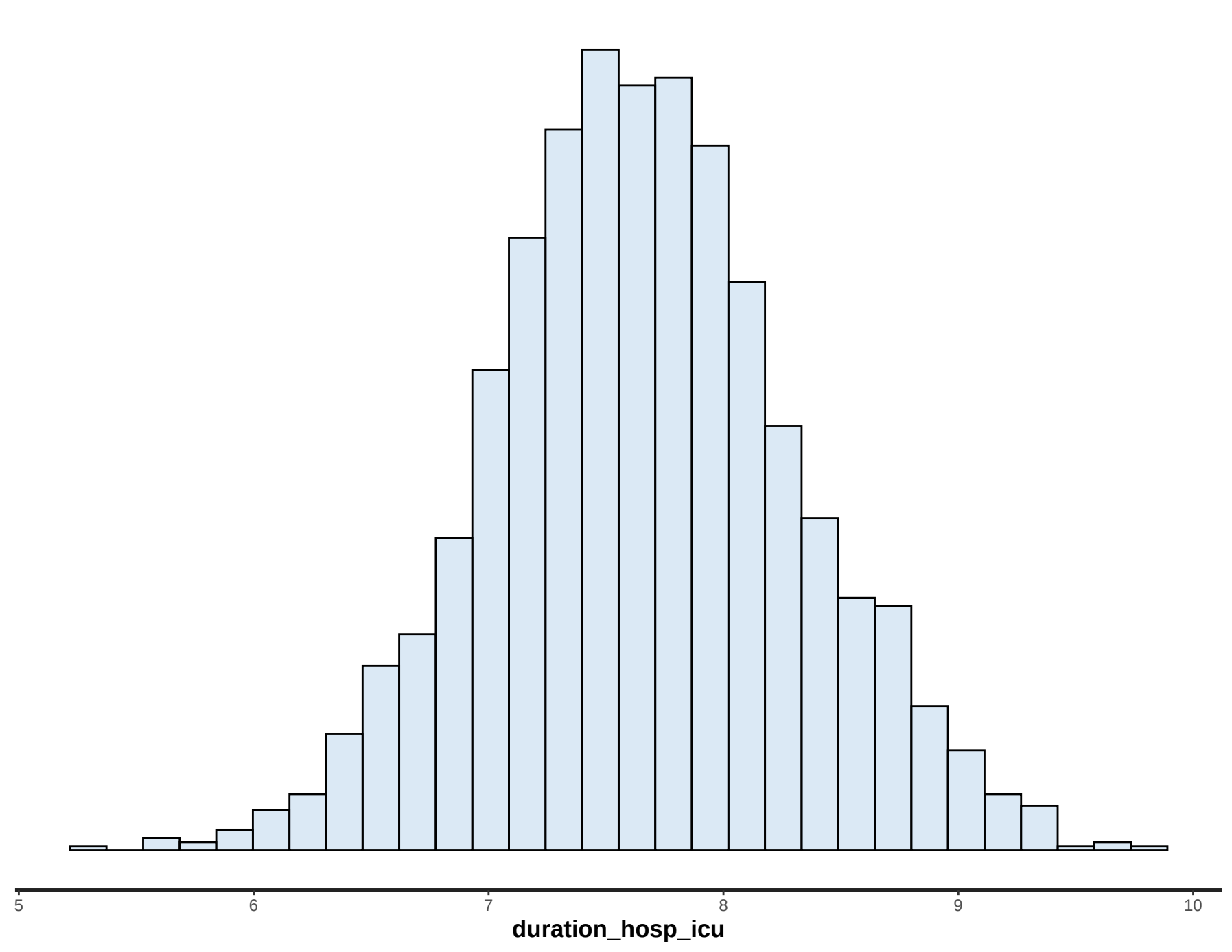

2
3
4
5
r0

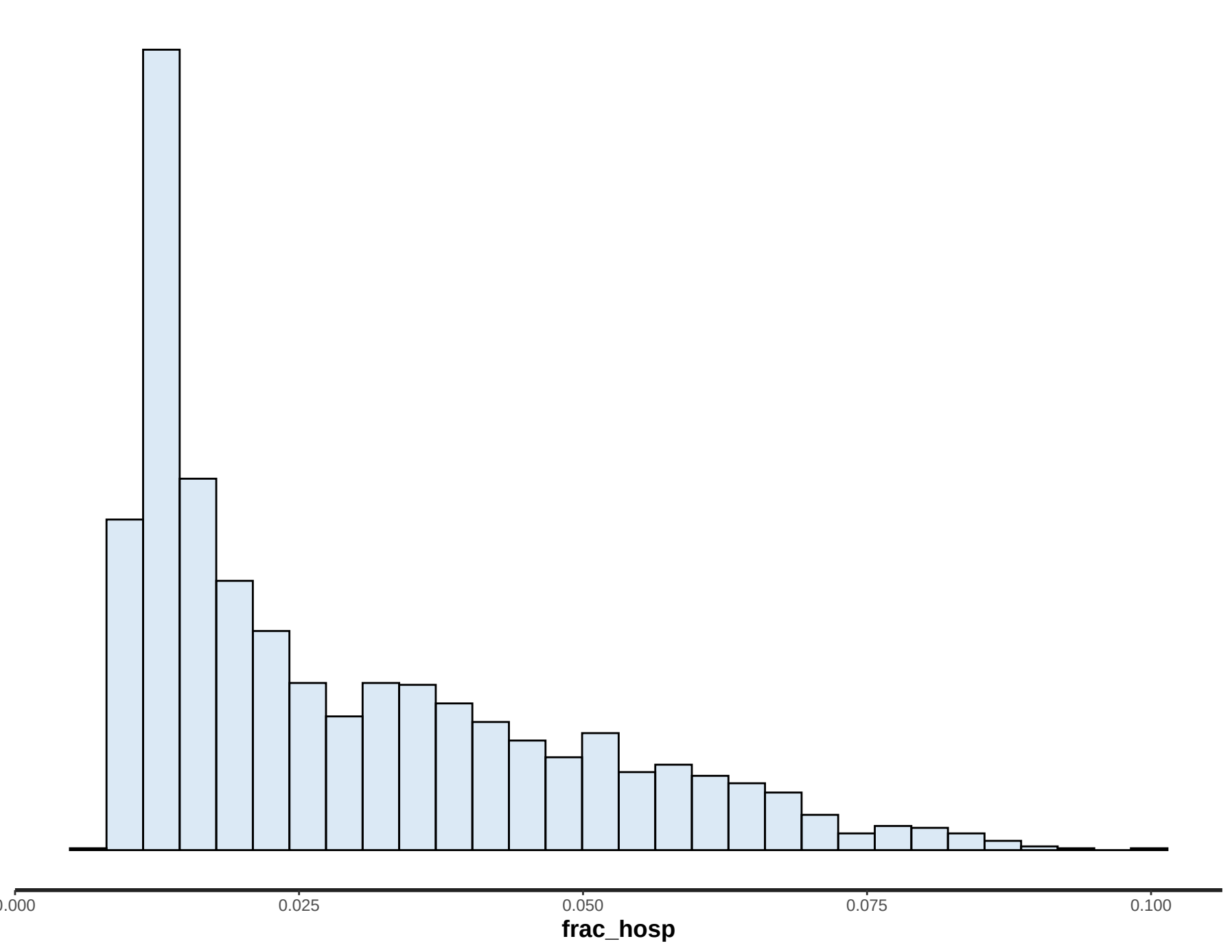

1
2
3
4
5
6
duration_latent

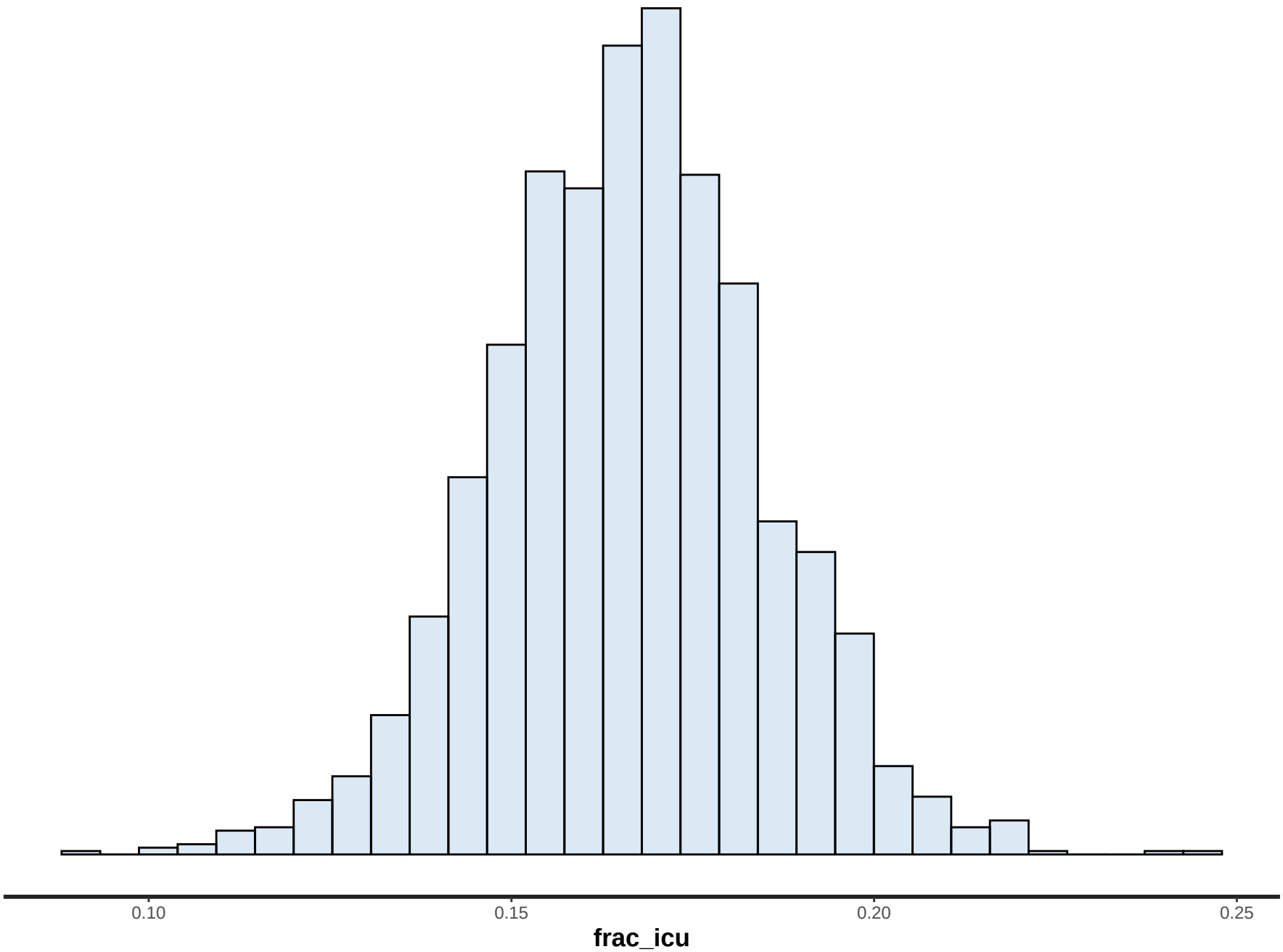

2
4
6
8
duration_rec_mild

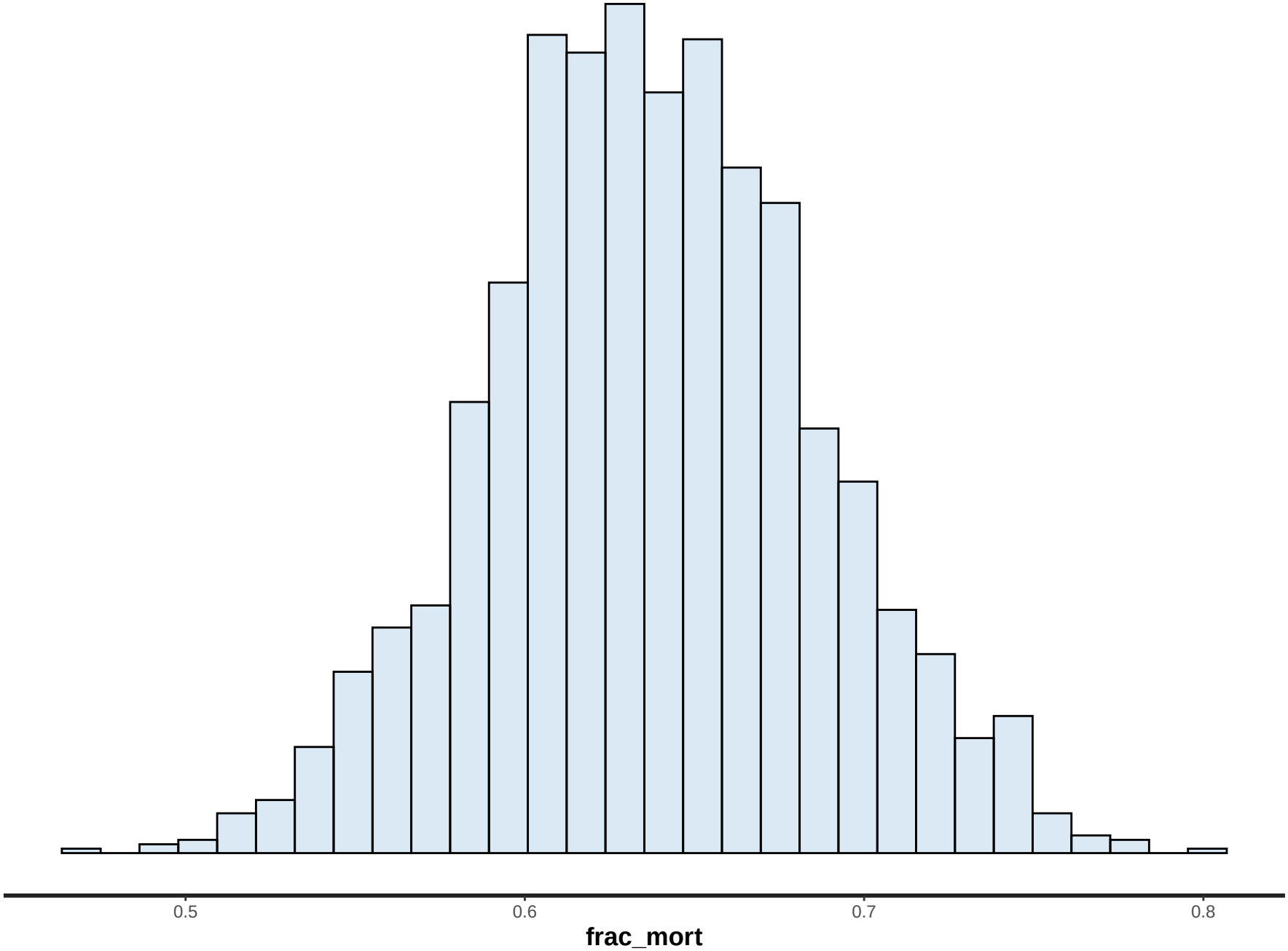

5
10
duration_pre_hosp

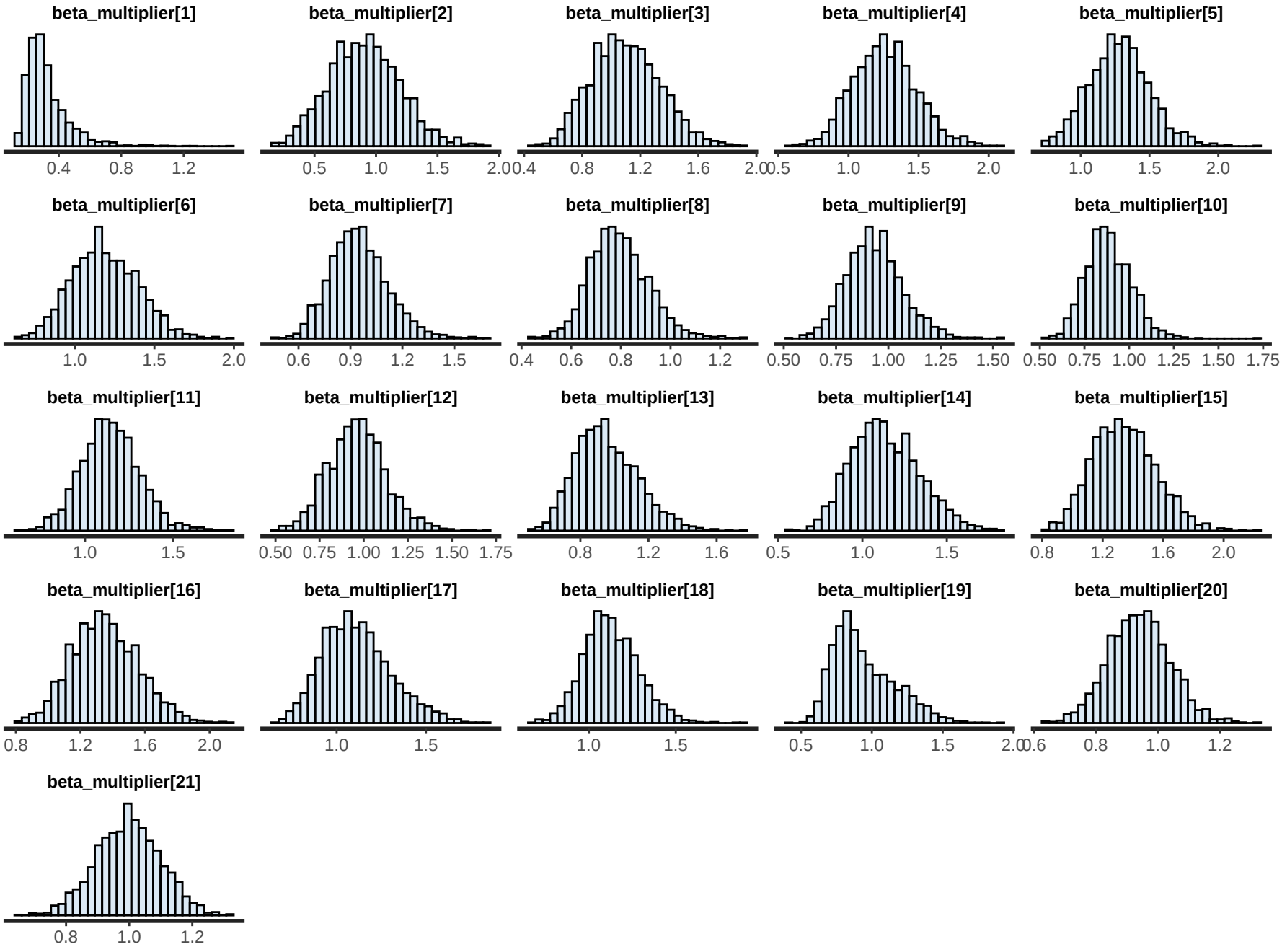

2
3
4
5
6
duration_hosp_mod


5
6
7
8
9
10
duration_hosp_icu


0.000
0.025
0.050
0.075
0.100
frac_hosp


0.10
0.15
0.20
0.25
frac_icu


0.5
0.6
0.7
0.8
frac_mort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0.4 0.8 1.2
beta_multiplier[2]
0.5 1.0 1.5 2.0
beta_multiplier[3]
0.4 0.8 1.2 1.6 2.0
beta_multiplier[4]
0.5 1.0 1.5 2.0
beta_multiplier[5]
1.0 1.5 2.0
beta_multiplier[6]
1.0 1.5 2.0
beta_multiplier[7]
0.6 0.9 1.2 1.5
beta_multiplier[8]
0.4 0.6 0.8 1.0 1.2
beta_multiplier[9]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[10]
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beta_multiplier[11]
1.0 1.5
beta_multiplier[12]
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beta_multiplier[13]
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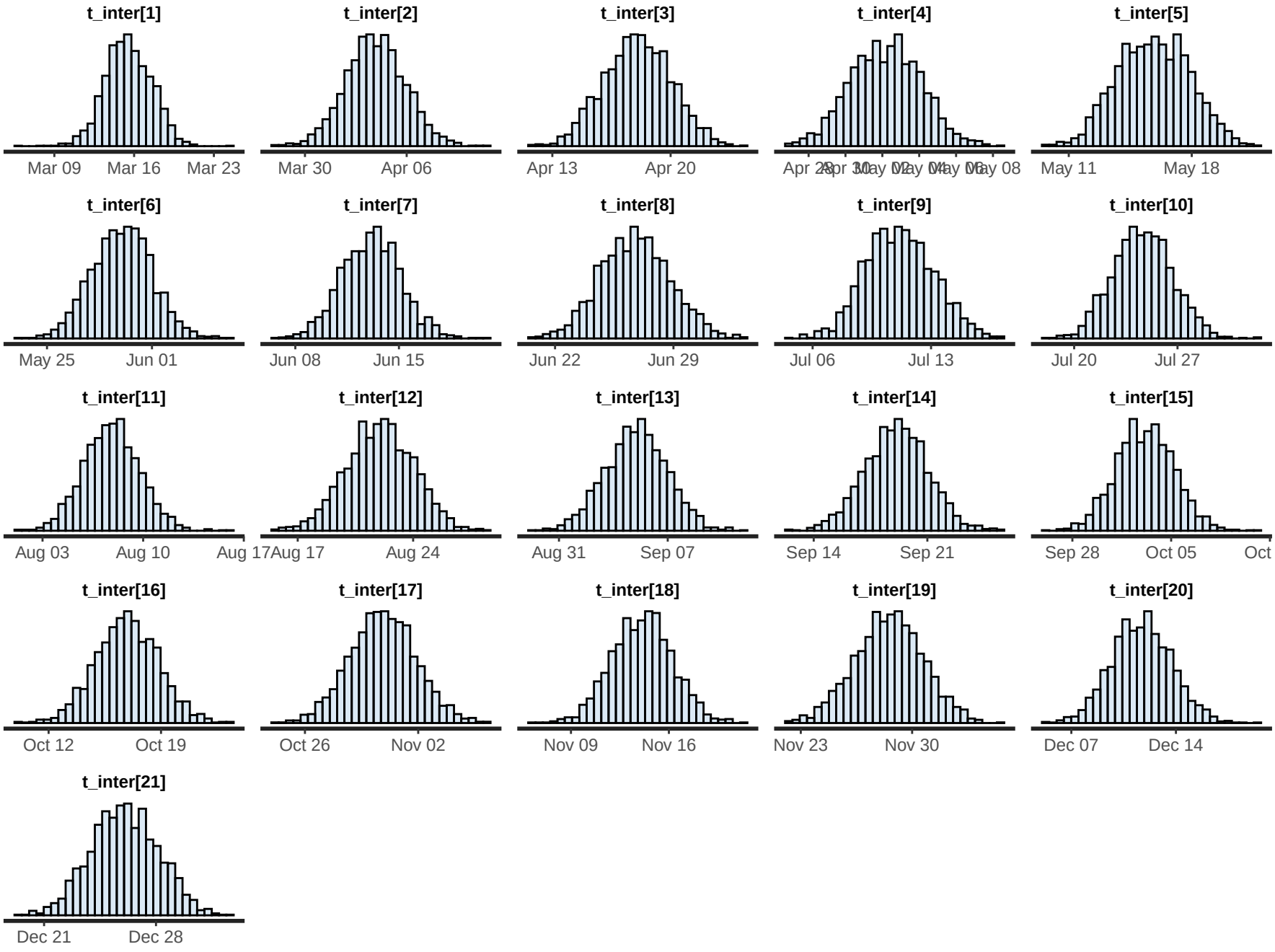
beta_multiplier[14]
0.5 1.0 1.5
beta_multiplier[15]
0.8 1.2 1.6 2.0
beta_multiplier[16]
0.8 1.2 1.6 2.0
beta_multiplier[17]
1.0 1.5
beta_multiplier[18]
1.0 1.5
beta_multiplier[19]
0.5 1.0 1.5 2.0
beta_multiplier[20]
0.6 0.8 1.0 1.2
beta_multiplier[21]
0.8 1.0 1.2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Mar 16
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Mar 30
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t_inter[3]
Apr 13
Apr 20
t_inter[4]
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May 02
May 08
t_inter[5]
May 11
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t_inter[6]
May 25
Jun 01
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Jun 08
Jun 15
t_inter[8]
Jun 22
Jun 29
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Jul 06
Jul 13
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Jul 20
Jul 27
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Aug 03
Aug 10
Aug 17
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Aug 17
Aug 24
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Aug 31
Sep 07
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Sep 14
Sep 21
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Sep 28
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Oct 12
Oct 19
t_inter[17]
Oct 26
Nov 02
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Nov 09
Nov 16
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Nov 23
Nov 30
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Dec 07
Dec 14
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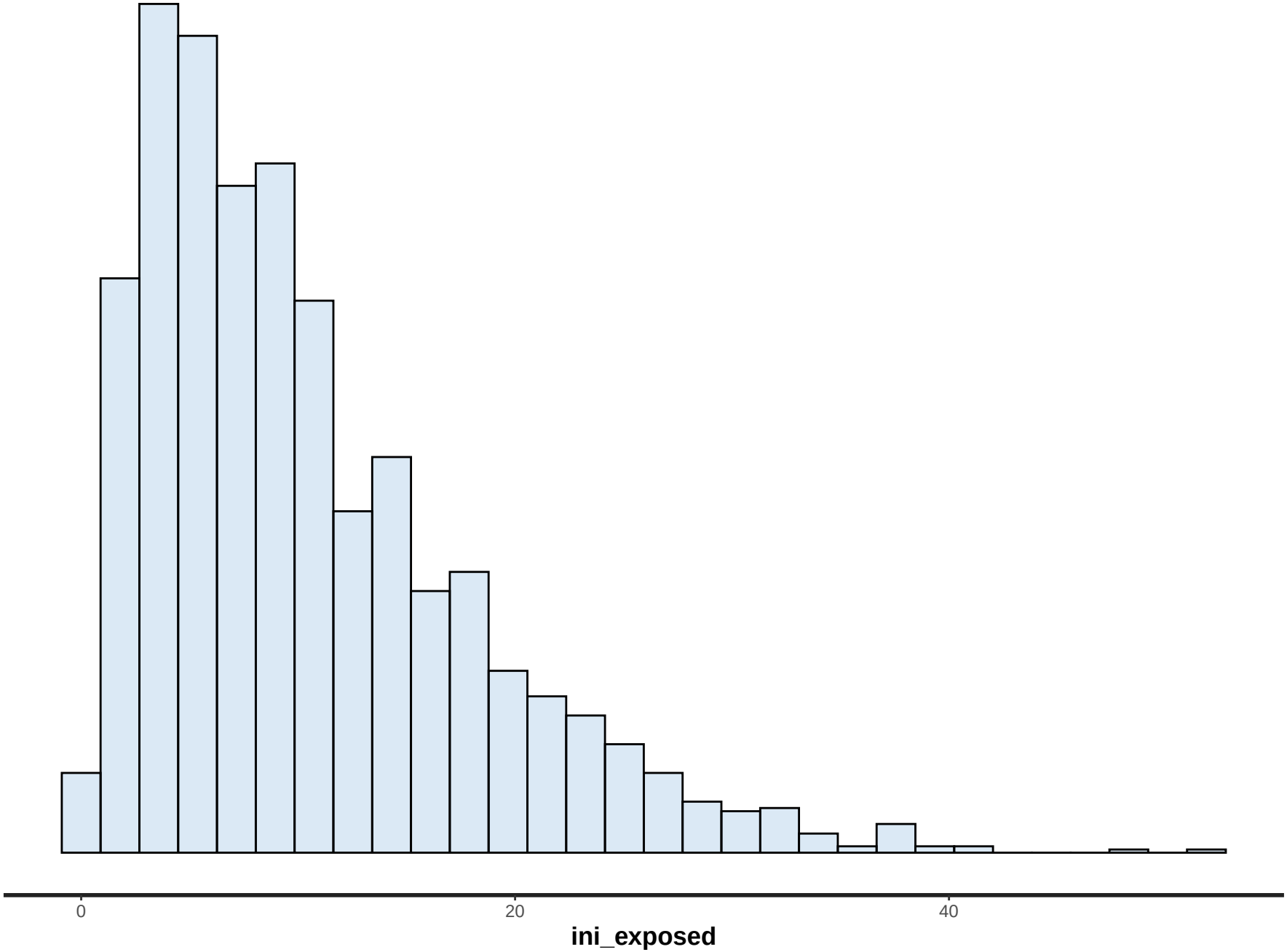
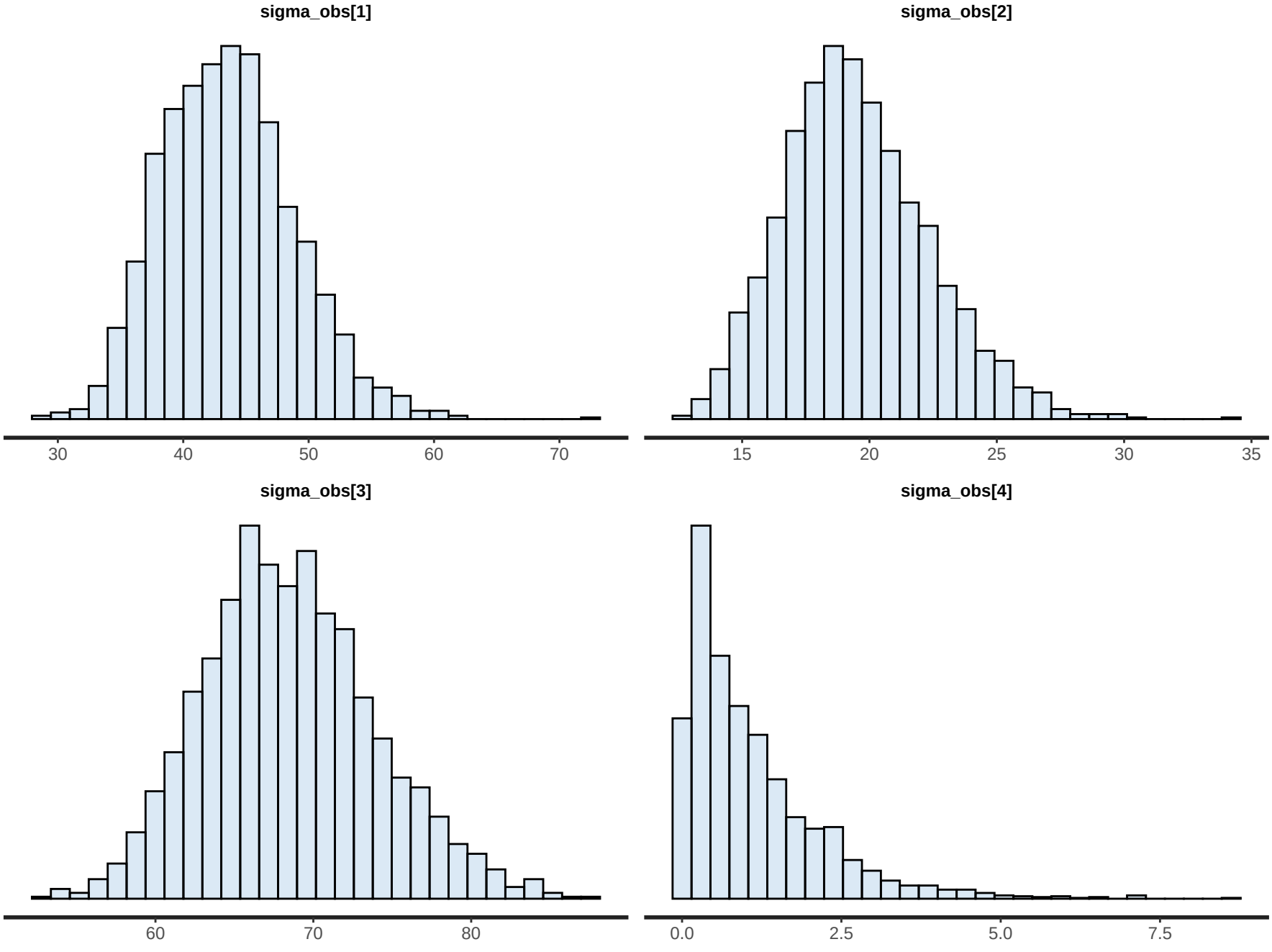
Dec 21
Dec 28


0
20
40
ini_exposed


sigma_obs[1]
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60
70
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35
sigma_obs[3]
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70
80
sigma_obs[4]
0.0
2.5
5.0
7.5