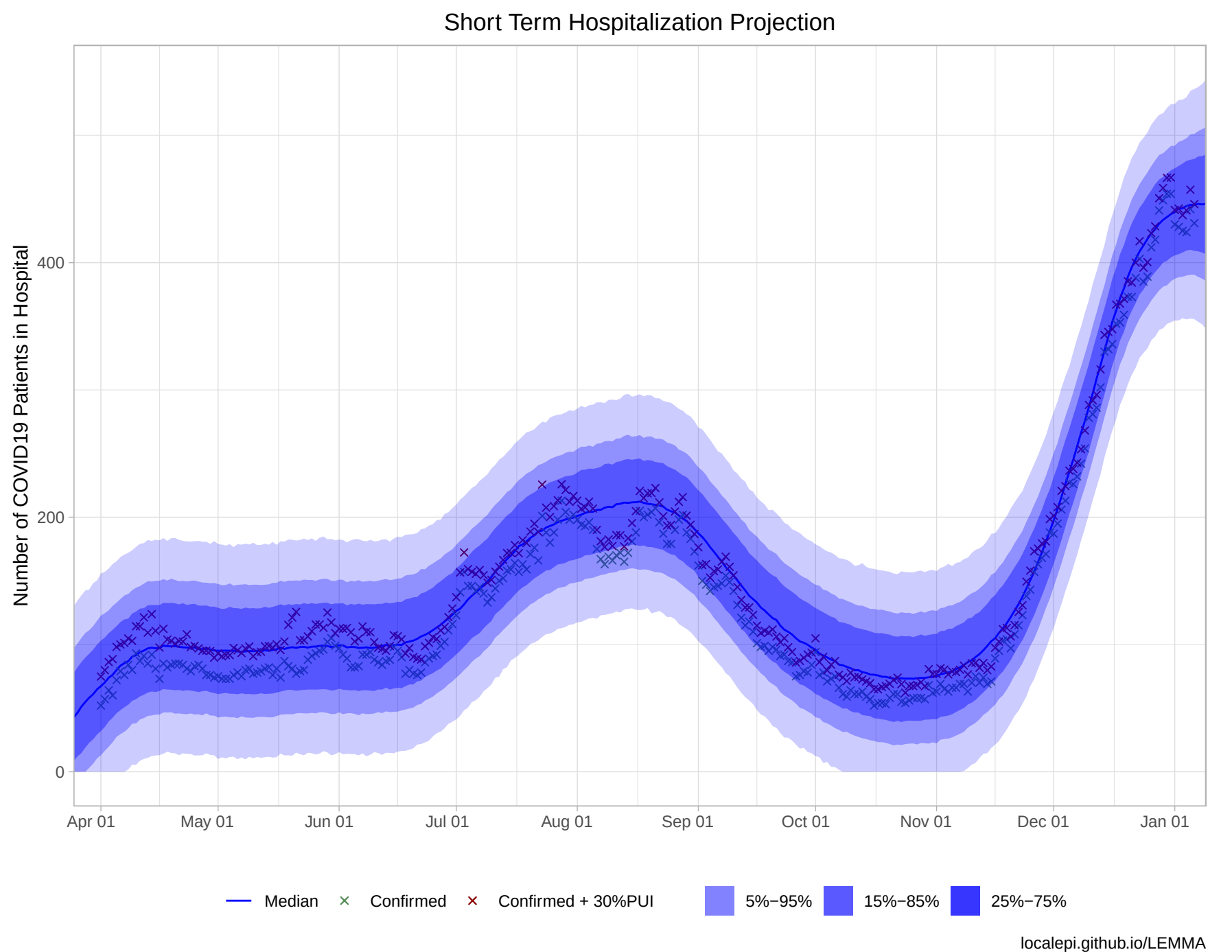
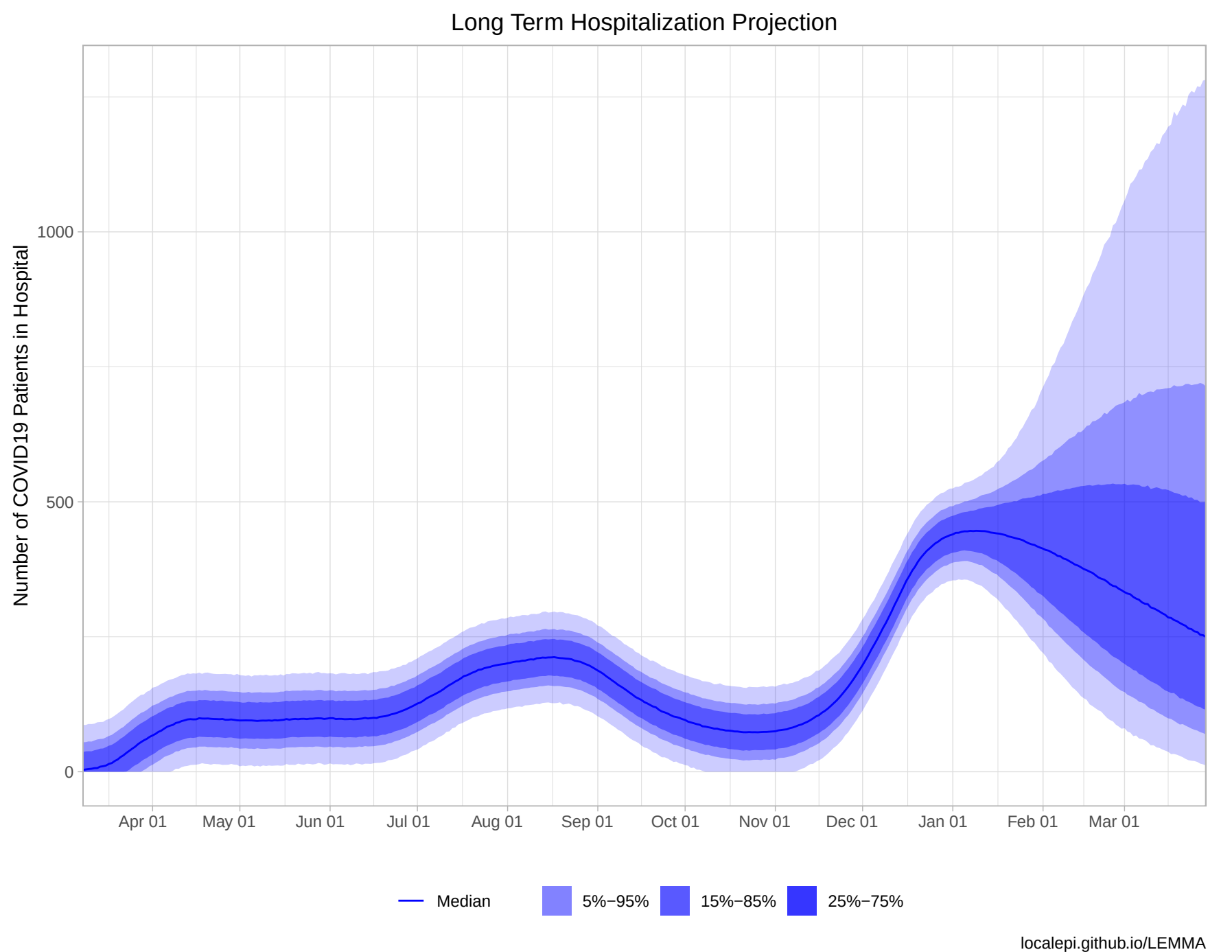
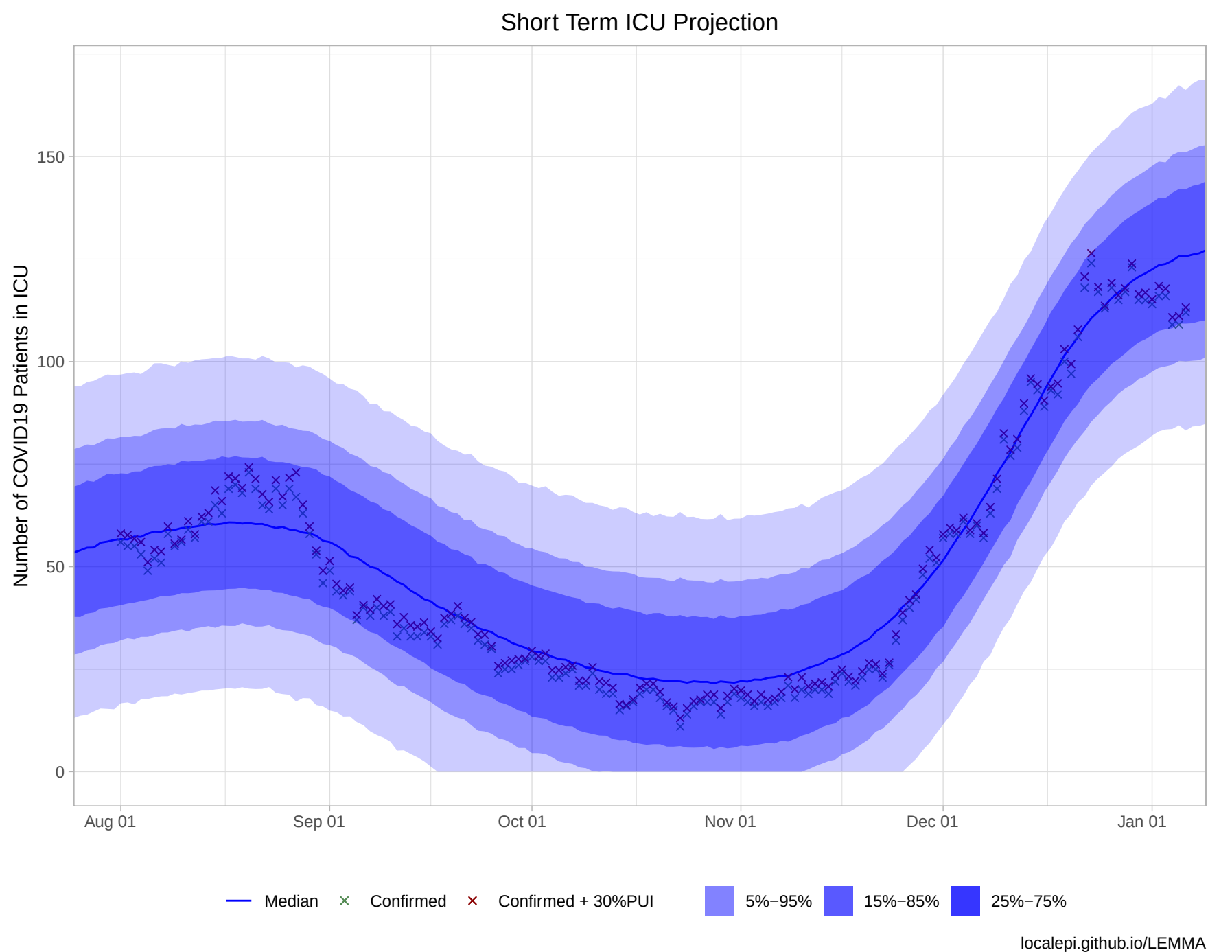
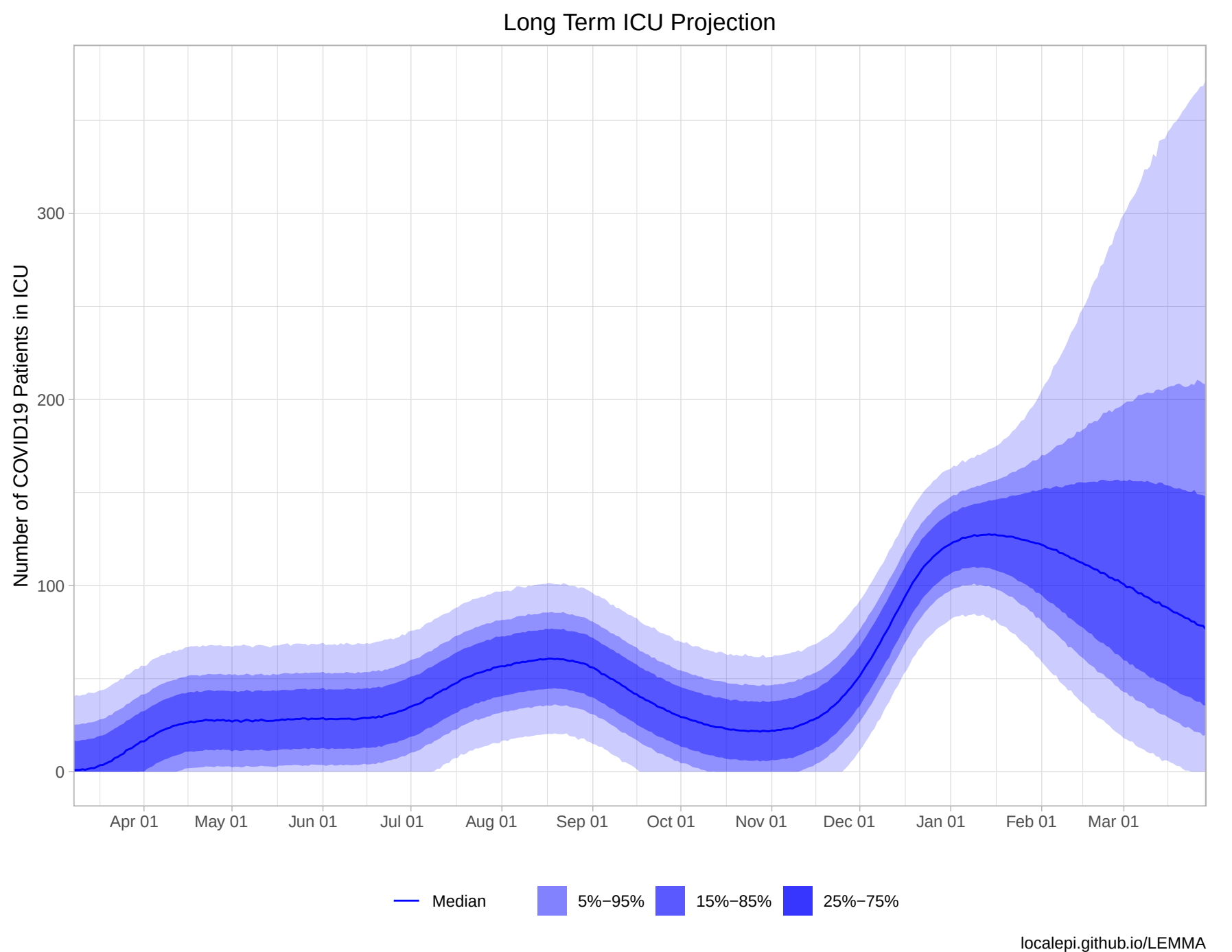
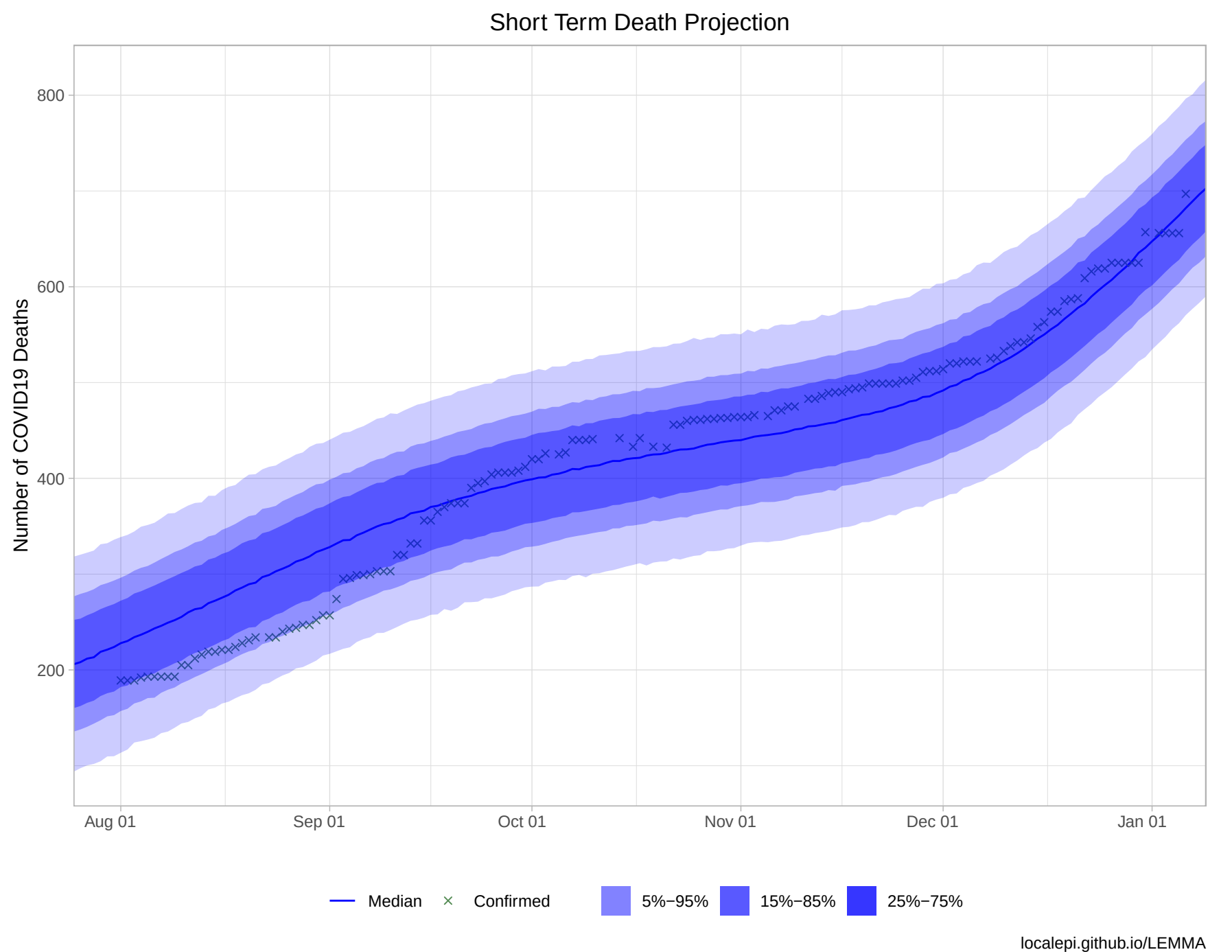
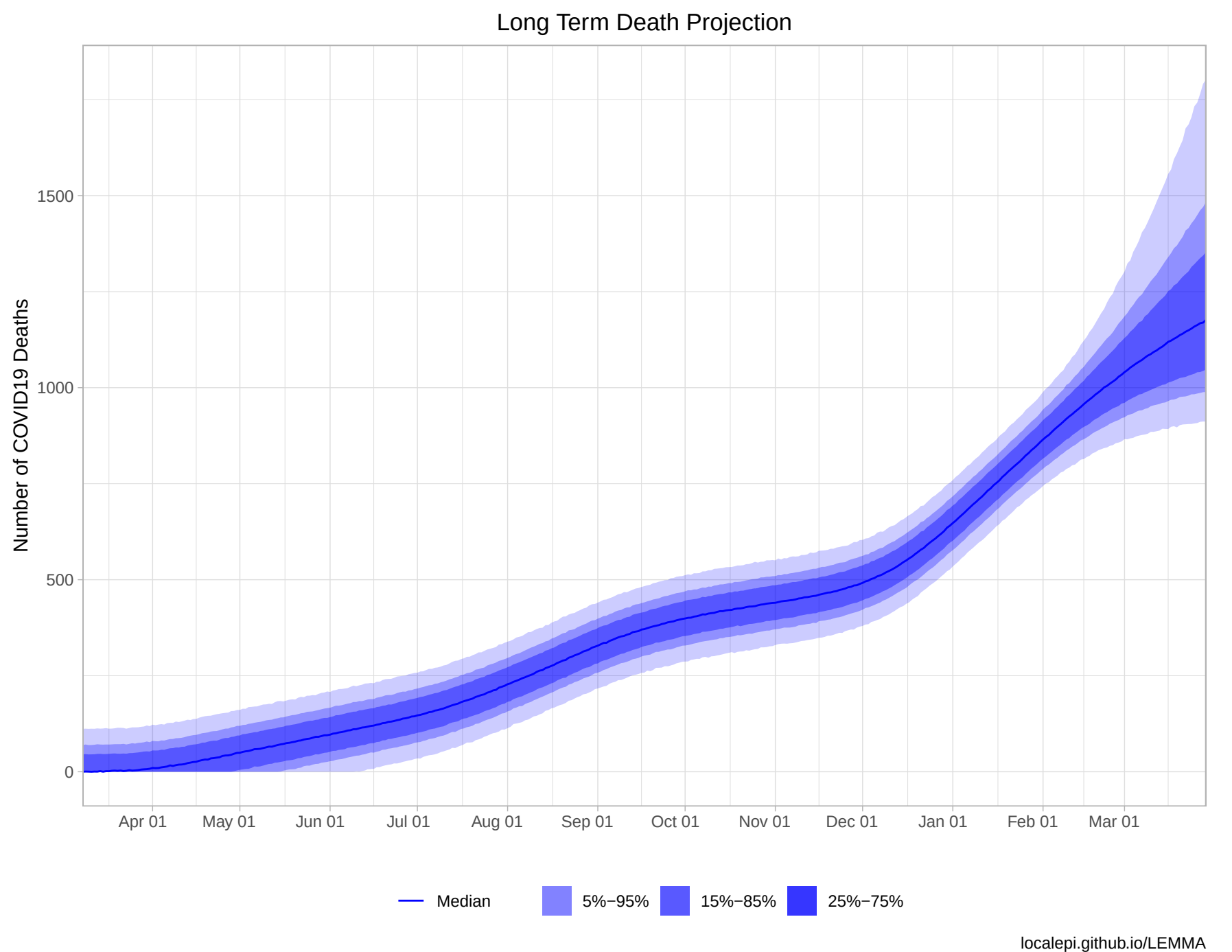

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
400
200
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

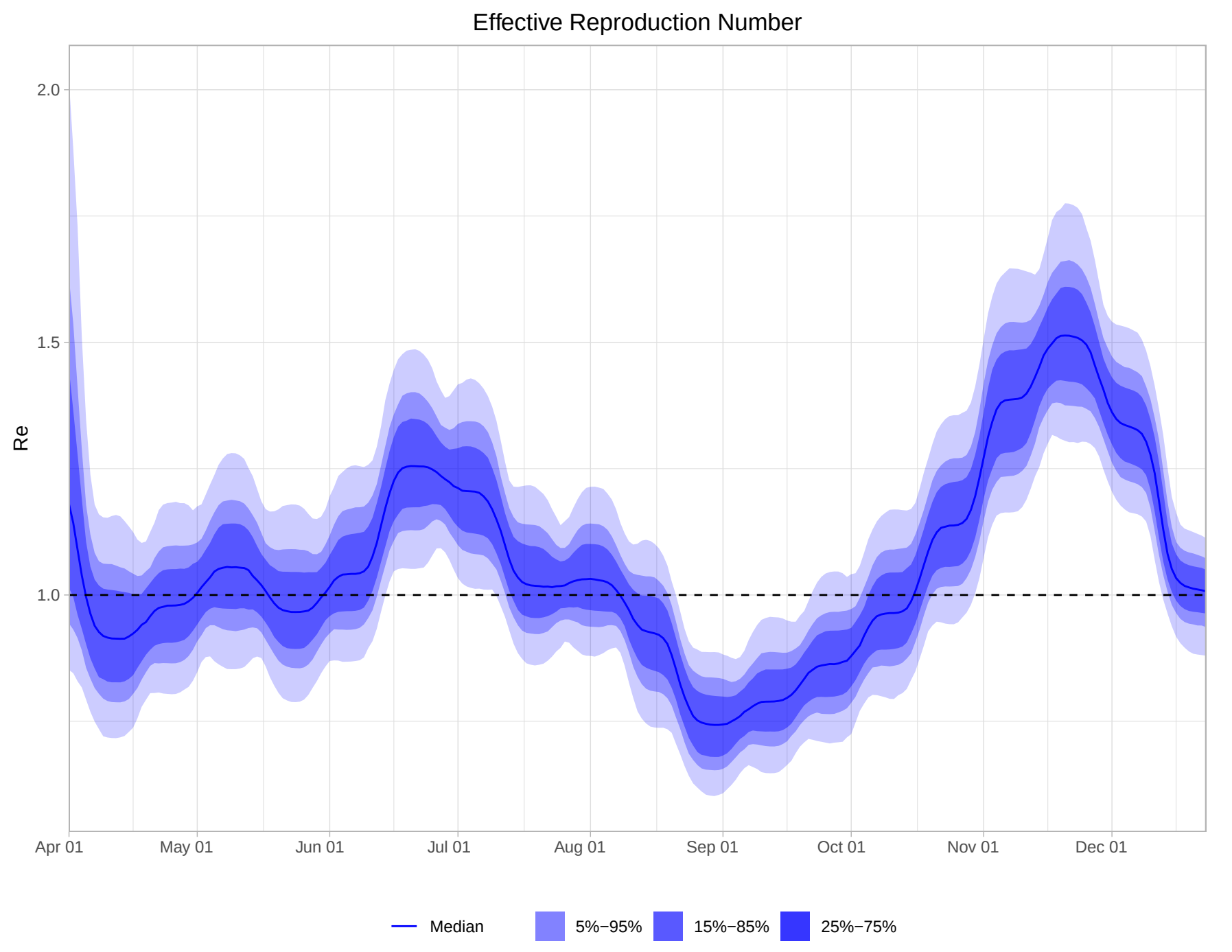

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
1000
500
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
150
100
50
0
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 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
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

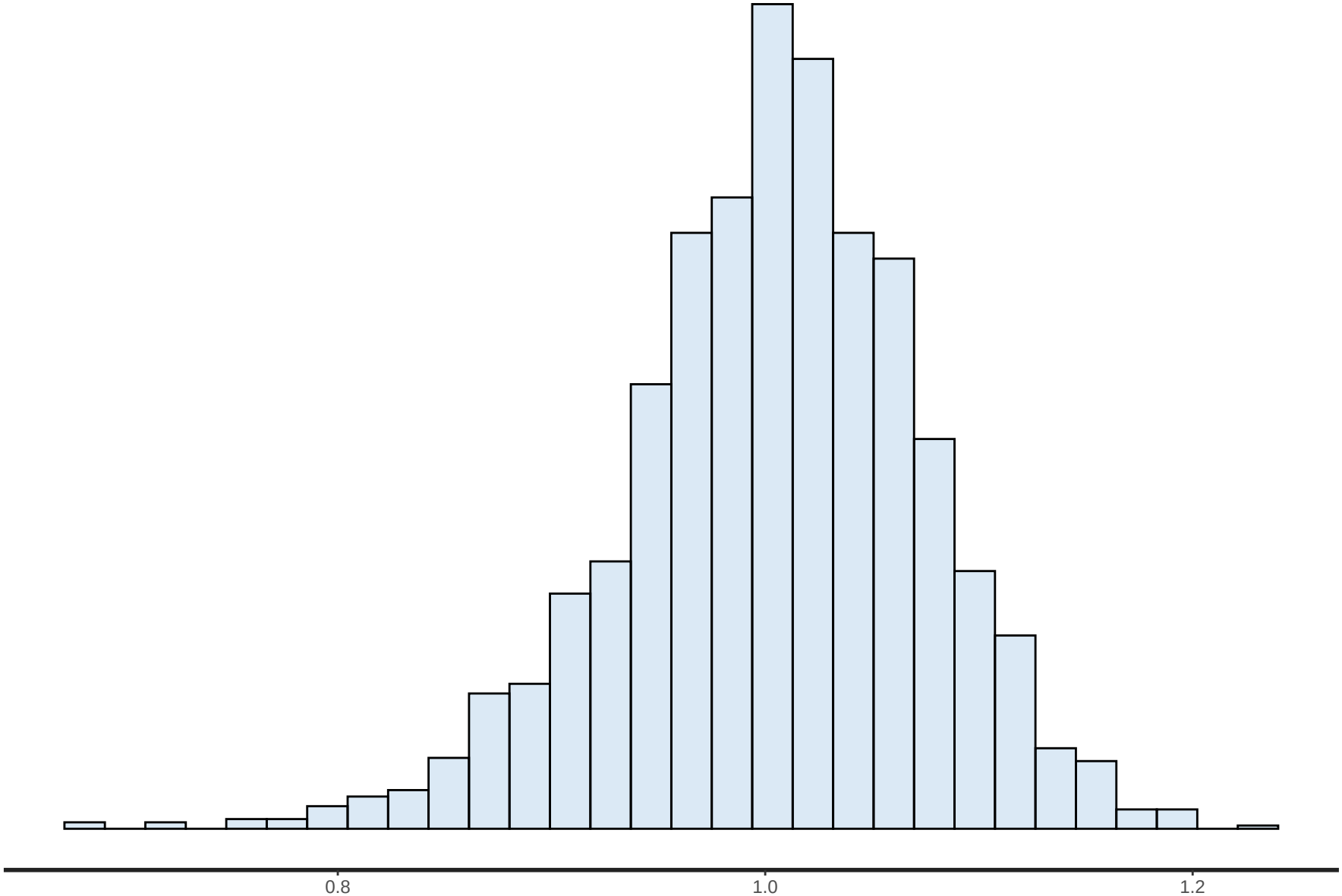

Short Term Death Projection
Number of COVID19 Deaths
800
600
400
200
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

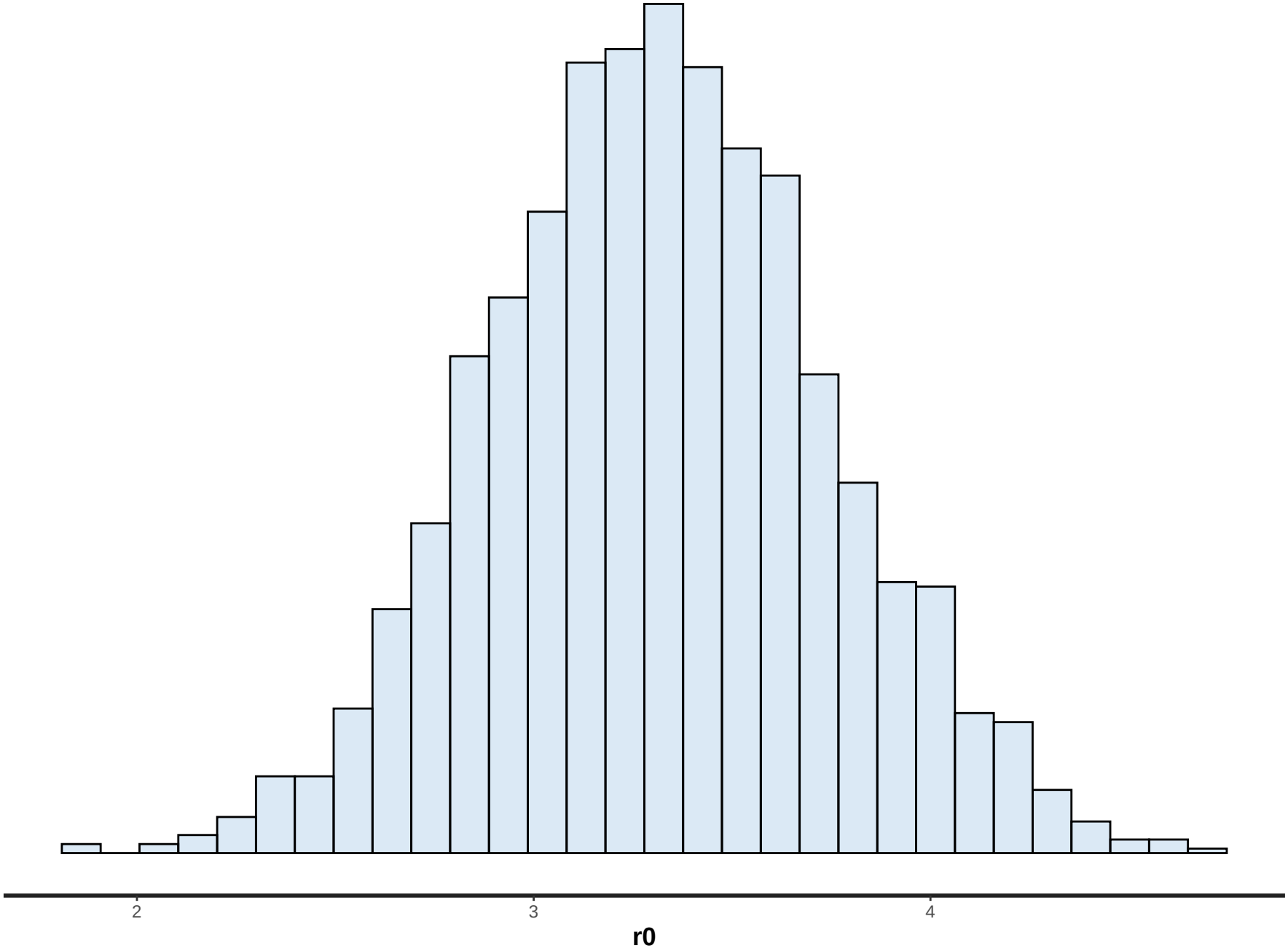

Long Term Death Projection
Number of COVID19 Deaths
0
500
1000
1500
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

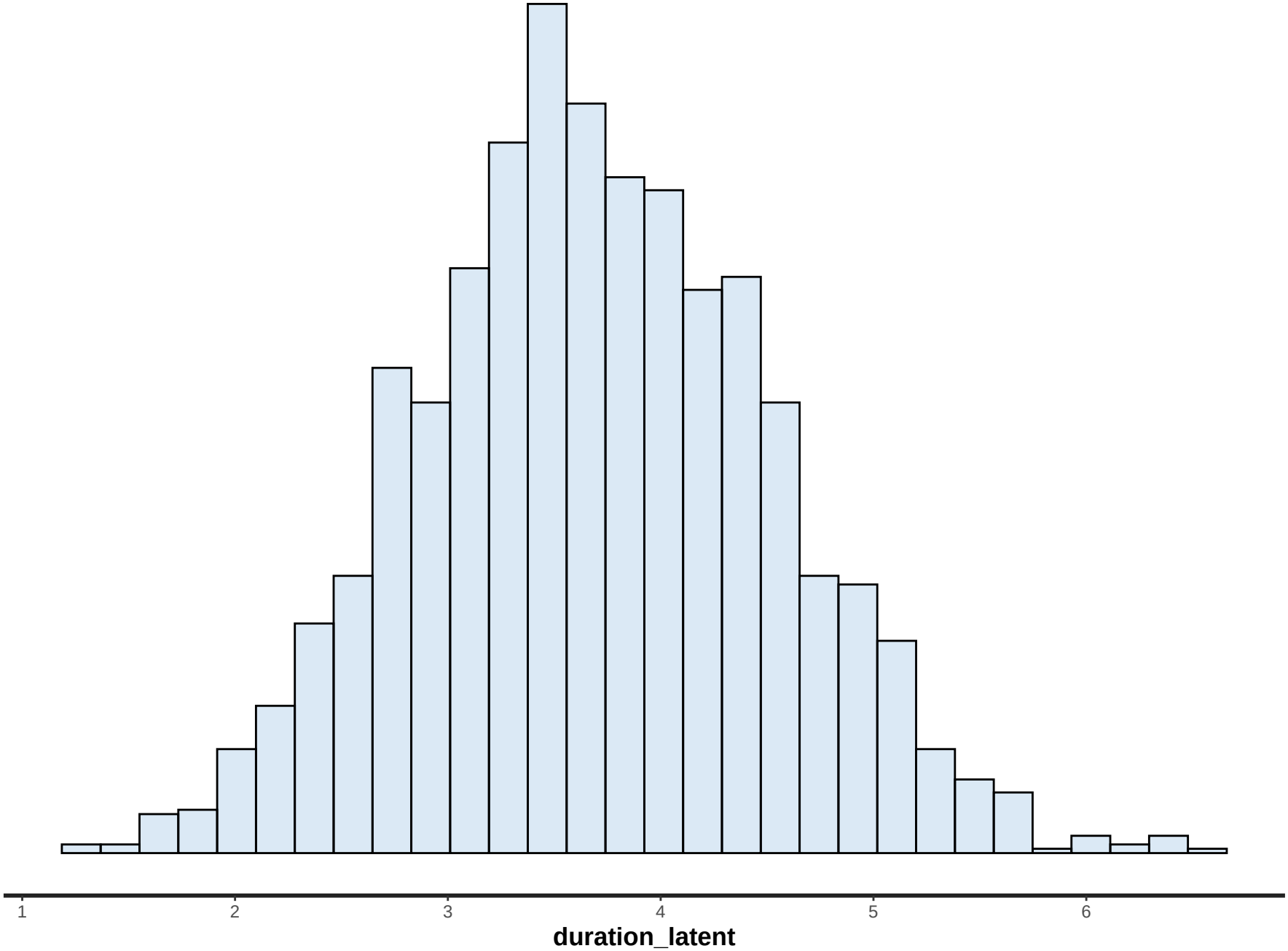

Effective Reproduction Number
Re
2.0
1.5
1.0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

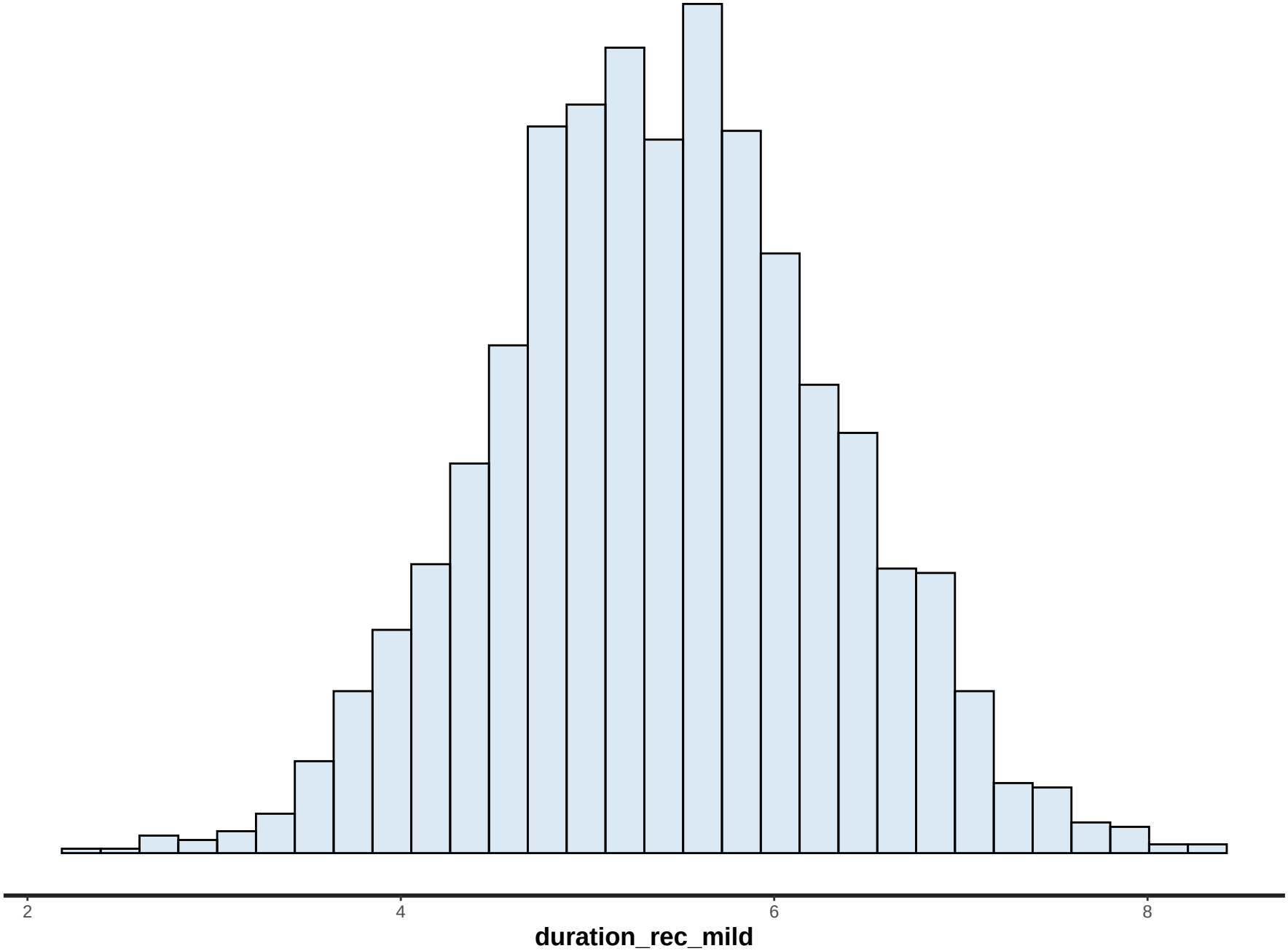
Rt as of 2020−12−23

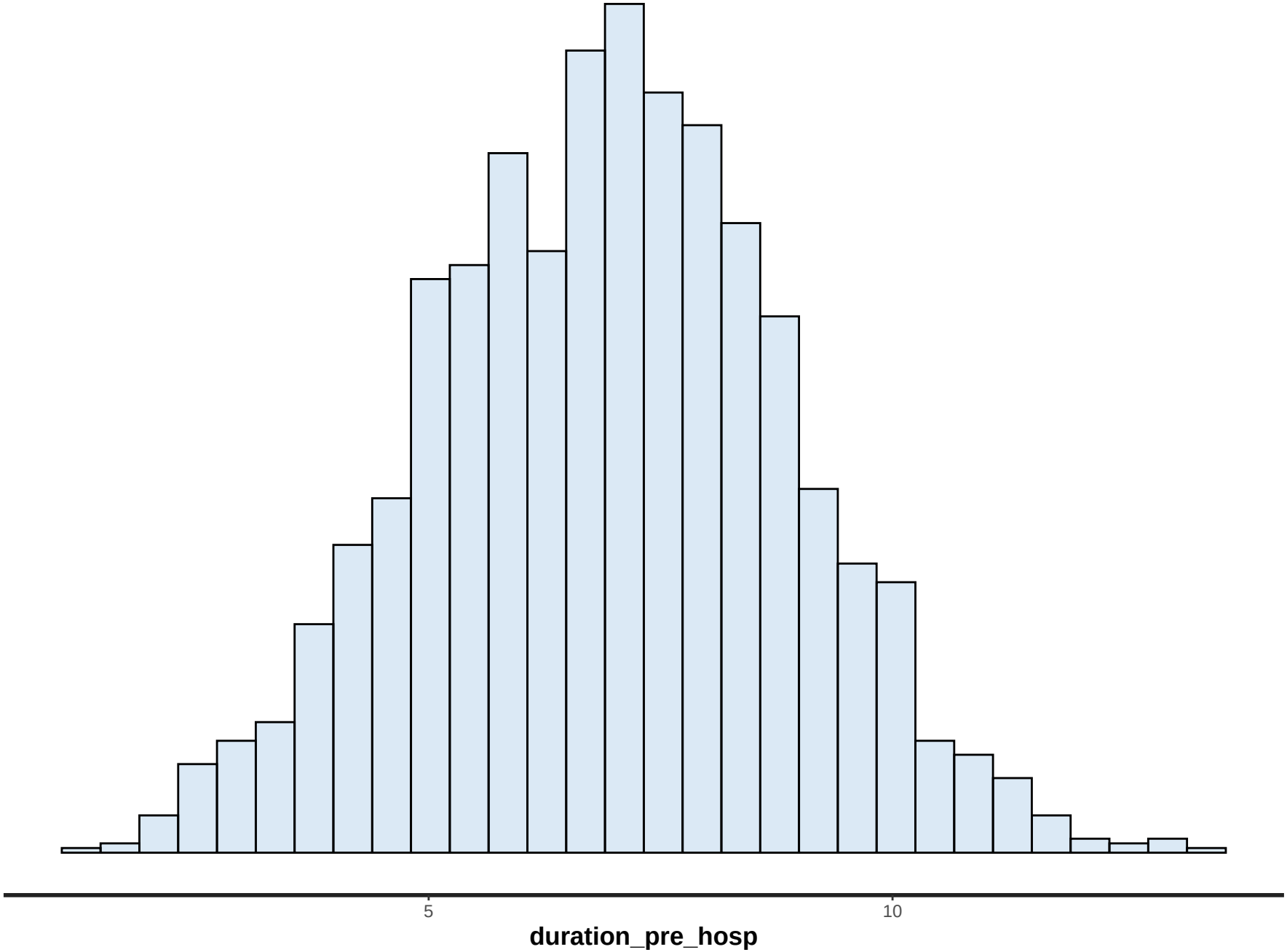
5%	10%	25%	50%	75%	90%	95%
0.88	0.91	0.96	1.01	1.05	1.09	1.11

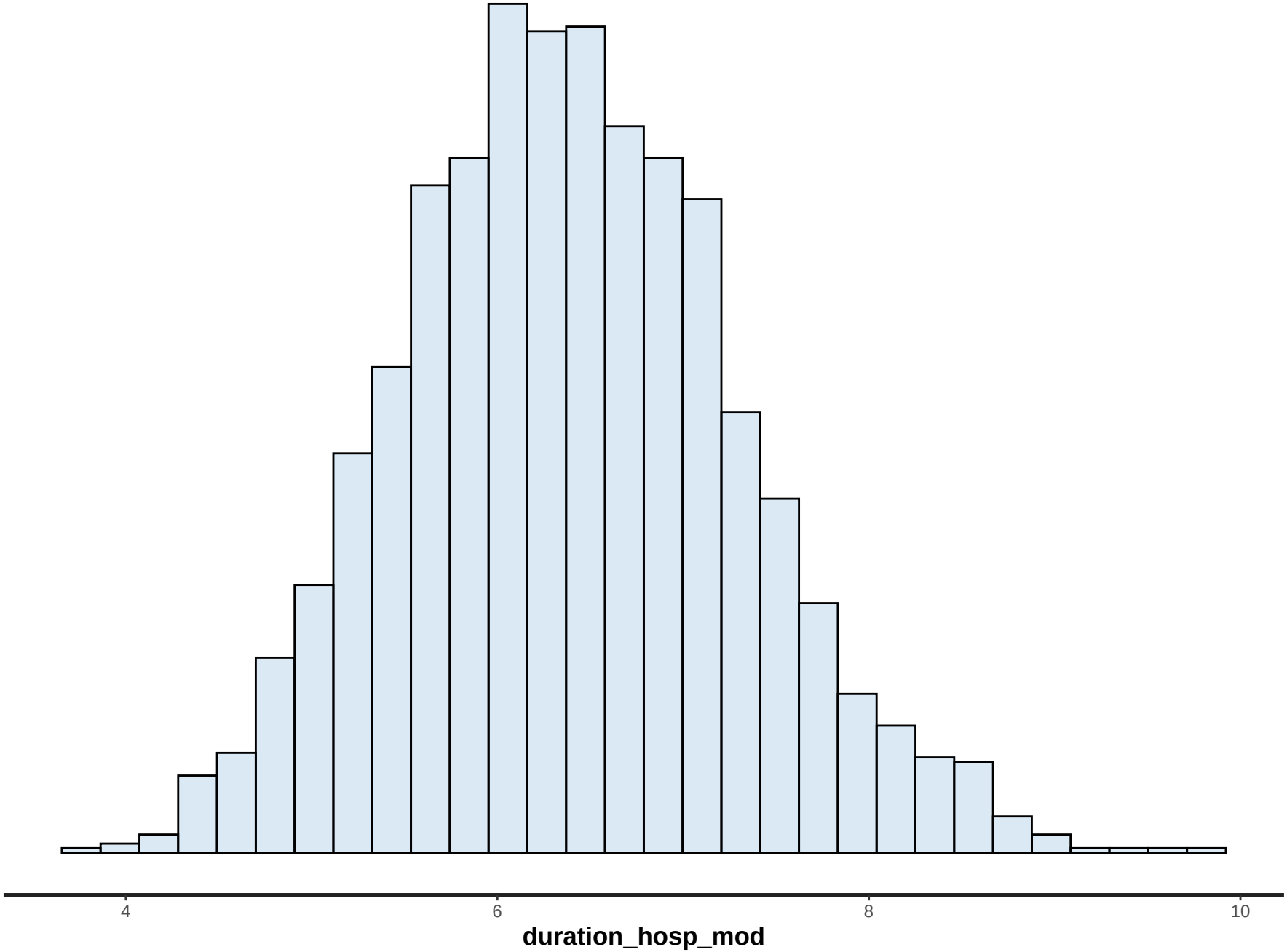


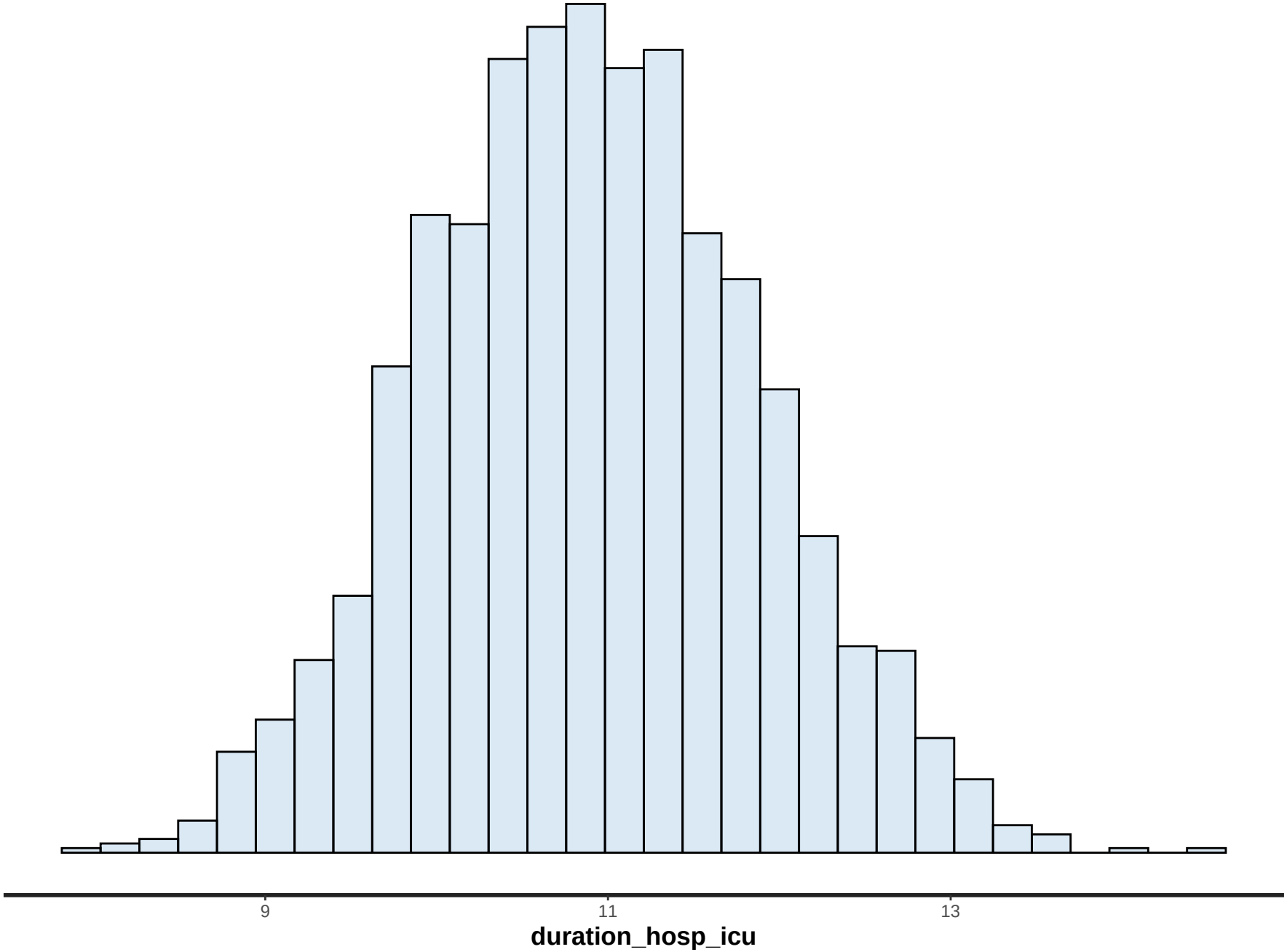

2
3
4
r0

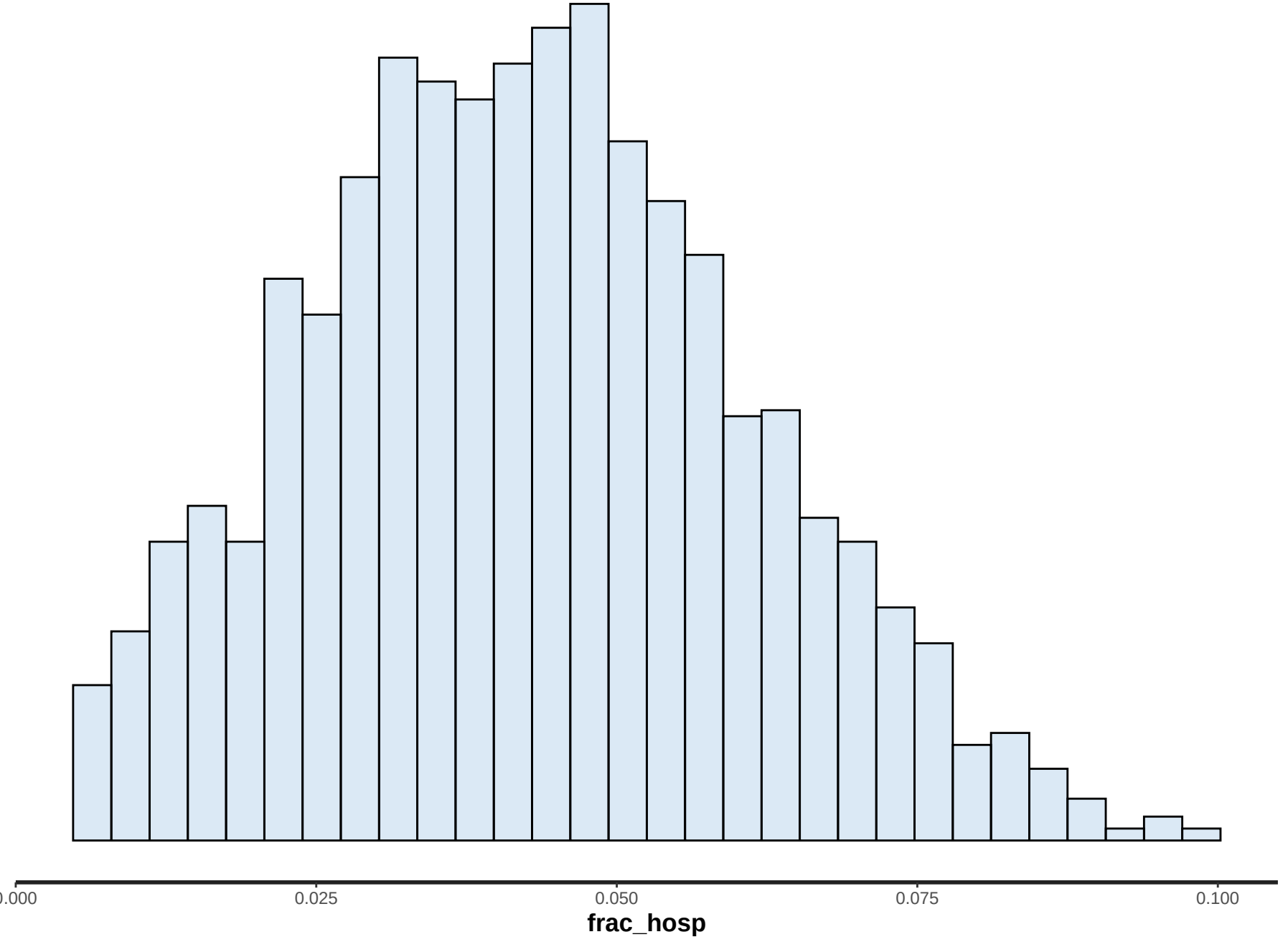

1
2
3
4
5
6
duration_latent

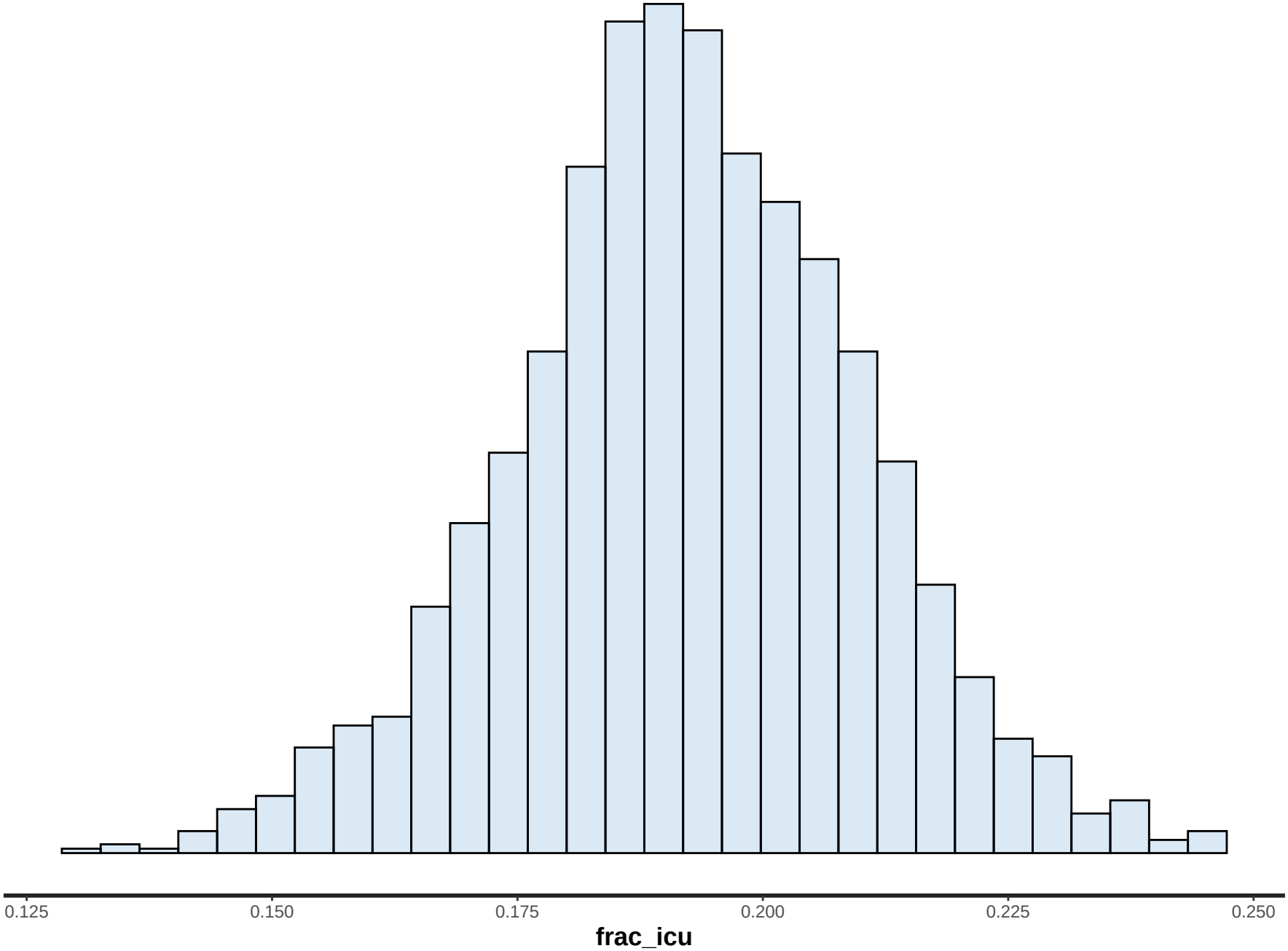

2
4
6
8
duration_rec_mild

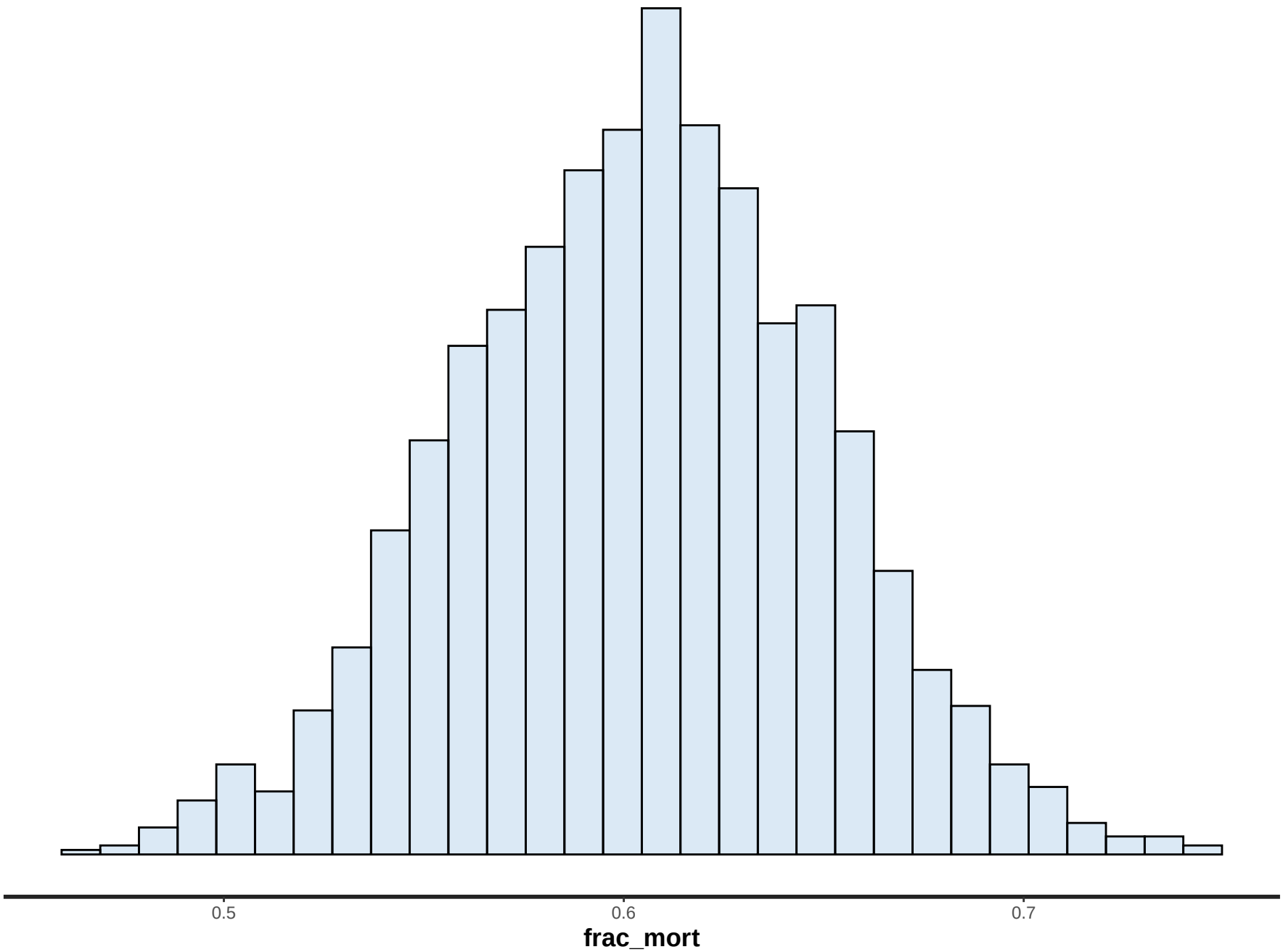

5
10
duration_pre_hosp

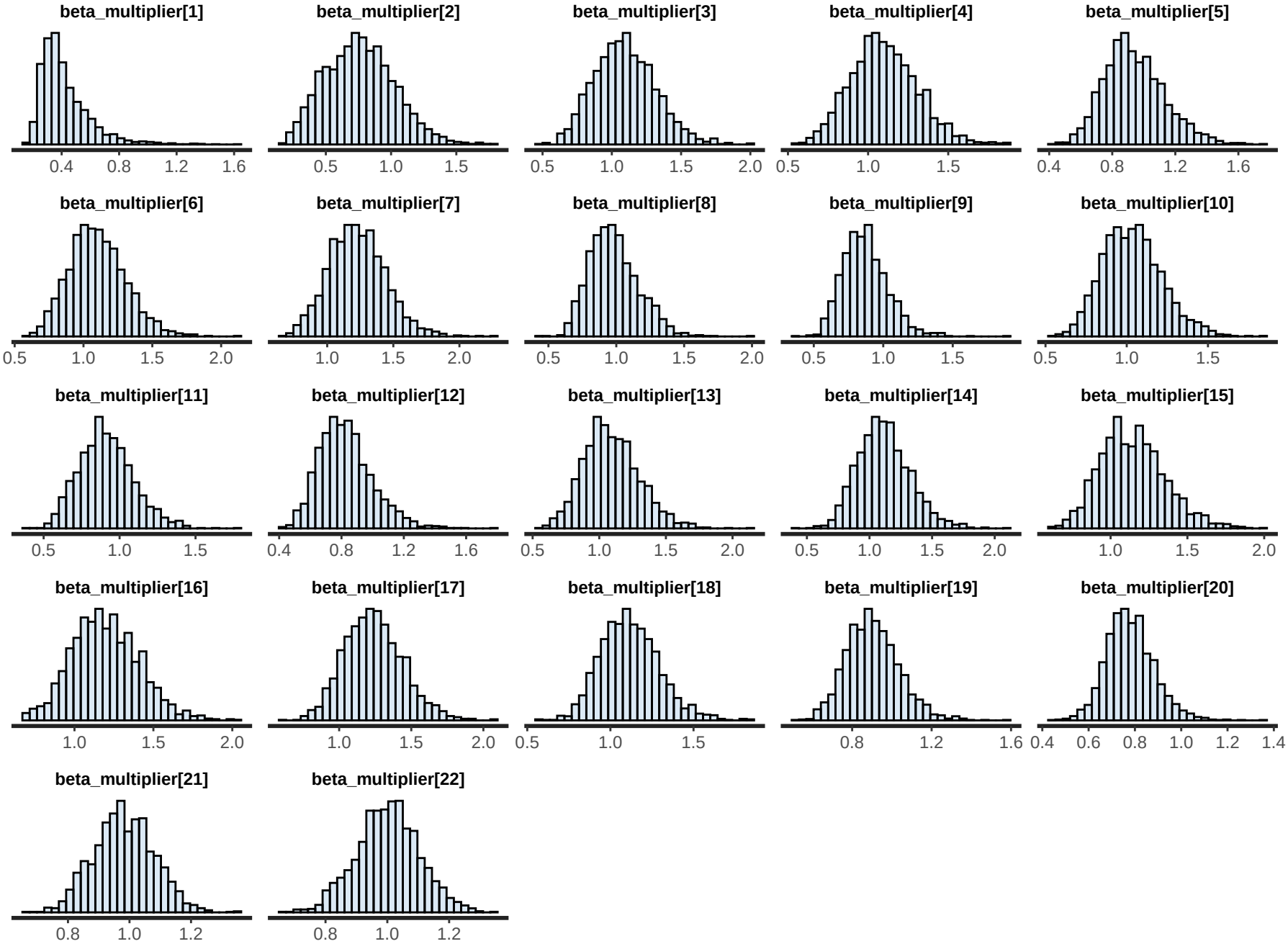

4
6
8
10
duration_hosp_mod


9
11
13
duration_hosp_icu


0.000
0.025
0.050
0.075
0.100
frac_hosp


0.125
0.150
0.175
0.200
0.225
0.250
frac_icu


0.5
0.6
0.7
frac_mort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0.4 0.8 1.2 1.6
beta_multiplier[2]
0.5 1.0 1.5
beta_multiplier[3]
0.5 1.0 1.5 2.0
beta_multiplier[4]
0.5 1.0 1.5
beta_multiplier[5]
0.4 0.8 1.2 1.6
beta_multiplier[6]
0.5 1.0 1.5 2.0
beta_multiplier[7]
1.0 1.5 2.0
beta_multiplier[8]
0.5 1.0 1.5 2.0
beta_multiplier[9]
0.5 1.0 1.5
beta_multiplier[10]
0.5 1.0 1.5
beta_multiplier[11]
0.5 1.0 1.5
beta_multiplier[12]
0.4 0.8 1.2 1.6
beta_multiplier[13]
0.5 1.0 1.5 2.0
beta_multiplier[14]
0.5 1.0 1.5 2.0
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]
0.5 1.0 1.5
beta_multiplier[19]
0.8 1.2 1.6
beta_multiplier[20]
0.4 0.6 0.8 1.0 1.2 1.4
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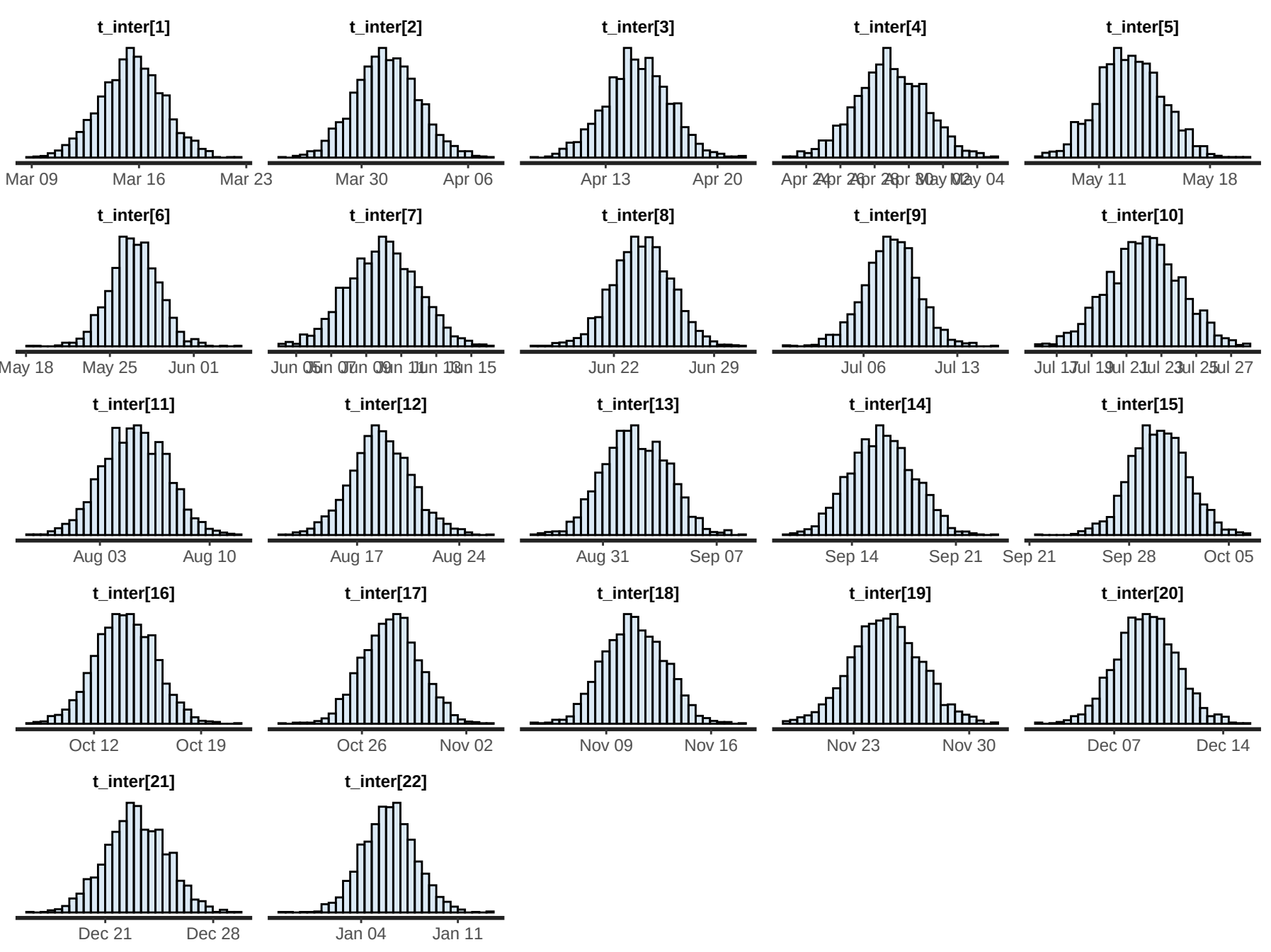
beta_multiplier[22]
0.8 1.0 1.2


t_inter[1]
Mar 09
Mar 16
Mar 23
t_inter[2]
Mar 30
Apr 06
t_inter[3]
Apr 13
Apr 20
t_inter[4]
Apr 24
Apr 26
Apr 28
Apr 30
May 02
May 04
t_inter[5]
May 11
May 18
t_inter[6]
May 18
May 25
Jun 01
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Jun 05
Jun 07
Jun 09
Jun 11
Jun 13
Jun 15
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Jun 22
Jun 29
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Jul 06
Jul 13
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Jul 17
Jul 19
Jul 21
Jul 23
Jul 25
Jul 27
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Aug 24
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Aug 31
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Oct 19
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Oct 26
Nov 02
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Nov 09
Nov 16
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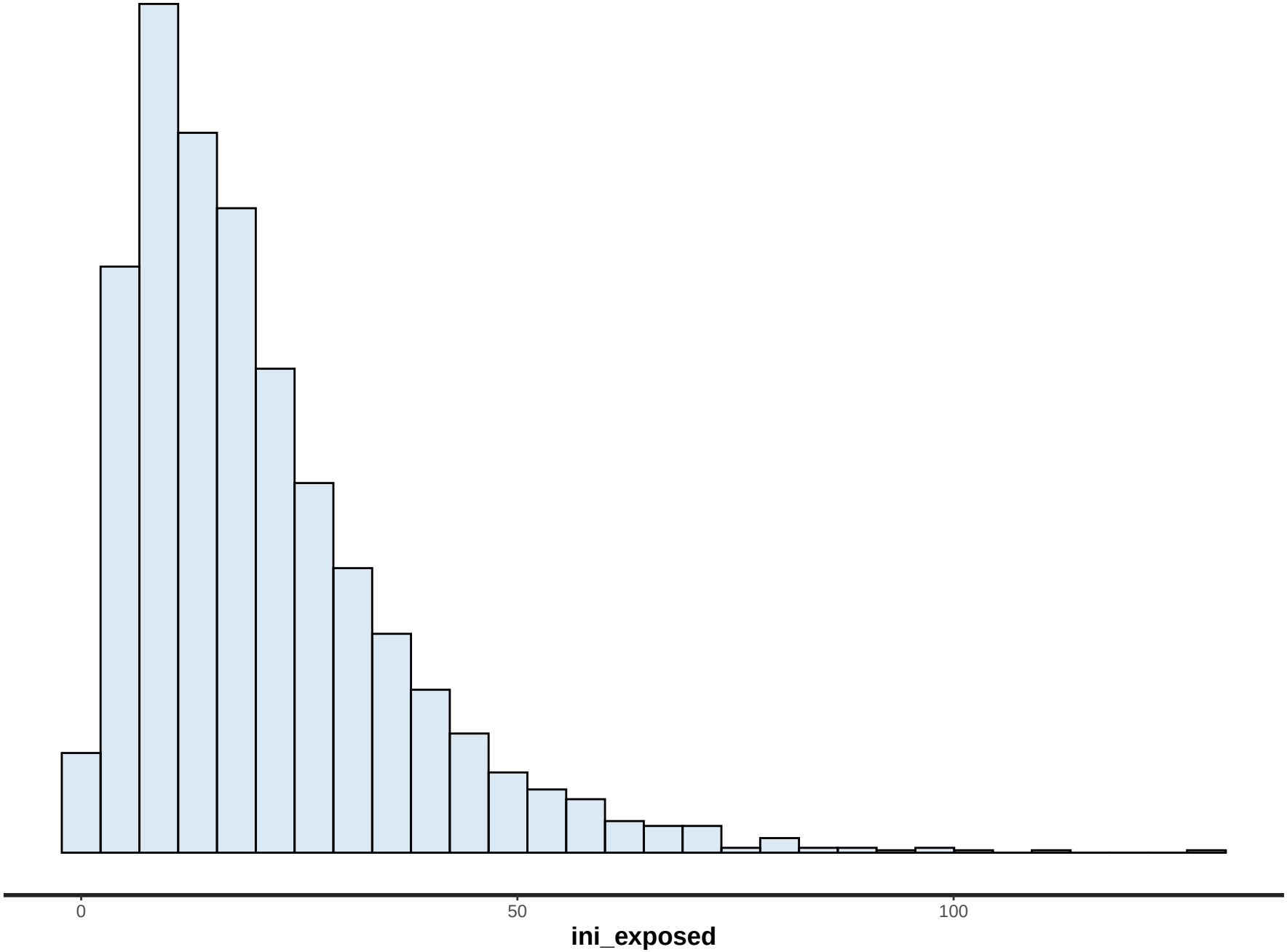
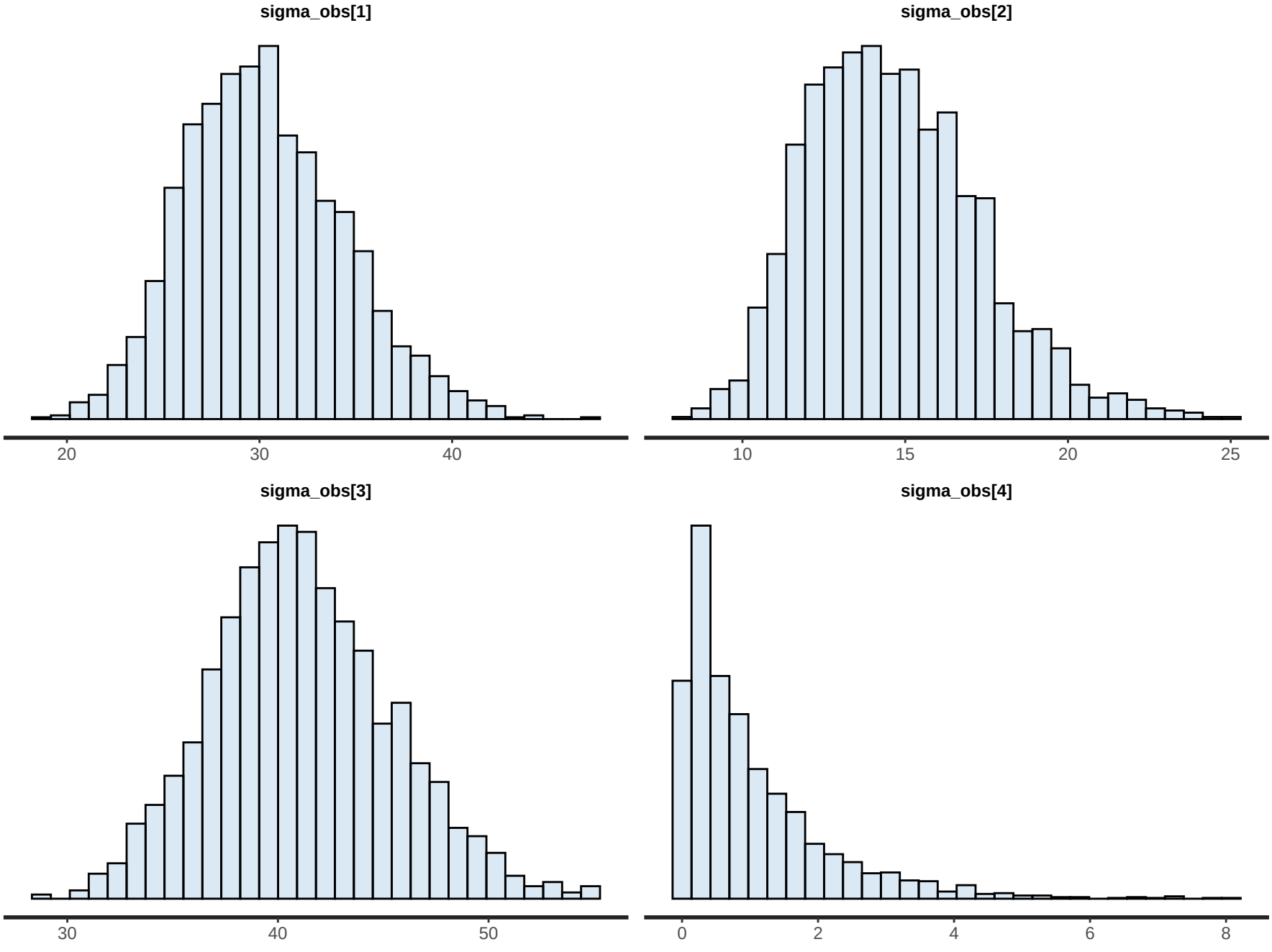
Dec 21
Dec 28
t_inter[22]
Jan 04
Jan 11


0
50
100
ini_exposed


sigma_obs[1]
20
30
40
sigma_obs[2]
10
15
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25
sigma_obs[3]
30
40
50
sigma_obs[4]
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2
4
6
8