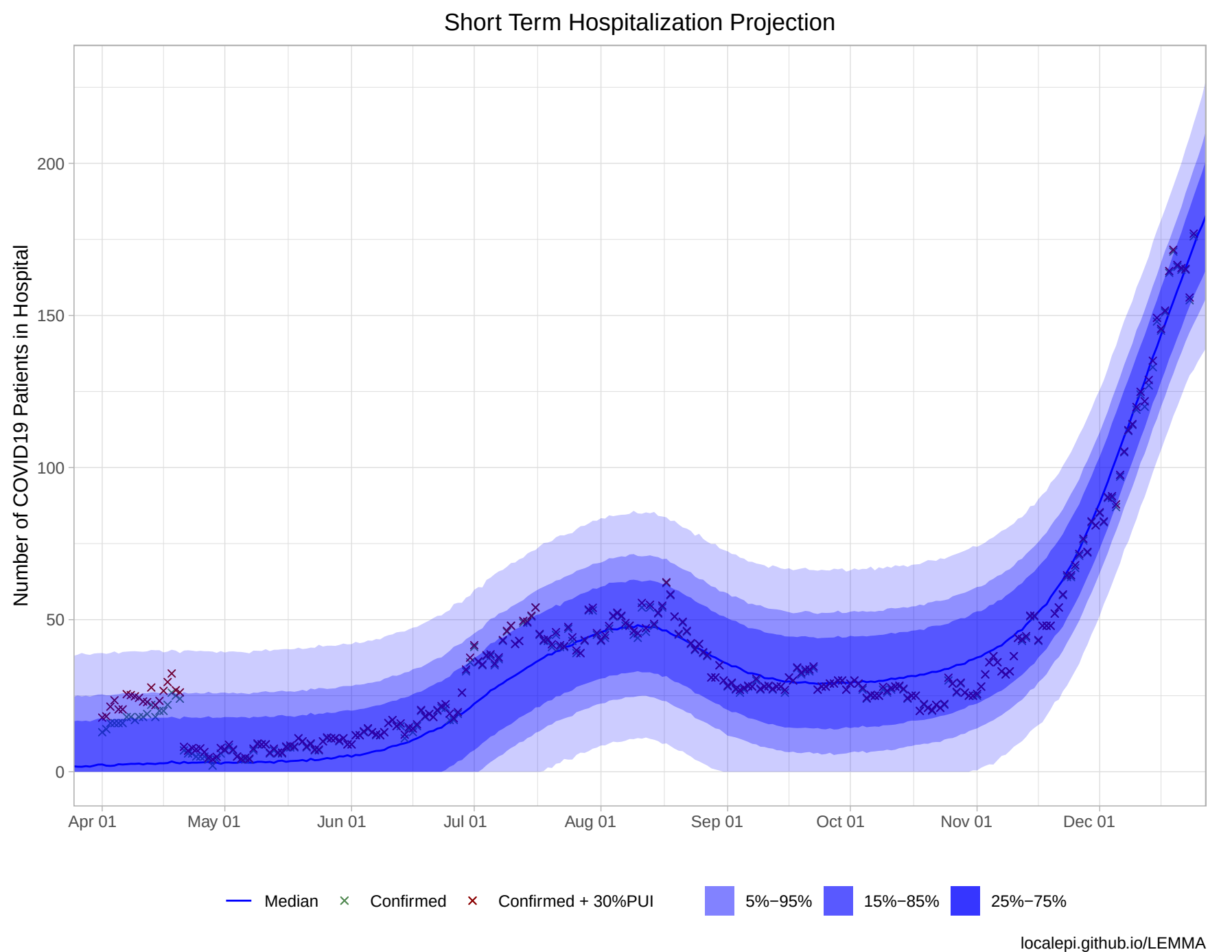
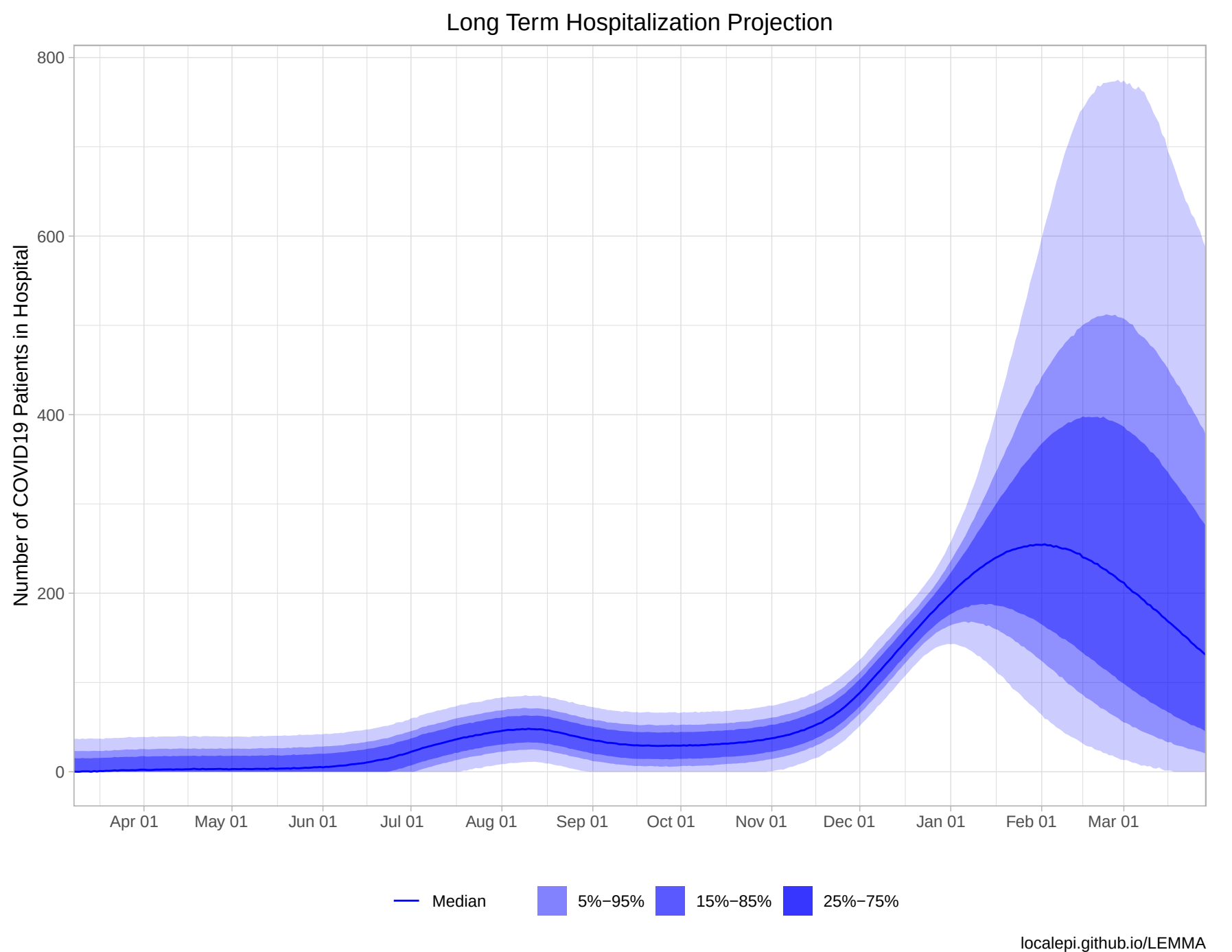
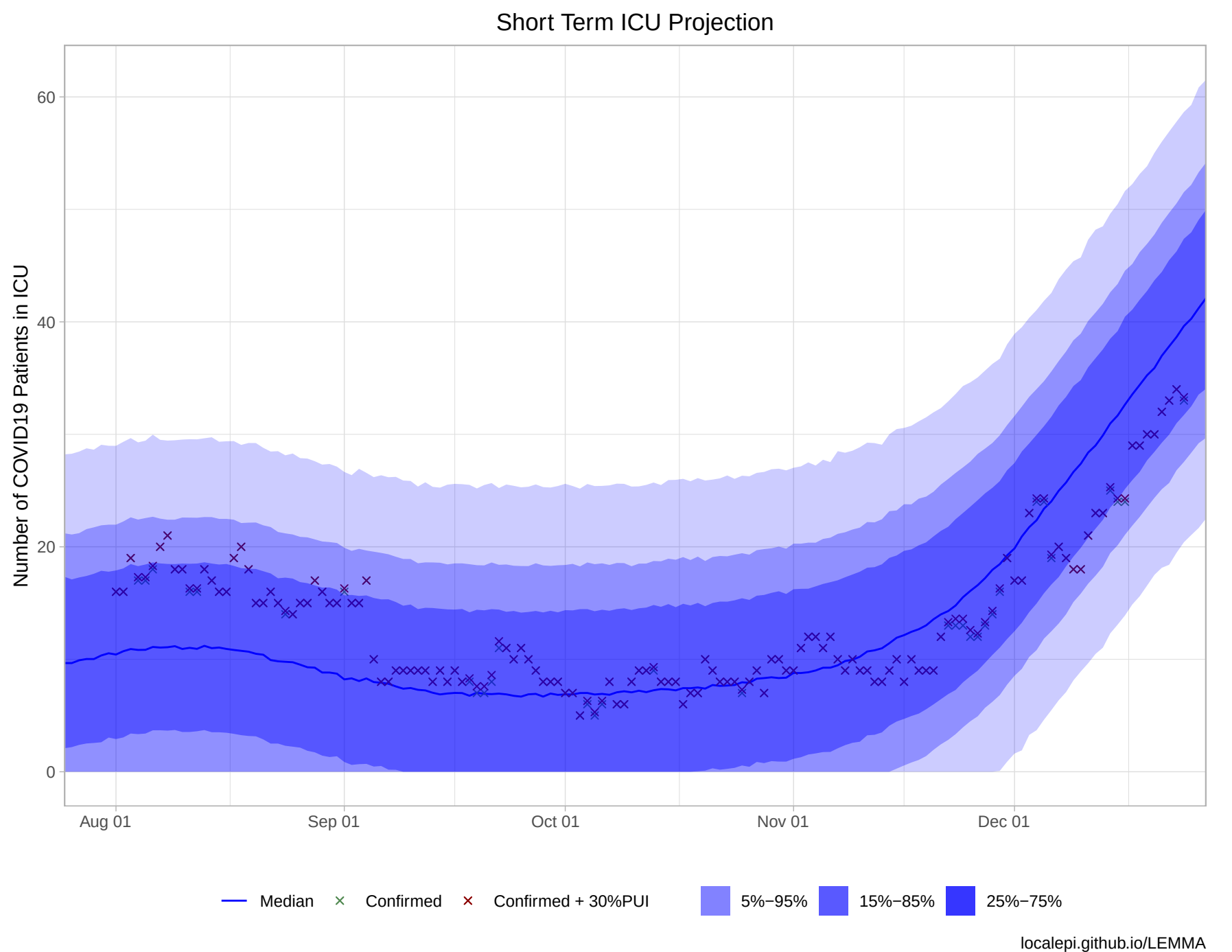
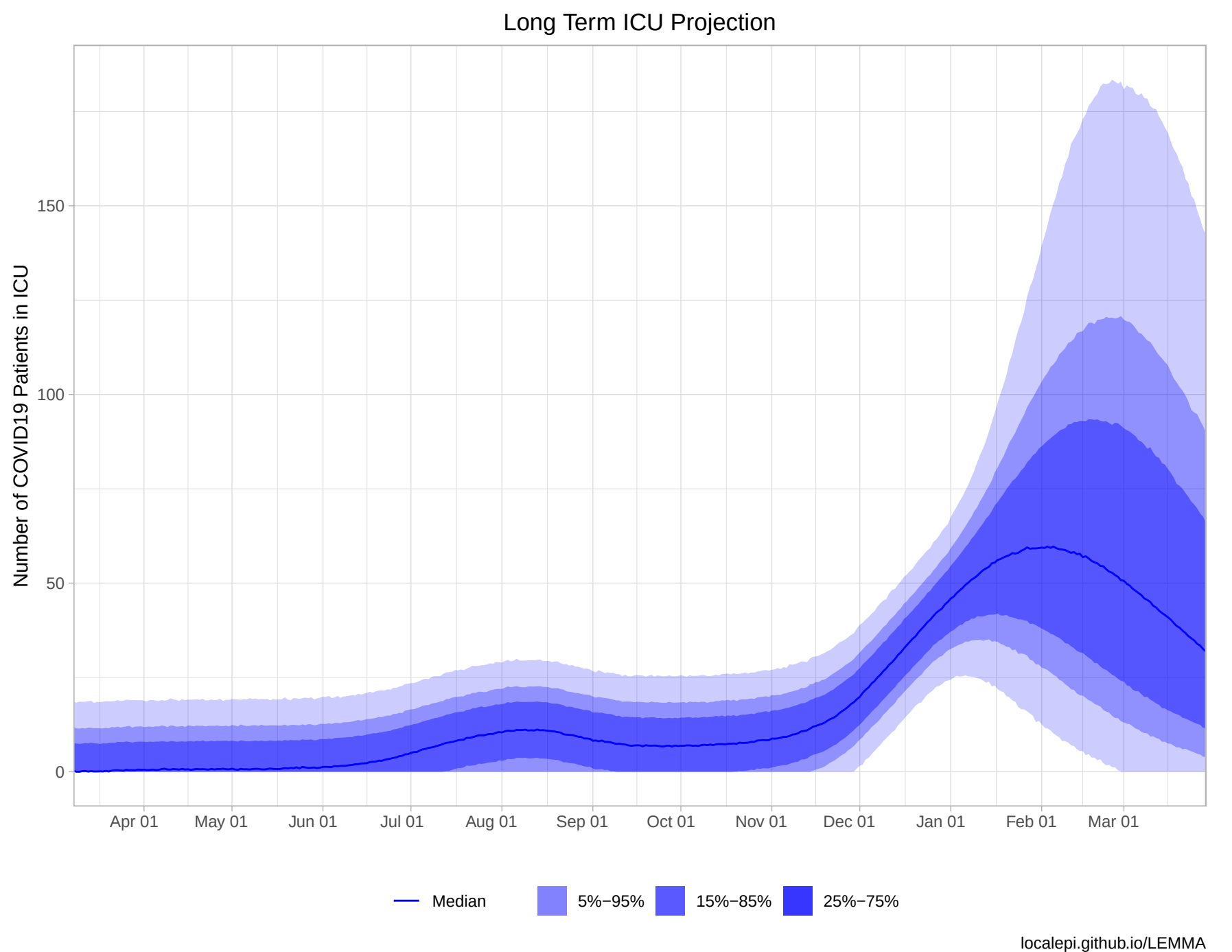
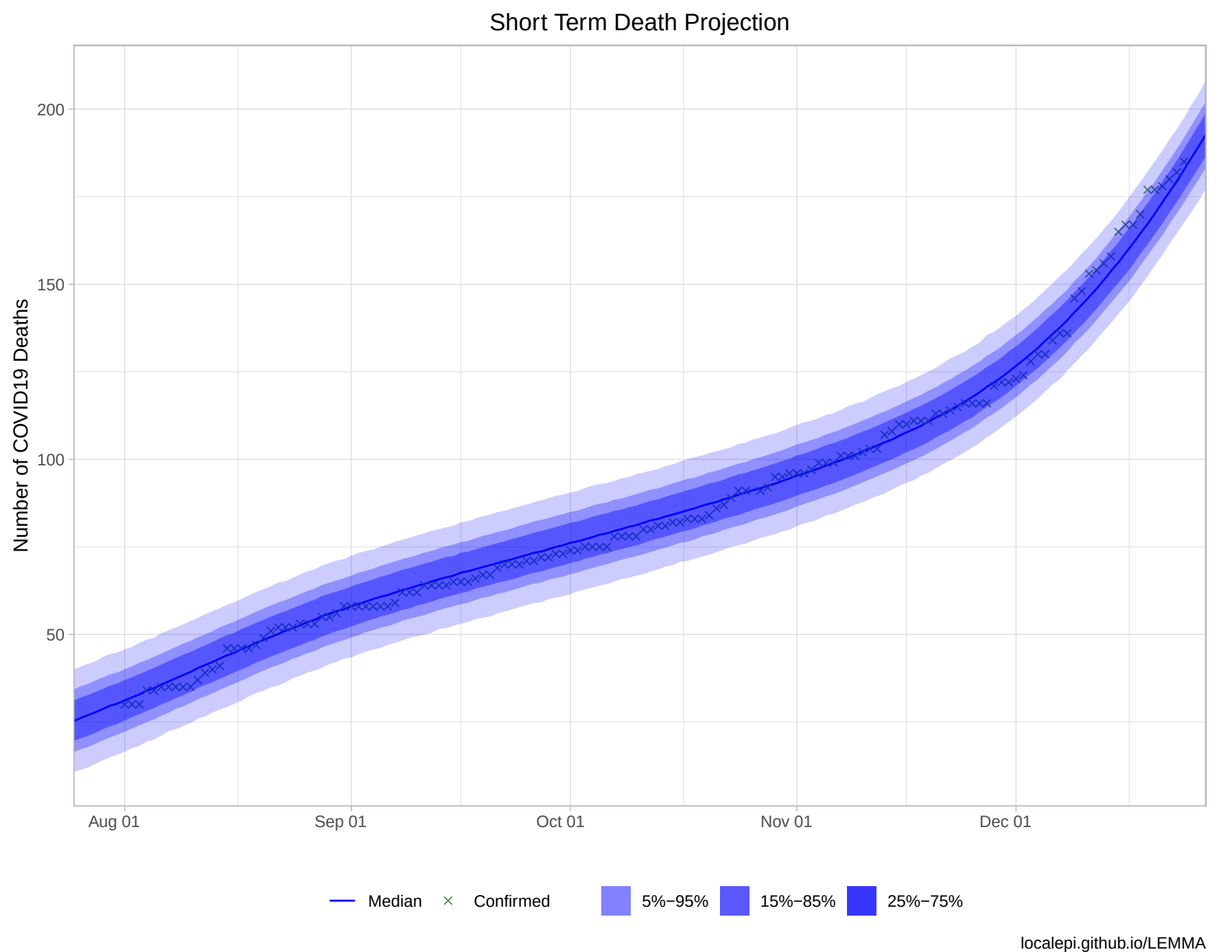
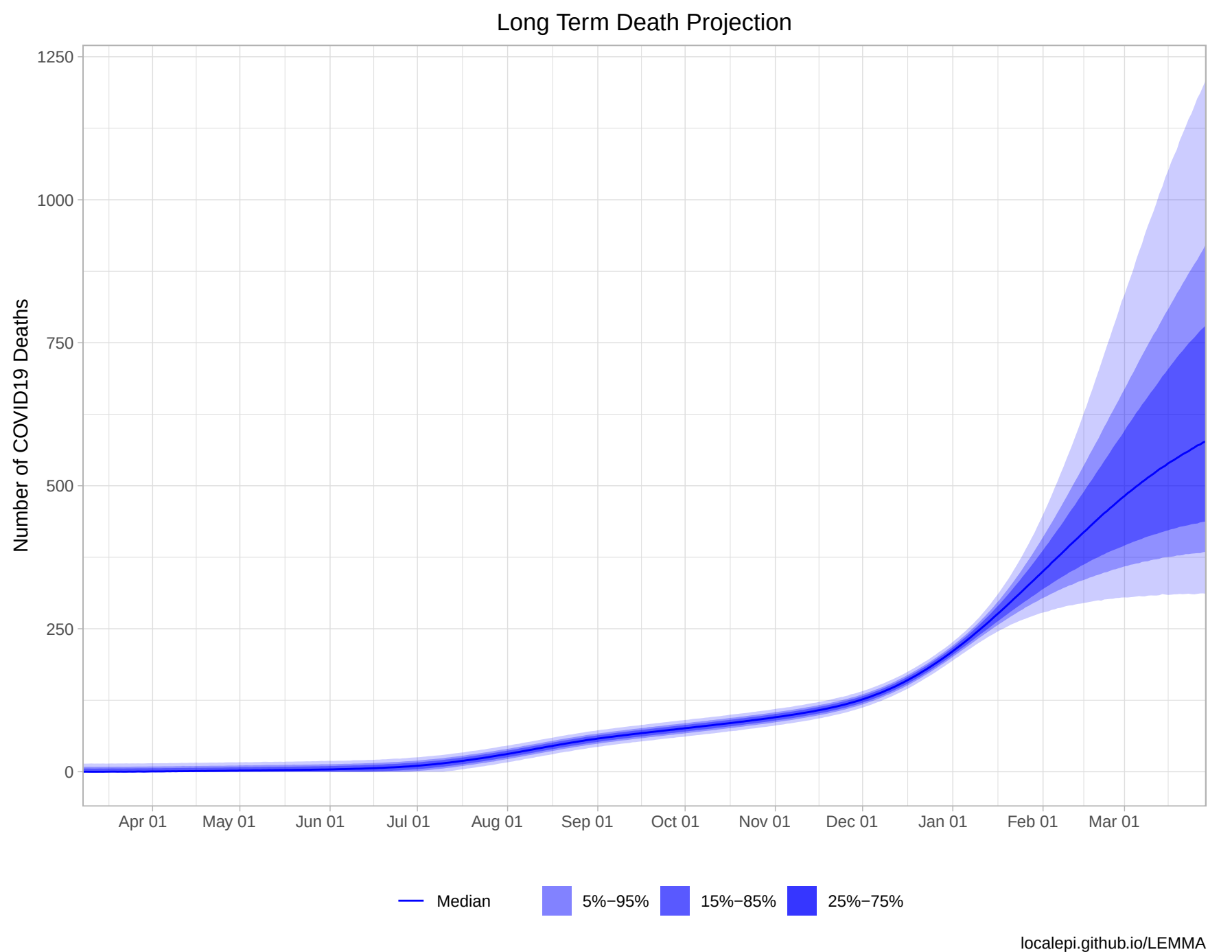

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
50
100
150
200
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

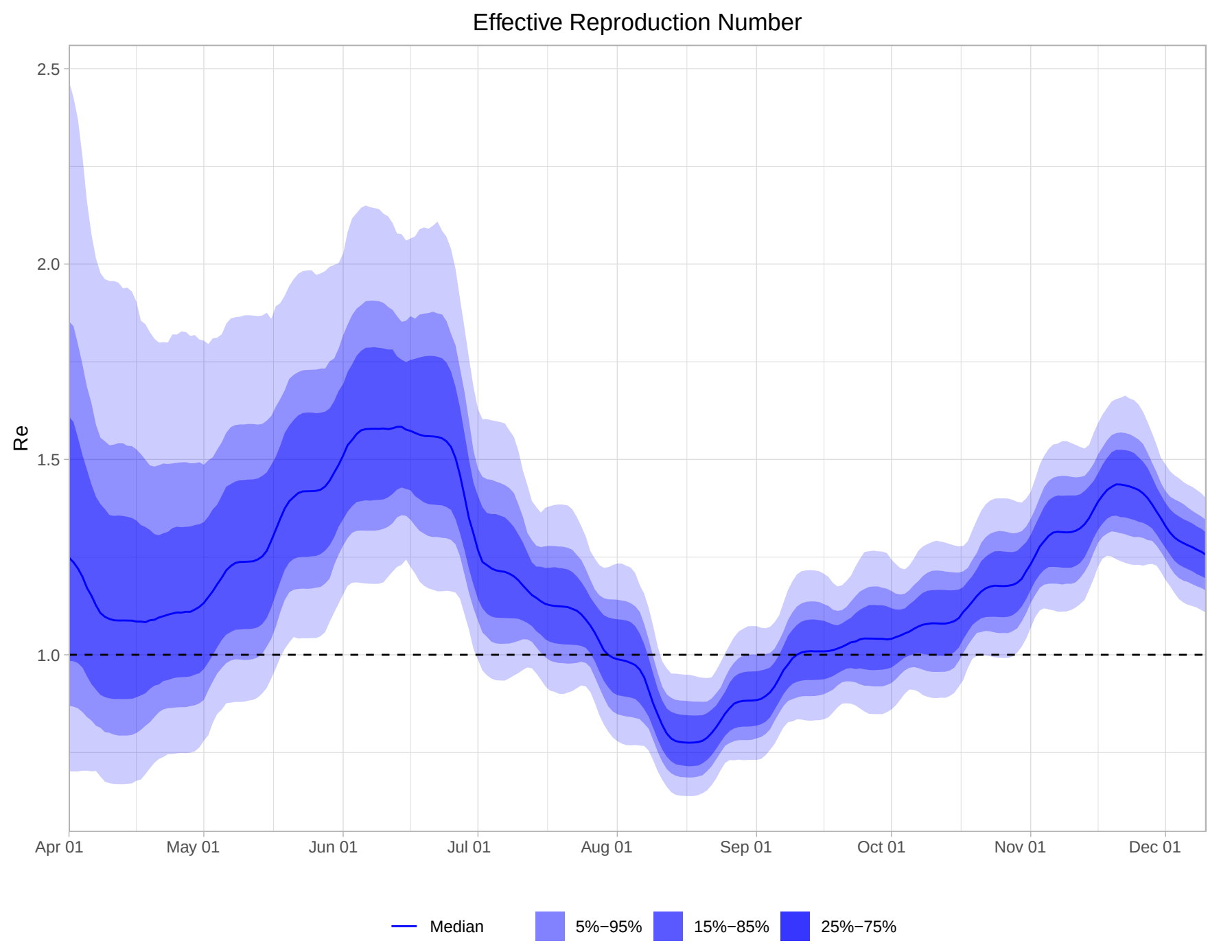

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
800
600
400
200
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
60
40
20
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

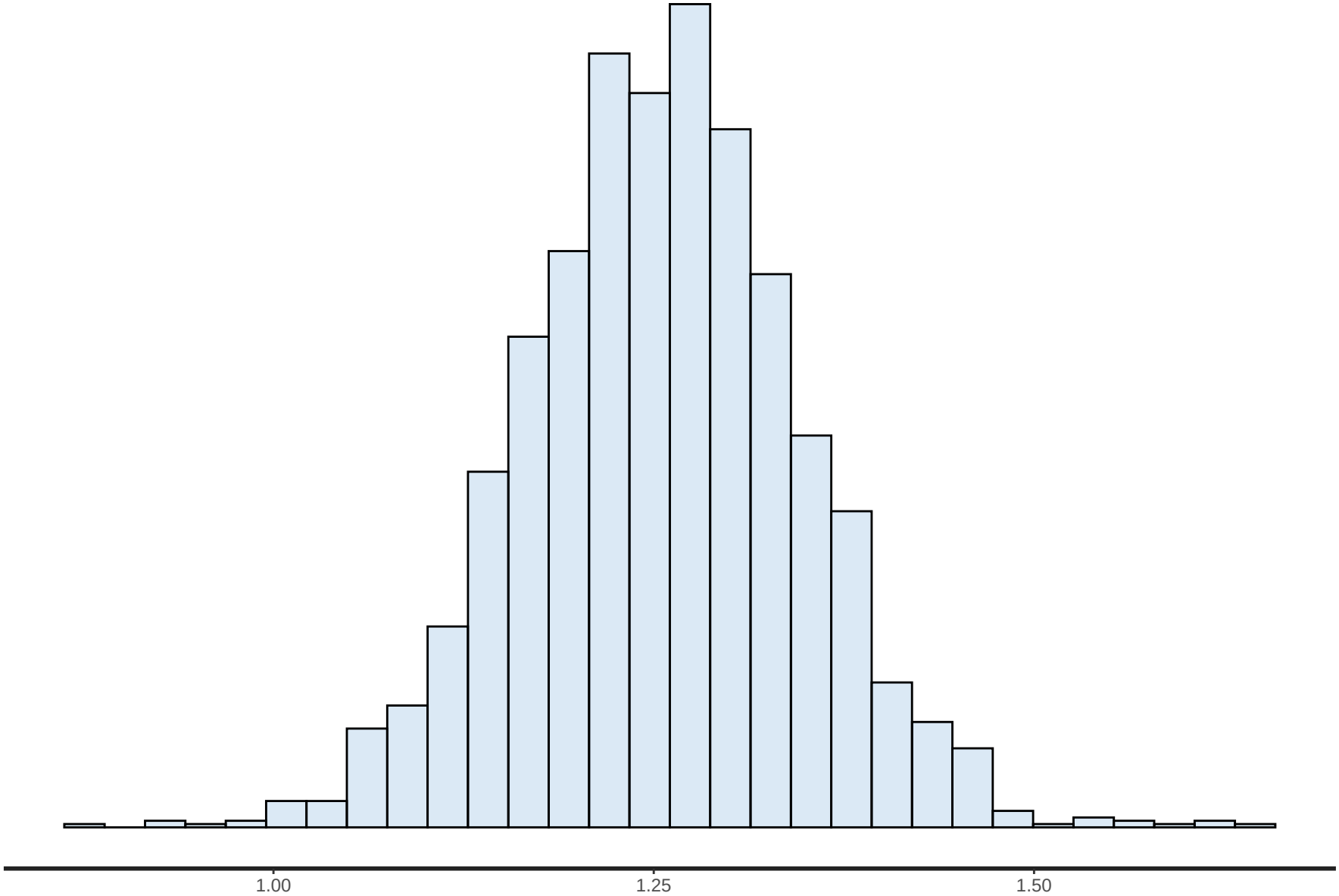

Short Term Death Projection
Number of COVID19 Deaths
200
150
100
50
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

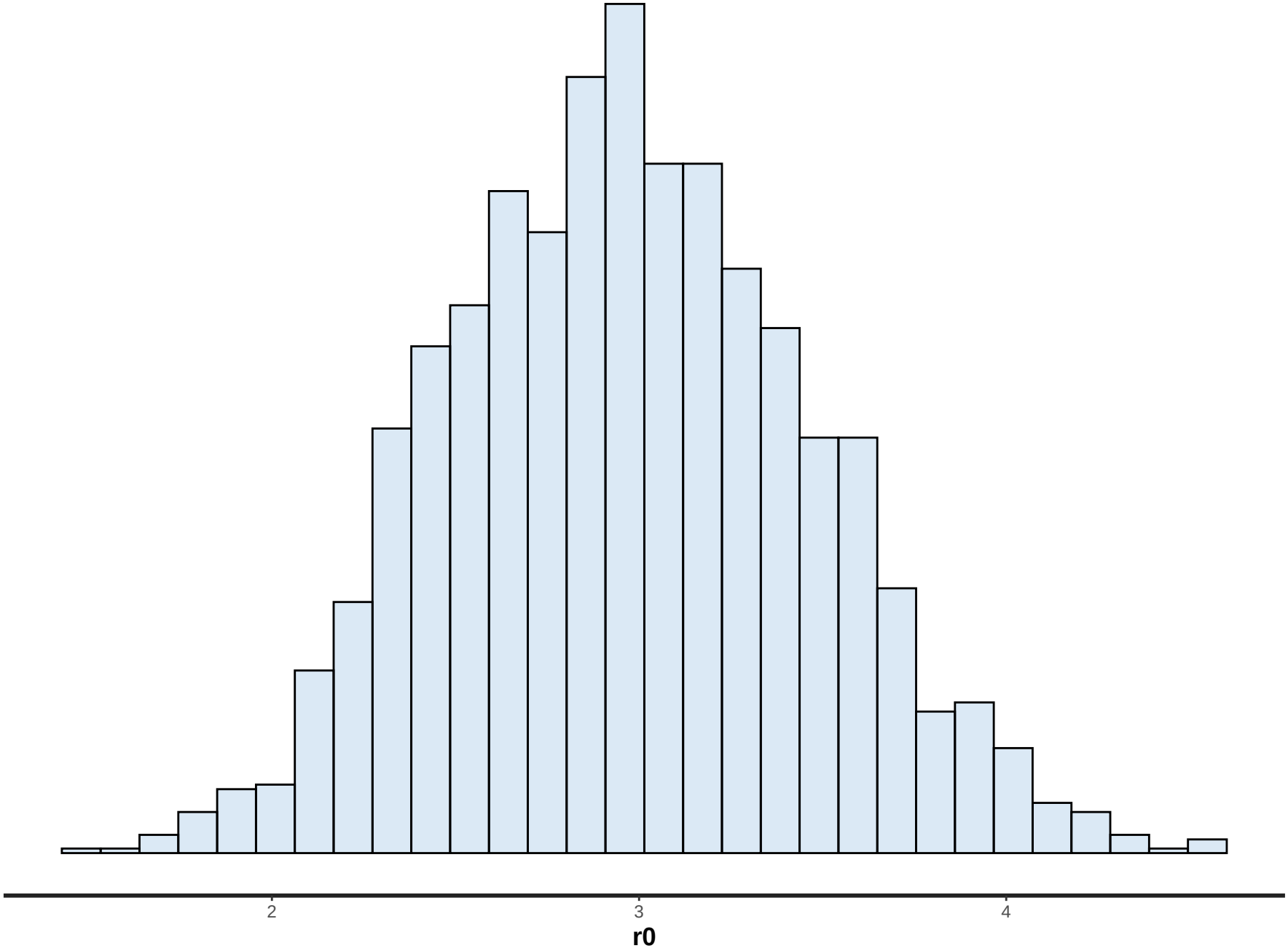

Long Term Death Projection
Number of COVID19 Deaths
1250
1000
750
500
250
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

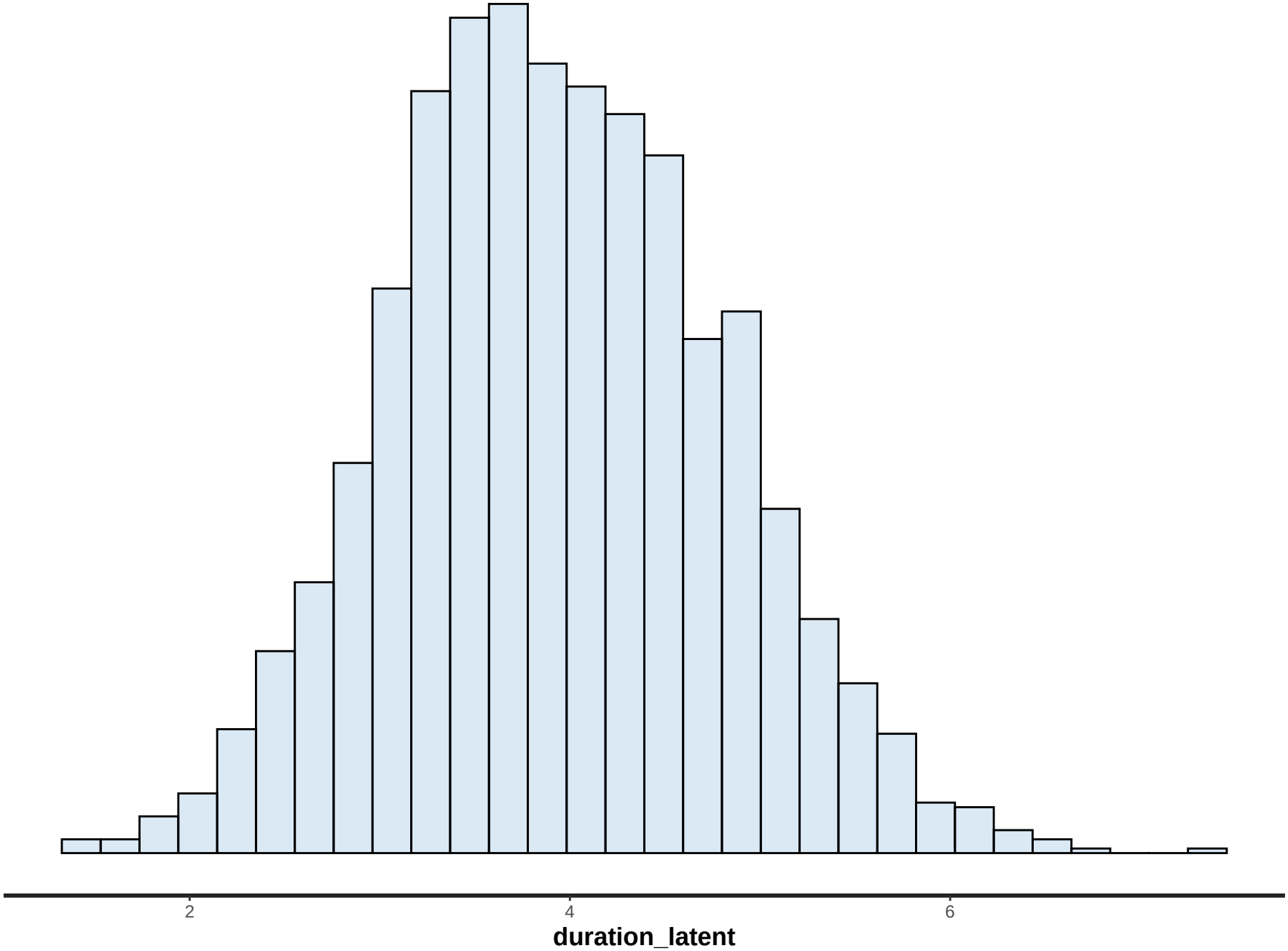

Effective Reproduction Number
Re
2.5
2.0
1.5
1.0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

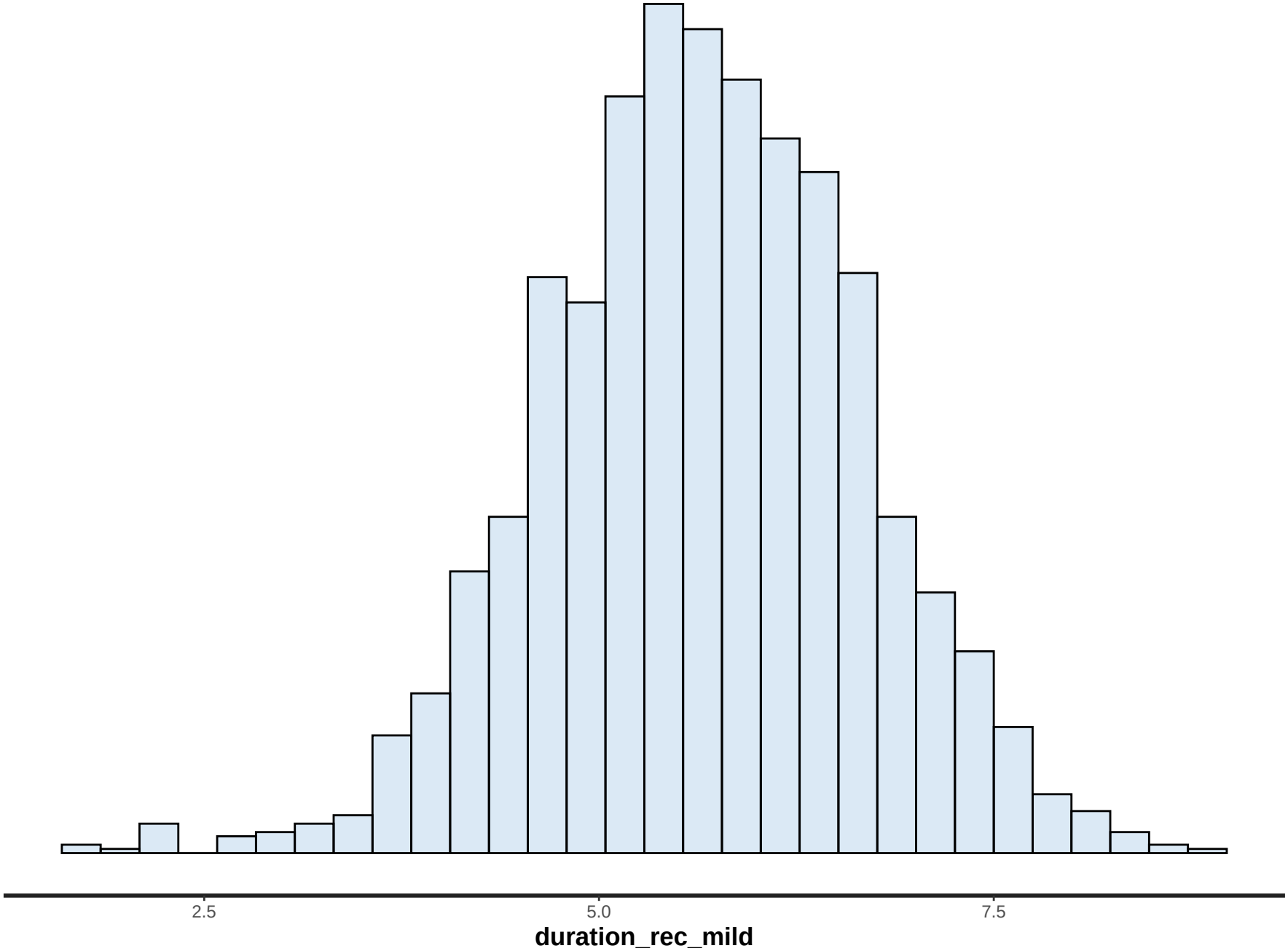
Rt as of 2020−12−10

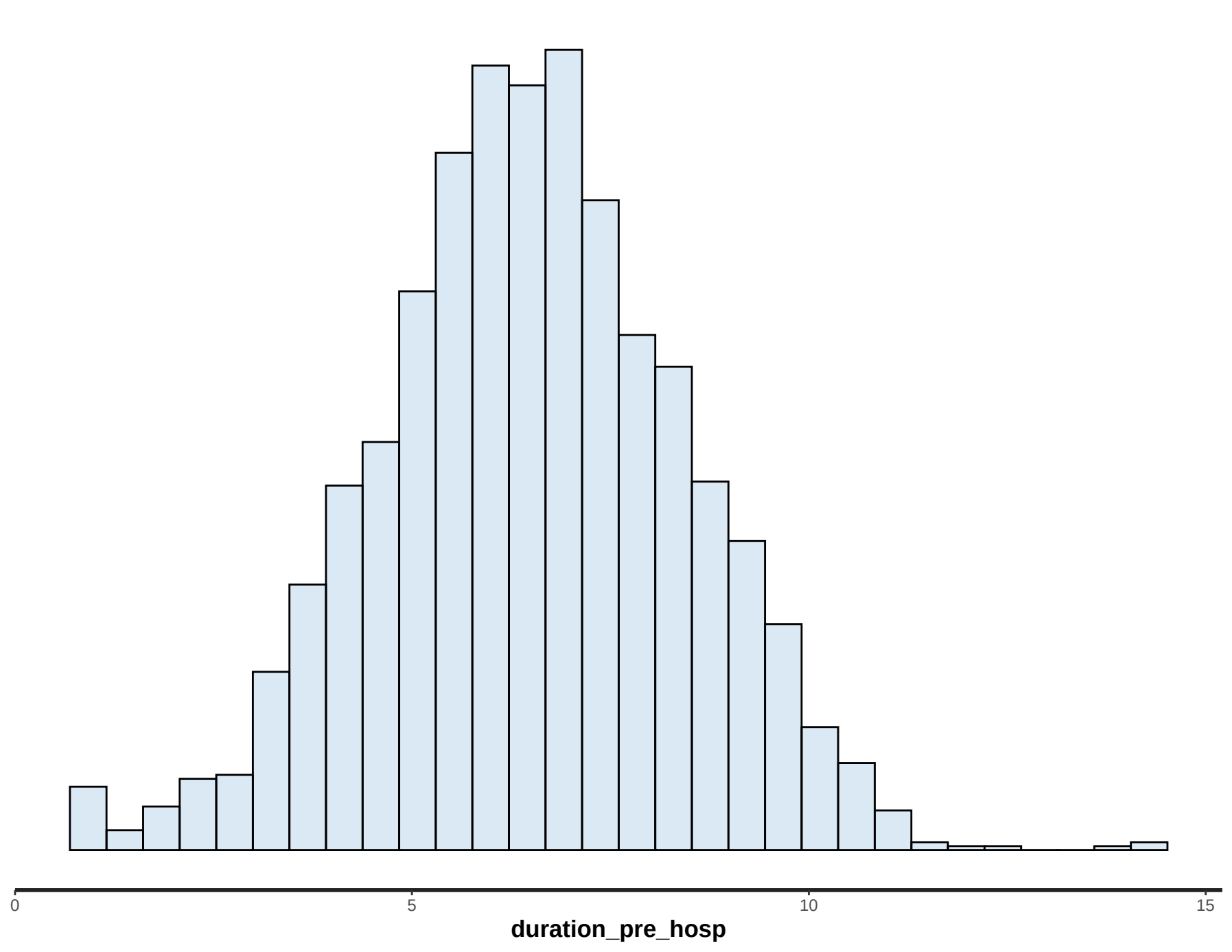
5%	10%	25%	50%	75%	90%	95%
1.11	1.14	1.20	1.26	1.31	1.37	1.40

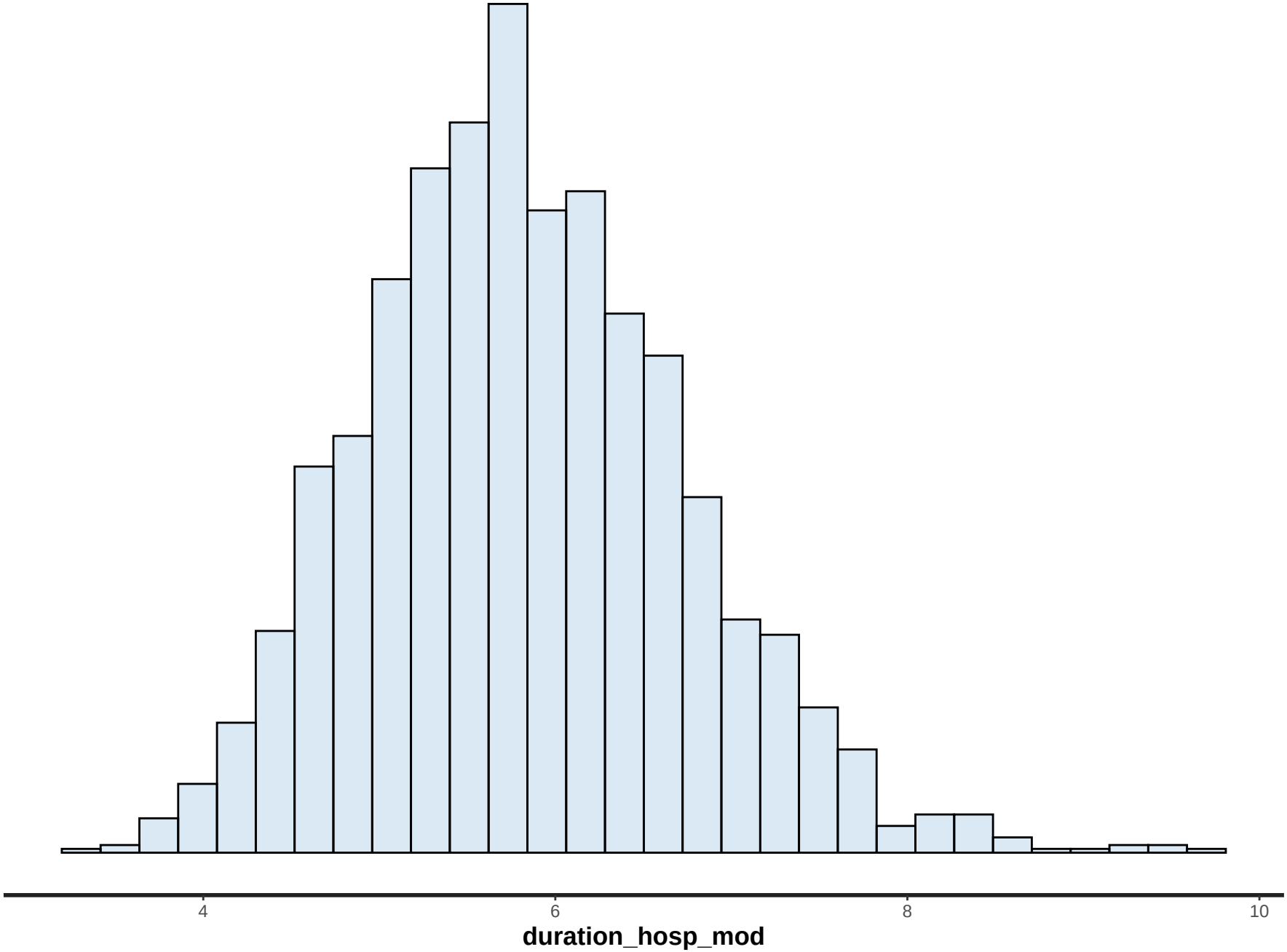


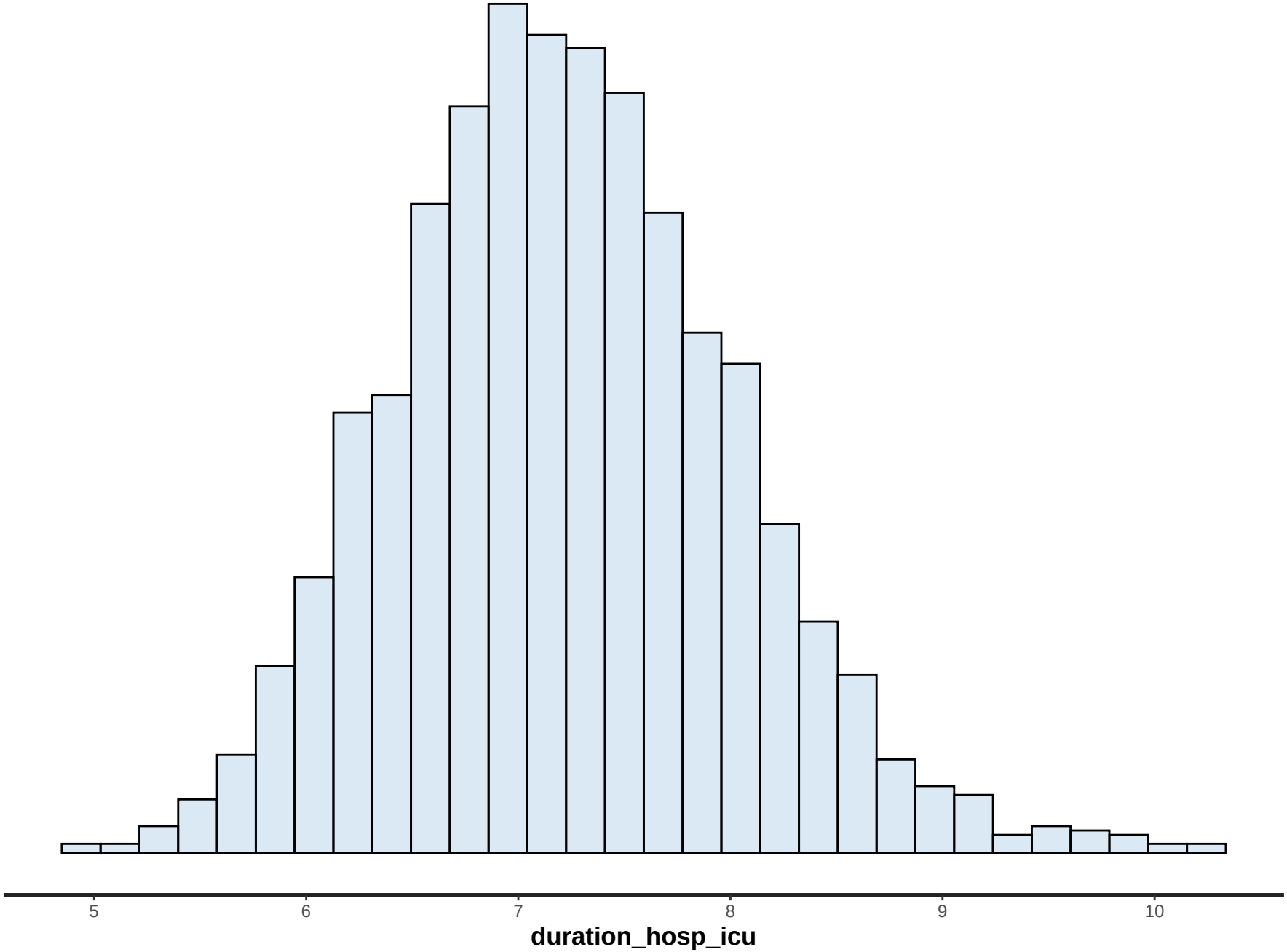

2
3
4
r0

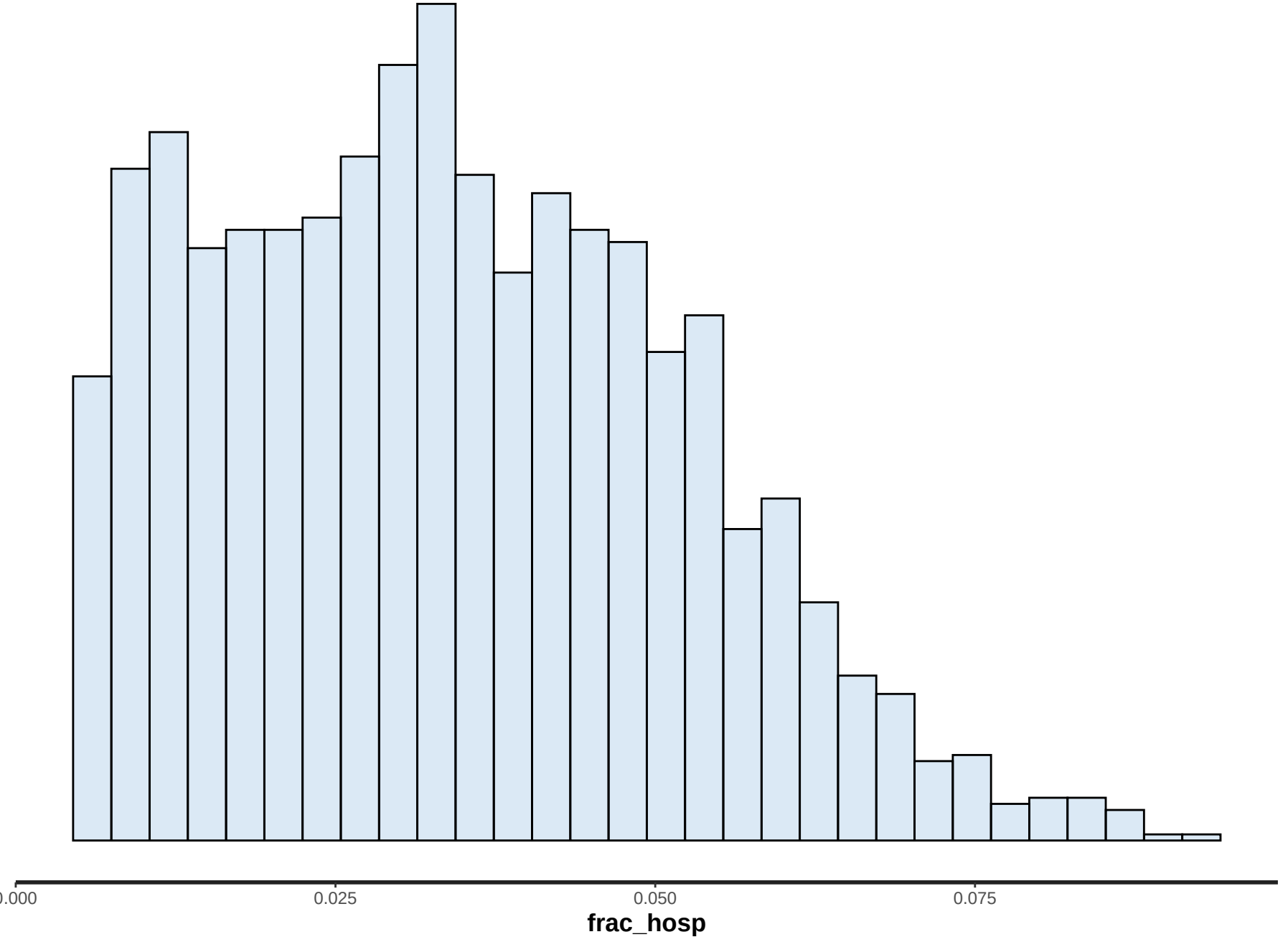

2
4
6
duration_latent


2.5
5.0
7.5
duration_rec_mild


0
5
10
15
duration_pre_hosp


4
6
8
10
duration_hosp_mod


5
6
7
8
9
10
duration_hosp_icu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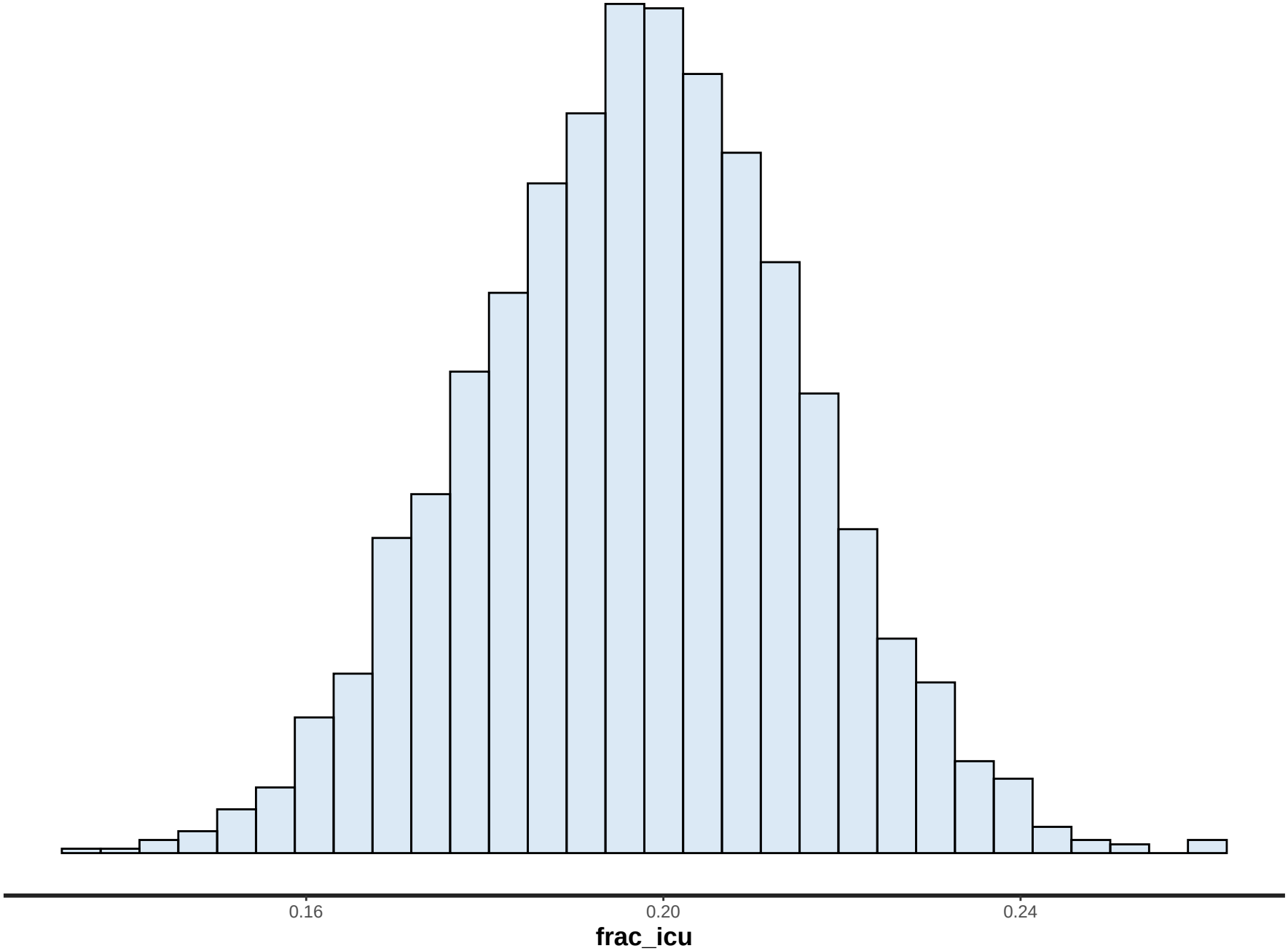
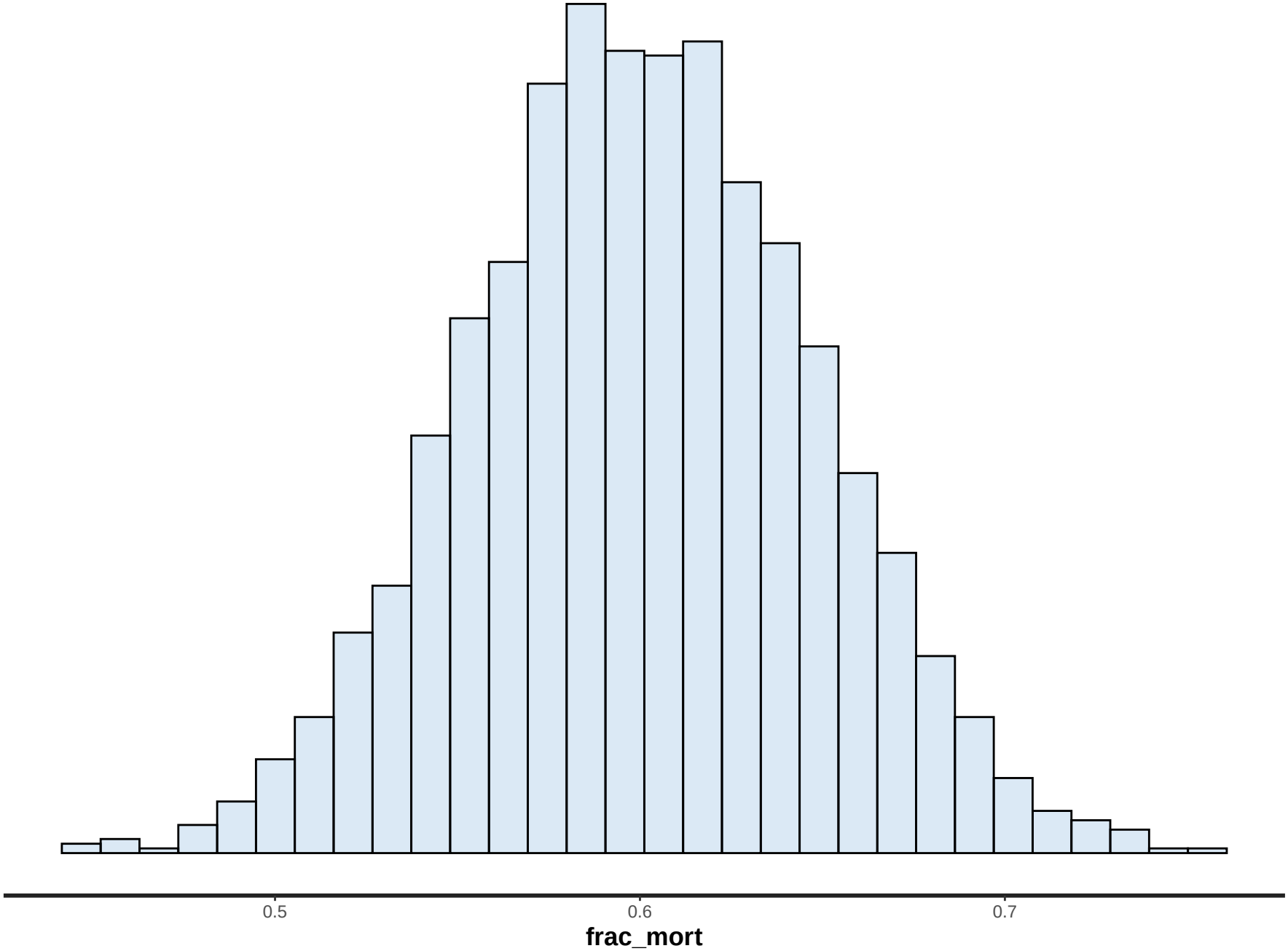
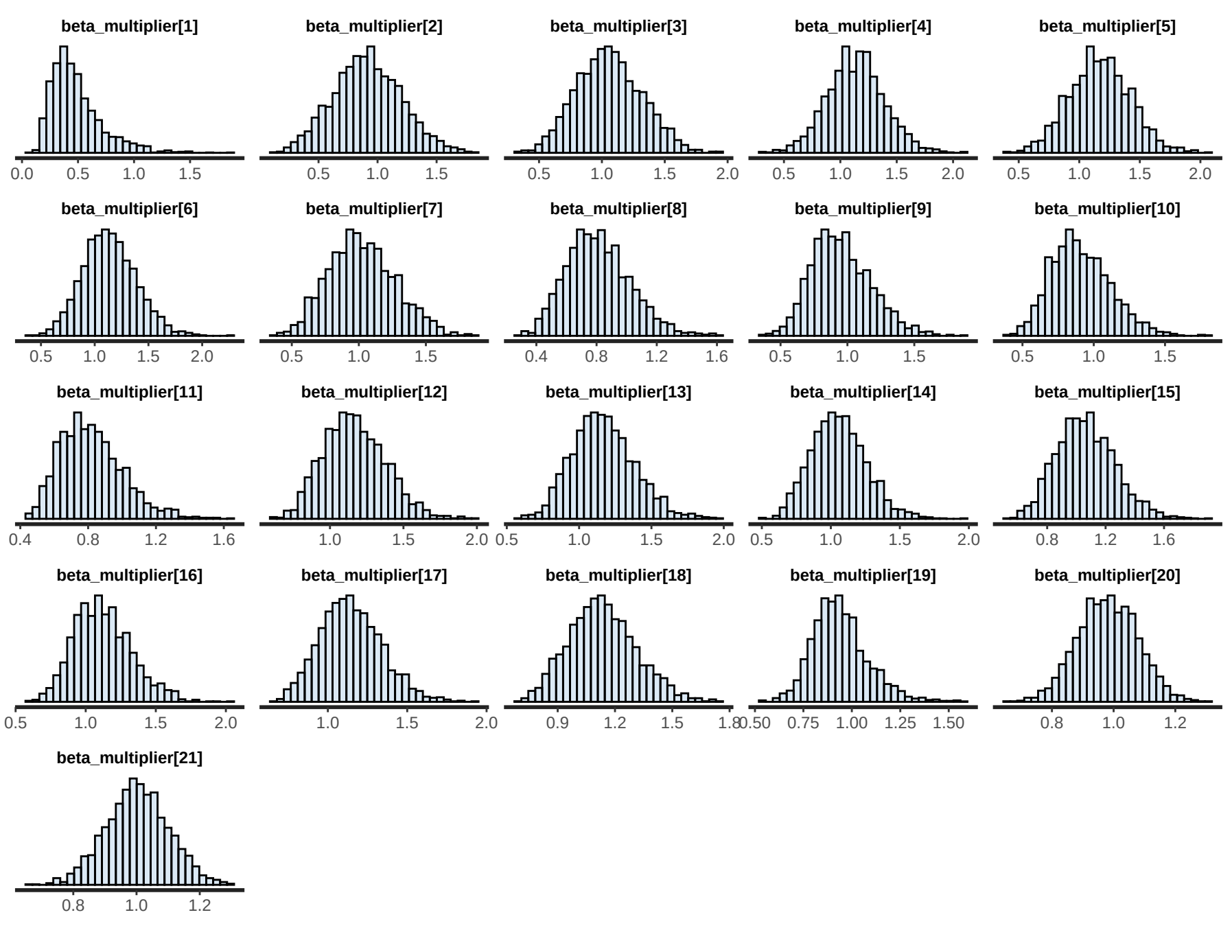
0.025
0.050
0.075
frac_hosp


0.16
0.20
0.24
frac_icu


0.5
0.6
0.7
frac_mort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beta_multiplier[3]
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beta_multiplier[4]
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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]
0.5 1.0 1.5
beta_multiplier[8]
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beta_multiplier[9]
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beta_multiplier[10]
0.5 1.0 1.5
beta_multiplier[11]
0.4 0.8 1.2 1.6
beta_multiplier[12]
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beta_multiplier[13]
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beta_multiplier[14]
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beta_multiplier[15]
0.8 1.2 1.6
beta_multiplier[16]
0.5 1.0 1.5 2.0
beta_multiplier[17]
1.0 1.5 2.0
beta_multiplier[18]
0.9 1.2 1.5 1.8
beta_multiplier[19]
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beta_multiplier[20]
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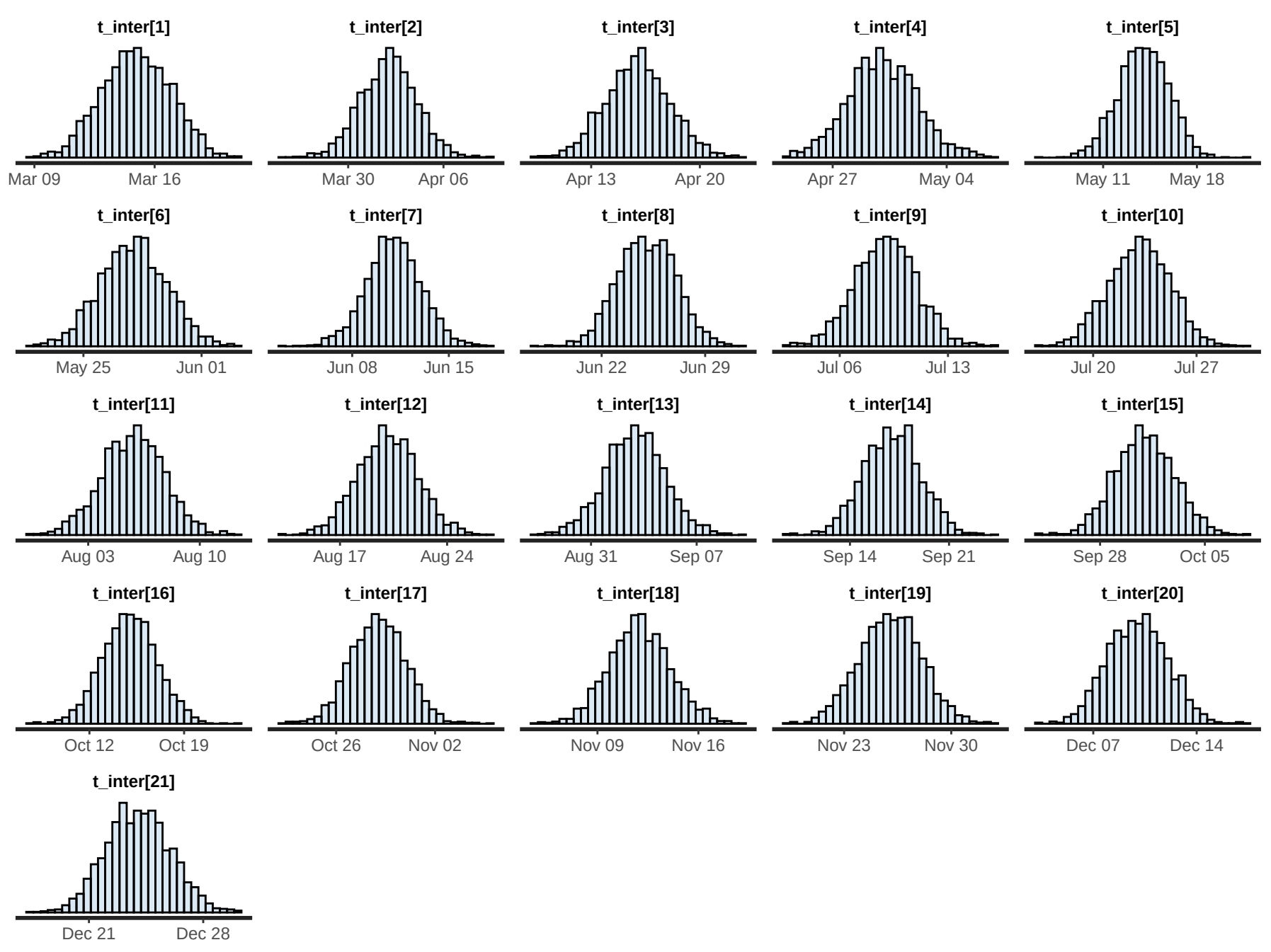
beta_multiplier[21]
0.8 1.0 1.2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May 11
May 18
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May 25
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Jun 08
Jun 15
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Jul 20
Jul 27
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Sep 21
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Sep 28
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Oct 19
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Oct 26
Nov 02
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Nov 23
Nov 30
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Dec 07
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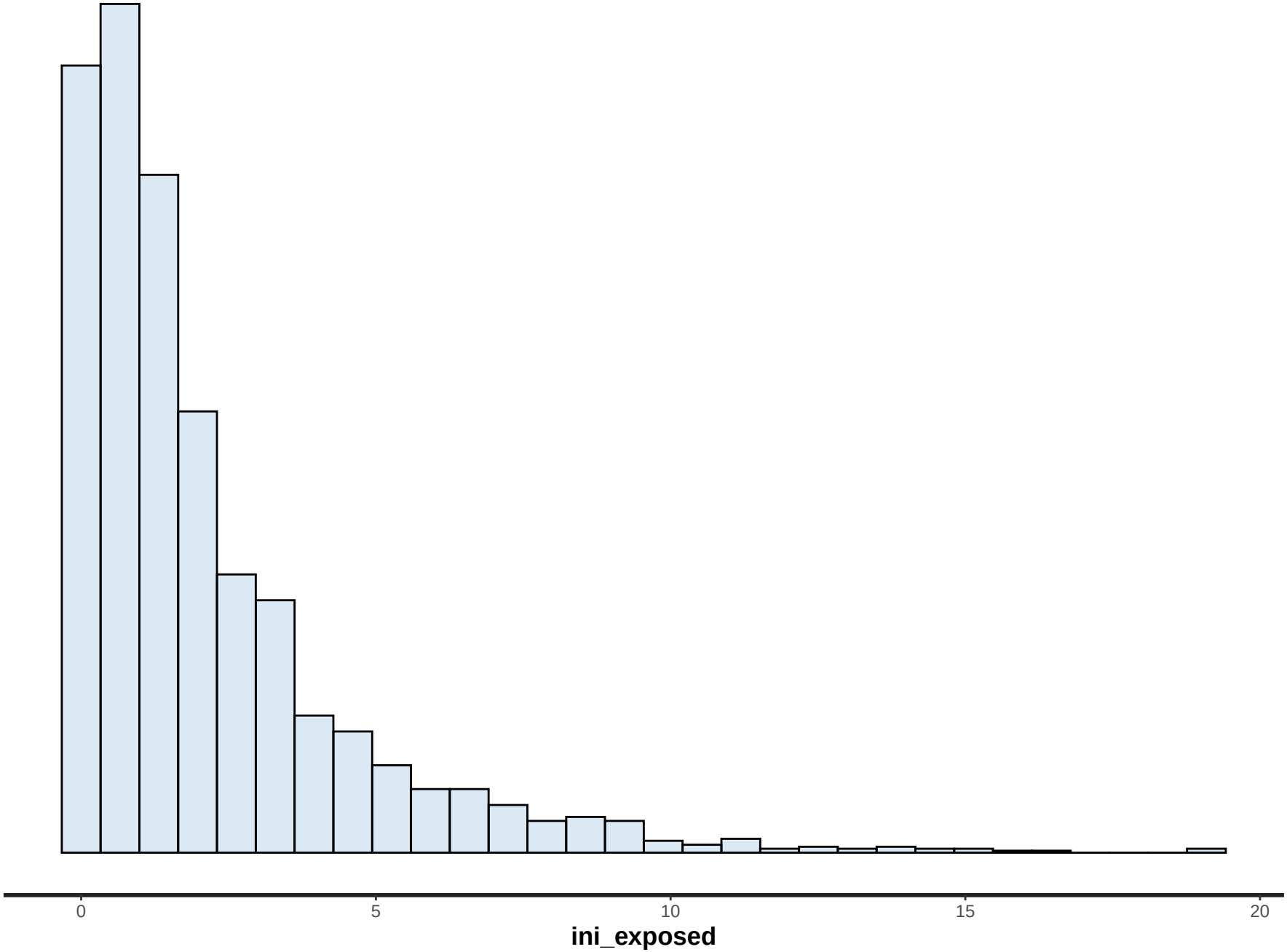
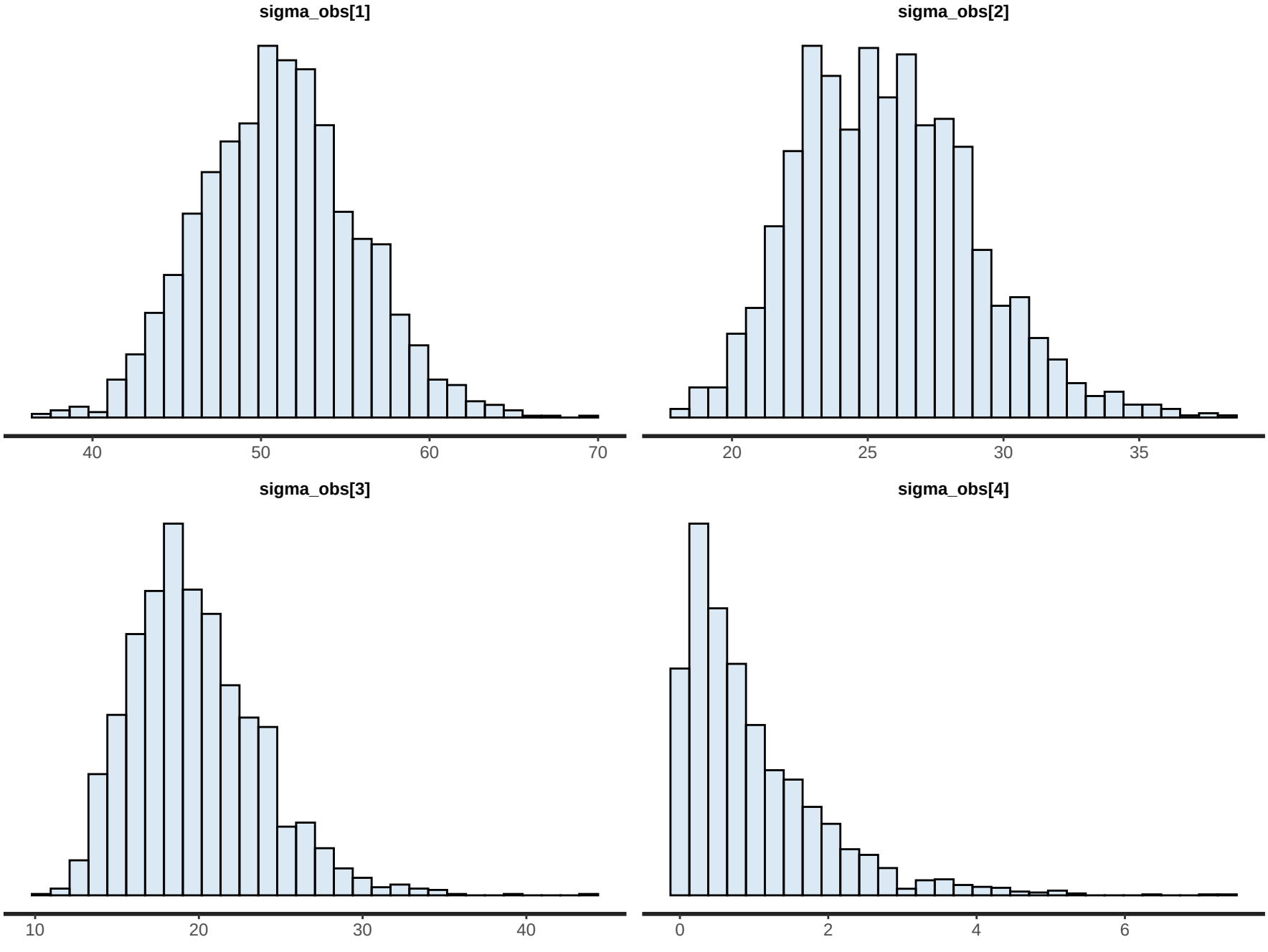
Dec 21
Dec 28


0
5
10
15
20
ini_exposed


sigma_obs[1]
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60
70
sigma_obs[2]
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25
30
35
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10
20
30
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sigma_obs[4]
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4
6