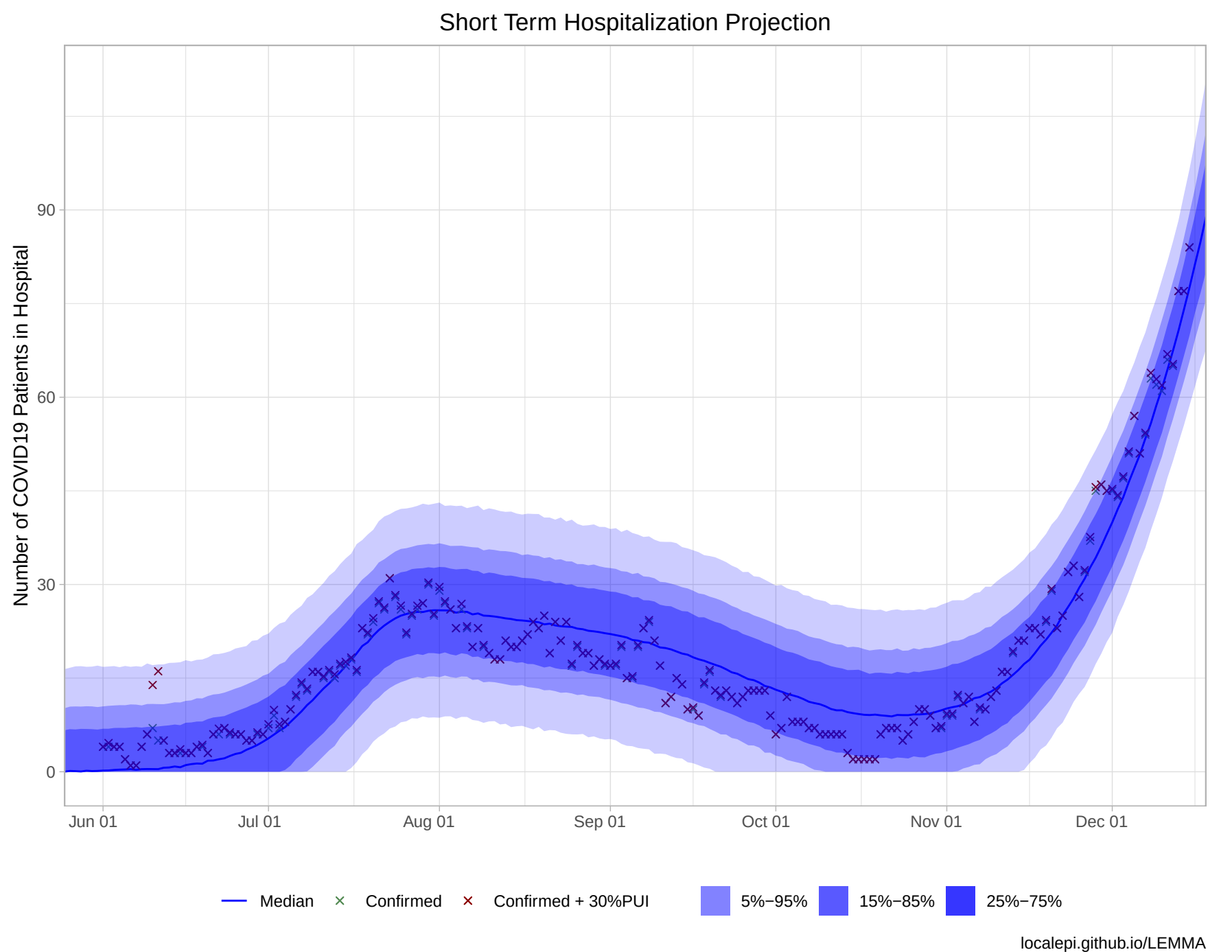
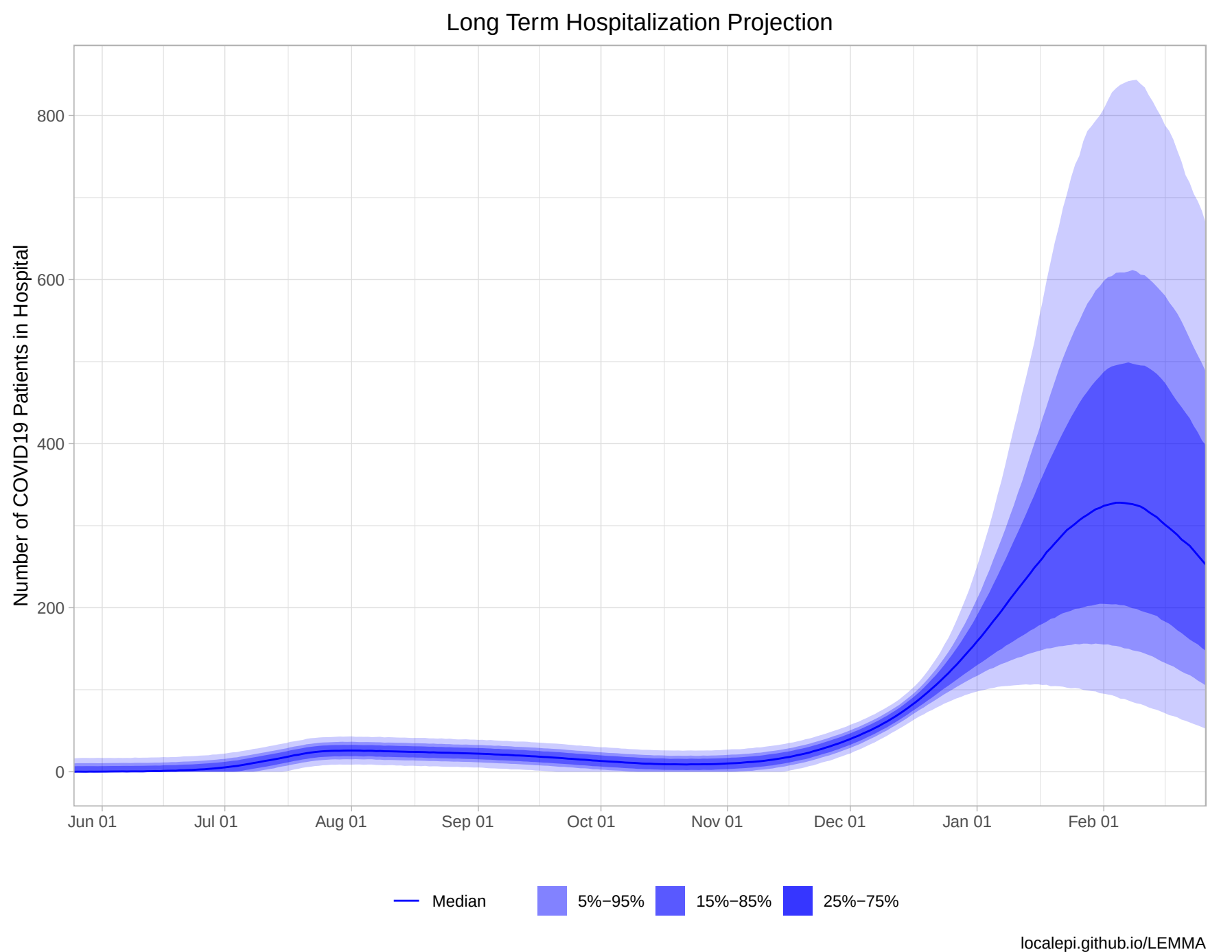
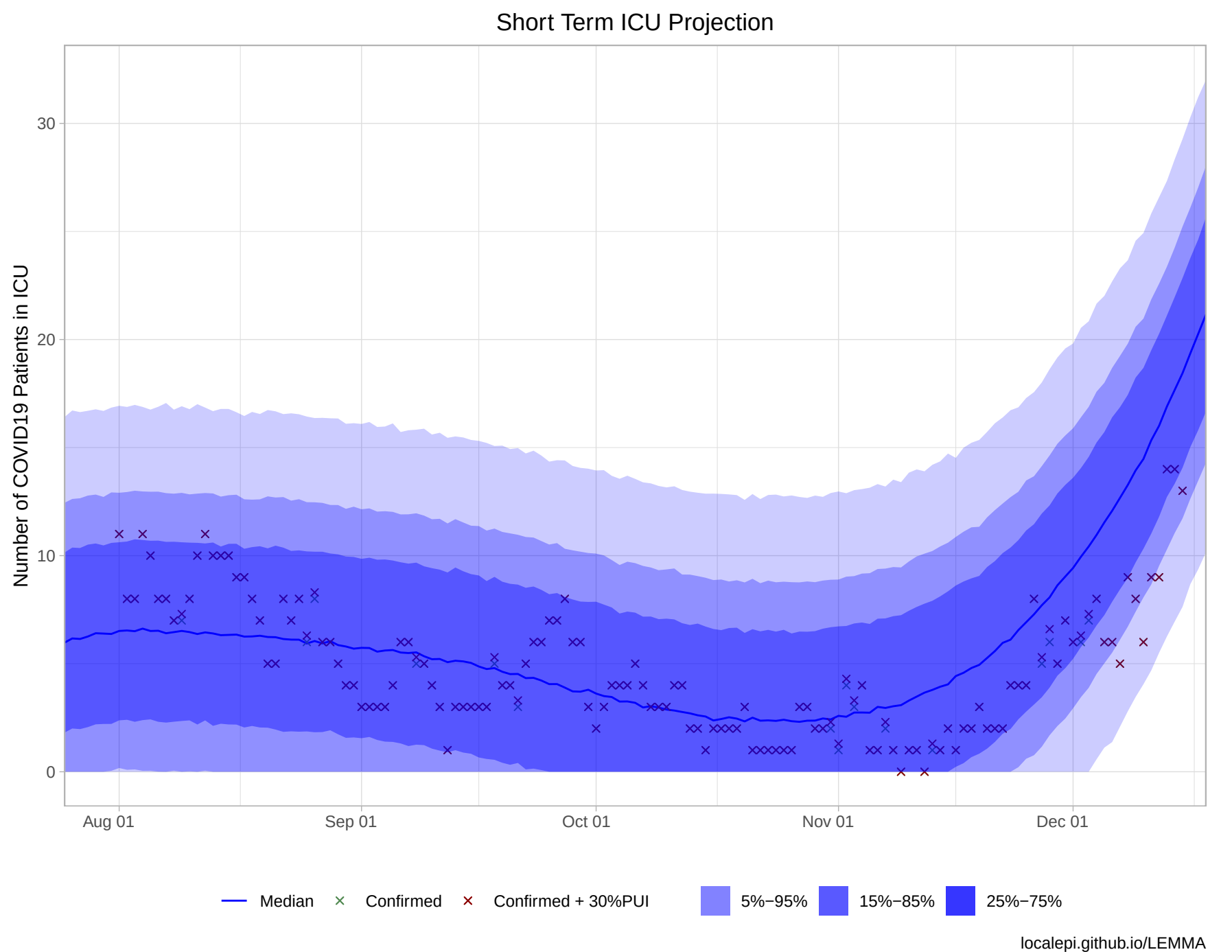
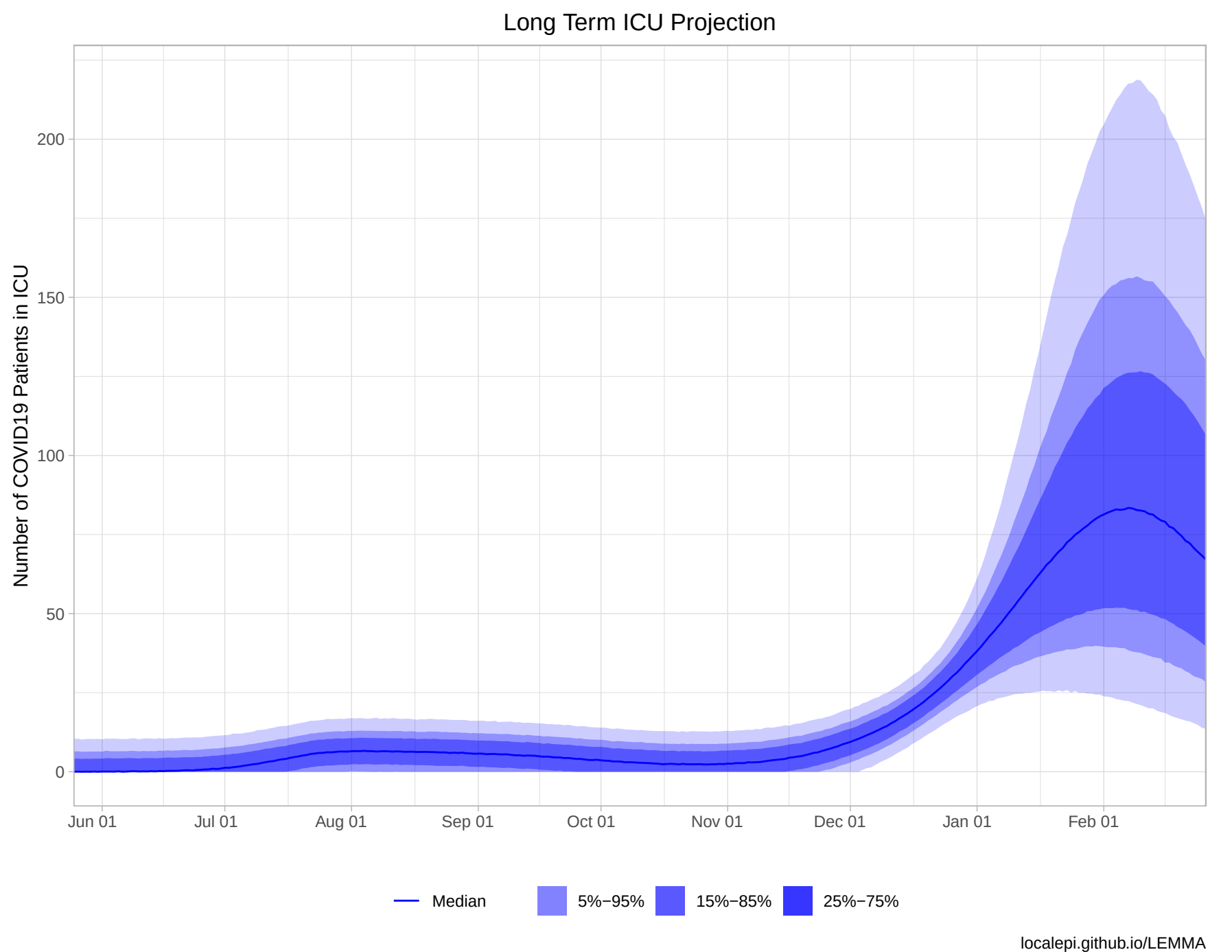
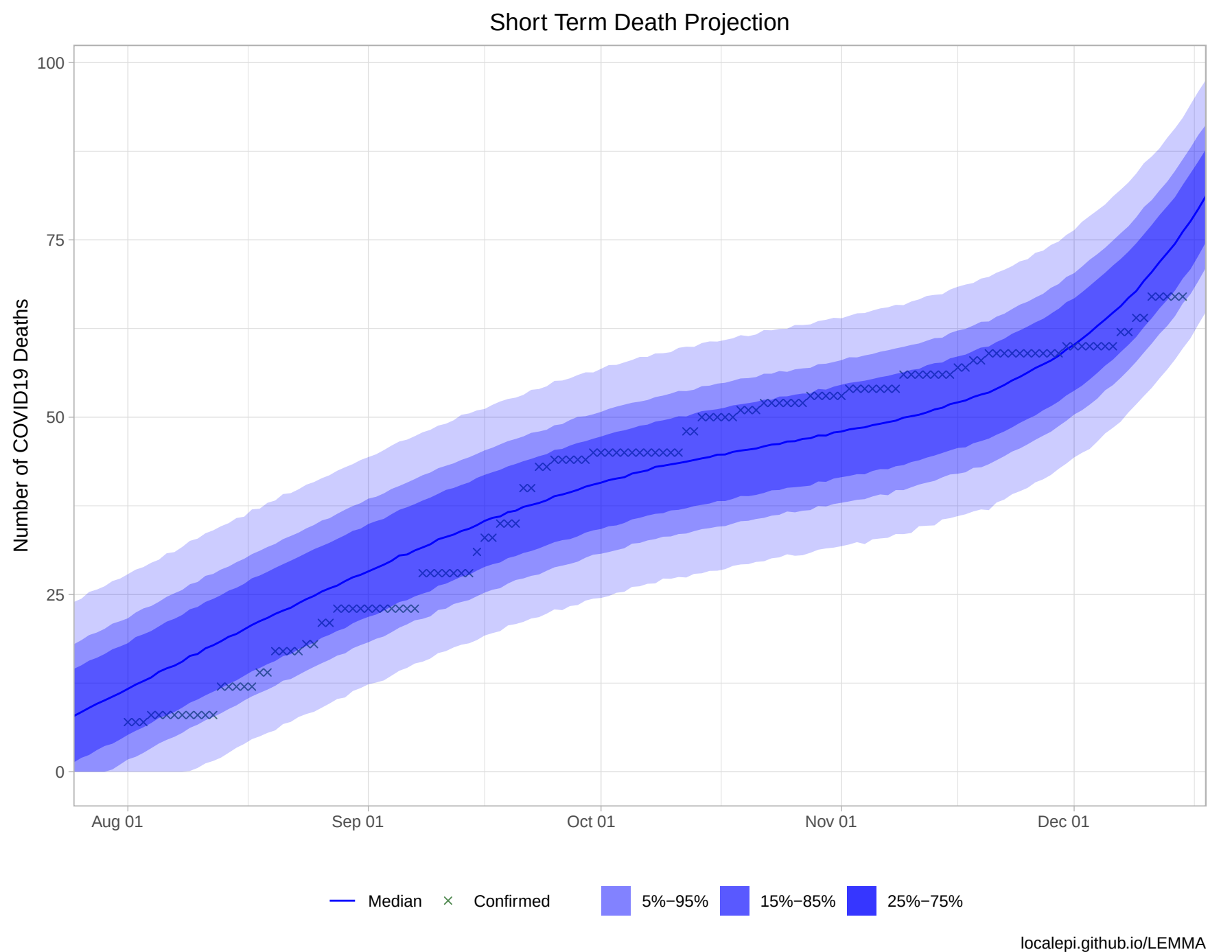
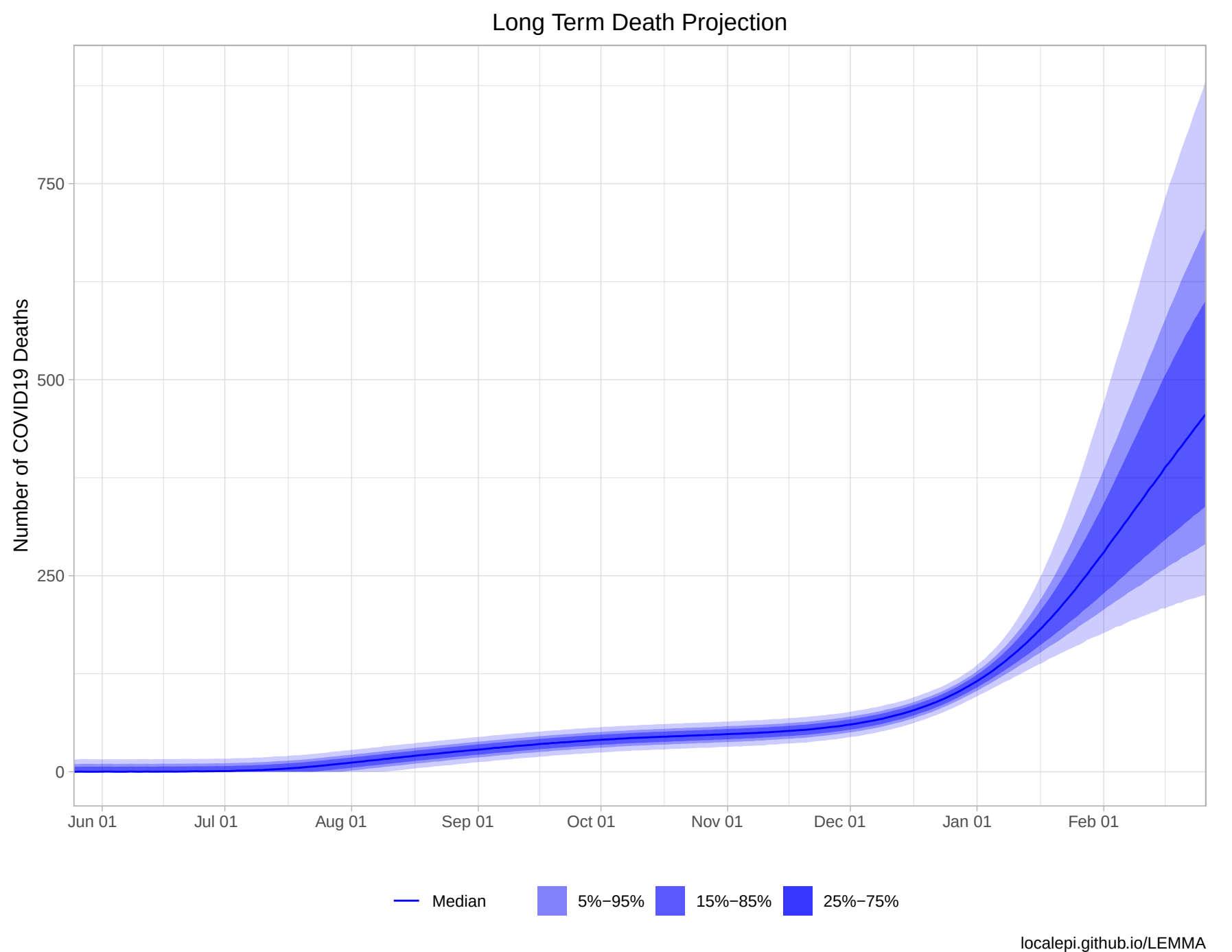

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
30
60
90
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

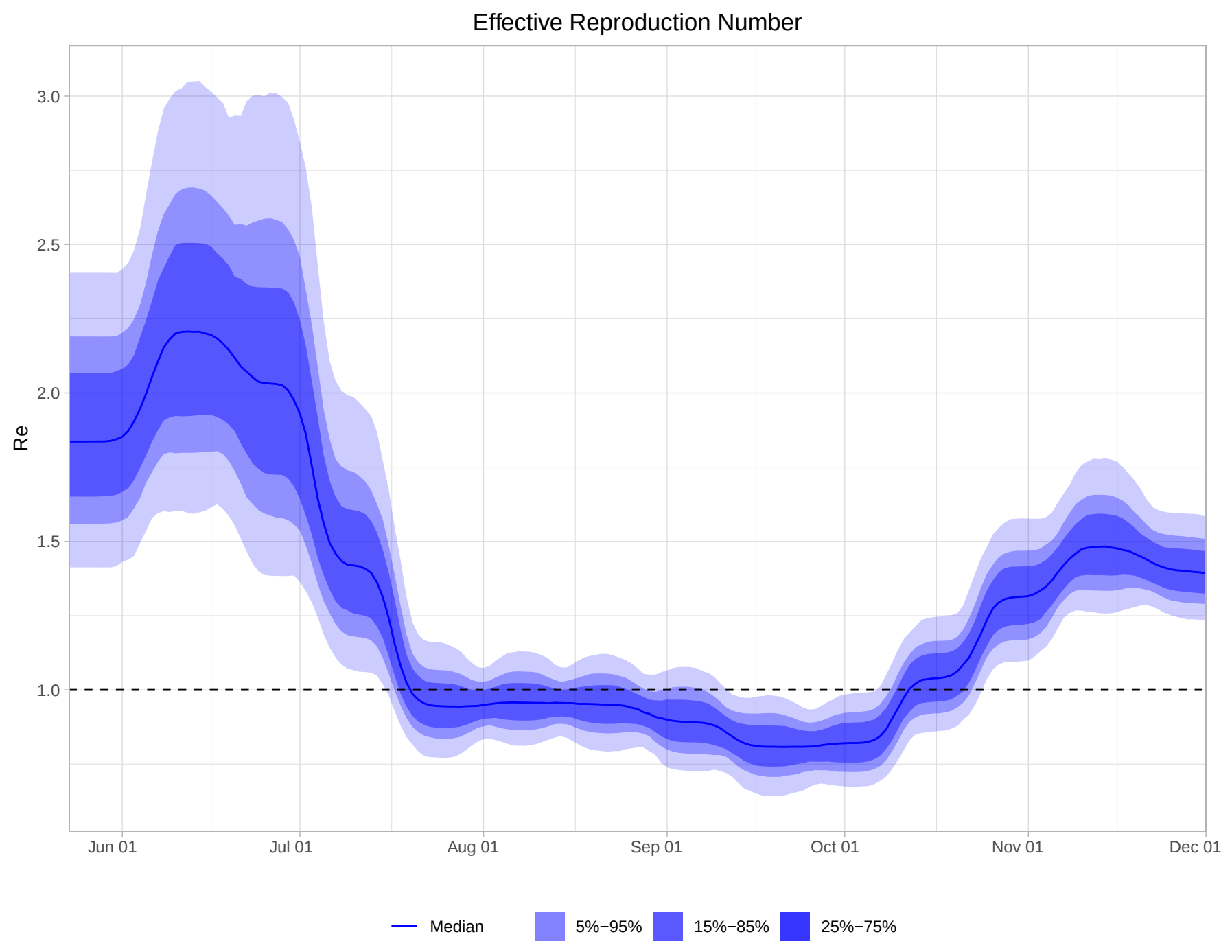

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
800
600
400
200
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
30
20
10
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
200
150
100
50
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

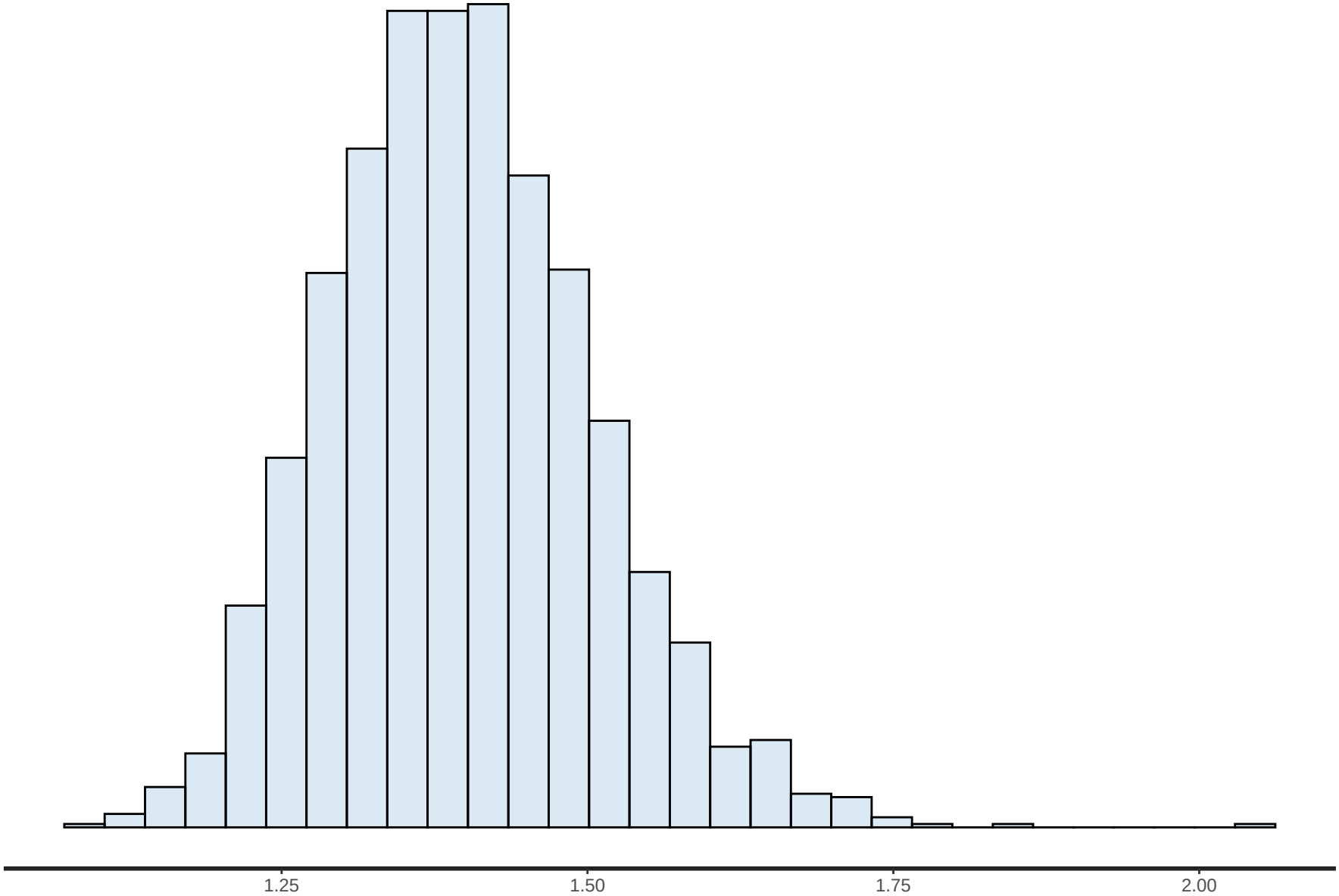

Short Term Death Projection
Number of COVID19 Deaths
100
75
50
25
0
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

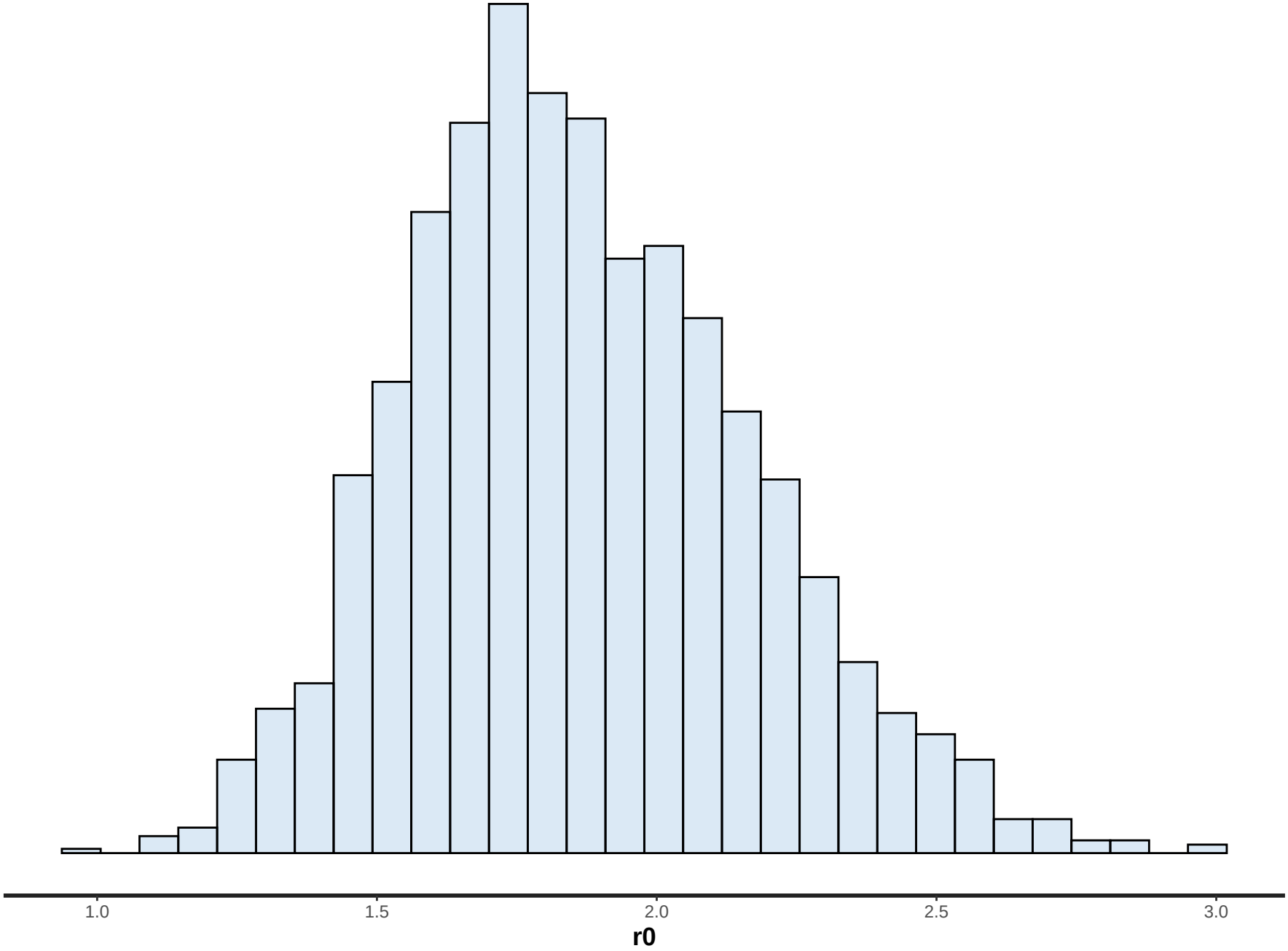

Long Term Death Projection
Number of COVID19 Deaths
750
500
250
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

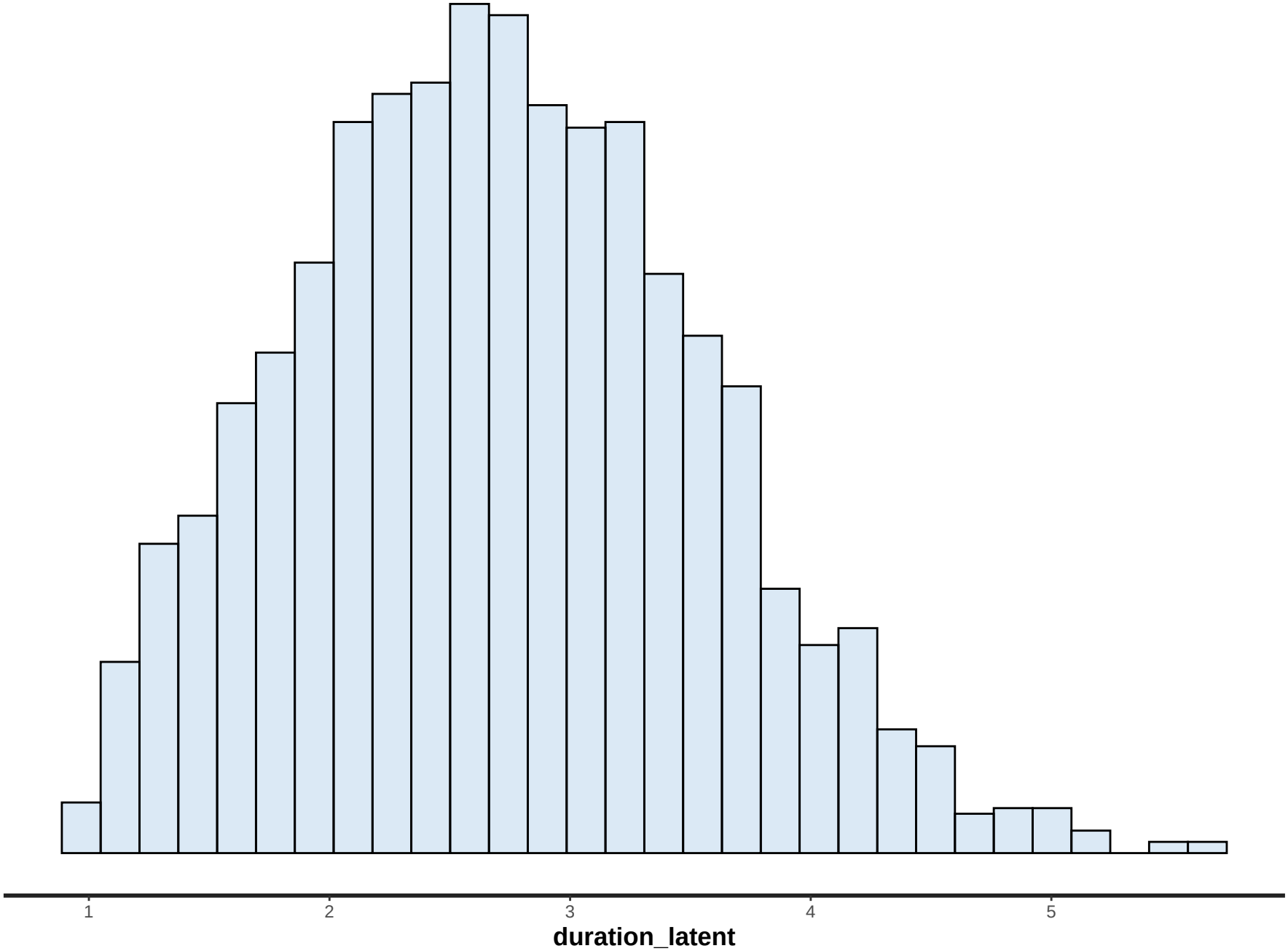

Effective Reproduction Number
Re
3.0
2.5
2.0
1.5
1.0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

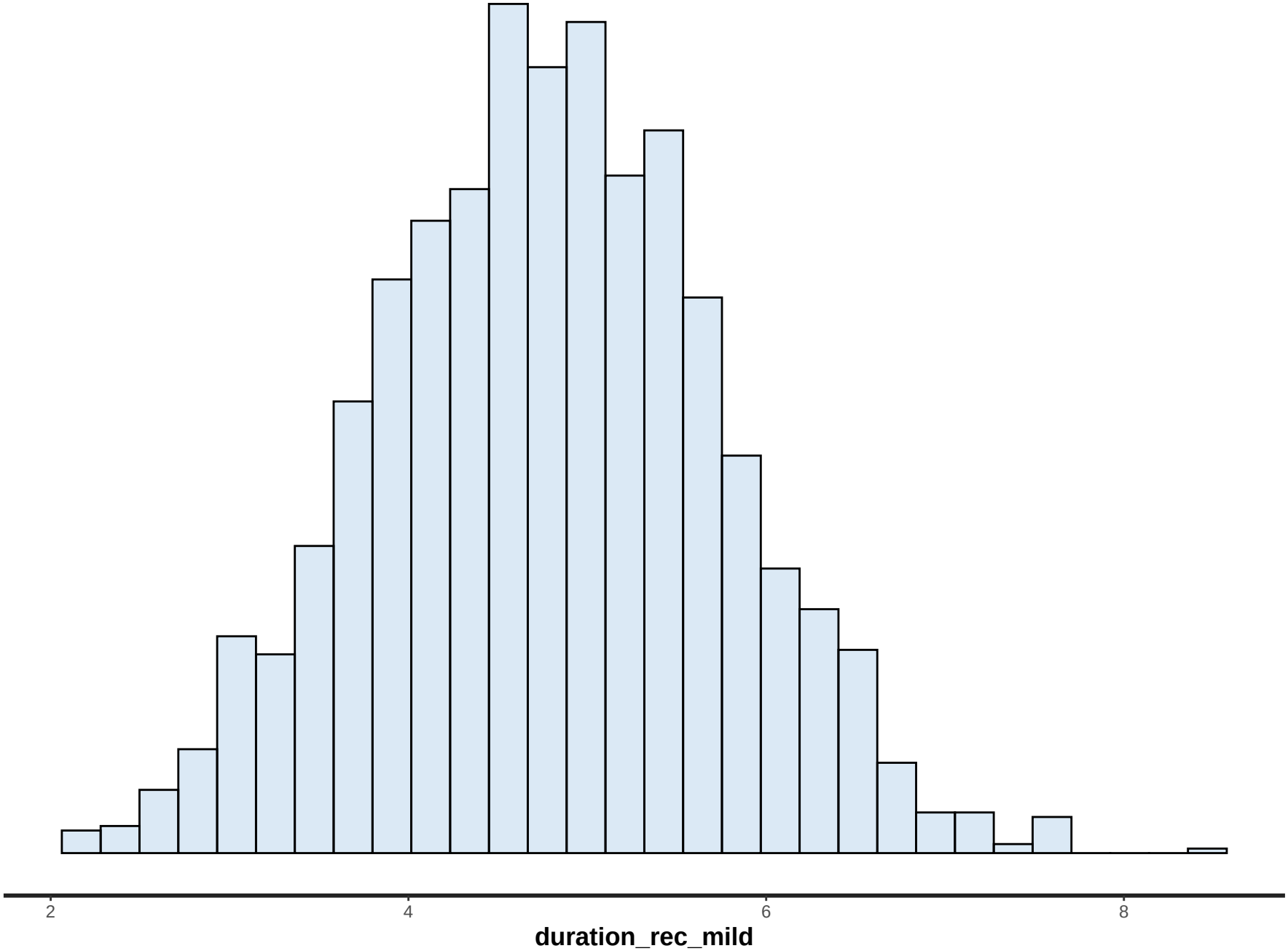
Rt as of 2020−12−01

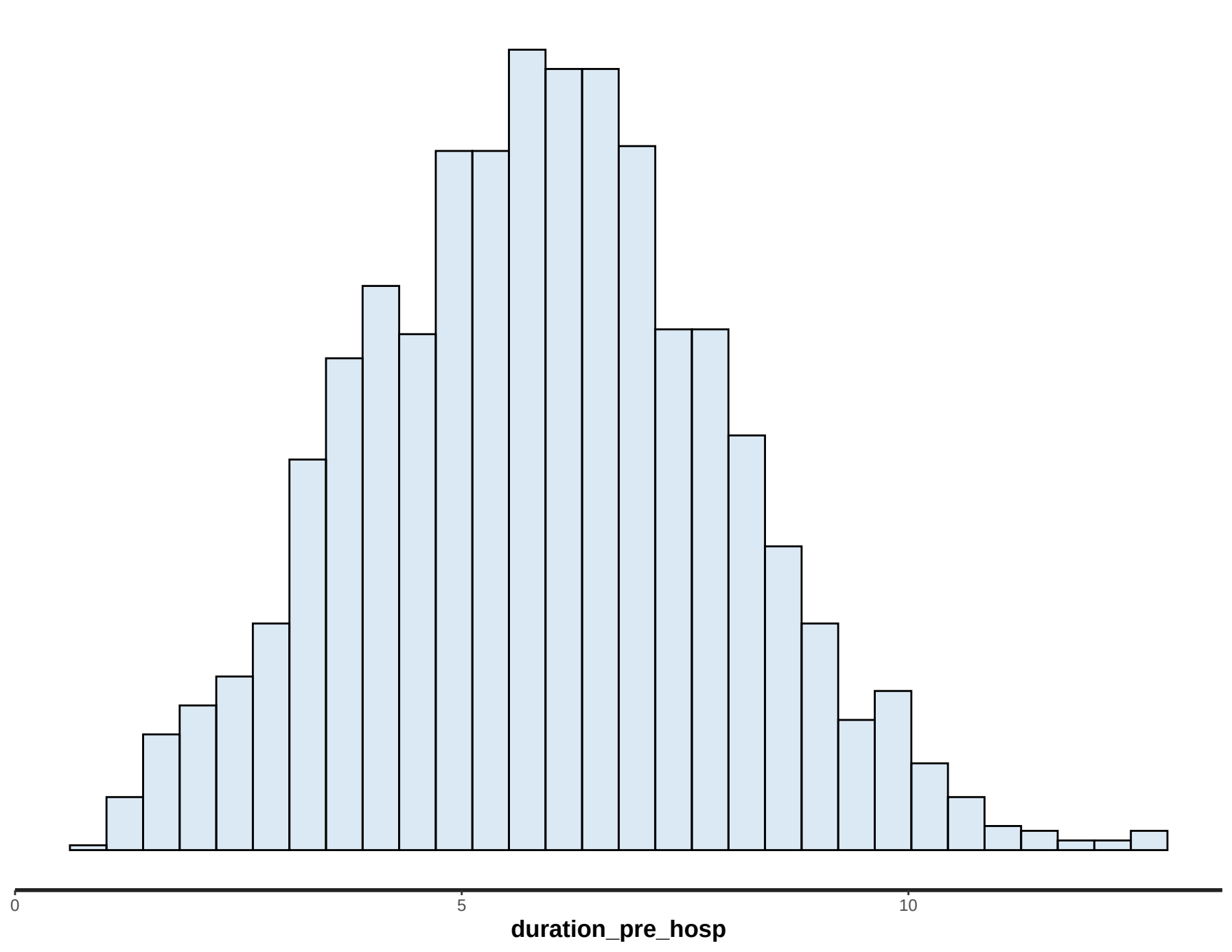
5%	10%	25%	50%	75%	90%	95%
1.24	1.27	1.32	1.39	1.47	1.54	1.58

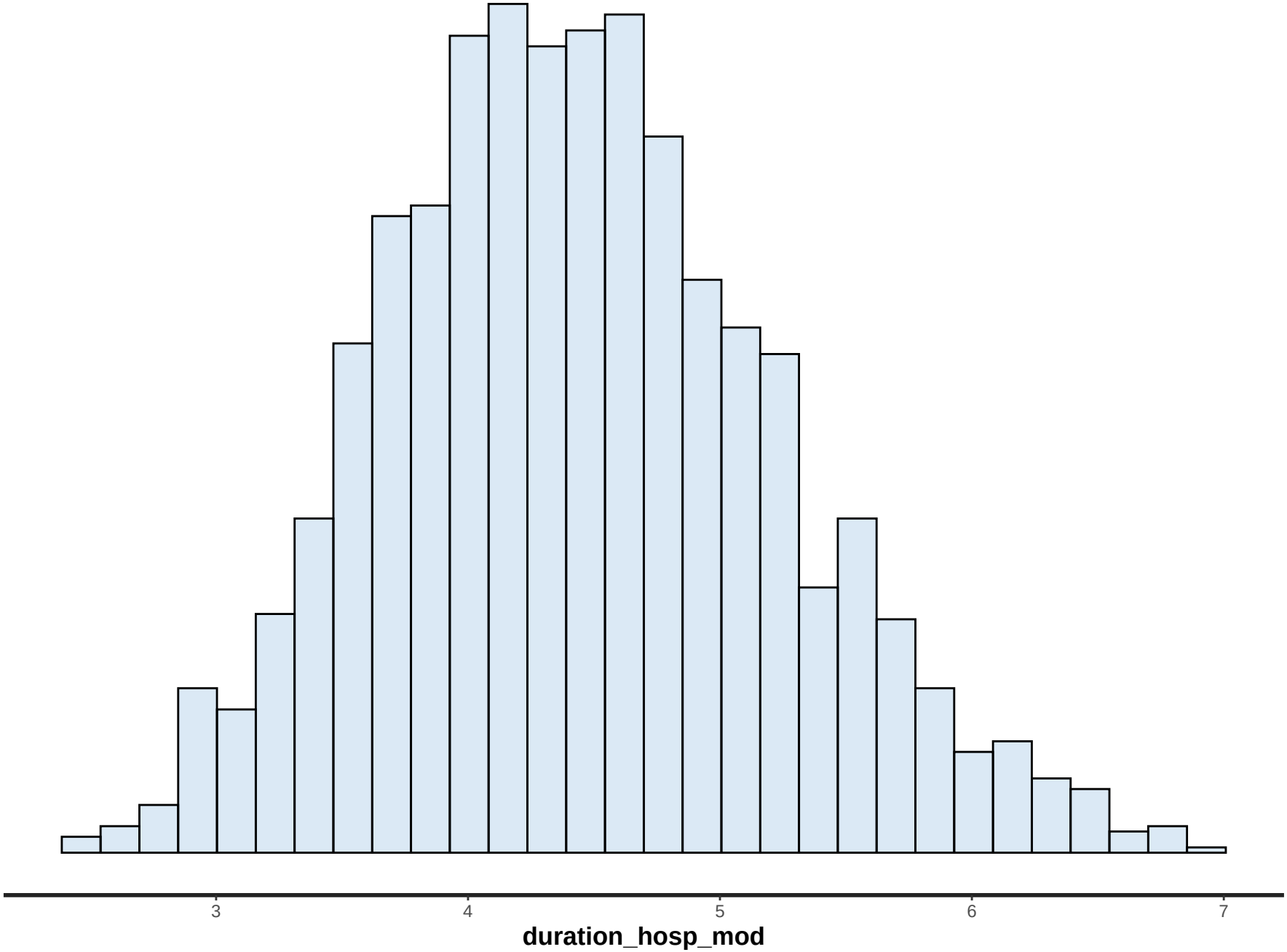


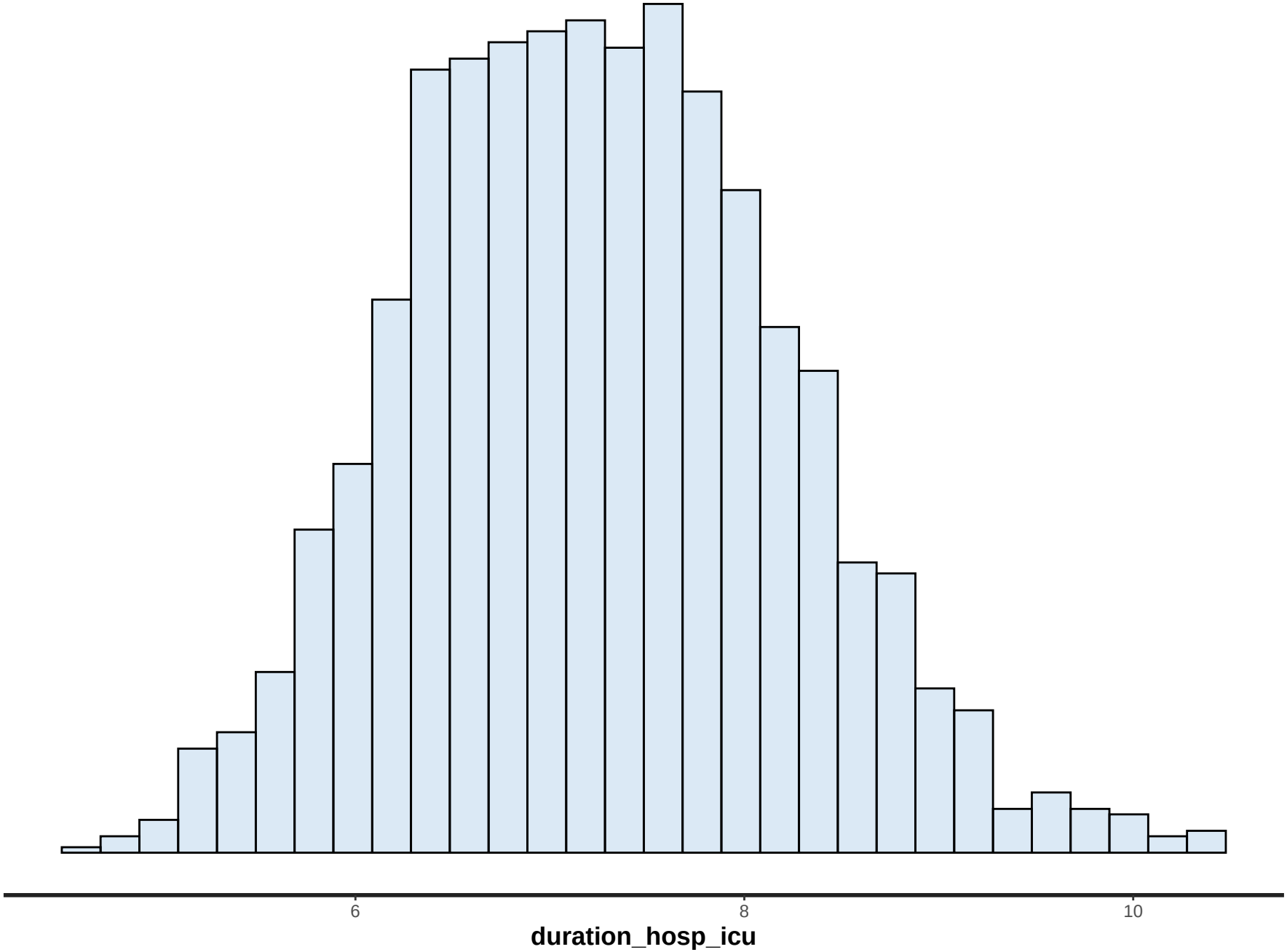

1.0
1.5
2.0
2.5
3.0
r0

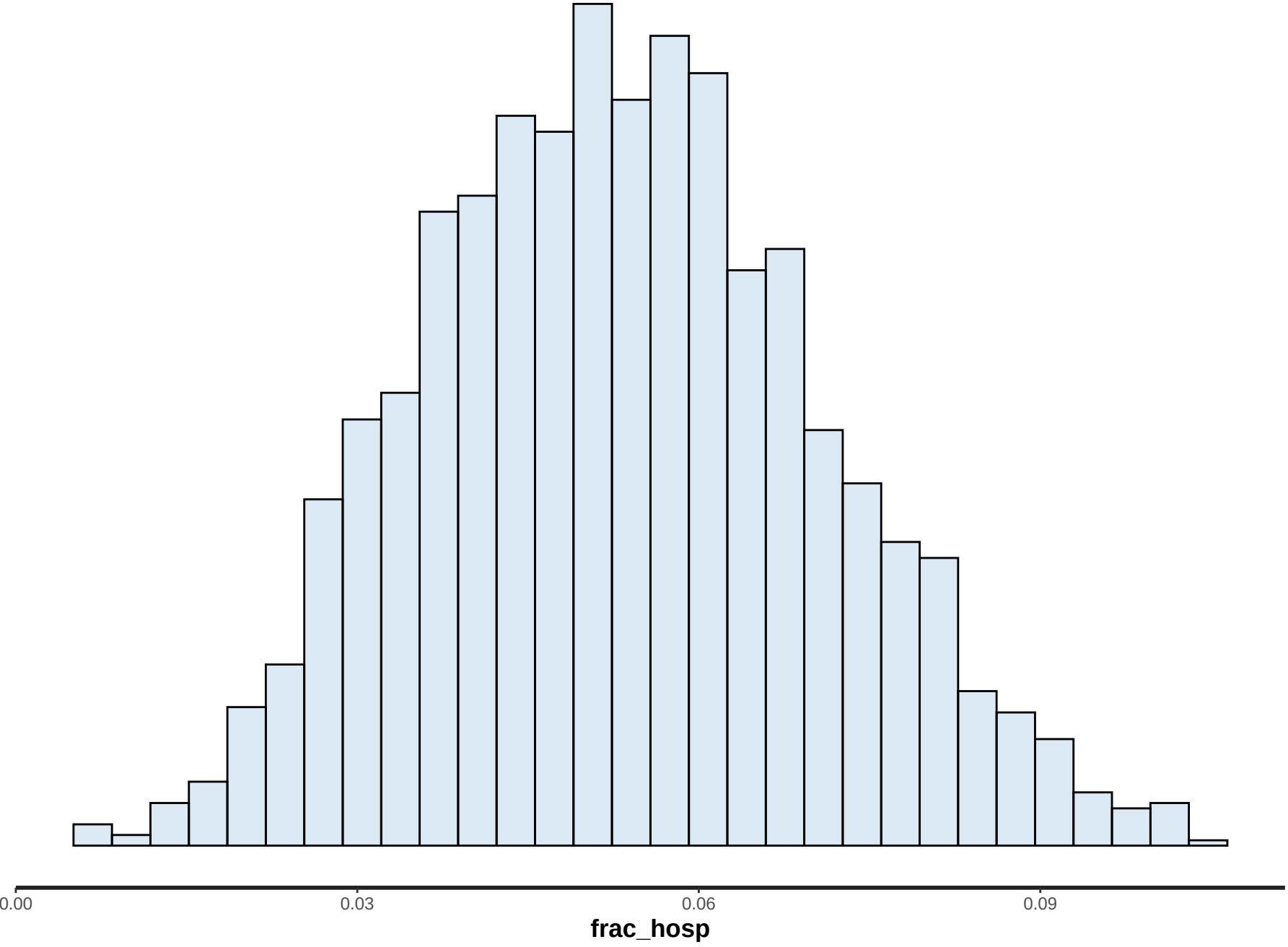

1
2
3
4
5
duration_latent


2
4
6
8
duration_rec_mild


0
5
10
duration_pre_hosp


3
4
5
6
7
duration_hosp_mod


6
8
10
duration_hosp_icu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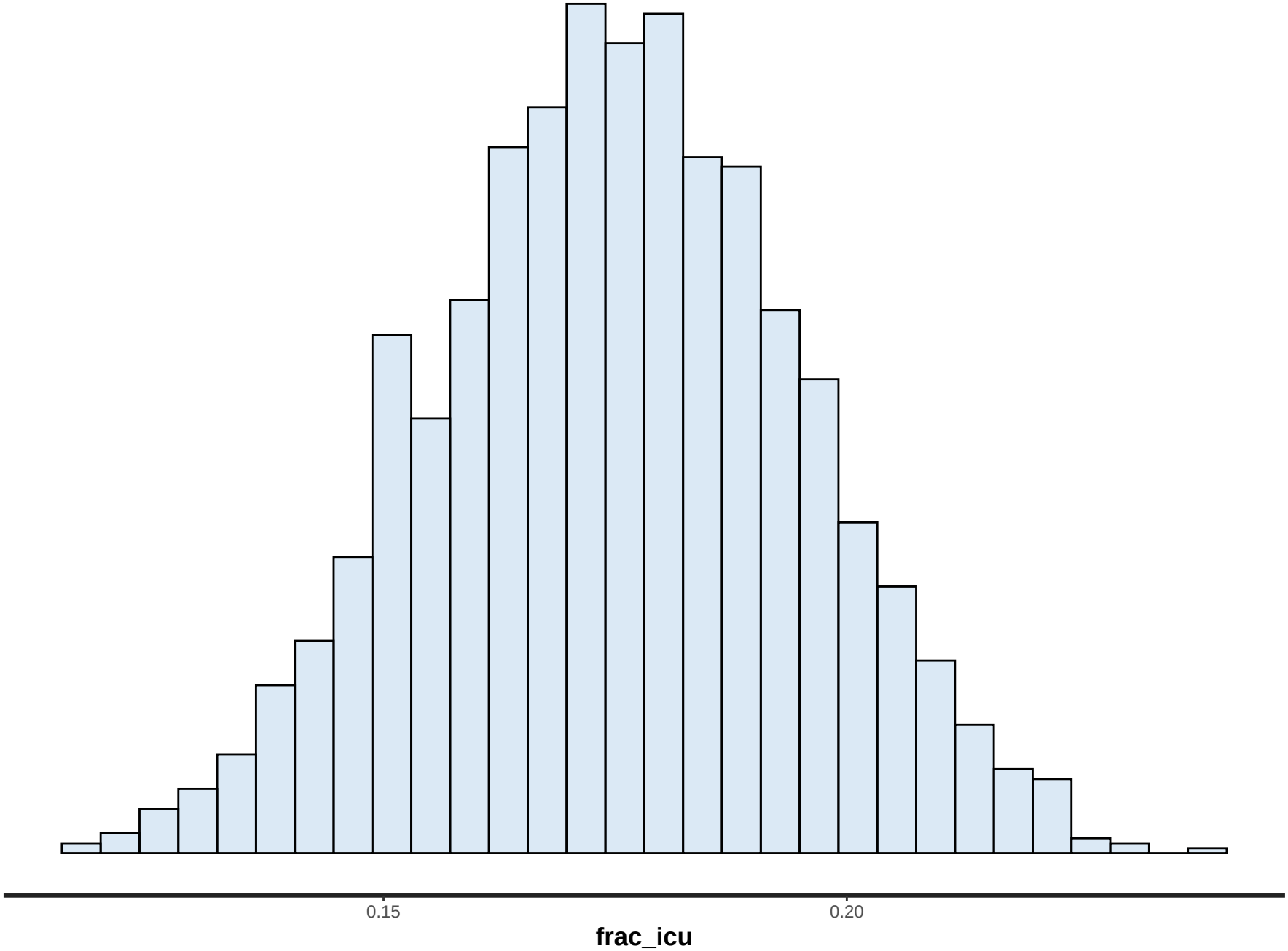
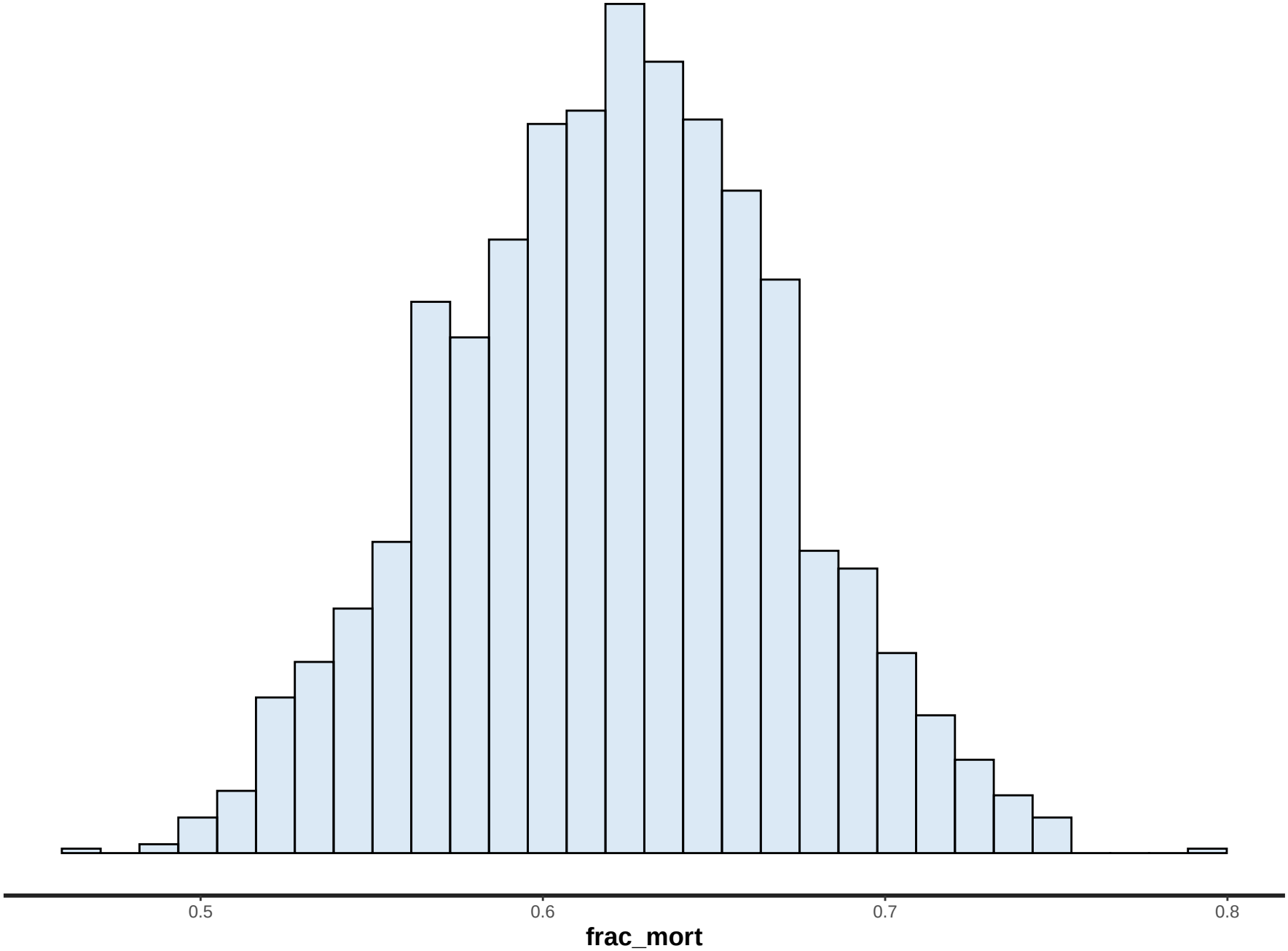
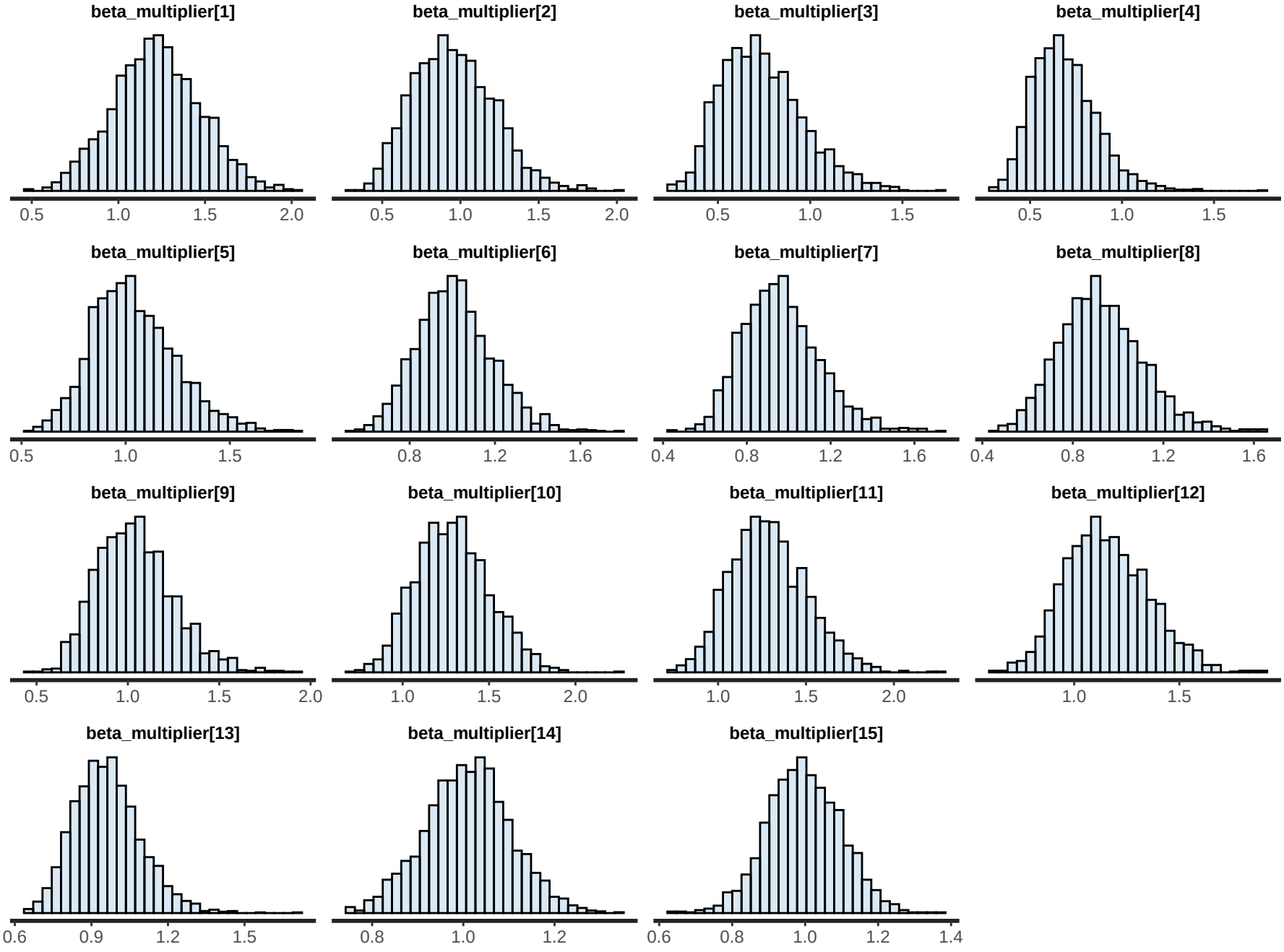
0.03
0.06
0.09
frac_hosp


0.15
0.20
frac_icu


0.5
0.6
0.7
0.8
frac_mort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0.5 1.0 1.5 2.0
beta_multiplier[2]
0.5 1.0 1.5 2.0
beta_multiplier[3]
0.5 1.0 1.5
beta_multiplier[4]
0.5 1.0 1.5
beta_multiplier[5]
0.5 1.0 1.5
beta_multiplier[6]
0.8 1.2 1.6
beta_multiplier[7]
0.4 0.8 1.2 1.6
beta_multiplier[8]
0.4 0.8 1.2 1.6
beta_multiplier[9]
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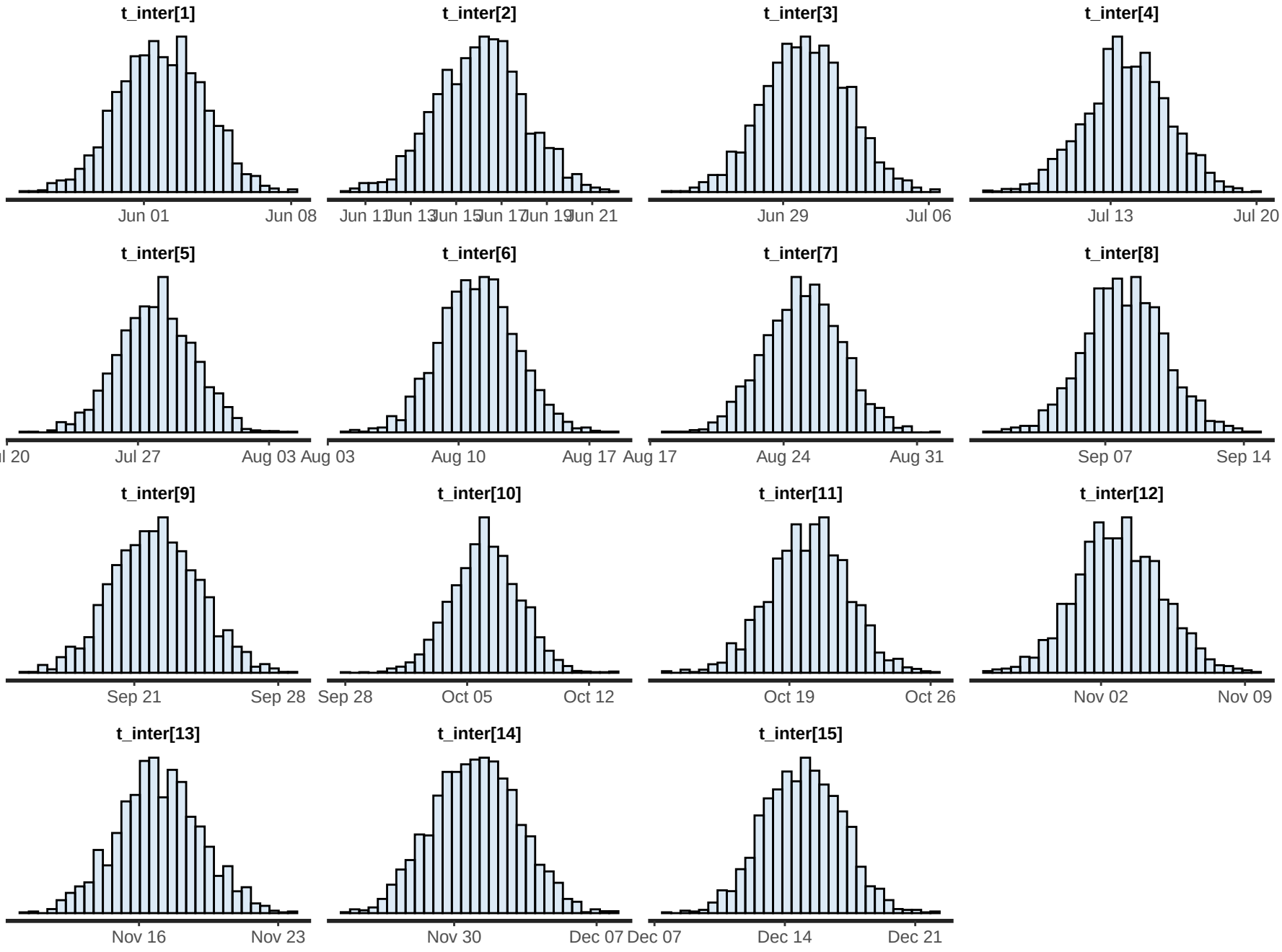
beta_multiplier[10]
1.0 1.5 2.0
beta_multiplier[11]
1.0 1.5 2.0
beta_multiplier[12]
1.0 1.5
beta_multiplier[13]
0.6 0.9 1.2 1.5
beta_multiplier[14]
0.8 1.0 1.2
beta_multiplier[15]
0.6 0.8 1.0 1.2 1.4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Jun 01
Jun 08
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Jun 11
Jun 13
Jun 15
Jun 17
Jun 19
Jun 21
t_inter[3]
Jun 29
Jul 06
t_inter[4]
Jul 13
Jul 20
t_inter[5]
Jul 20
Jul 27
Aug 03
t_inter[6]
Aug 03
Aug 10
Aug 17
t_inter[7]
Aug 17
Aug 24
Aug 31
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Sep 07
Sep 14
t_inter[9]
Sep 21
Sep 28
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Sep 28
Oct 05
Oct 12
t_inter[11]
Oct 19
Oct 26
t_inter[12]
Nov 02
Nov 09
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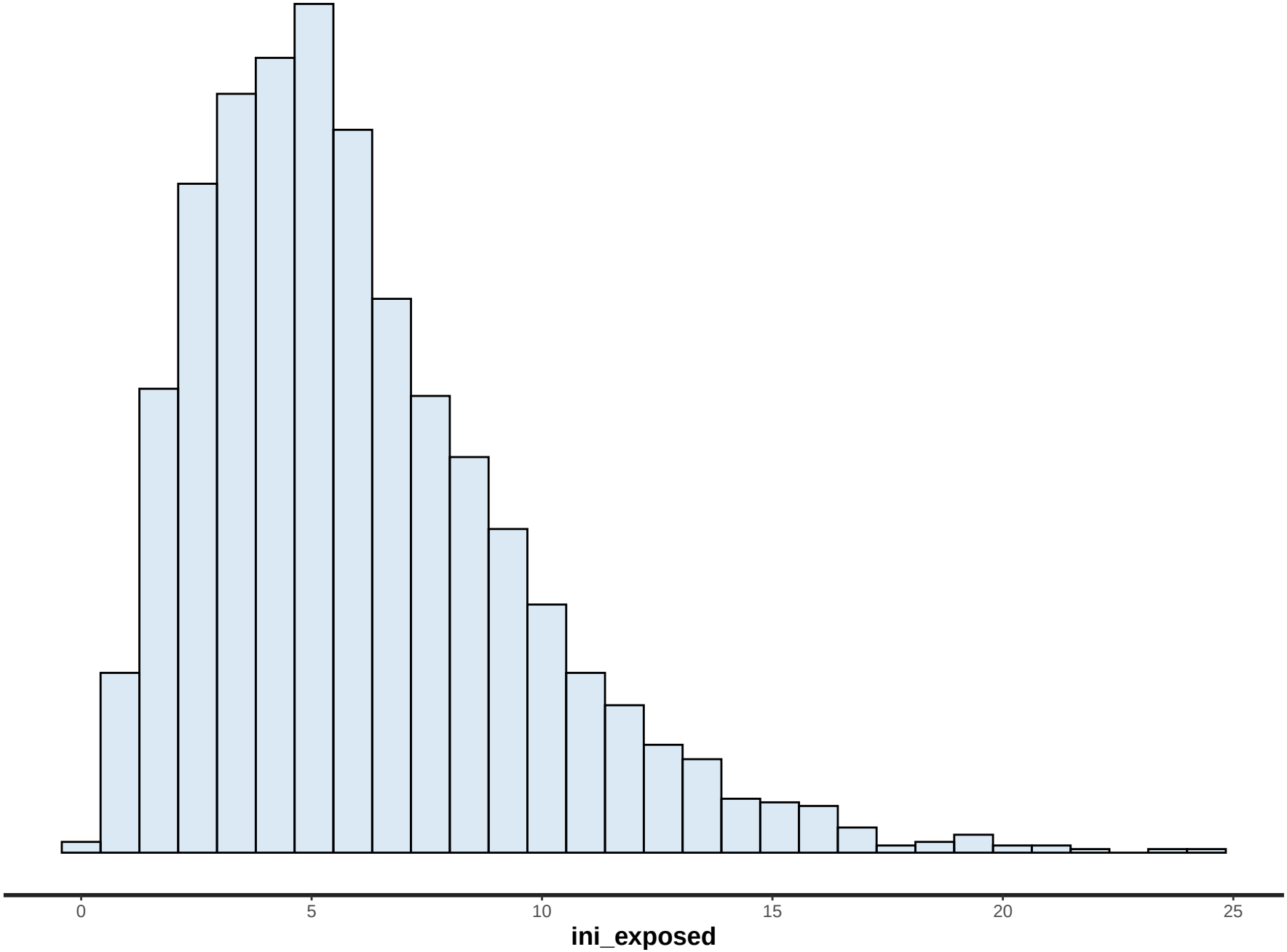
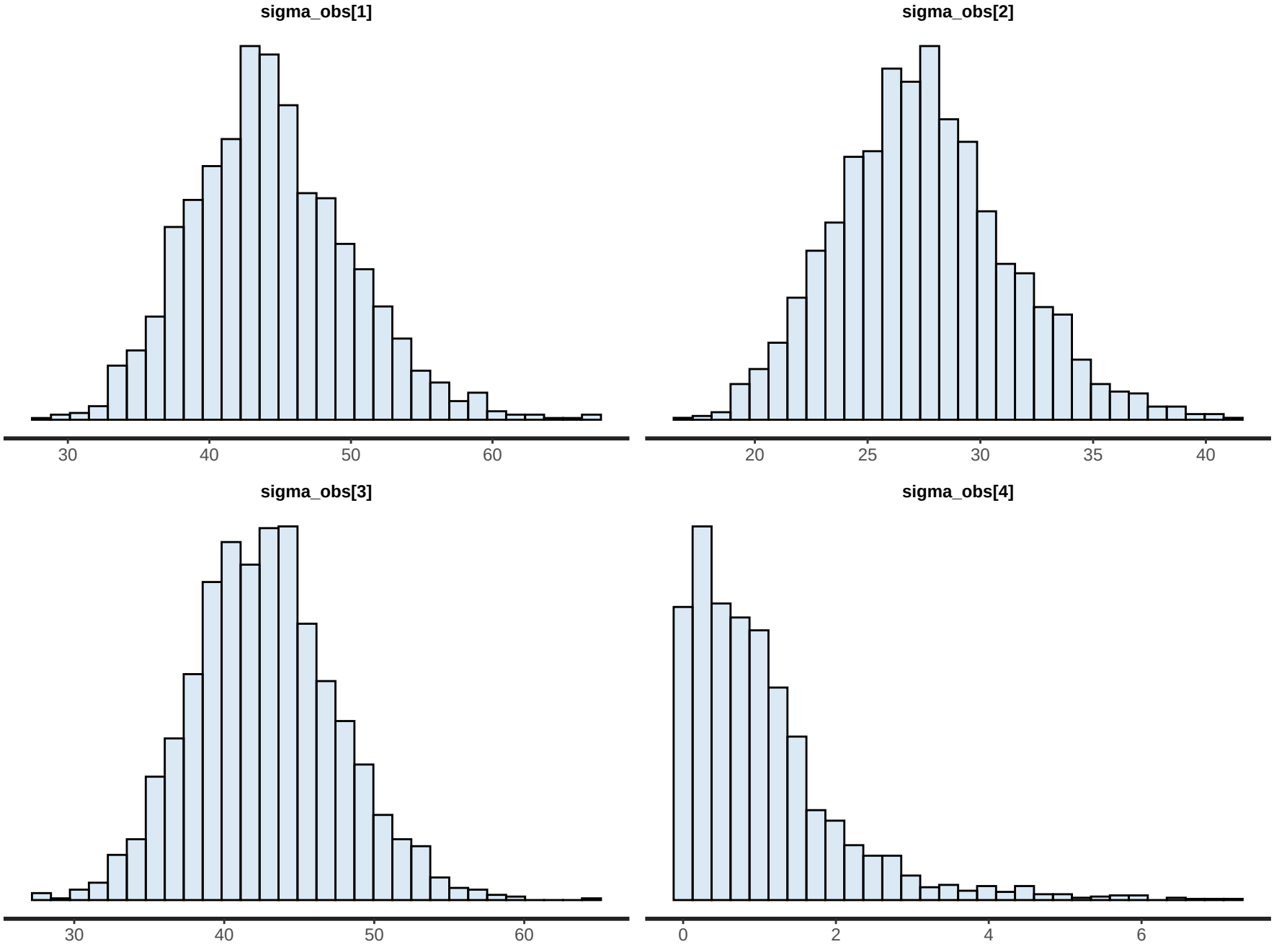
Nov 16
Nov 23
t_inter[14]
Nov 30
Dec 07
t_inter[15]
Dec 07
Dec 14
Dec 21


0
5
10
15
20
25
ini_exposed


sigma_obs[1]
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40
50
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sigma_obs[2]
20
25
30
35
40
sigma_obs[3]
30
40
50
60
sigma_obs[4]
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4
6