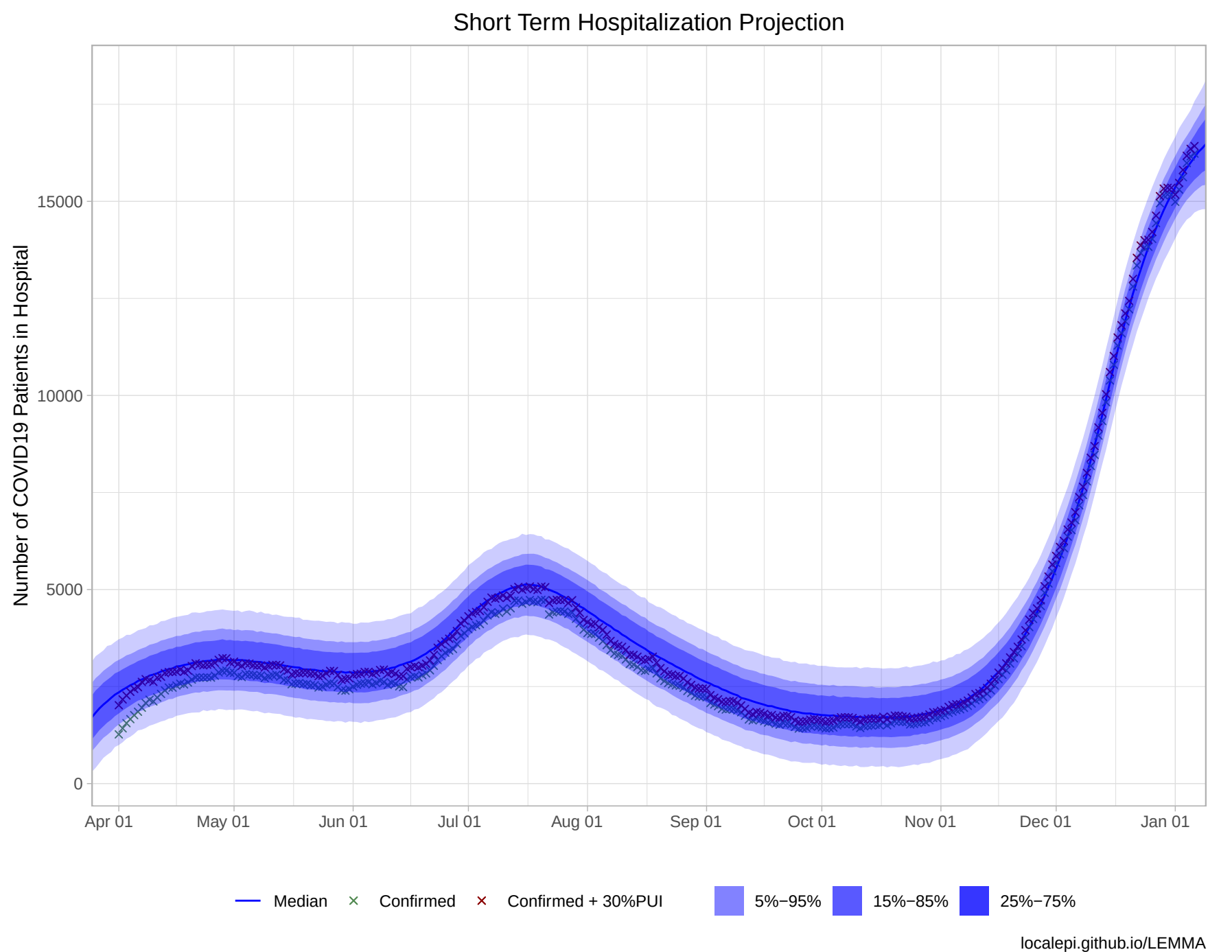
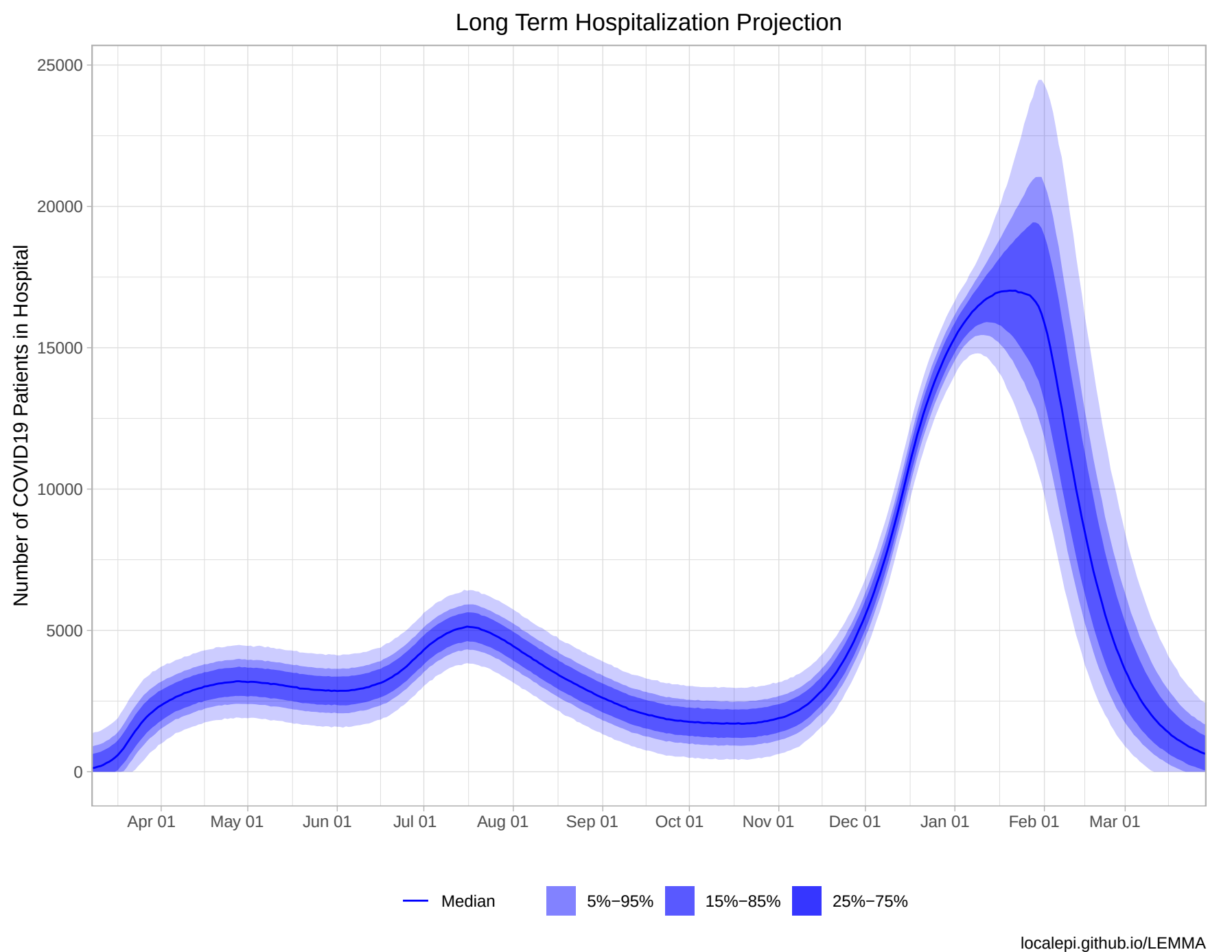
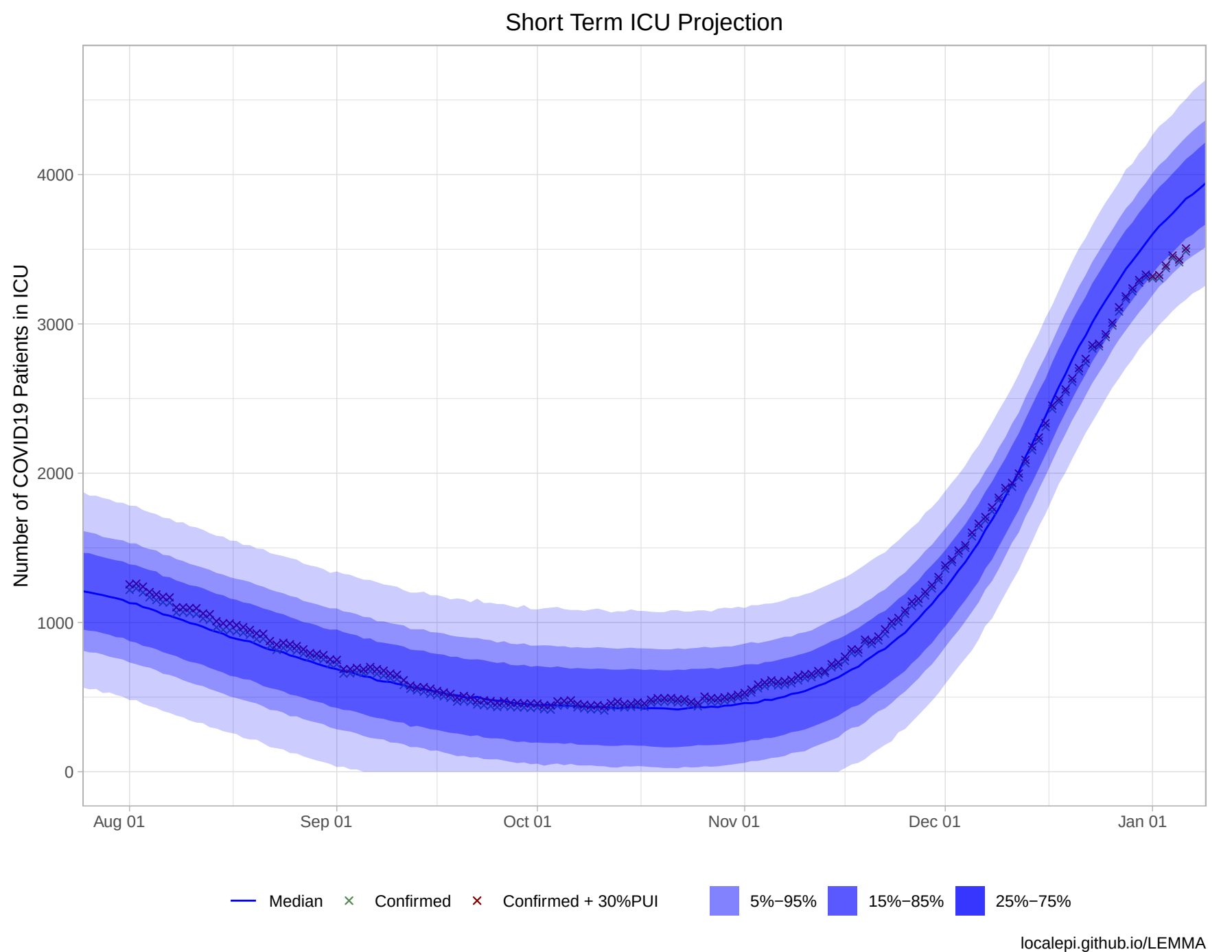
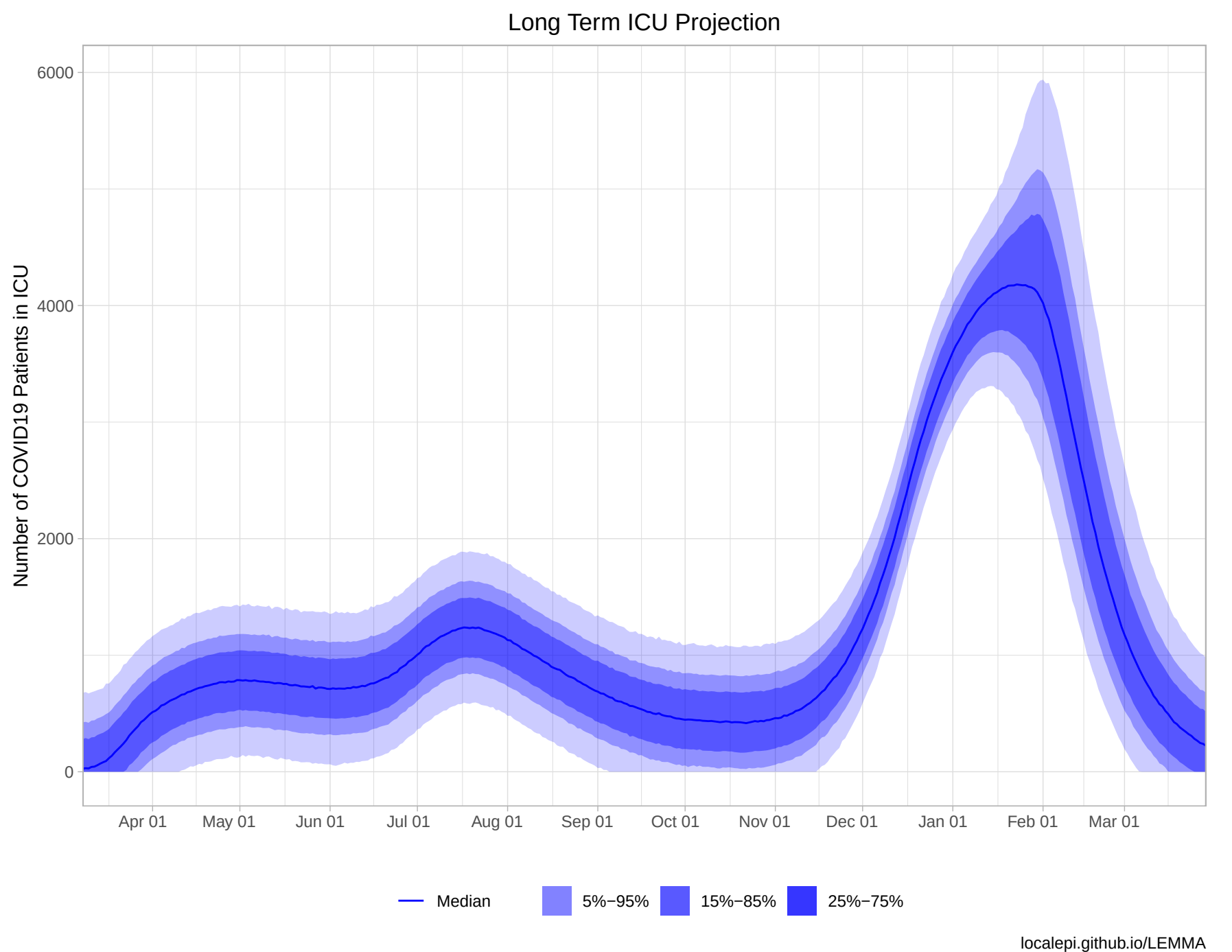
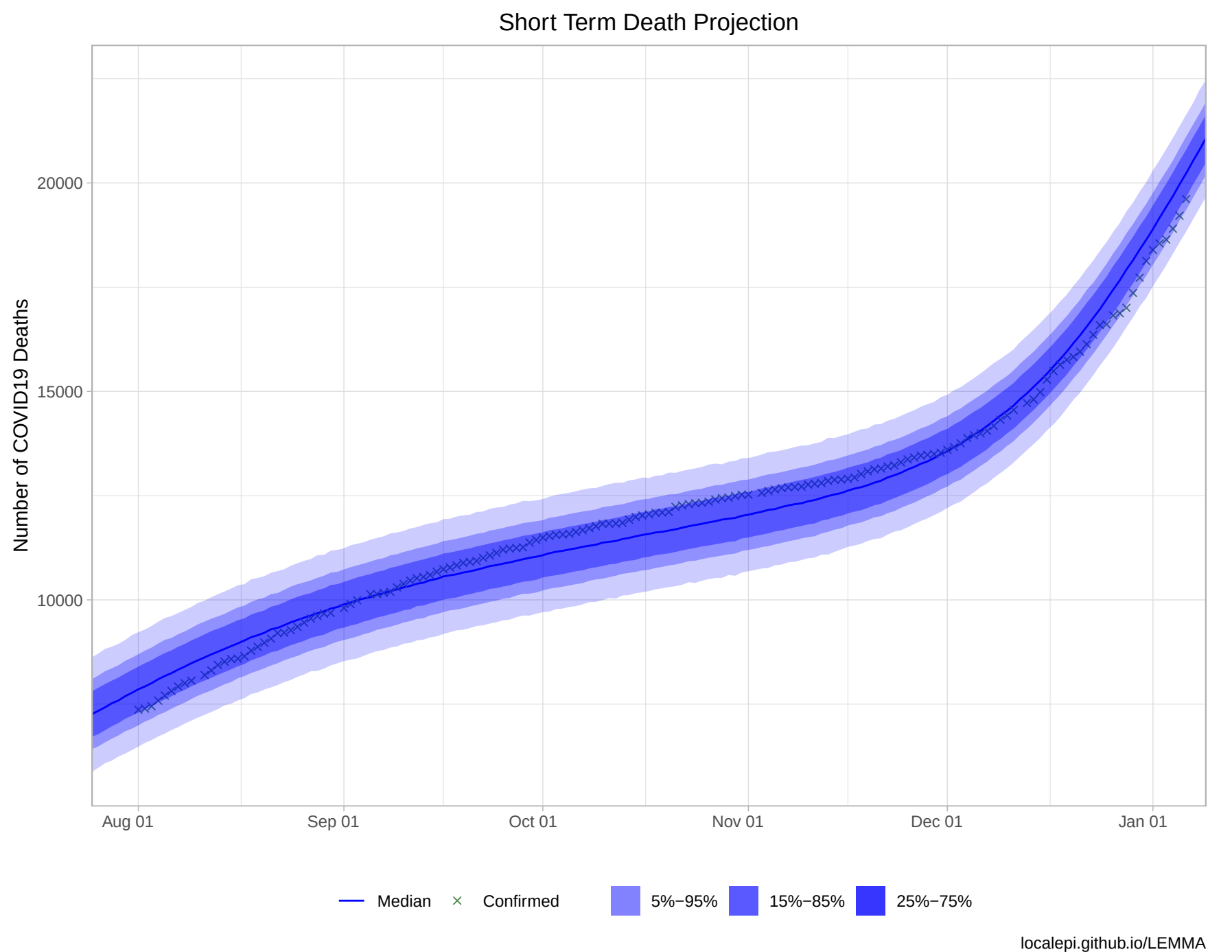
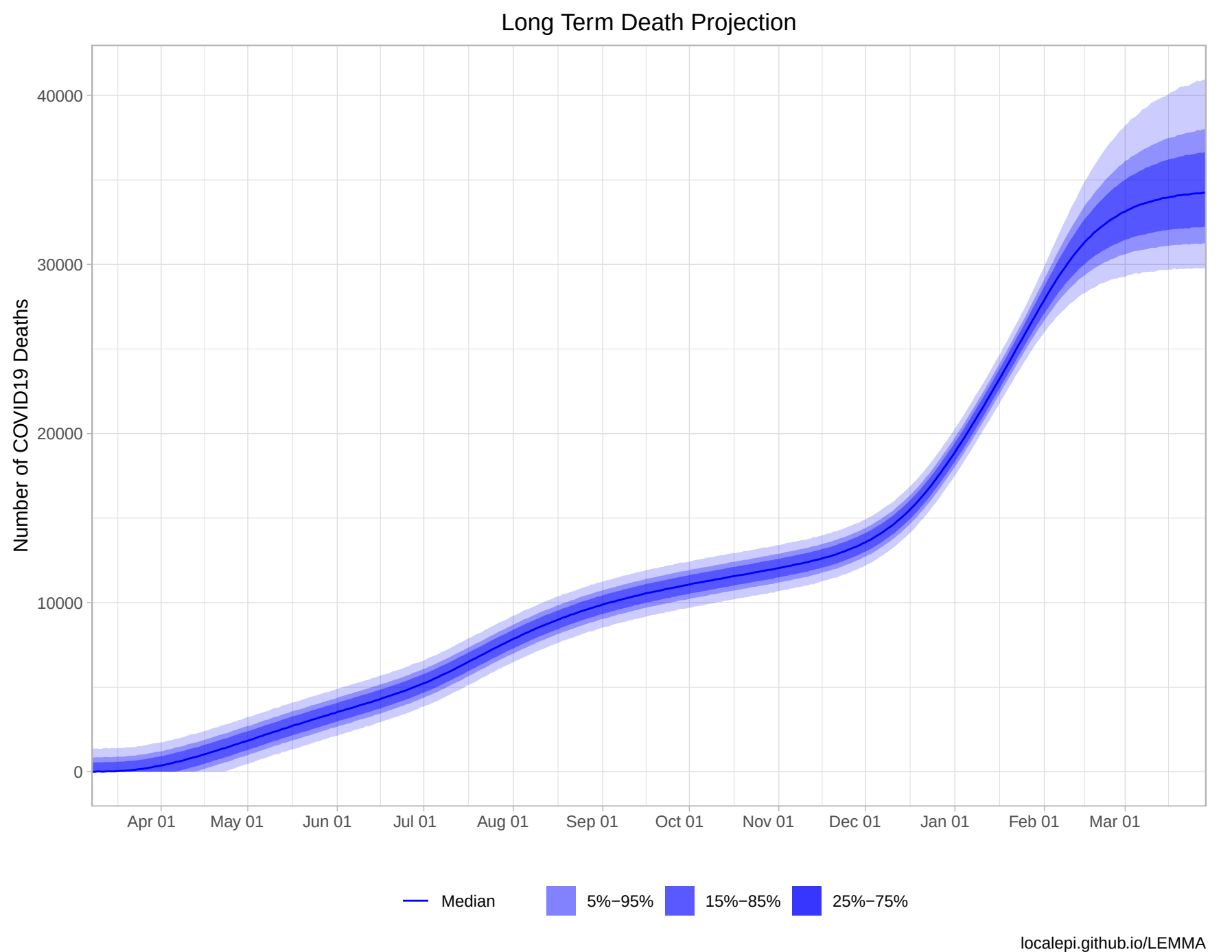

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
5000
10000
15000
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

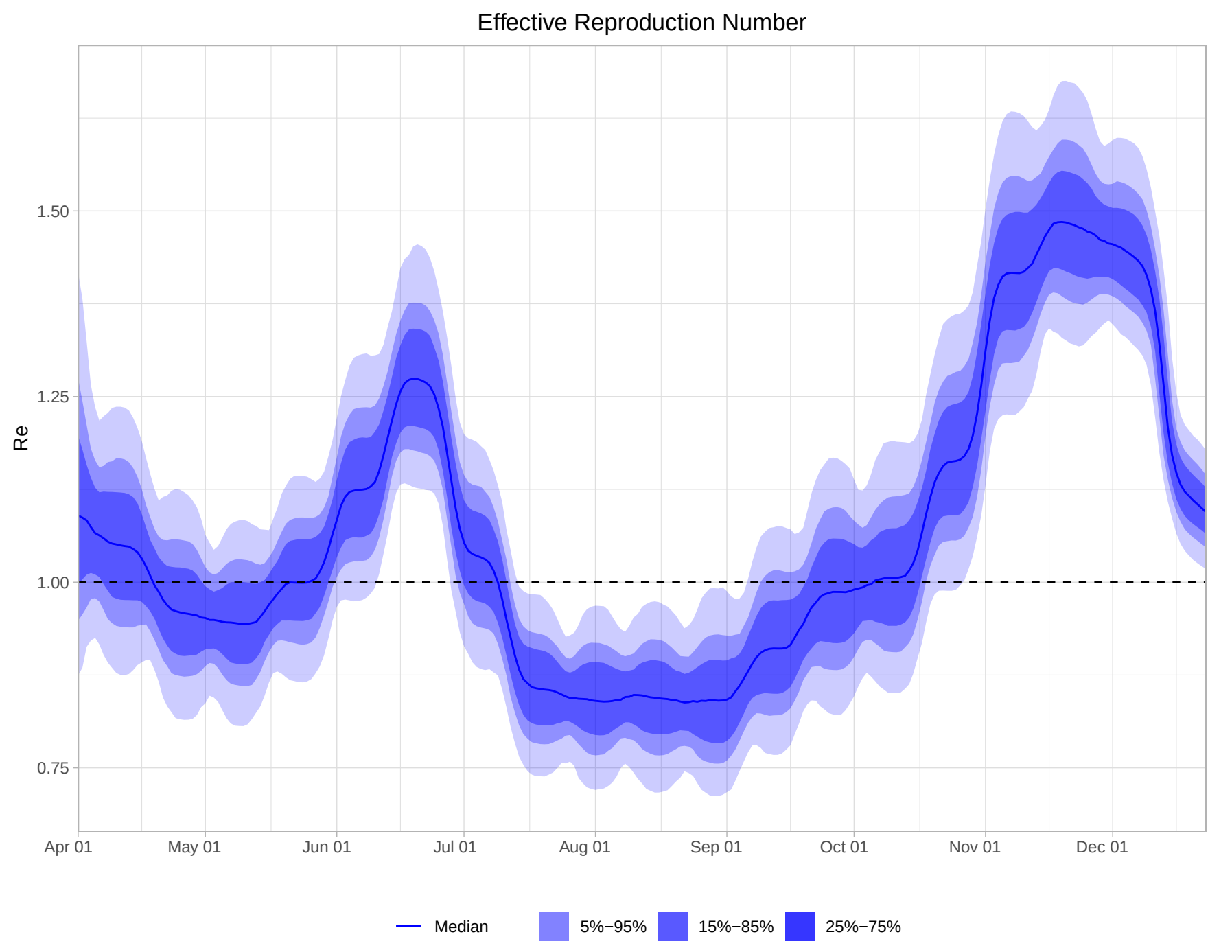

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
25000
20000
15000
10000
5000
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
4000
3000
2000
1000
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
6000
4000
2000
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

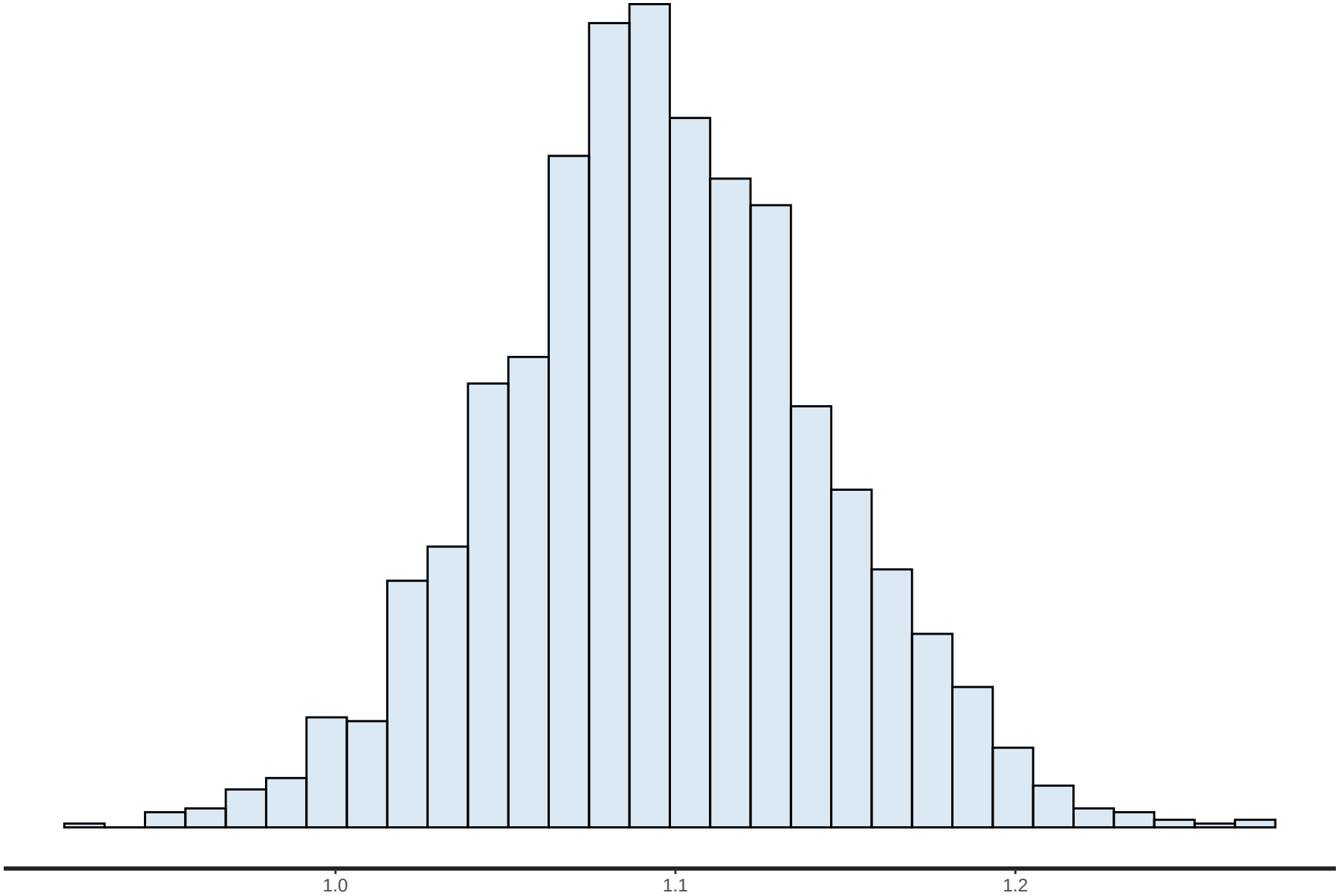

Short Term Death Projection
Number of COVID19 Deaths
20000
15000
10000
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

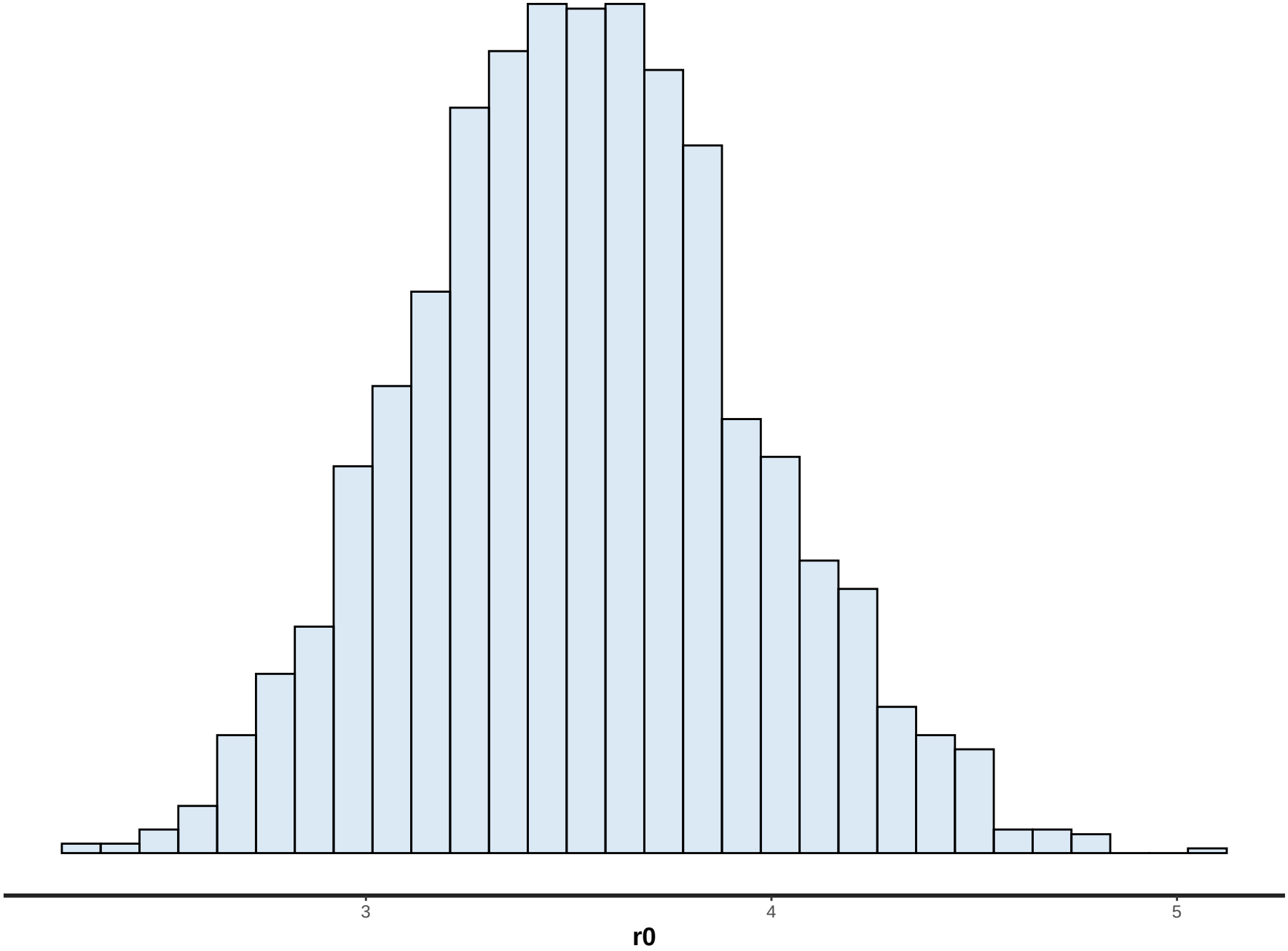

Long Term Death Projection
Number of COVID19 Deaths
40000
30000
20000
10000
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

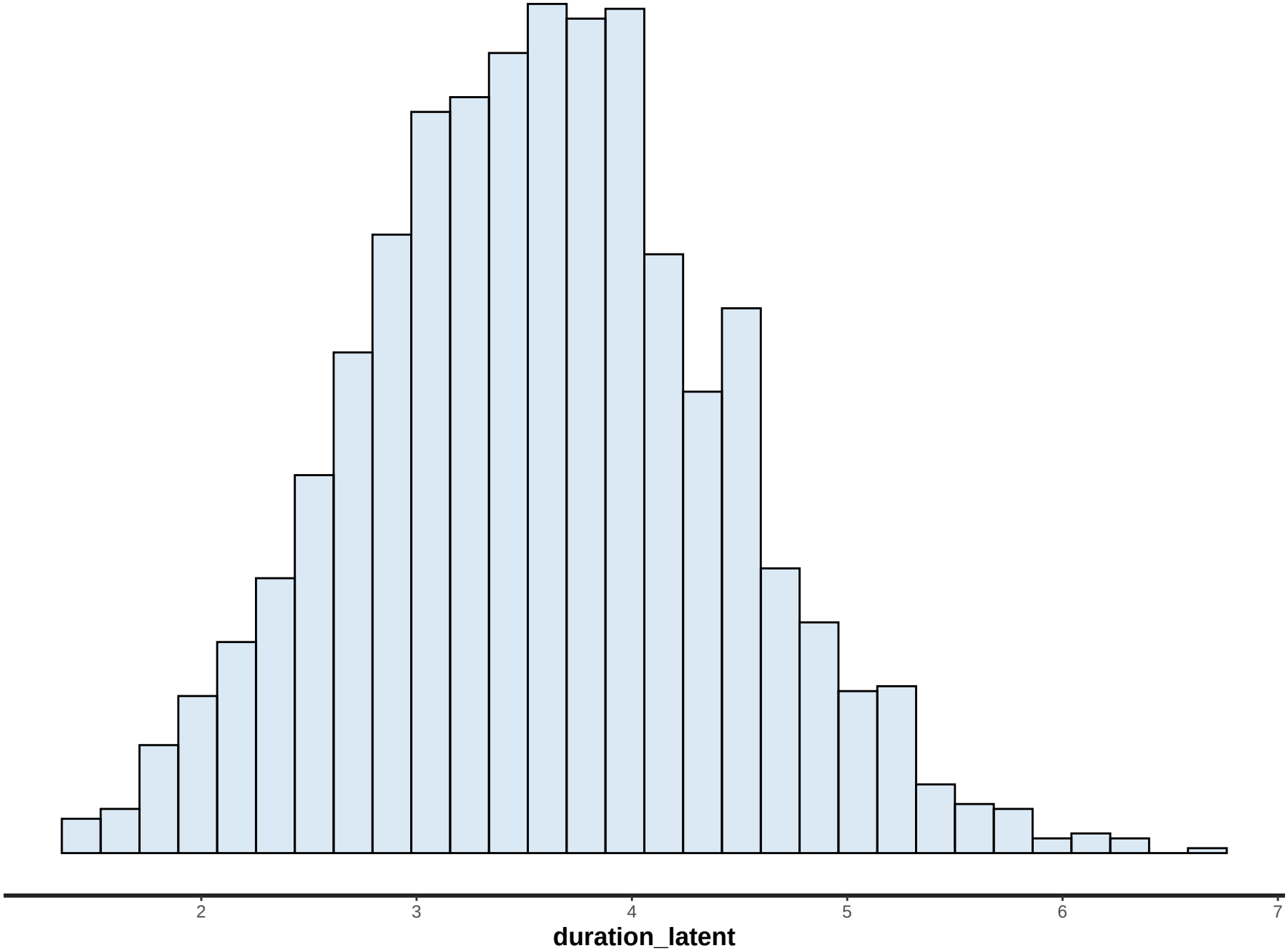

Effective Reproduction Number
Re
1.50
1.25
1.00
0.75
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

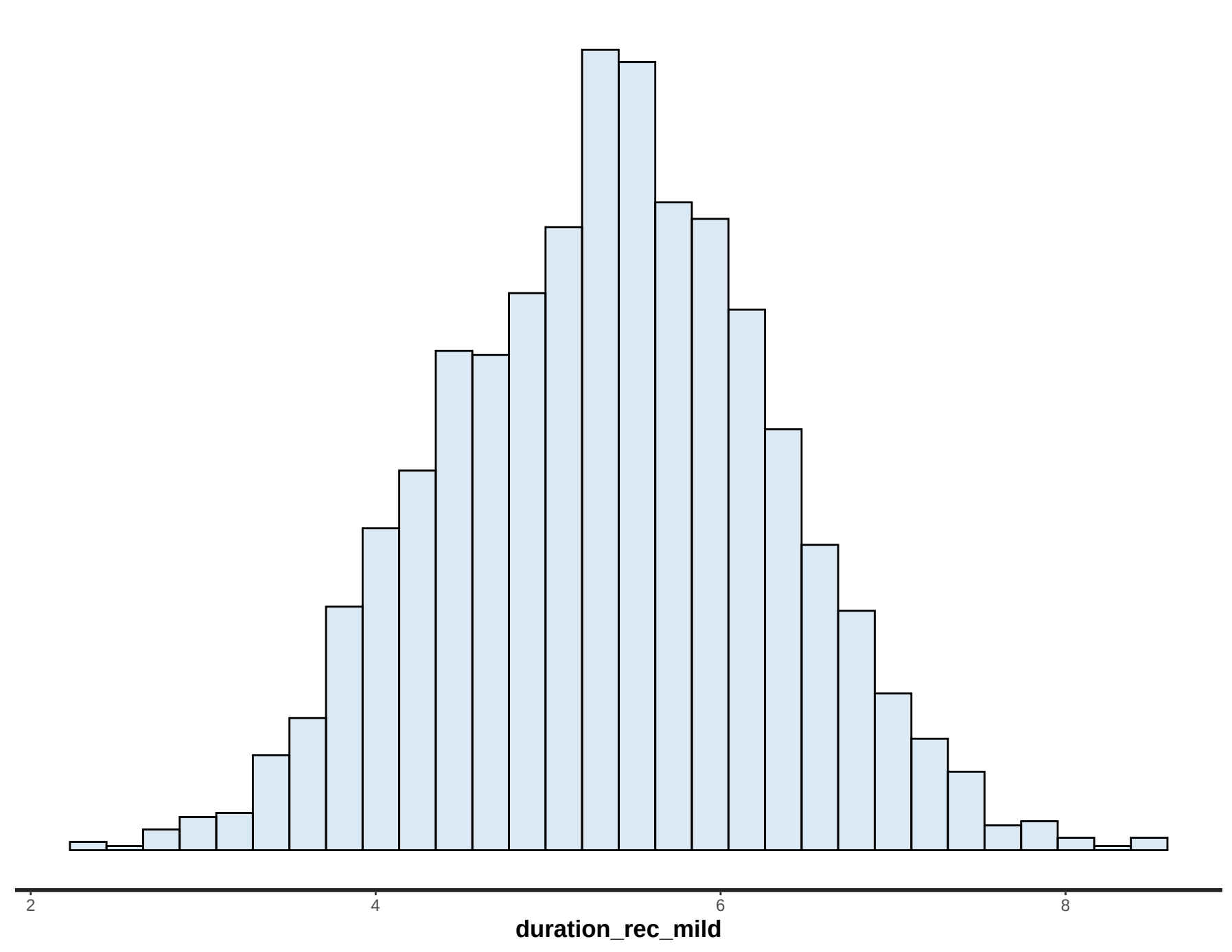
Rt as of 2020−12−23

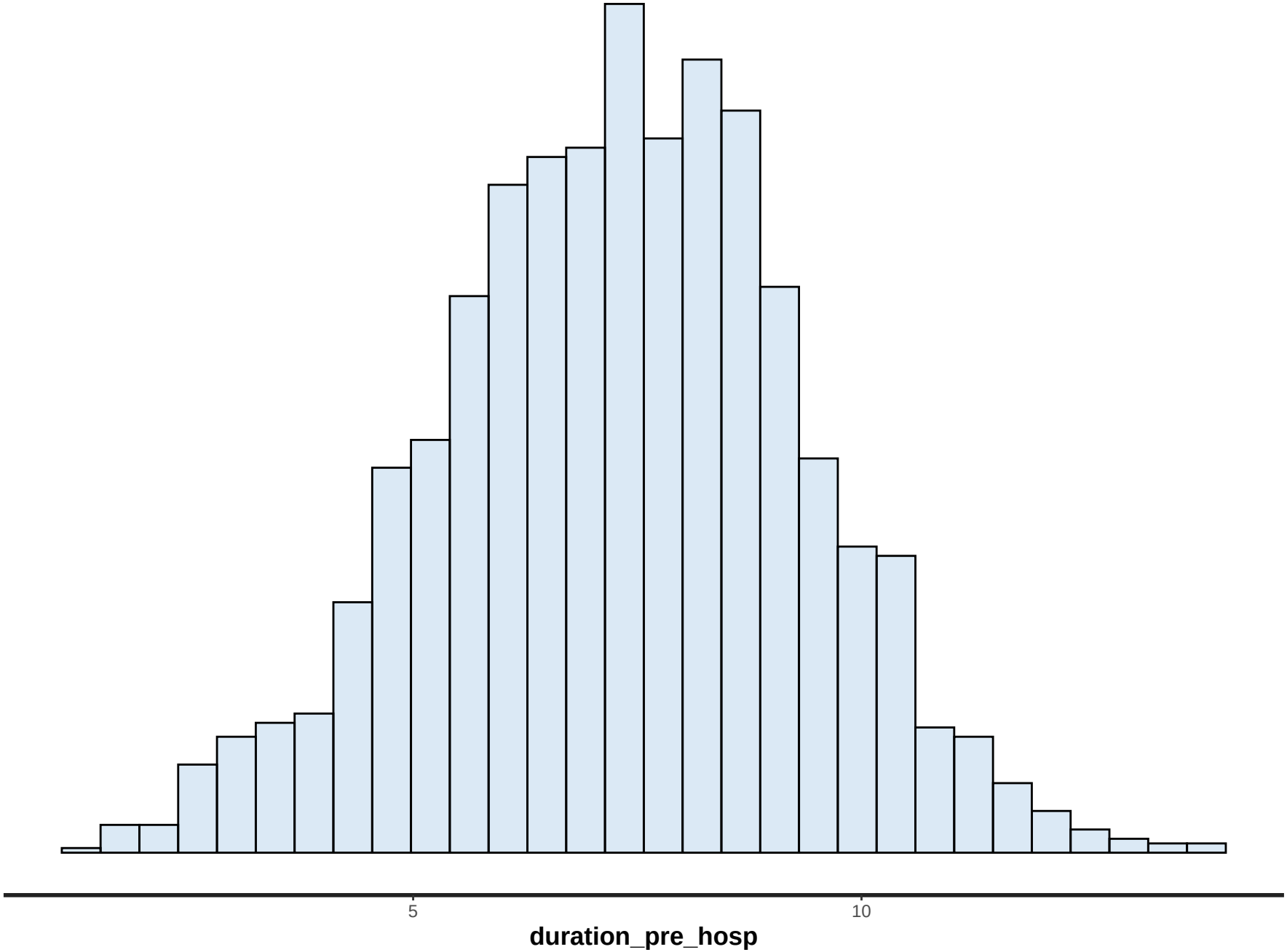
5%	10%	25%	50%	75%	90%	95%
1.02	1.03	1.06	1.09	1.13	1.16	1.18

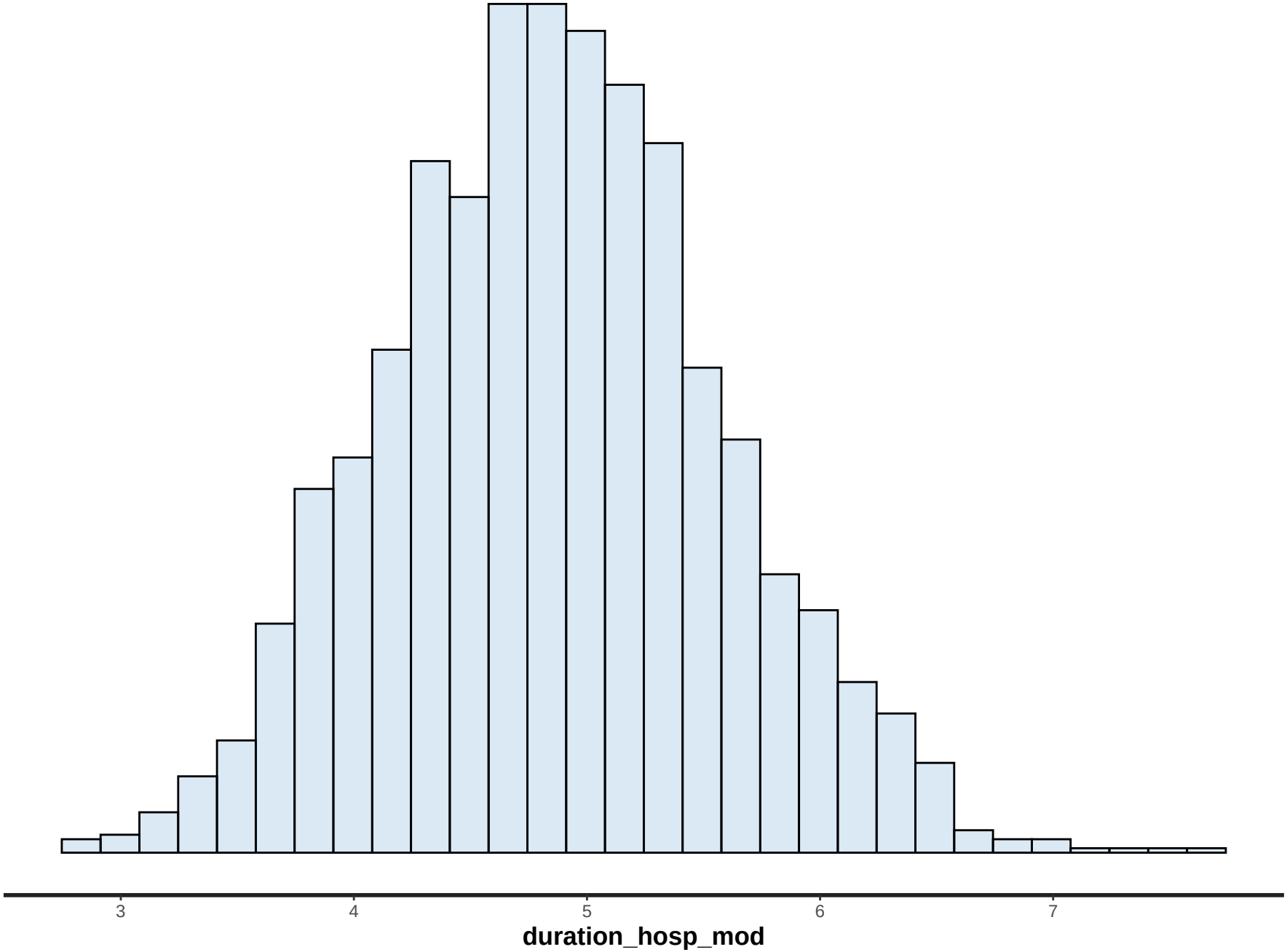


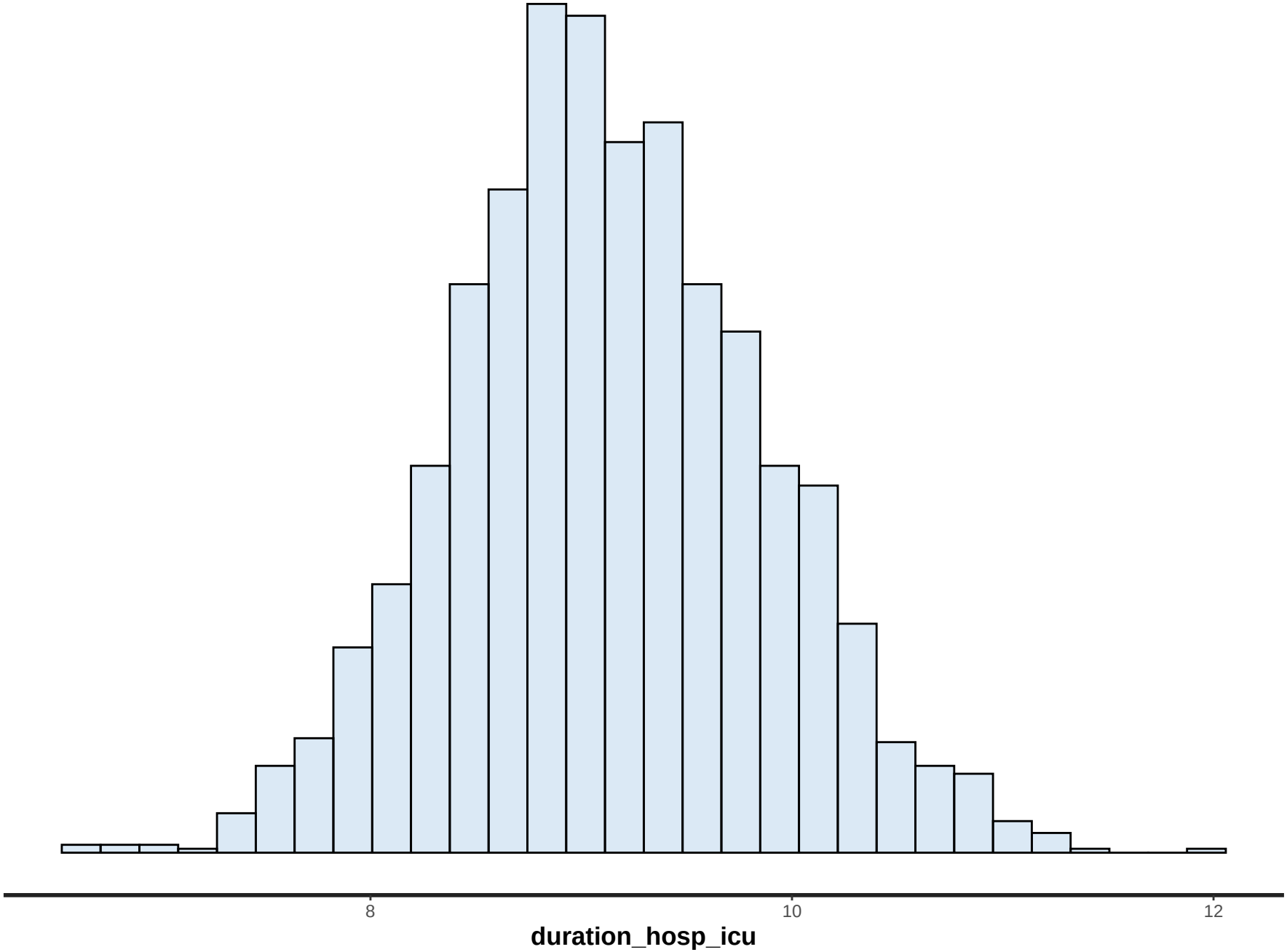

3
4
5
r0

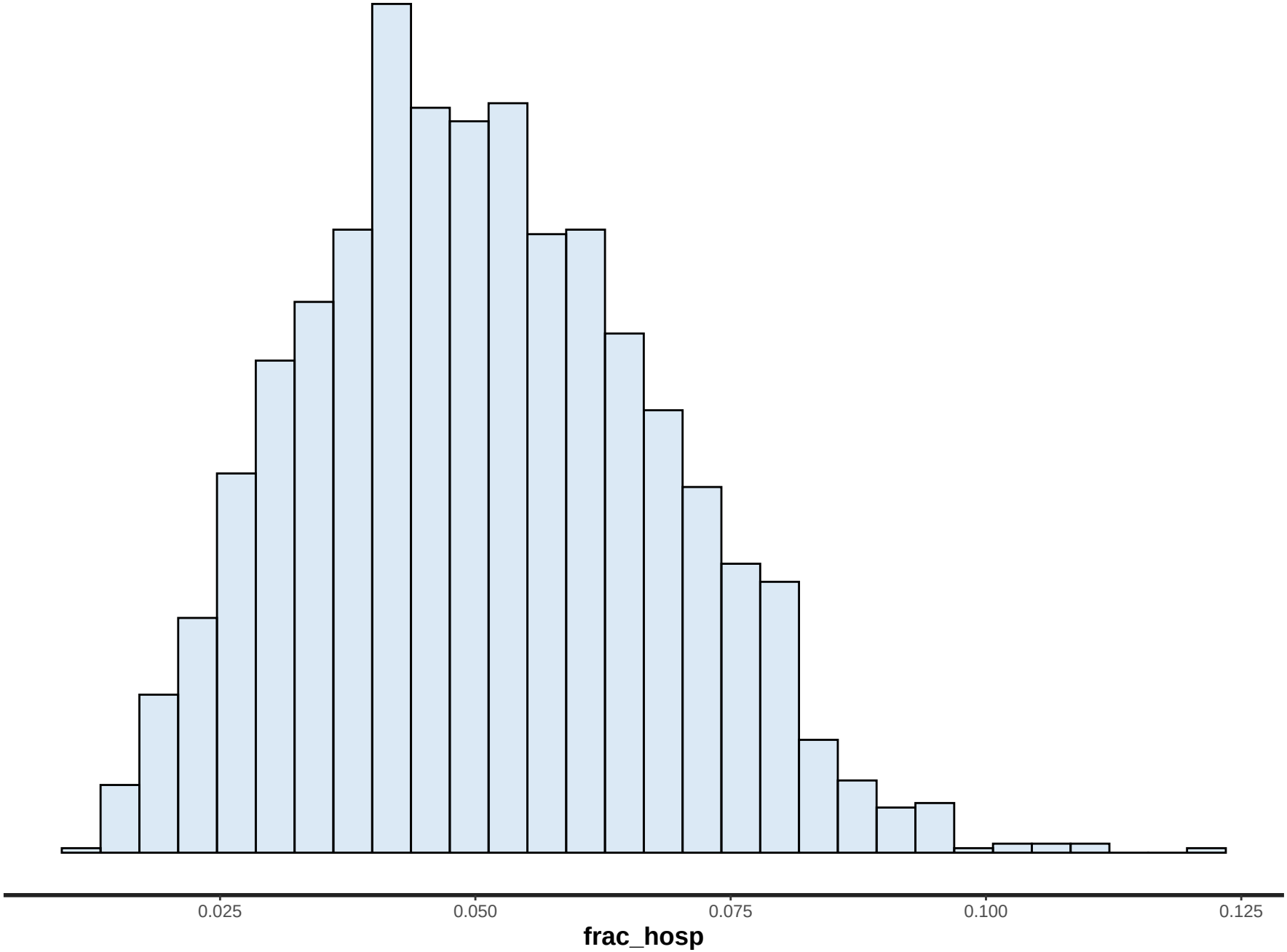

2
3
4
5
6
7
duration_latent

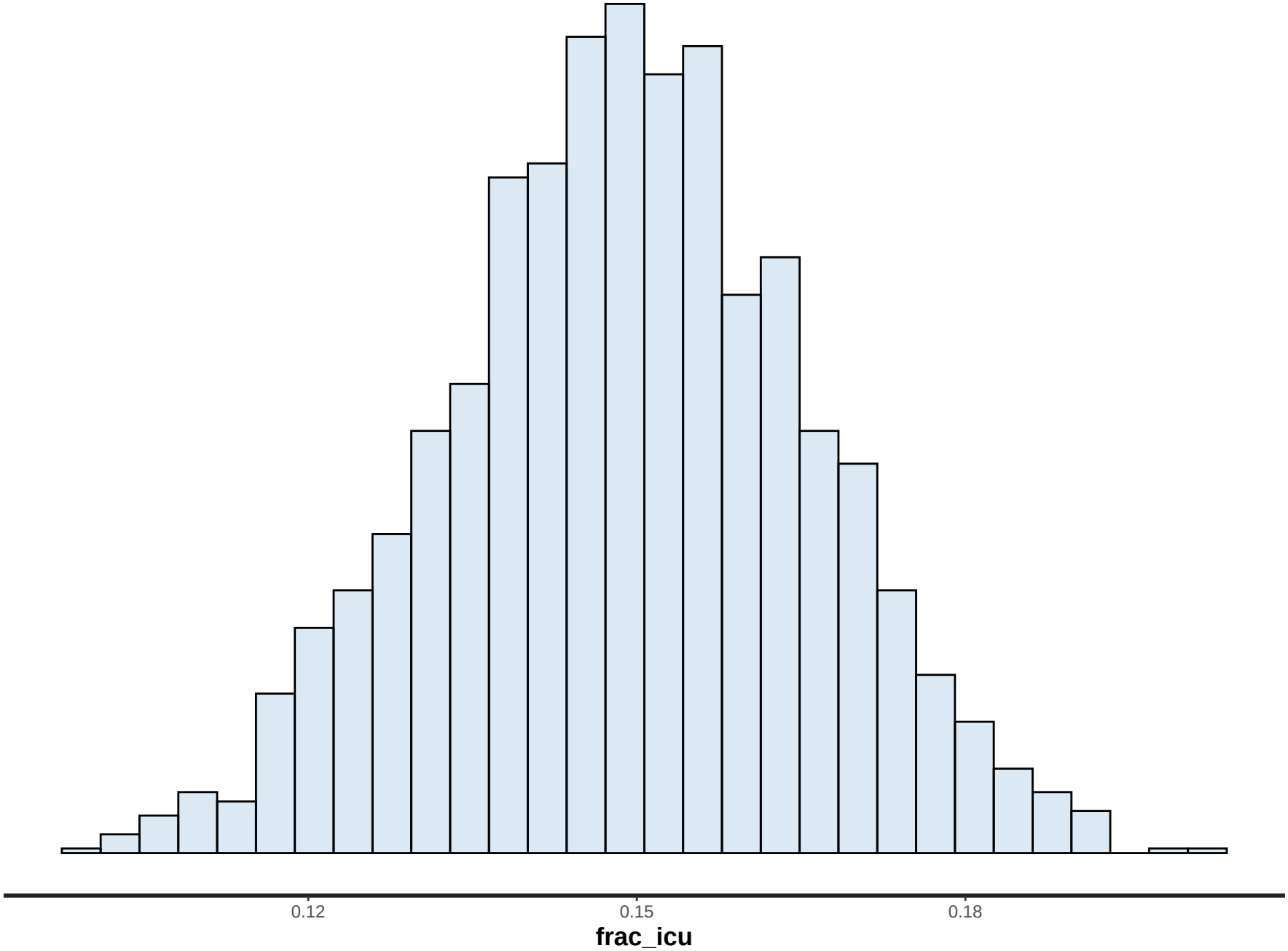

2
4
6
8
duration_rec_mild

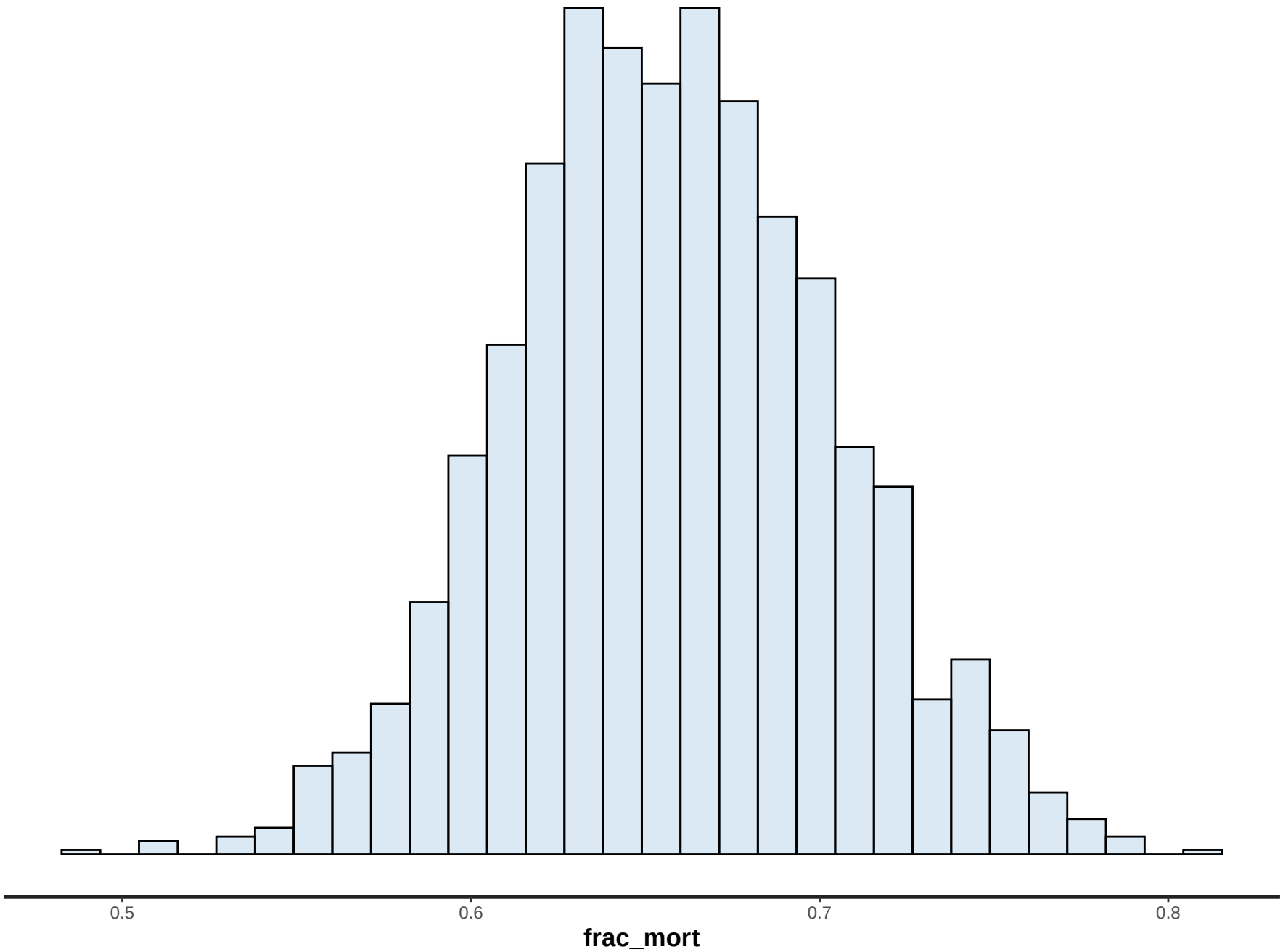

5
10
duration_pre_hosp

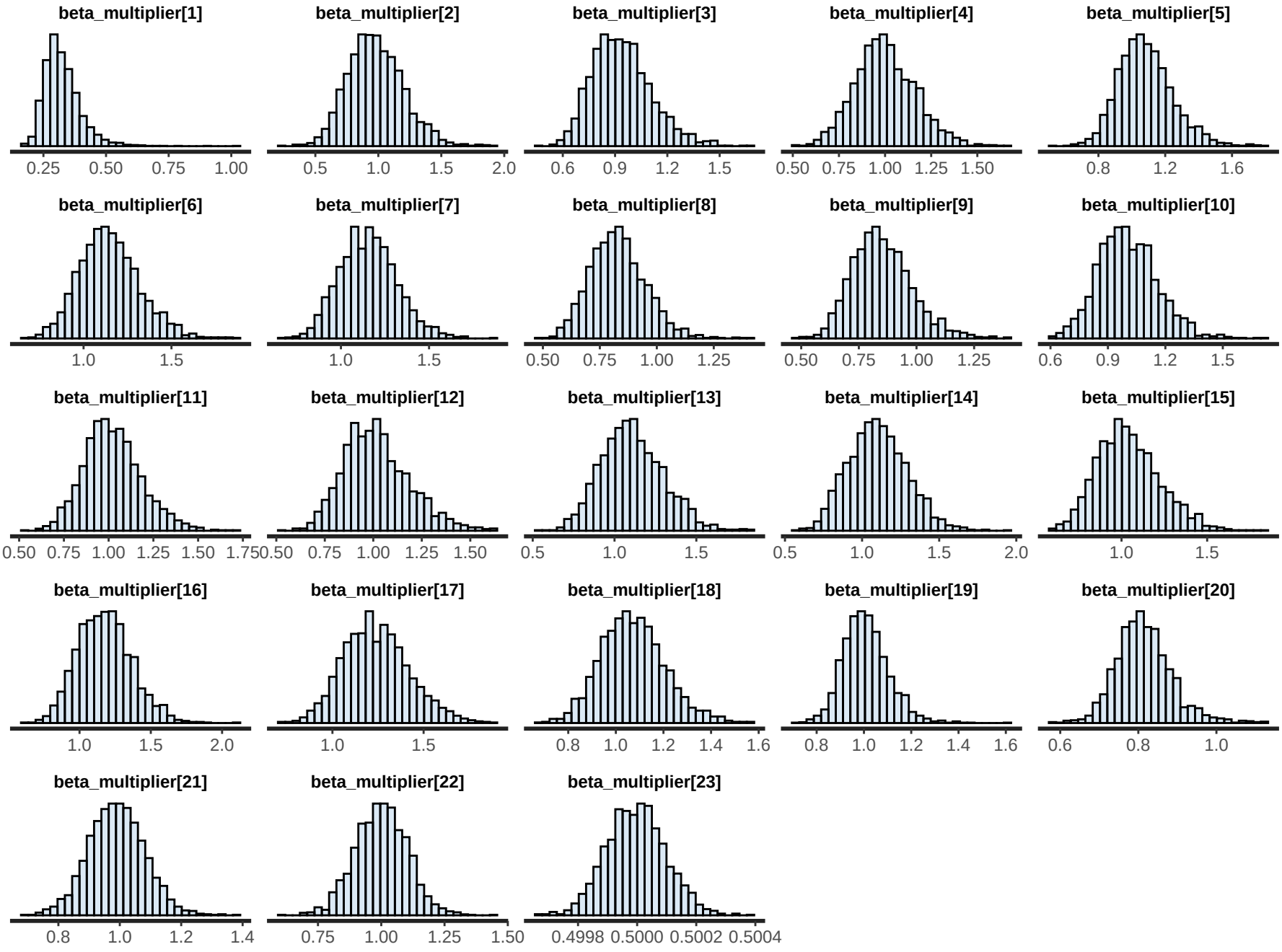

3
4
5
6
7
duration_hosp_mod


8
10
12
duration_hosp_icu


0.025
0.050
0.075
0.100
0.125
frac_hosp


0.12
0.15
0.18
frac_icu


0.5
0.6
0.7
0.8
frac_mort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0.25 0.50 0.75 1.00
beta_multiplier[2]
0.5 1.0 1.5 2.0
beta_multiplier[3]
0.6 0.9 1.2 1.5
beta_multiplier[4]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[5]
0.8 1.2 1.6
beta_multiplier[6]
1.0 1.5
beta_multiplier[7]
1.0 1.5
beta_multiplier[8]
0.50 0.75 1.00 1.25
beta_multiplier[9]
0.50 0.75 1.00 1.25
beta_multiplier[10]
0.6 0.9 1.2 1.5
beta_multiplier[11]
0.50 0.75 1.00 1.25 1.50 1.75
beta_multiplier[12]
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beta_multiplier[13]
0.5 1.0 1.5
beta_multiplier[14]
0.5 1.0 1.5 2.0
beta_multiplier[15]
1.0 1.5
beta_multiplier[16]
1.0 1.5 2.0
beta_multiplier[17]
1.0 1.5
beta_multiplier[18]
0.8 1.0 1.2 1.4 1.6
beta_multiplier[19]
0.8 1.0 1.2 1.4 1.6
beta_multiplier[20]
0.6 0.8 1.0
beta_multiplier[21]
0.8 1.0 1.2 1.4
beta_multiplier[22]
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beta_multiplier[23]
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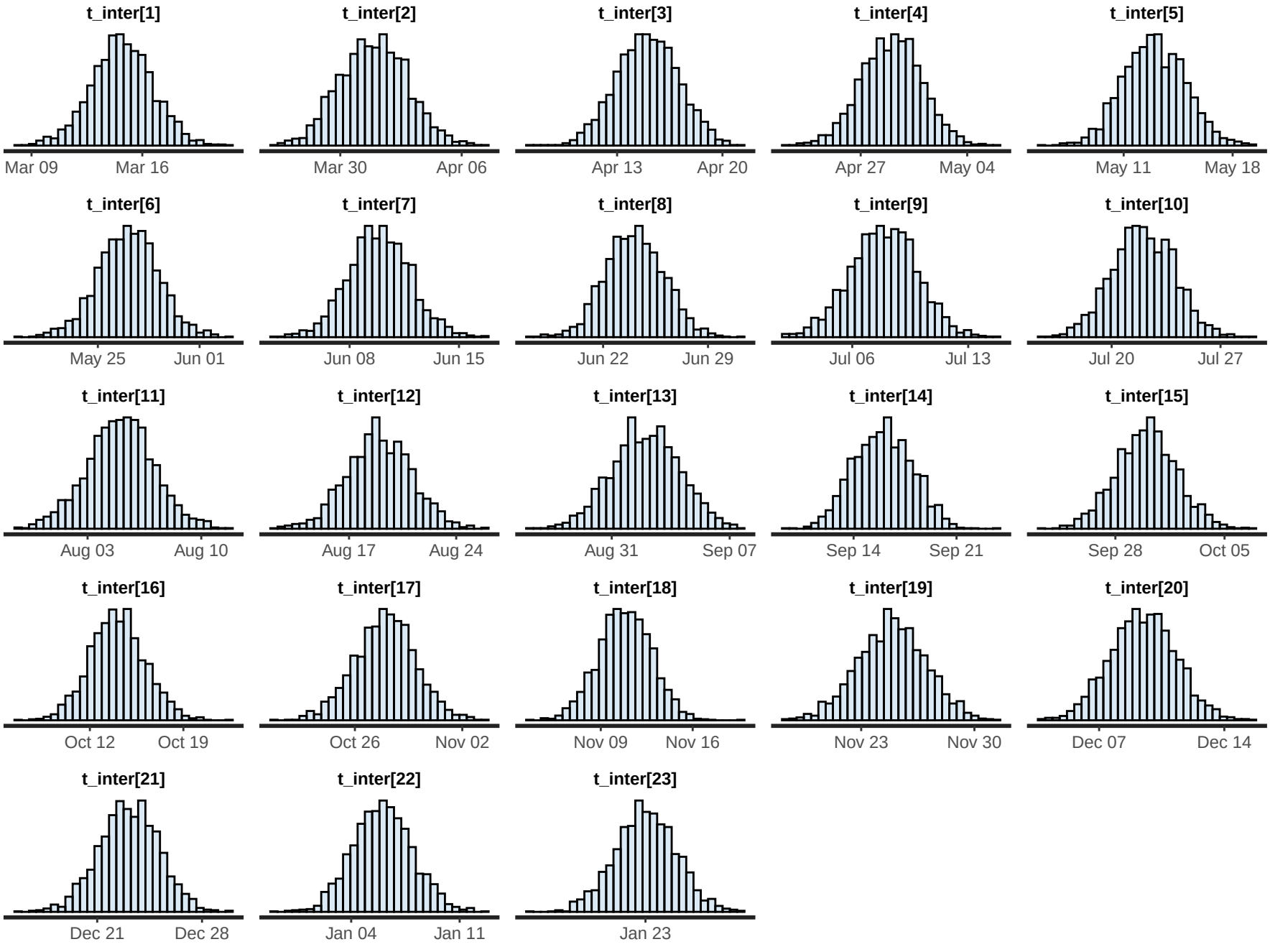
t_inter[1]
Mar 09
Mar 16
t_inter[2]
Mar 30
Apr 06
t_inter[3]
Apr 13
Apr 20
t_inter[4]
Apr 27
May 04
t_inter[5]
May 11
May 18
t_inter[6]
May 25
Jun 01
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Jun 08
Jun 15
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Jun 22
Jun 29
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Jul 06
Jul 13
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Jul 20
Jul 27
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Aug 03
Aug 10
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Aug 24
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Aug 31
Sep 07
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Sep 28
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Oct 19
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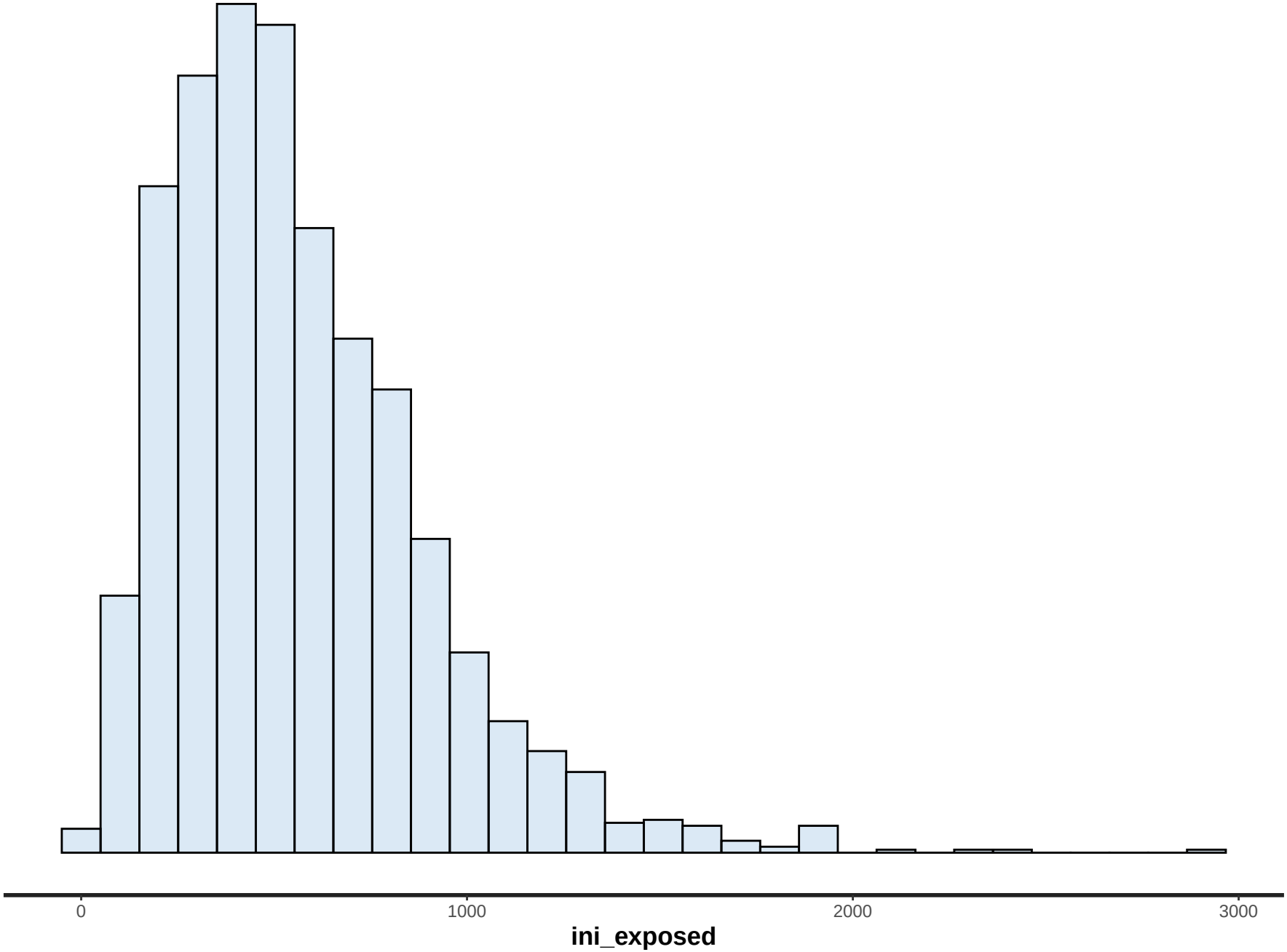
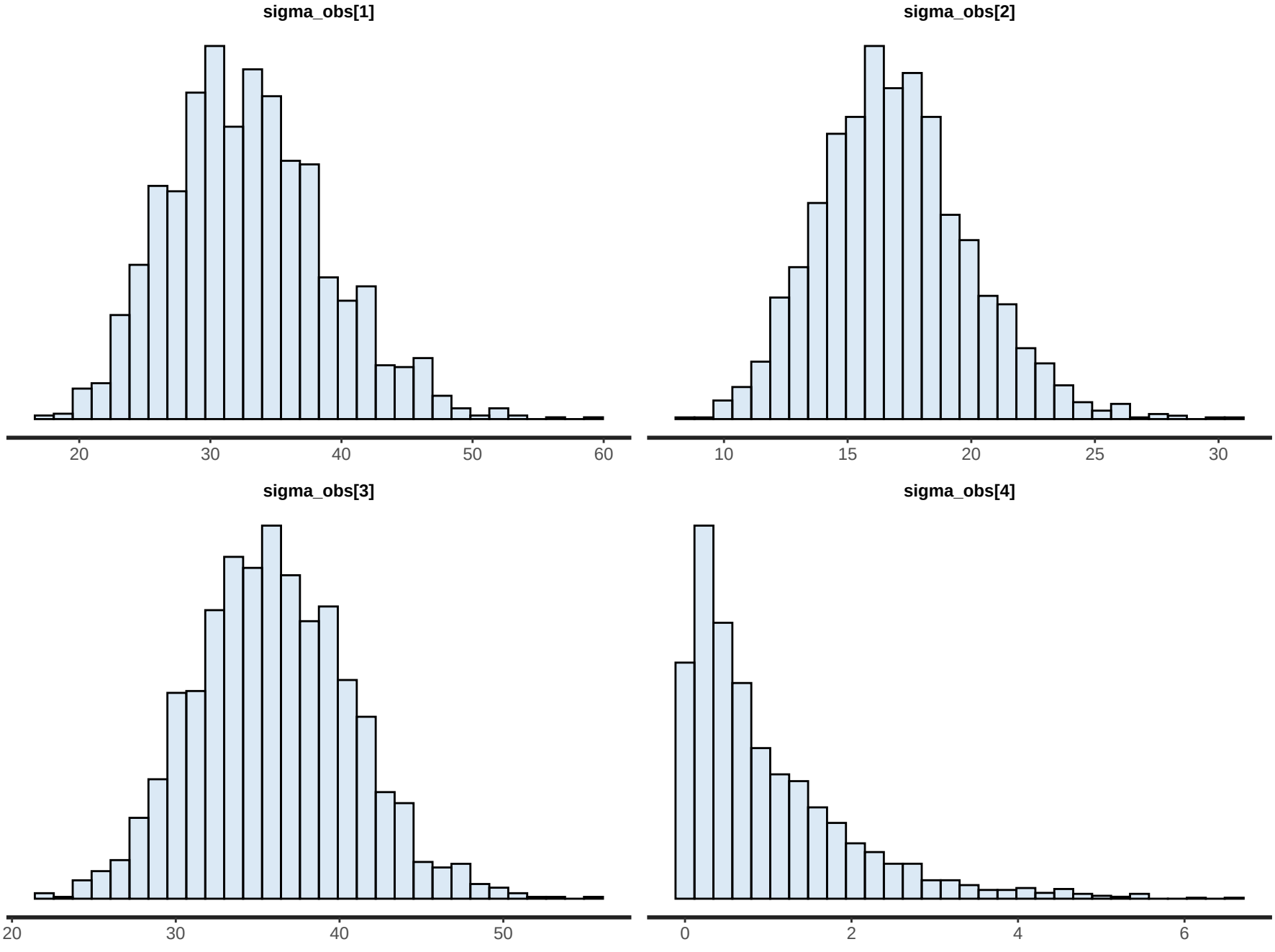
Oct 26
Nov 02
t_inter[18]
Nov 09
Nov 16
t_inter[19]
Nov 23
Nov 30
t_inter[20]
Dec 07
Dec 14
t_inter[21]
Dec 21
Dec 28
t_inter[22]
Jan 04
Jan 11
t_inter[23]
Jan 23


0
1000
2000
3000
ini_exposed


sigma_obs[1]
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sigma_obs[3]
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50
sigma_obs[4]
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2
4
6