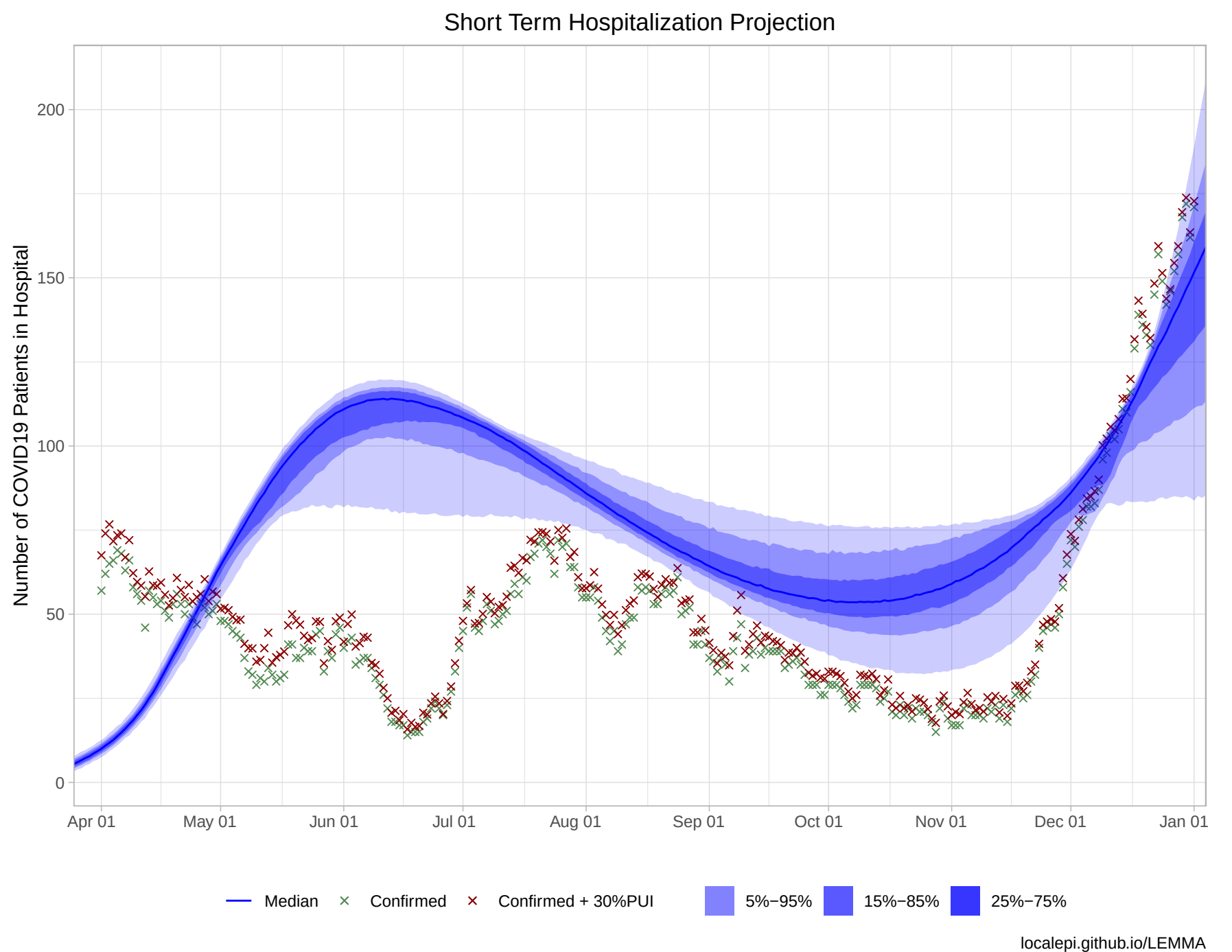
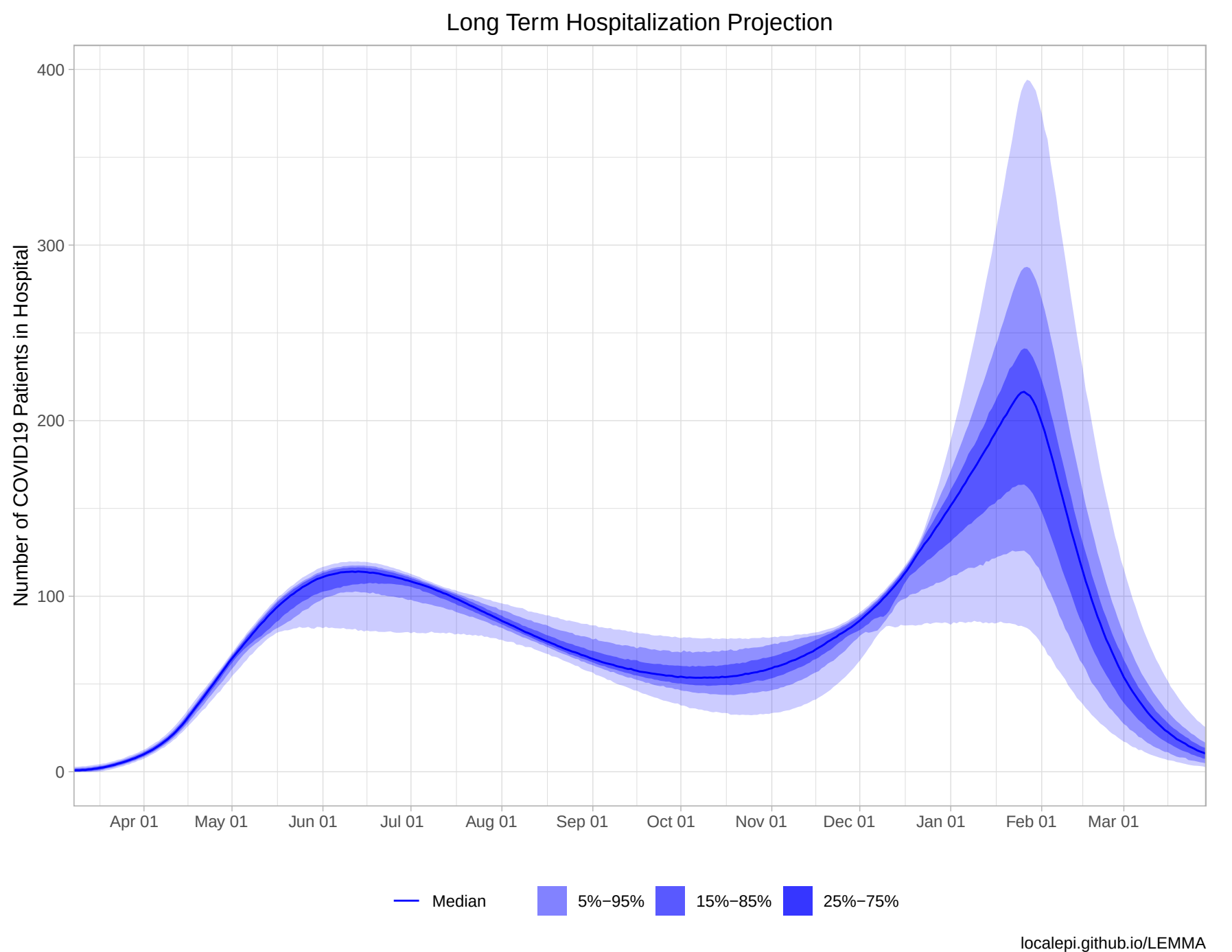
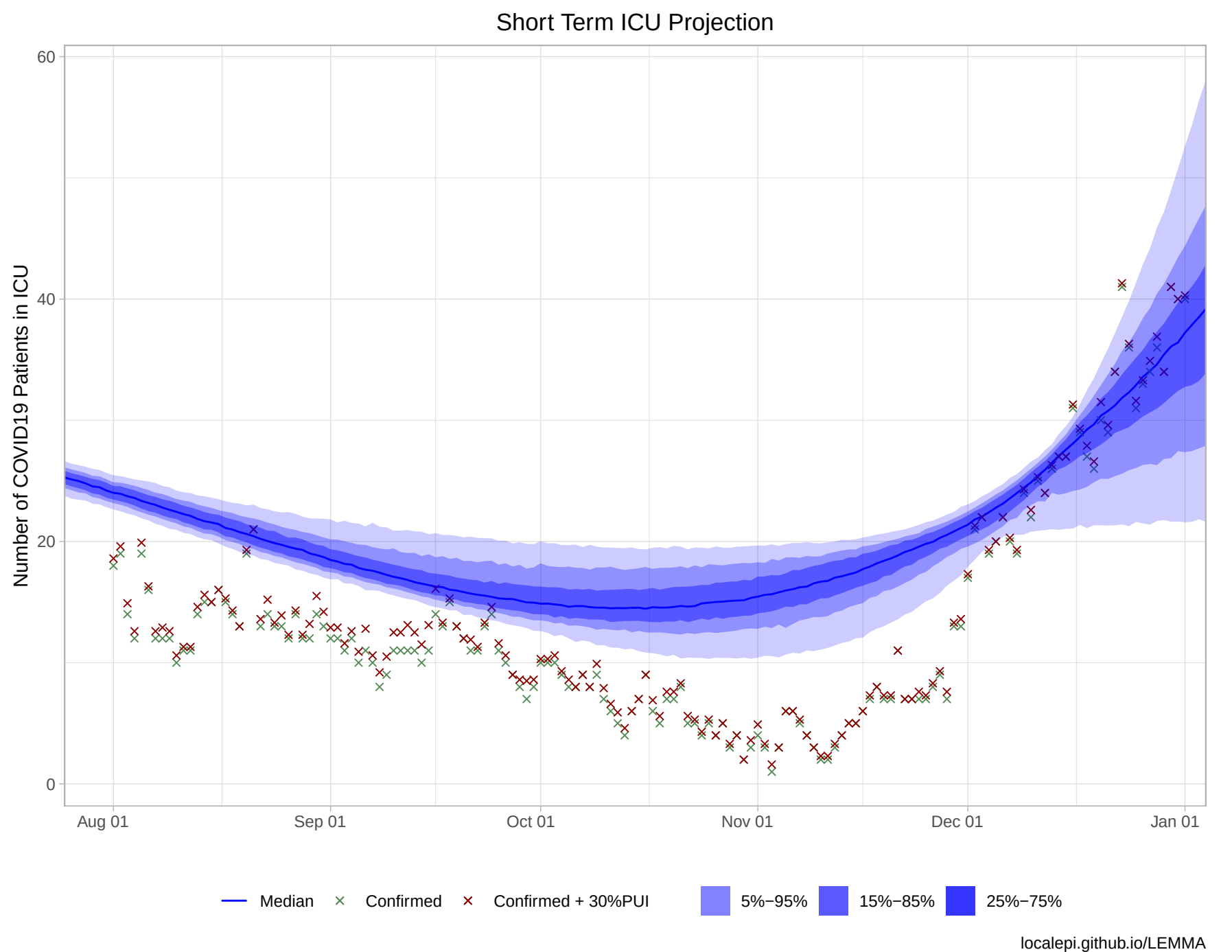
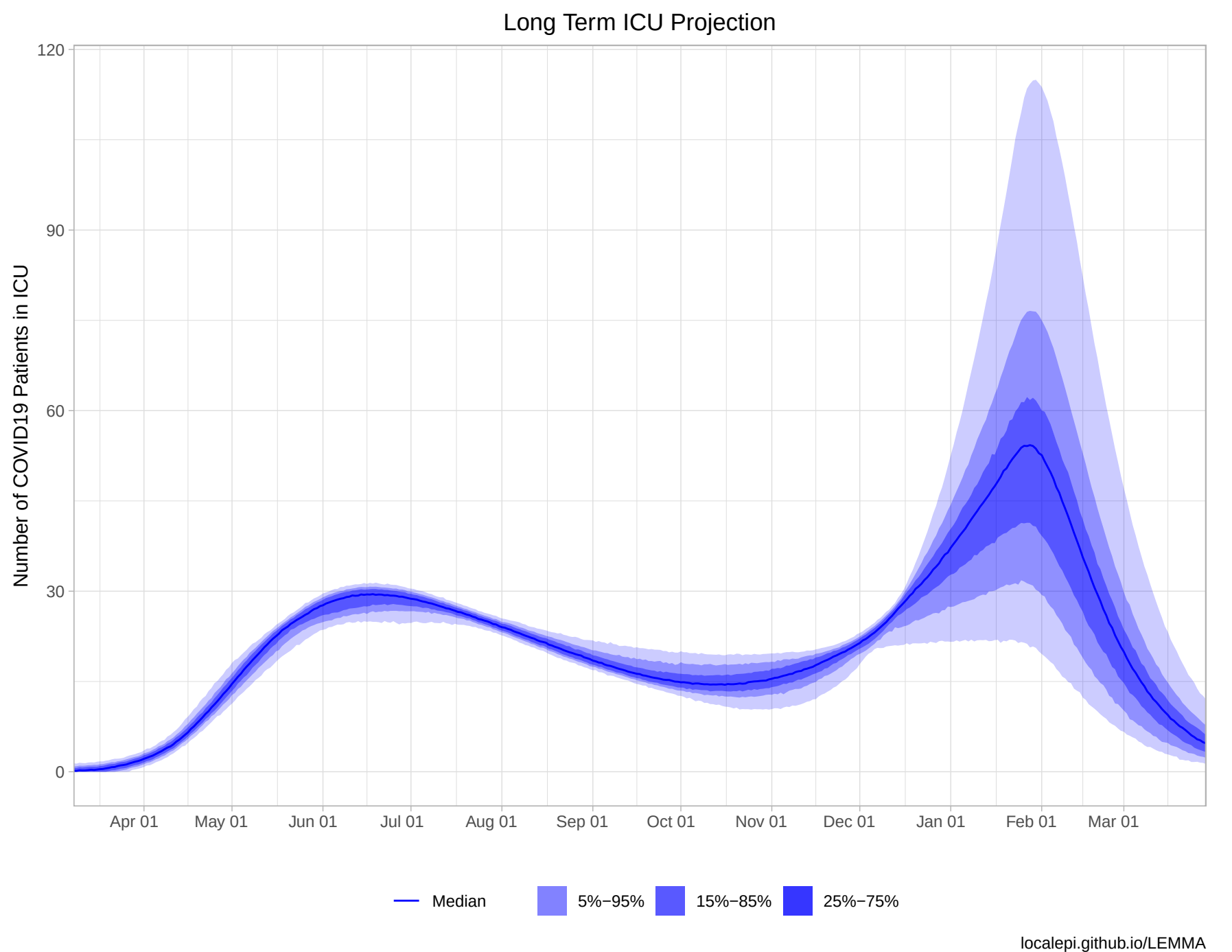
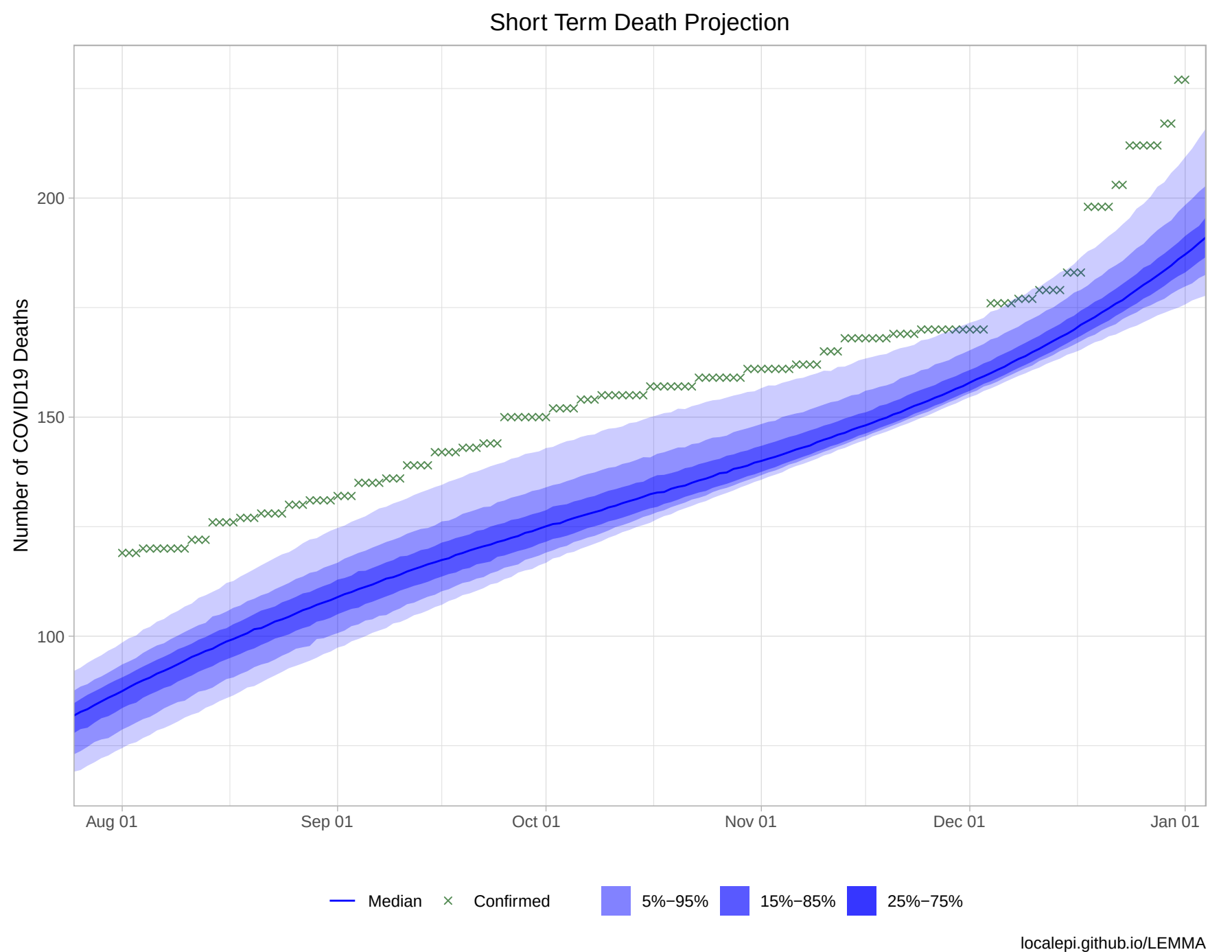
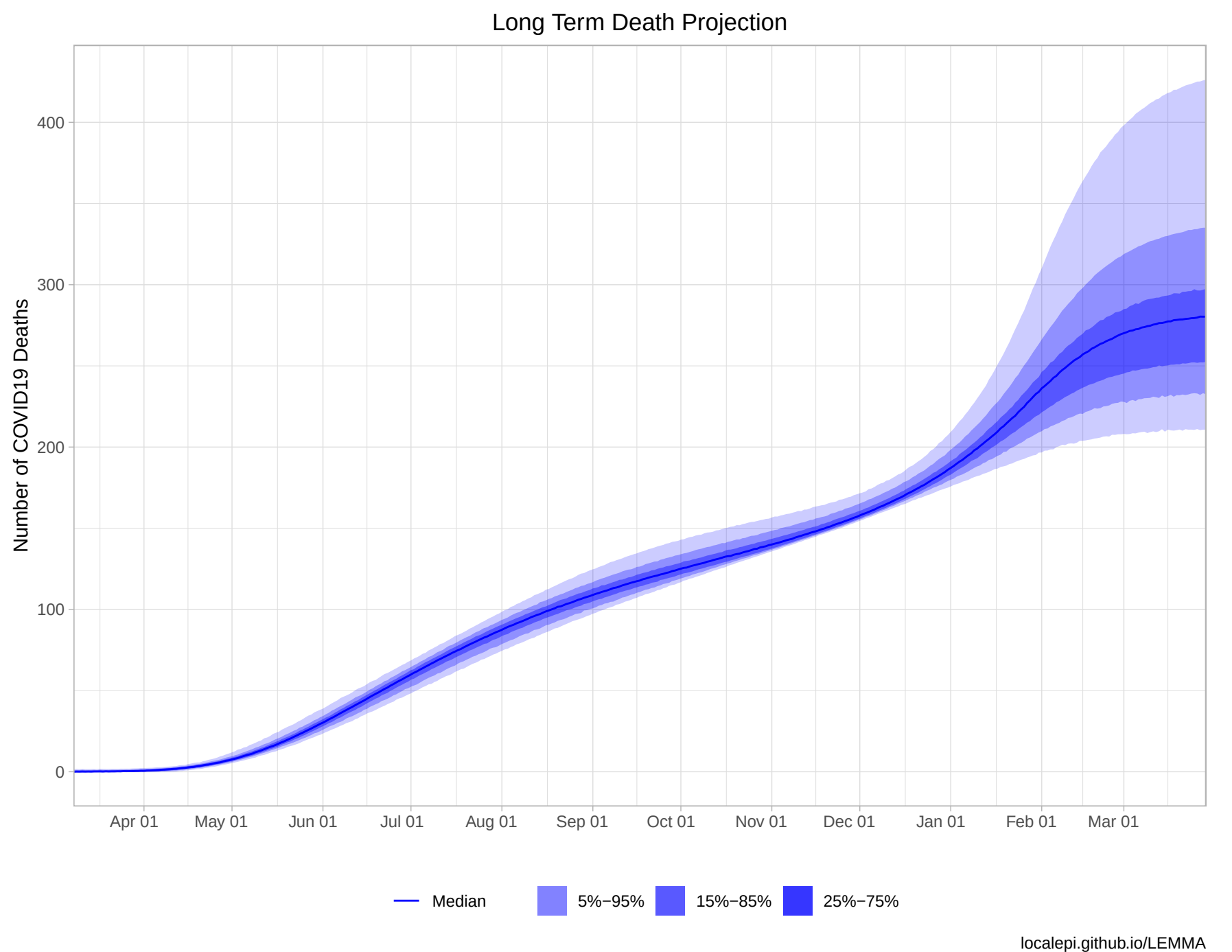

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
200
150
100
50
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

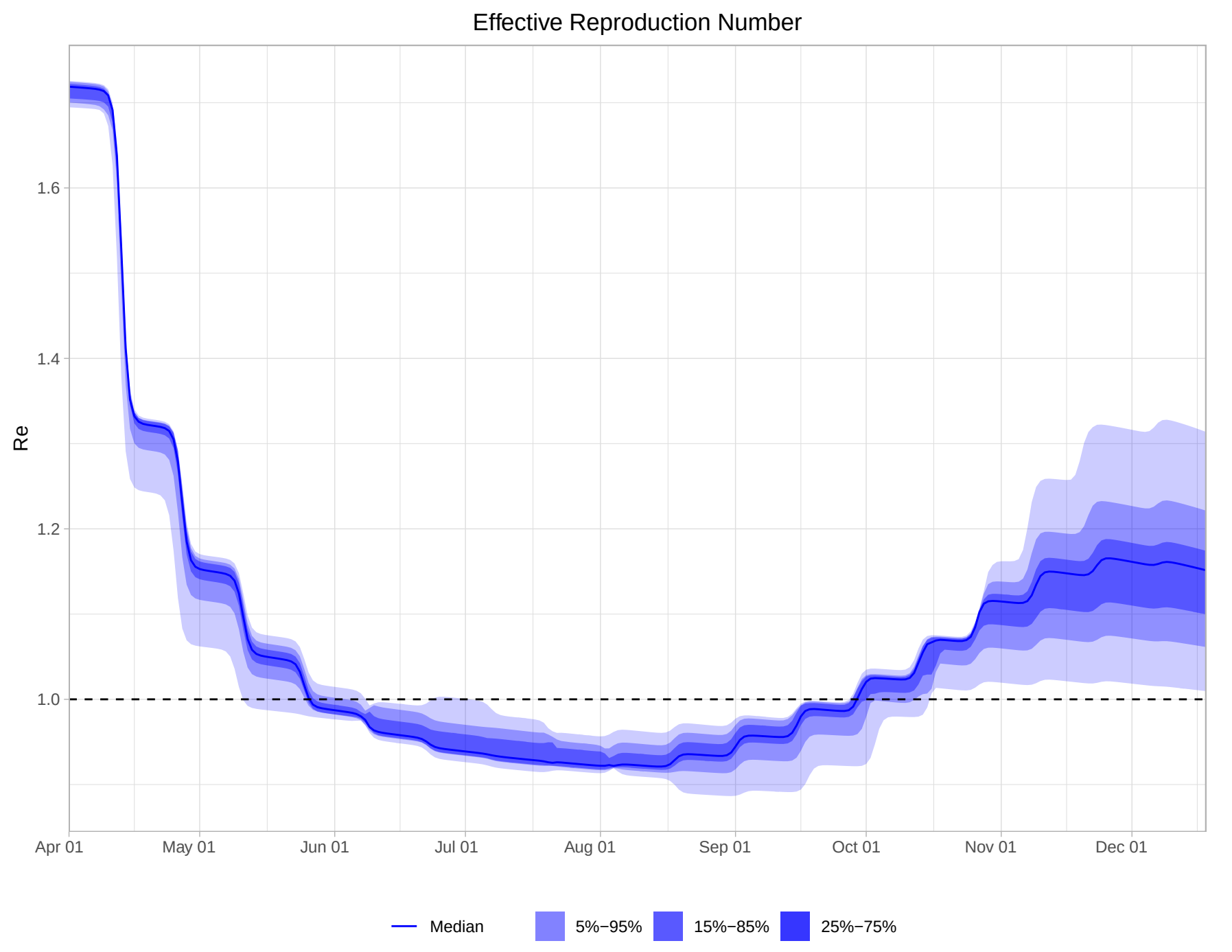

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
400
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
60
40
20
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
120
90
60
30
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

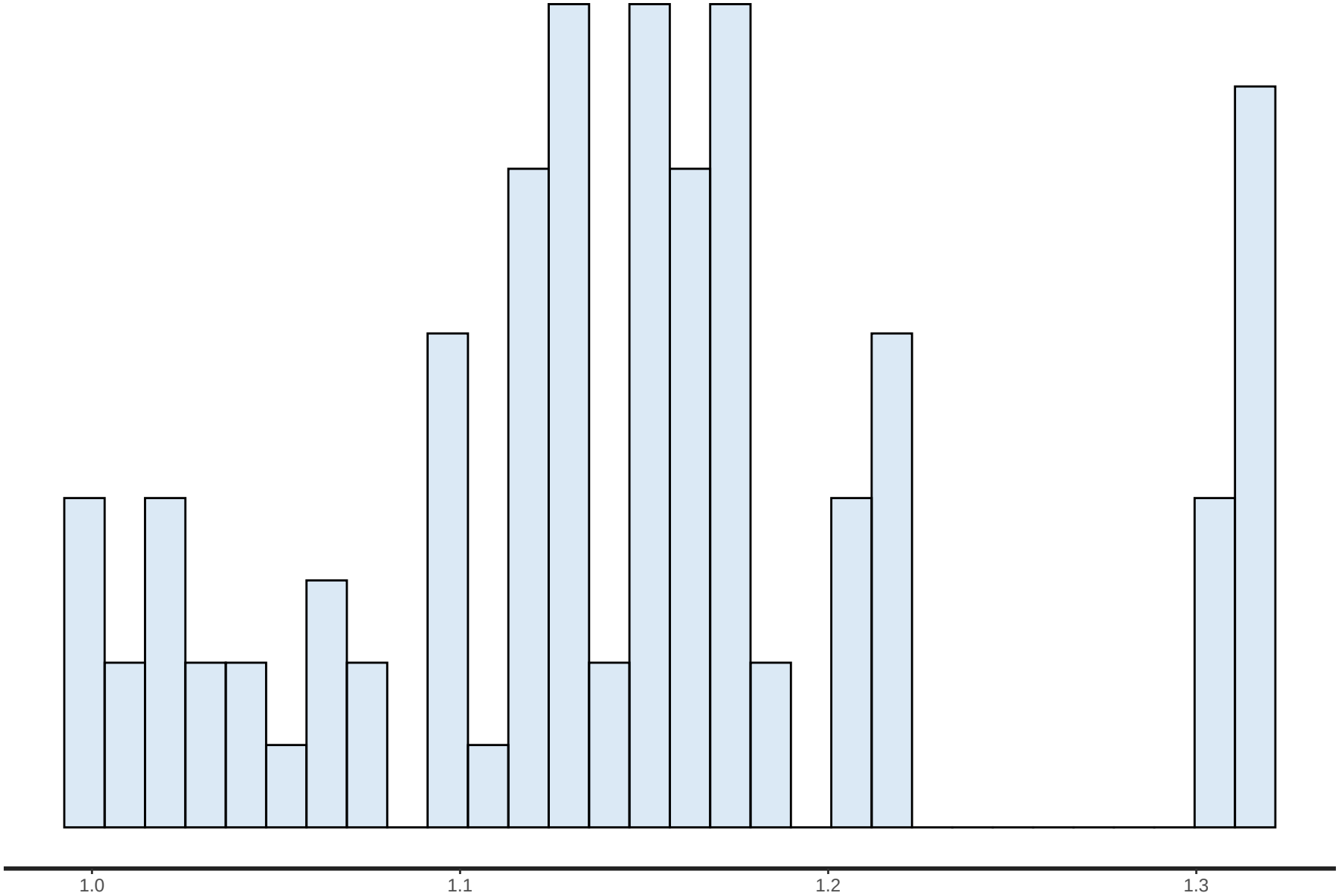

Short Term Death Projection
Number of COVID19 Deaths
200
150
100
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

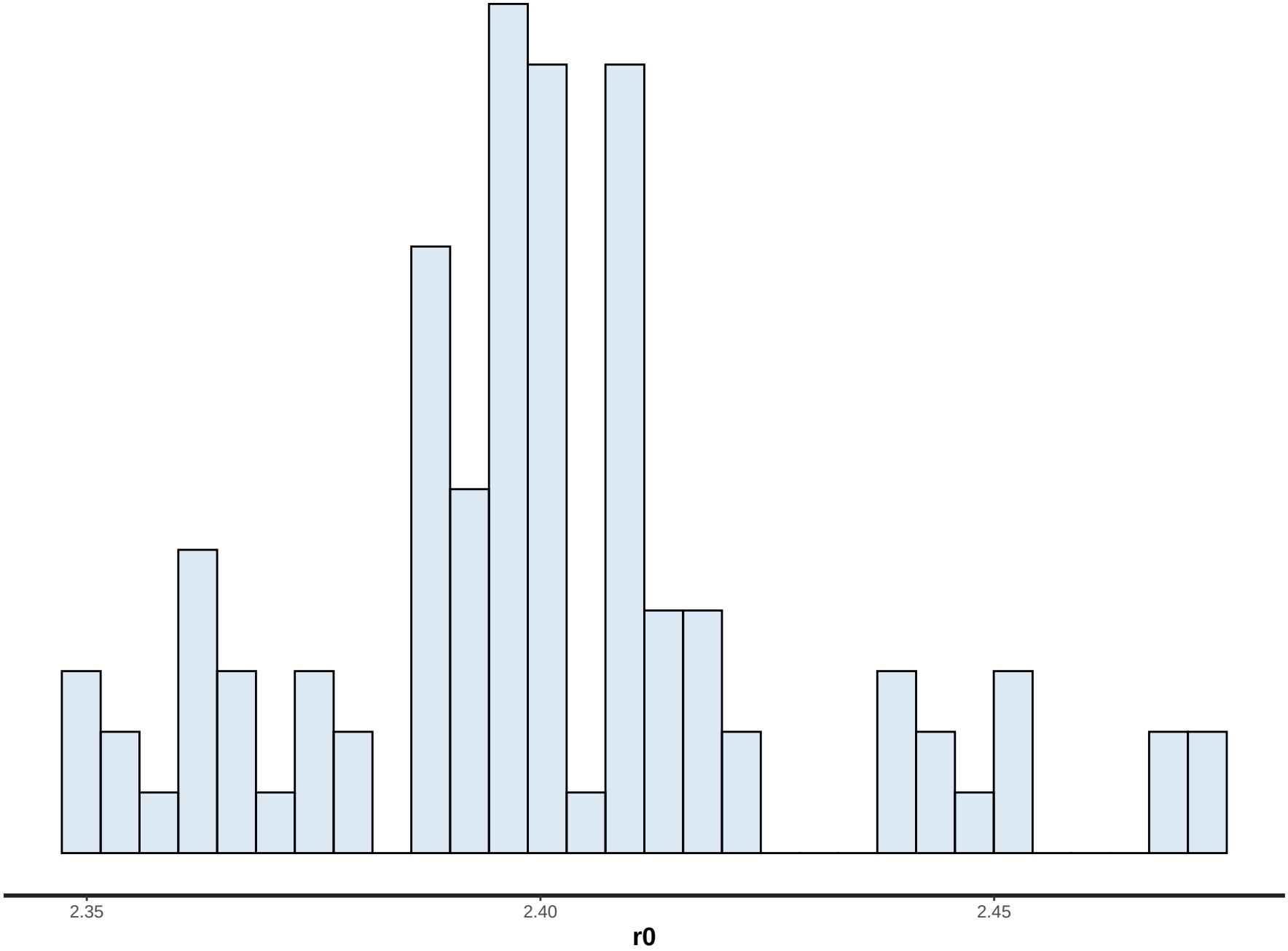

Long Term Death Projection
Number of COVID19 Deaths
400
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

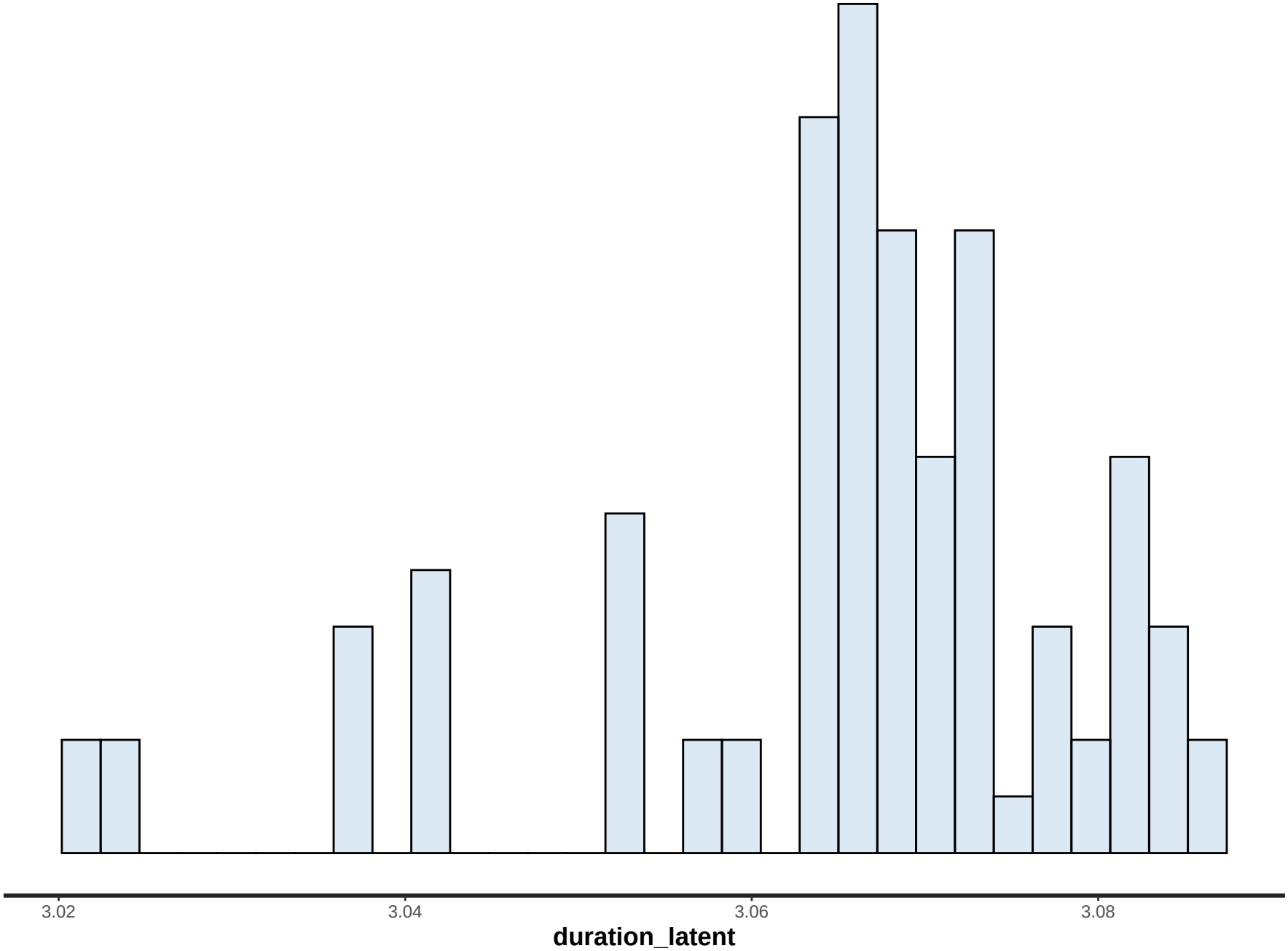

Effective Reproduction Number
Re
1.6
1.4
1.2
1.0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

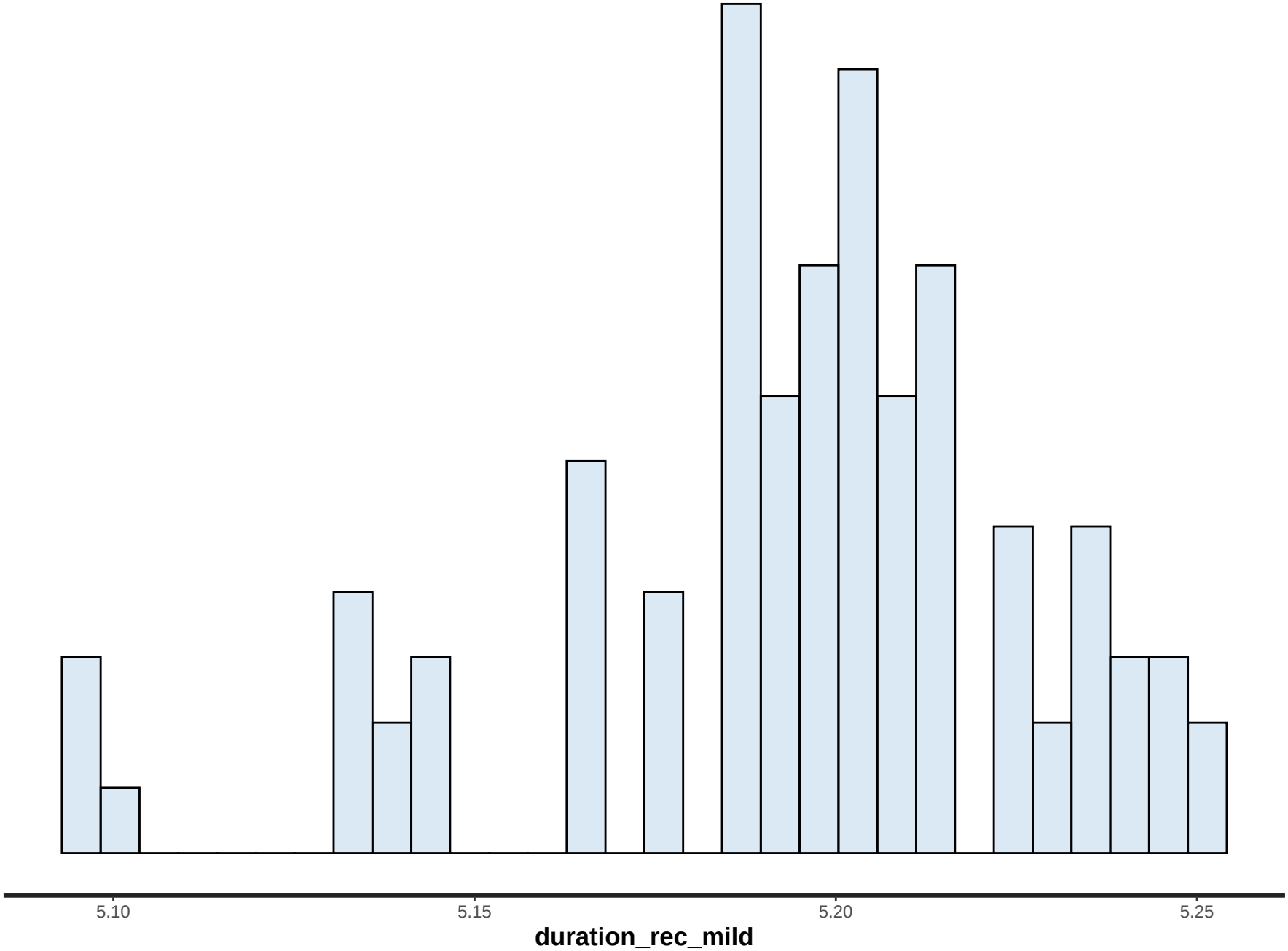
Rt as of 2020−12−18

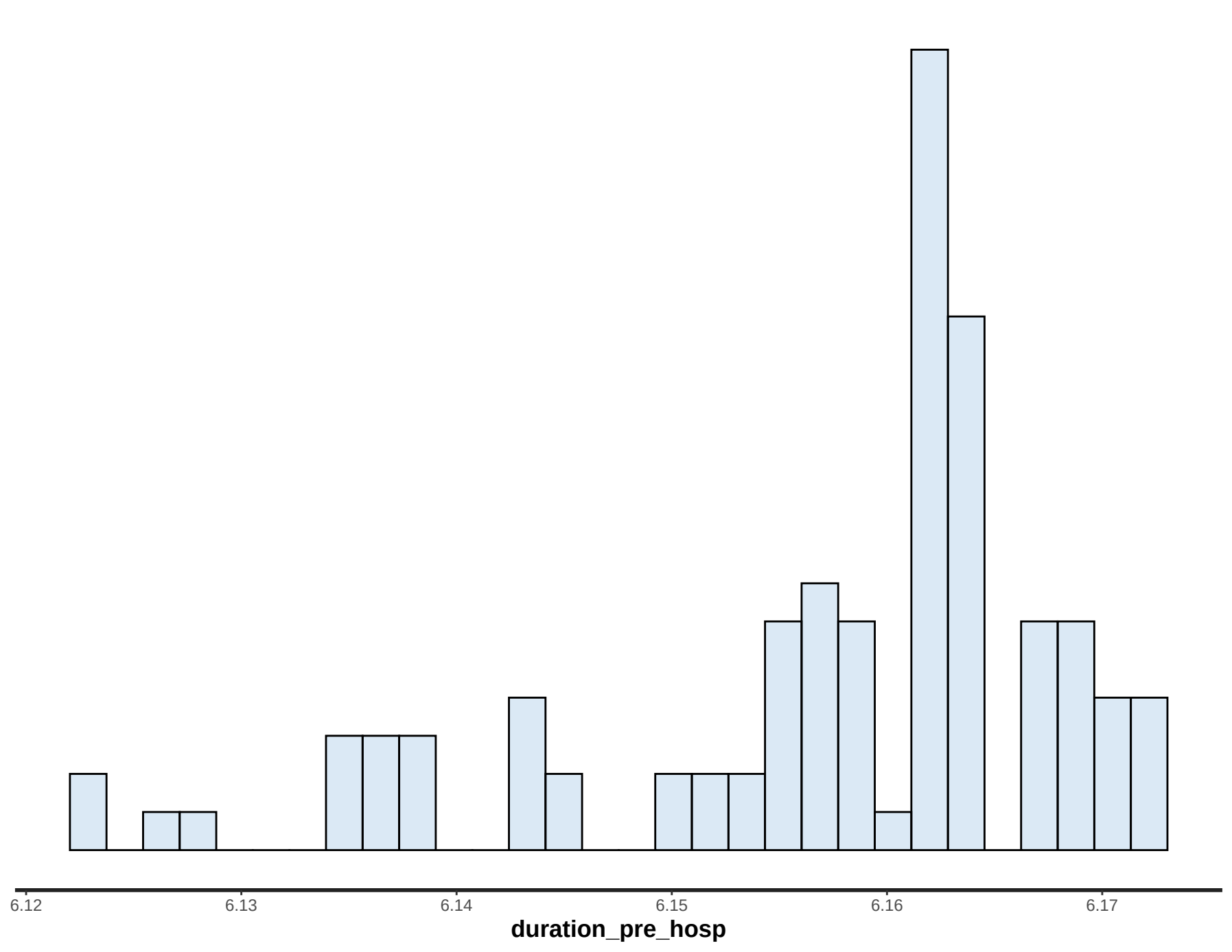
5%	10%	25%	50%	75%	90%	95%
1.01	1.03	1.10	1.15	1.17	1.31	1.31

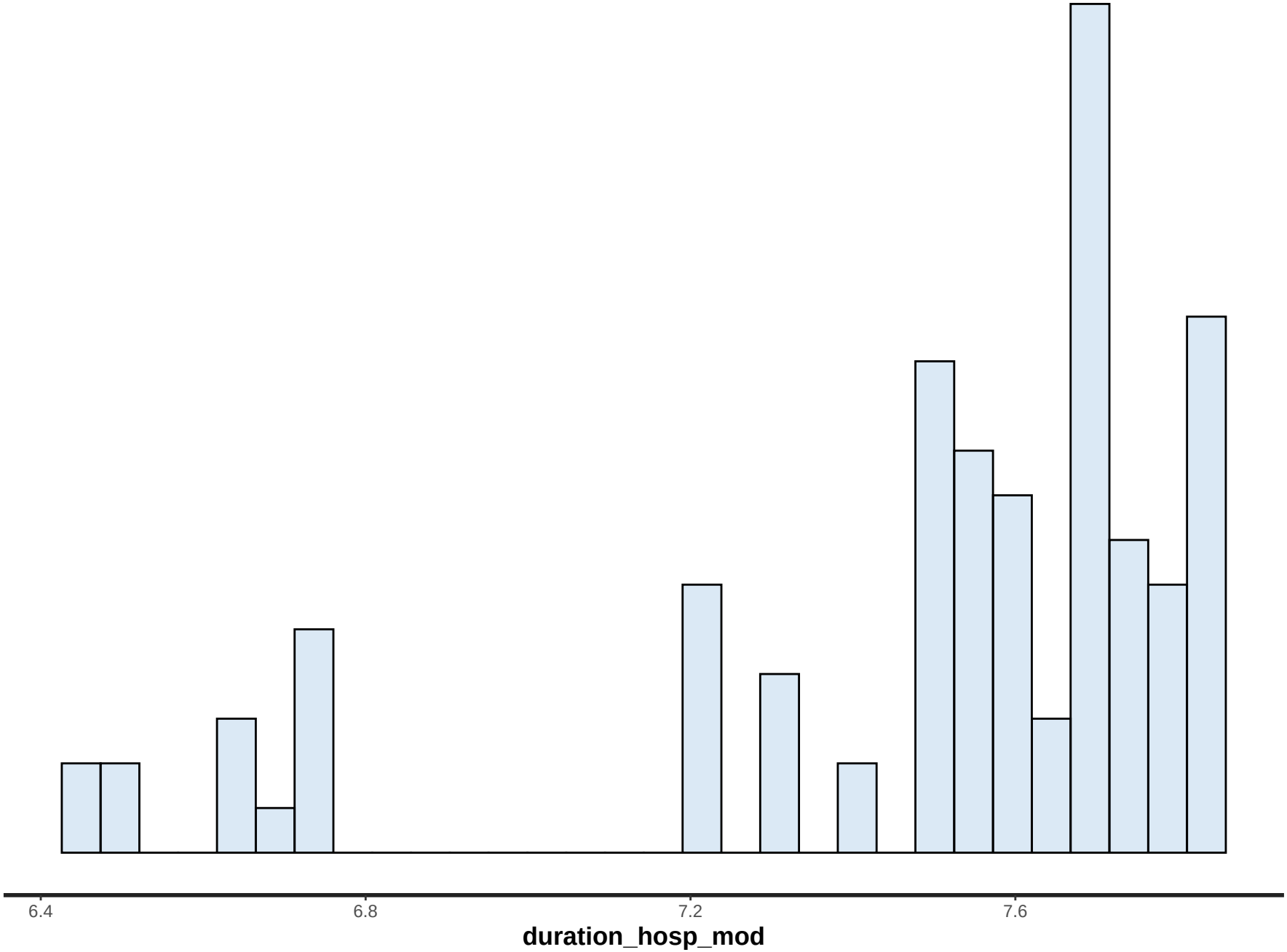


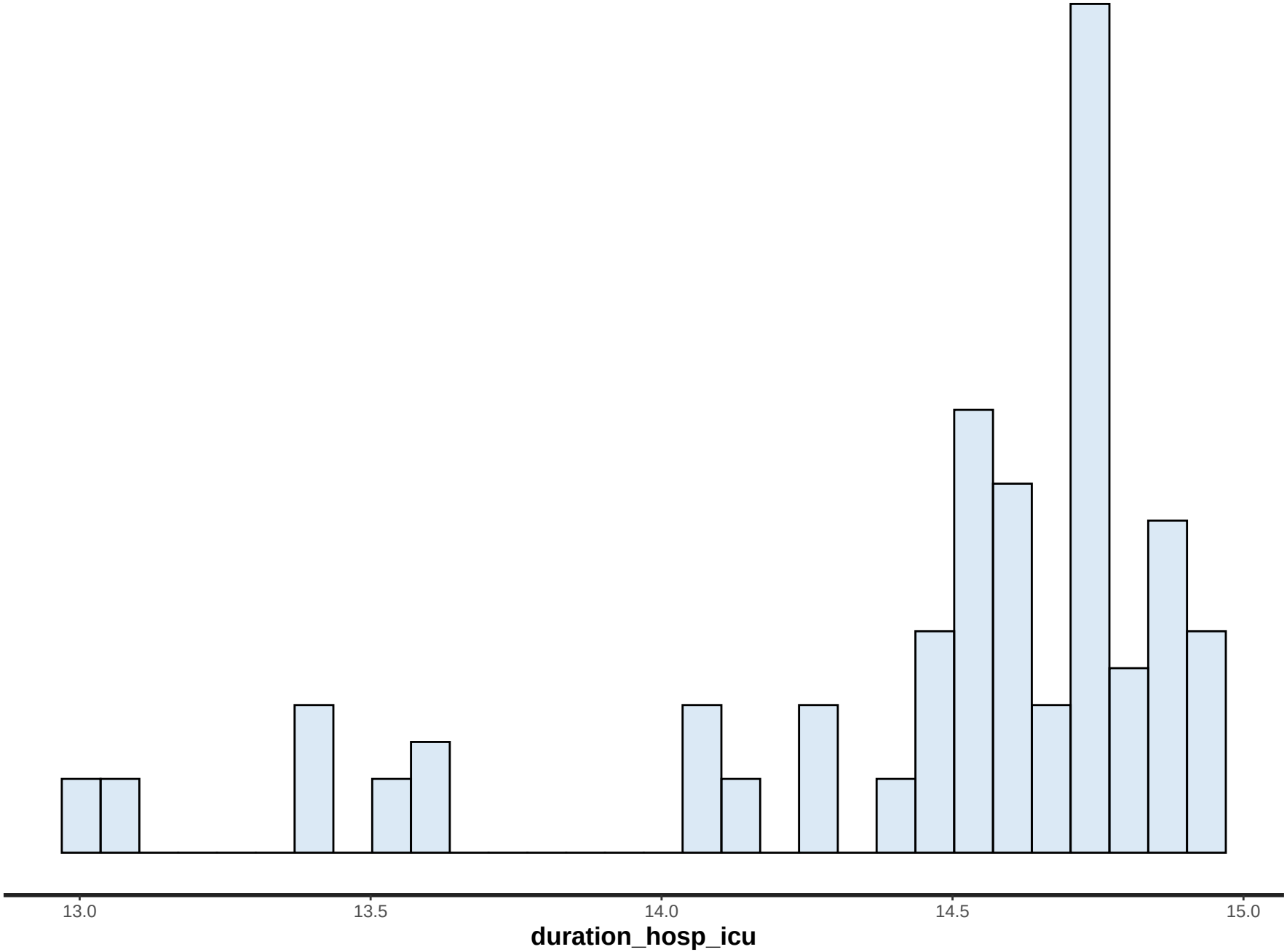

2.35
2.40
2.45
r0

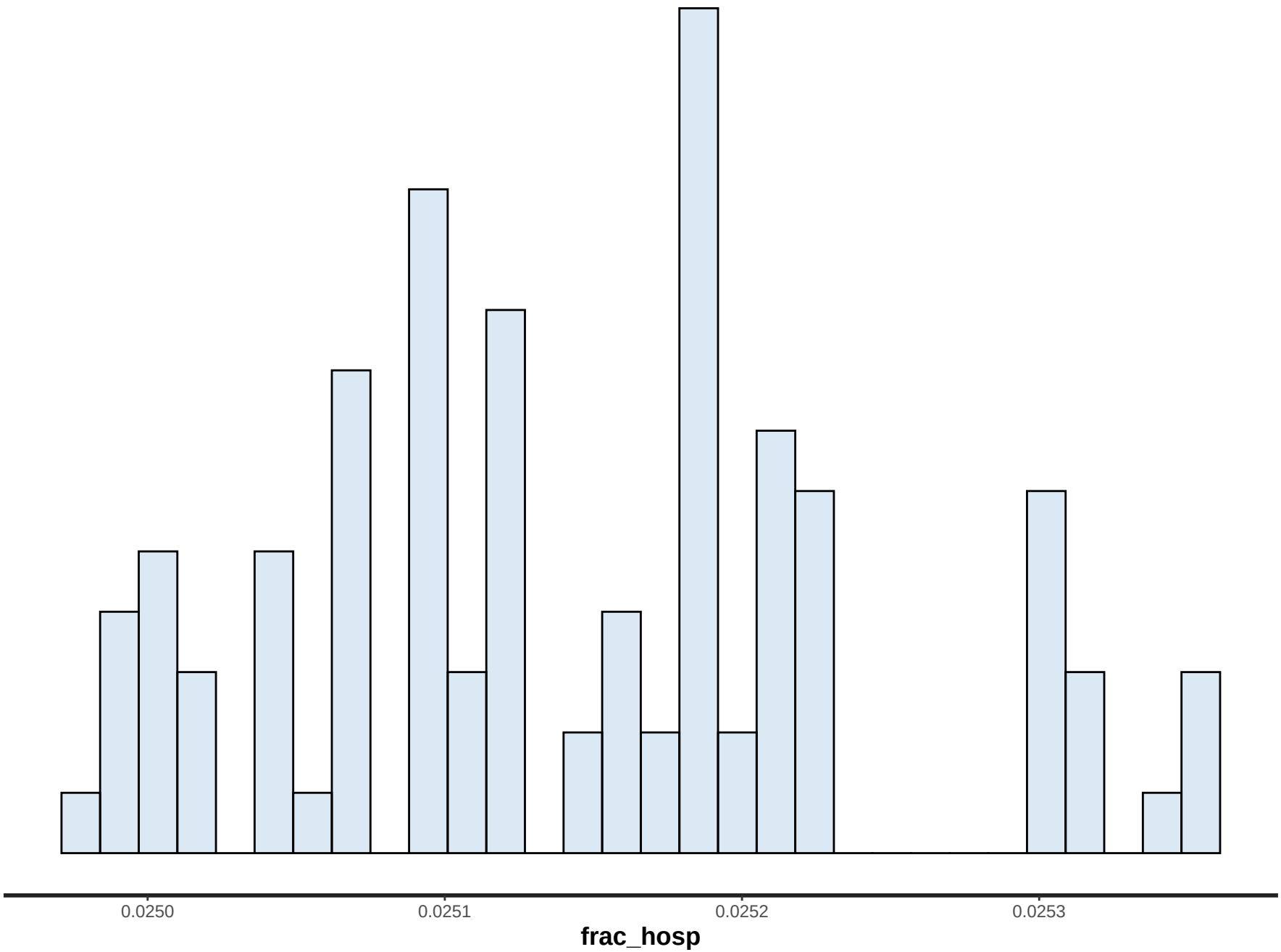

3.02
3.04
3.06
3.08
duration_latent

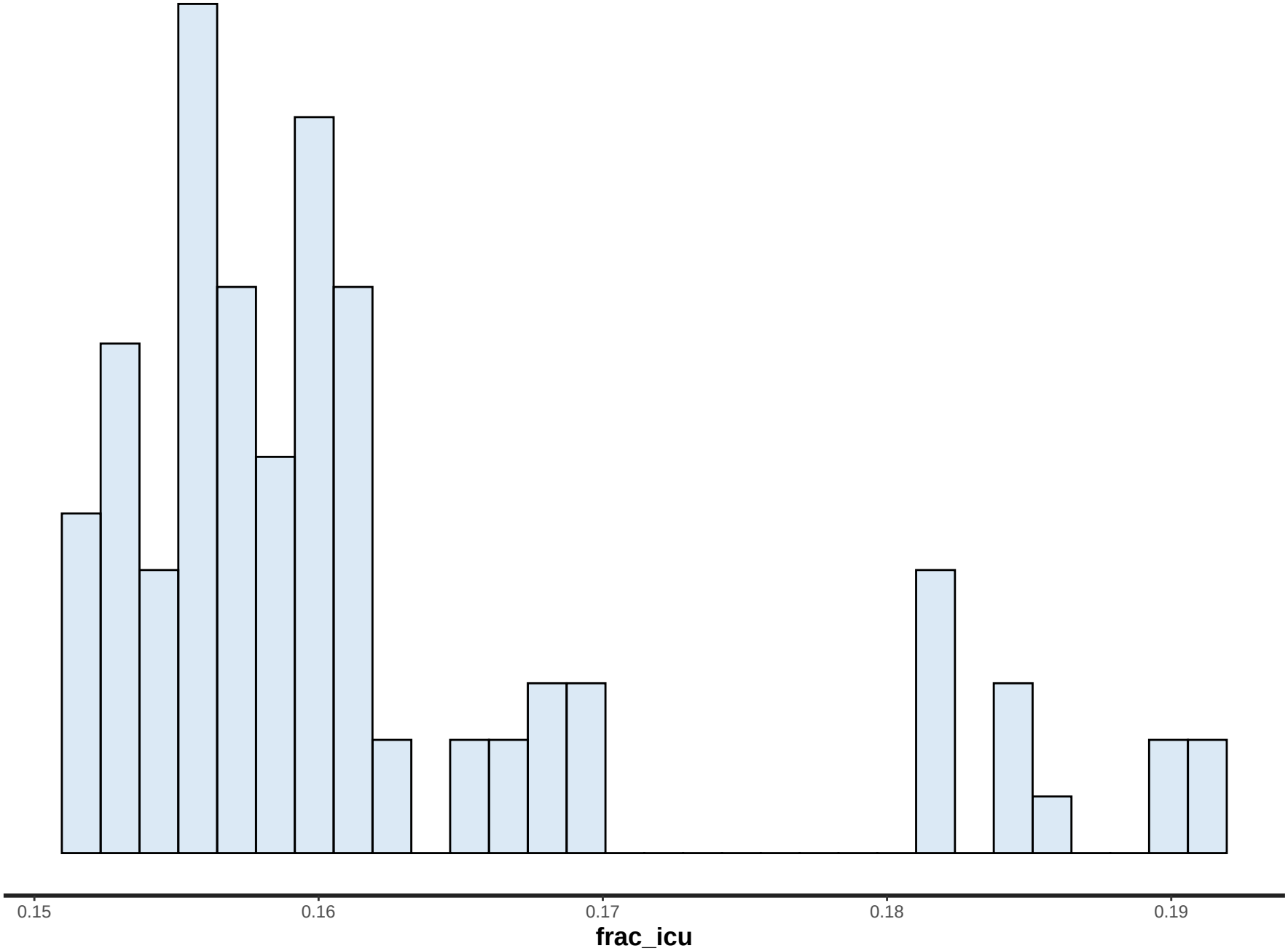

5.10
5.15
5.20
5.25
duration_rec_mild

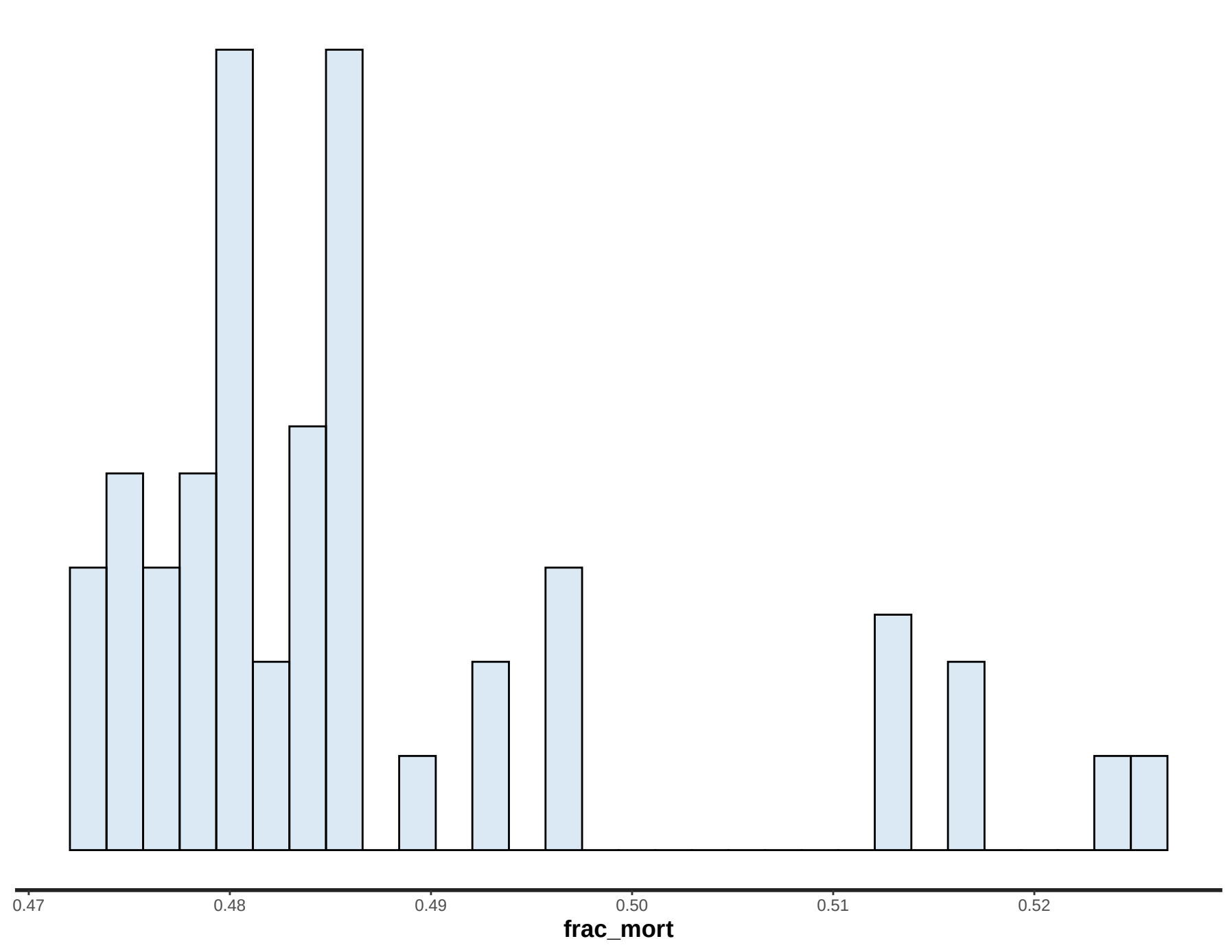

6.12
6.13
6.14
6.15
6.16
6.17
duration_pre_hosp

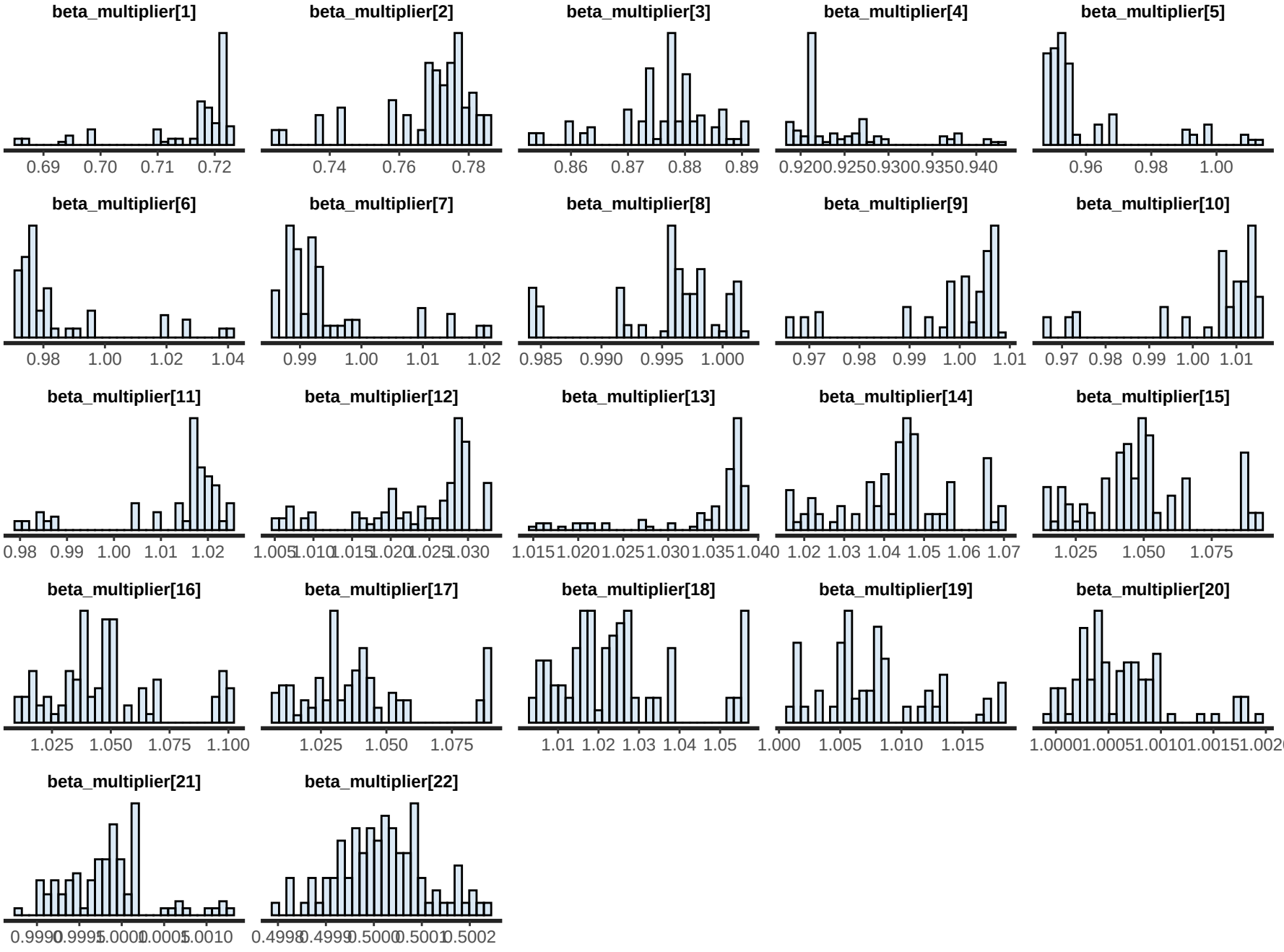

6.4
6.8
7.2
7.6
duration_hosp_mod


13.0
13.5
14.0
14.5
15.0
duration_hosp_icu


0.0250
0.0251
0.0252
0.0253
frac_hosp


0.15
0.16
0.17
0.18
0.19
frac_icu


0.47
0.48
0.49
0.50
0.51
0.52
frac_mort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beta_multiplier[2]
0.74 0.76 0.78
beta_multiplier[3]
0.86 0.87 0.88 0.89
beta_multiplier[4]
0.9200.9250.9300.9350.940
beta_multiplier[5]
0.96 0.98 1.00
beta_multiplier[6]
0.98 1.00 1.02 1.04
beta_multiplier[7]
0.99 1.00 1.01 1.02
beta_multiplier[8]
0.985 0.990 0.995 1.000
beta_multiplier[9]
0.97 0.98 0.99 1.00 1.01
beta_multiplier[10]
0.97 0.98 0.99 1.00 1.01
beta_multiplier[11]
0.98 0.99 1.00 1.01 1.02
beta_multiplier[12]
1.005 1.010 1.015 1.020 1.025 1.030
beta_multiplier[13]
1.015 1.020 1.025 1.030 1.035 1.040
beta_multiplier[14]
1.02 1.03 1.04 1.05 1.06 1.07
beta_multiplier[15]
1.025 1.050 1.075
beta_multiplier[16]
1.025 1.050 1.075 1.100
beta_multiplier[17]
1.025 1.050 1.075
beta_multiplier[18]
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beta_multiplier[19]
1.000 1.005 1.010 1.015
beta_multiplier[20]
1.00001.00051.00101.00151.002
beta_multiplier[21]
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beta_multiplier[22]
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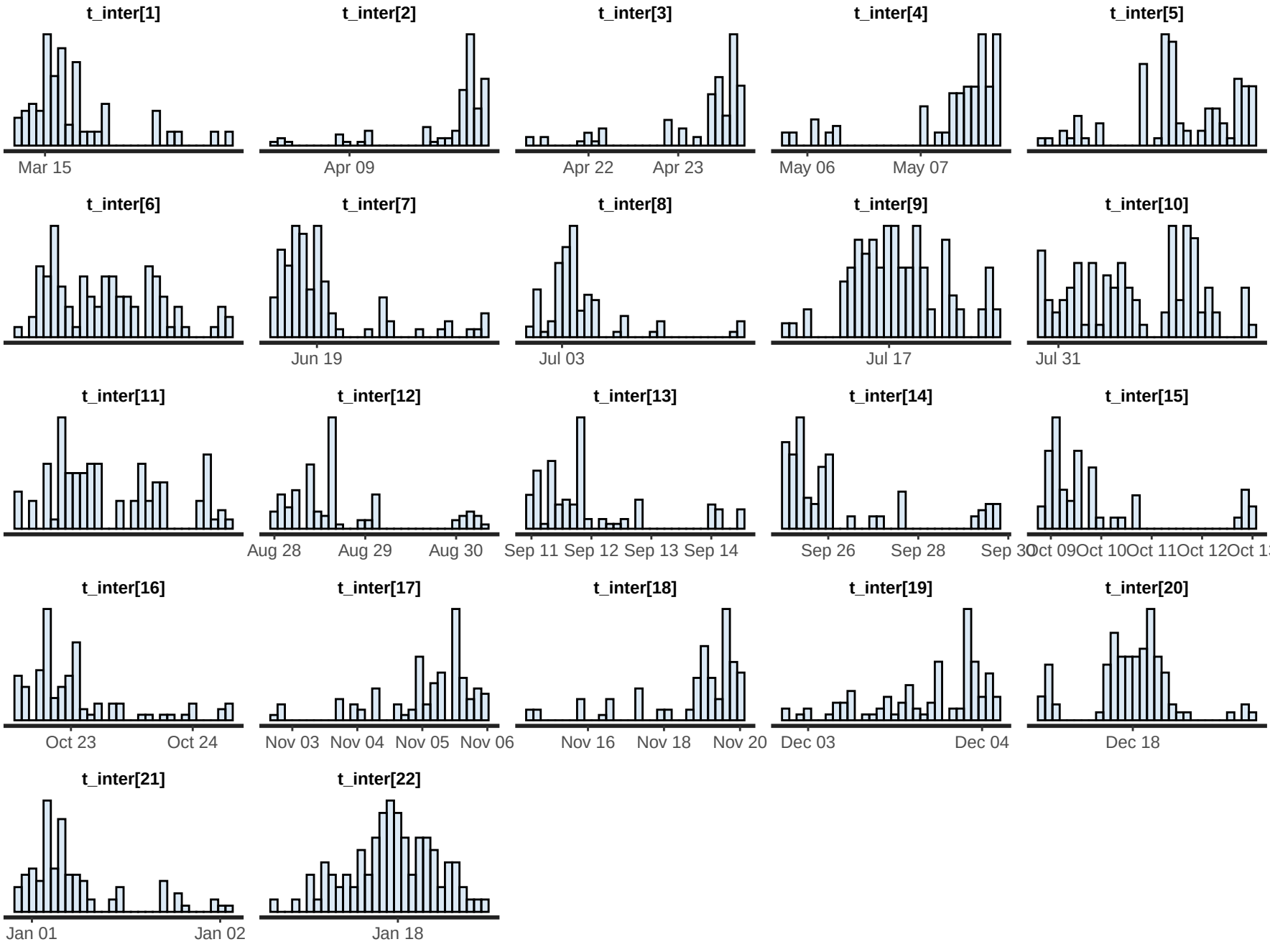
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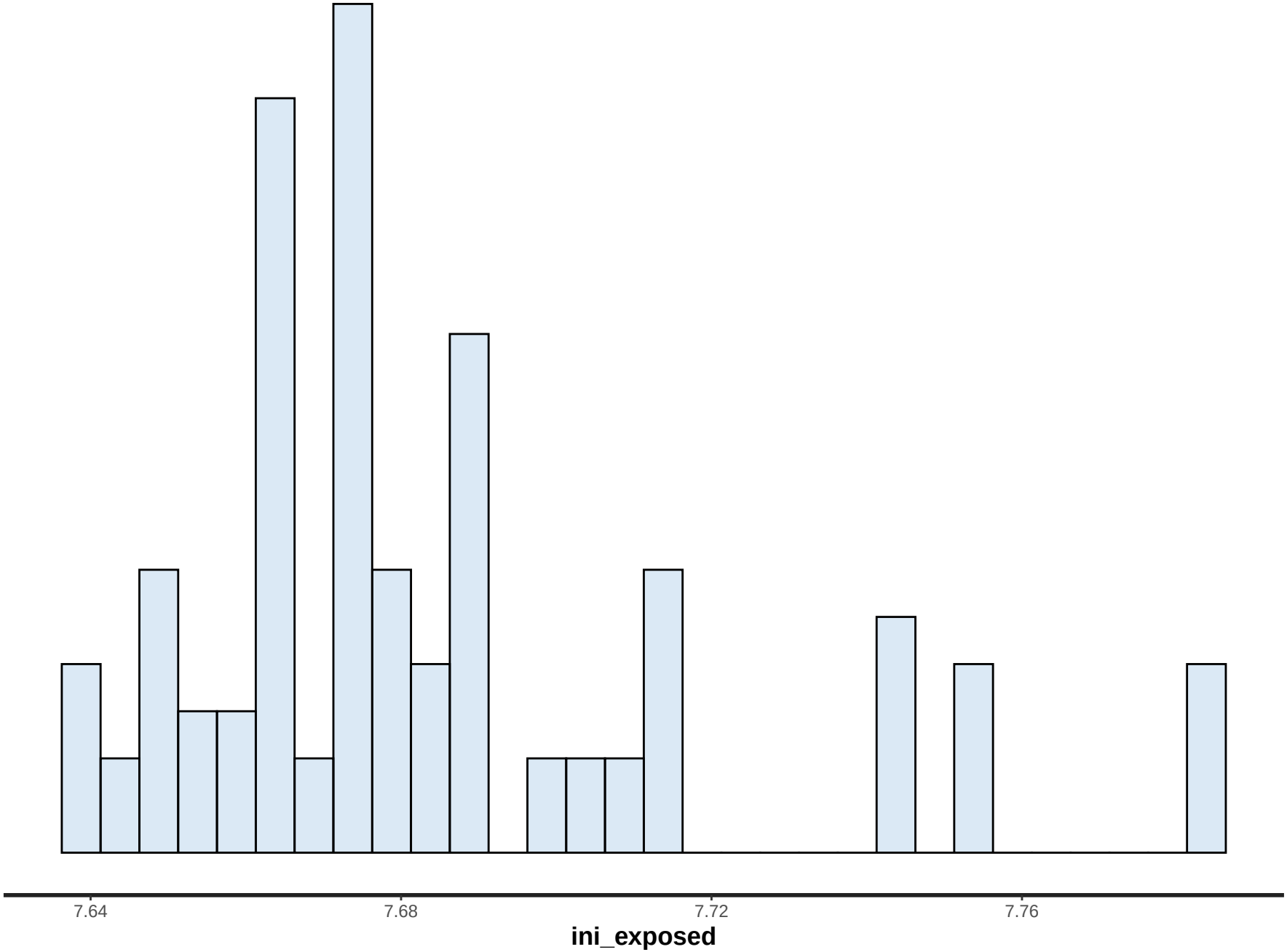
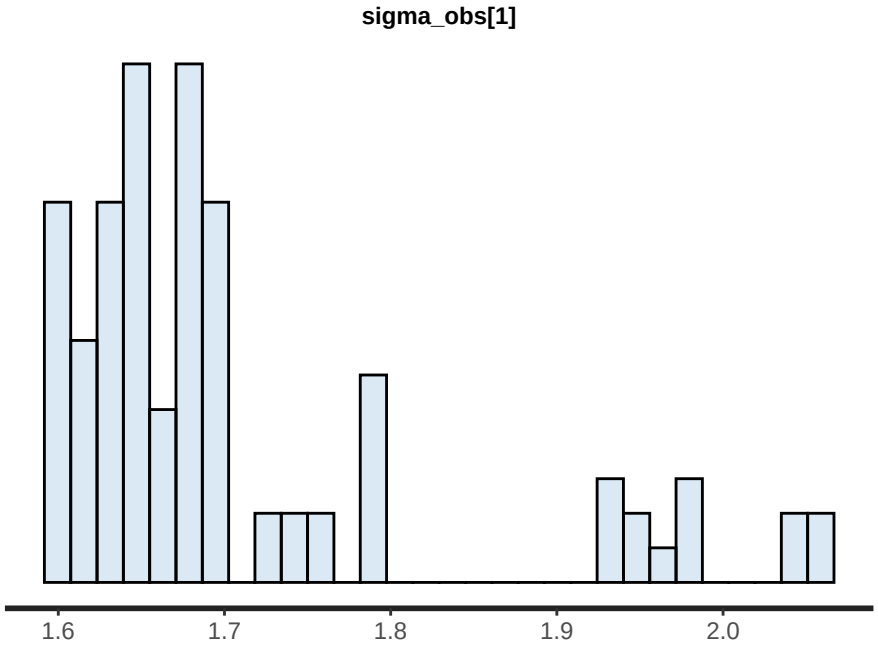
Mar 15
t_inter[2]
Apr 09
t_inter[3]
Apr 22
Apr 23
t_inter[4]
May 06
May 07
t_inter[5]
t_inter[6]
t_inter[7]
Jun 19
t_inter[8]
Jul 03
t_inter[9]
Jul 17
t_inter[10]
Jul 31
t_inter[11]
t_inter[12]
Aug 28
Aug 29
Aug 30
t_inter[13]
Sep 11
Sep 12
Sep 13
Sep 14
t_inter[14]
Sep 26
Sep 28
Sep 30
t_inter[15]
Oct 09
Oct 10
Oct 11
Oct 12
Oct 13
t_inter[16]
Oct 23
Oct 24
t_inter[17]
Nov 03
Nov 04
Nov 05
Nov 06
t_inter[18]
Nov 16
Nov 18
Nov 20
t_inter[19]
Dec 03
Dec 04
t_inter[20]
Dec 18
t_inter[21]
Jan 01
Jan 02
t_inter[22]
Jan 18


7.64
7.68
7.72
7.76
ini_exposed


sigma_obs[1]
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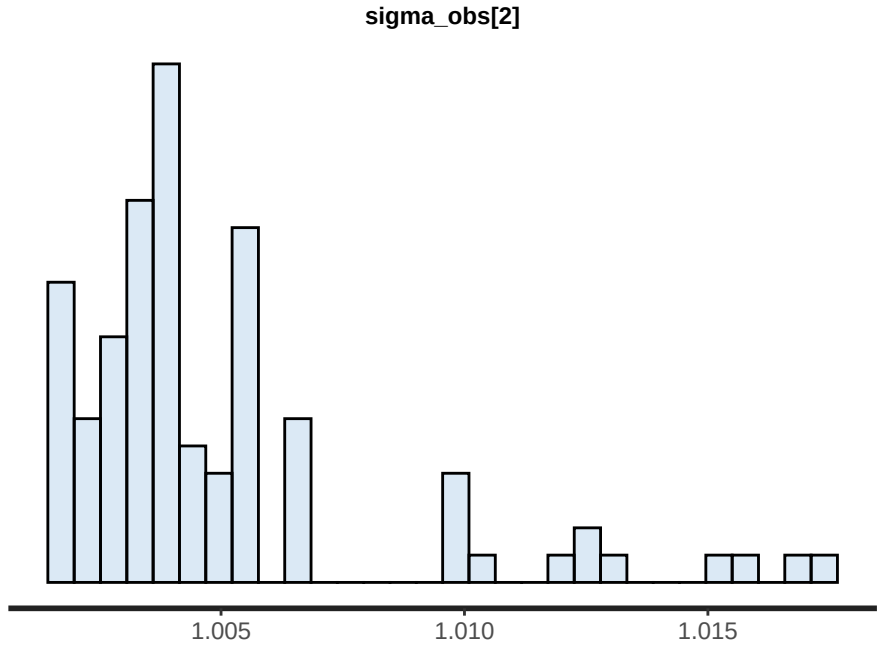
1.7
1.8
1.9
2.0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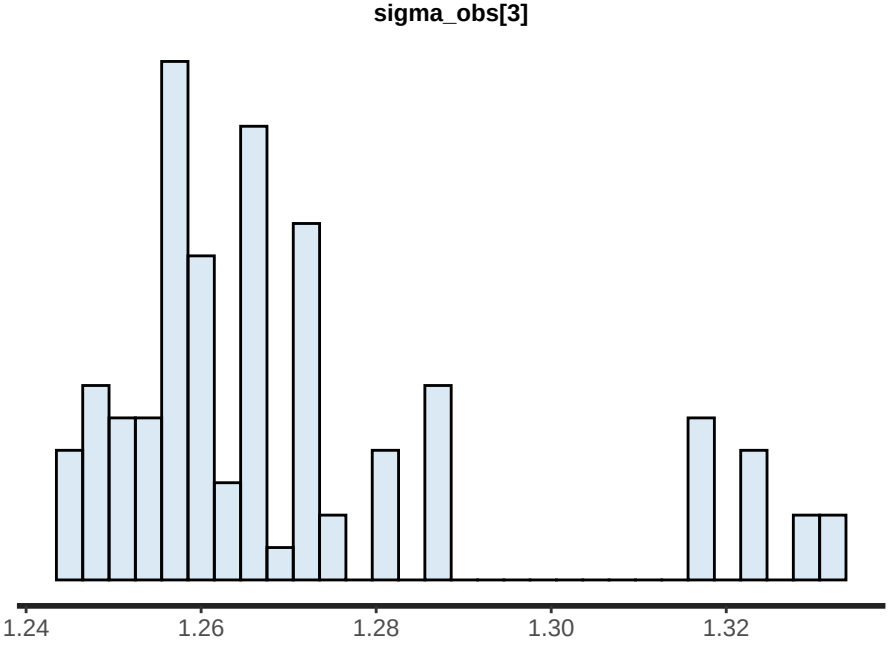
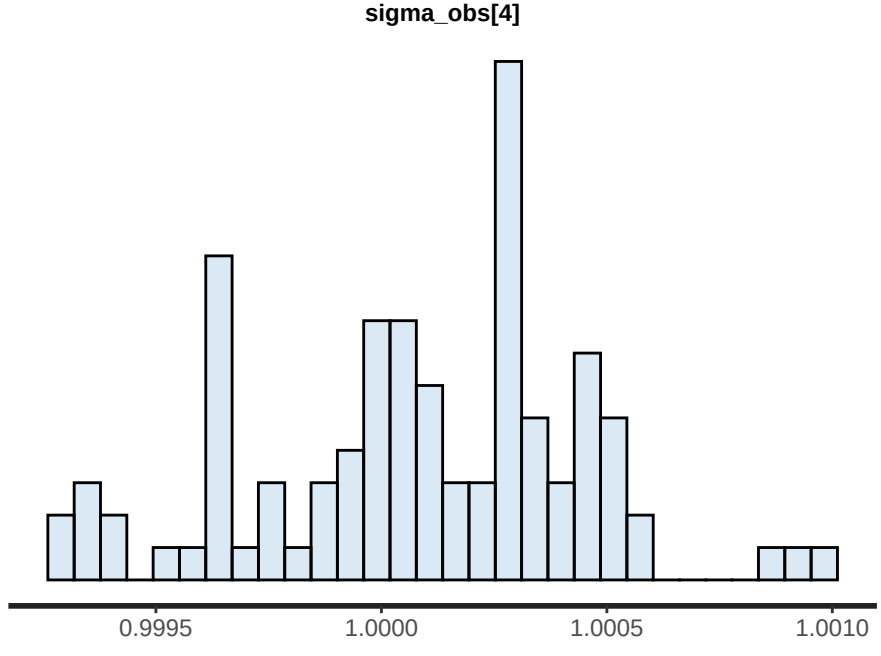
1.015


sigma_obs[3]
1.24
1.26
1.28
1.30
1.32


sigma_obs[4]
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1.0005
1.0010