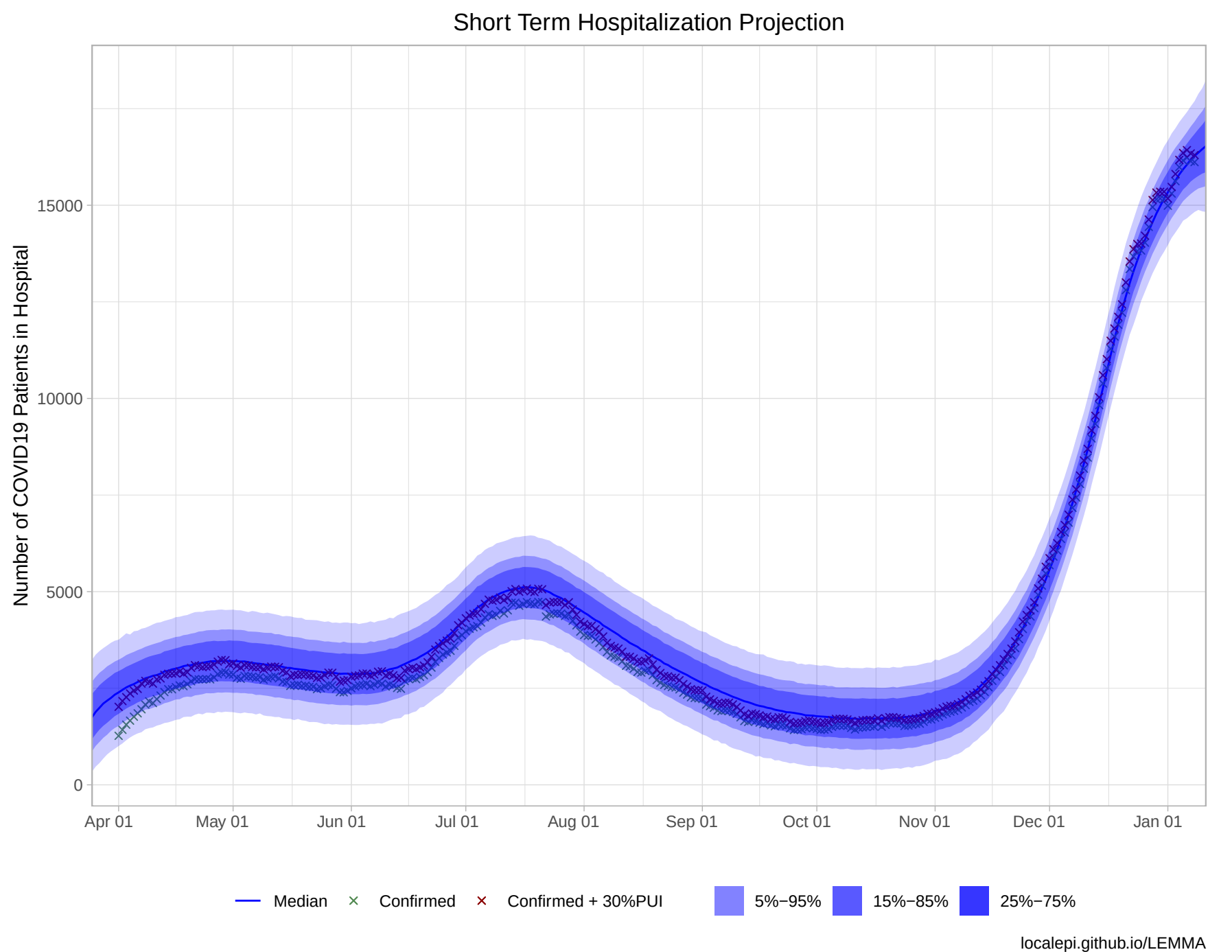
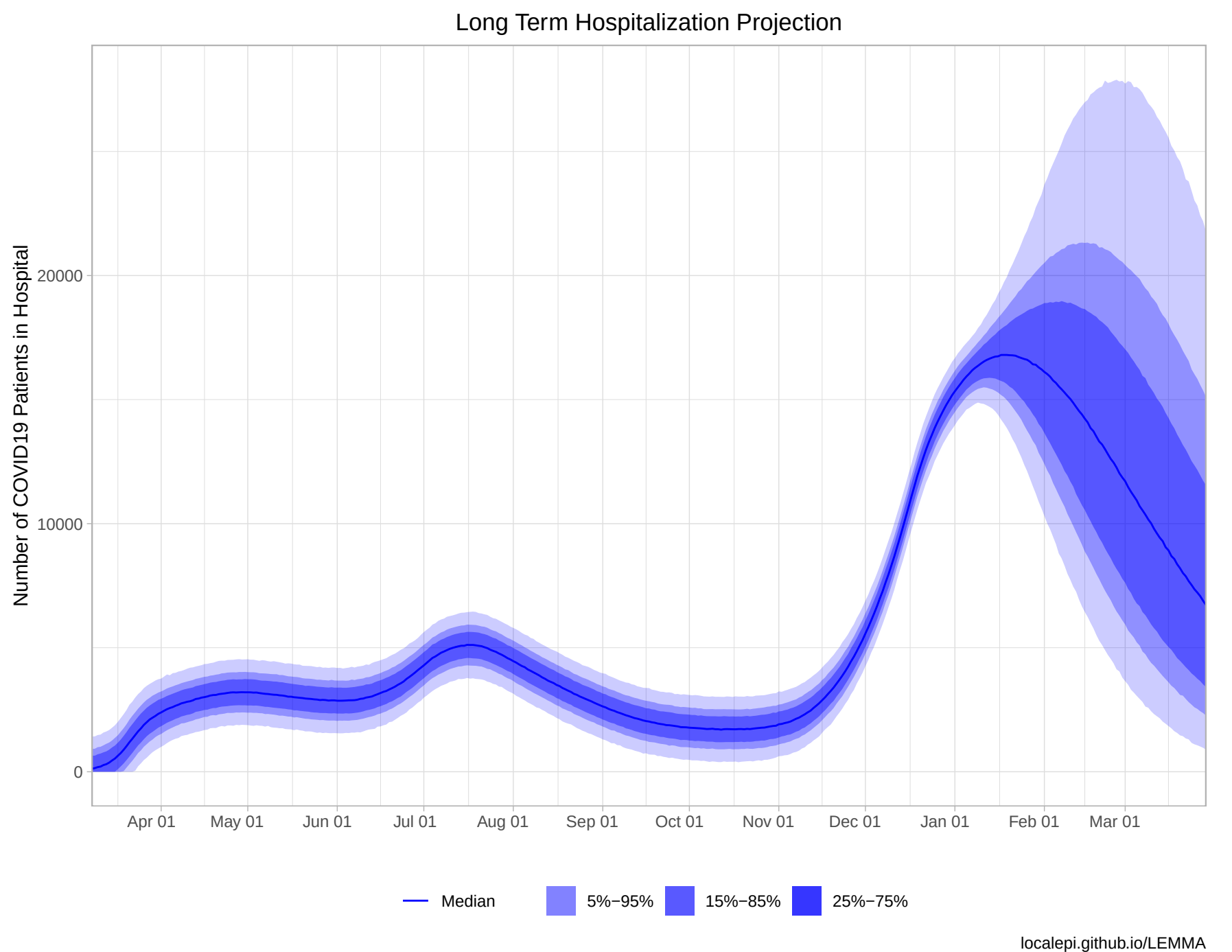
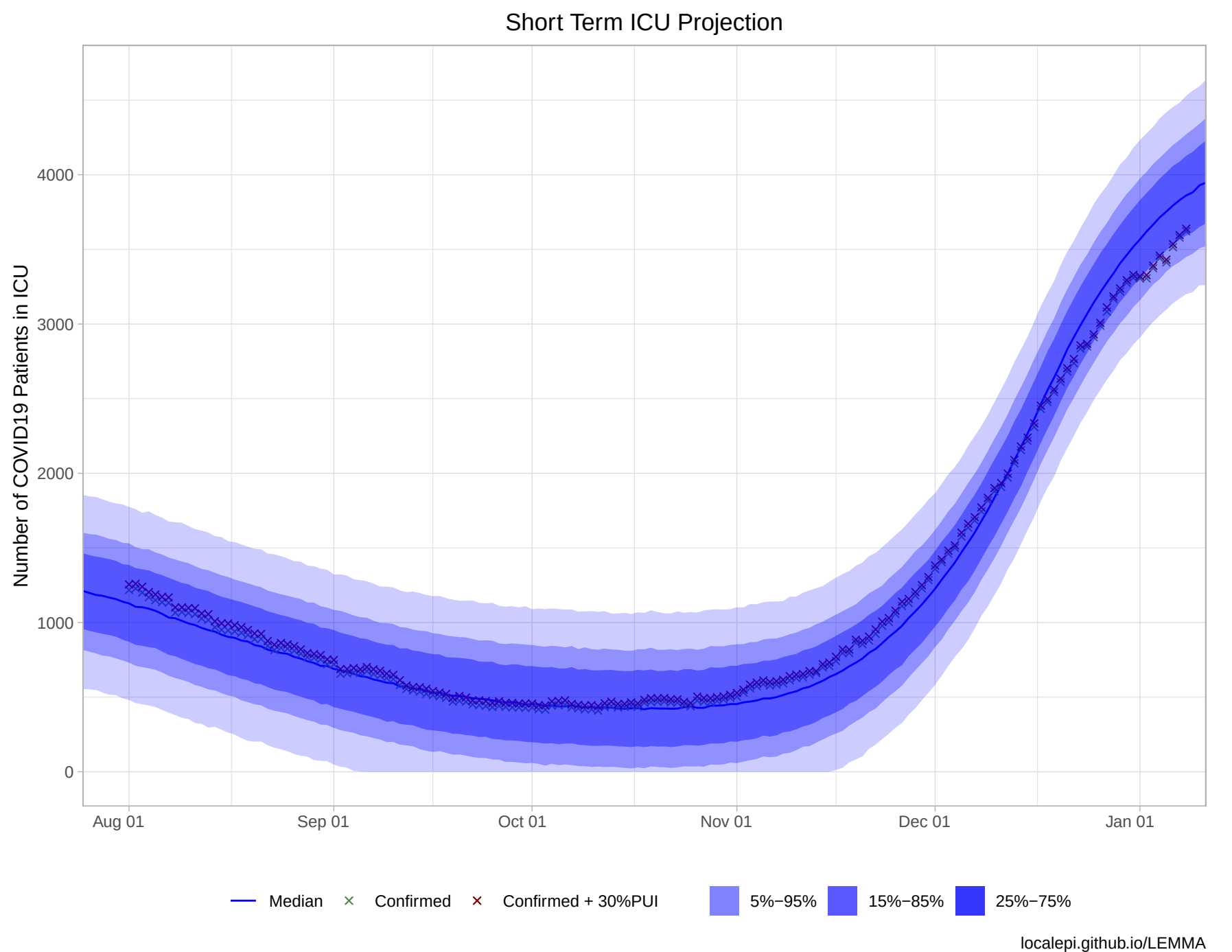
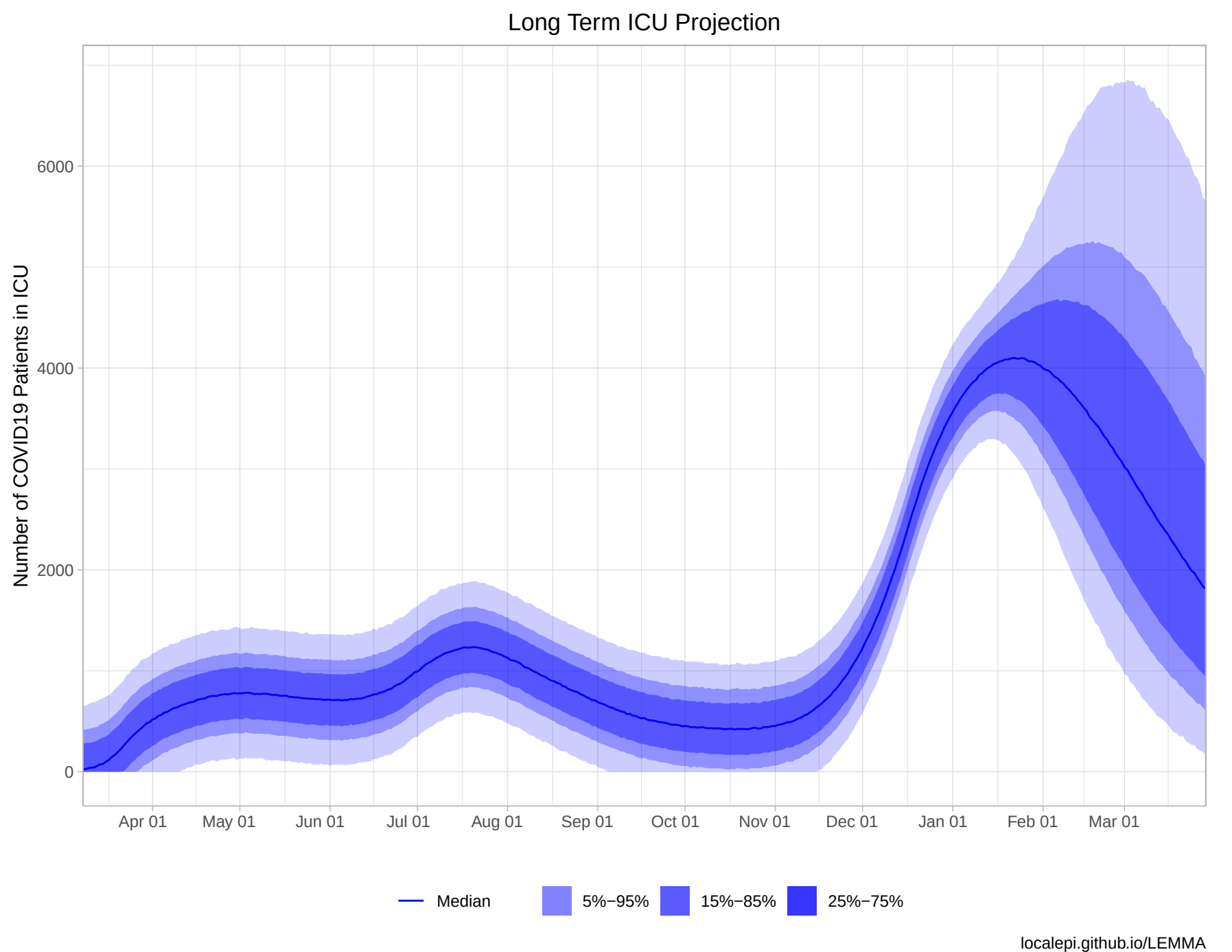
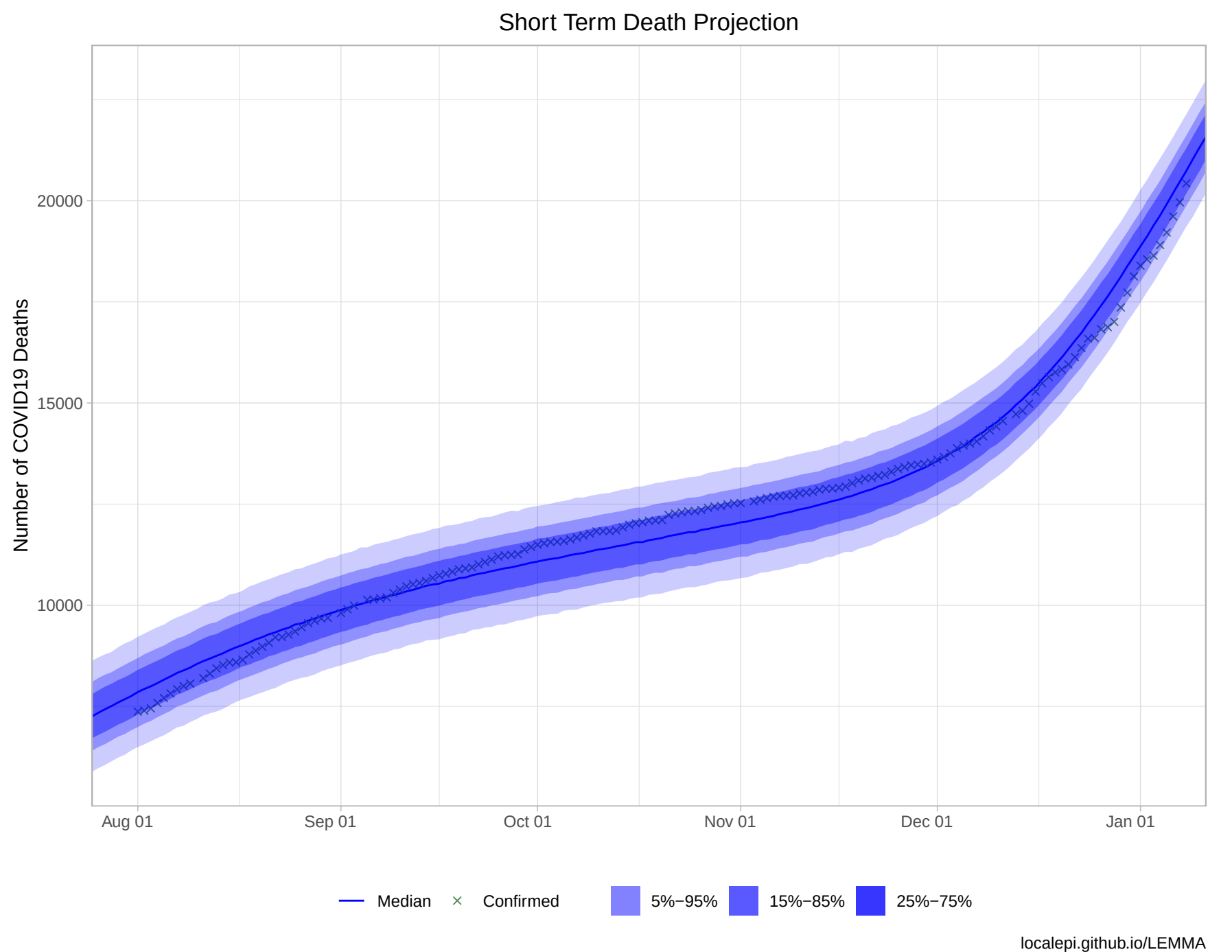
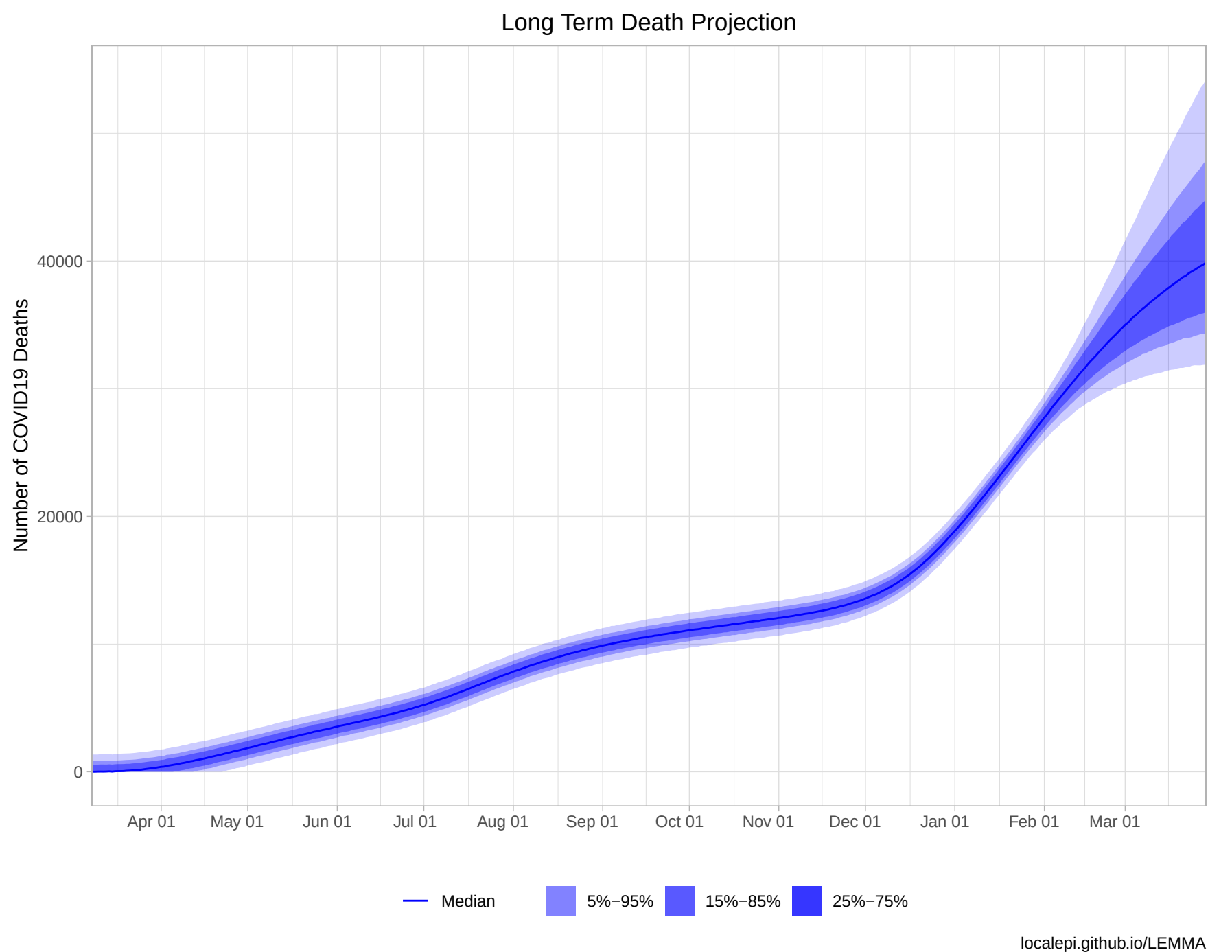

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
5000
10000
15000
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

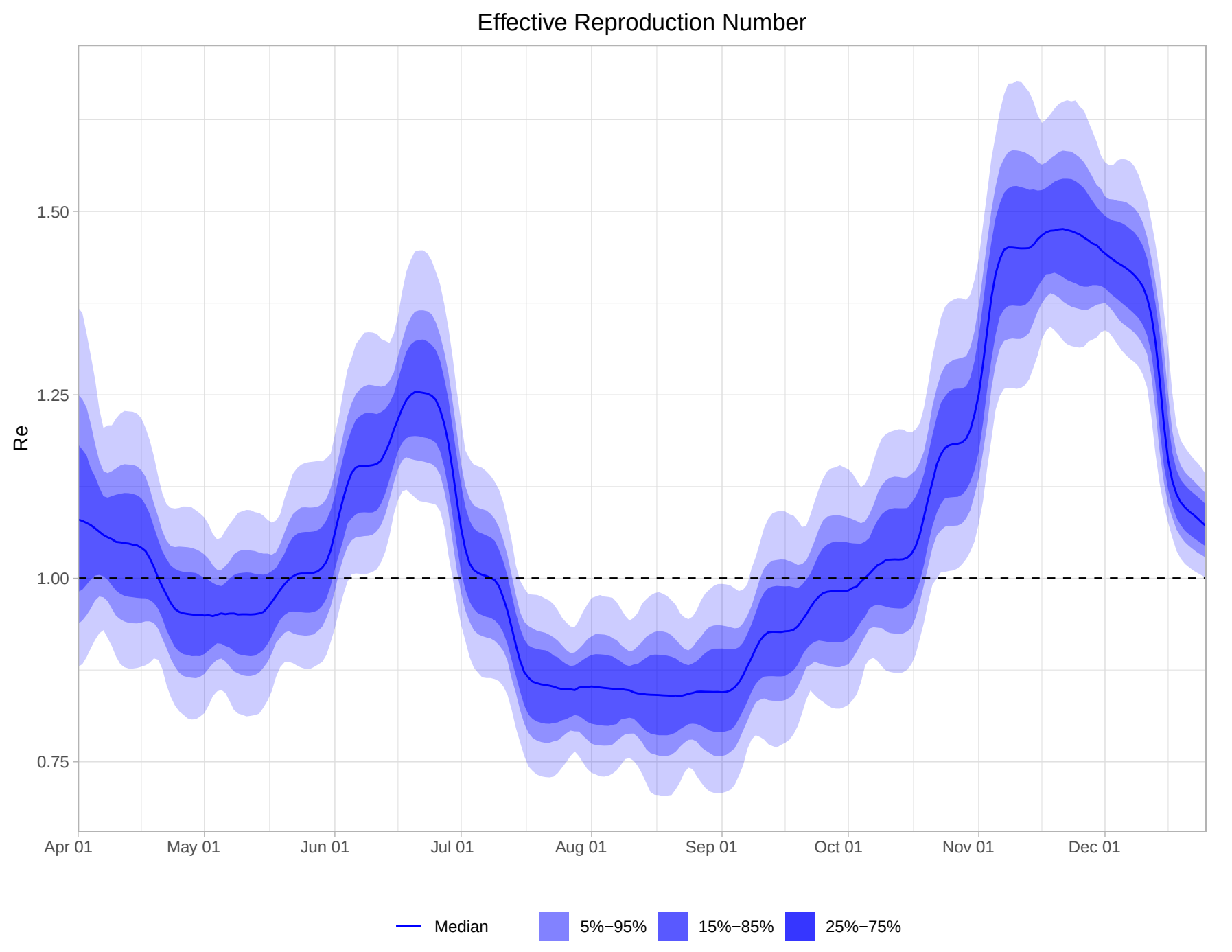

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
20000
10000
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


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

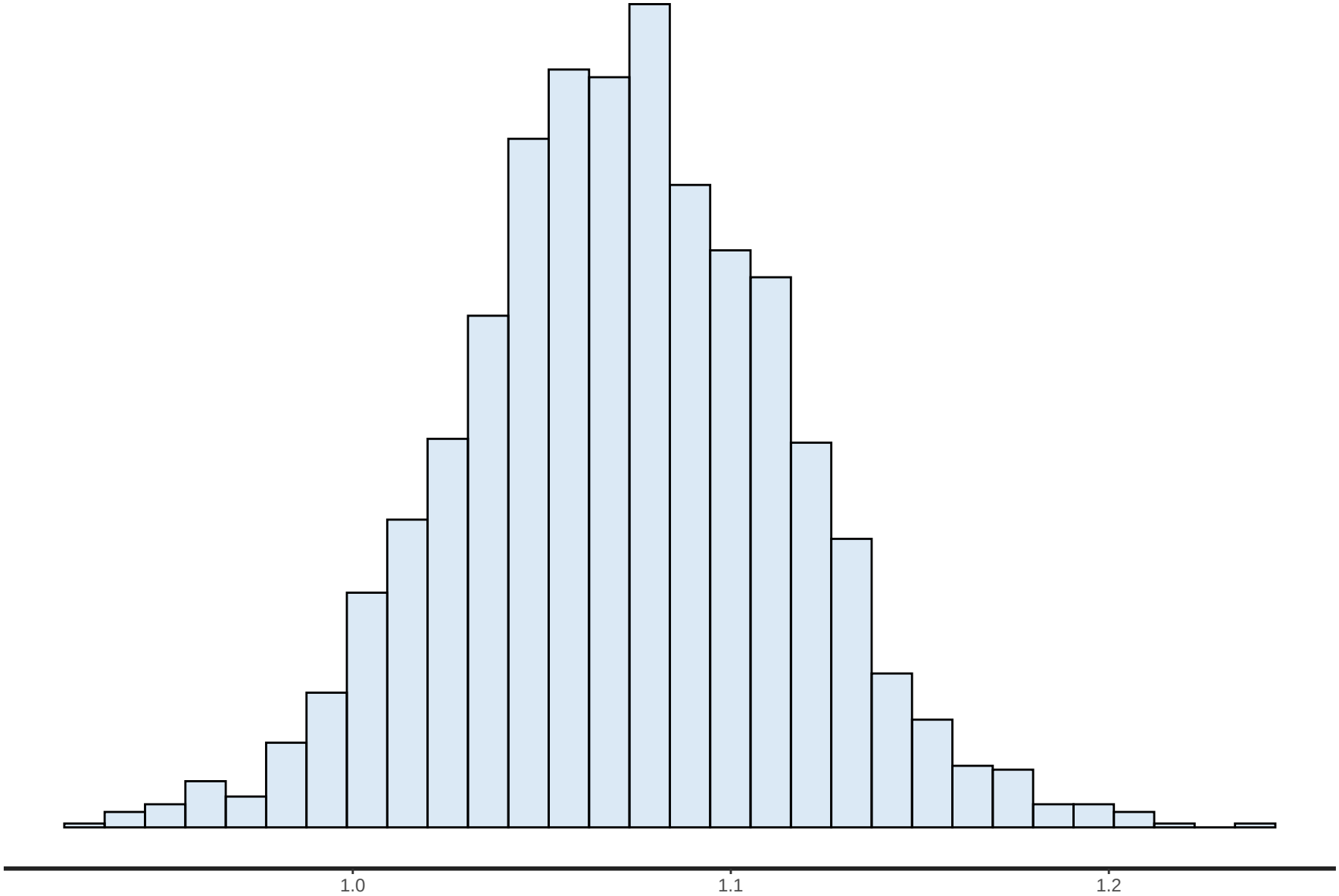

Short Term Death Projection
Number of COVID19 Deaths
20000
15000
10000
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

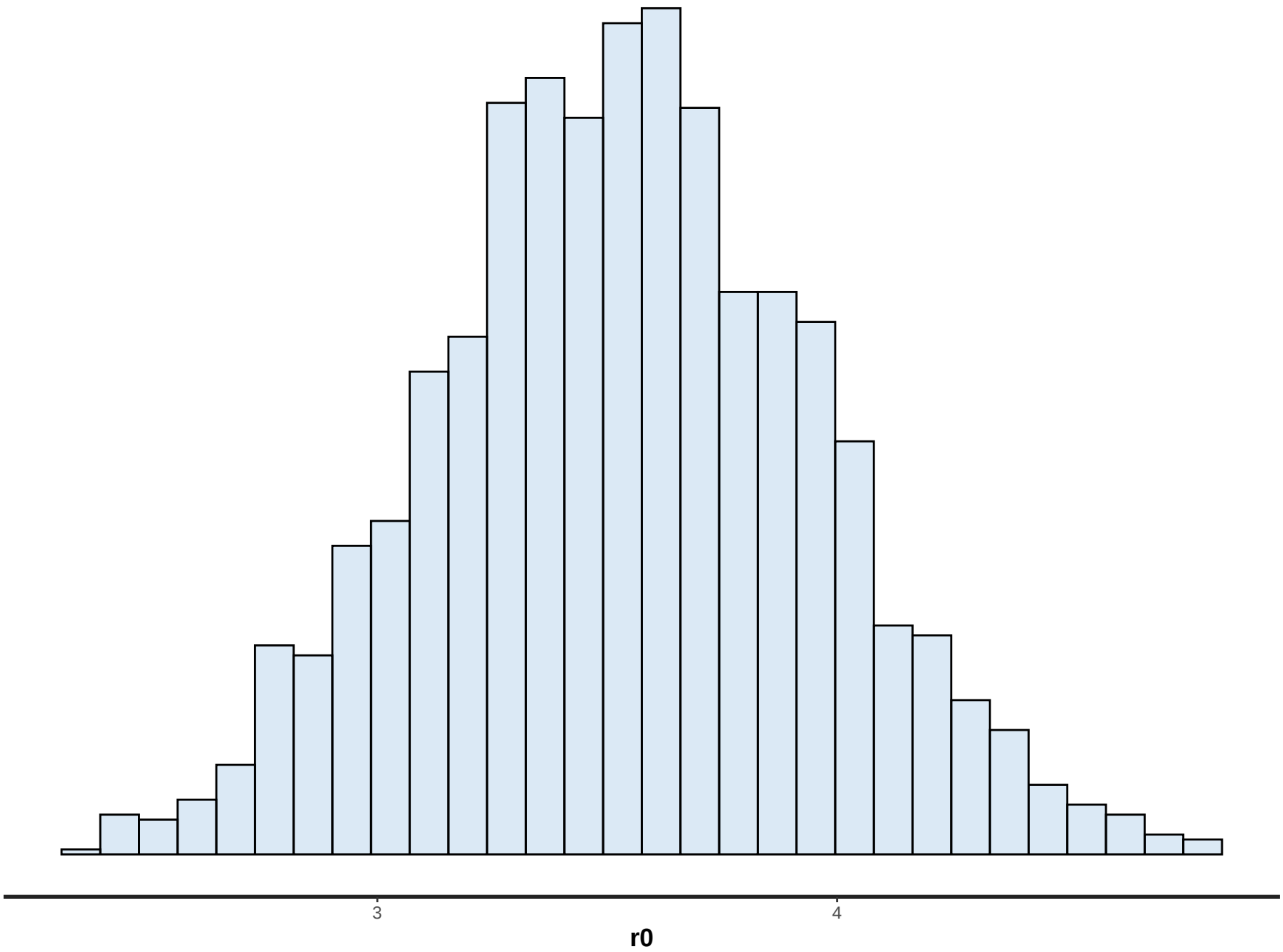

Long Term Death Projection
Number of COVID19 Deaths
40000
20000
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

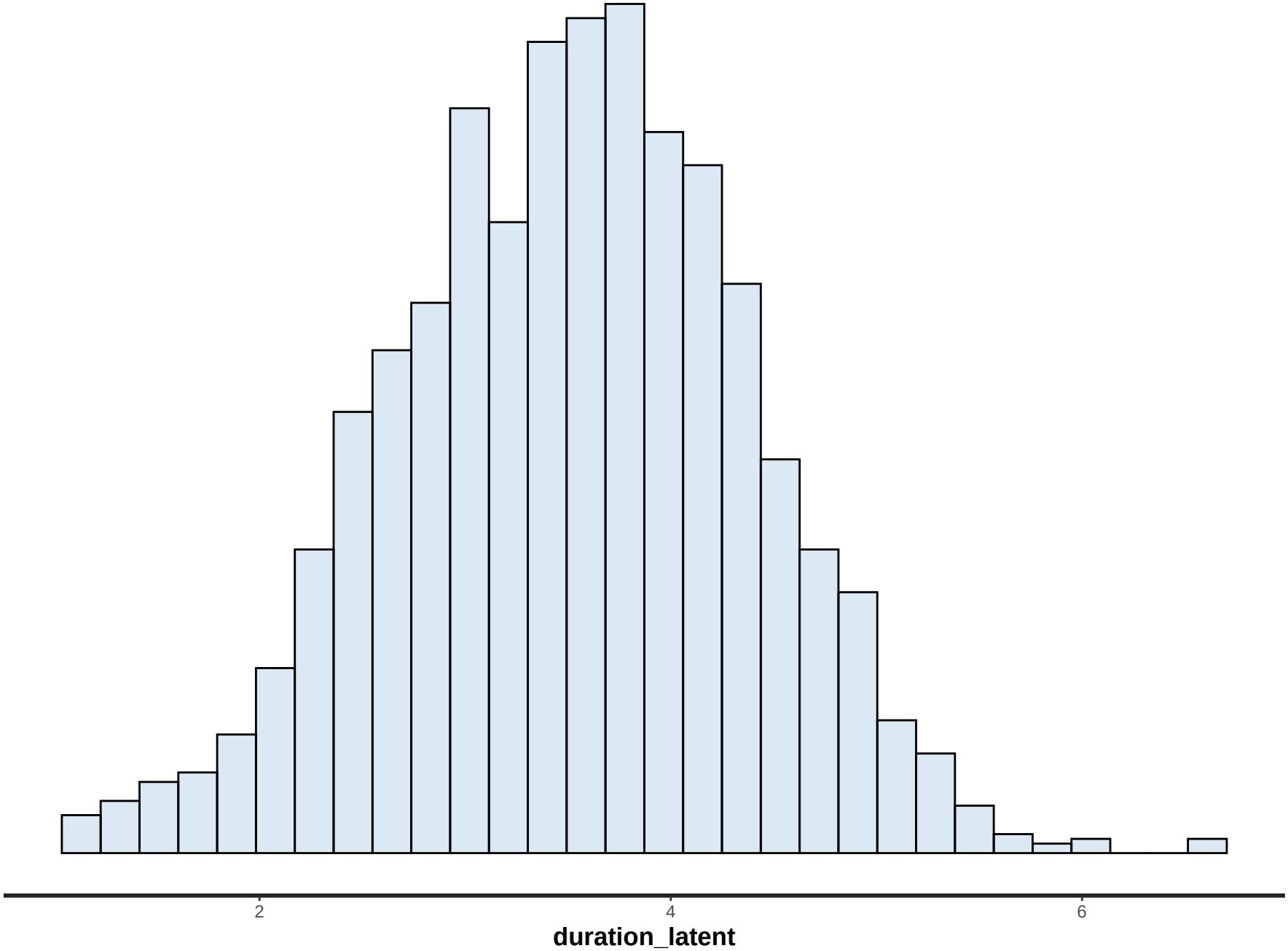

Effective Reproduction Number
Re
1.50
1.25
1.00
0.75
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

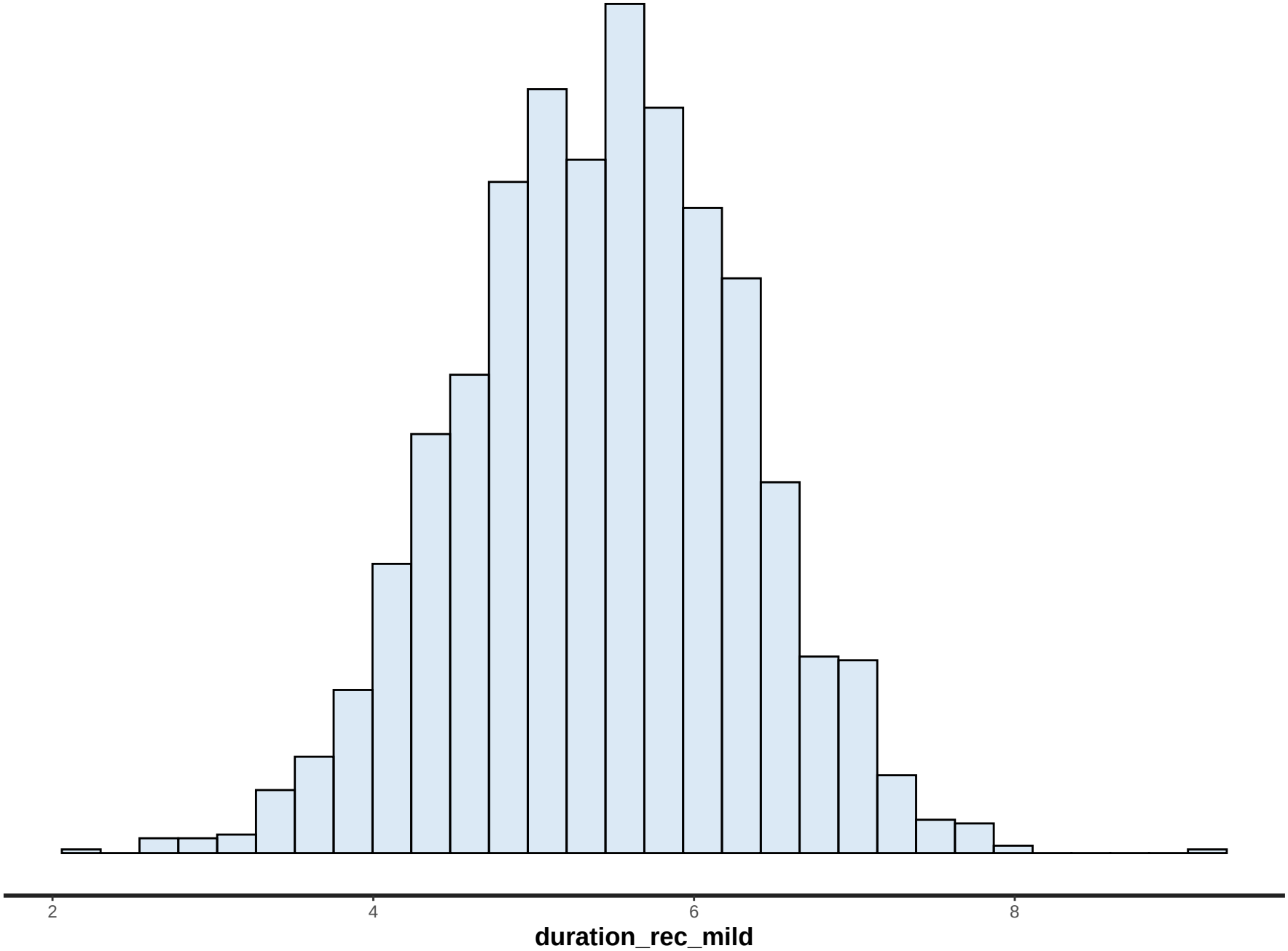
Rt as of 2020−12−25

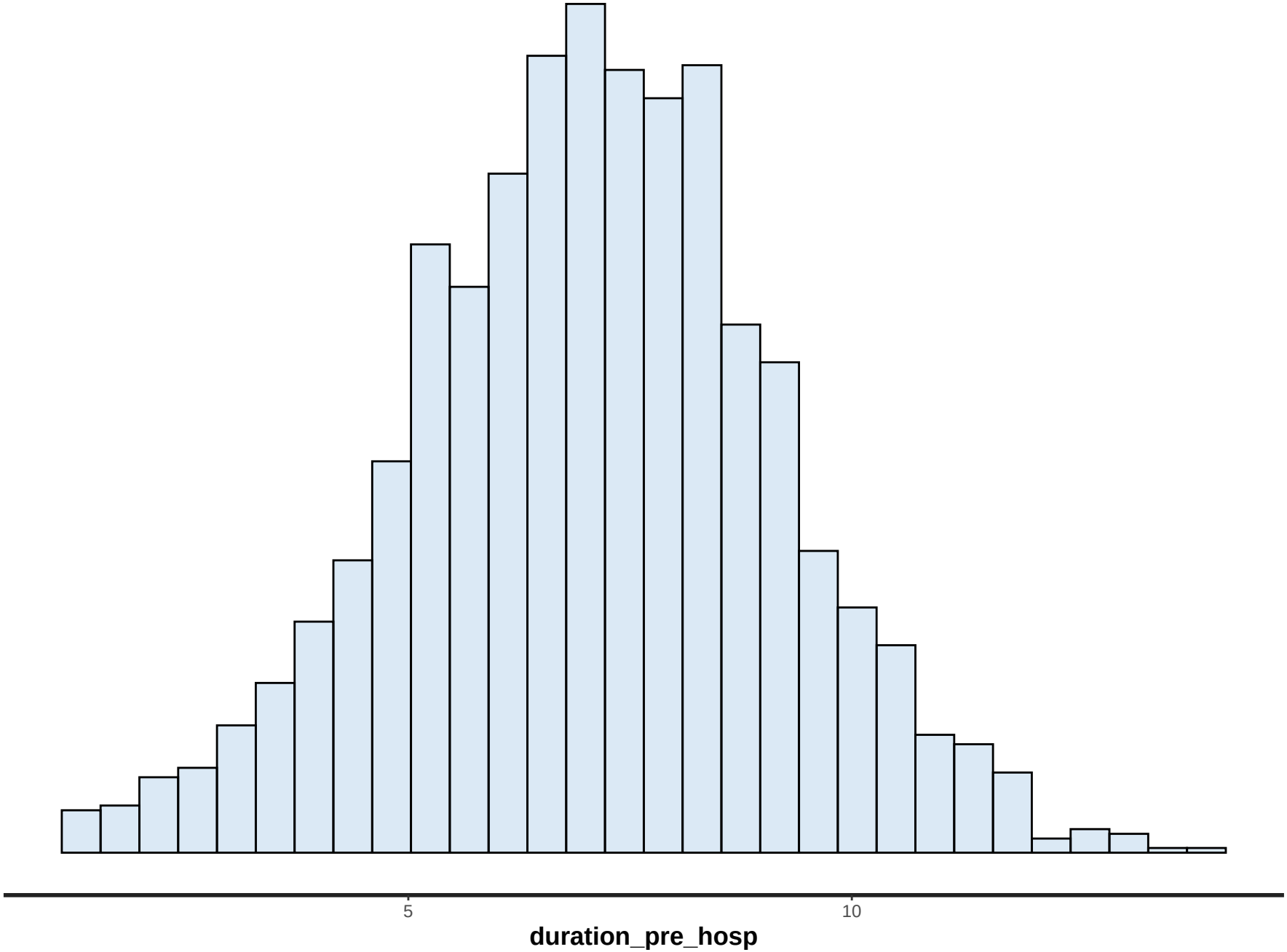
5%	10%	25%	50%	75%	90%	95%
1.00	1.02	1.04	1.07	1.10	1.13	1.14

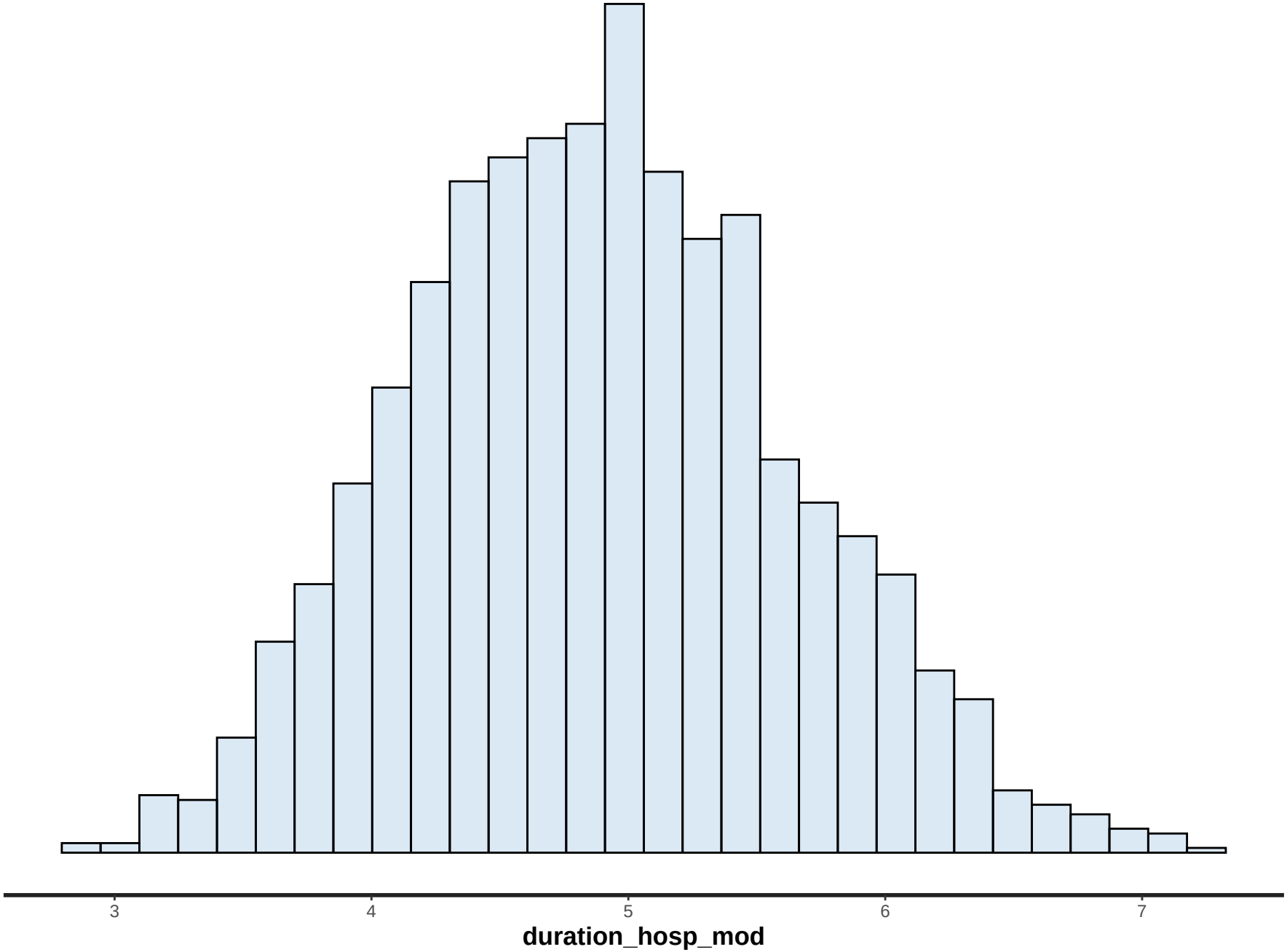


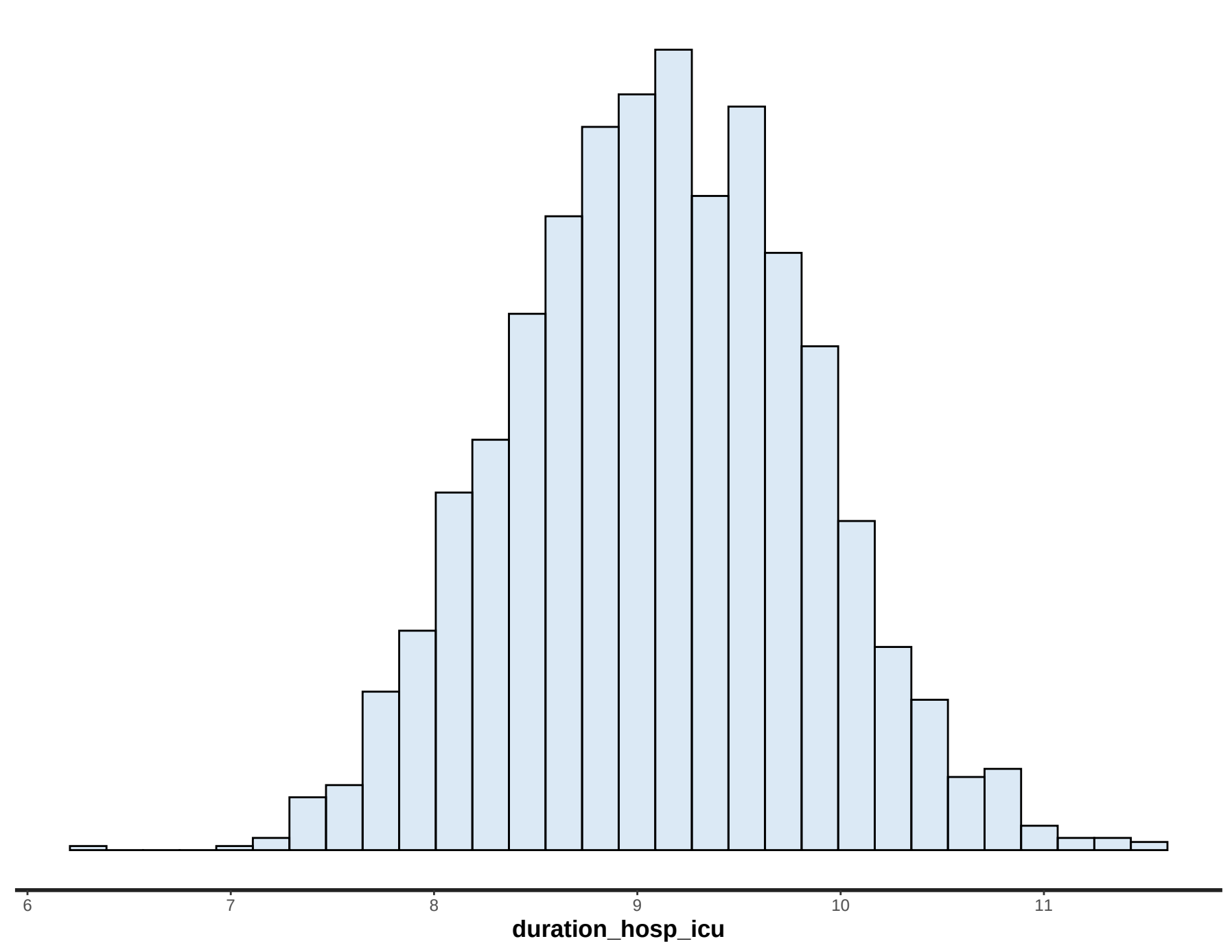

3
4
r0

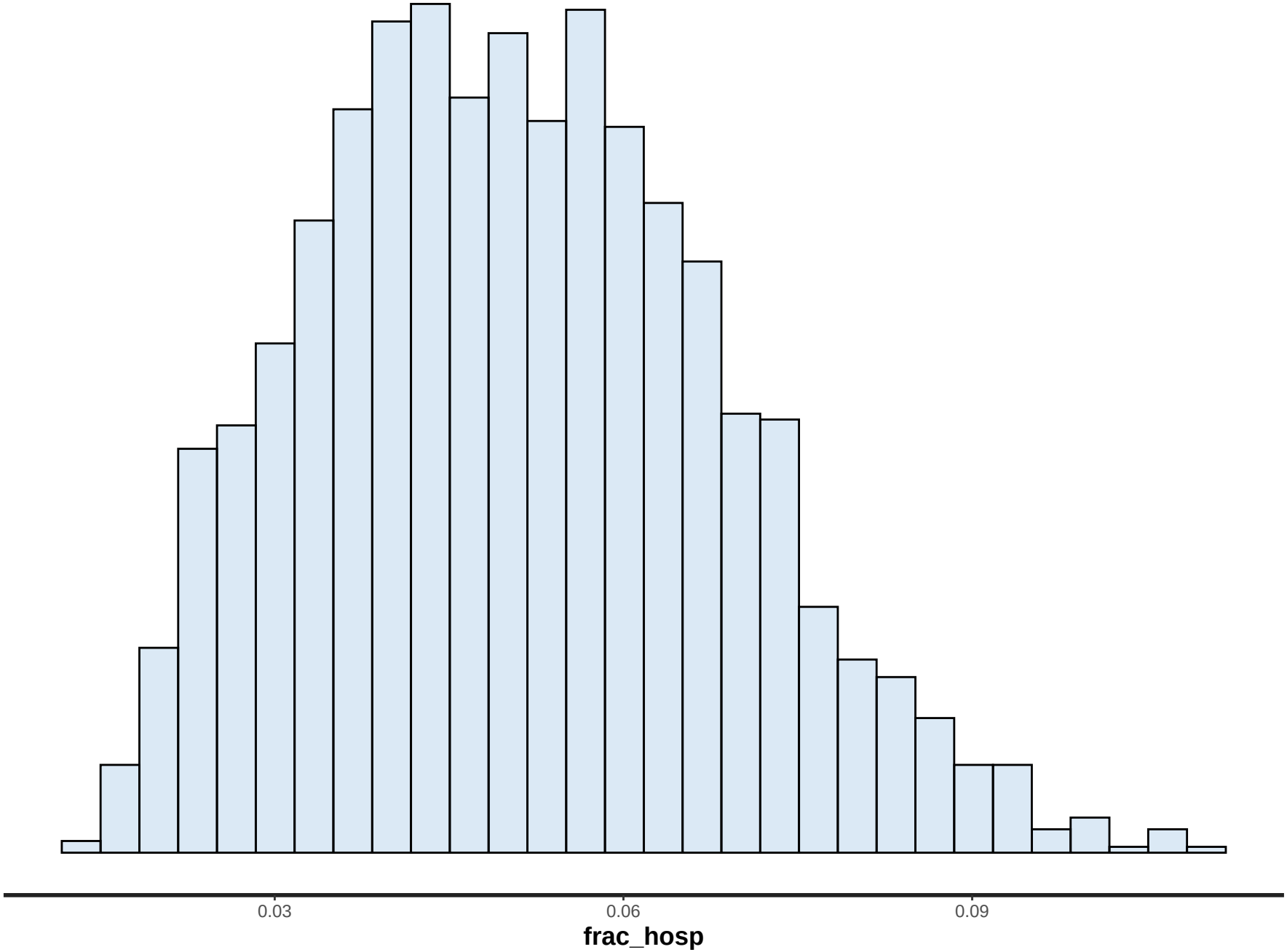

2
4
6
duration_latent

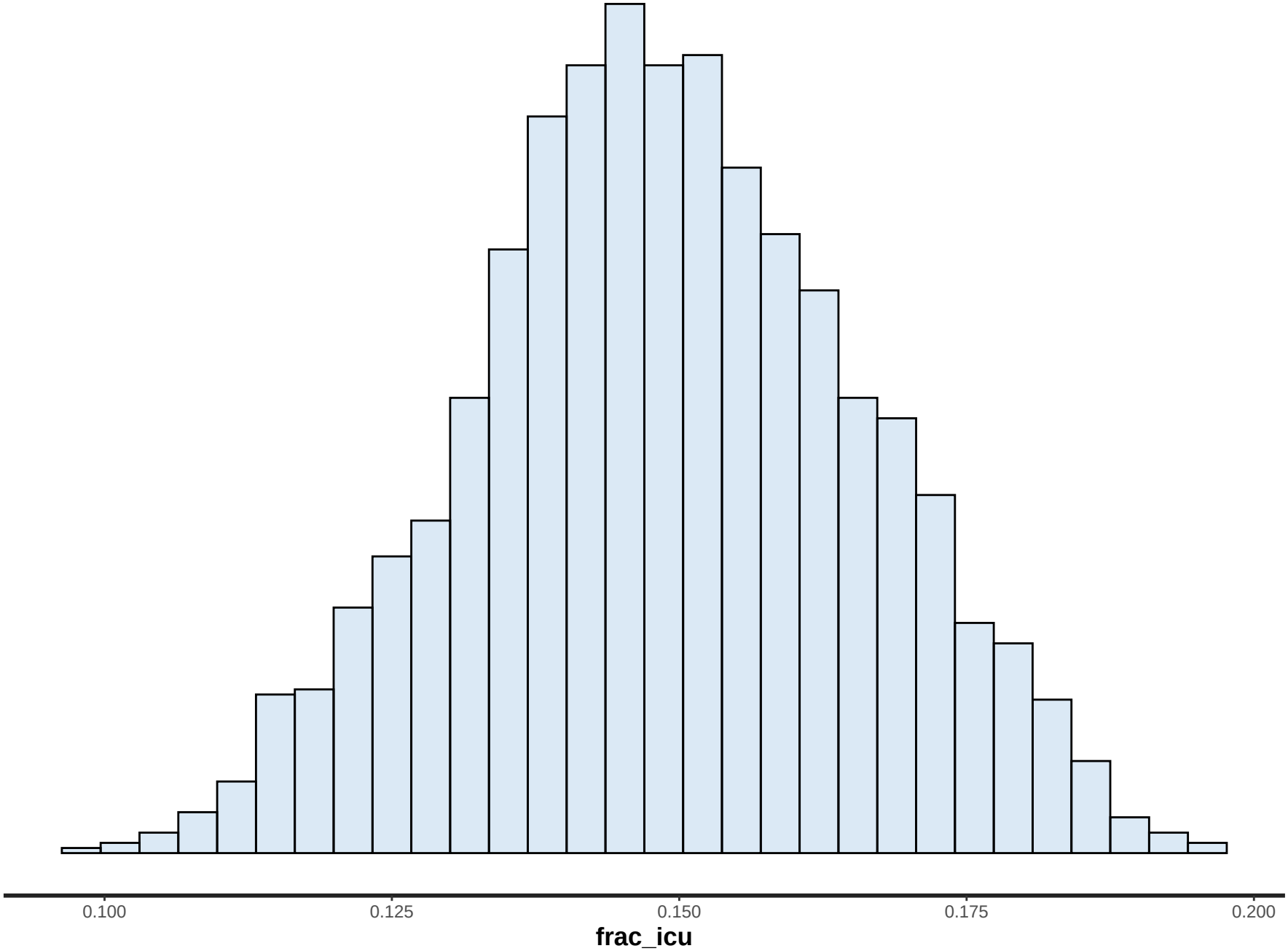

2
4
6
8
duration_rec_mild

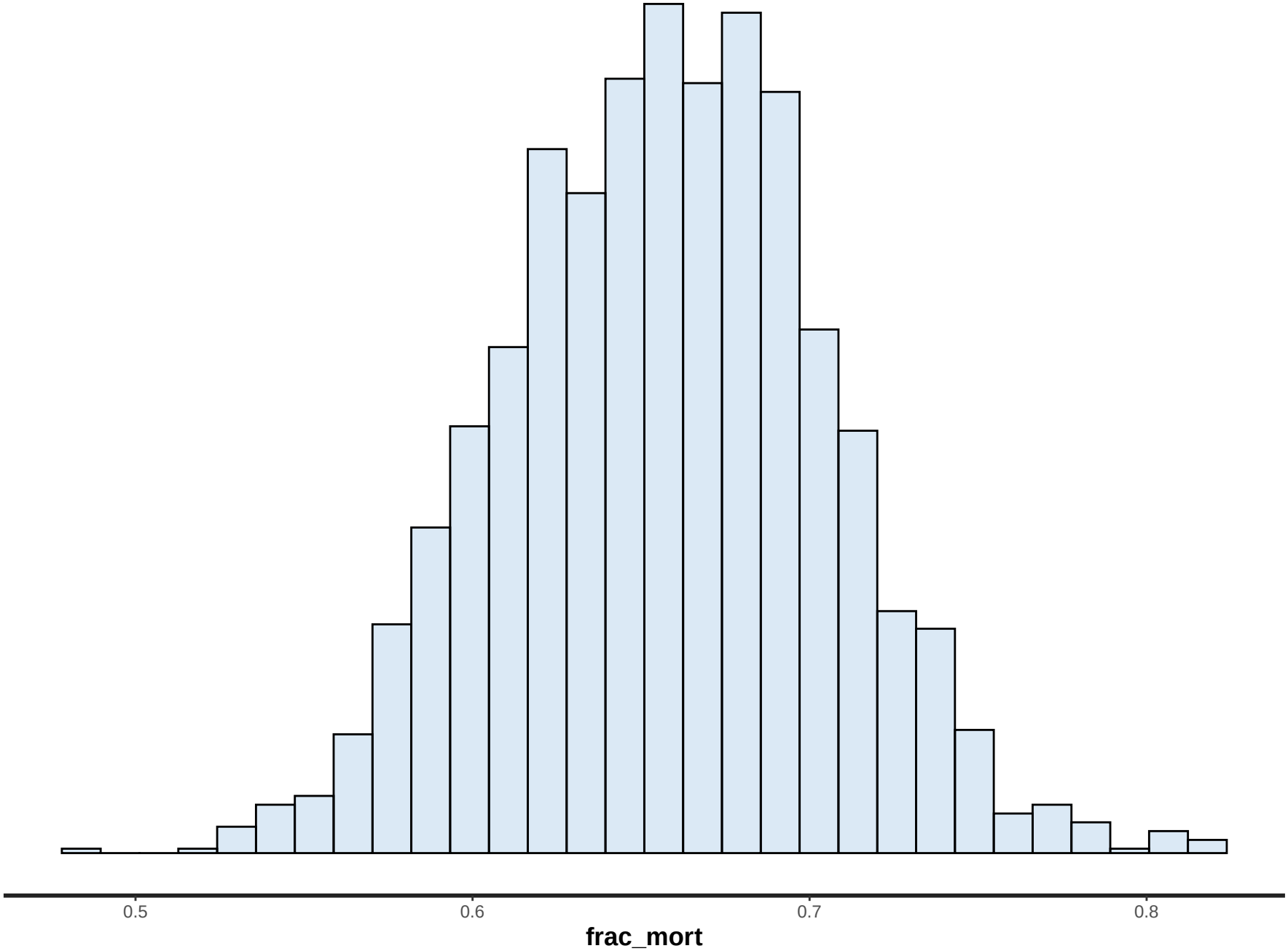

5
10
duration_pre_hosp

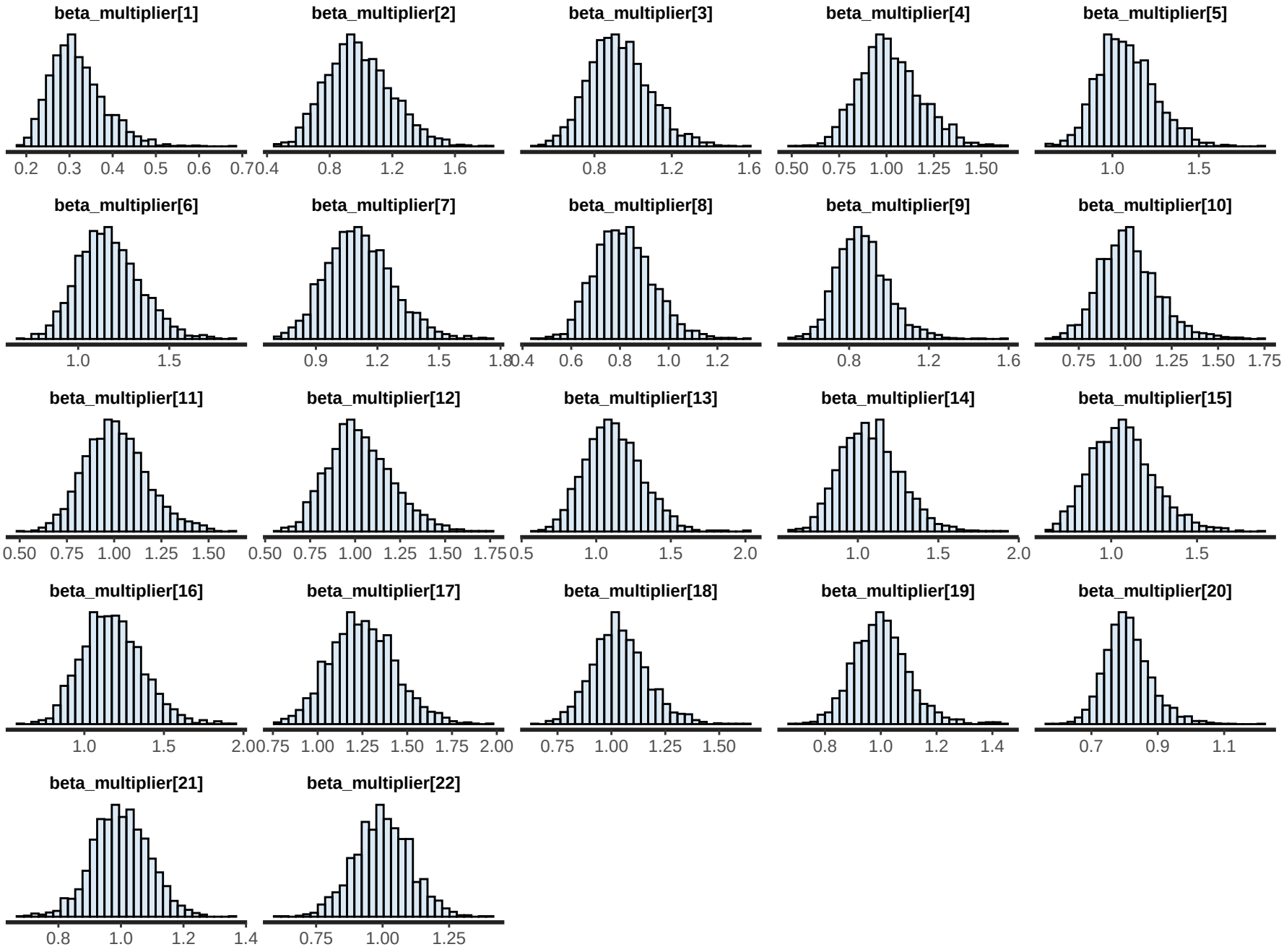

3
4
5
6
7
duration_hosp_mod


6
7
8
9
10
11
duration_hosp_icu


0.03
0.06
0.09
frac_hosp


0.100
0.125
0.150
0.175
0.200
frac_icu


0.5
0.6
0.7
0.8
frac_mort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0.2 0.3 0.4 0.5 0.6 0.7
beta_multiplier[2]
0.4 0.8 1.2 1.6
beta_multiplier[3]
0.8 1.2 1.6
beta_multiplier[4]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[5]
1.0 1.5
beta_multiplier[6]
1.0 1.5
beta_multiplier[7]
0.9 1.2 1.5 1.8
beta_multiplier[8]
0.4 0.6 0.8 1.0 1.2
beta_multiplier[9]
0.8 1.2 1.6
beta_multiplier[10]
0.75 1.00 1.25 1.50 1.75
beta_multiplier[11]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[12]
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beta_multiplier[13]
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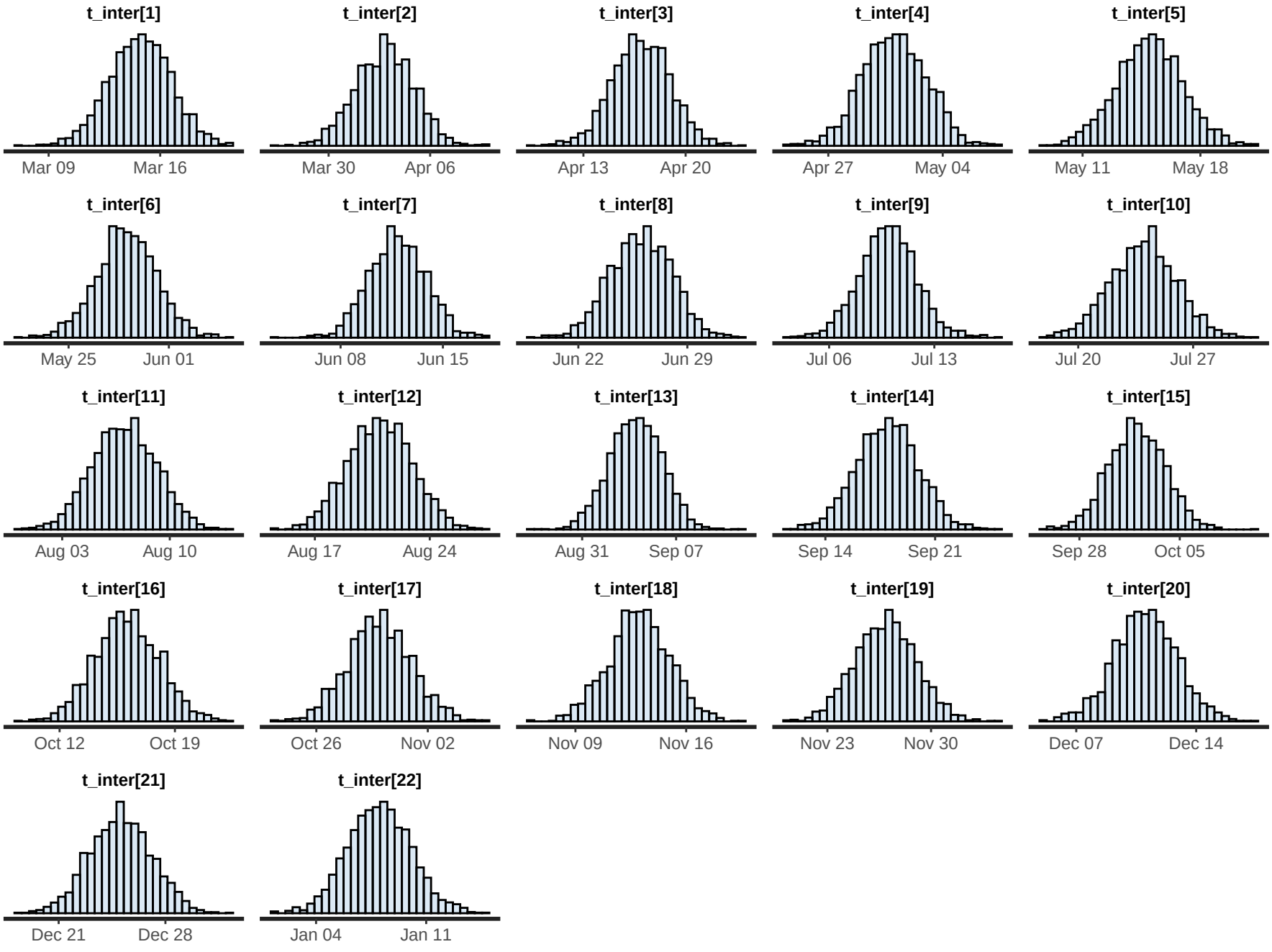
1.0 1.5 2.0
beta_multiplier[15]
1.0 1.5
beta_multiplier[16]
1.0 1.5 2.00
beta_multiplier[17]
0.75 1.00 1.25 1.50 1.75 2.00
beta_multiplier[18]
0.75 1.00 1.25 1.50
beta_multiplier[19]
0.8 1.0 1.2 1.4
beta_multiplier[20]
0.7 0.9 1.1
beta_multiplier[21]
0.8 1.0 1.2 1.4
beta_multiplier[22]
0.75 1.00 1.25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Mar 09
Mar 16
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Mar 30
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Apr 13
Apr 20
t_inter[4]
Apr 27
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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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Oct 19
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Oct 26
Nov 02
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Nov 09
Nov 16
t_inter[19]
Nov 23
Nov 30
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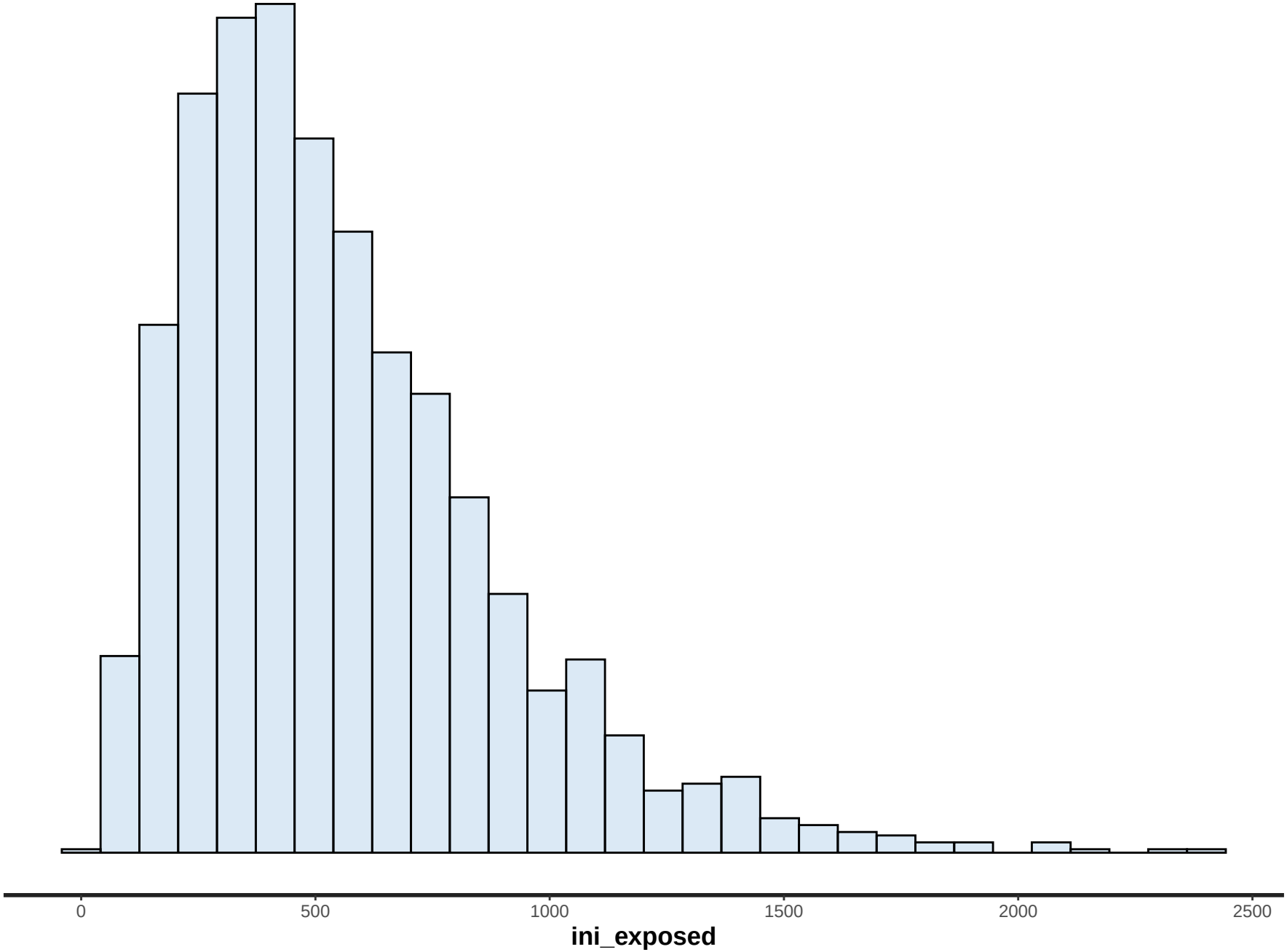
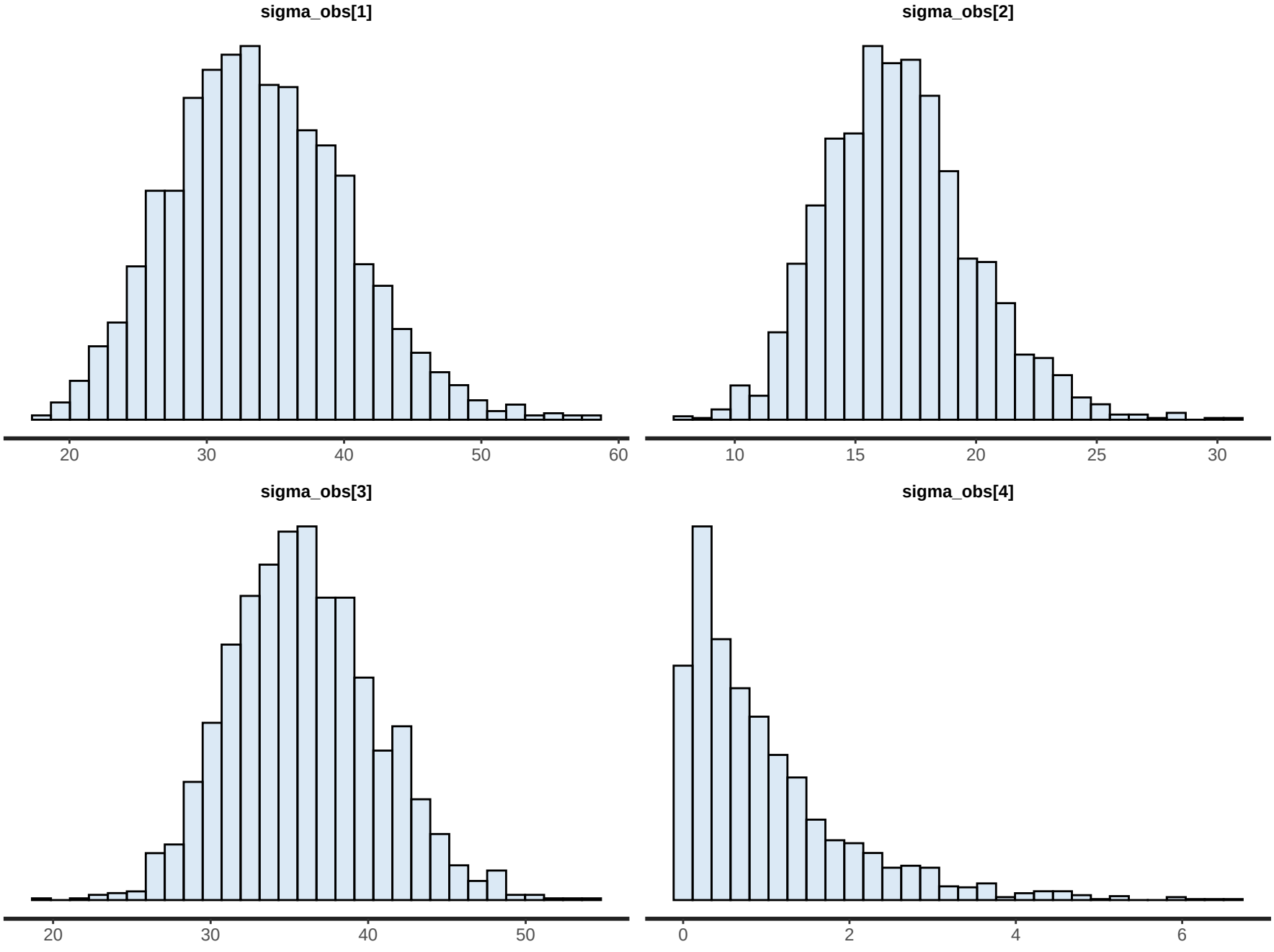
Dec 07
Dec 14
t_inter[21]
Dec 21
Dec 28
t_inter[22]
Jan 04
Jan 11


0
500
1000
1500
2000
2500
ini_exposed


sigma_obs[1]
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sigma_obs[4]
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6