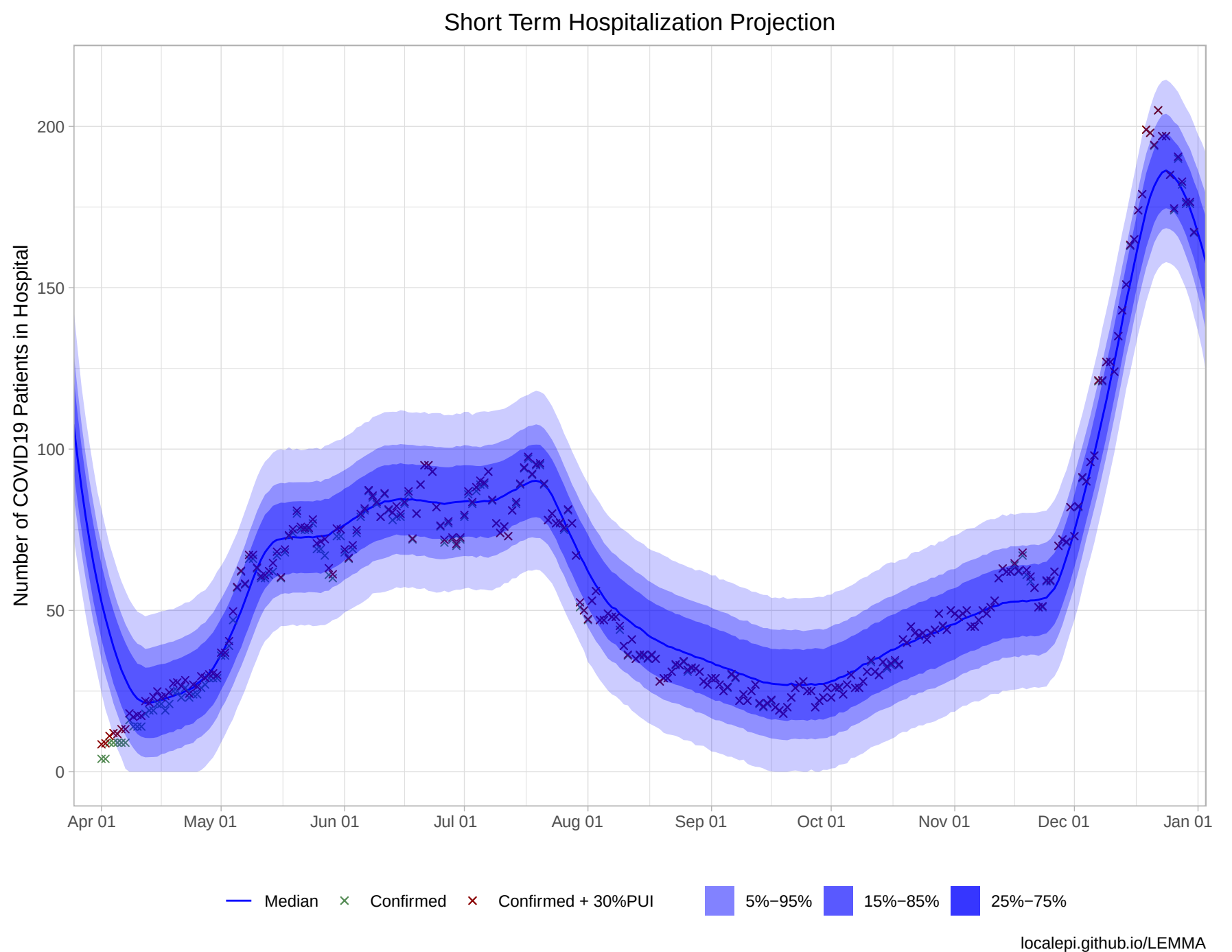
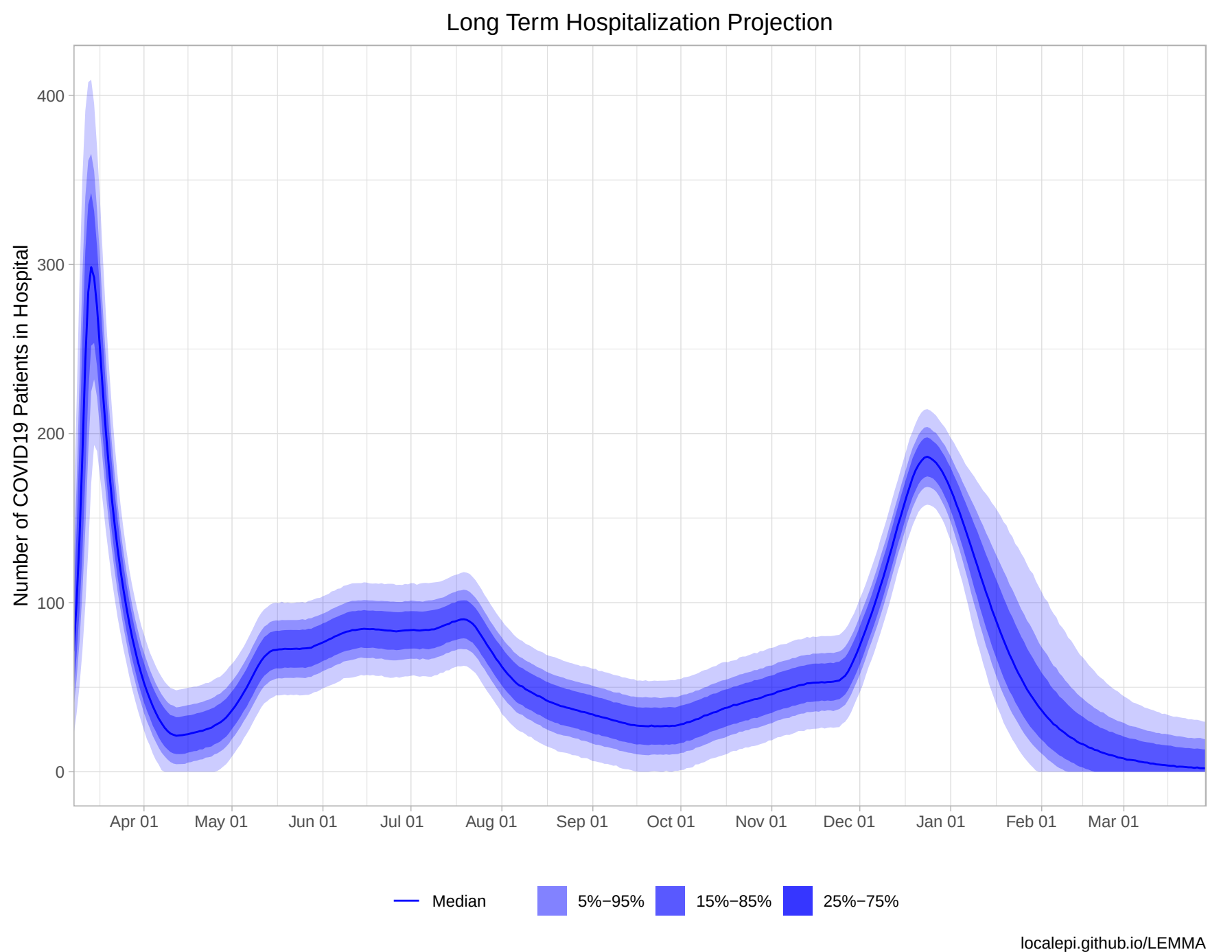
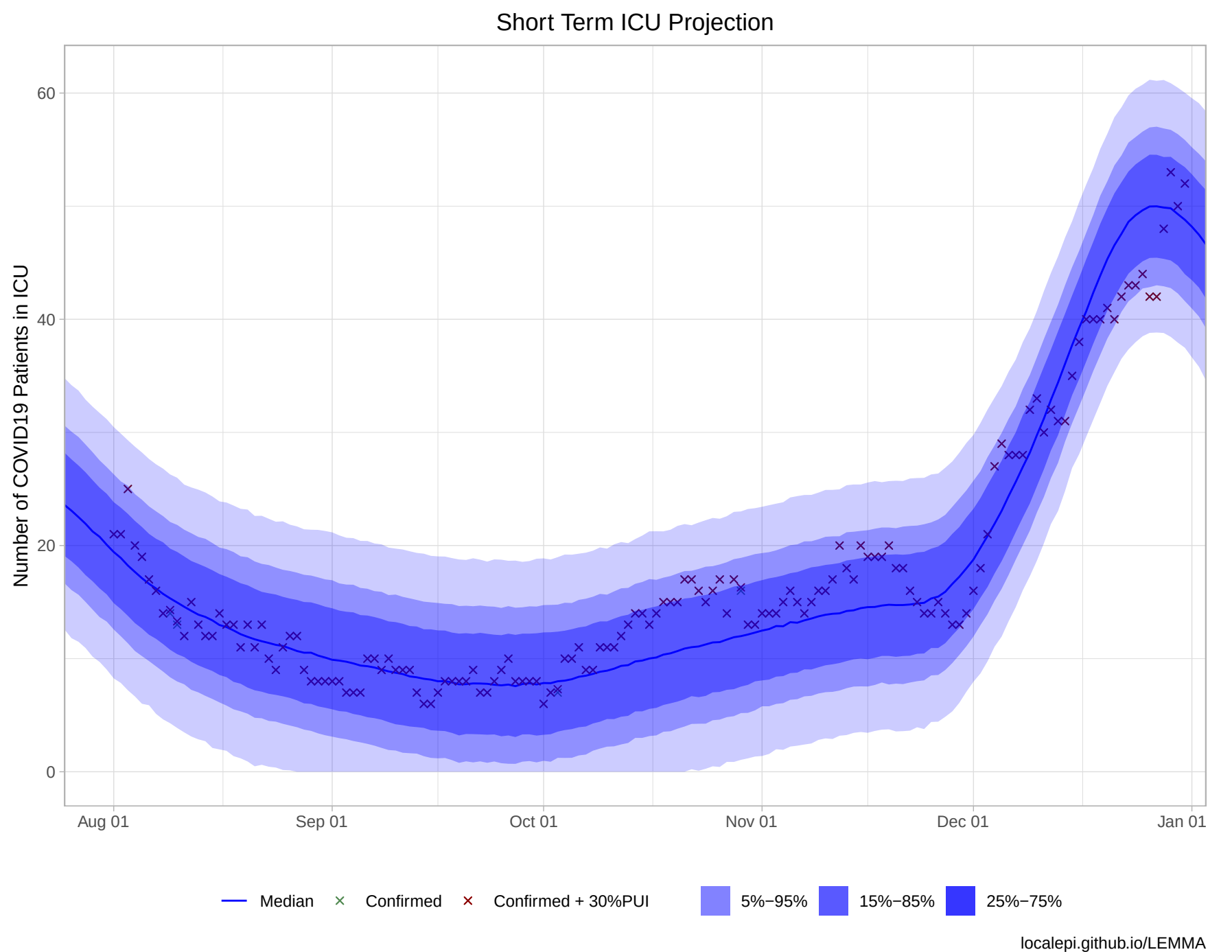
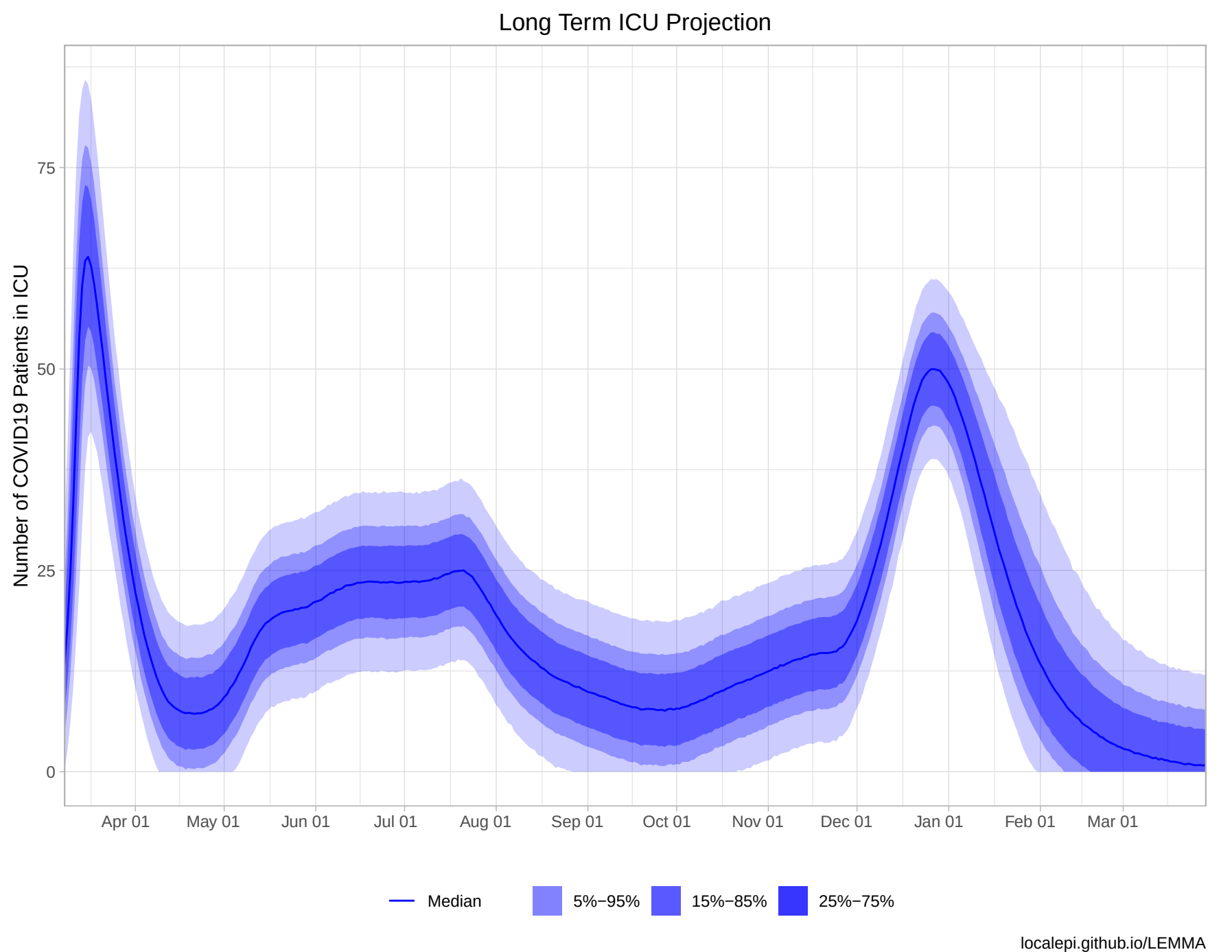
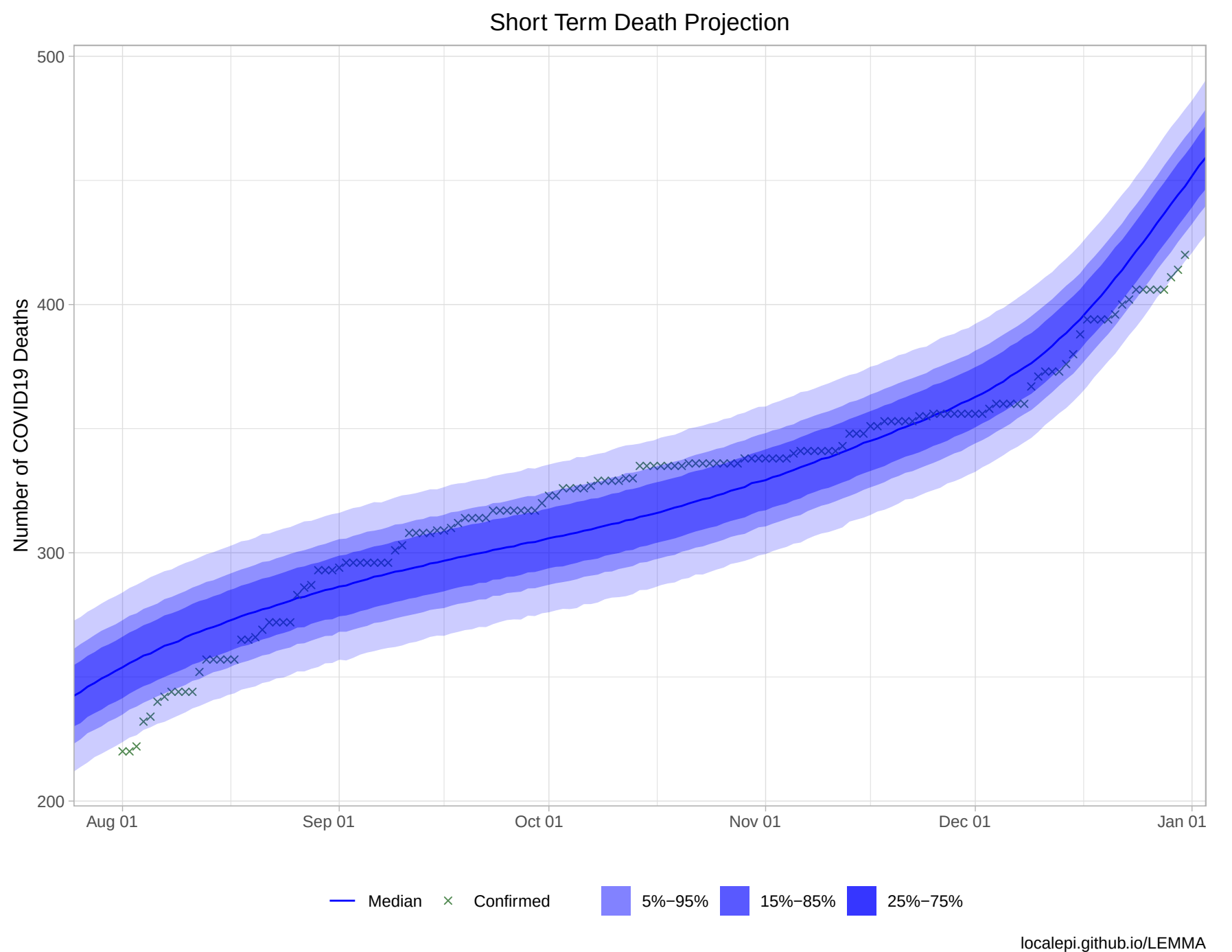
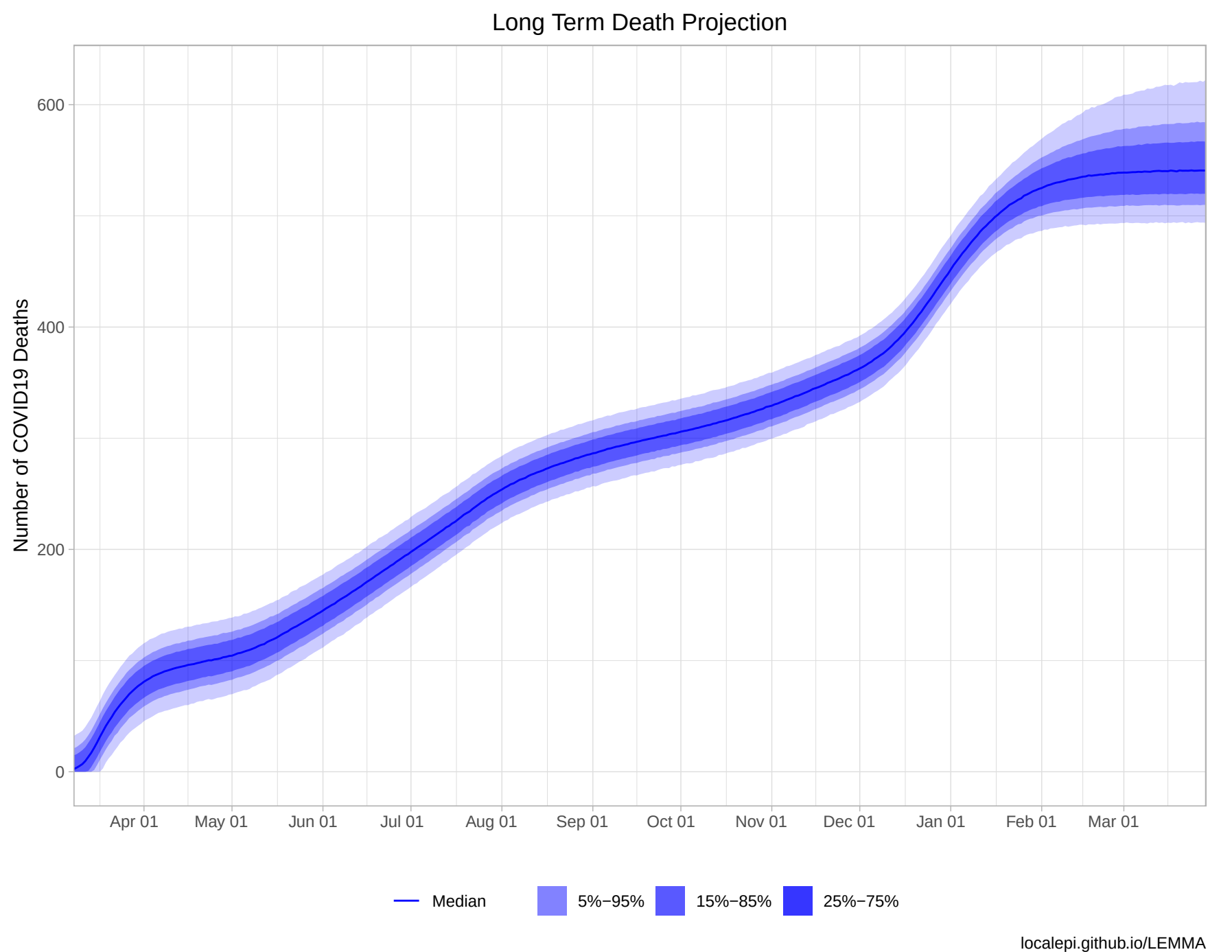

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
200
150
100
50
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

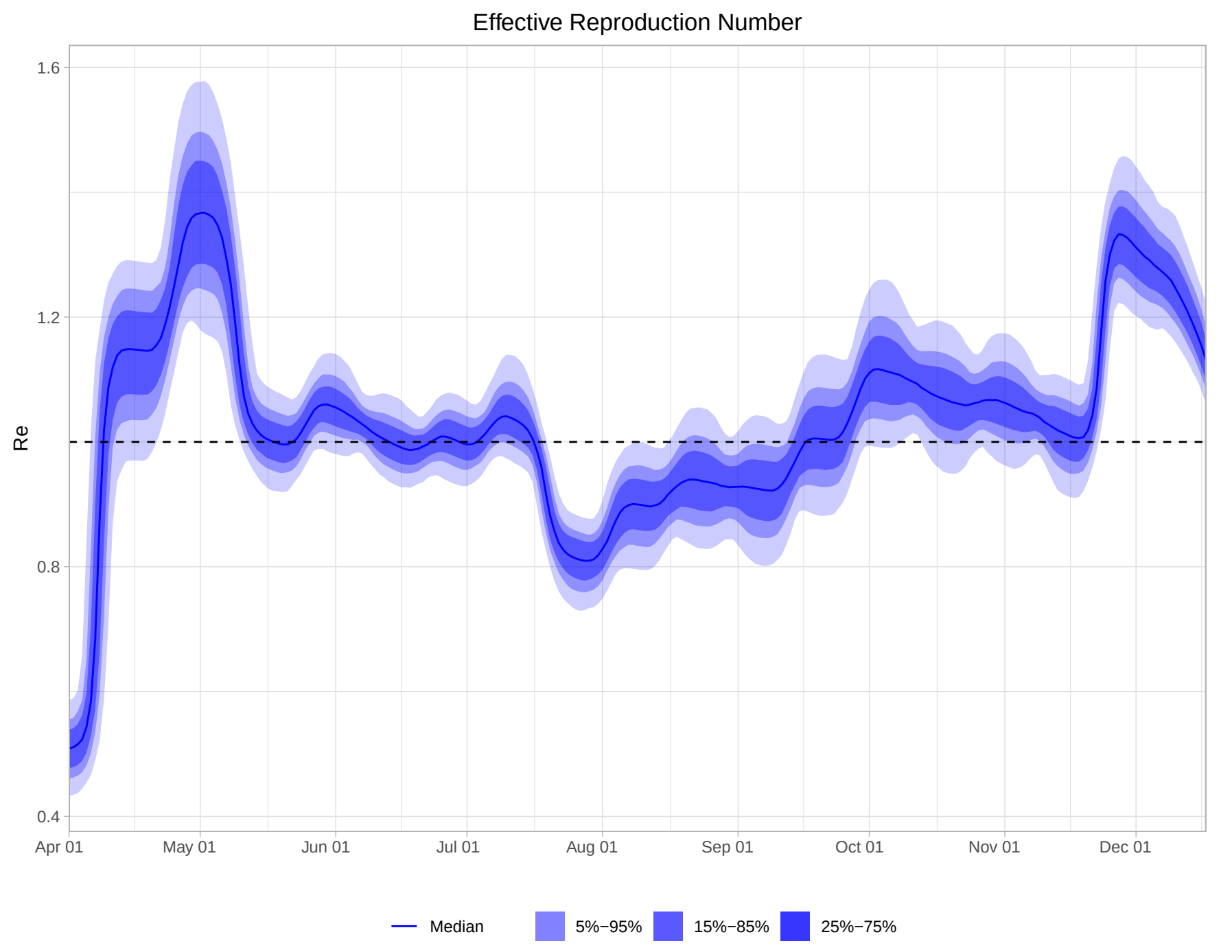

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
400
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


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
0
25
50
75
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

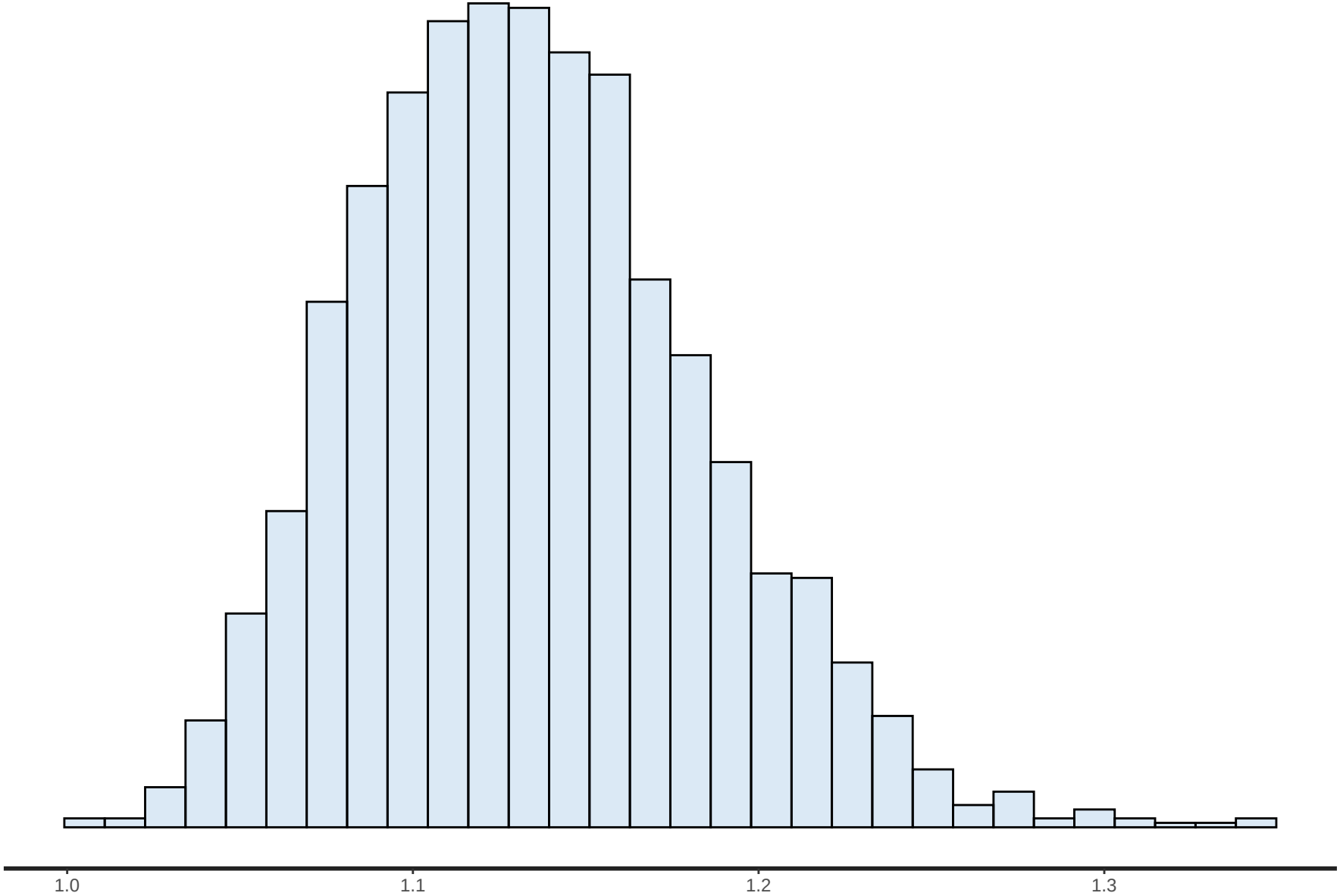

Short Term Death Projection
Number of COVID19 Deaths
500
400
300
200
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

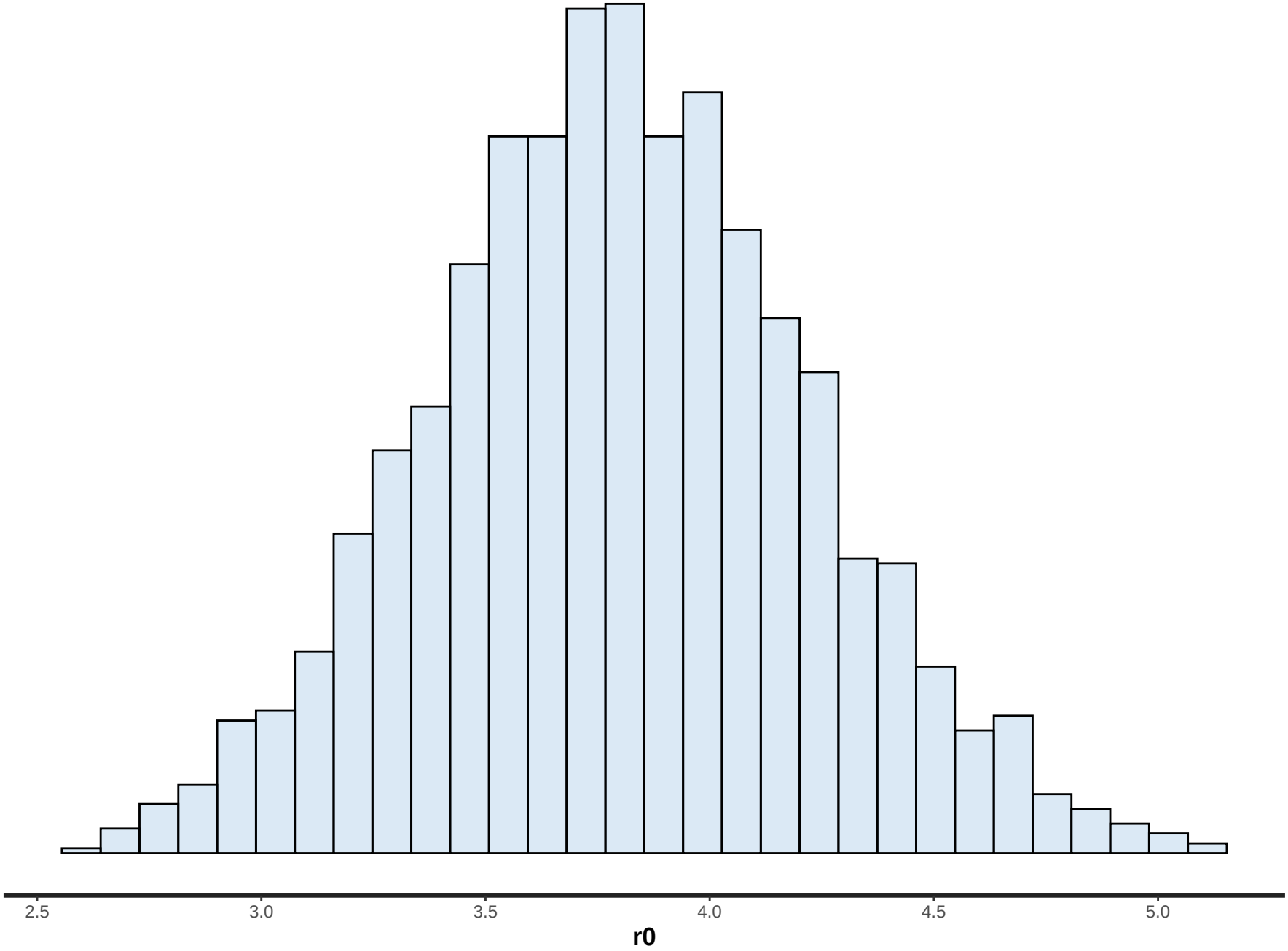

Long Term Death Projection
Number of COVID19 Deaths
600
400
200
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

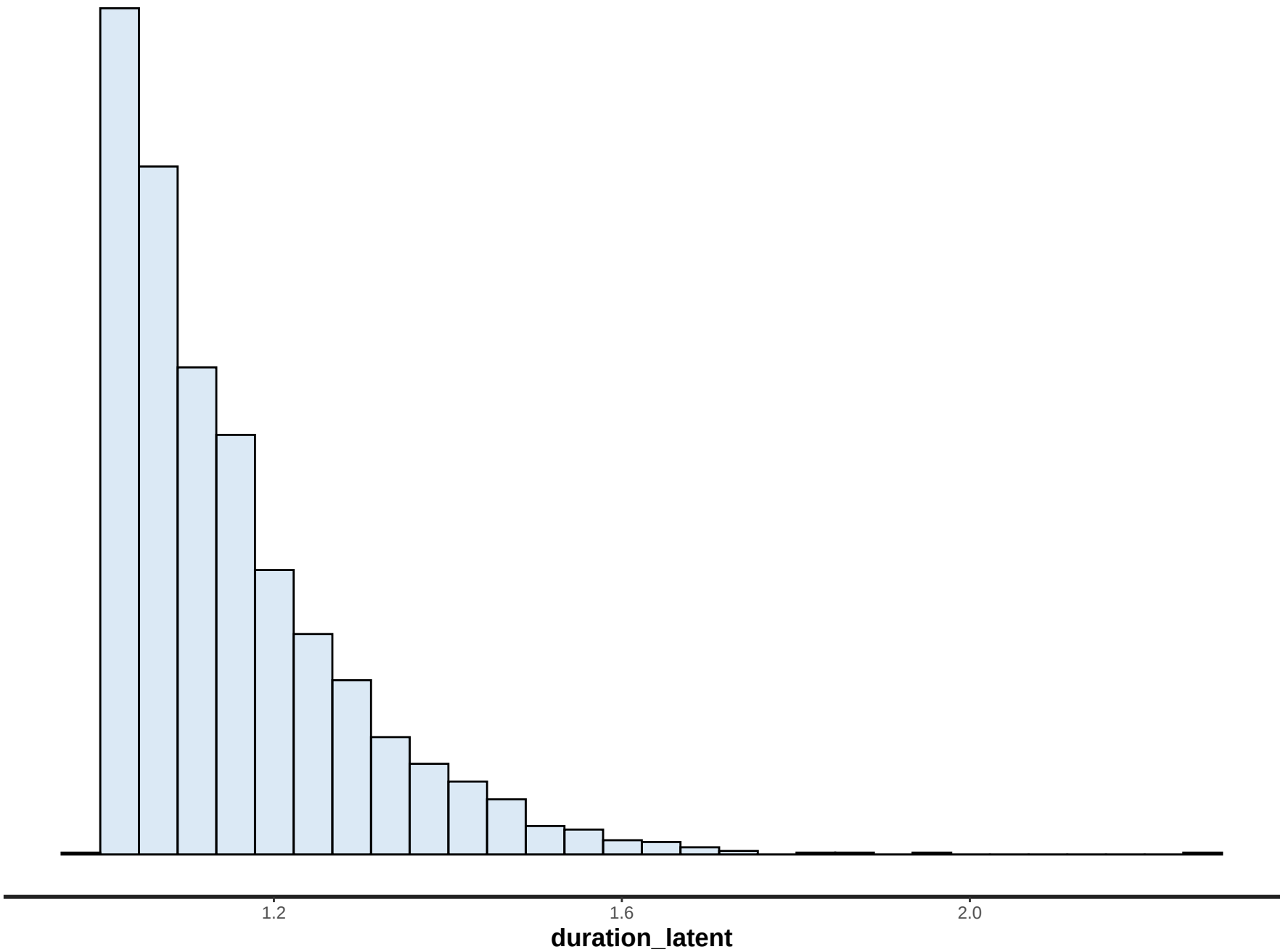

Effective Reproduction Number
Re
1.6
1.2
0.8
0.4
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

Rt as of 2020−12−17

5%	10%	25%	50%	75%	90%	95%
1.06	1.07	1.10	1.13	1.16	1.20	1.22




2.5
3.0
3.5
4.0
4.5
5.0
r0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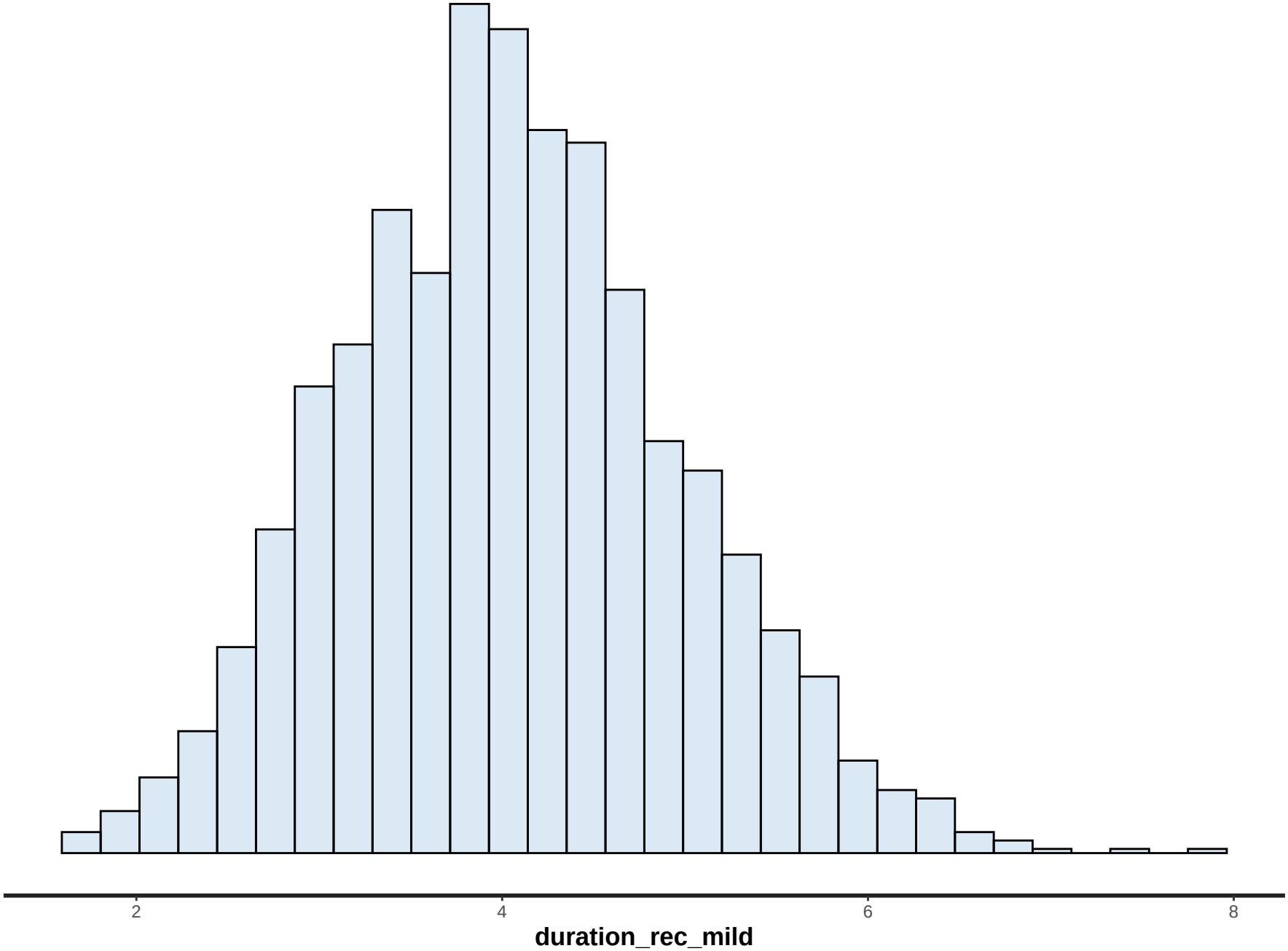
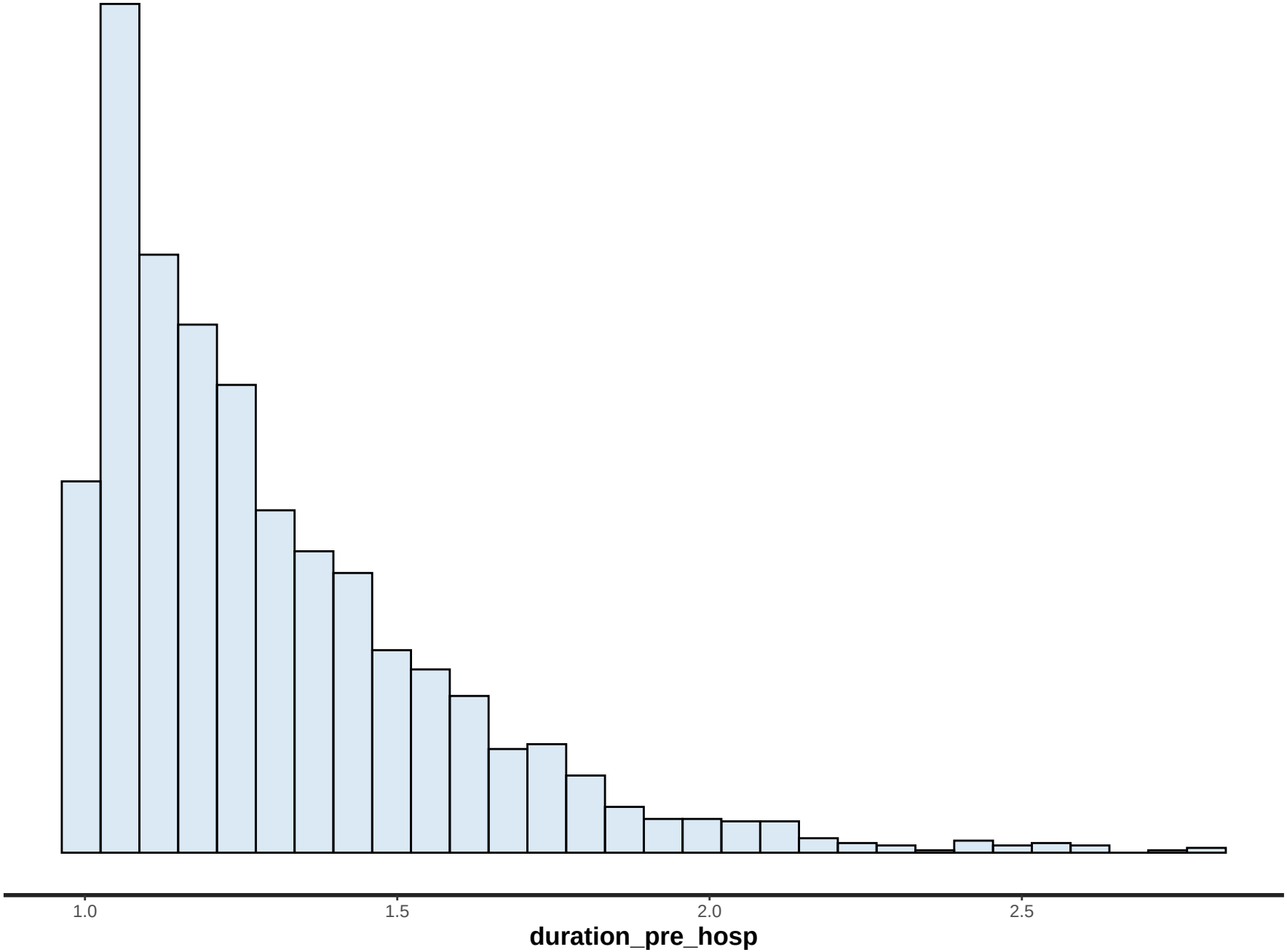
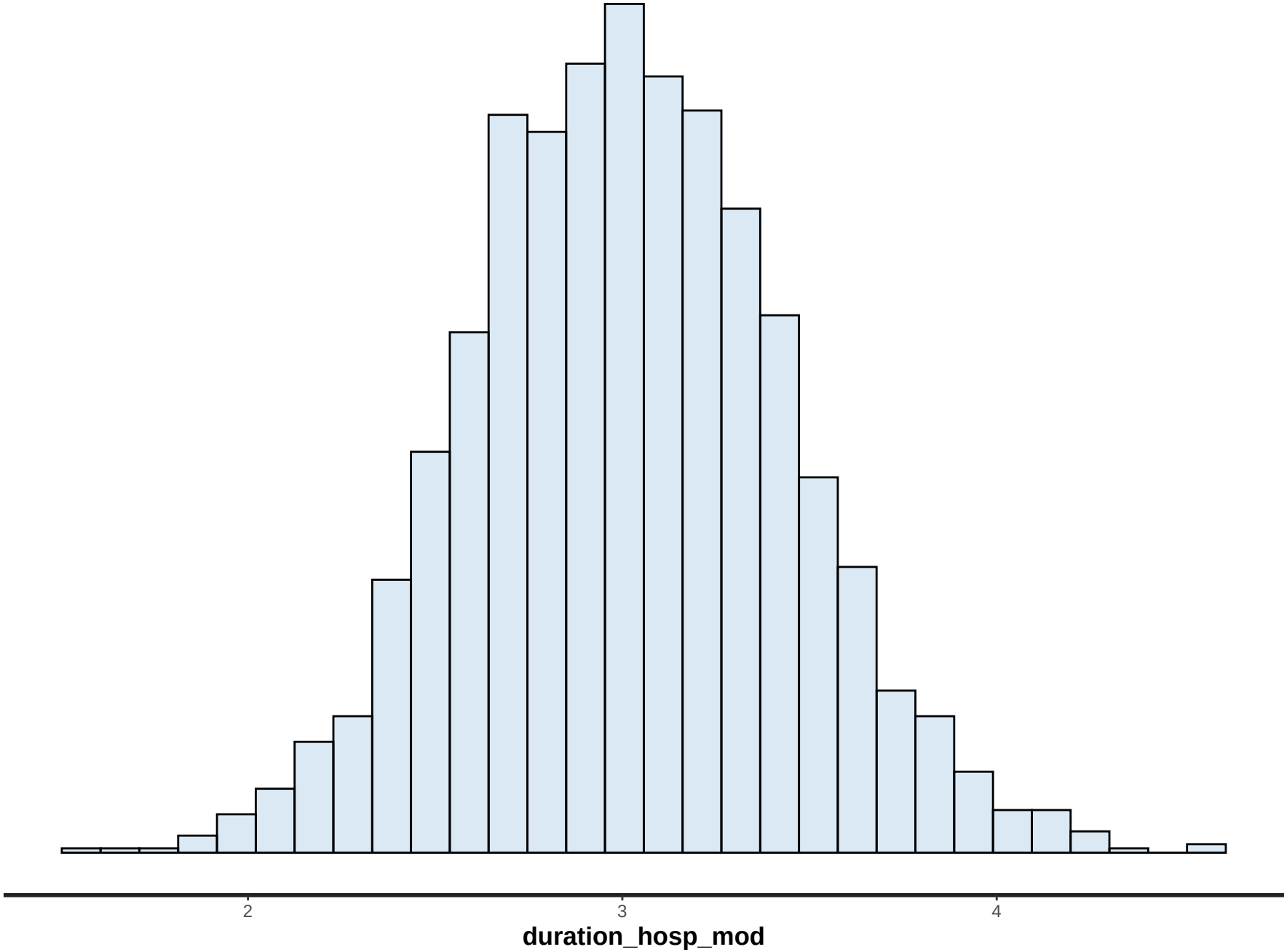
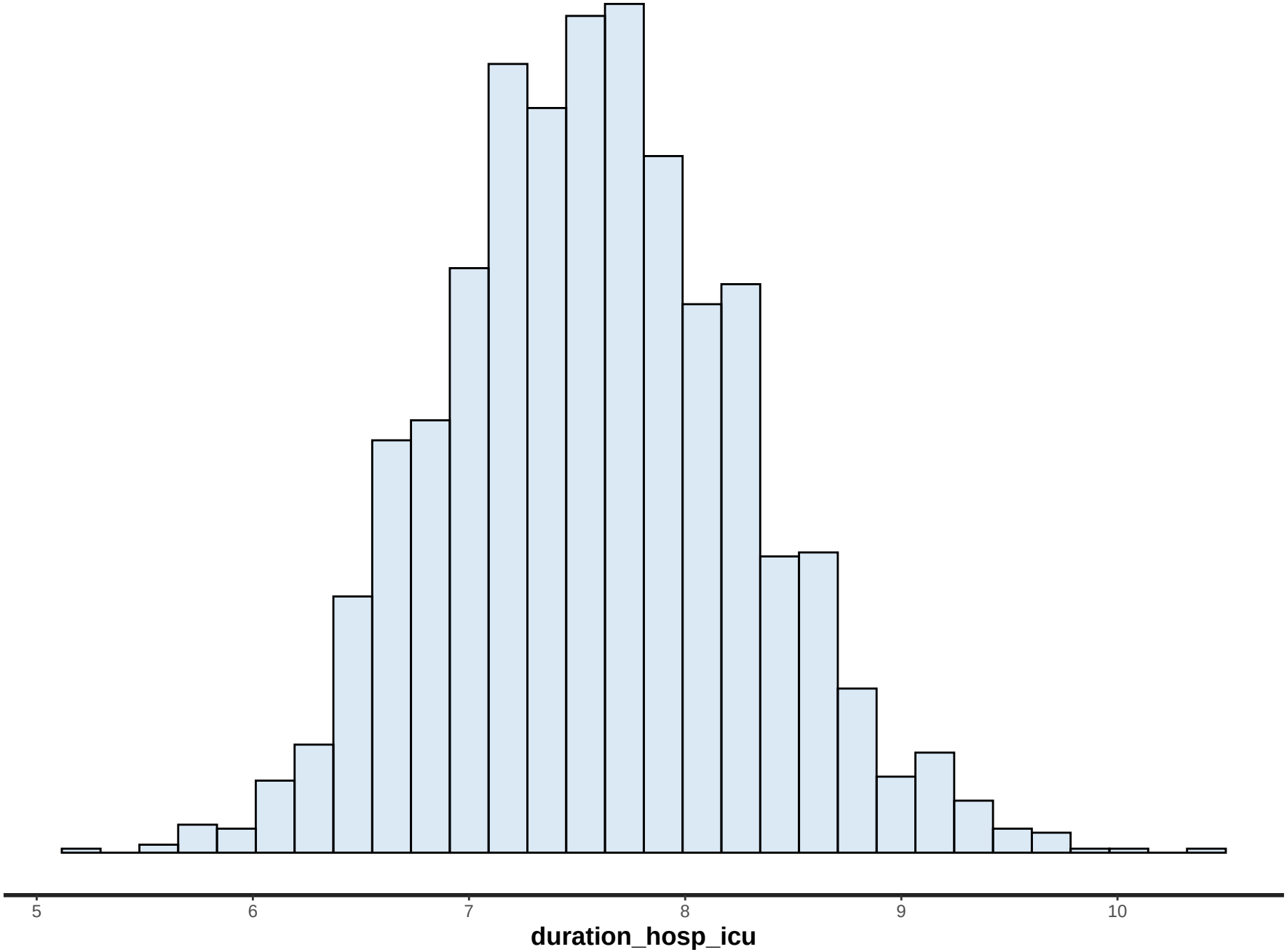
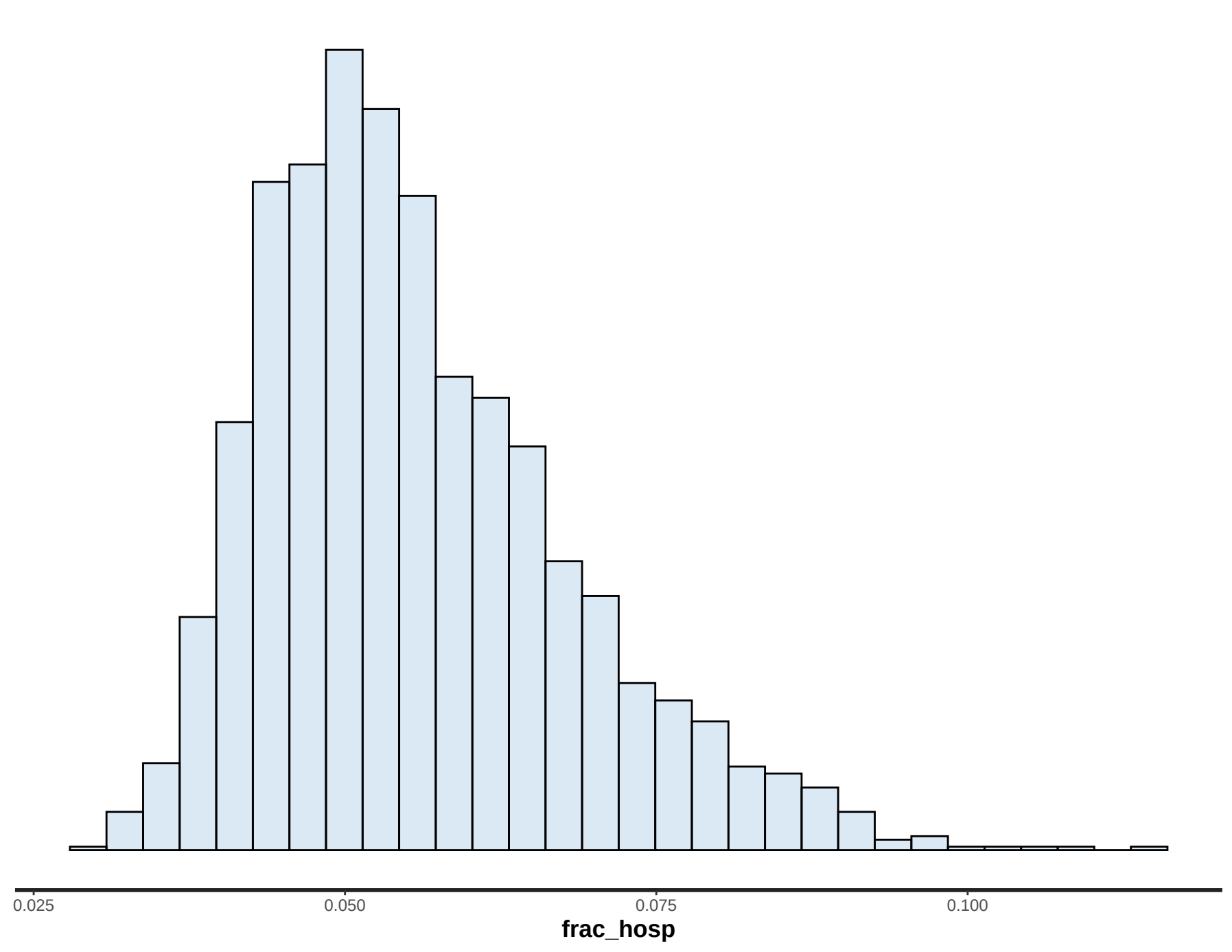
1.6
2.0
duration_latent


2
4
6
8
duration_rec_mild


1.0
1.5
2.0
2.5
duration_pre_hosp


2
3
4
duration_hosp_mod


5
6
7
8
9
10
duration_hosp_icu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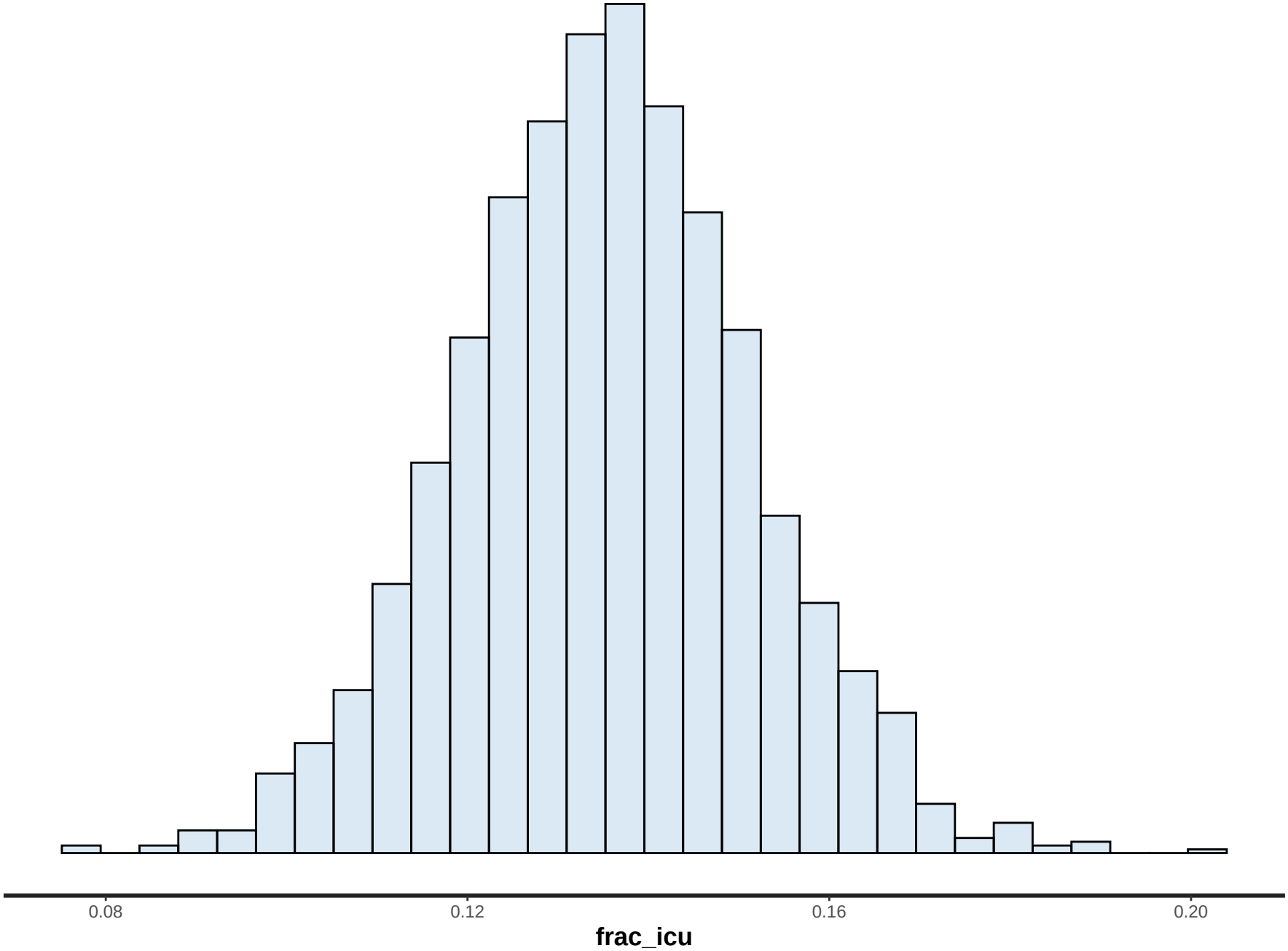
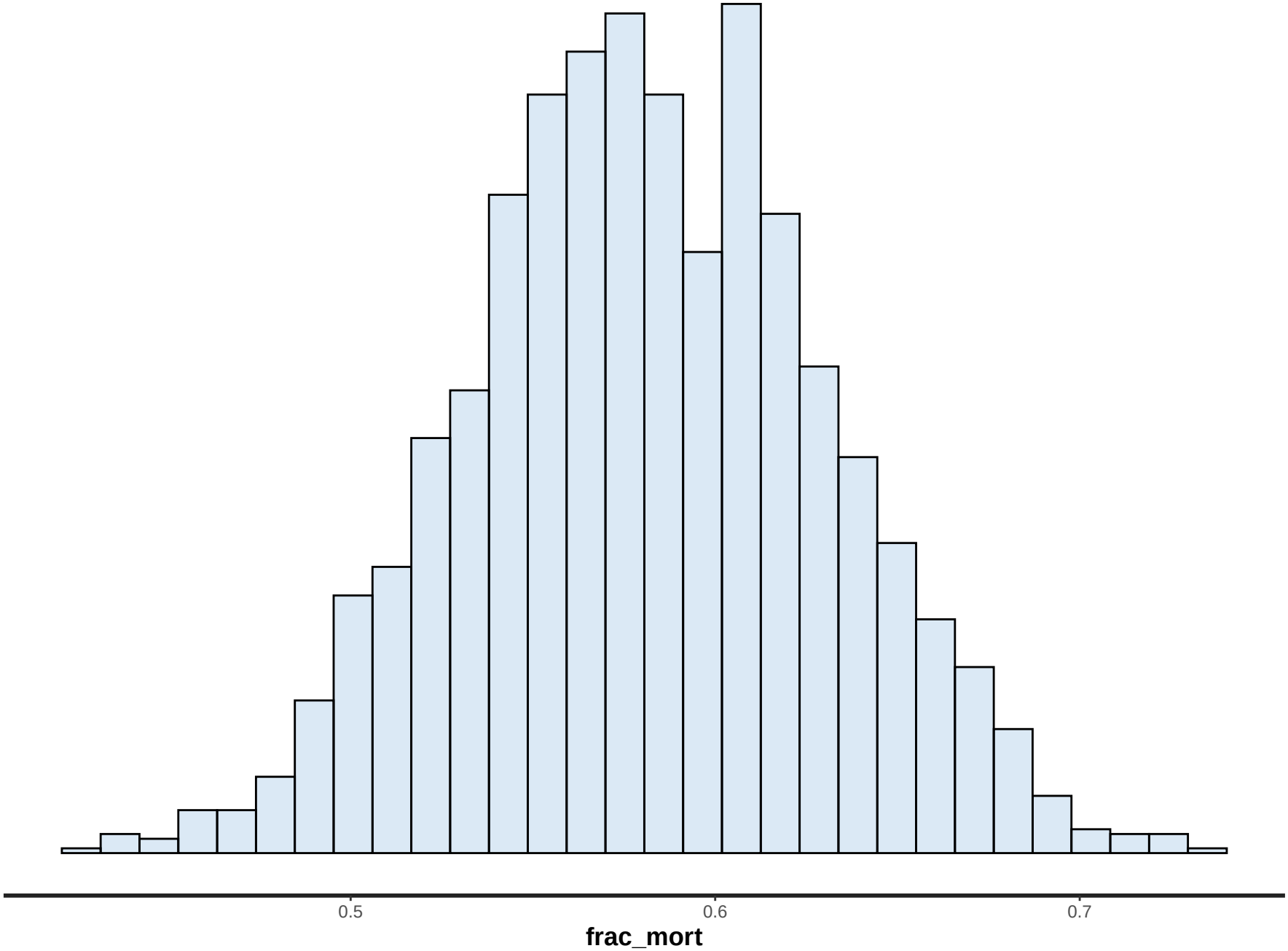
0.050
0.075
0.100
frac_hosp


0.08
0.12
0.16
0.20
frac_icu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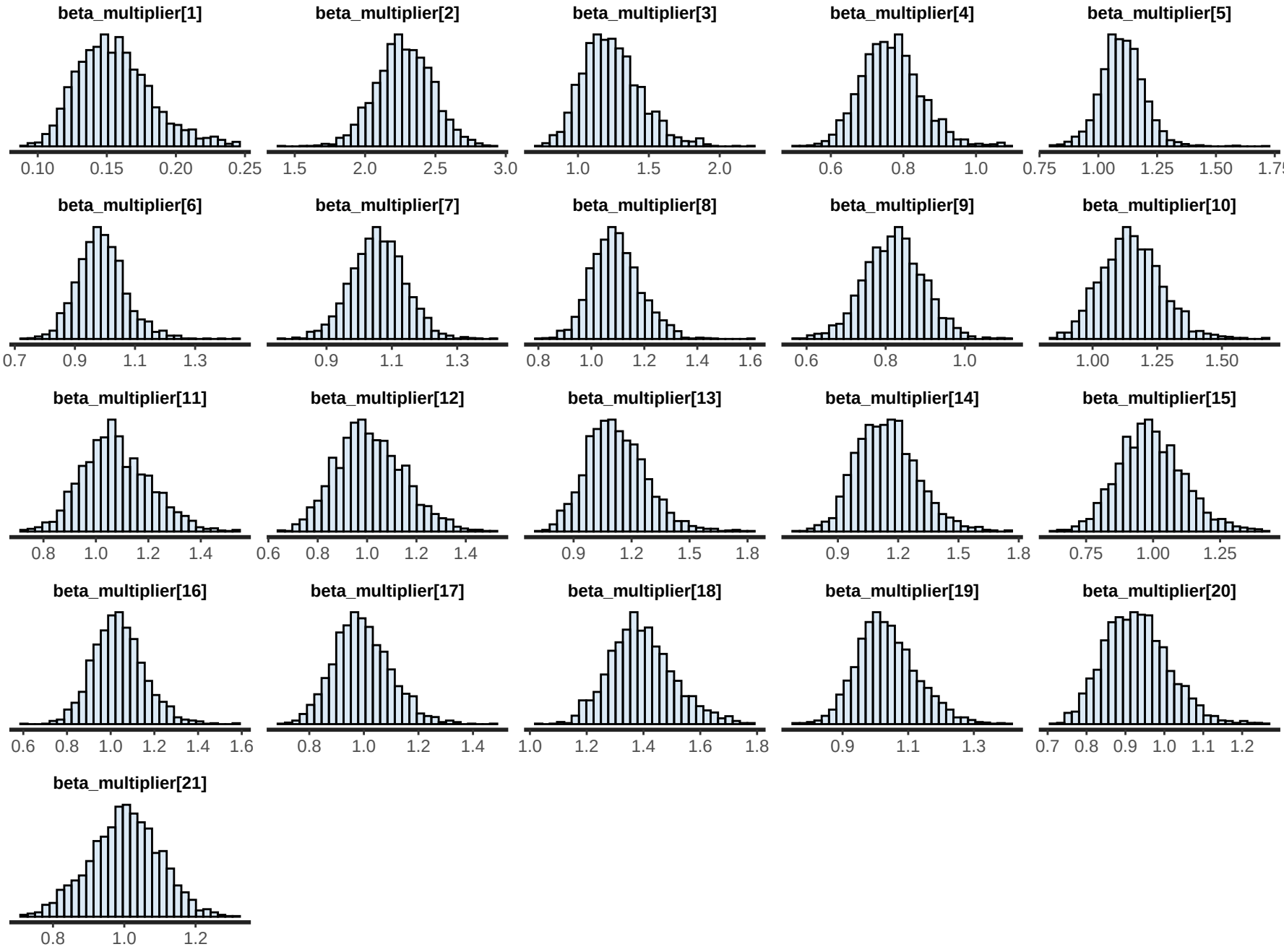
0.6
0.7
frac_mort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beta_multiplier[2]
1.5 2.0 2.5 3.0
beta_multiplier[3]
1.0 1.5 2.0
beta_multiplier[4]
0.6 0.8 1.0
beta_multiplier[5]
0.75 1.00 1.25 1.50 1.75
beta_multiplier[6]
0.7 0.9 1.1 1.3
beta_multiplier[7]
0.9 1.1 1.3
beta_multiplier[8]
0.8 1.0 1.2 1.4 1.6
beta_multiplier[9]
0.6 0.8 1.0
beta_multiplier[10]
1.00 1.25 1.50
beta_multiplier[11]
0.8 1.0 1.2 1.4
beta_multiplier[12]
0.6 0.8 1.0 1.2 1.4
beta_multiplier[13]
0.9 1.2 1.5 1.8
beta_multiplier[14]
0.9 1.2 1.5 1.8
beta_multiplier[15]
0.75 1.00 1.25
beta_multiplier[16]
0.6 0.8 1.0 1.2 1.4 1.6
beta_multiplier[17]
0.8 1.0 1.2 1.4
beta_multiplier[18]
1.0 1.2 1.4 1.6 1.8
beta_multiplier[19]
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beta_multiplier[21]
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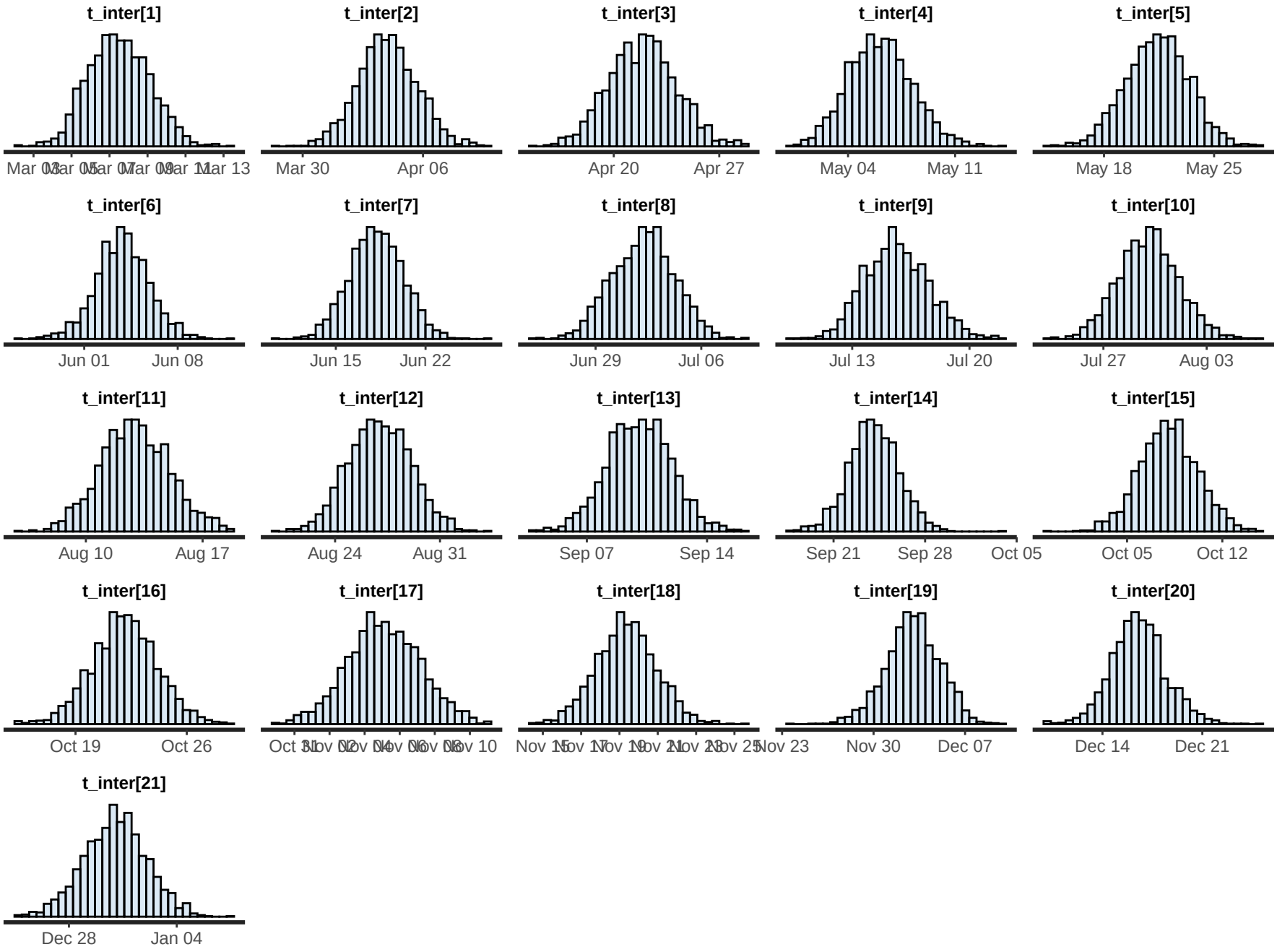
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Mar 03
Mar 05
Mar 07
Mar 09
Mar 11
Mar 13
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Mar 30
Apr 06
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Apr 20
Apr 27
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May 04
May 11
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May 18
May 25
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Jun 08
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Jun 15
Jun 22
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Jul 06
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Jul 20
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Jul 27
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Nov 19
Nov 21
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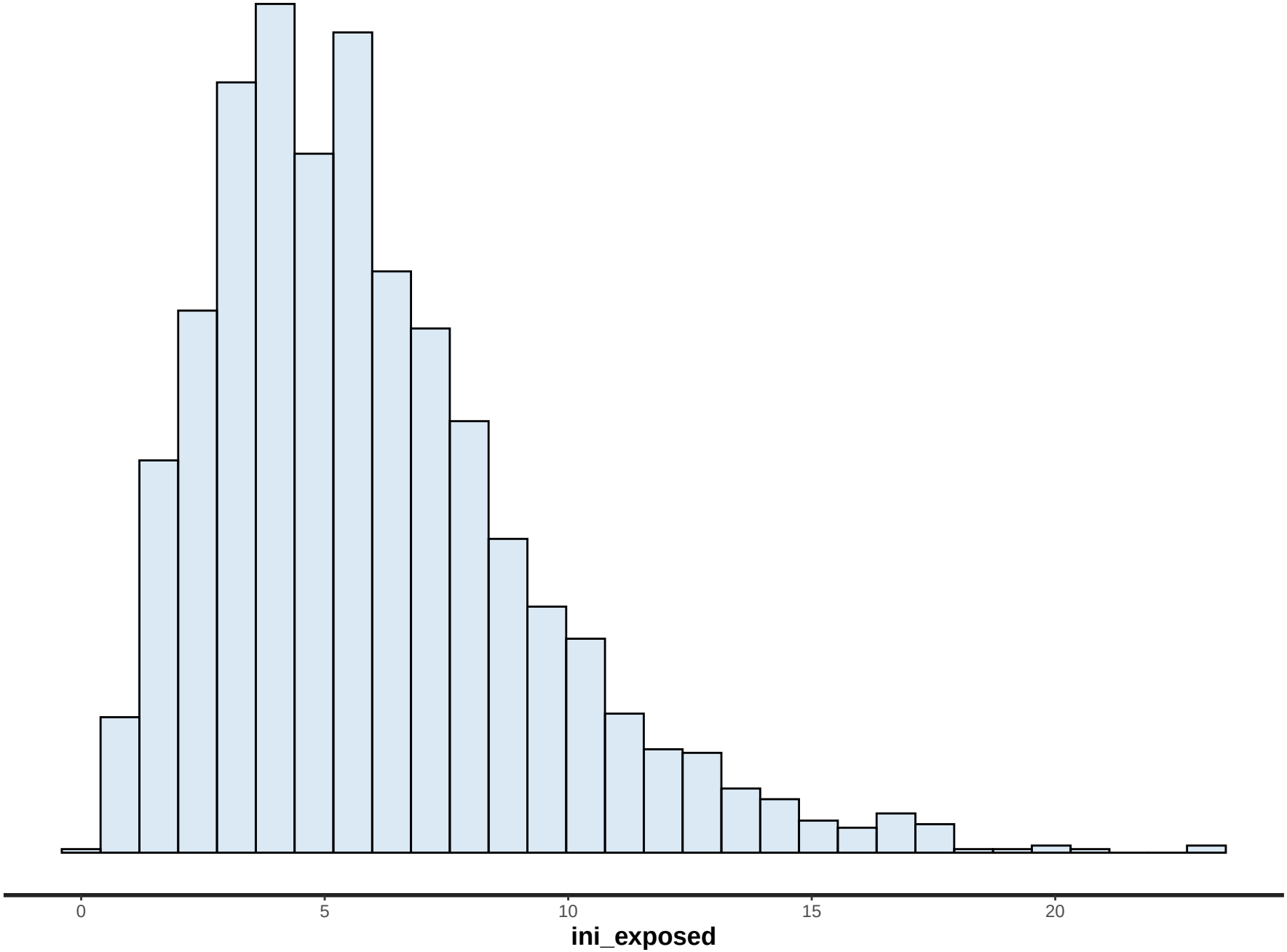
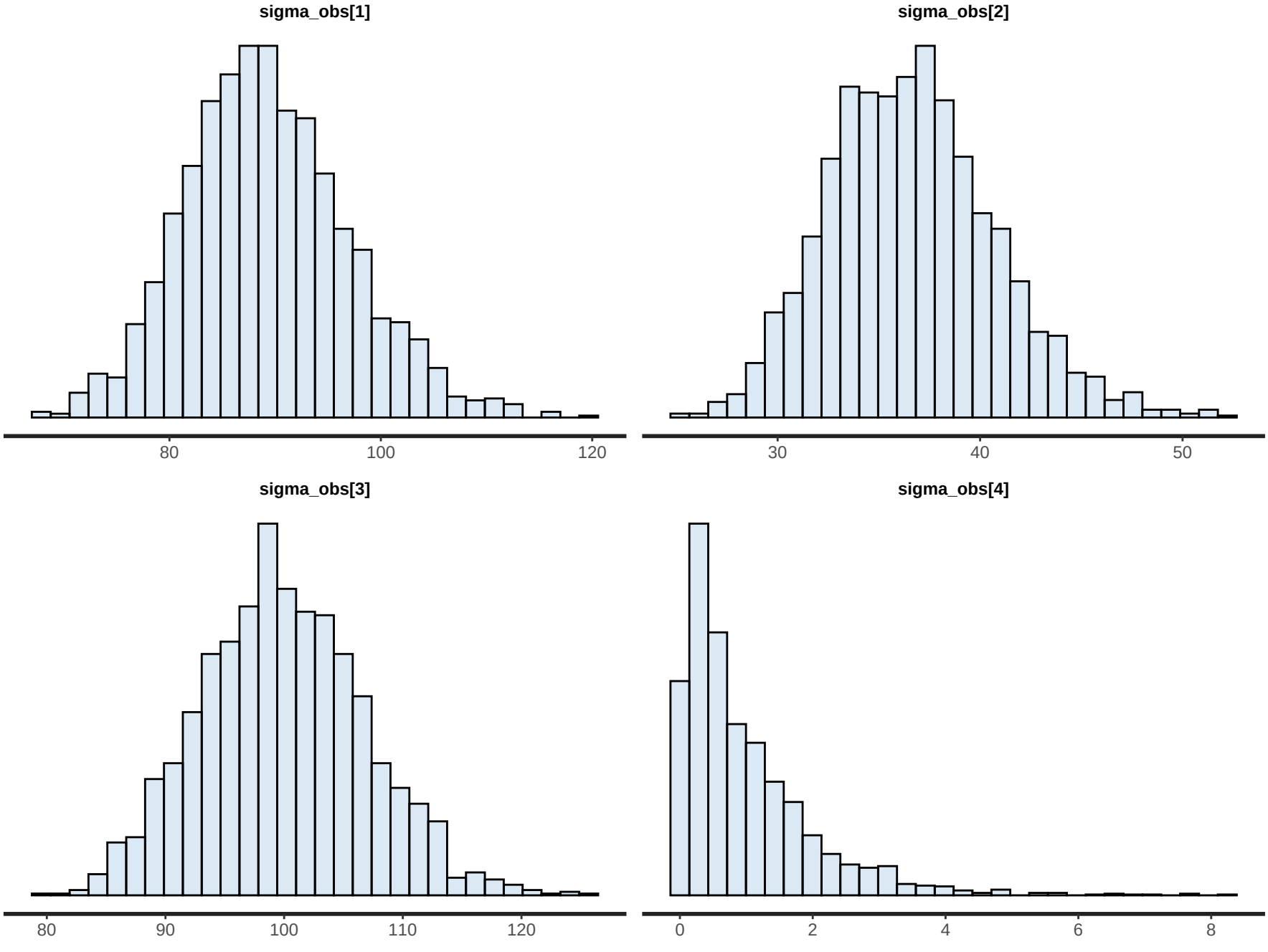
Dec 28
Jan 04


0
5
10
15
20
ini_exposed


sigma_obs[1]
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100
120
sigma_obs[2]
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40
50
sigma_obs[3]
80
90
100
110
120
sigma_obs[4]
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2
4
6
8