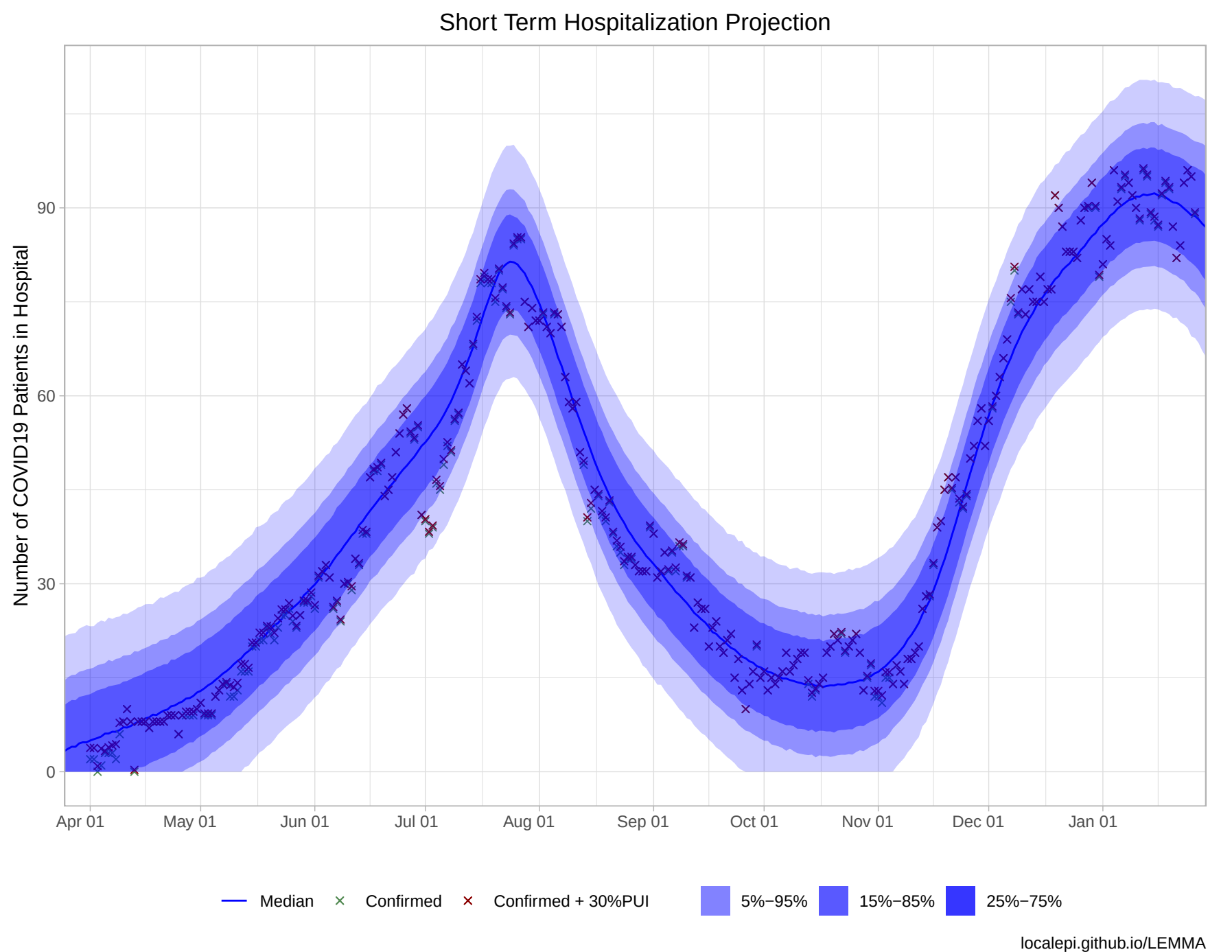
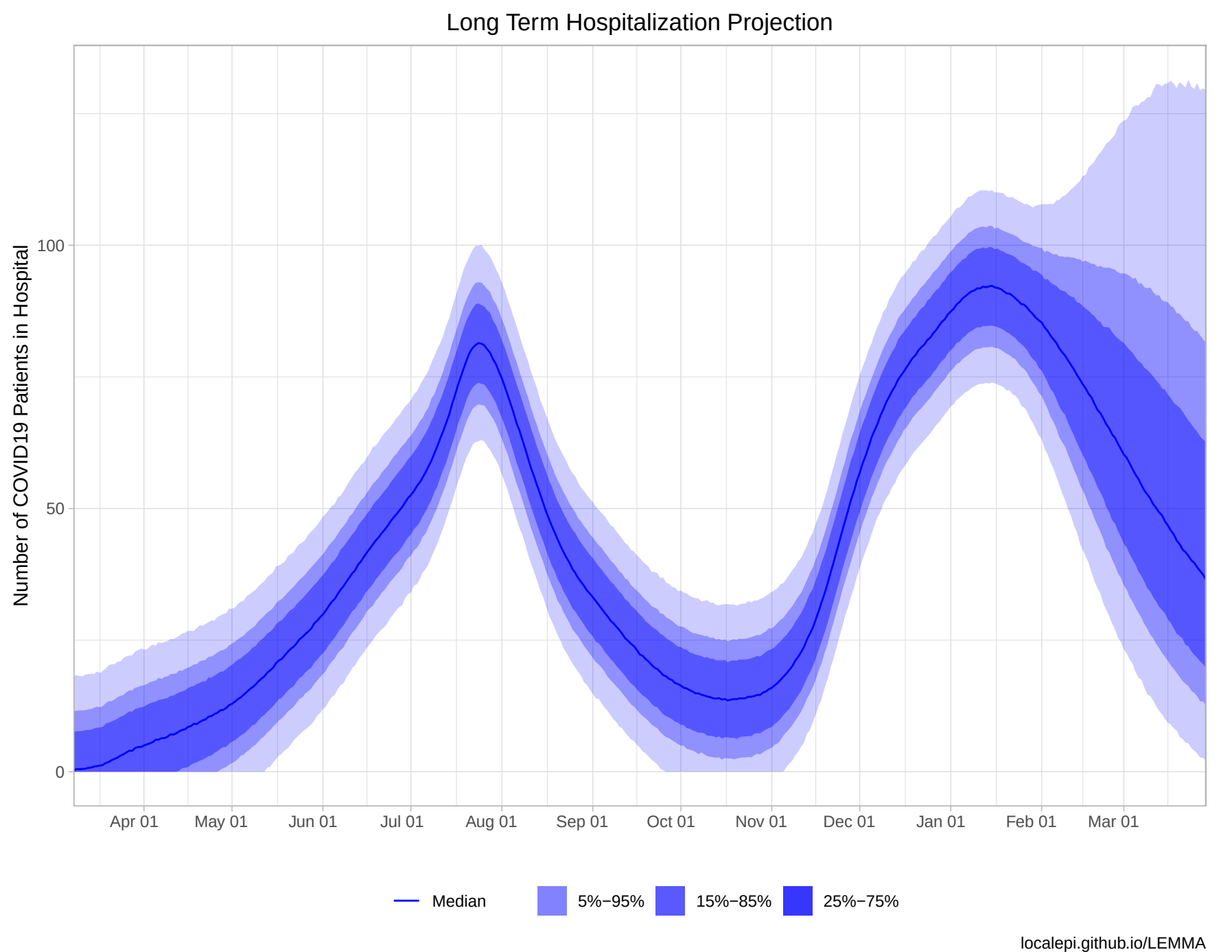
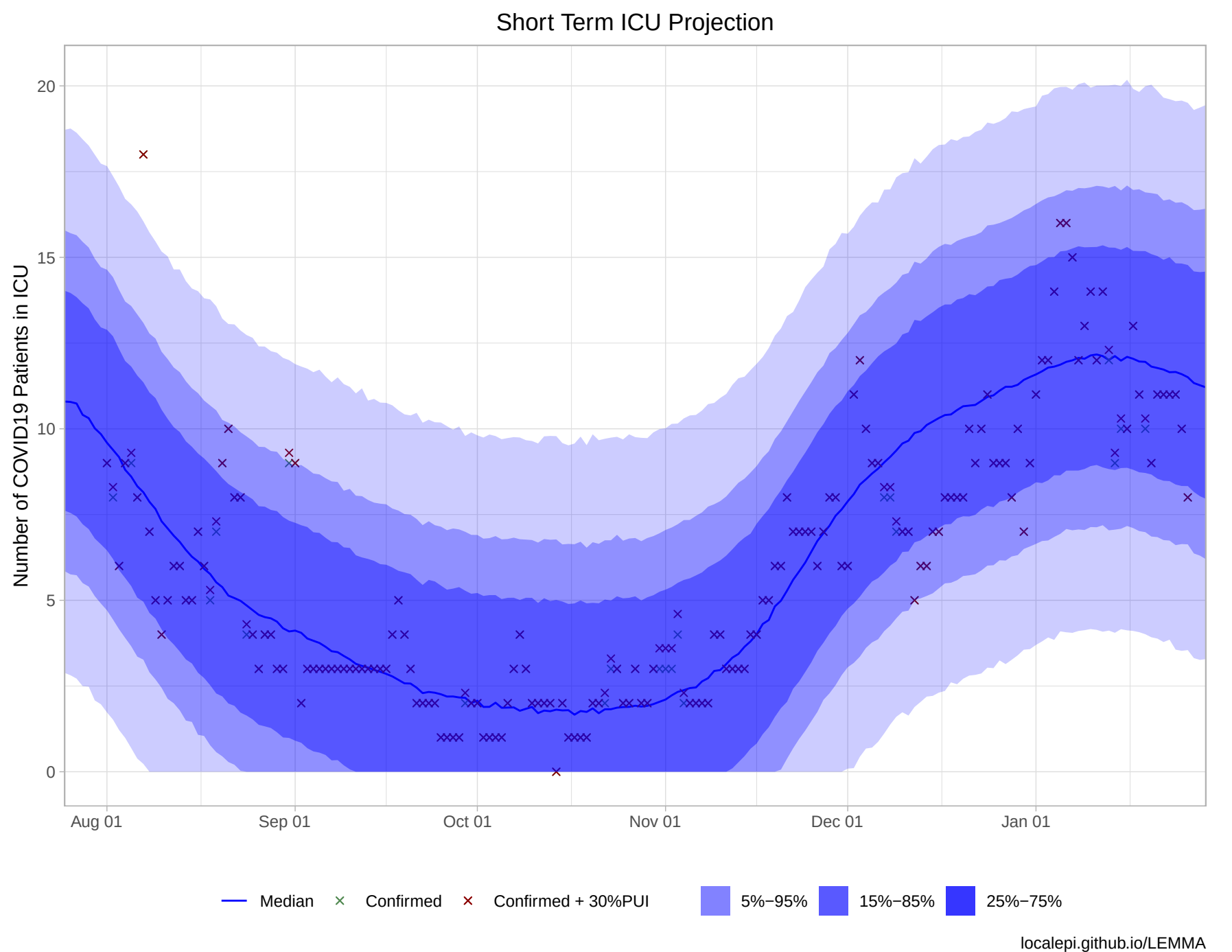
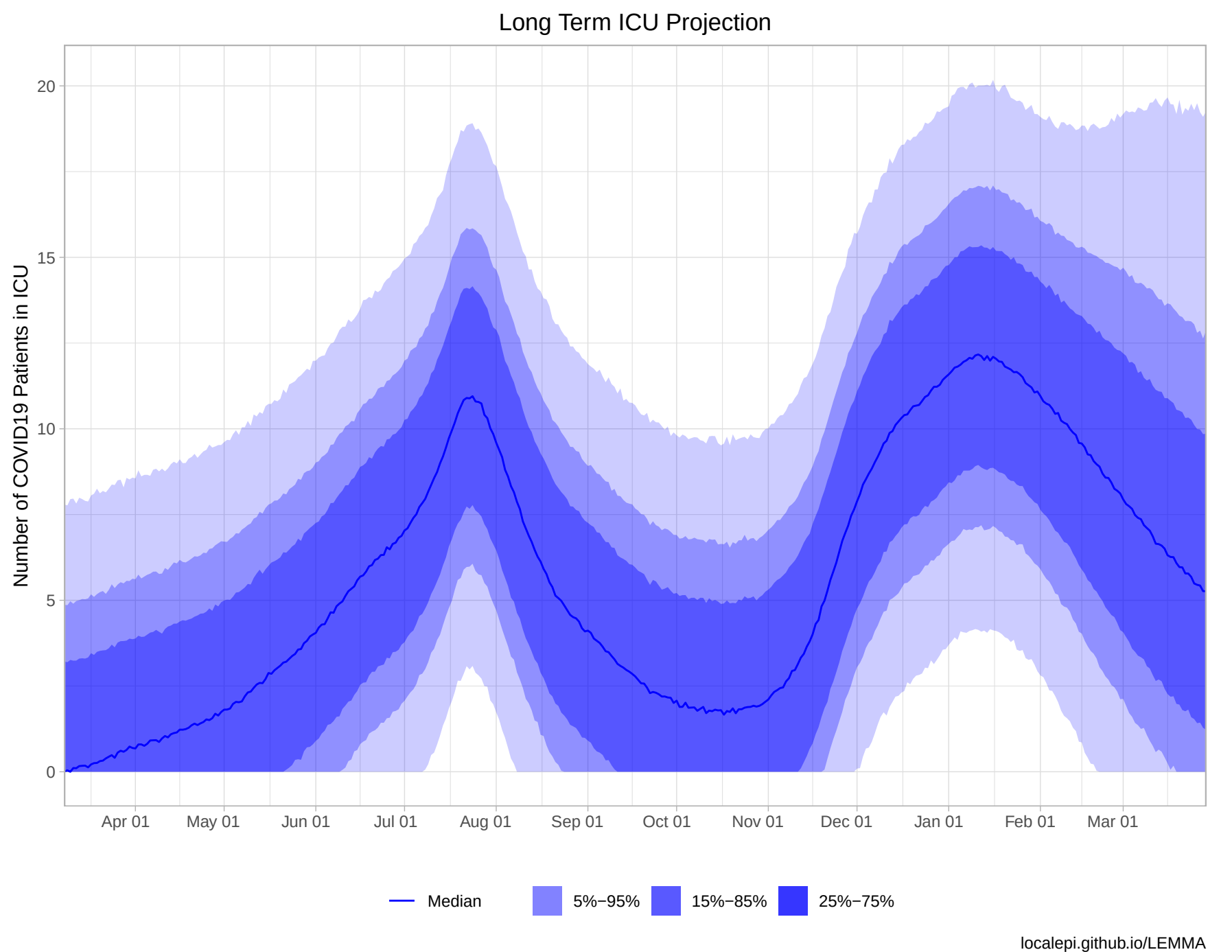
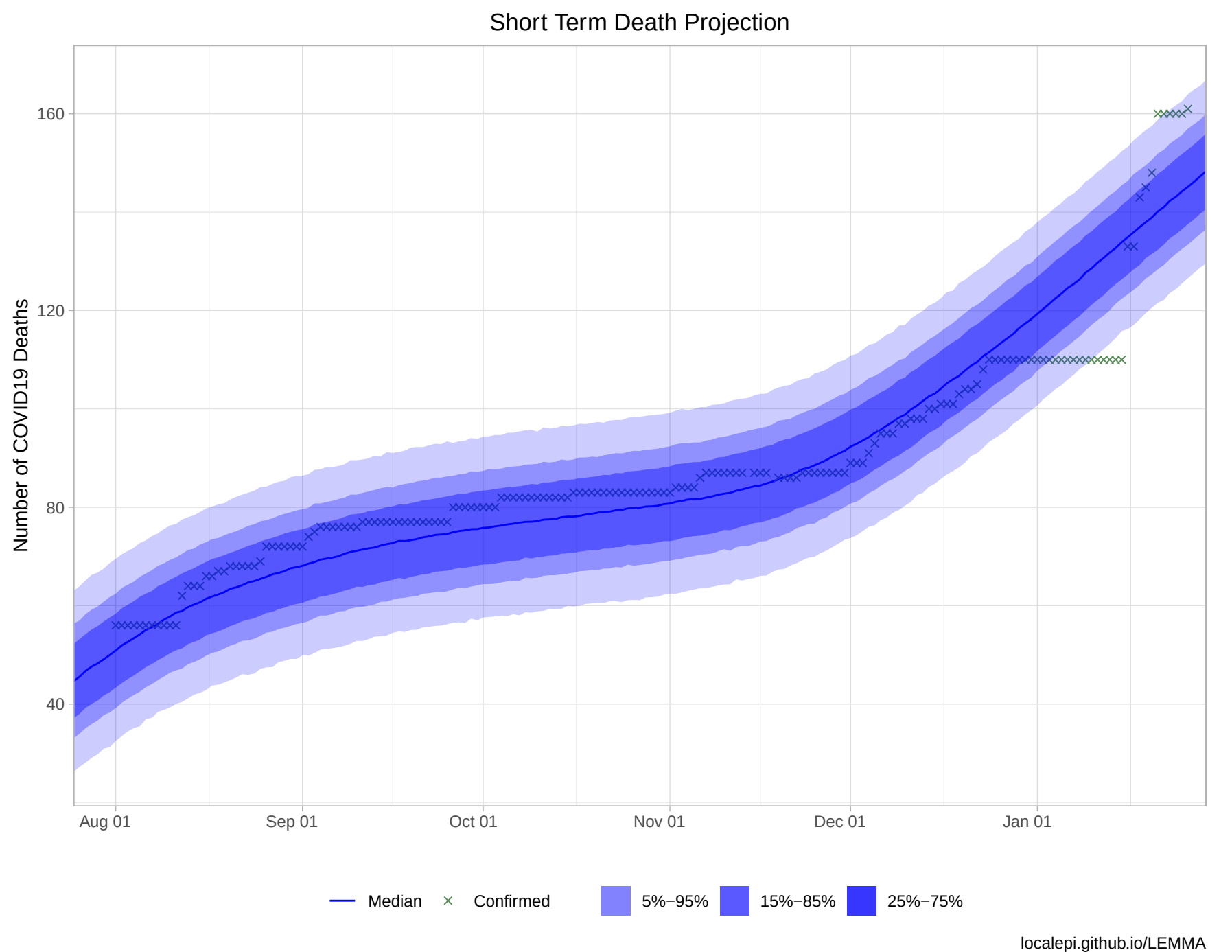
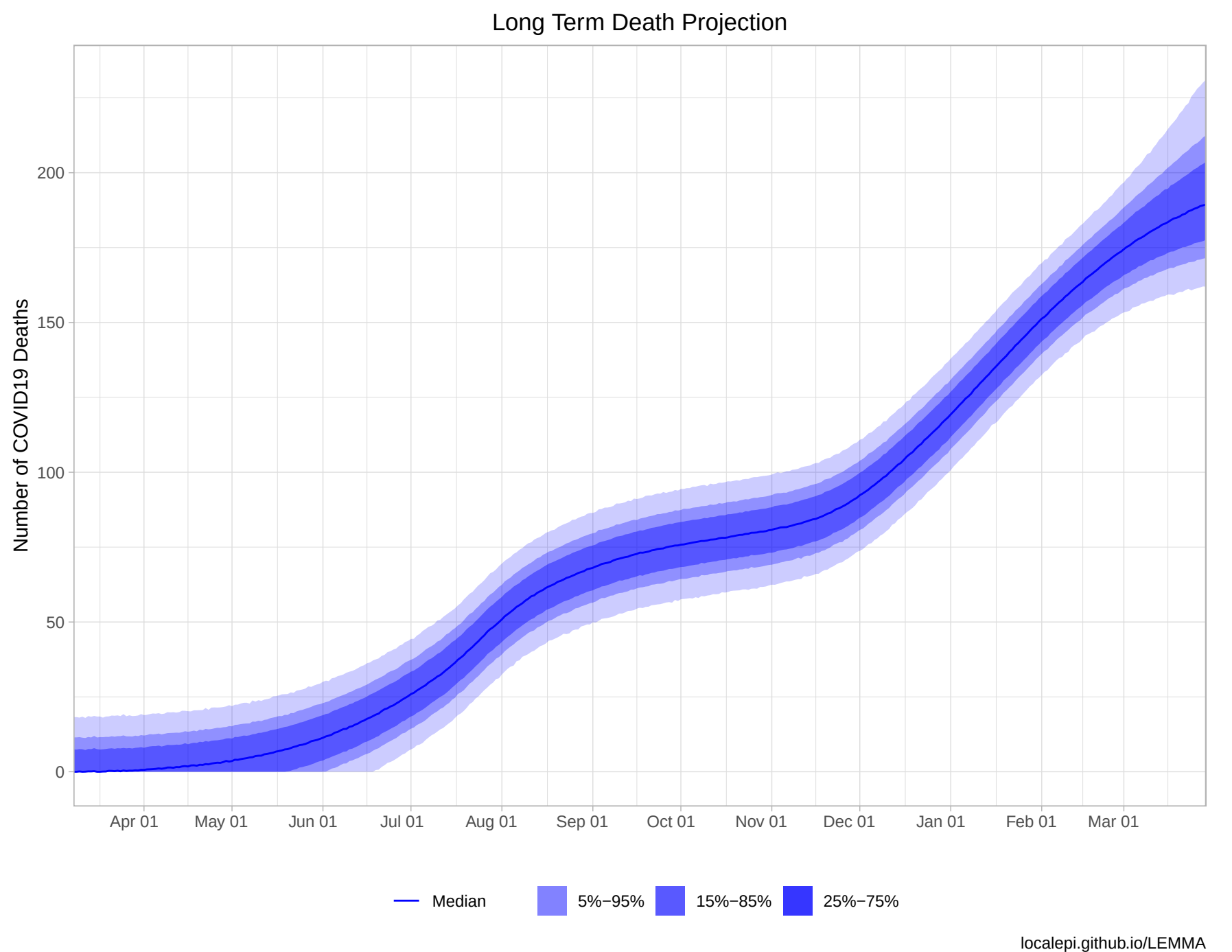

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
30
60
90
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

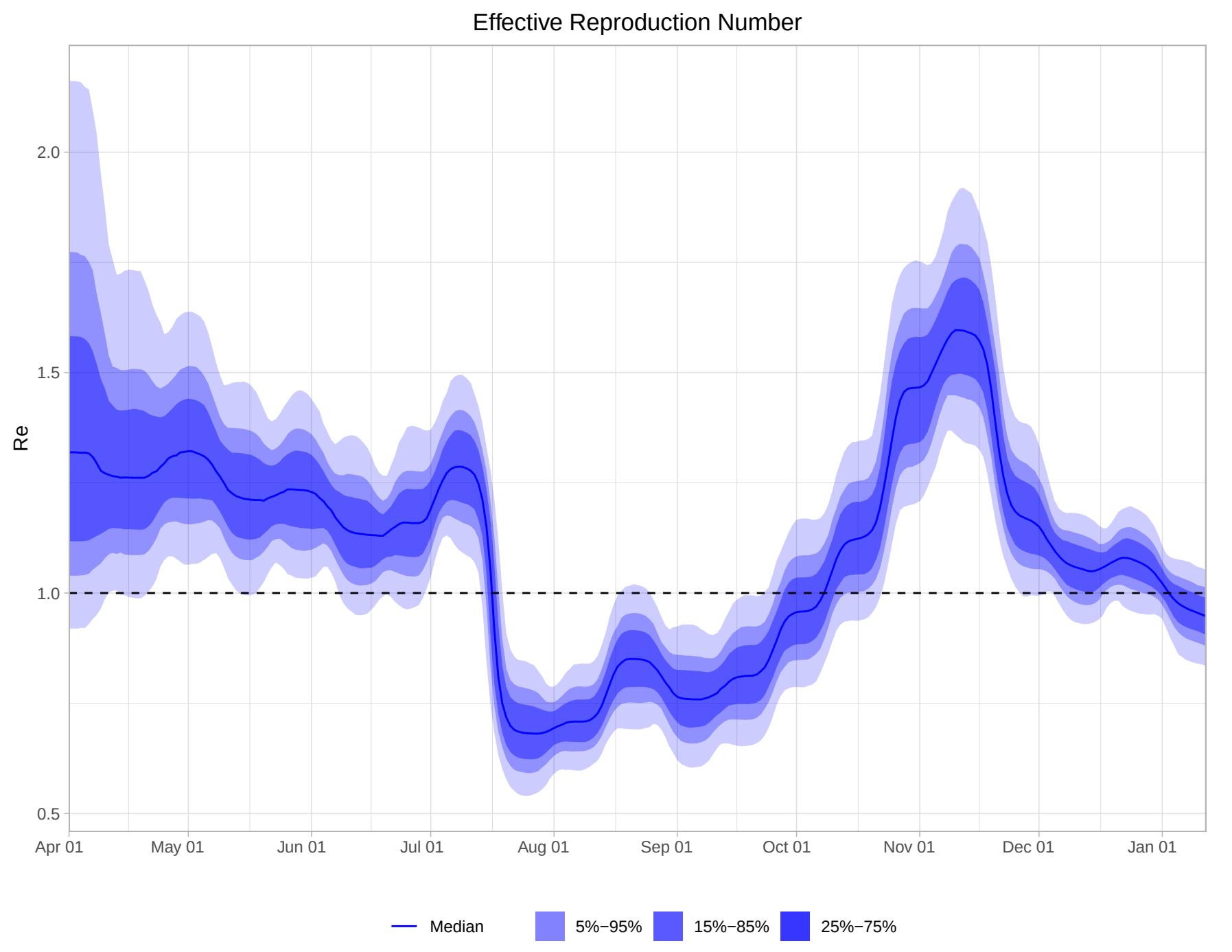

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
100
50
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
20
15
10
5
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
20
15
10
5
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

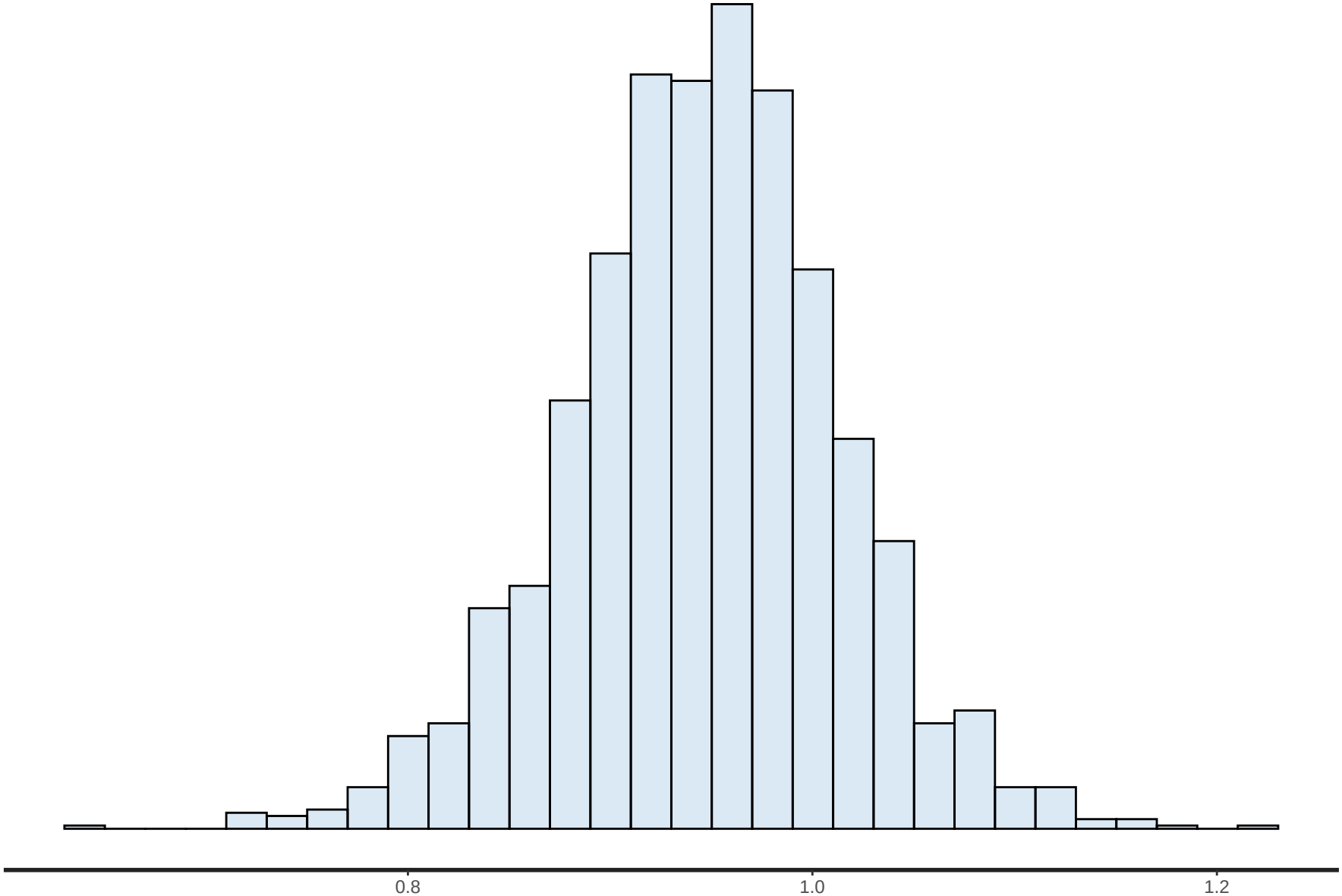

Short Term Death Projection
Number of COVID19 Deaths
160
120
80
40
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

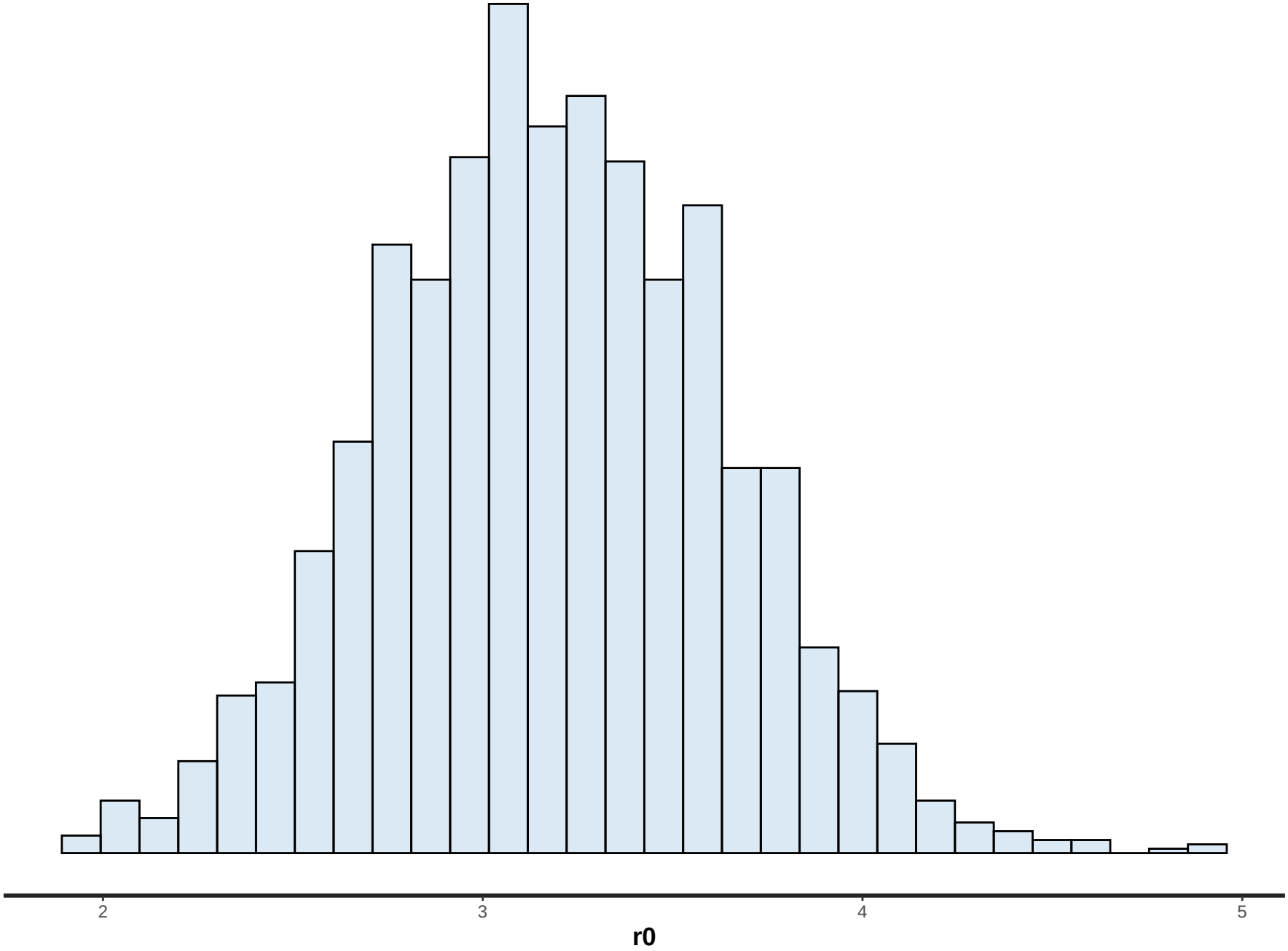

Long Term Death Projection
Number of COVID19 Deaths
0
50
100
150
200
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

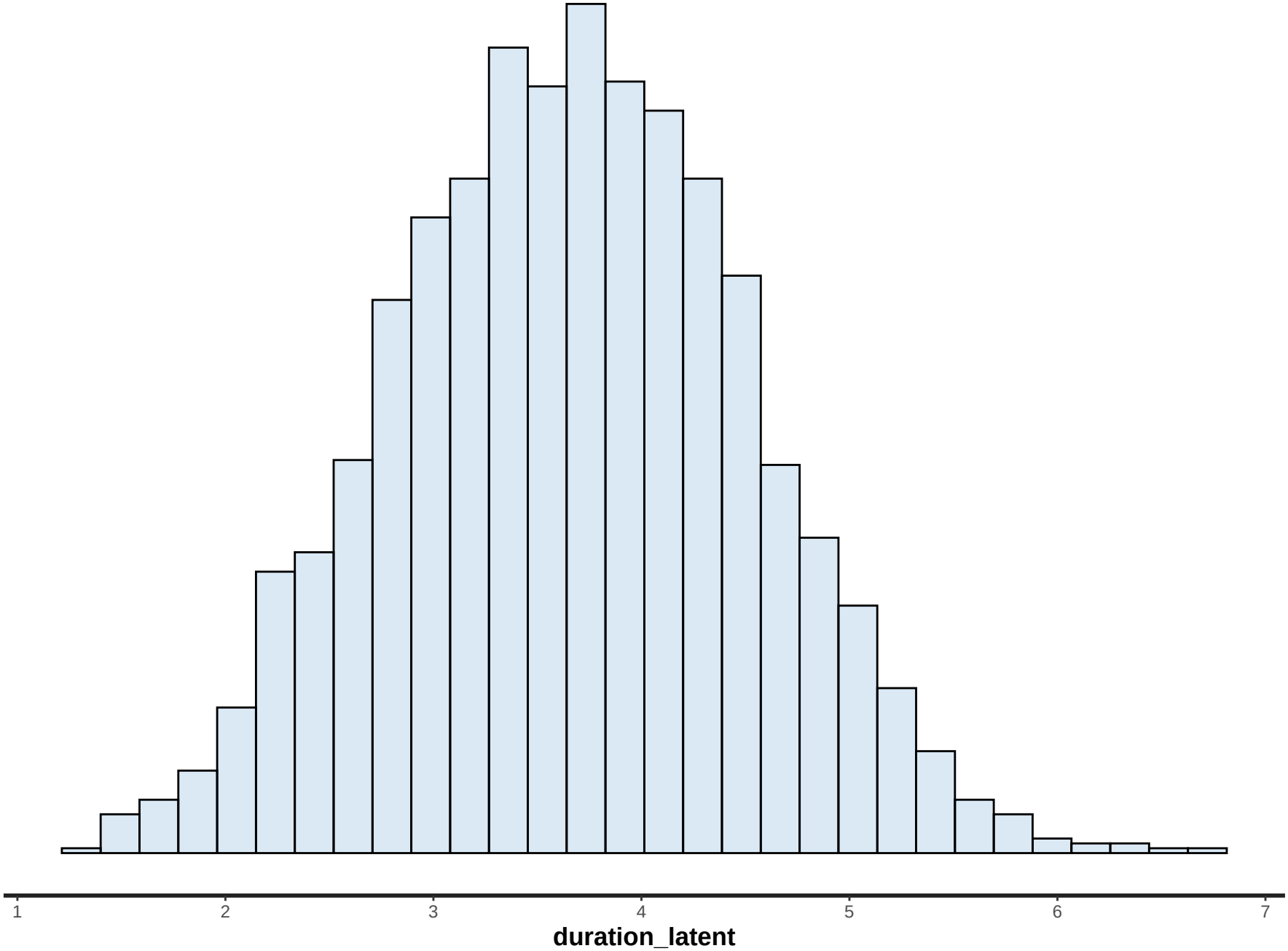

Effective Reproduction Number
Re
2.0
1.5
1.0
0.5
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
5%−95%
15%−85%
25%−75%

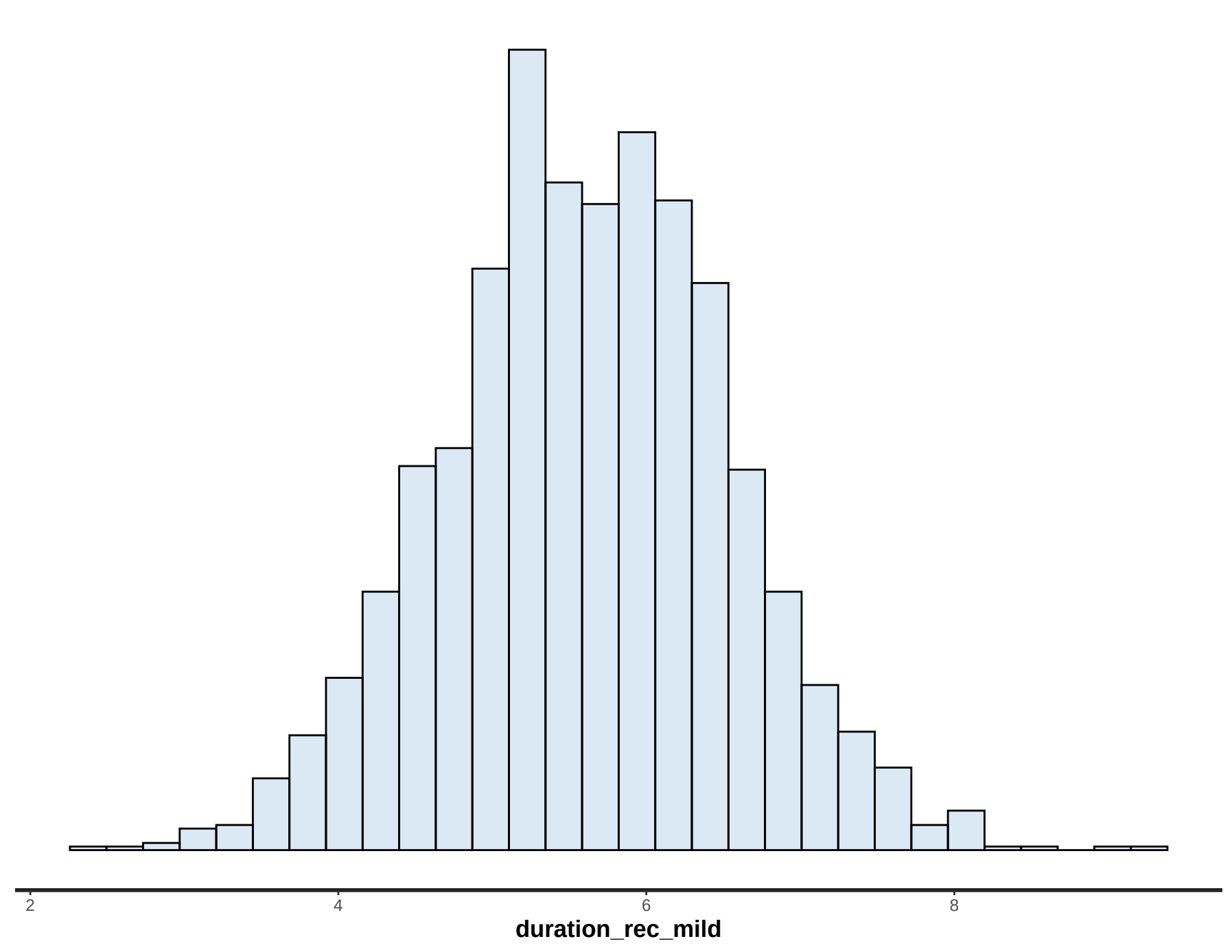
Rt as of 2021−01−12

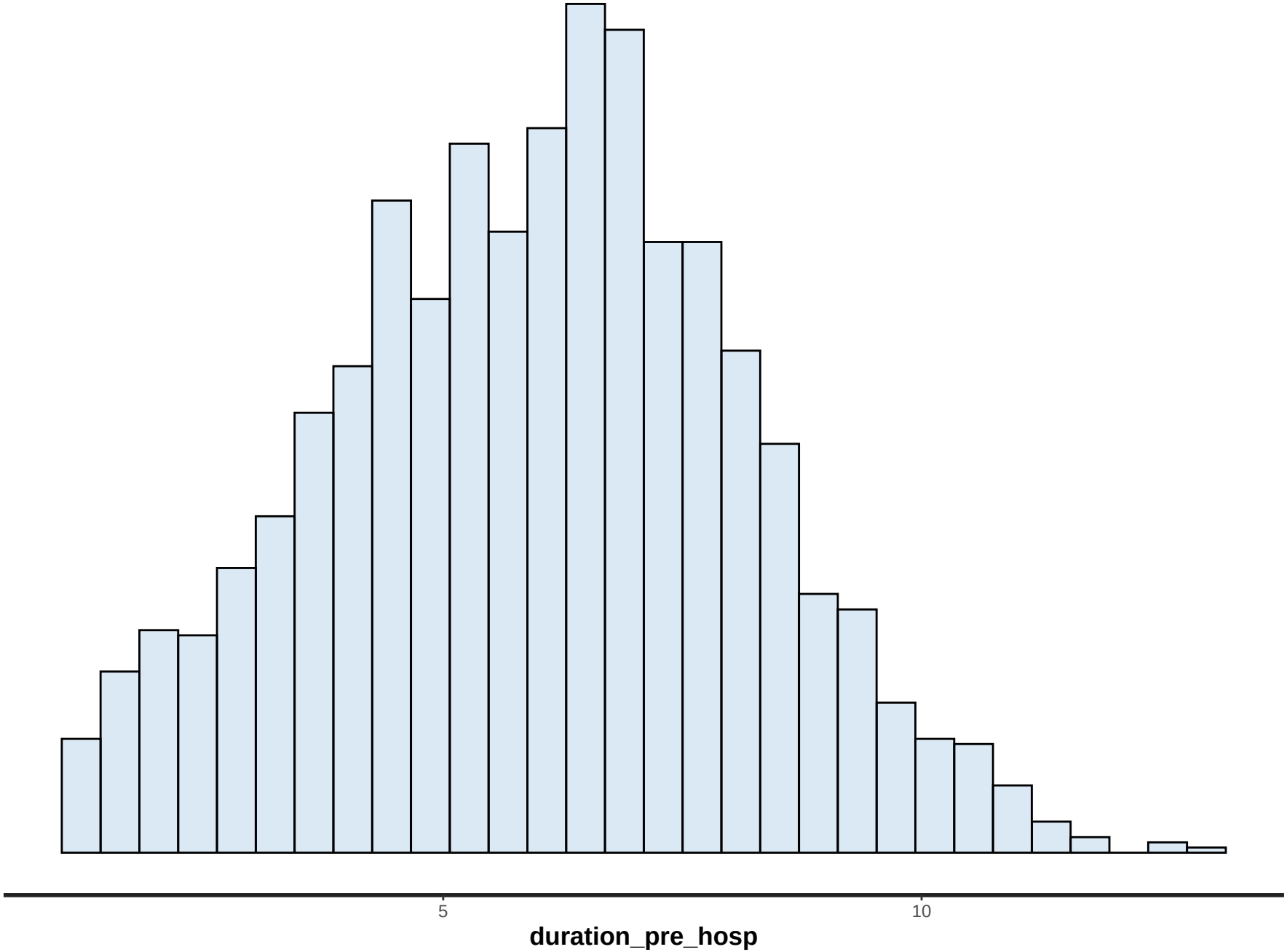
5%	10%	25%	50%	75%	90%	95%
0.83	0.86	0.91	0.95	0.99	1.03	1.05

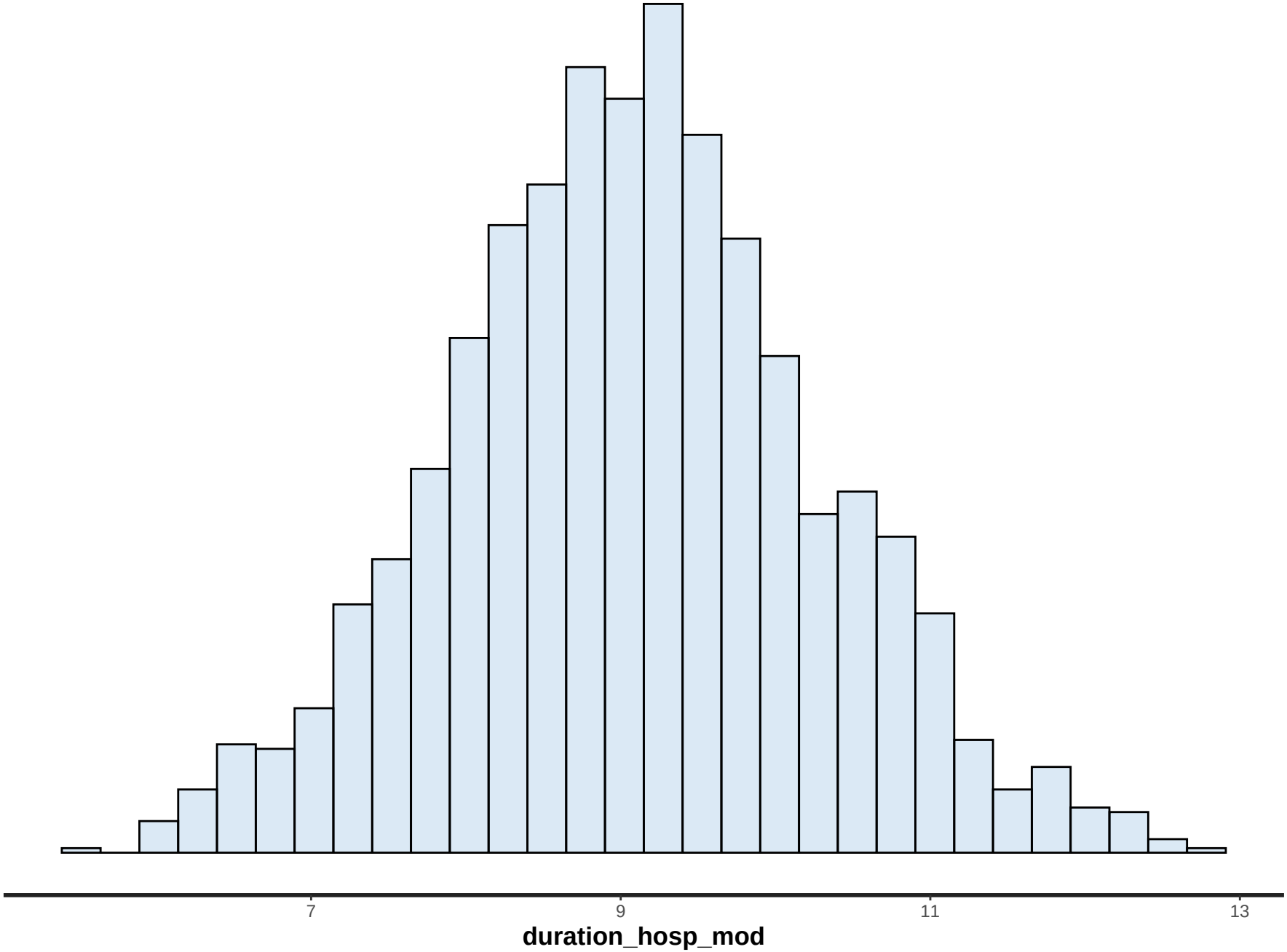


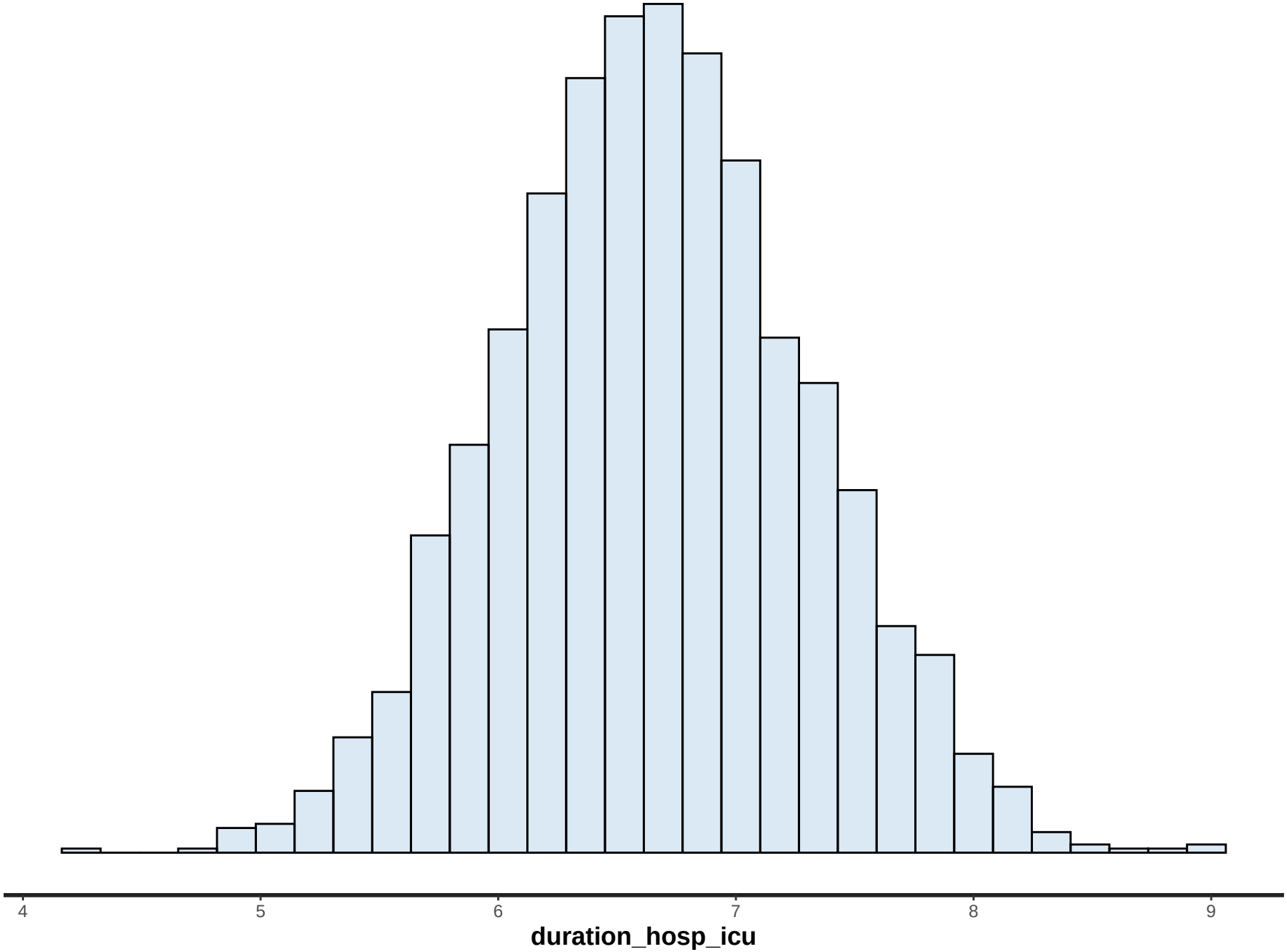

2
3
4
5
r0

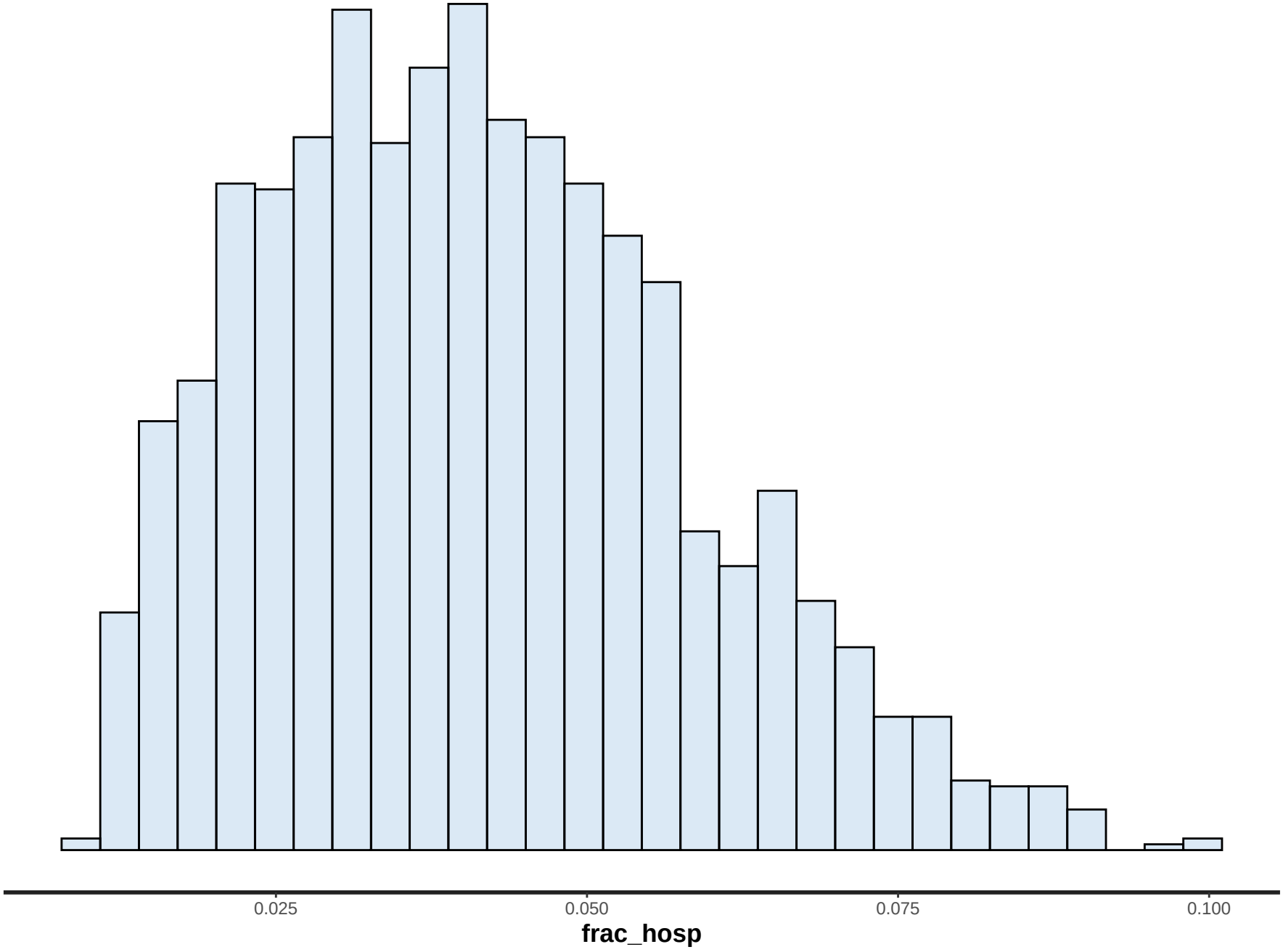

1
2
3
4
5
6
7
duration_latent


2
4
6
8
duration_rec_mild


5
10
duration_pre_hosp


7
9
11
13
duration_hosp_mod


4
5
6
7
8
9
duration_hosp_icu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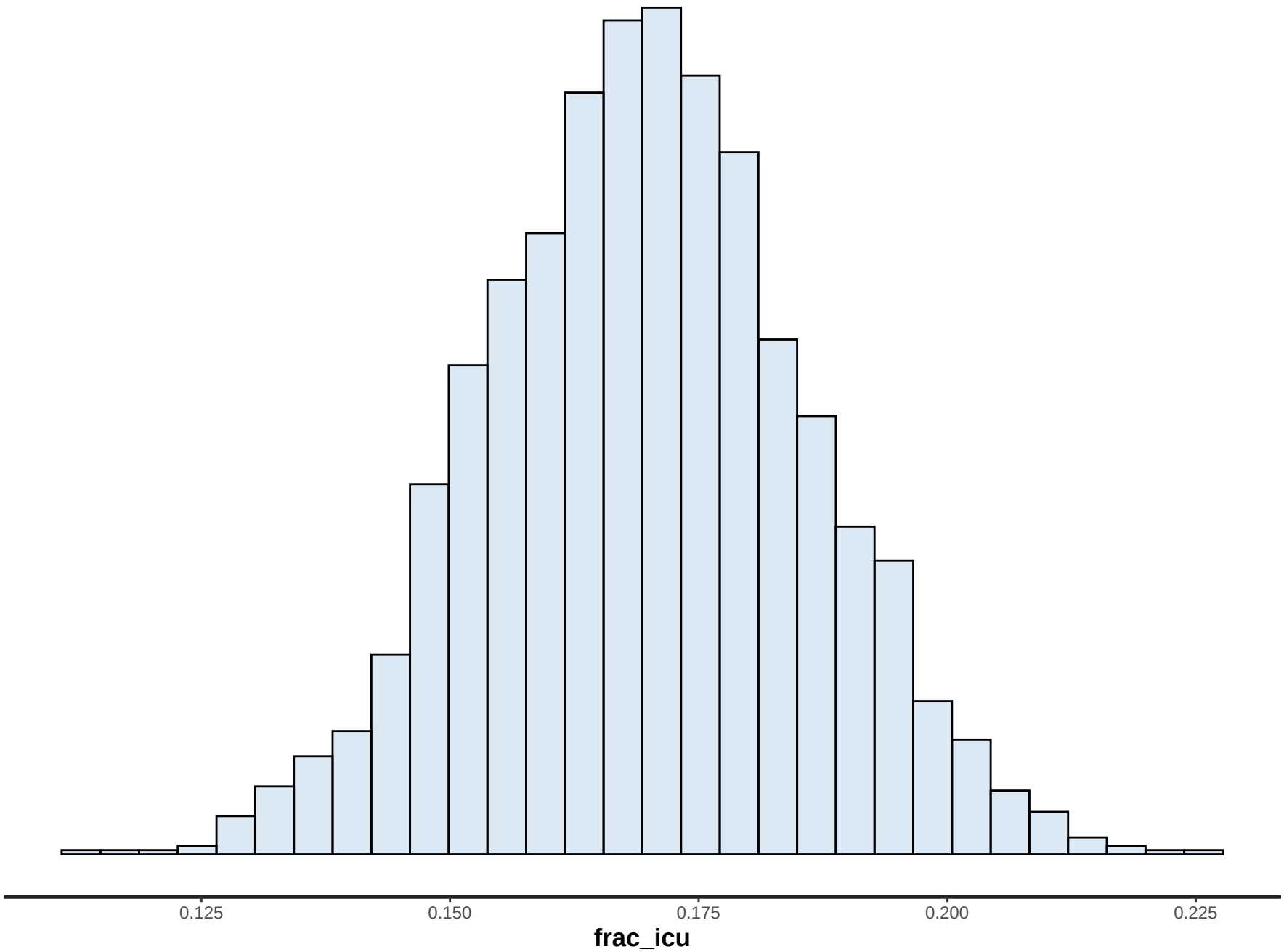
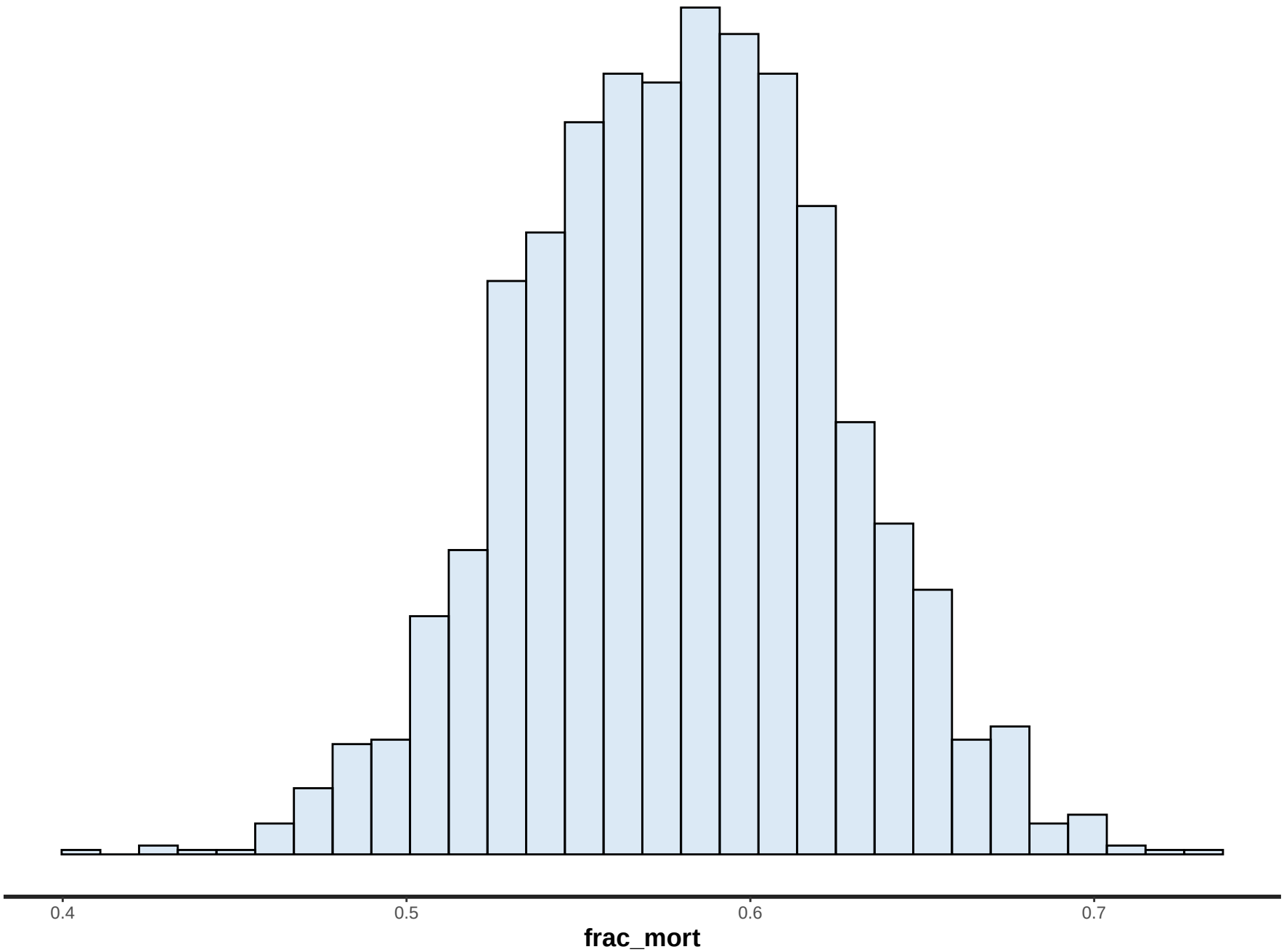
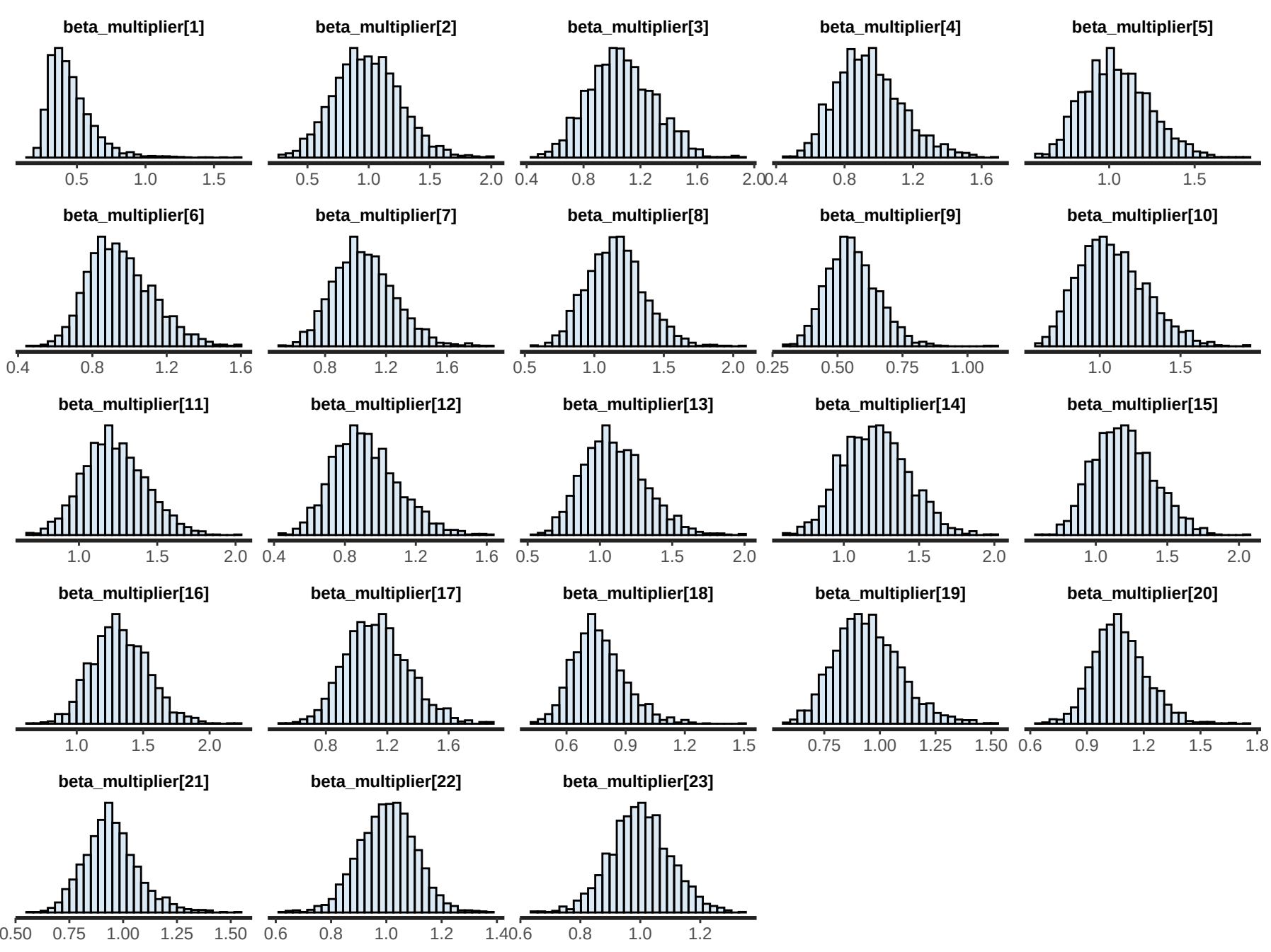
0.050
0.075
0.100
frac_hosp


0.125
0.150
0.175
0.200
0.225
frac_icu


0.4
0.5
0.6
0.7
frac_mort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beta_multiplier[2]
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beta_multiplier[3]
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beta_multiplier[4]
0.4 0.8 1.2 1.6
beta_multiplier[5]
1.0 1.5
beta_multiplier[6]
0.4 0.8 1.2 1.6
beta_multiplier[7]
0.8 1.2 1.6
beta_multiplier[8]
0.5 1.0 1.5 2.0
beta_multiplier[9]
0.25 0.50 0.75 1.00
beta_multiplier[10]
1.0 1.5
beta_multiplier[11]
1.0 1.5 2.0
beta_multiplier[12]
0.4 0.8 1.2 1.6
beta_multiplier[13]
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beta_multiplier[14]
1.0 1.5 2.0
beta_multiplier[15]
1.0 1.5 2.0
beta_multiplier[16]
1.0 1.5 2.0
beta_multiplier[17]
0.8 1.2 1.6
beta_multiplier[18]
0.6 0.9 1.2 1.5
beta_multiplier[19]
0.75 1.00 1.25 1.50
beta_multiplier[20]
0.6 0.9 1.2 1.5 1.8
beta_multiplier[21]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[22]
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beta_multiplier[23]
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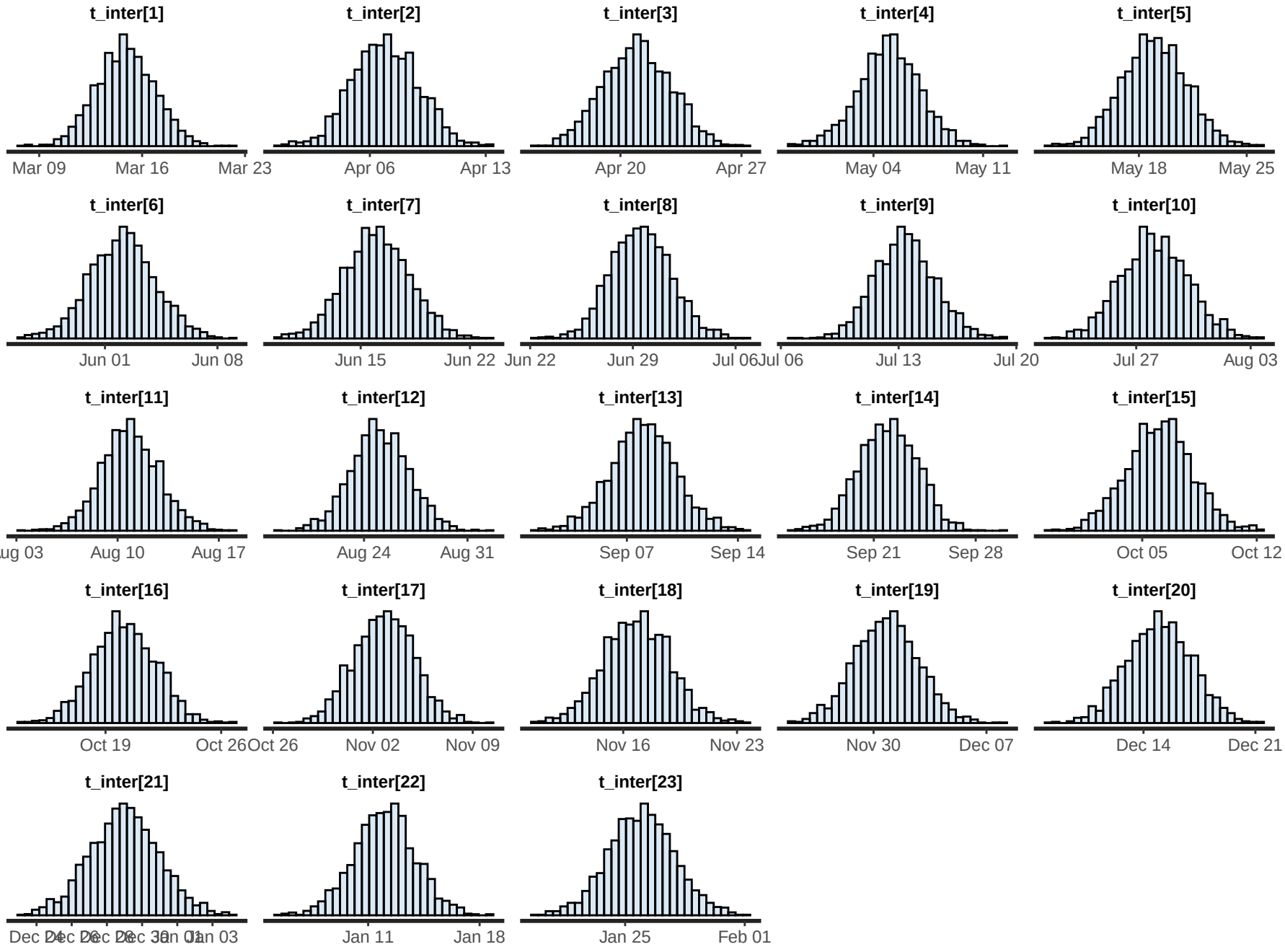
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Mar 09
Mar 16
Mar 23
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Apr 06
Apr 13
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Apr 20
Apr 27
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May 04
May 11
t_inter[5]
May 18
May 25
t_inter[6]
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Jun 08
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Jun 15
Jun 22
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Jun 22
Jun 29
Jul 06
t_inter[9]
Jul 06
Jul 13
Jul 20
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Jul 27
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Aug 10
Aug 17
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Nov 09
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Nov 30
Dec 07
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Dec 21
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Jan 03
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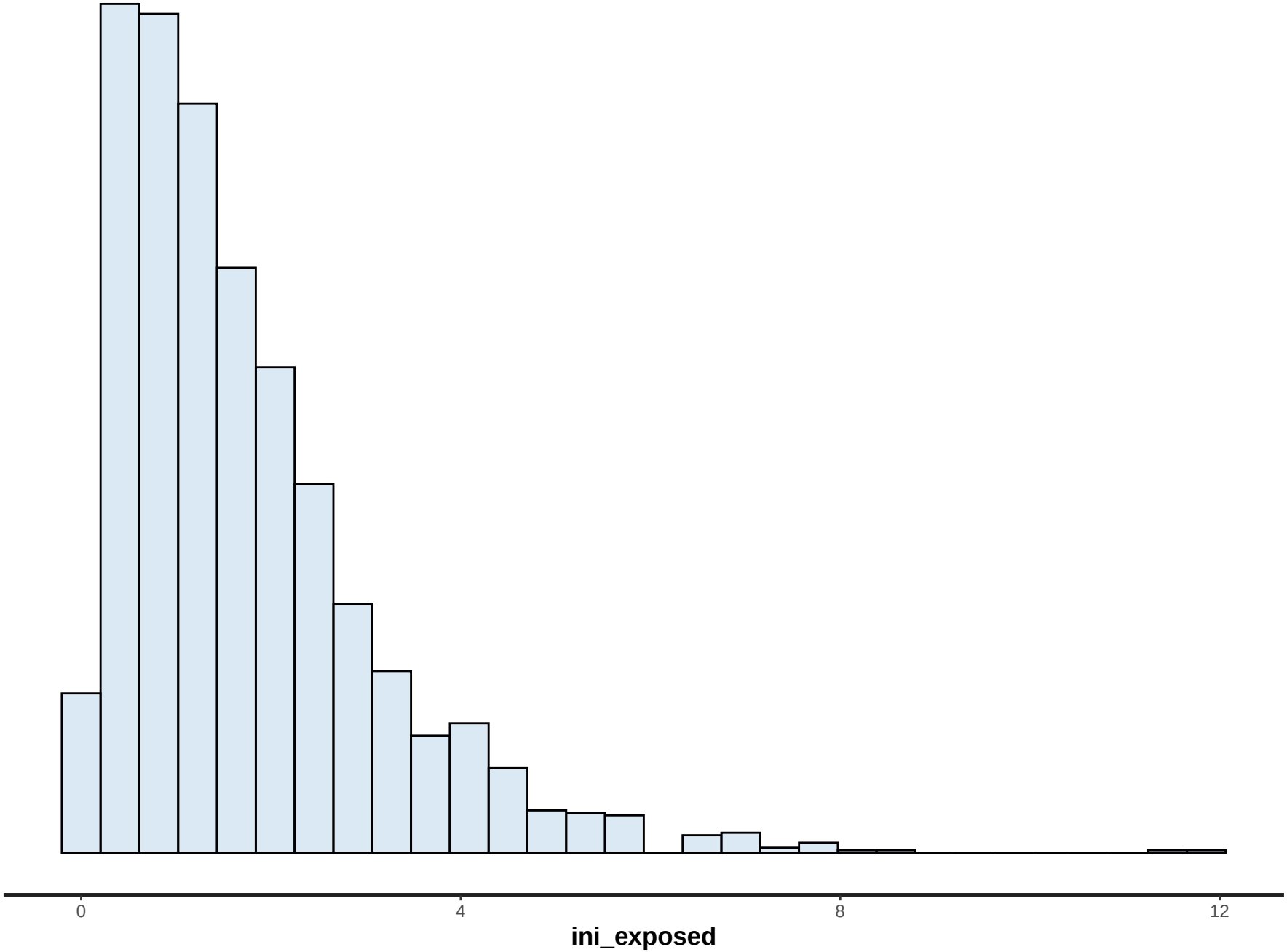
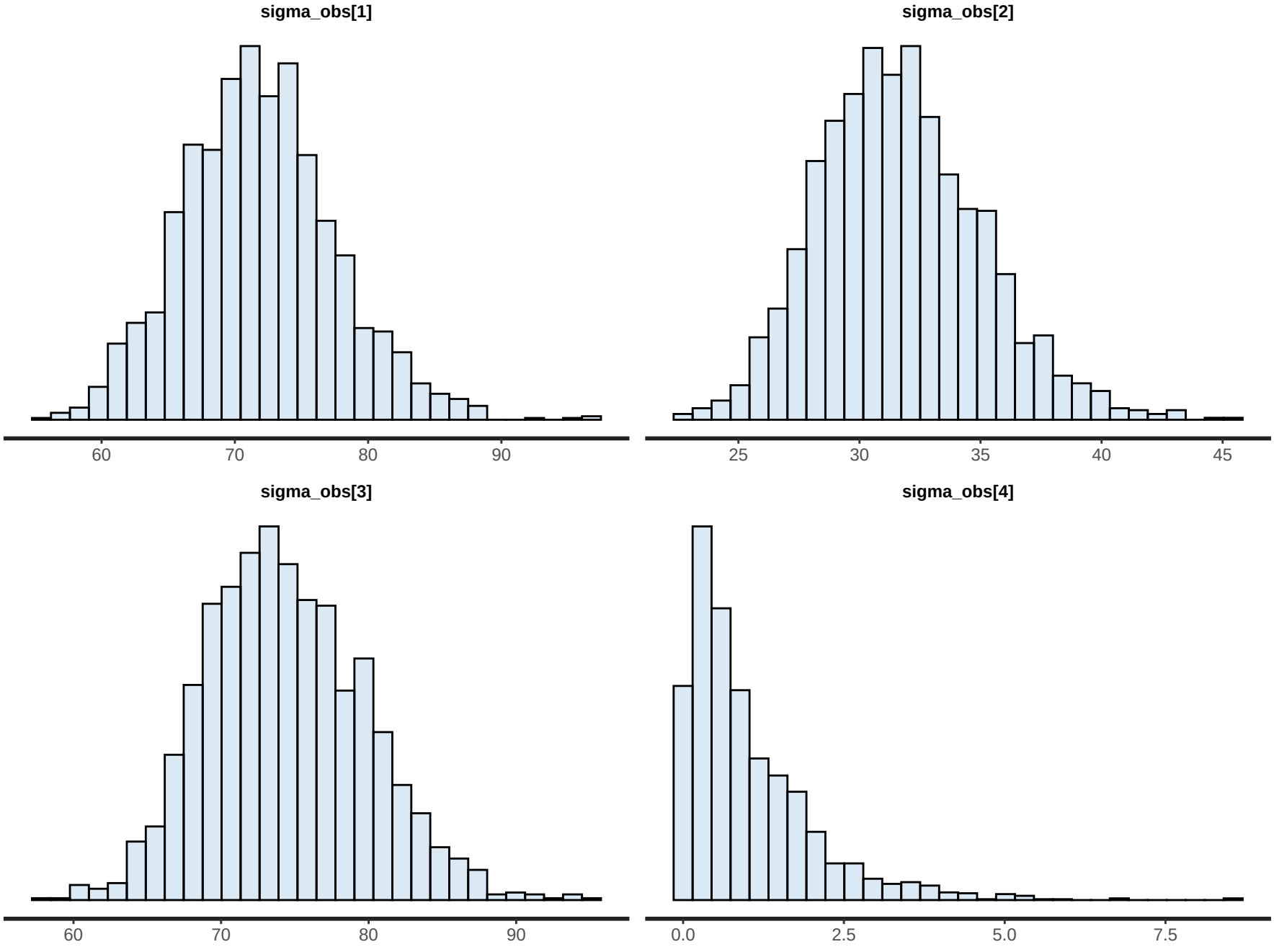
Jan 11
Jan 18
t_inter[23]
Jan 25
Feb 01


0
4
8
12
ini_exposed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70
80
90
sigma_obs[4]
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5.0
7.5