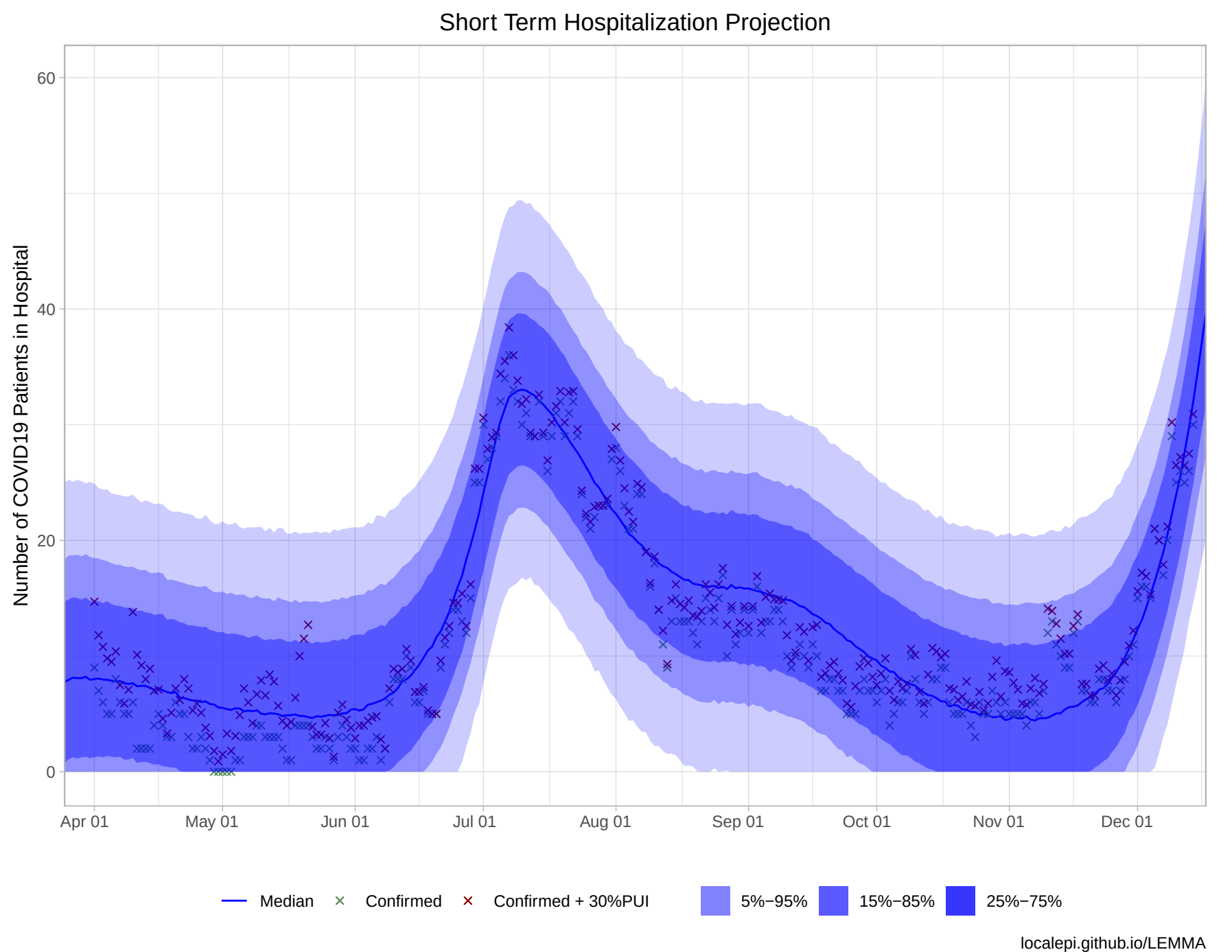
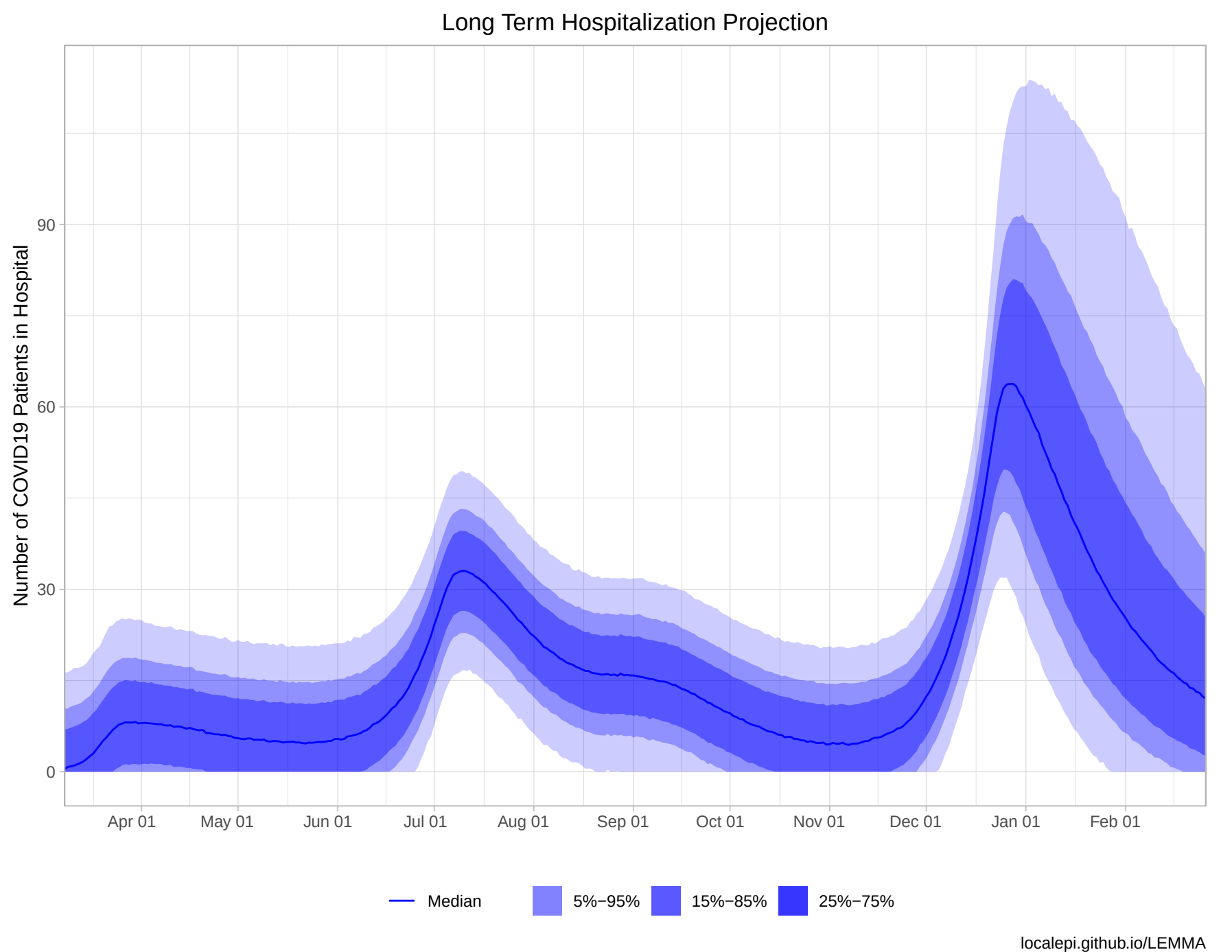
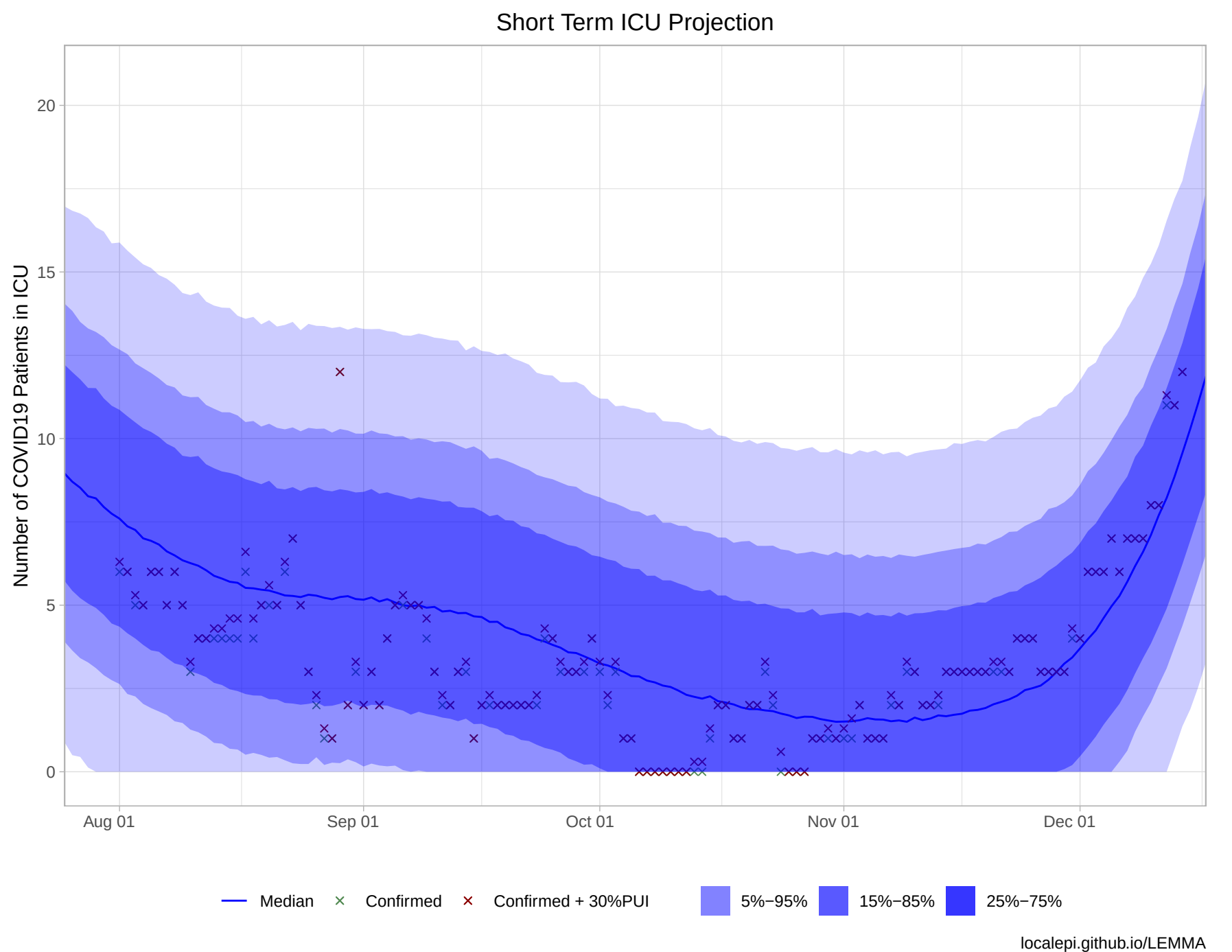
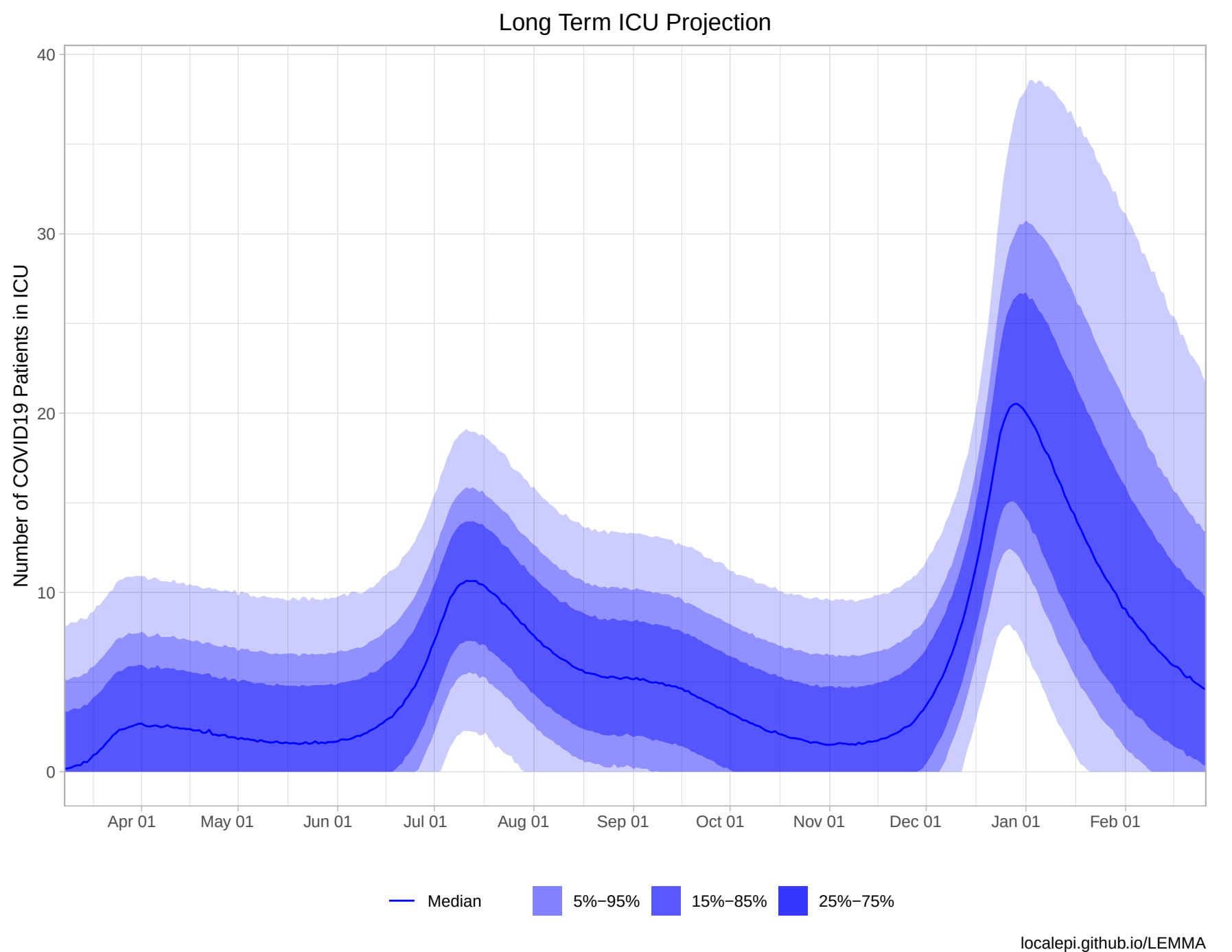
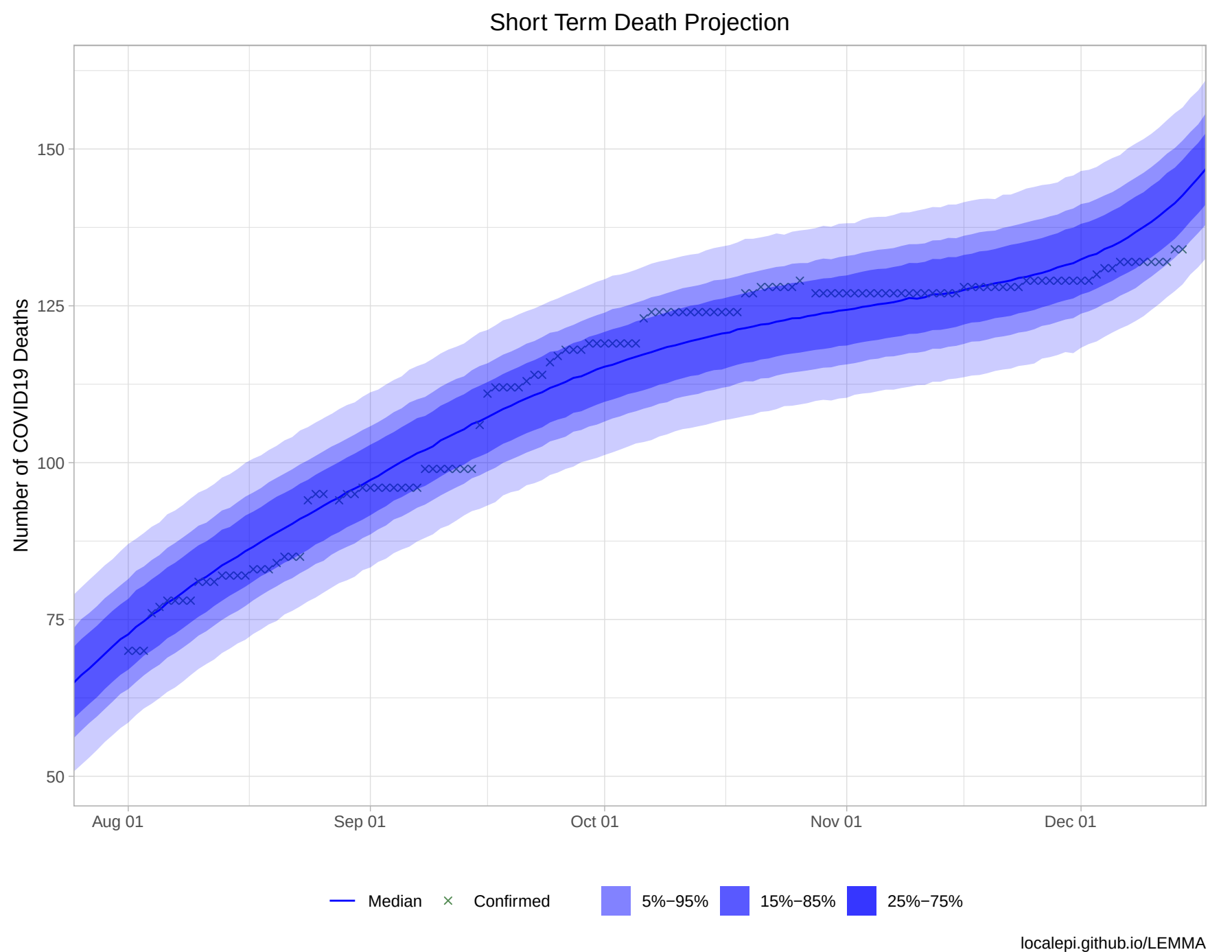
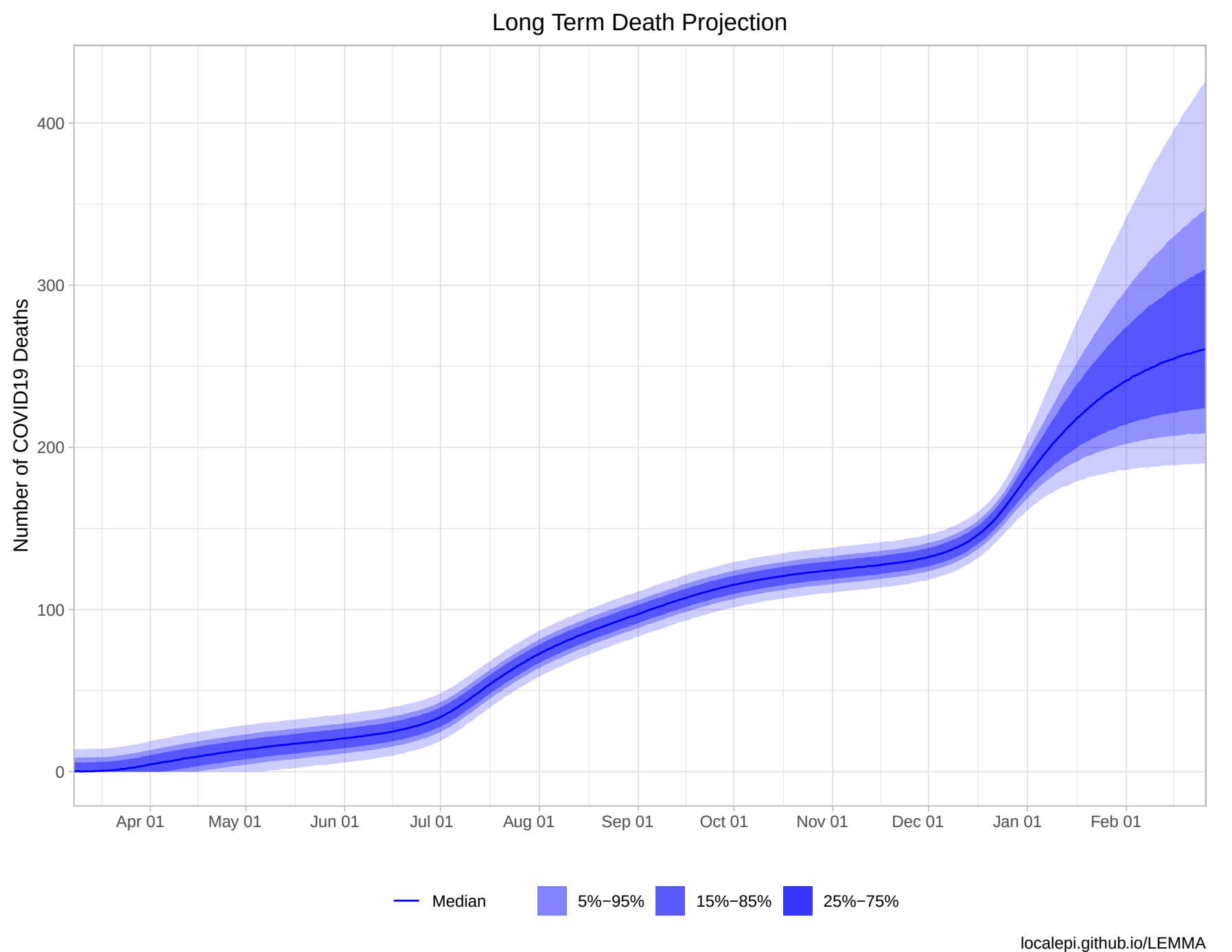

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
60
40
20
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

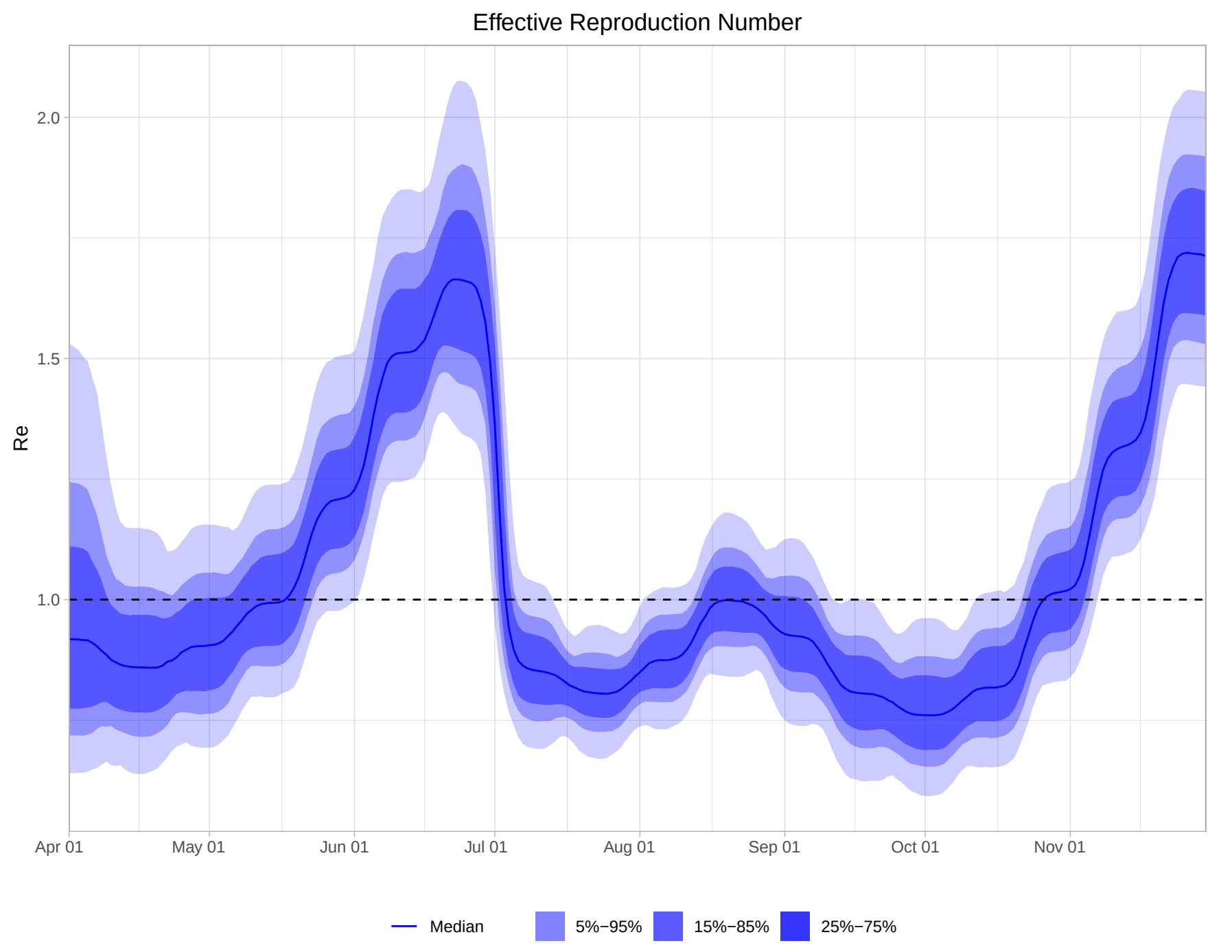

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
30
60
90
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


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
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
40
30
20
10
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

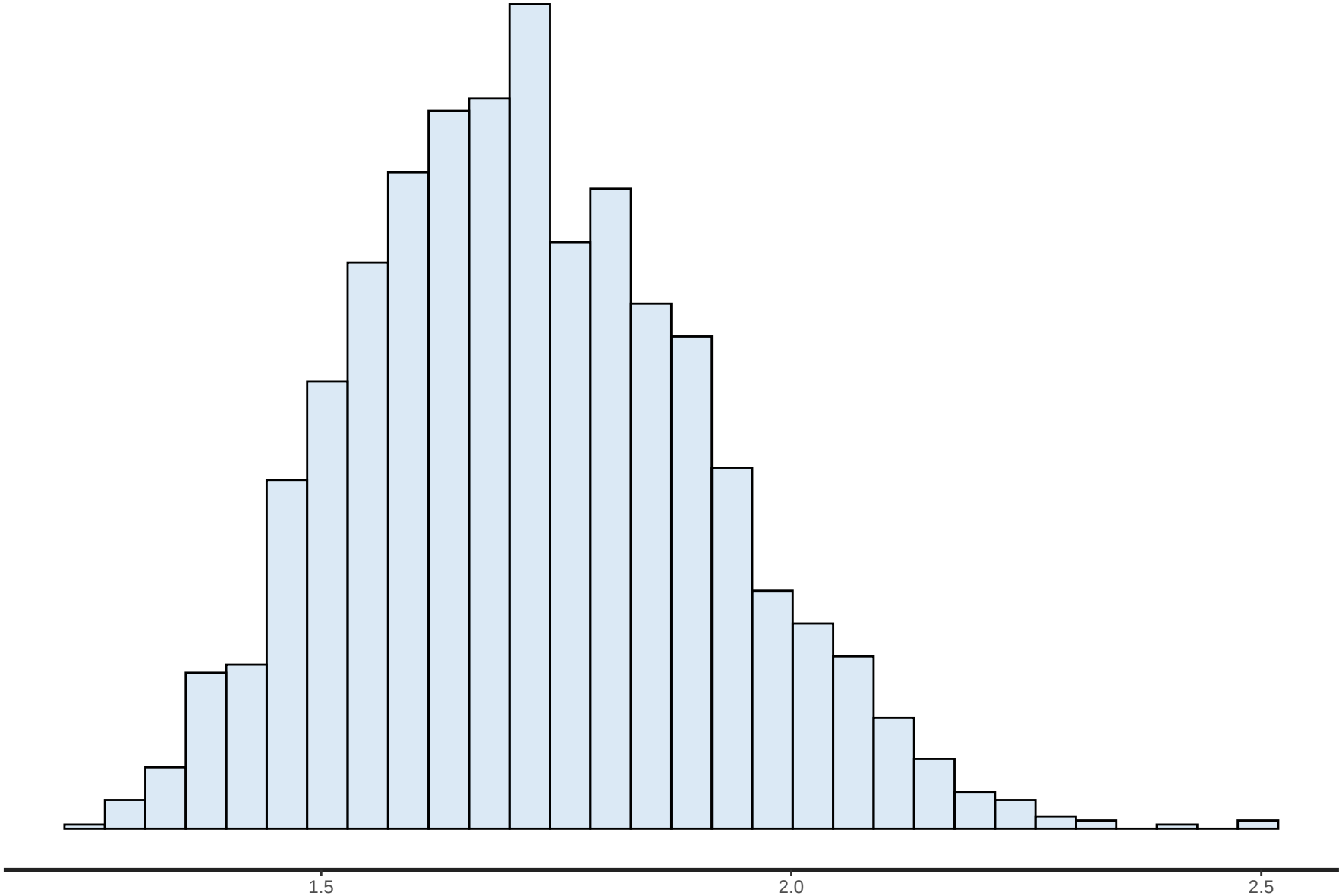

Short Term Death Projection
Number of COVID19 Deaths
150
125
100
75
50
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

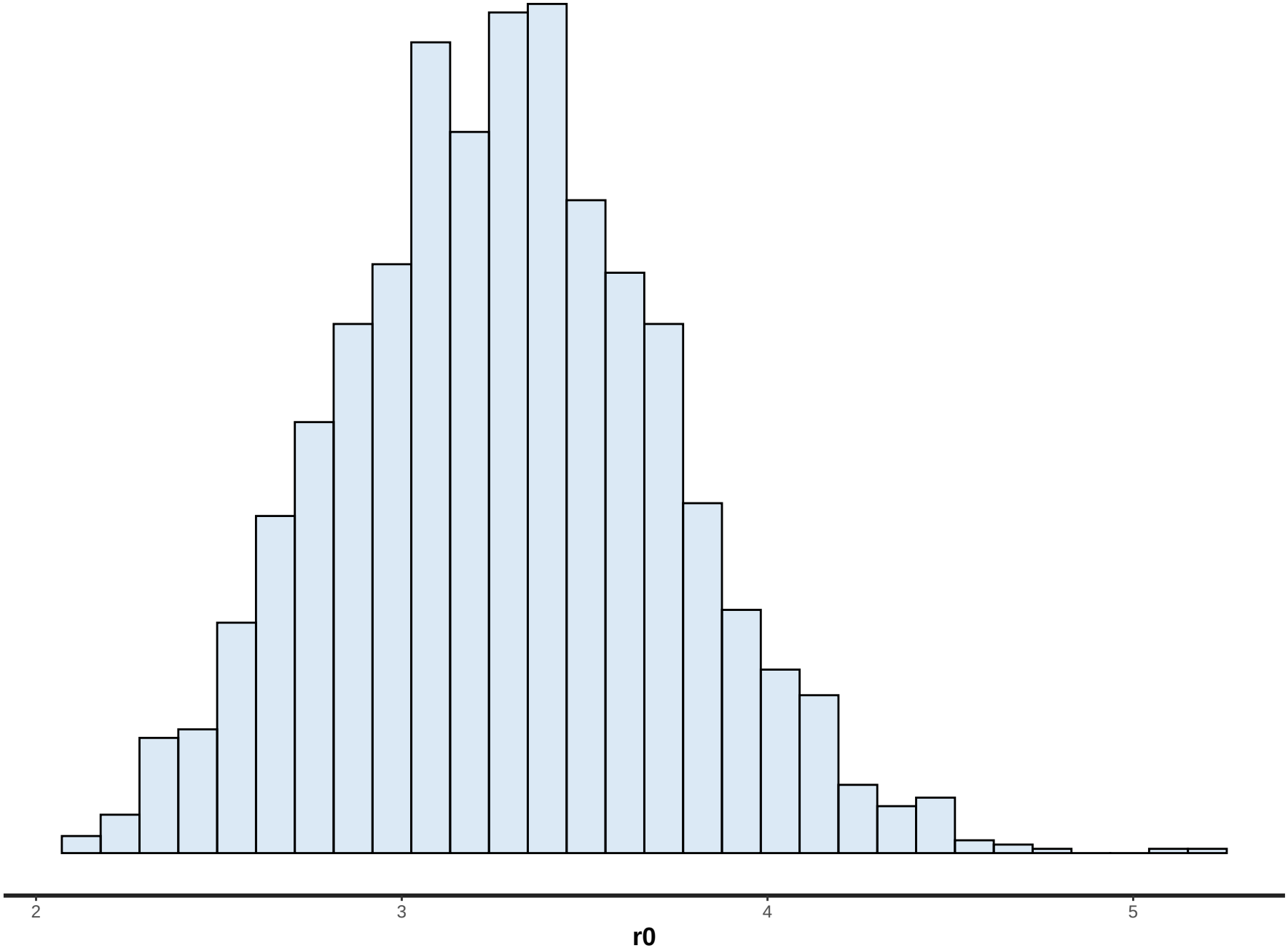

Long Term Death Projection
Number of COVID19 Deaths
400
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

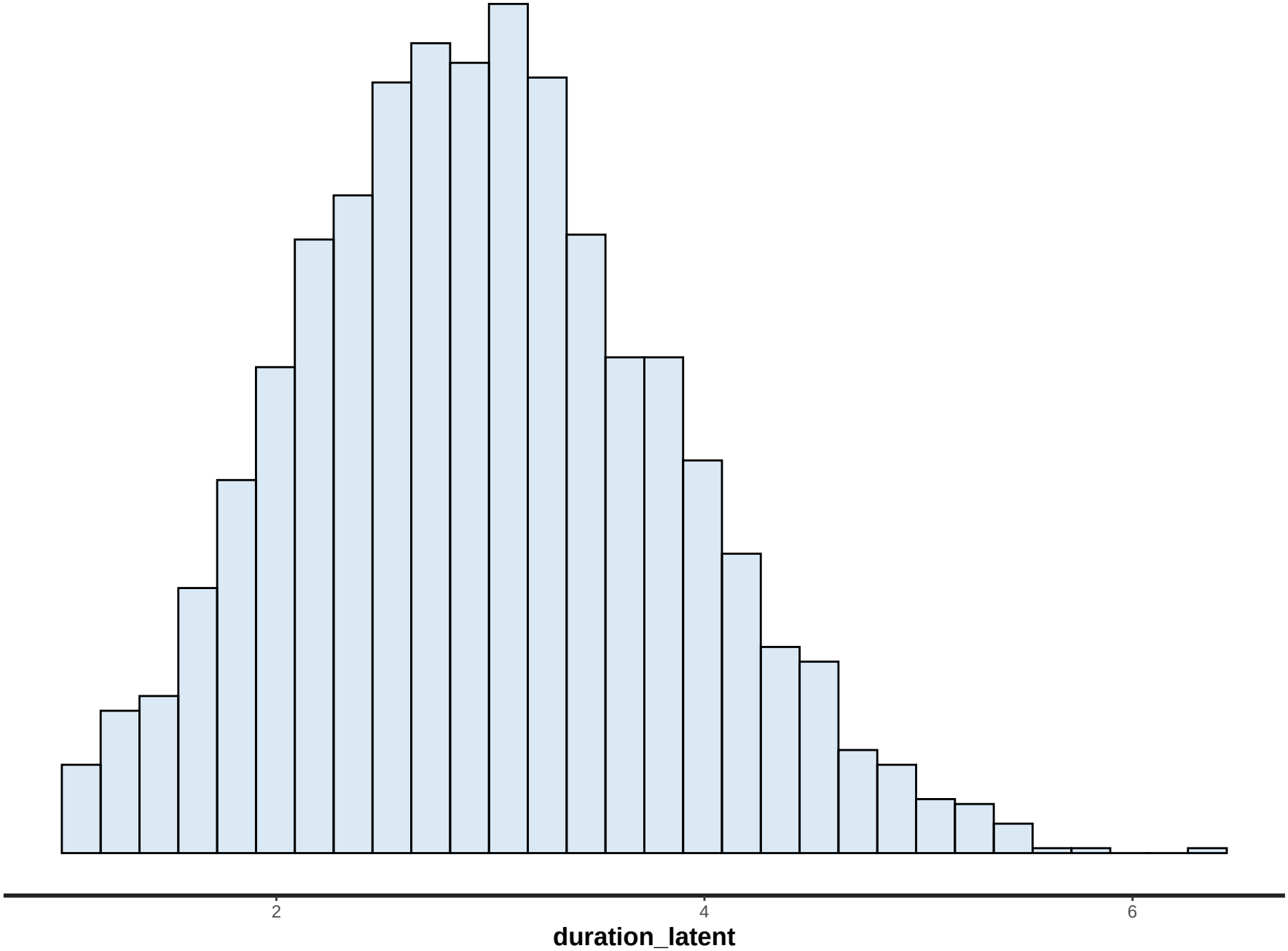

Effective Reproduction Number
Re
2.0
1.5
1.0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Median
5%−95%
15%−85%
25%−75%

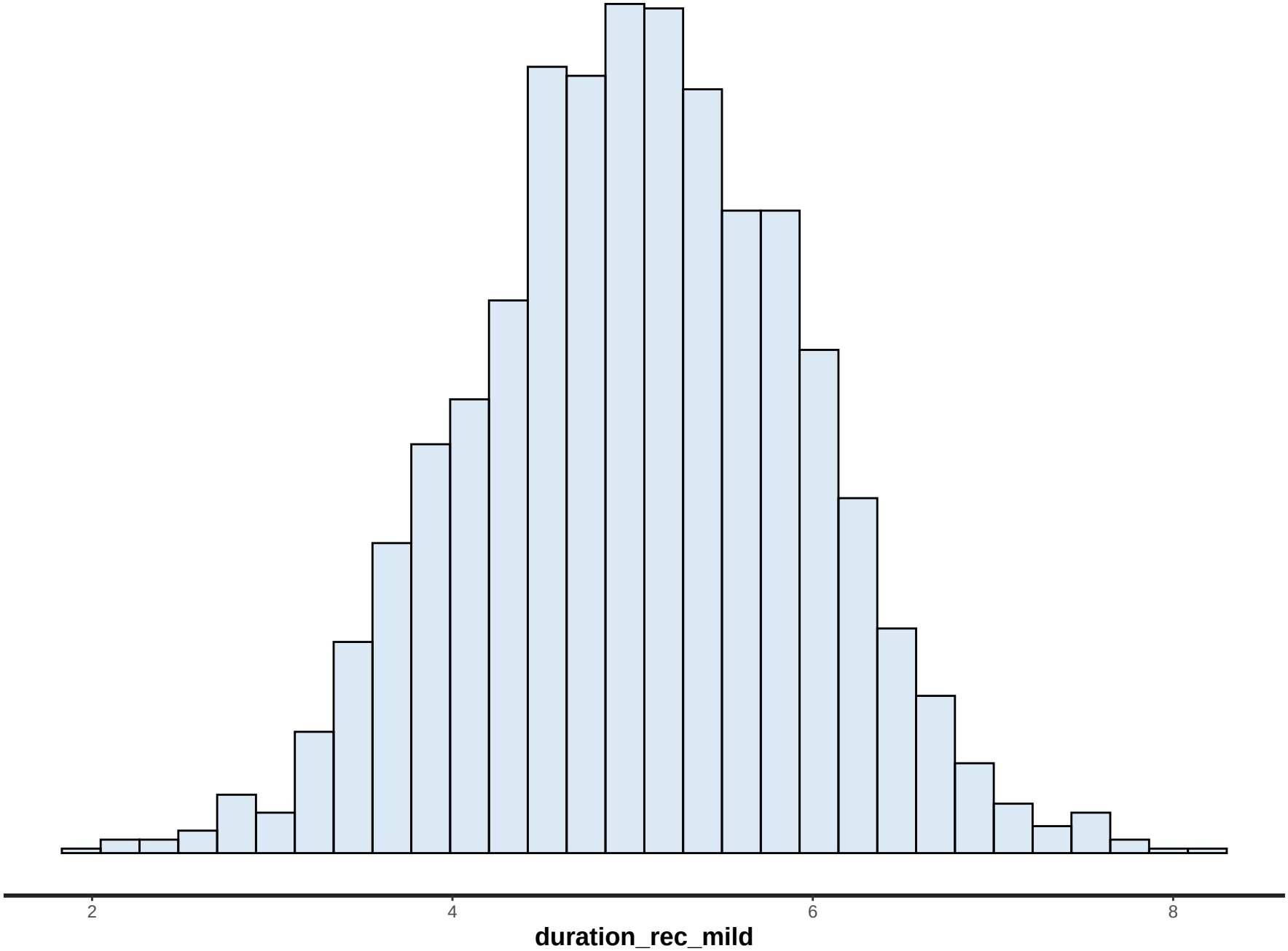
Rt as of 2020−11−30

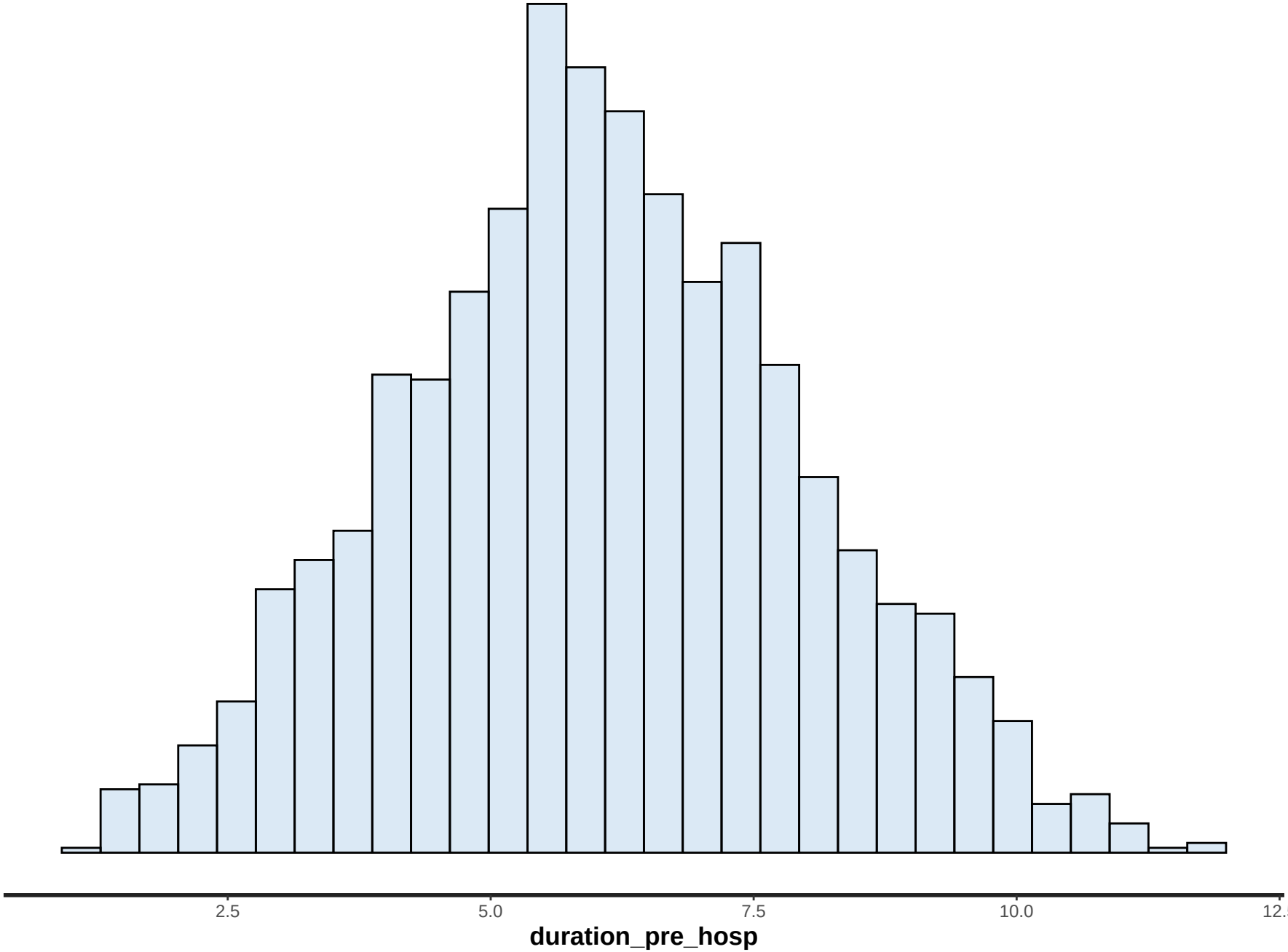
5%	10%	25%	50%	75%	90%	95%
1.44	1.49	1.59	1.71	1.85	1.97	2.05

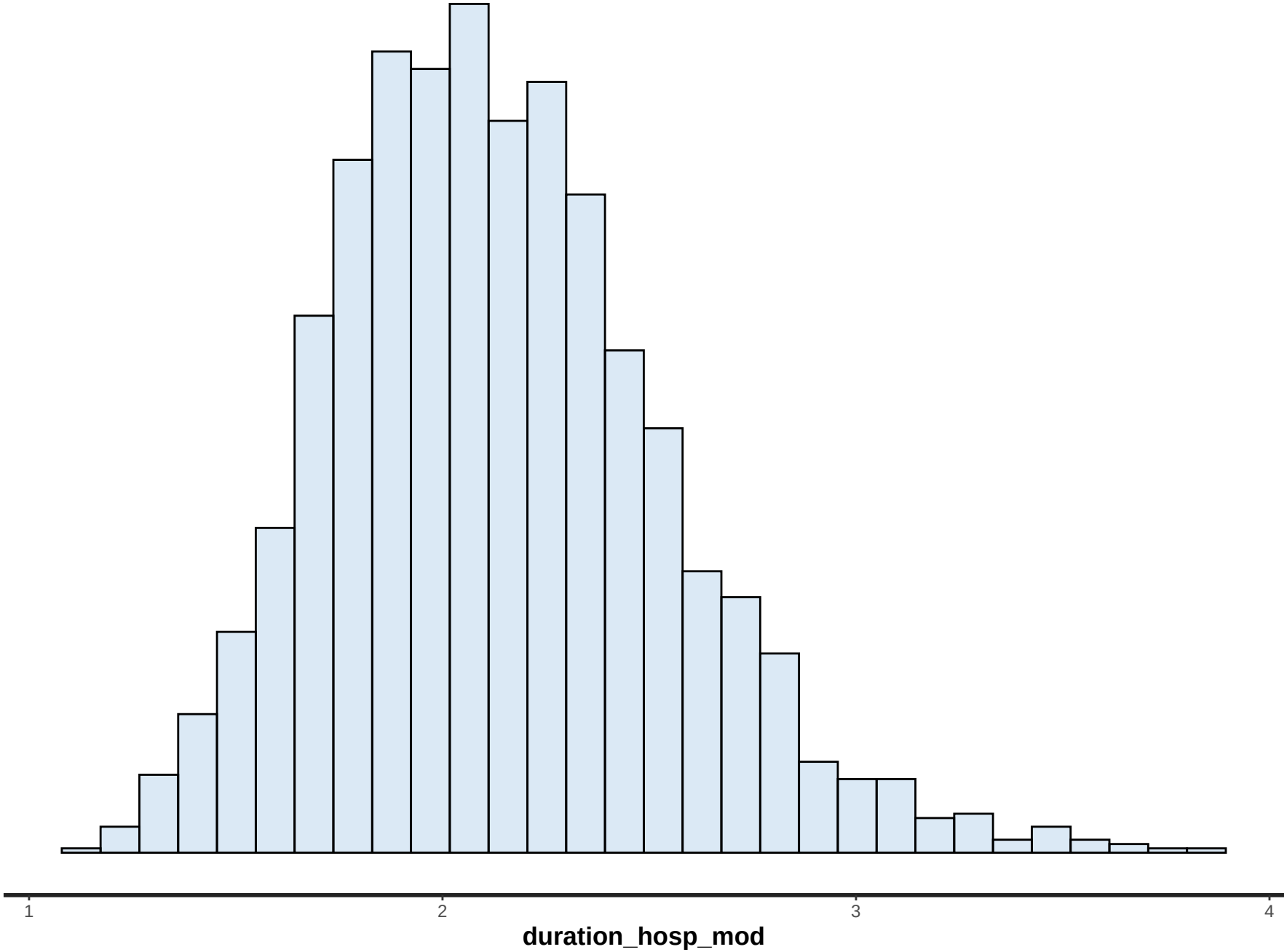


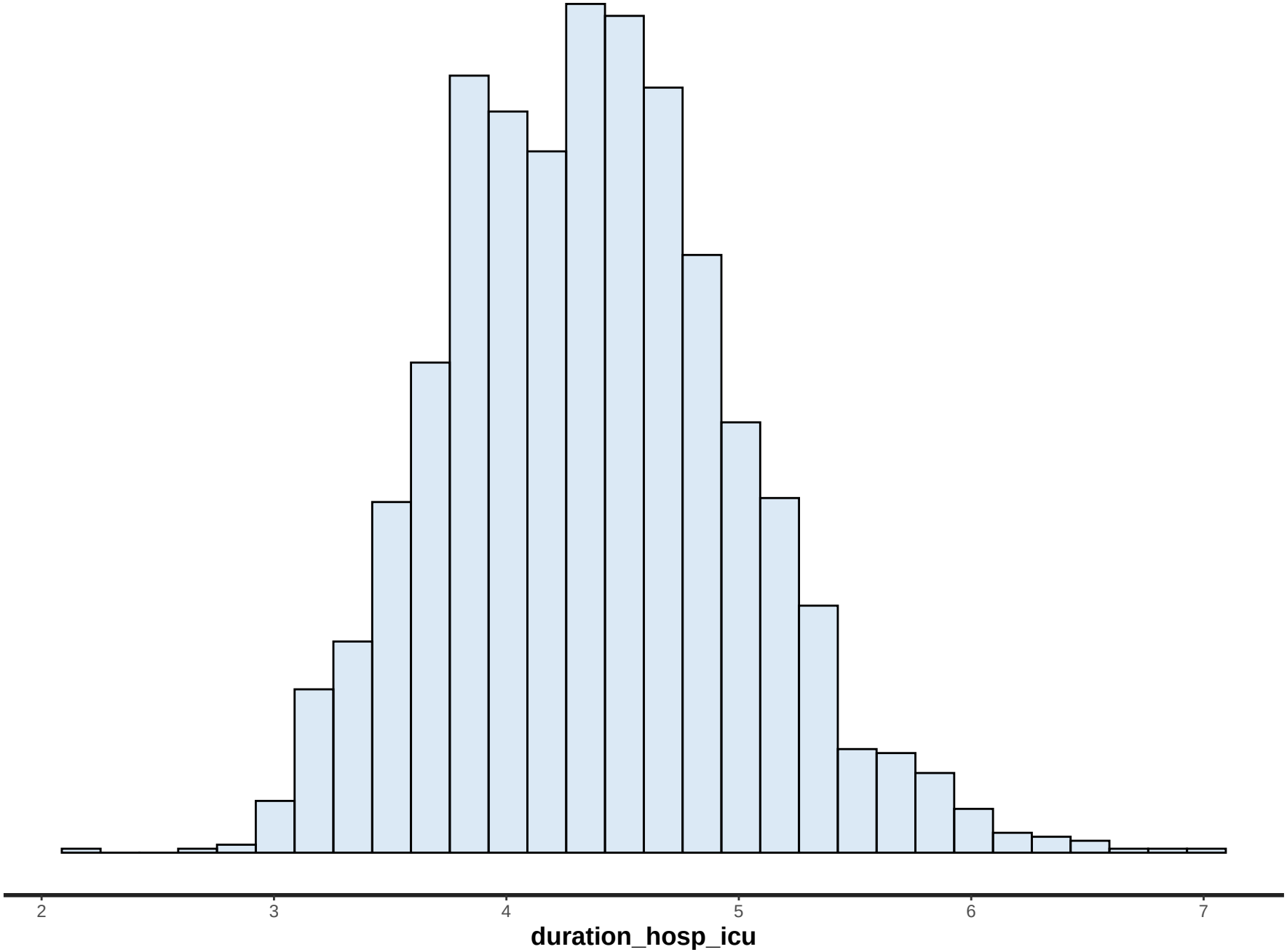

2
3
4
5
r0

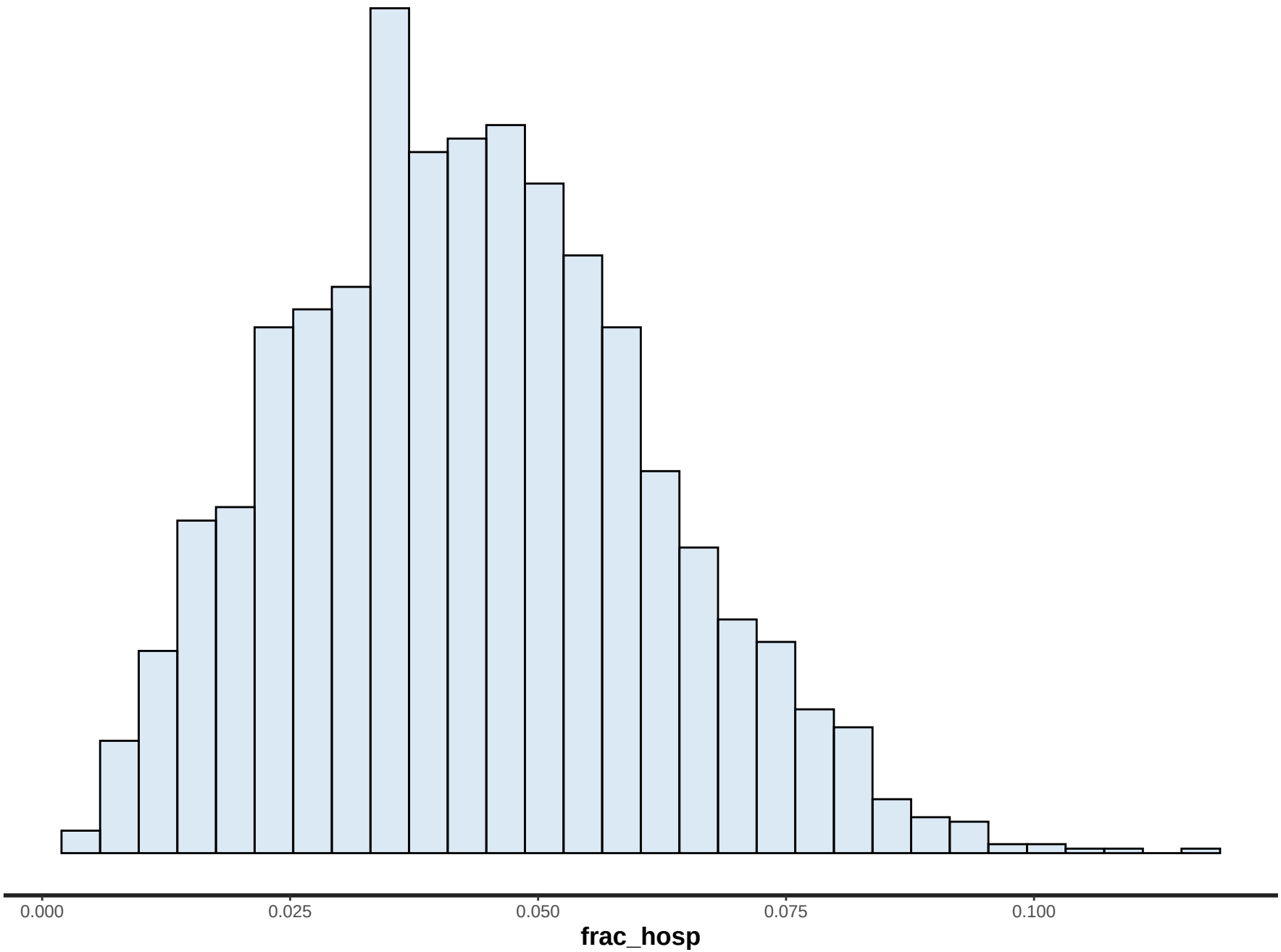

2
4
6
duration_latent

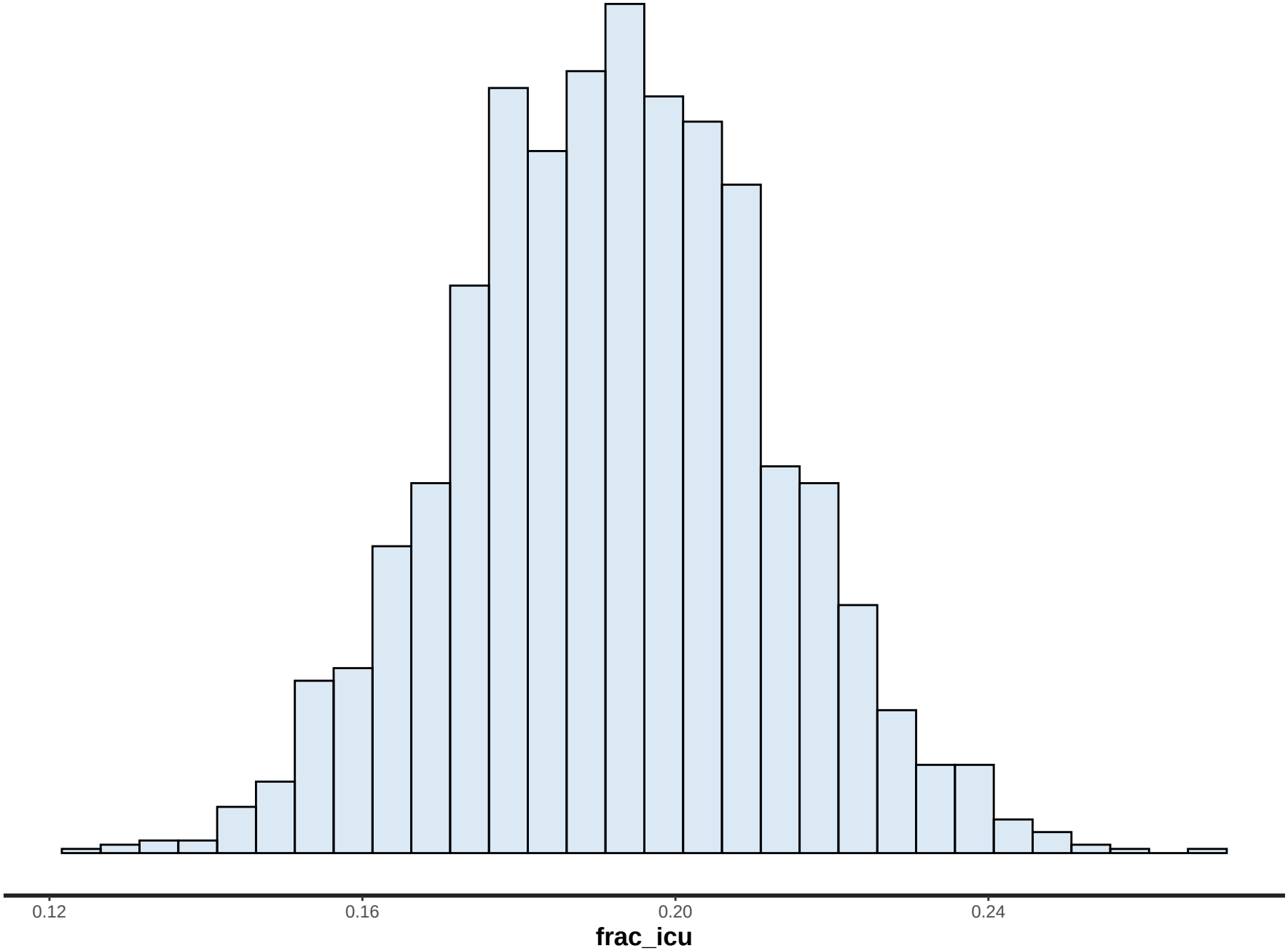

2
4
6
8
duration_rec_mild

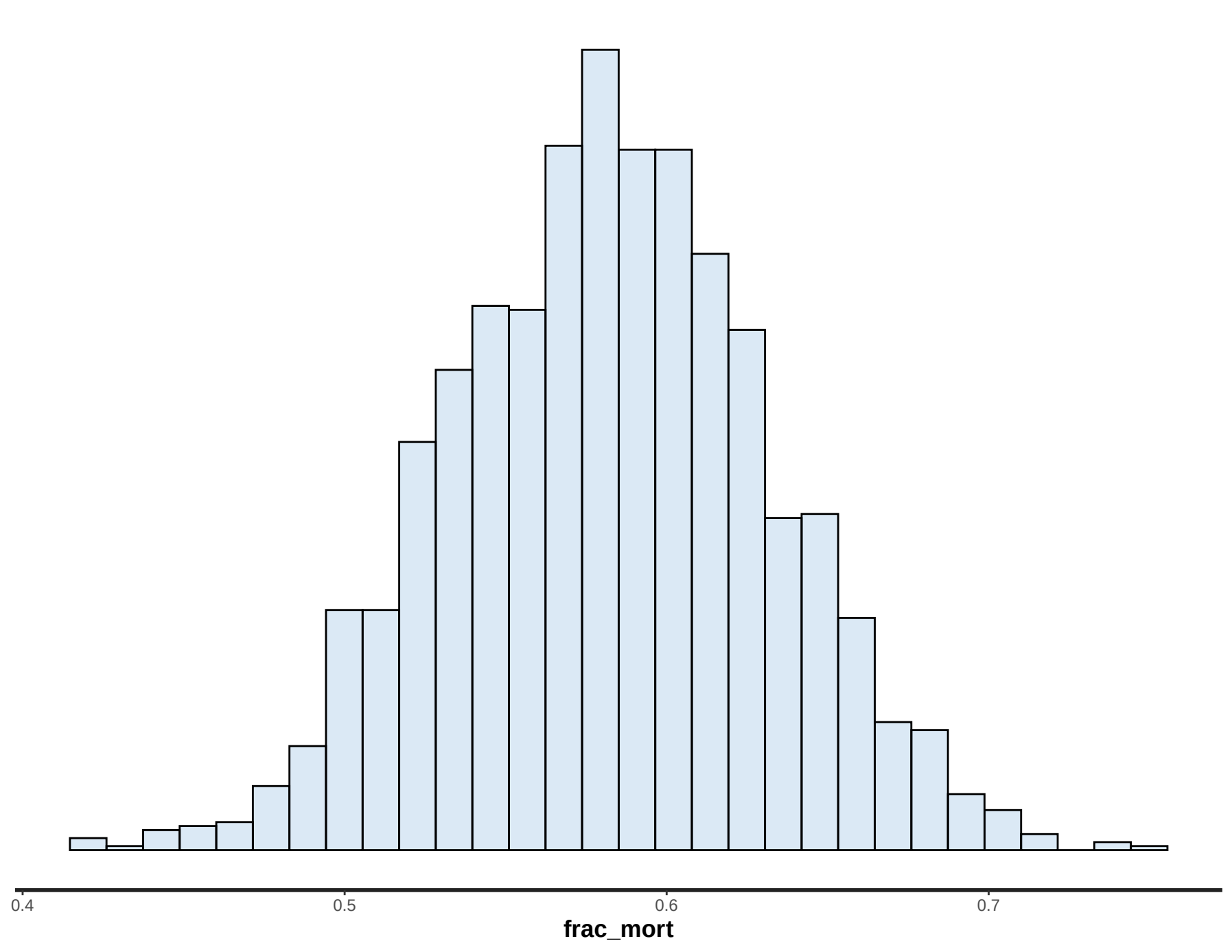

2.5
5.0
7.5
10.0
12.5
duration_pre_hosp

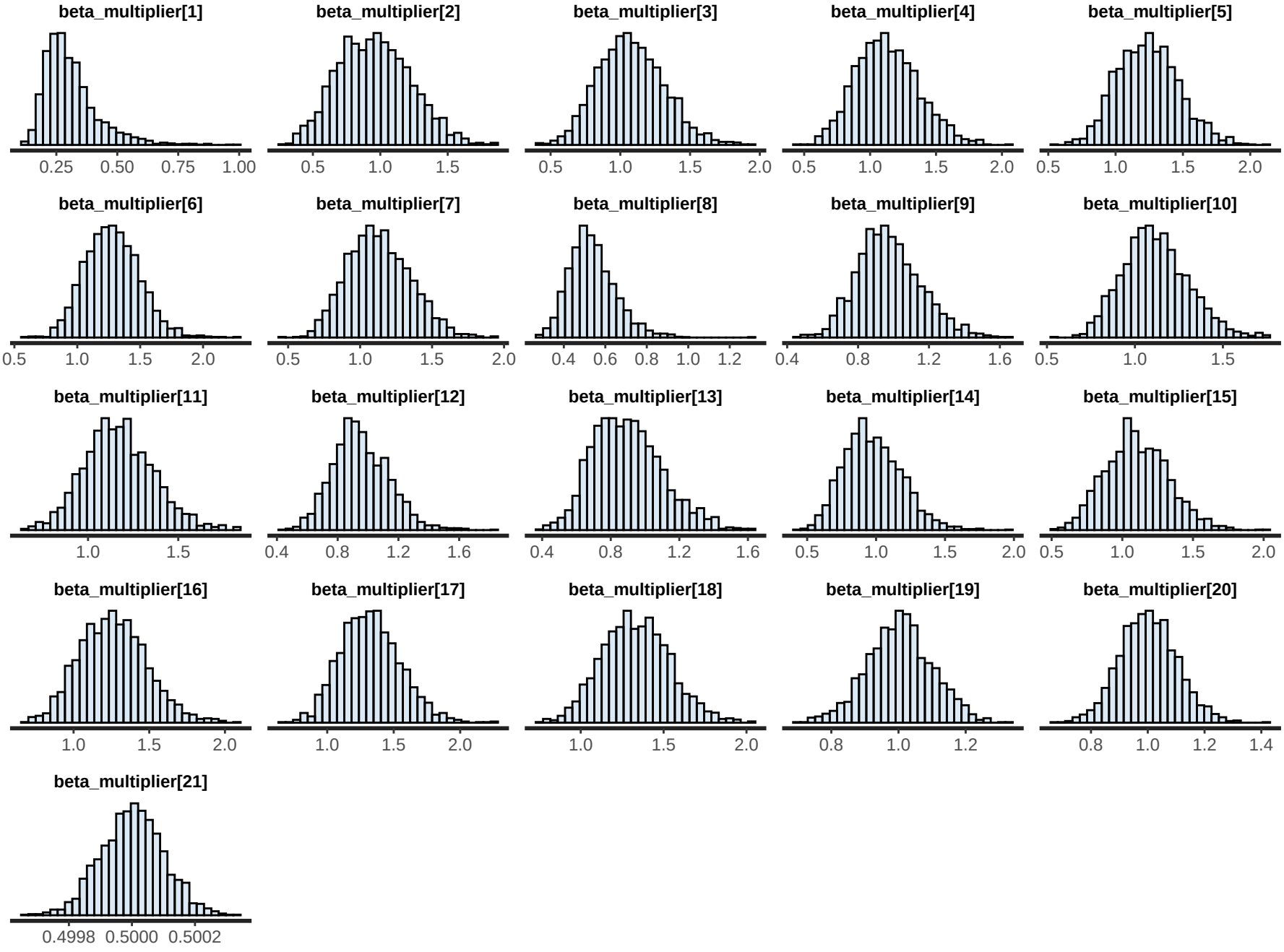

1
2
3
4
duration_hosp_mod


2
3
4
5
6
7
duration_hosp_icu


0.000
0.025
0.050
0.075
0.100
frac_hosp


0.12
0.16
0.20
0.24
frac_icu


0.4
0.5
0.6
0.7
frac_mort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beta_multiplier[2]
0.5 1.0 1.5
beta_multiplier[3]
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beta_multiplier[4]
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beta_multiplier[5]
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beta_multiplier[6]
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beta_multiplier[7]
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beta_multiplier[8]
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beta_multiplier[9]
0.4 0.8 1.2 1.6
beta_multiplier[10]
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beta_multiplier[11]
1.0 1.5
beta_multiplier[12]
0.4 0.8 1.2 1.6
beta_multiplier[13]
0.4 0.8 1.2 1.6
beta_multiplier[14]
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beta_multiplier[16]
1.0 1.5 2.0
beta_multiplier[17]
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beta_multiplier[18]
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beta_multiplier[19]
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beta_multiplier[20]
0.8 1.0 1.2 1.4
beta_multiplier[21]
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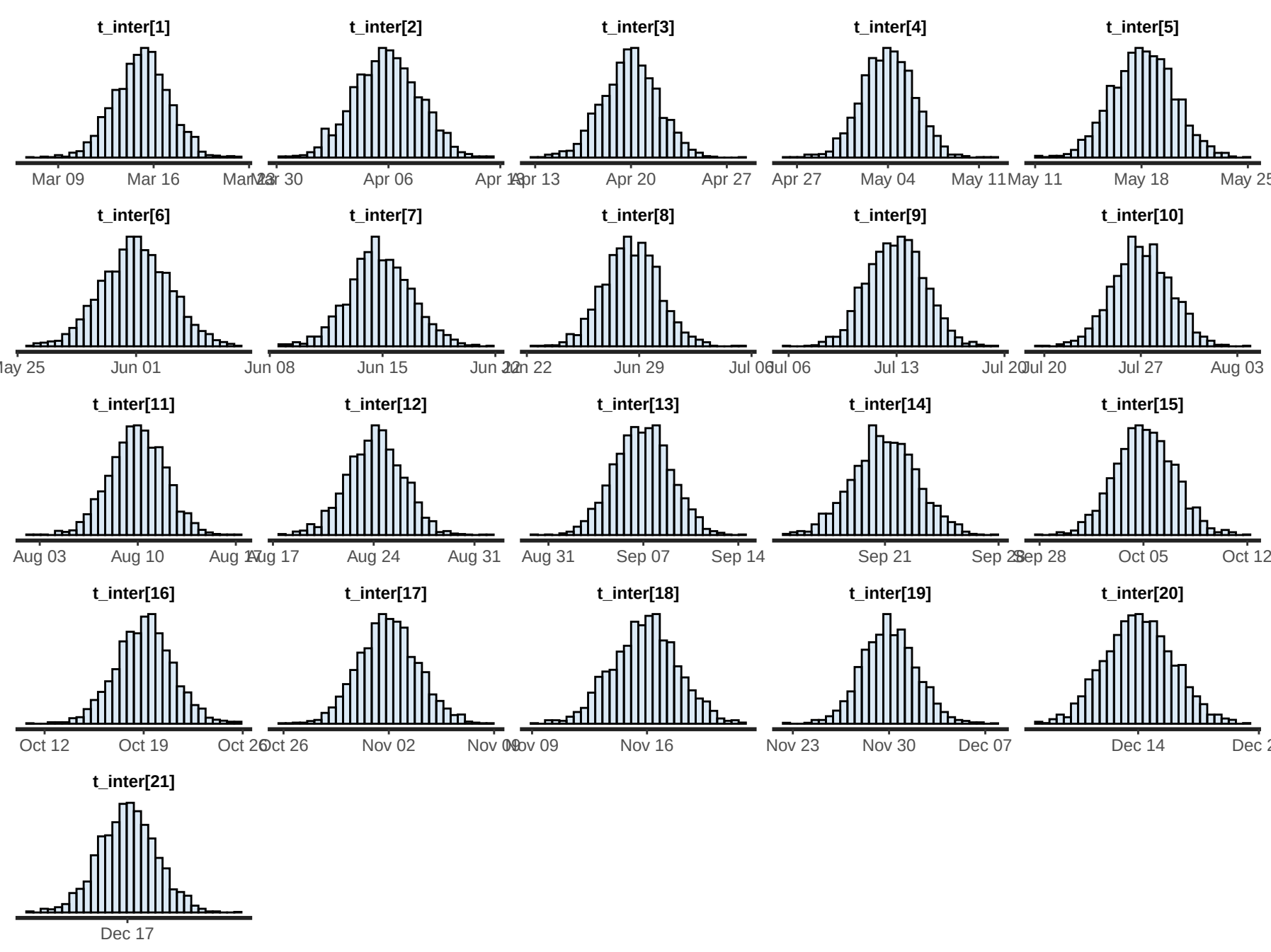
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May 11
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May 11
May 18
May 25
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Jun 08
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Jun 15
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Jun 22
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Jul 20
Jul 27
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Aug 10
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Aug 24
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Oct 12
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Nov 23
Nov 30
Dec 07
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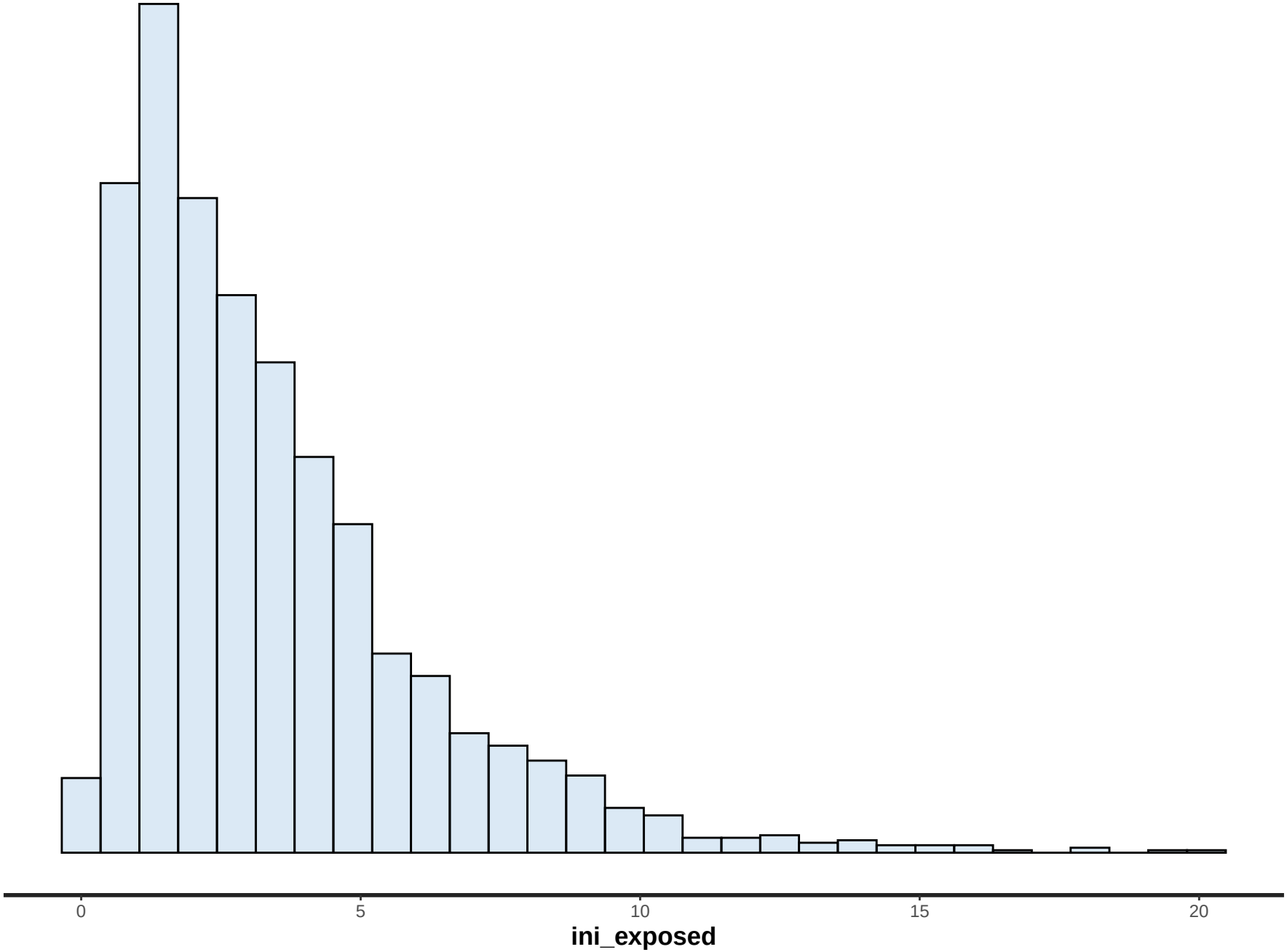
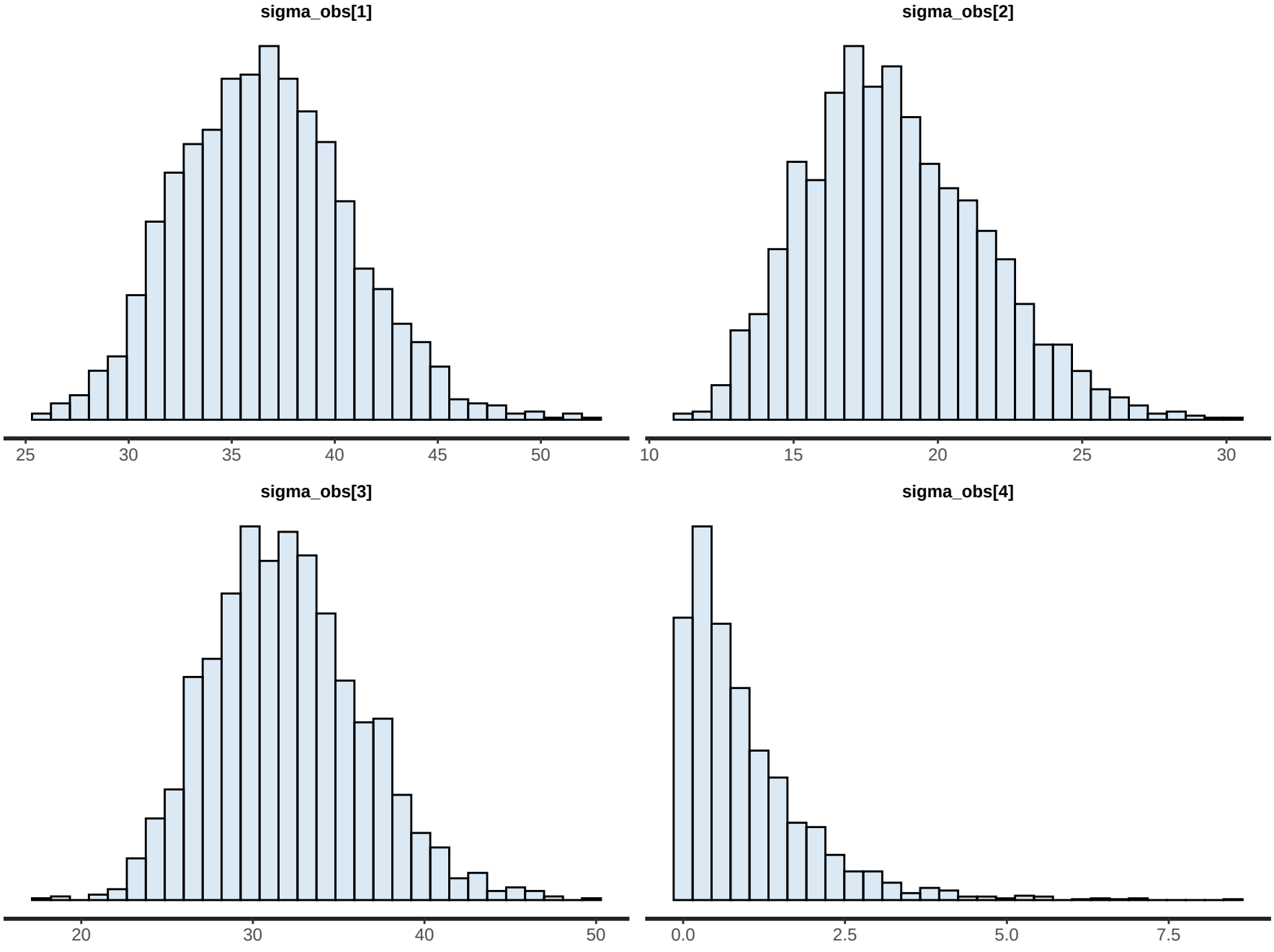
Dec 14
t_inter[21]
Dec 17


0
5
10
15
20
ini_exposed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40
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sigma_obs[4]
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5.0
7.5