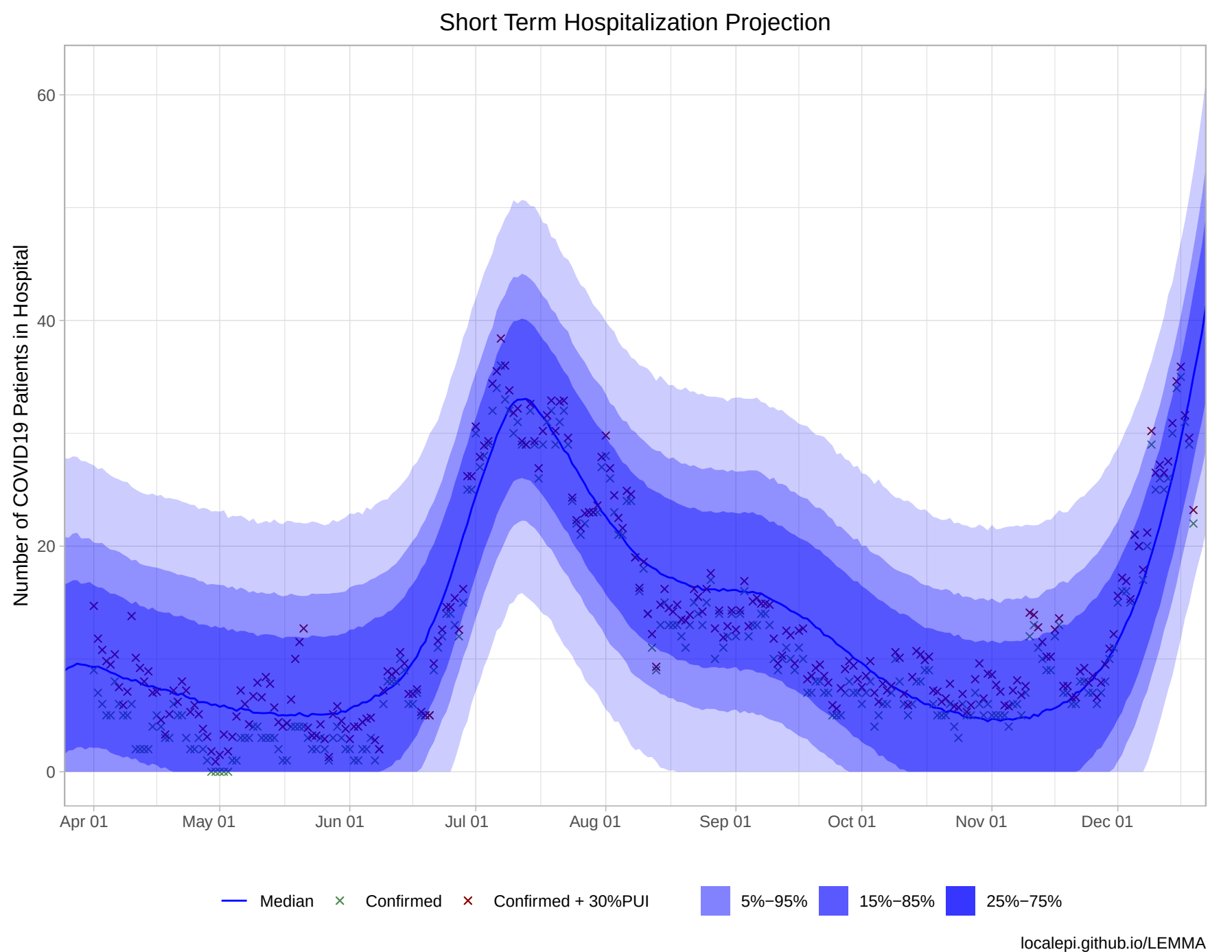
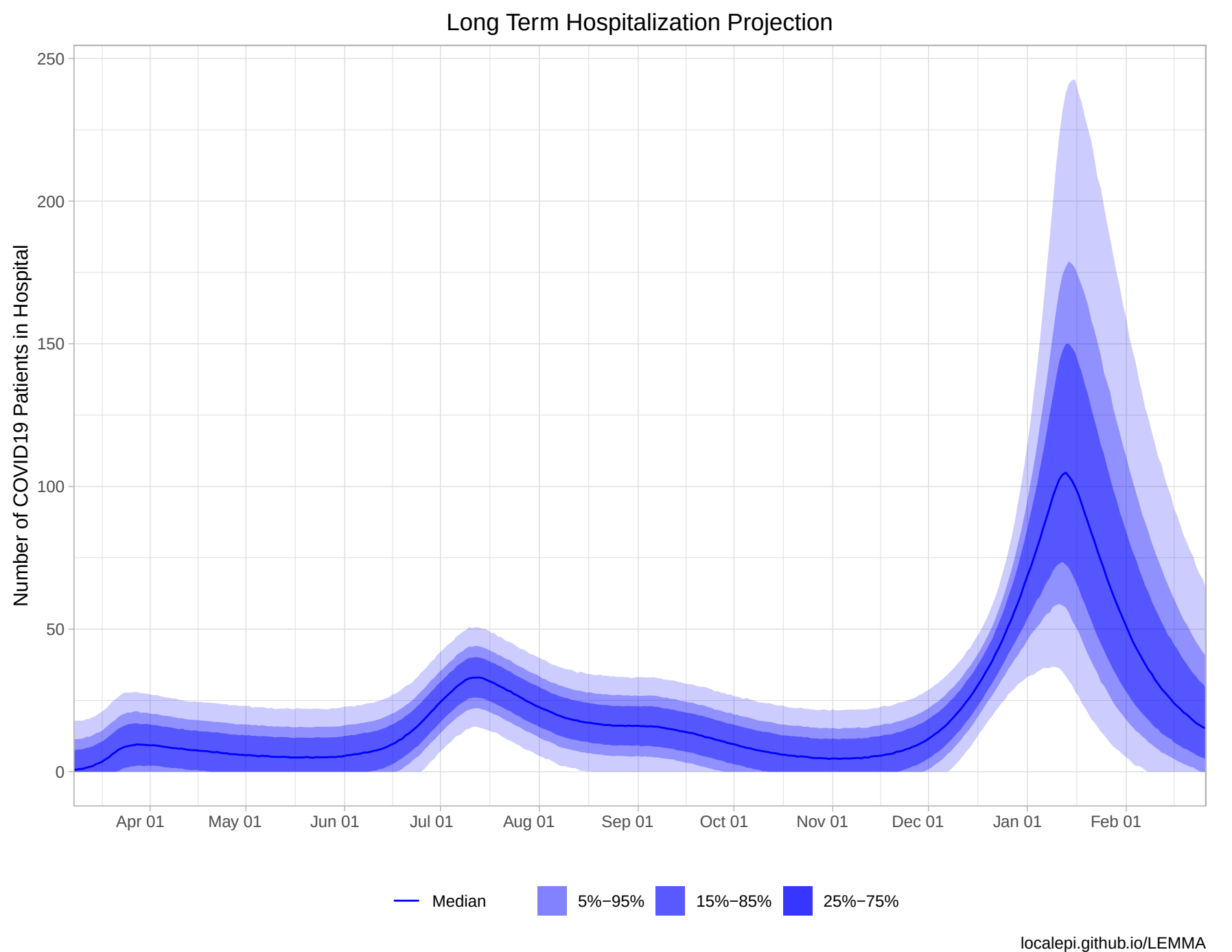
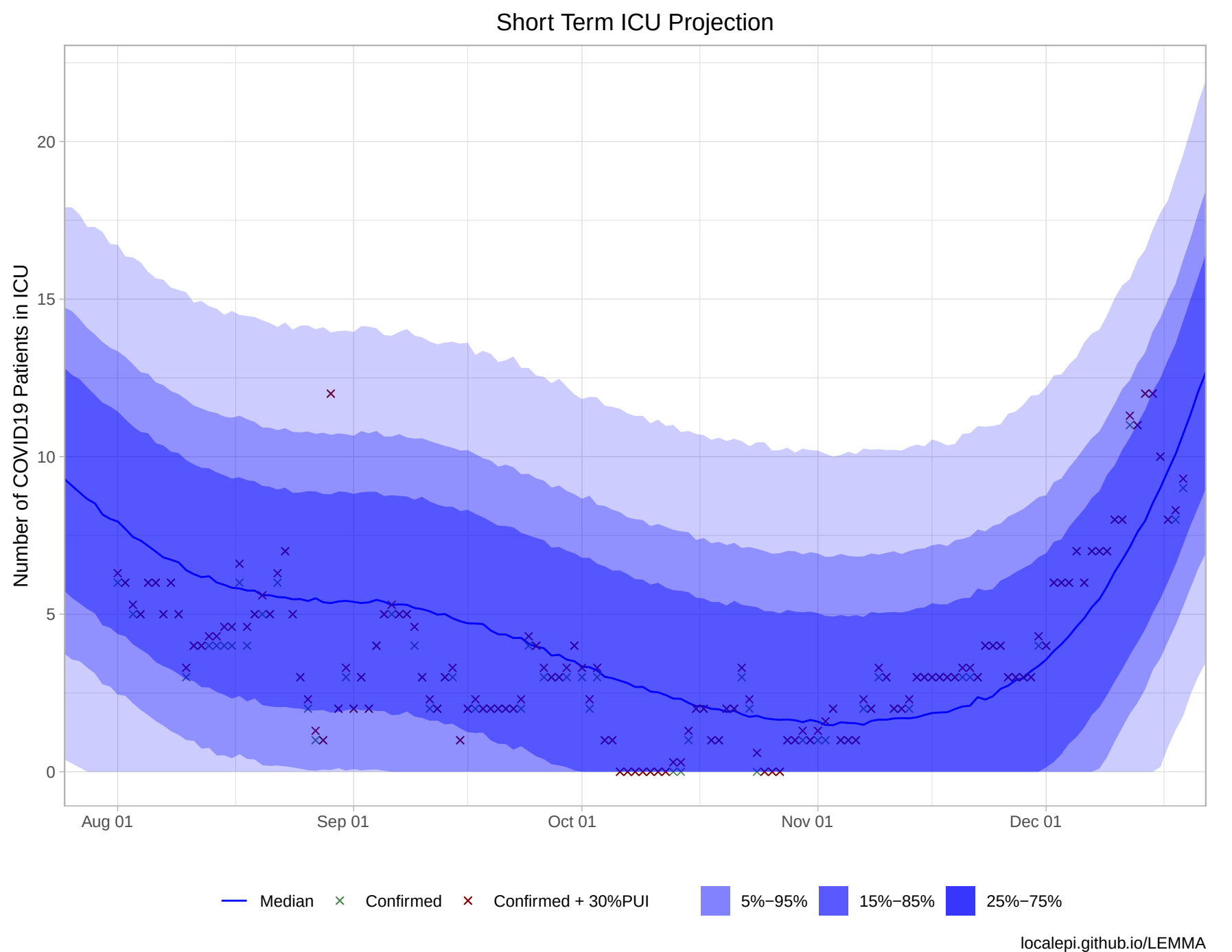
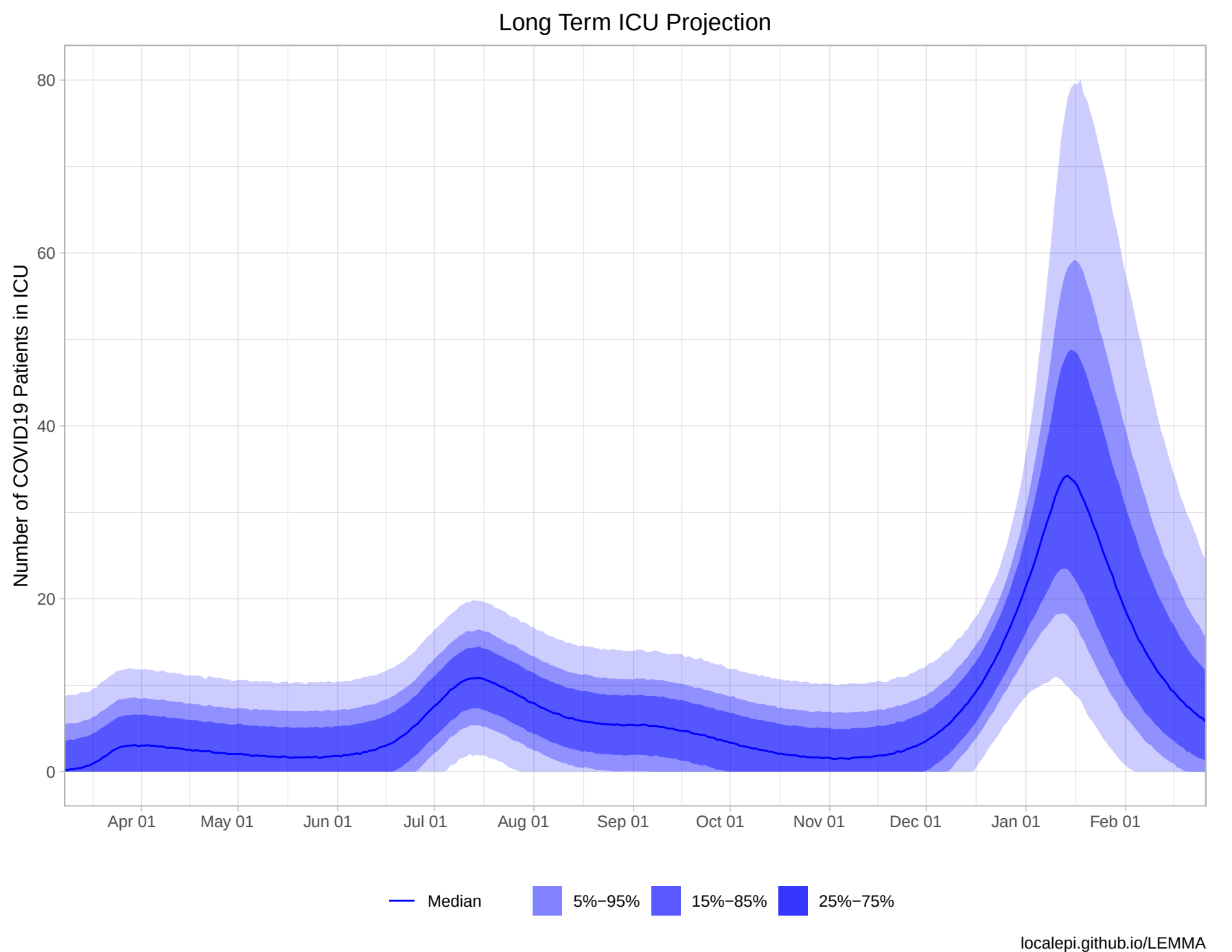
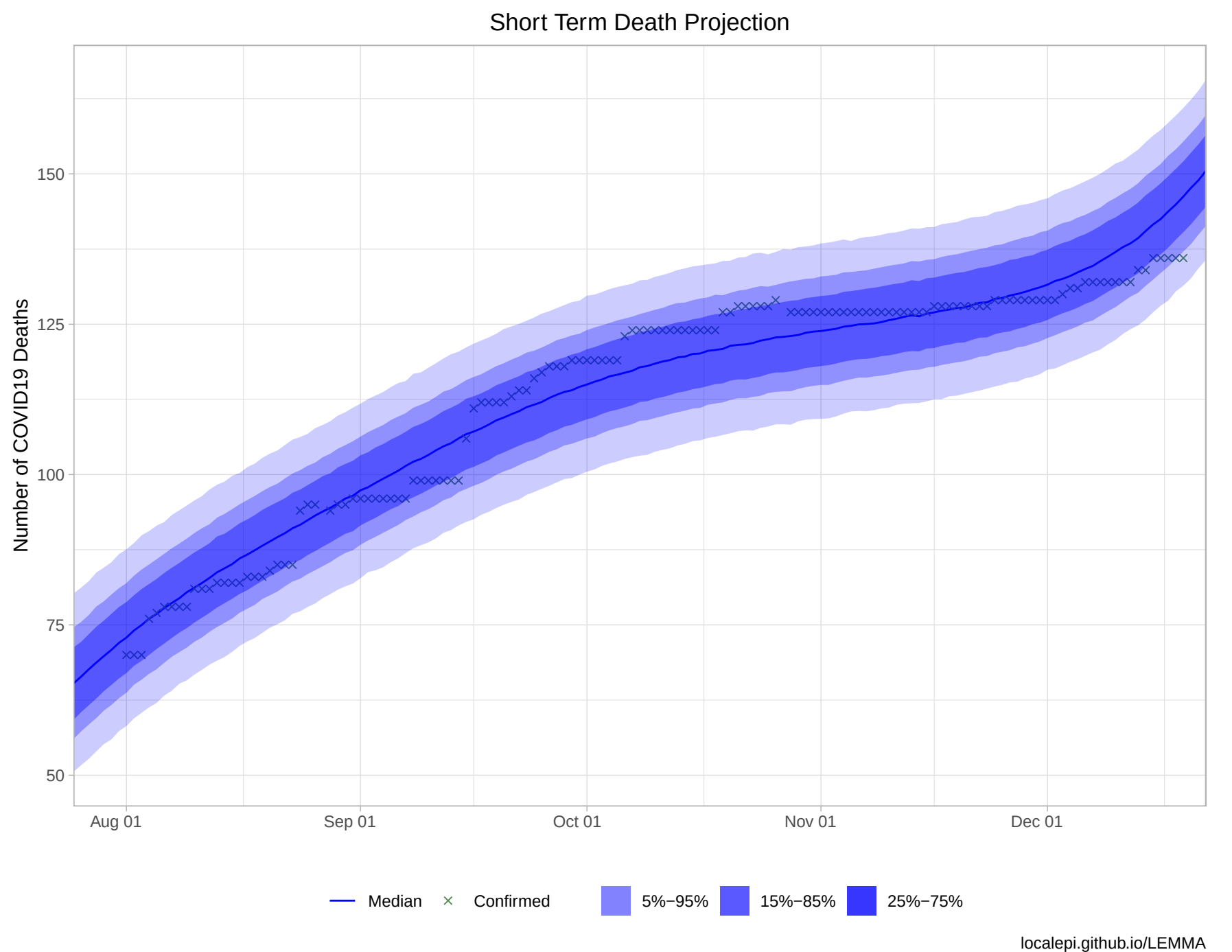
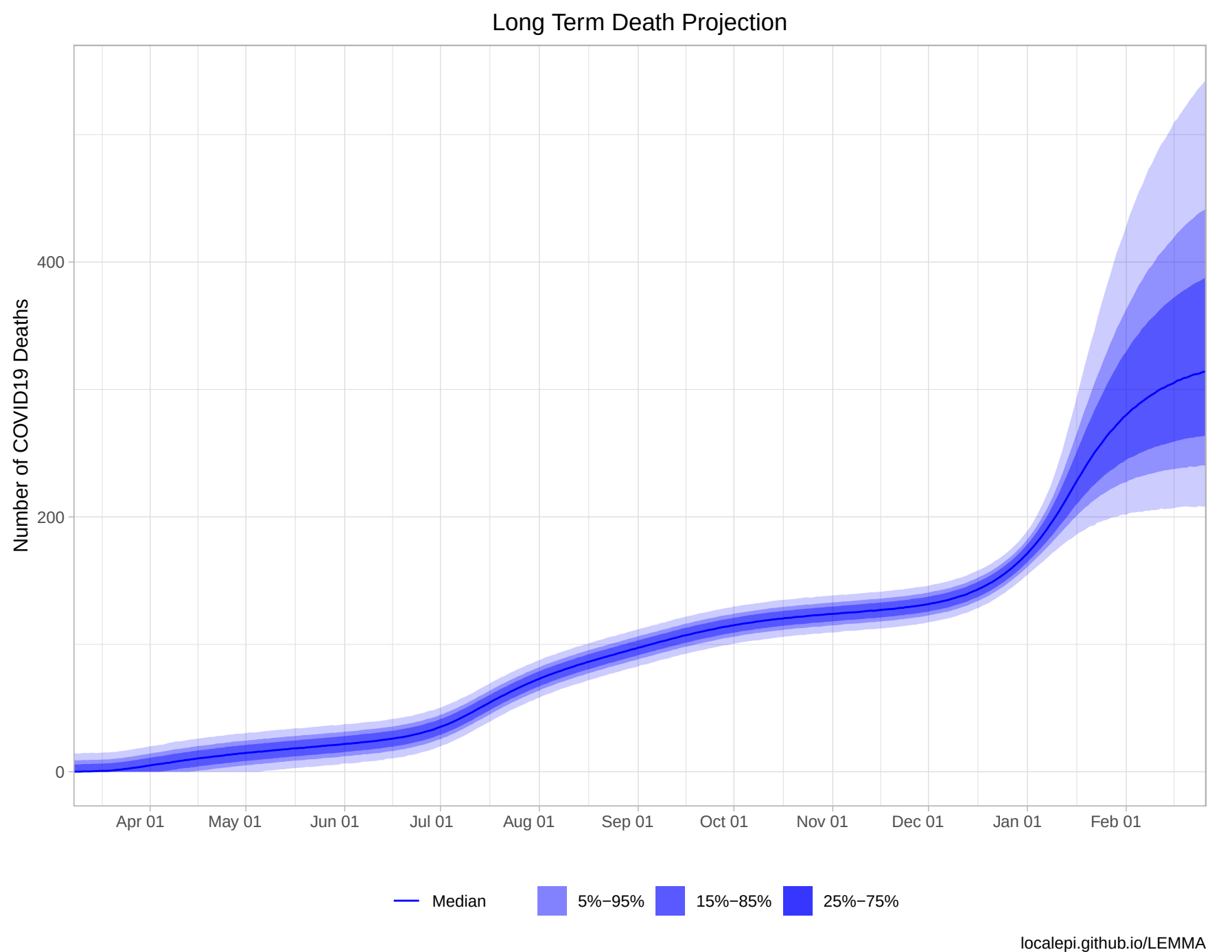

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
60
40
20
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

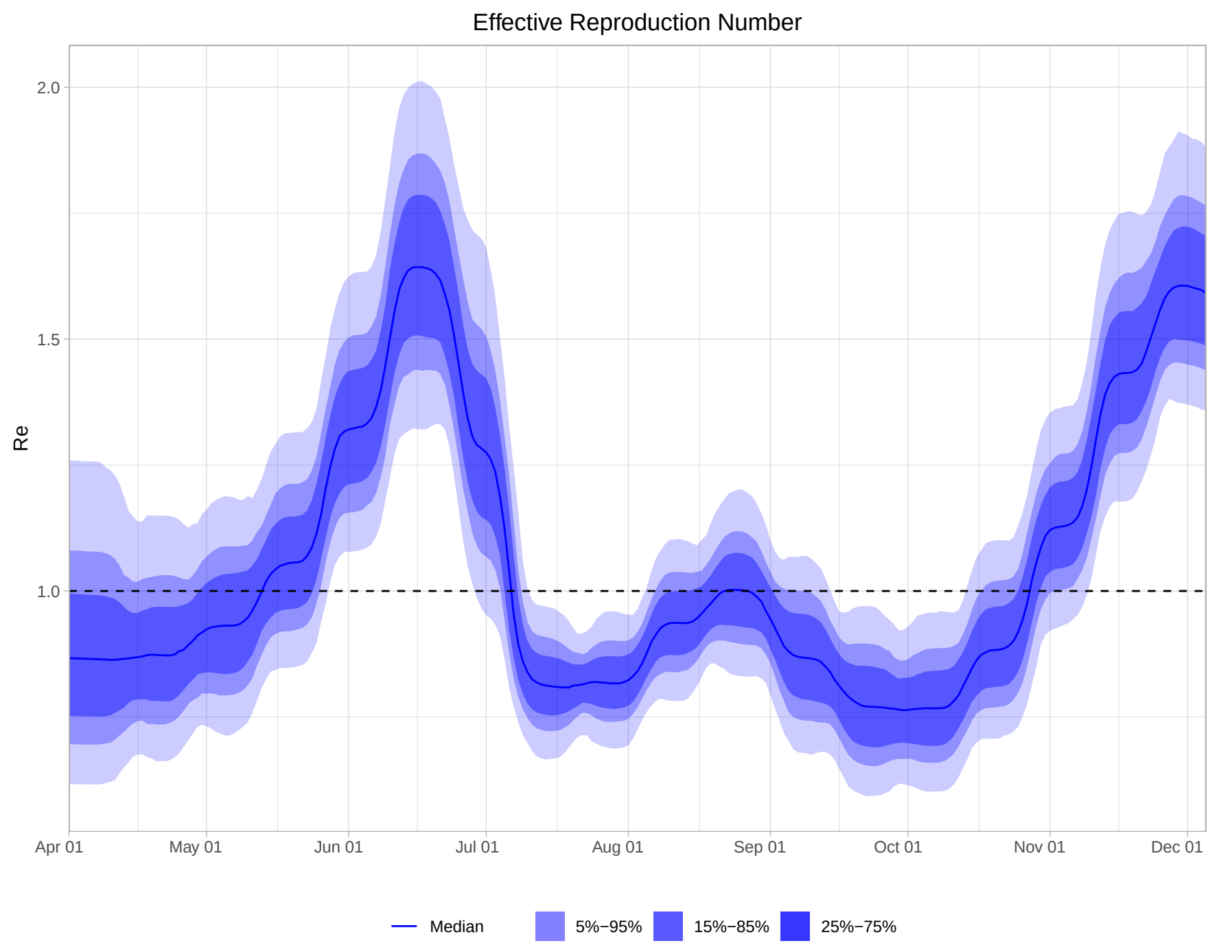

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
250
200
150
100
50
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
0
5
10
15
20
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
80
60
40
20
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

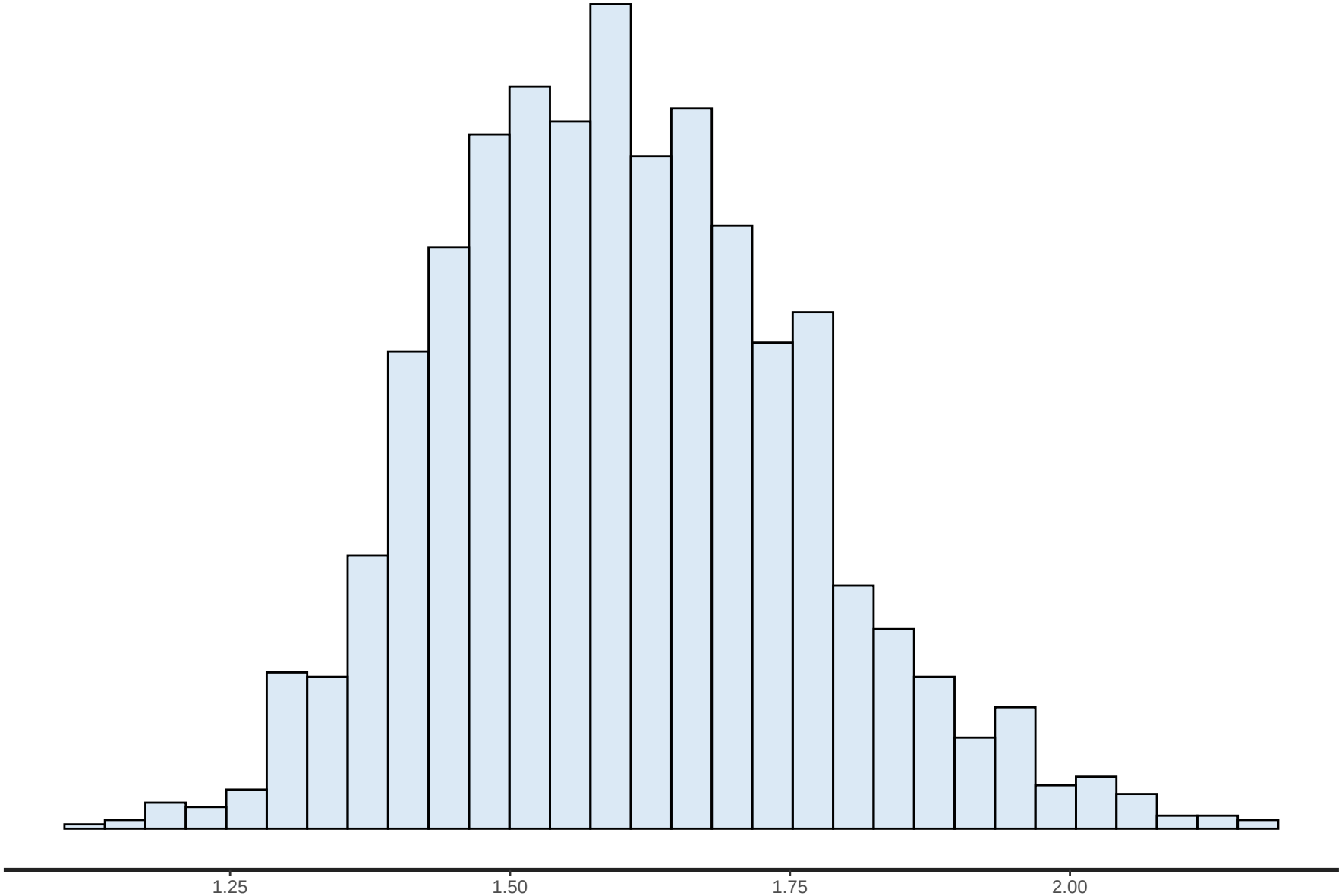

Short Term Death Projection
Number of COVID19 Deaths
150
125
100
75
50
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

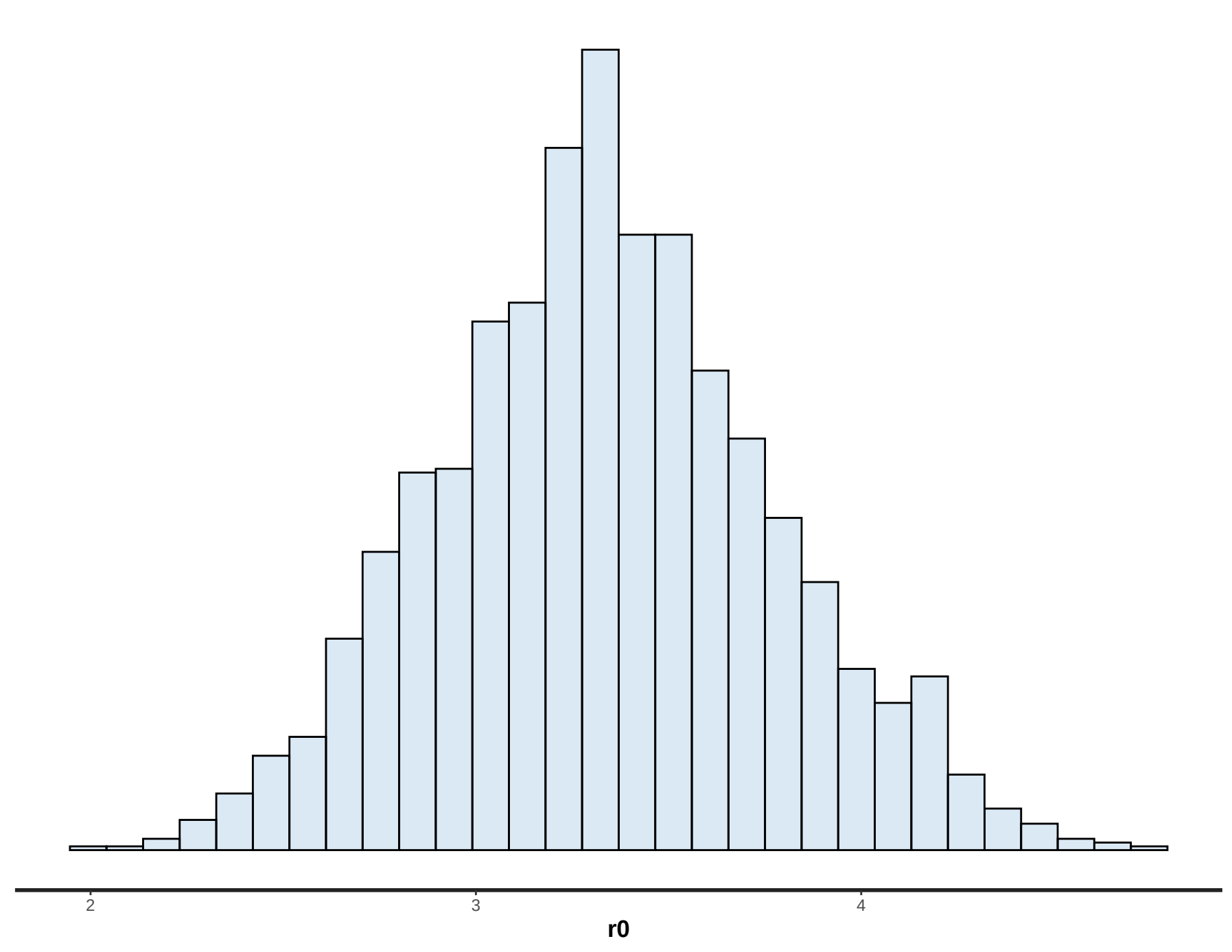

Long Term Death Projection
Number of COVID19 Deaths
400
200
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

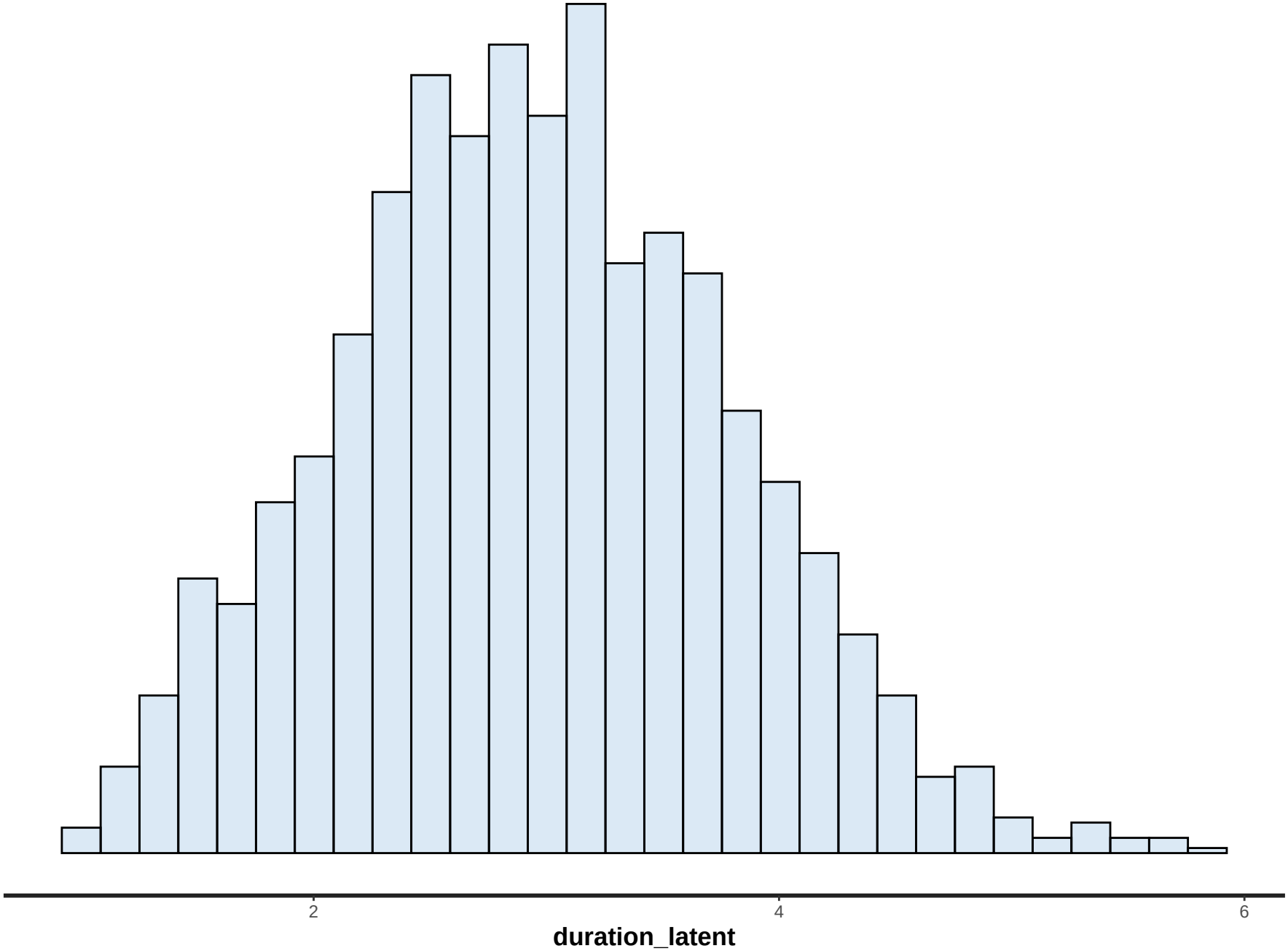

Effective Reproduction Number
Re
2.0
1.5
1.0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

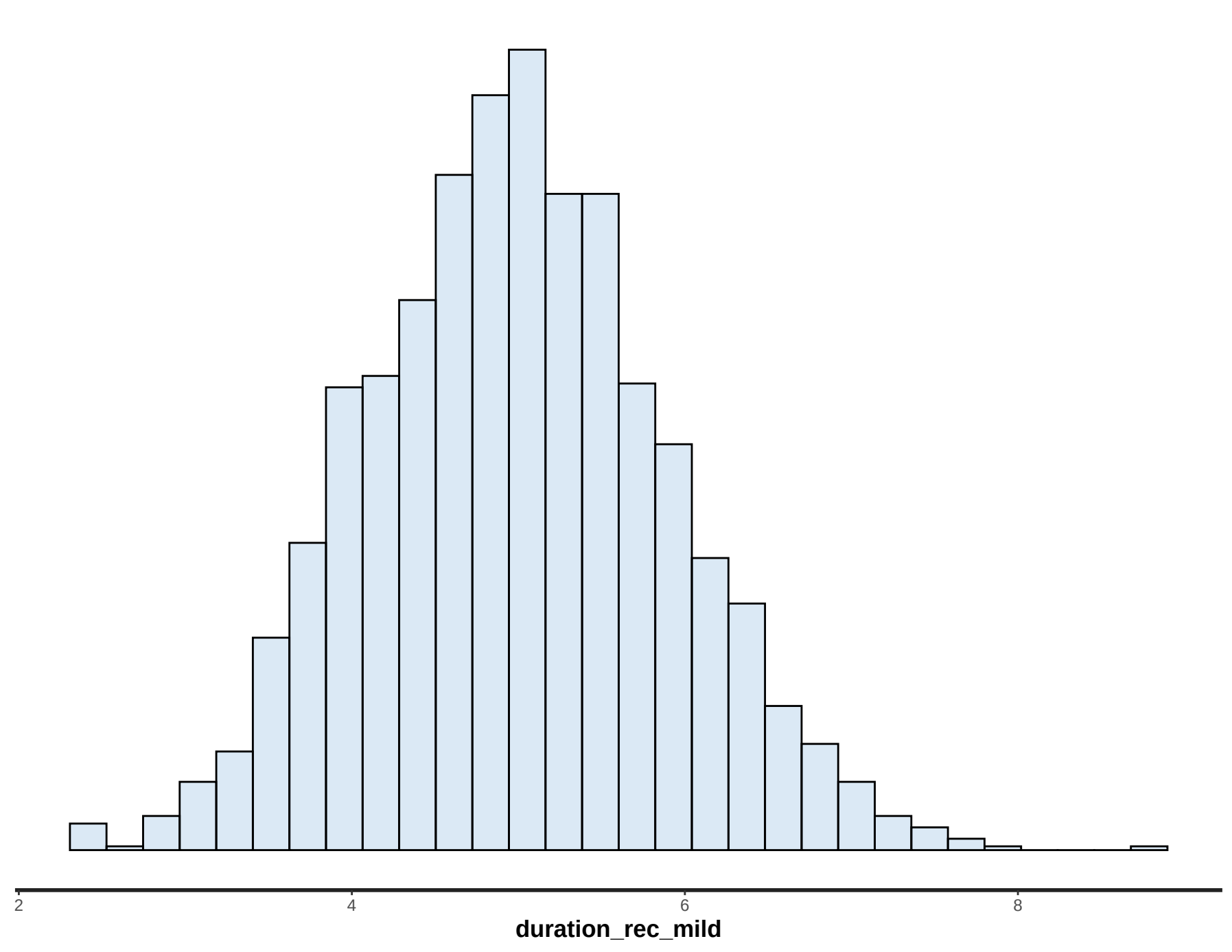
Rt as of 2020−12−05

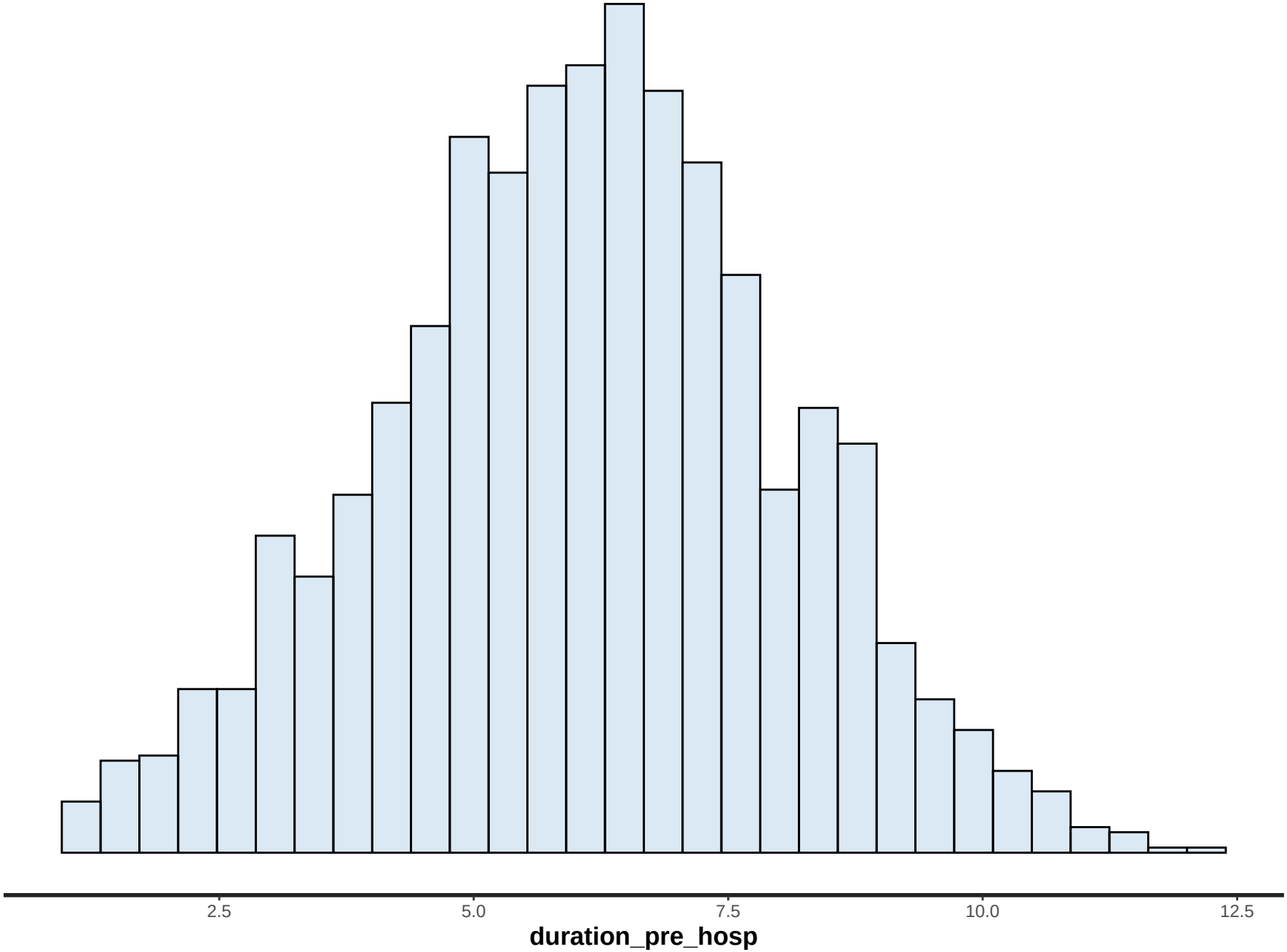
5%	10%	25%	50%	75%	90%	95%
1.36	1.41	1.49	1.59	1.70	1.80	1.88

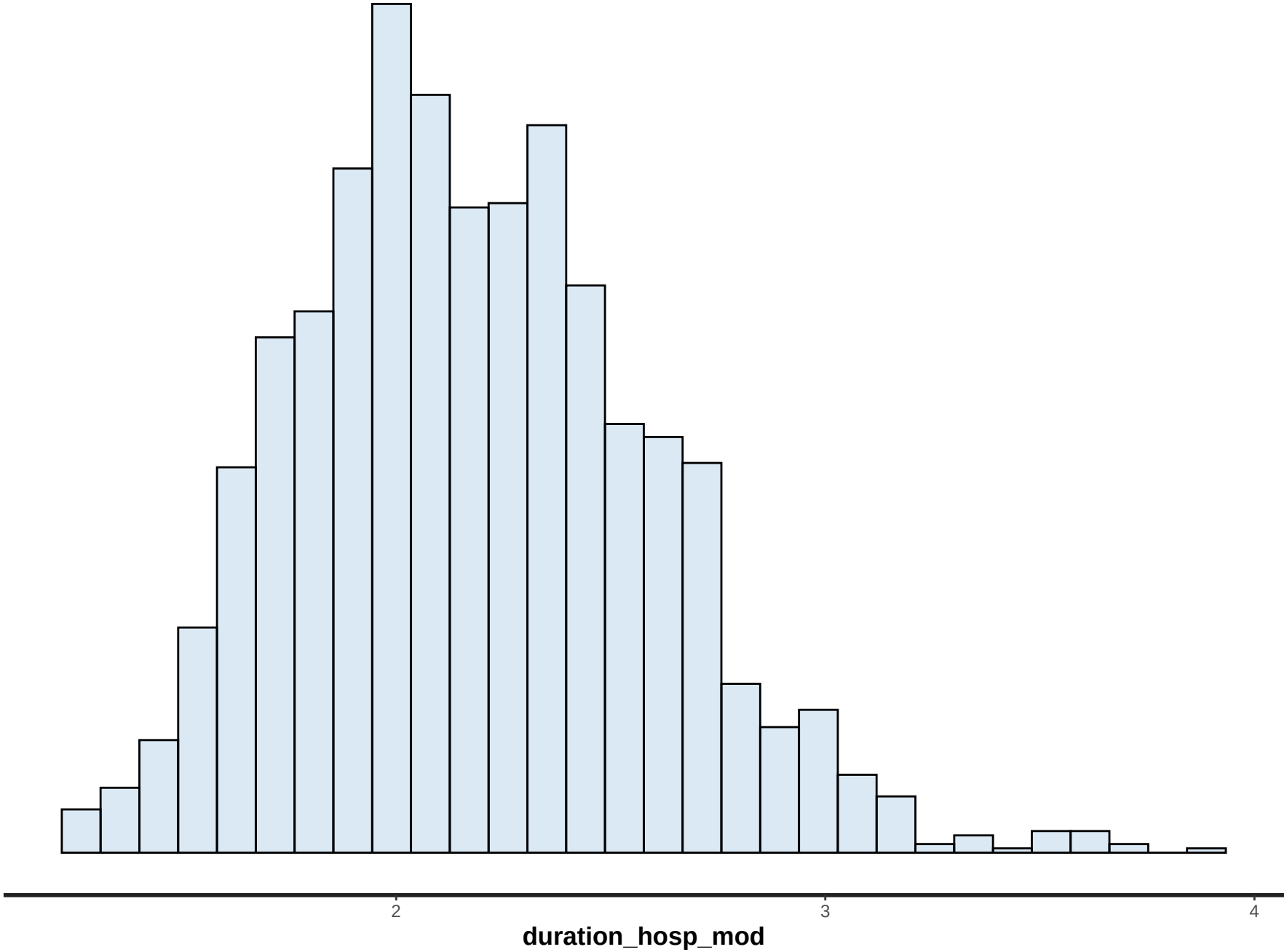


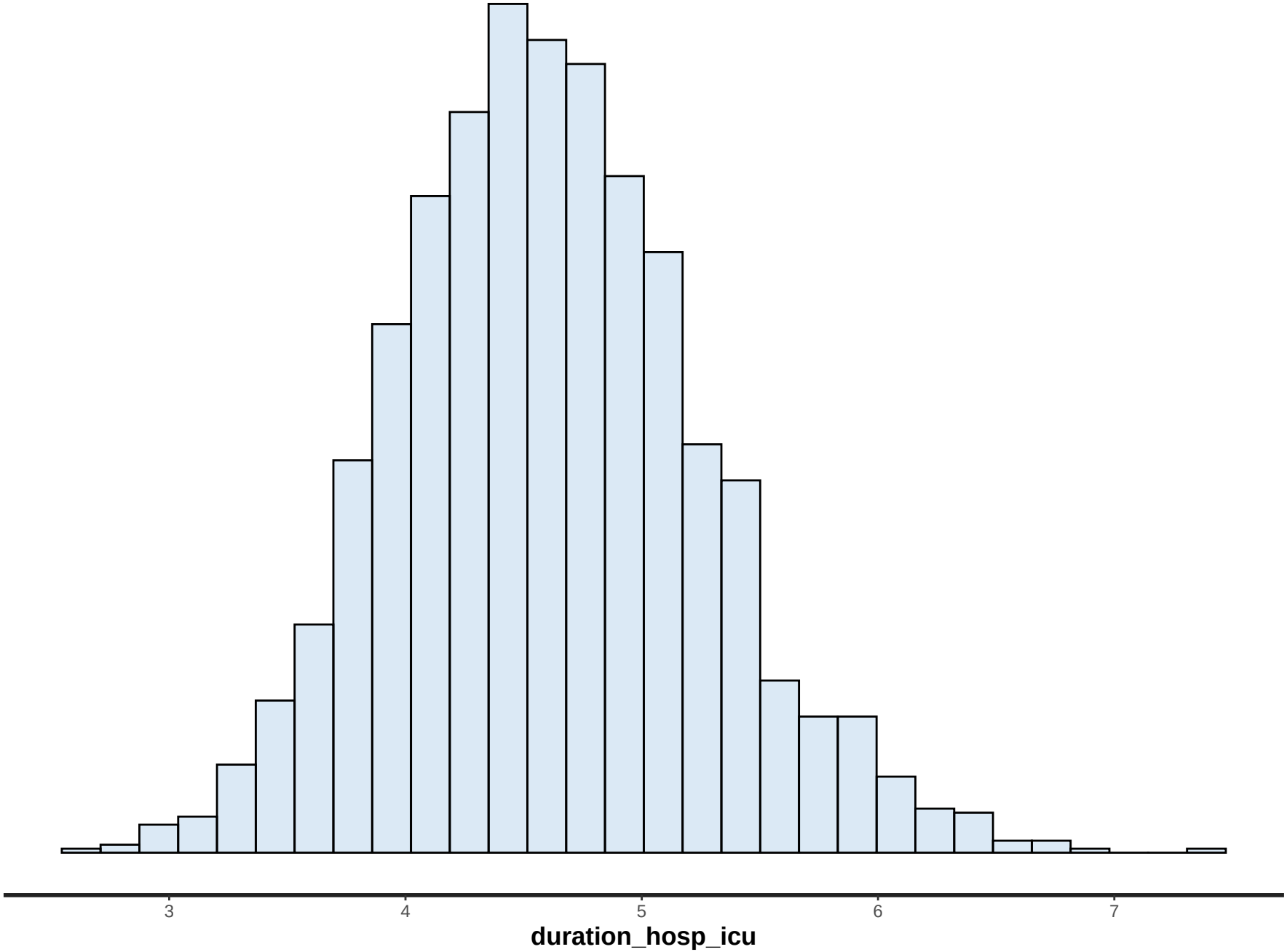

2
3
4
r0

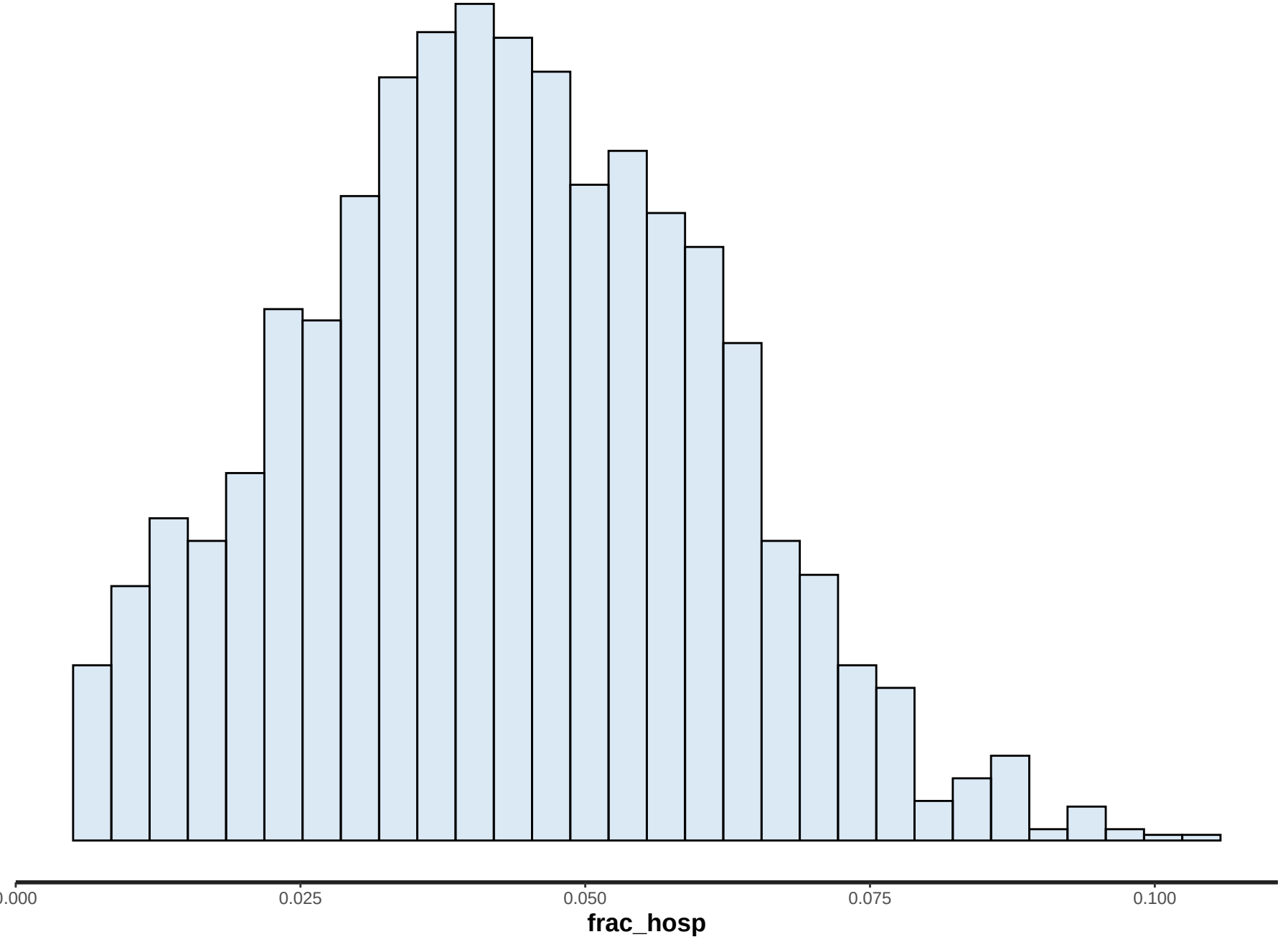

2
4
6
duration_latent

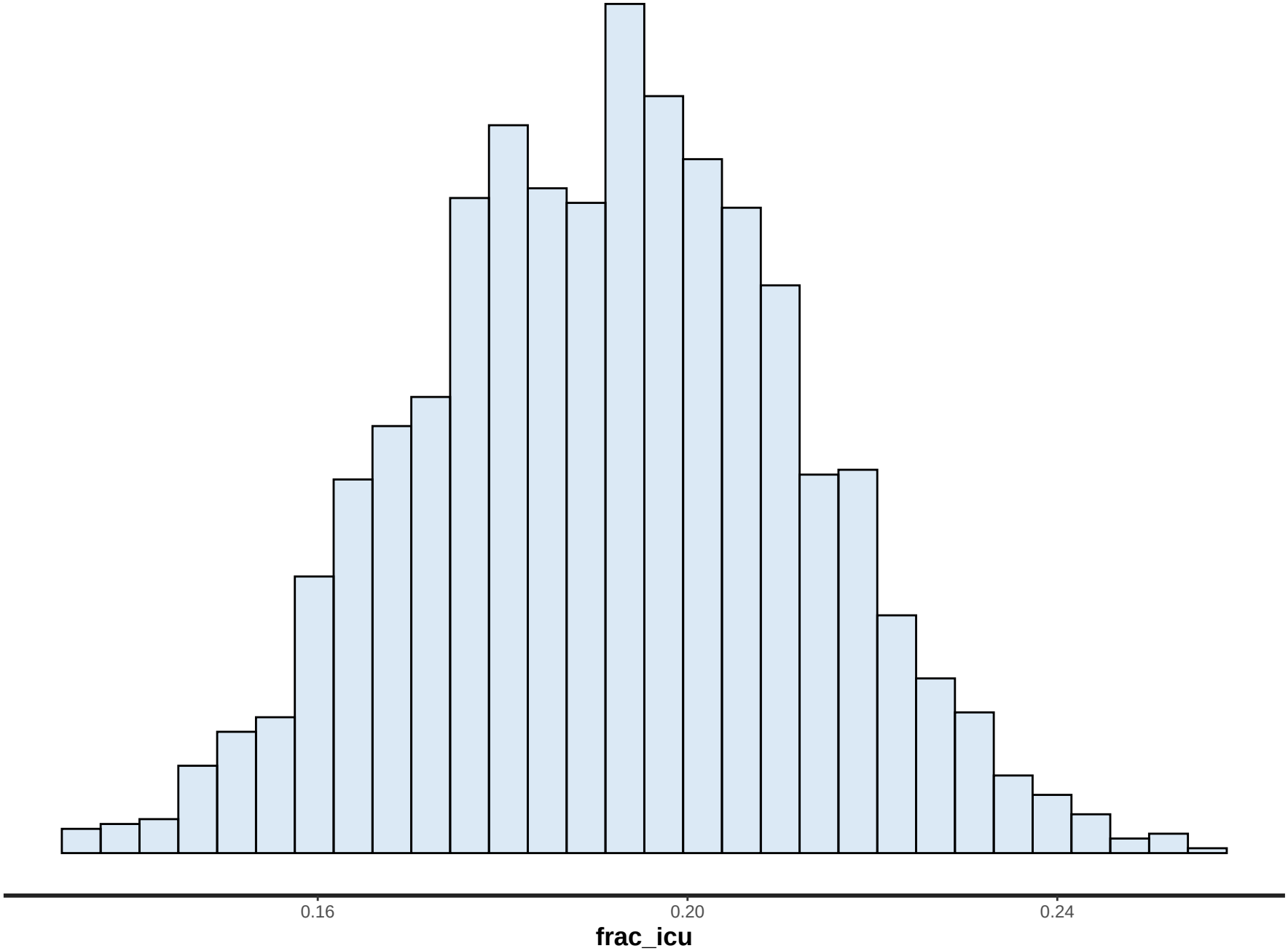

2
4
6
8
duration_rec_mild

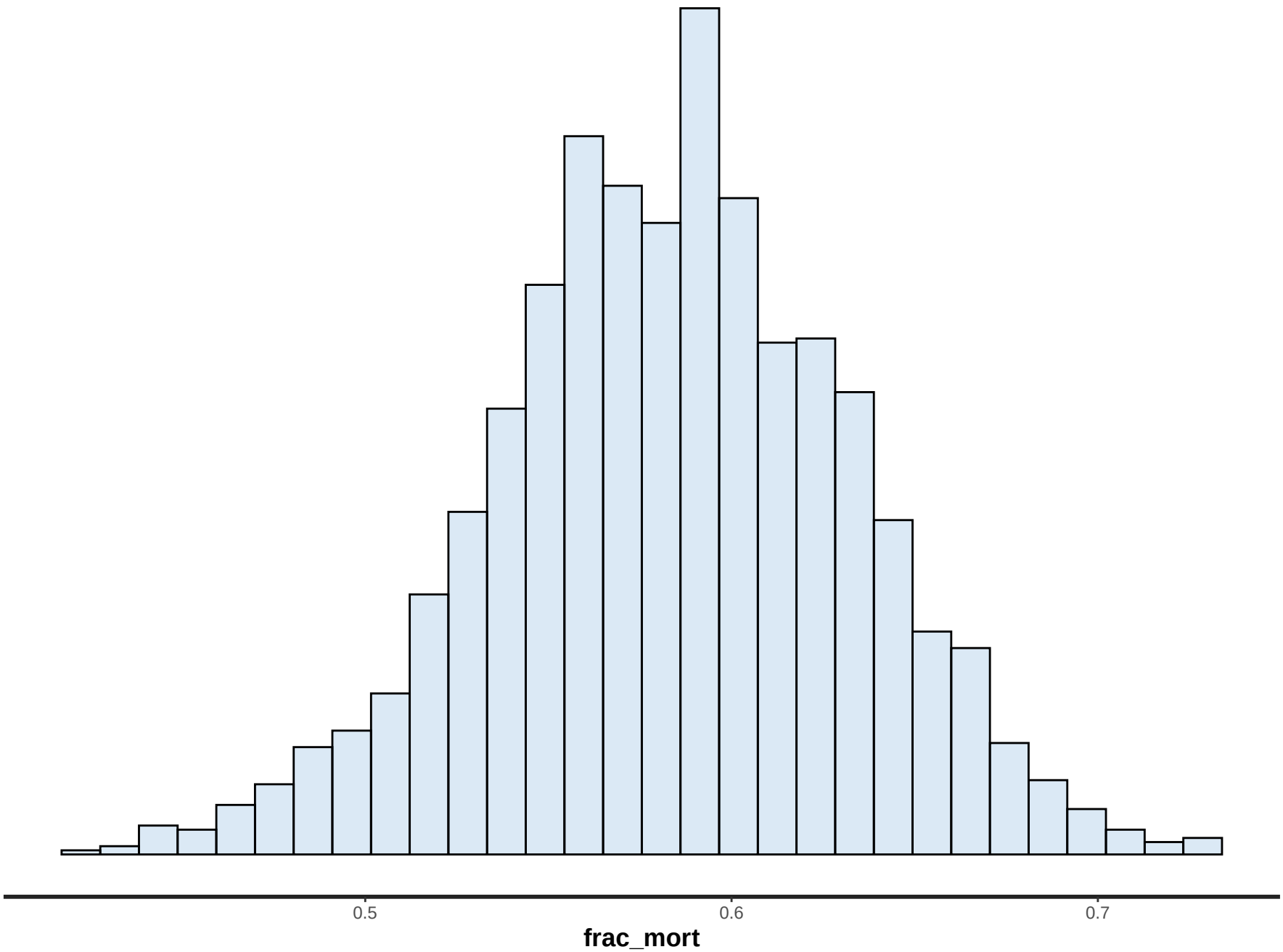

2.5
5.0
7.5
10.0
12.5
duration_pre_hosp

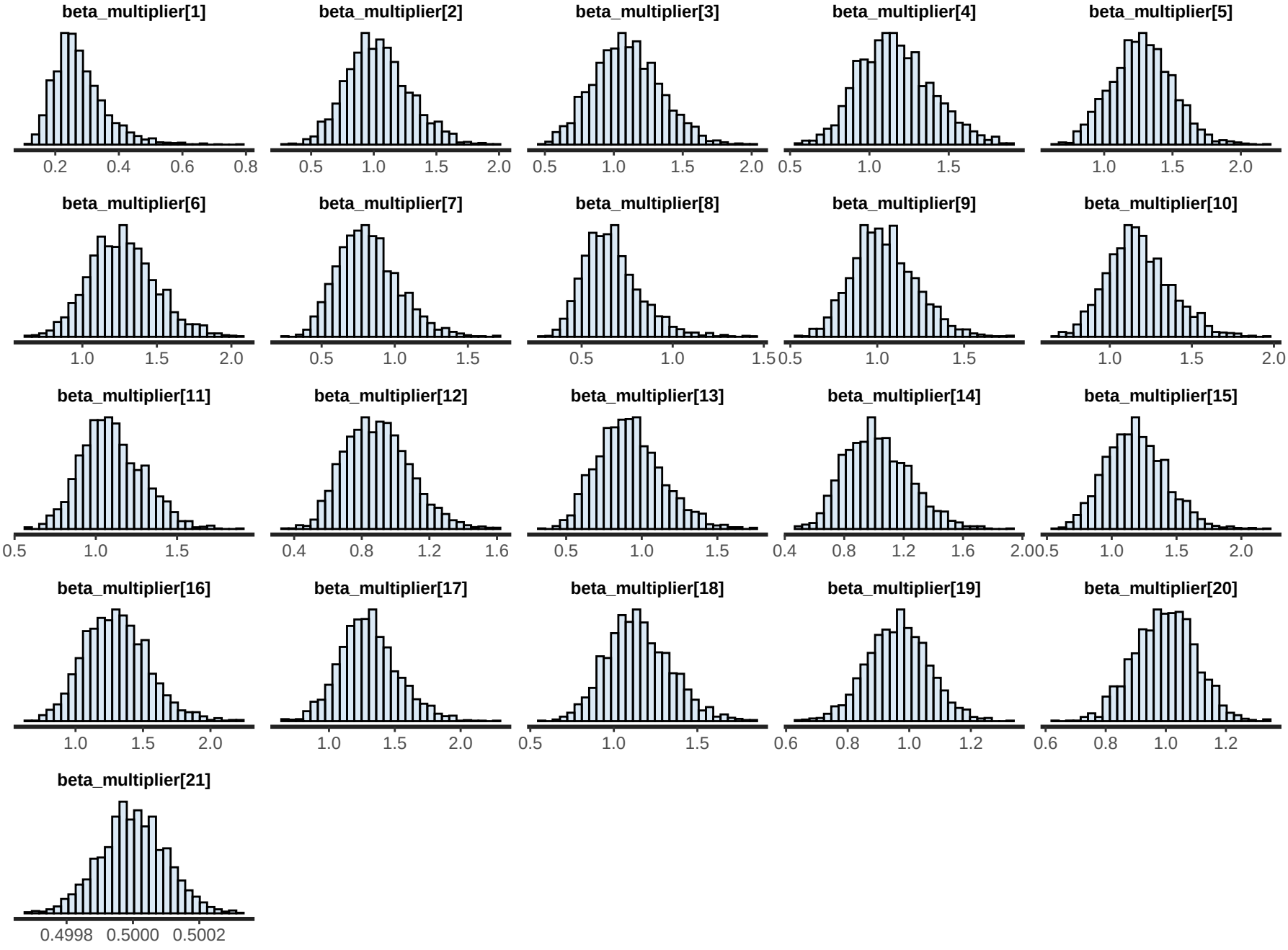

2
3
4
duration_hosp_mod

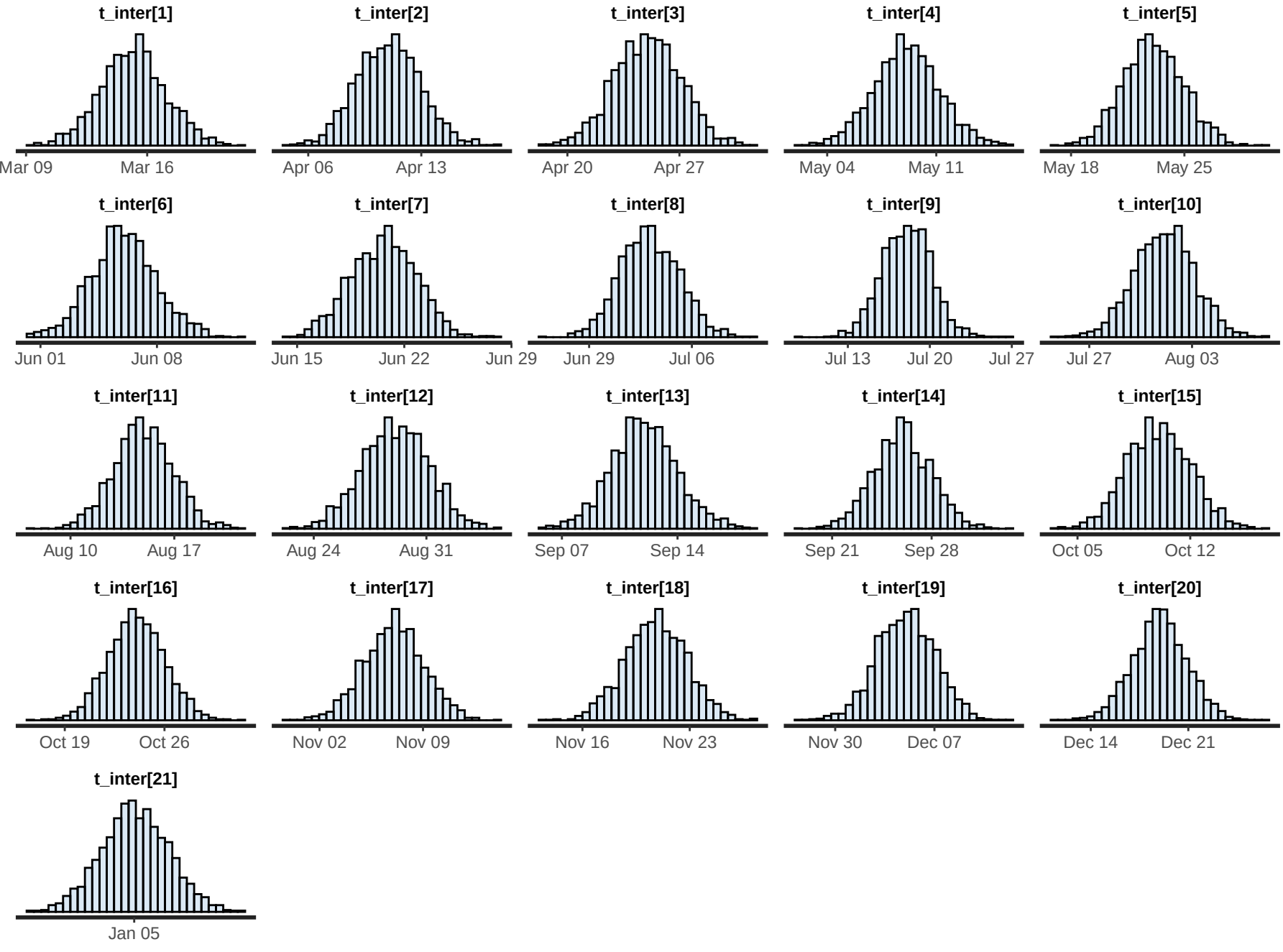

3
4
5
6
7
duration_hosp_icu


0.000
0.025
0.050
0.075
0.100
frac_hosp


0.16
0.20
0.24
frac_icu


0.5
0.6
0.7
frac_mort


beta_multiplier[1]
0.2 0.4 0.6 0.8
beta_multiplier[2]
0.5 1.0 1.5 2.0
beta_multiplier[3]
0.5 1.0 1.5 2.0
beta_multiplier[4]
0.5 1.0 1.5
beta_multiplier[5]
1.0 1.5 2.0
beta_multiplier[6]
1.0 1.5 2.0
beta_multiplier[7]
0.5 1.0 1.5
beta_multiplier[8]
0.5 1.0 1.5
beta_multiplier[9]
0.5 1.0 1.5
beta_multiplier[10]
1.0 1.5 2.0
beta_multiplier[11]
0.5 1.0 1.5
beta_multiplier[12]
0.4 0.8 1.2 1.6
beta_multiplier[13]
0.5 1.0 1.5
beta_multiplier[14]
0.4 0.8 1.2 1.6 2.0
beta_multiplier[15]
0.5 1.0 1.5 2.0
beta_multiplier[16]
1.0 1.5 2.0
beta_multiplier[17]
1.0 1.5 2.0
beta_multiplier[18]
0.5 1.0 1.5
beta_multiplier[19]
0.6 0.8 1.0 1.2
beta_multiplier[20]
0.6 0.8 1.0 1.2
beta_multiplier[21]
0.4998 0.5000 0.5002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Mar 09
Mar 16
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Apr 06
Apr 13
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Apr 20
Apr 27
t_inter[4]
May 04
May 11
t_inter[5]
May 18
May 25
t_inter[6]
Jun 01
Jun 08
t_inter[7]
Jun 15
Jun 22
Jun 29
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Jun 29
Jul 06
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Jul 13
Jul 20
Jul 27
t_inter[10]
Jul 27
Aug 03
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Aug 10
Aug 17
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Aug 24
Aug 31
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Sep 07
Sep 14
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Sep 21
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Nov 02
Nov 09
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Nov 16
Nov 23
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Nov 30
Dec 07
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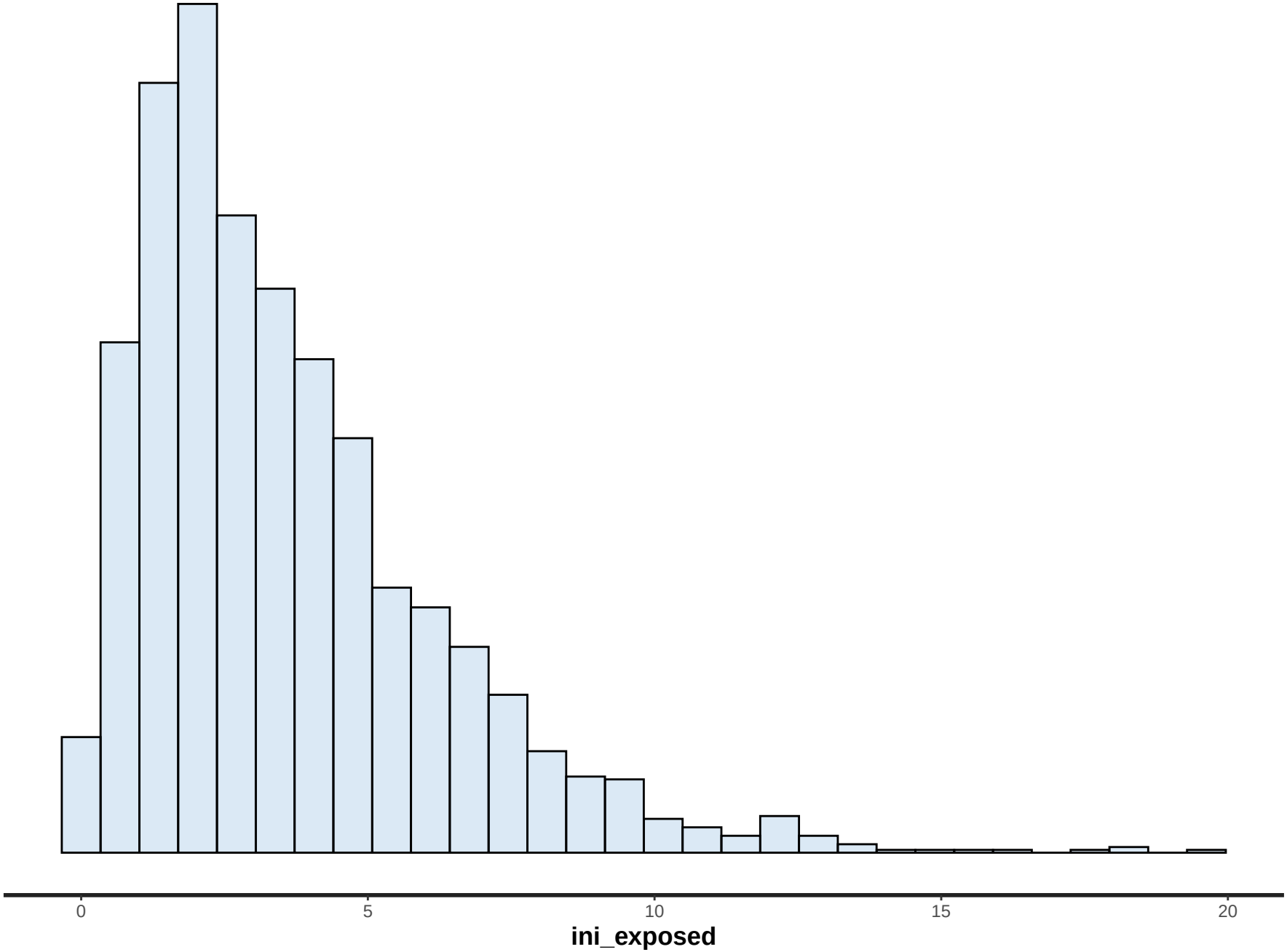
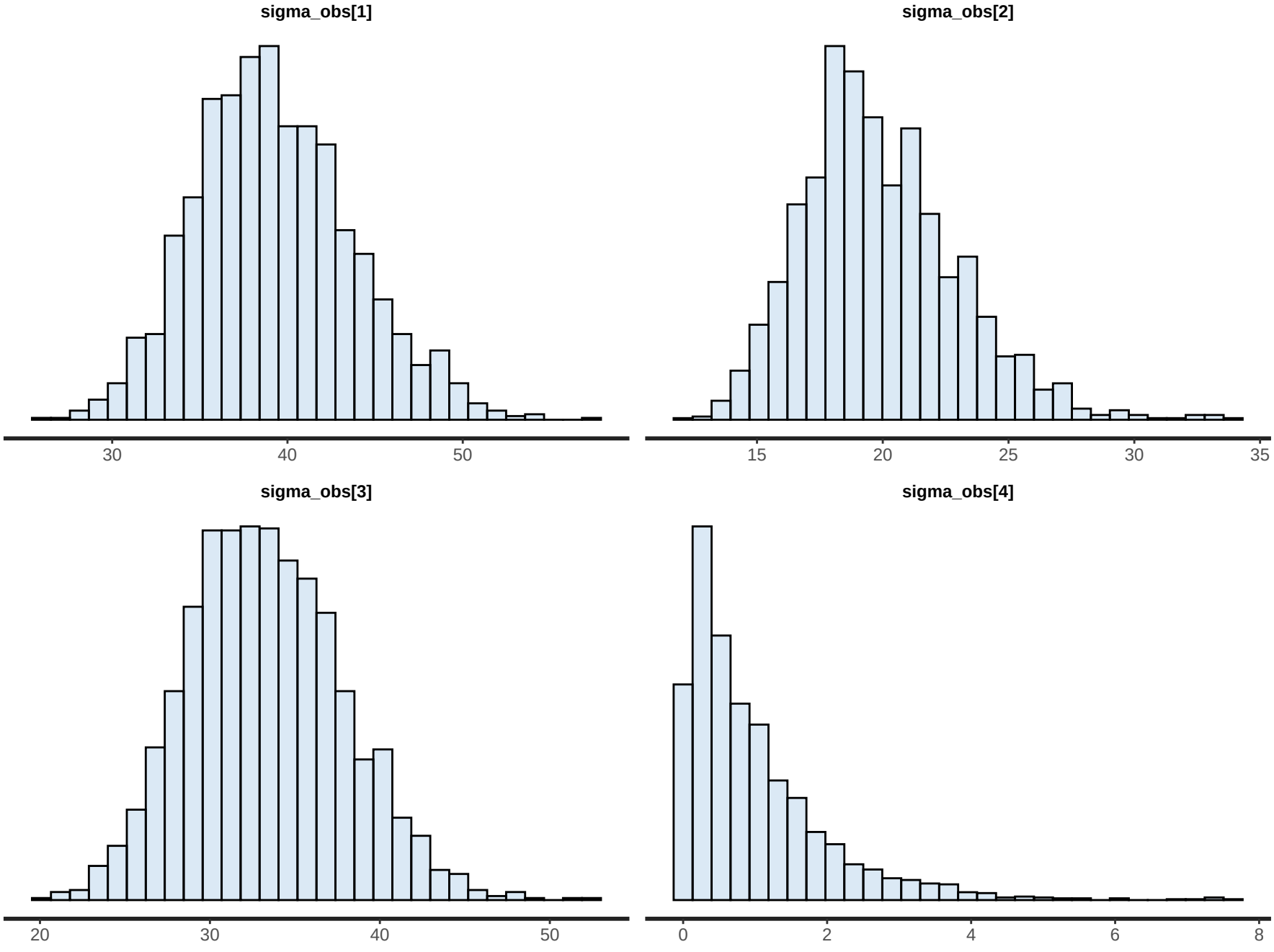
Dec 14
Dec 21
t_inter[21]
Jan 05


0
5
10
15
20
ini_exposed


sigma_obs[1]
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40
50
sigma_obs[2]
15
20
25
30
35
sigma_obs[3]
20
30
40
50
sigma_obs[4]
0
2
4
6
8