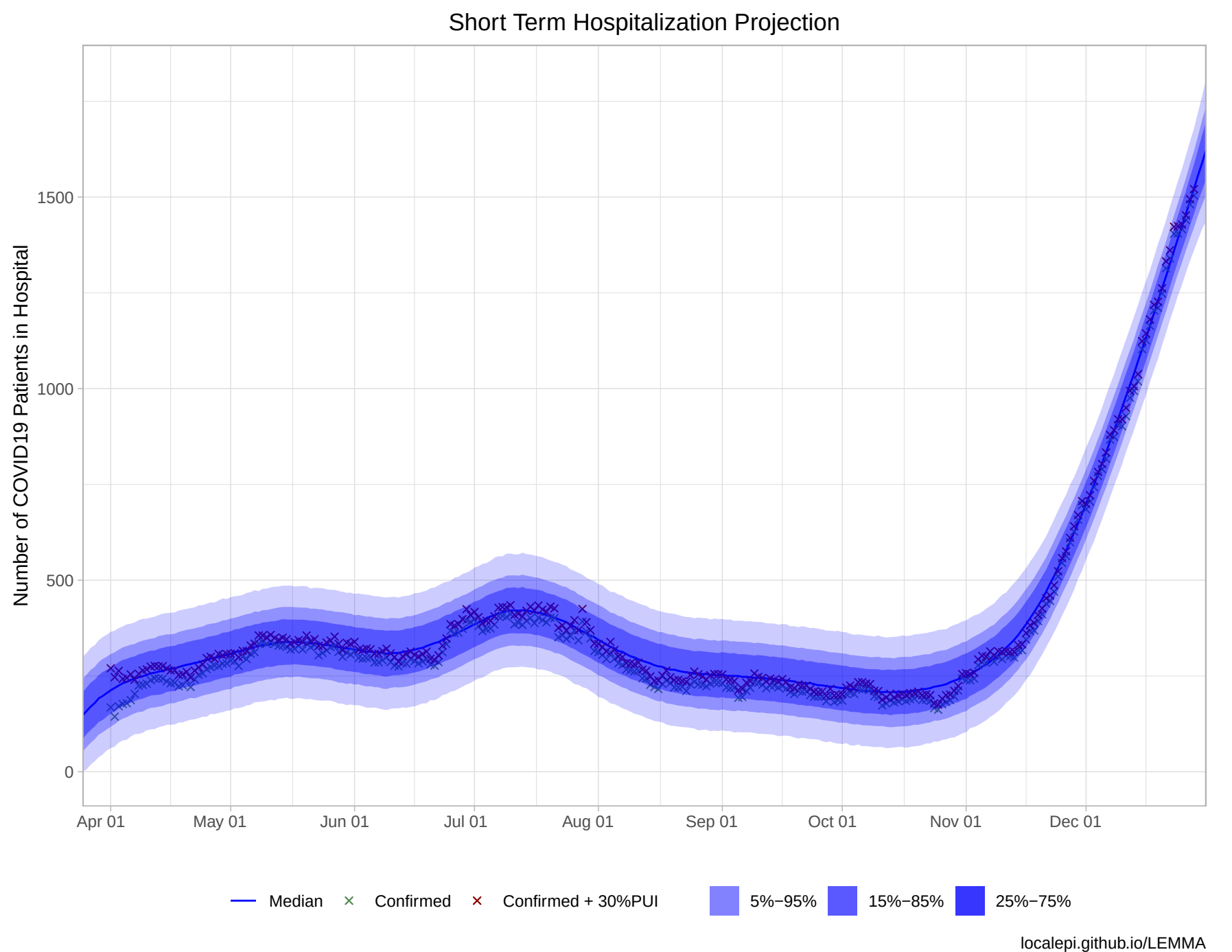
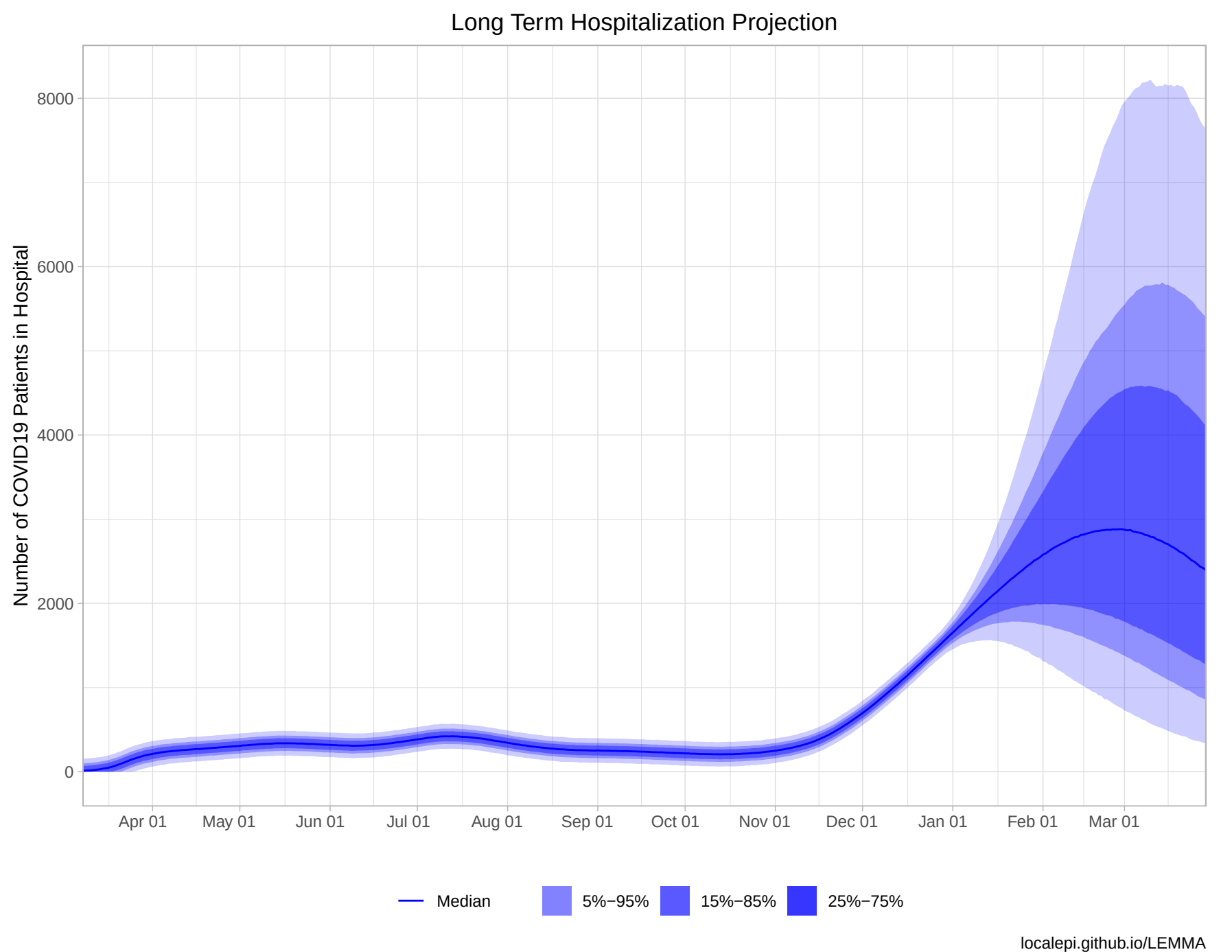
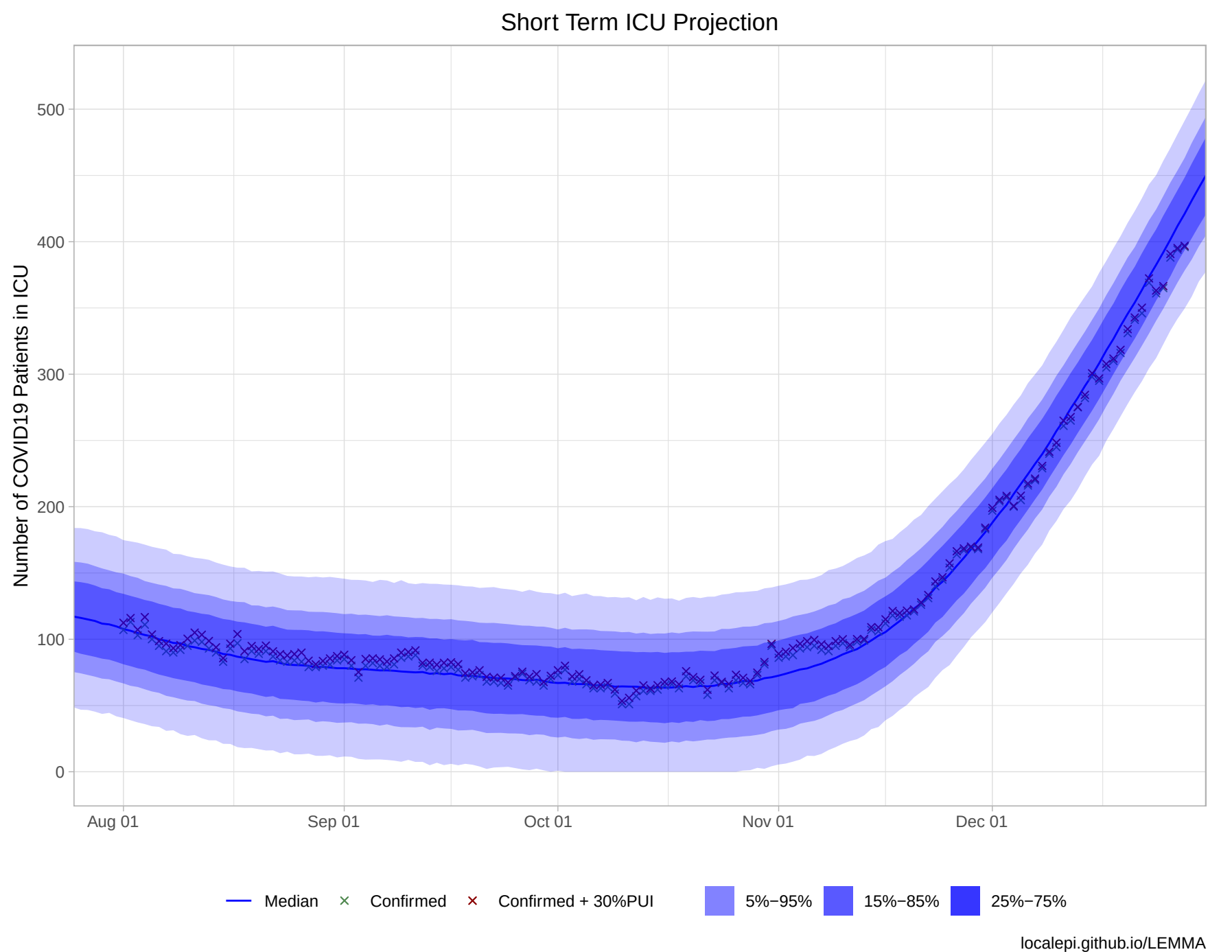
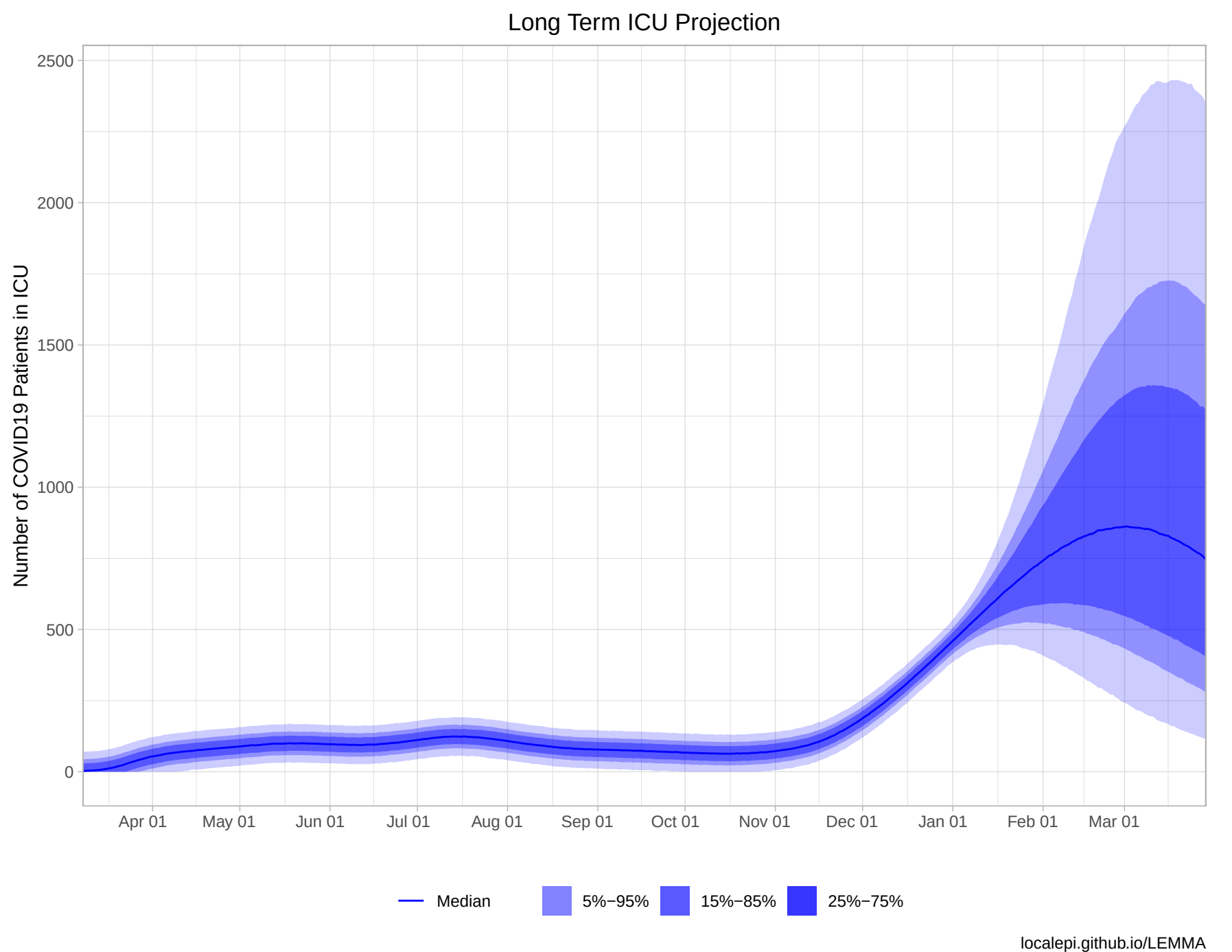
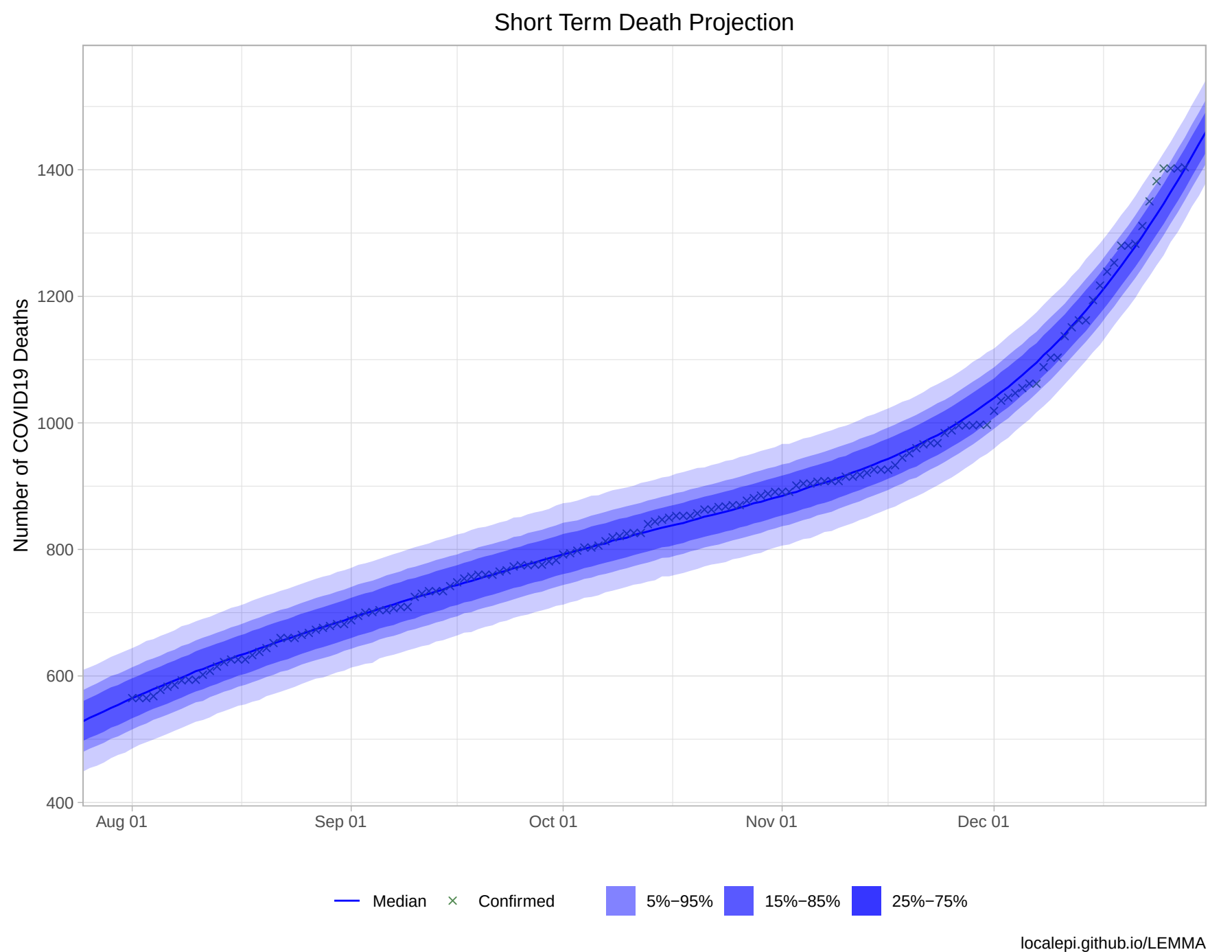
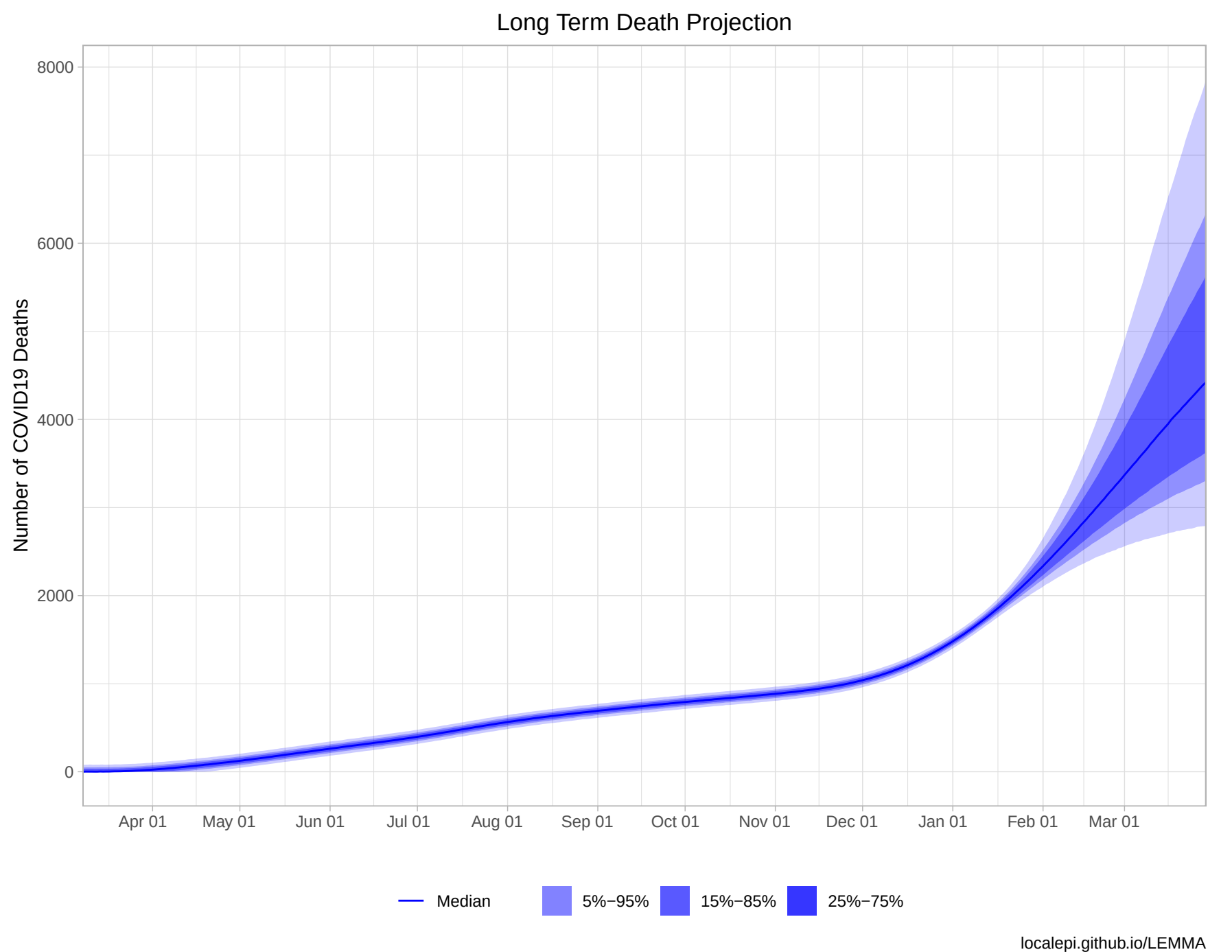

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
500
1000
1500
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

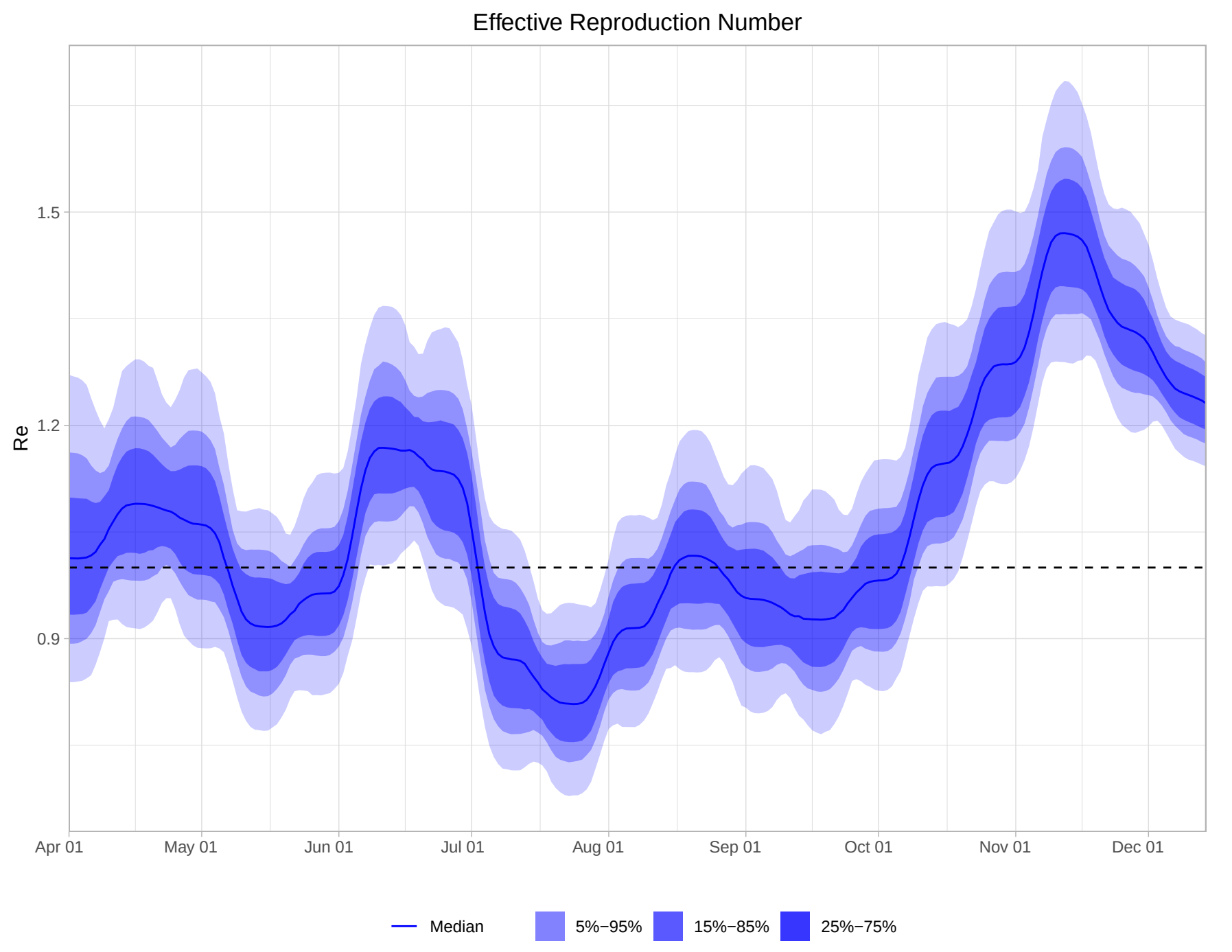

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
8000
6000
4000
2000
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
500
400
300
200
100
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
2500
2000
1500
1000
500
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

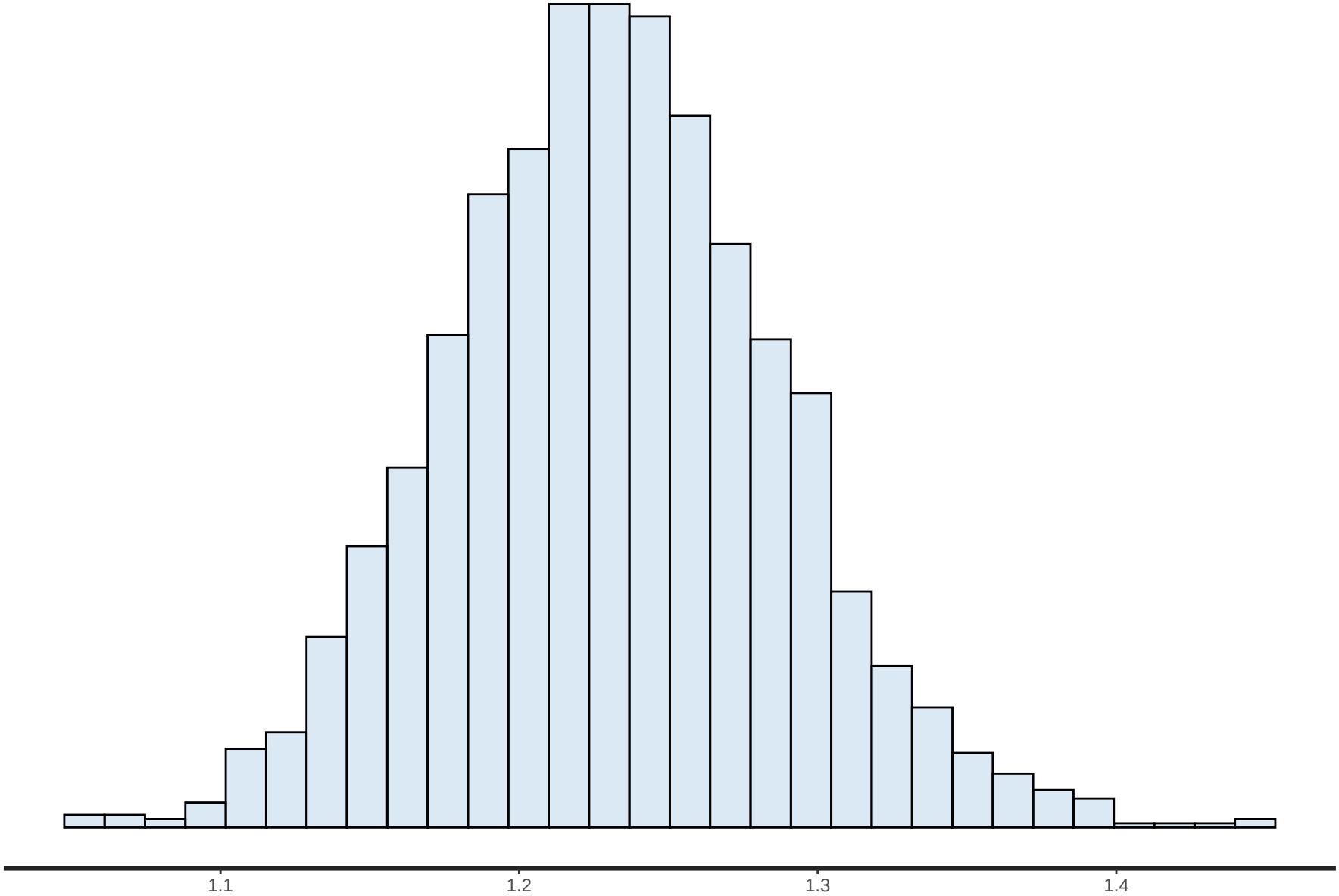

Short Term Death Projection
Number of COVID19 Deaths
1400
1200
1000
800
600
400
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

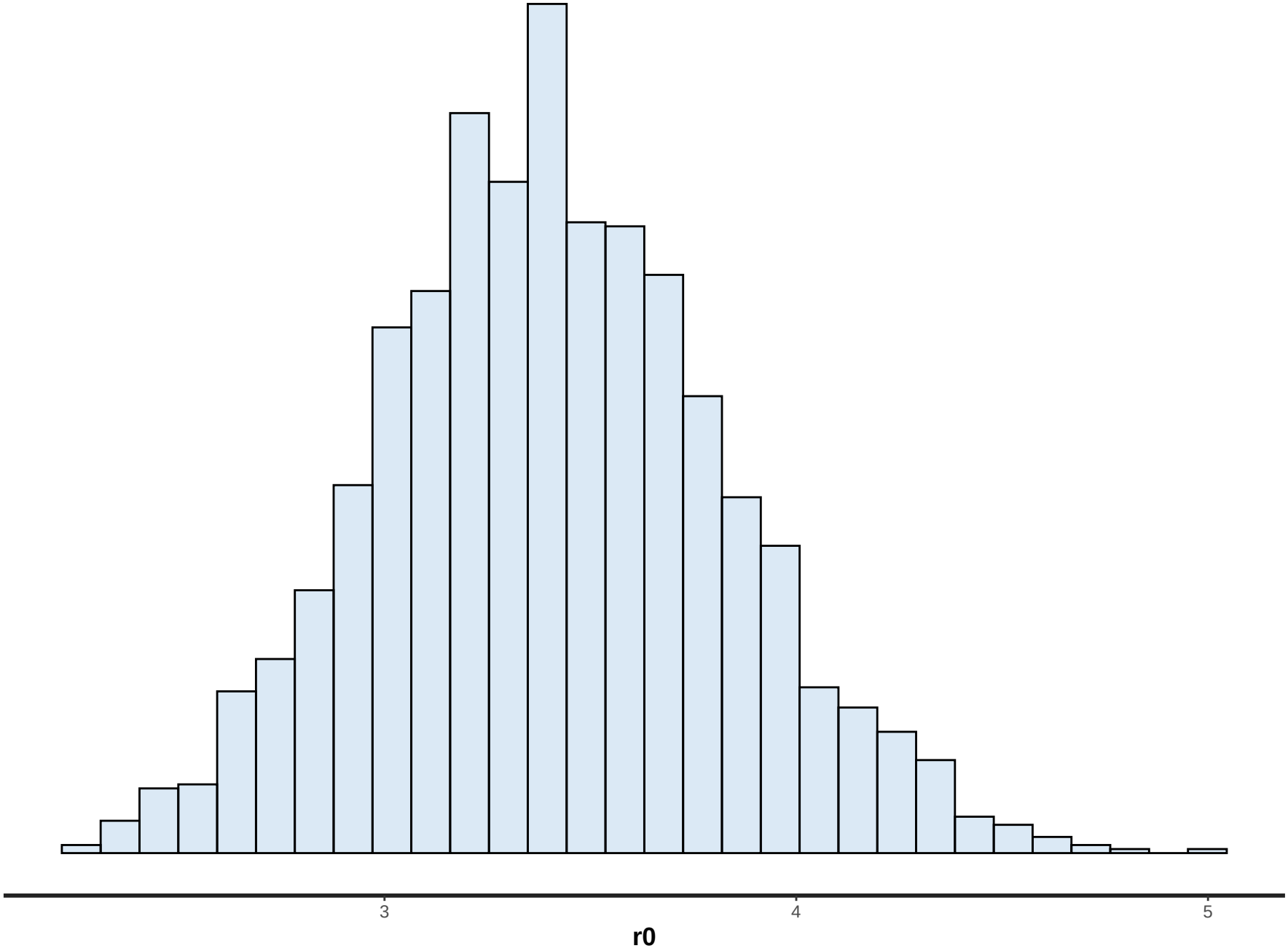

Long Term Death Projection
Number of COVID19 Deaths
8000
6000
4000
2000
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

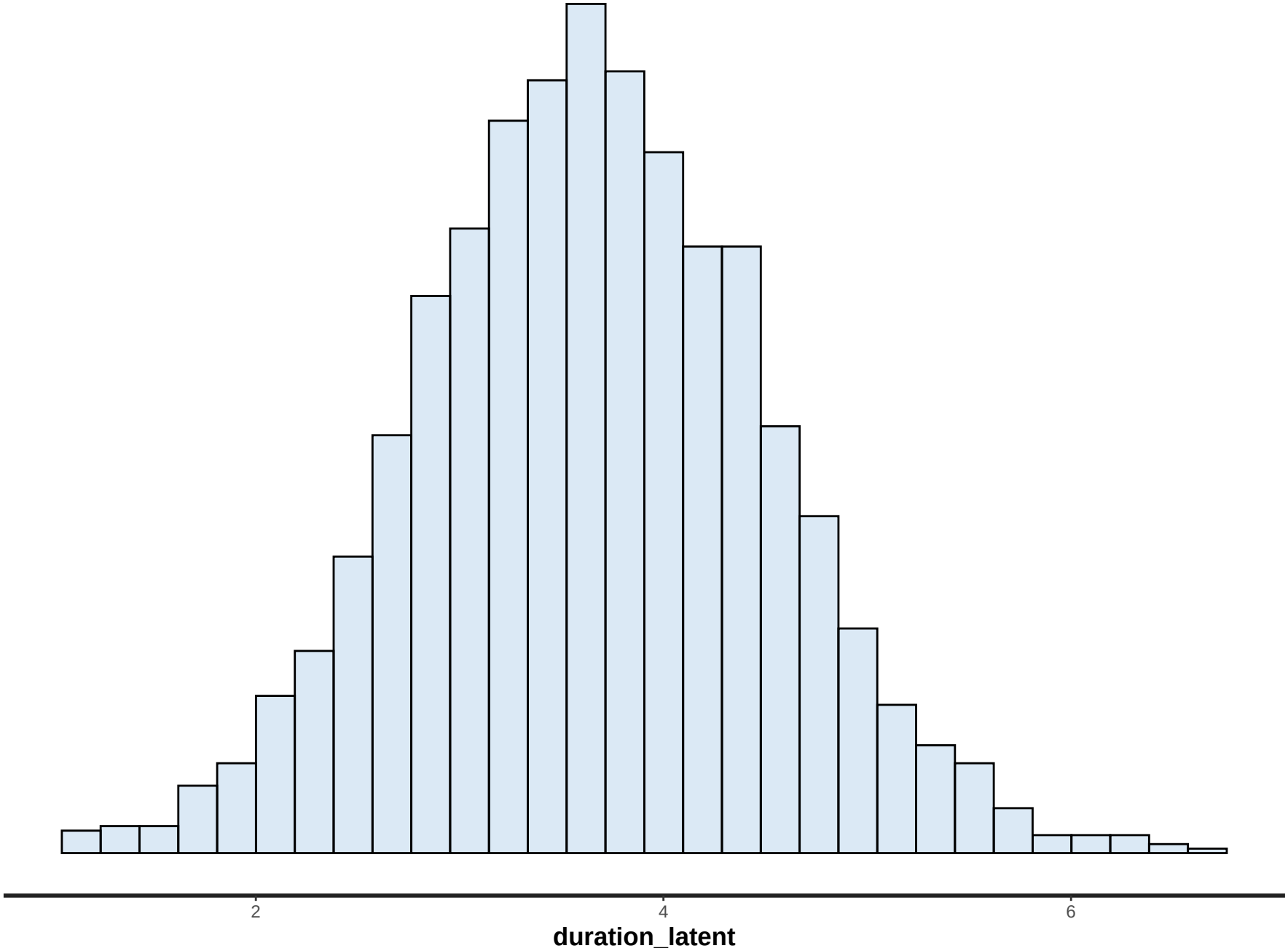

Effective Reproduction Number
Re
1.5
1.2
0.9
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

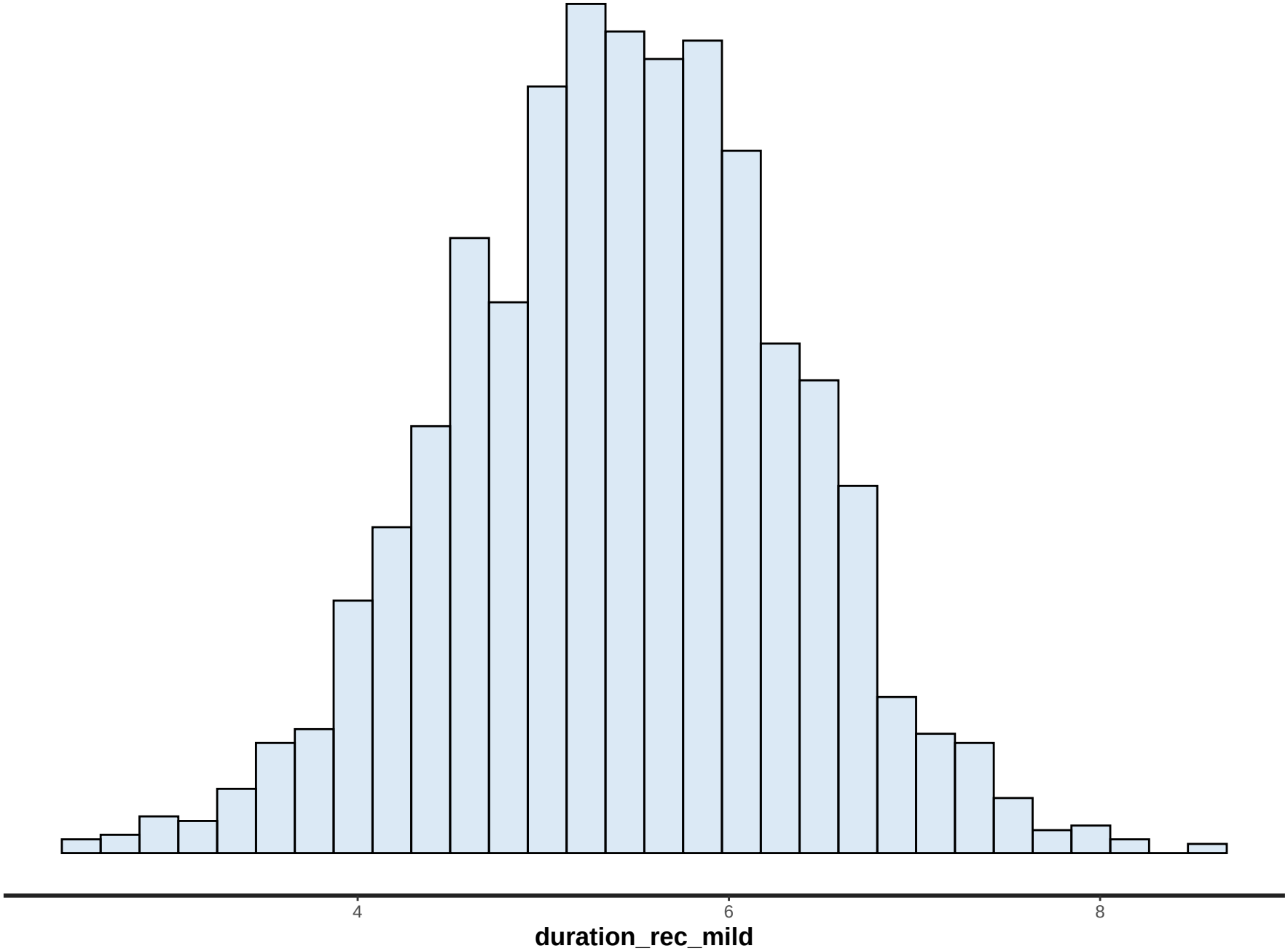
Rt as of 2020−12−14

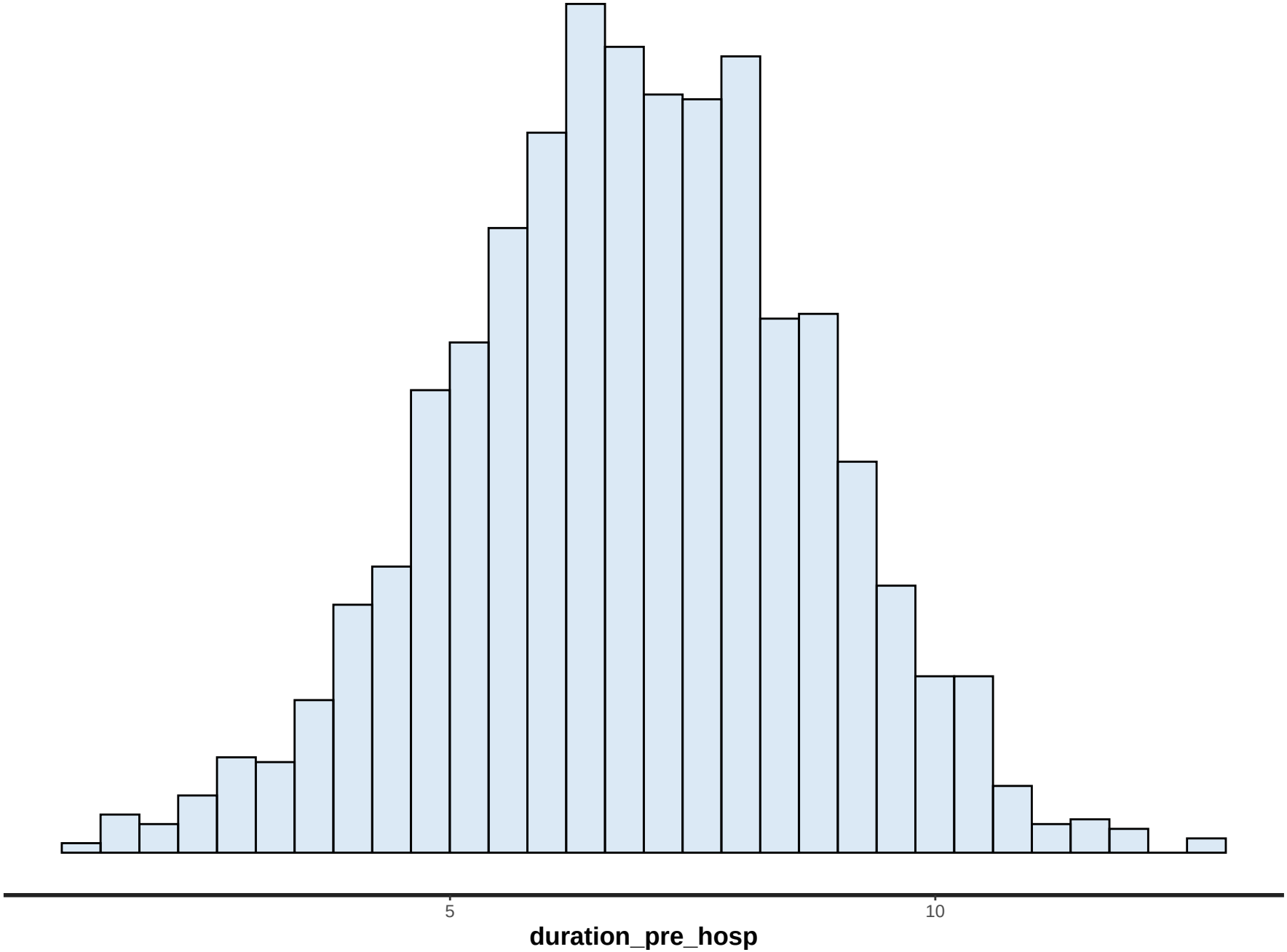
5%	10%	25%	50%	75%	90%	95%
1.14	1.16	1.19	1.23	1.27	1.30	1.33

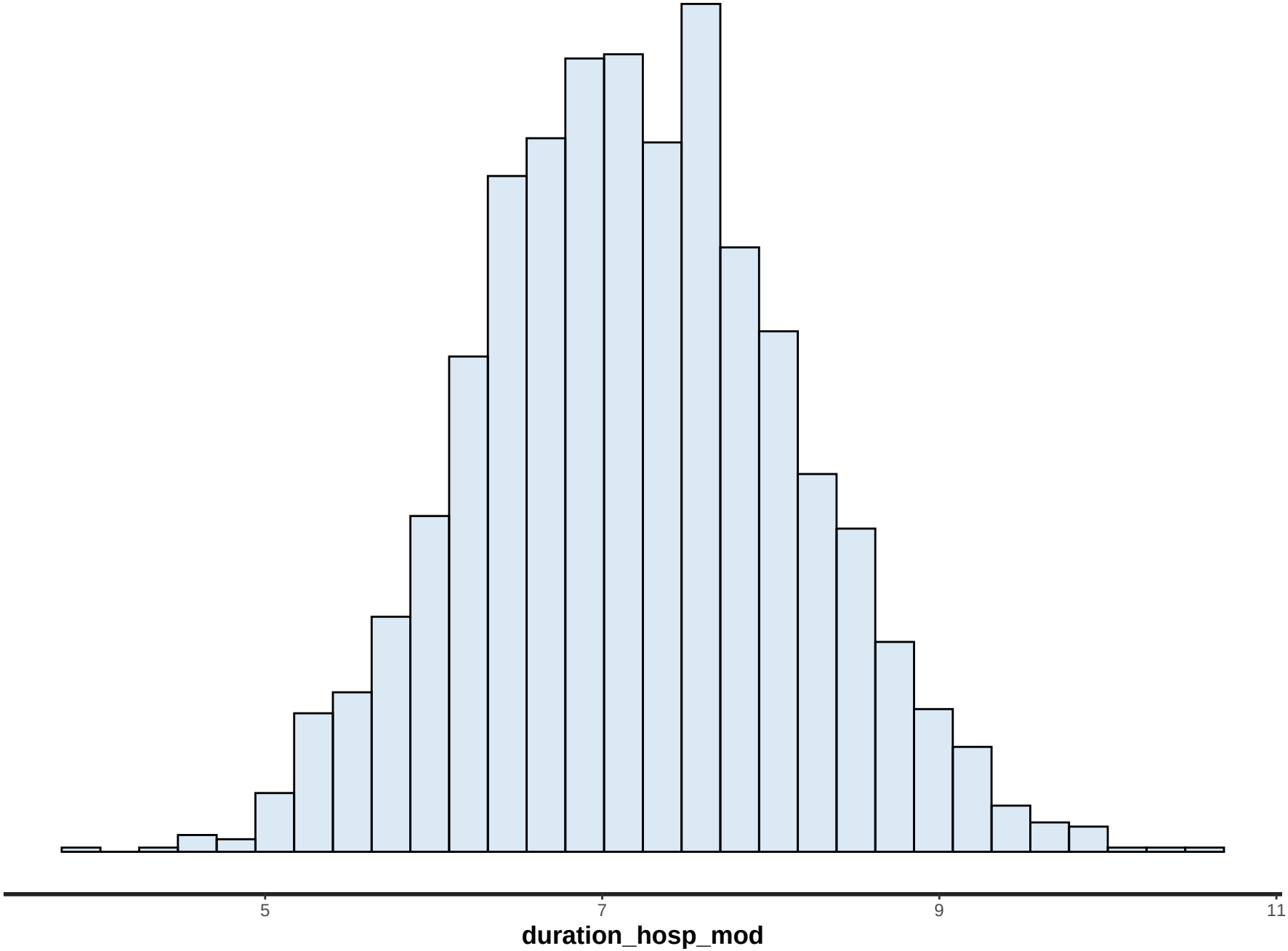


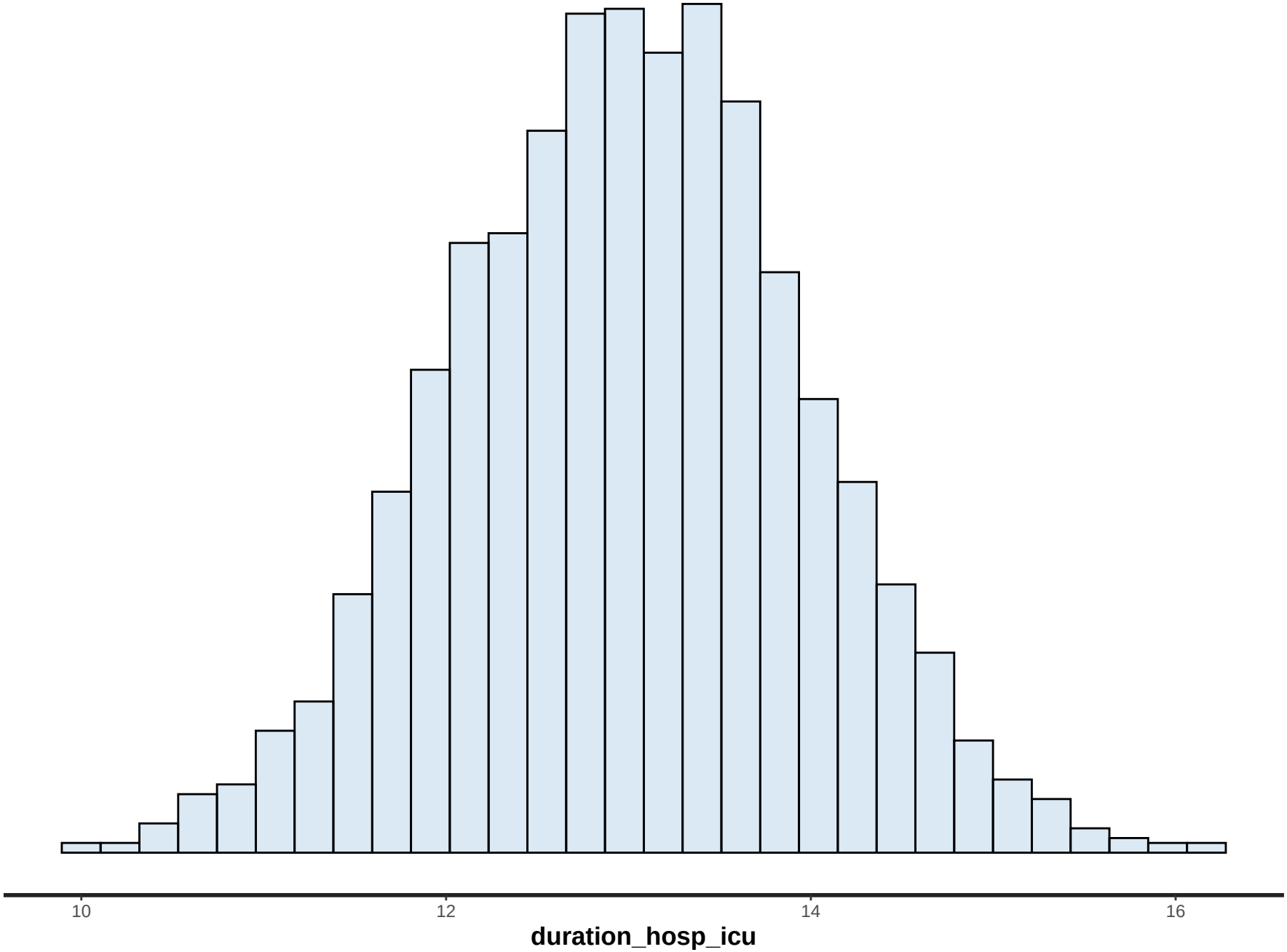

3
4
5
r0

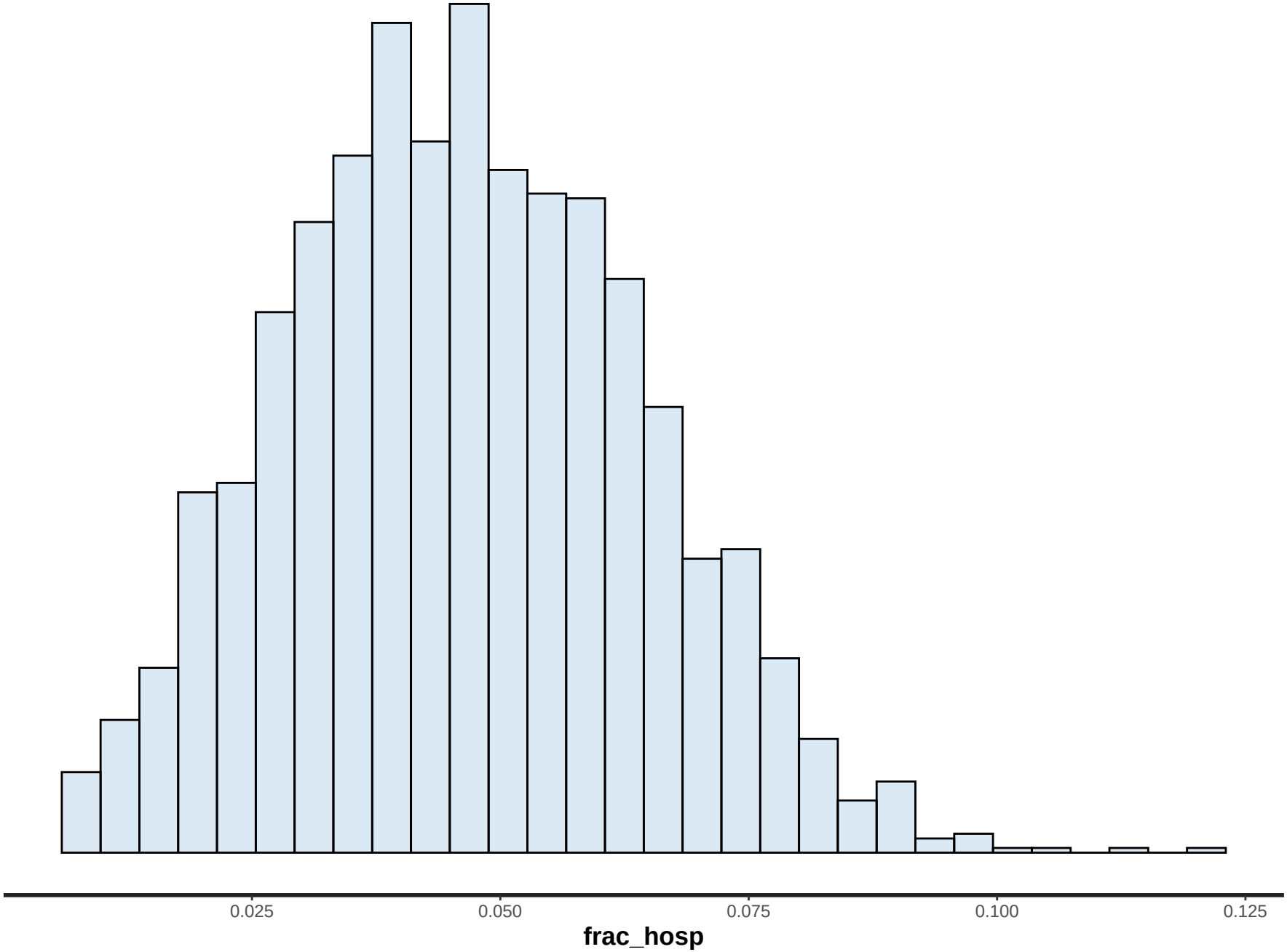

2
4
6
duration_latent

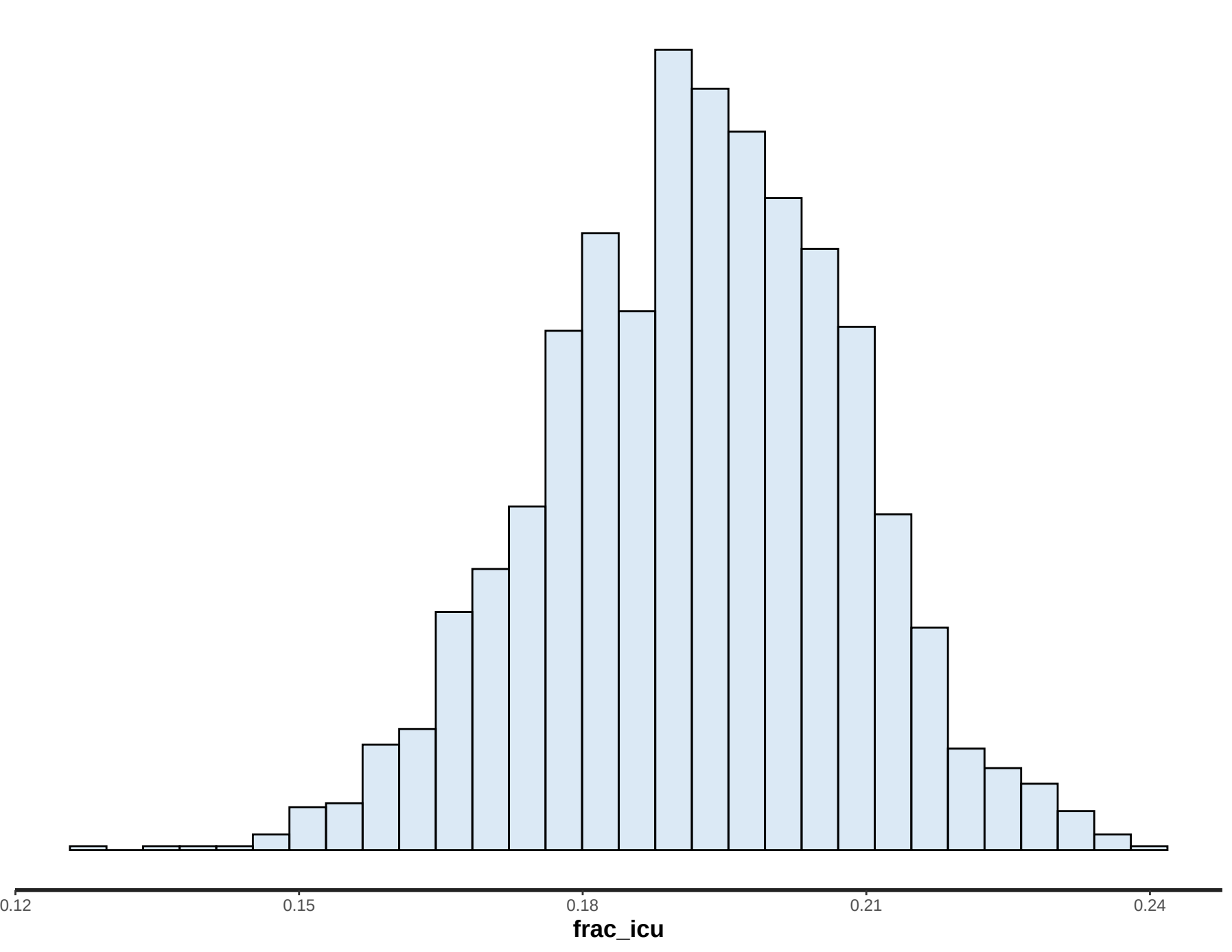

4
6
8
duration_rec_mild

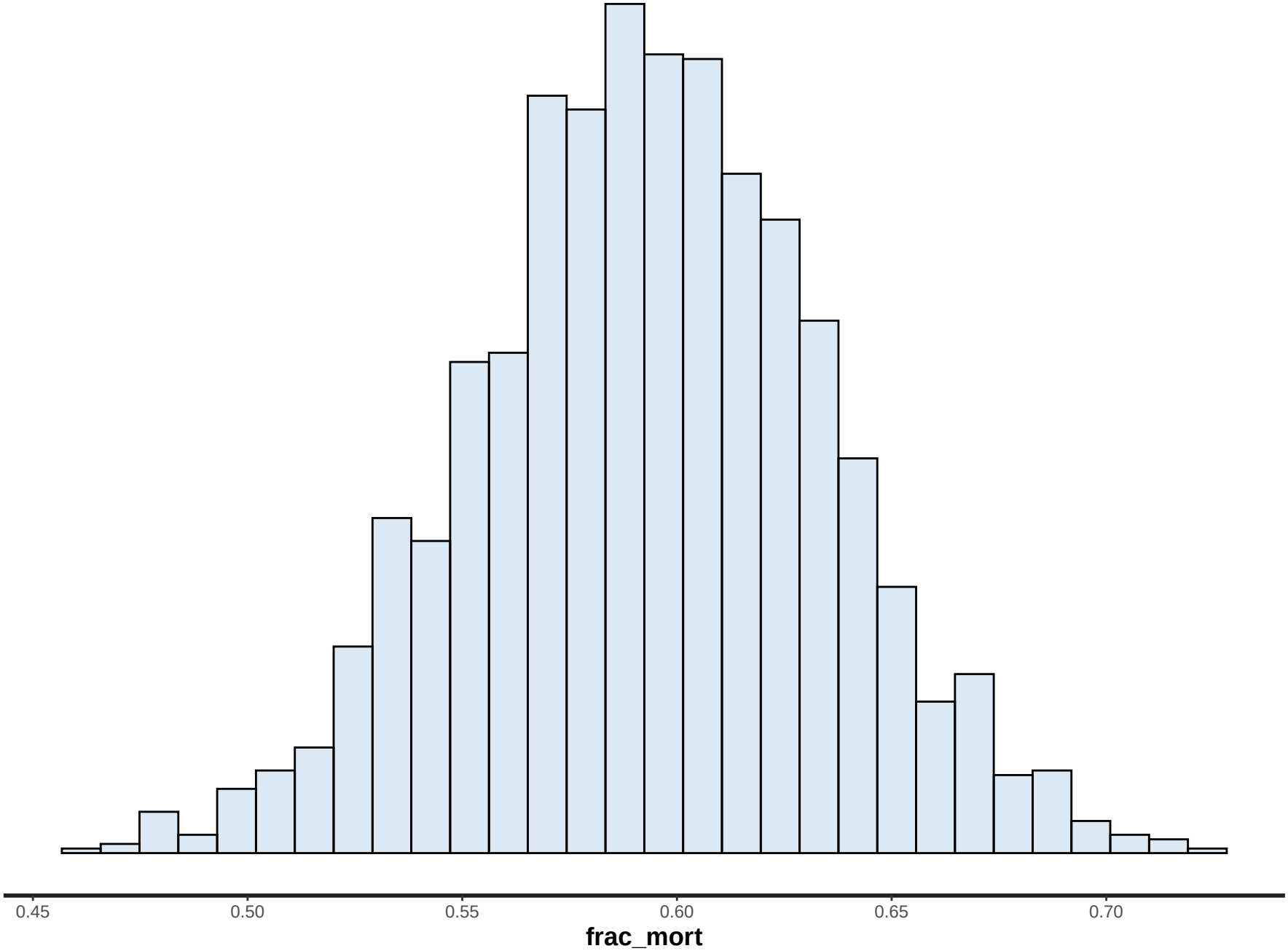

5
10
duration_pre_hosp

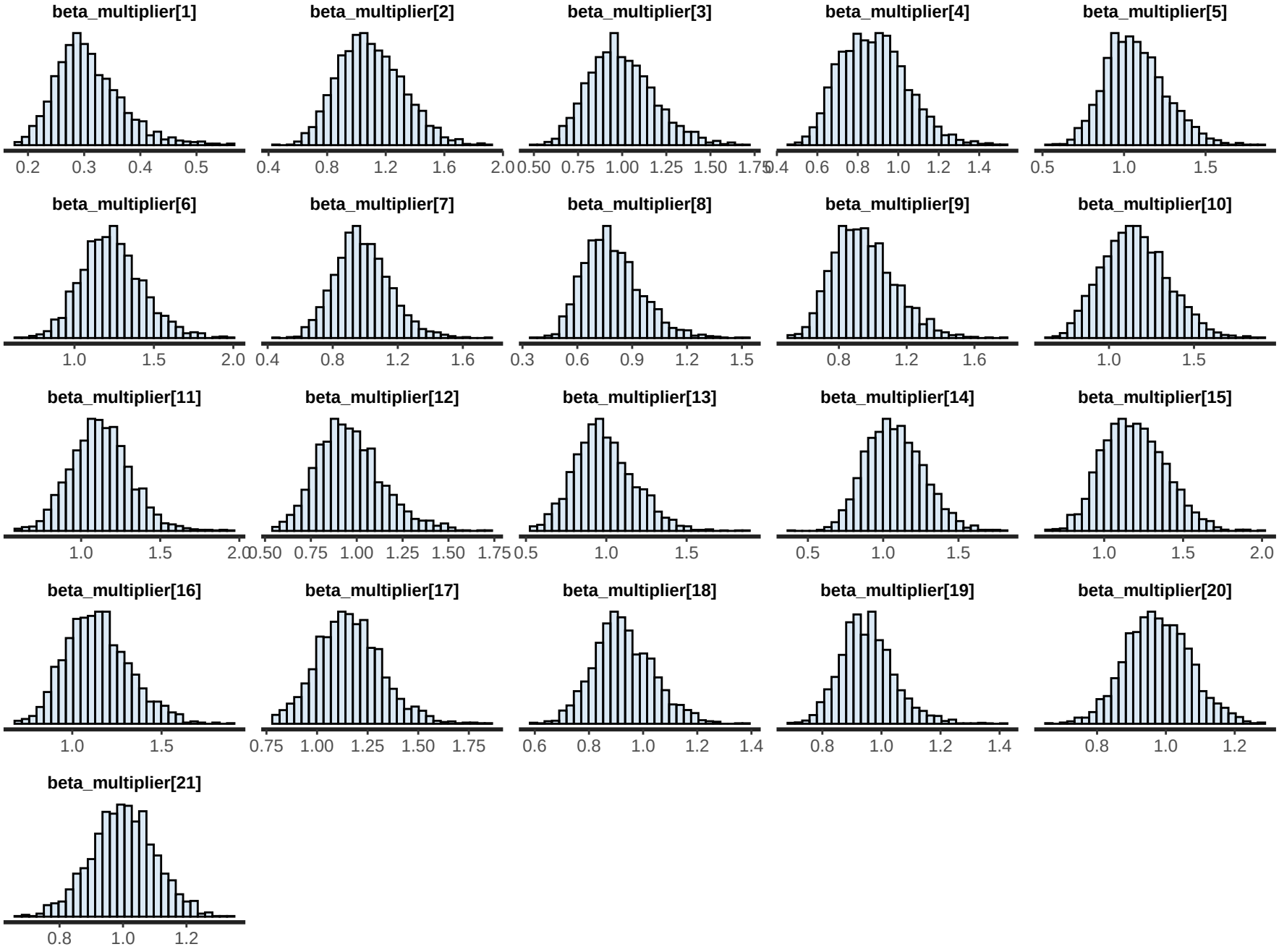

5
7
9
11
duration_hosp_mod


10
12
14
16
duration_hosp_icu


0.025
0.050
0.075
0.100
0.125
frac_hosp


0.12
0.15
0.18
0.21
0.24
frac_icu


0.45
0.50
0.55
0.60
0.65
0.70
frac_mort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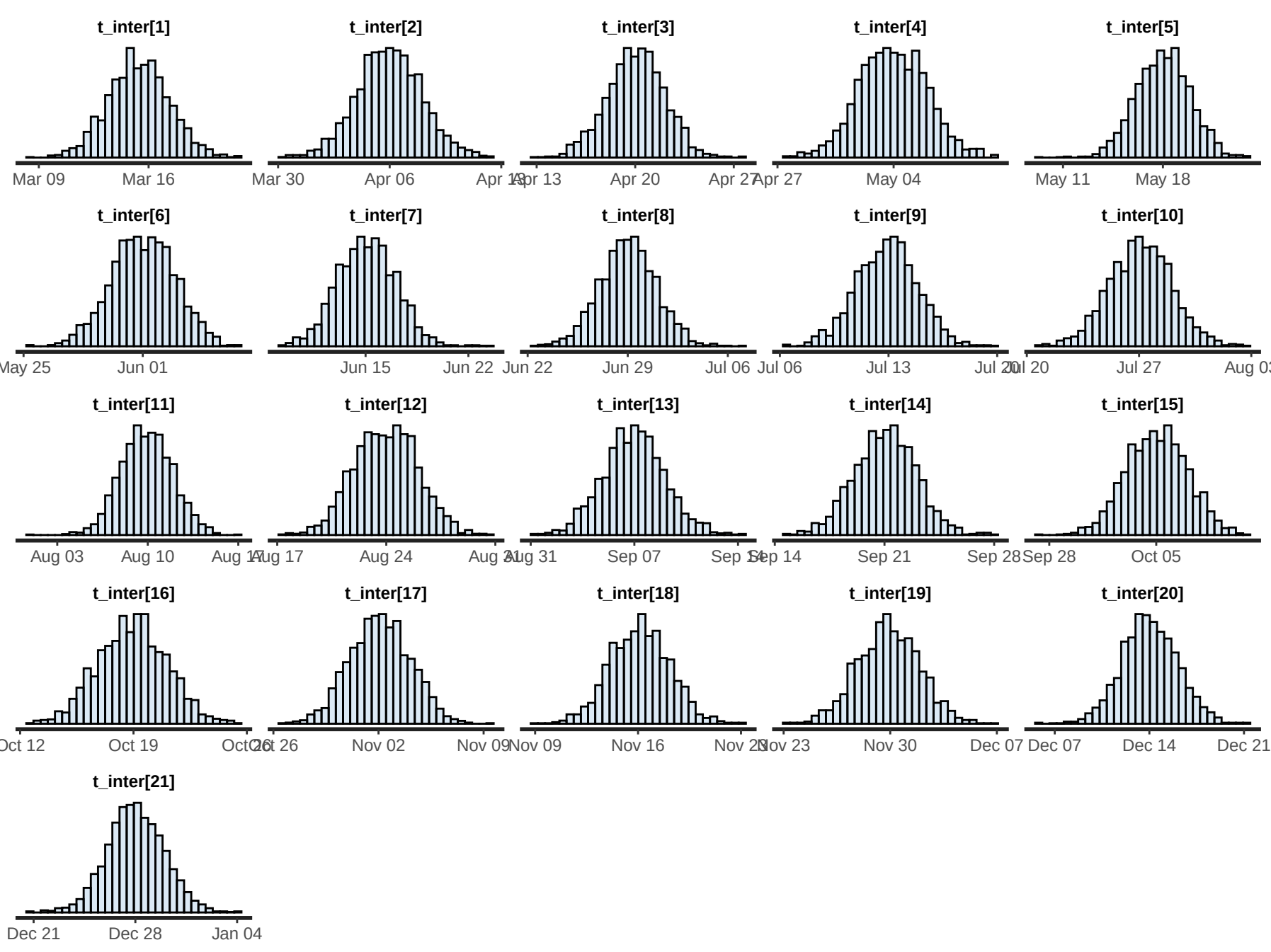
0.2 0.3 0.4 0.5
beta_multiplier[2]
0.4 0.8 1.2 1.6 2.0
beta_multiplier[3]
0.50 0.75 1.00 1.25 1.50 1.75
beta_multiplier[4]
0.4 0.6 0.8 1.0 1.2 1.4
beta_multiplier[5]
0.5 1.0 1.5
beta_multiplier[6]
1.0 1.5 2.0
beta_multiplier[7]
0.4 0.8 1.2 1.6
beta_multiplier[8]
0.3 0.6 0.9 1.2 1.5
beta_multiplier[9]
0.8 1.2 1.6
beta_multiplier[10]
1.0 1.5
beta_multiplier[11]
1.0 1.5 2.0
beta_multiplier[12]
0.50 0.75 1.00 1.25 1.50 1.75
beta_multiplier[13]
0.5 1.0 1.5
beta_multiplier[14]
0.5 1.0 1.5
beta_multiplier[15]
1.0 1.5 2.0
beta_multiplier[16]
1.0 1.5
beta_multiplier[17]
0.75 1.00 1.25 1.50 1.75
beta_multiplier[18]
0.6 0.8 1.0 1.2 1.4
beta_multiplier[19]
0.8 1.0 1.2 1.4
beta_multiplier[20]
0.8 1.0 1.2
beta_multiplier[21]
0.8 1.0 1.2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Mar 16
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Mar 30
Apr 06
Apr 13
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Apr 13
Apr 20
Apr 27
t_inter[4]
Apr 27
May 04
t_inter[5]
May 11
May 18
t_inter[6]
May 25
Jun 01
t_inter[7]
Jun 15
Jun 22
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Jun 22
Jun 29
Jul 06
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Jul 06
Jul 13
Jul 20
t_inter[10]
Jul 20
Jul 27
Aug 03
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Aug 03
Aug 10
Aug 17
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Aug 17
Aug 24
Aug 31
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Nov 16
Nov 23
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Dec 21
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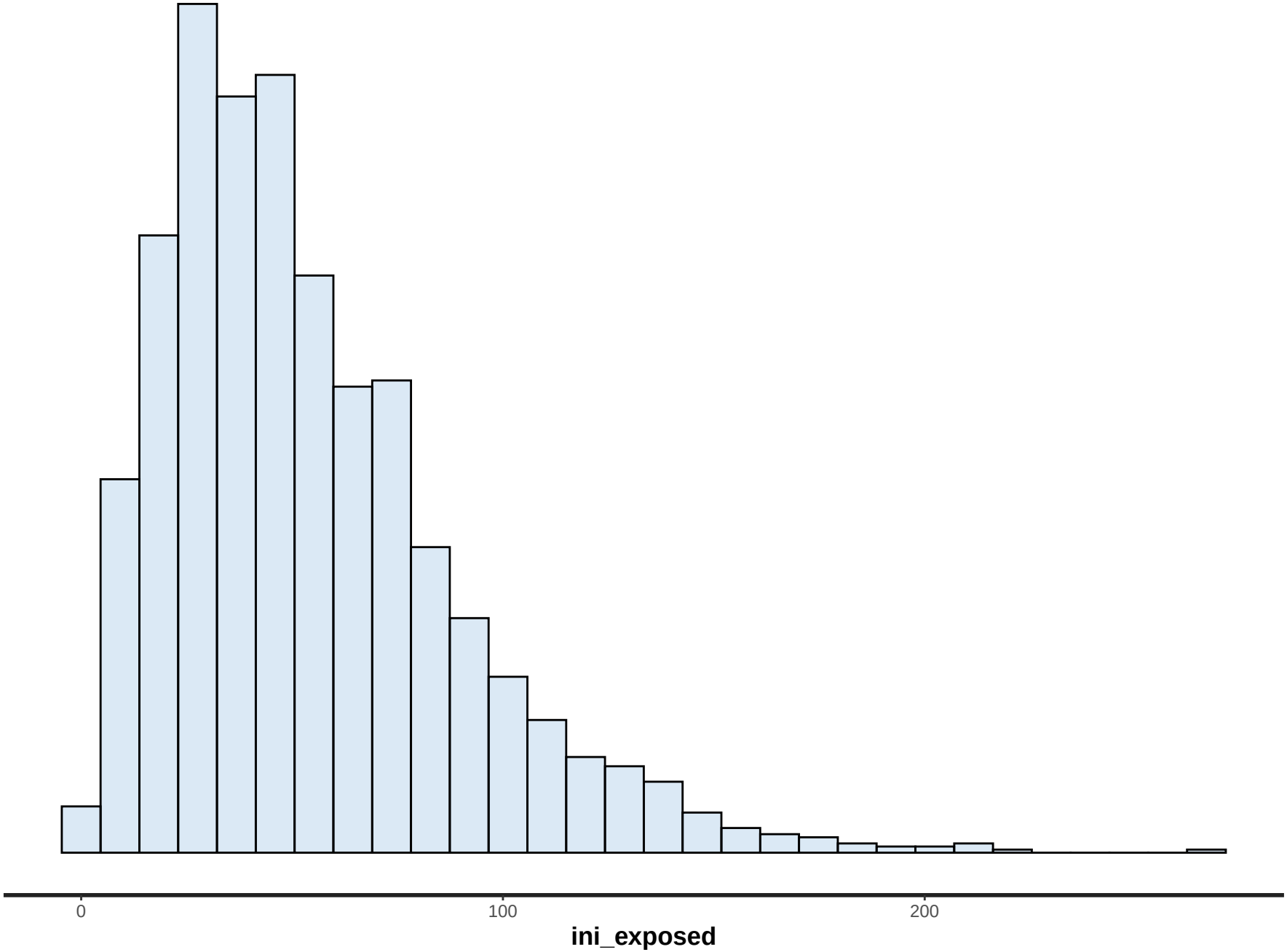
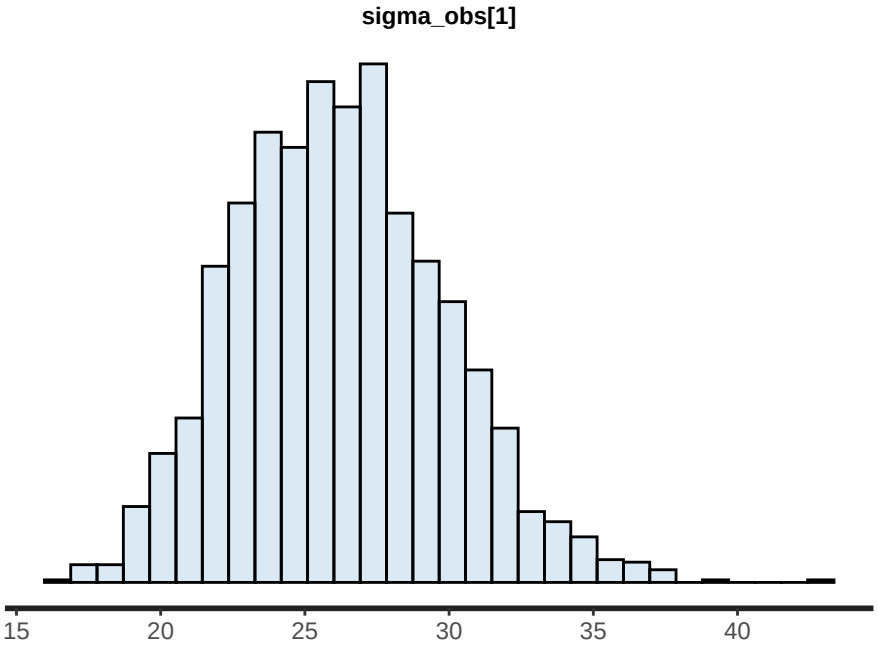
Dec 21
Dec 28
Jan 04


0
100
200
ini_exposed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35
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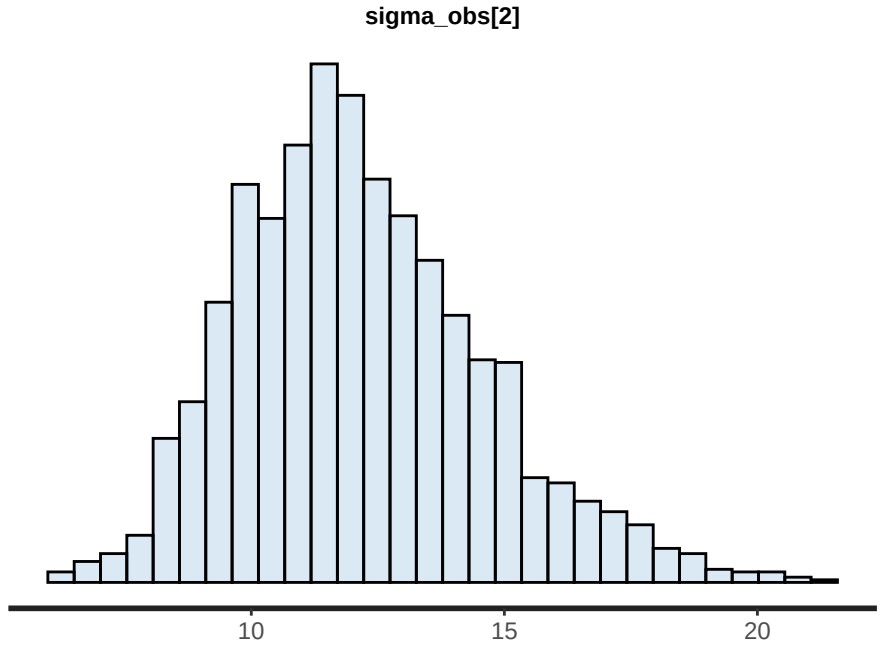
sigma_obs[2]
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15
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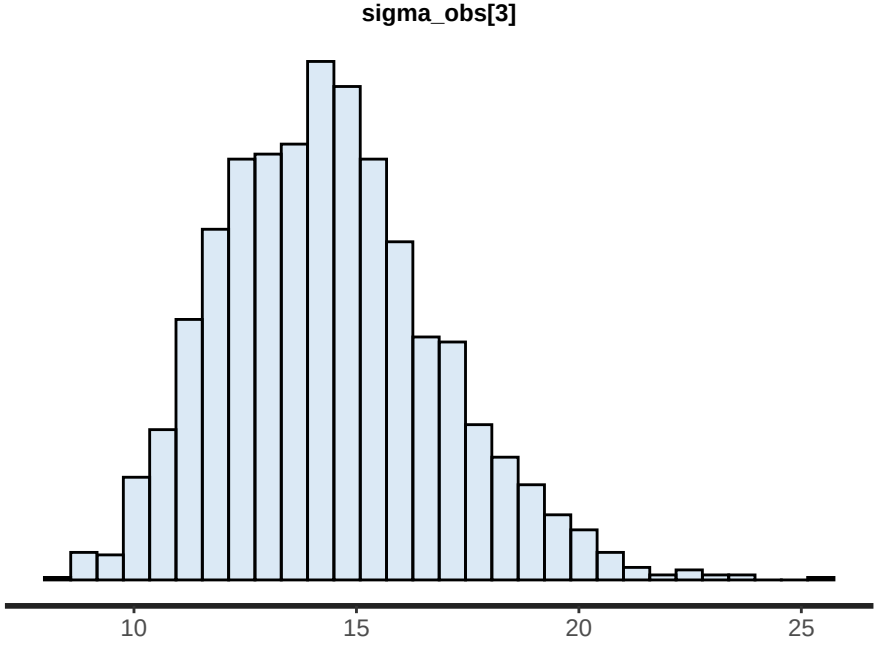
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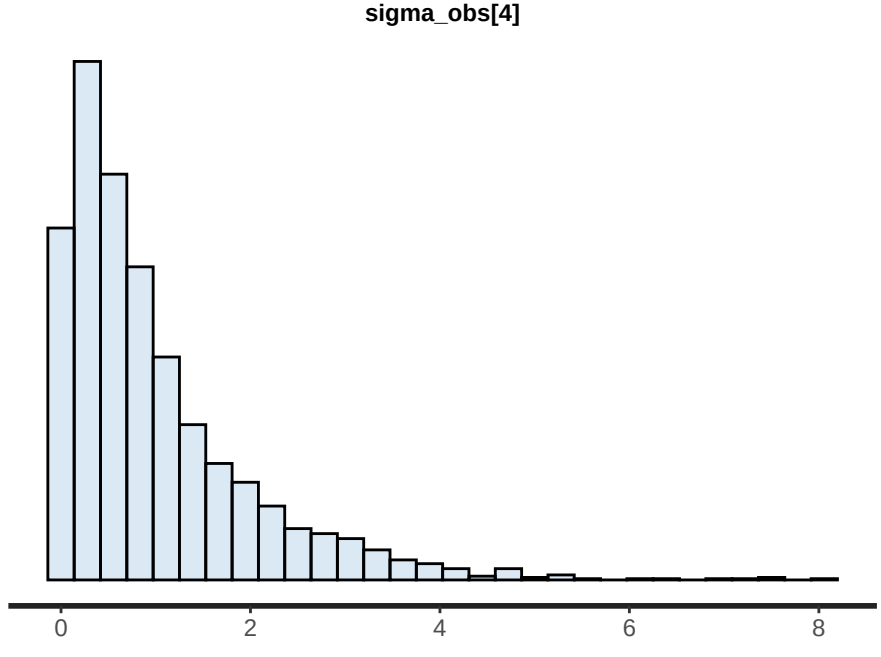
sigma_obs[4]
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2
4
6
8