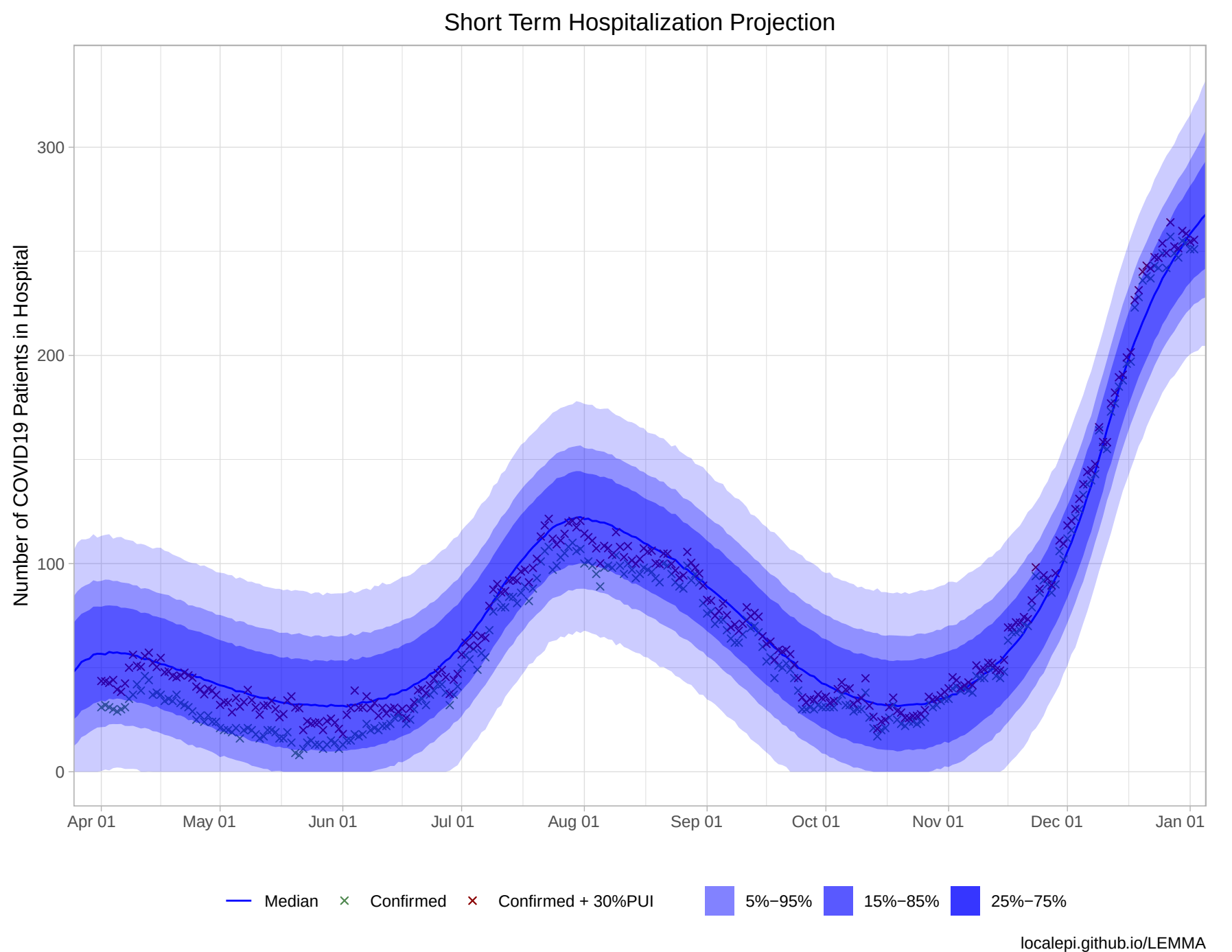
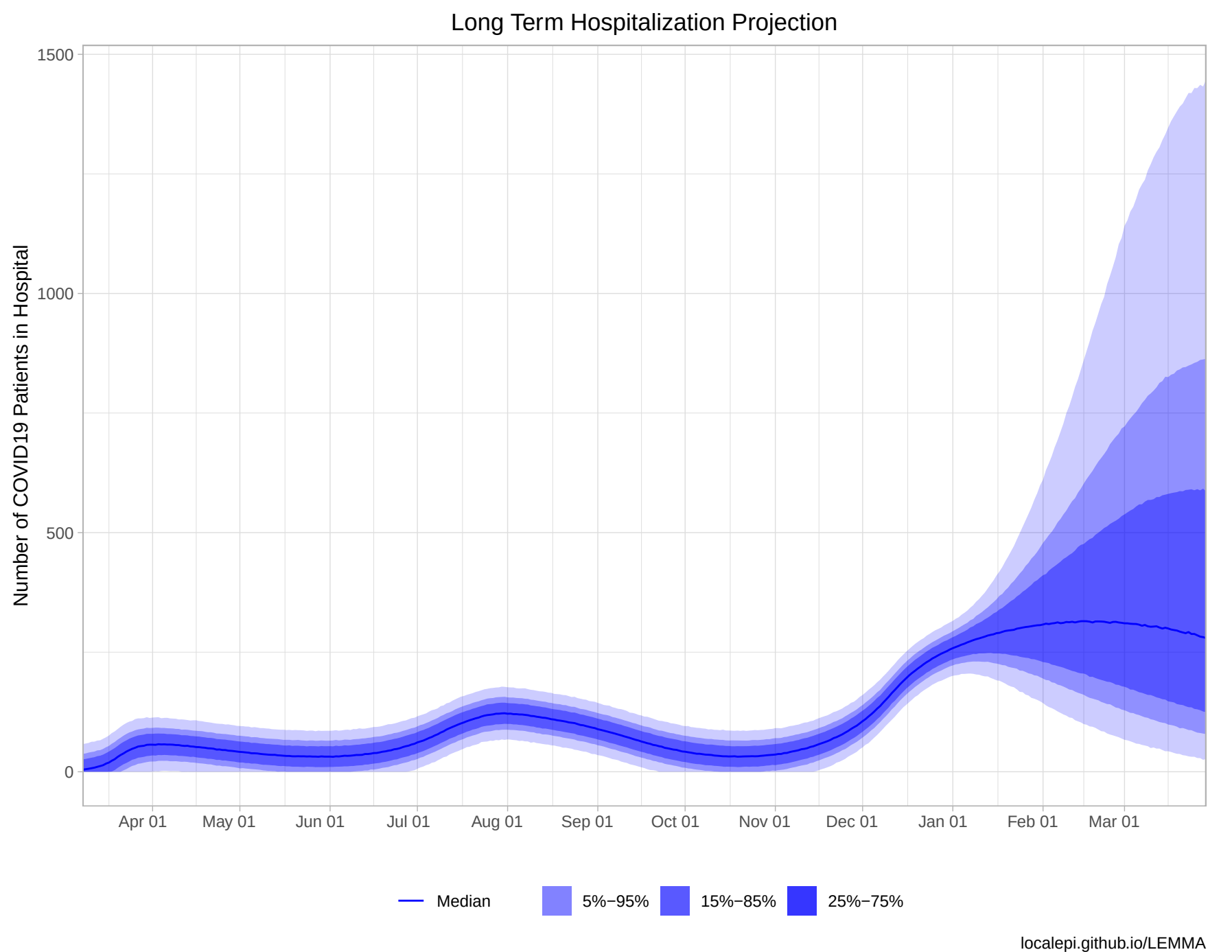
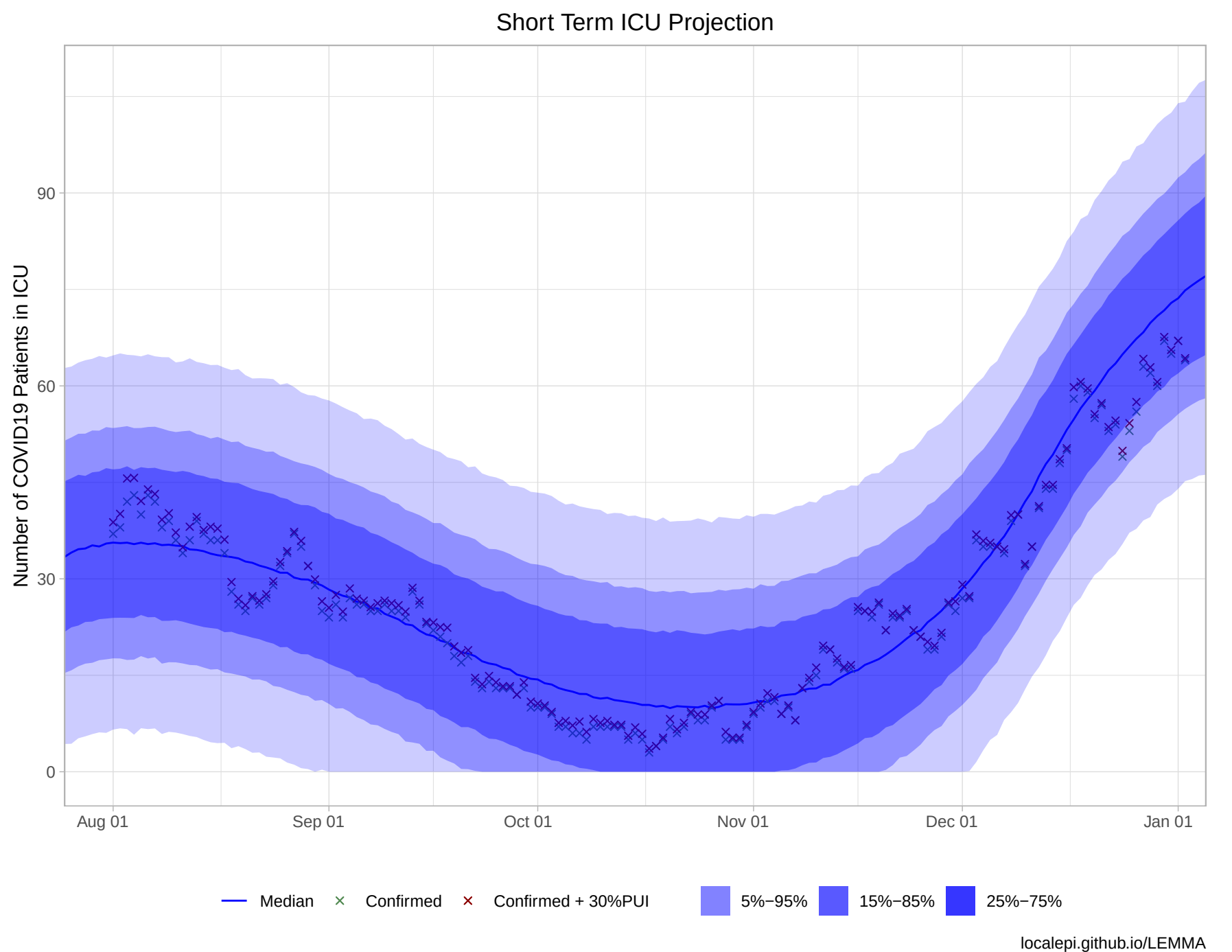
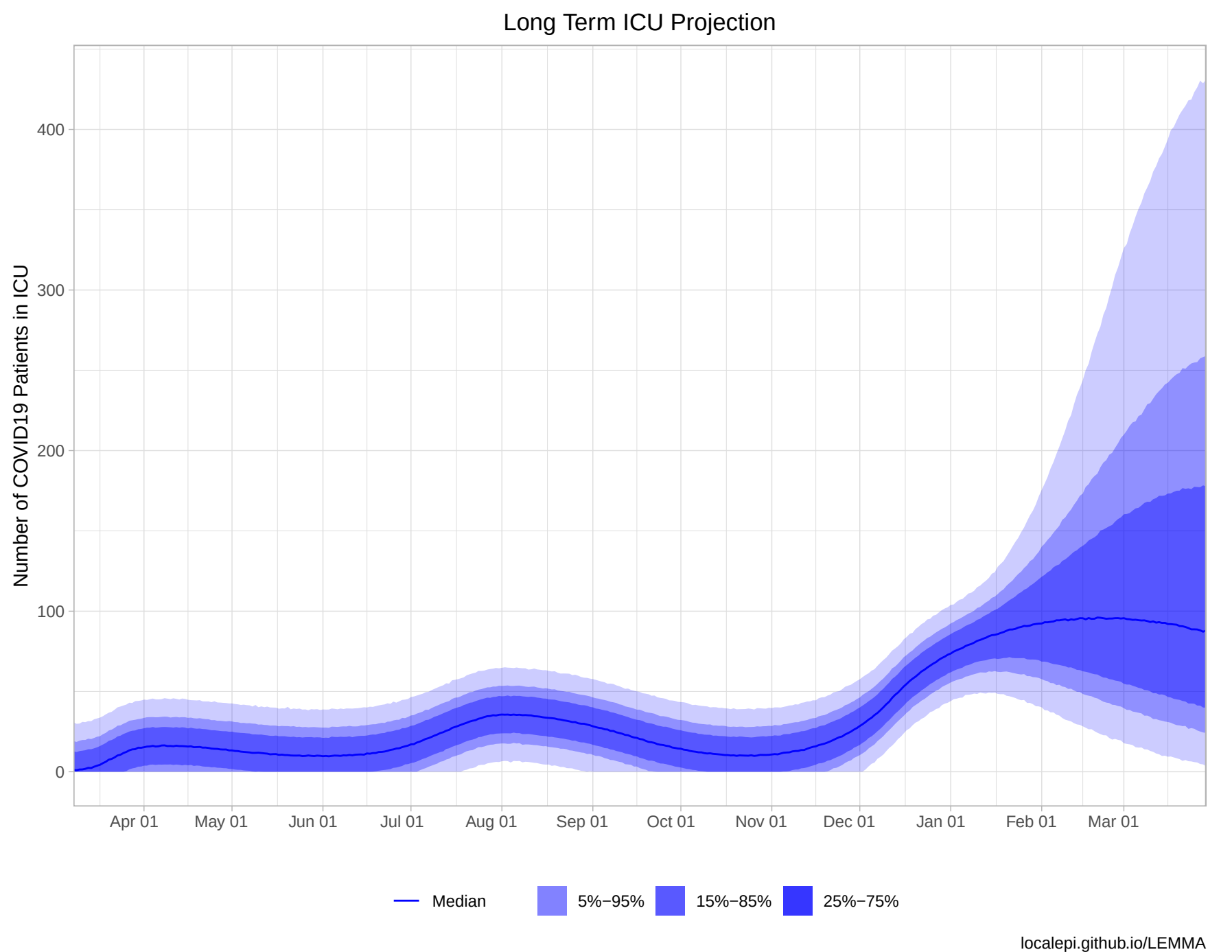
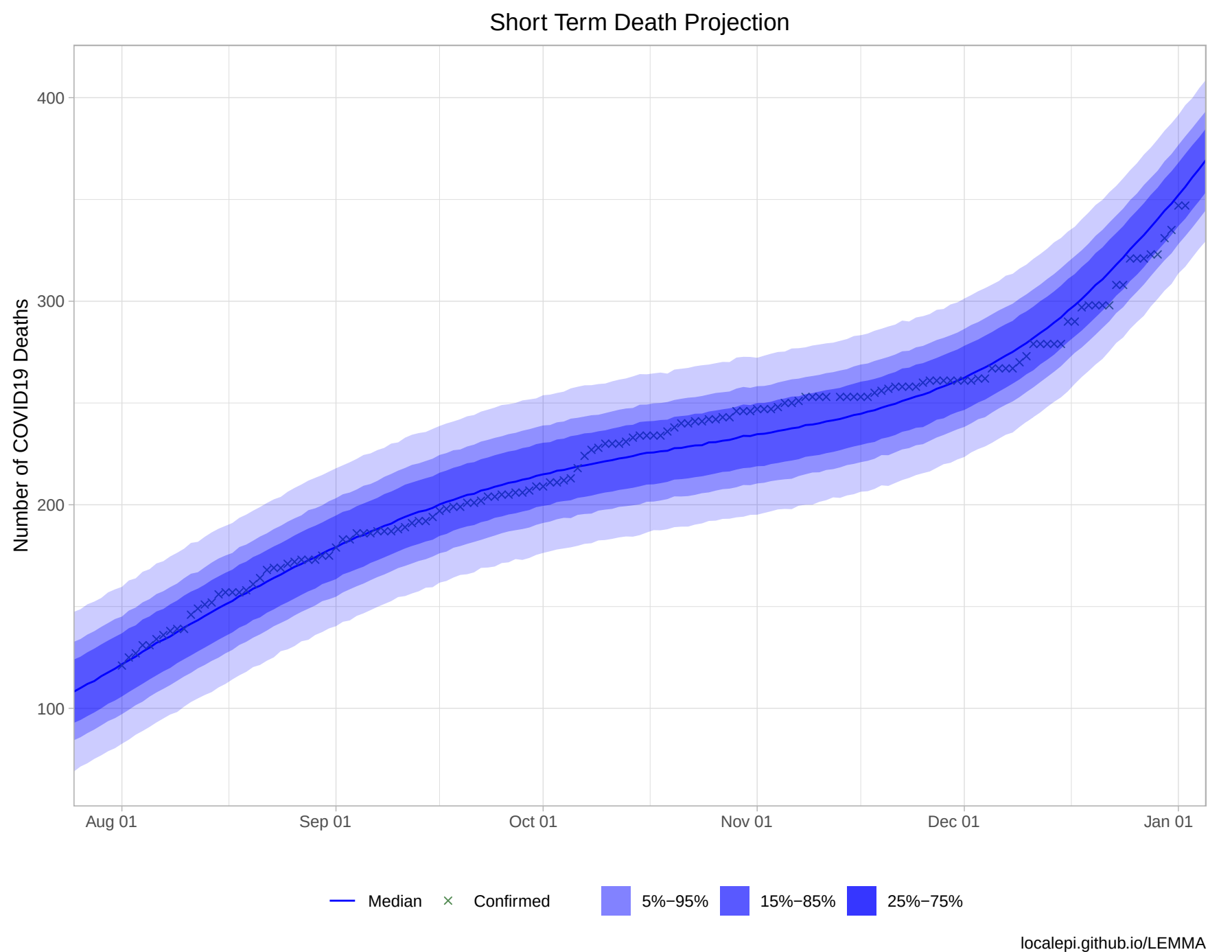
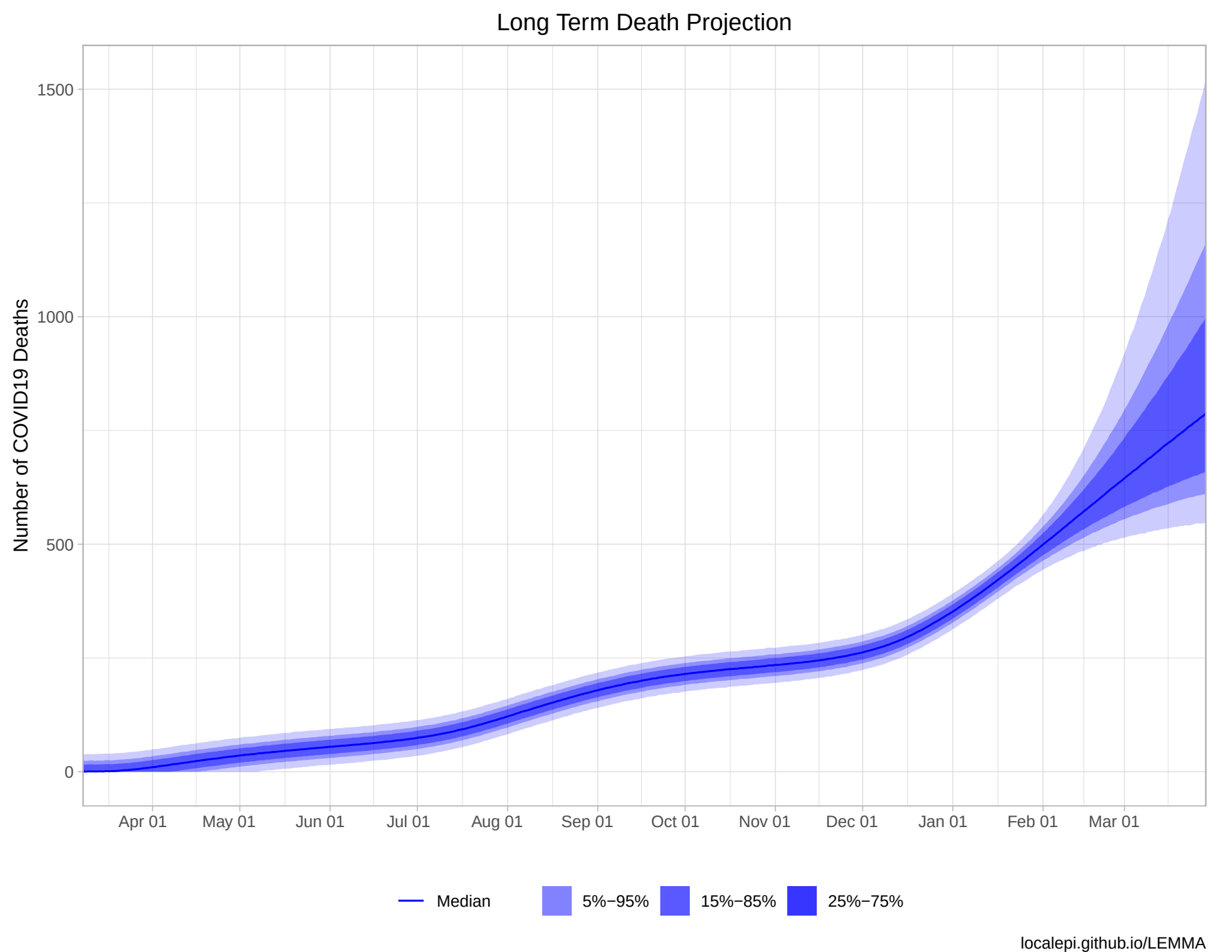

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

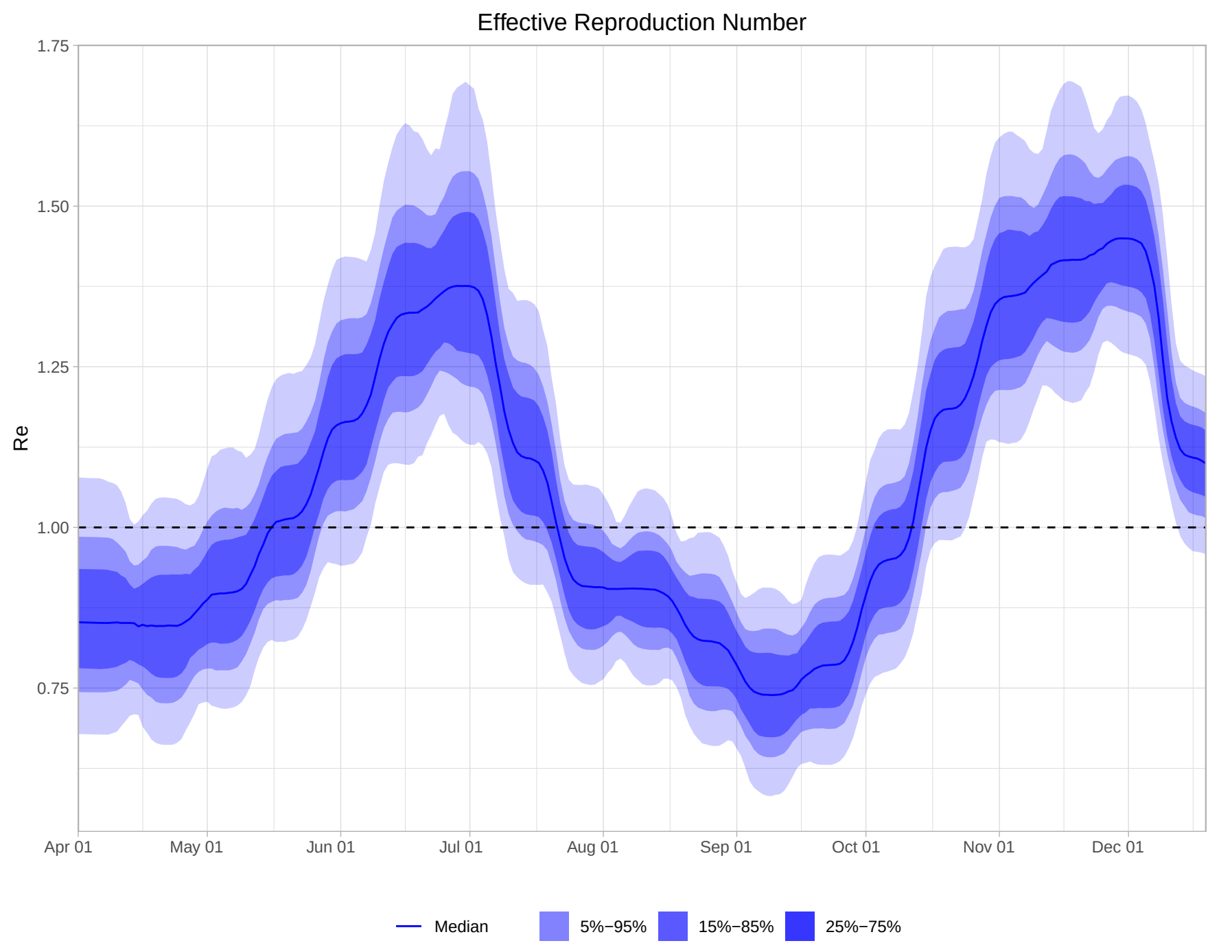

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
1500
1000
500
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
90
60
30
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
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

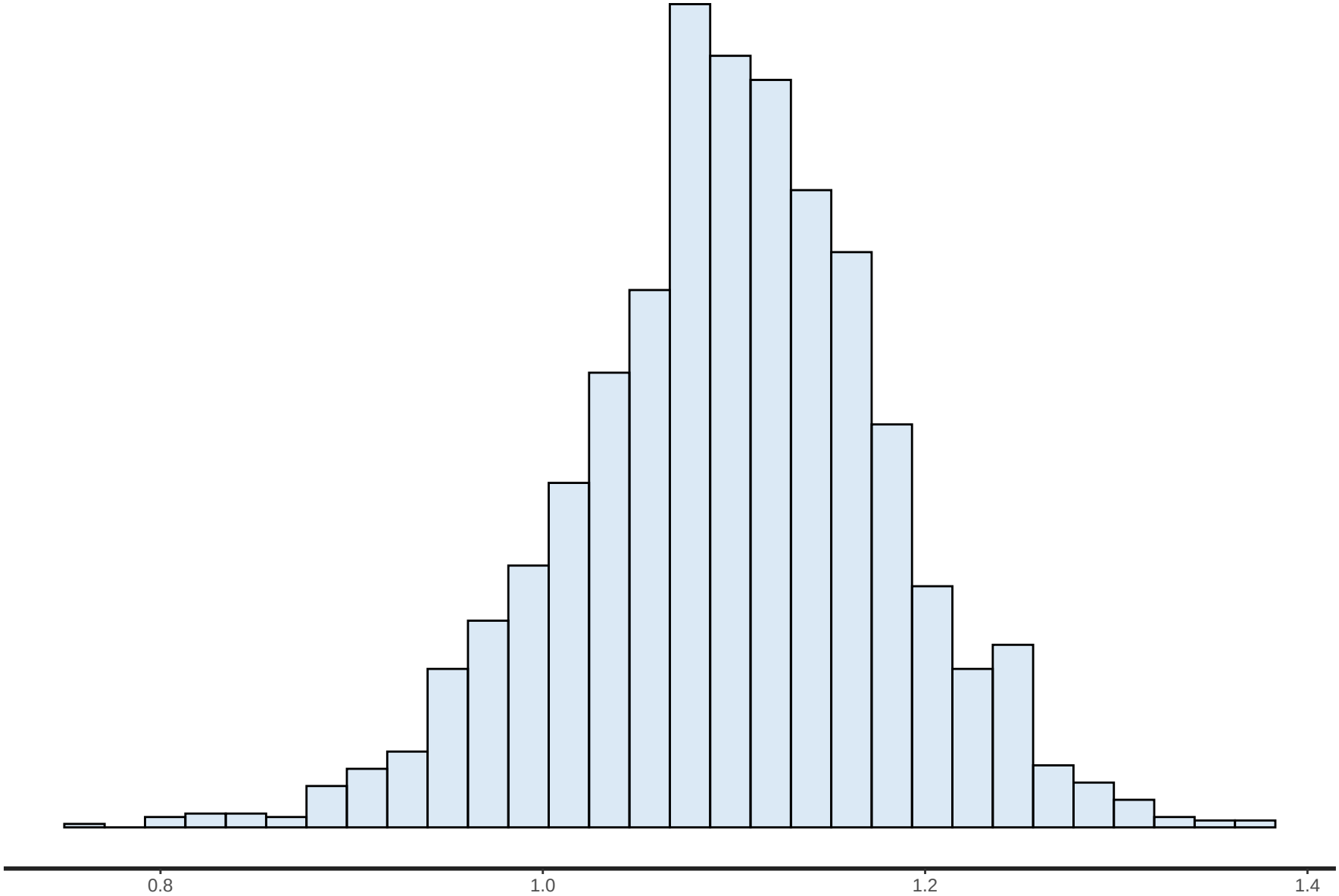

Short Term Death Projection
Number of COVID19 Deaths
400
300
200
100
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

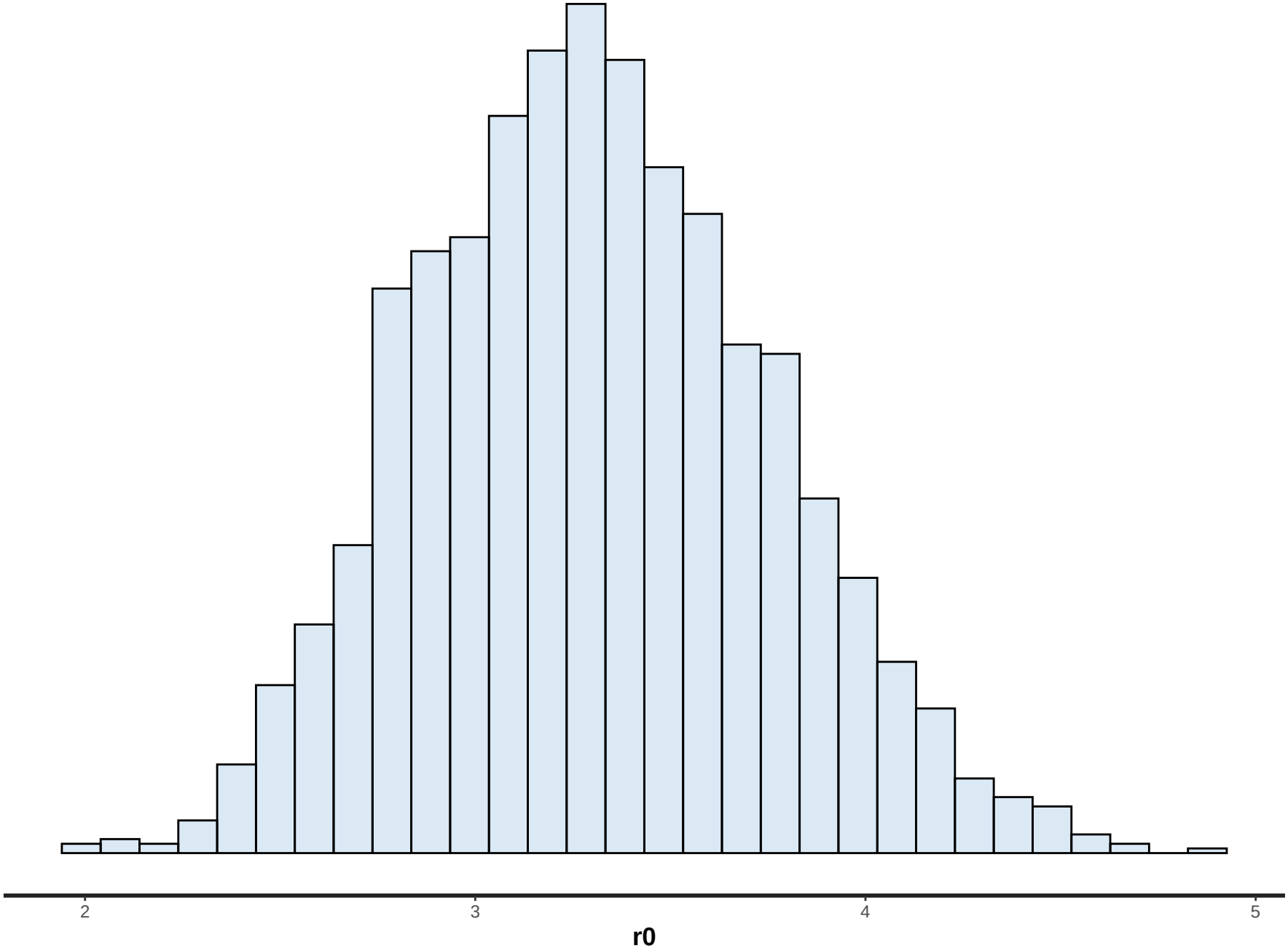

Long Term Death Projection
Number of COVID19 Deaths
1500
1000
500
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

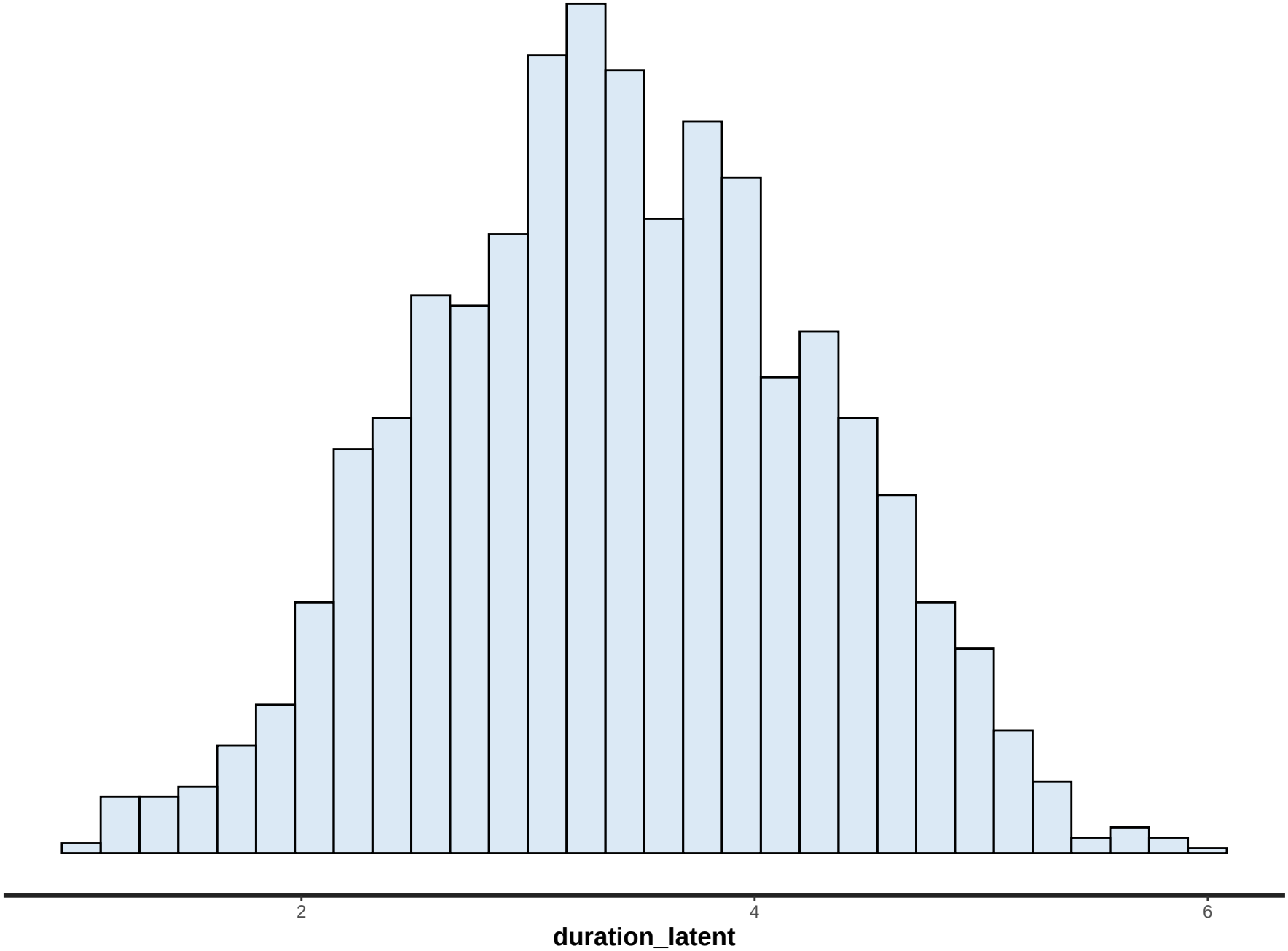

Effective Reproduction Number
1.75
1.50
1.25
1.00
0.75
Re
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

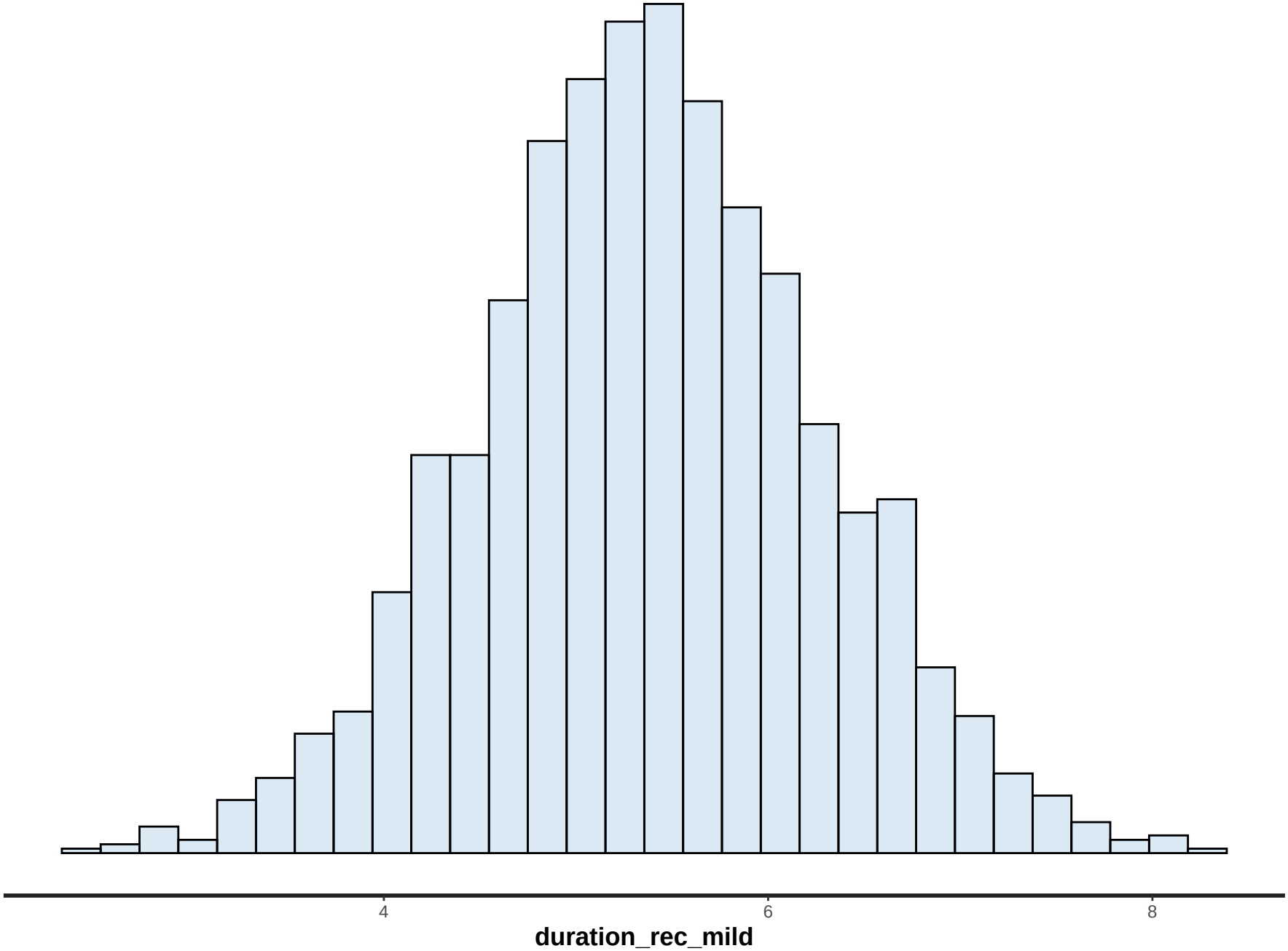
Rt as of 2020−12−19

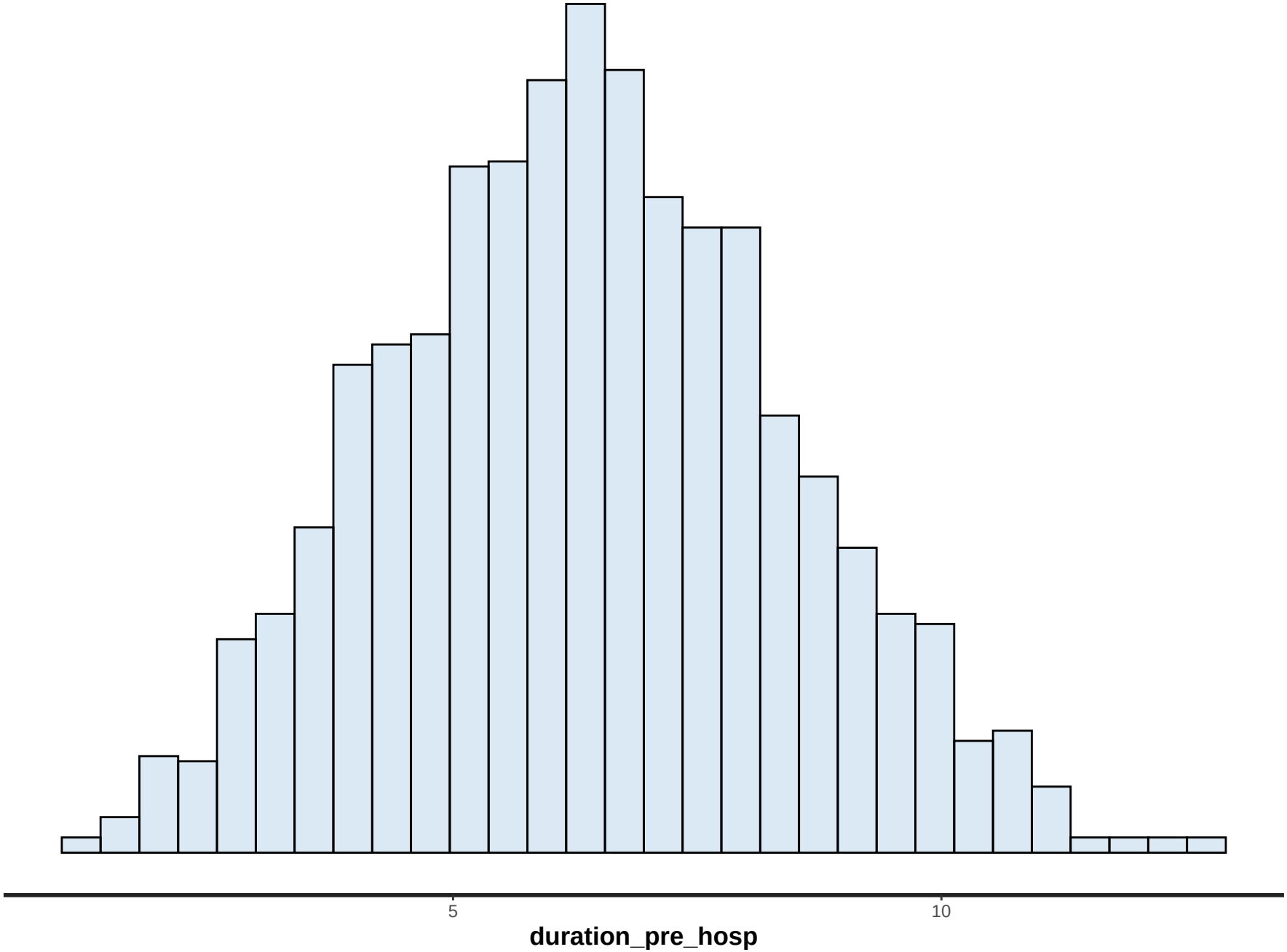
5%	10%	25%	50%	75%	90%	95%
0.96	0.99	1.05	1.10	1.15	1.20	1.23

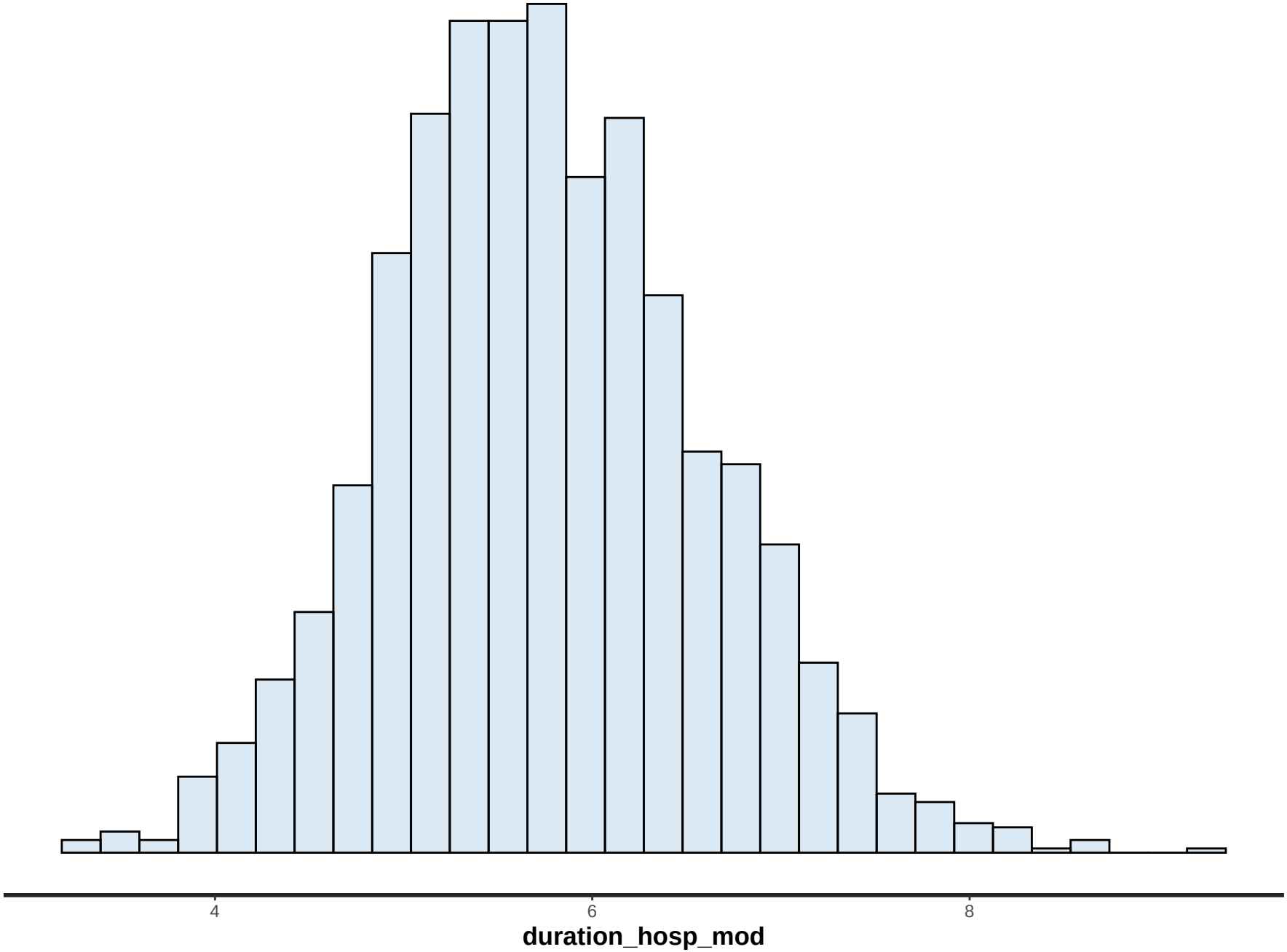


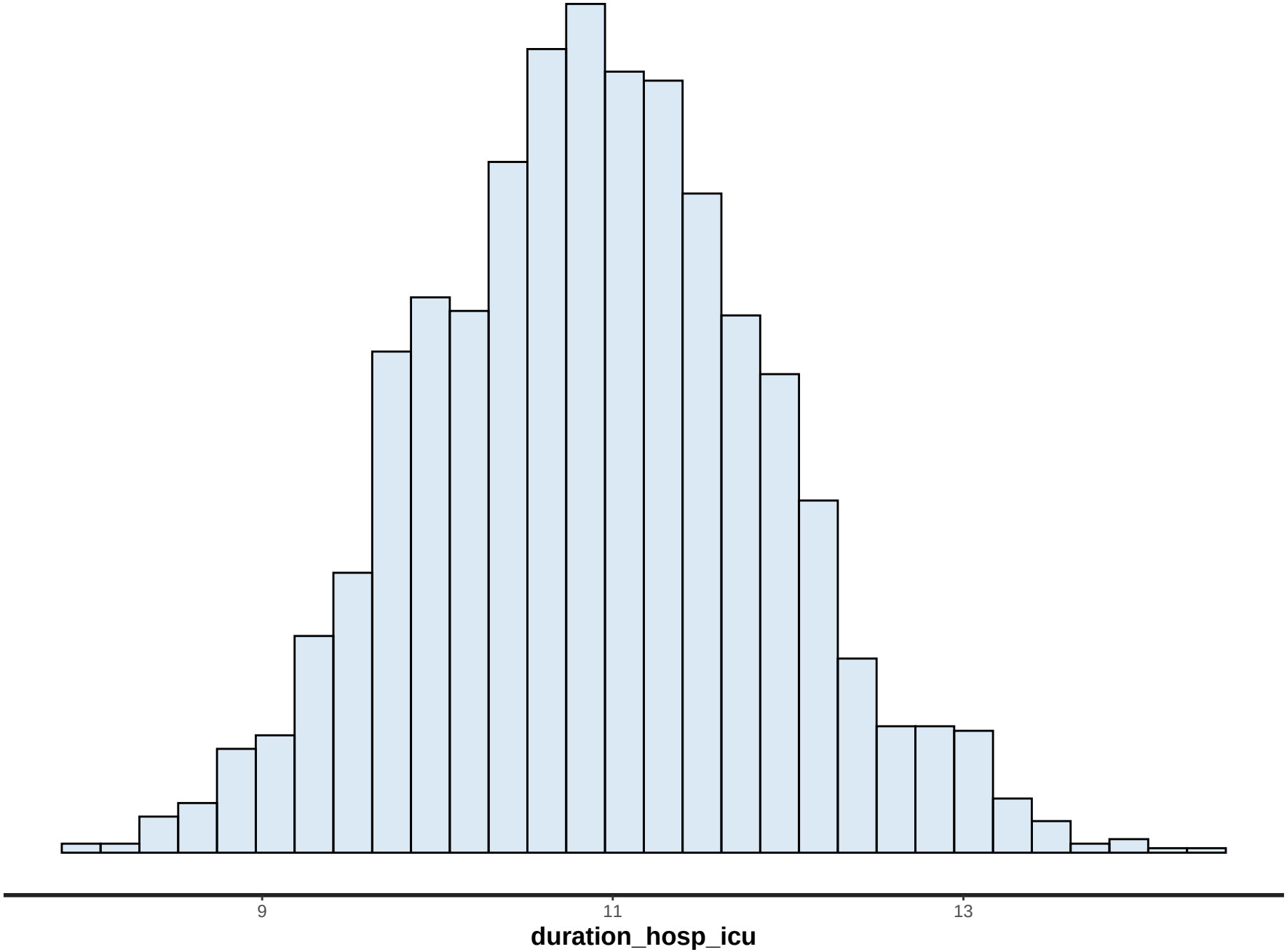

2
3
4
5
r0

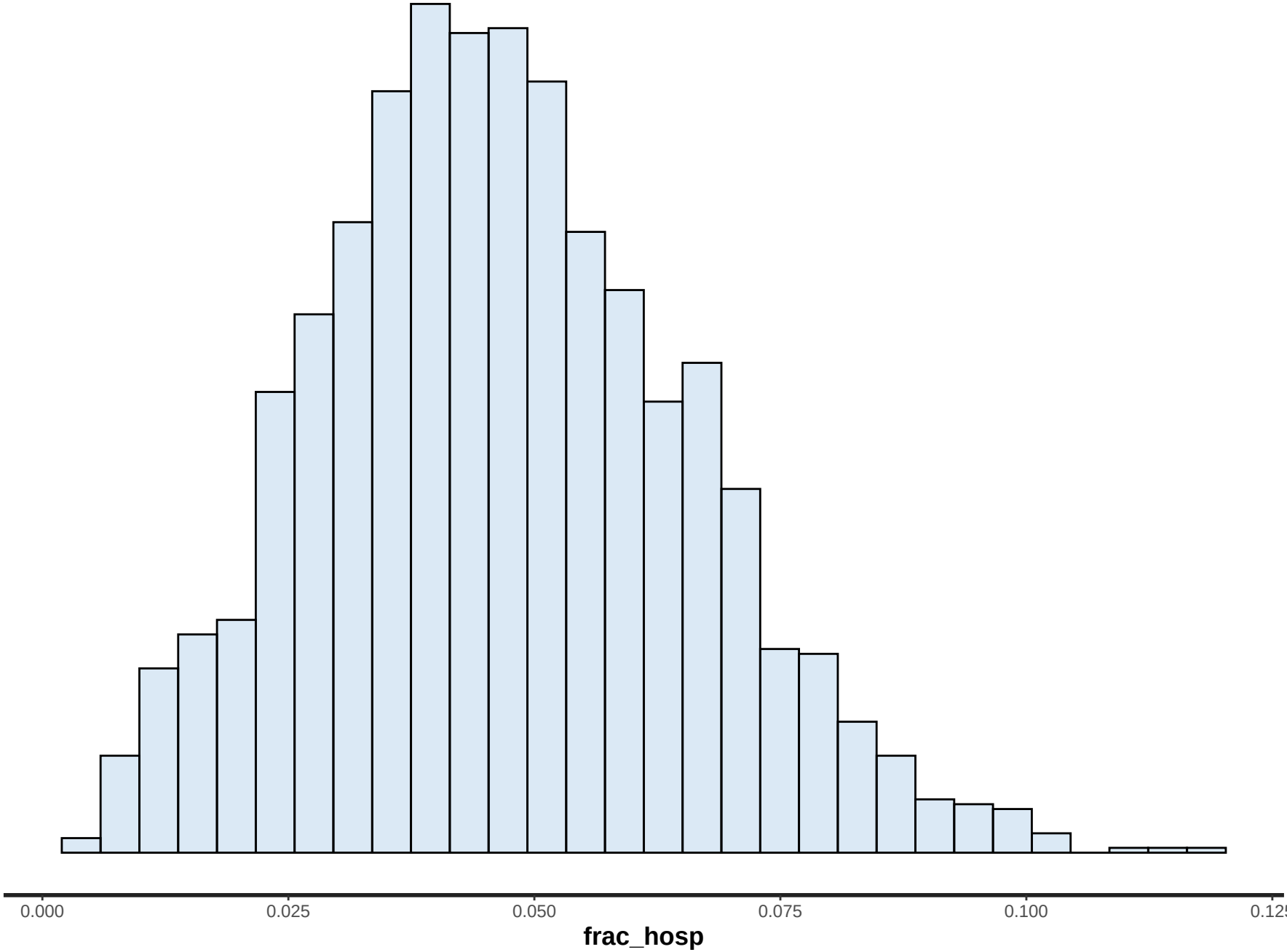

2
4
6
duration_latent

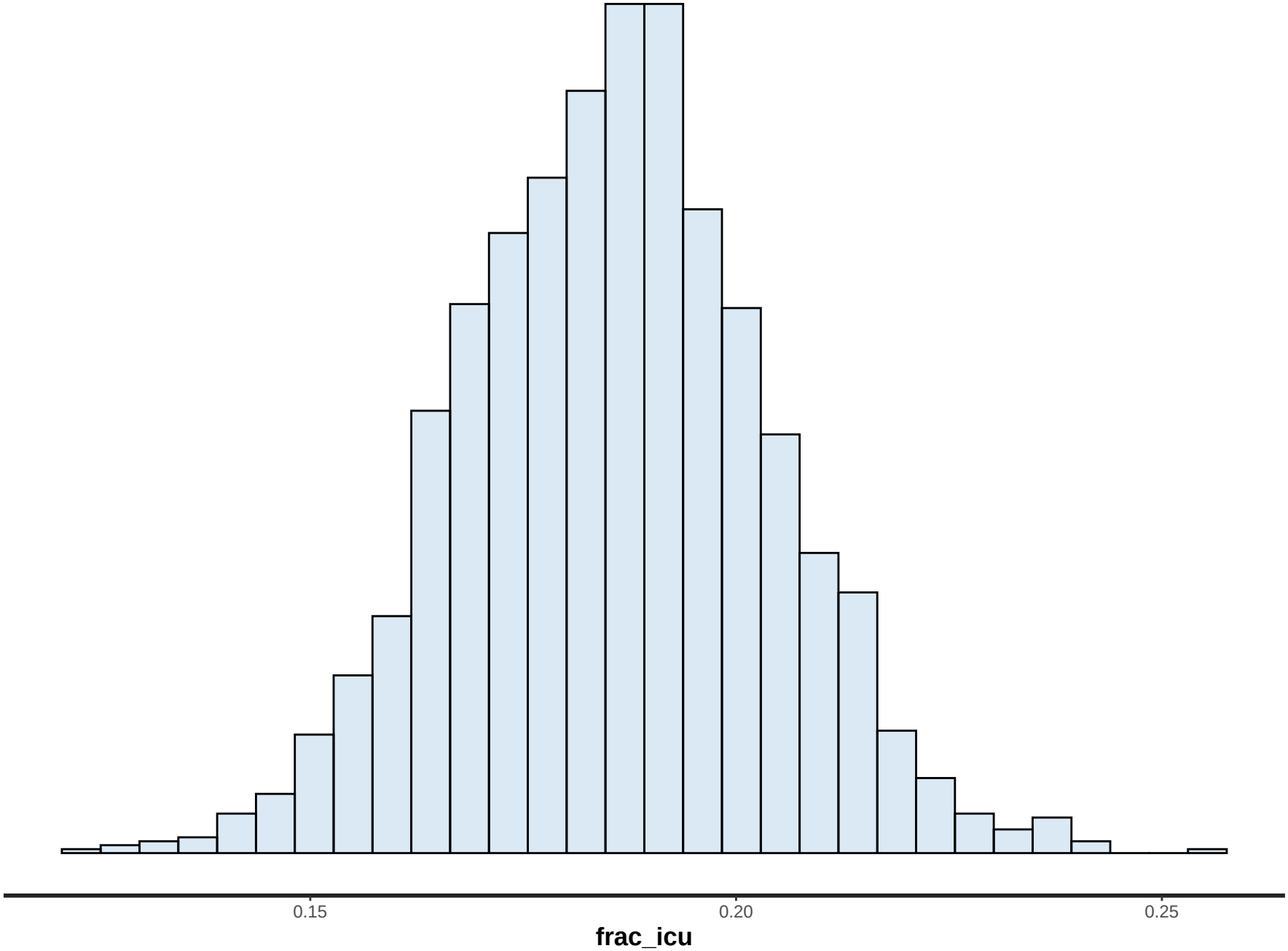

4
6
8
duration_rec_mild

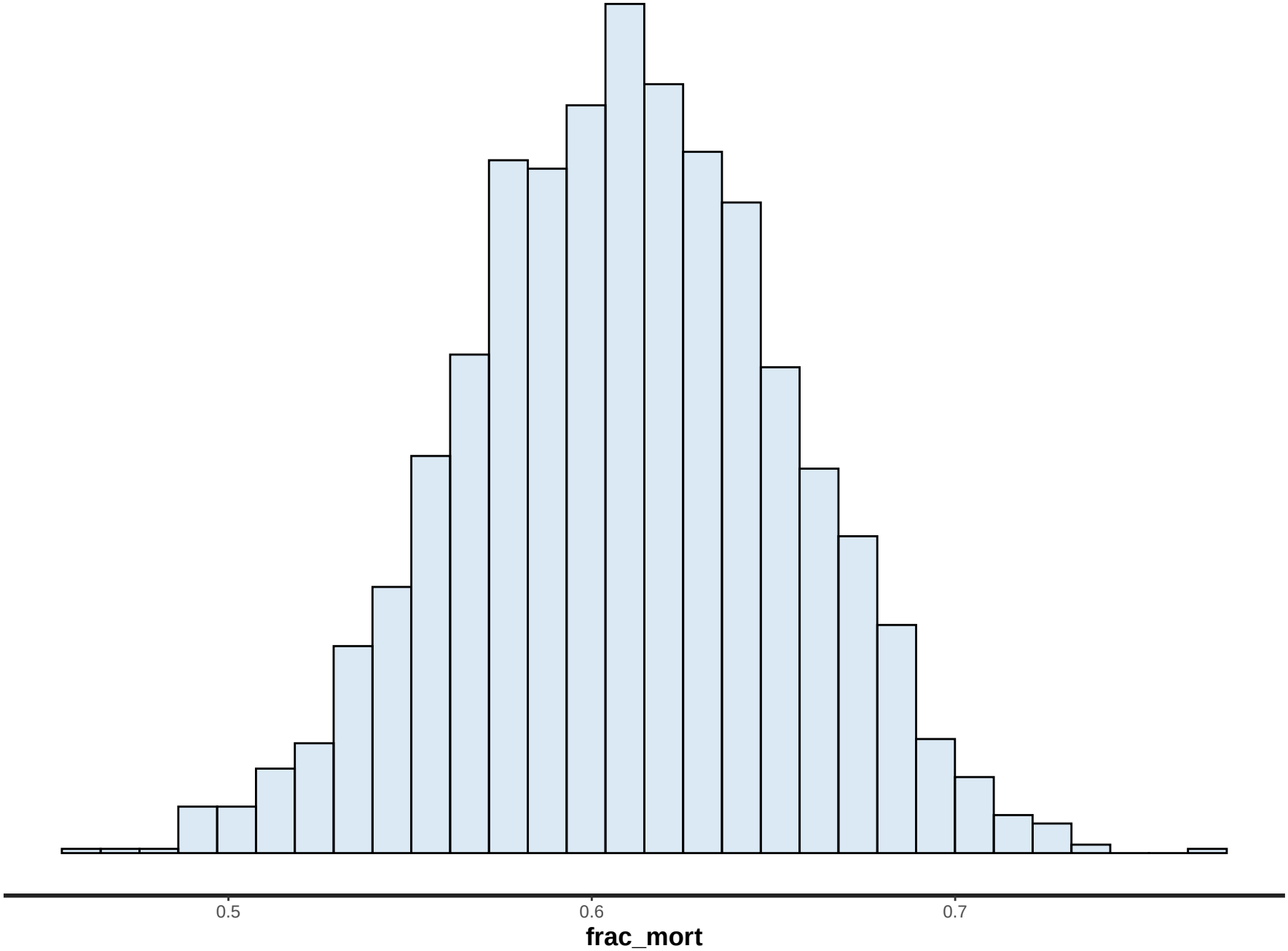

5
10
duration_pre_hosp

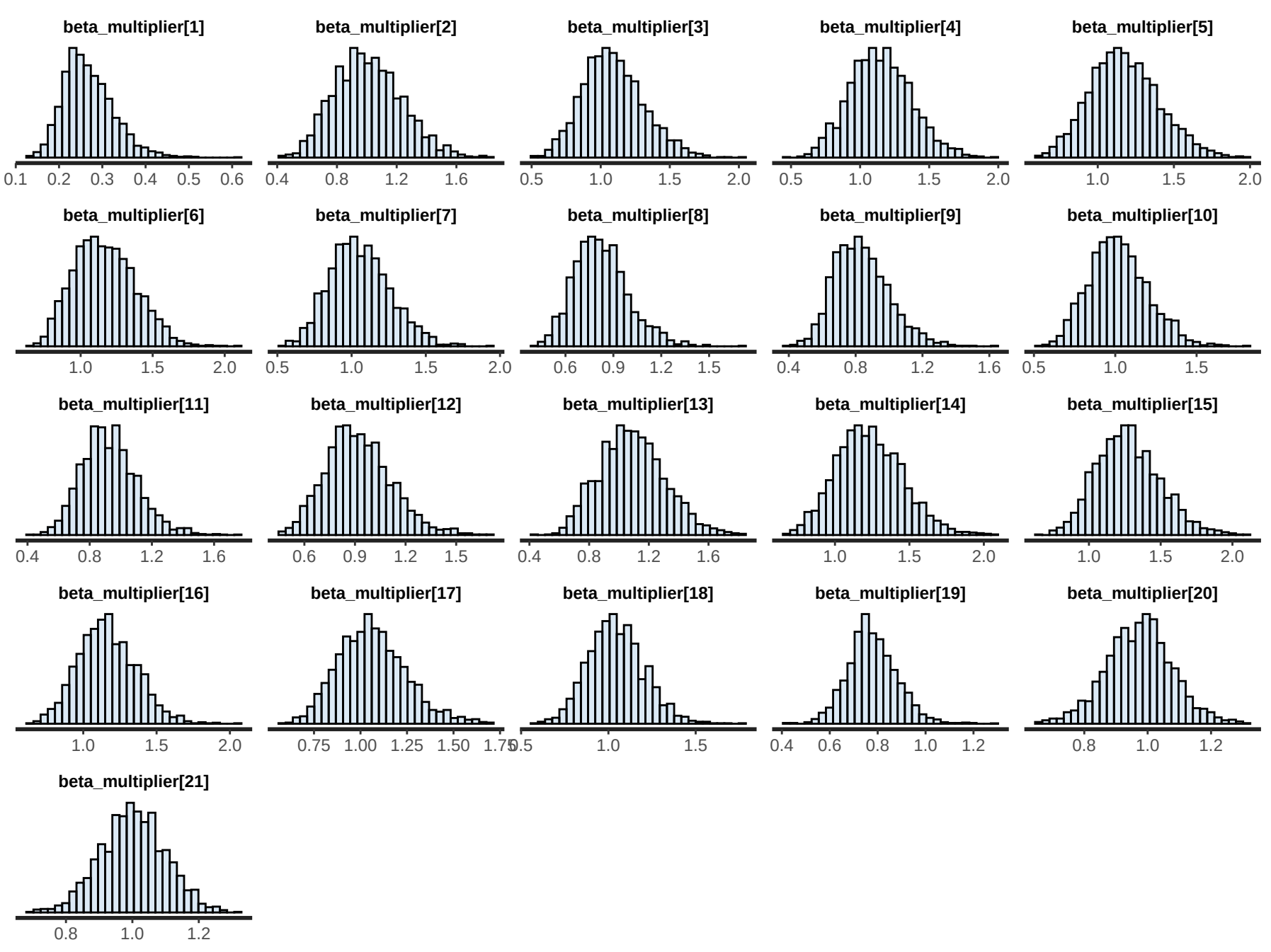

4
6
8
duration_hosp_mod


9
11
13
duration_hosp_icu


0.000
0.025
0.050
0.075
0.100
0.125
frac_hosp


0.15
0.20
0.25
frac_icu


0.5
0.6
0.7
frac_mort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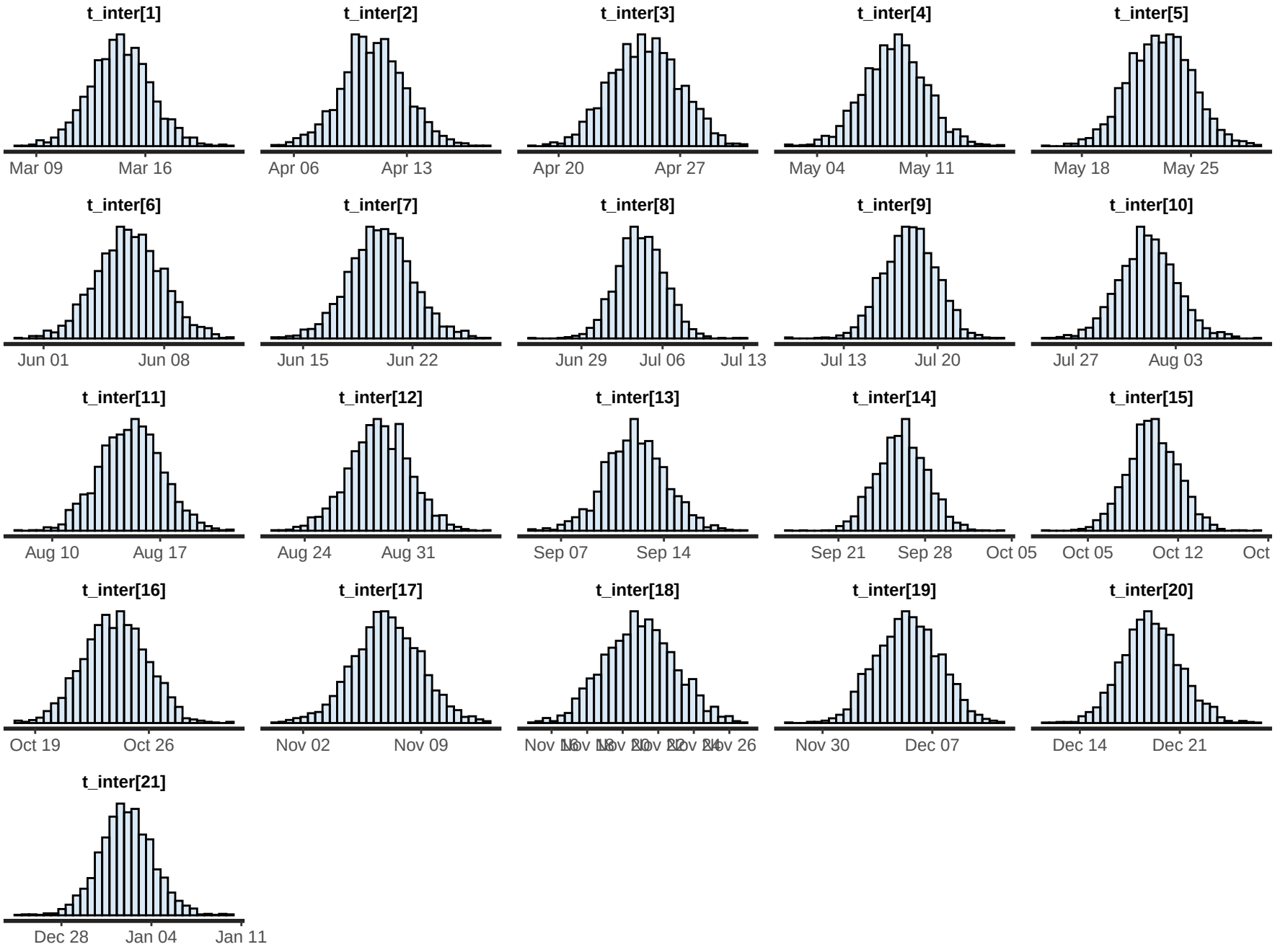
0.1 0.2 0.3 0.4 0.5 0.6
beta_multiplier[2]
0.4 0.8 1.2 1.6
beta_multiplier[3]
0.5 1.0 1.5 2.0
beta_multiplier[4]
0.5 1.0 1.5 2.0
beta_multiplier[5]
1.0 1.5 2.0
beta_multiplier[6]
1.0 1.5 2.0
beta_multiplier[7]
0.5 1.0 1.5 2.0
beta_multiplier[8]
0.6 0.9 1.2 1.5
beta_multiplier[9]
0.4 0.8 1.2 1.6
beta_multiplier[10]
0.5 1.0 1.5
beta_multiplier[11]
0.4 0.8 1.2 1.6
beta_multiplier[12]
0.6 0.9 1.2 1.5
beta_multiplier[13]
0.4 0.8 1.2 1.6
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]
0.75 1.00 1.25 1.50 1.75
beta_multiplier[18]
0.5 1.0 1.5
beta_multiplier[19]
0.4 0.6 0.8 1.0 1.2
beta_multiplier[20]
0.8 1.0 1.2
beta_multiplier[21]
0.8 1.0 1.2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Mar 09
Mar 16
t_inter[2]
Apr 06
Apr 13
t_inter[3]
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
t_inter[8]
Jun 29
Jul 06
Jul 13
t_inter[9]
Jul 13
Jul 20
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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
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Sep 21
Sep 28
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Oct 12
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Oct 19
Oct 26
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Nov 02
Nov 09
t_inter[18]
Nov 26
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Nov 30
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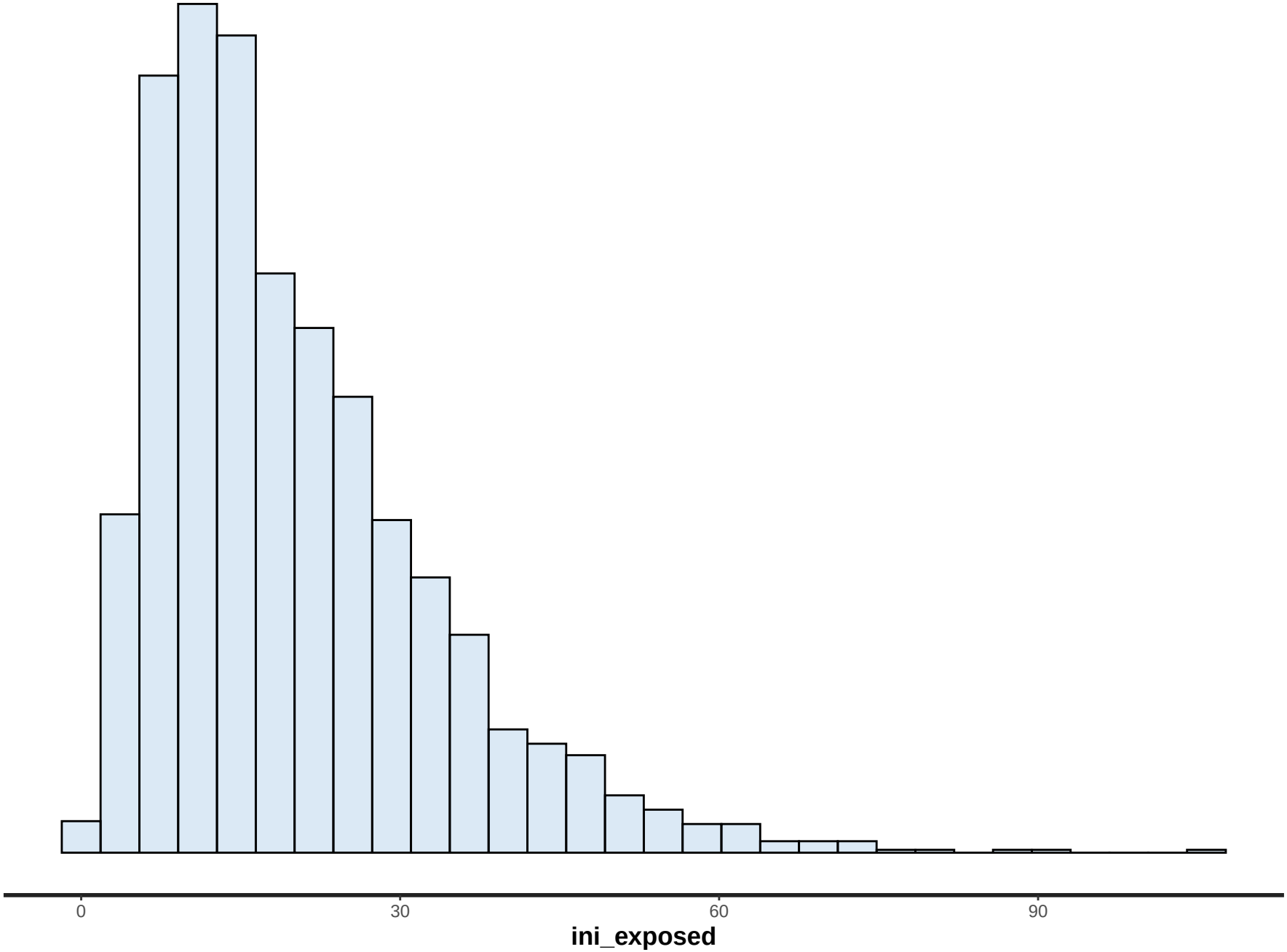
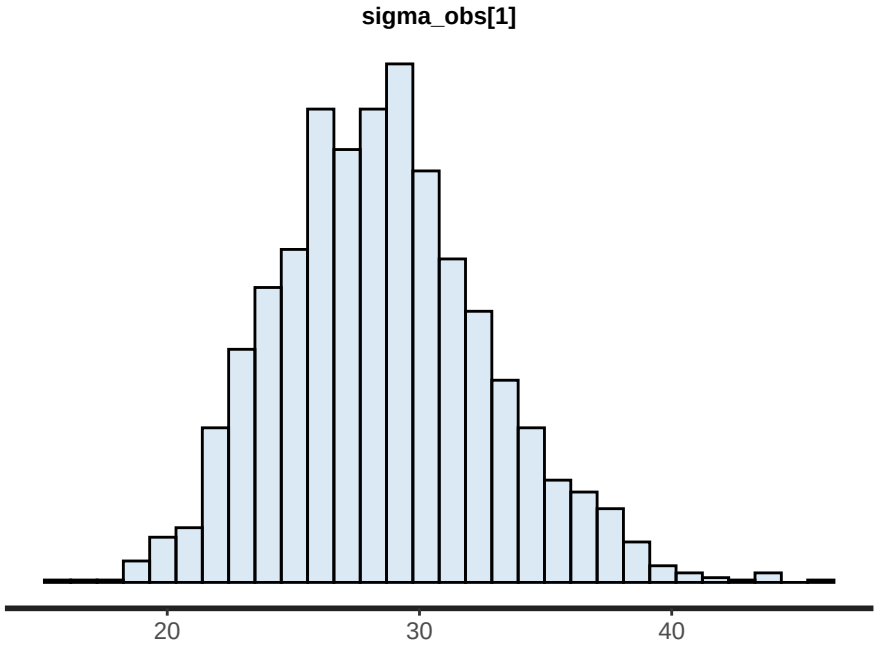
Dec 14
Dec 21
t_inter[21]
Dec 28
Jan 04
Jan 11


0
30
60
90
ini_exposed


sigma_obs[1]
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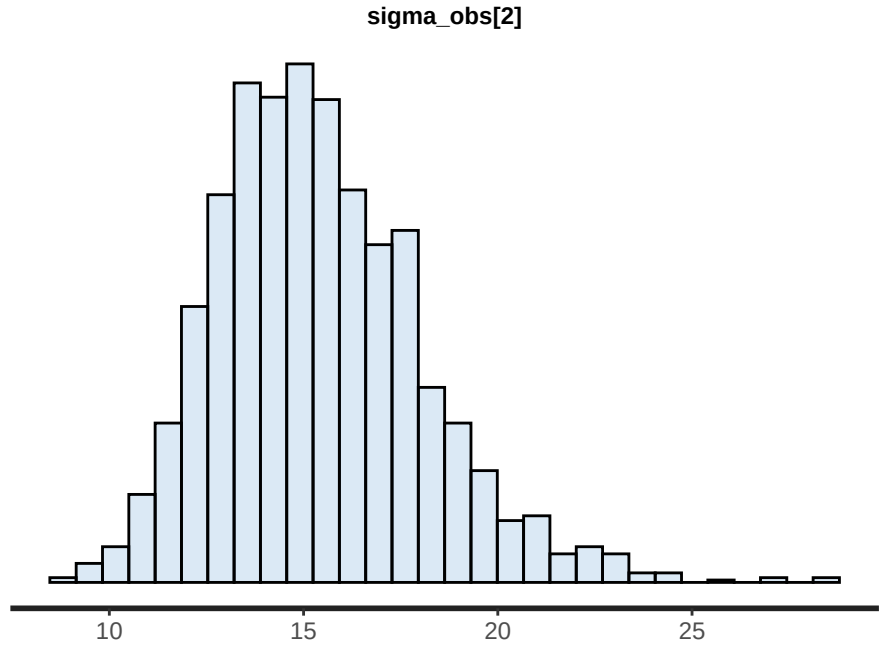
30
40


sigma_obs[2]
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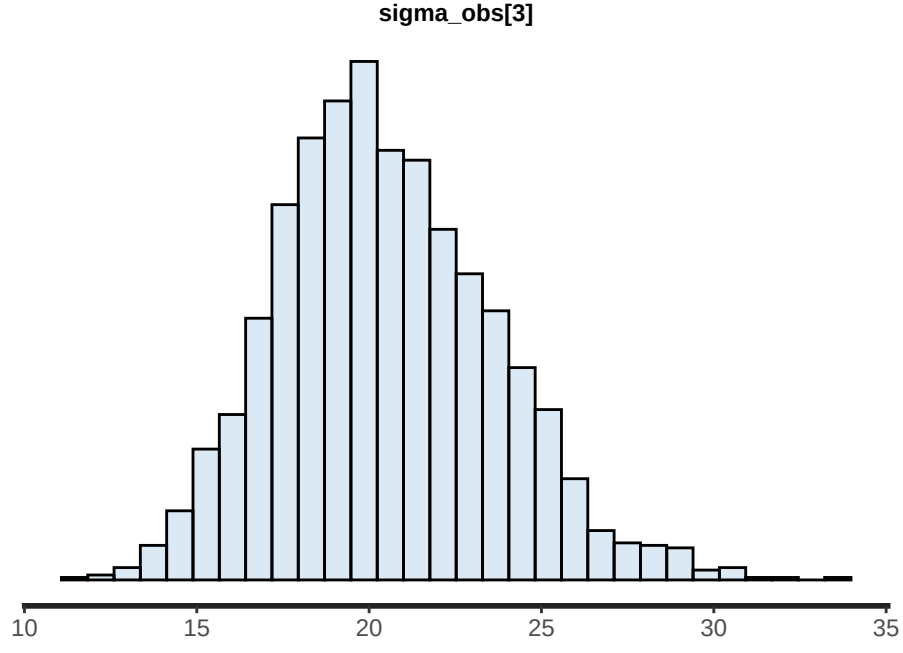
15
20
25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10
15
20
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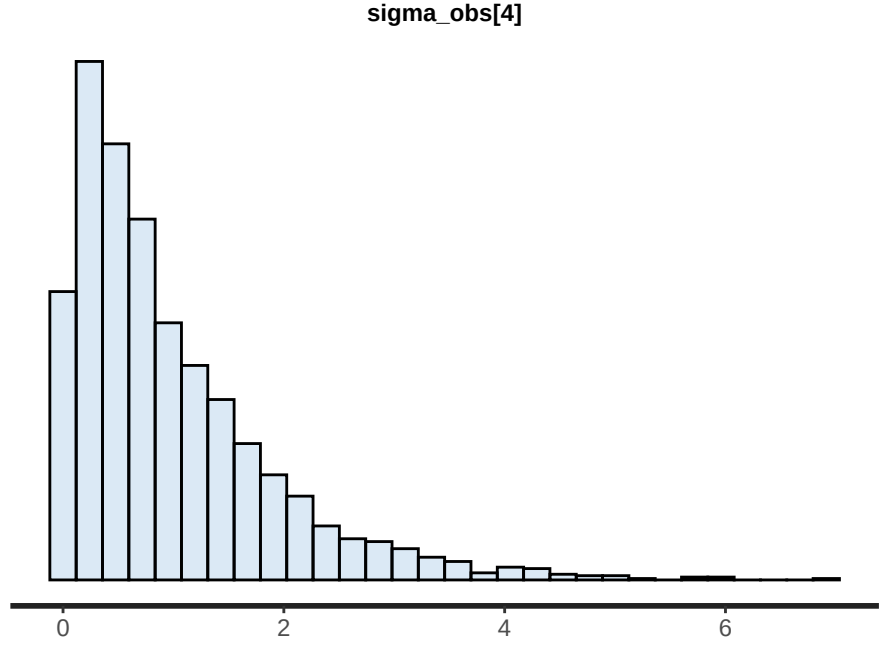
30
35


sigma_obs[4]
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2
4
6