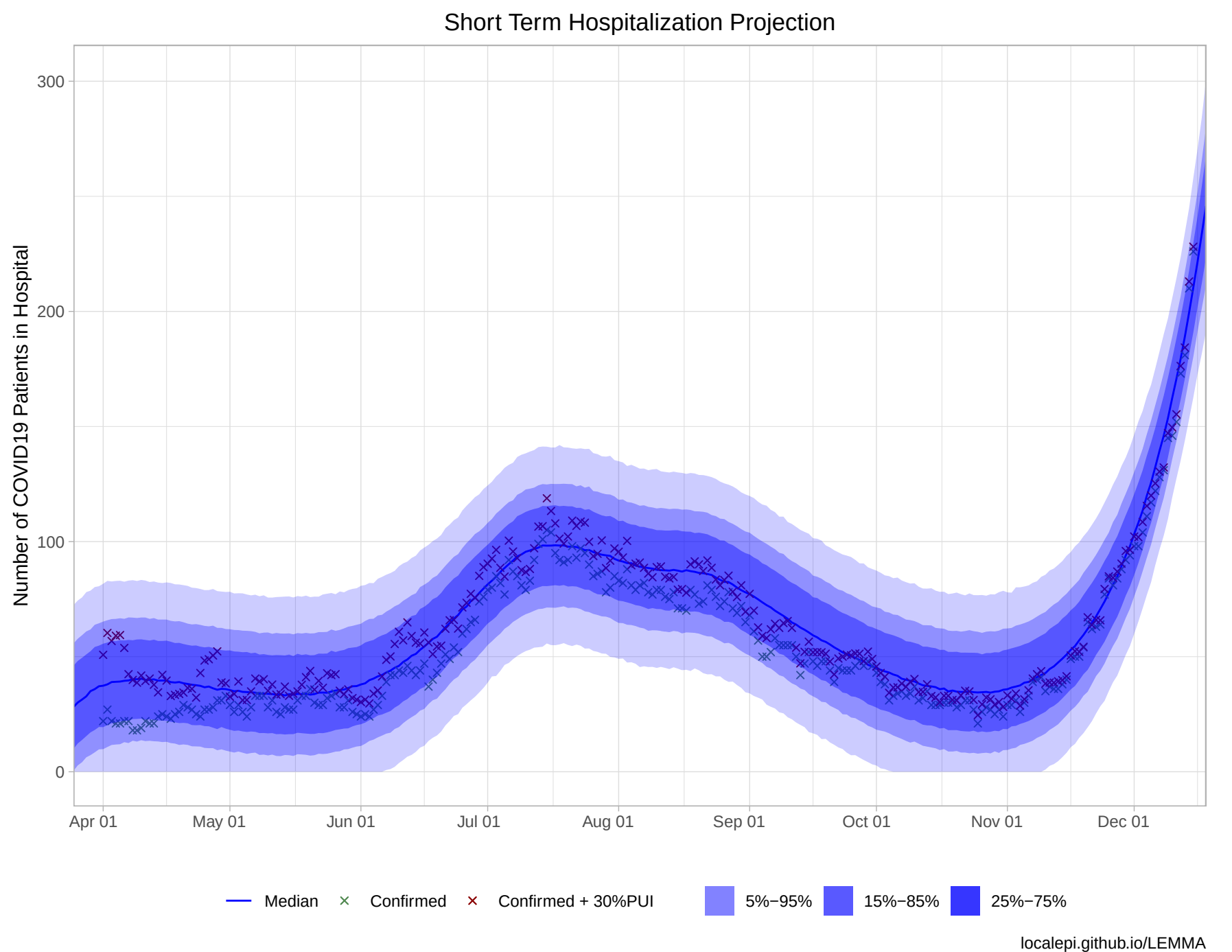
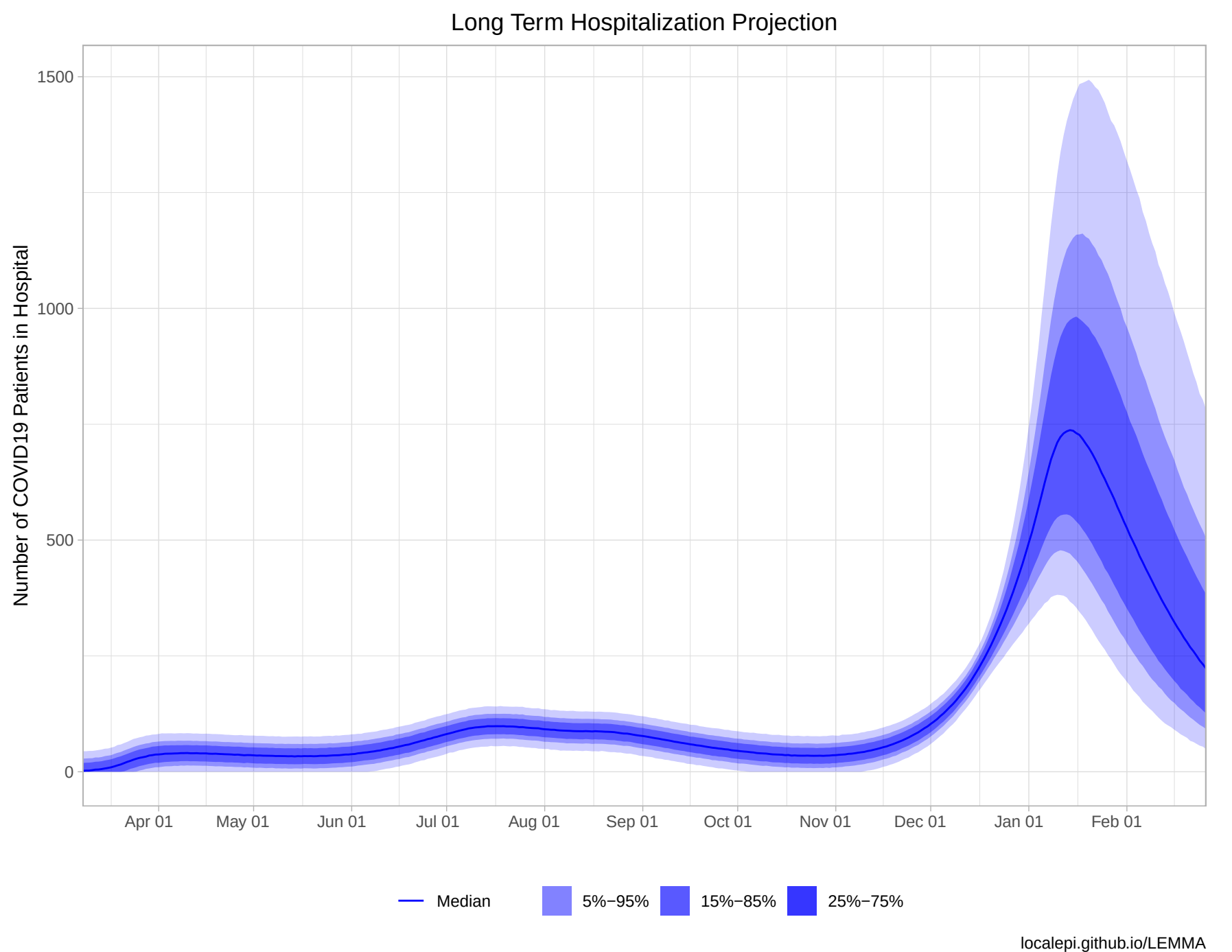
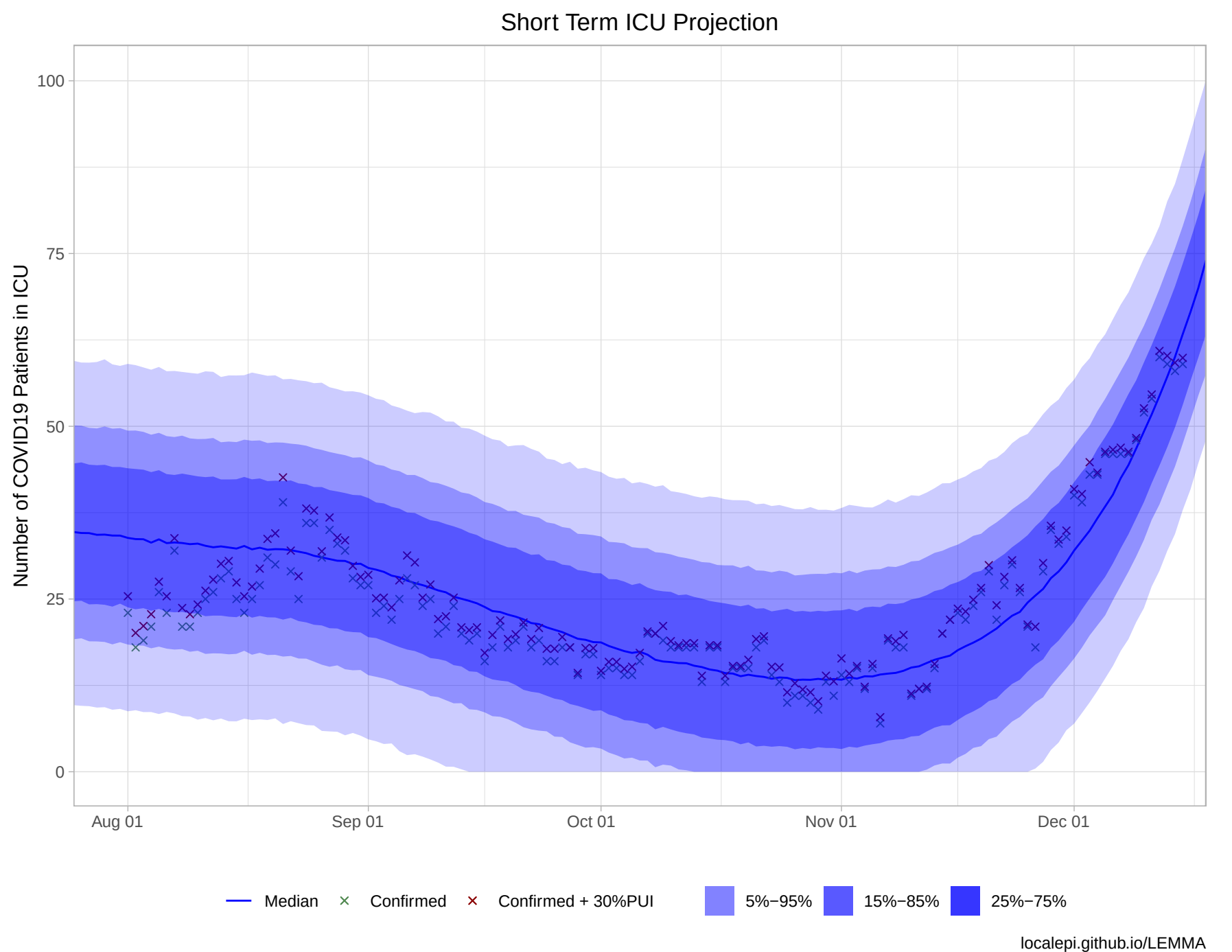
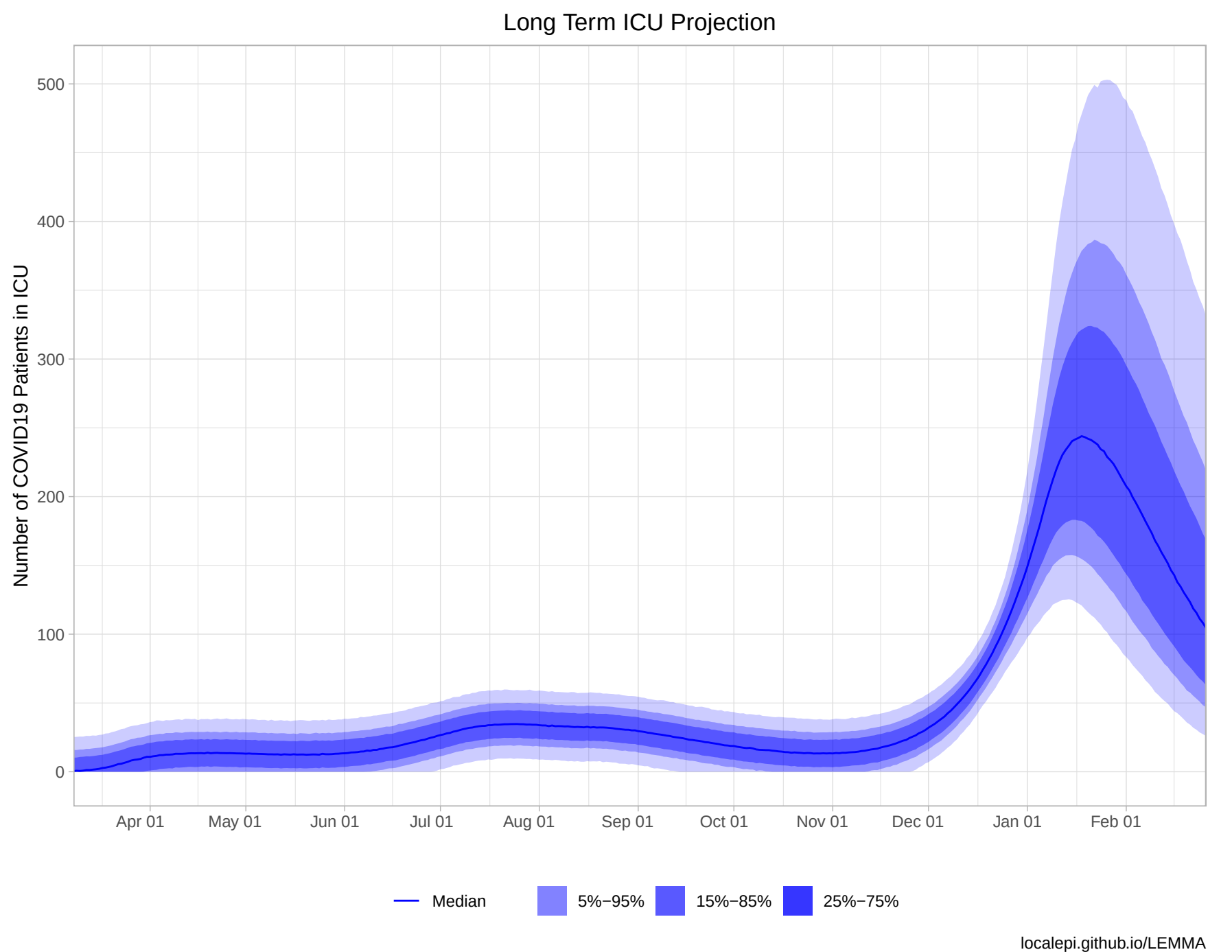
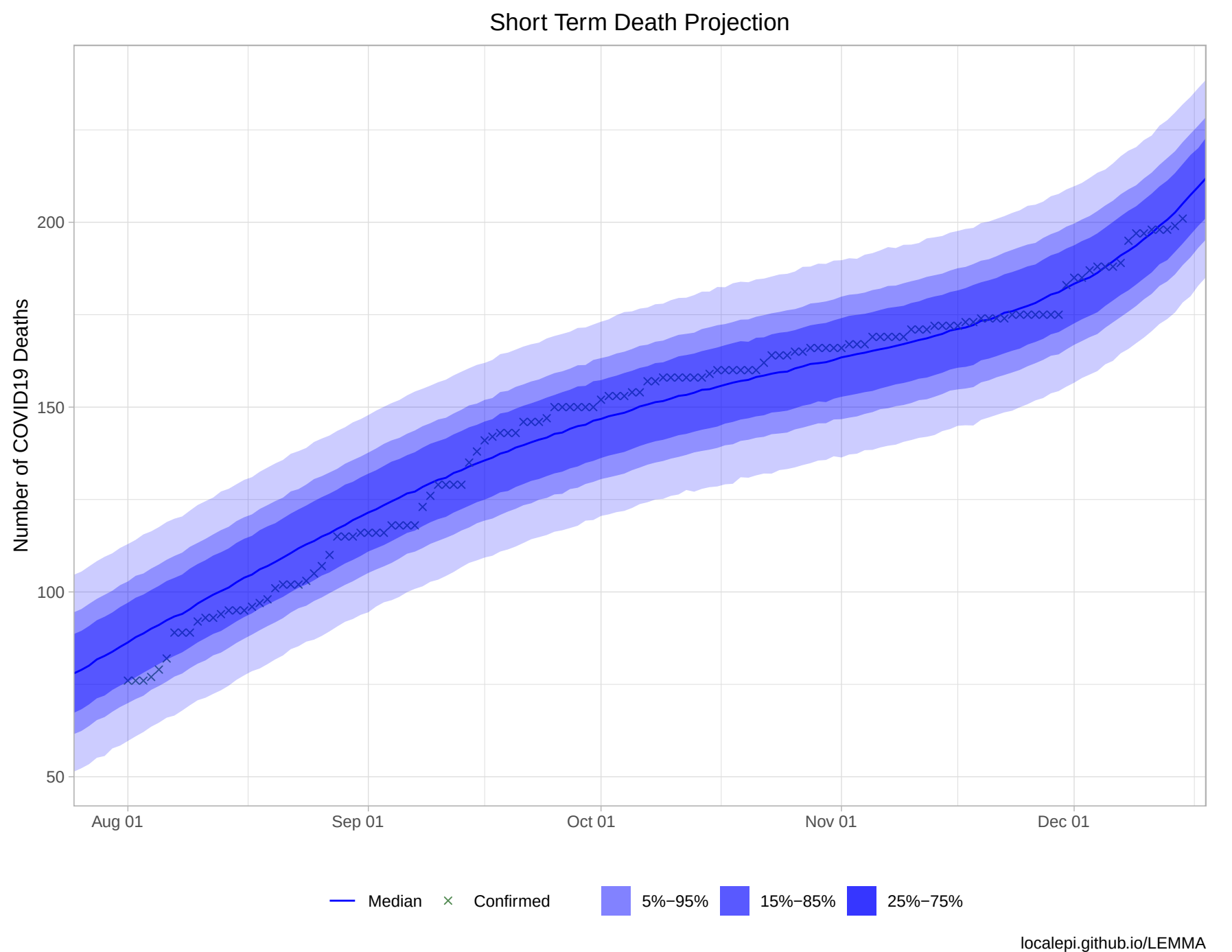
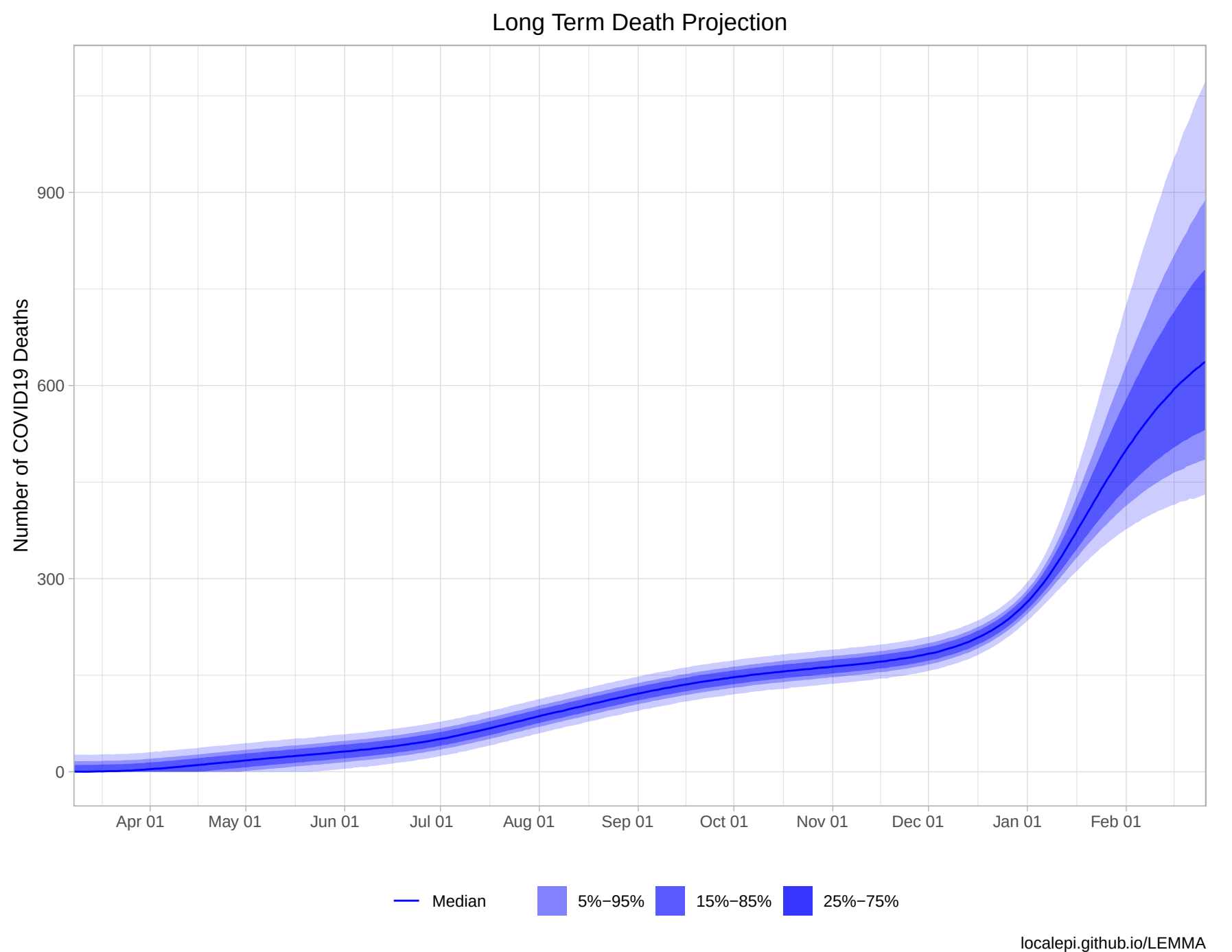

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
300
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

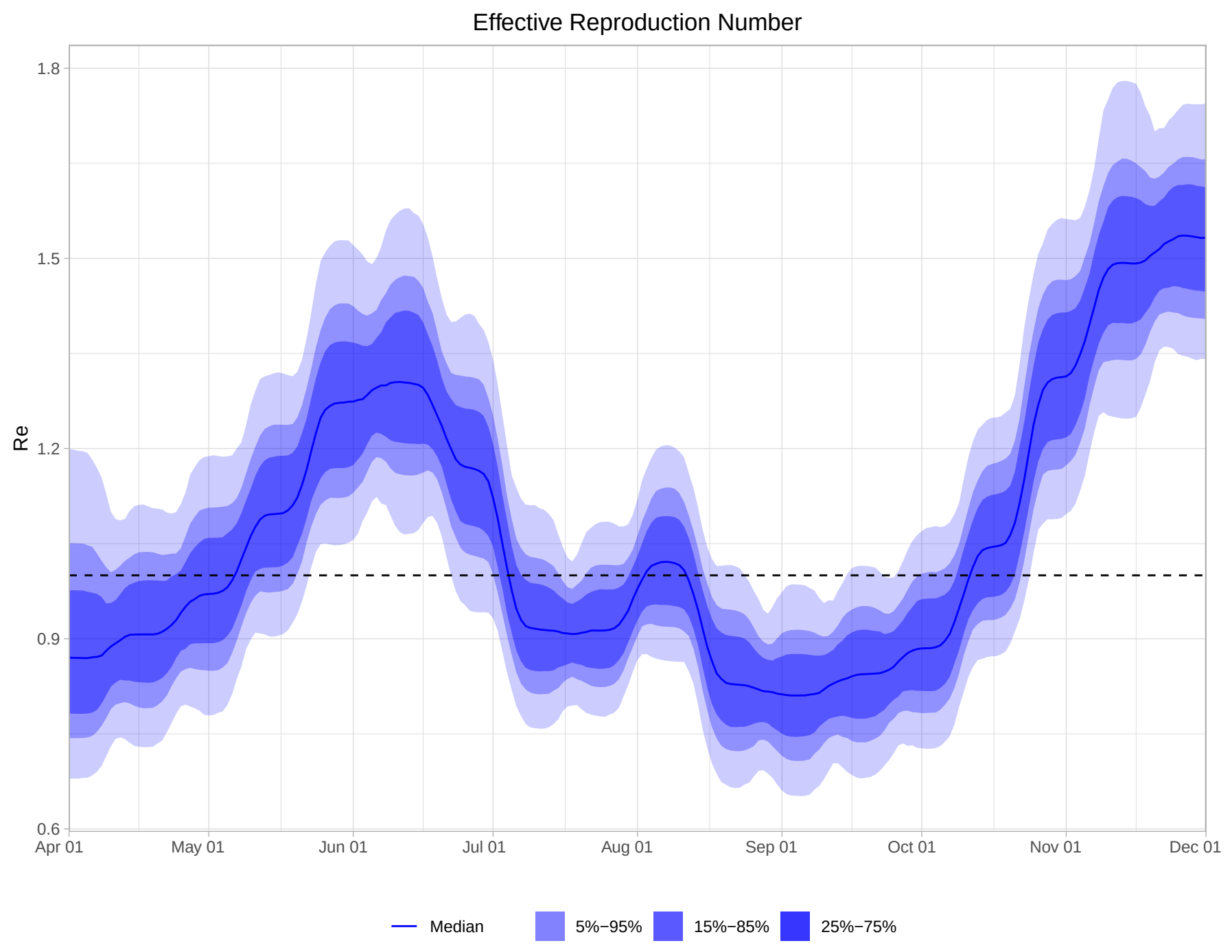

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
1500
1000
500
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
100
75
50
25
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
500
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

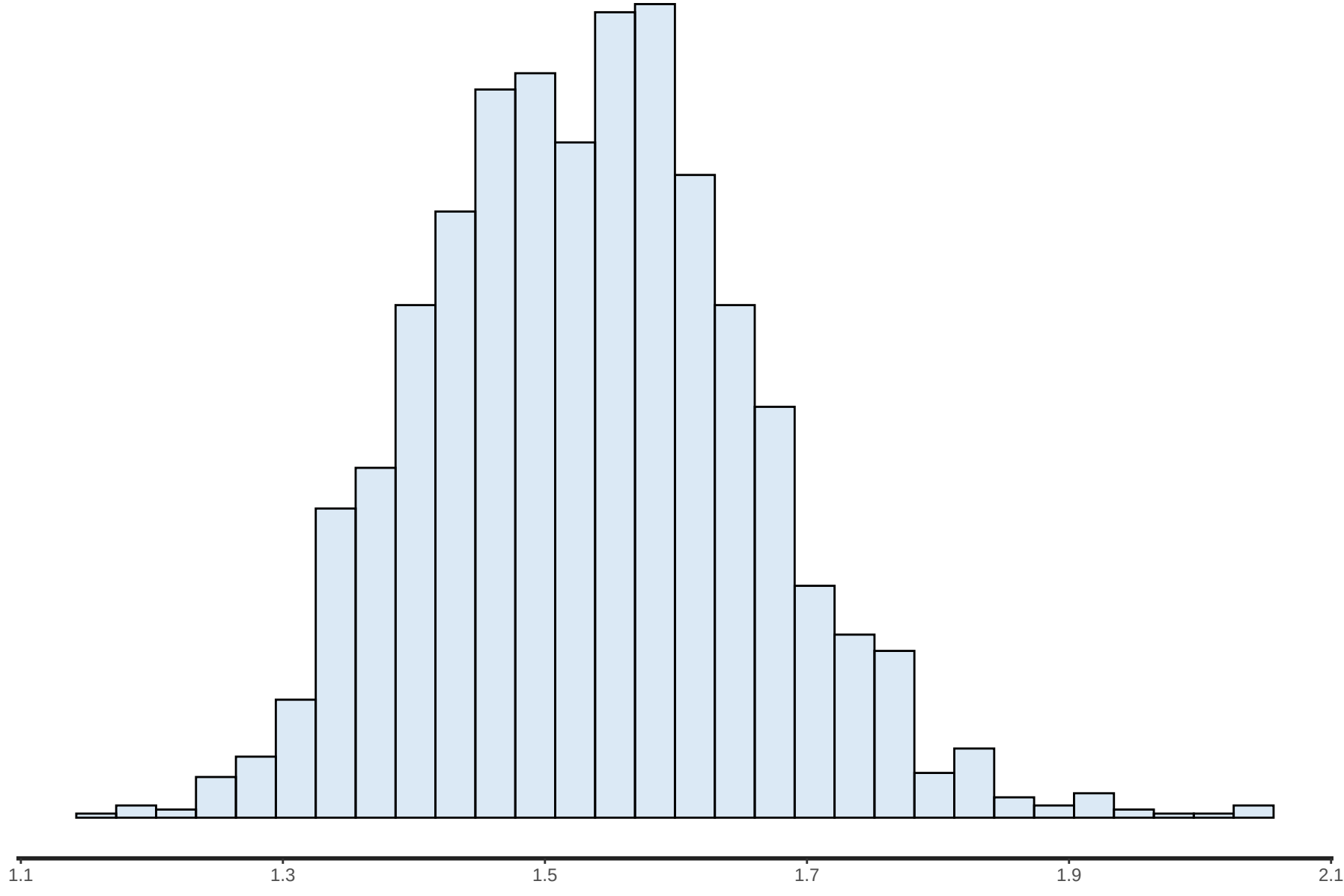

Short Term Death Projection
Number of COVID19 Deaths
200
150
100
50
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

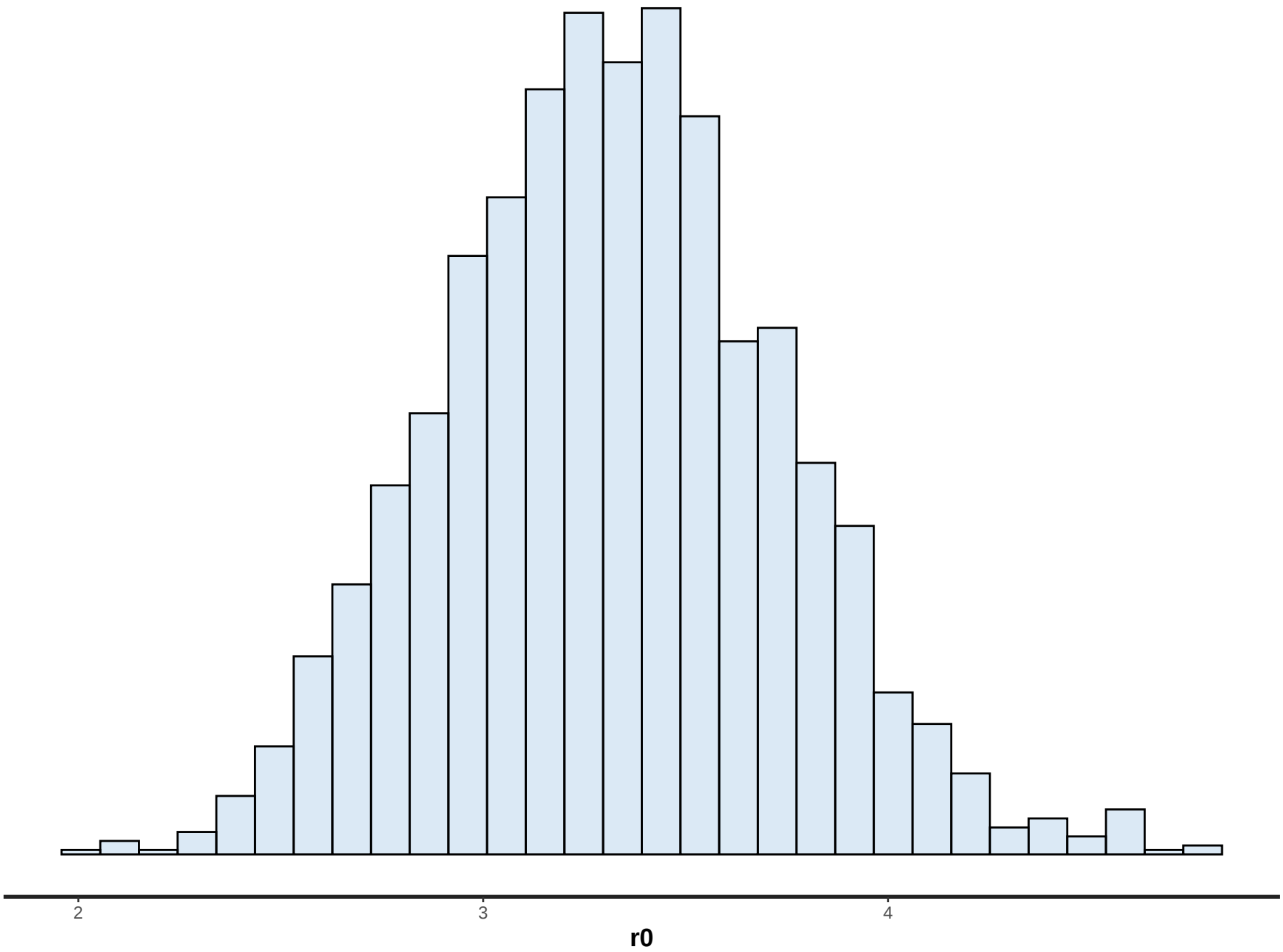

Long Term Death Projection
Number of COVID19 Deaths
0
300
600
900
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

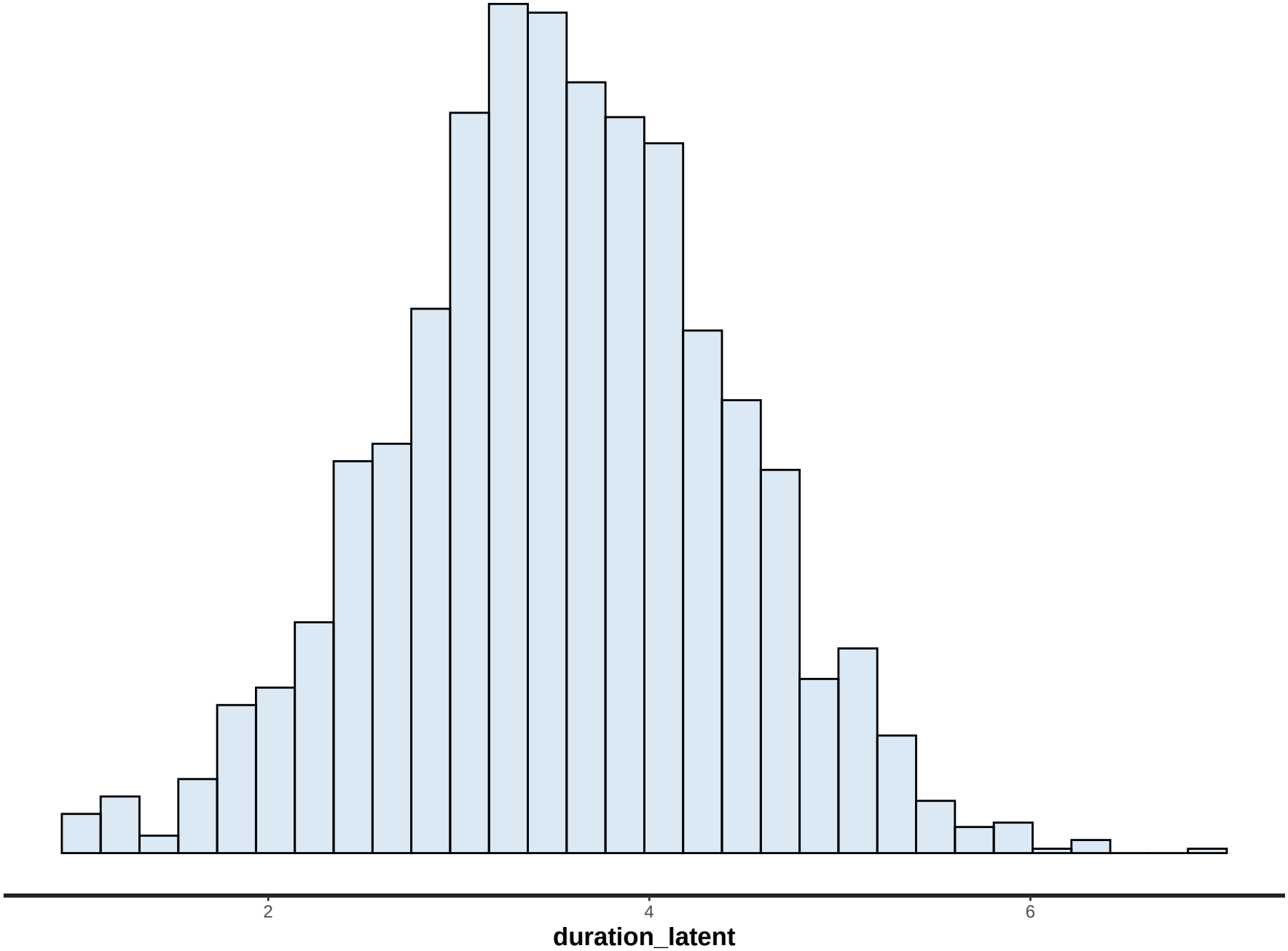

Effective Reproduction Number
Re
1.8
1.5
1.2
0.9
0.6
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

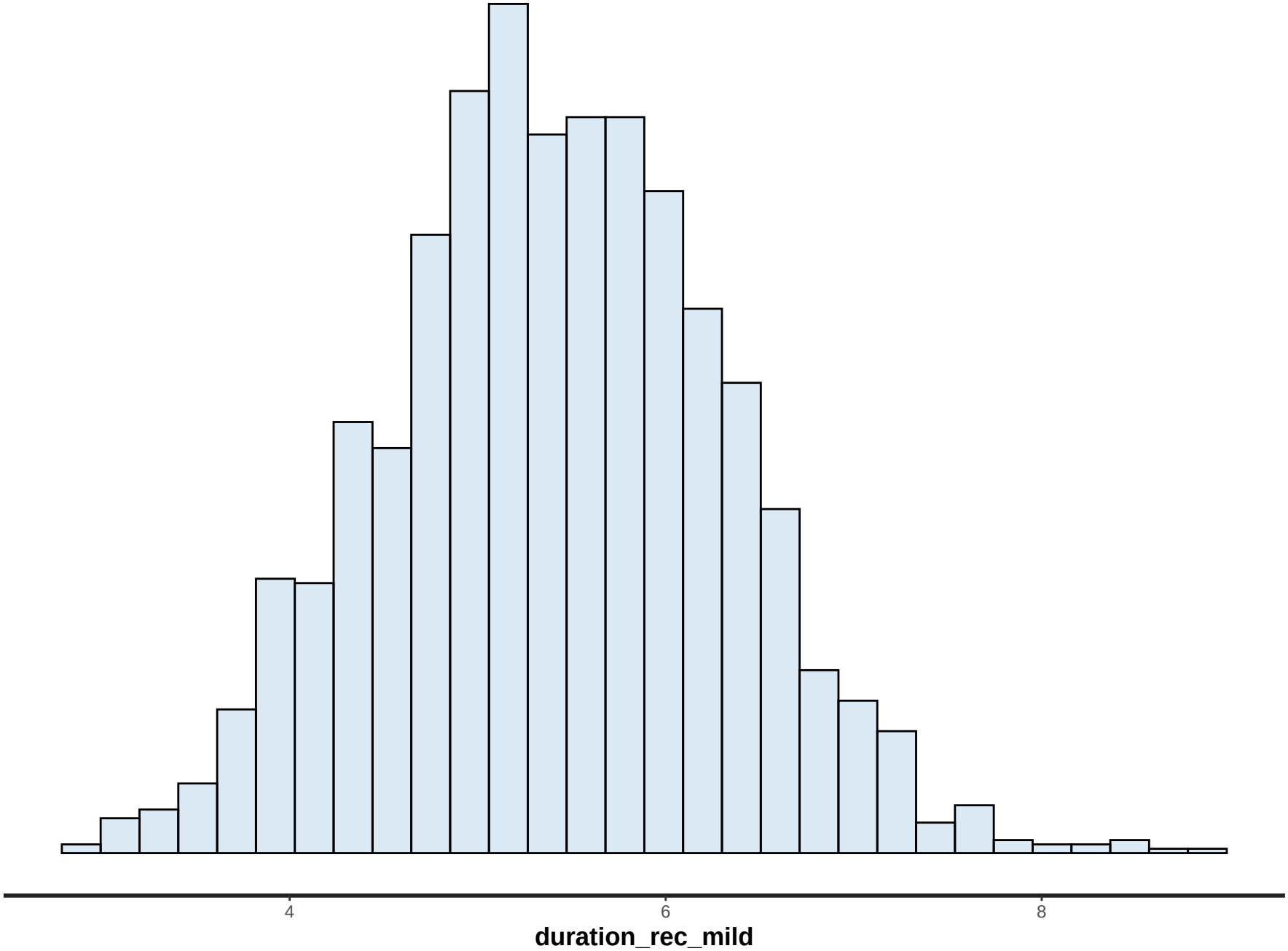
Rt as of 2020−12−01

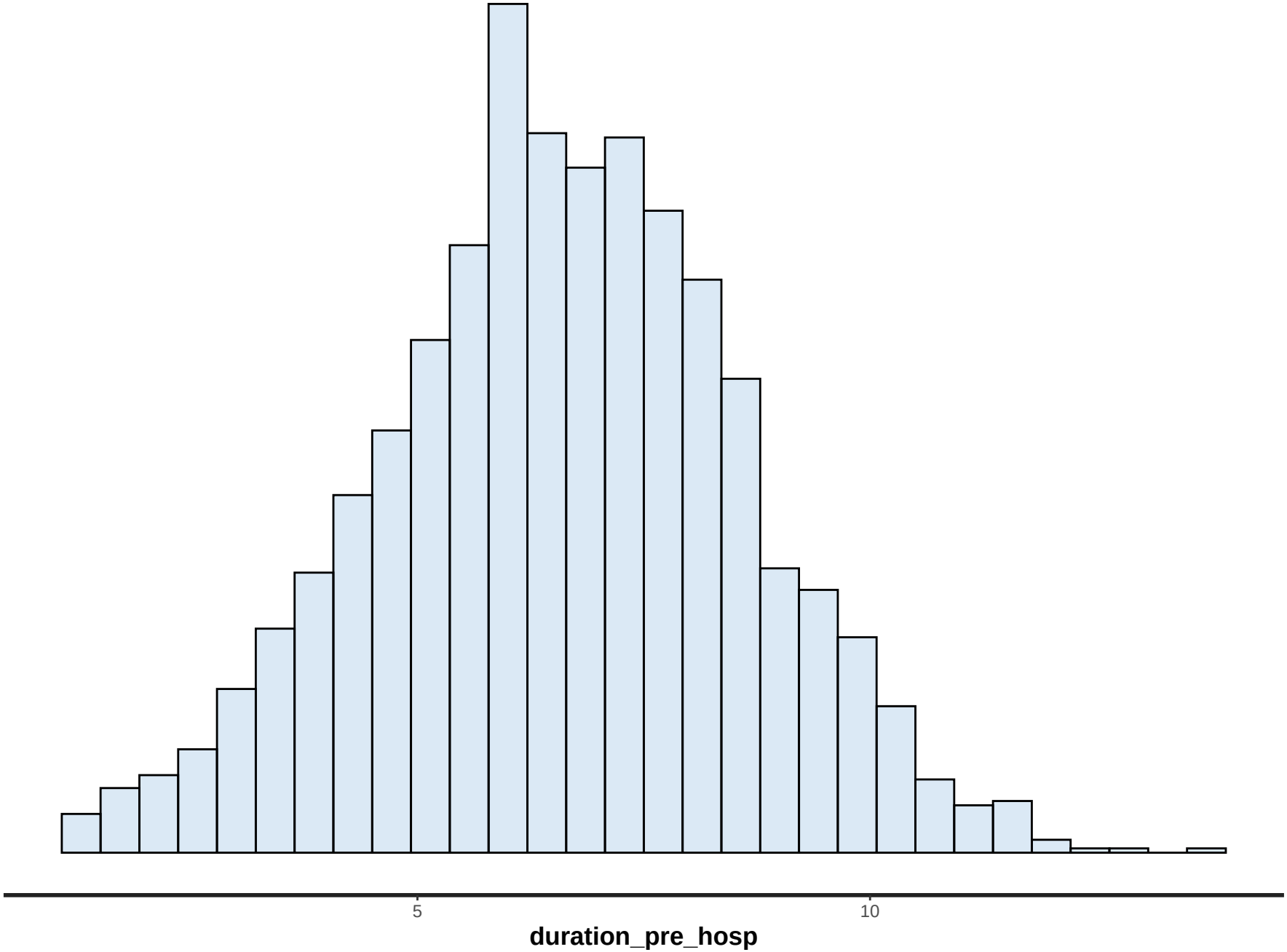
5%	10%	25%	50%	75%	90%	95%
1.34	1.38	1.45	1.53	1.61	1.69	1.74

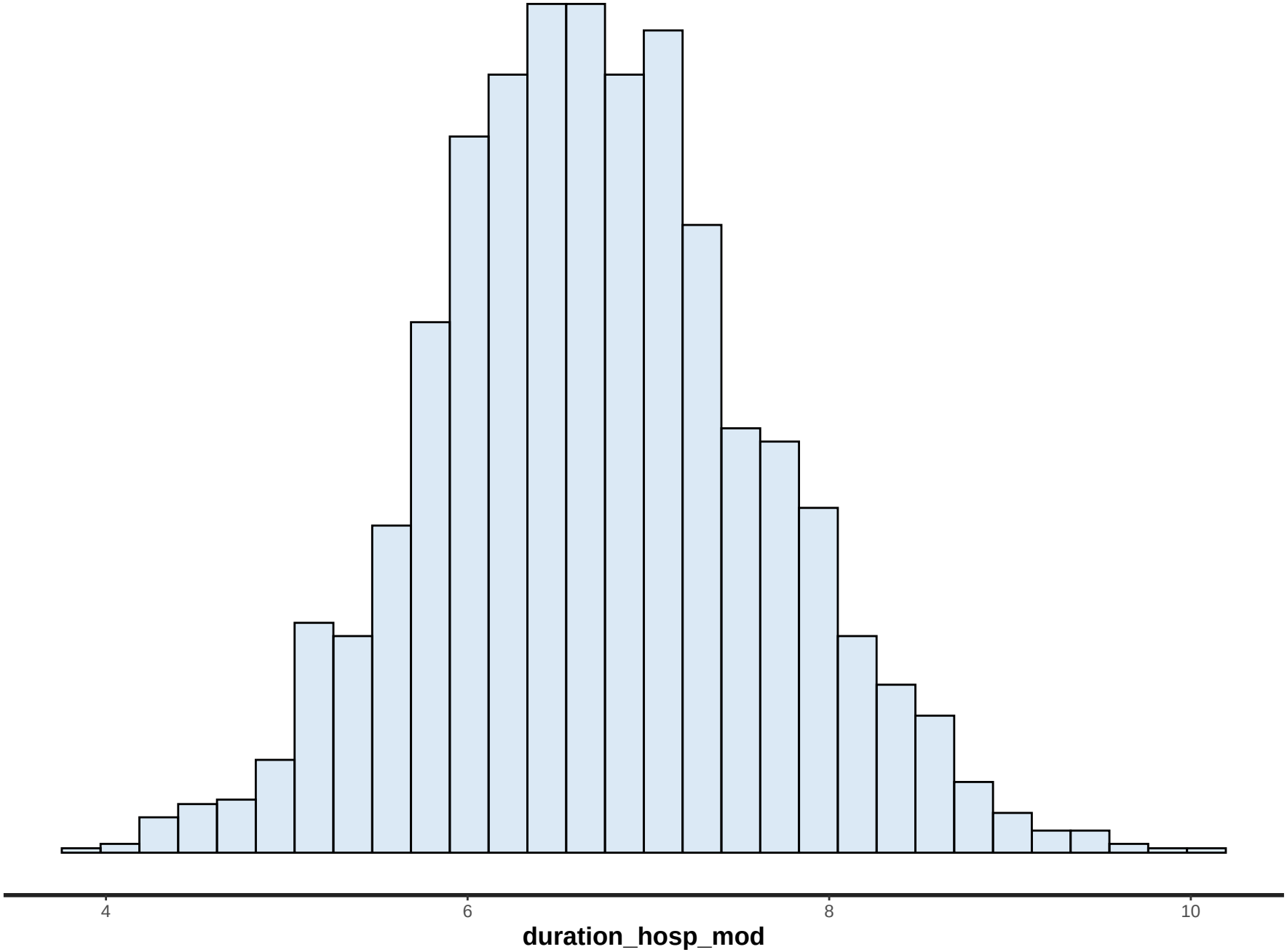


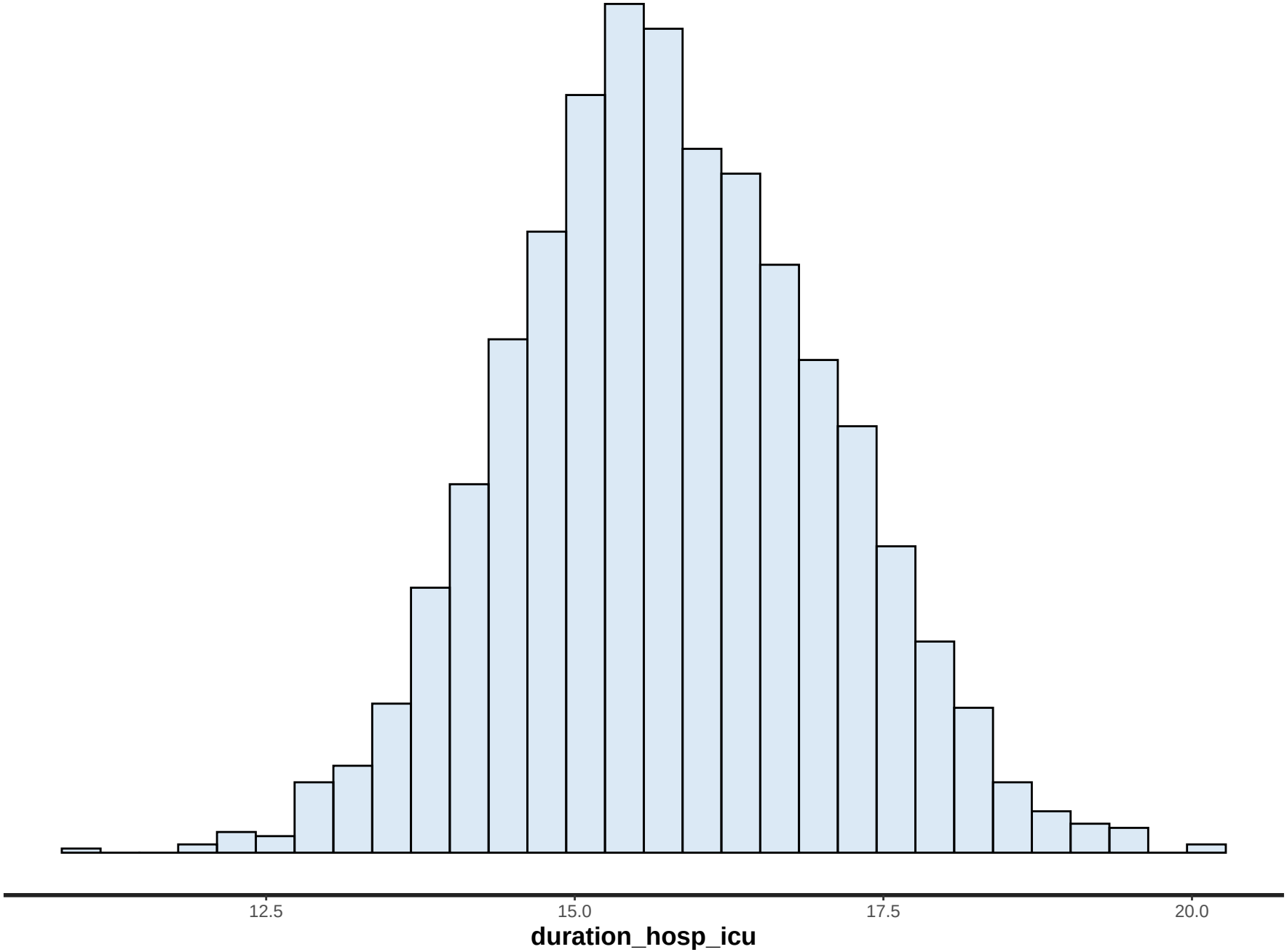

2
3
4
r0

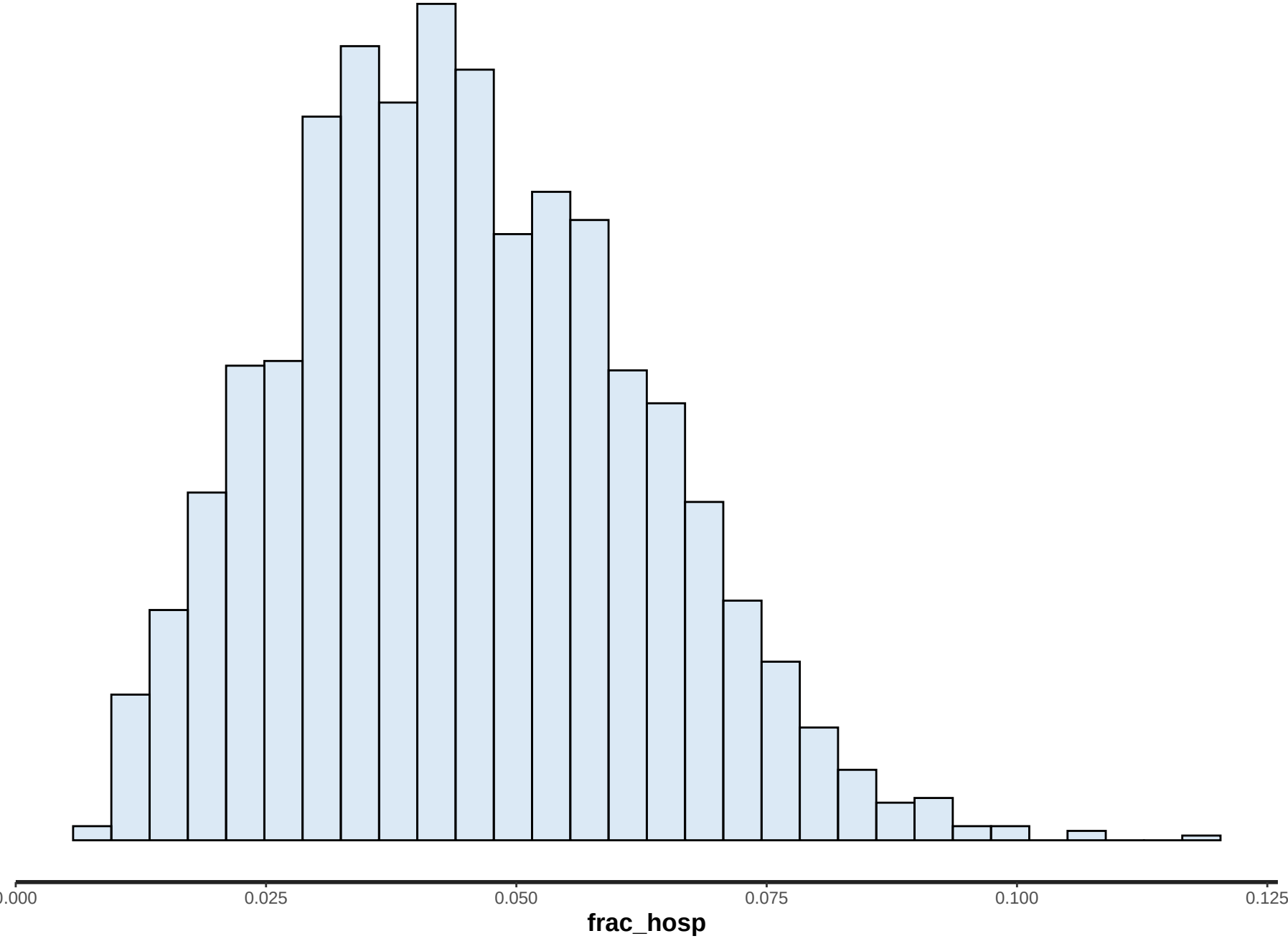

2
4
6
duration_latent

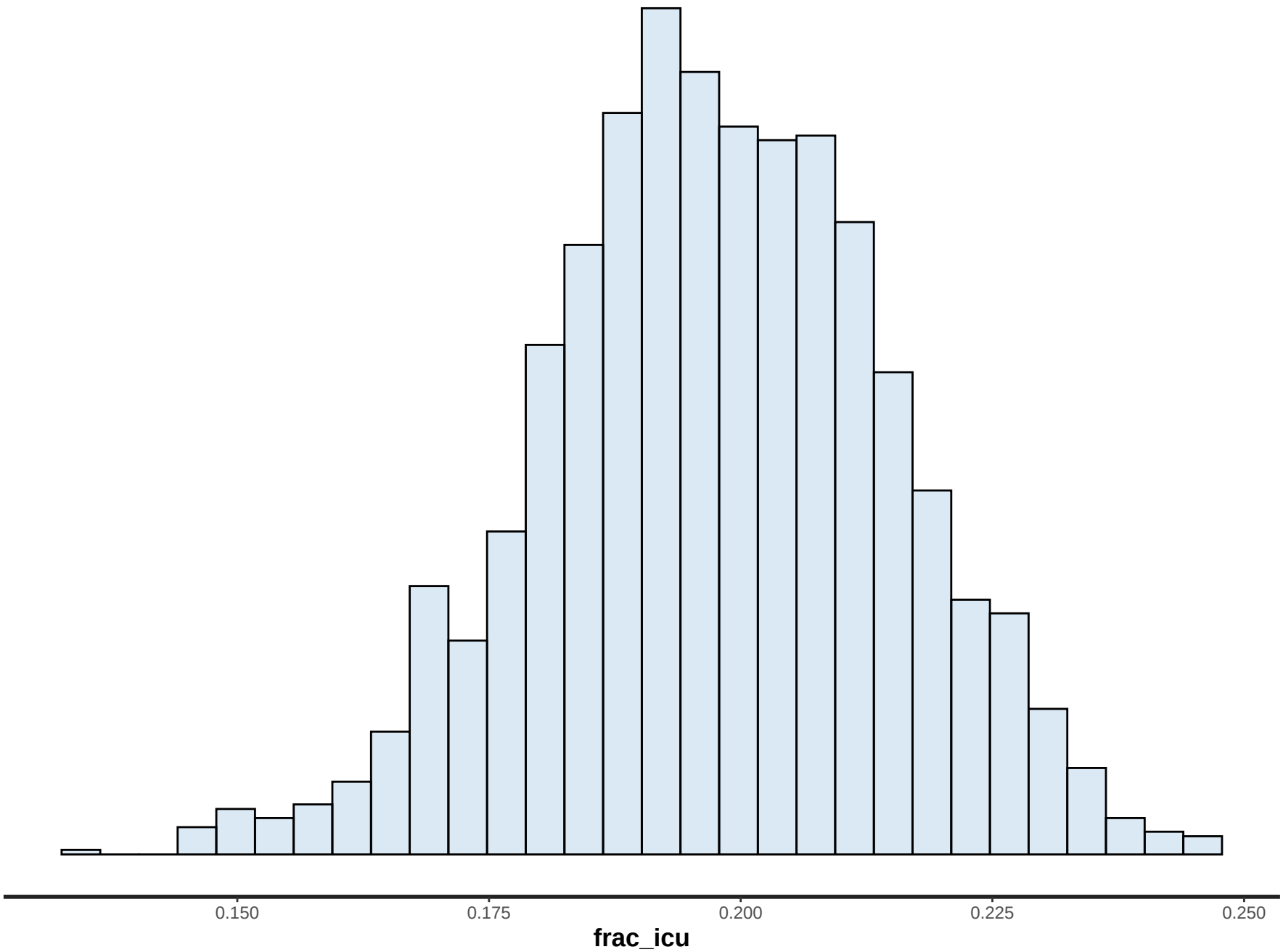

4
6
8
duration_rec_mild

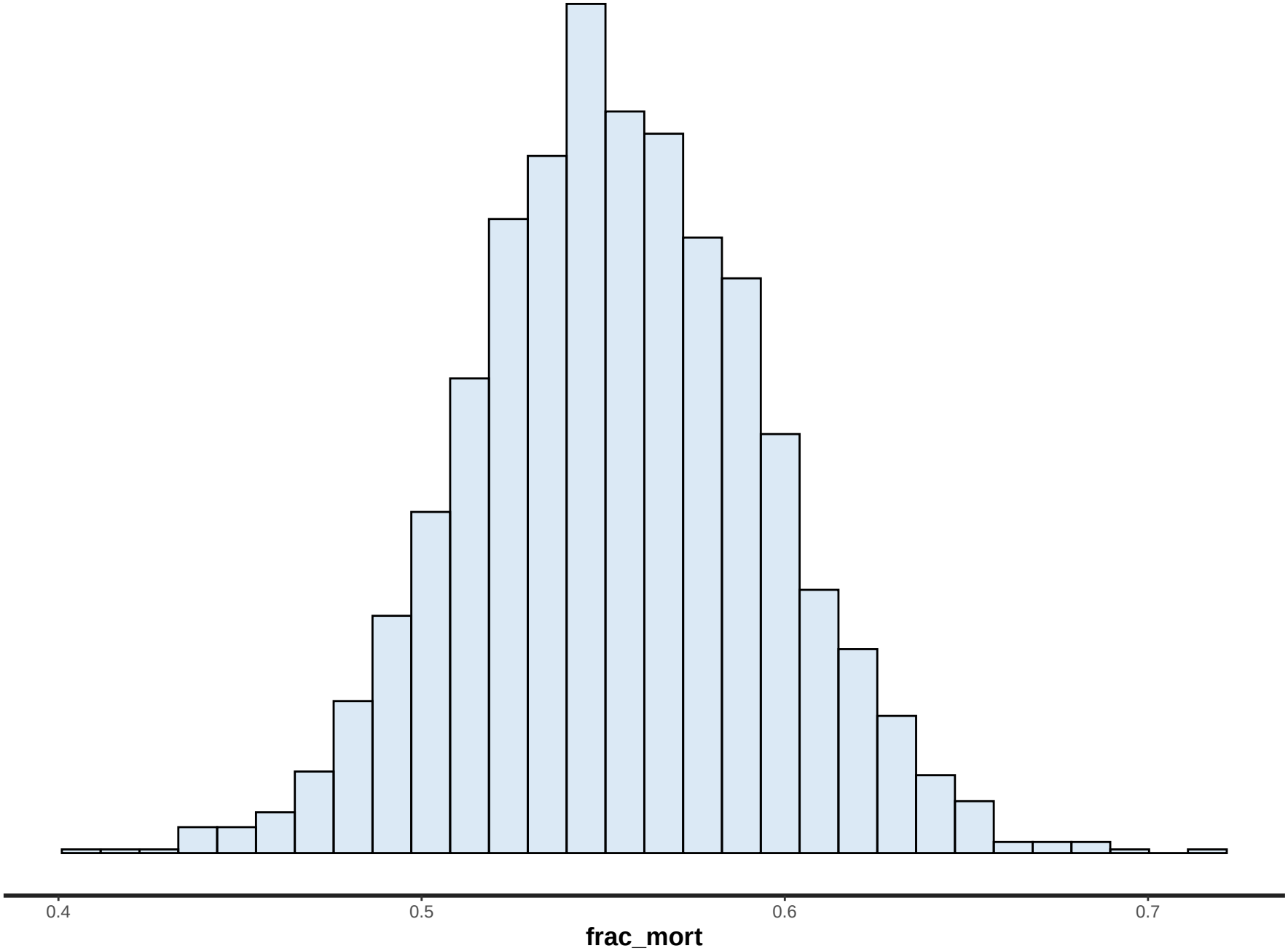

5
10
duration_pre_hosp

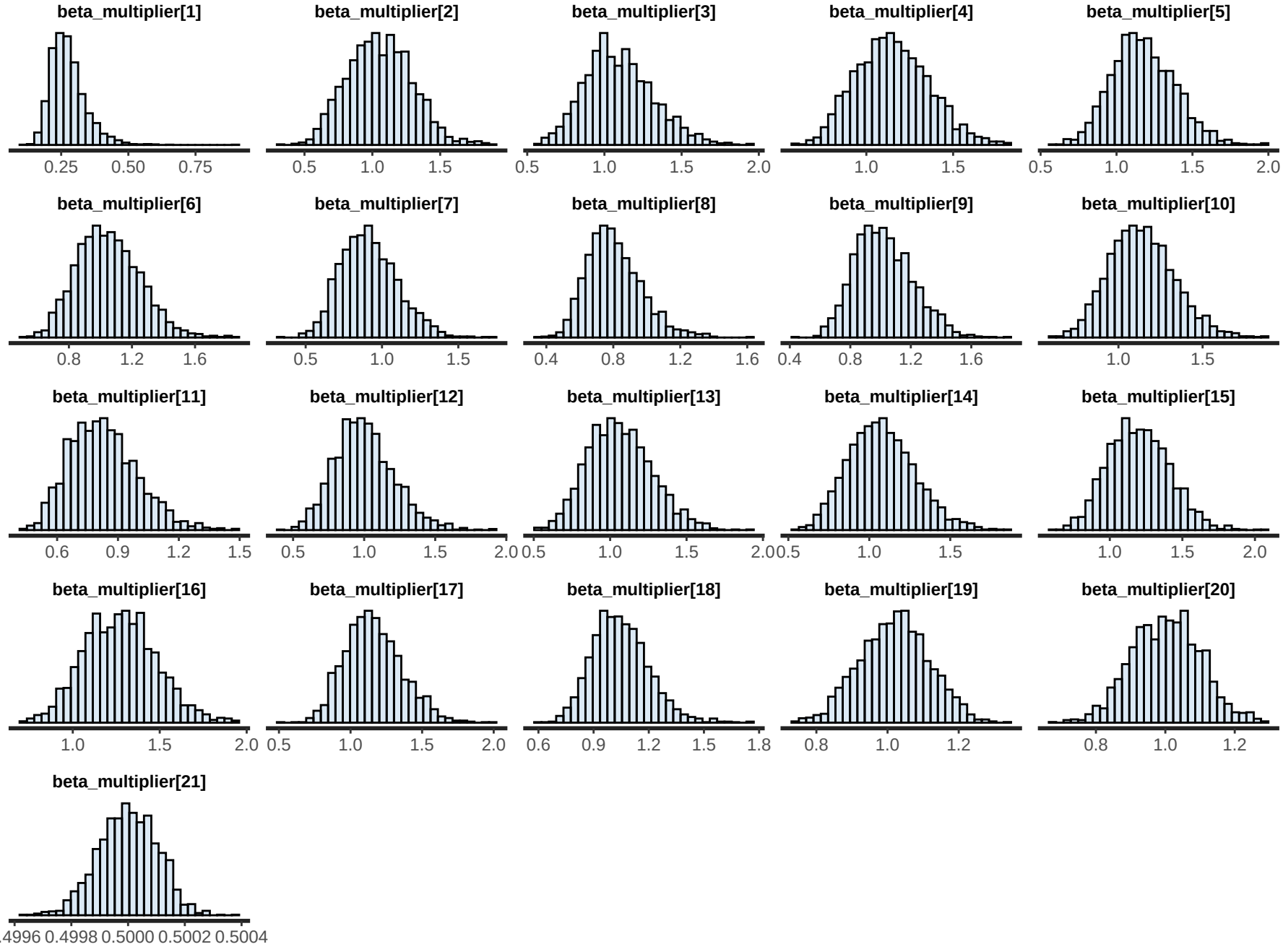

4
6
8
10
duration_hosp_mod


12.5
15.0
17.5
20.0
duration_hosp_icu


0.000
0.025
0.050
0.075
0.100
0.125
frac_hosp


0.150
0.175
0.200
0.225
0.250
frac_icu


0.4
0.5
0.6
0.7
frac_mort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0.25 0.50 0.75
beta_multiplier[2]
0.5 1.0 1.5
beta_multiplier[3]
0.5 1.0 1.5 2.0
beta_multiplier[4]
1.0 1.5
beta_multiplier[5]
0.5 1.0 1.5 2.0
beta_multiplier[6]
0.8 1.2 1.6
beta_multiplier[7]
0.5 1.0 1.5
beta_multiplier[8]
0.4 0.8 1.2 1.6
beta_multiplier[9]
0.4 0.8 1.2 1.6
beta_multiplier[10]
1.0 1.5
beta_multiplier[11]
0.6 0.9 1.2 1.5
beta_multiplier[12]
0.5 1.0 1.5 2.0
beta_multiplier[13]
0.5 1.0 1.5 2.0
beta_multiplier[14]
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beta_multiplier[15]
1.0 1.5 2.0
beta_multiplier[16]
1.0 1.5 2.0
beta_multiplier[17]
0.5 1.0 1.5 2.0
beta_multiplier[18]
0.6 0.9 1.2 1.5 1.8
beta_multiplier[19]
0.8 1.0 1.2
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beta_multiplier[21]
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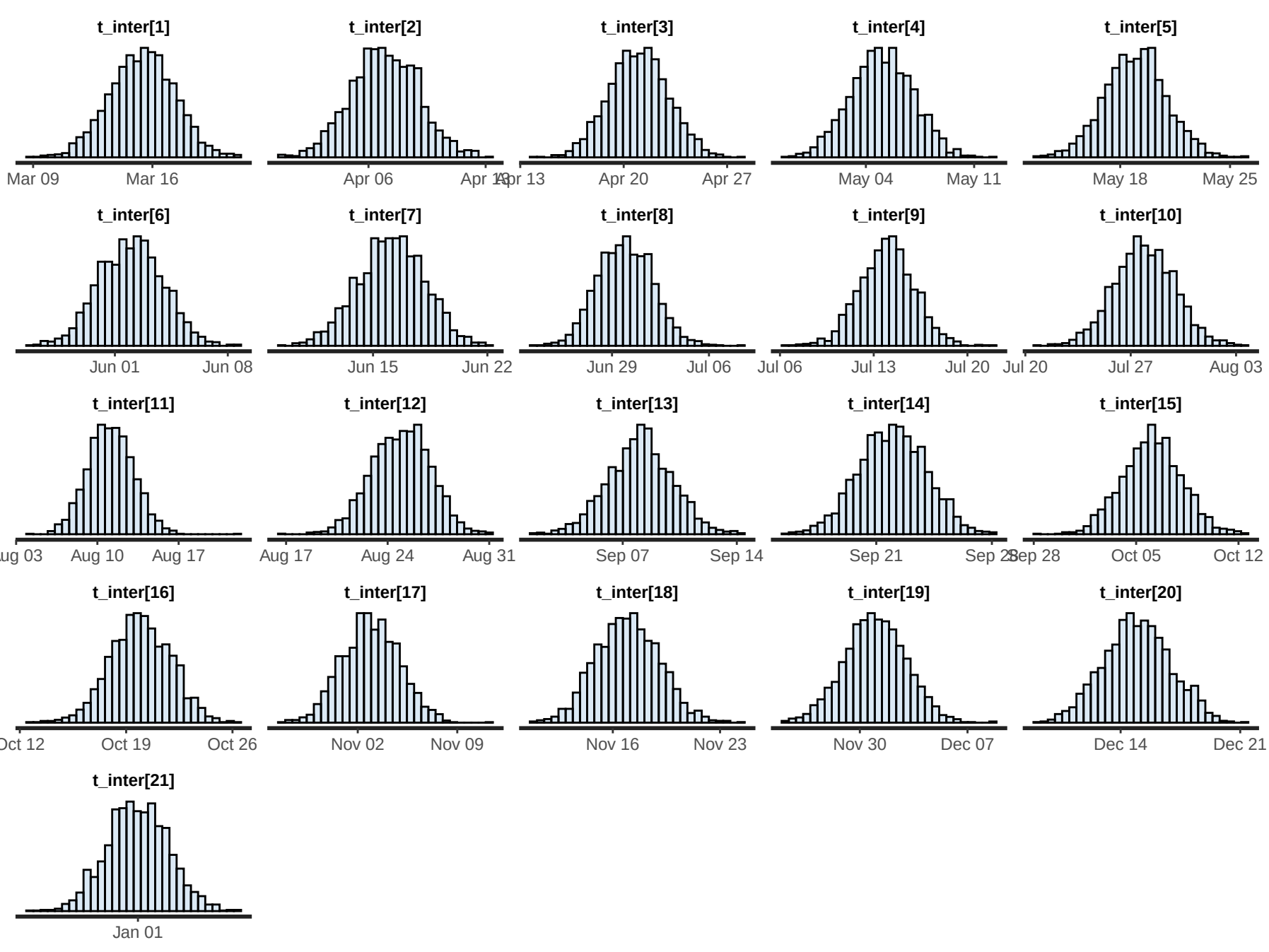
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Mar 09
Mar 16
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Apr 06
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Apr 20
Apr 27
t_inter[4]
May 04
May 11
t_inter[5]
May 18
May 25
t_inter[6]
Jun 01
Jun 08
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Jun 15
Jun 22
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Jun 29
Jul 06
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Jul 06
Jul 13
Jul 20
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Jul 20
Jul 27
Aug 03
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ug 03
Aug 10
Aug 17
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Aug 17
Aug 24
Aug 31
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t_inter[14]
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Sep 28
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Oct 05
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Nov 02
Nov 09
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Nov 23
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Nov 30
Dec 07
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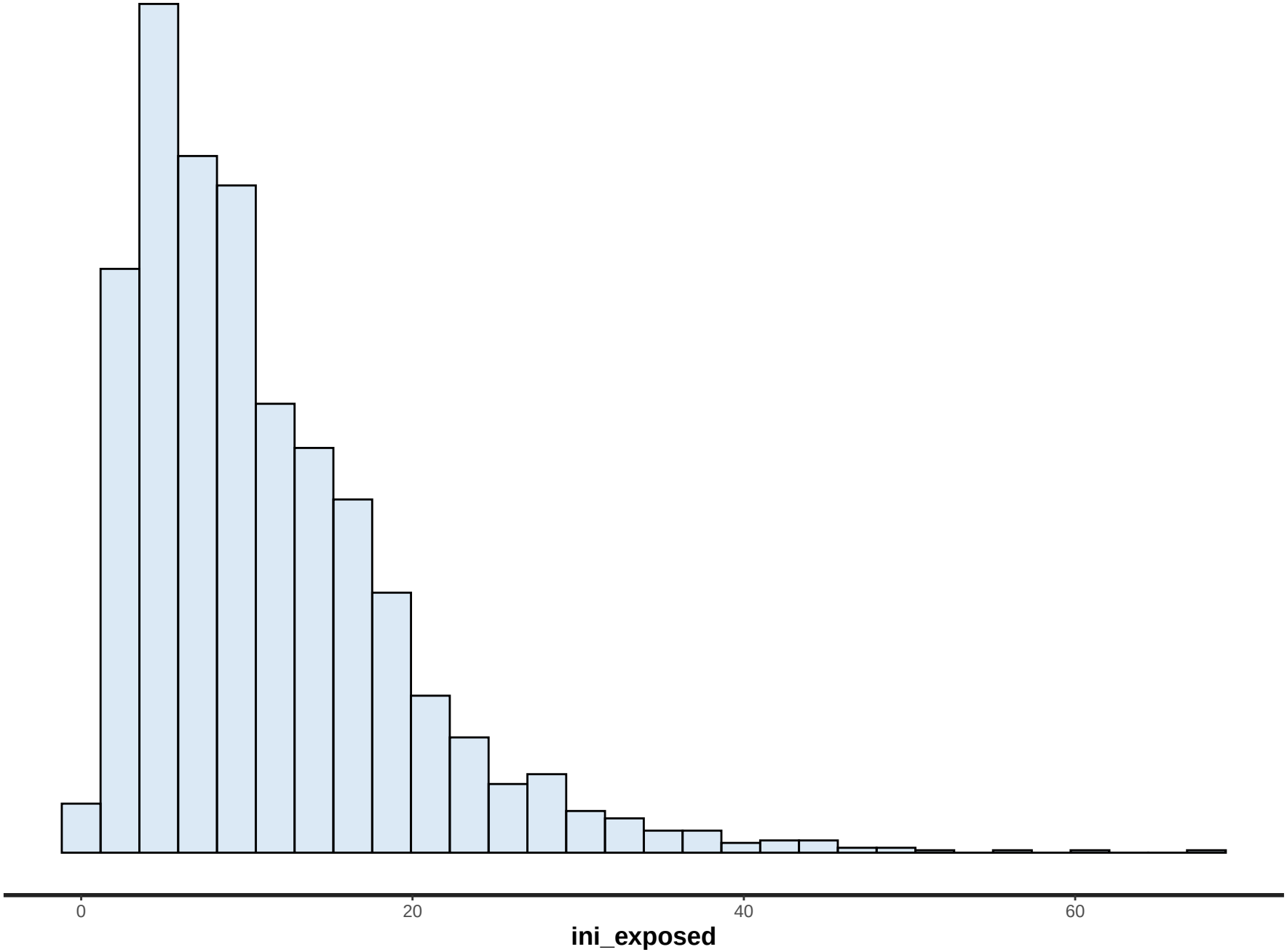
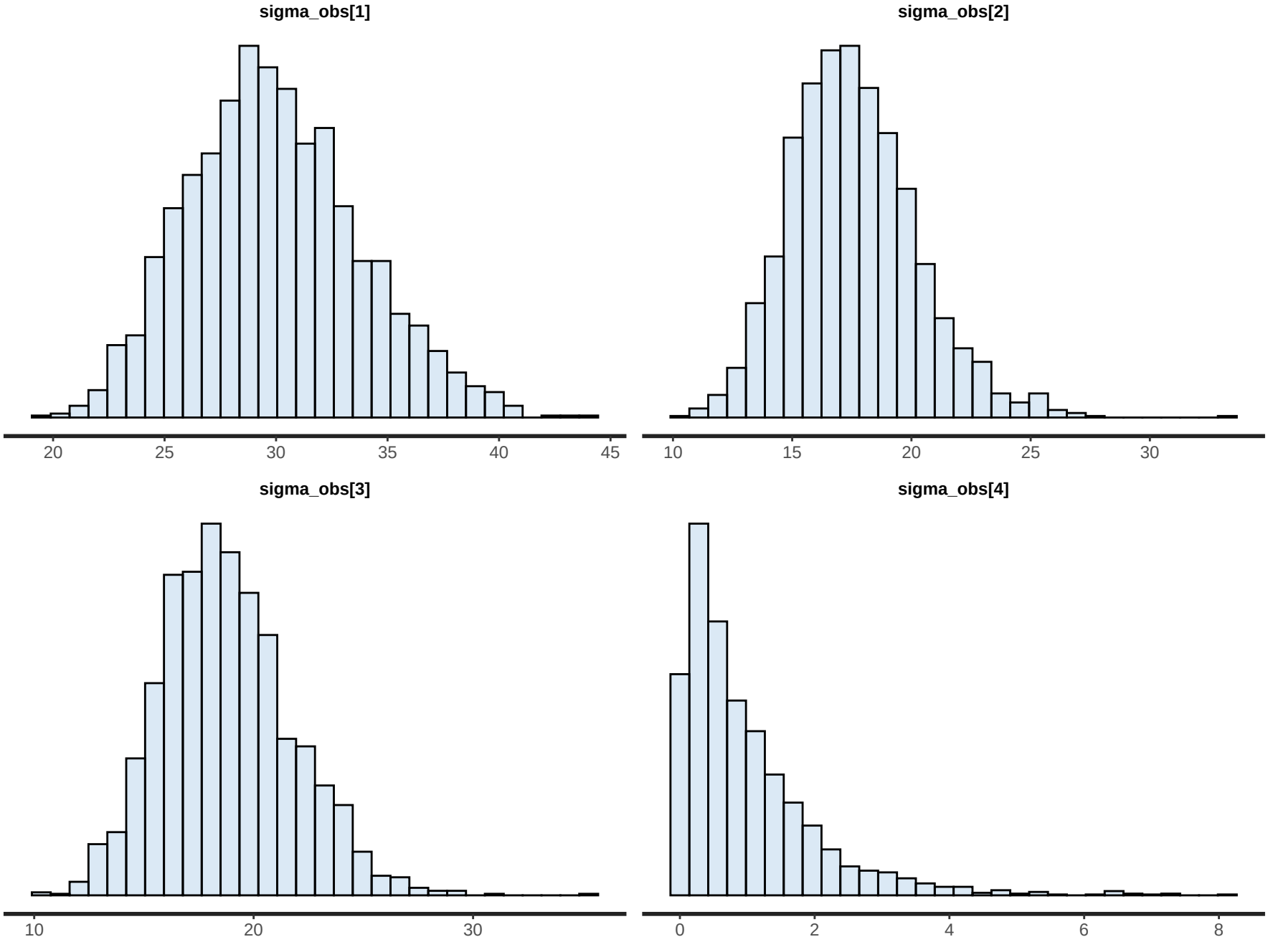
Dec 14
Dec 21
t_inter[21]
Jan 01


0
20
40
60
ini_exposed


sigma_obs[1]
20
25
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35
40
45
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sigma_obs[3]
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20
30
sigma_obs[4]
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4
6
8