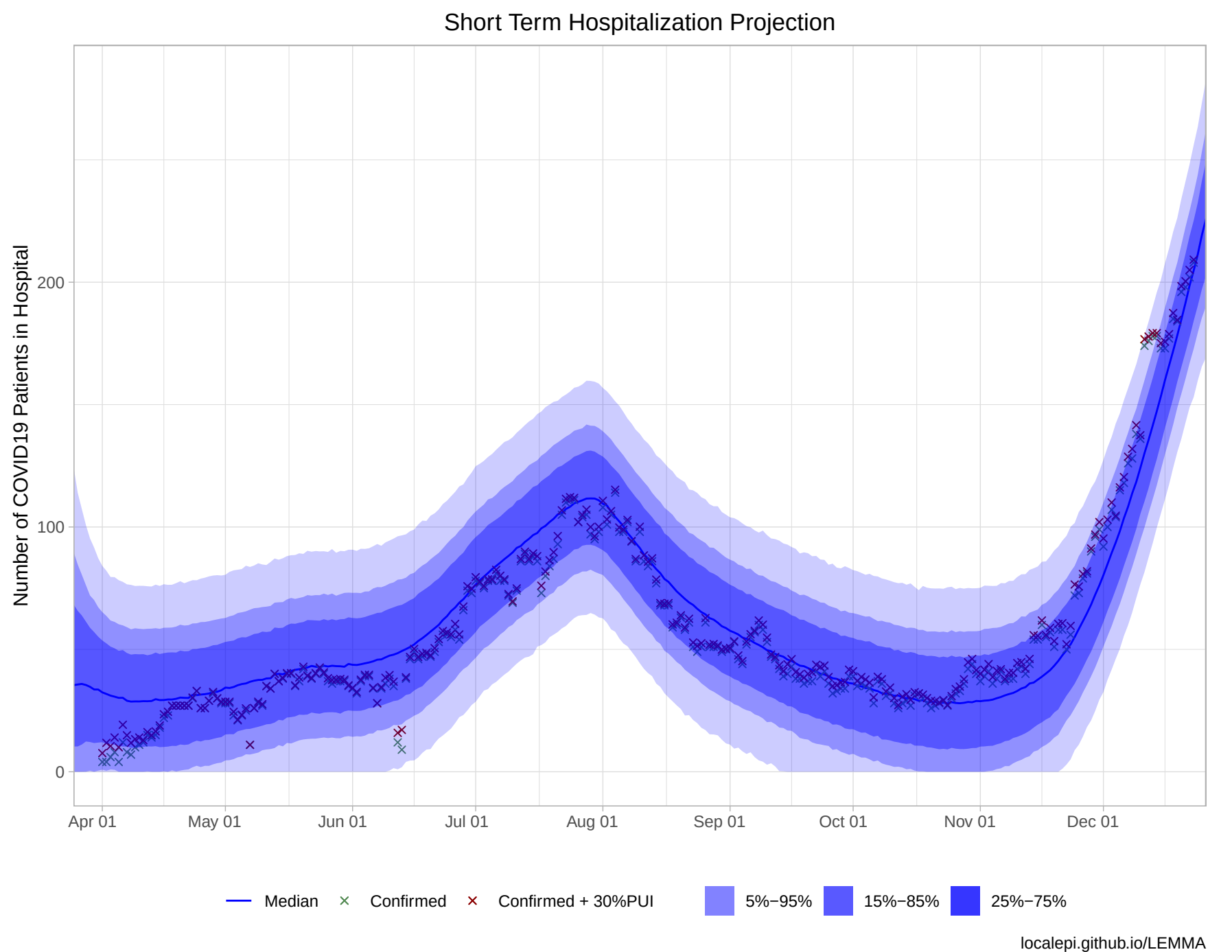
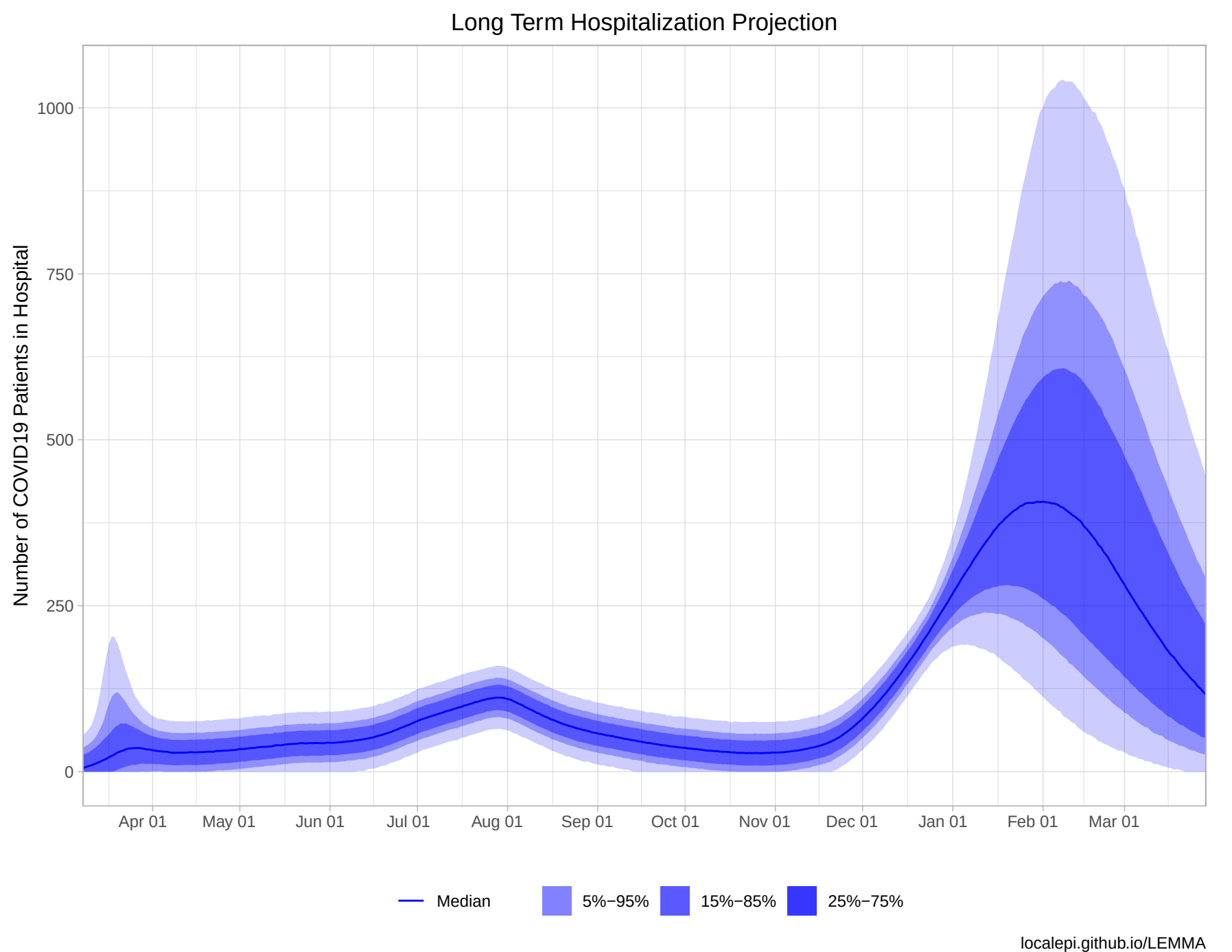
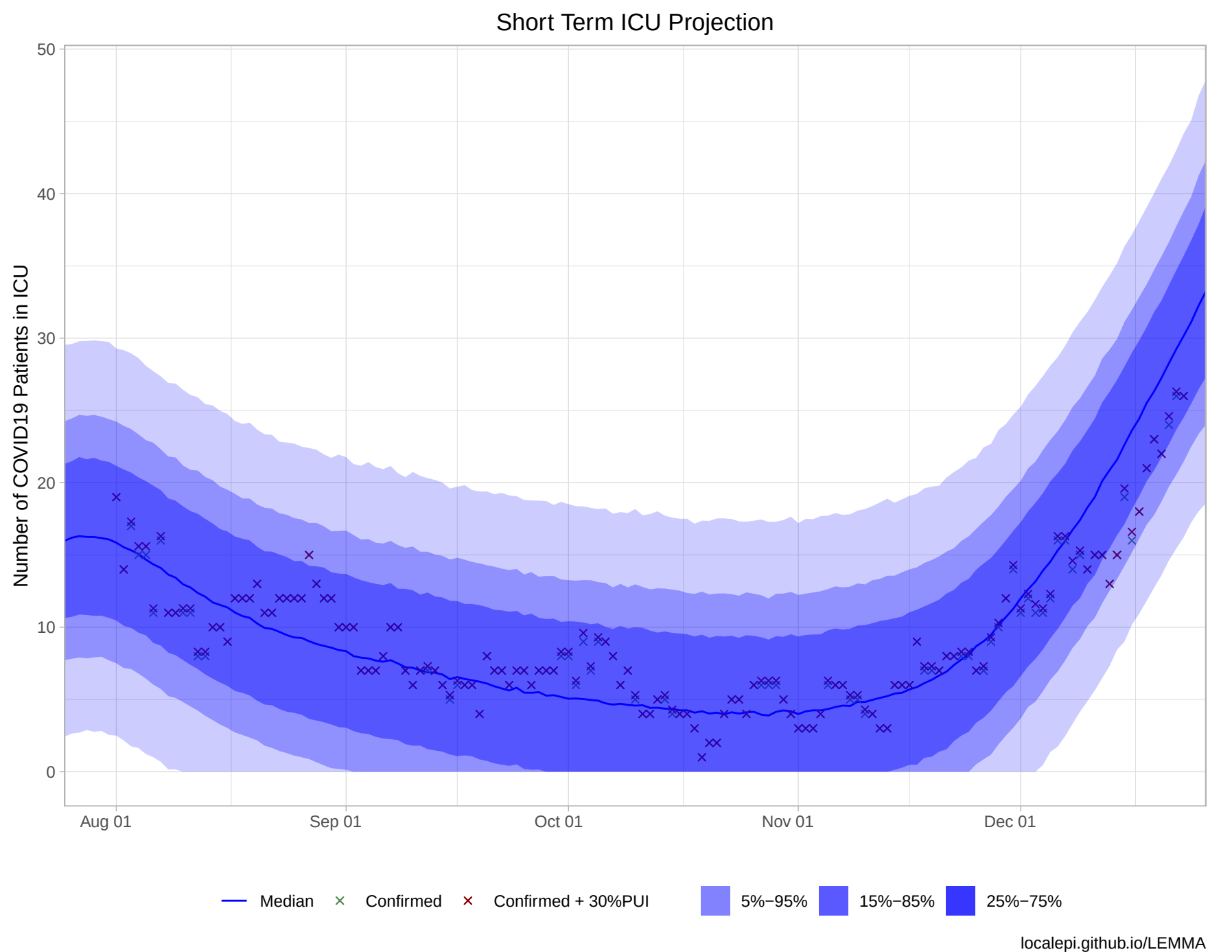
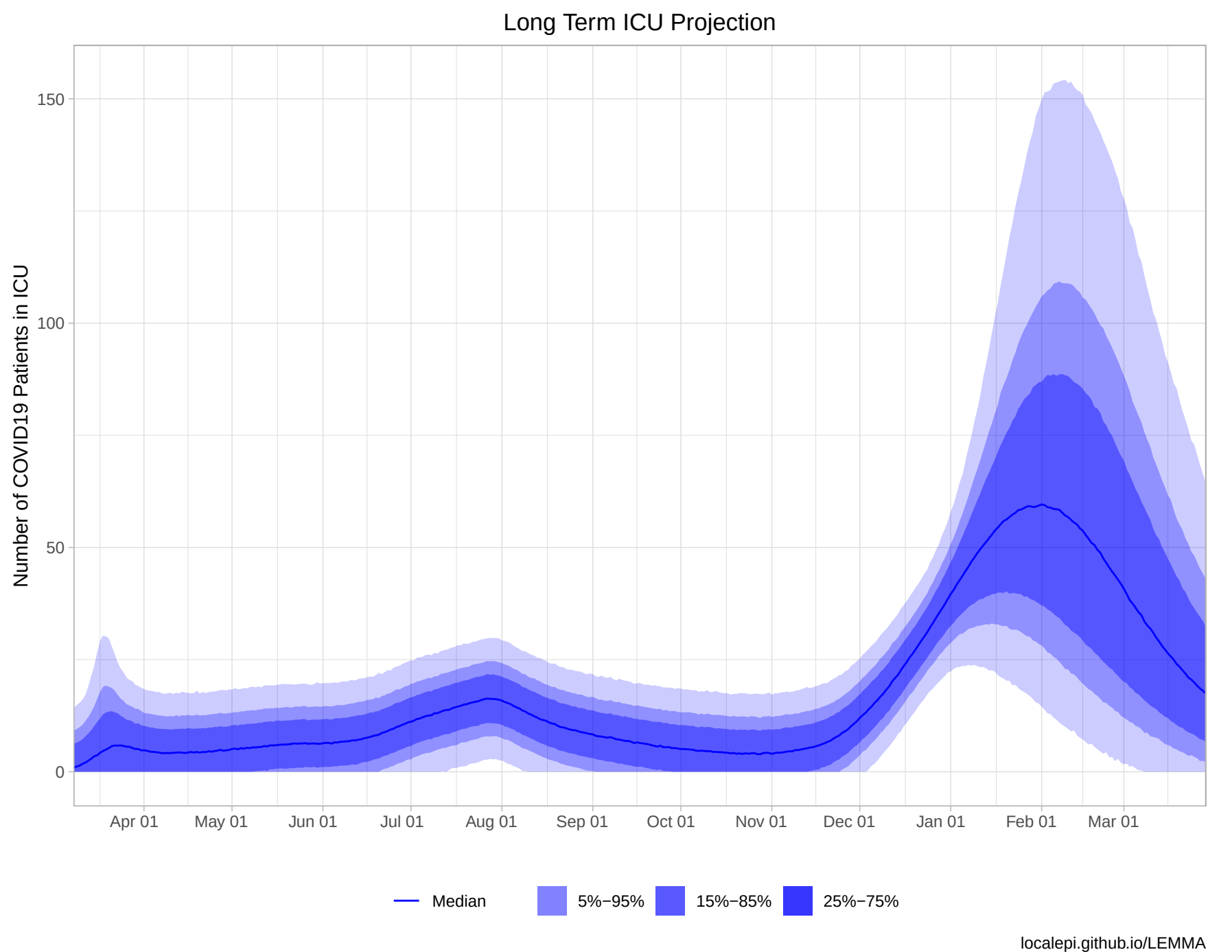
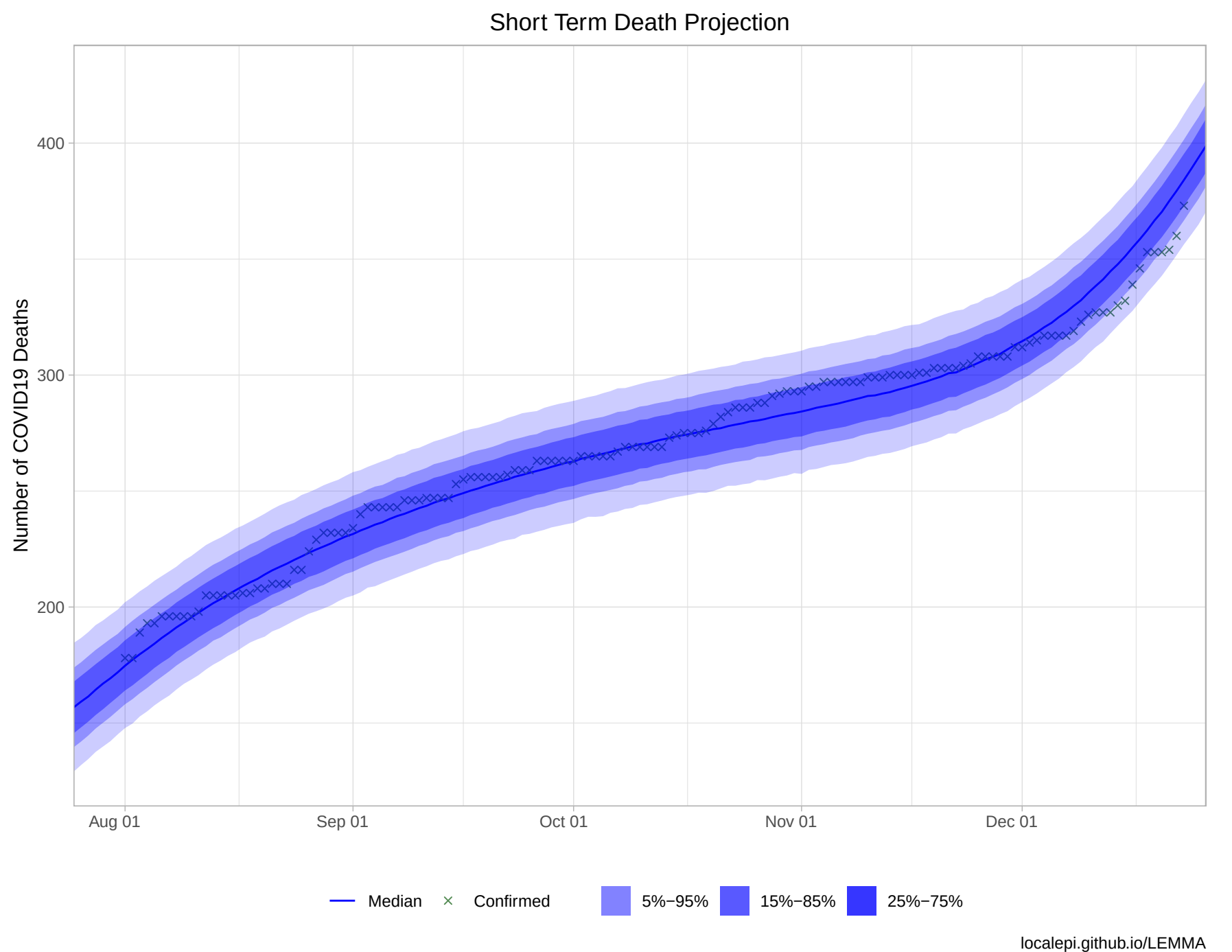
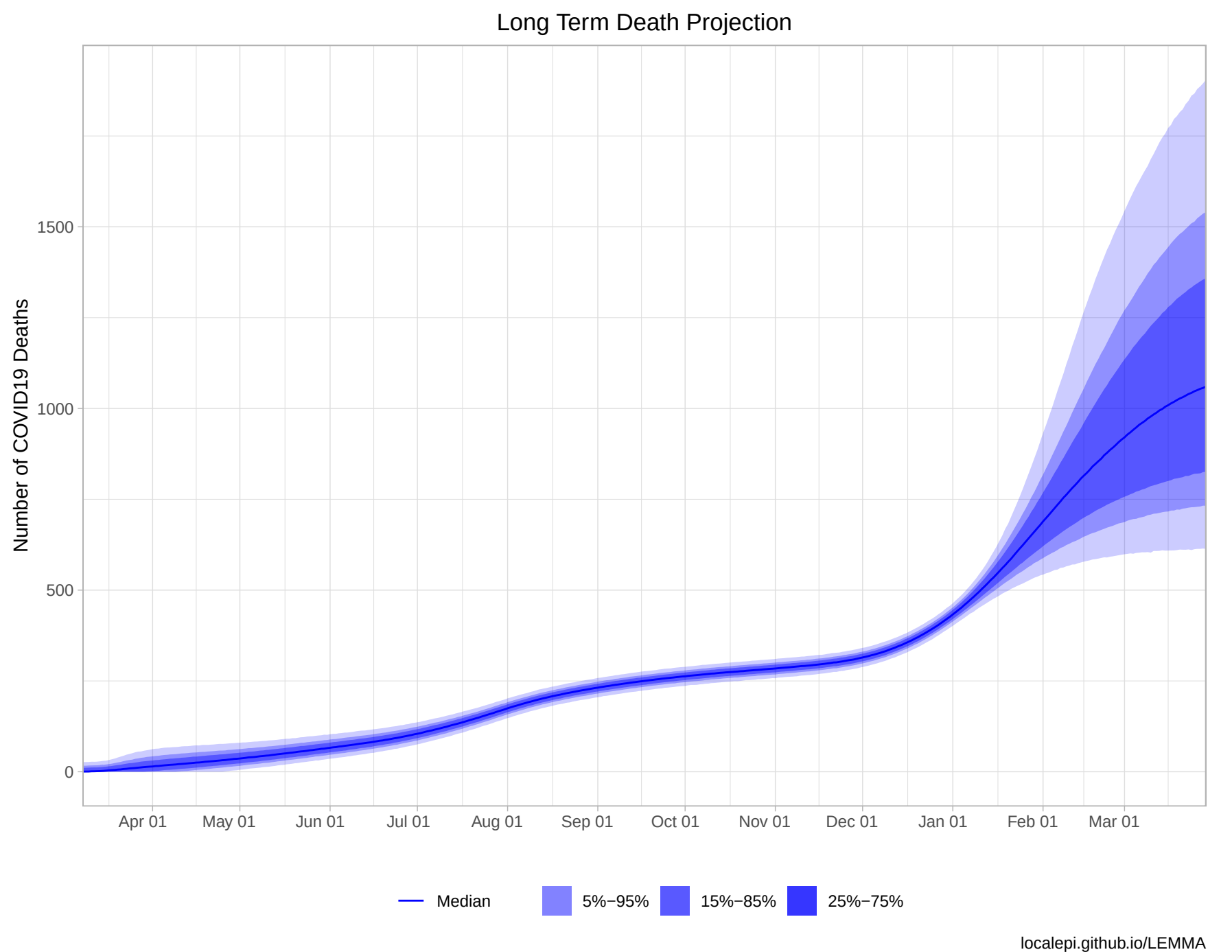

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
200
100
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

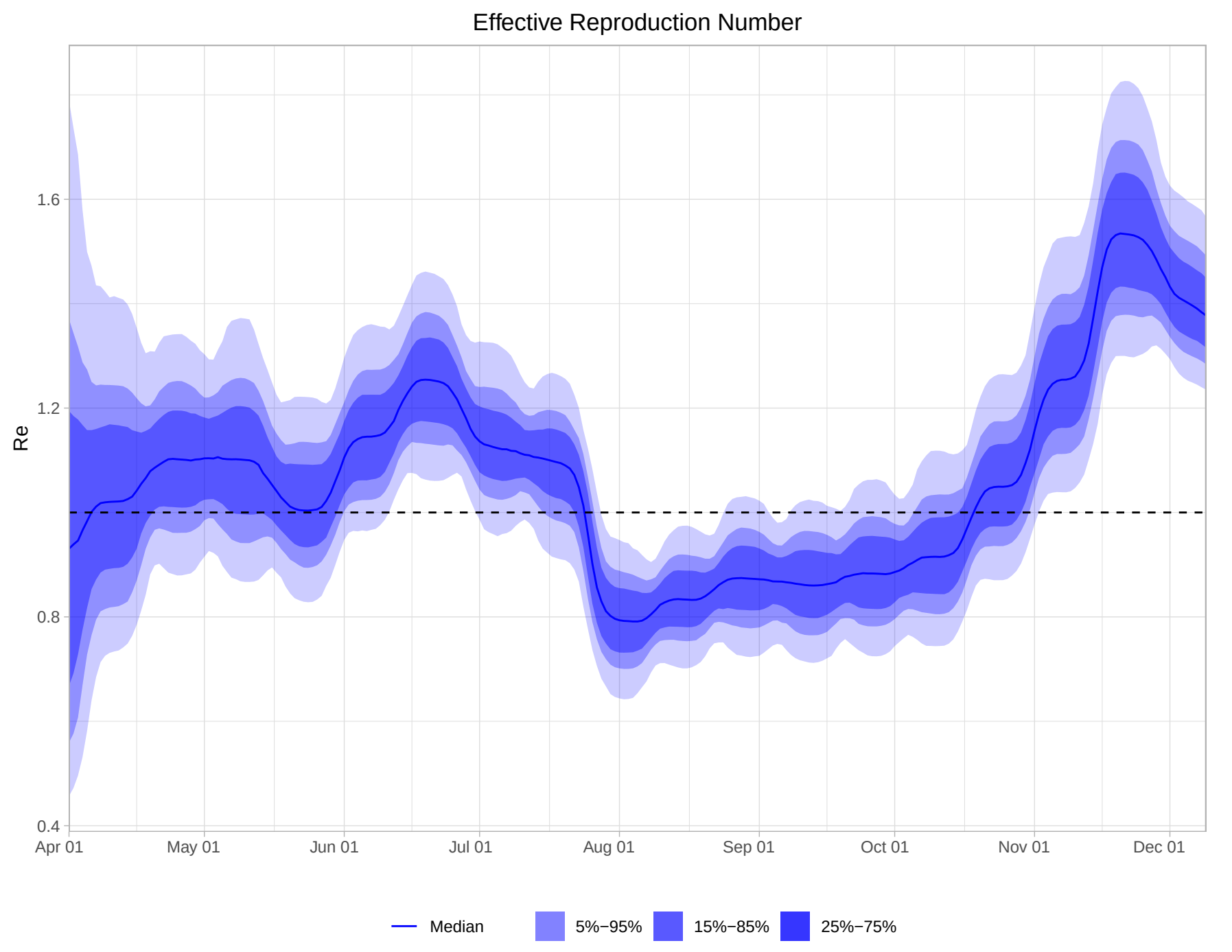

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
1000
750
500
250
0
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
50
40
30
20
10
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
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
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

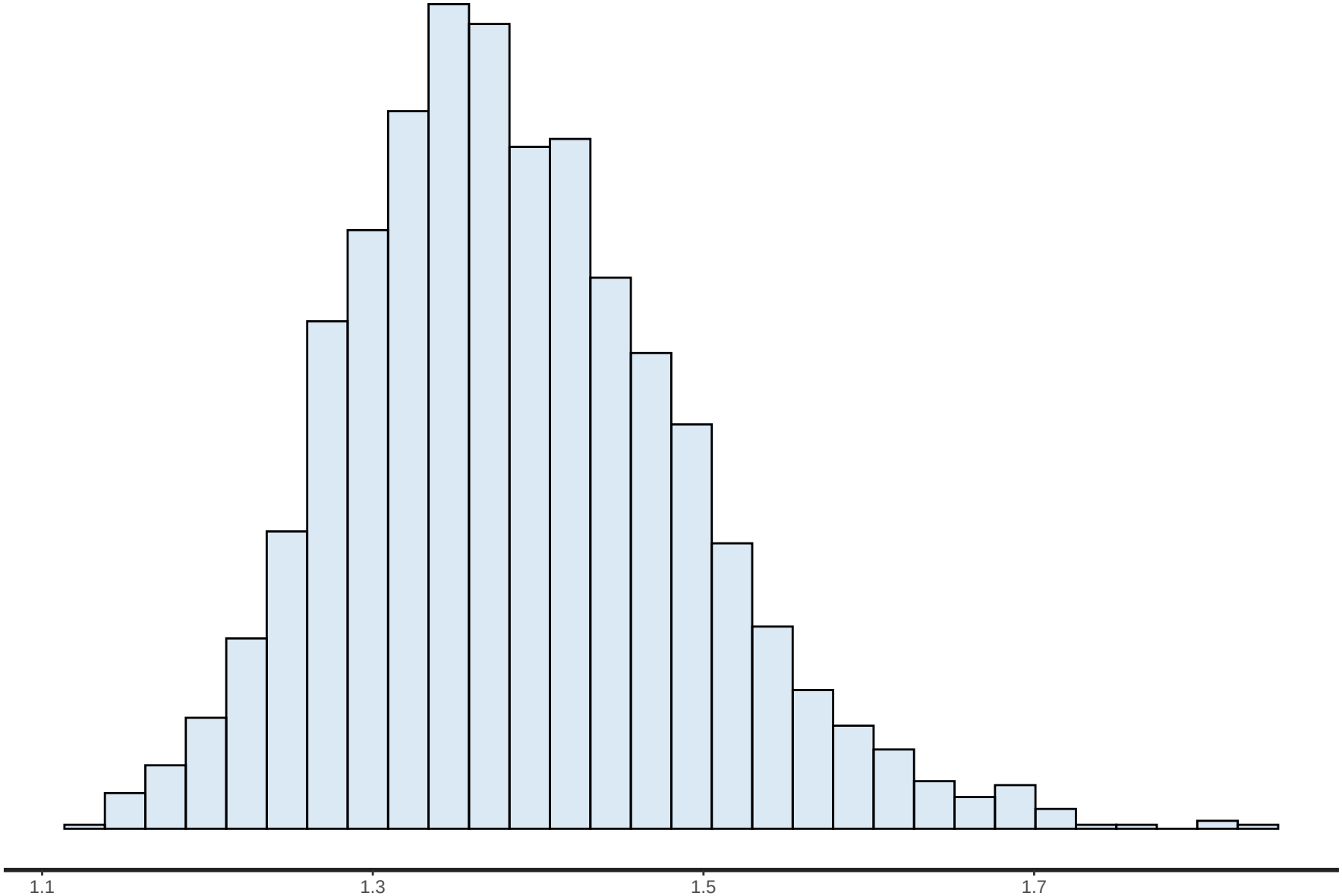

Short Term Death Projection
Number of COVID19 Deaths
400
300
200
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

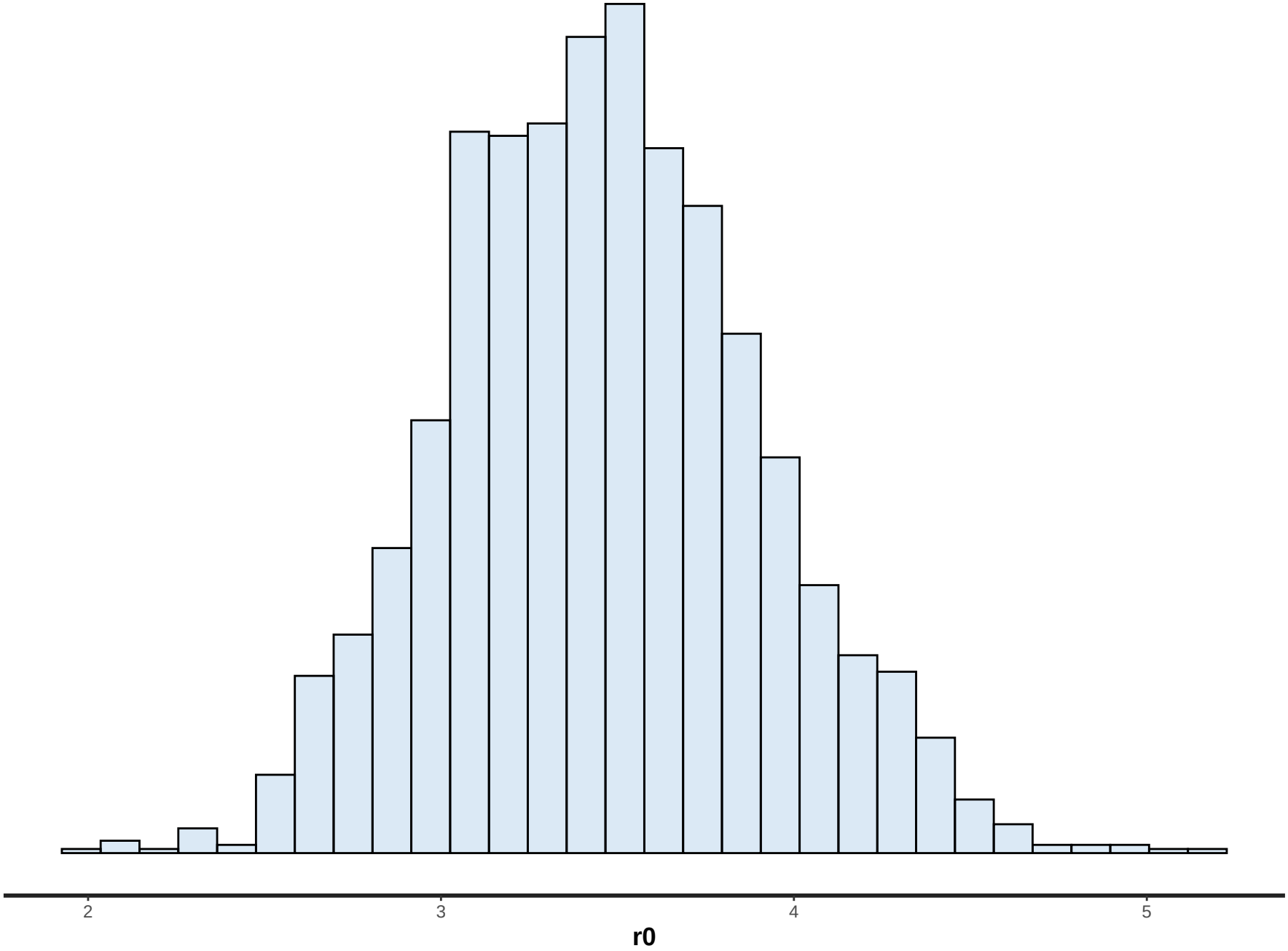

Long Term Death Projection
Number of COVID19 Deaths
0
500
1000
1500
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

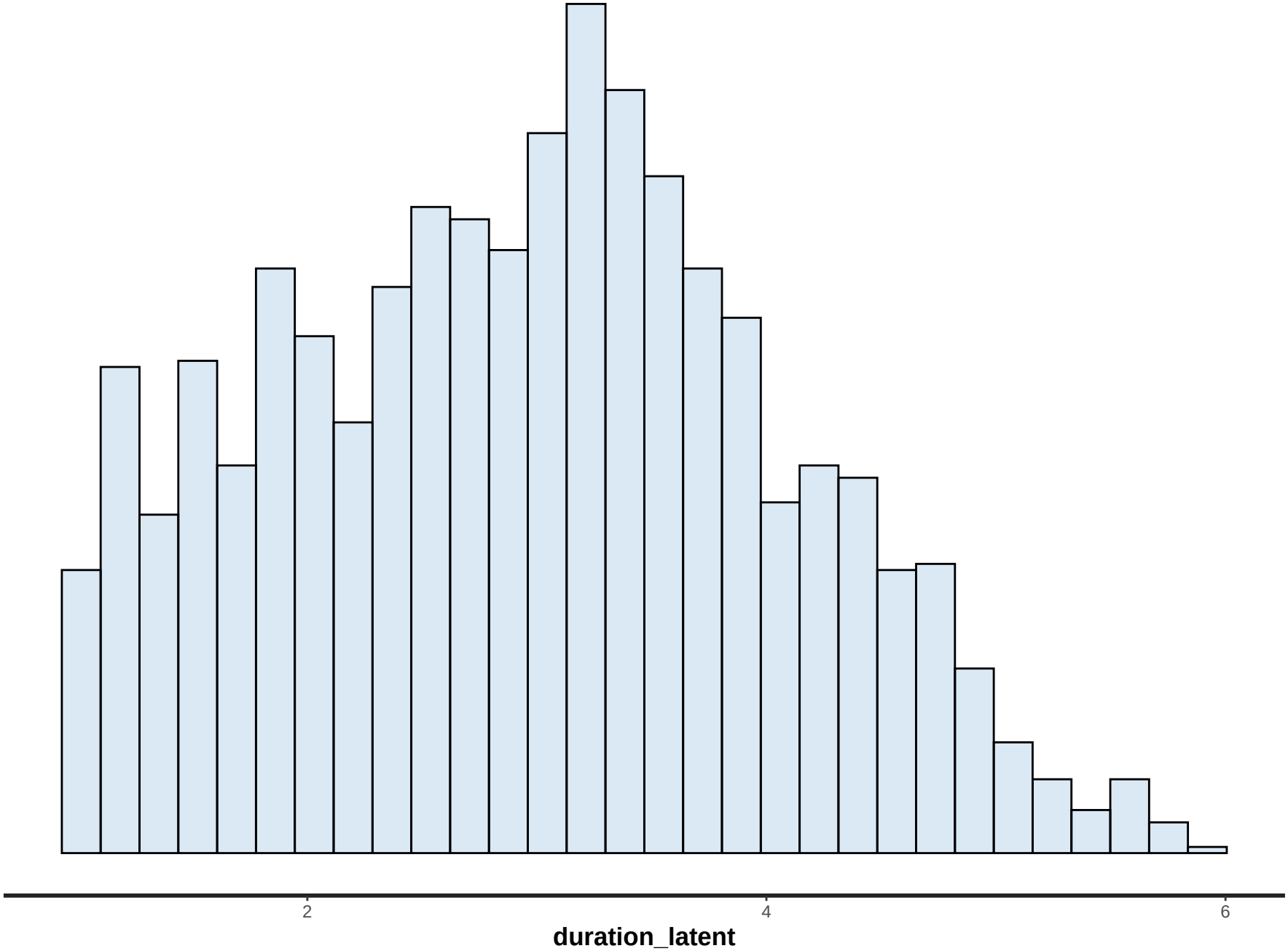

Effective Reproduction Number
Re
1.6
1.2
0.8
0.4
Apr 01
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

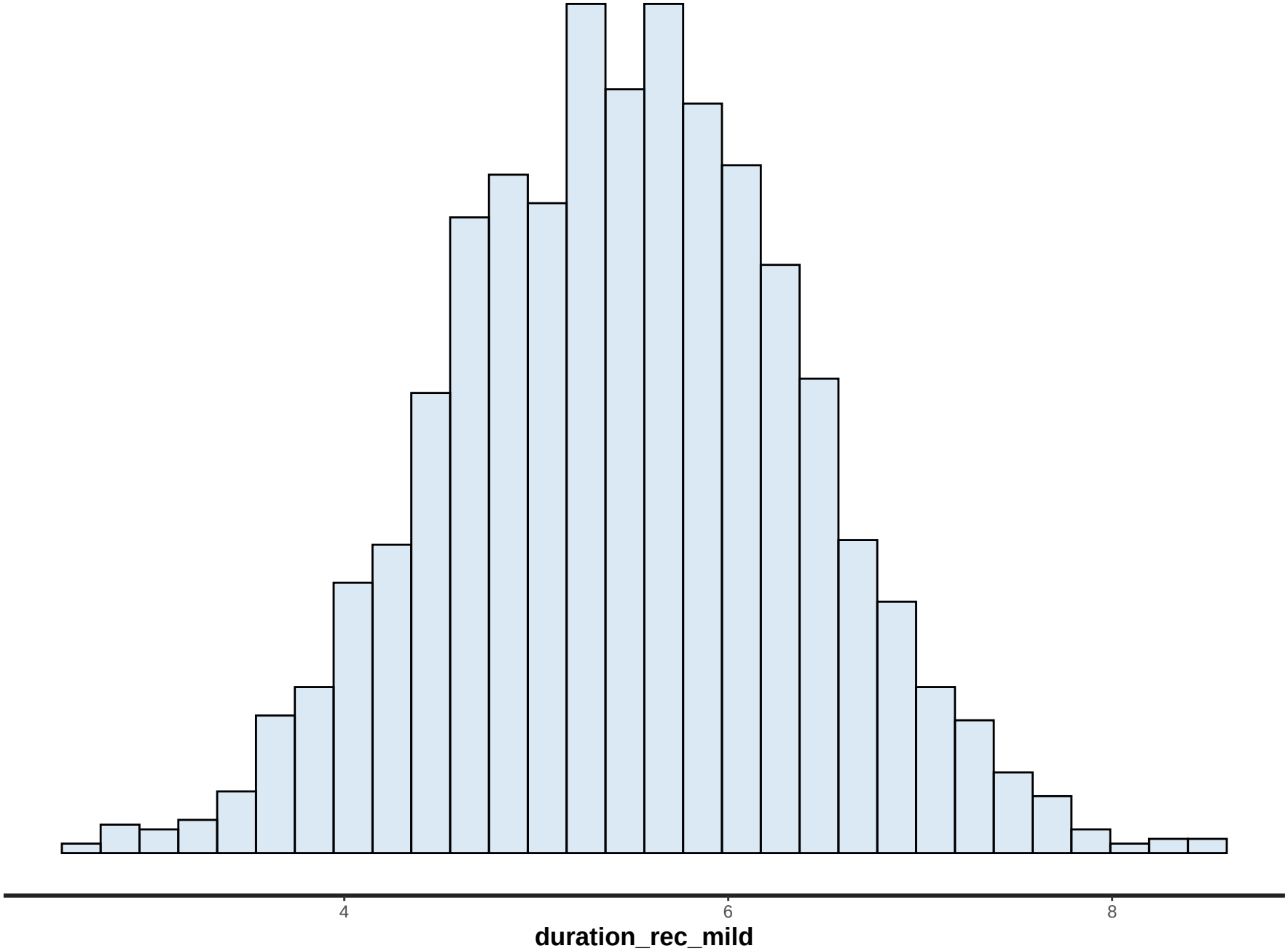
Rt as of 2020−12−09

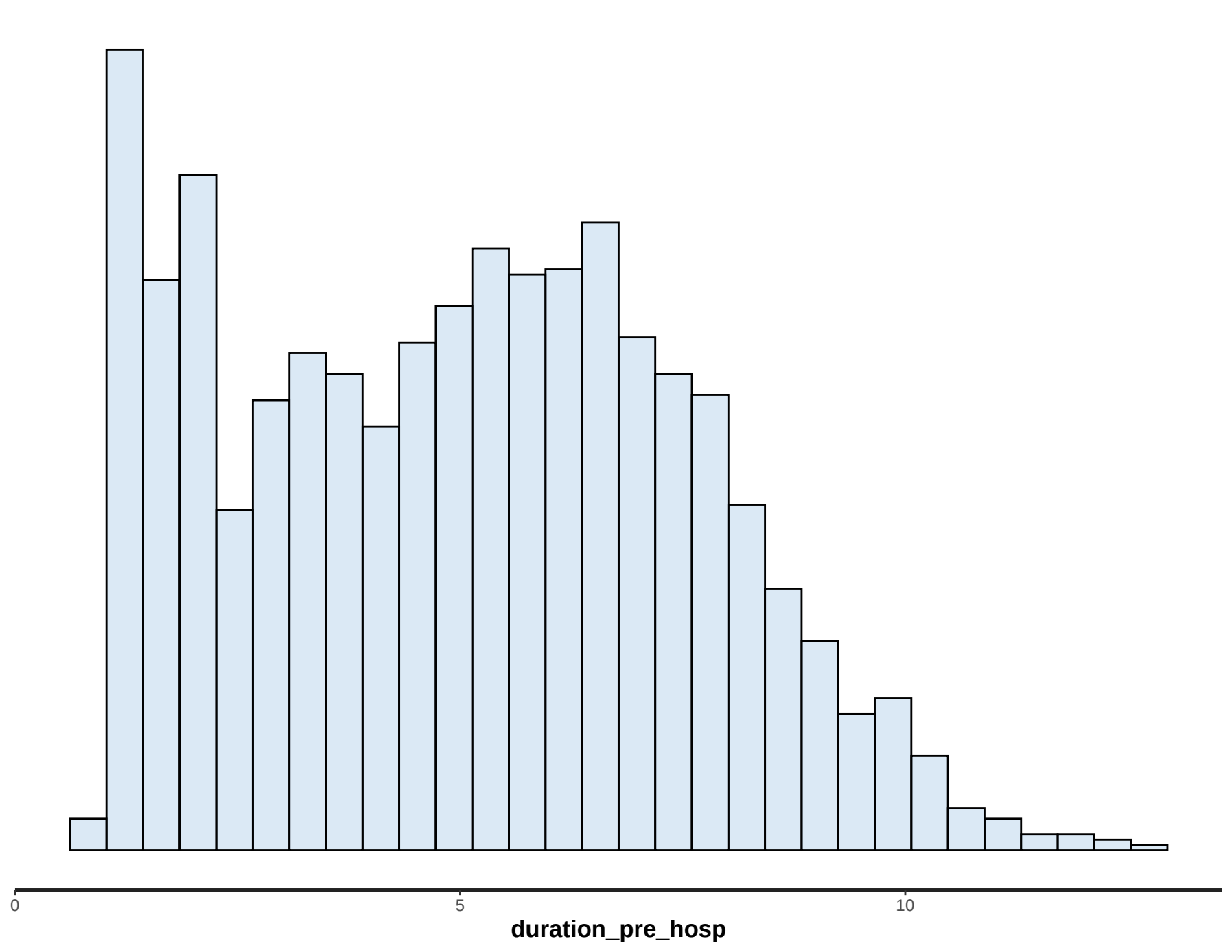
5%	10%	25%	50%	75%	90%	95%
1.24	1.27	1.32	1.38	1.45	1.52	1.57

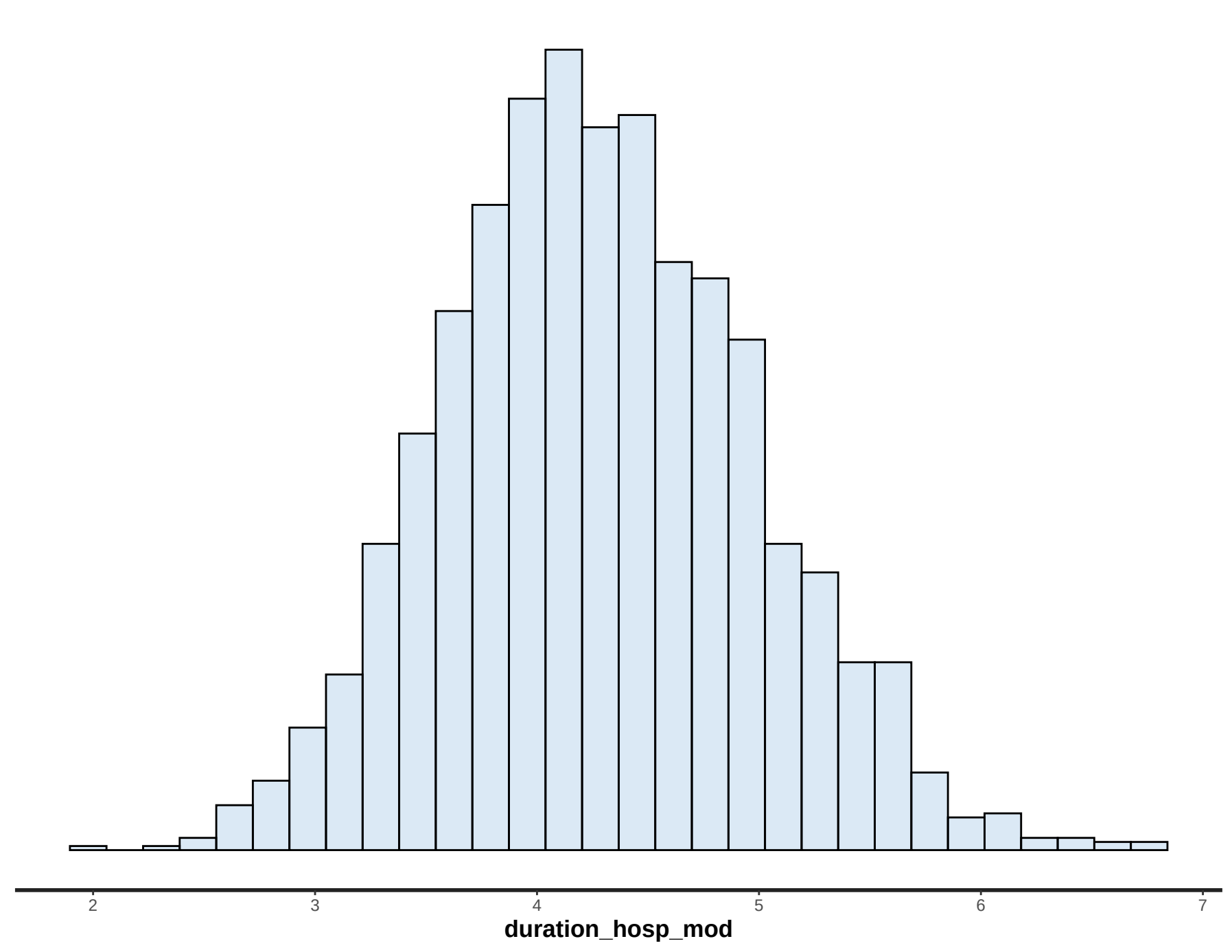


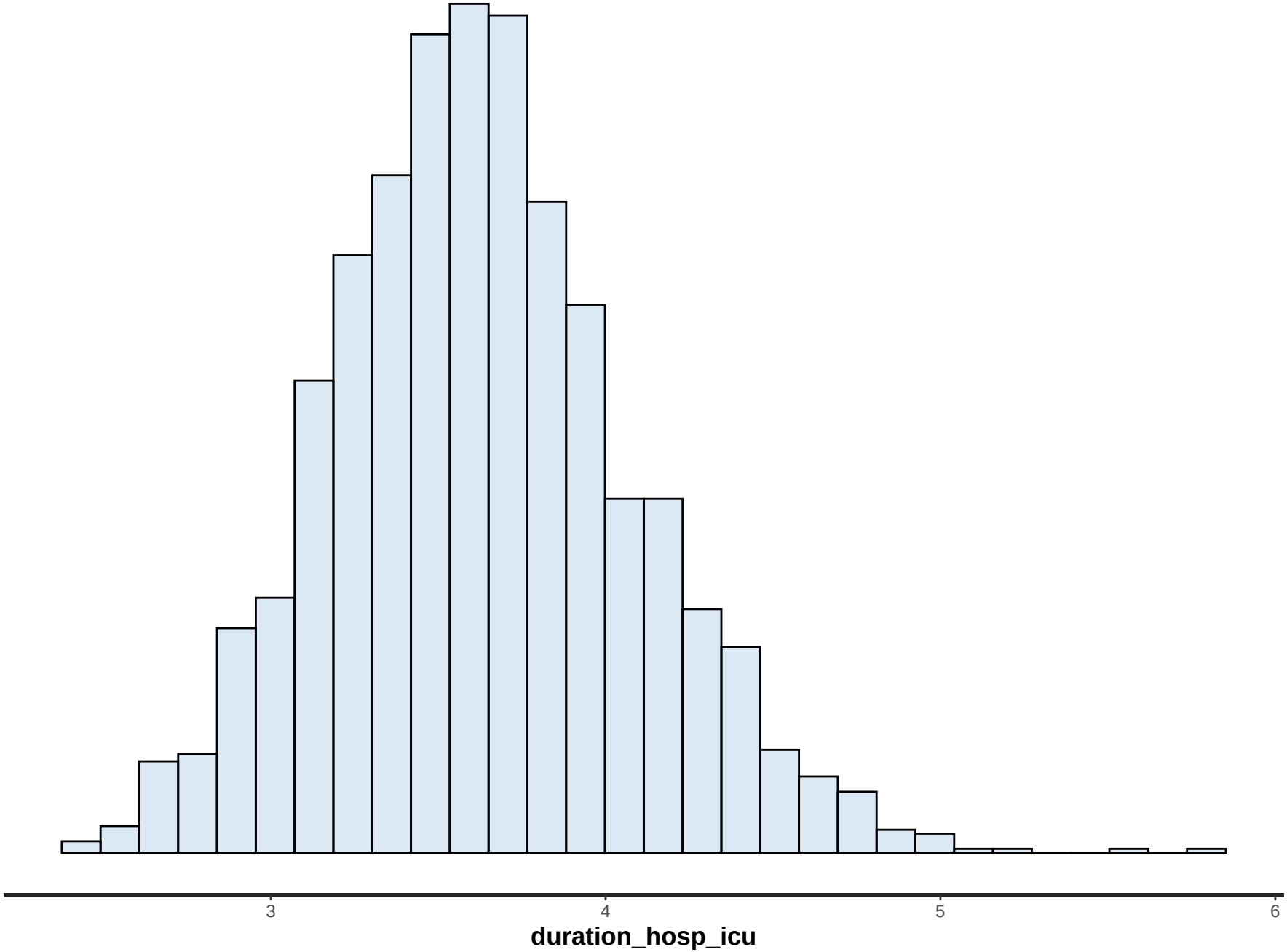

2
3
4
5
r0

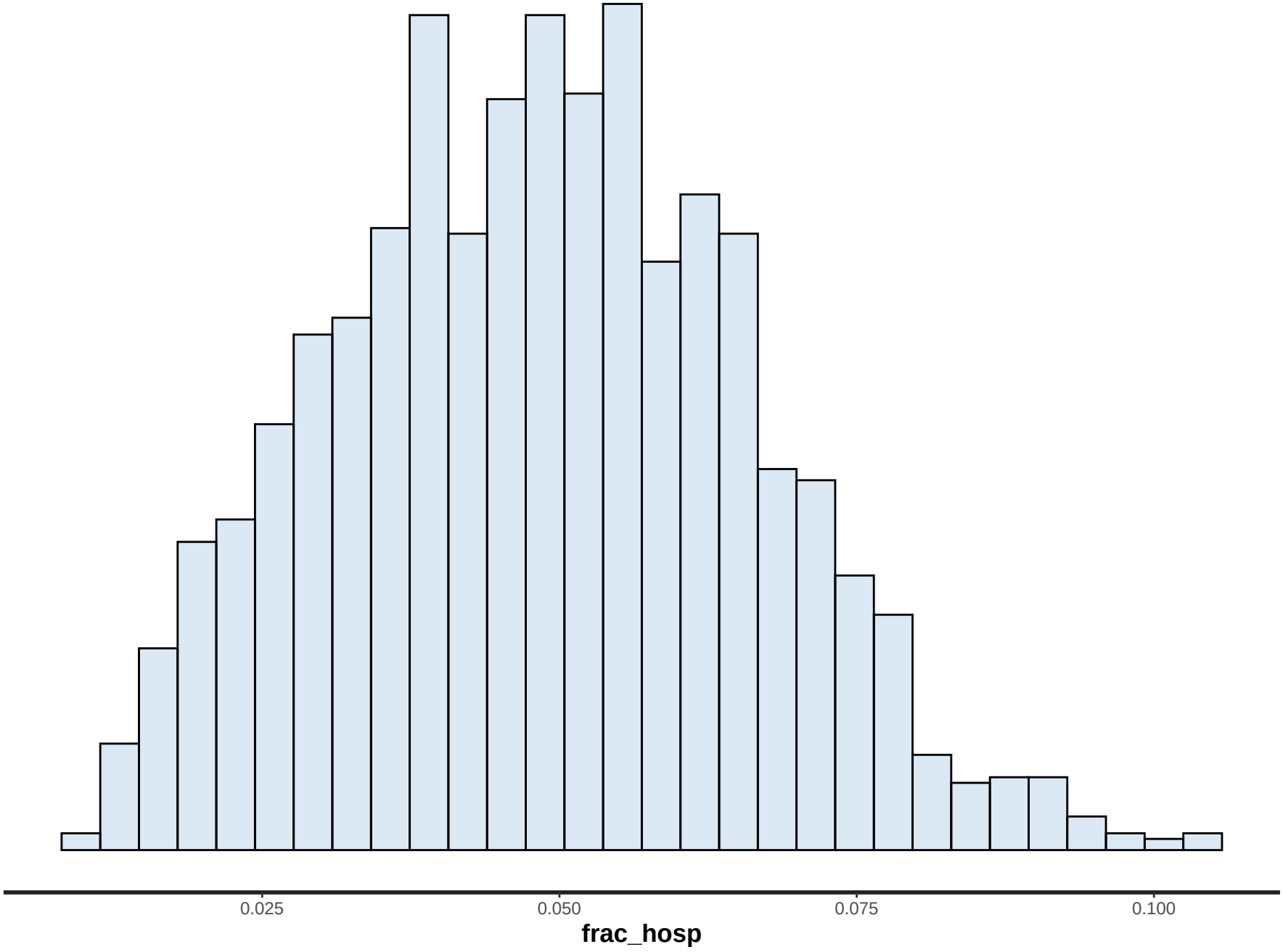

2
4
6
duration_latent

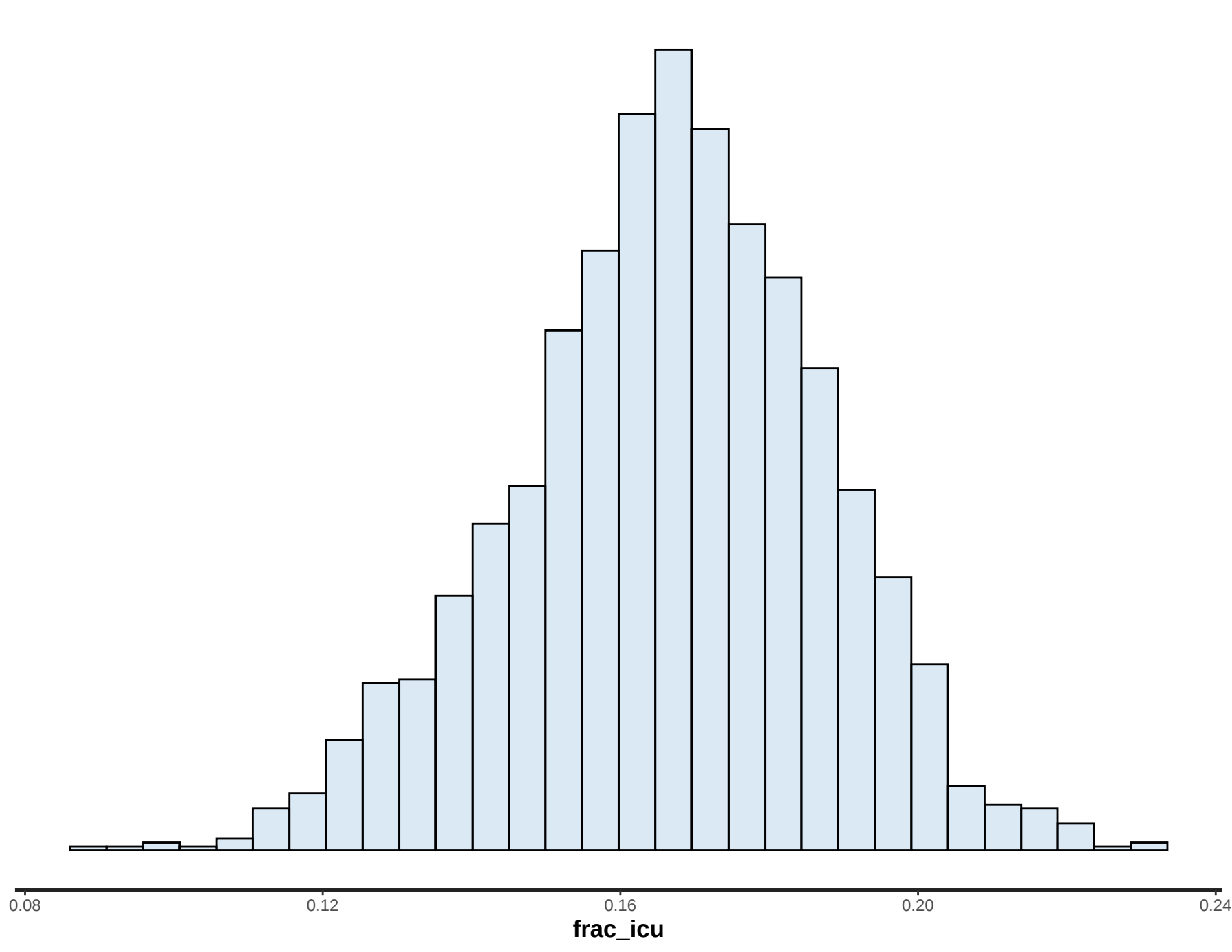

4
6
8
duration_rec_mild

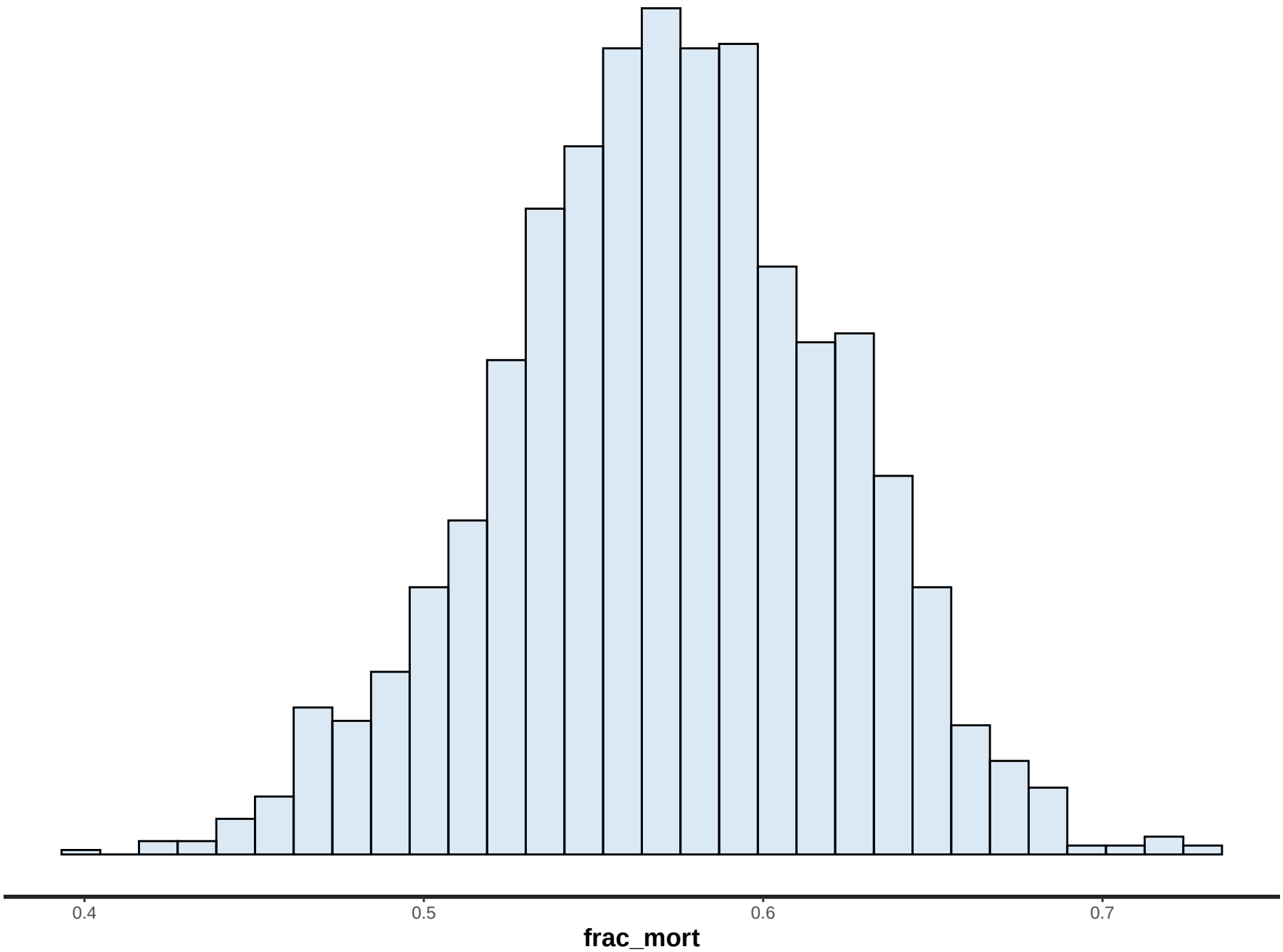

0
5
10
duration_pre_hosp

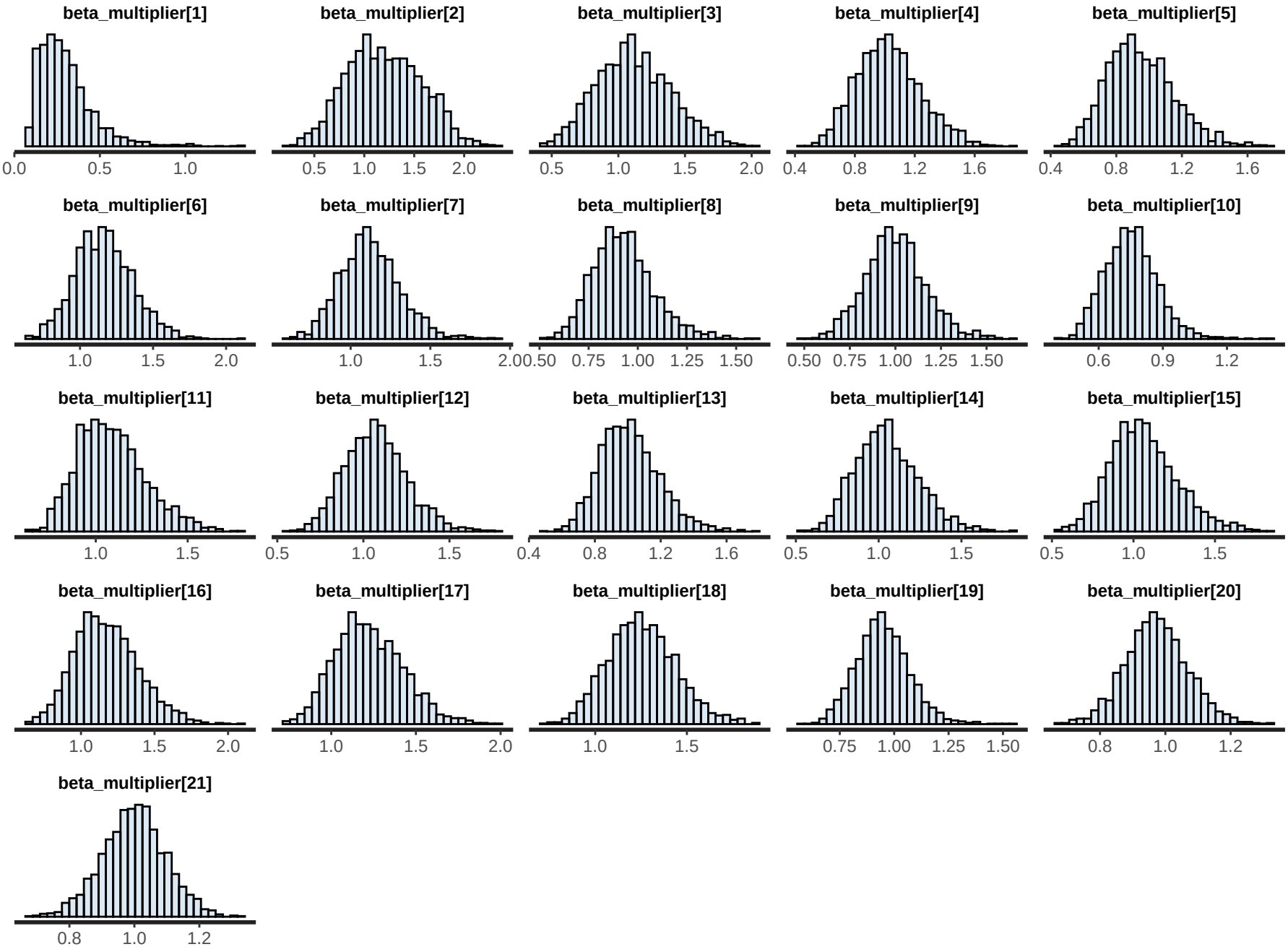

2
3
4
5
6
7
duration_hosp_mod


3
4
5
6
duration_hosp_icu


0.025
0.050
0.075
0.100
frac_hosp


0.08
0.12
0.16
0.20
0.24
frac_icu


0.4
0.5
0.6
0.7
frac_mort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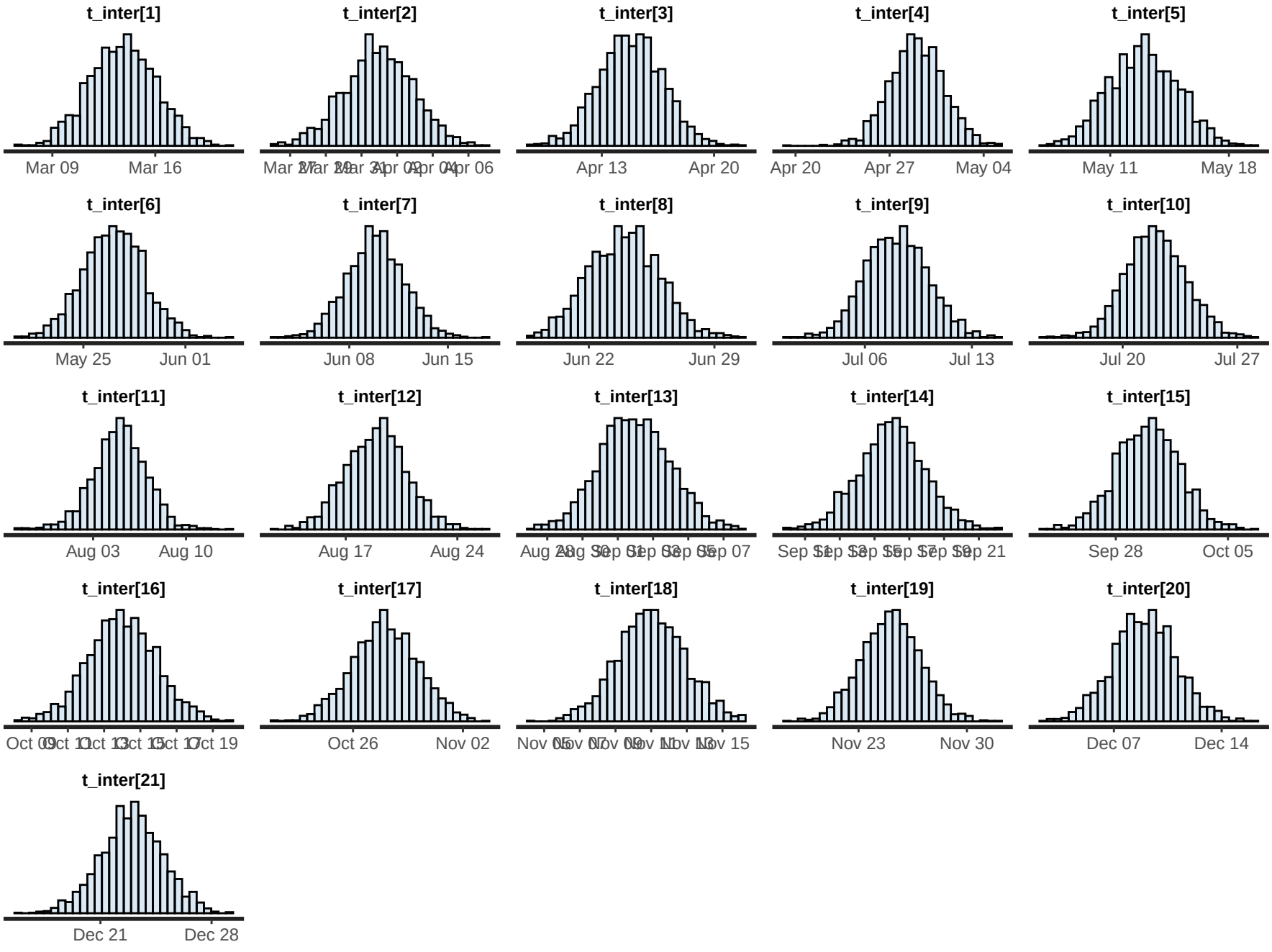
0.0 0.5 1.0
beta_multiplier[2]
0.5 1.0 1.5 2.0
beta_multiplier[3]
0.5 1.0 1.5 2.0
beta_multiplier[4]
0.4 0.8 1.2 1.6
beta_multiplier[5]
0.4 0.8 1.2 1.6
beta_multiplier[6]
1.0 1.5 2.0
beta_multiplier[7]
1.0 1.5 2.0
beta_multiplier[8]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[9]
0.50 0.75 1.00 1.25 1.50
beta_multiplier[10]
0.6 0.9 1.2
beta_multiplier[11]
1.0 1.5
beta_multiplier[12]
0.5 1.0 1.5
beta_multiplier[13]
0.4 0.8 1.2 1.6
beta_multiplier[14]
0.5 1.0 1.5
beta_multiplier[15]
0.5 1.0 1.5
beta_multiplier[16]
1.0 1.5 2.0
beta_multiplier[17]
1.0 1.5 2.0
beta_multiplier[18]
1.0 1.5
beta_multiplier[19]
0.75 1.00 1.25 1.50
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
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Mar 27
Mar 29
Mar 31
Apr 02
Apr 04
Apr 06
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Apr 13
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Apr 20
Apr 27
May 04
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May 11
May 18
t_inter[6]
May 25
Jun 01
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Jun 15
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Jun 22
Jun 29
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Jul 27
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Nov 07
Nov 09
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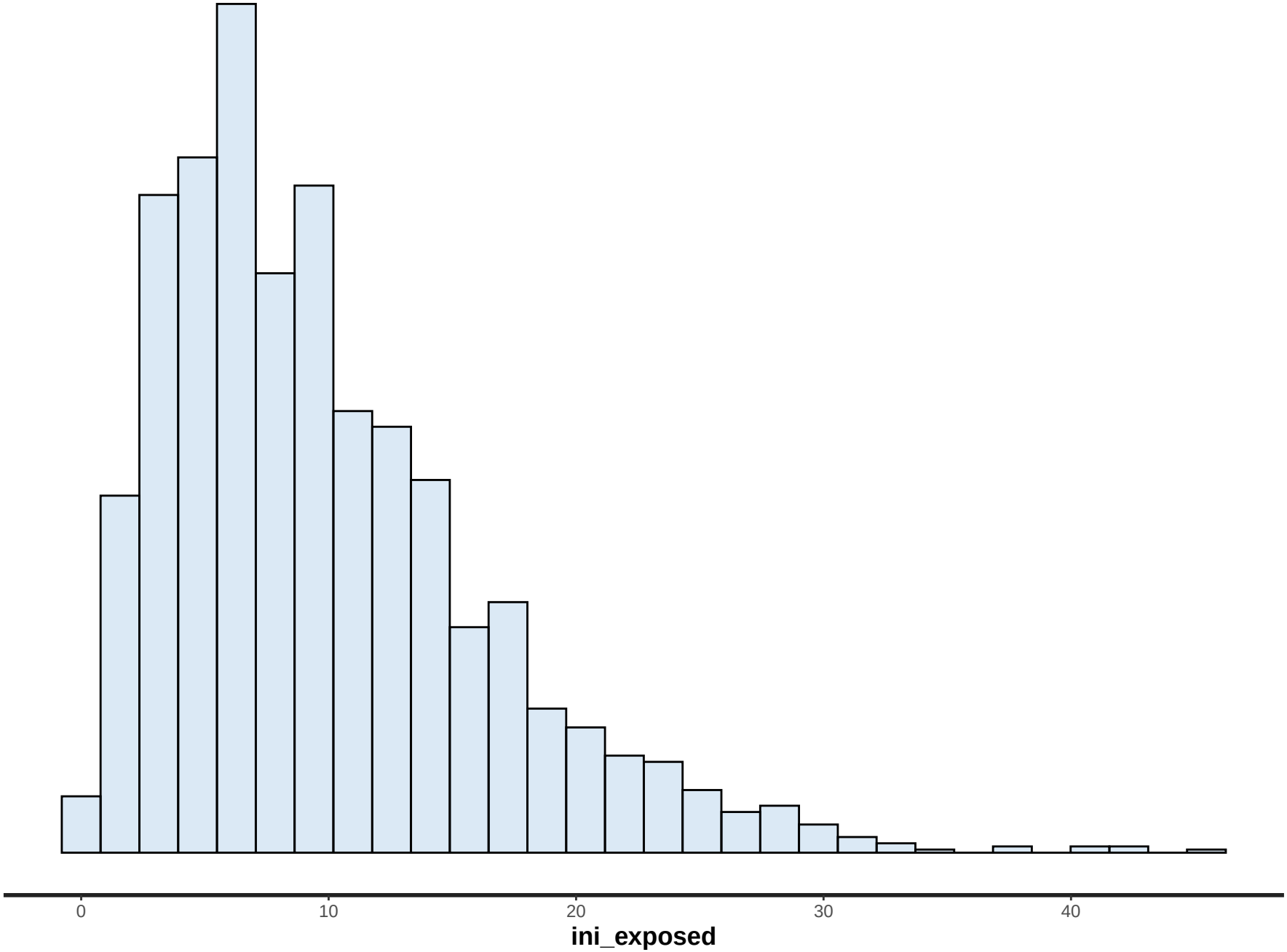
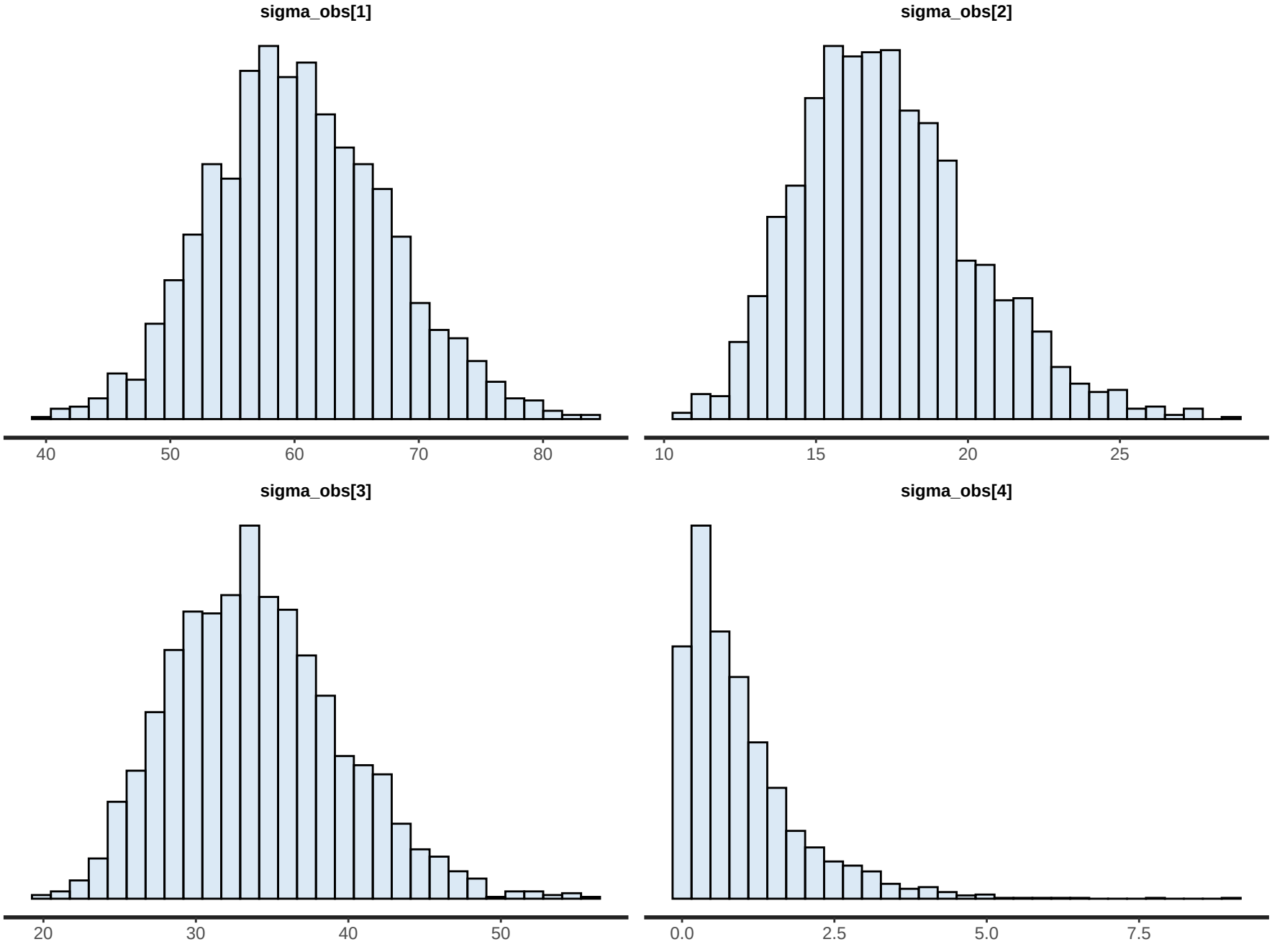
Dec 21
Dec 28


0
10
20
30
40
ini_exposed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30
40
50
sigma_obs[4]
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2.5
5.0
7.5