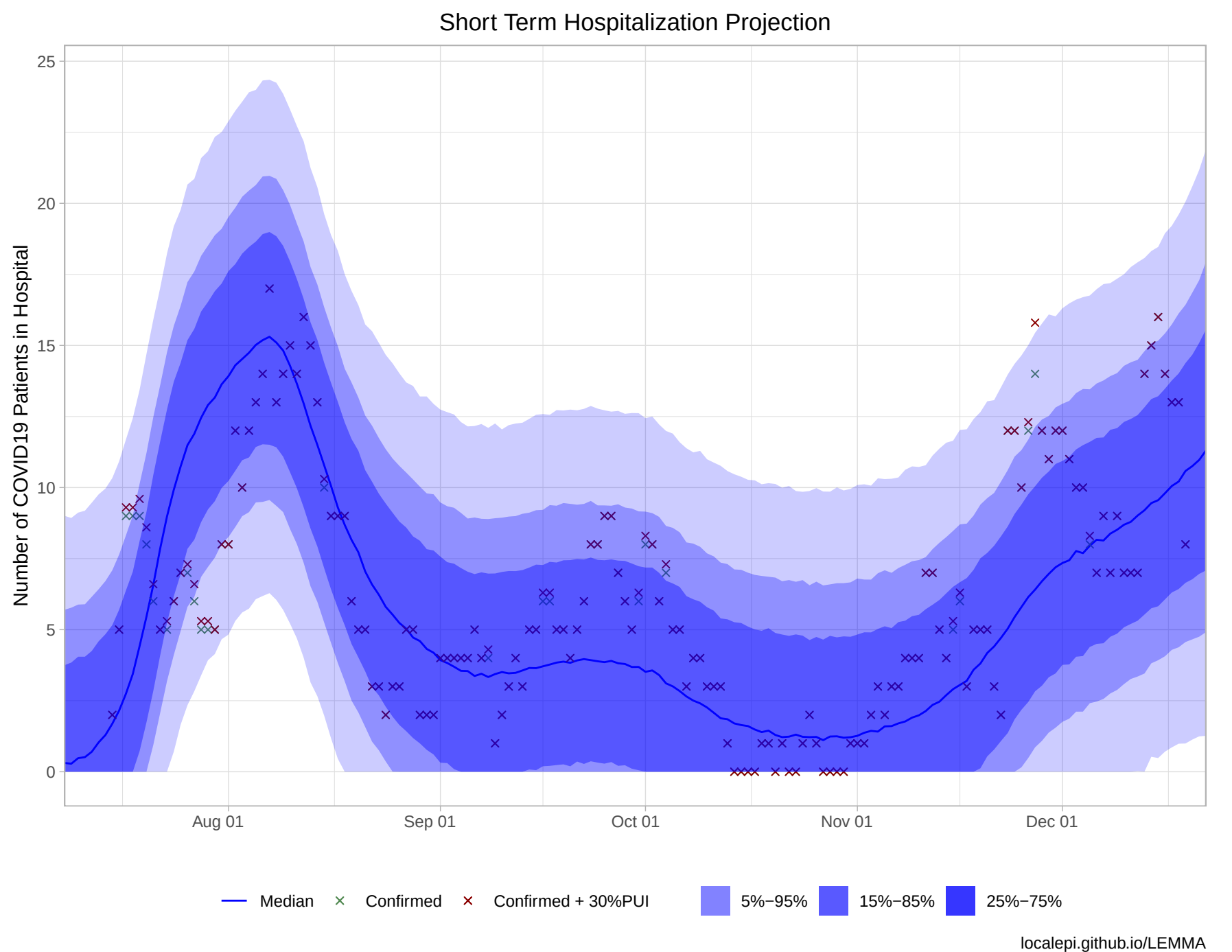
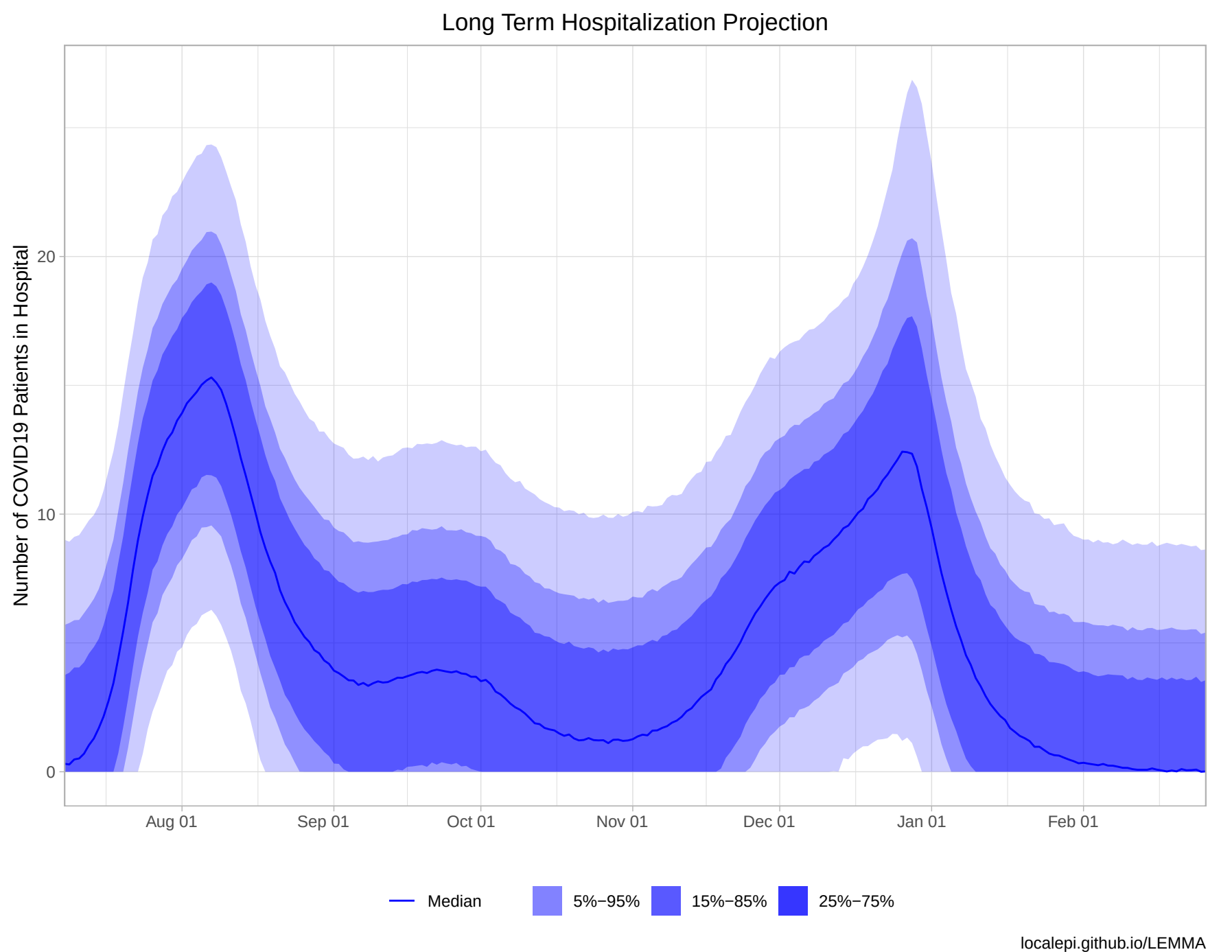
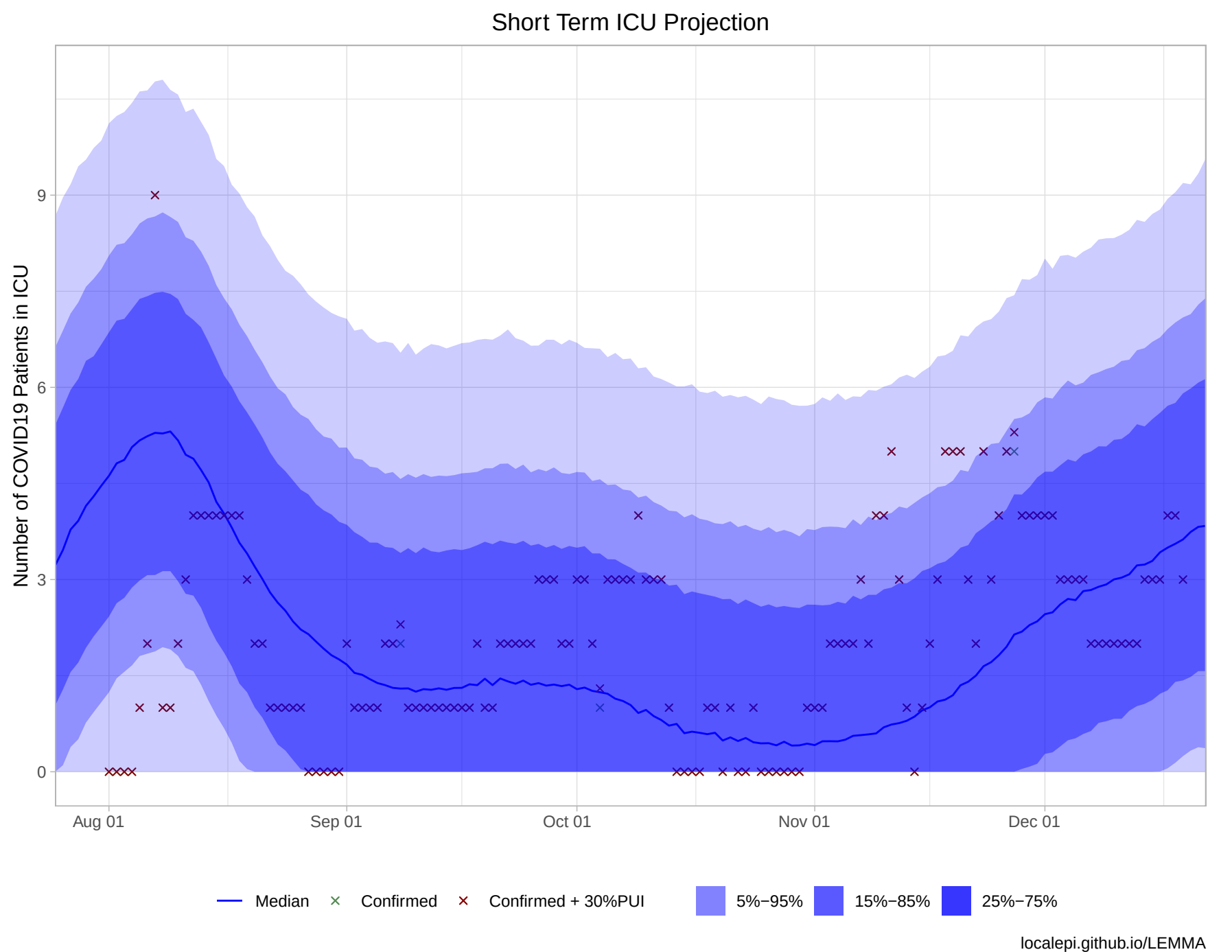
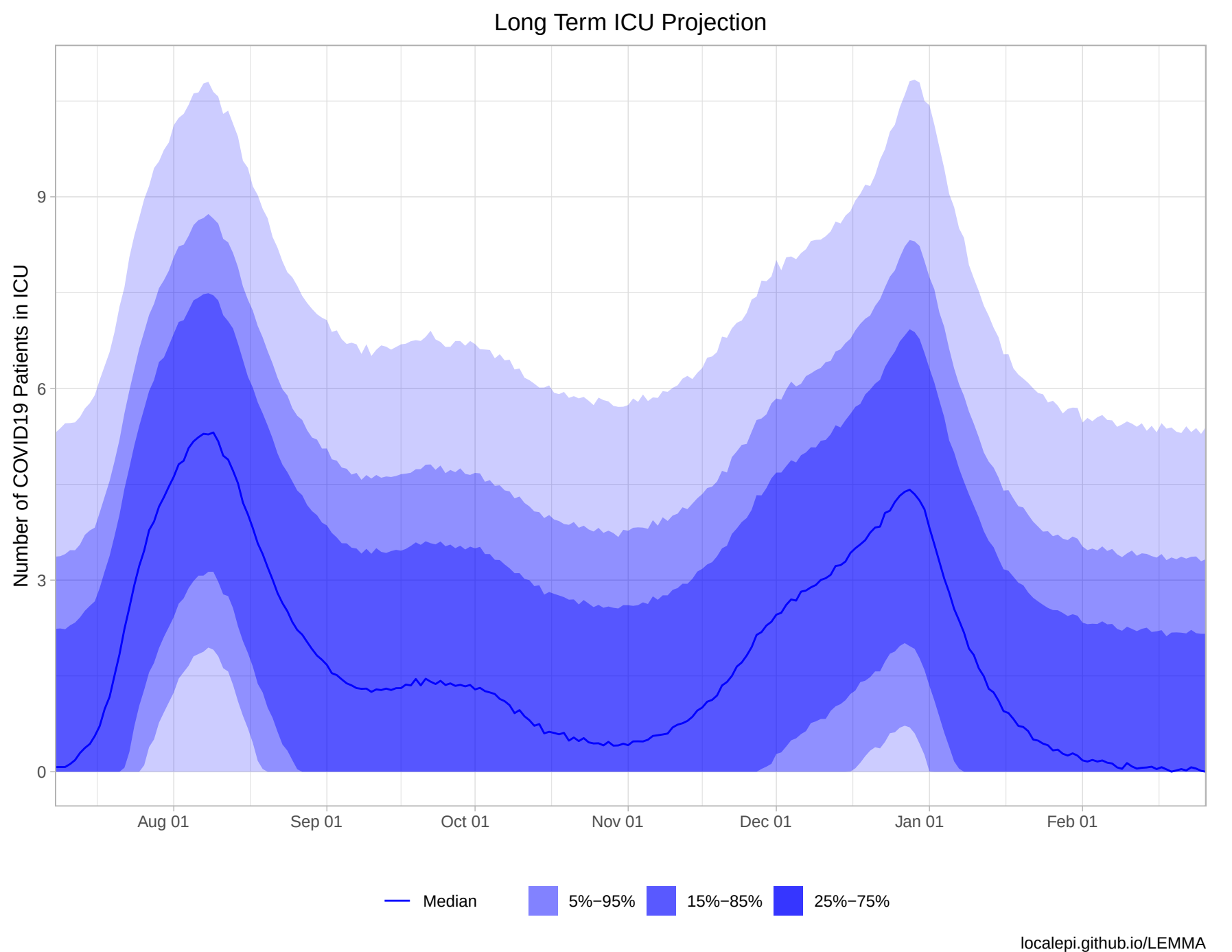
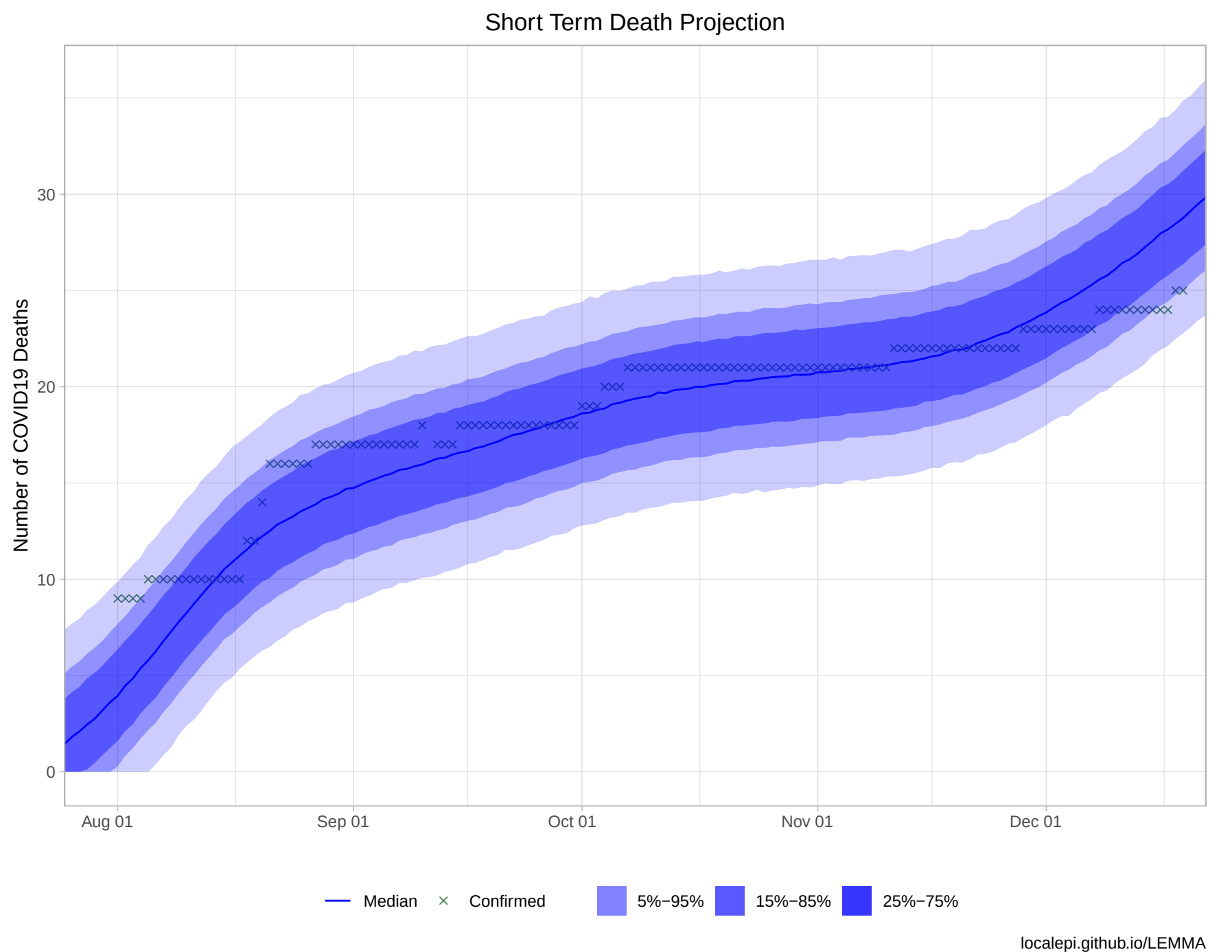
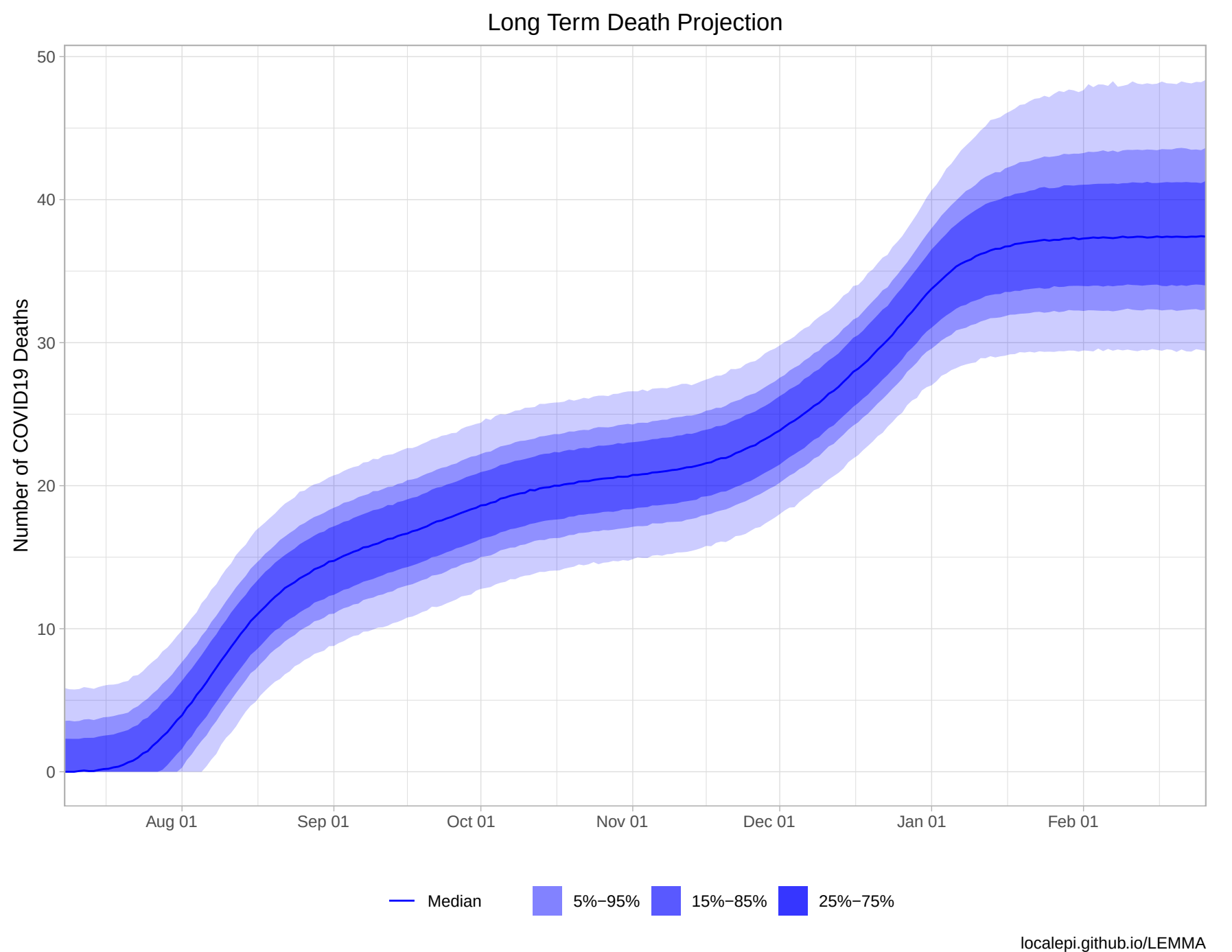

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
25
20
15
10
5
0
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

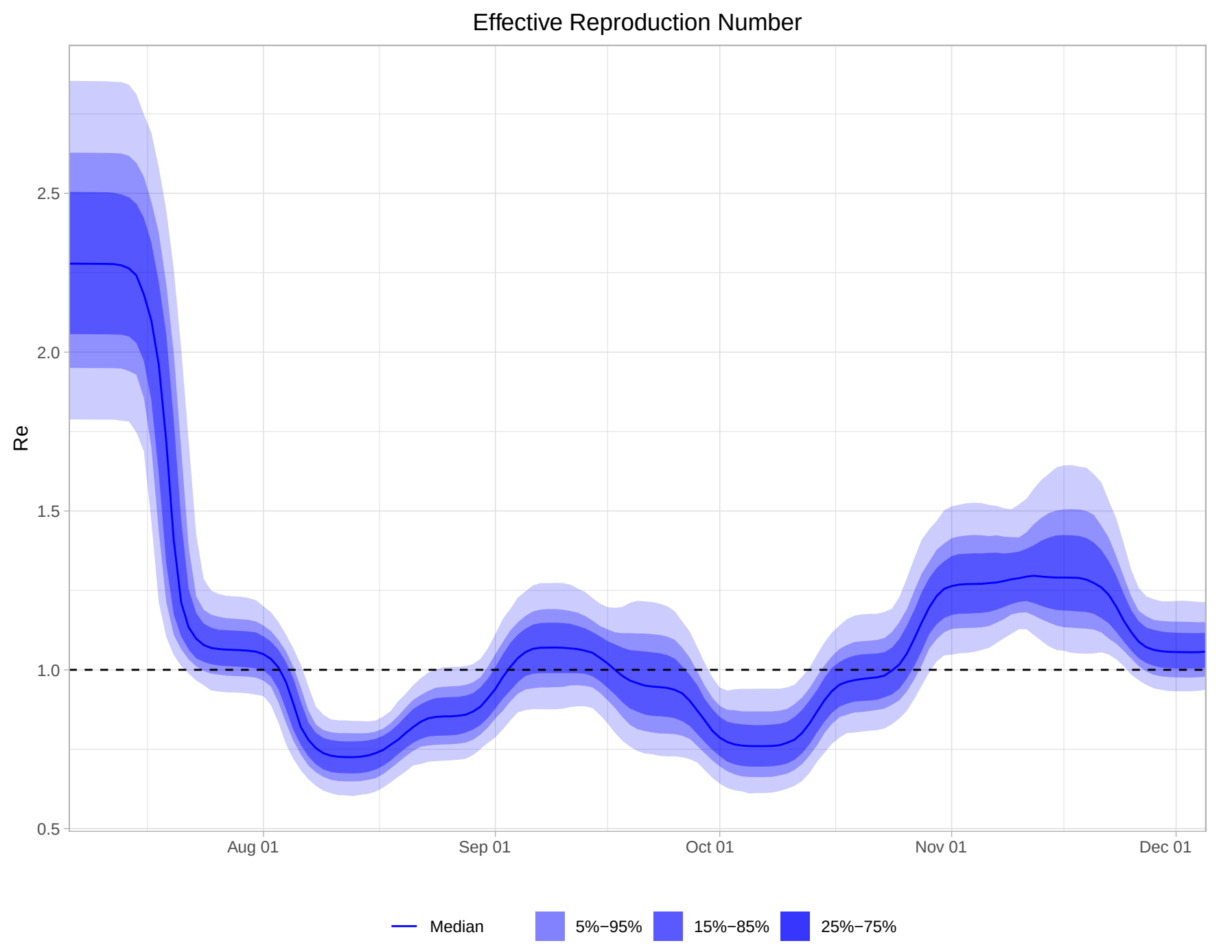

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
10
20
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
0
3
6
9
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
0
3
6
9
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

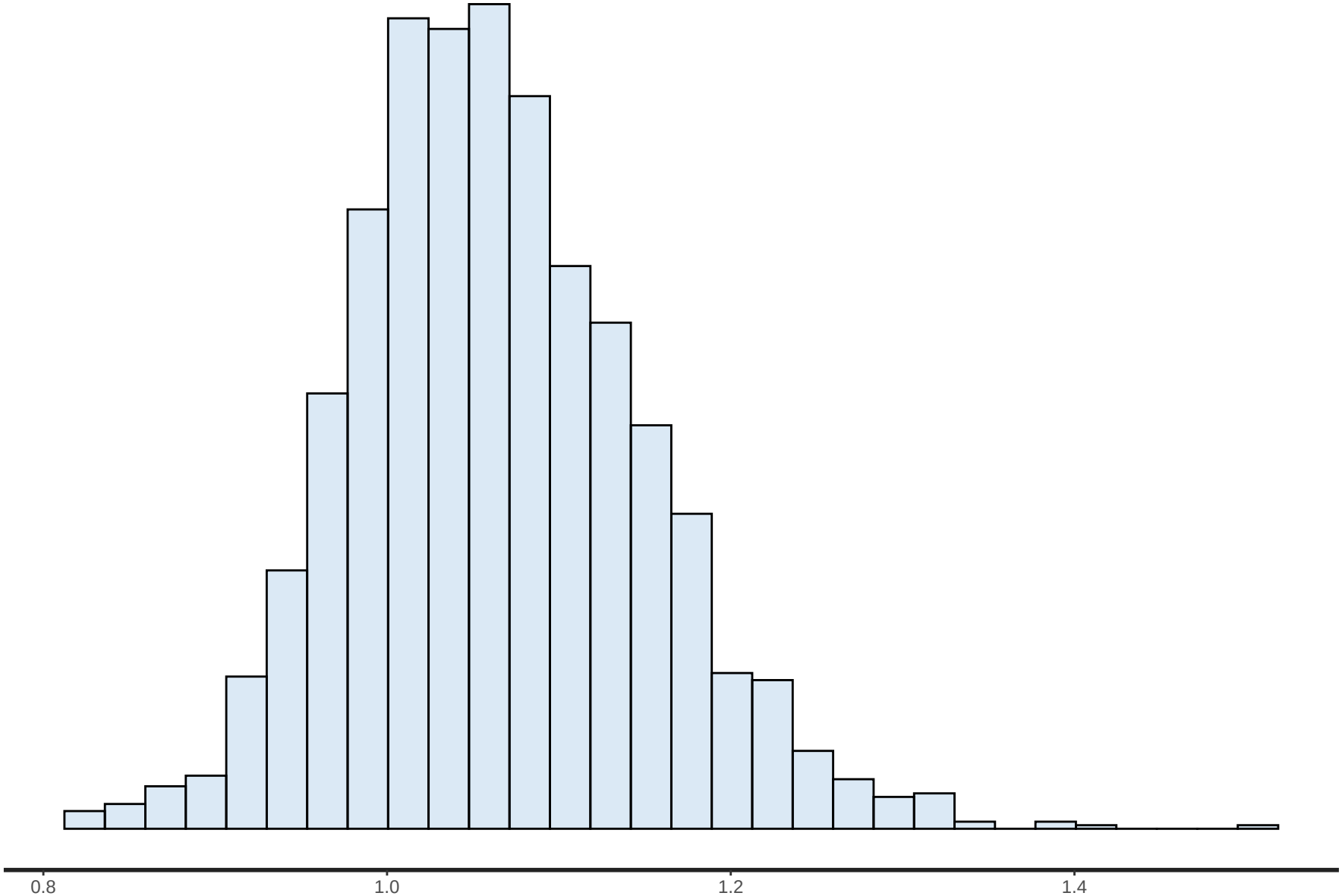

Short Term Death Projection
Number of COVID19 Deaths
0
10
20
30
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

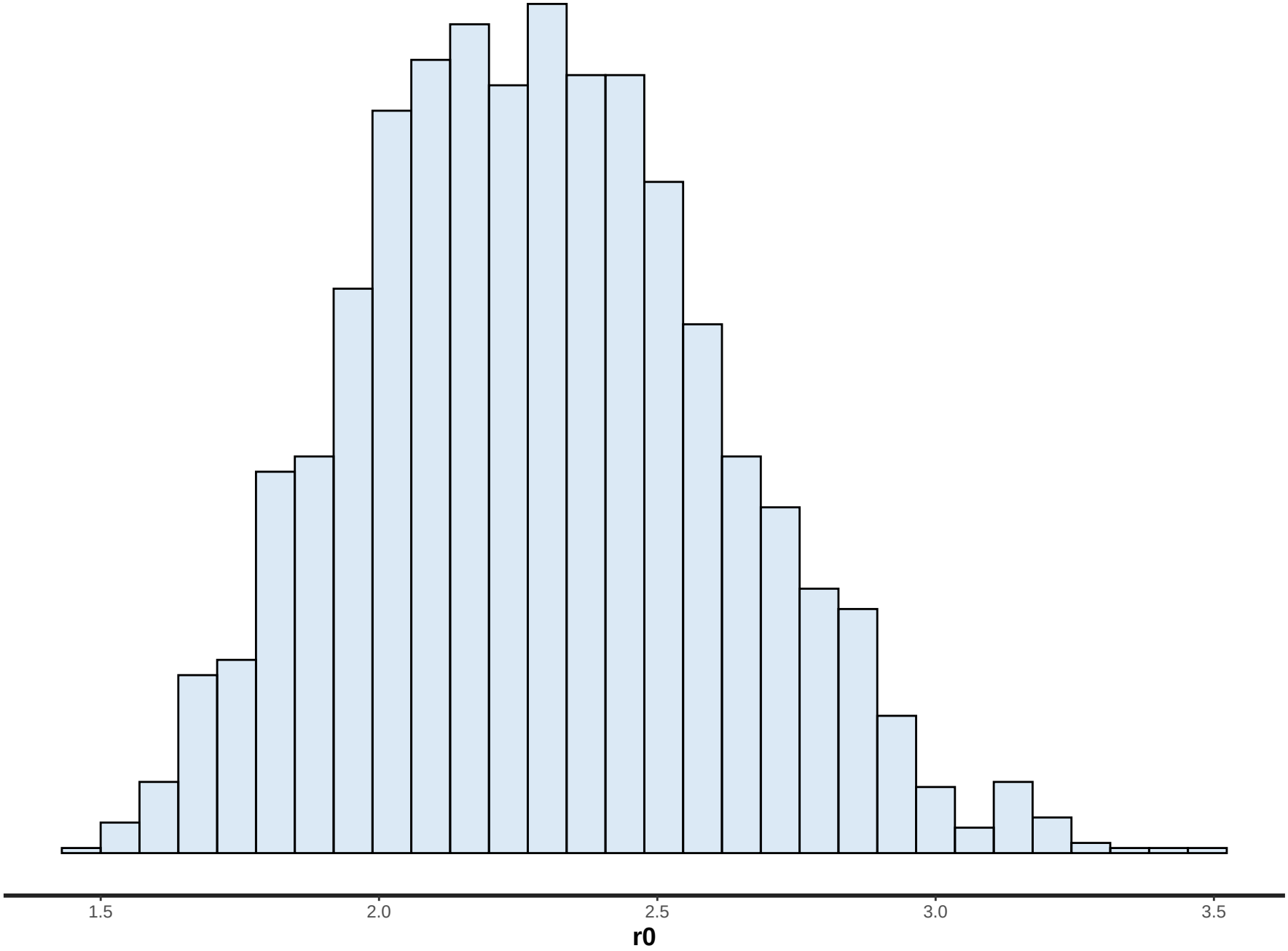

Long Term Death Projection
Number of COVID19 Deaths
50
40
30
20
10
0
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

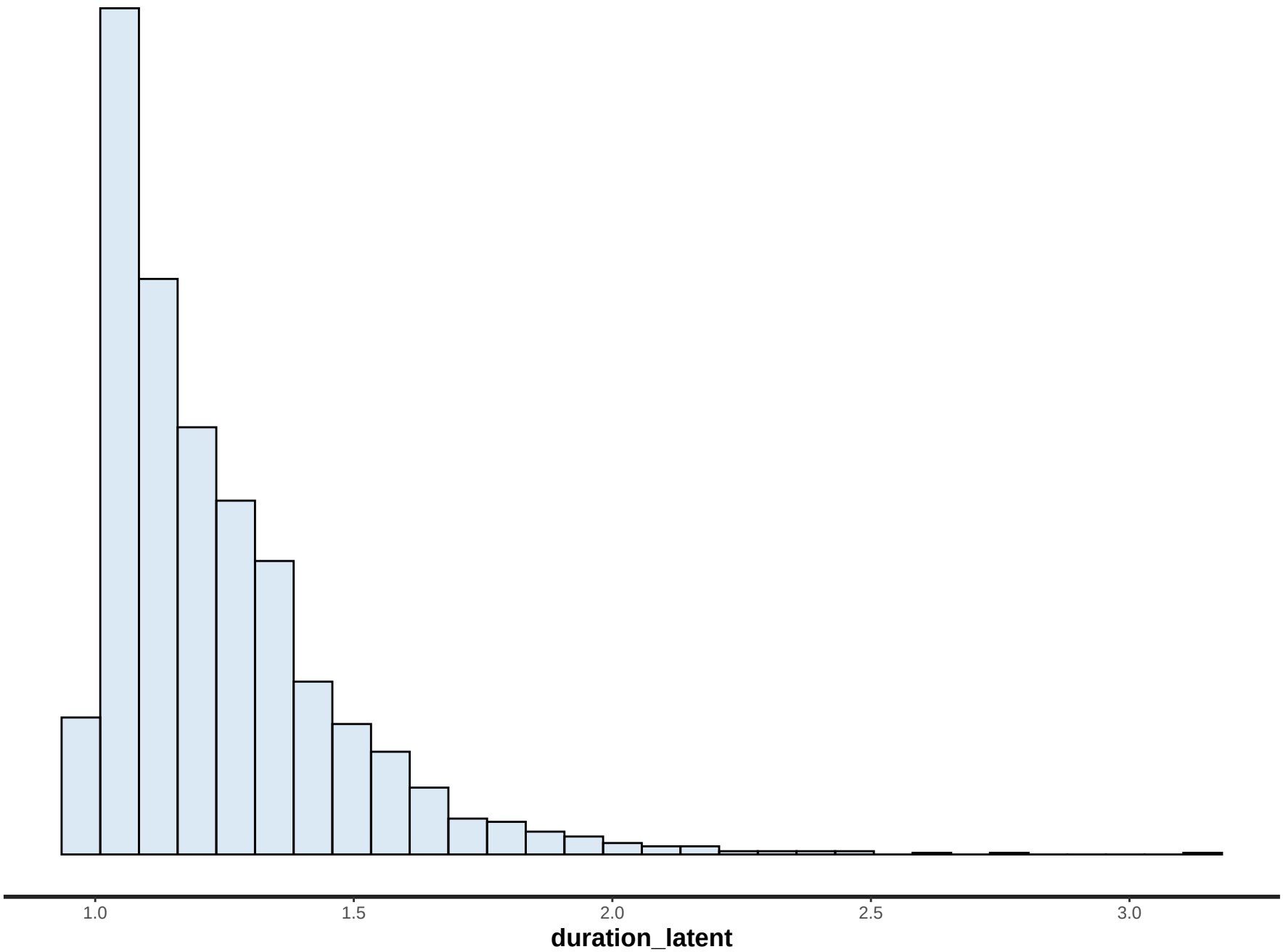

Effective Reproduction Number
Re
2.5
2.0
1.5
1.0
0.5
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

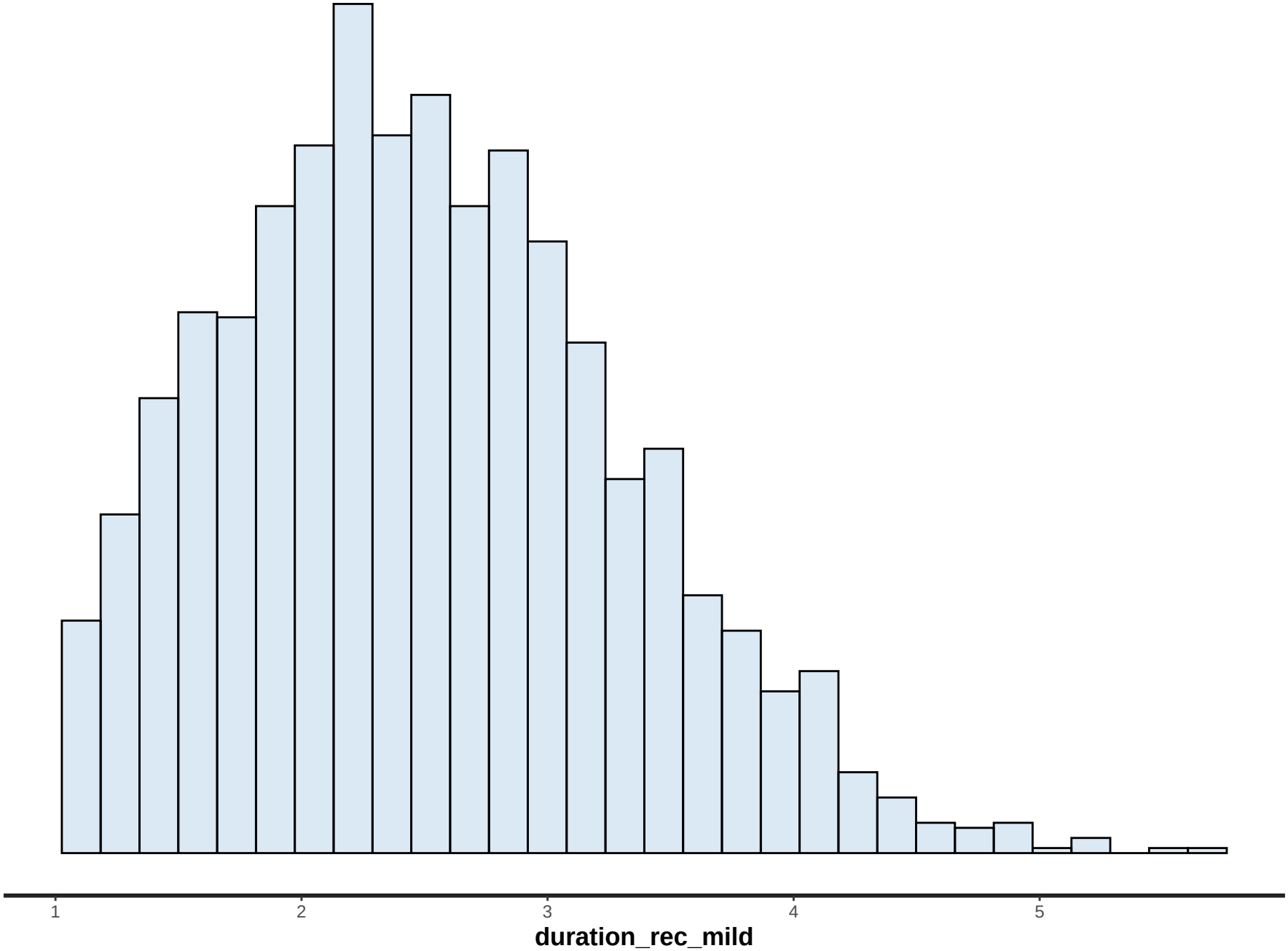
Rt as of 2020−12−05

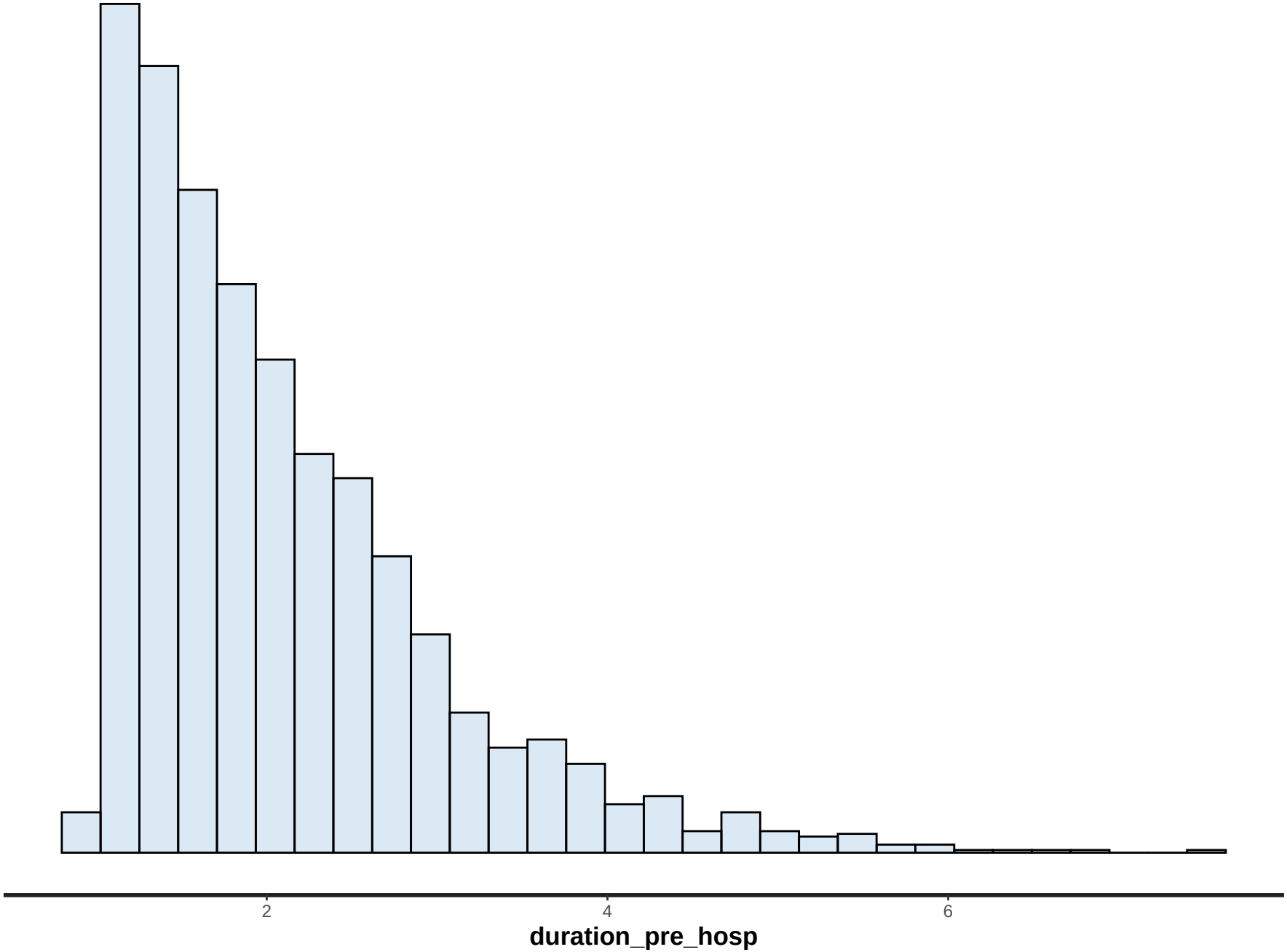
5%	10%	25%	50%	75%	90%	95%
0.94	0.96	1.01	1.06	1.12	1.17	1.21

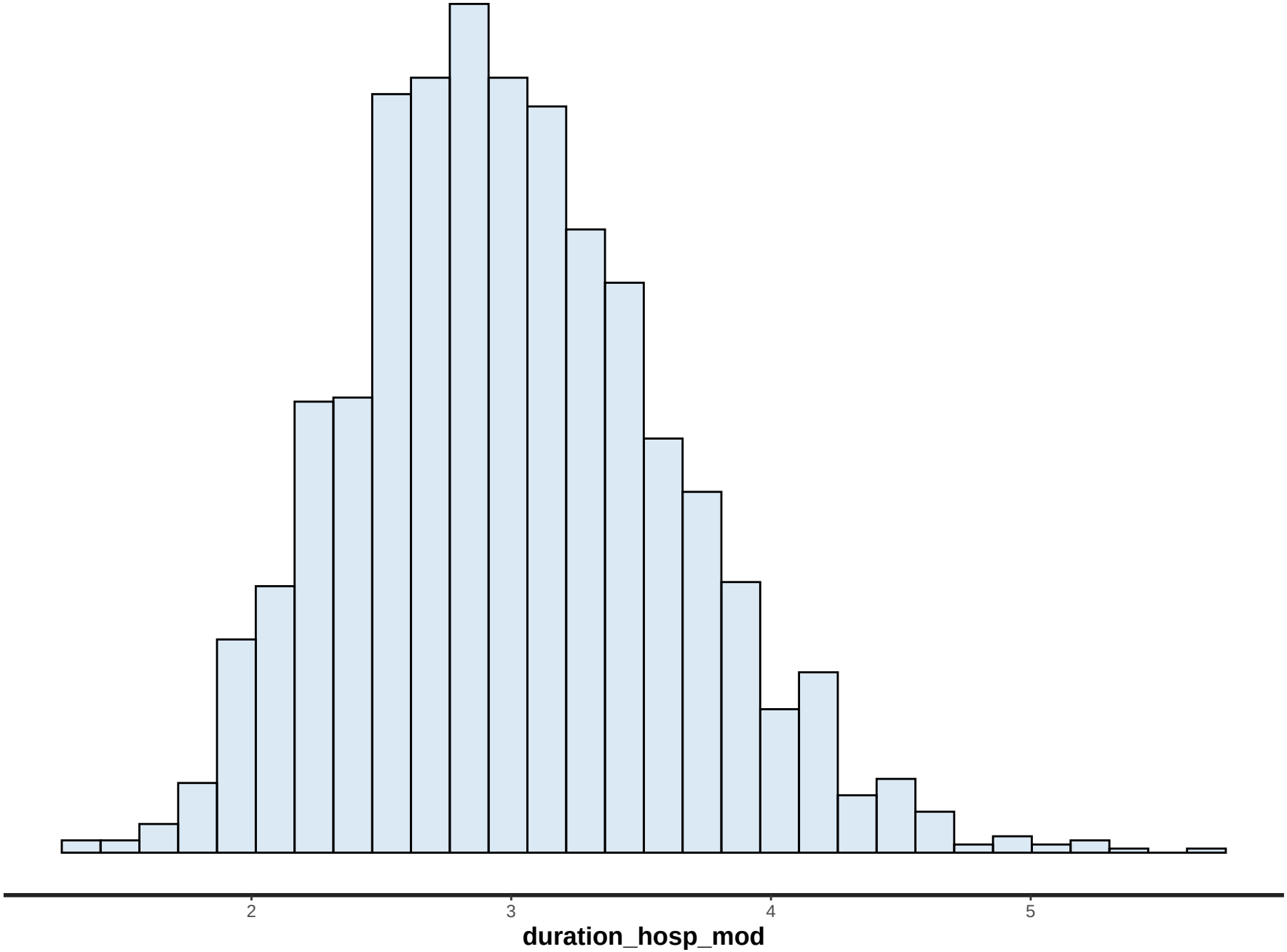


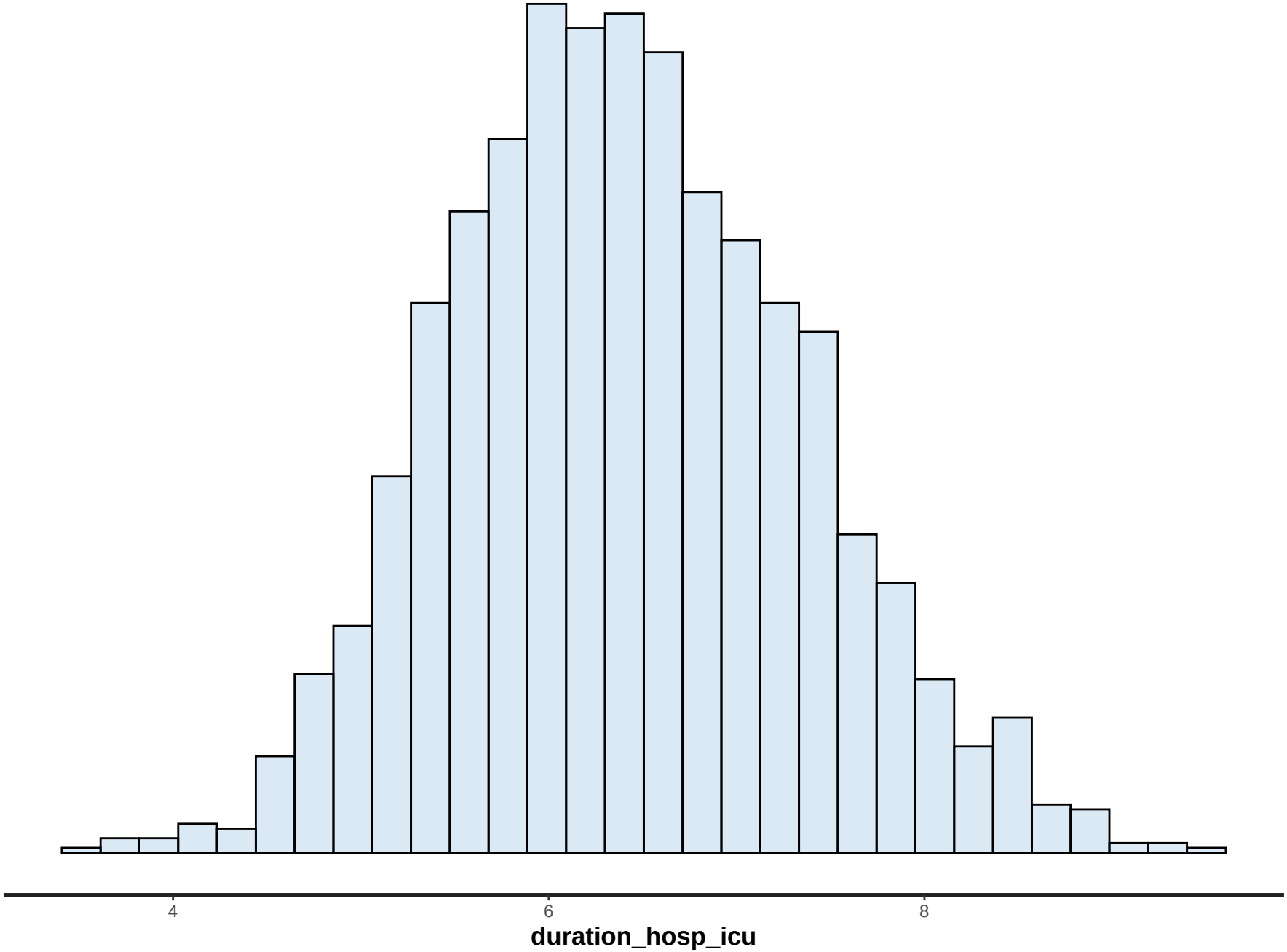

1.5
2.0
2.5
3.0
3.5
r0

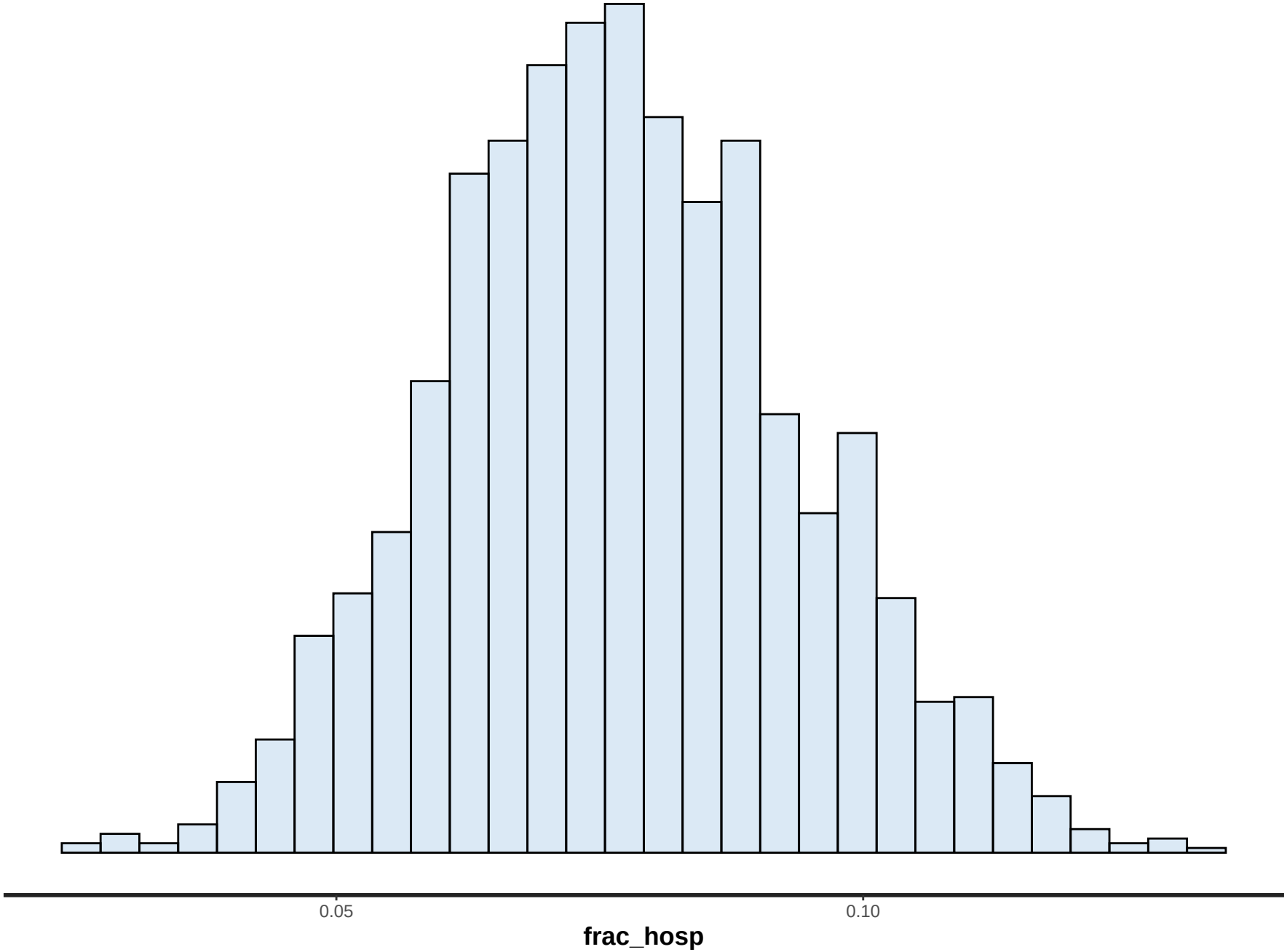

1.0
1.5
2.0
2.5
3.0
duration_latent

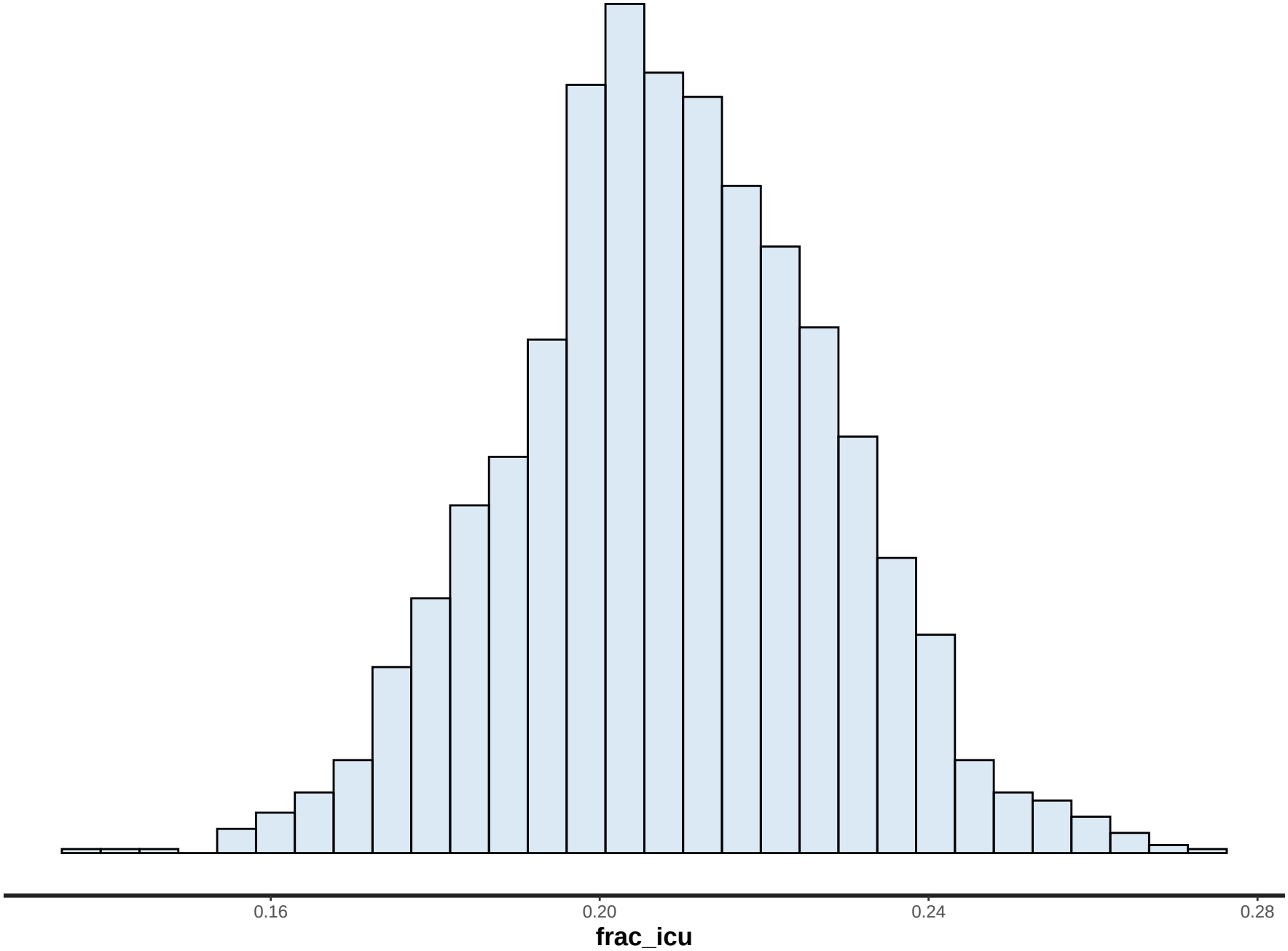

1
2
3
4
5
duration_rec_mild

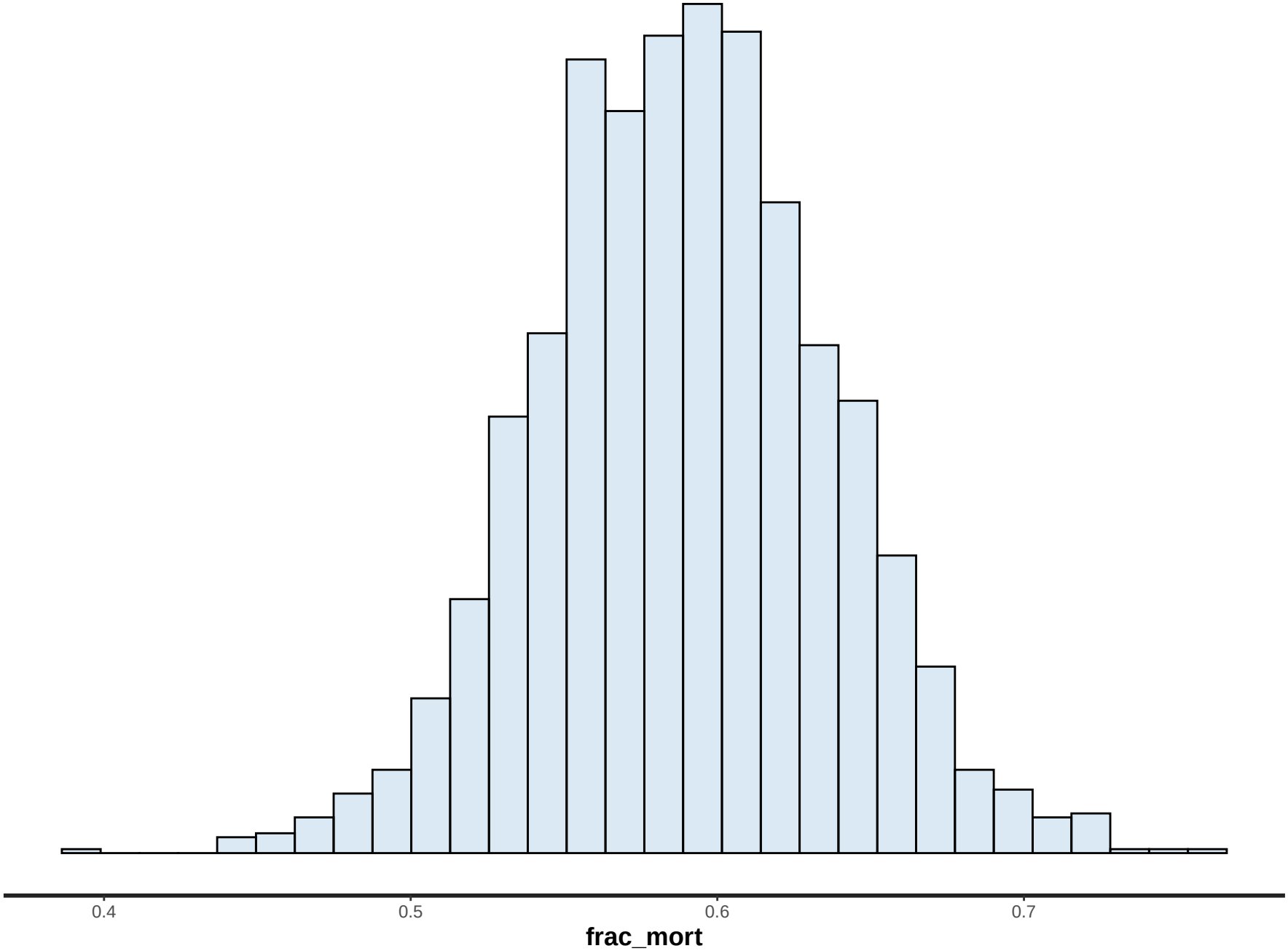

2
4
6
duration_pre_hosp

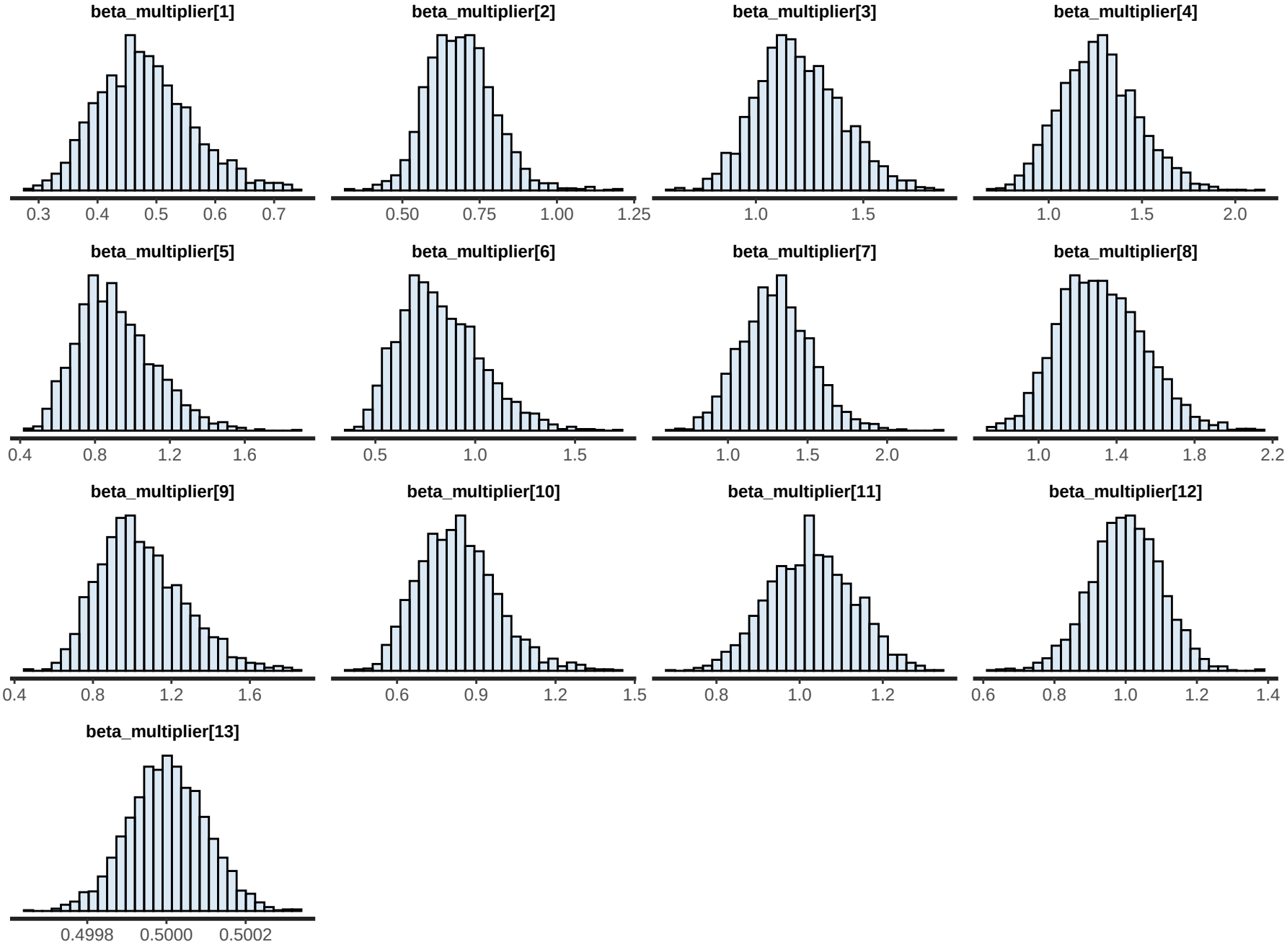

2
3
4
5
duration_hosp_mod


4
6
8
duration_hosp_icu


0.05
0.10
frac_hosp


0.16
0.20
0.24
0.28
frac_icu


0.4
0.5
0.6
0.7
frac_mort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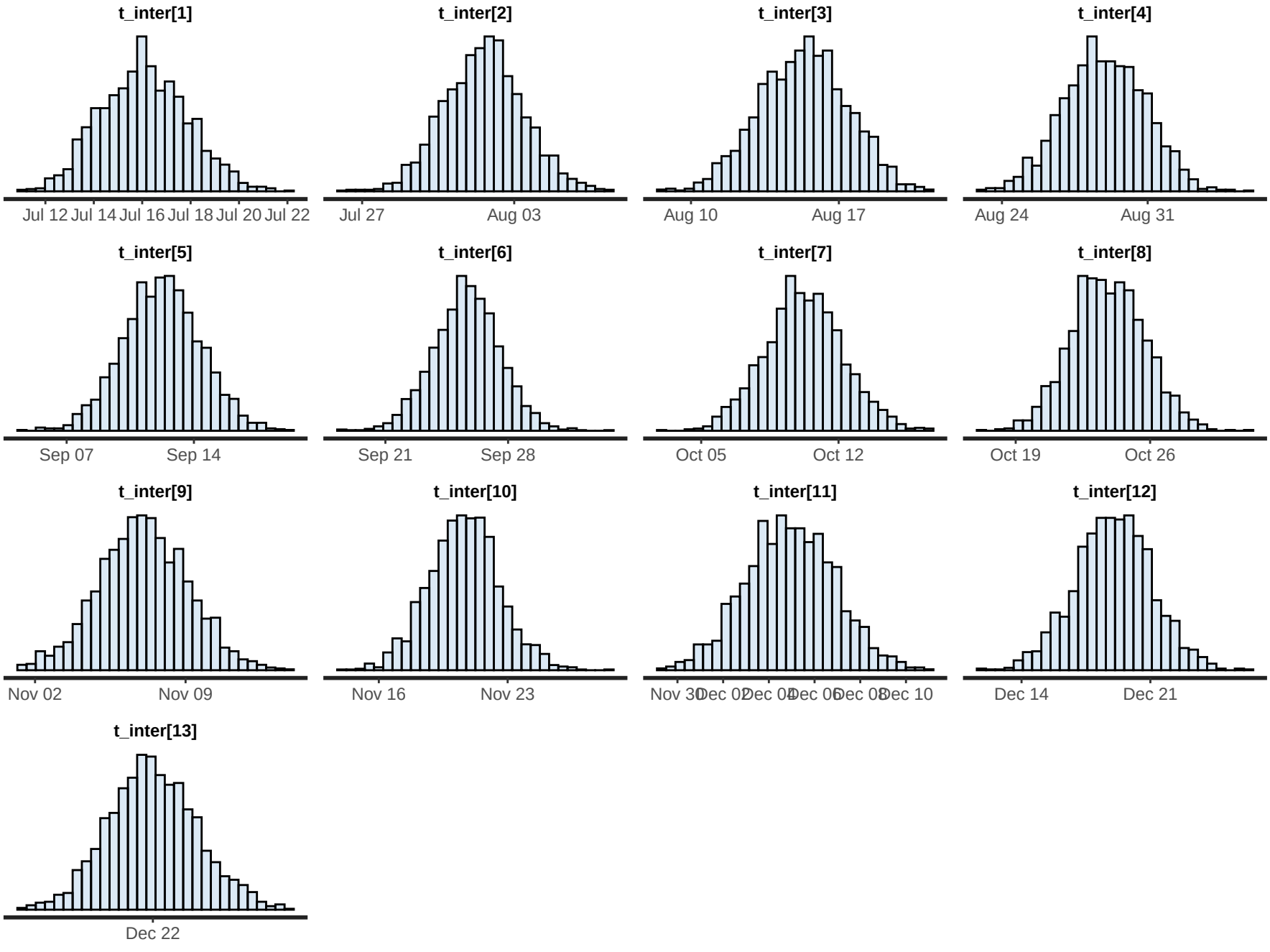
0.3 0.4 0.5 0.6 0.7
beta_multiplier[2]
0.50 0.75 1.00 1.25
beta_multiplier[3]
1.0 1.5
beta_multiplier[4]
1.0 1.5 2.0
beta_multiplier[5]
0.4 0.8 1.2 1.6
beta_multiplier[6]
0.5 1.0 1.5
beta_multiplier[7]
1.0 1.5 2.0
beta_multiplier[8]
1.0 1.4 1.8 2.2
beta_multiplier[9]
0.4 0.8 1.2 1.6
beta_multiplier[10]
0.6 0.9 1.2 1.5
beta_multiplier[11]
0.8 1.0 1.2
beta_multiplier[12]
0.6 0.8 1.0 1.2 1.4
beta_multiplier[13]
0.4998 0.5000 0.5002


t_inter[1]
Jul 12 Jul 14 Jul 16 Jul 18 Jul 20 Jul 22
t_inter[2]
Jul 27
Aug 03
t_inter[3]
Aug 10
Aug 17
t_inter[4]
Aug 24
Aug 31
t_inter[5]
Sep 07
Sep 14
t_inter[6]
Sep 21
Sep 28
t_inter[7]
Oct 05
Oct 12
t_inter[8]
Oct 19
Oct 26
t_inter[9]
Nov 02
Nov 09
t_inter[10]
Nov 16
Nov 23
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Nov 30
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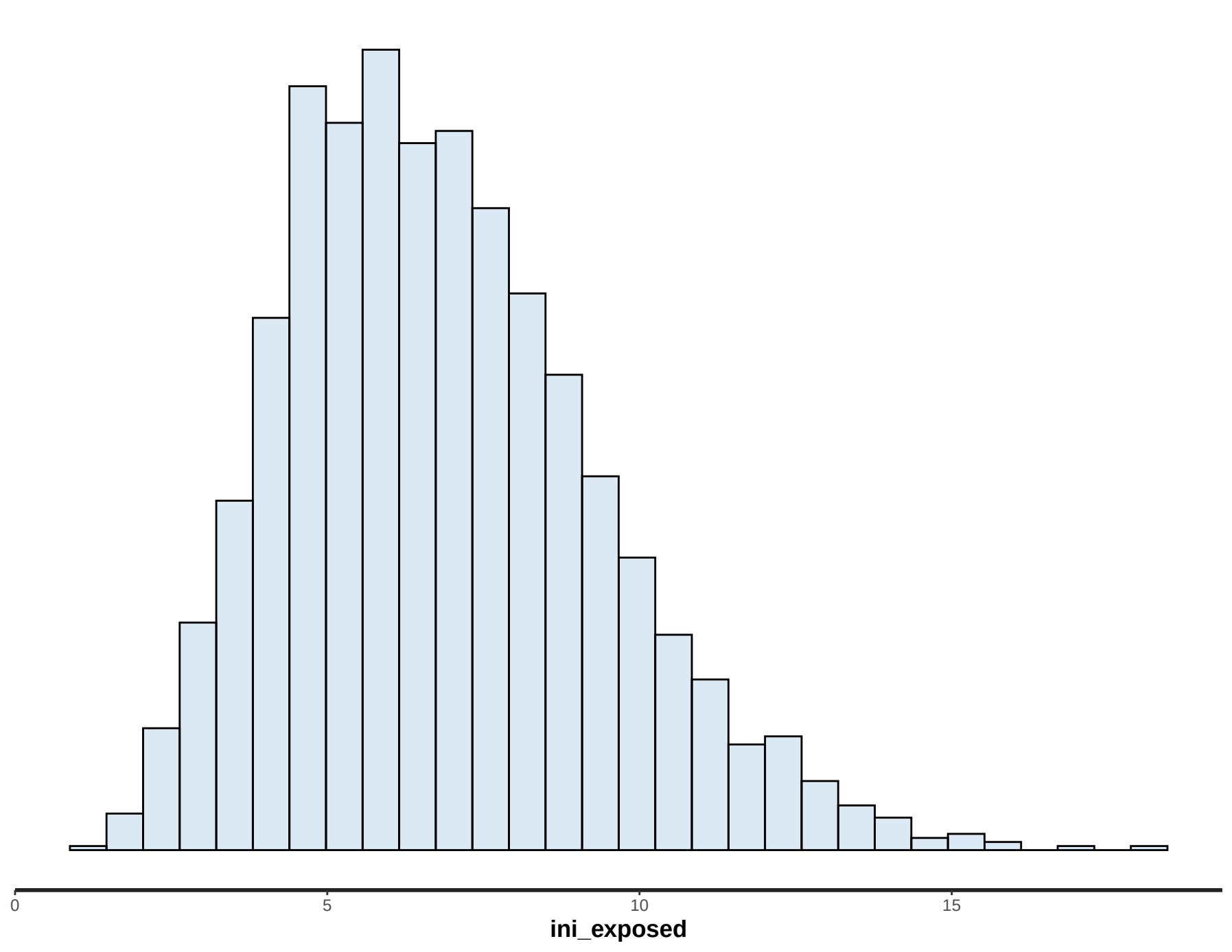
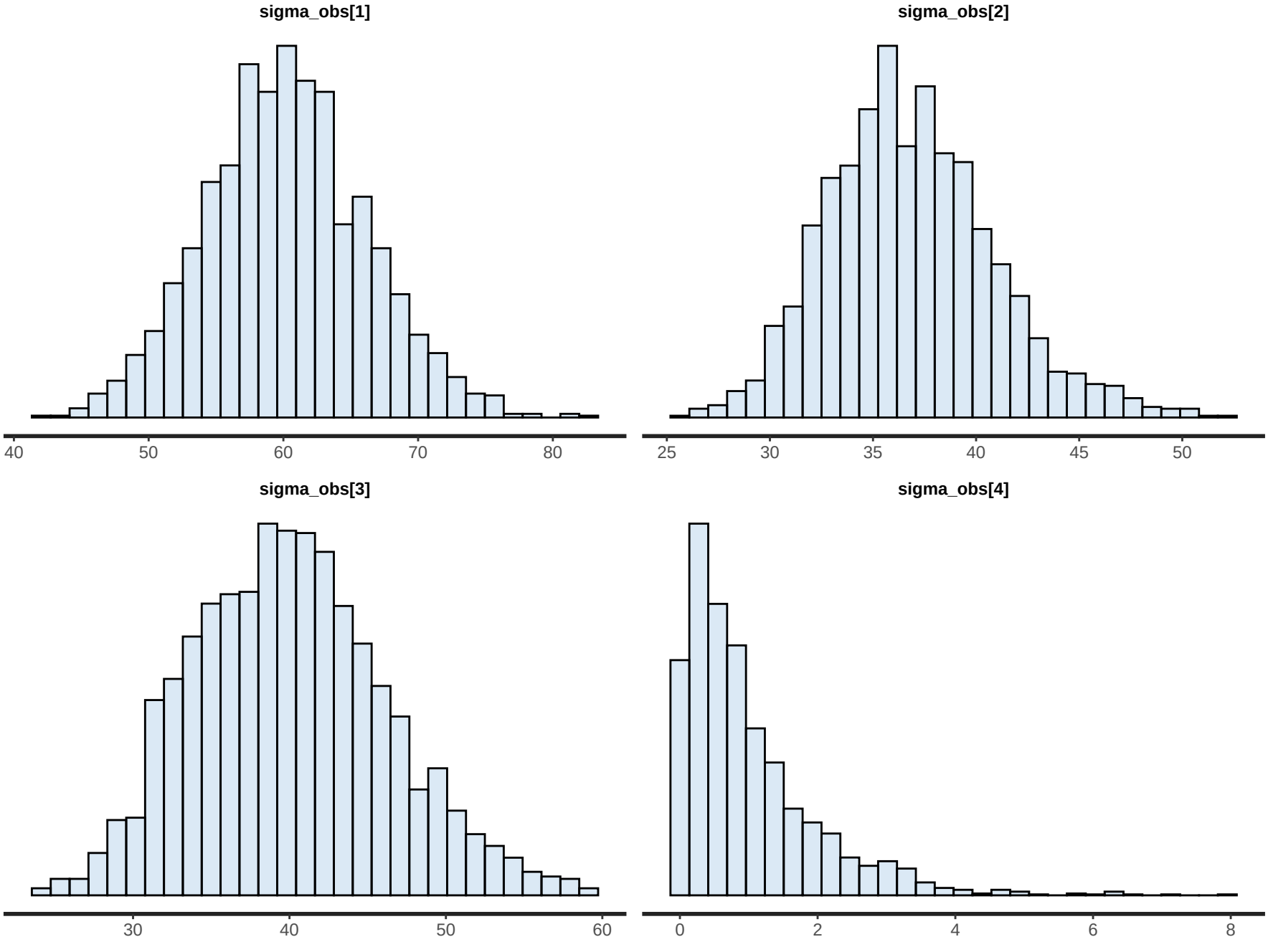
Dec 04
Dec 06
Dec 08
Dec 10
t_inter[12]
Dec 14
Dec 21
t_inter[13]
Dec 22


0
5
10
15
ini_exposed


sigma_obs[1]
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50
60
70
80
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45
50
sigma_obs[3]
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40
50
60
sigma_obs[4]
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2
4
6
8