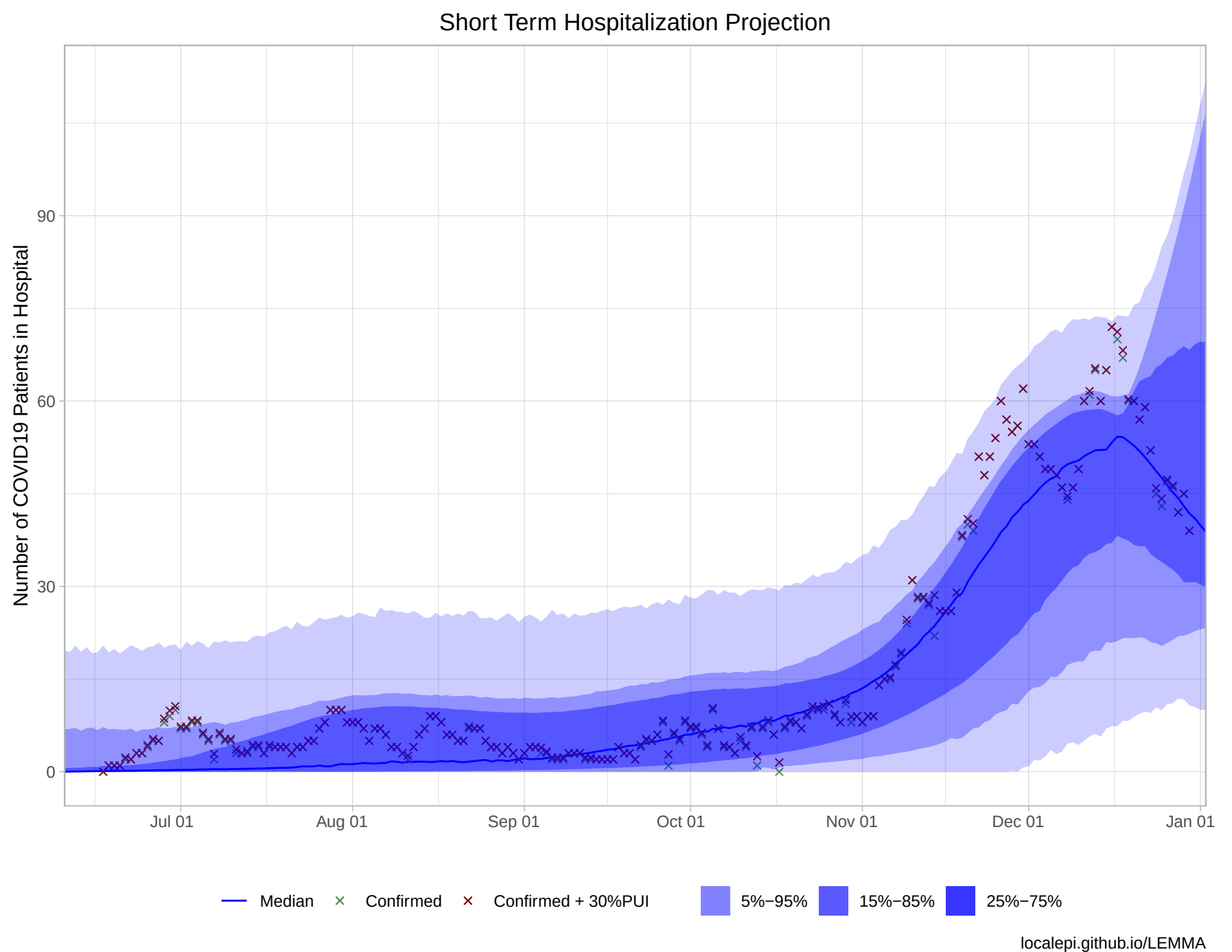
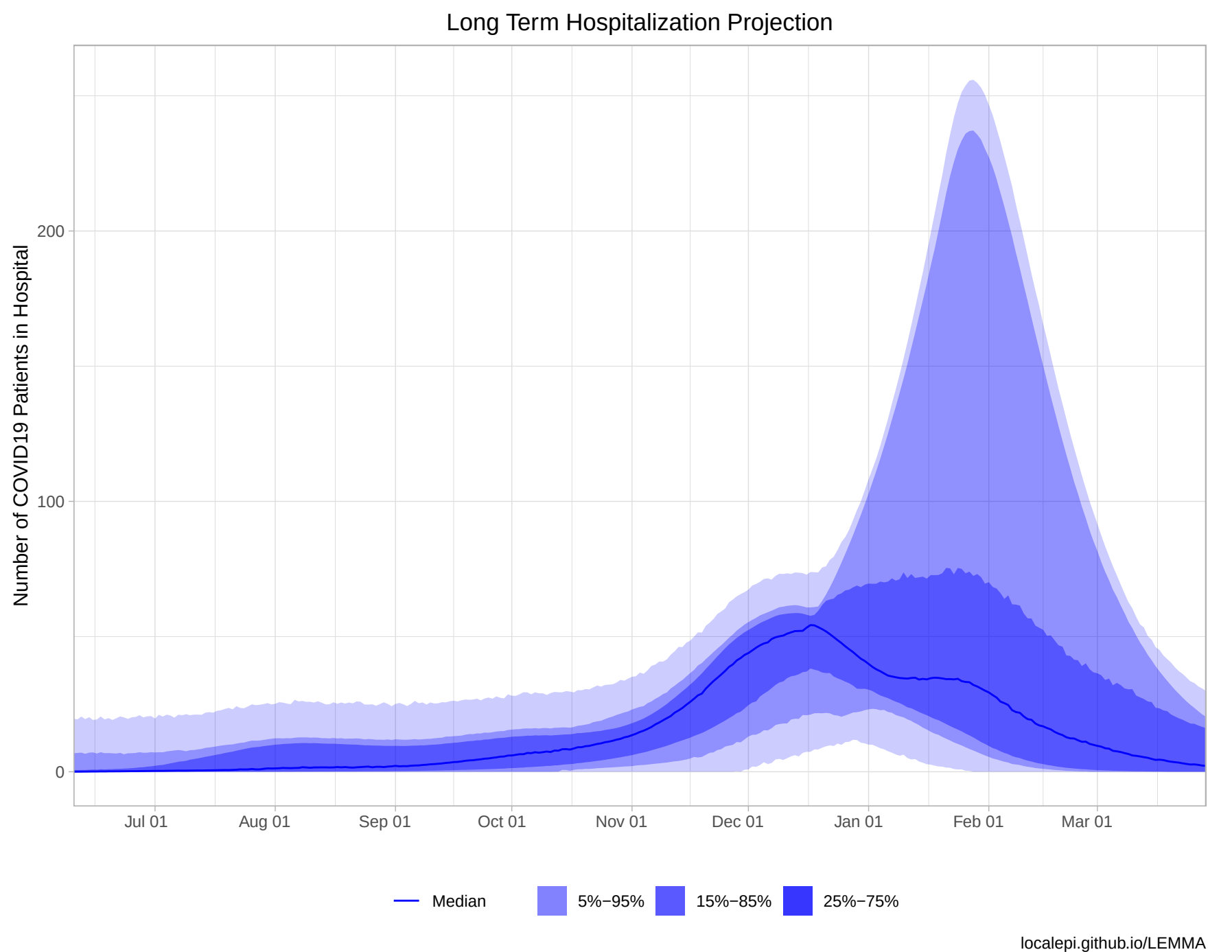
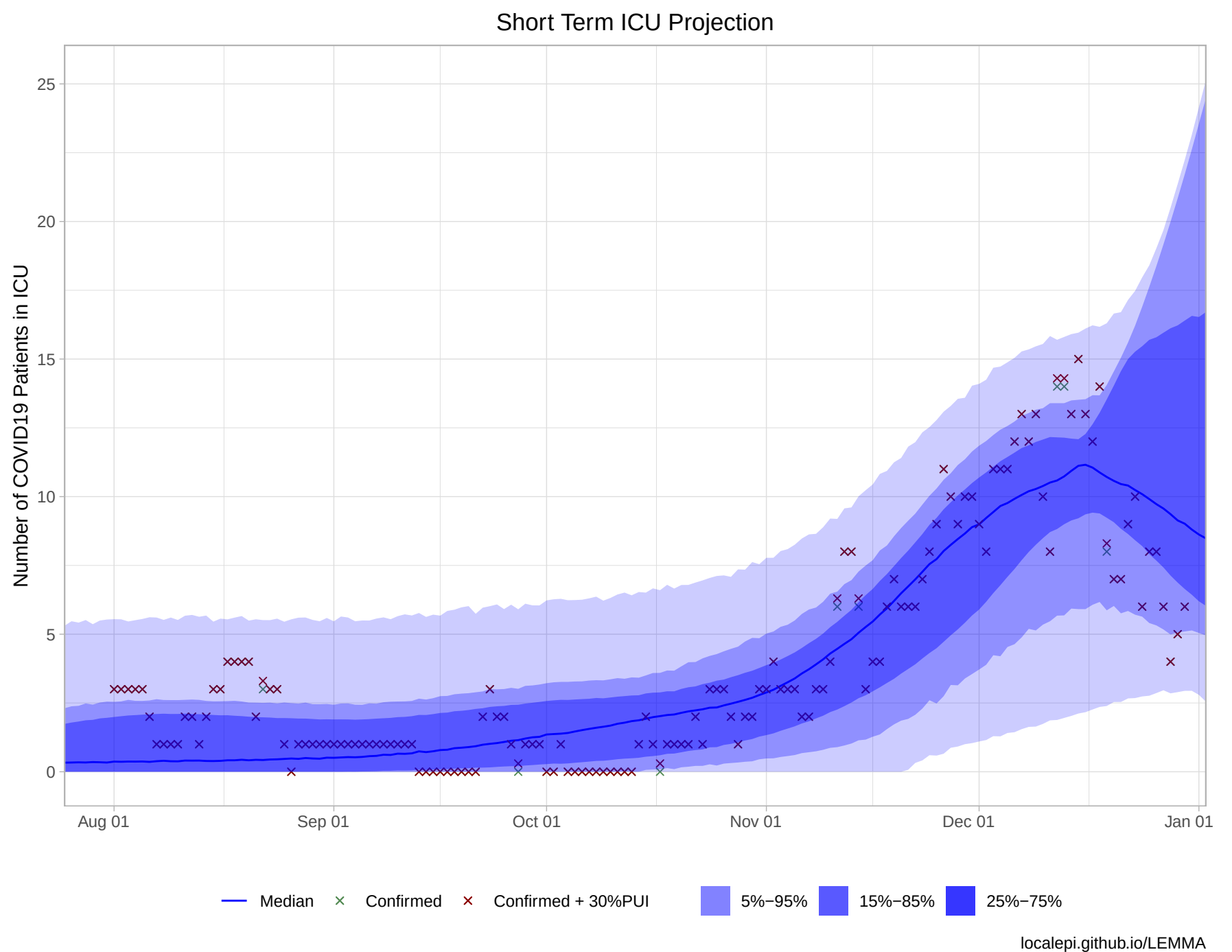
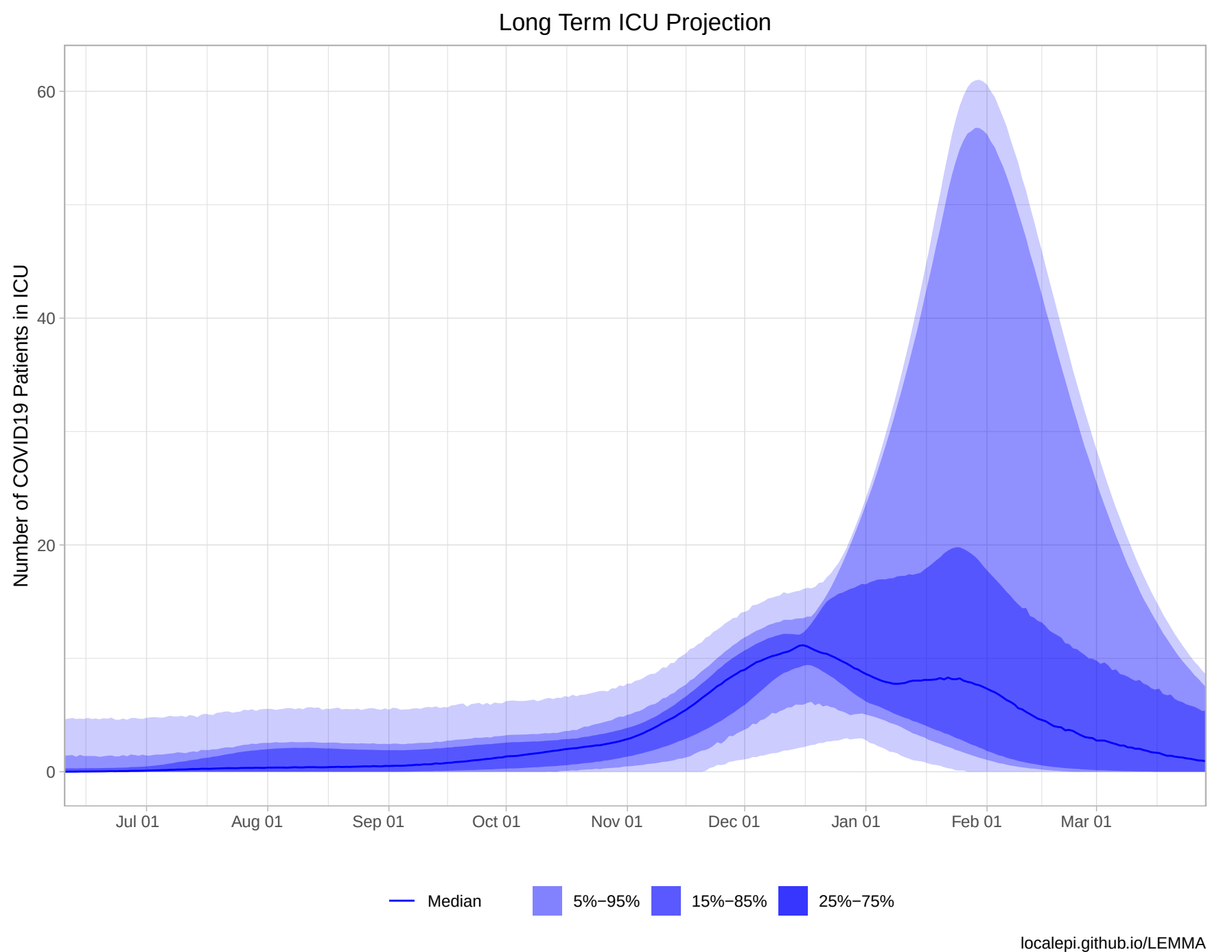
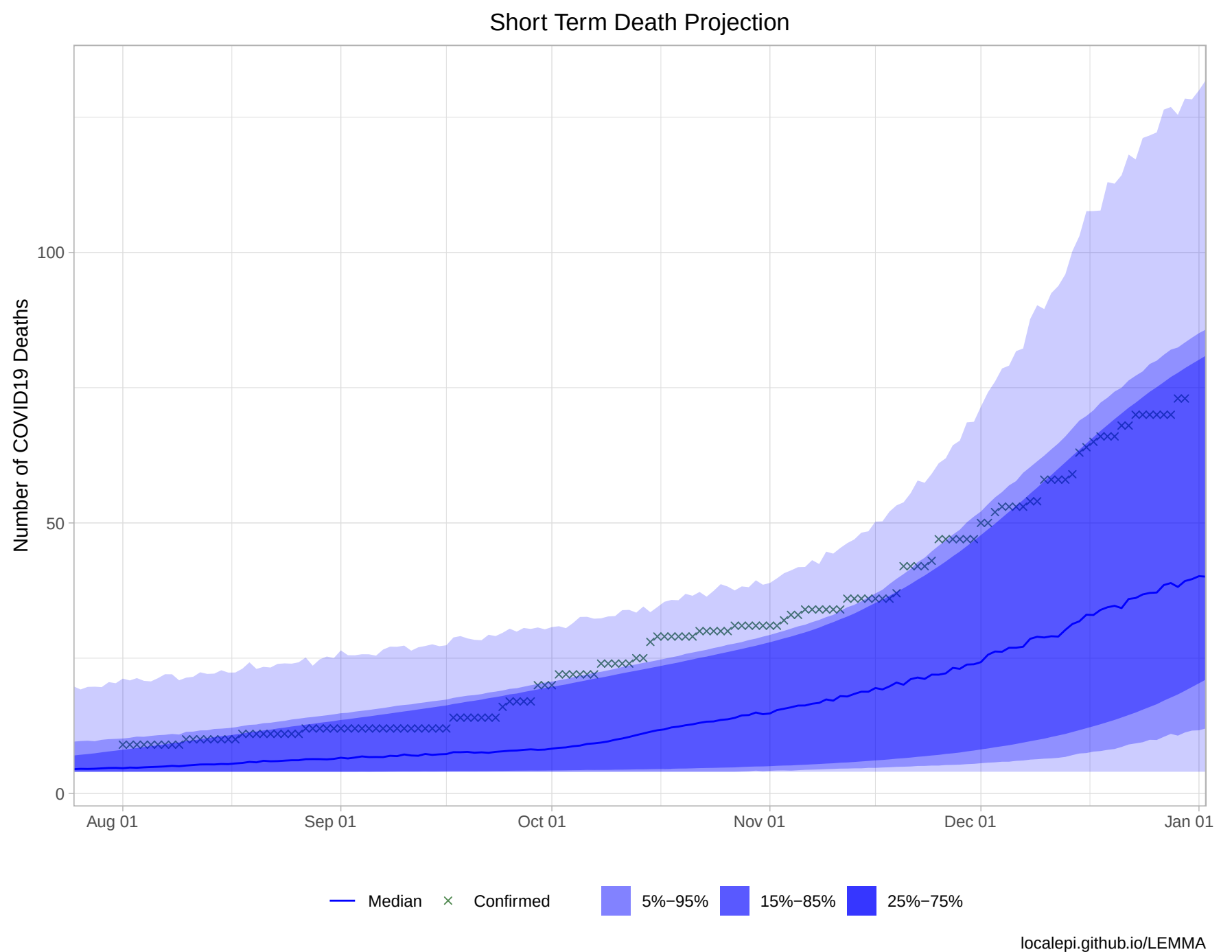
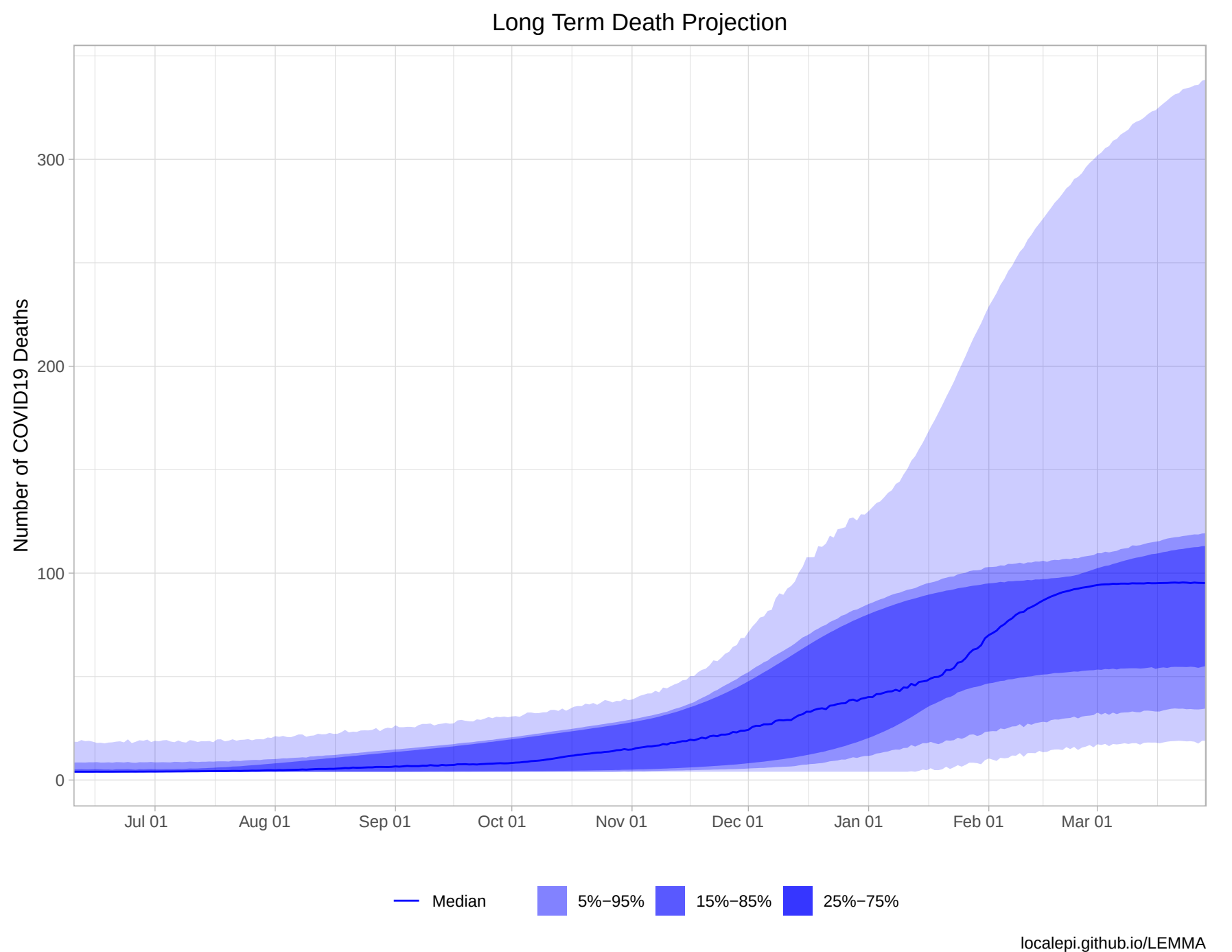

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
30
60
90
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

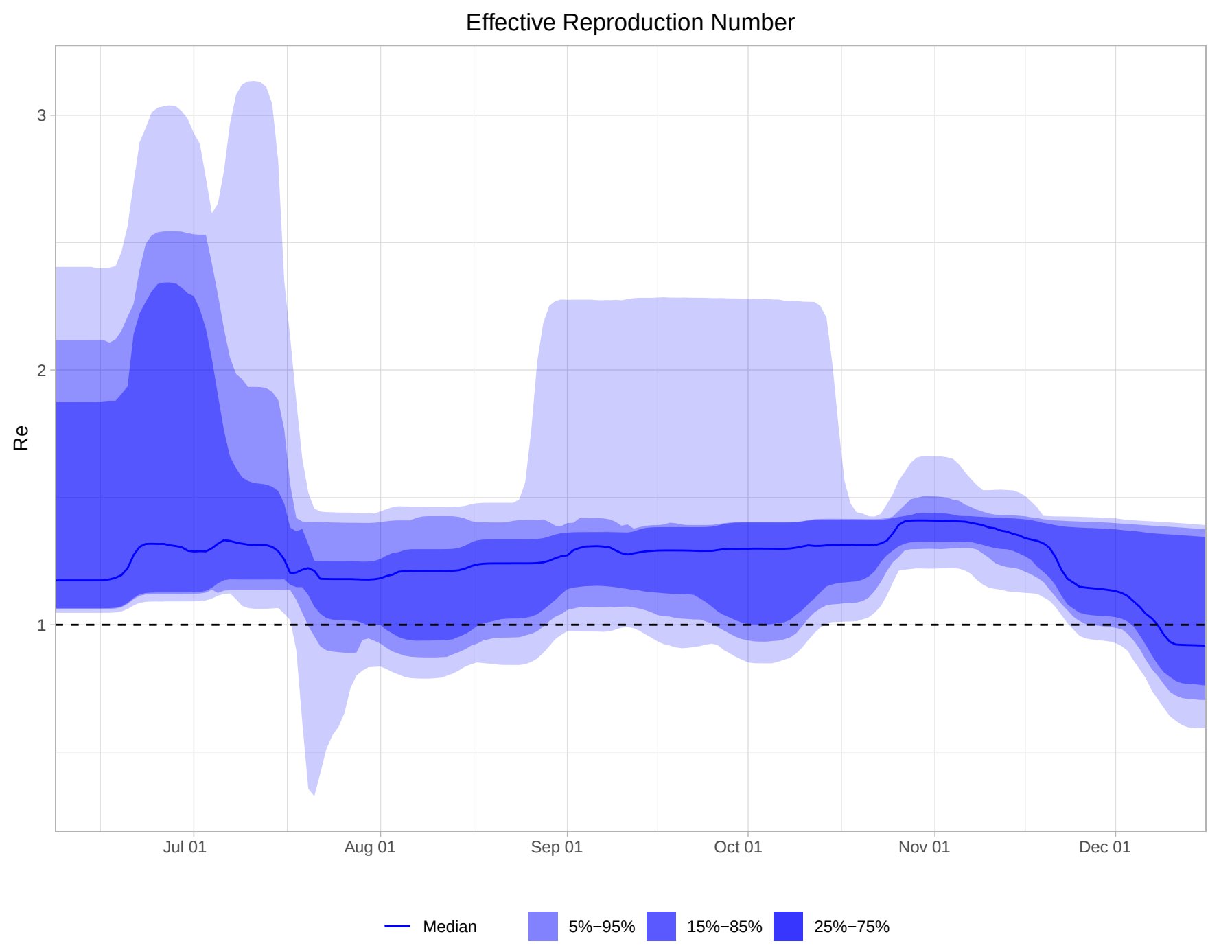

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
200
100
0
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
25
20
15
10
5
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
60
40
20
0
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

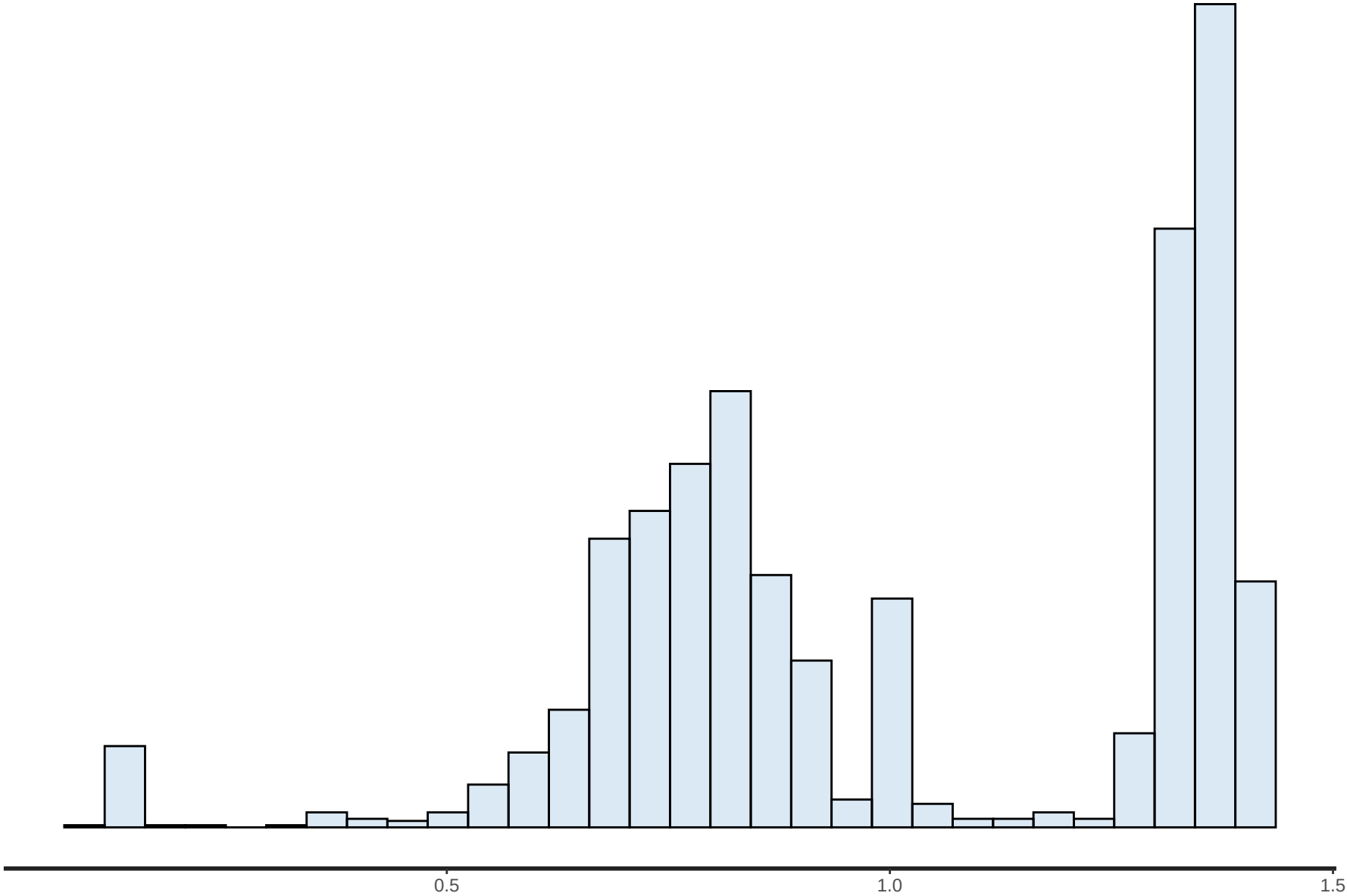

Short Term Death Projection
Number of COVID19 Deaths
100
50
0
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

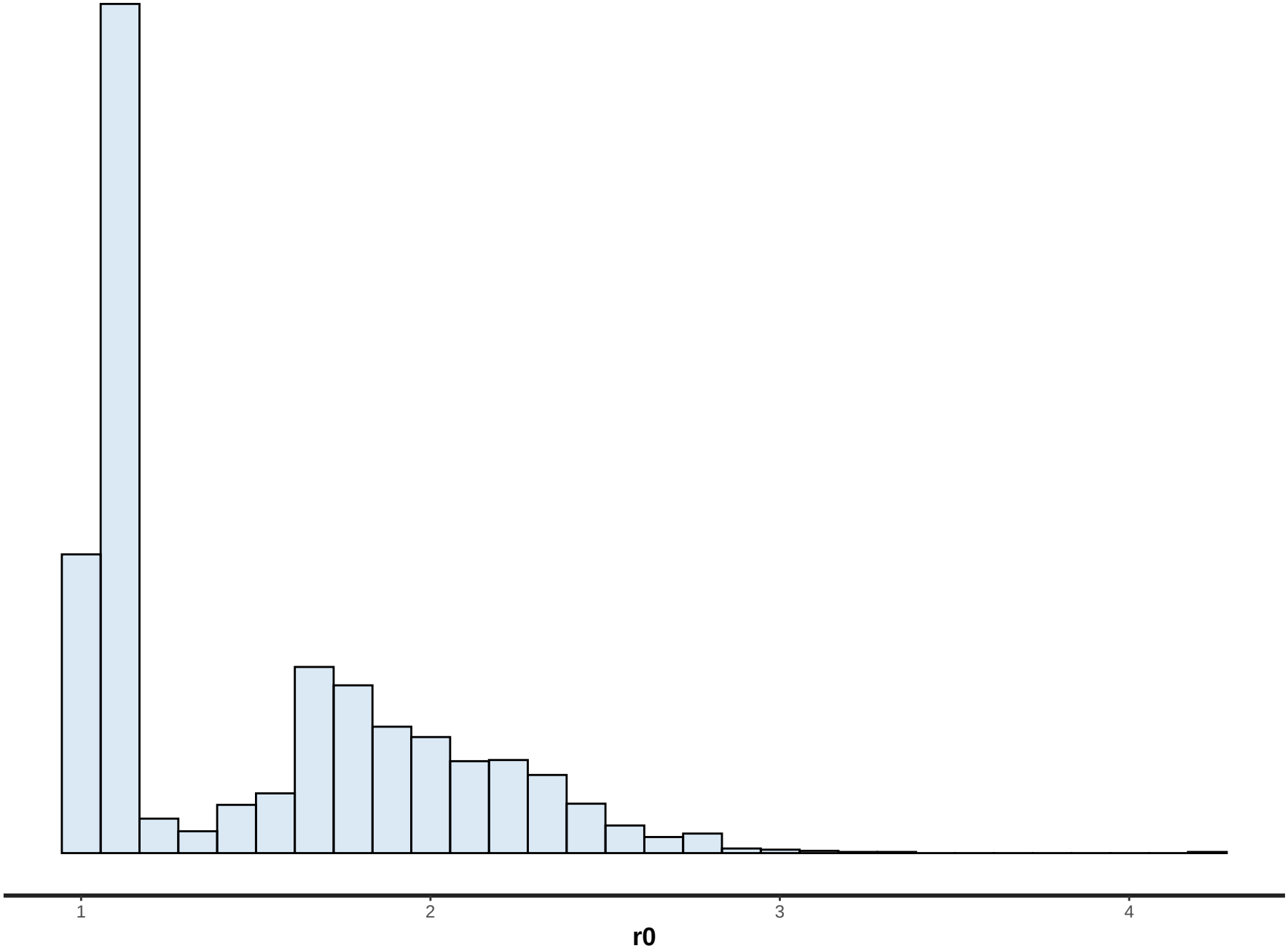

Long Term Death Projection
Number of COVID19 Deaths
300
200
100
0
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

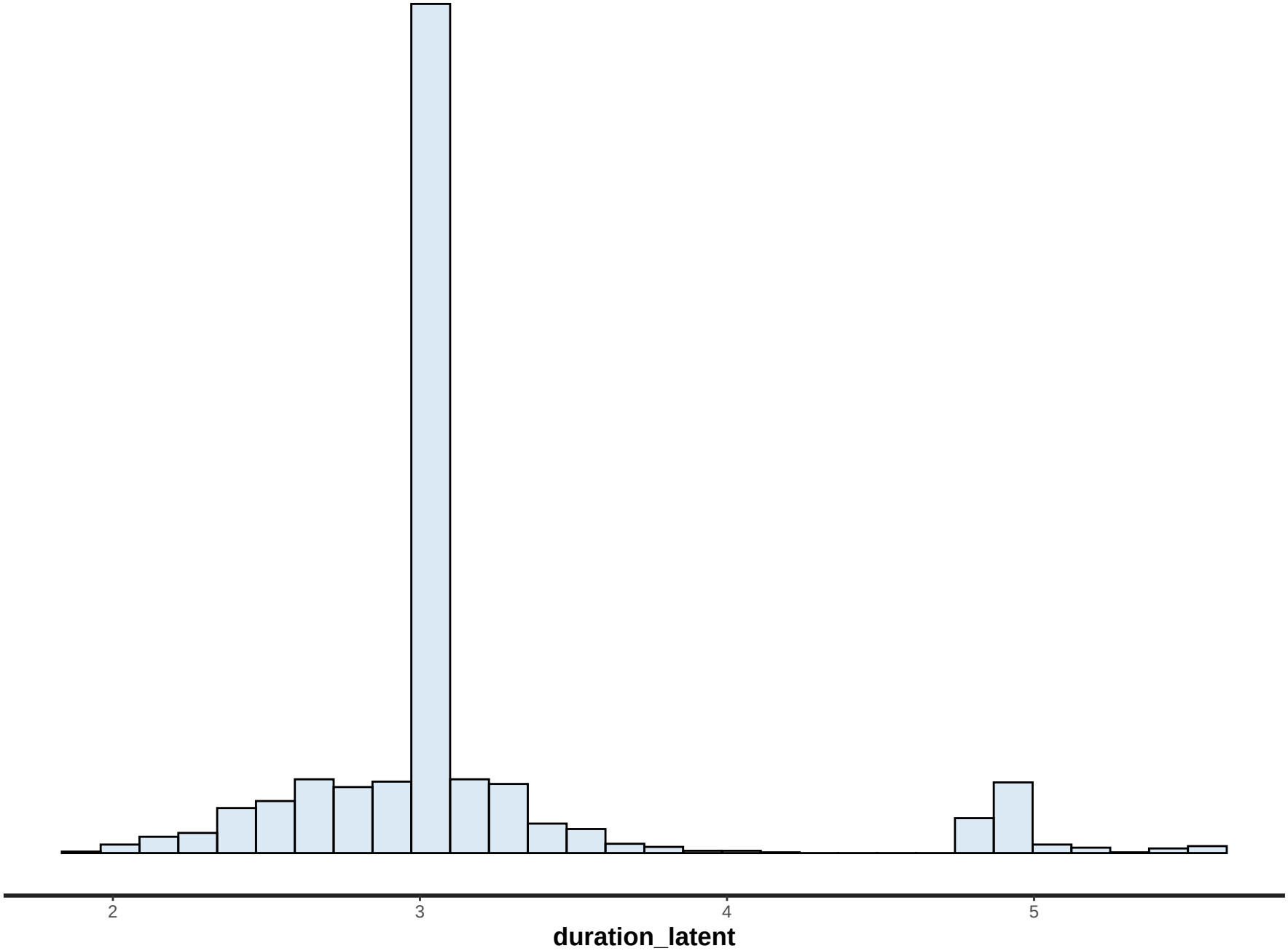

Effective Reproduction Number
Re
3
2
1
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

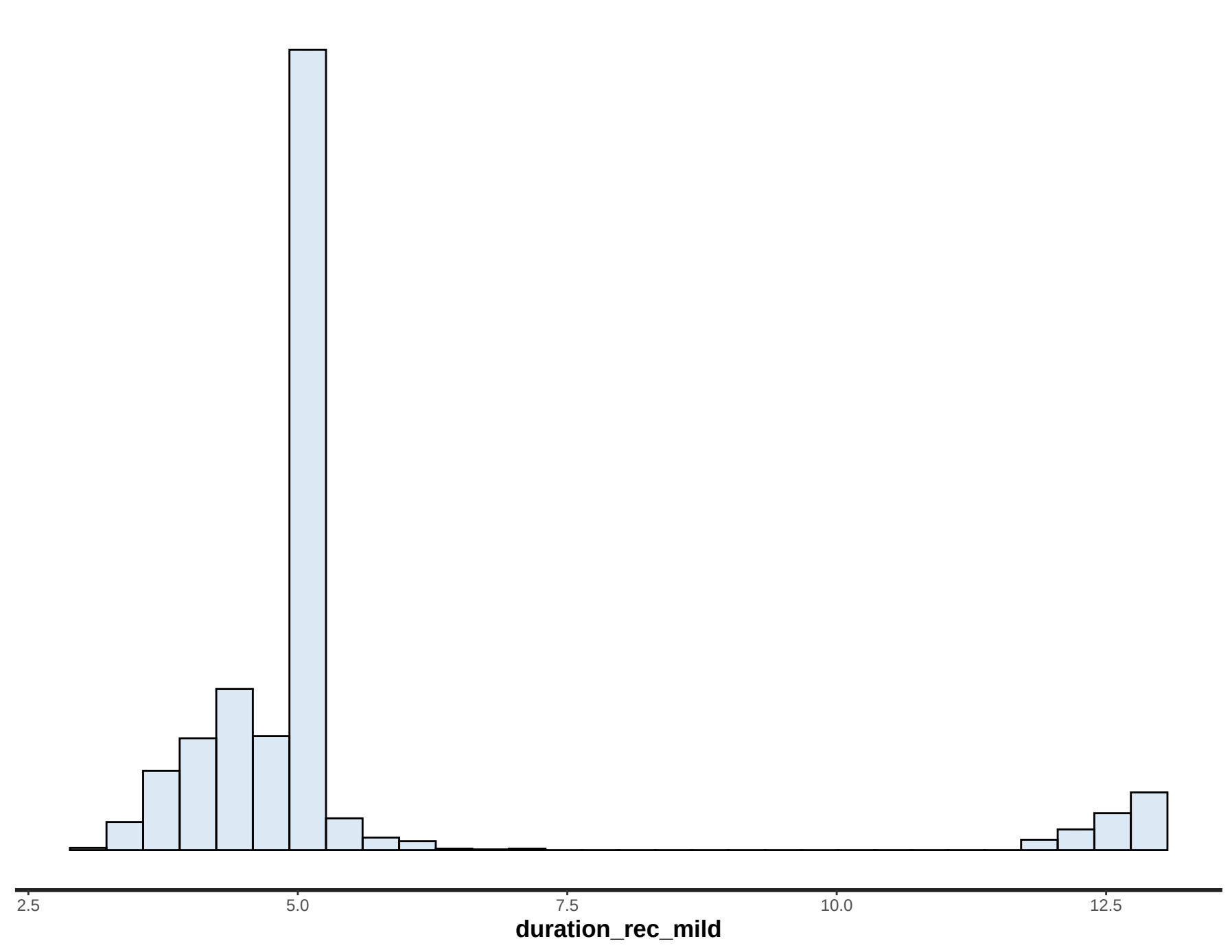
Rt as of 2020−12−16

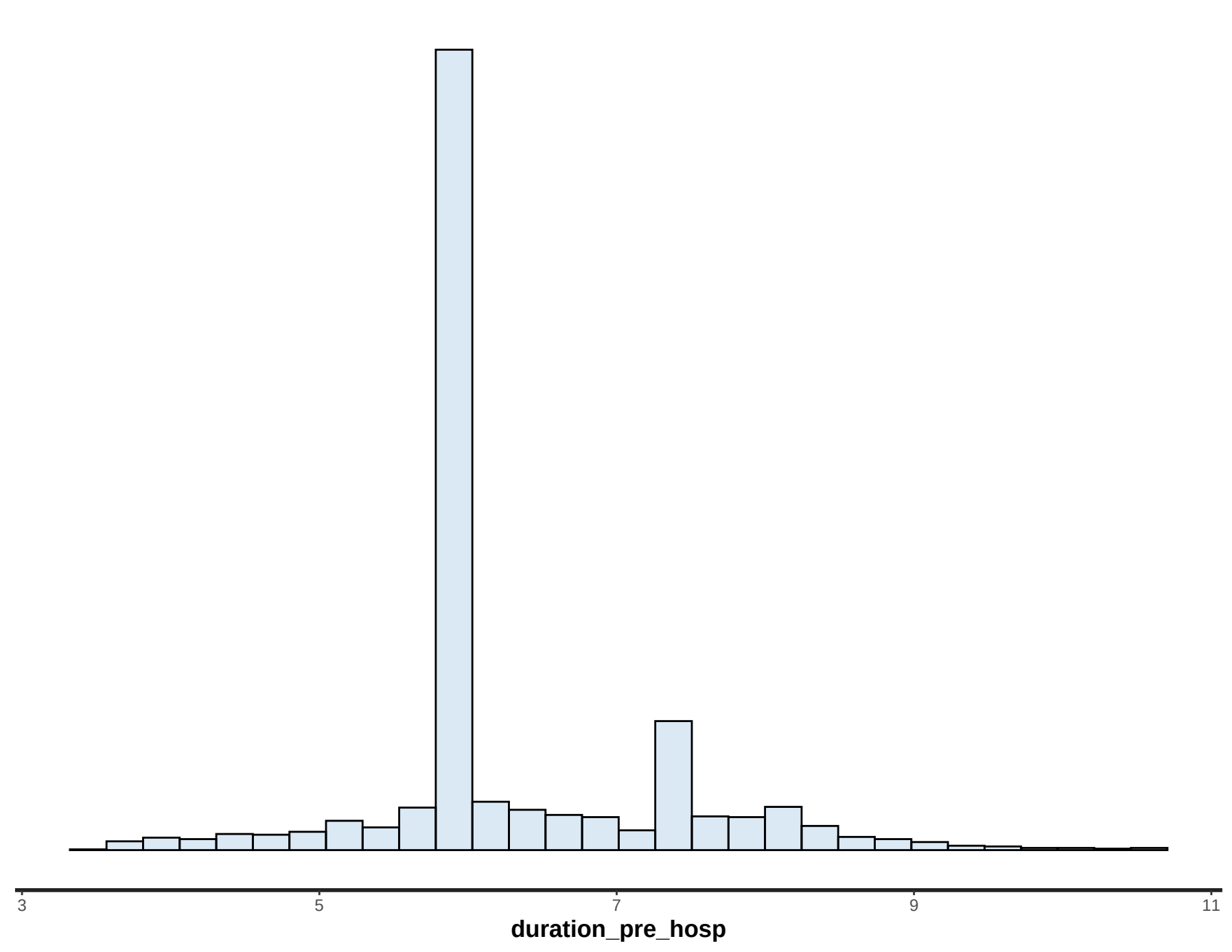
5%	10%	25%	50%	75%	90%	95%
0.59	0.67	0.76	0.92	1.34	1.38	1.39

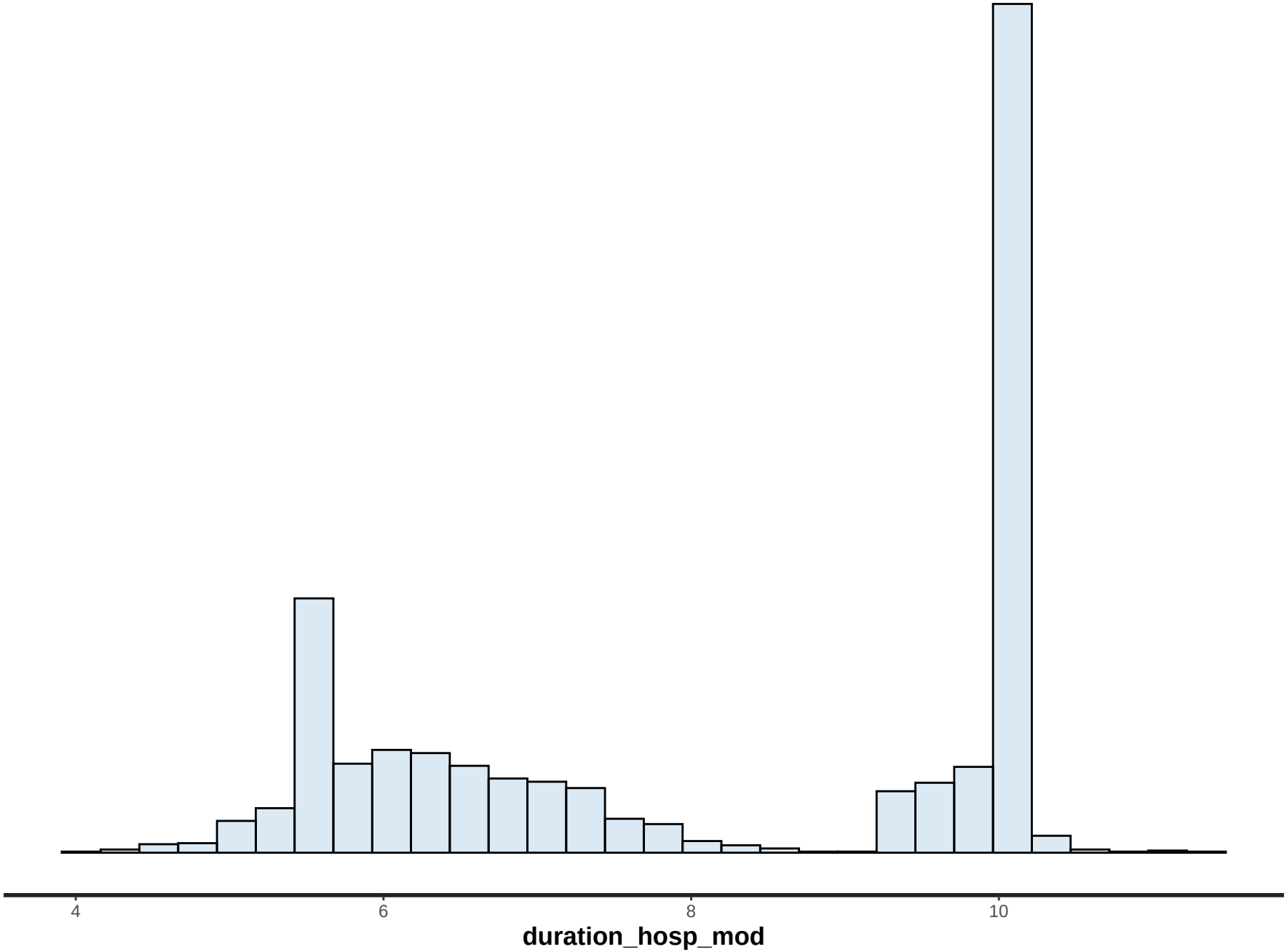


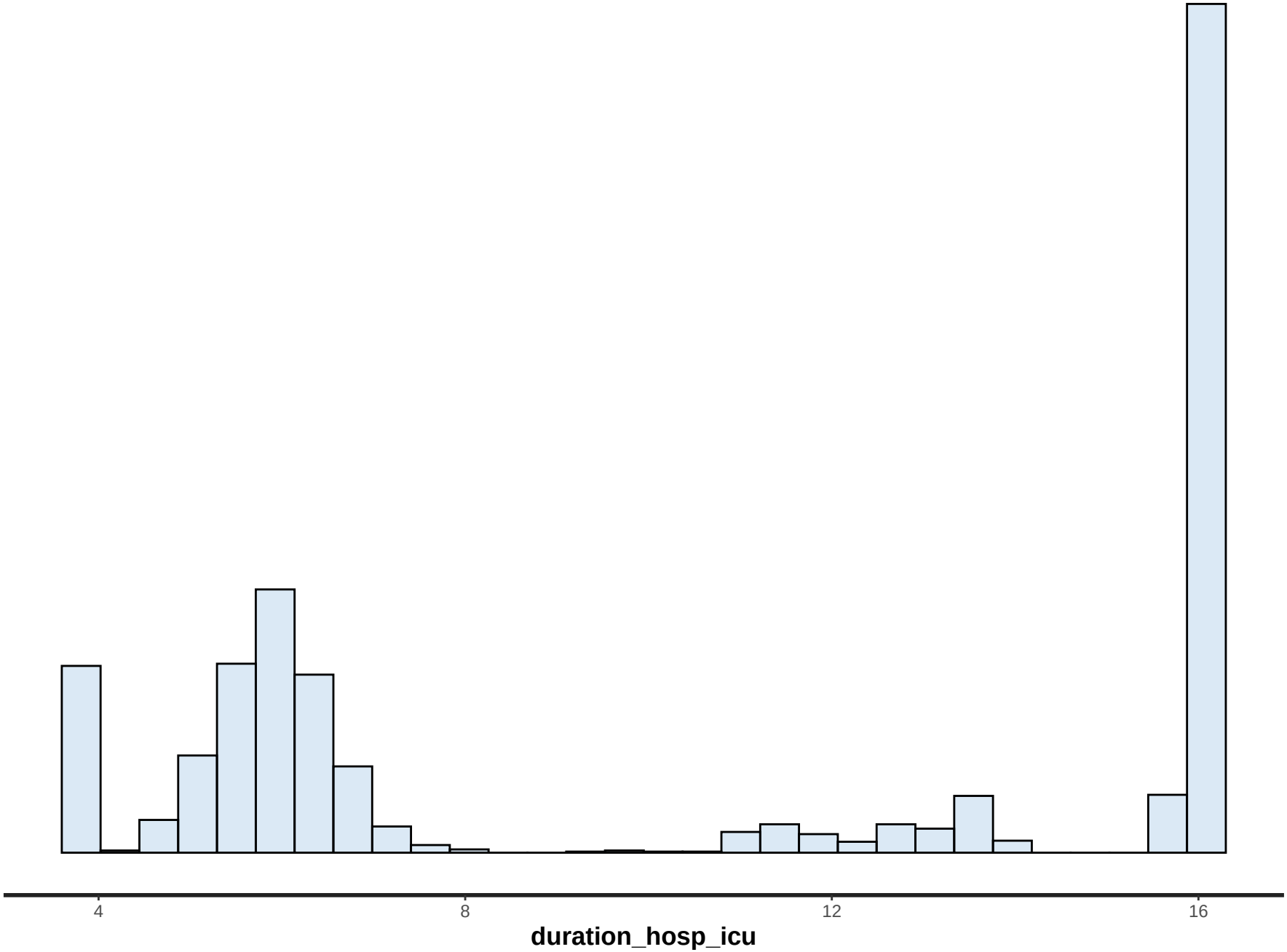

1
2
3
4
r0

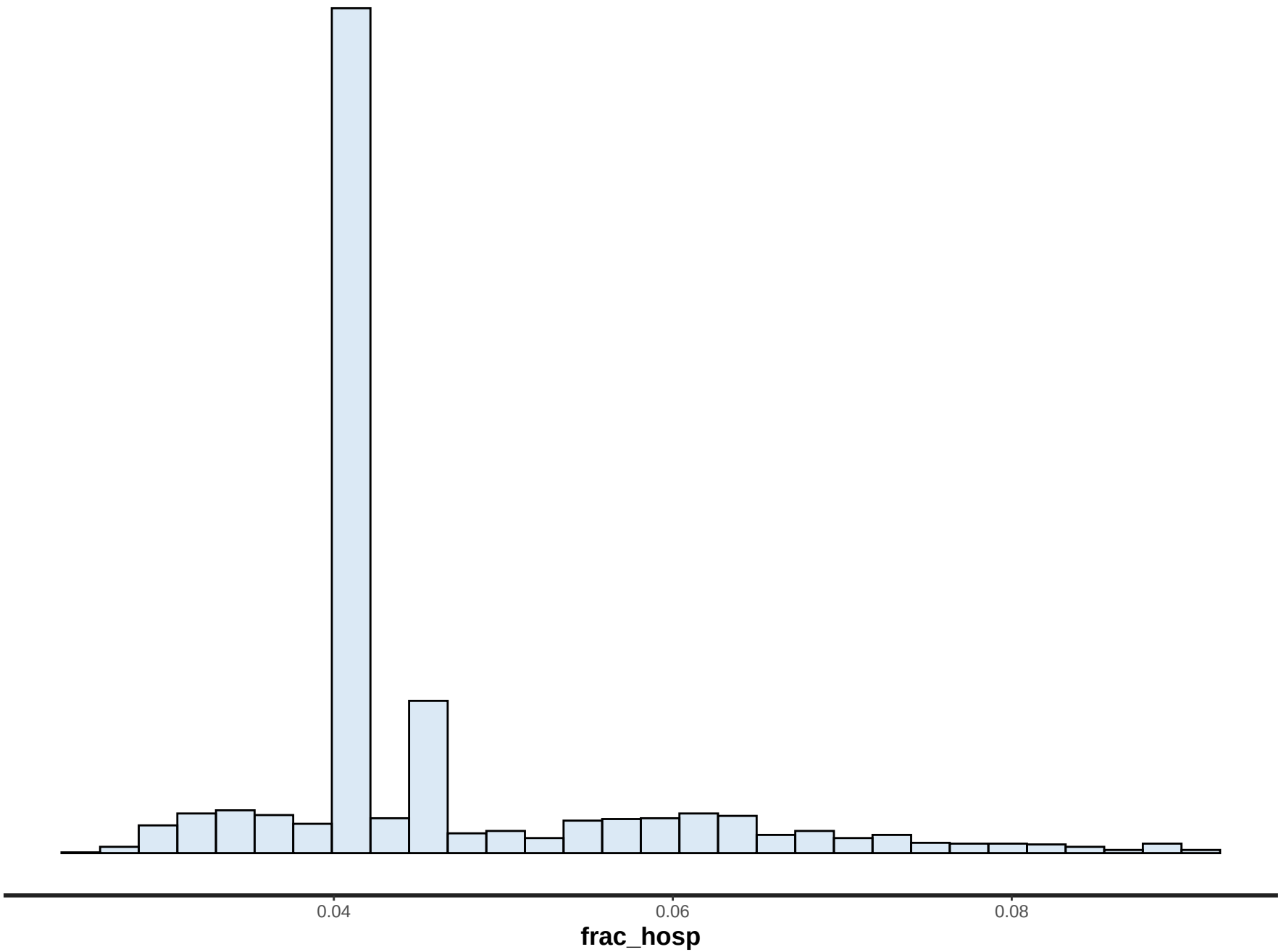

2
3
4
5
duration_latent


2.5
5.0
7.5
10.0
12.5
duration_rec_mild


3
5
7
9
11
duration_pre_hosp


4
6
8
10
duration_hosp_mod


4
8
12
16
duration_hosp_icu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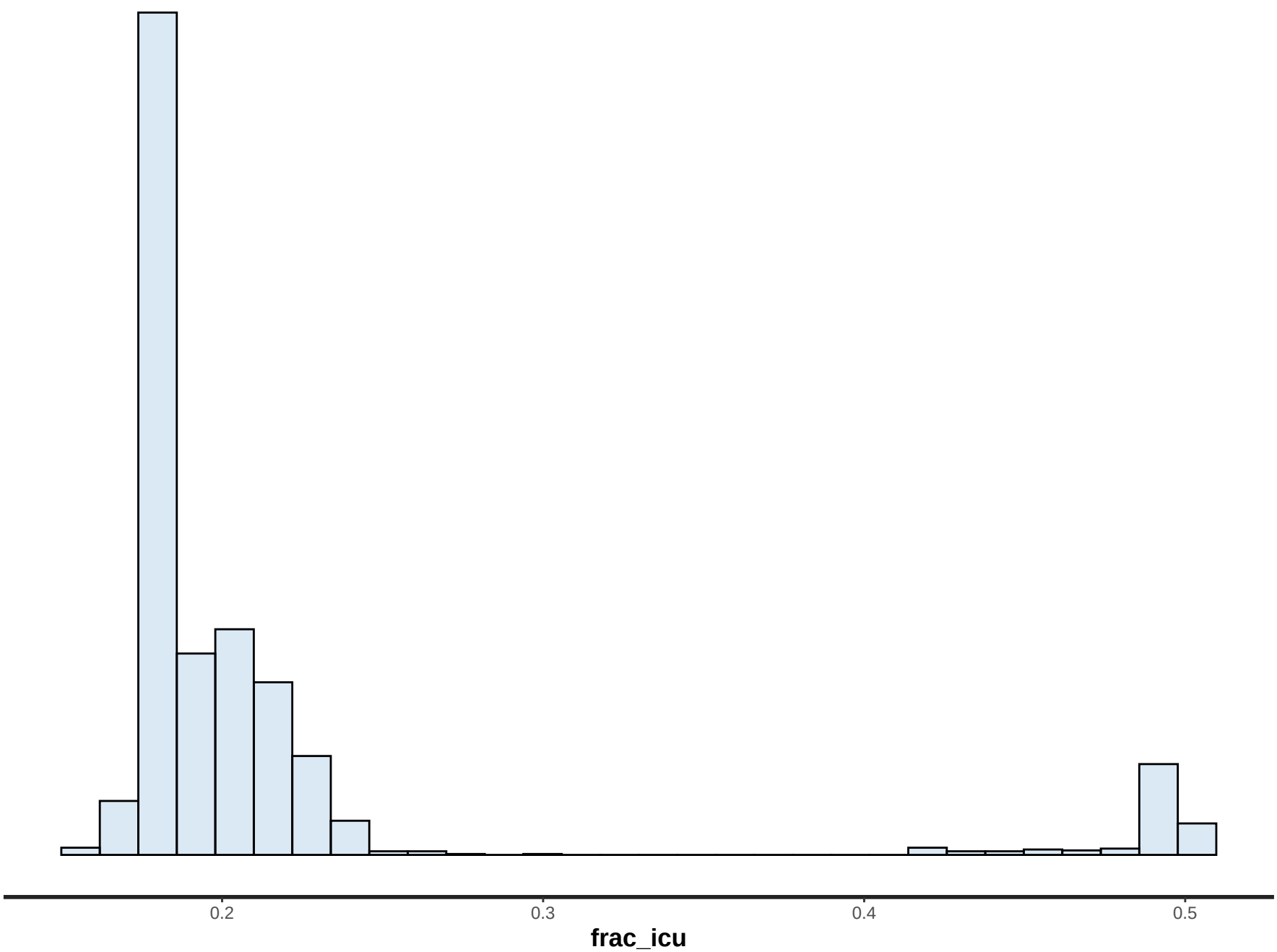
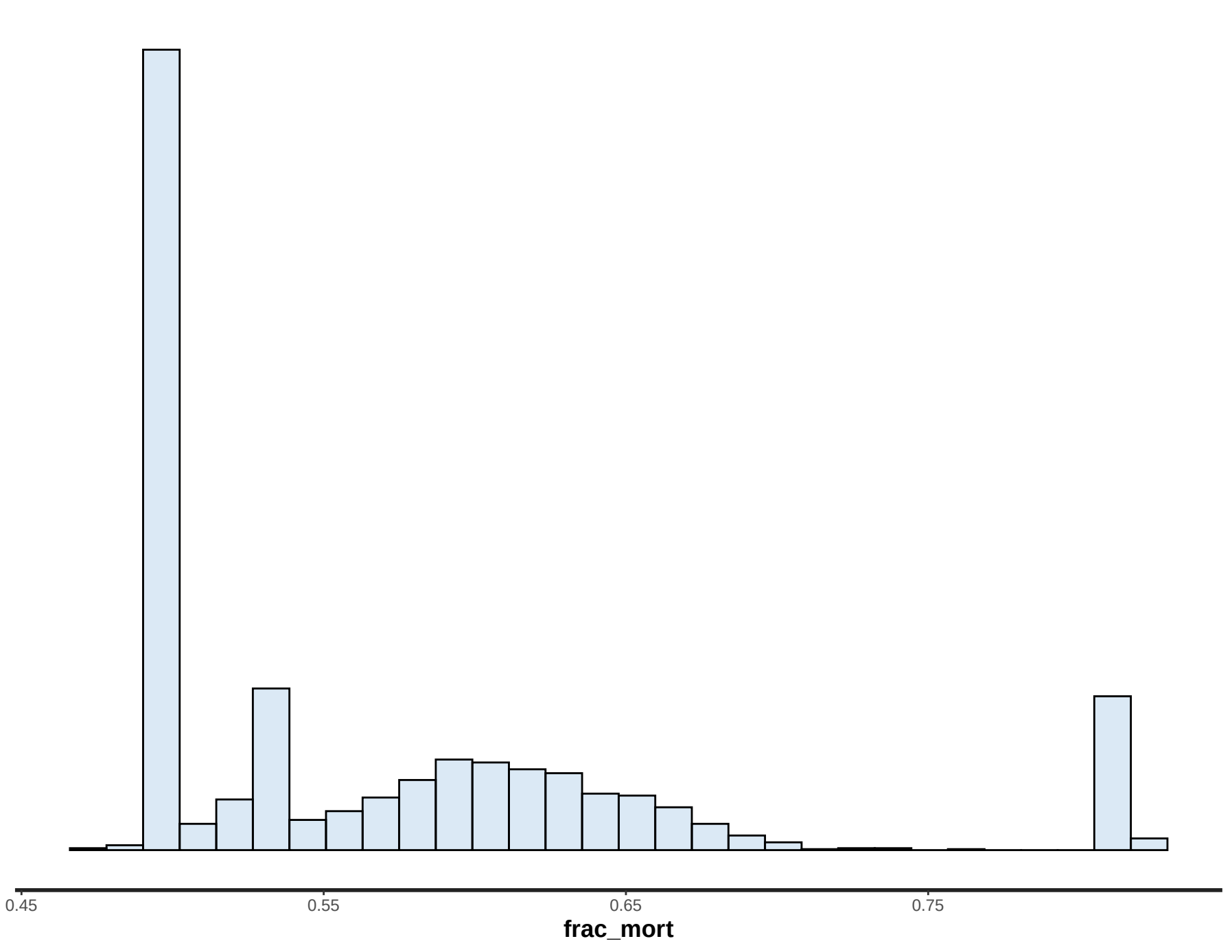
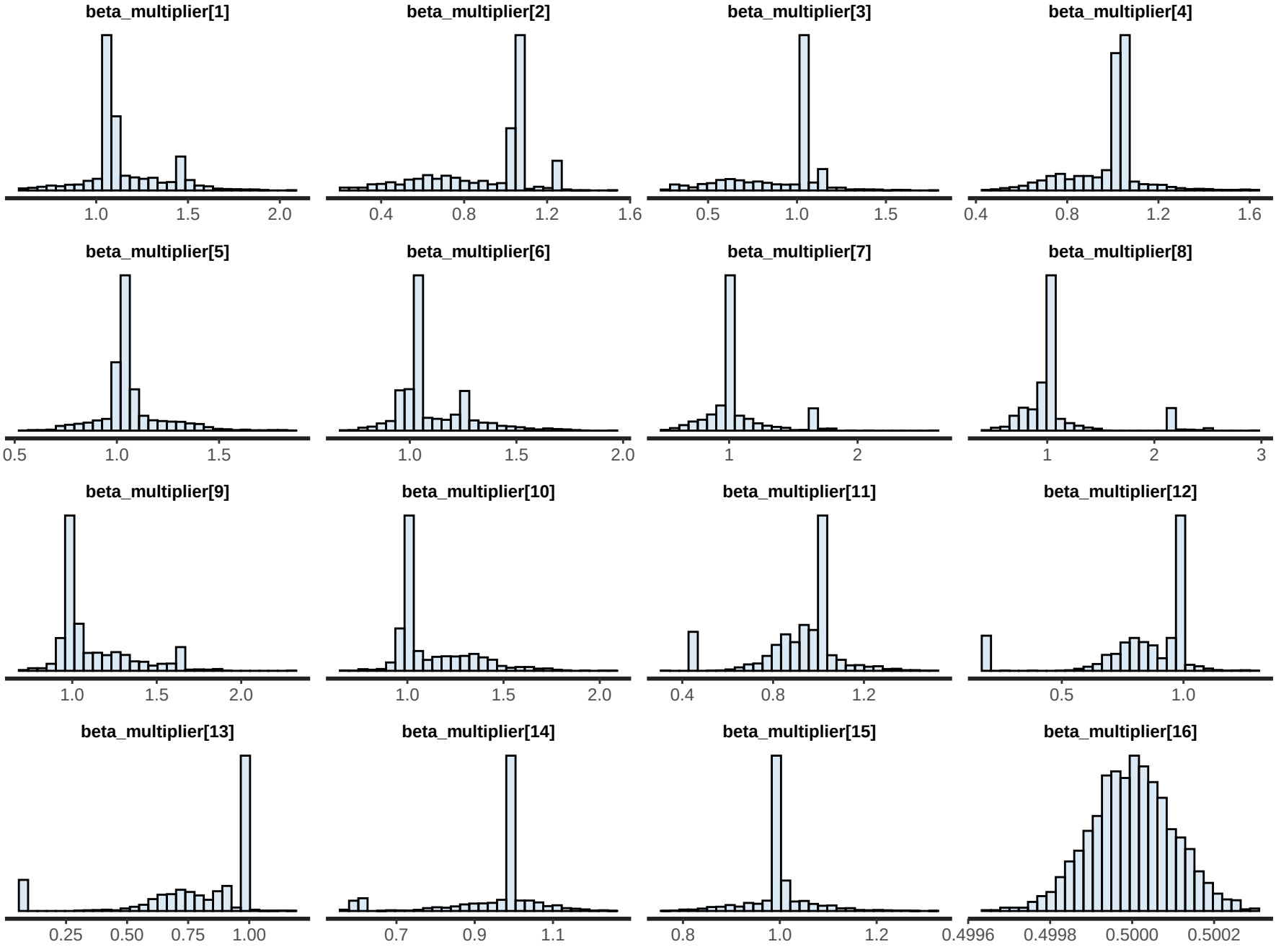
0.06
0.08
frac_hosp


0.2
0.3
0.4
0.5
frac_icu


0.45
0.55
0.65
0.75
frac_mort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beta_multiplier[2]
0.4
0.8
1.2
1.6
beta_multiplier[3]
0.5
1.0
1.5
beta_multiplier[4]
0.4
0.8
1.2
1.6
beta_multiplier[5]
0.5
1.0
1.5
beta_multiplier[6]
1.0
1.5
2.0
beta_multiplier[7]
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2
beta_multiplier[8]
1
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1.5
2.0
beta_multiplier[10]
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1.5
2.0
beta_multiplier[11]
0.4
0.8
1.2
beta_multiplier[12]
0.5
1.0
beta_multiplier[13]
0.25
0.50
0.75
1.00
beta_multiplier[14]
0.7
0.9
1.1
beta_multiplier[15]
0.8
1.0
1.2
beta_multiplier[16]
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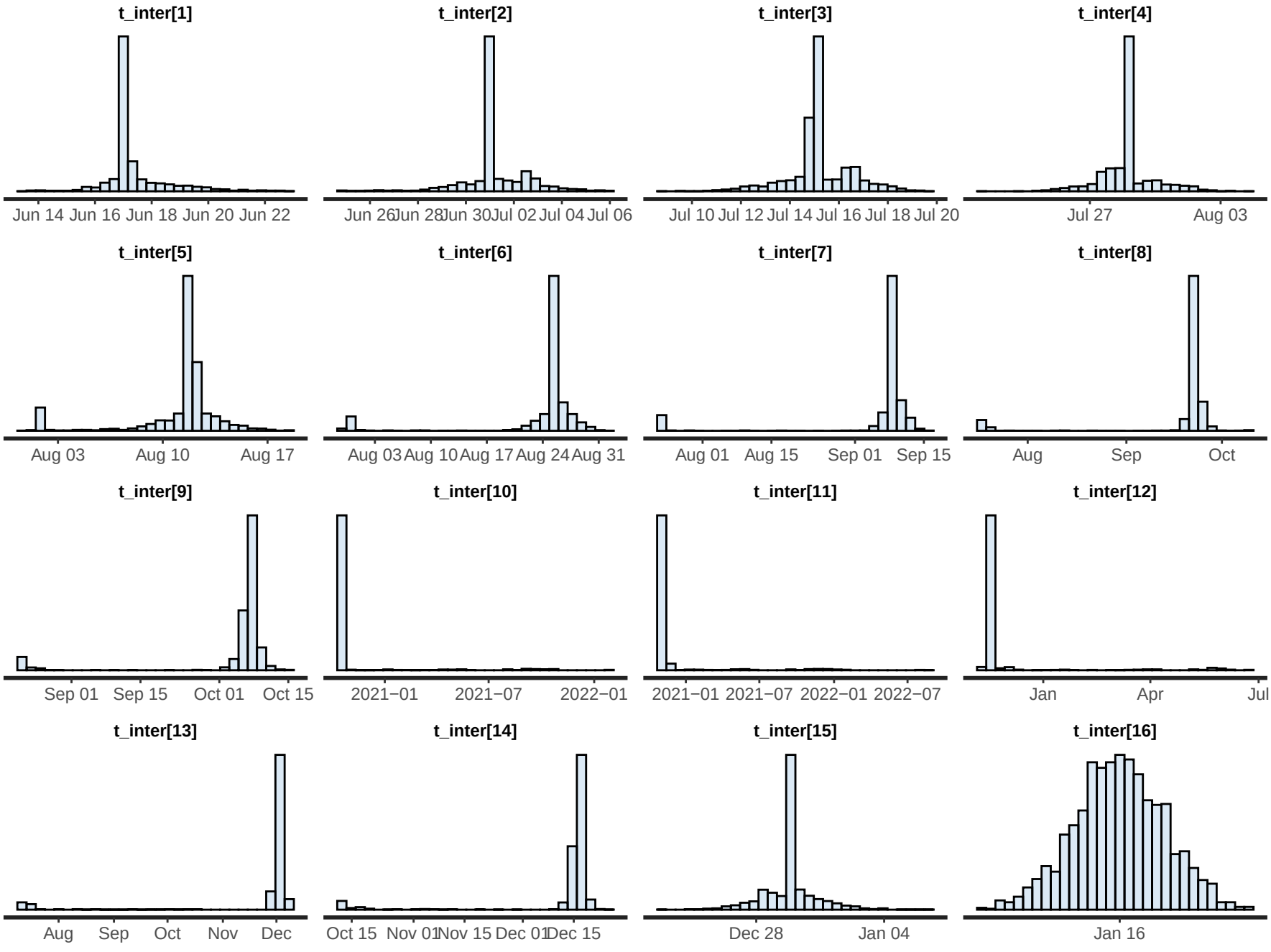
0.4998
0.5000
0.5002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Jun 14 Jun 16 Jun 18 Jun 20 Jun 22
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Jun 26 Jun 28 Jun 30 Jul 02 Jul 04 Jul 06
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Jul 10 Jul 12 Jul 14 Jul 16 Jul 18 Jul 20
t_inter[4]
Jul 27 Aug 03
t_inter[5]
Aug 03 Aug 10 Aug 17
t_inter[6]
Aug 03 Aug 10 Aug 17 Aug 24 Aug 31
t_inter[7]
Aug 01 Aug 15 Sep 01 Sep 15
t_inter[8]
Aug Sep Oct
t_inter[9]
Sep 01 Sep 15 Oct 01 Oct 15
t_inter[10]
2021−01 2021−07 2022−01
t_inter[11]
2021−01 2021−07 2022−01 2022−07
t_inter[12]
Jan Apr Jul
t_inter[13]
Aug Sep Oct Nov Dec
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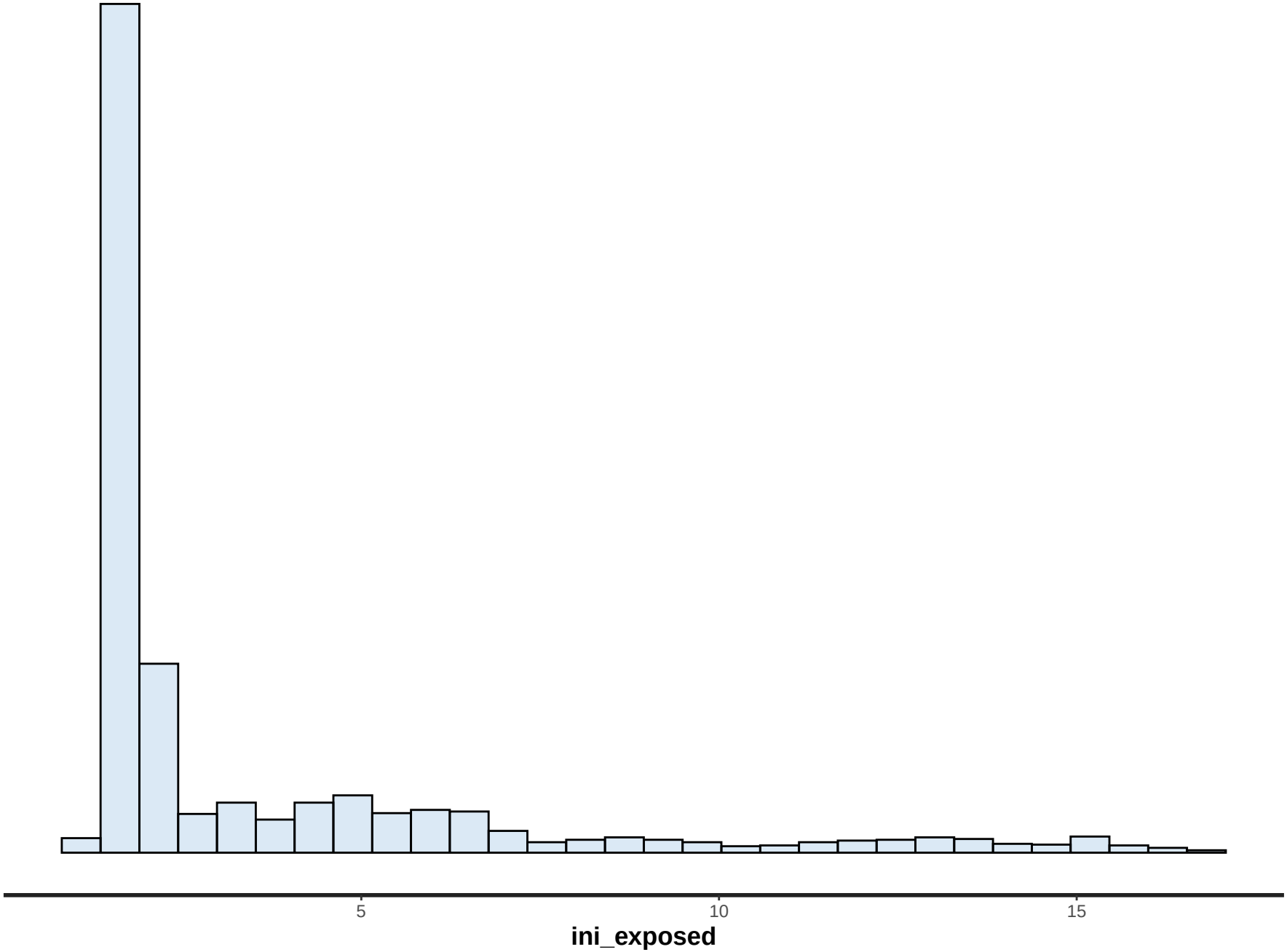
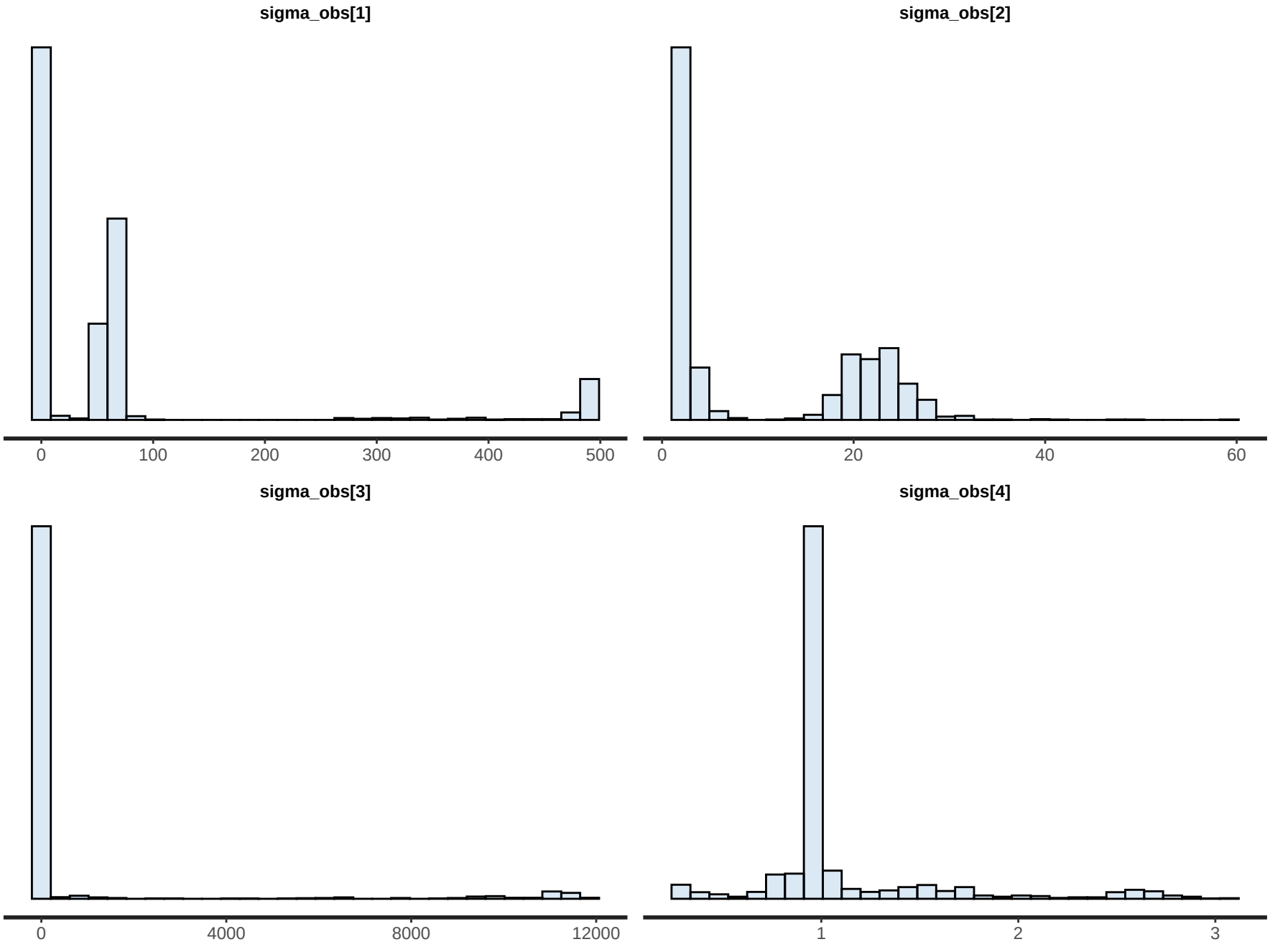
Oct 15 Nov 01 Nov 15 Dec 01 Dec 15
t_inter[15]
Dec 28 Jan 04
t_inter[16]
Jan 16


5
10
15
ini_exposed


sigma_obs[1]
0
100
200
300
400
500
sigma_obs[2]
0
20
40
60
sigma_obs[3]
0
4000
8000
12000
sigma_obs[4]
1
2
3