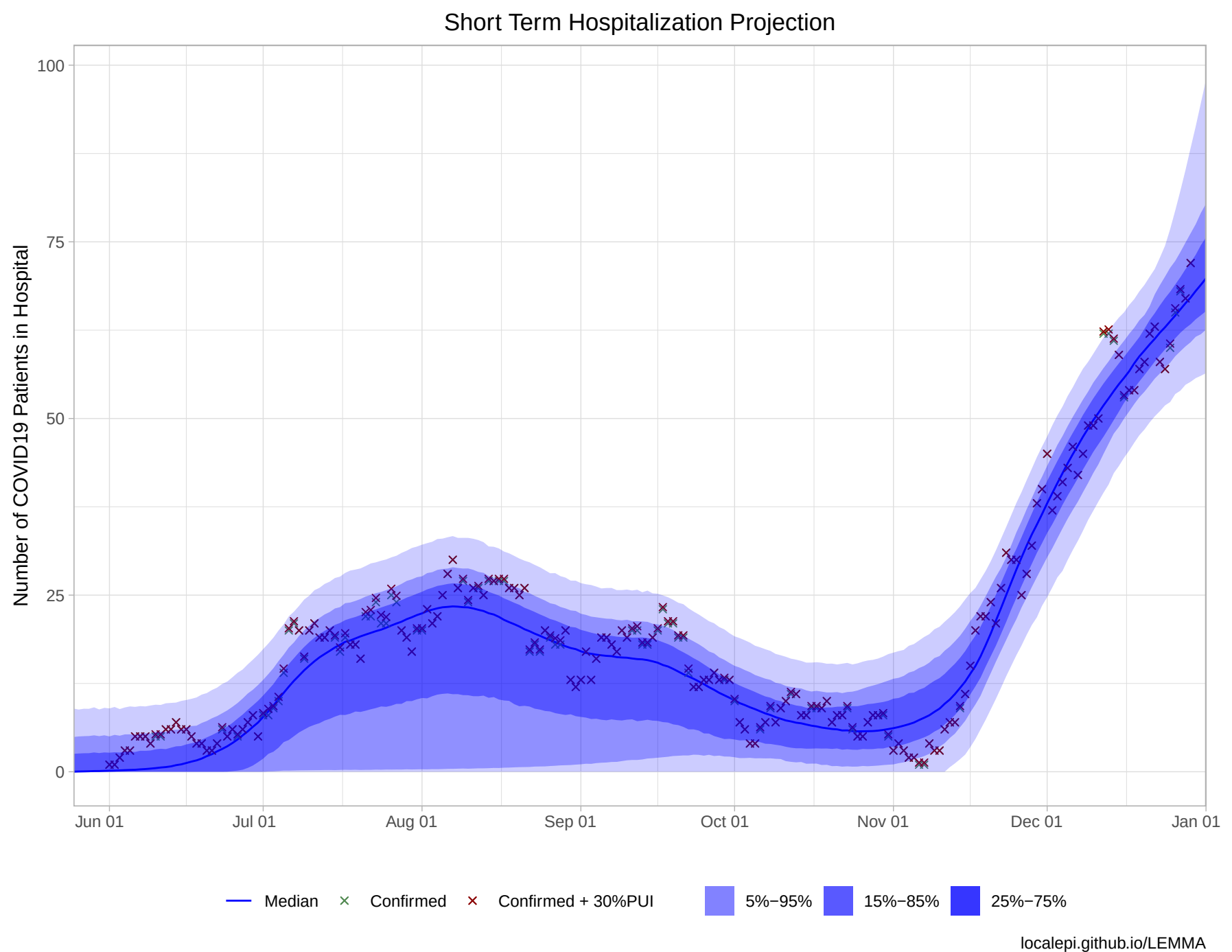
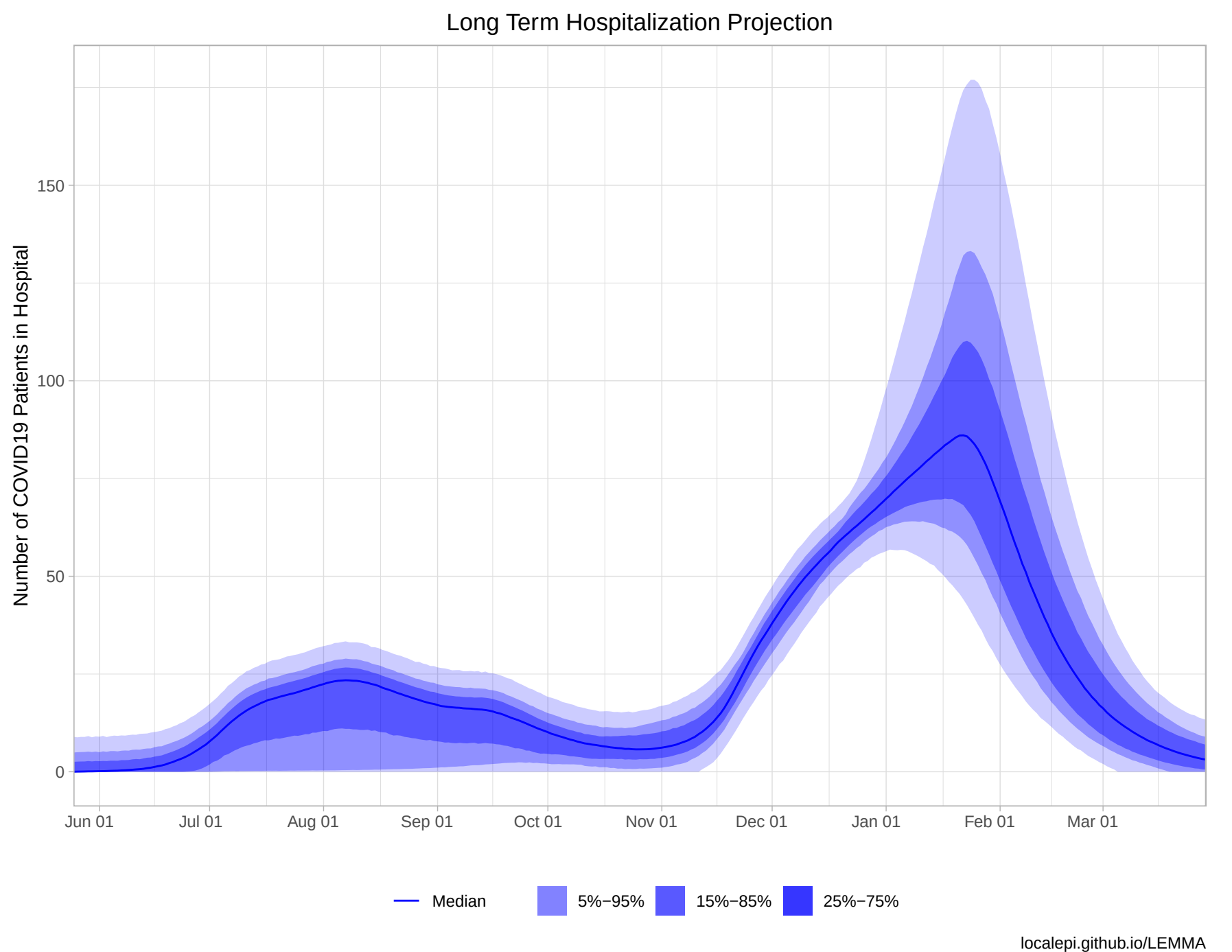
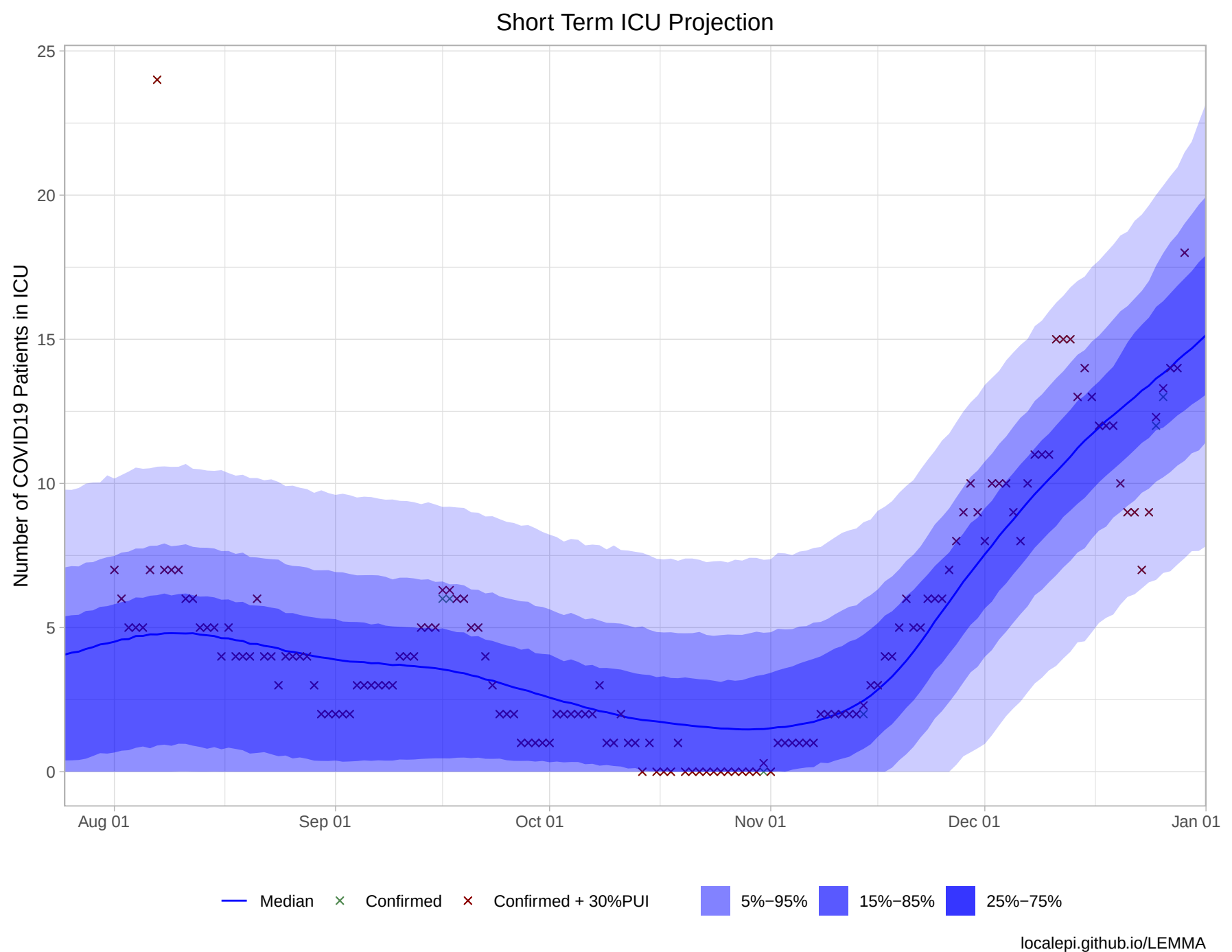
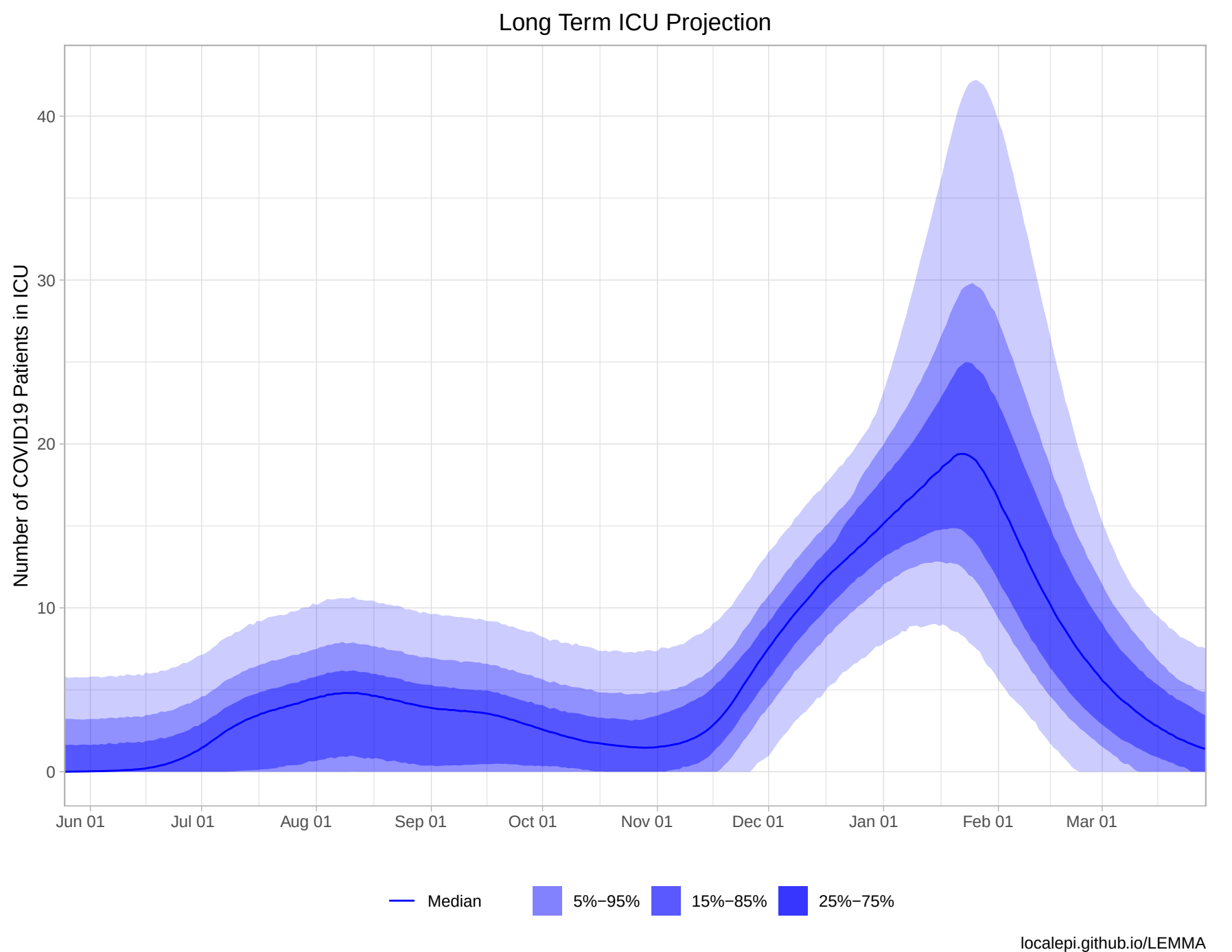
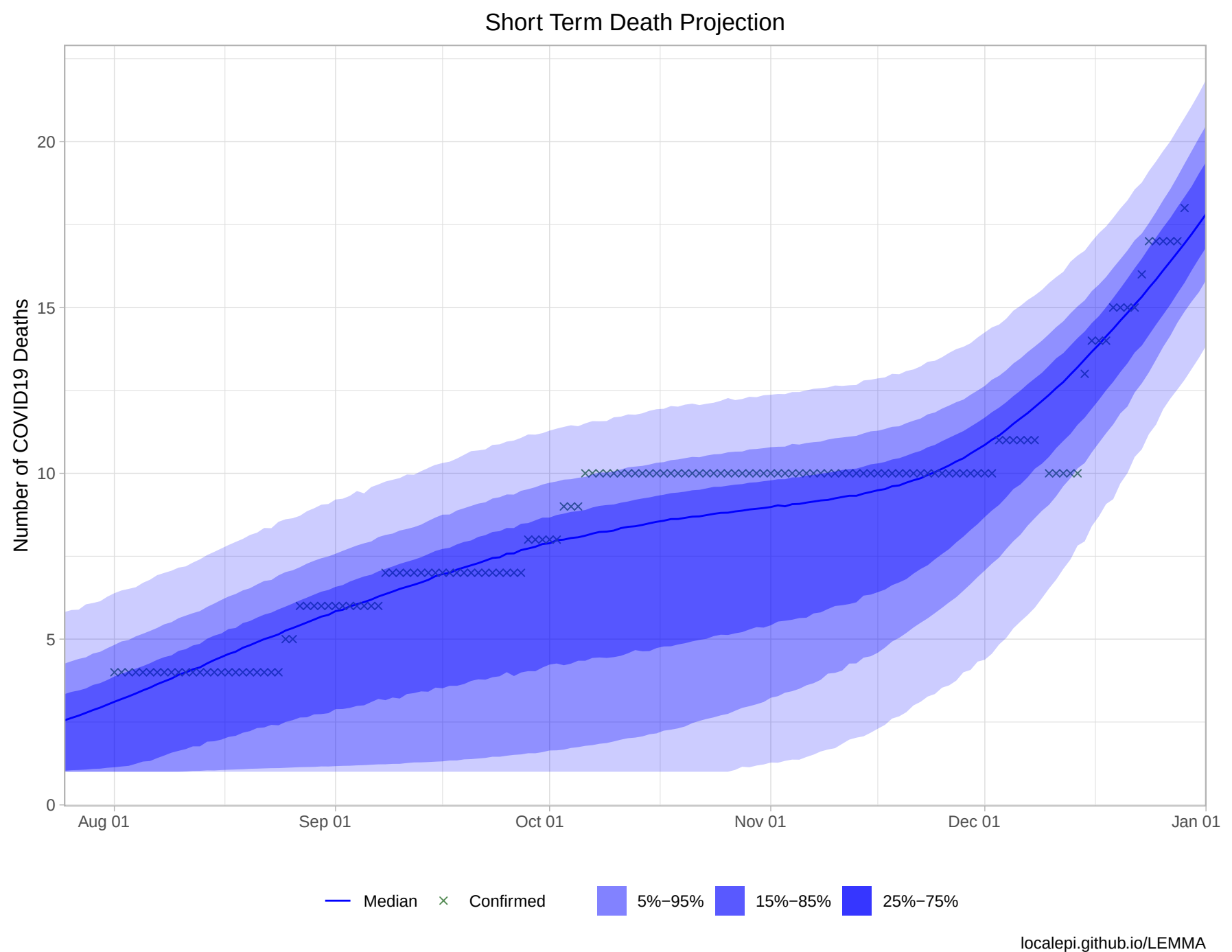
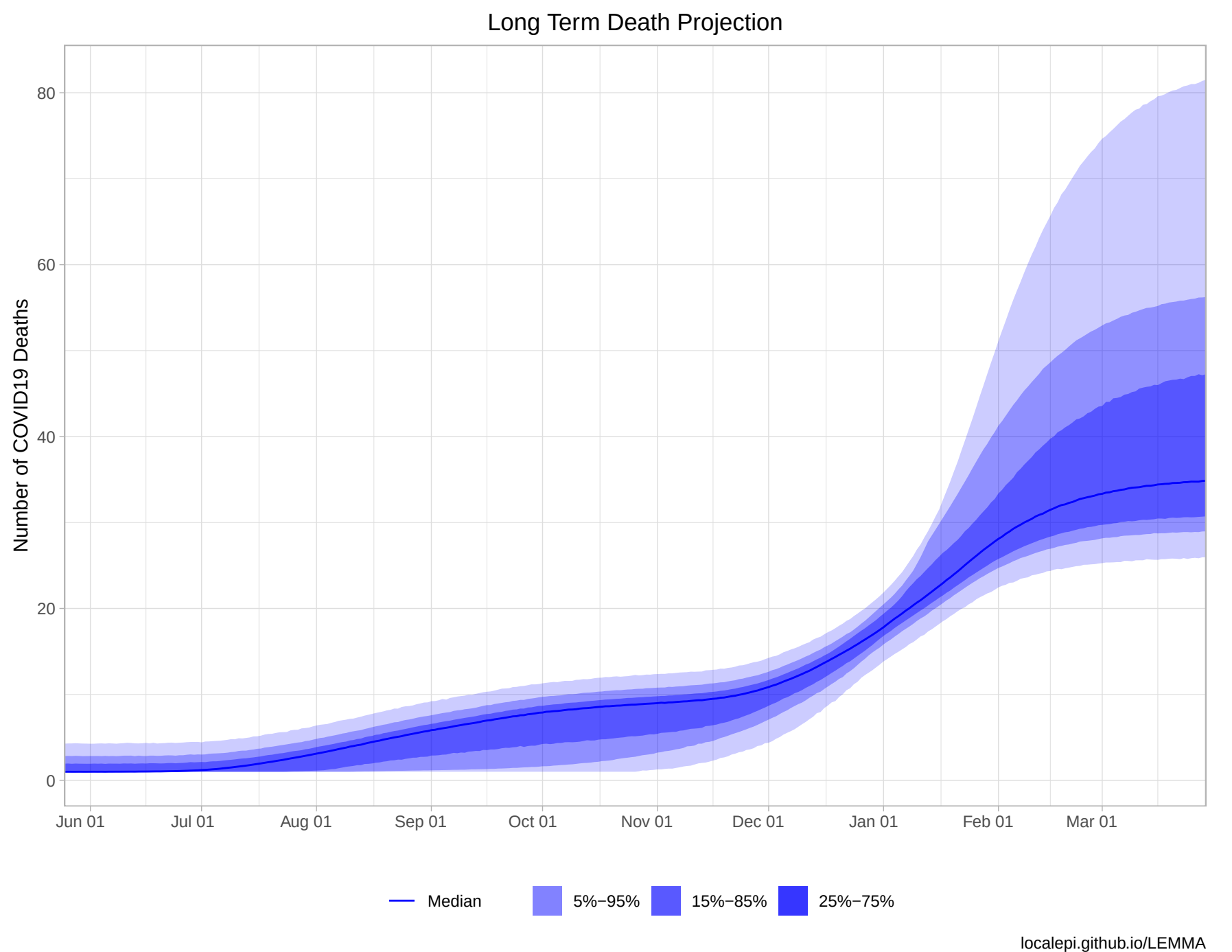

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
100
75
50
25
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

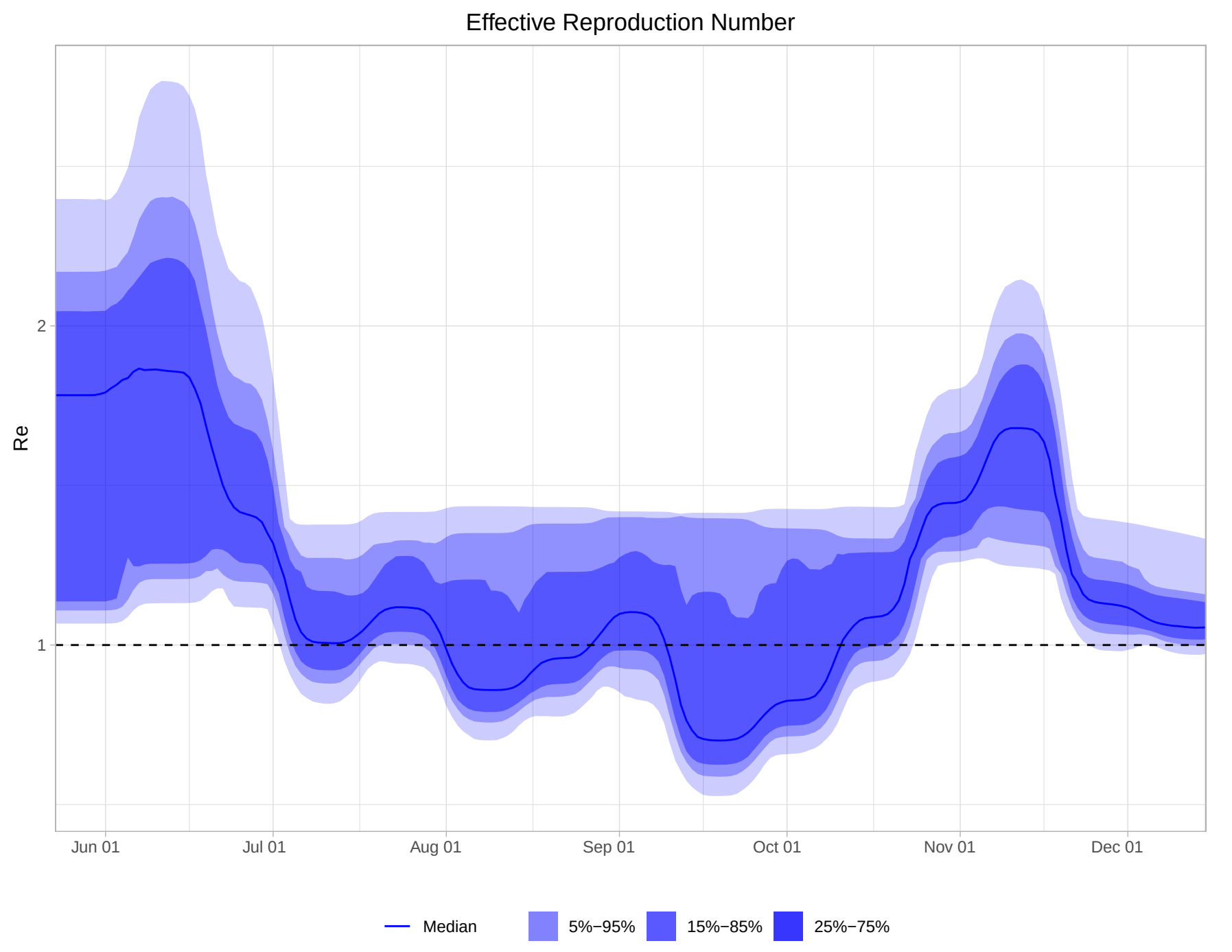

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
150
100
50
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
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
0
10
20
30
40
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

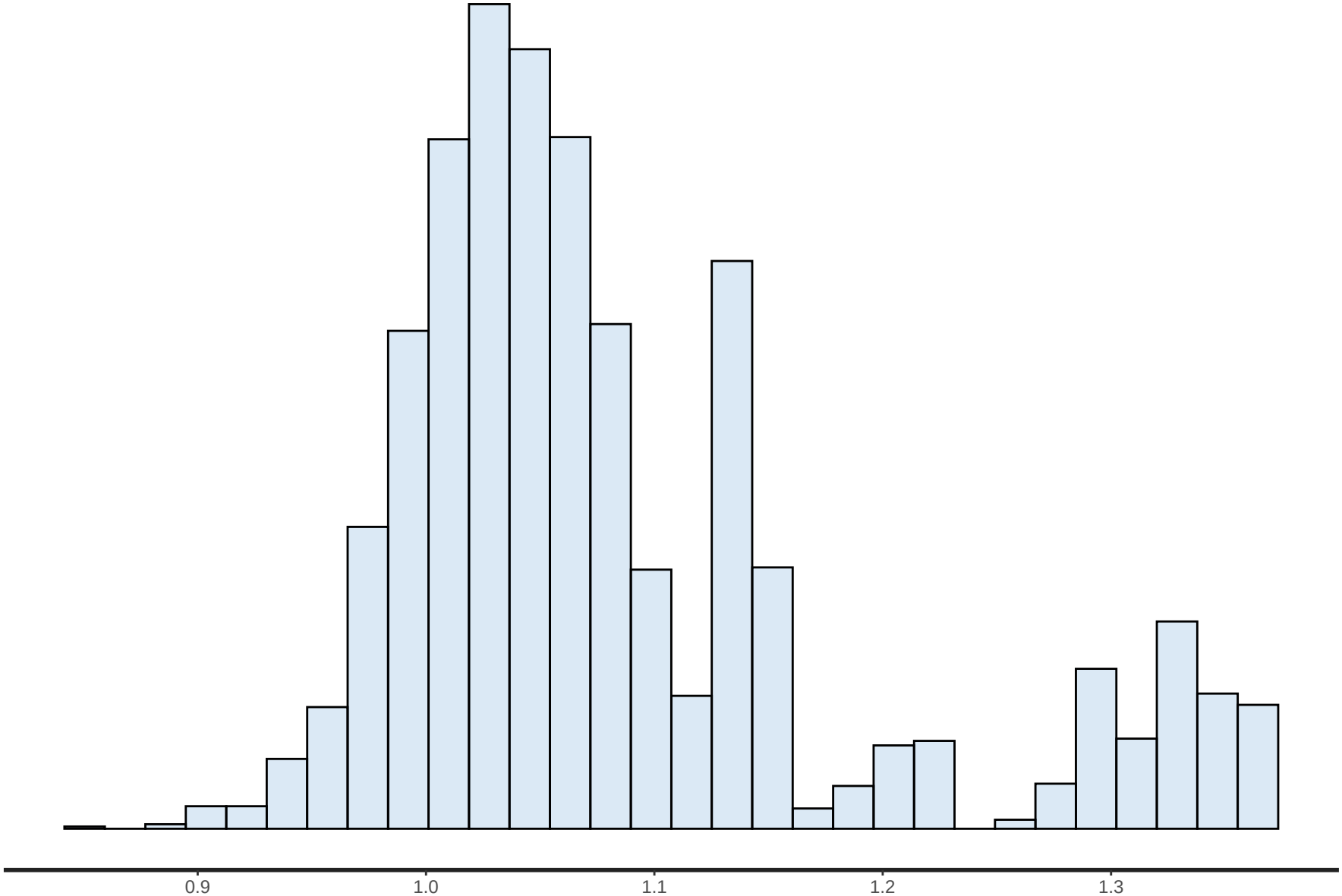

Short Term Death Projection
Number of COVID19 Deaths
0
5
10
15
20
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

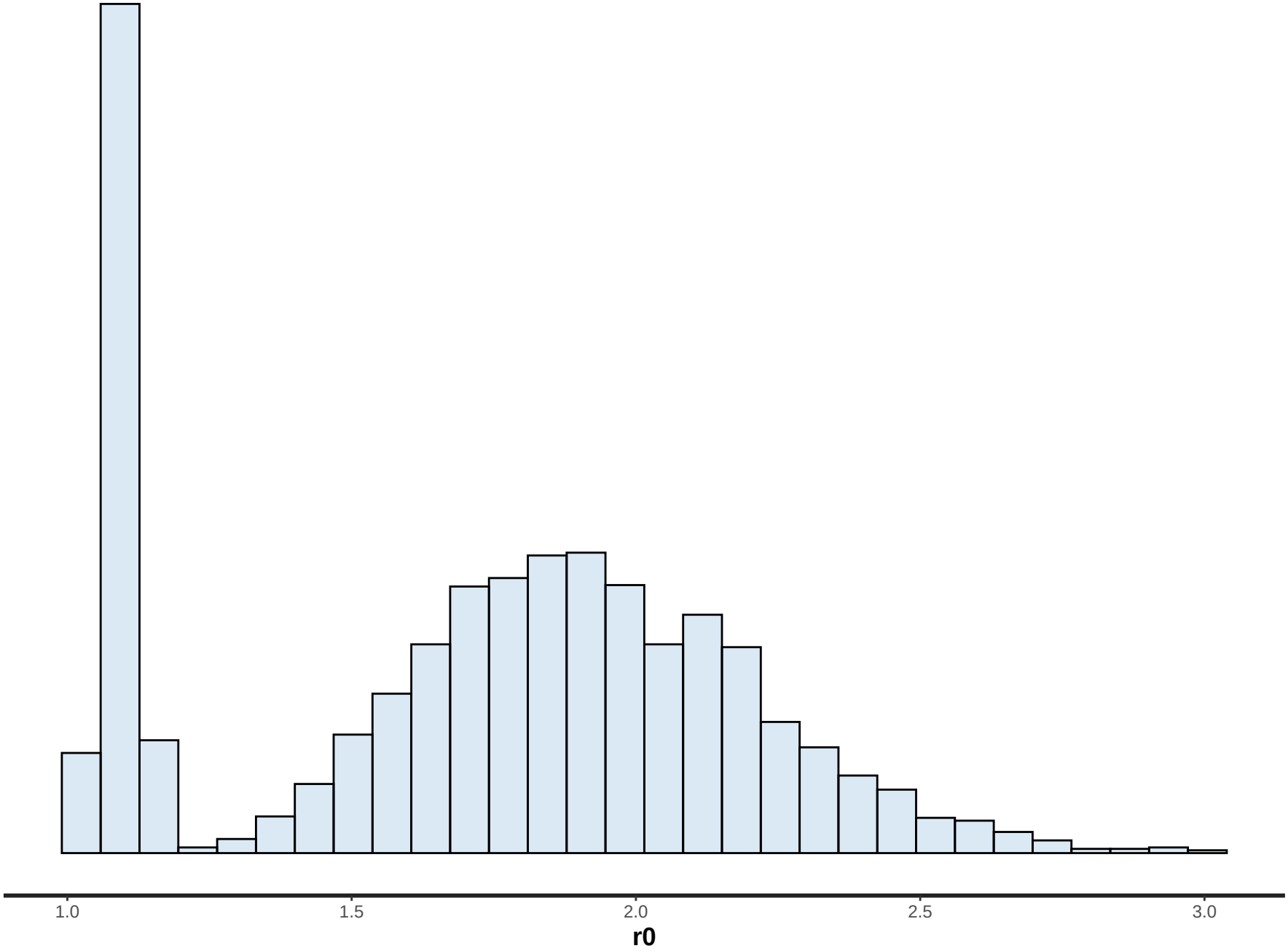

Long Term Death Projection
Number of COVID19 Deaths
0
20
40
60
80
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

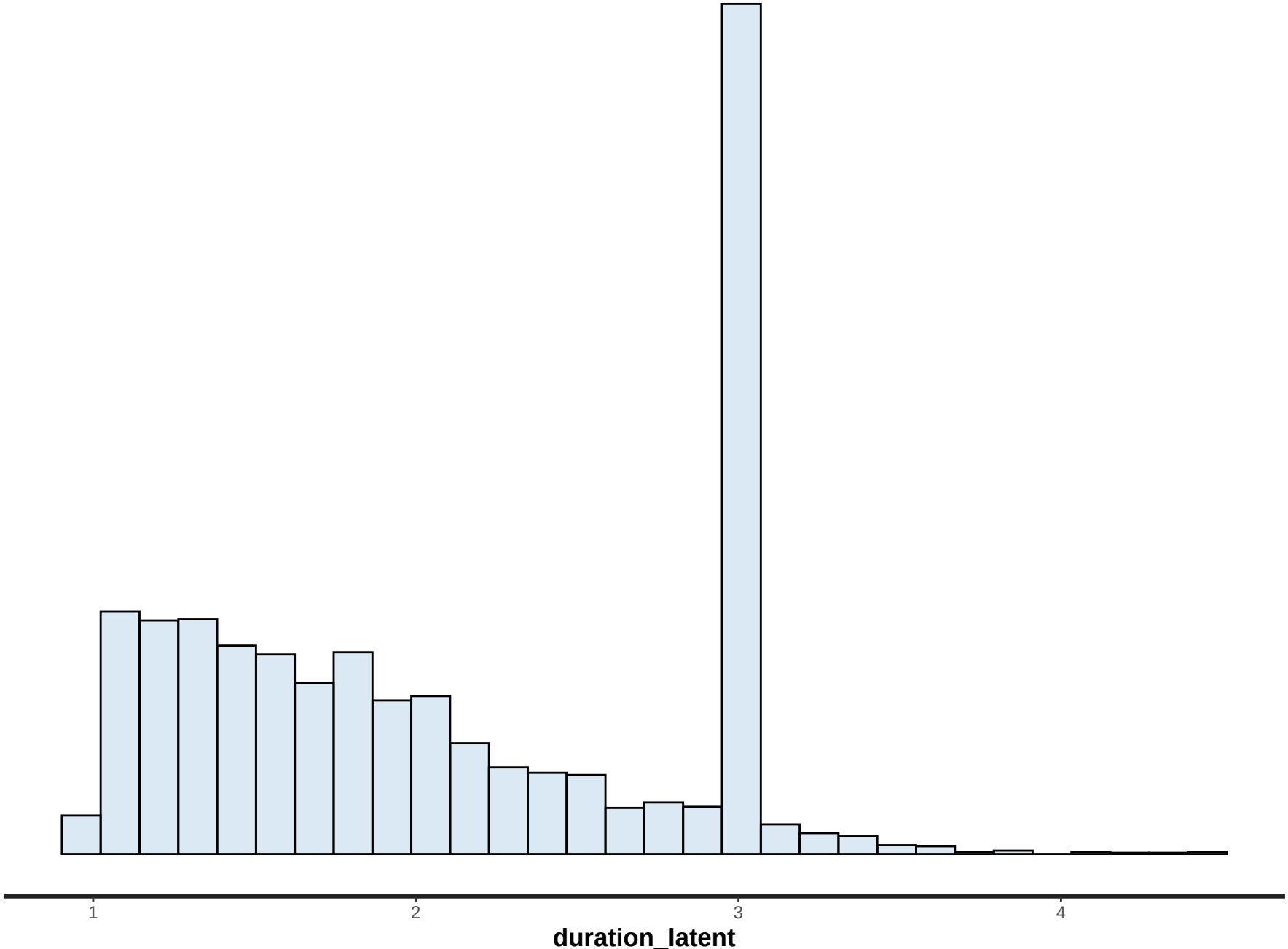

Effective Reproduction Number
Re
2
1
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

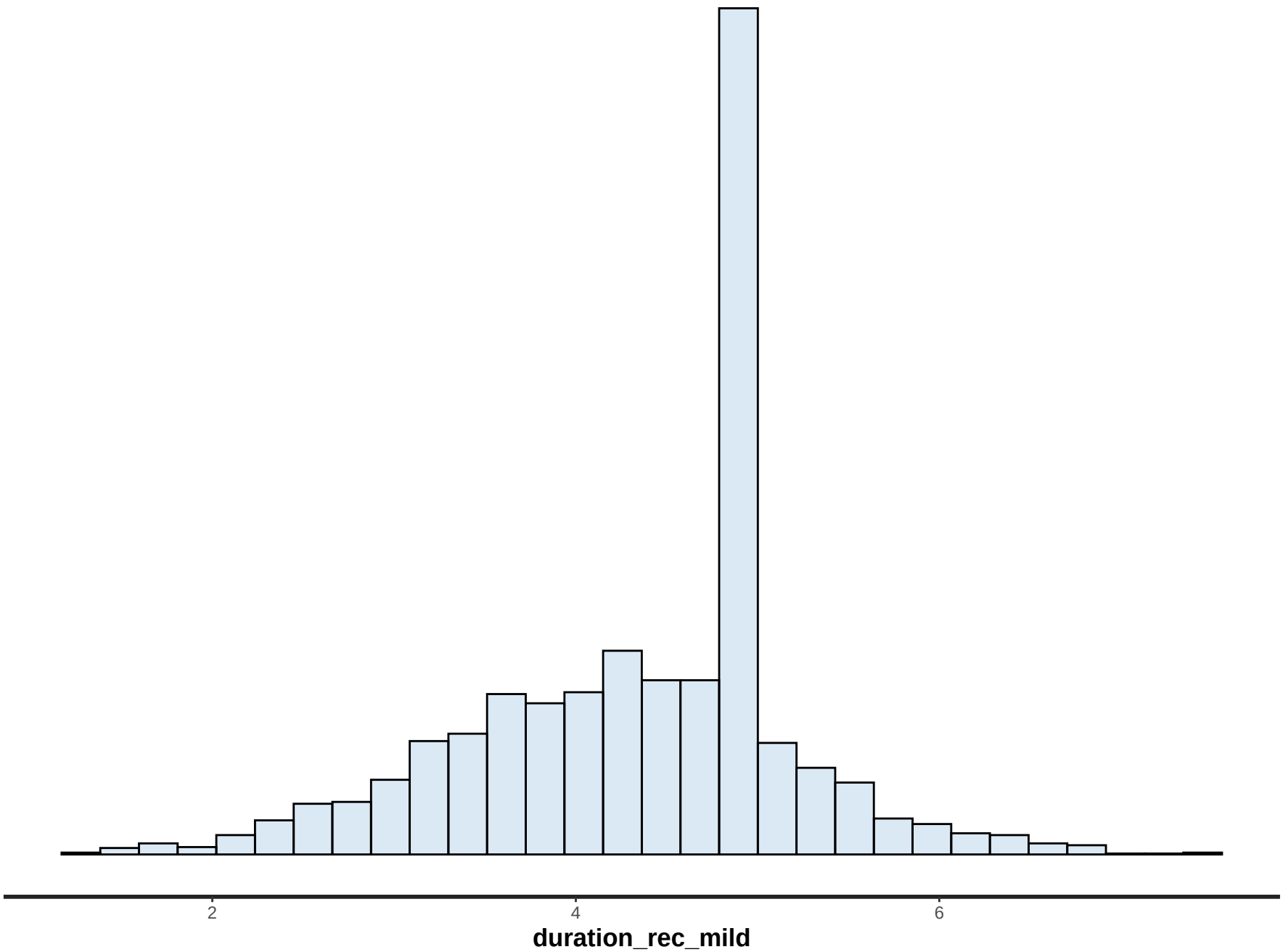
Rt as of 2020−12−15

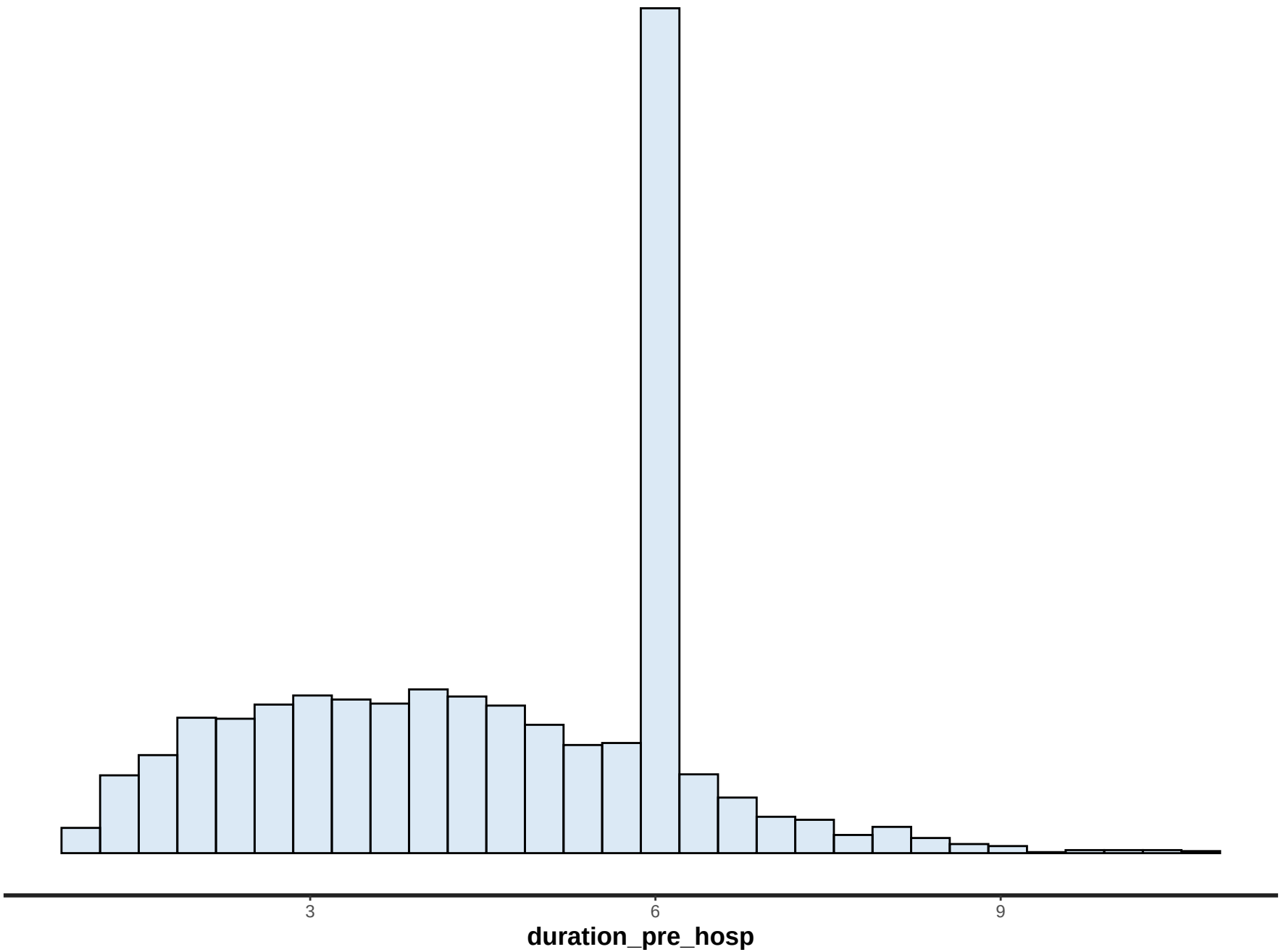
5%	10%	25%	50%	75%	90%	95%
0.97	0.99	1.02	1.06	1.13	1.30	1.33

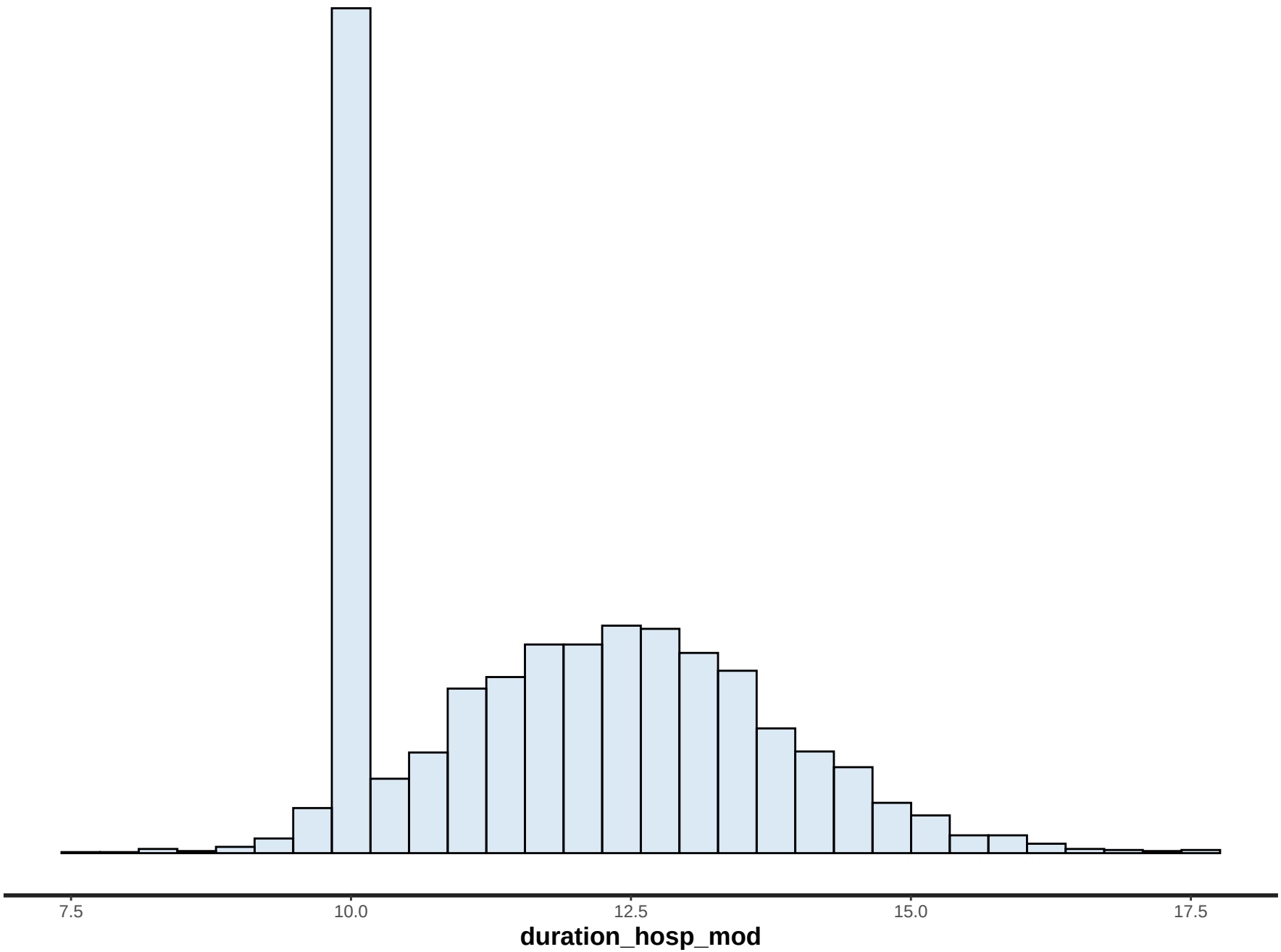


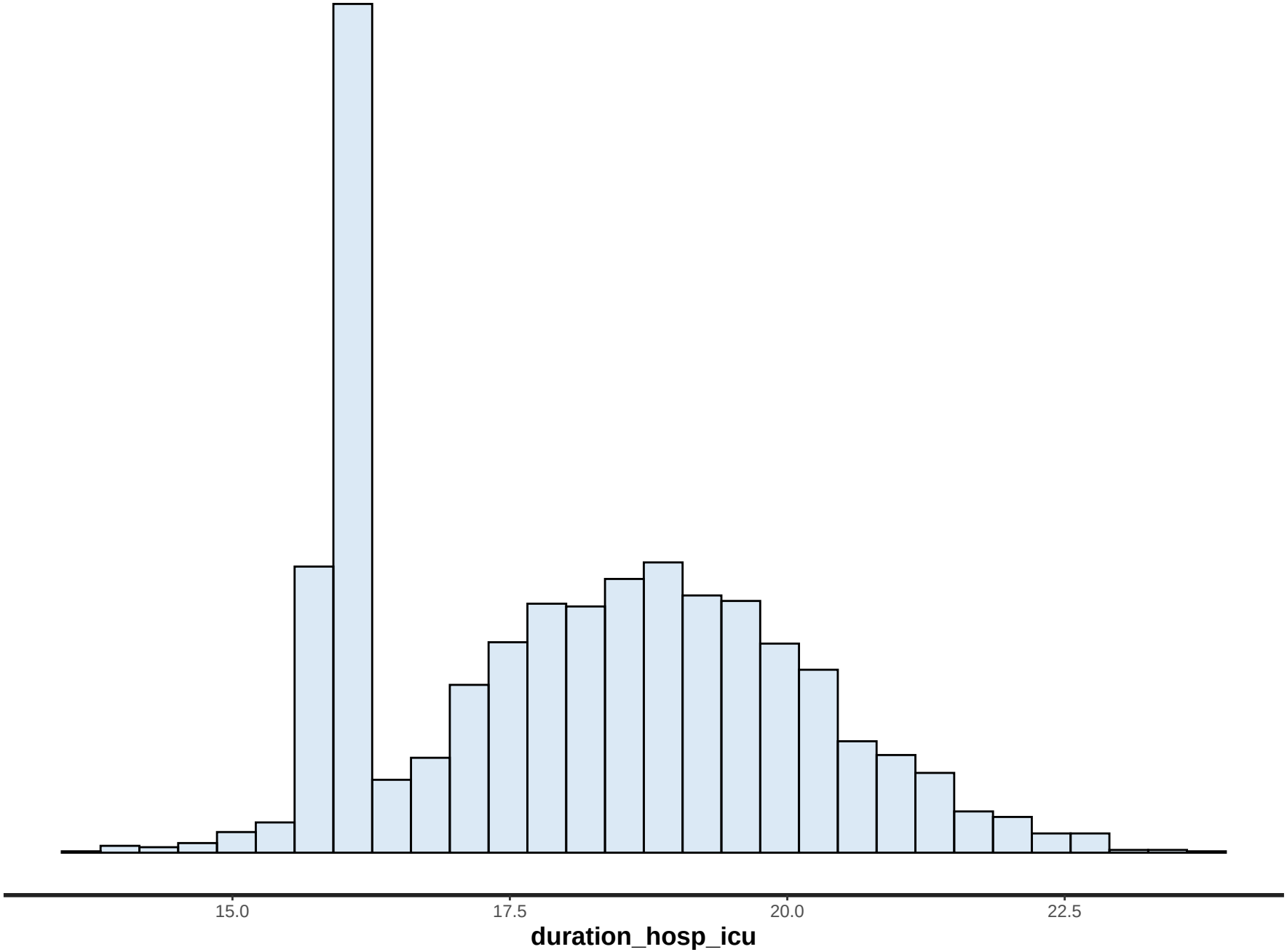

1.0
1.5
2.0
2.5
3.0
r0

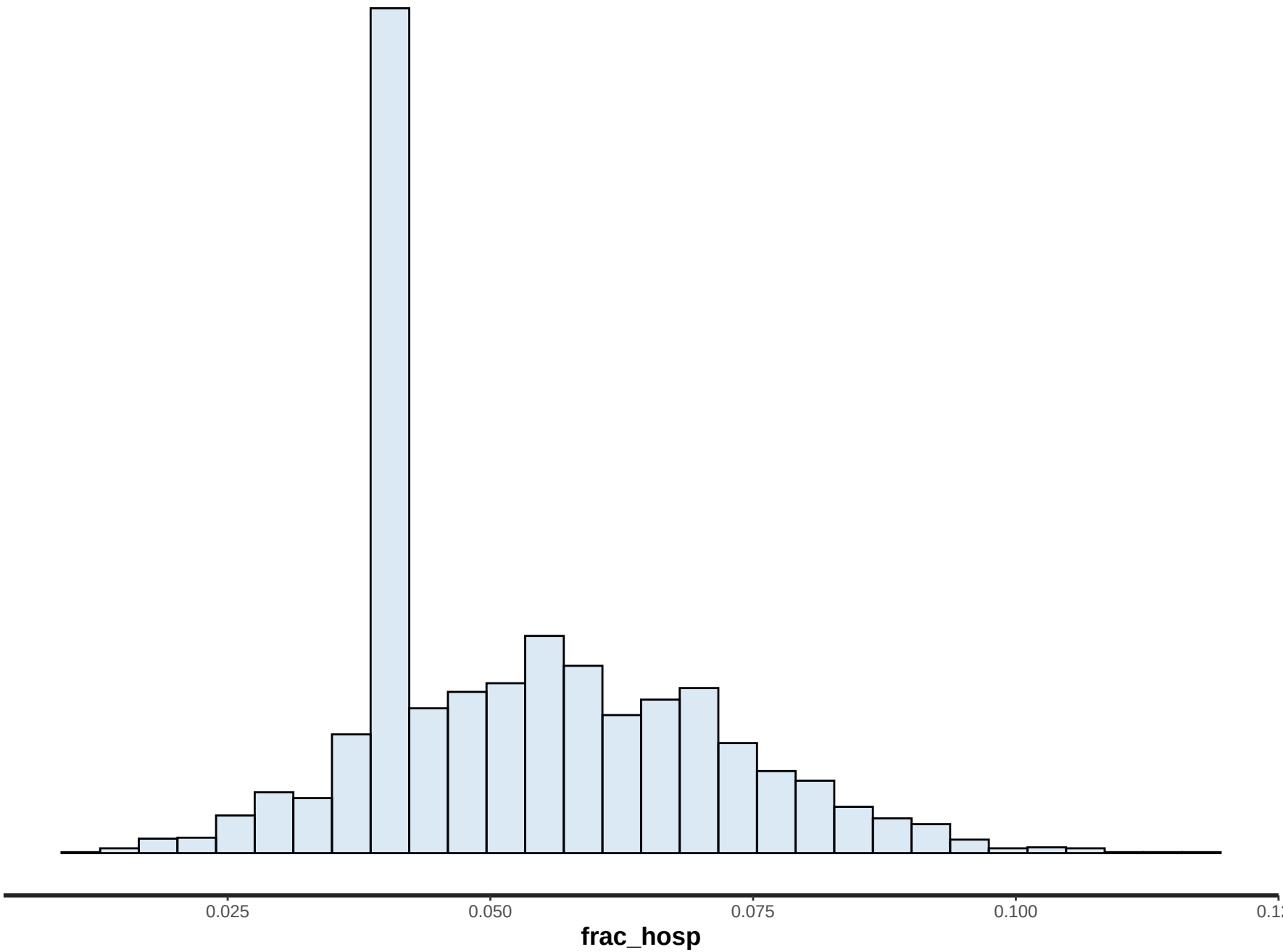

1
2
3
4
duration_latent

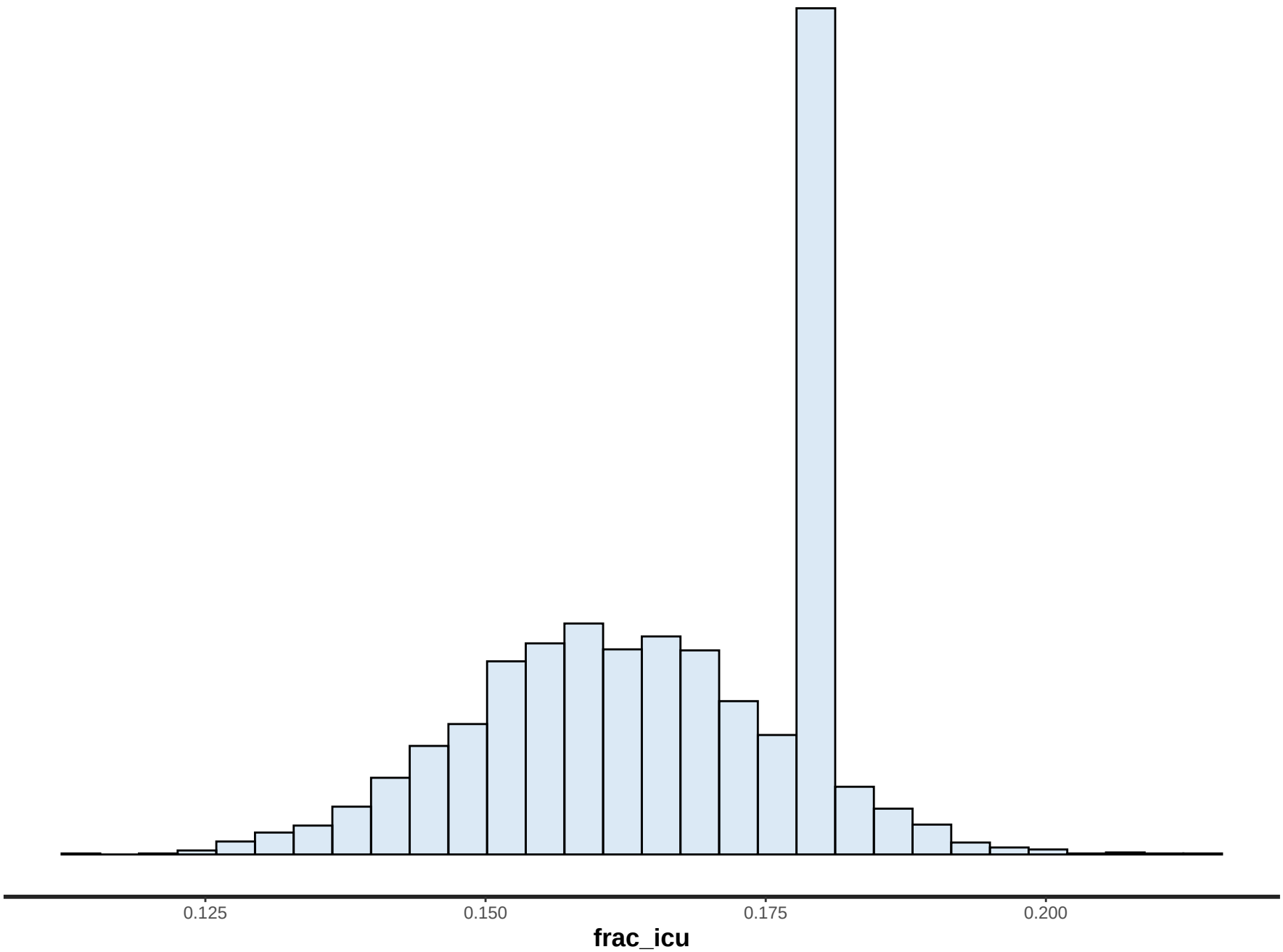

2
4
6
duration_rec_mild

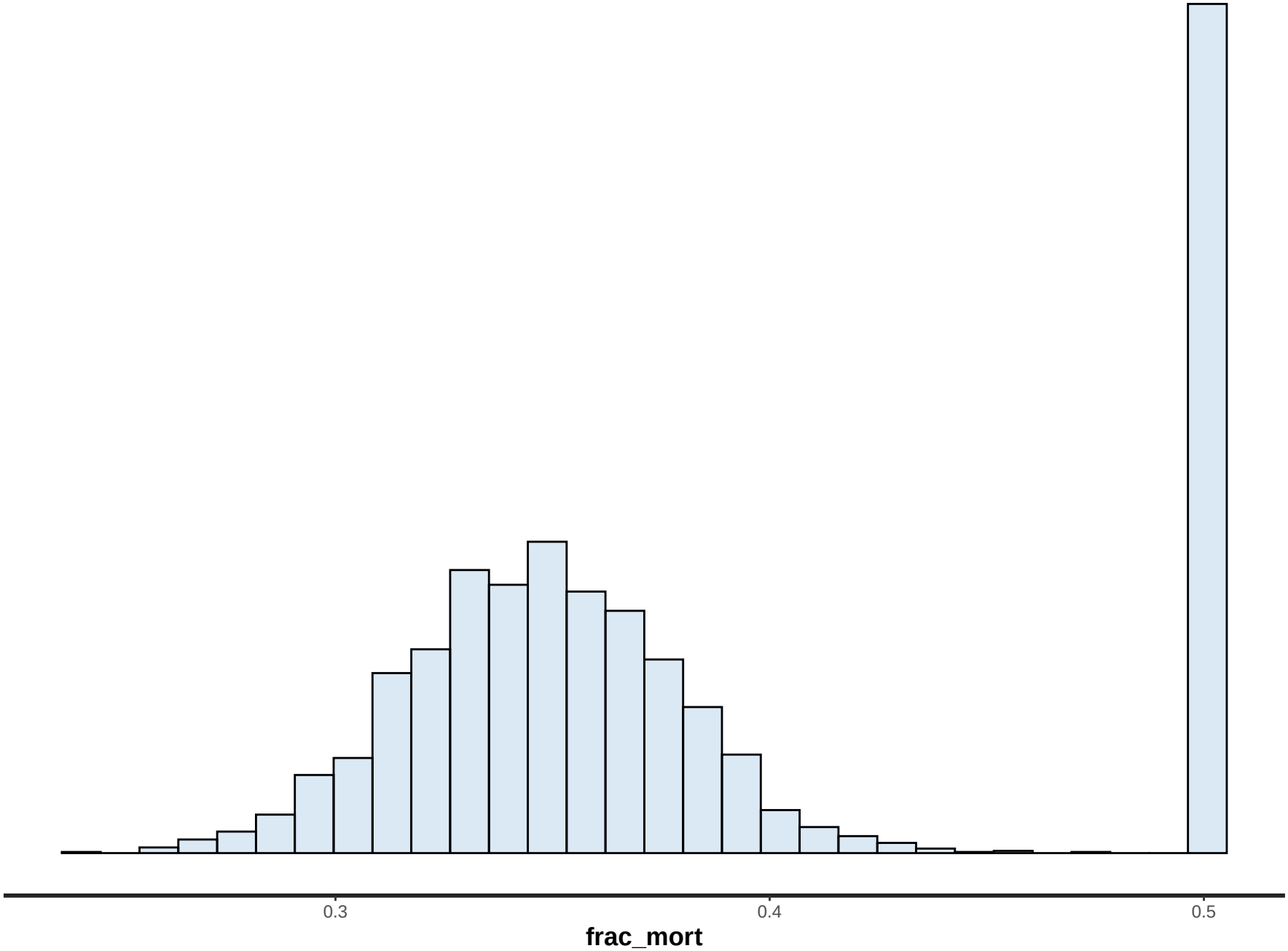

3
6
9
duration_pre_hosp

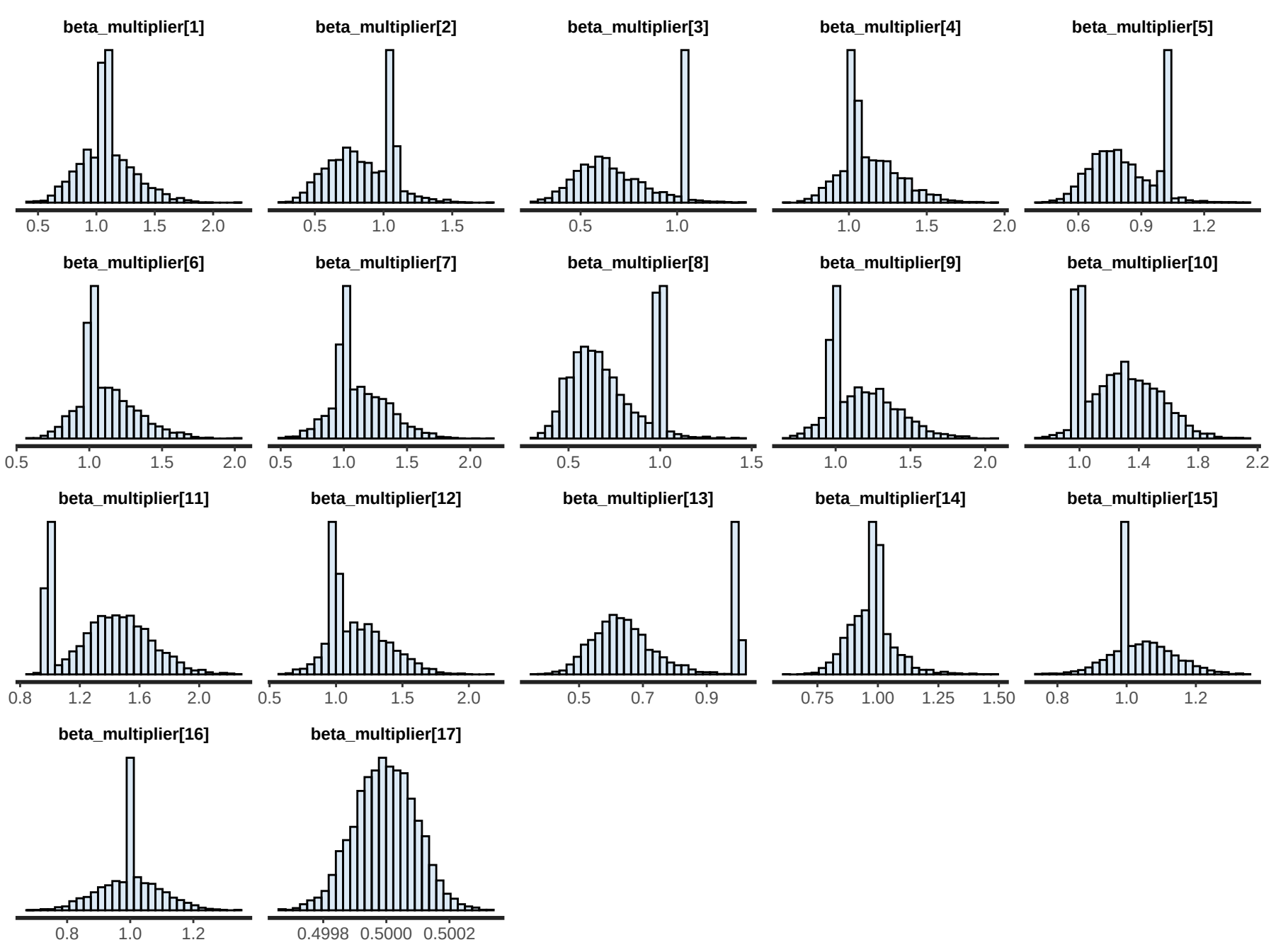

7.5
10.0
12.5
15.0
17.5
duration_hosp_mod


15.0
17.5
20.0
22.5
duration_hosp_icu


0.025
0.050
0.075
0.100
0.12
frac_hosp


0.125
0.150
0.175
0.200
frac_icu


0.3
0.4
0.5
frac_mort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0.5 1.0 1.5
beta_multiplier[3]
0.5 1.0
beta_multiplier[4]
1.0 1.5 2.0
beta_multiplier[5]
0.6 0.9 1.2
beta_multiplier[6]
0.5 1.0 1.5 2.0
beta_multiplier[7]
0.5 1.0 1.5 2.0
beta_multiplier[8]
0.5 1.0 1.5
beta_multiplier[9]
1.0 1.5 2.0
beta_multiplier[10]
1.0 1.4 1.8 2.2
beta_multiplier[11]
0.8 1.2 1.6 2.0
beta_multiplier[12]
0.5 1.0 1.5 2.0
beta_multiplier[13]
0.5 0.7 0.9
beta_multiplier[14]
0.75 1.00 1.25 1.50
beta_multiplier[15]
0.8 1.0 1.2
beta_multiplier[16]
0.8 1.0 1.2
beta_multiplier[17]
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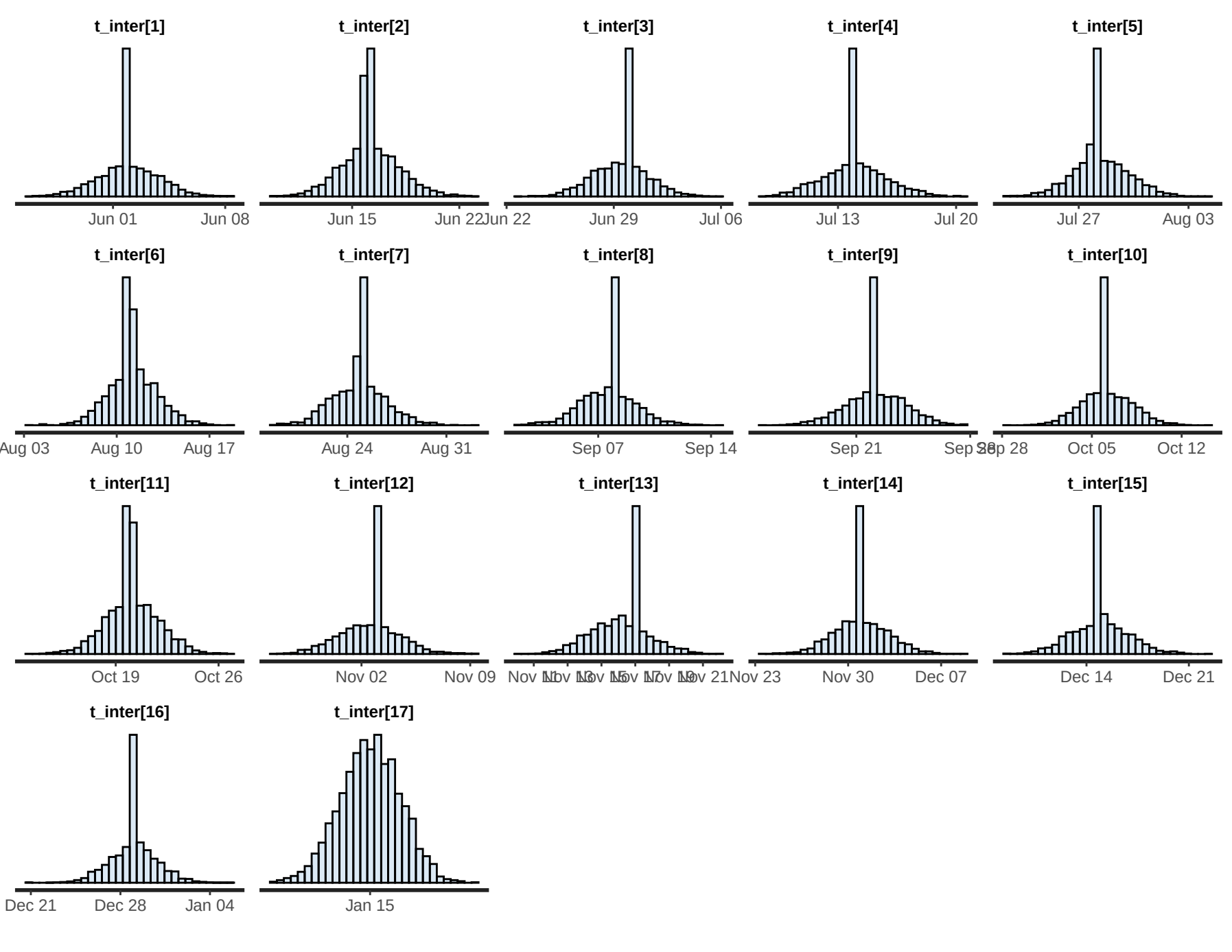
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Jun 01
Jun 08
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Jun 15
Jun 22
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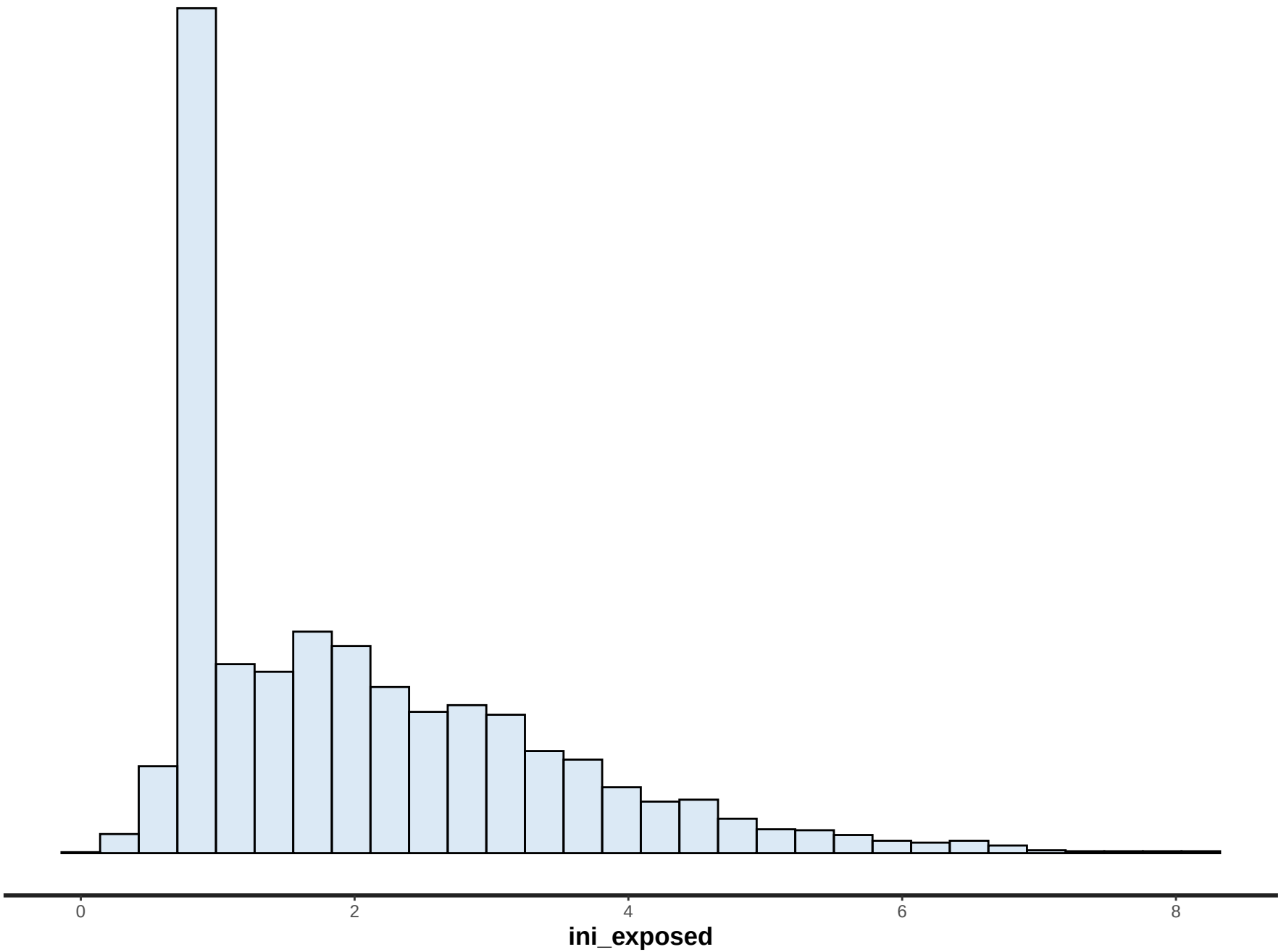
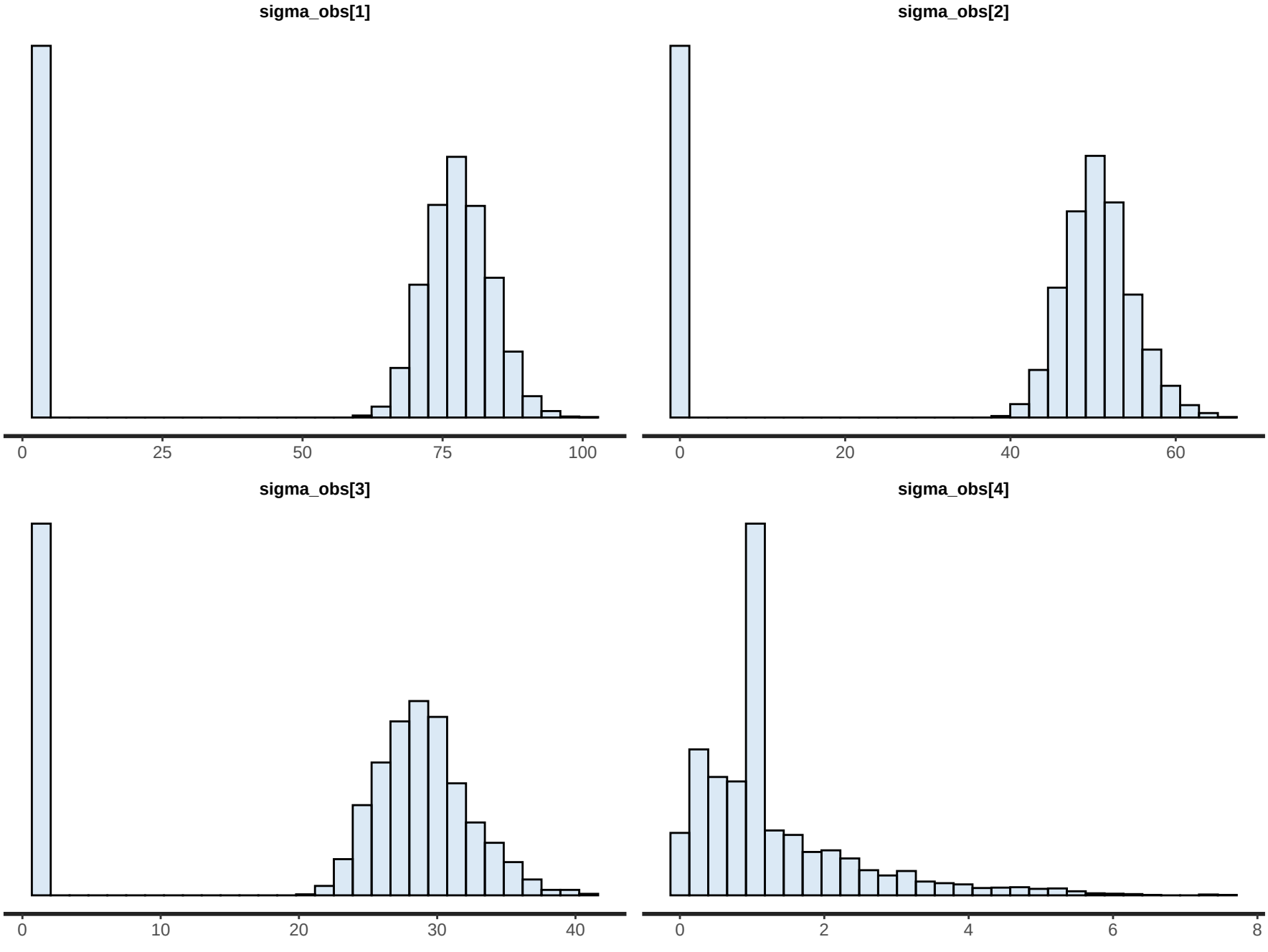
Jun 22
Jun 29
Jul 06
t_inter[4]
Jul 13
Jul 20
t_inter[5]
Jul 27
Aug 03
t_inter[6]
Aug 03
Aug 10
Aug 17
t_inter[7]
Aug 24
Aug 31
t_inter[8]
Sep 07
Sep 14
t_inter[9]
Sep 21
t_inter[10]
Sep 28
Oct 05
Oct 12
t_inter[11]
Oct 19
Oct 26
t_inter[12]
Nov 02
Nov 09
t_inter[13]
t_inter[14]
Nov 23
Nov 30
Dec 07
t_inter[15]
Dec 14
Dec 21
t_inter[16]
Dec 21
Dec 28
Jan 04
t_inter[17]
Jan 15


0
2
4
6
8
ini_exposed


sigma_obs[1]
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25
50
75
100
sigma_obs[2]
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20
40
60
sigma_obs[3]
0
10
20
30
40
sigma_obs[4]
0
2
4
6
8