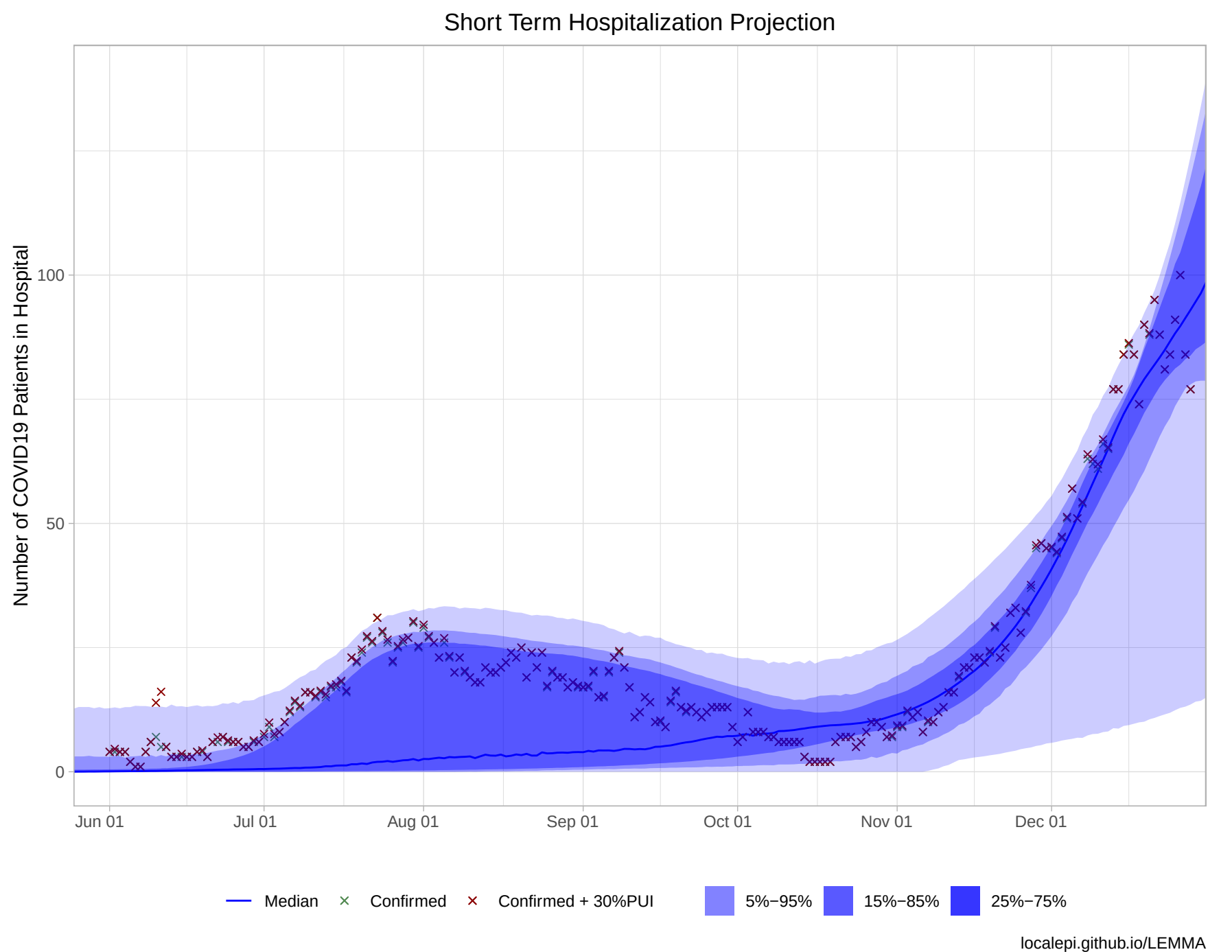
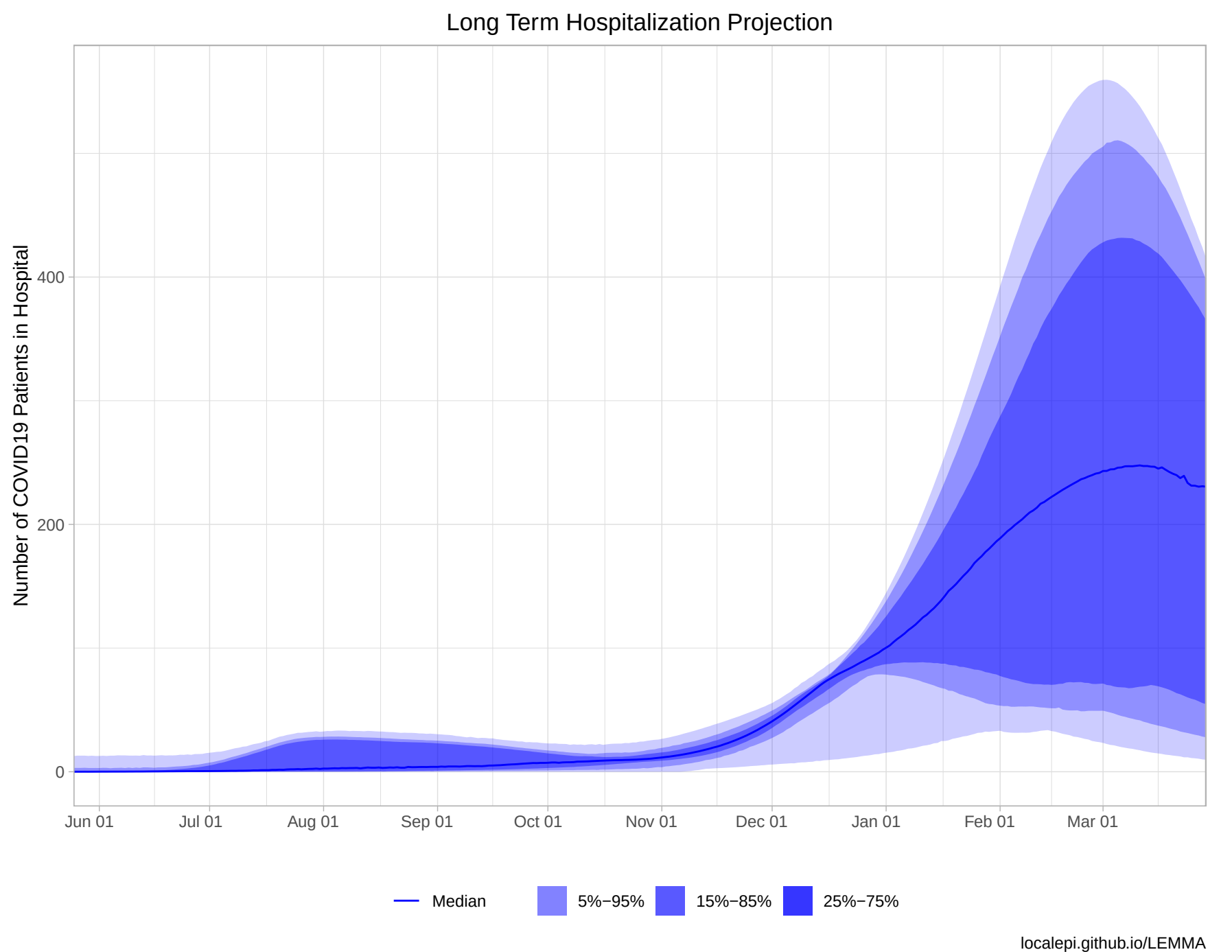
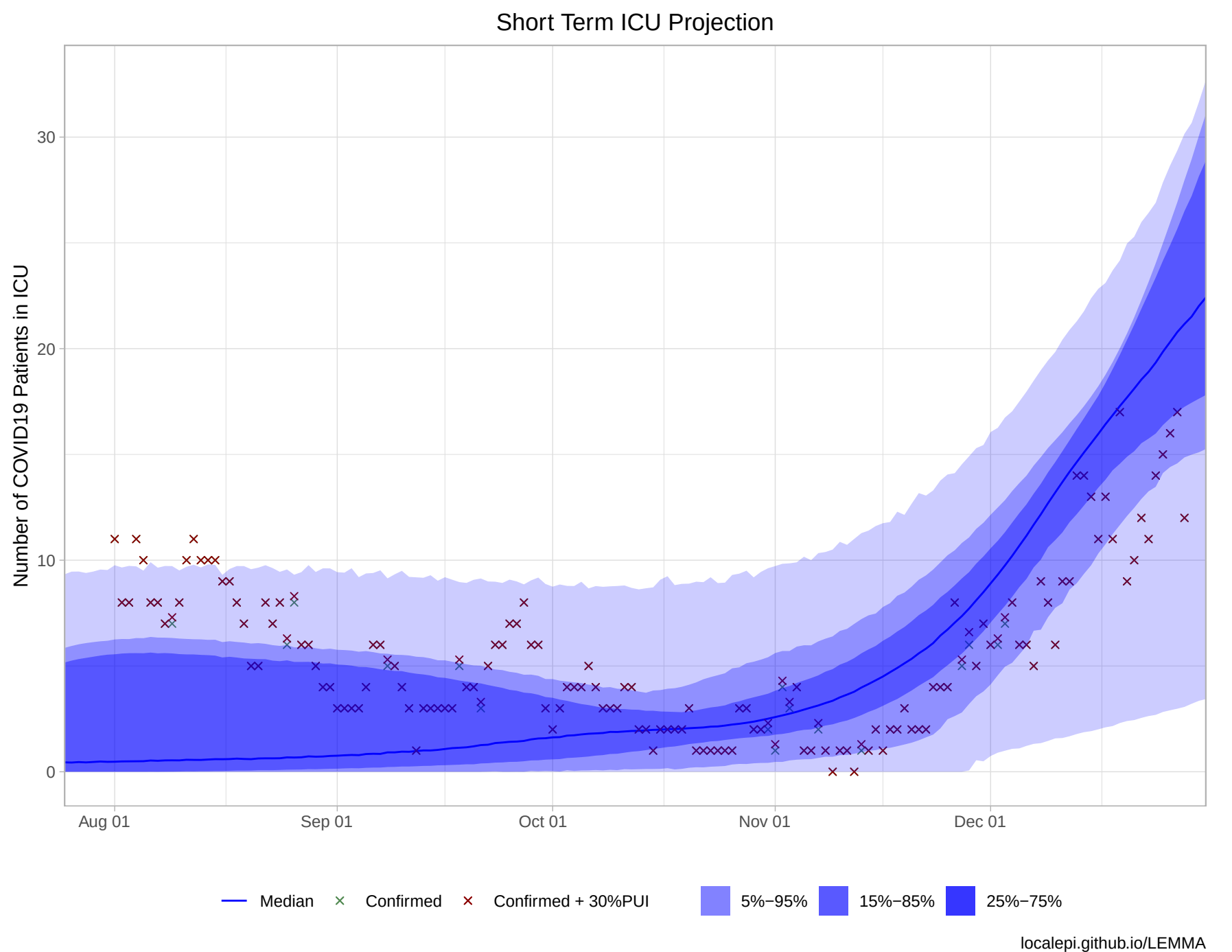
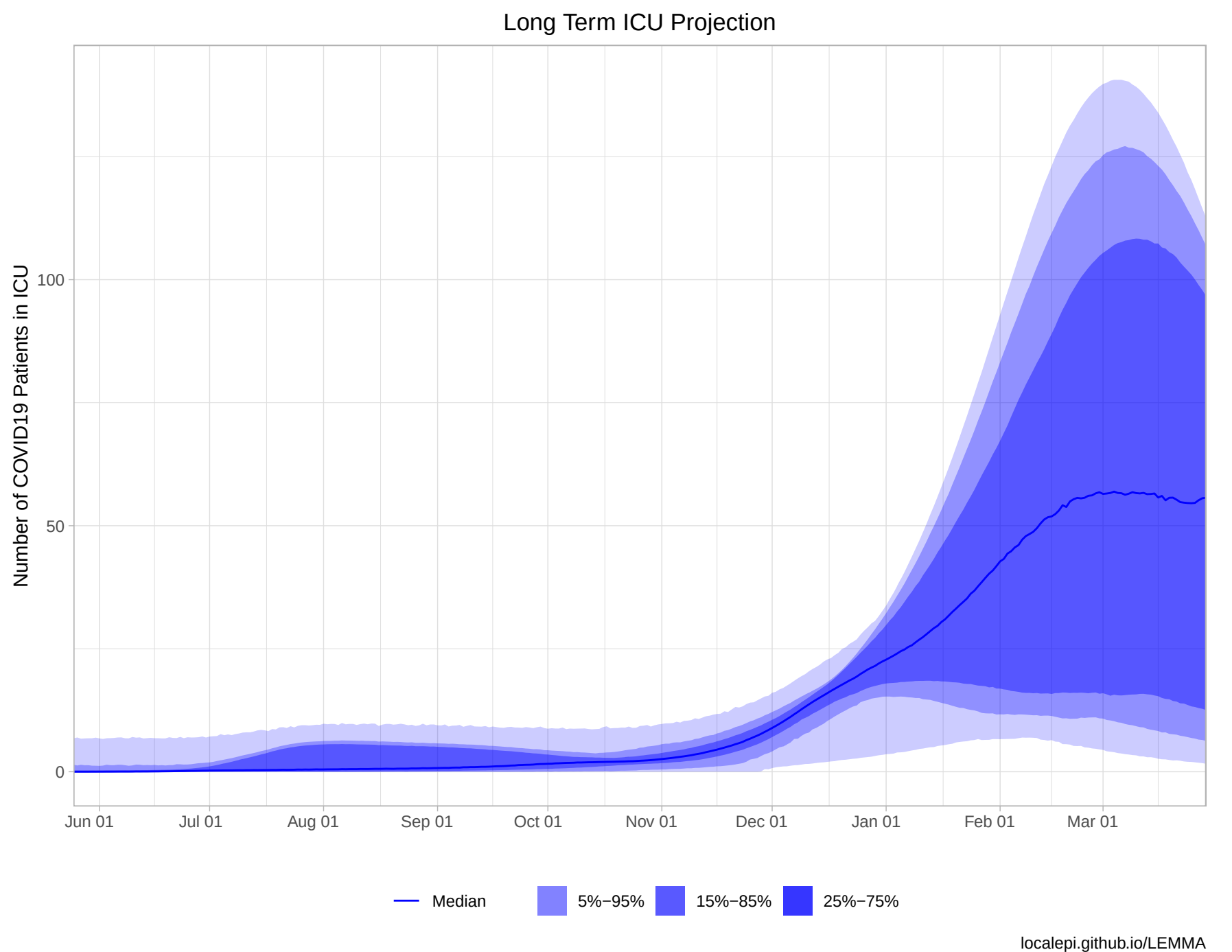
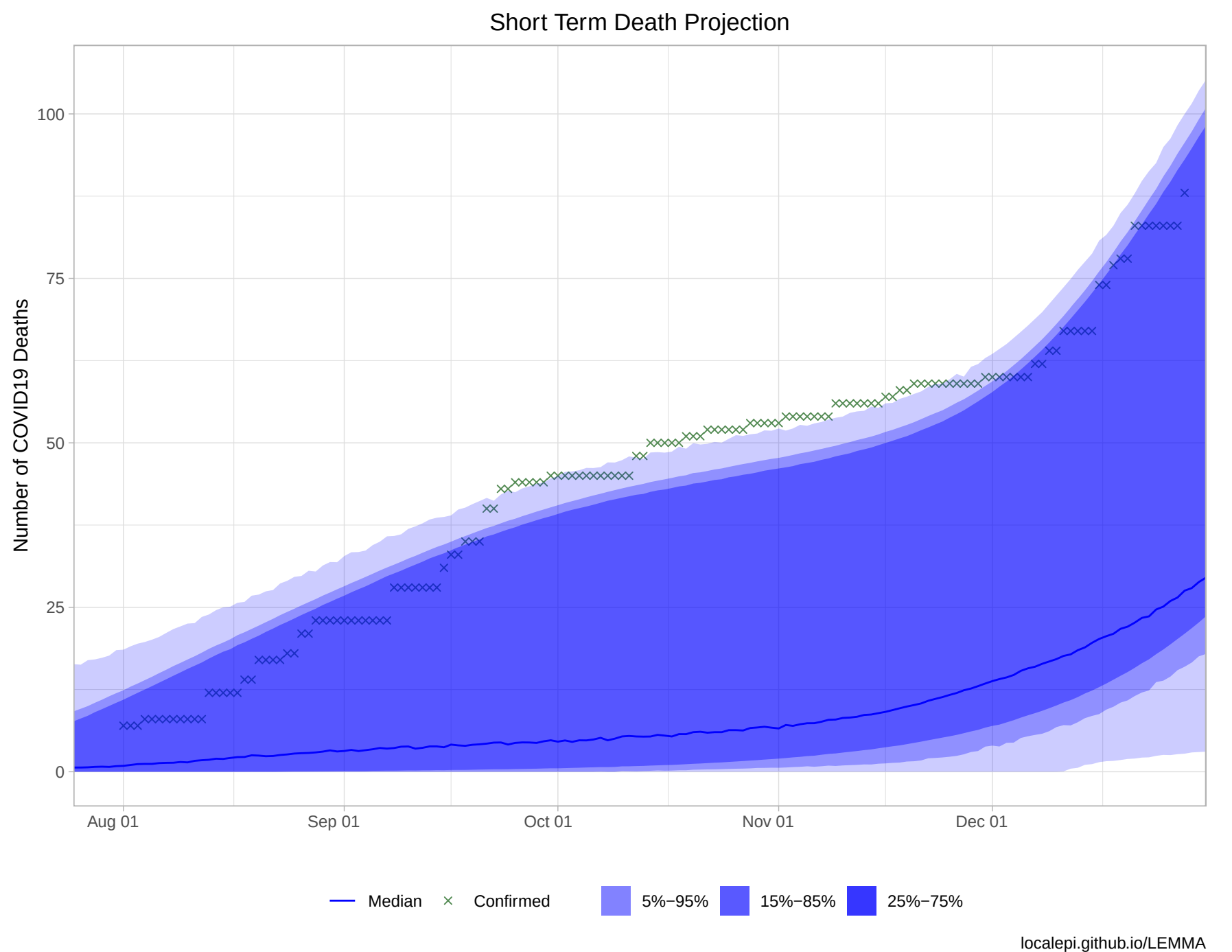
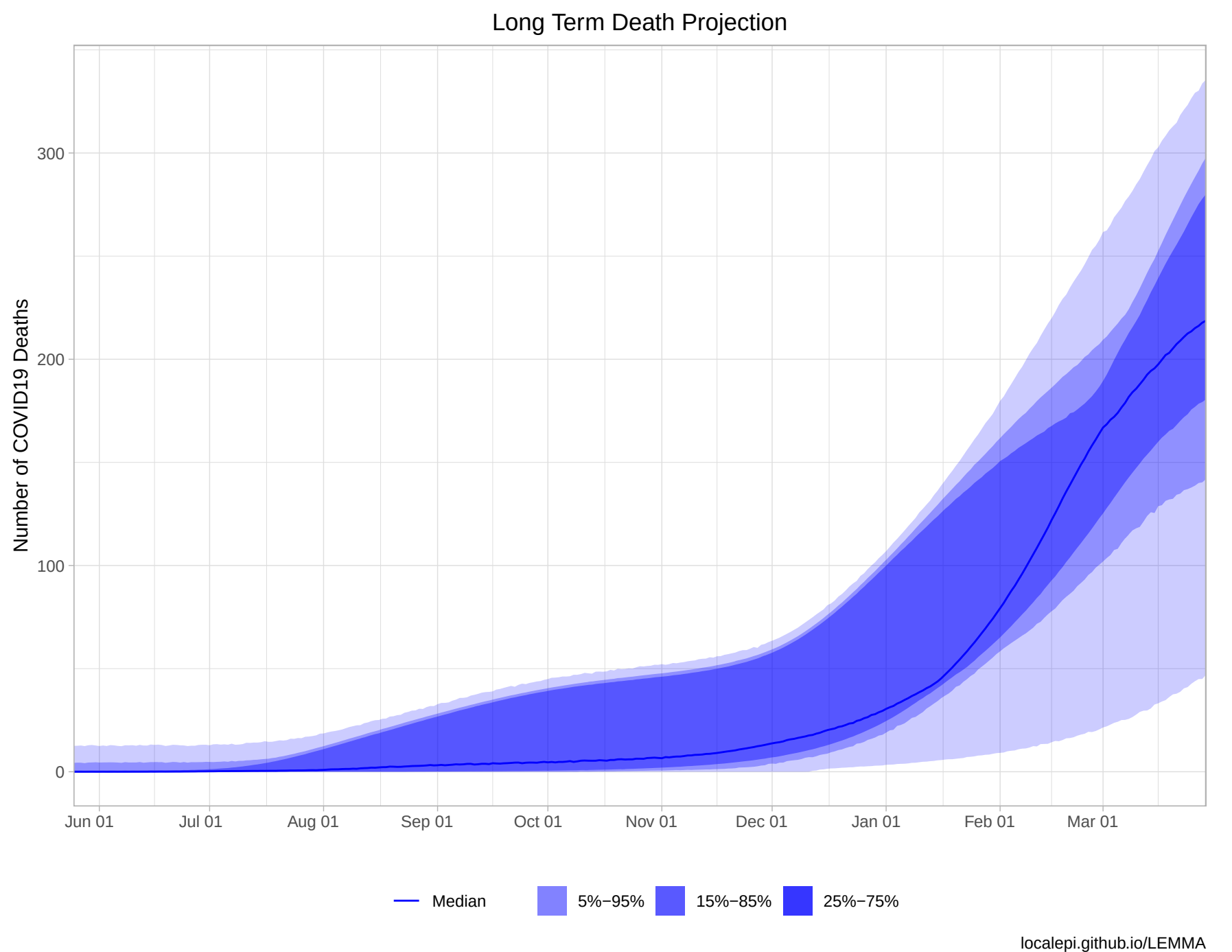

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
100
50
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

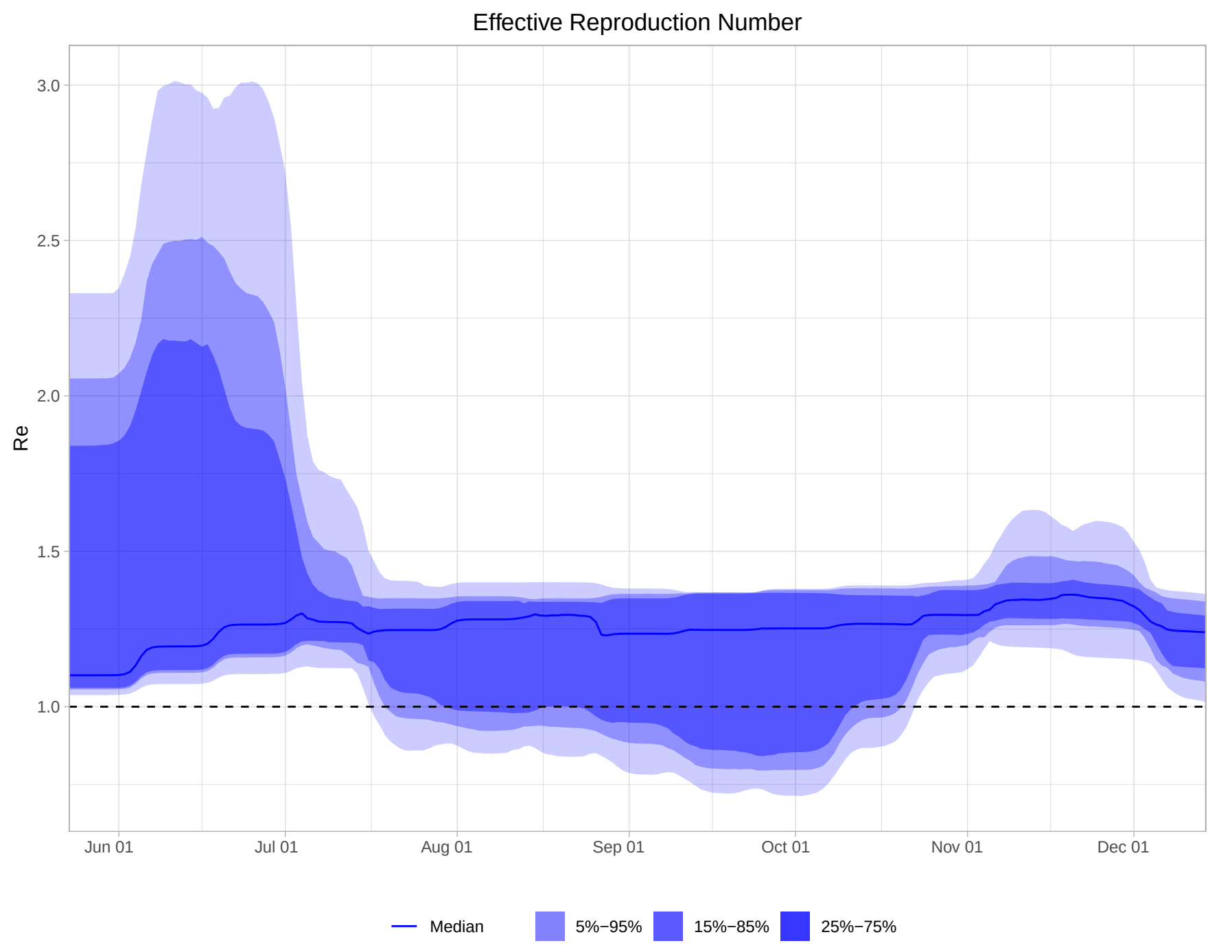

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
400
200
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


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

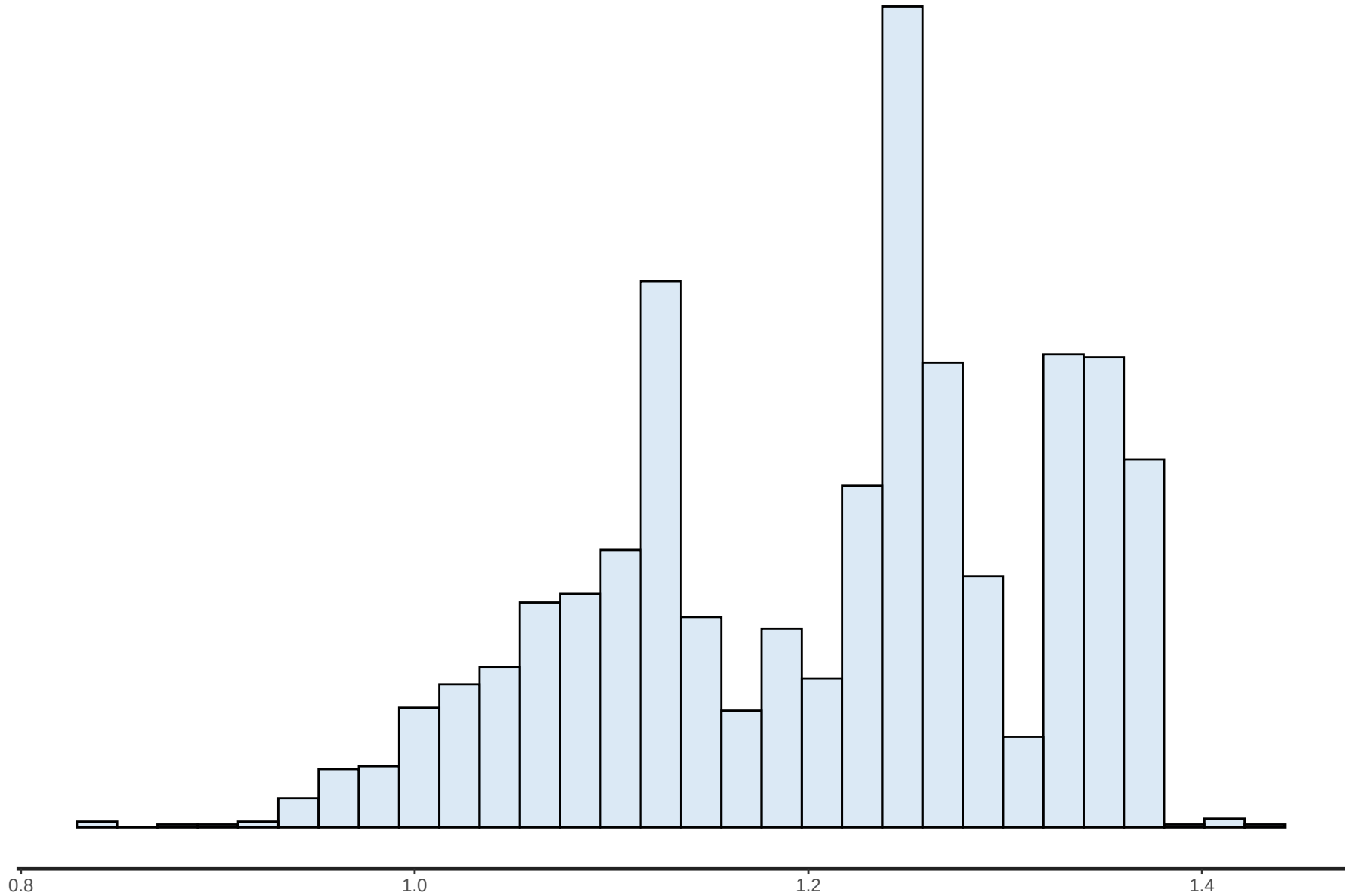

Short Term Death Projection
Number of COVID19 Deaths
100
75
50
25
0
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

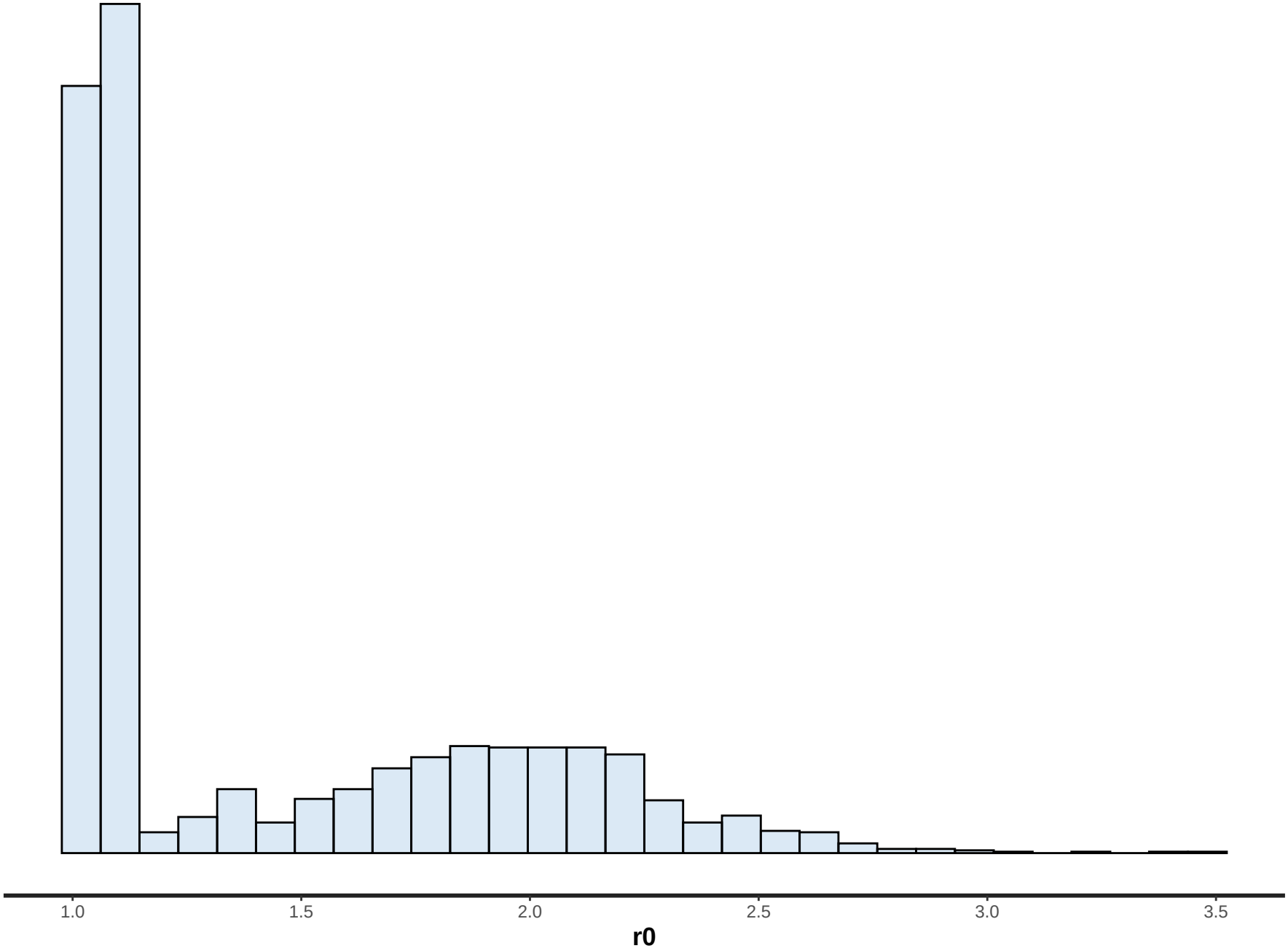

Long Term Death Projection
Number of COVID19 Deaths
300
200
100
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

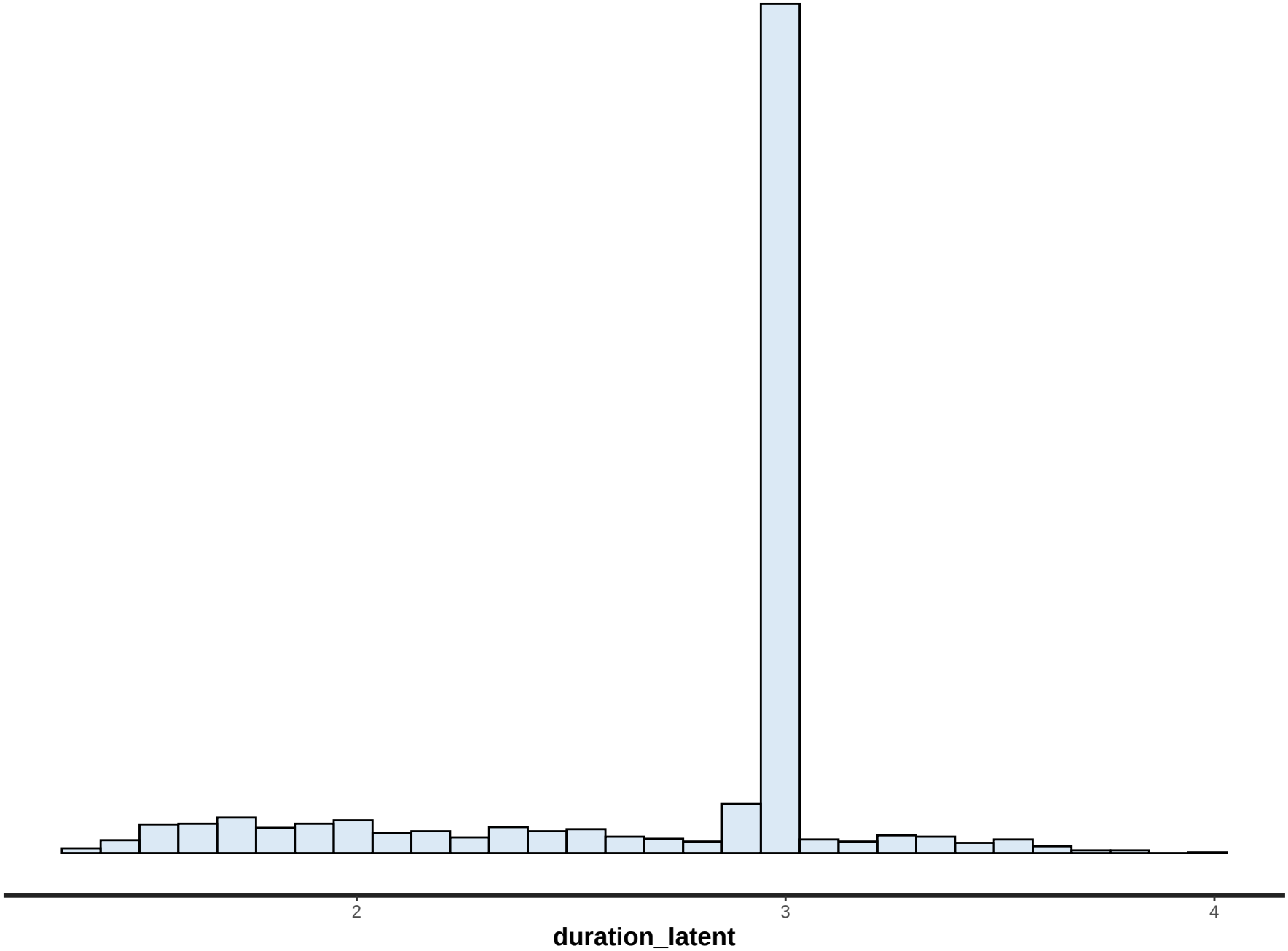

Effective Reproduction Number
Re
3.0
2.5
2.0
1.5
1.0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

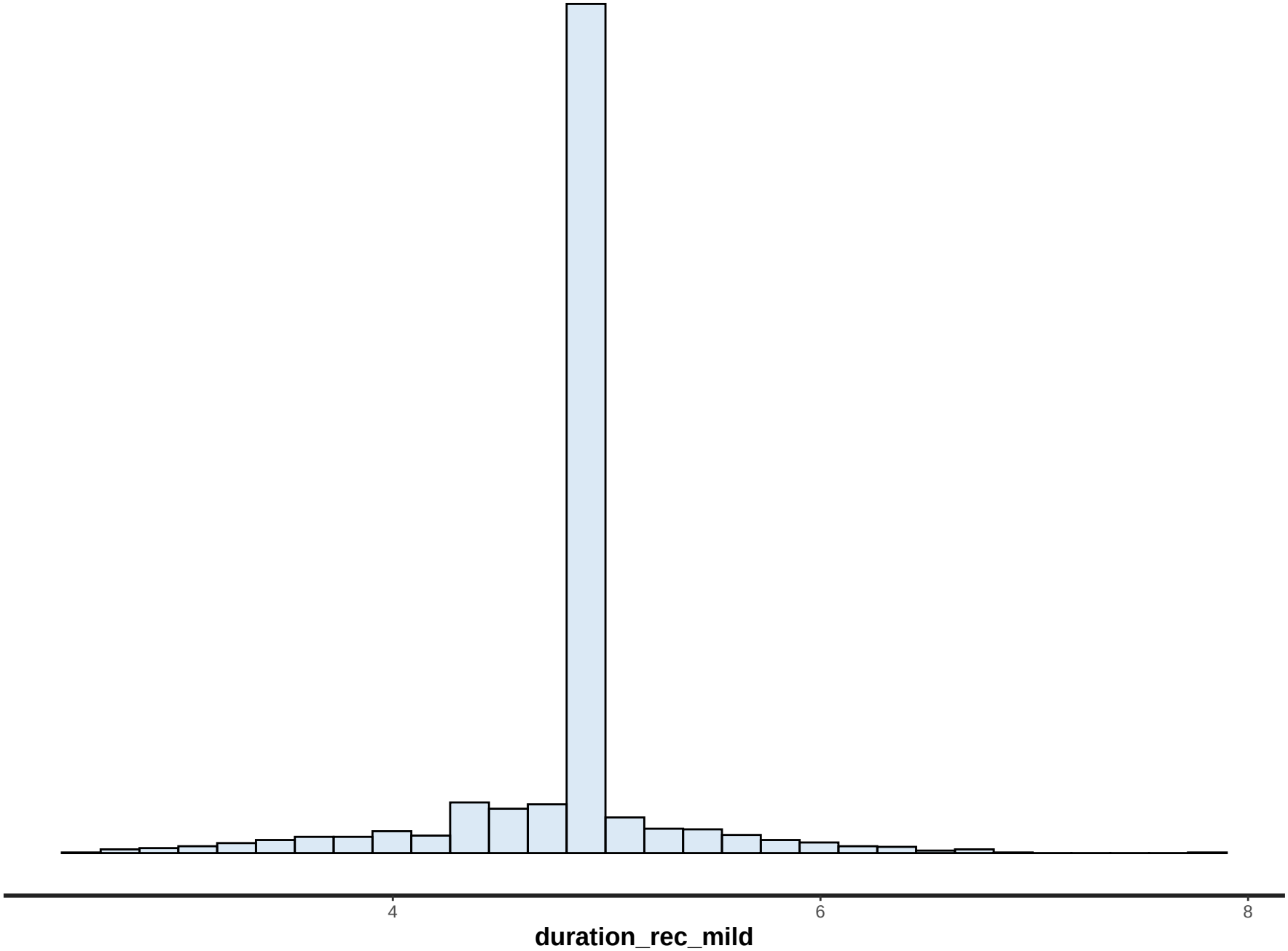
Rt as of 2020−12−14

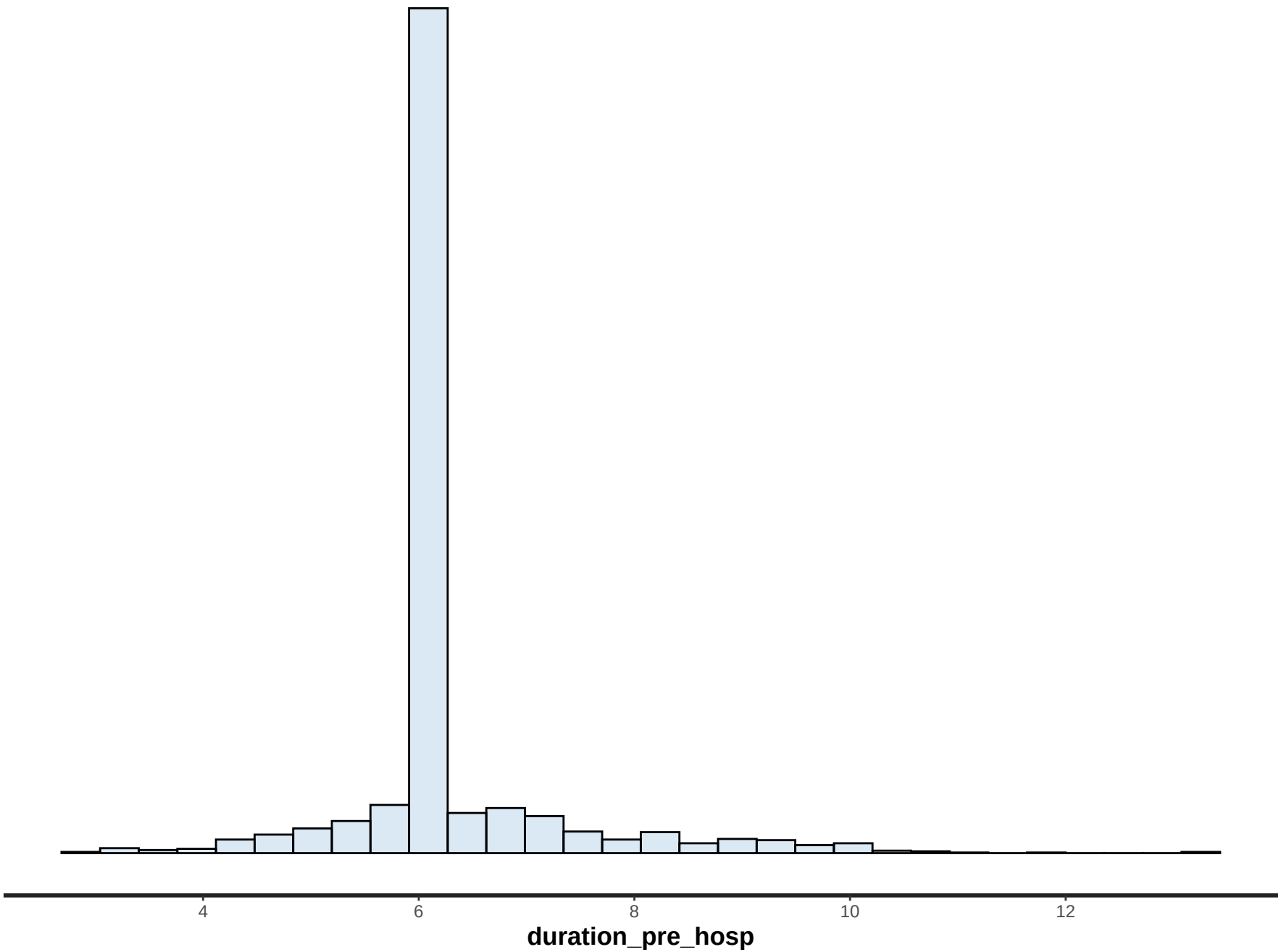
5%	10%	25%	50%	75%	90%	95%
1.01	1.05	1.12	1.24	1.29	1.36	1.36

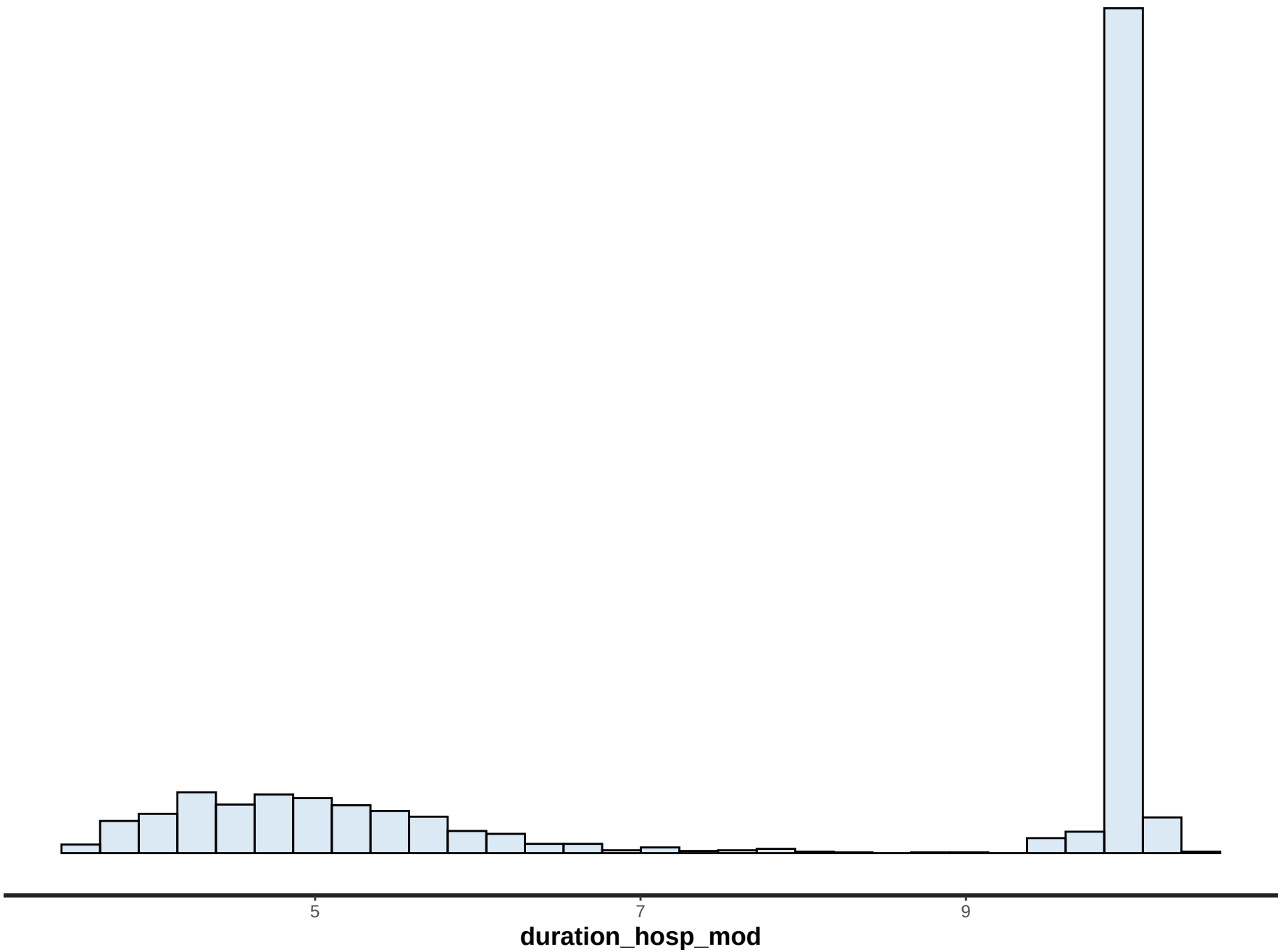


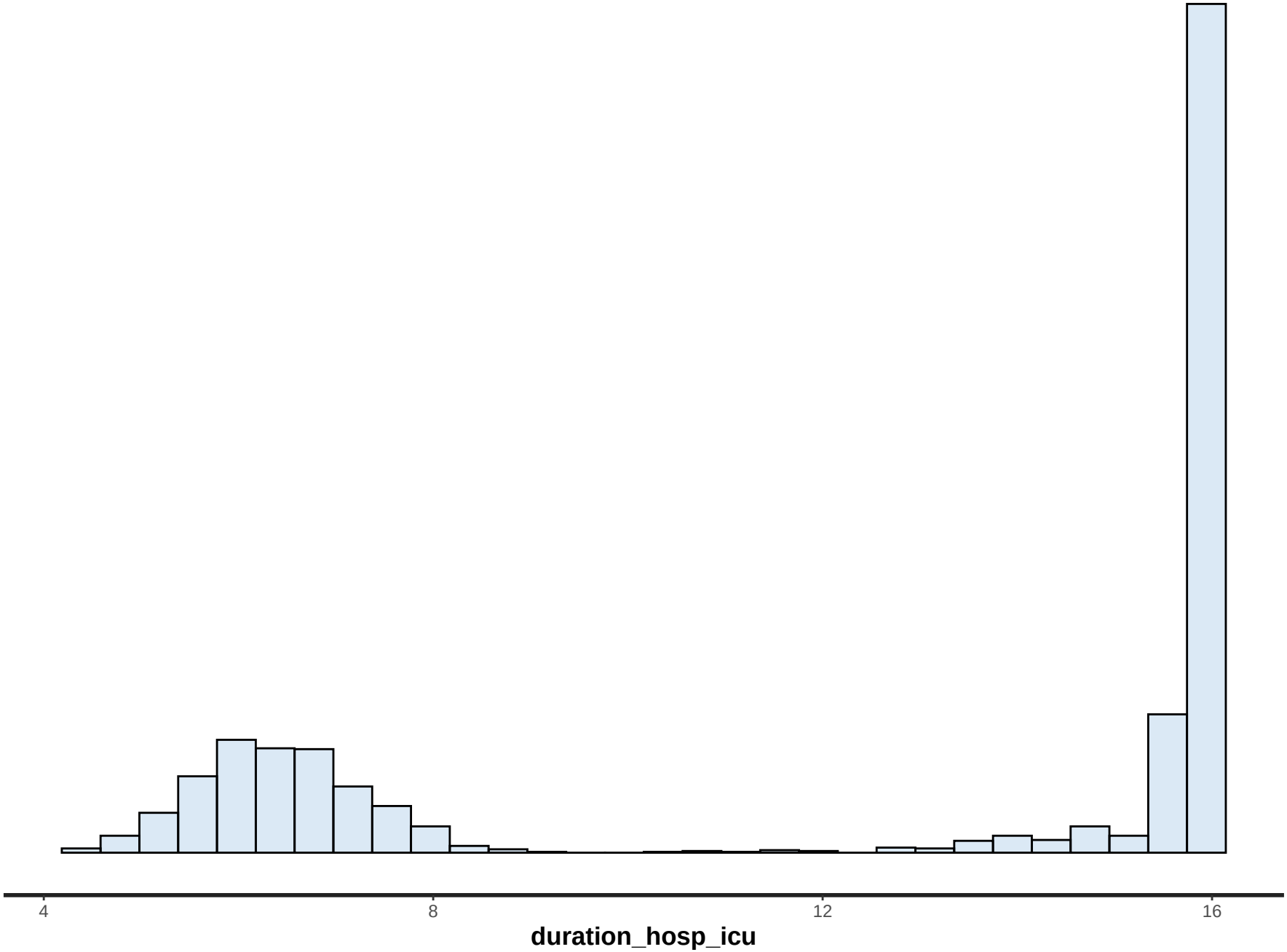

1.0
1.5
2.0
2.5
3.0
3.5
r0

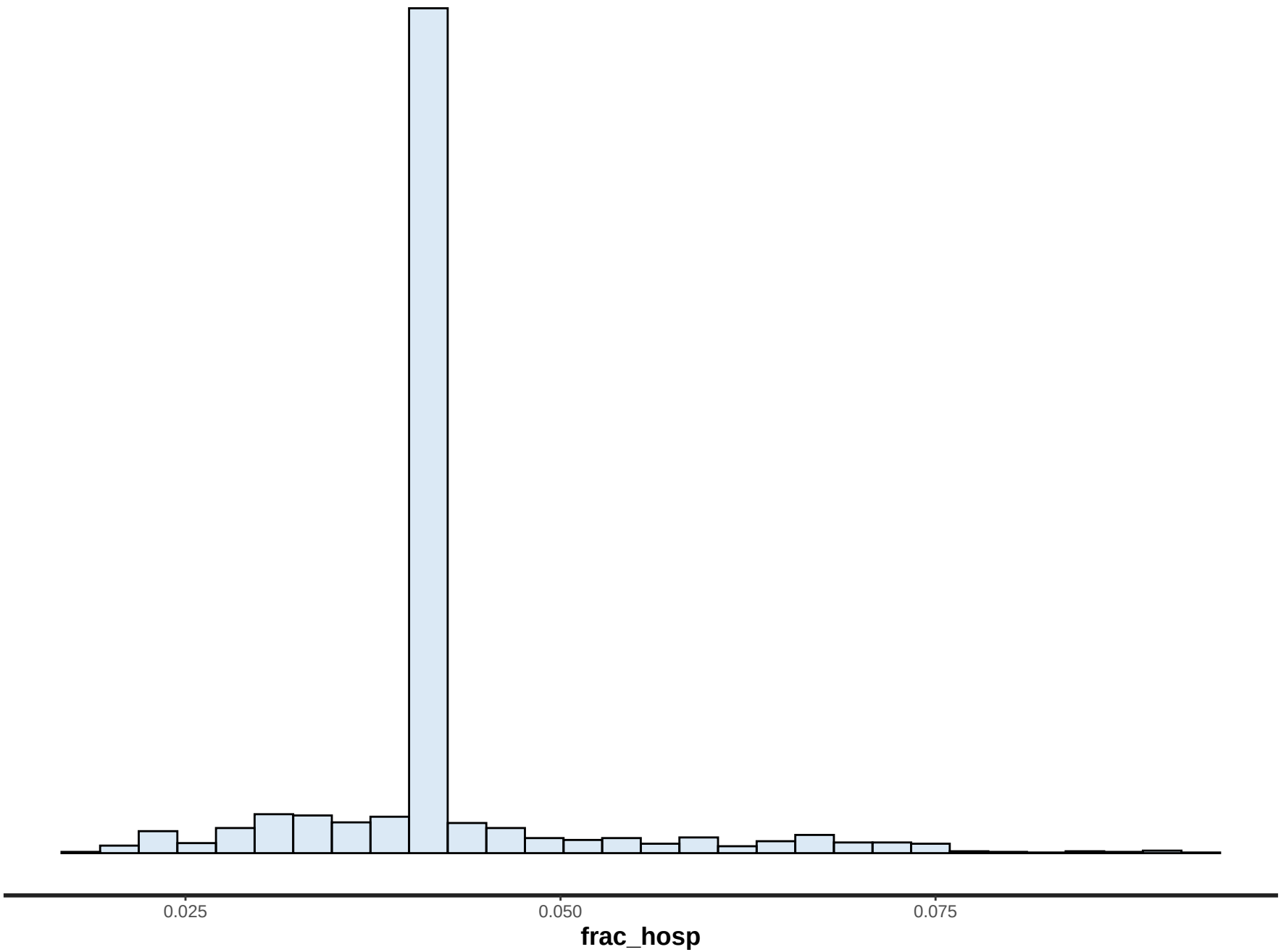

2
3
4
duration_latent

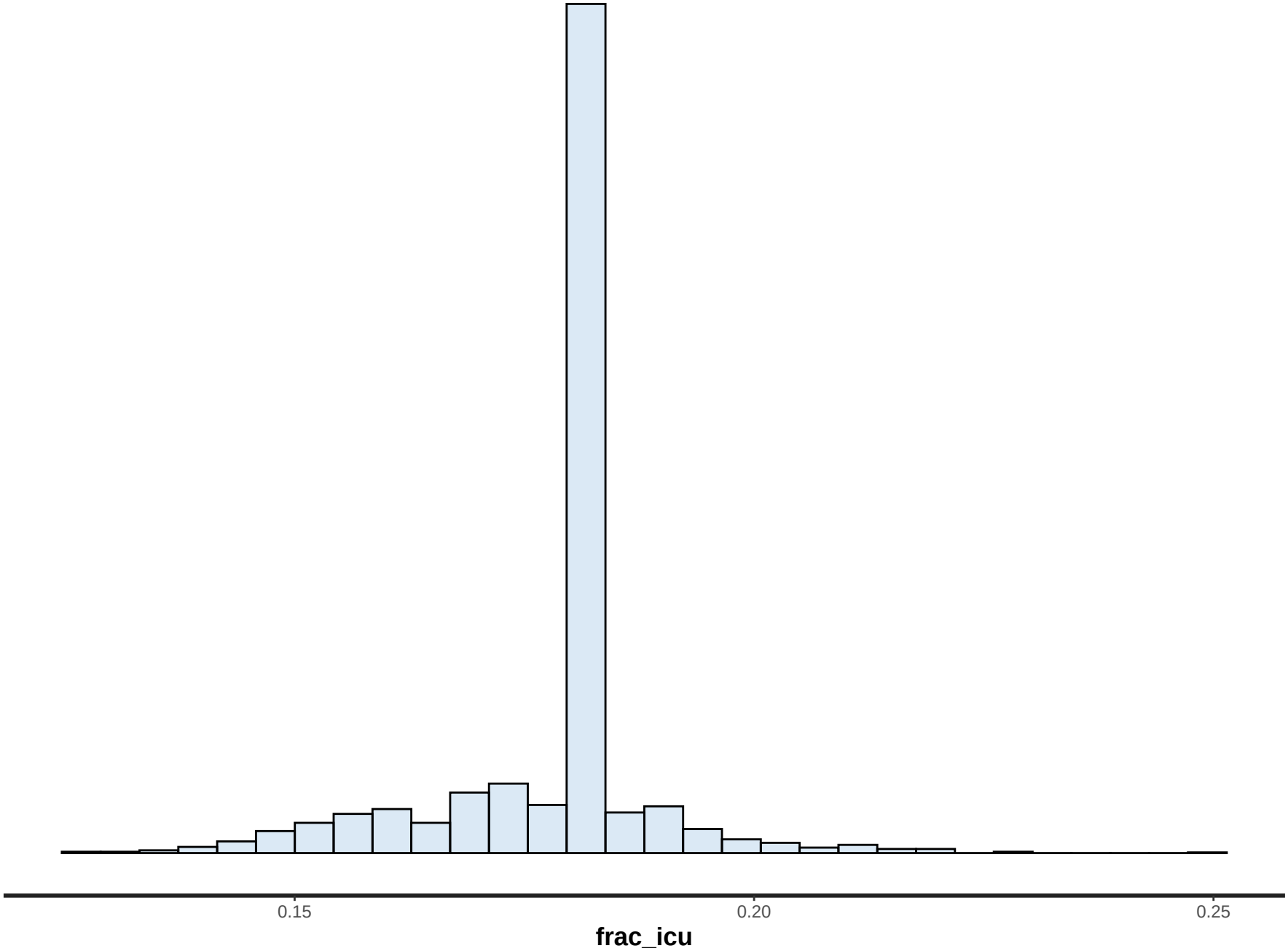

4
6
8
duration_rec_mild

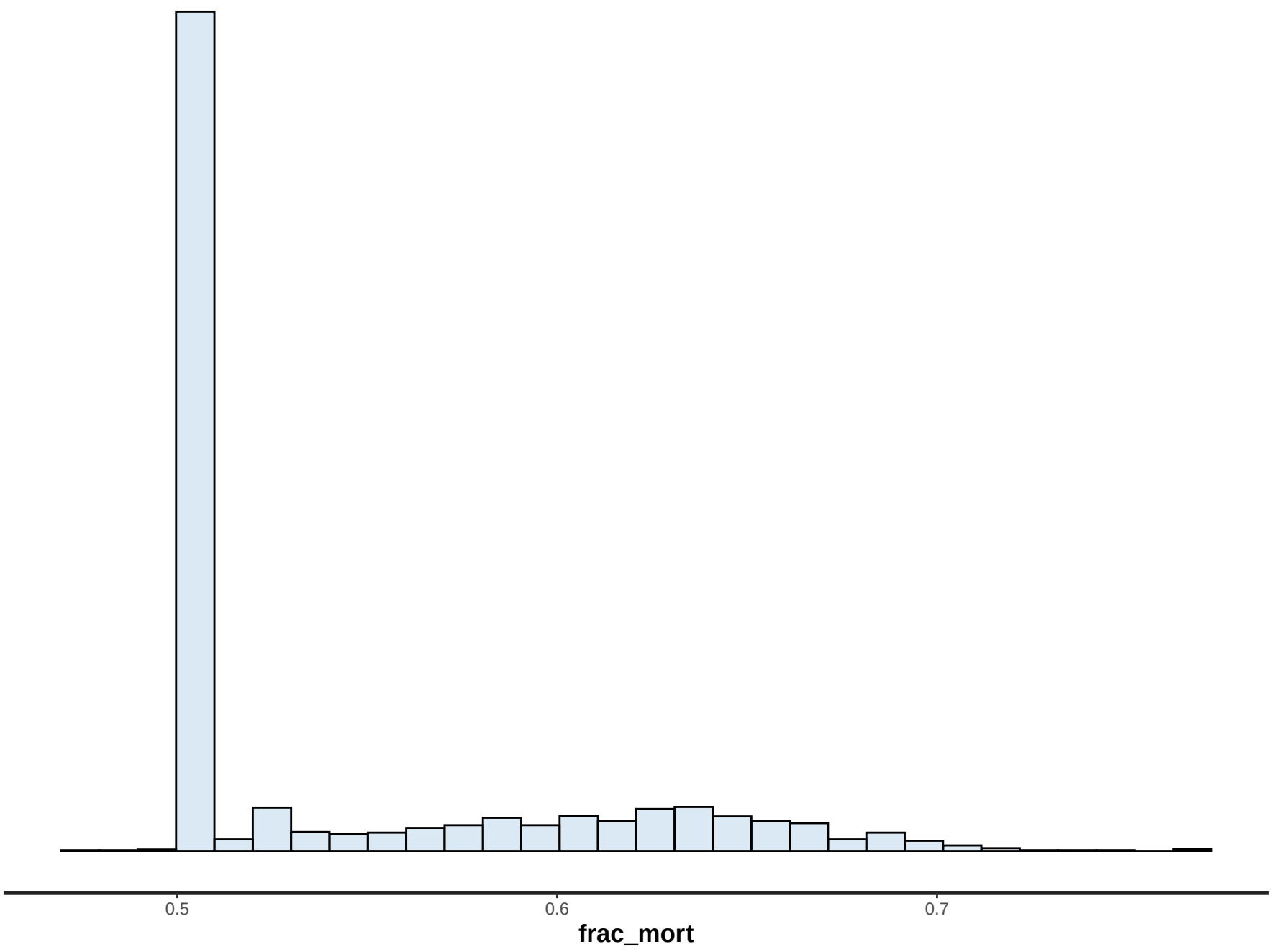

4
6
8
10
12
duration_pre_hosp

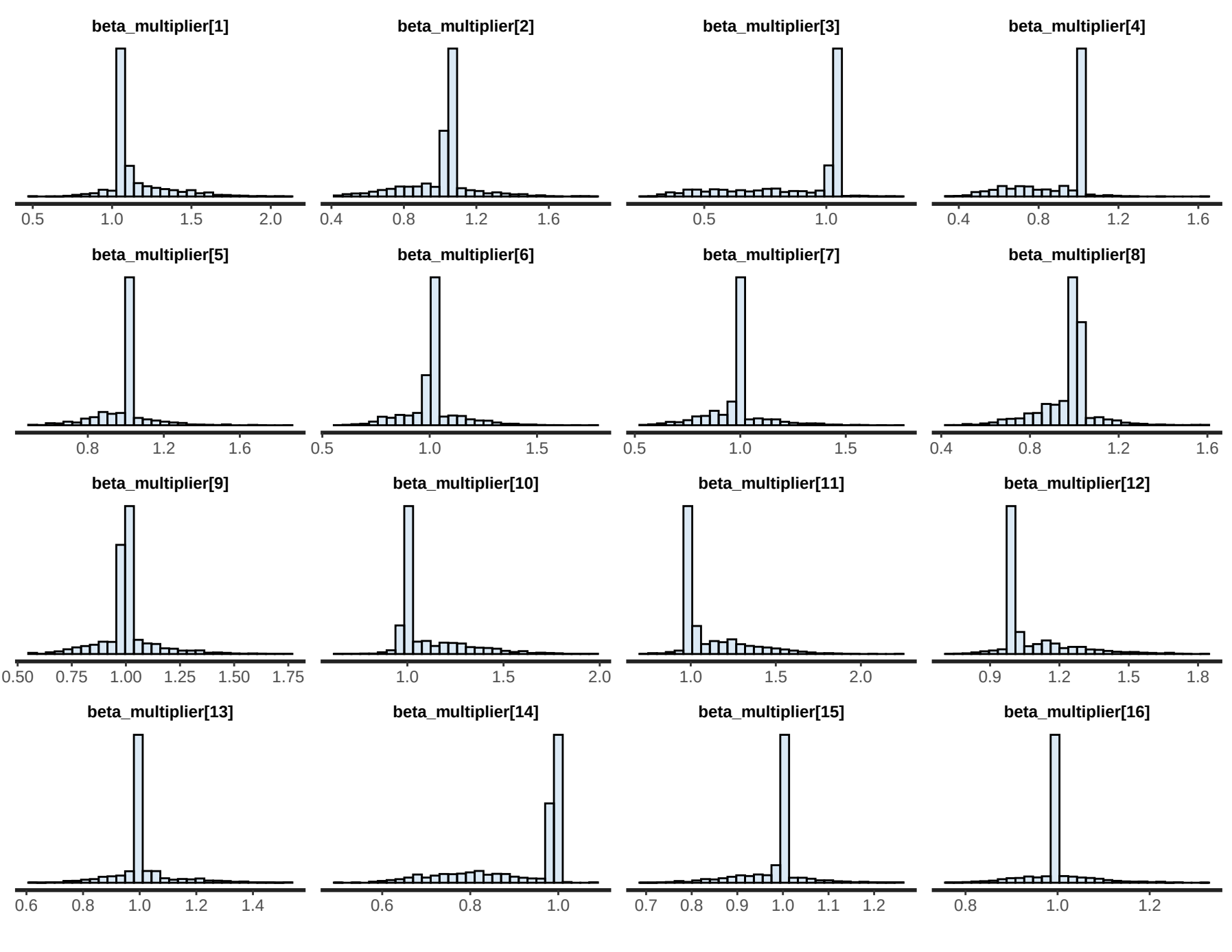

5
7
9
duration_hosp_mod

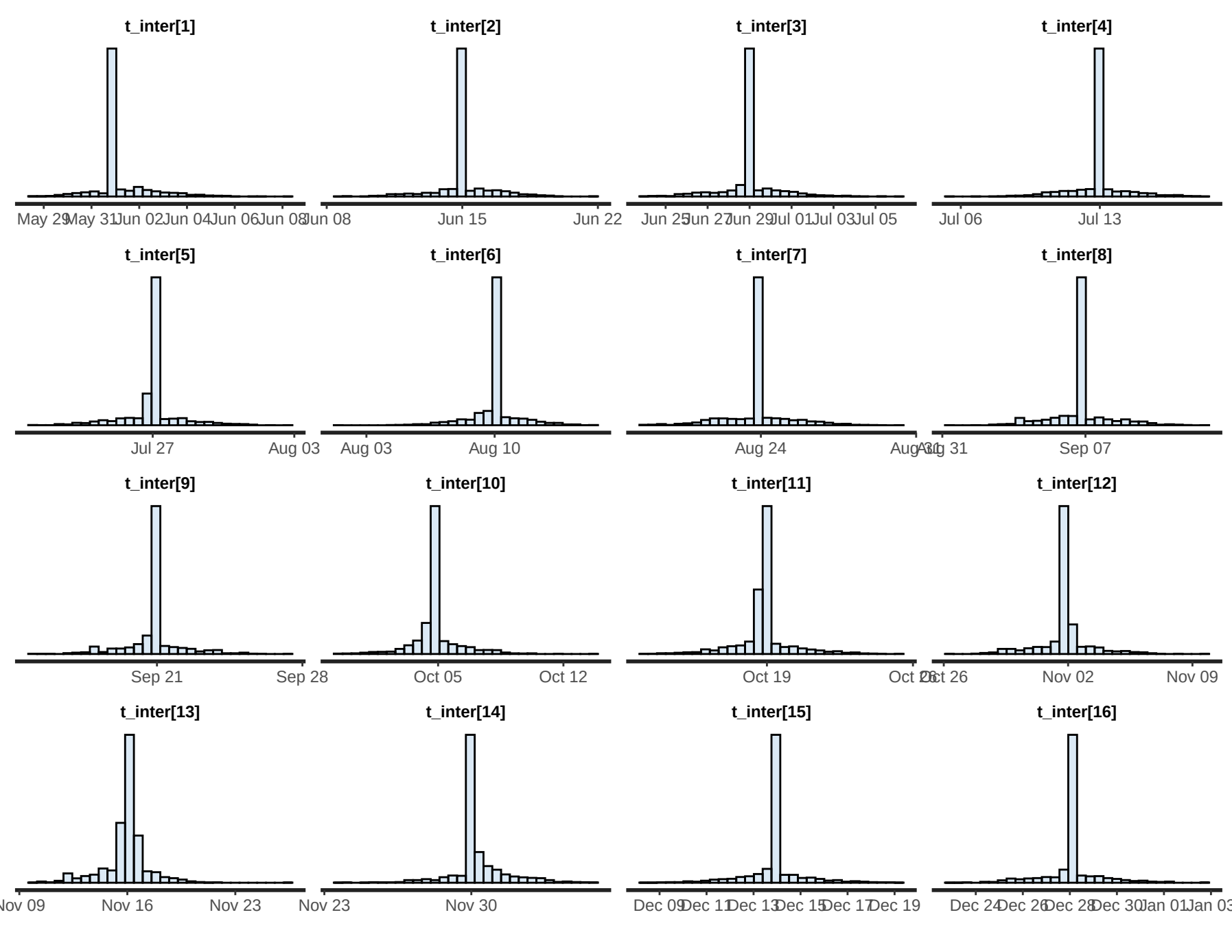

4
8
12
16
duration_hosp_icu

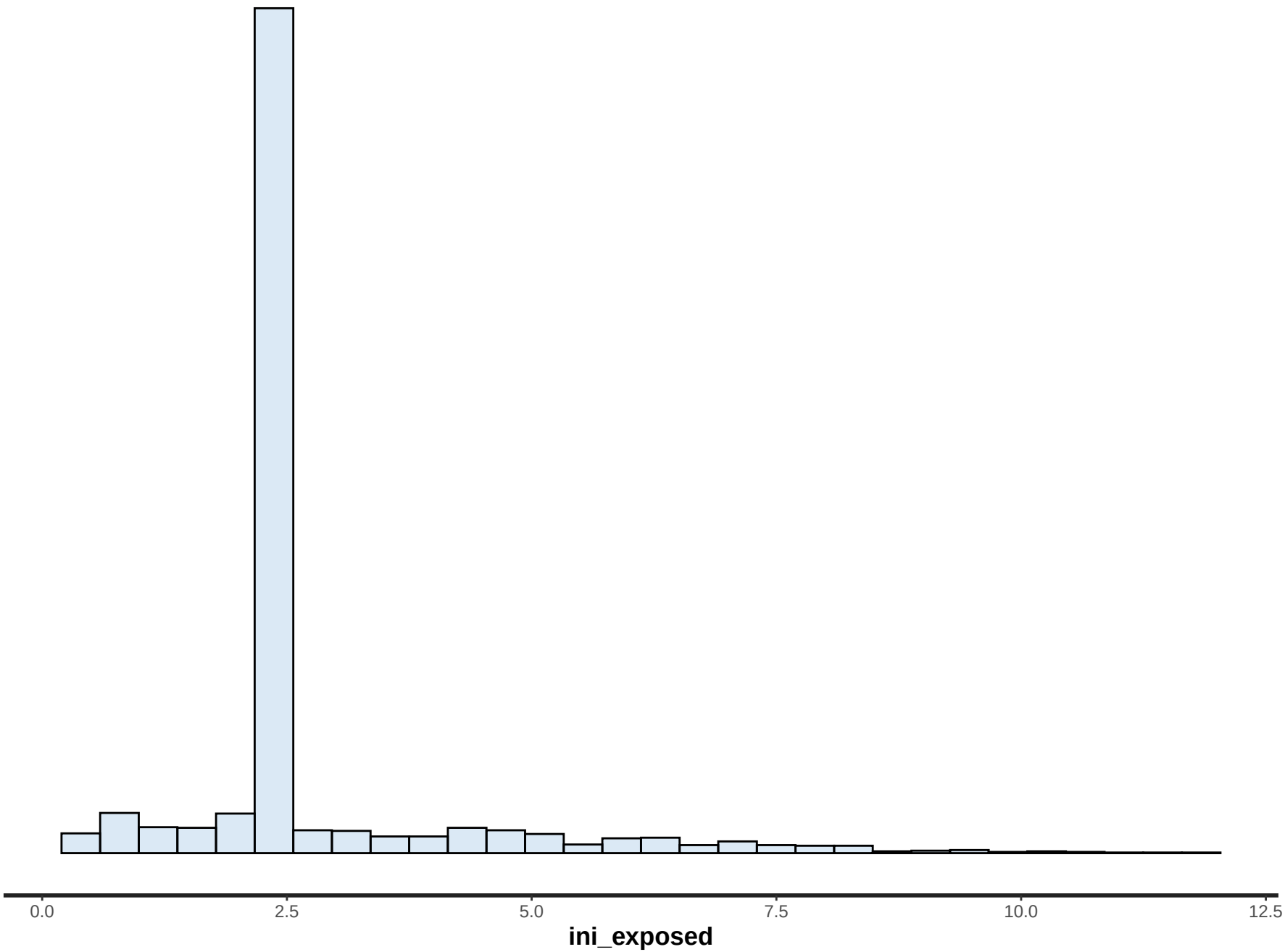

0.025
0.050
0.075
frac_hosp

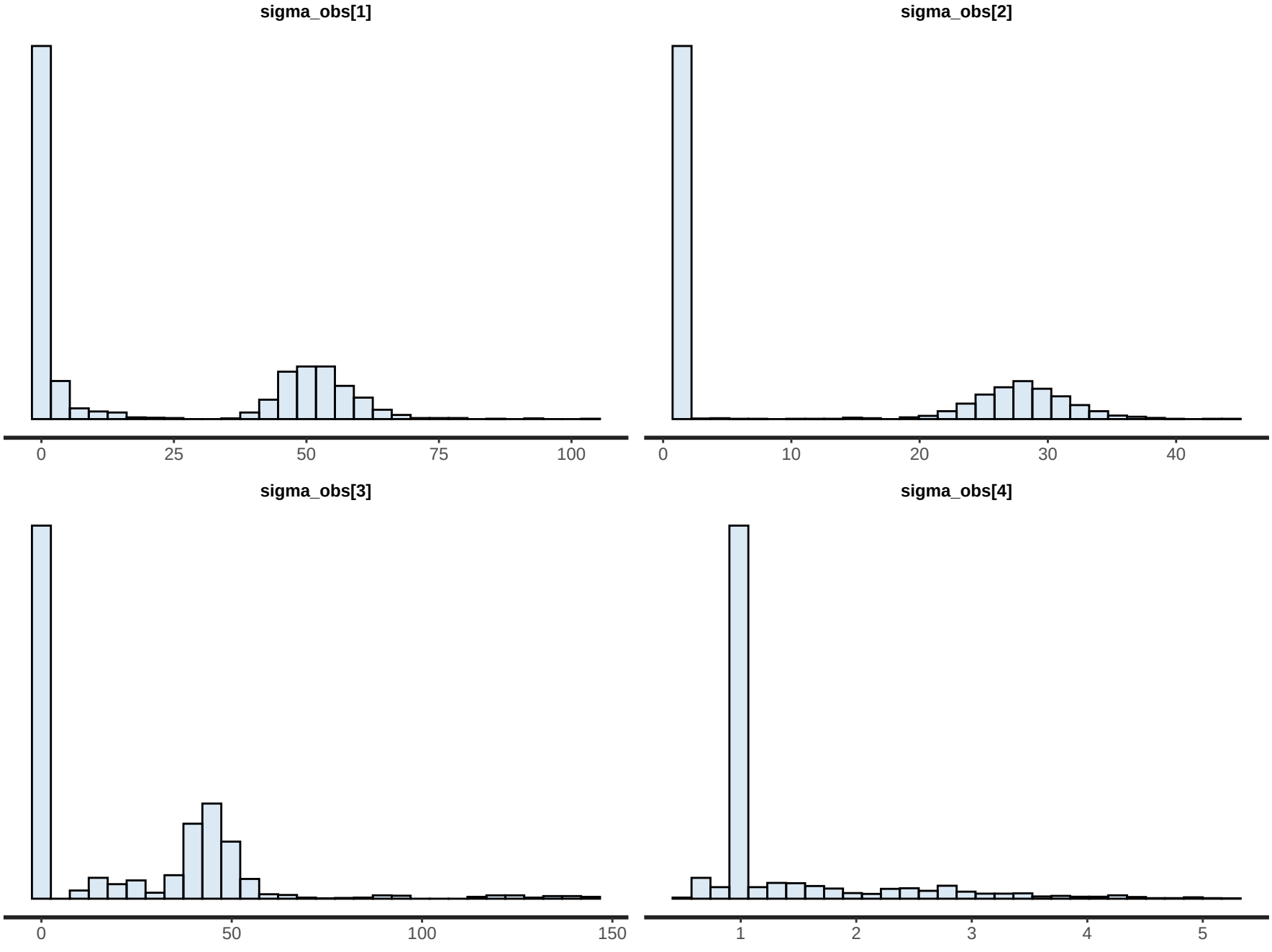

0.15
0.20
0.25
frac_icu


0.5
0.6
0.7
frac_mort


beta_multiplier[1]
0.5 1.0 1.5 2.0
beta_multiplier[2]
0.4 0.8 1.2 1.6
beta_multiplier[3]
0.5 1.0
beta_multiplier[4]
0.4 0.8 1.2 1.6
beta_multiplier[5]
0.8 1.2 1.6
beta_multiplier[6]
0.5 1.0 1.5
beta_multiplier[7]
0.5 1.0 1.5
beta_multiplier[8]
0.4 0.8 1.2 1.6
beta_multiplier[9]
0.50 0.75 1.00 1.25 1.50 1.75
beta_multiplier[10]
1.0 1.5 2.0
beta_multiplier[11]
1.0 1.5 2.0
beta_multiplier[12]
0.9 1.2 1.5 1.8
beta_multiplier[13]
0.6 0.8 1.0 1.2 1.4
beta_multiplier[14]
0.6 0.8 1.0
beta_multiplier[15]
0.7 0.8 0.9 1.0 1.1 1.2
beta_multiplier[16]
0.8 1.0 1.2


t_inter[1]
May 29
May 31
Jun 02
Jun 04
Jun 06
Jun 08
t_inter[2]
Jun 08
Jun 15
Jun 22
t_inter[3]
Jun 25
Jun 27
Jun 29
Jul 01
Jul 03
Jul 05
t_inter[4]
Jul 06
Jul 13
t_inter[5]
Jul 27
Aug 03
t_inter[6]
Aug 03
Aug 10
t_inter[7]
Aug 24
Aug 31
t_inter[8]
Aug 31
Sep 07
t_inter[9]
Sep 21
Sep 28
t_inter[10]
Oct 05
Oct 12
t_inter[11]
Oct 19
Oct 26
t_inter[12]
Oct 26
Nov 02
Nov 09
t_inter[13]
Nov 09
Nov 16
Nov 23
t_inter[14]
Nov 23
Nov 30
t_inter[15]
Dec 09
Dec 11
Dec 13
Dec 15
Dec 17
Dec 19
t_inter[16]
Dec 24
Dec 26
Dec 28
Dec 30
Jan 01
Jan 03


0.0
2.5
5.0
7.5
10.0
12.5
ini_exposed


sigma_obs[1]
0
25
50
75
100
sigma_obs[2]
0
10
20
30
40
sigma_obs[3]
0
50
100
150
sigma_obs[4]
1
2
3
4
5