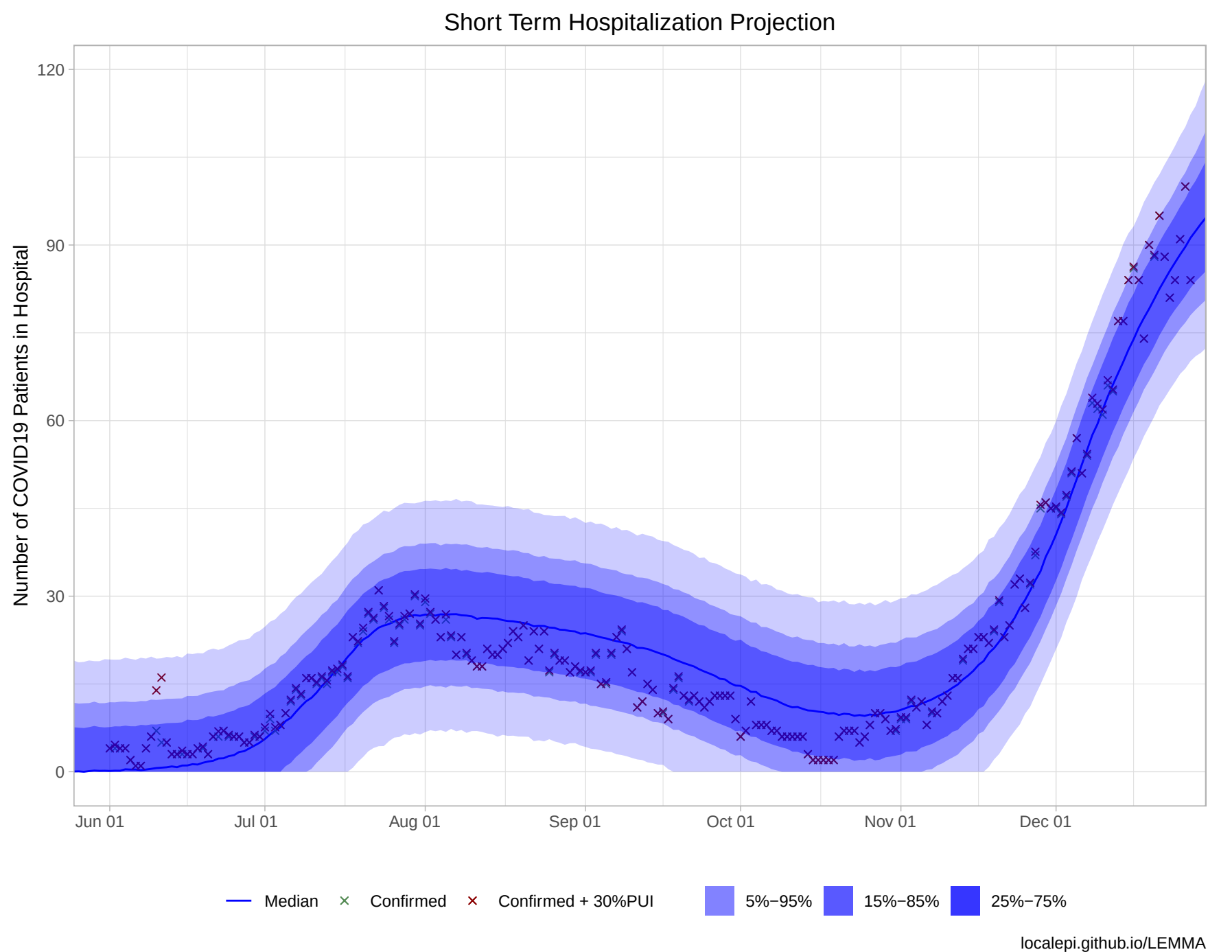
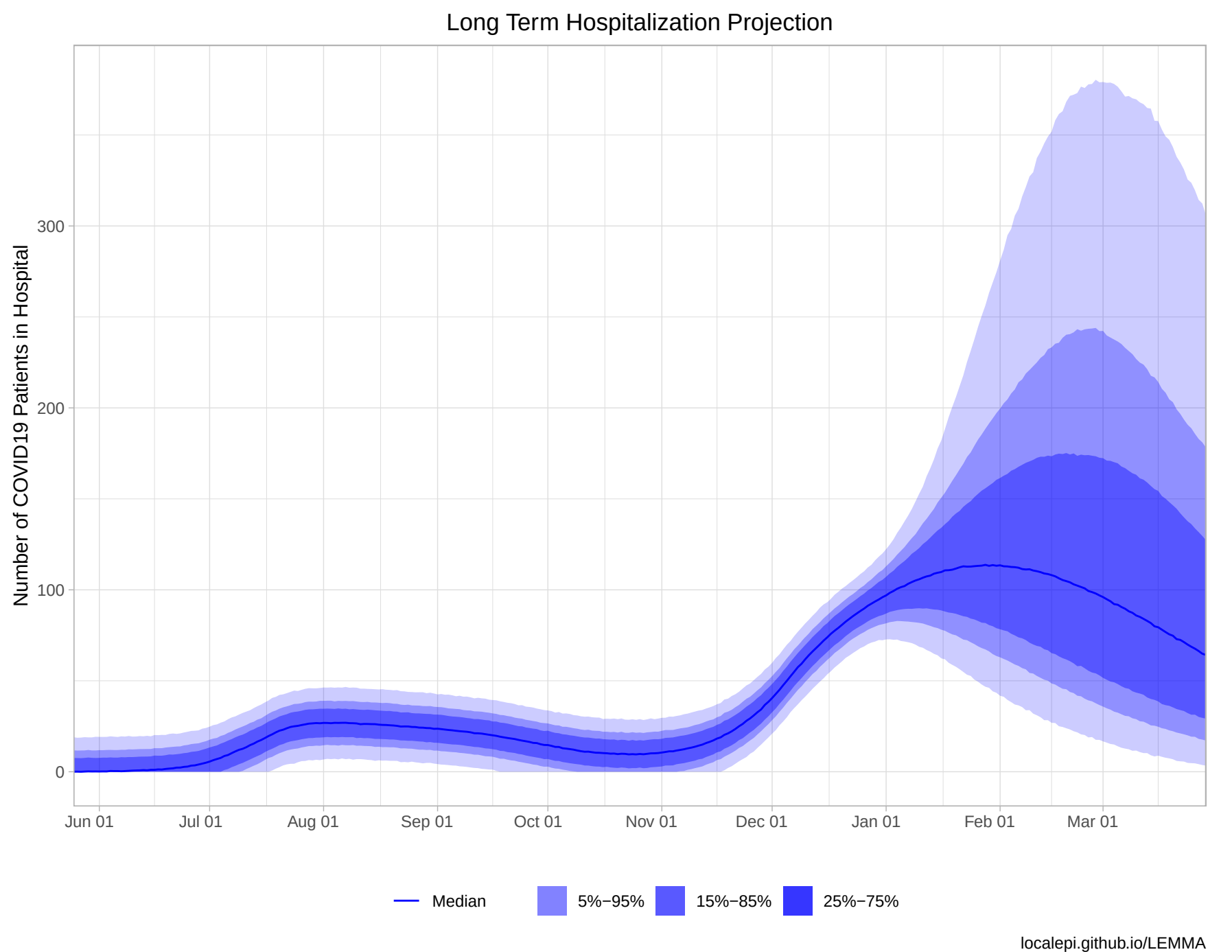
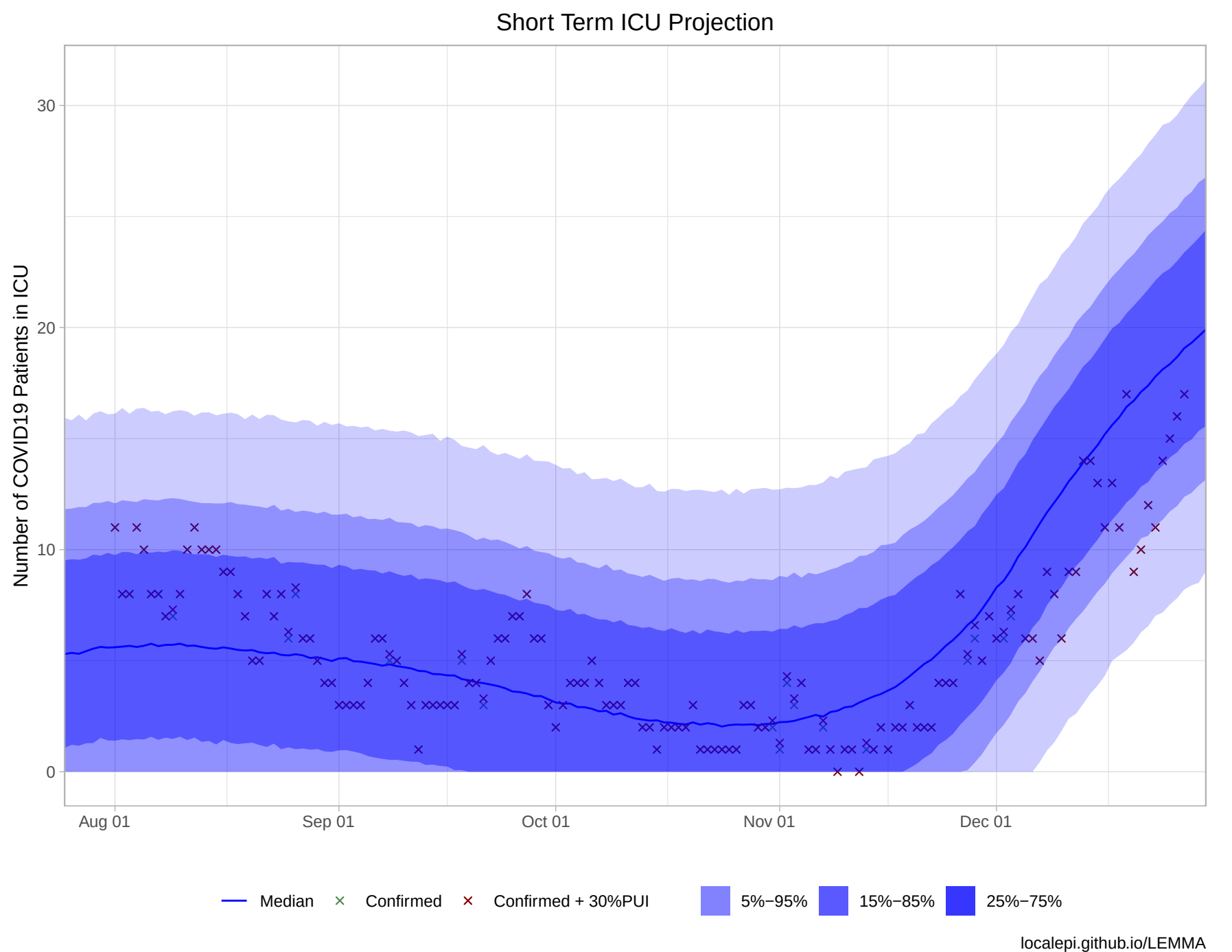
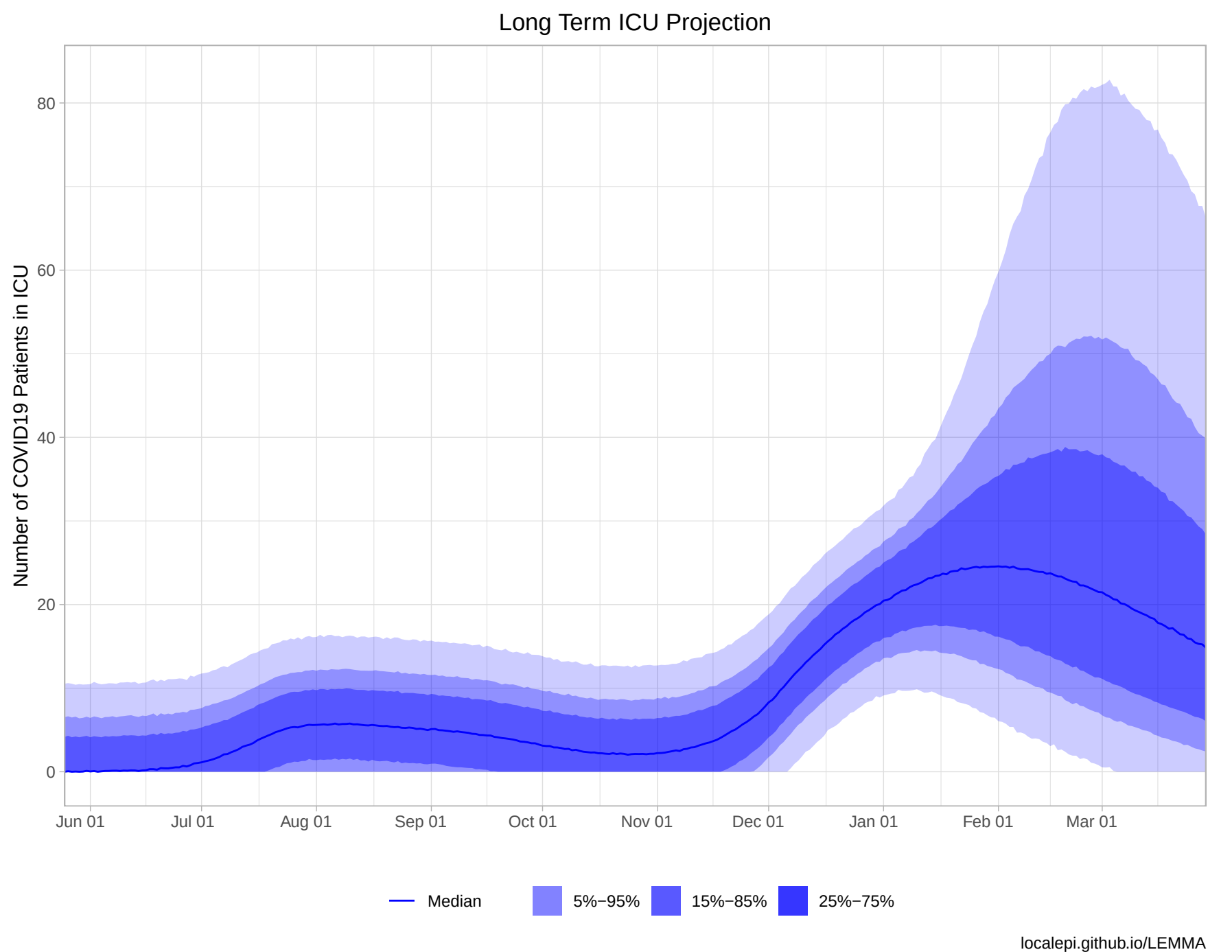
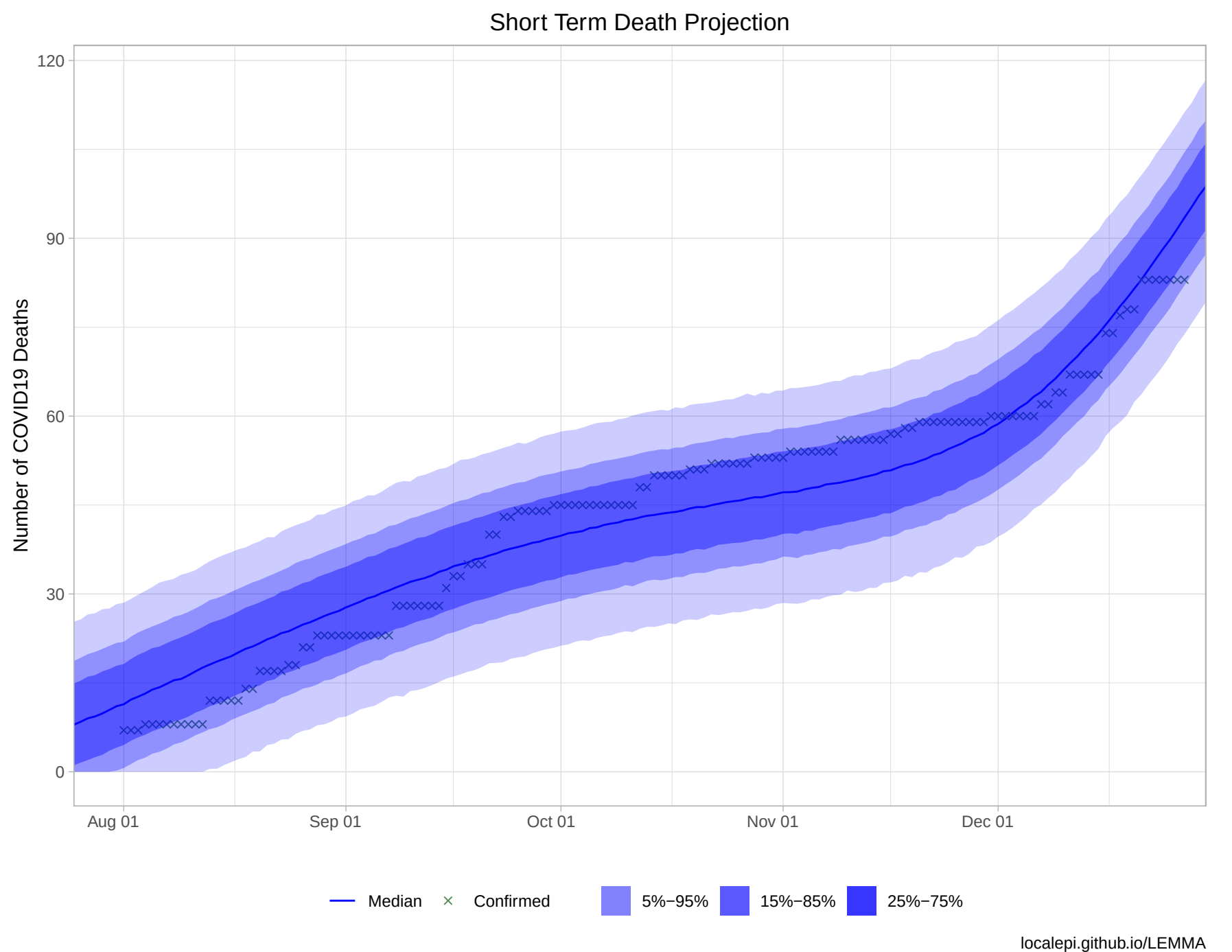
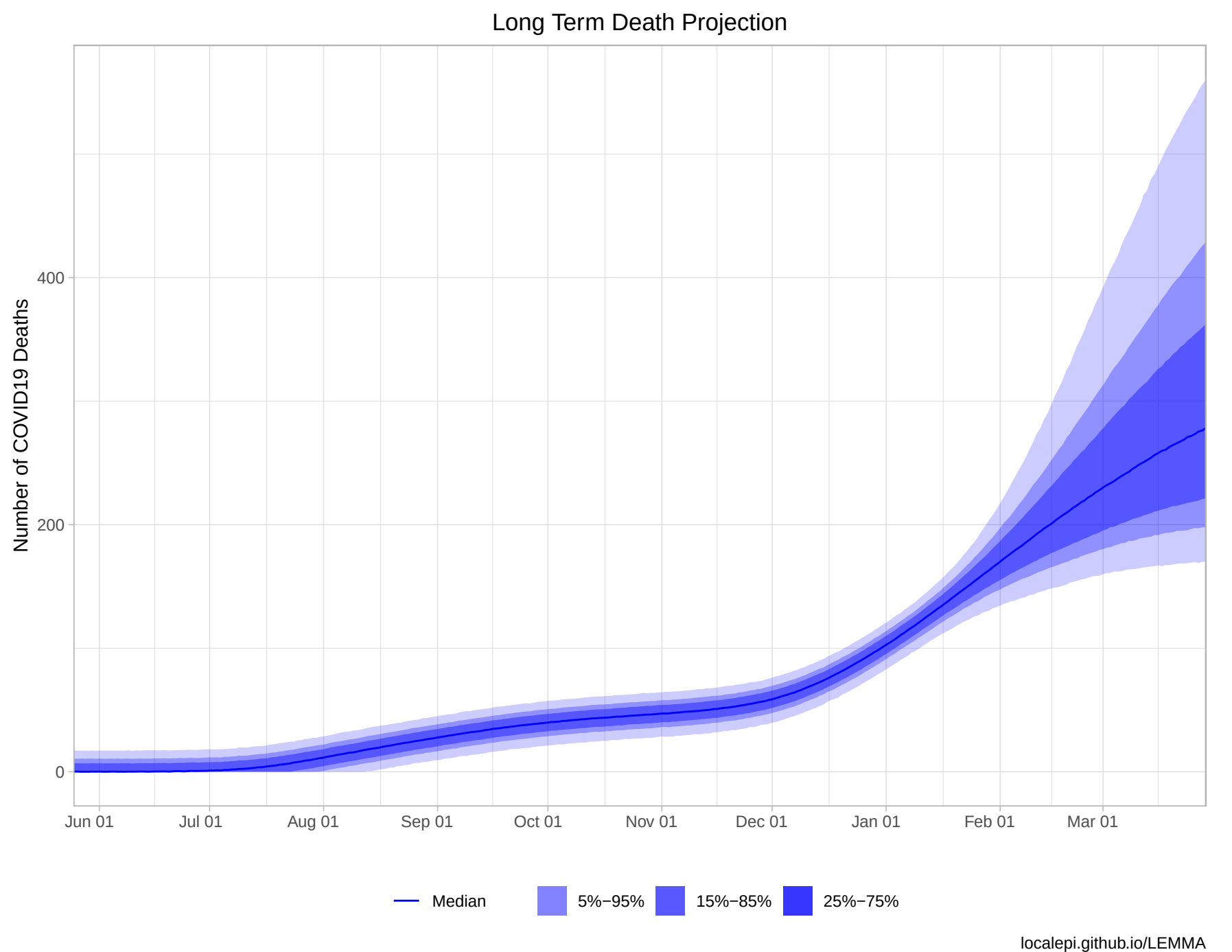

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
120
90
60
30
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

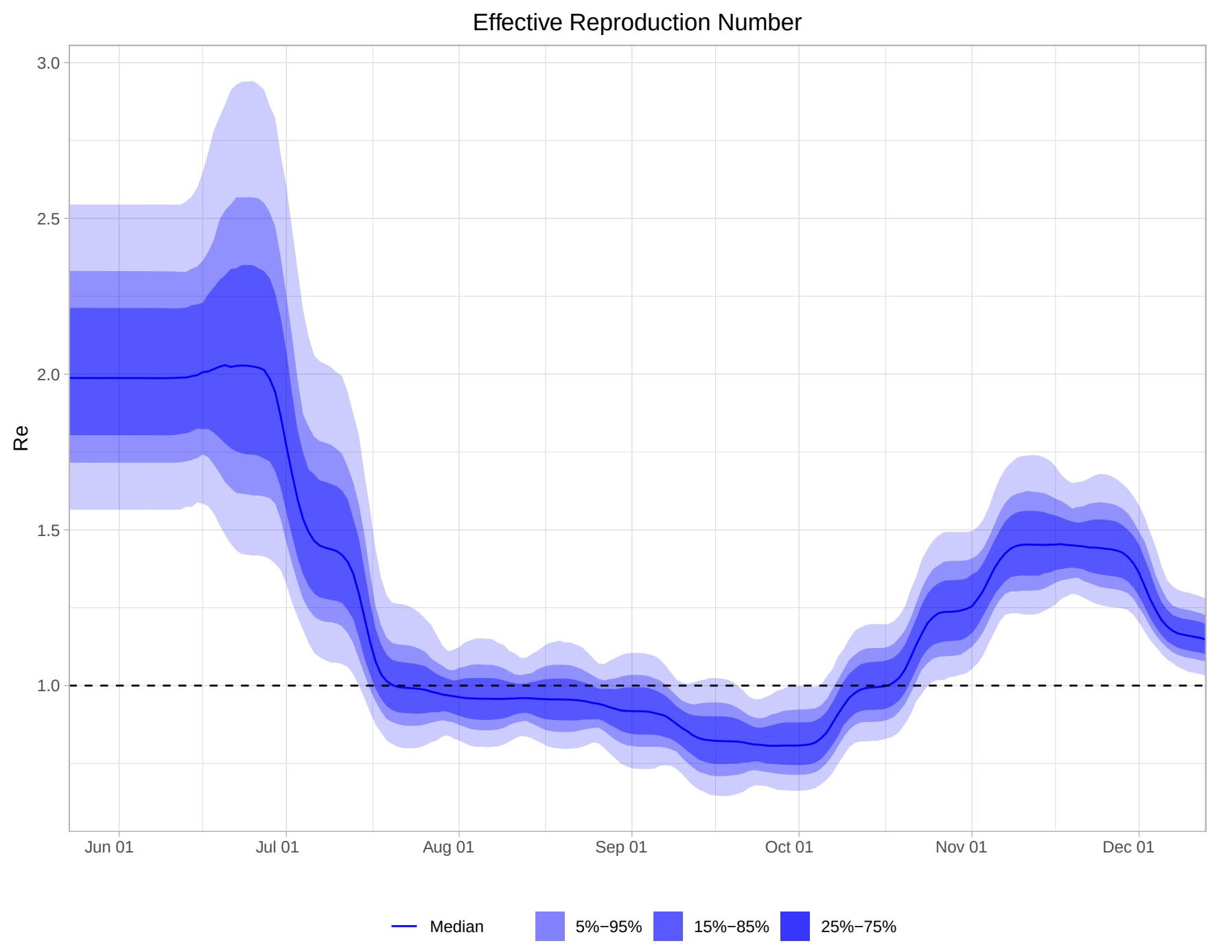

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
300
200
100
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


Short Term ICU Projection
Number of COVID19 Patients in ICU
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
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

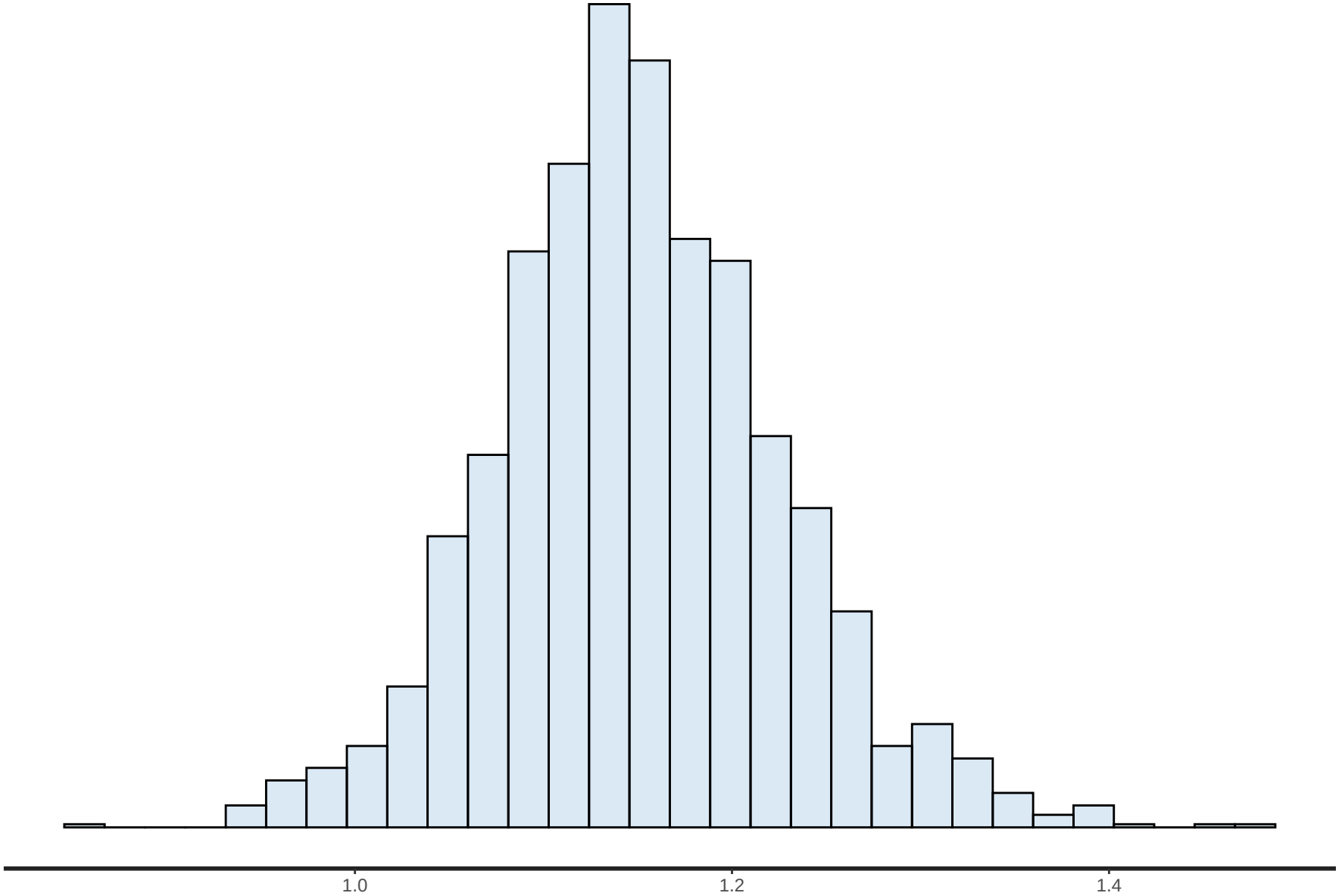

Short Term Death Projection
Number of COVID19 Deaths
120
90
60
30
0
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

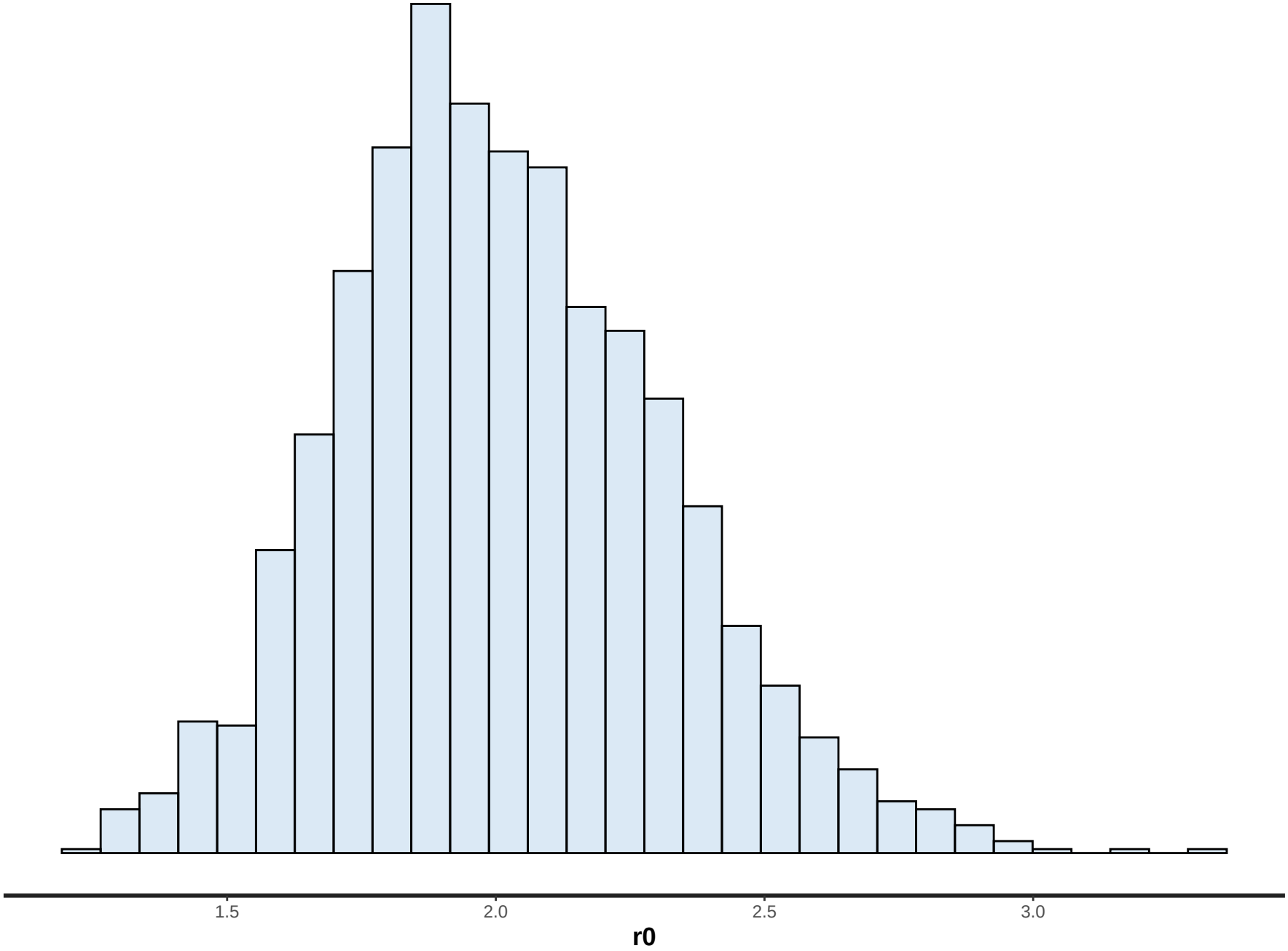

Long Term Death Projection
Number of COVID19 Deaths
400
200
0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

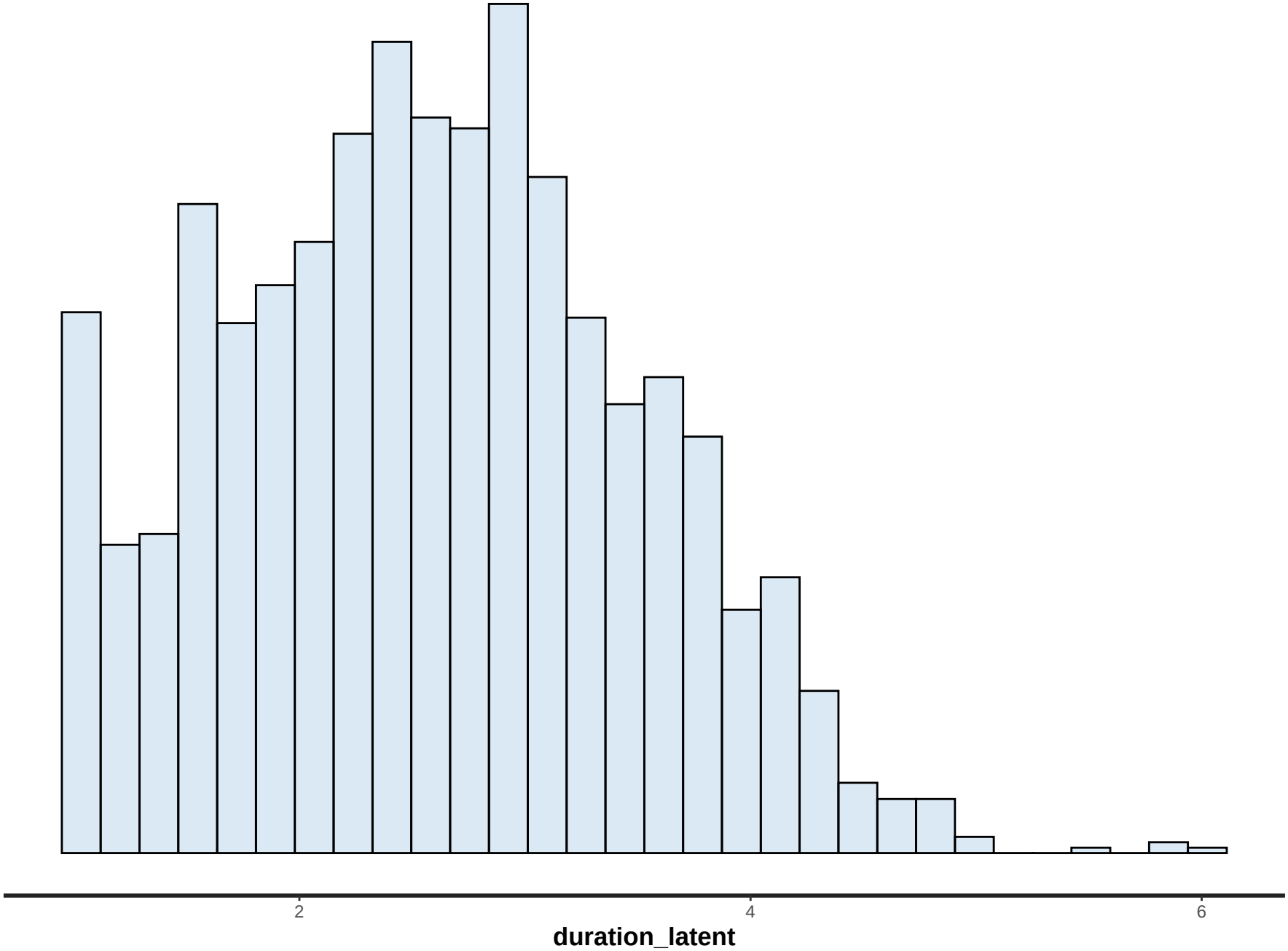

Effective Reproduction Number
Re
3.0
2.5
2.0
1.5
1.0
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

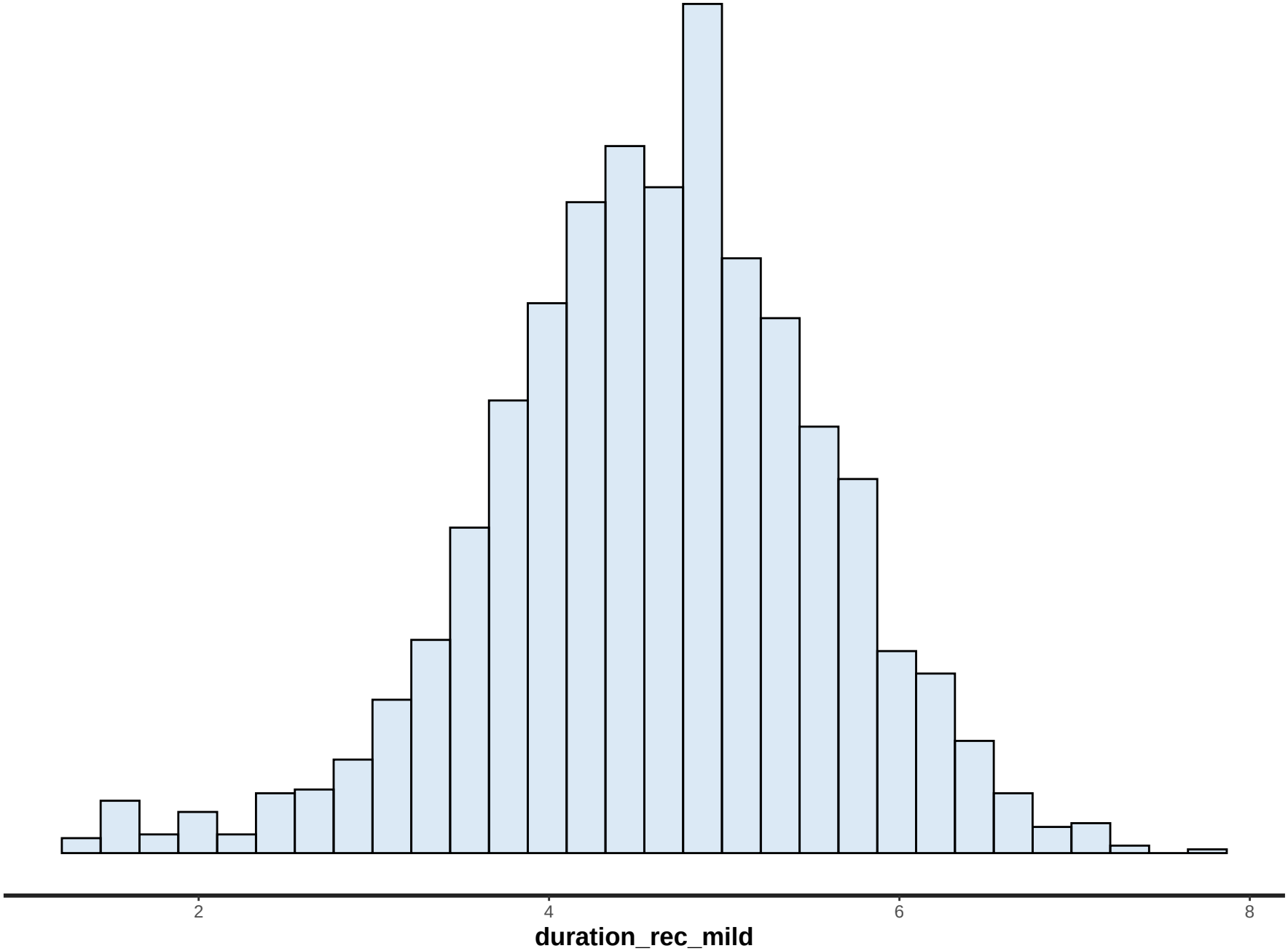
Rt as of 2020−12−13

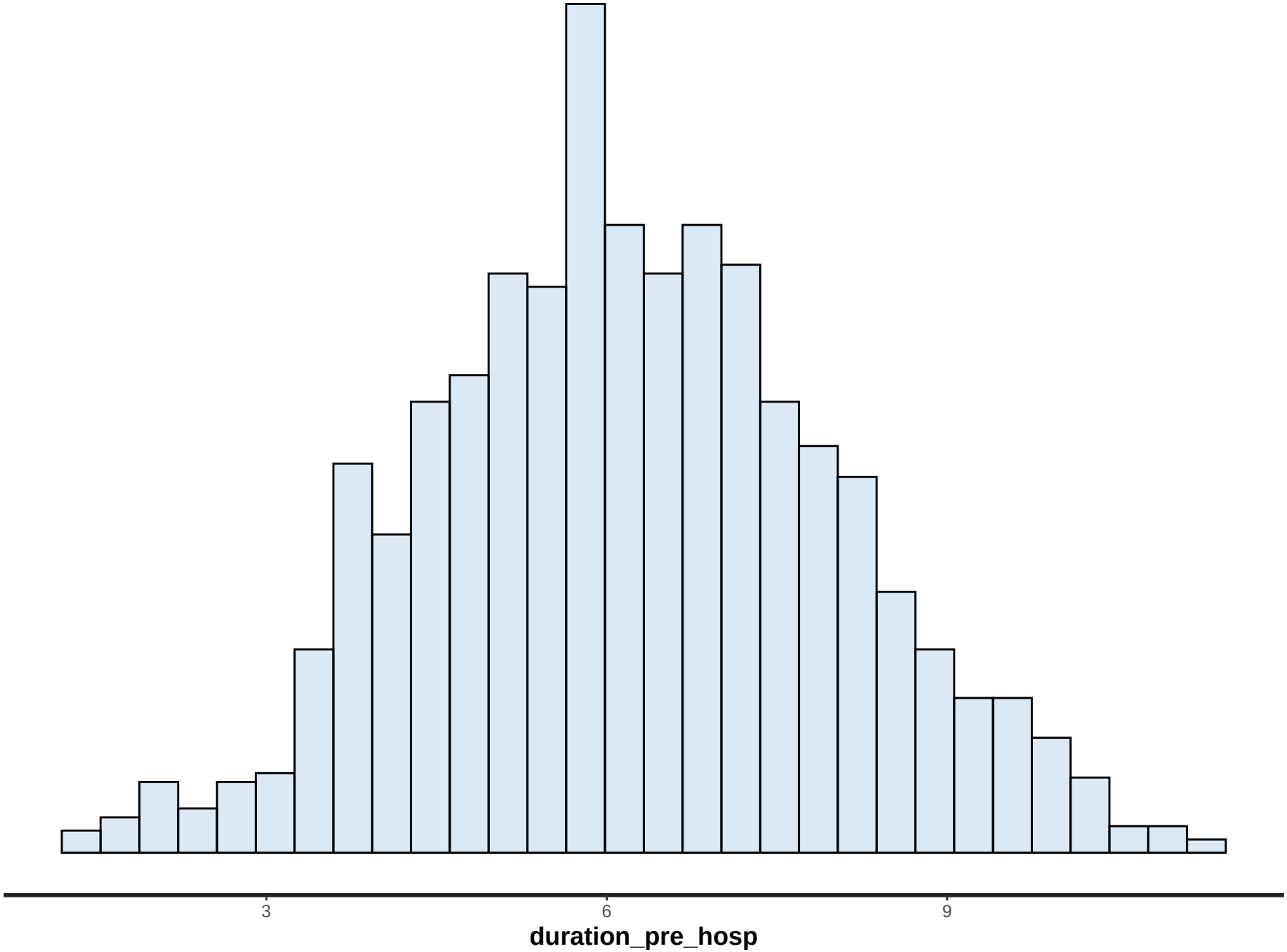
5%	10%	25%	50%	75%	90%	95%
1.03	1.06	1.10	1.15	1.20	1.25	1.28

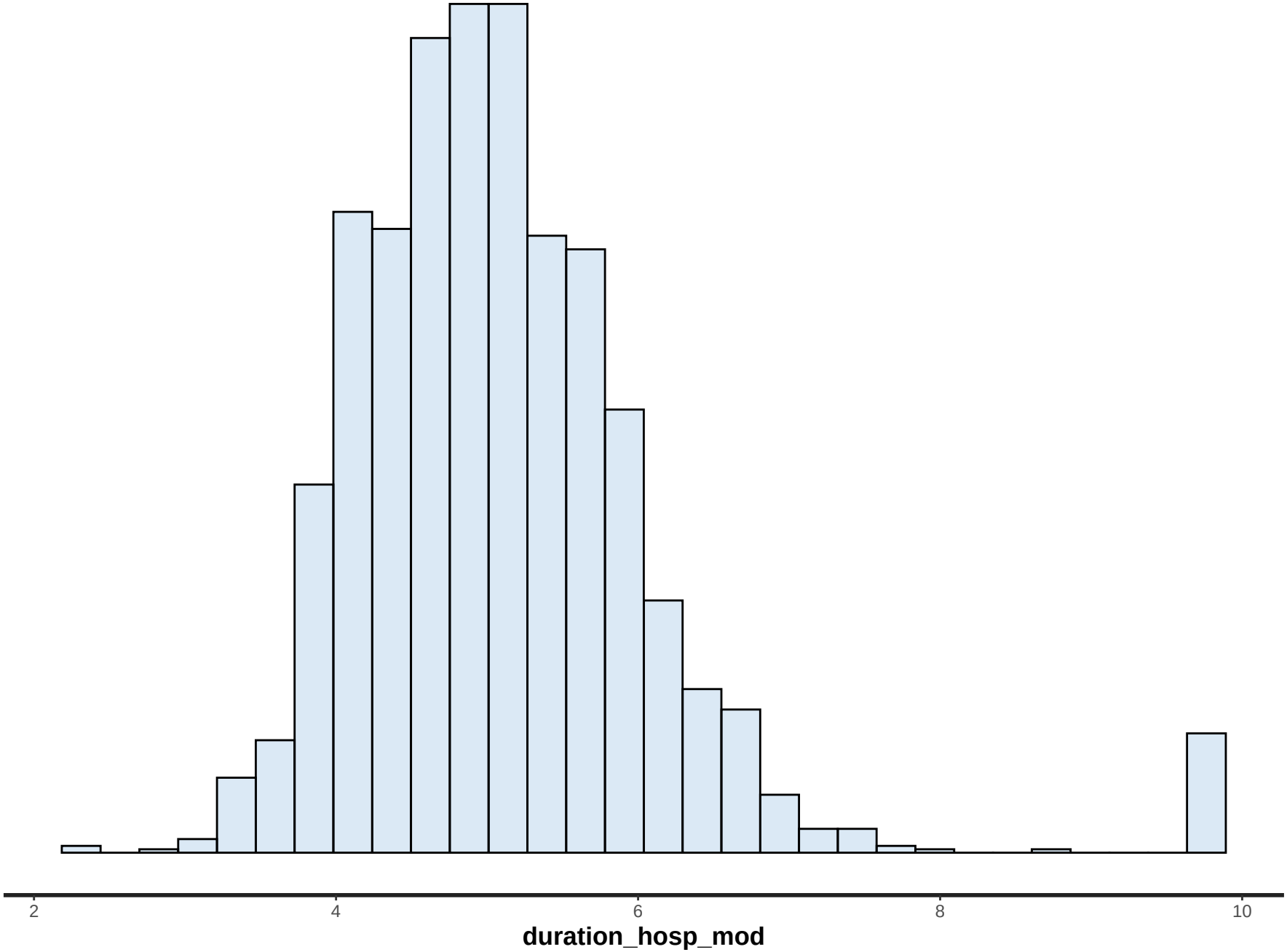


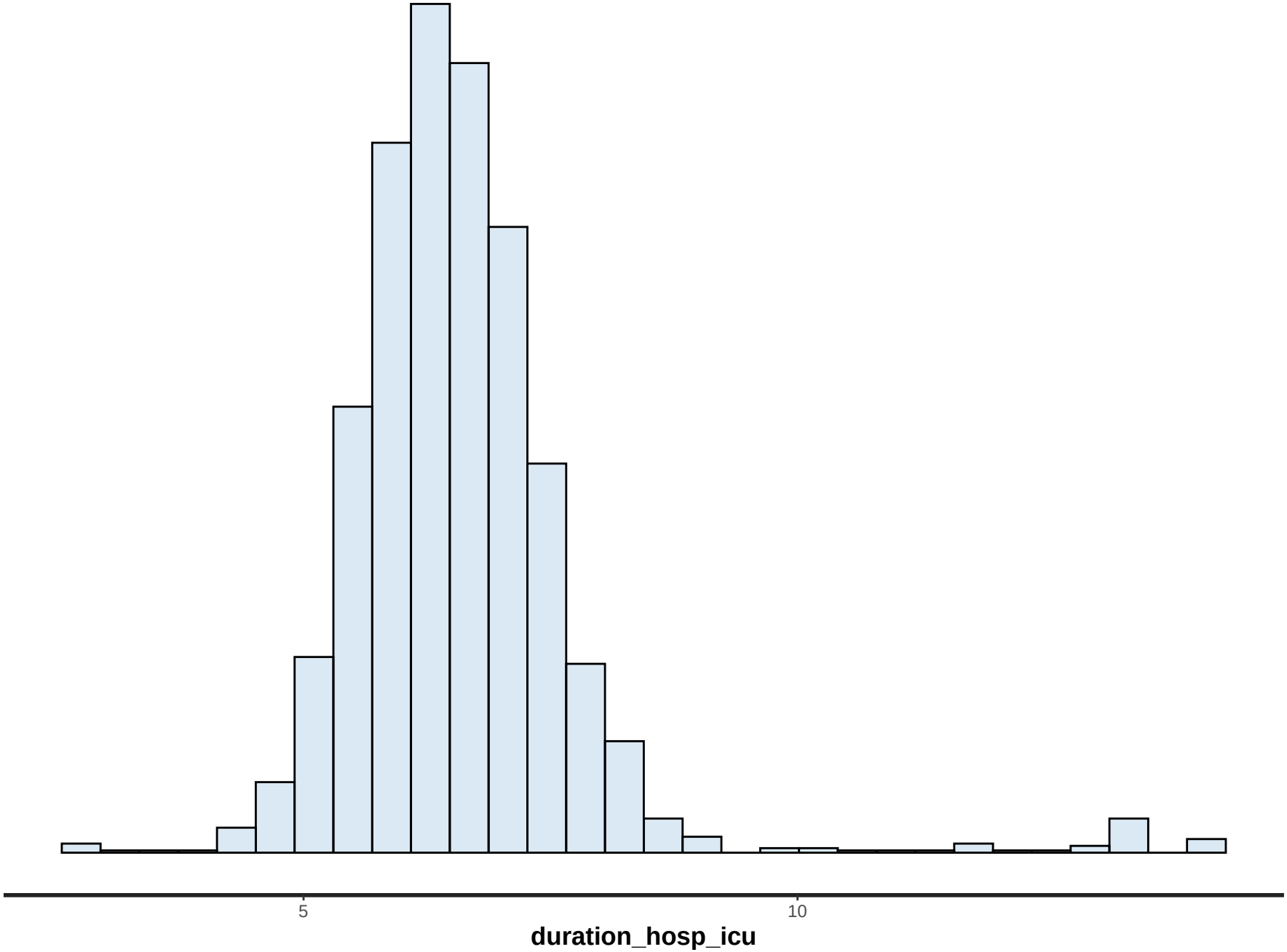

1.5
2.0
2.5
3.0
r0

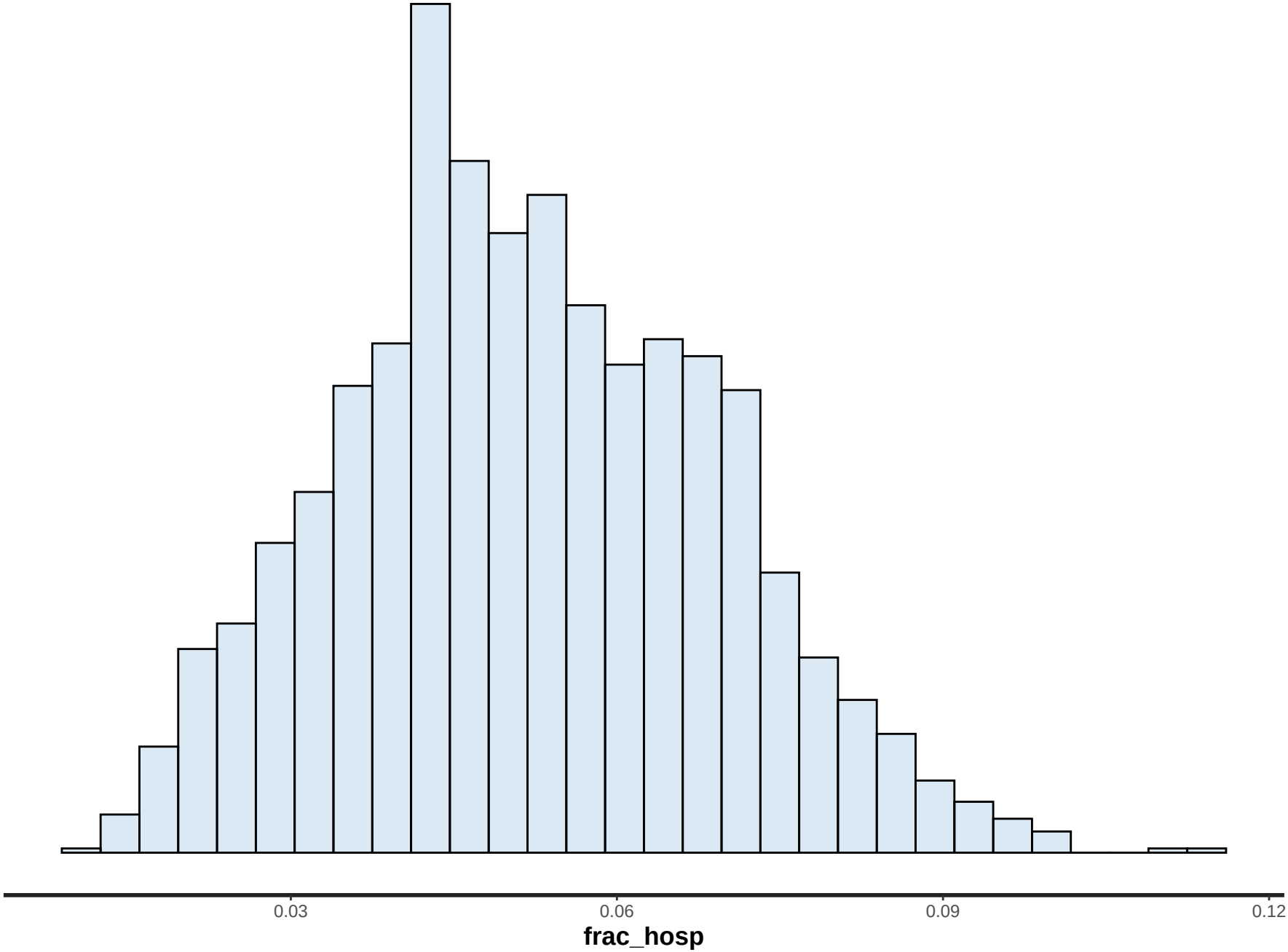

2
4
6
duration_latent

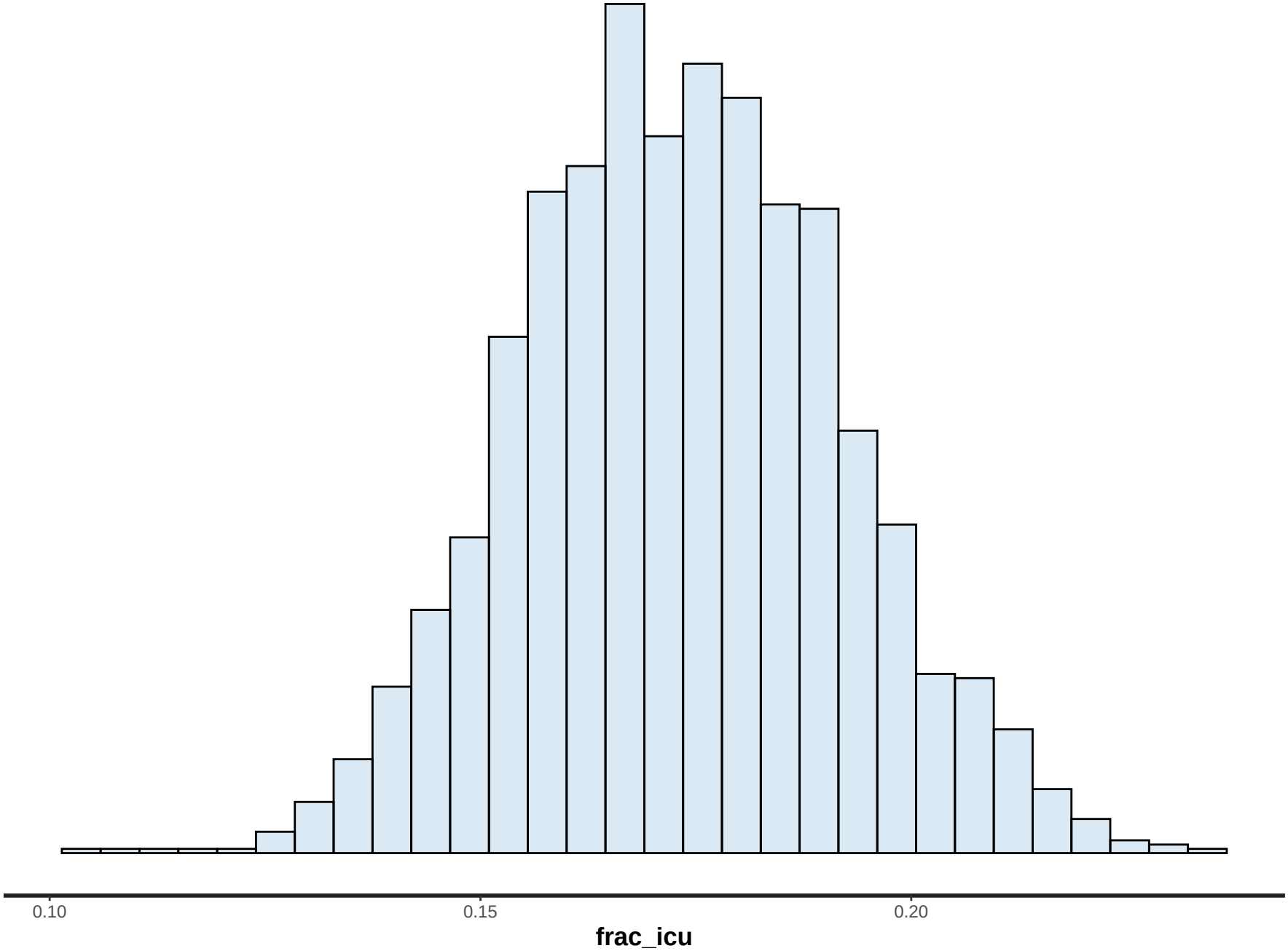

2
4
6
8
duration_rec_mild

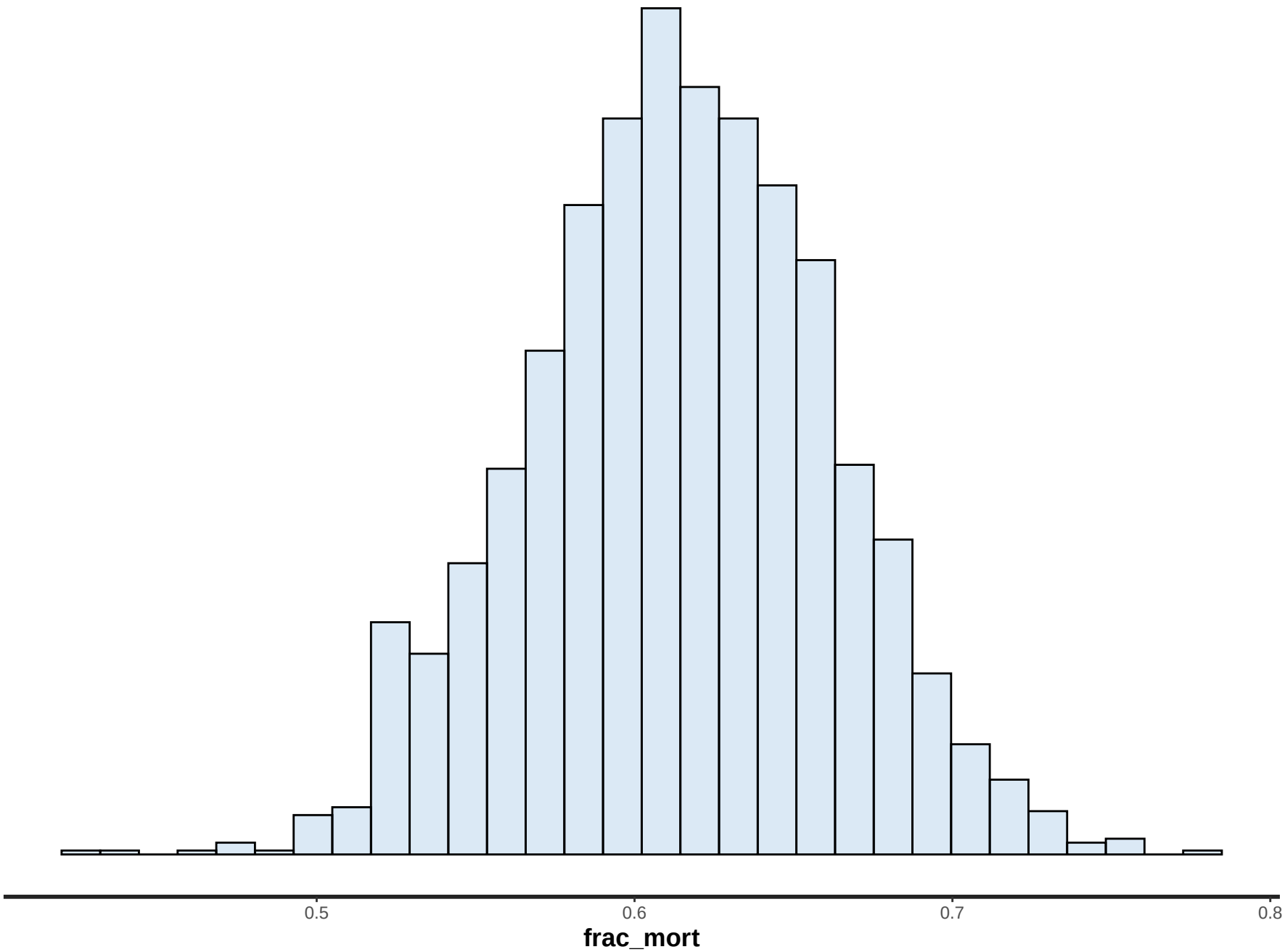

3
6
9
duration_pre_hosp

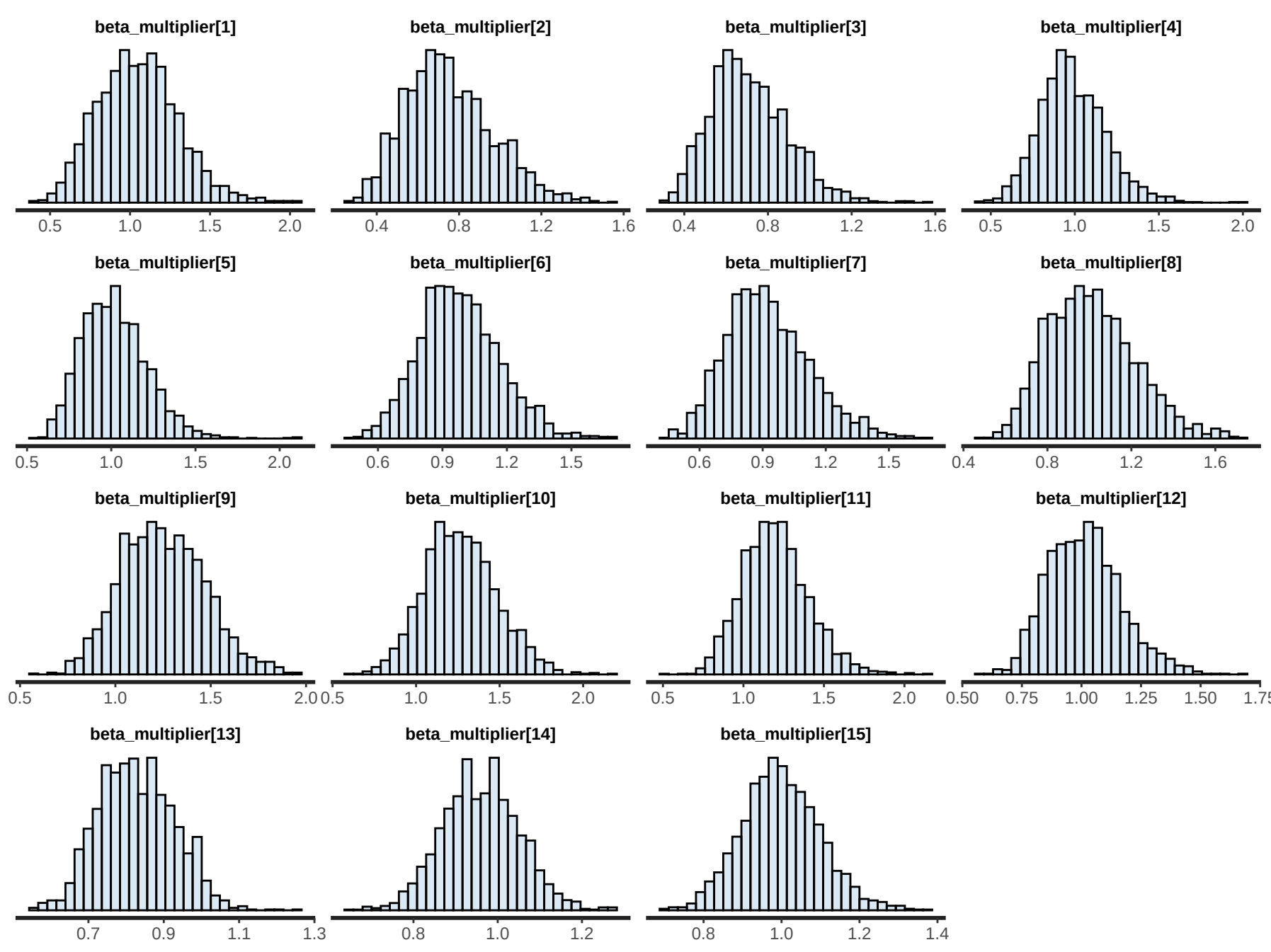

2
4
6
8
10
duration_hosp_mod


5
10
duration_hosp_icu


0.03
0.06
0.09
0.12
frac_hosp


0.10
0.15
0.20
frac_icu


0.5
0.6
0.7
0.8
frac_mort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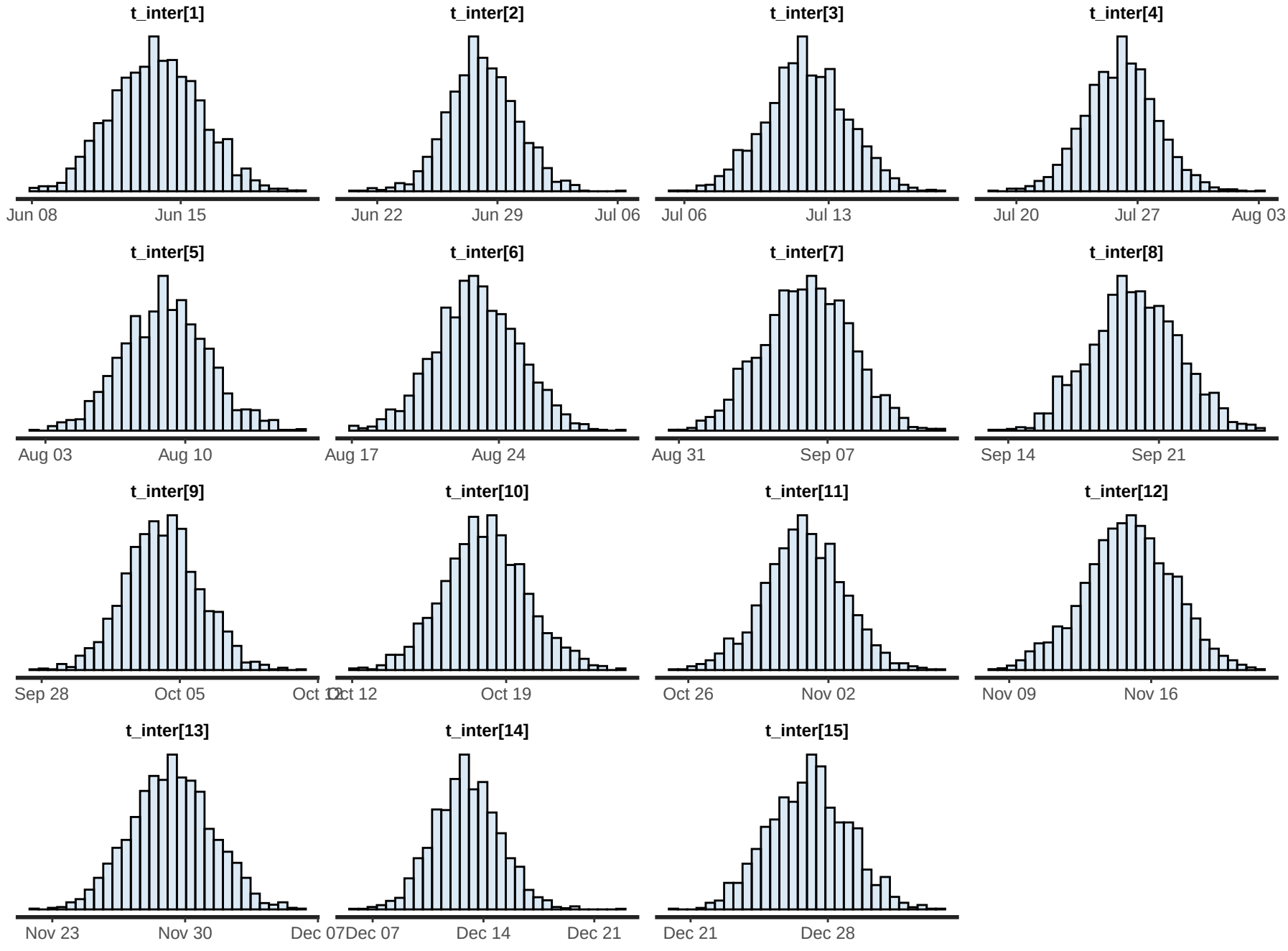
beta_multiplier[2]
0.4 0.8 1.2 1.6
beta_multiplier[3]
0.4 0.8 1.2 1.6
beta_multiplier[4]
0.5 1.0 1.5 2.0
beta_multiplier[5]
0.5 1.0 1.5 2.0
beta_multiplier[6]
0.6 0.9 1.2 1.5
beta_multiplier[7]
0.6 0.9 1.2 1.5
beta_multiplier[8]
0.4 0.8 1.2 1.6
beta_multiplier[9]
0.5 1.0 1.5 2.0
beta_multiplier[10]
0.5 1.0 1.5 2.0
beta_multiplier[11]
0.5 1.0 1.5 2.0
beta_multiplier[12]
0.50 0.75 1.00 1.25 1.50 1.75
beta_multiplier[13]
0.7 0.9 1.1 1.3
beta_multiplier[14]
0.8 1.0 1.2
beta_multiplier[15]
0.8 1.0 1.2 1.4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Jun 15
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Jun 22
Jun 29
Jul 06
t_inter[3]
Jul 06
Jul 13
t_inter[4]
Jul 20
Jul 27
Aug 03
t_inter[5]
Aug 03
Aug 10
t_inter[6]
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Aug 24
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Aug 31
Sep 07
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Sep 14
Sep 21
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Sep 28
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Oct 12
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Oct 12
Oct 19
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Oct 26
Nov 02
t_inter[12]
Nov 09
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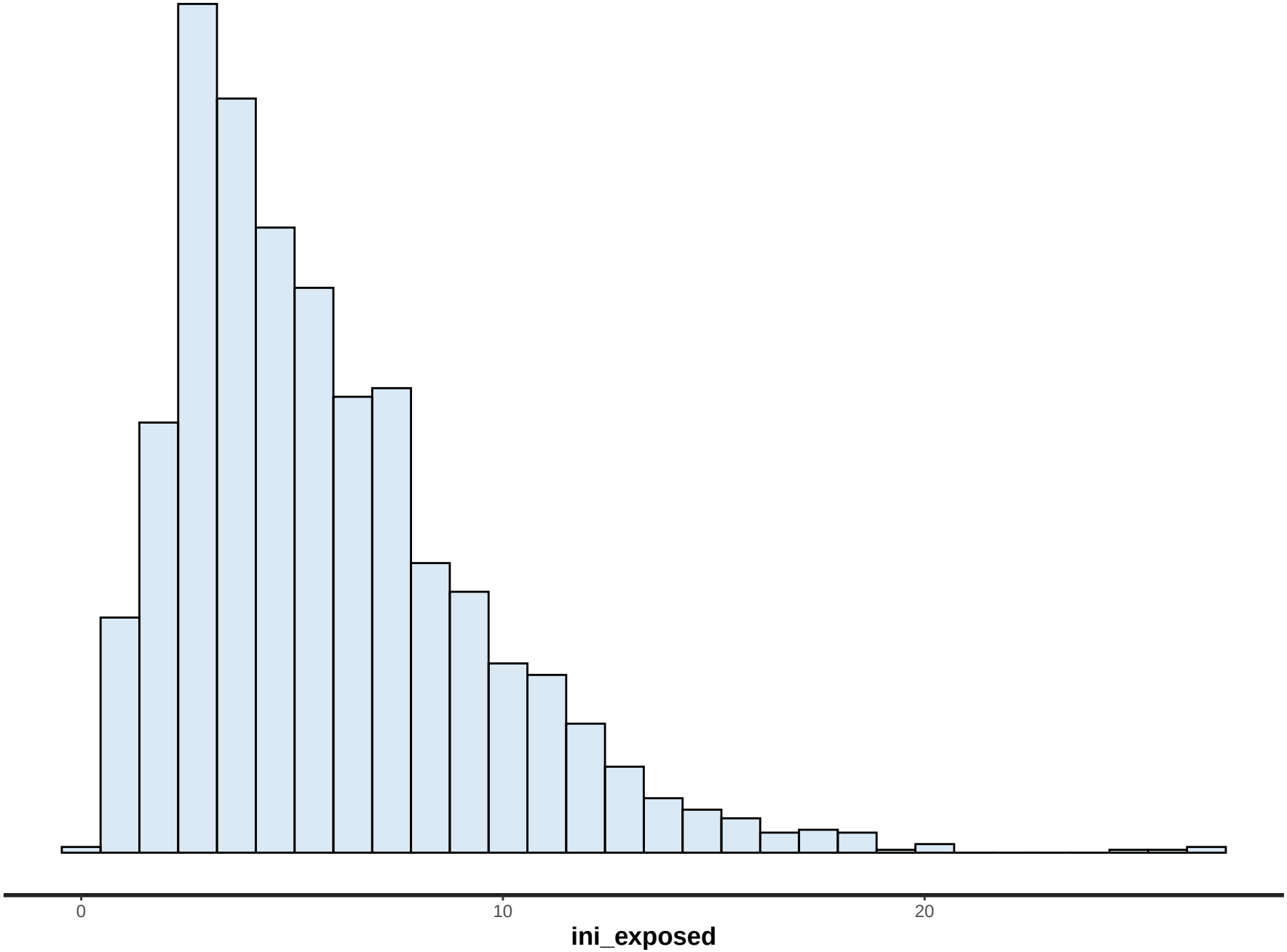
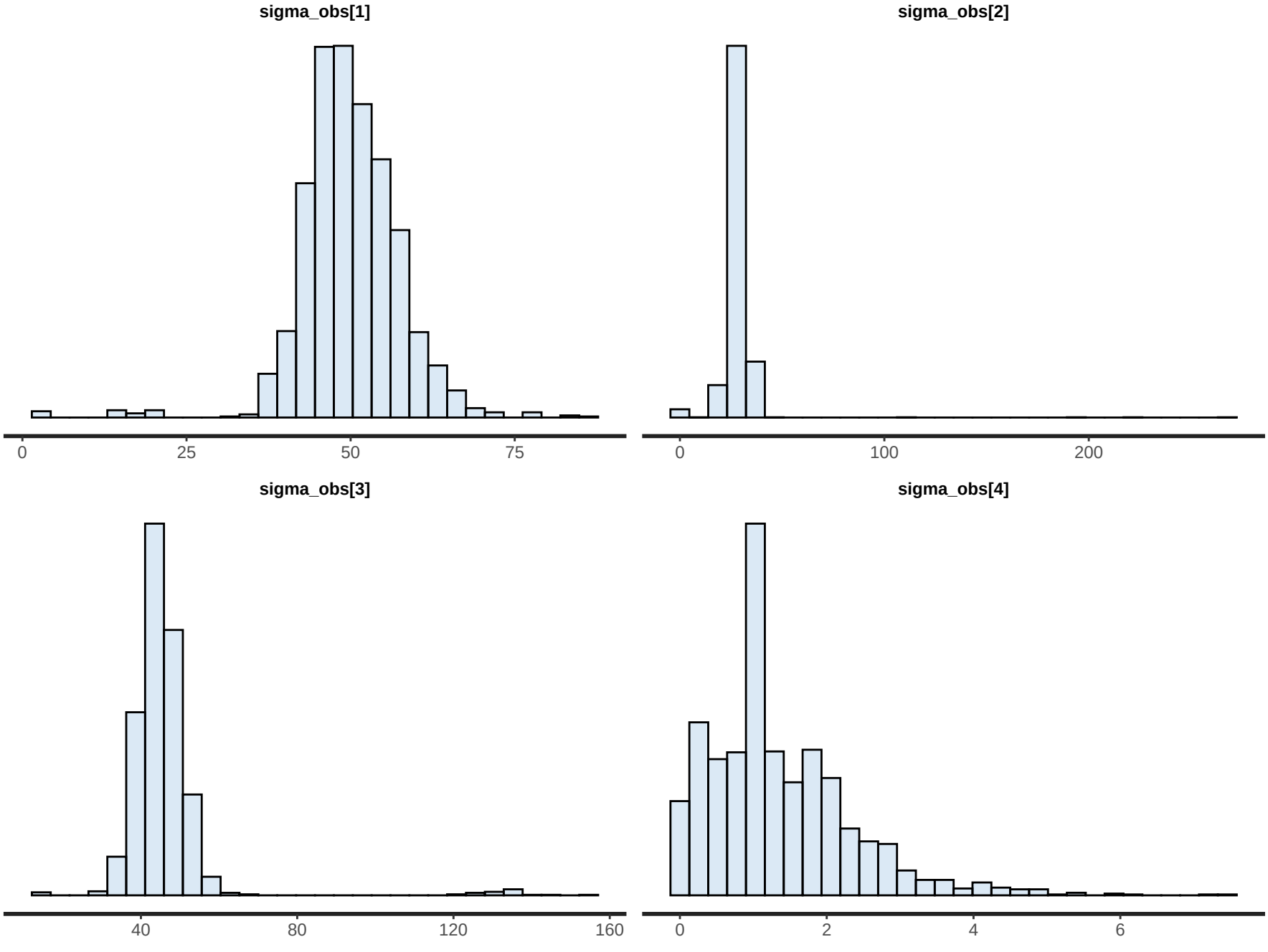
Nov 23
Nov 30
Dec 07
t_inter[14]
Dec 07
Dec 14
Dec 21
t_inter[15]
Dec 21
Dec 28


0
10
20
ini_exposed


sigma_obs[1]
0
25
50
75
sigma_obs[2]
0
100
200
sigma_obs[3]
40
80
120
160
sigma_obs[4]
0
2
4
6