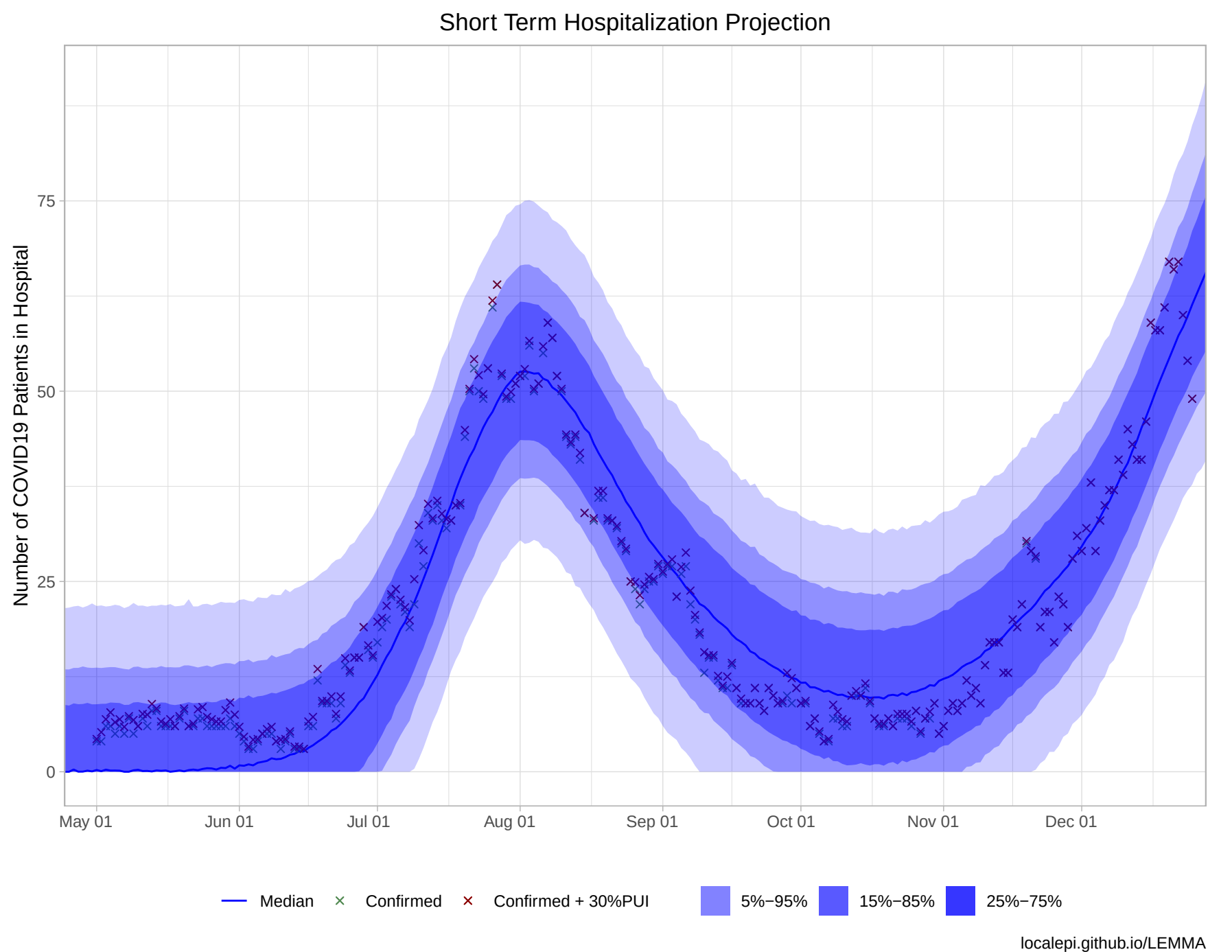
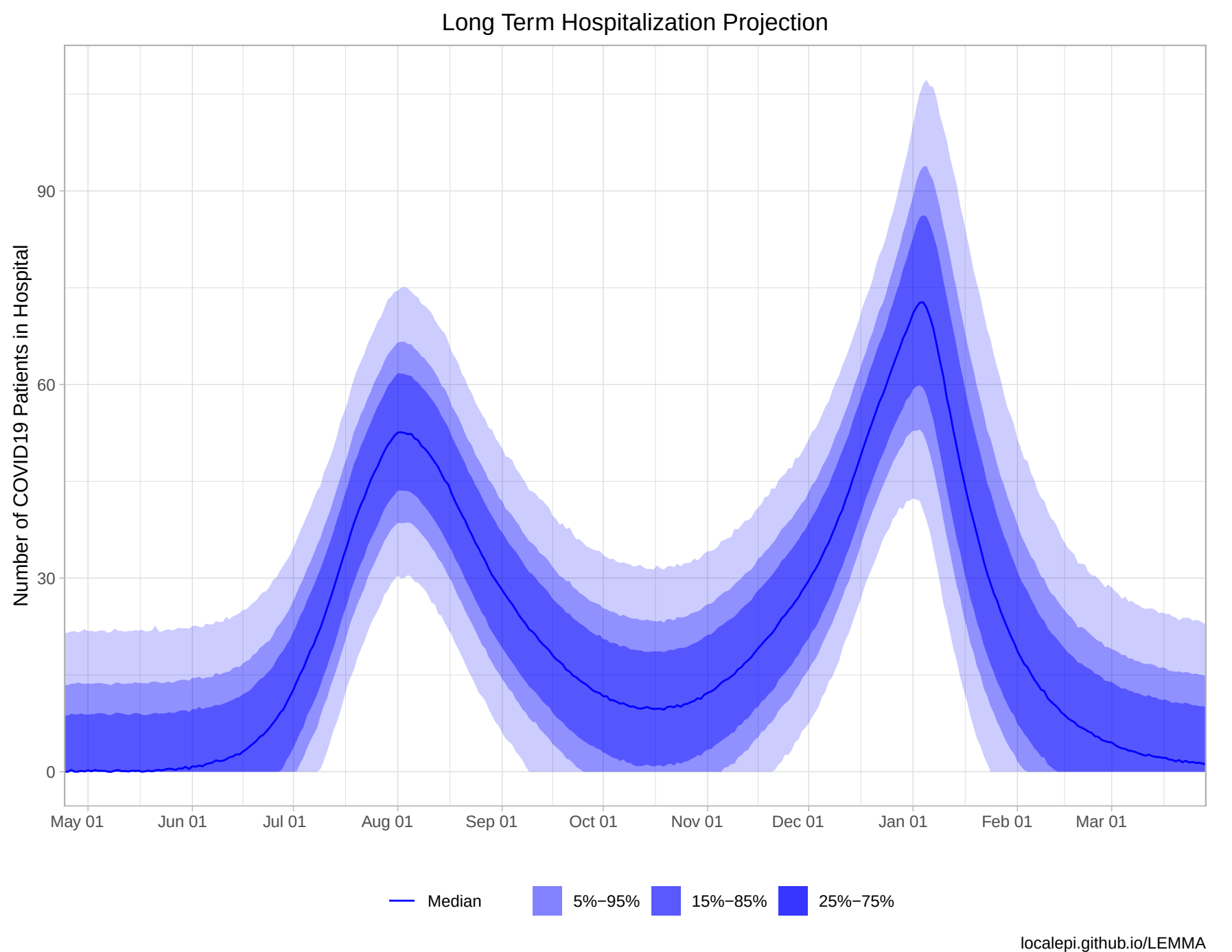
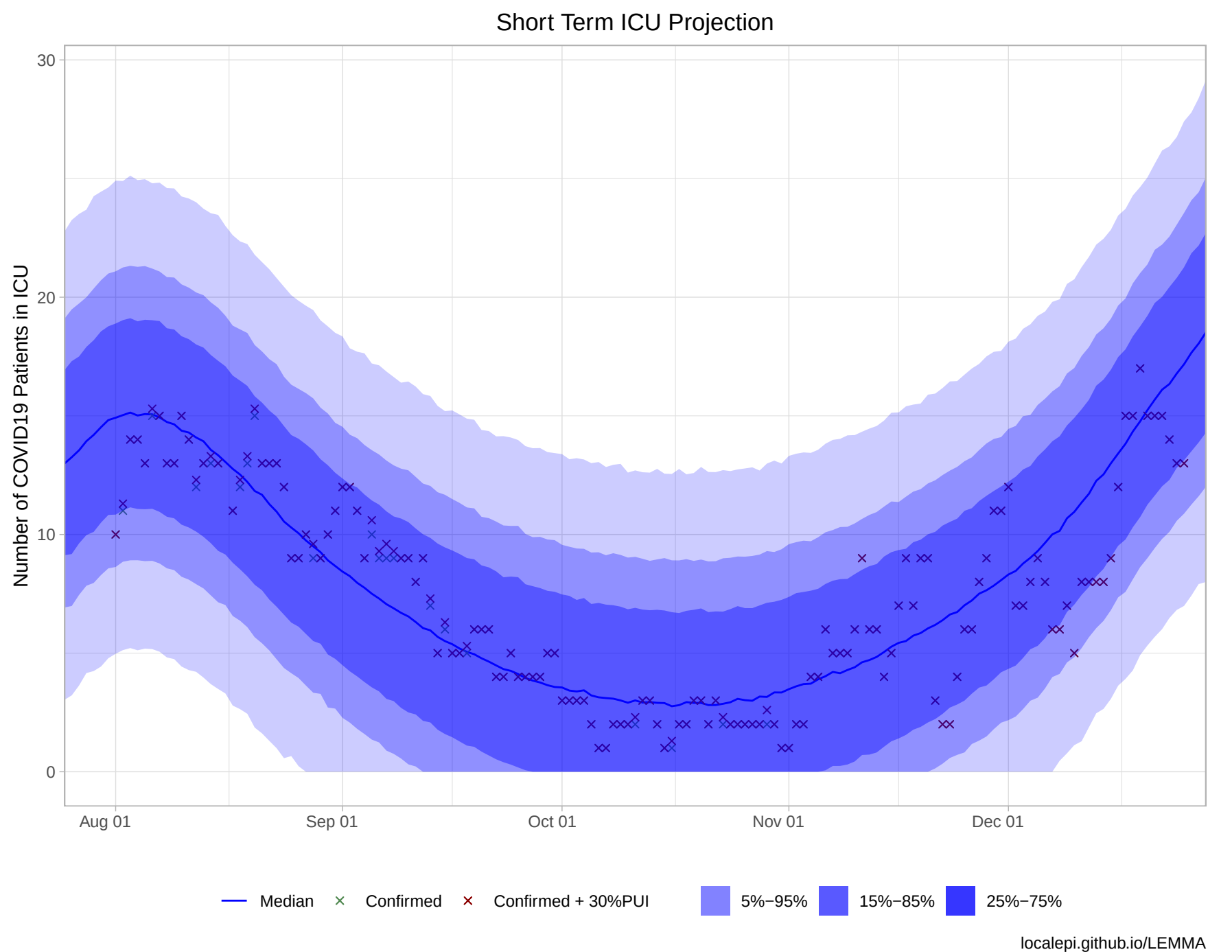
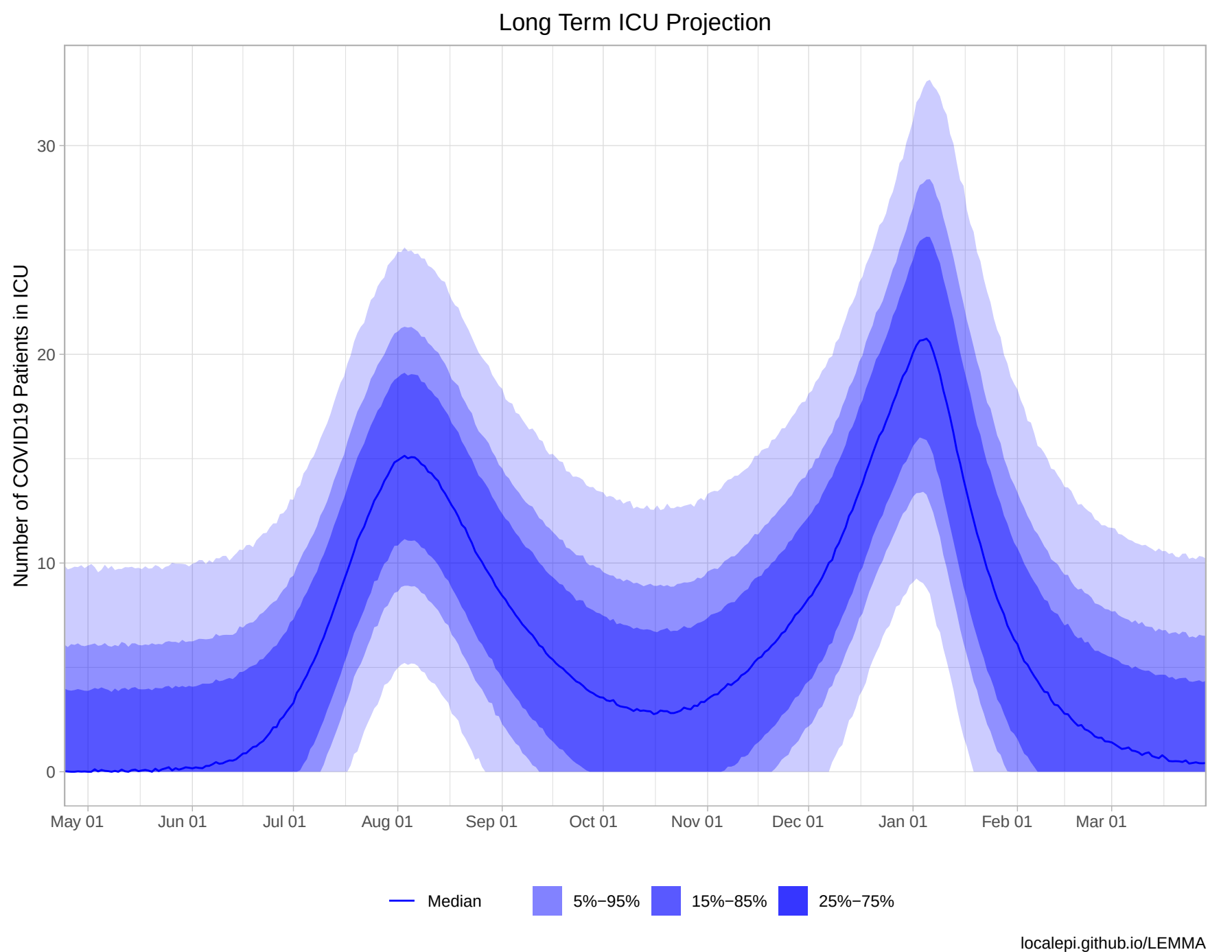
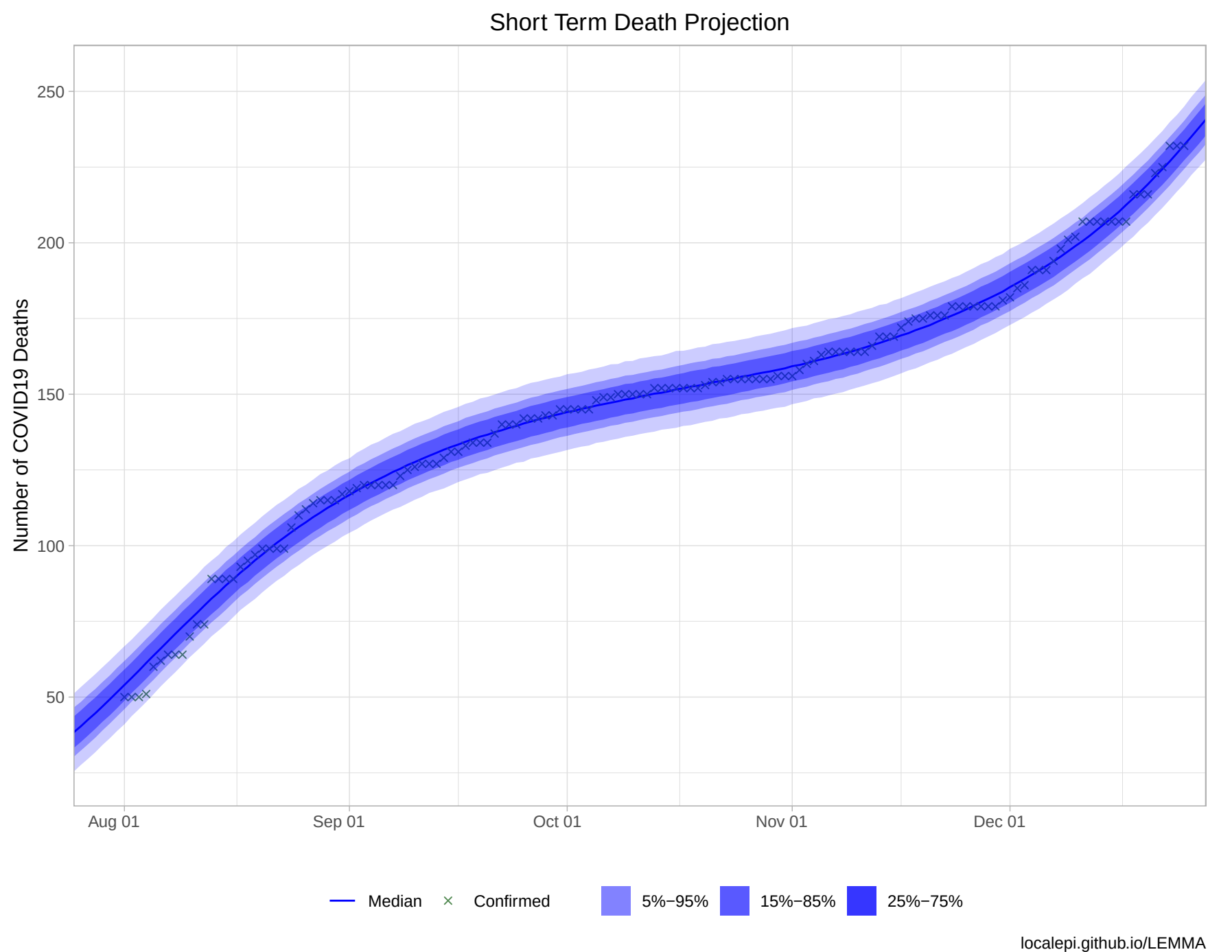
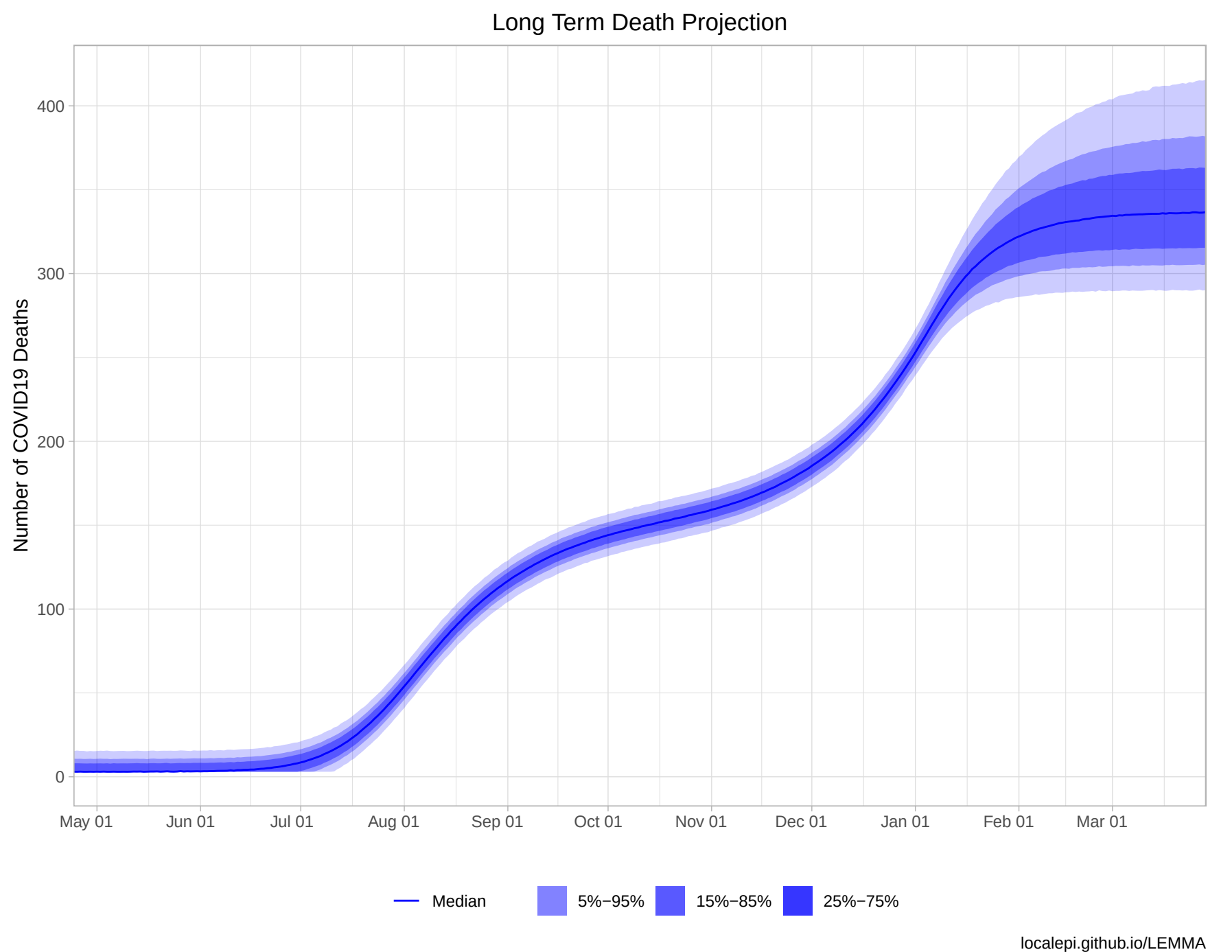

Short Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
25
50
75
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
Confirmed + 30%PUI
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

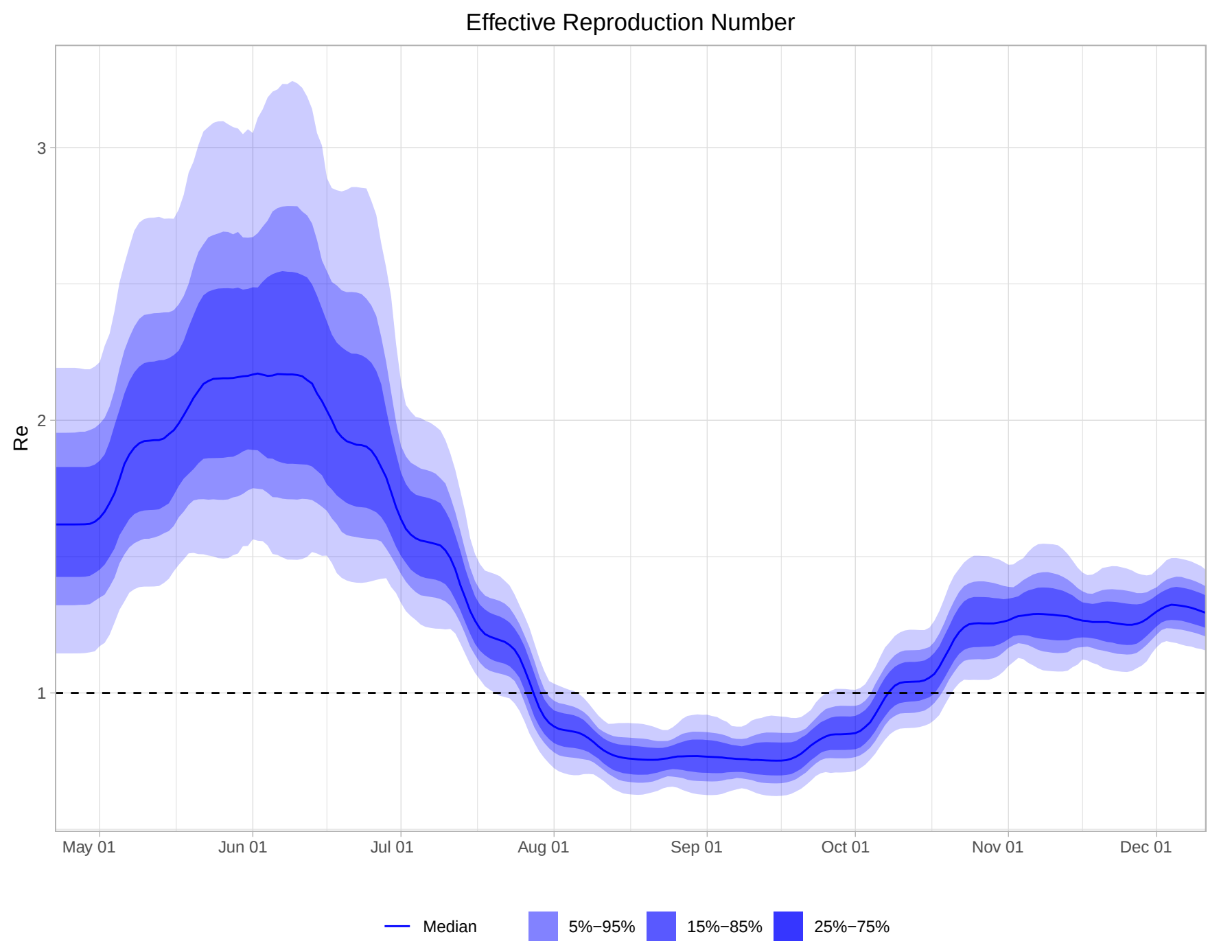

Long Term Hospitalization Projection
Number of COVID19 Patients in Hospital
0
30
60
90
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA


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
30
20
10
0
May 01
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

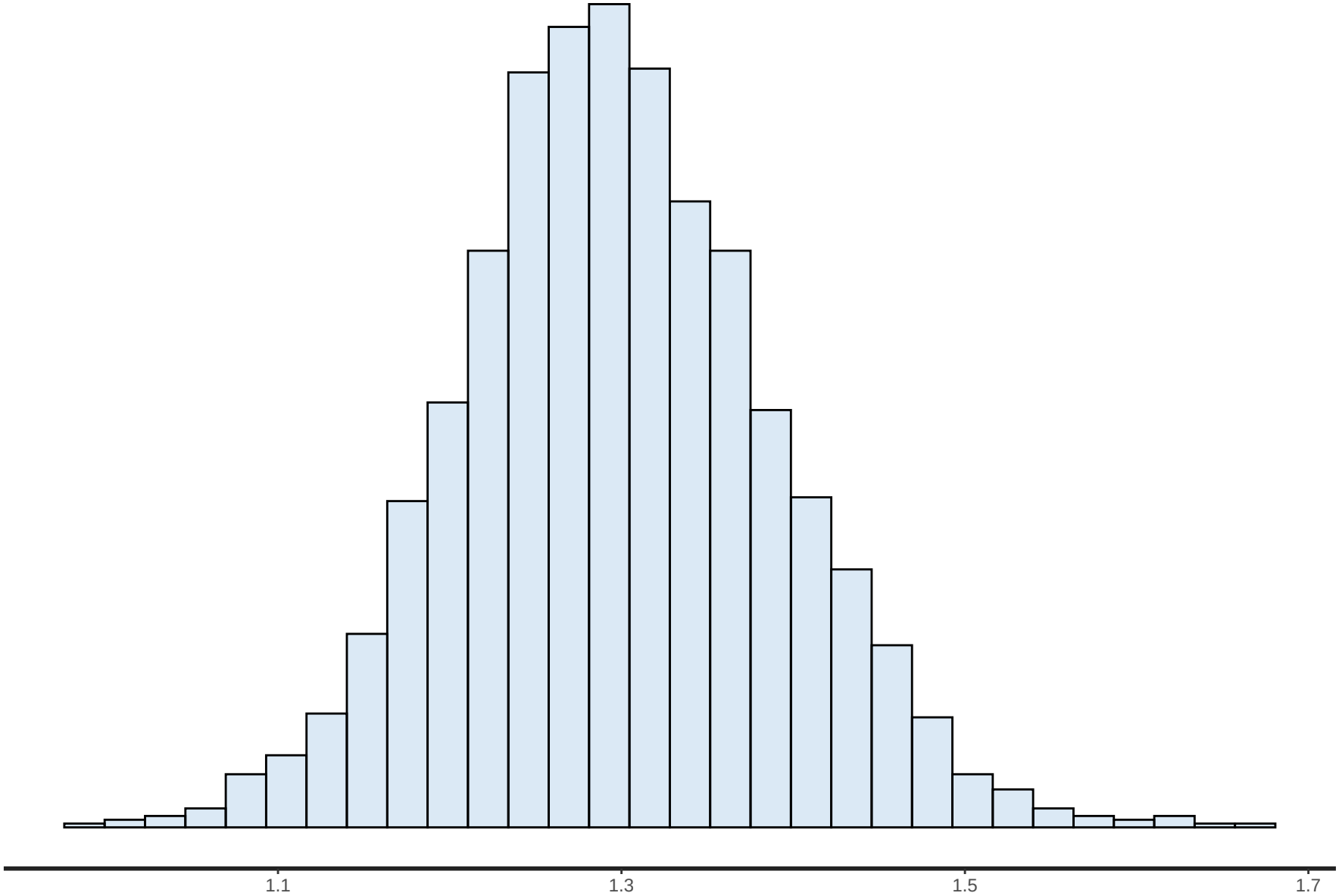

Short Term Death Projection
Number of COVID19 Deaths
250
200
150
100
50
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
Confirmed
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

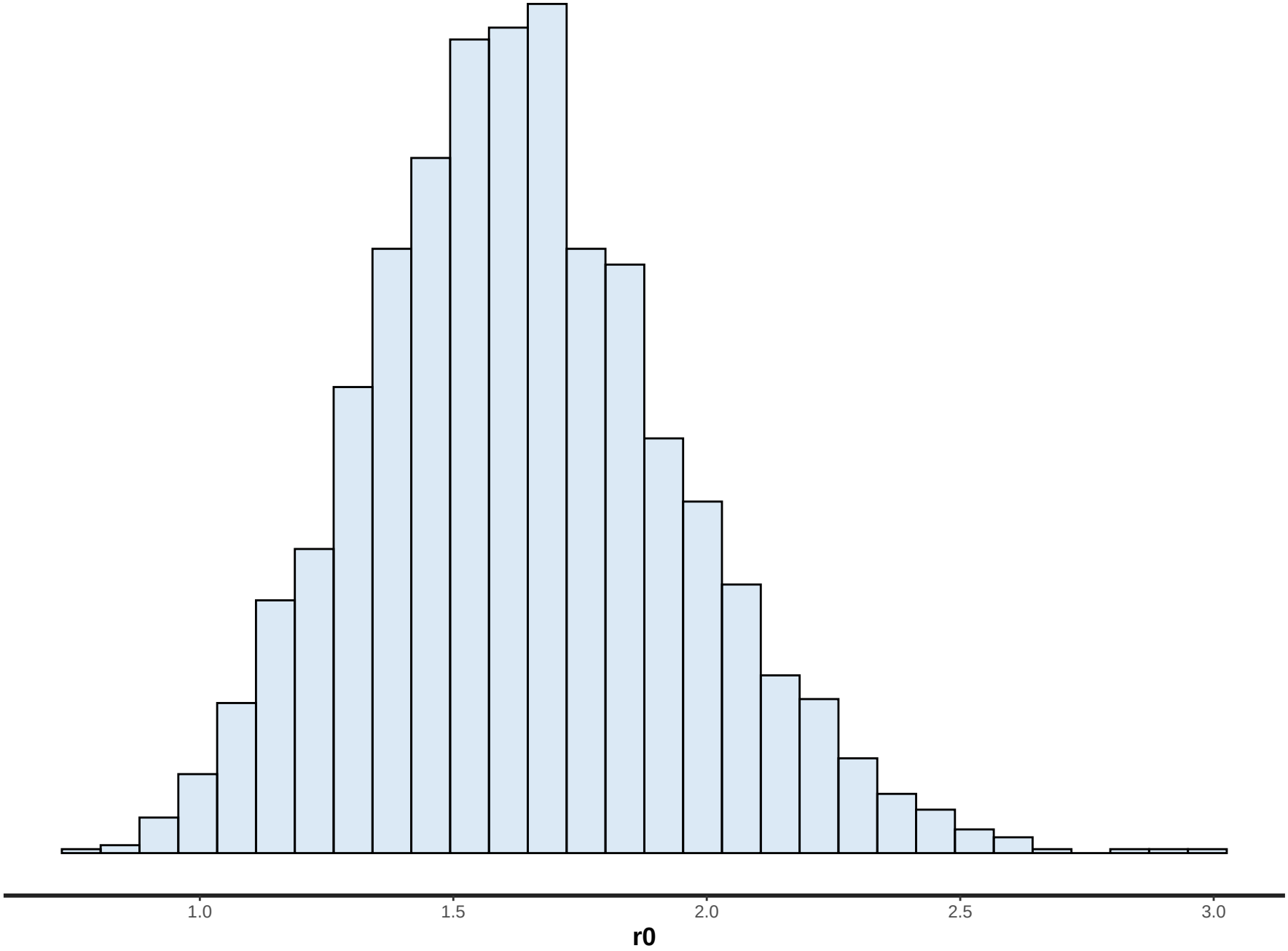

Long Term Death Projection
Number of COVID19 Deaths
400
300
200
100
0
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Jan 01
Feb 01
Mar 01
Median
5%−95%
15%−85%
25%−75%
localepi.github.io/LEMMA

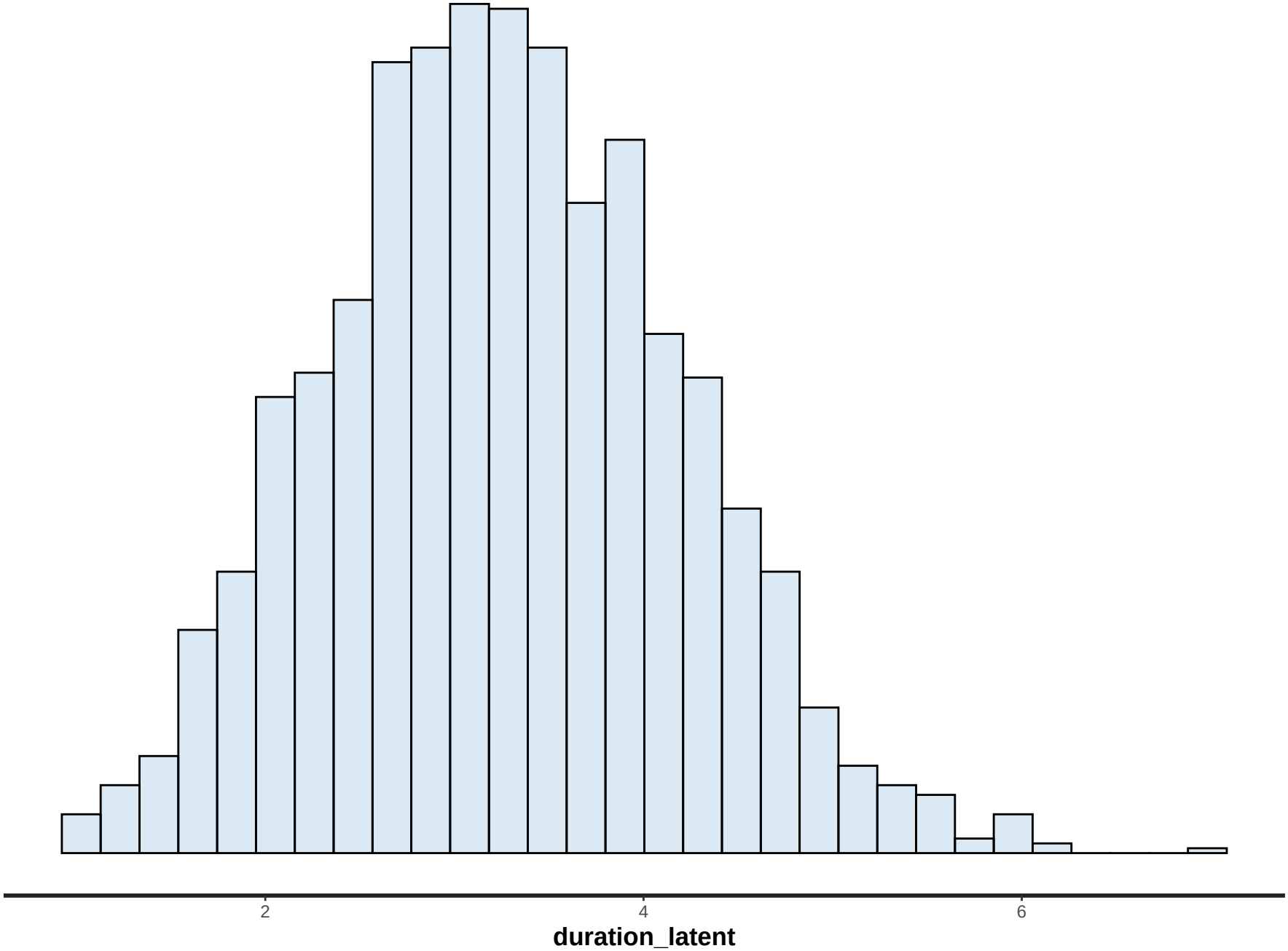

Effective Reproduction Number
Re
3
2
1
May 01
Jun 01
Jul 01
Aug 01
Sep 01
Oct 01
Nov 01
Dec 01
Median
5%−95%
15%−85%
25%−75%

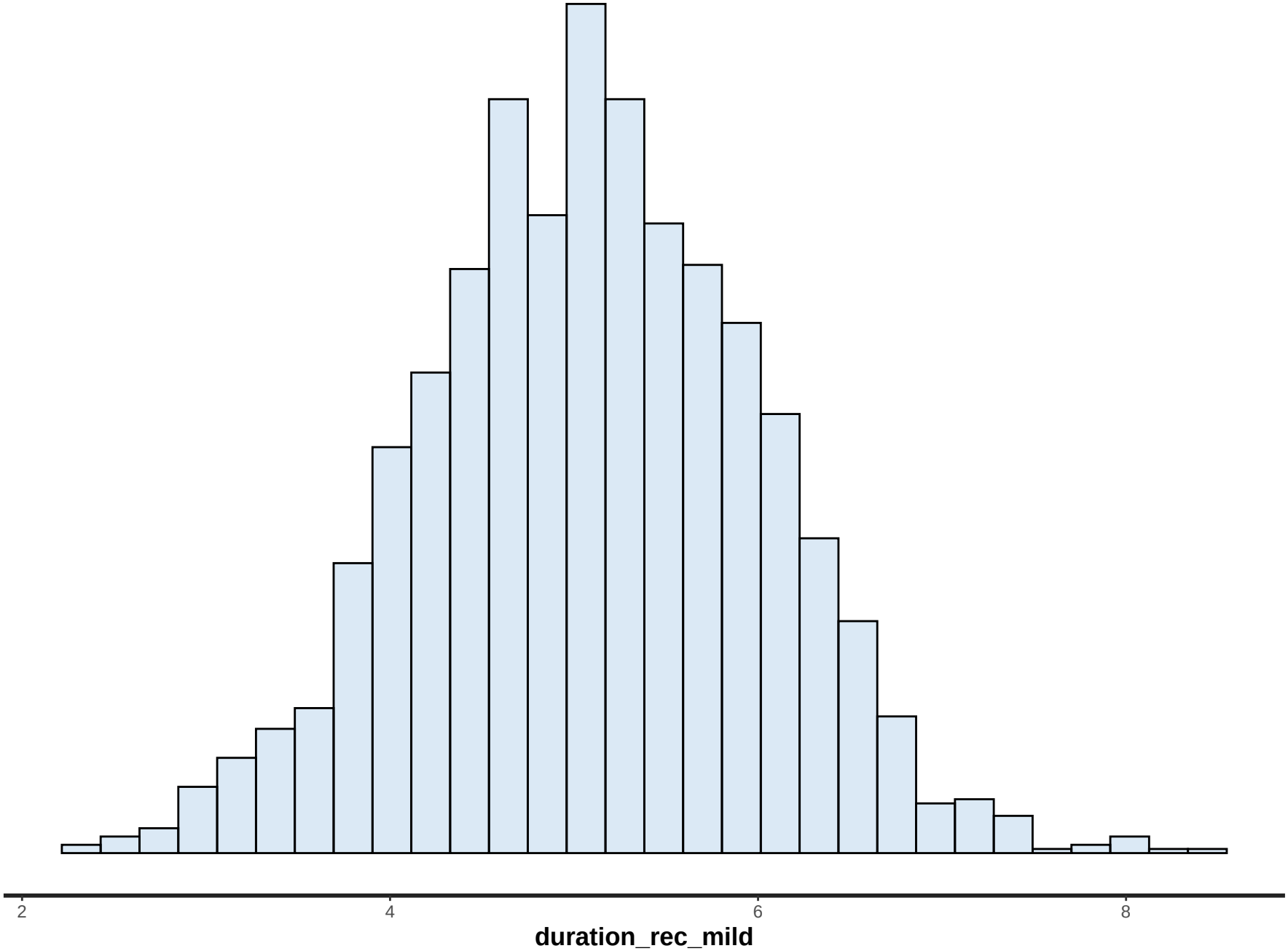
Rt as of 2020−12−11

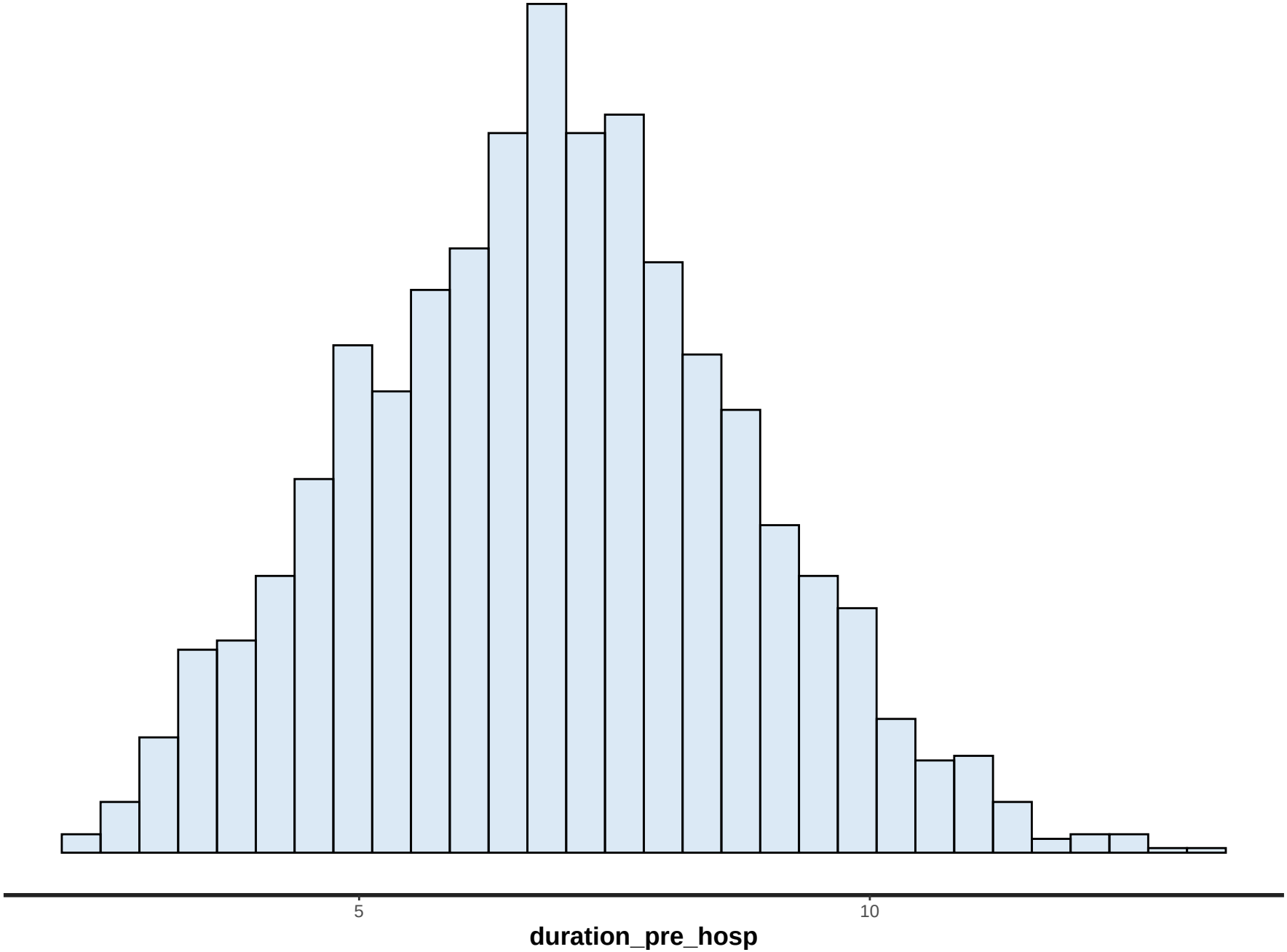
5%	10%	25%	50%	75%	90%	95%
1.16	1.19	1.24	1.29	1.36	1.42	1.45

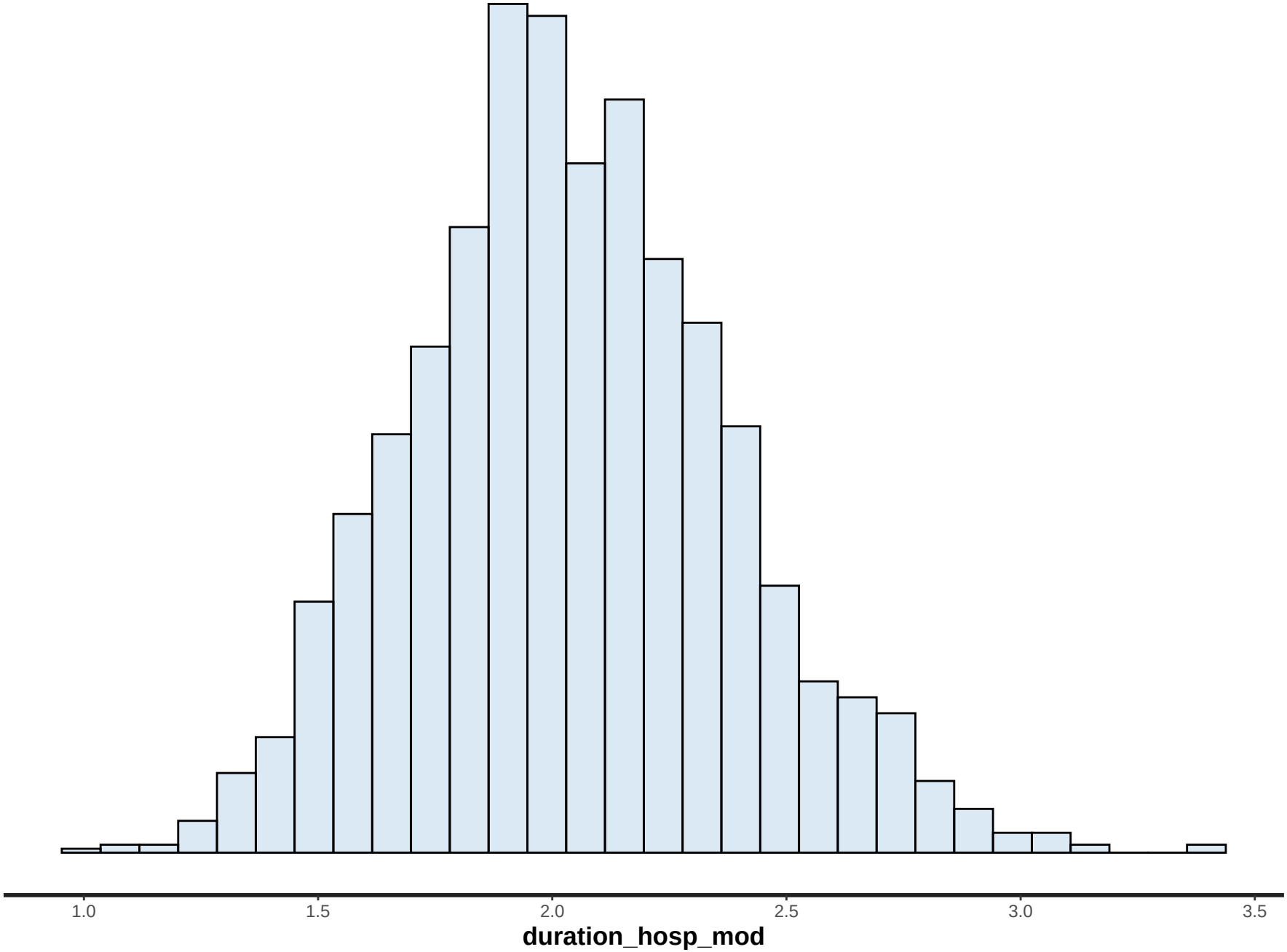


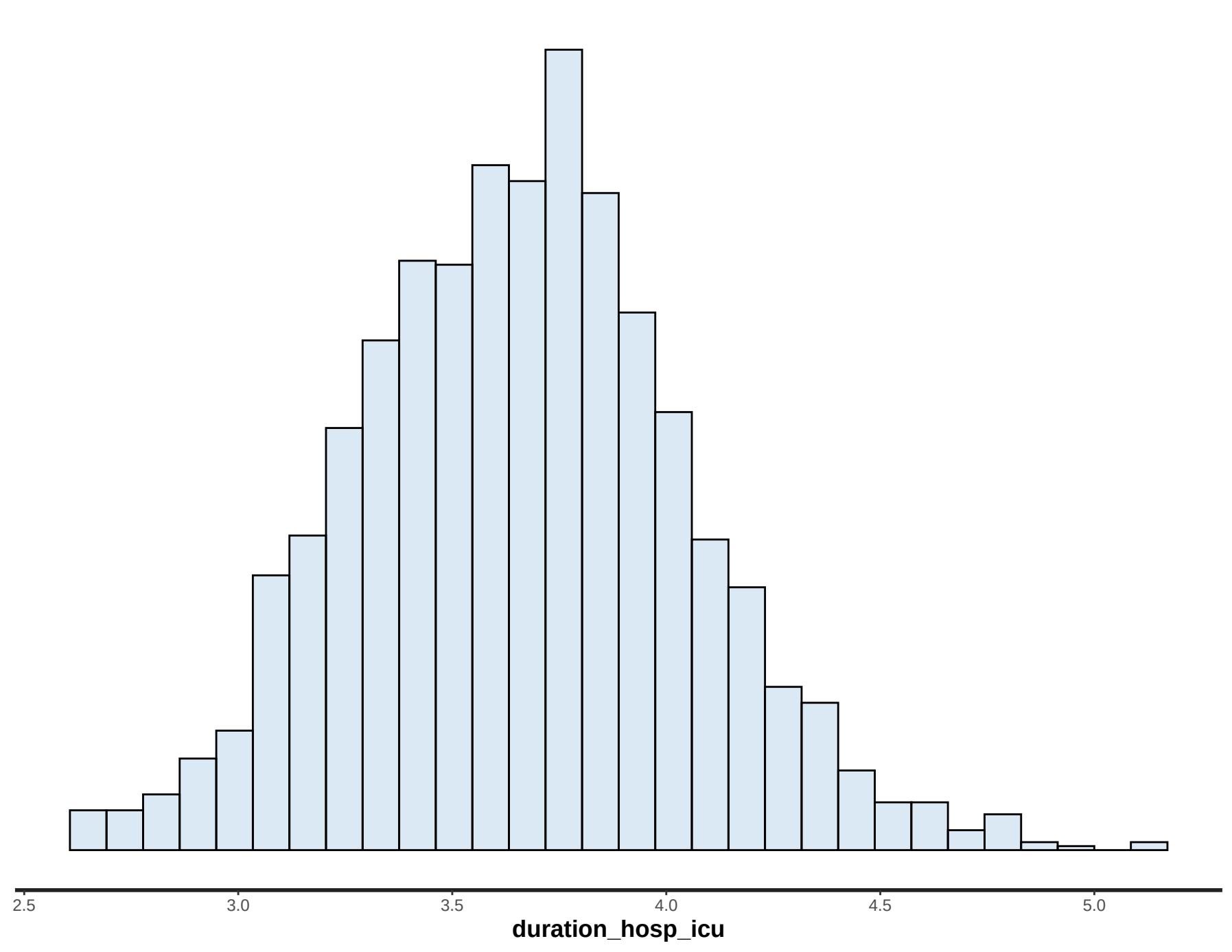

1.0
1.5
2.0
2.5
3.0
r0

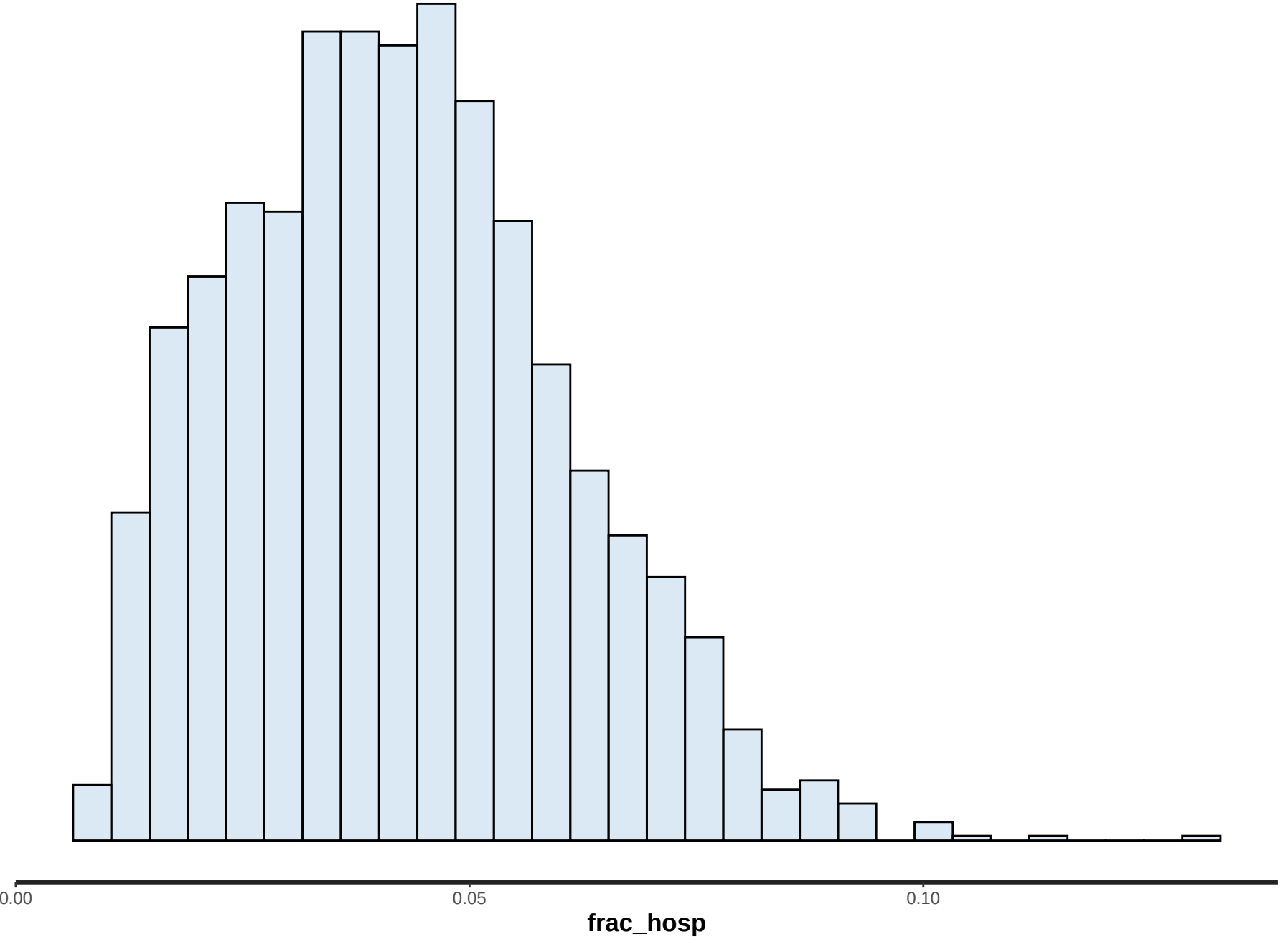

2
4
6
duration_latent

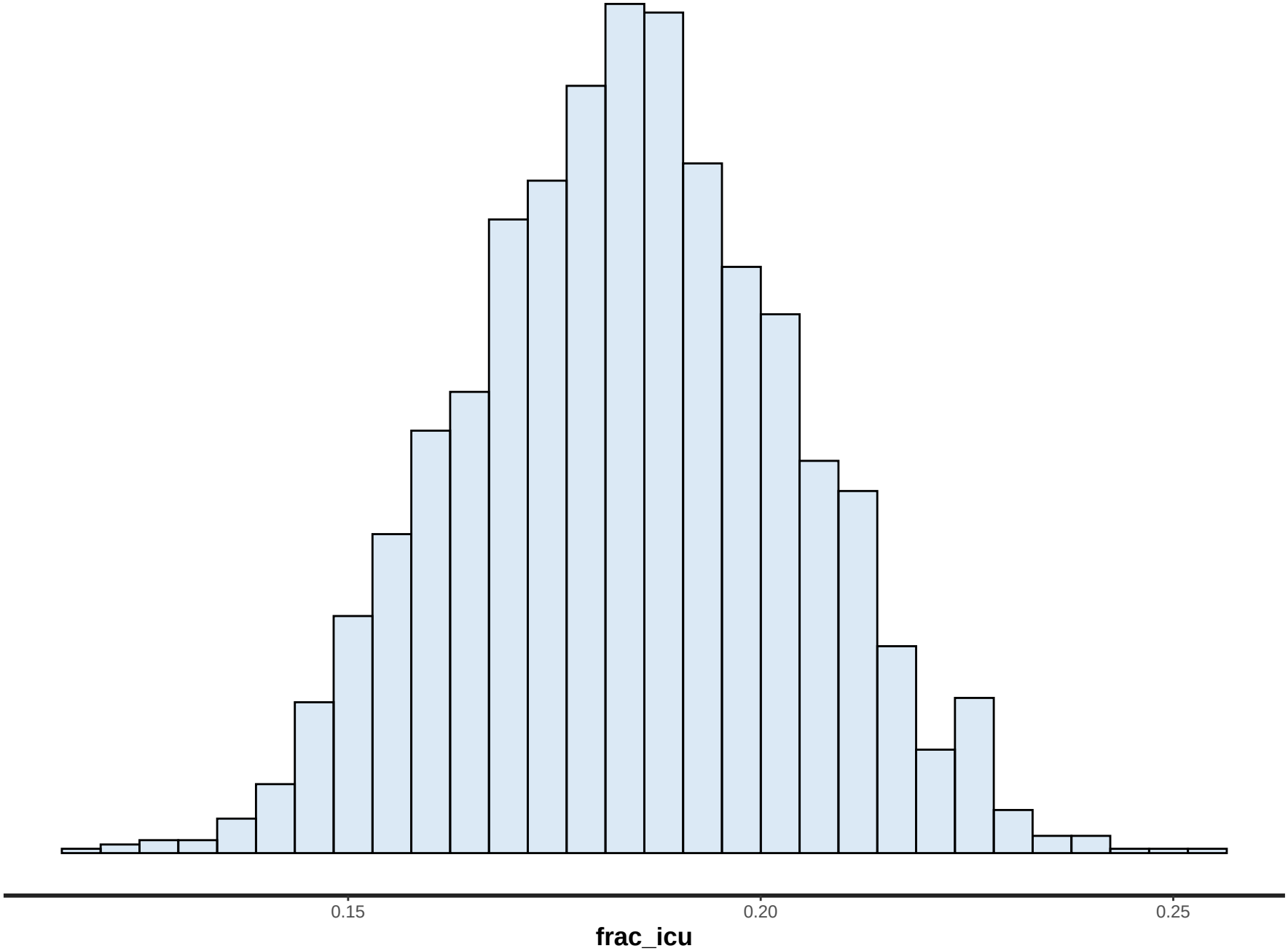

2
4
6
8
duration_rec_mild

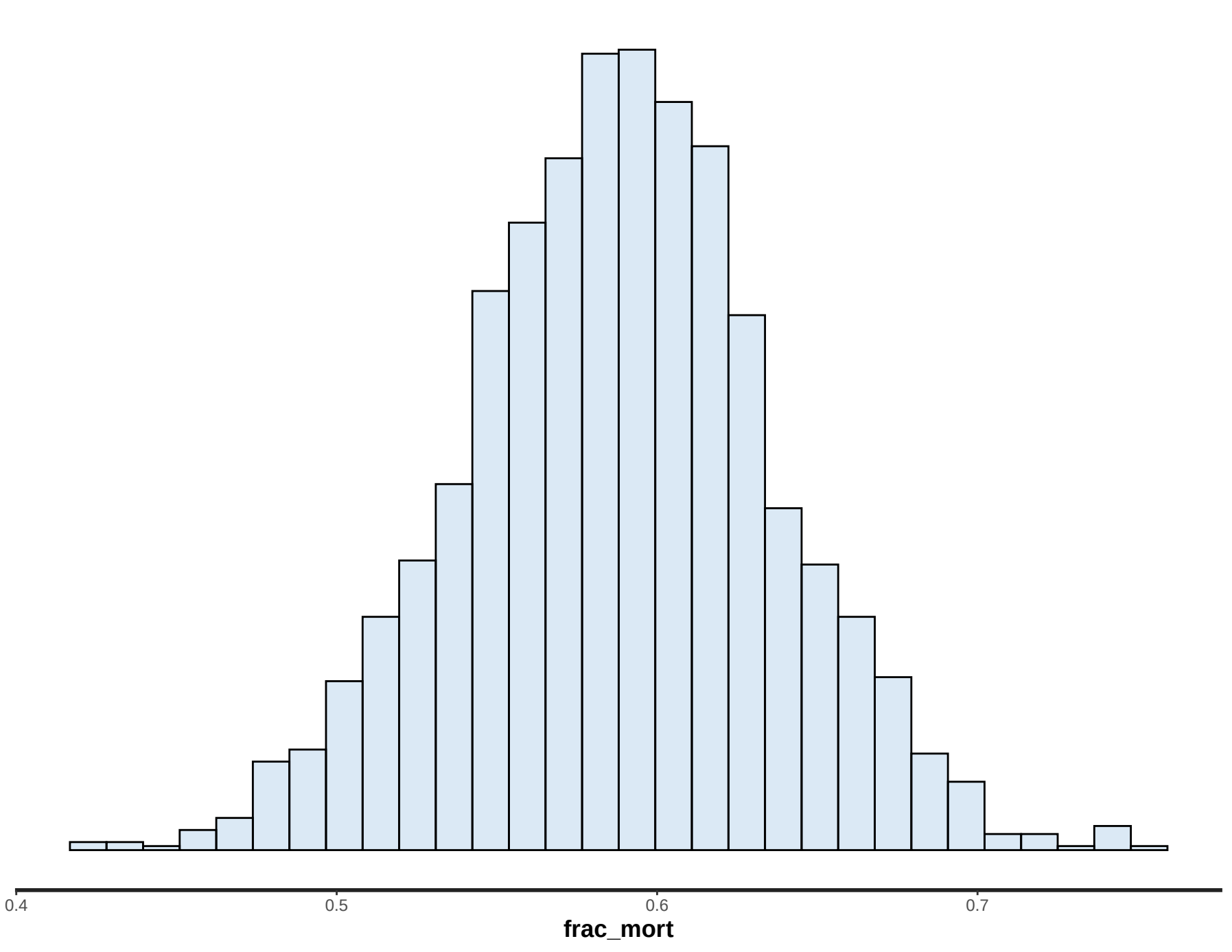

5
10
duration_pre_hosp

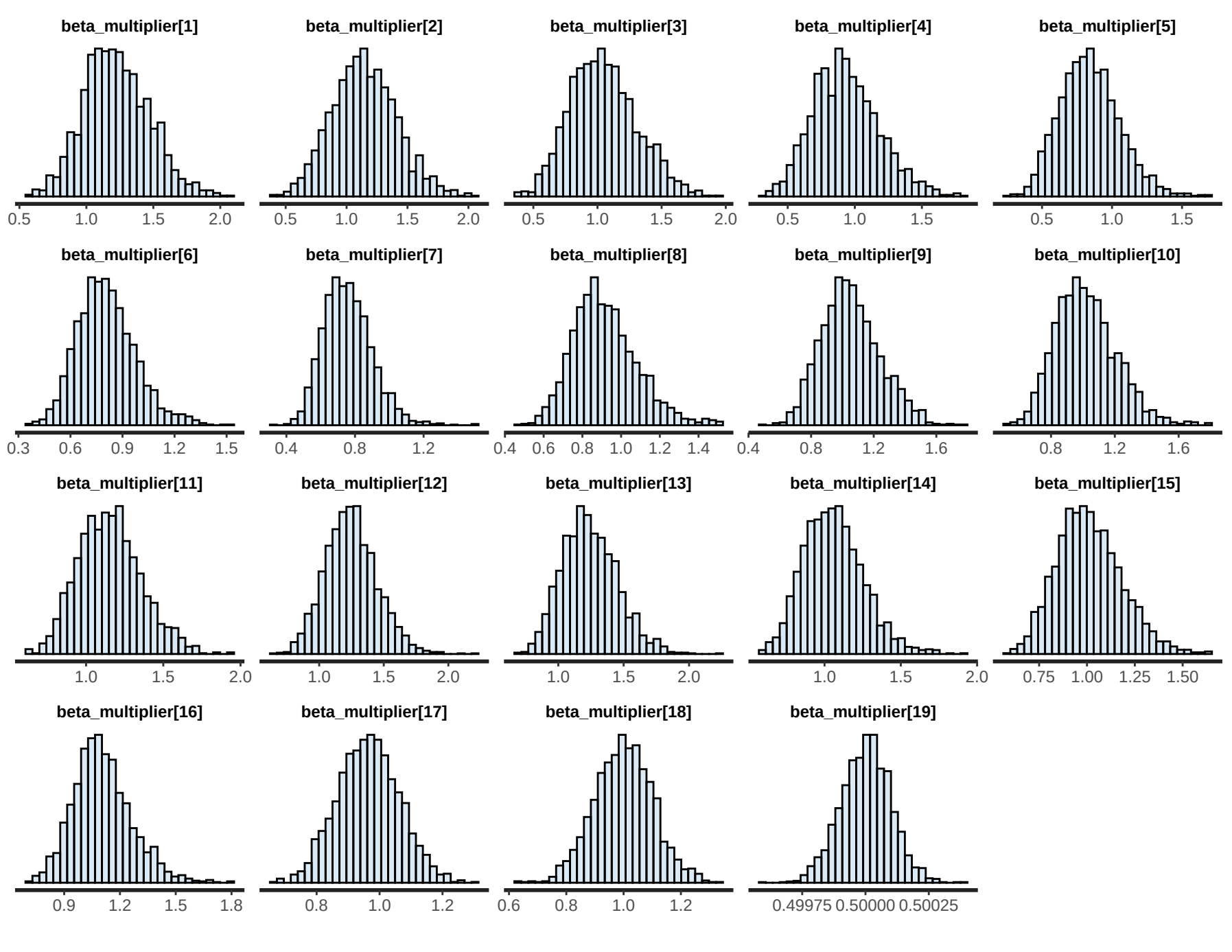

1.0
1.5
2.0
2.5
3.0
3.5
duration_hosp_mod


2.5
3.0
3.5
4.0
4.5
5.0
duration_hosp_icu


0.00
0.05
0.10
frac_hosp


0.15
0.20
0.25
frac_icu


0.4
0.5
0.6
0.7
frac_mort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beta_multiplier[3]
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beta_multiplier[4]
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beta_multiplier[5]
0.5 1.0 1.5
beta_multiplier[6]
0.3 0.6 0.9 1.2 1.5
beta_multiplier[7]
0.4 0.8 1.2
beta_multiplier[8]
0.4 0.6 0.8 1.0 1.2 1.4
beta_multiplier[9]
0.4 0.8 1.2 1.6
beta_multiplier[10]
0.8 1.2 1.6
beta_multiplier[11]
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beta_multiplier[12]
1.0 1.5 2.0
beta_multiplier[13]
1.0 1.5 2.0
beta_multiplier[14]
1.0 1.5 2.0
beta_multiplier[15]
0.75 1.00 1.25 1.50
beta_multiplier[16]
0.9 1.2 1.5 1.8
beta_multiplier[17]
0.8 1.0 1.2
beta_multiplier[18]
0.6 0.8 1.0 1.2
beta_multiplier[19]
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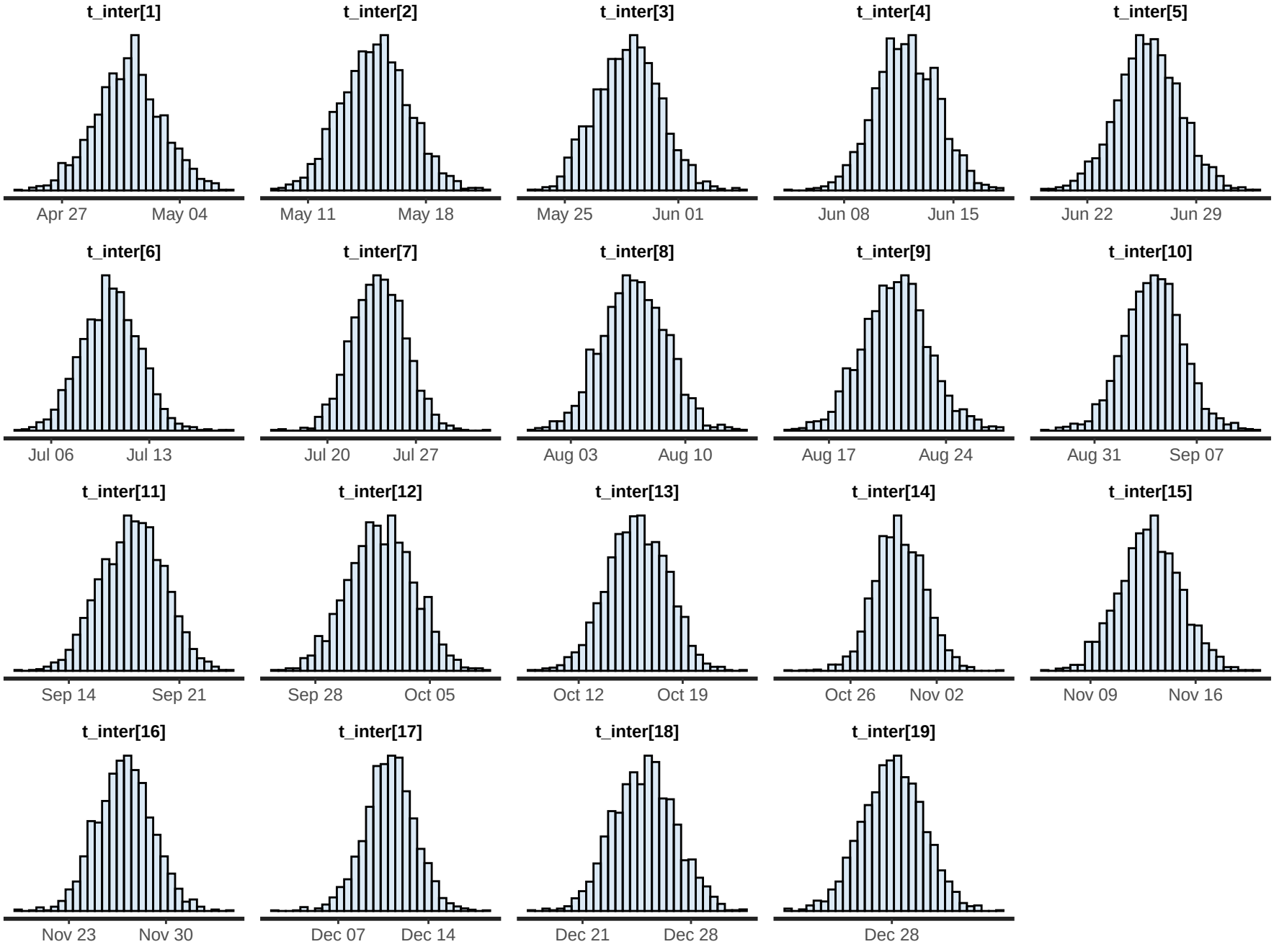
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Apr 27
May 04
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May 11
May 18
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May 25
Jun 01
t_inter[4]
Jun 08
Jun 15
t_inter[5]
Jun 22
Jun 29
t_inter[6]
Jul 06
Jul 13
t_inter[7]
Jul 20
Jul 27
t_inter[8]
Aug 03
Aug 10
t_inter[9]
Aug 17
Aug 24
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Aug 31
Sep 07
t_inter[11]
Sep 14
Sep 21
t_inter[12]
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Oct 05
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Oct 19
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Oct 26
Nov 02
t_inter[15]
Nov 09
Nov 16
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Nov 23
Nov 30
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Dec 07
Dec 14
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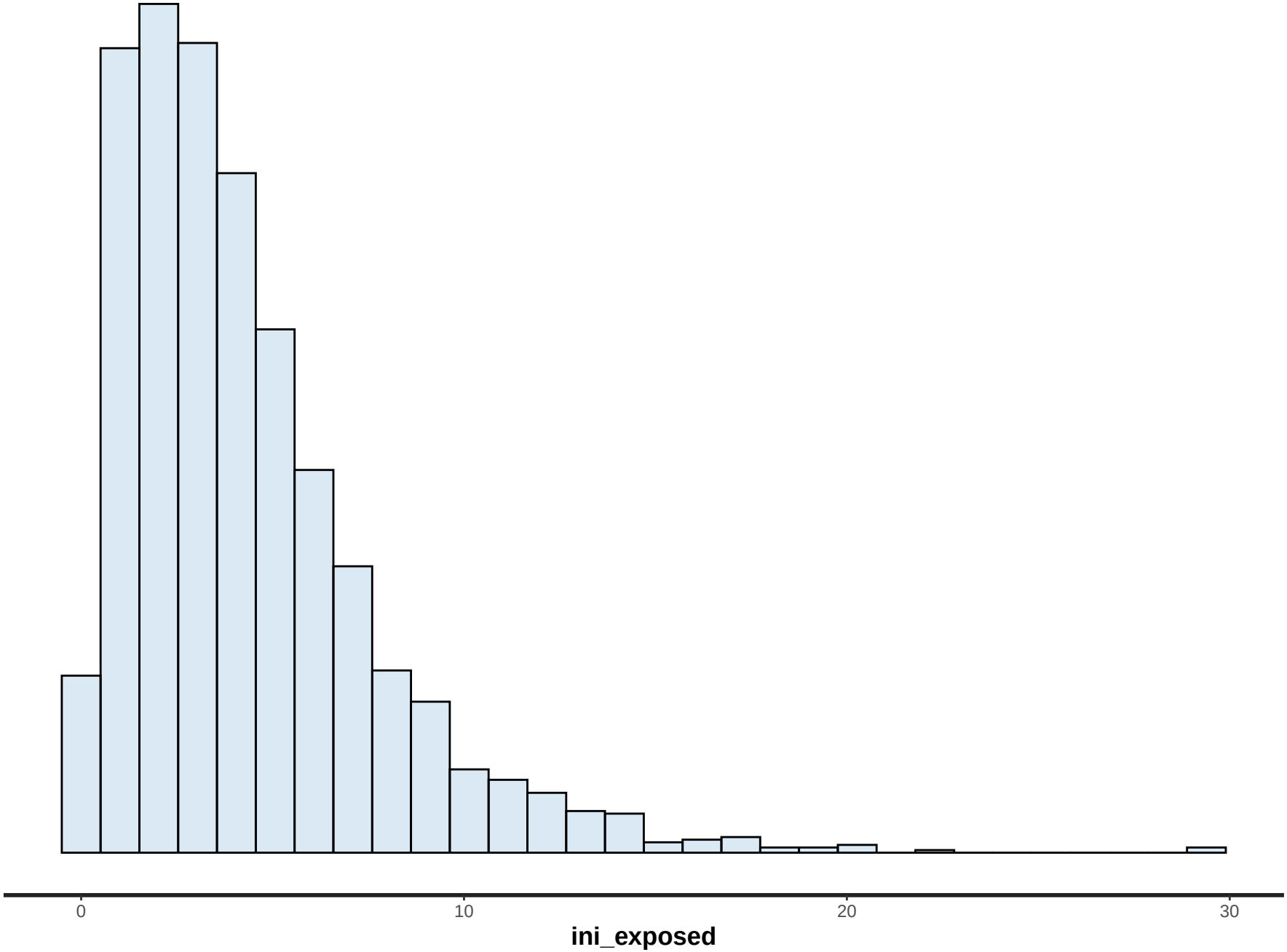
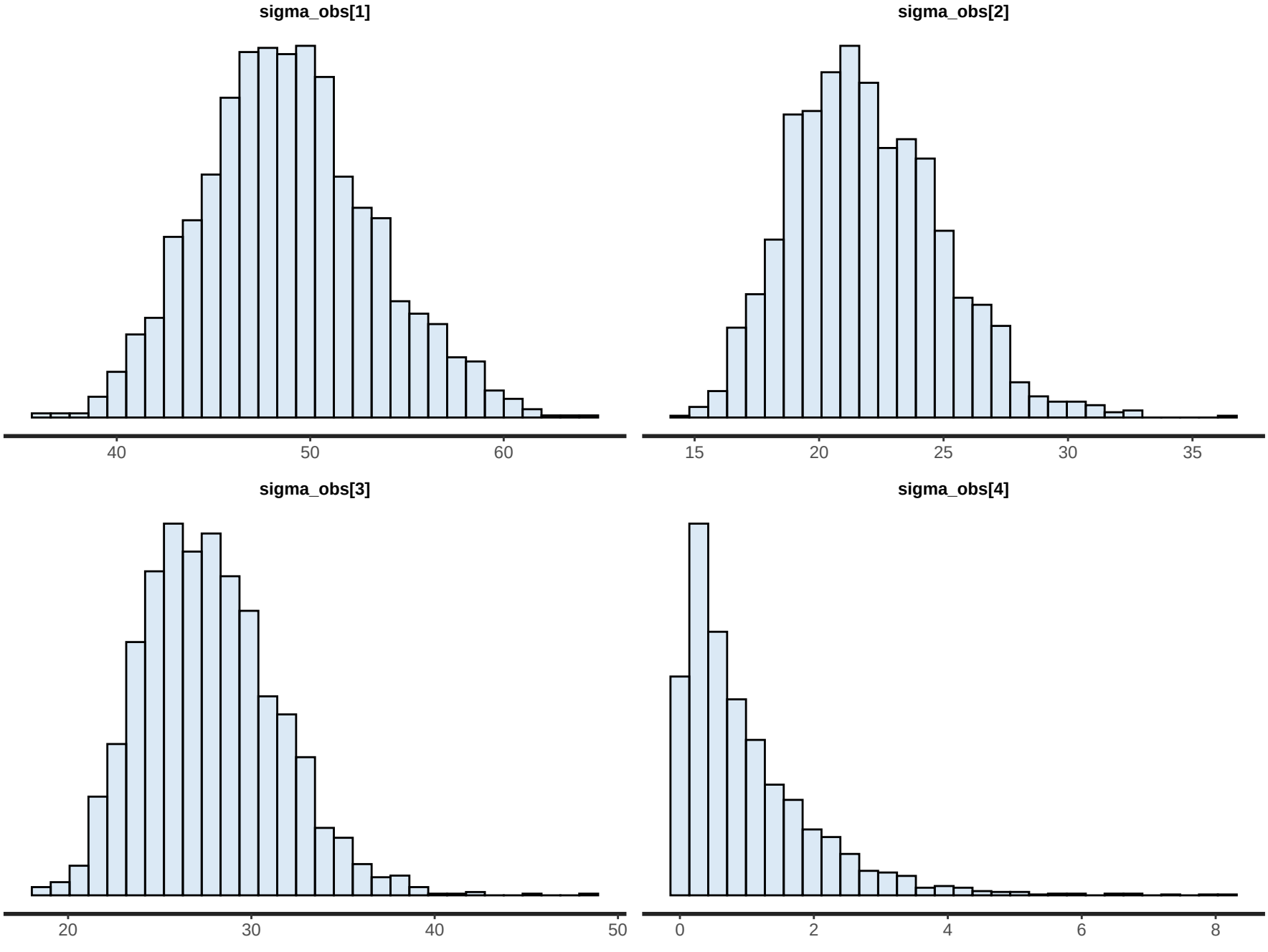
Dec 21
Dec 28
t_inter[19]
Dec 28


0
10
20
30
ini_exposed


sigma_obs[1]
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50
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sigma_obs[2]
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20
25
30
35
sigma_obs[3]
20
30
40
50
sigma_obs[4]
0
2
4
6
8