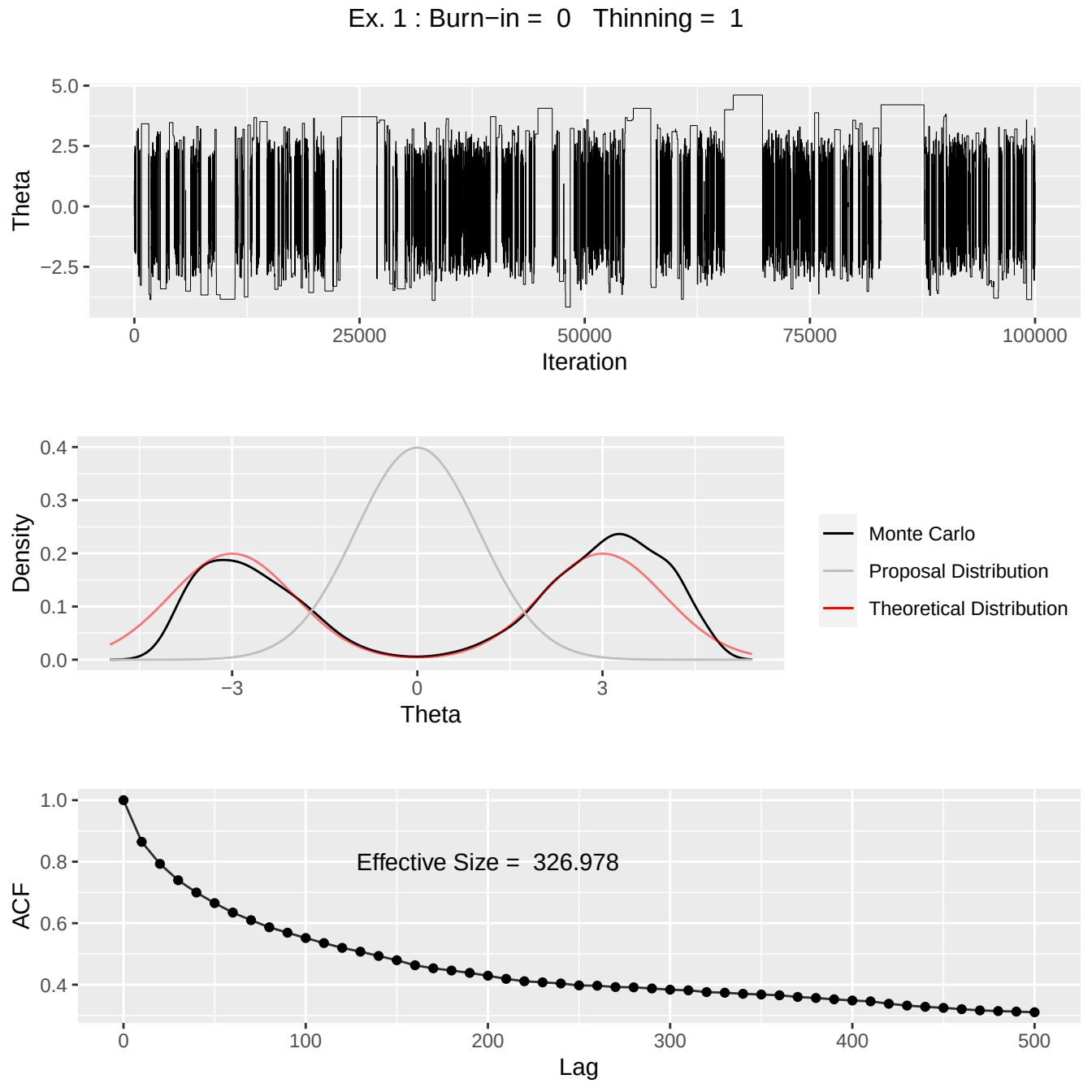
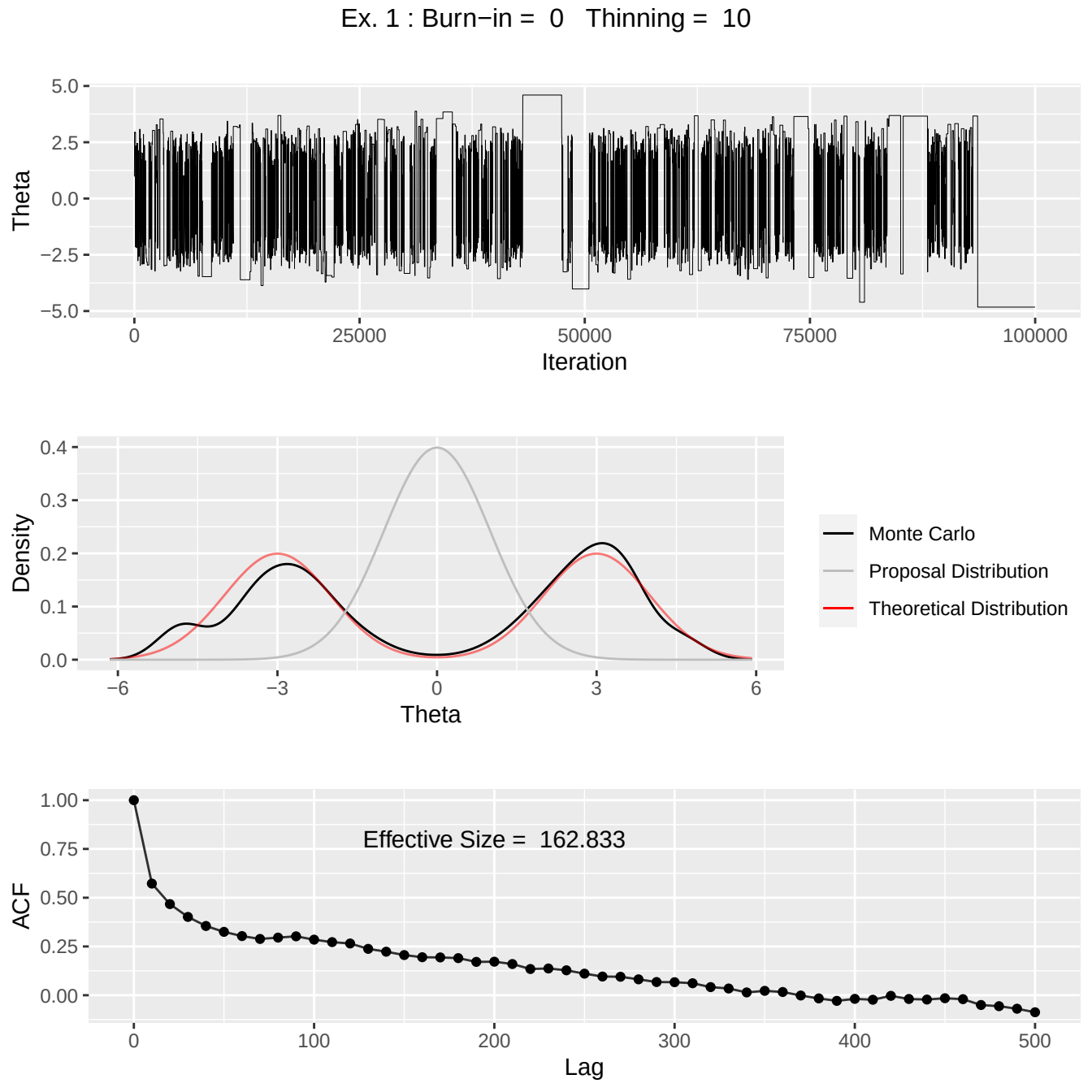
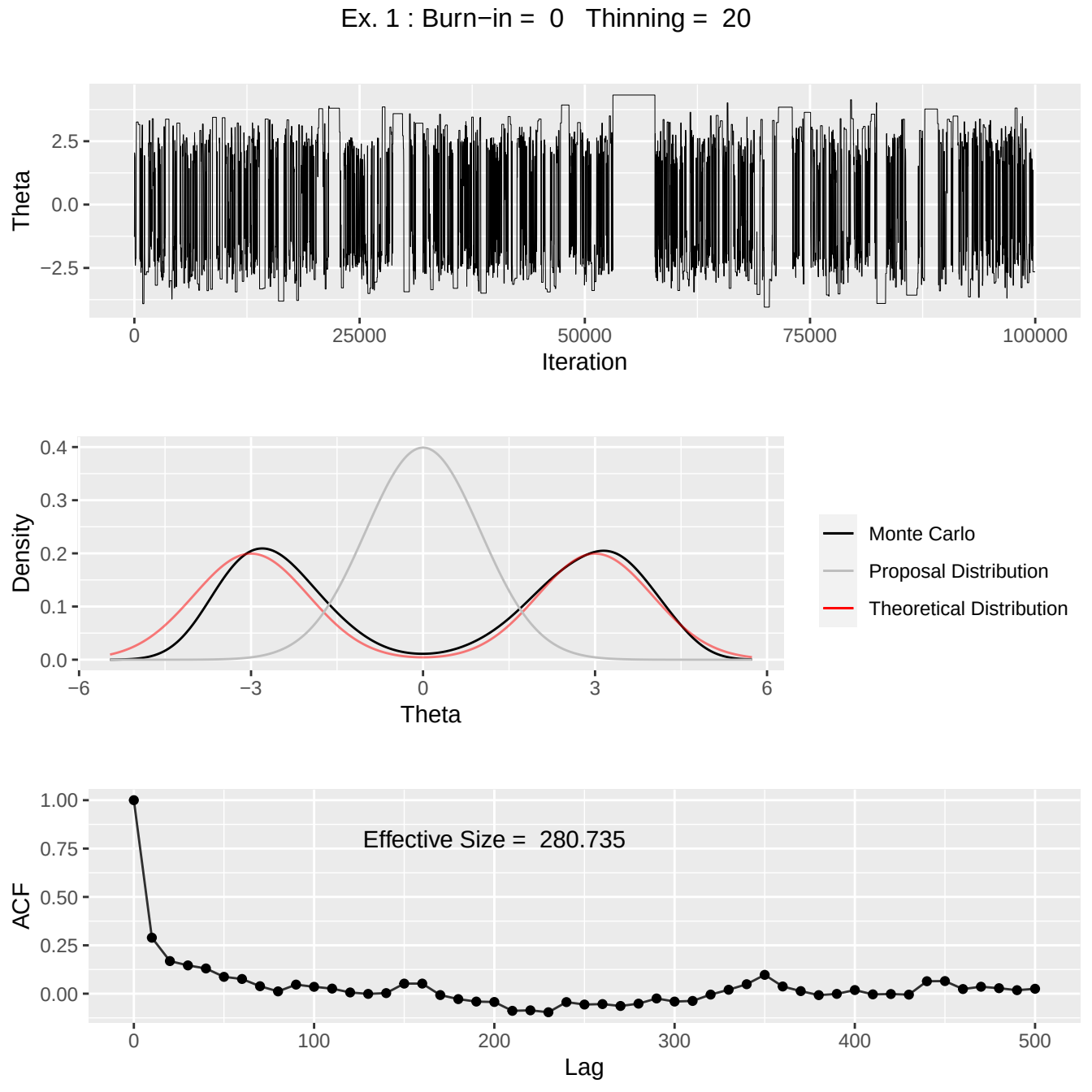
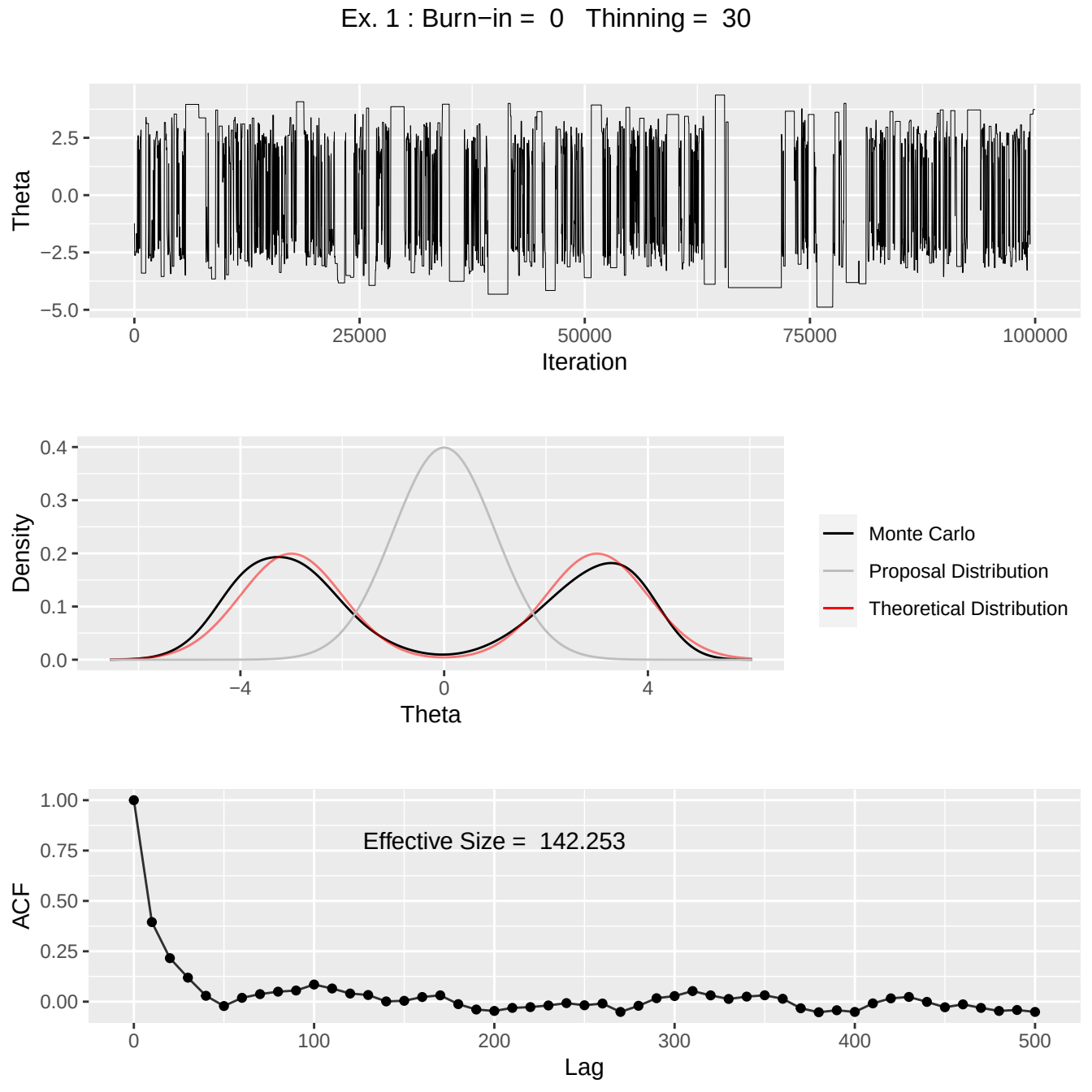
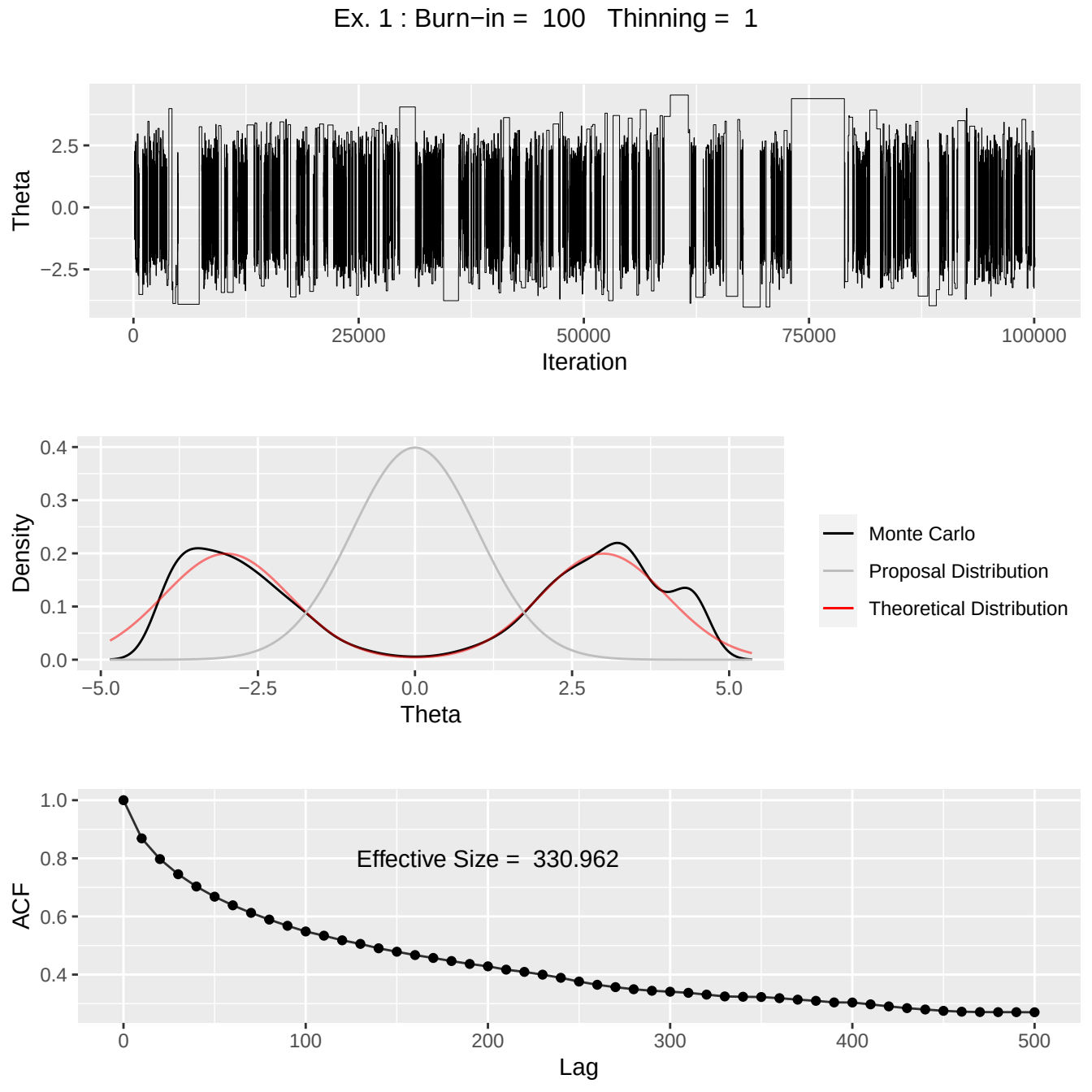
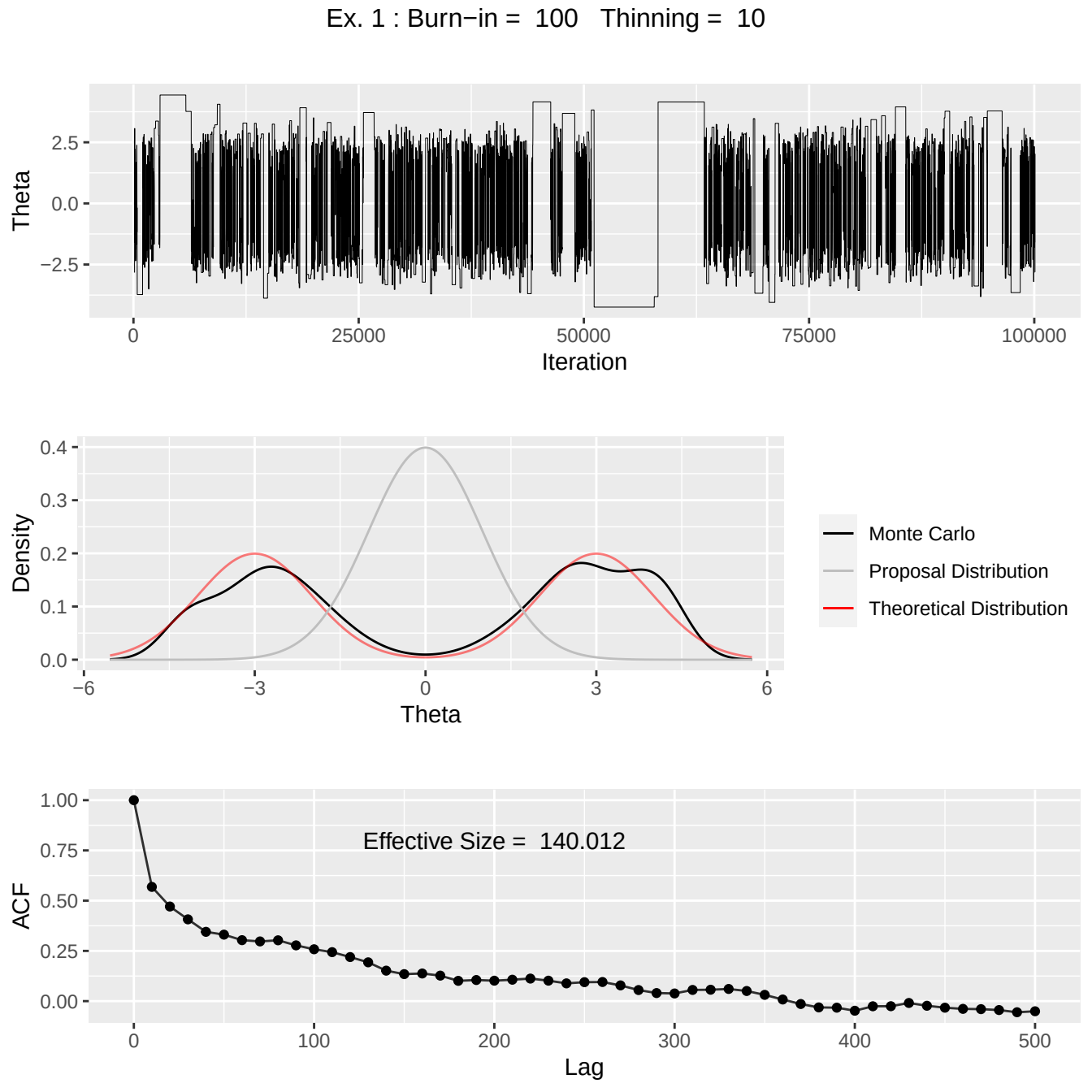

Ex. 1 : Burn−in = 0 Thinning = 1
Theta
5.0
2.5
0.0
−2.5
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−3
0
3
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.0
0.8
0.6
0.4
Effective Size = 326.978
0
100
200
300
400
500
Lag

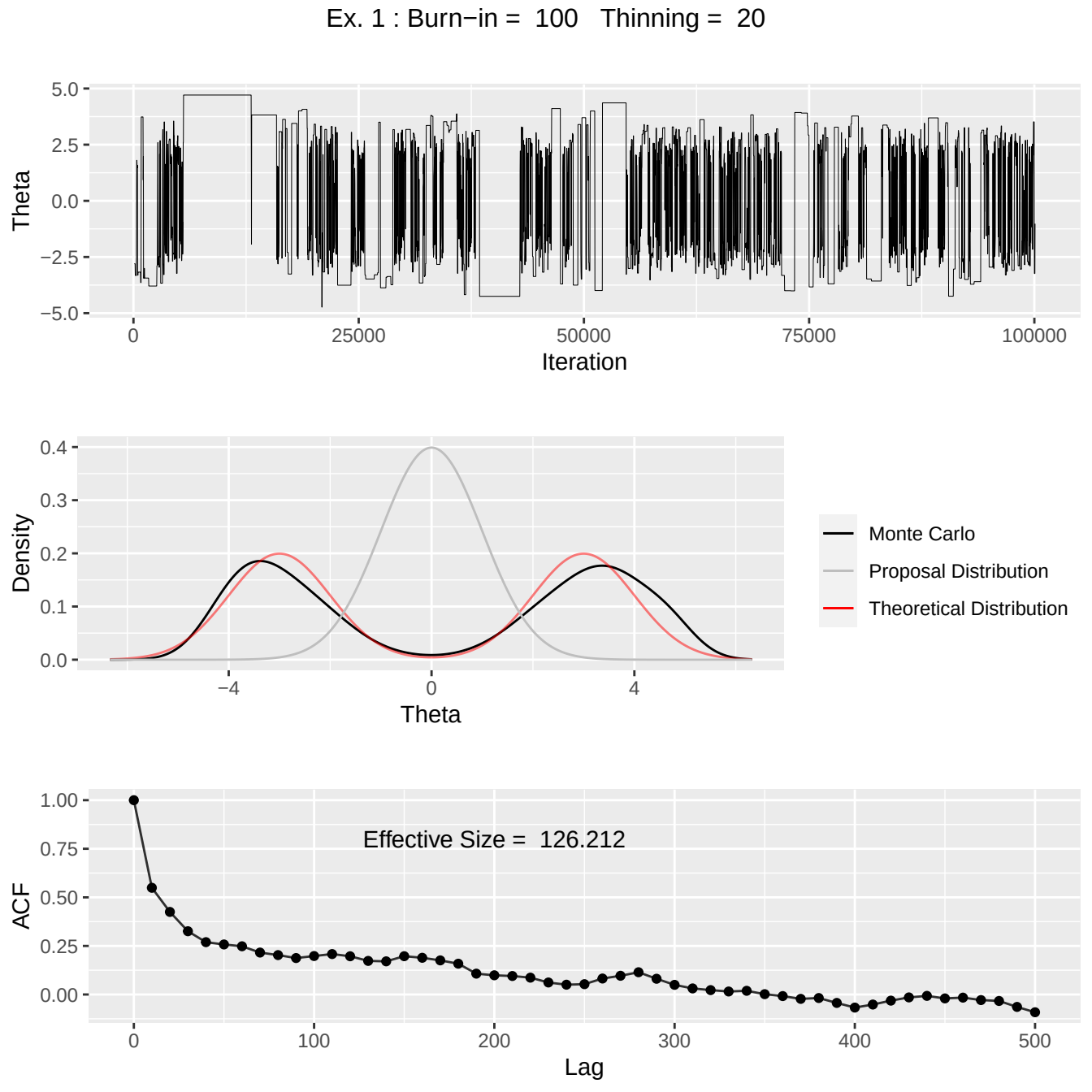

Ex. 1 : Burn−in = 0 Thinning = 10
Theta
5.0
2.5
0.0
−2.5
−5.0
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−6
−3
0
3
6
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.00
0.75
0.50
0.25
0.00
Effective Size = 162.833
0
100
200
300
400
500
Lag

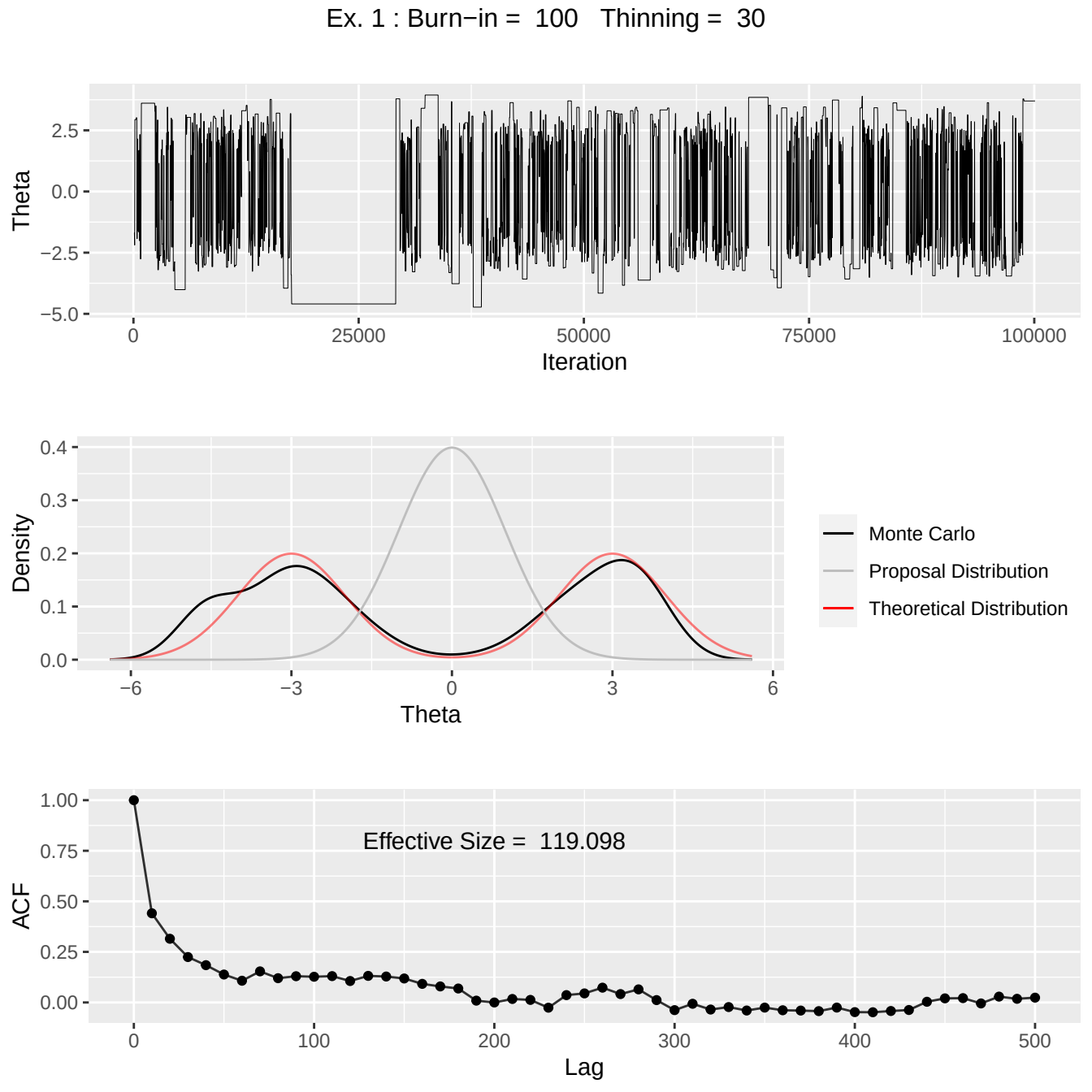

Ex. 1 : Burn−in = 0 Thinning = 20
Theta
2.5
0.0
−2.5
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−6
−3
0
3
6
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.00
0.75
0.50
0.25
0.00
Effective Size = 280.735
0
100
200
300
400
500
Lag

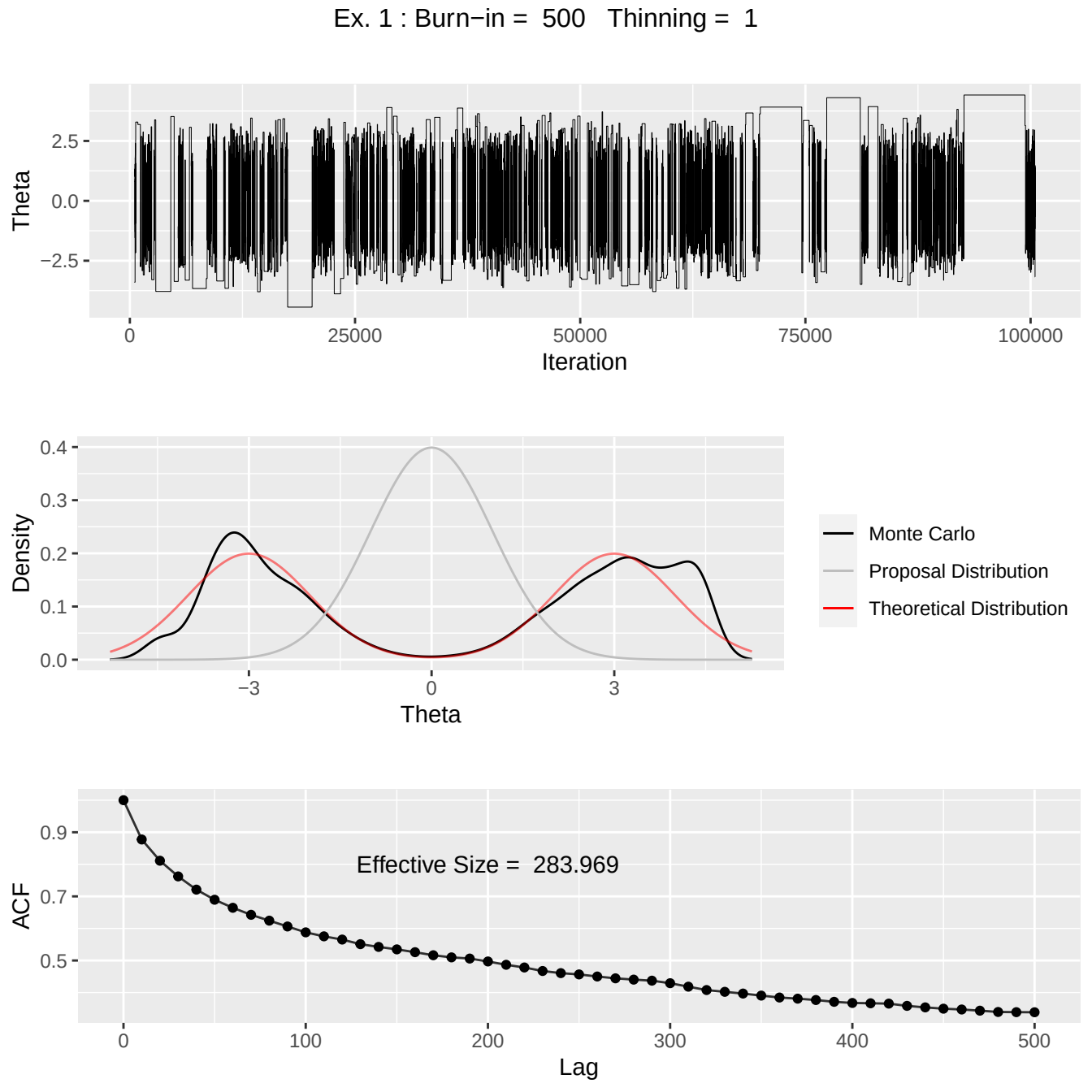

Ex. 1 : Burn−in = 0 Thinning = 30
Theta
2.5
0.0
−2.5
−5.0
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−4
0
4
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.00
0.75
0.50
0.25
0.00
Effective Size = 142.253
0
100
200
300
400
500
Lag

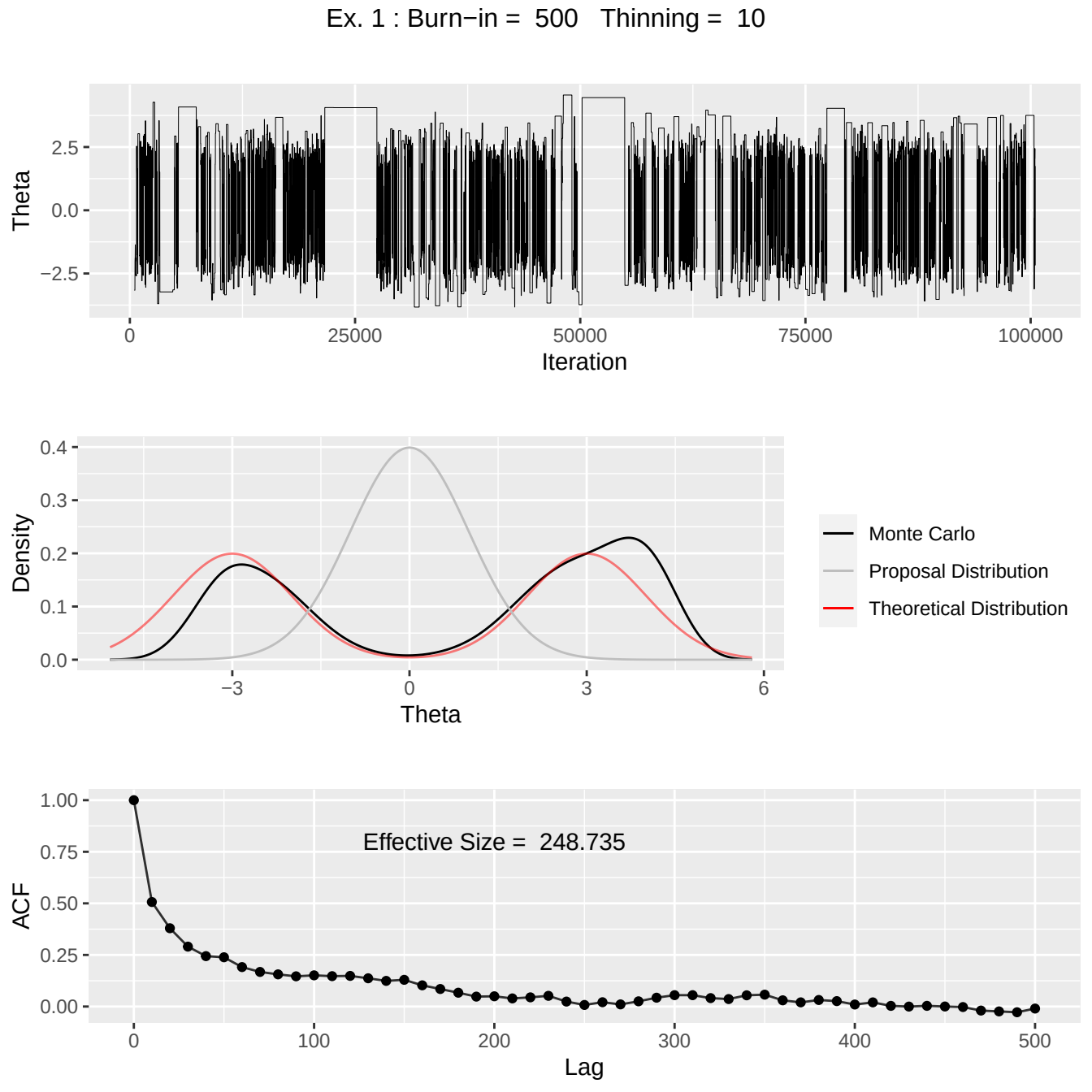

Ex. 1 : Burn−in = 100 Thinning = 1
Theta
2.5
0.0
−2.5
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−5.0
−2.5
0.0
2.5
5.0
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.0
0.8
0.6
0.4
Effective Size = 330.962
0
100
200
300
400
500
Lag

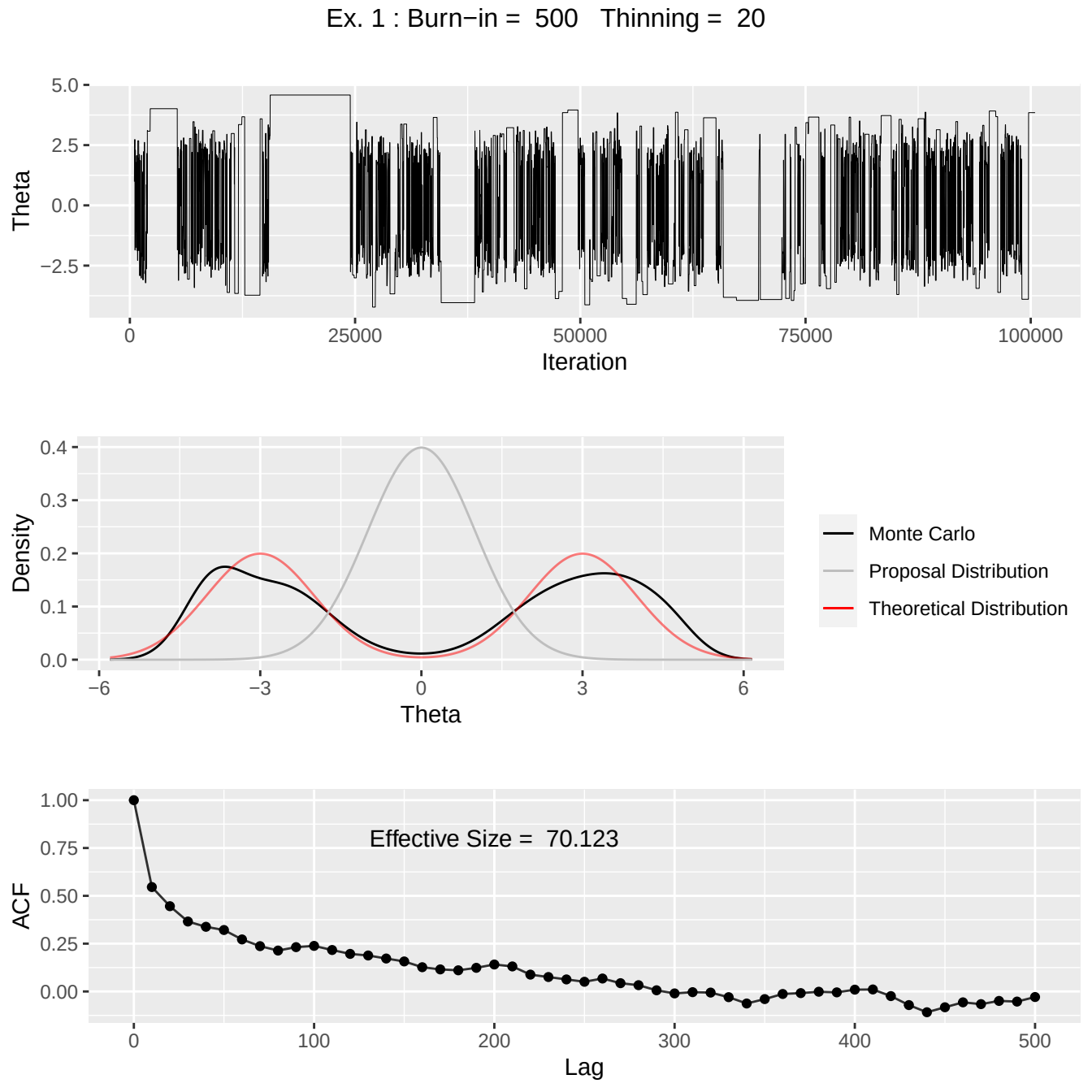

Ex. 1 : Burn−in = 100 Thinning = 10
Theta
2.5
0.0
−2.5
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−6
−3
0
3
6
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.00
0.75
0.50
0.25
0.00
Effective Size = 140.012
0
100
200
300
400
500
Lag

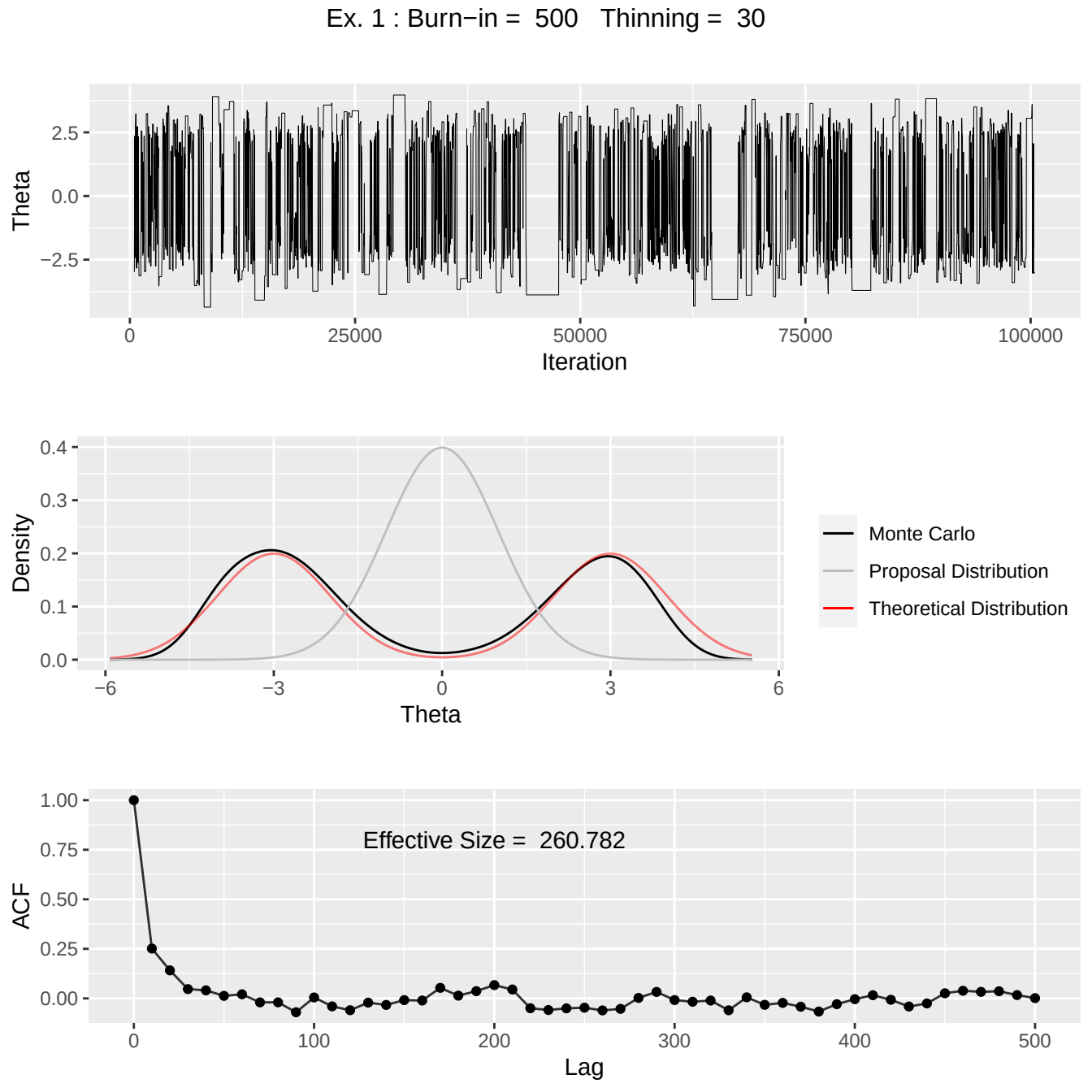

Ex. 1 : Burn−in = 100 Thinning = 20
Theta
5.0
2.5
0.0
−2.5
−5.0
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−4
0
4
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.00
0.75
0.50
0.25
0.00
Effective Size = 126.212
0
100
200
300
400
500
Lag

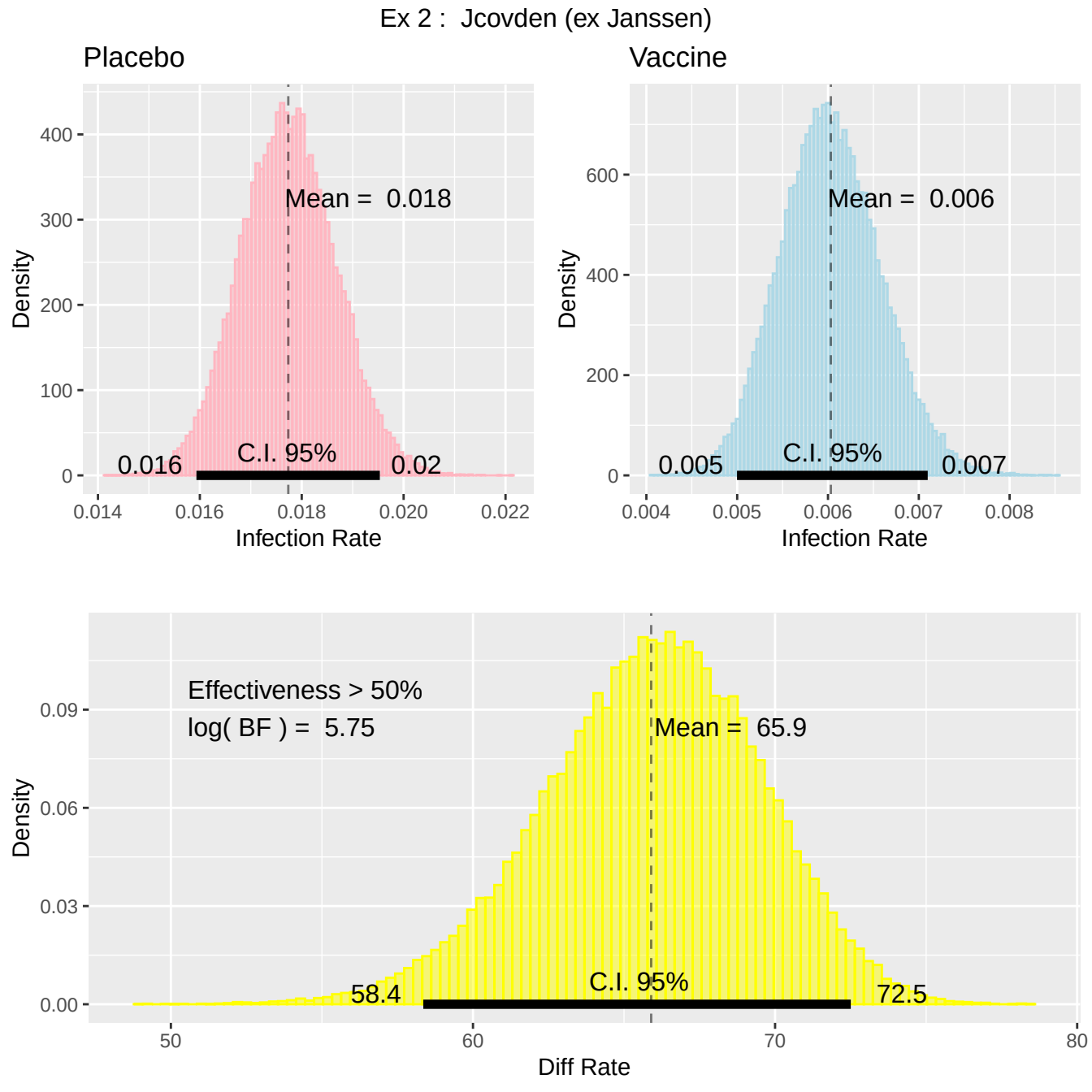

Ex. 1 : Burn−in = 100 Thinning = 30
Theta
2.5
0.0
−2.5
−5.0
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−6
−3
0
3
6
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.00
0.75
0.50
0.25
0.00
Effective Size = 119.098
0
100
200
300
400
500
Lag

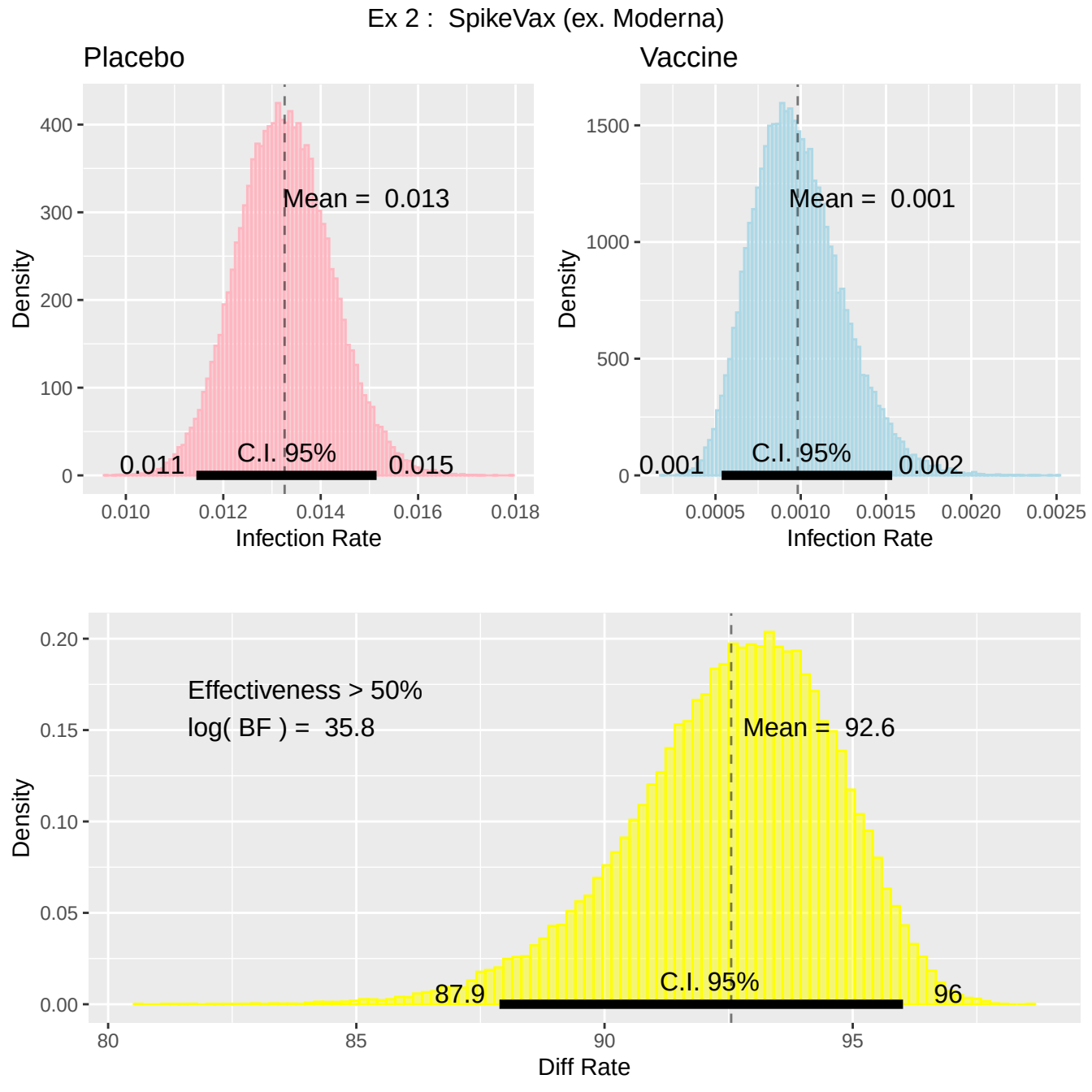

Ex. 1 : Burn−in = 500 Thinning = 1
Theta
2.5
0.0
−2.5
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−3
0
3
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
0.9
0.7
0.5
Effective Size = 283.969
0
100
200
300
400
500
Lag

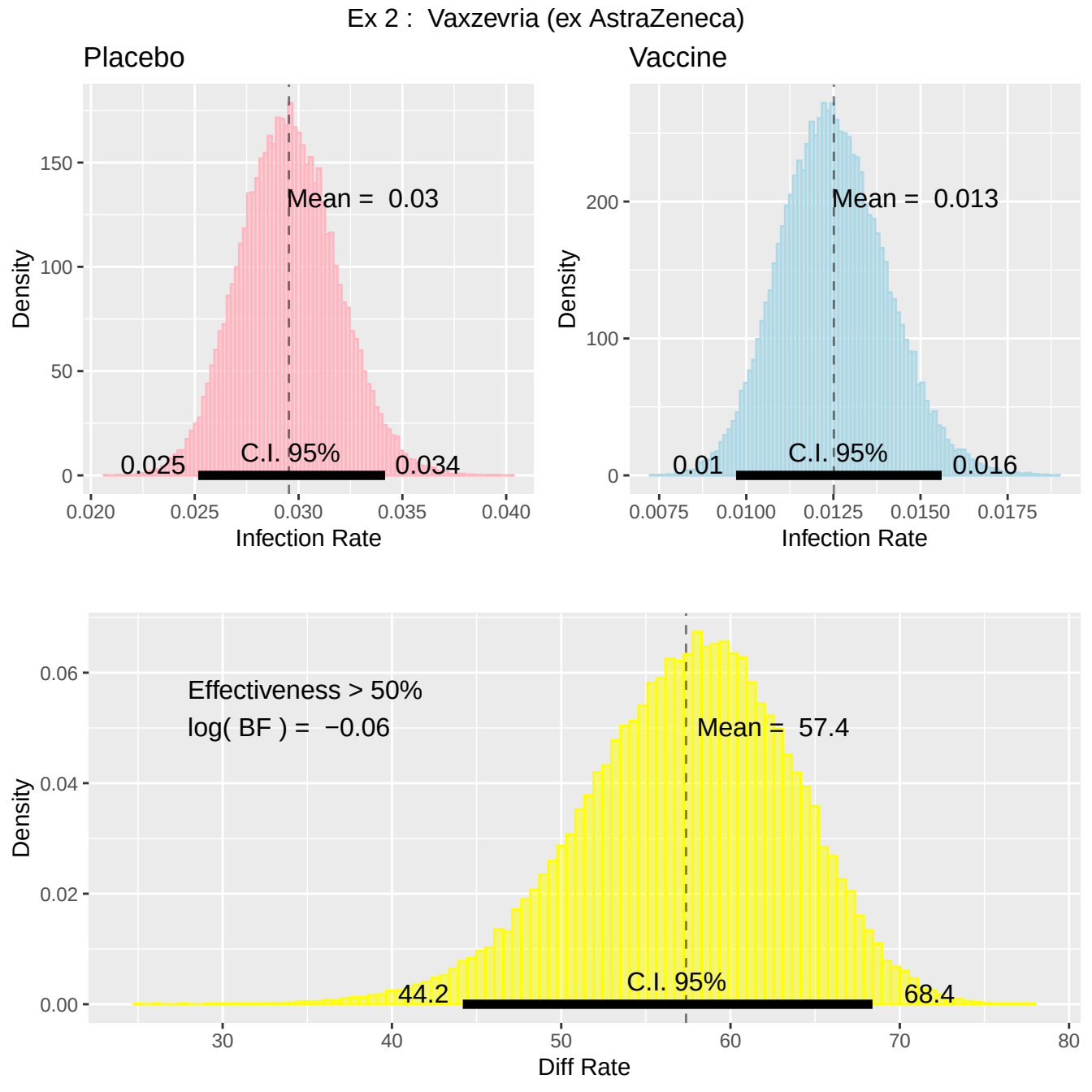

Ex. 1 : Burn−in = 500 Thinning = 10
Theta
2.5
0.0
−2.5
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−3
0
3
6
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.00
0.75
0.50
0.25
0.00
Effective Size = 248.735
0
100
200
300
400
500
Lag


Ex. 1 : Burn−in = 500 Thinning = 20
Theta
5.0
2.5
0.0
−2.5
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−6
−3
0
3
6
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.00
0.75
0.50
0.25
0.00
Effective Size = 70.123
0
100
200
300
400
500
Lag

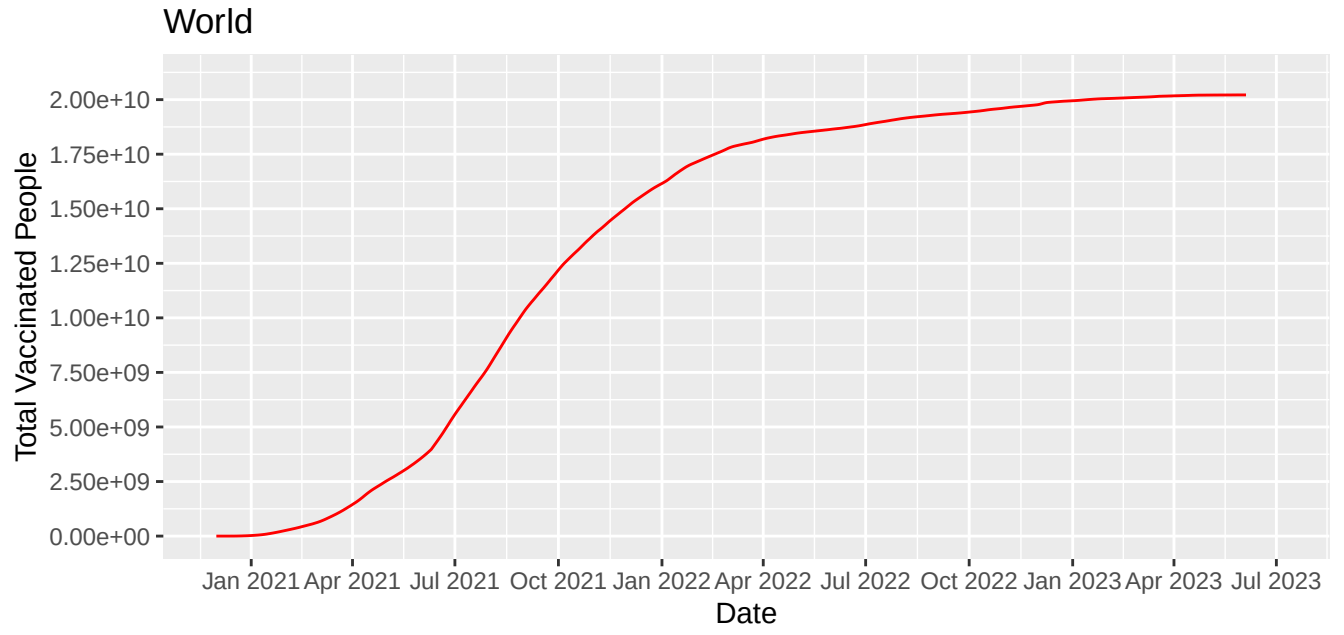

Ex. 1 : Burn−in = 500 Thinning = 30
Theta
2.5
0.0
−2.5
0
25000
50000
75000
100000
Iteration
Density
0.4
0.3
0.2
0.1
0.0
−6
−3
0
3
6
Theta
Monte Carlo
Proposal Distribution
Theoretical Distribution
ACF
1.00
0.75
0.50
0.25
0.00
Effective Size = 260.782
0
100
200
300
400
500
Lag

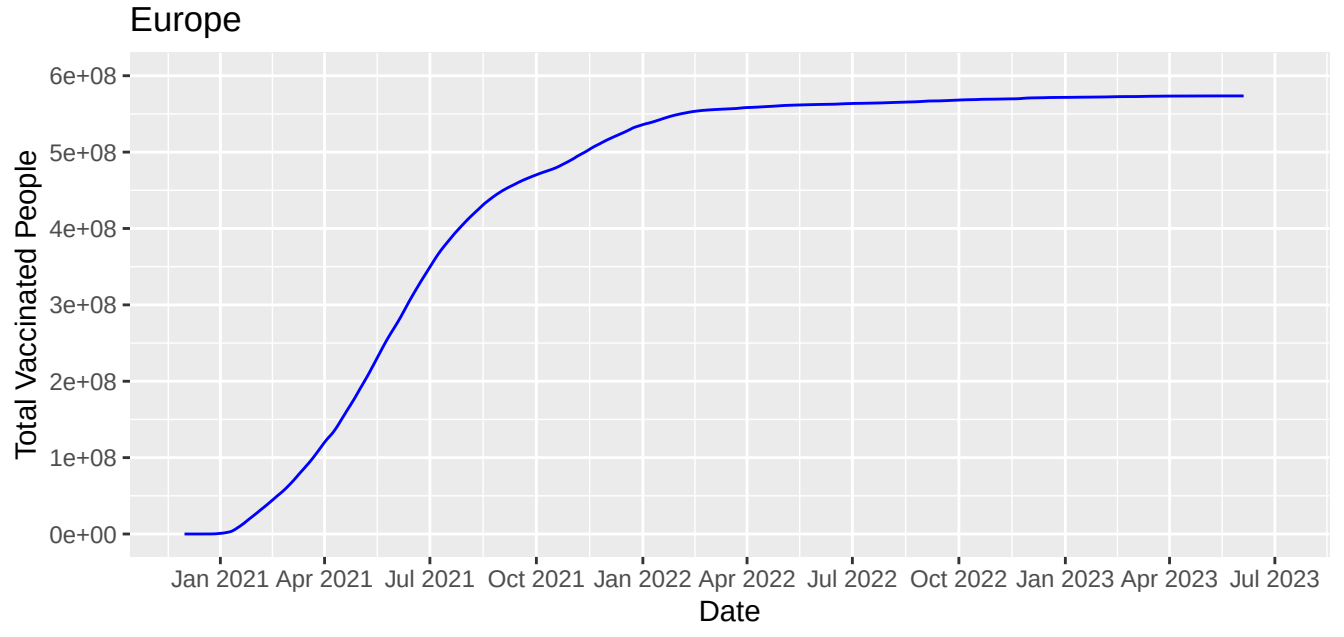

Ex 2 : Jcovden (ex Janssen)
Placebo
Mean = 0.018
C.I. 95%
0.016
0.02
Density
Infection Rate
Vaccine
Mean = 0.006
C.I. 95%
0.005
0.007
Density
Infection Rate
Effectiveness > 50%
log(BF) = 5.75
Mean = 65.9
C.I. 95%
58.4
72.5
Density
Diff Rate


Ex 2 : SpikeVax (ex. Moderna)
Placebo
Mean = 0.013
0.011
C.I. 95%
0.015
Density
Infection Rate
Vaccine
Mean = 0.001
0.001
C.I. 95%
0.002
Density
Infection Rate
Effectiveness > 50%
log(BF) = 35.8
Mean = 92.6
87.9
C.I. 95%
96
Density
Diff Rate

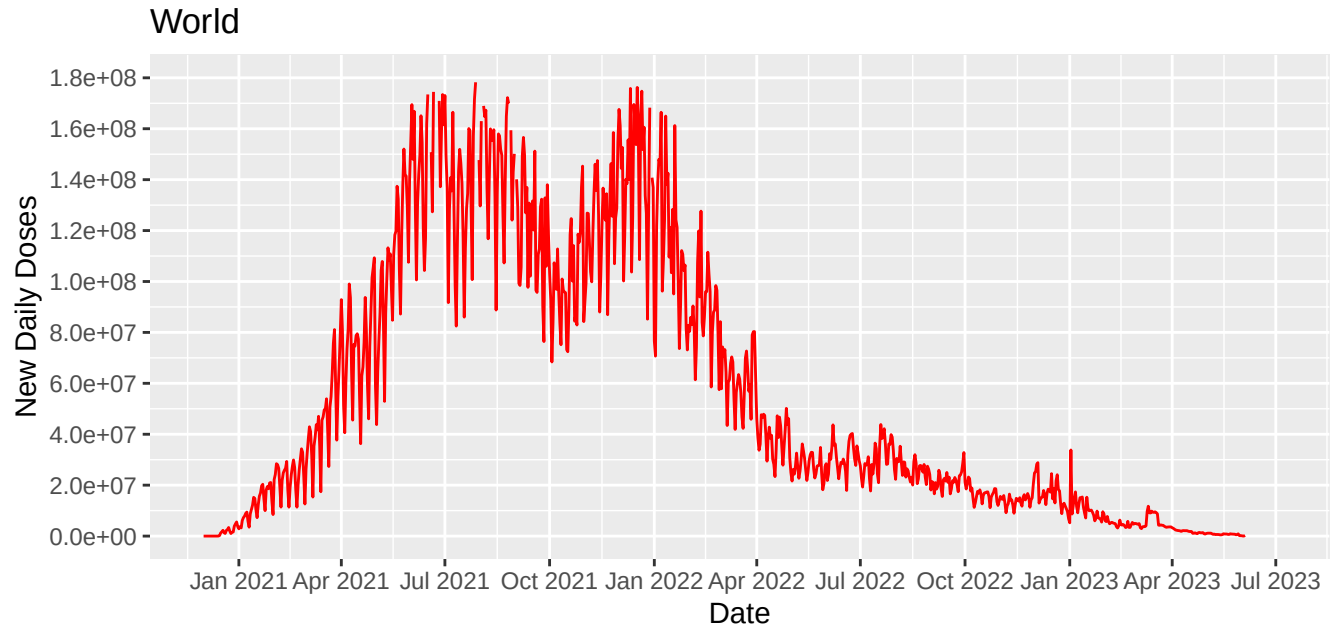

Ex 2 : Vaxzevria (ex AstraZeneca)
Placebo
Mean = 0.03
C.I. 95%
0.025
0.034
Density
Infection Rate
Vaccine
Mean = 0.013
C.I. 95%
0.01
0.016
Density
Infection Rate
Effectiveness > 50%
log(BF) = −0.06
Mean = 57.4
C.I. 95%
44.2
68.4
Density
Diff Rate

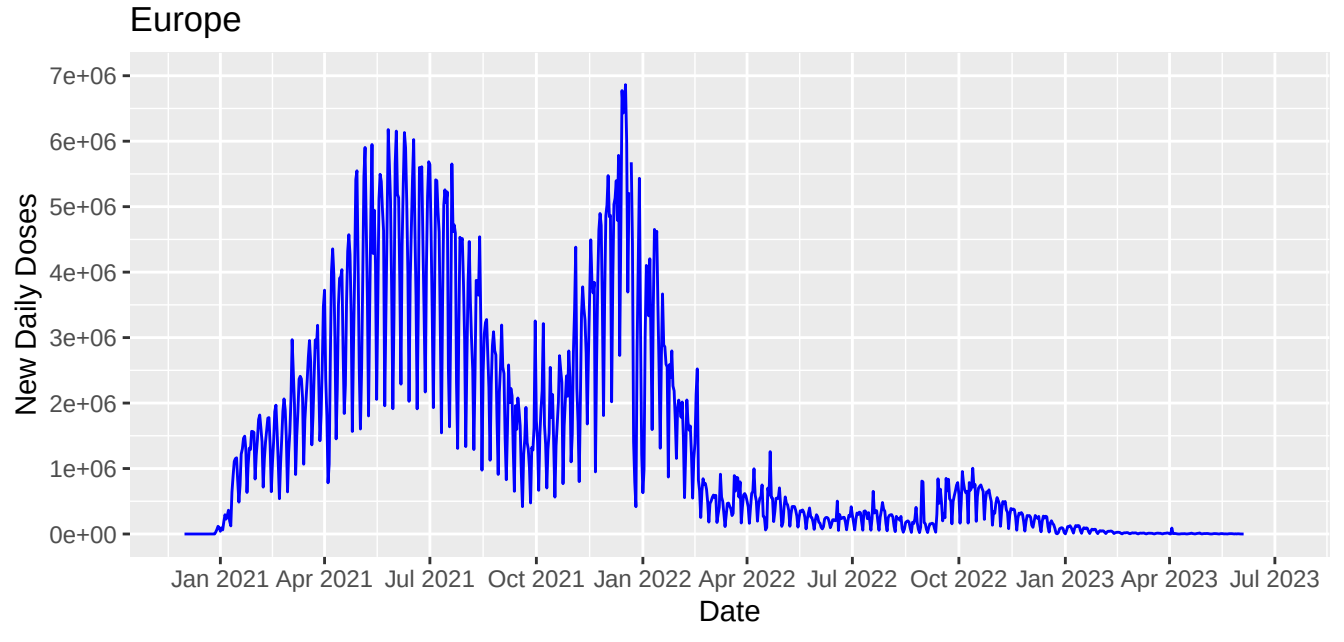
Ex 3 : Cumulative Sum of Vaccinated People



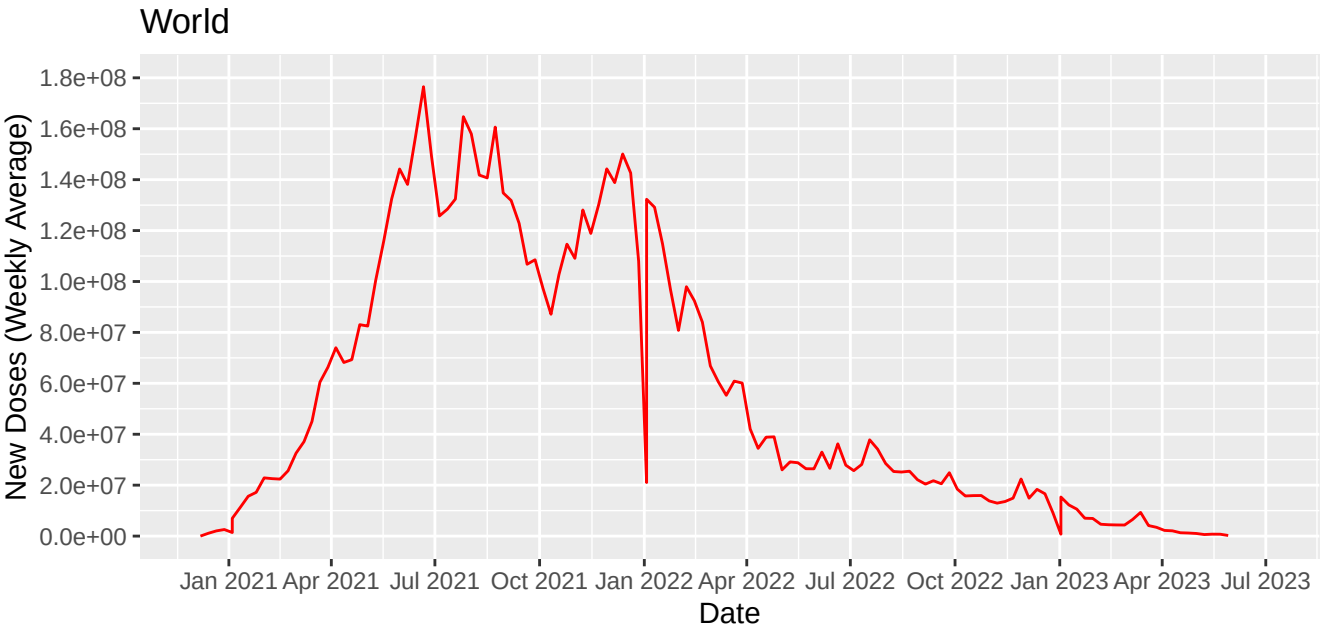


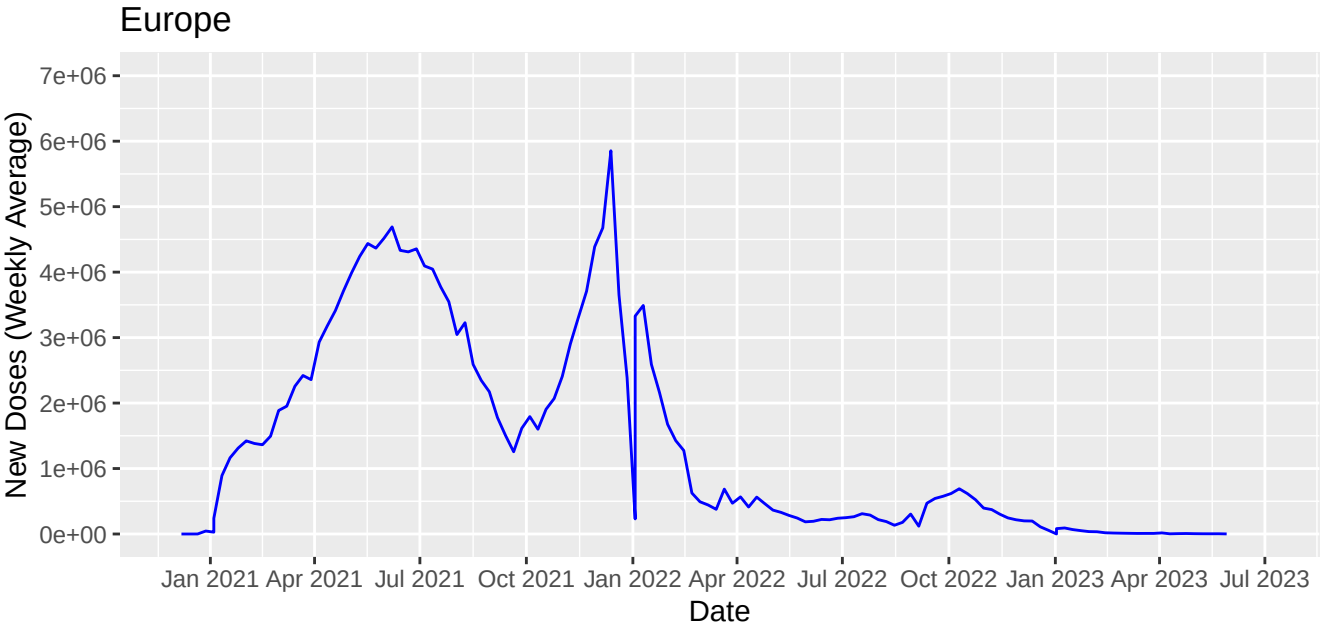
Ex 3 : Daily Number of Vaccinated People



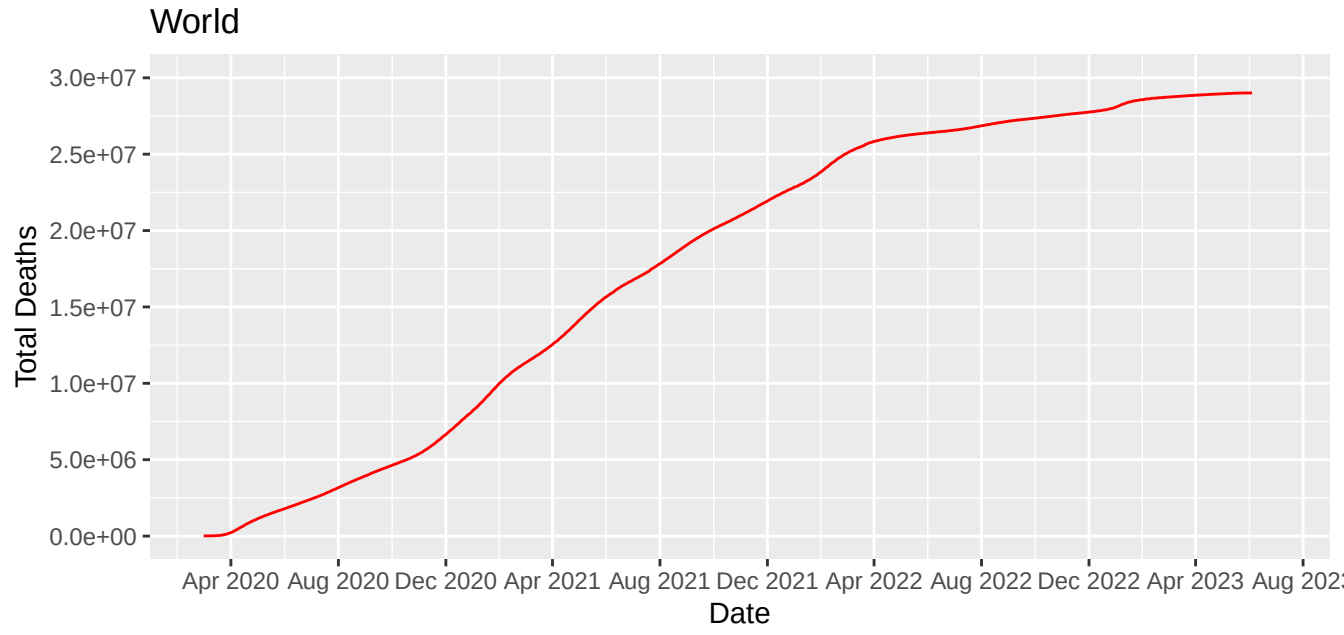


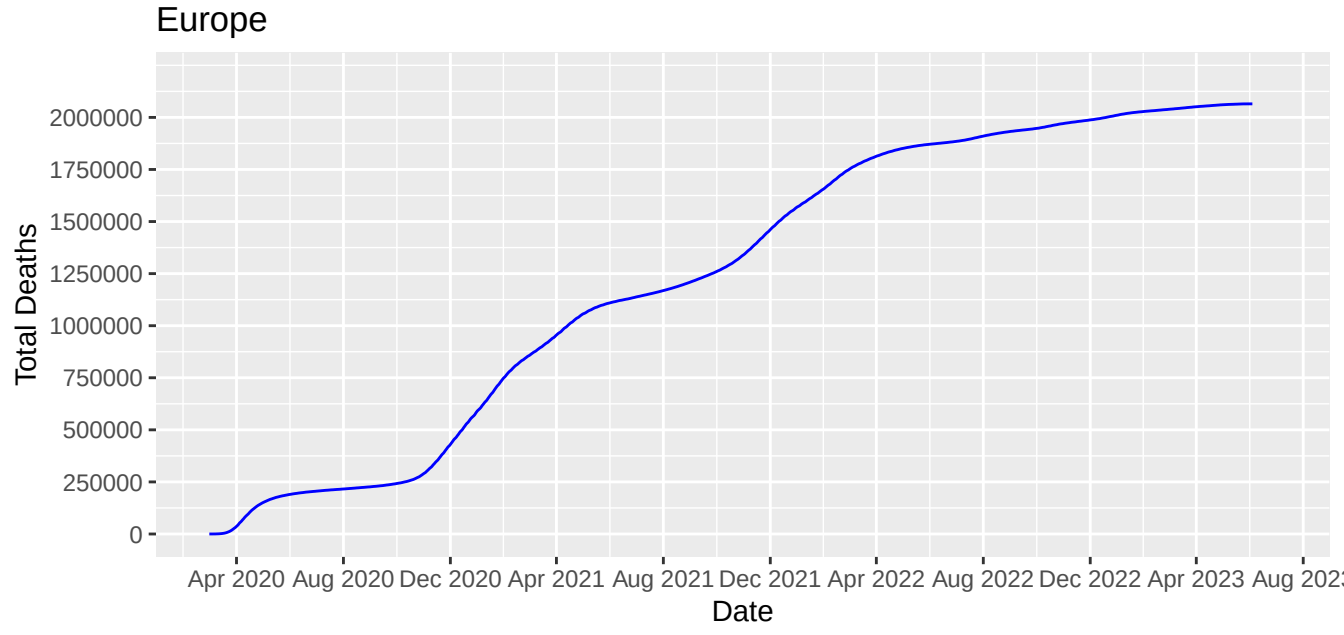
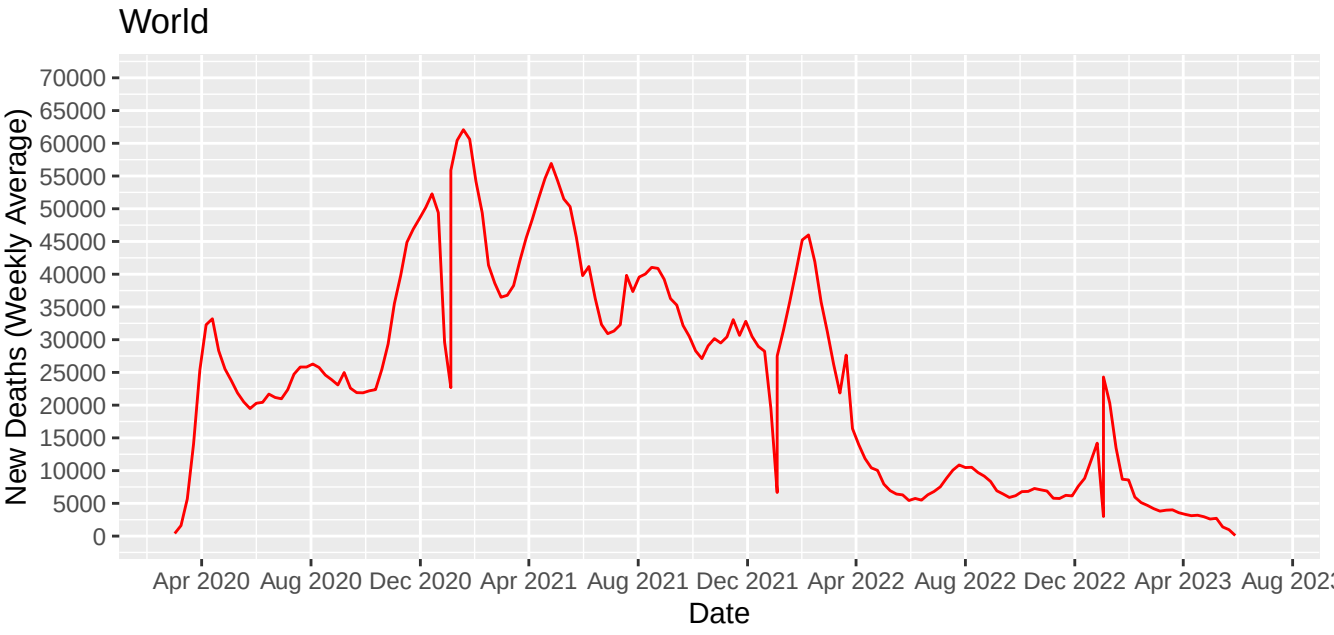
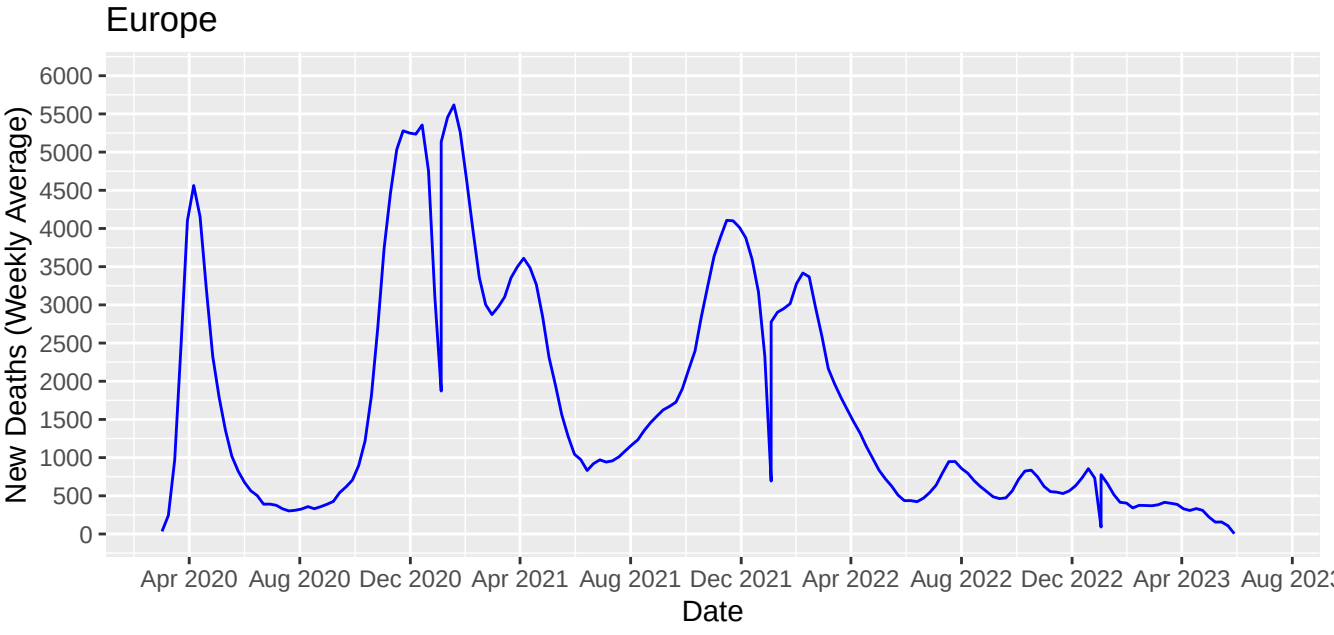
Ex 3 : Weekly Average of Vaccinated People





Ex 3 : Cumulative Sum of Deaths





Ex 3 : Weekly Average of Deaths