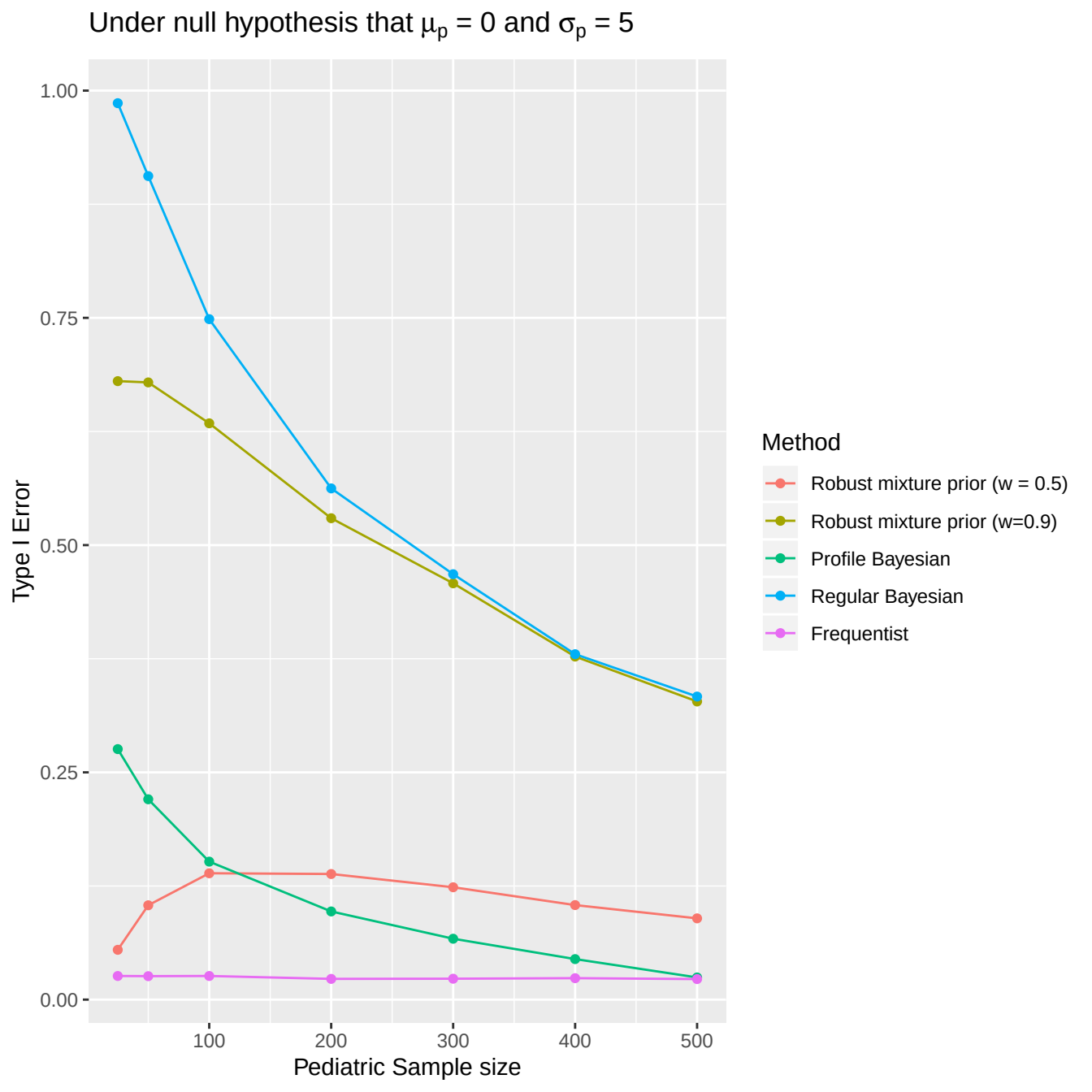
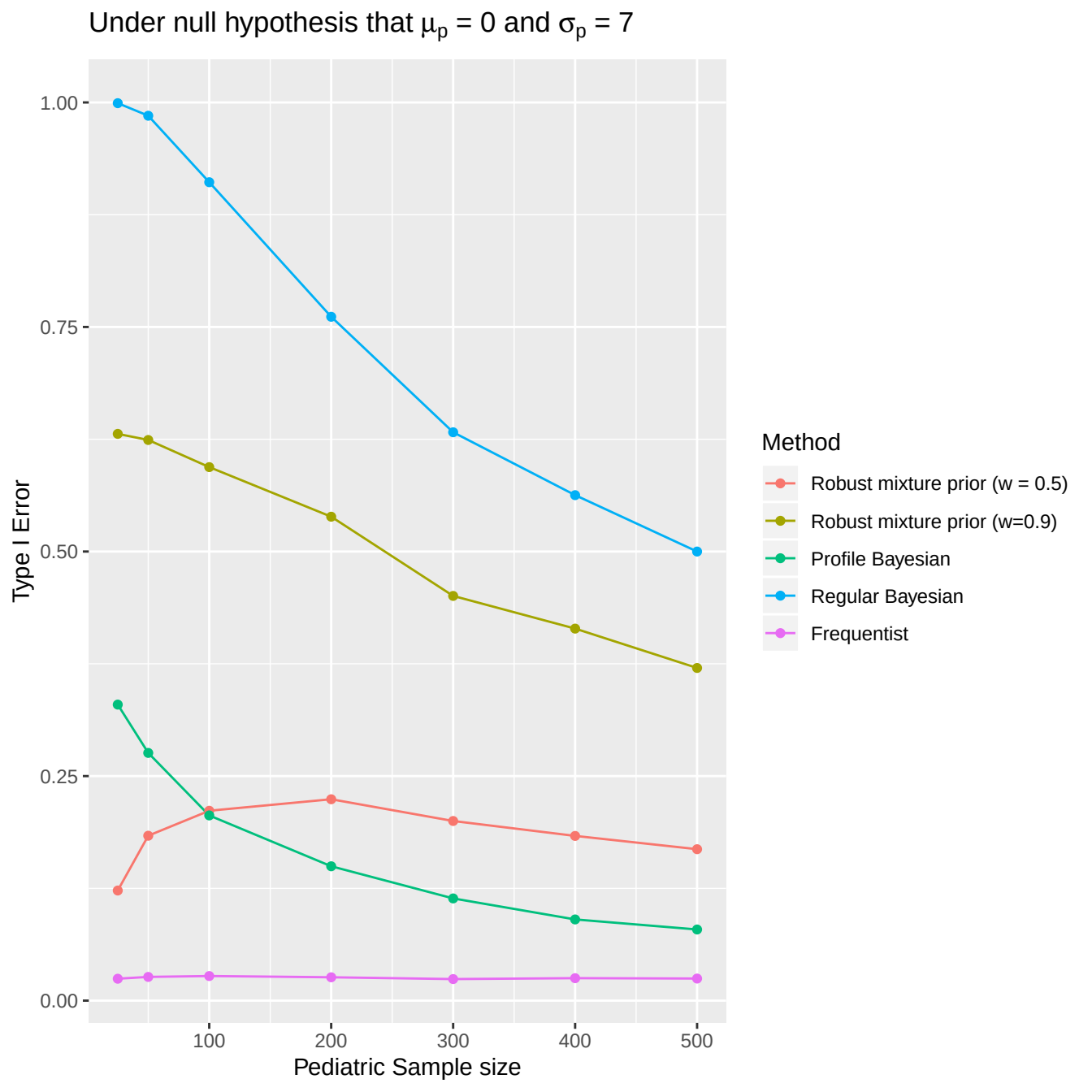
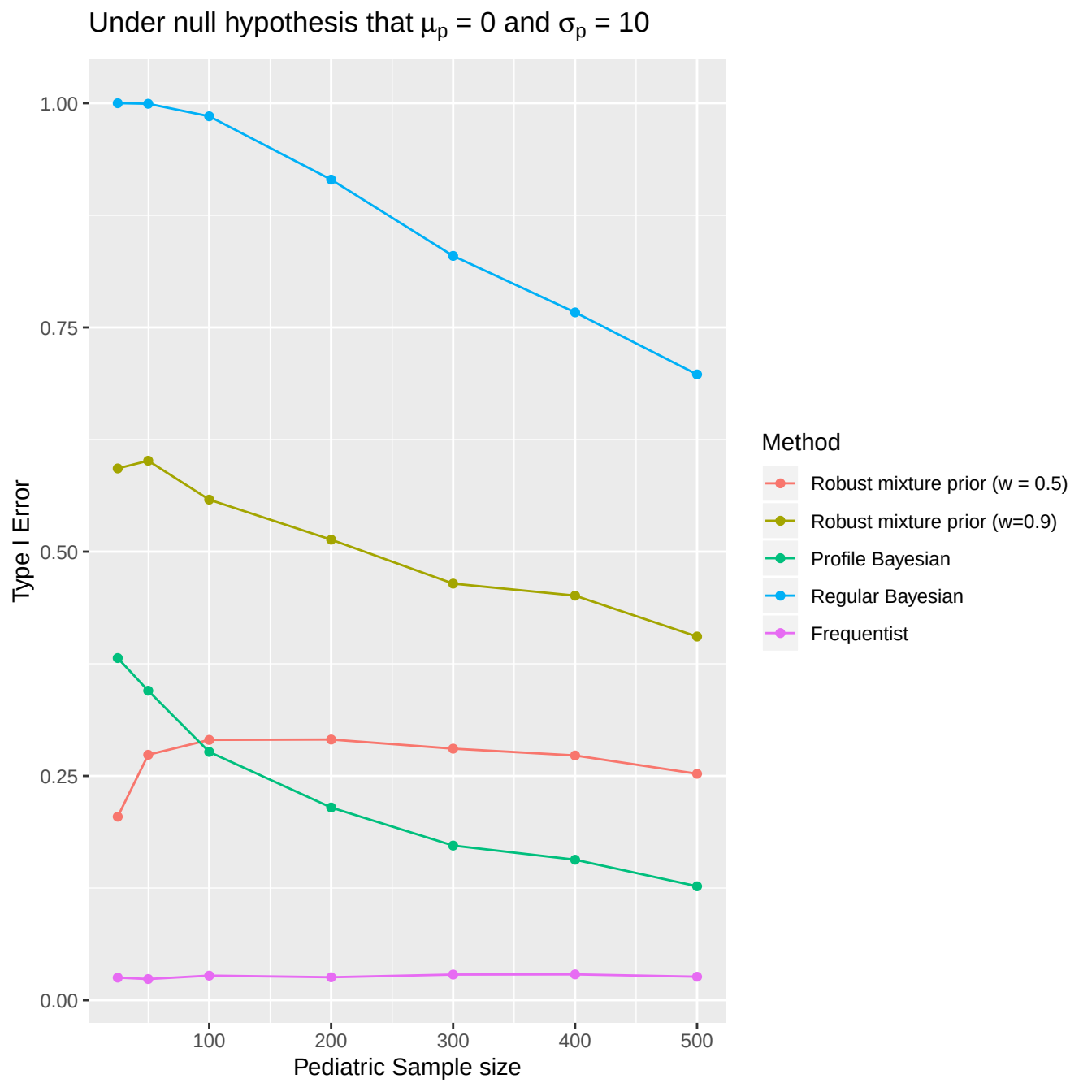
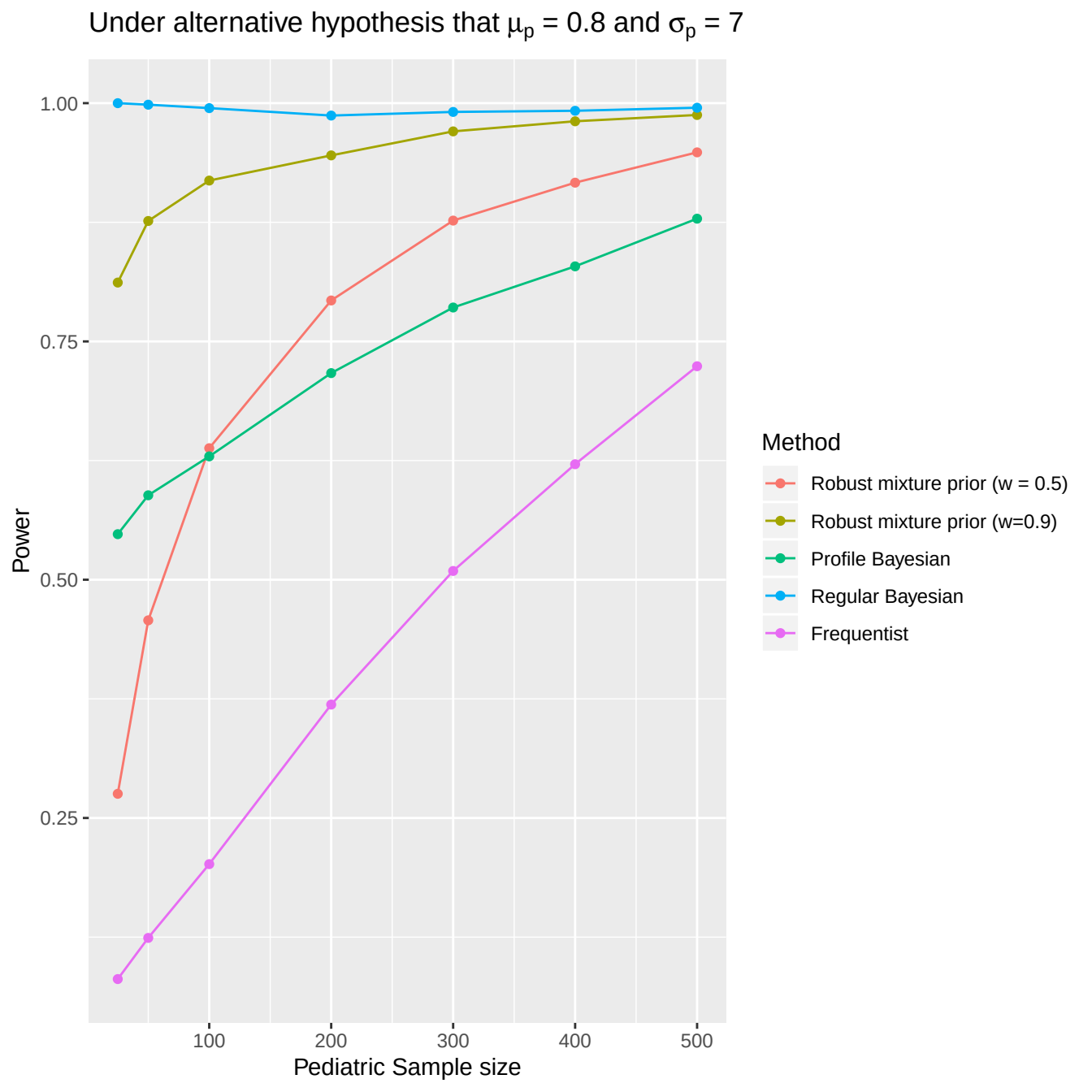
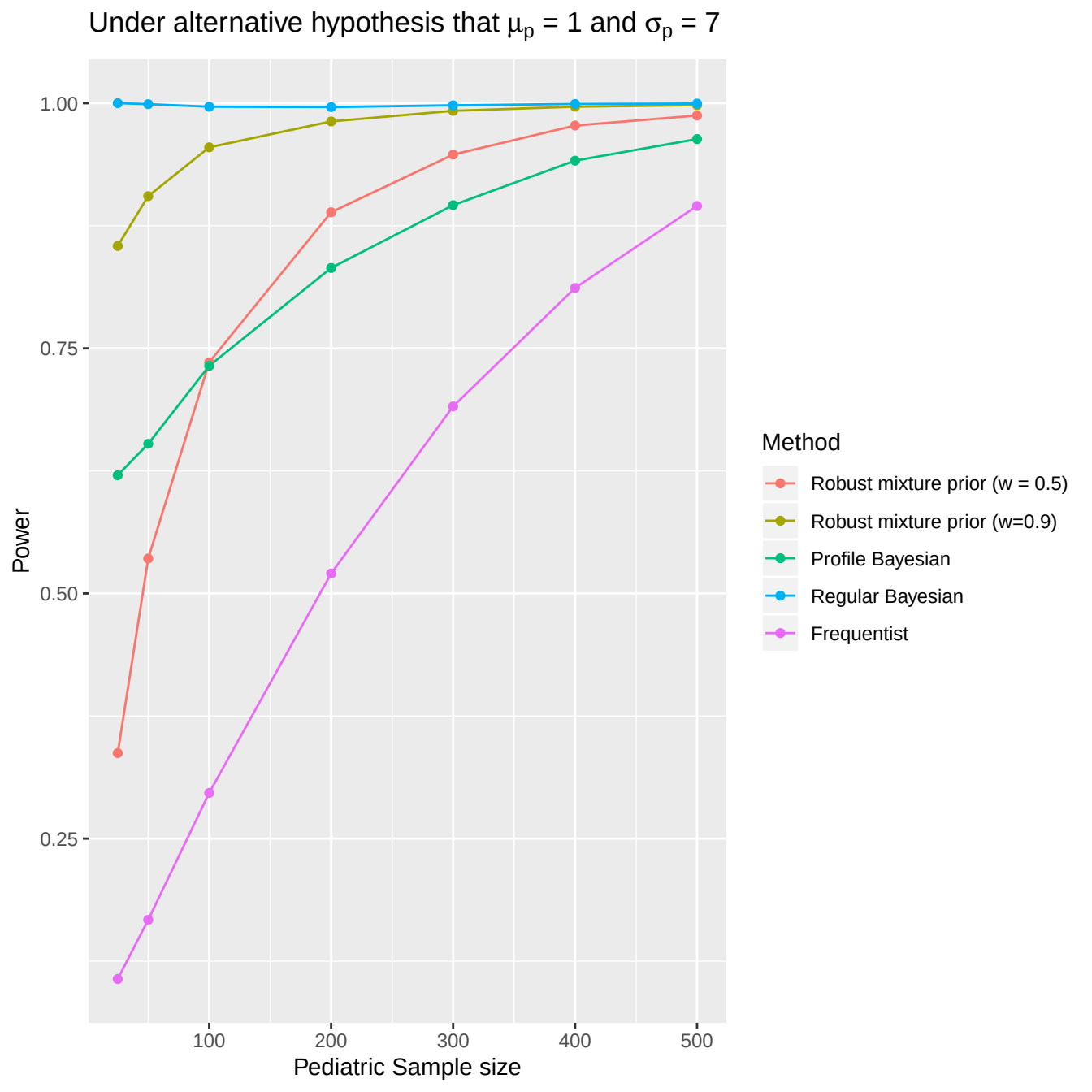
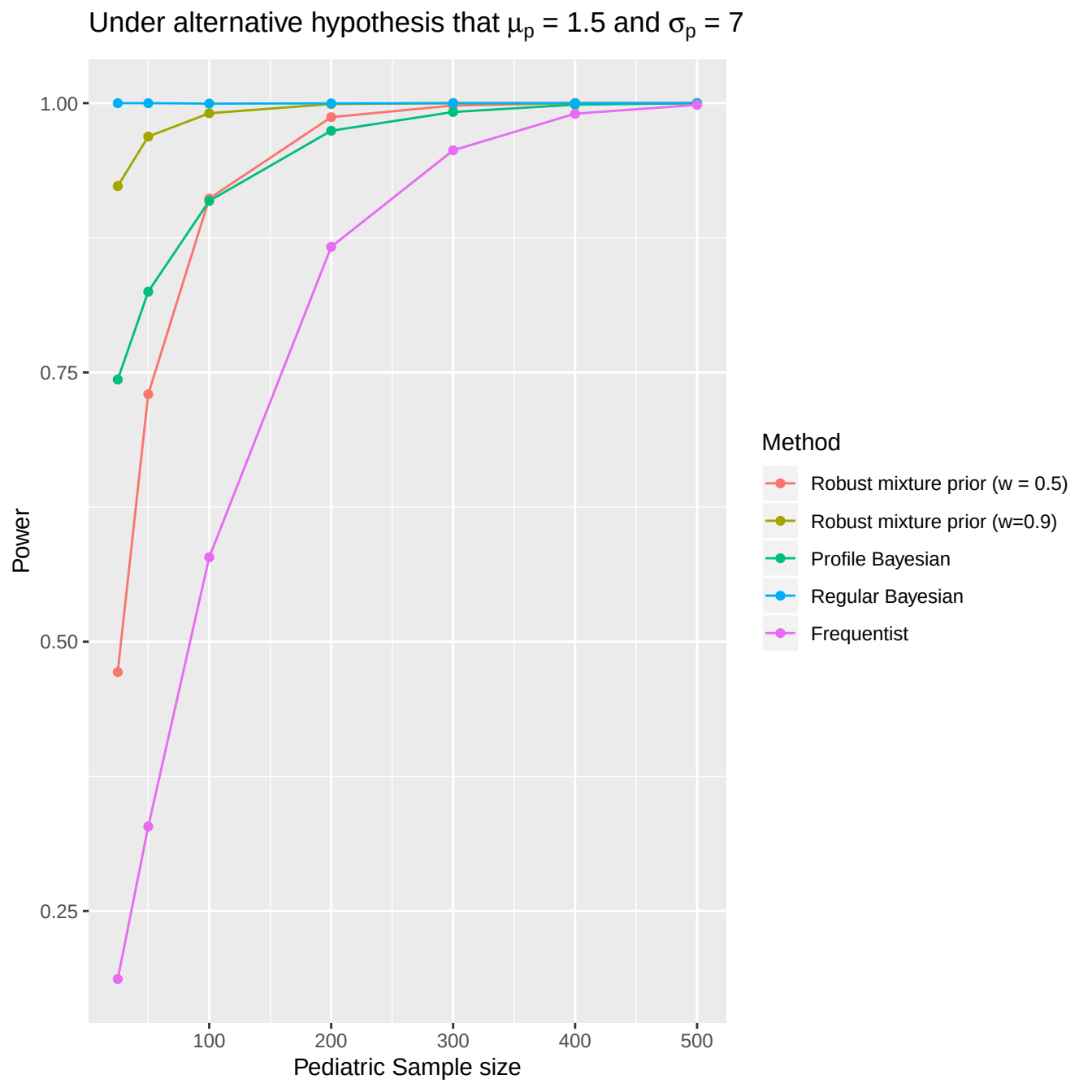

Under null hypothesis that $\mu_p = 0$ and $\sigma_p = 5$
Type I Error
1.00
0.75
0.50
0.25
0.00
100
200
300
400
500
Pediatric Sample size
Method
Robust mixture prior (w = 0.5)
Robust mixture prior (w=0.9)
Profile Bayesian
Regular Bayesian
Frequentist

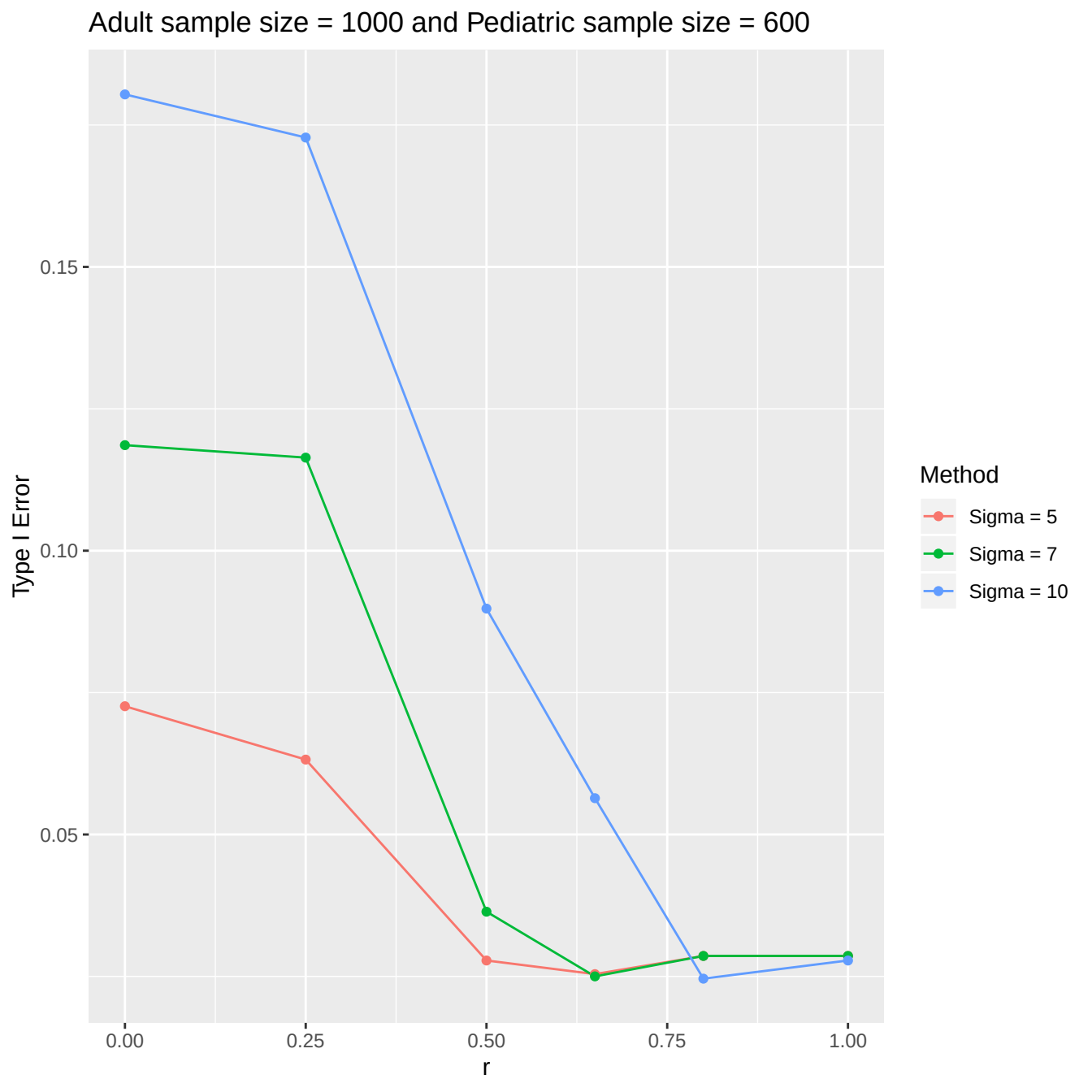

Under null hypothesis that $\mu_p = 0$ and $\sigma_p = 7$
Type I Error
1.00
0.75
0.50
0.25
0.00
100
200
300
400
500
Pediatric Sample size
Method
Robust mixture prior (w = 0.5)
Robust mixture prior (w=0.9)
Profile Bayesian
Regular Bayesian
Frequentist

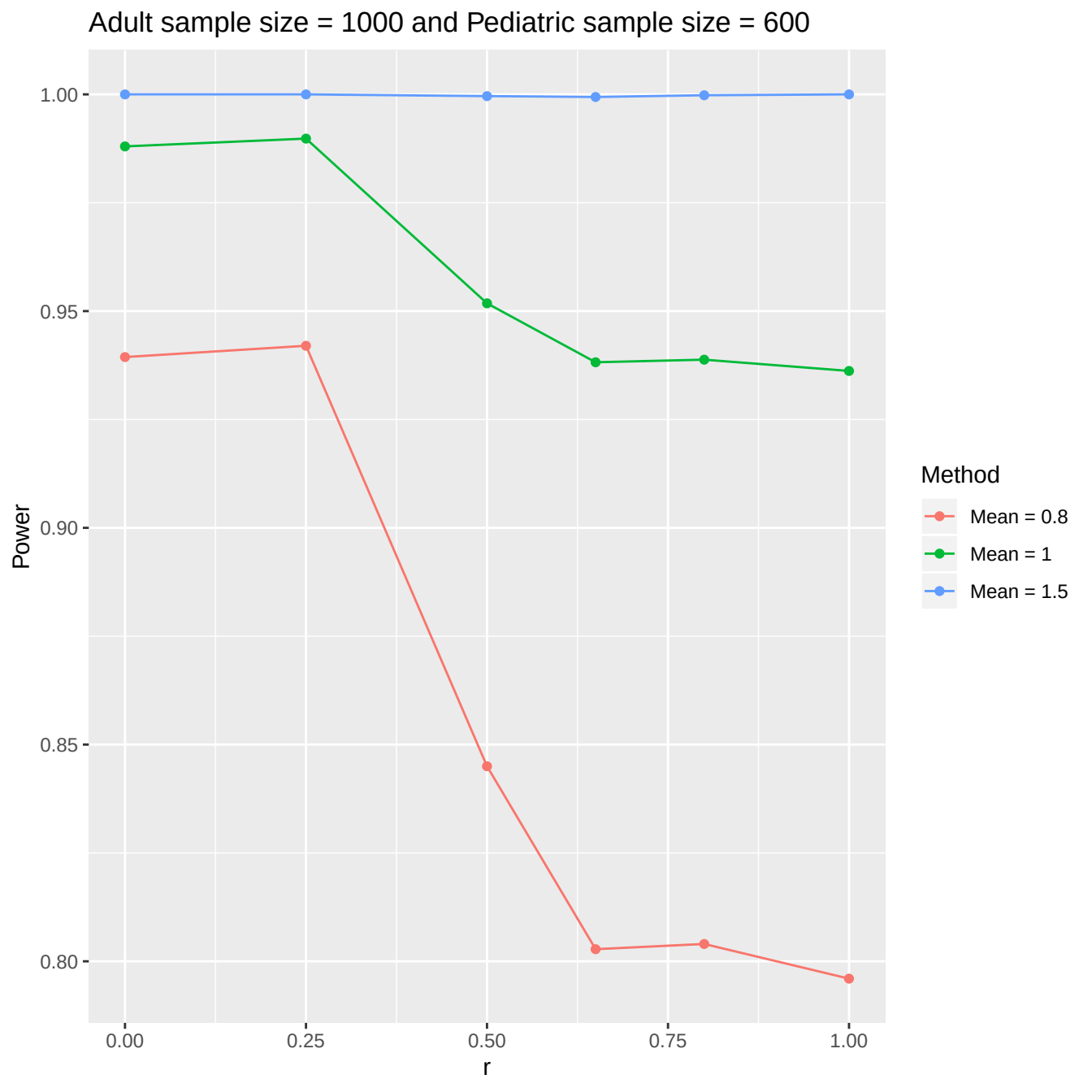

Under null hypothesis that $\mu_p = 0$ and $\sigma_p = 10$
Type I Error
1.00
0.75
0.50
0.25
0.00
100
200
300
400
500
Pediatric Sample size
Method
Robust mixture prior (w = 0.5)
Robust mixture prior (w=0.9)
Profile Bayesian
Regular Bayesian
Frequentist


Under alternative hypothesis that μ_p = 0.8 and σ_p = 7
1.00
0.75
0.50
0.25
Power
100
200
300
400
500
Pediatric Sample size
Method
Robust mixture prior (w = 0.5)
Robust mixture prior (w=0.9)
Profile Bayesian
Regular Bayesian
Frequentist


Under alternative hypothesis that $\mu_p = 1$ and $\sigma_p = 7$
1.00
0.75
0.50
0.25
Power
100
200
300
400
500
Pediatric Sample size
Method
Robust mixture prior (w = 0.5)
Robust mixture prior (w=0.9)
Profile Bayesian
Regular Bayesian
Frequentist


Under alternative hypothesis that μ_p = 1.5 and σ_p = 7
1.00
0.75
0.50
0.25
Power
100
200
300
400
500
Pediatric Sample size
Method
Robust mixture prior (w = 0.5)
Robust mixture prior (w=0.9)
Profile Bayesian
Regular Bayesian
Frequentist


Adult sample size = 1000 and Pediatric sample size = 600
Type I Error
0.15
0.10
0.05
0.00
0.25
0.50
0.75
1.00
r
Method
Sigma = 5
Sigma = 7
Sigma = 10


Adult sample size = 1000 and Pediatric sample size = 600
Power
1.00
0.95
0.90
0.85
0.80
0.00
0.25
0.50
0.75
1.00
r
Method
Mean = 0.8
Mean = 1
Mean = 1.5