SUPPLEMENT TO RANDOM-EFFECTS META-ANALYSIS OF COMBINED OUTCOMES BASED ON RECONSTRUCTIONS OF INDIVIDUAL PATIENT DATA

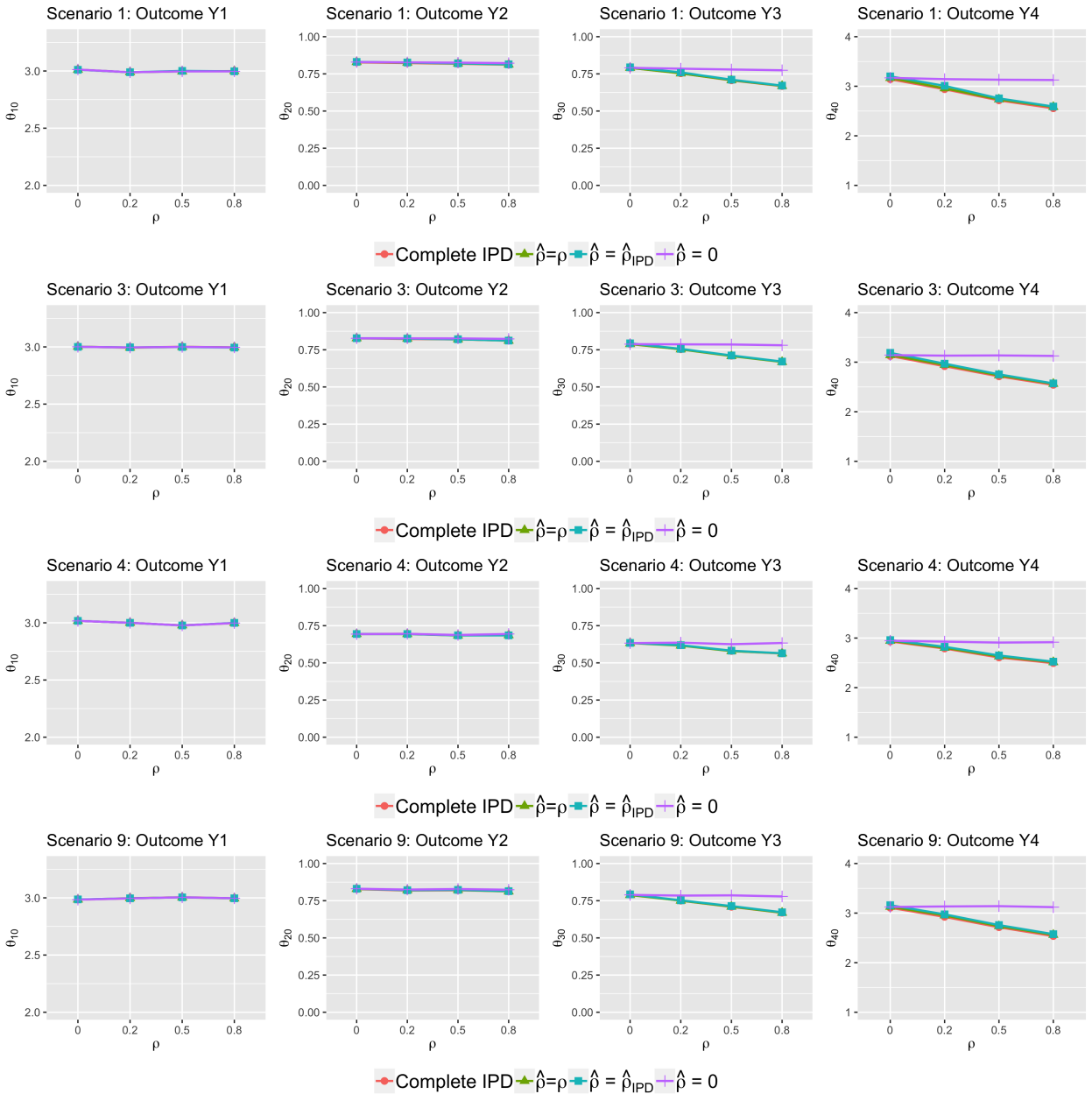
BY YUE SONG, FENG SUN, SUSAN REDLINE, AND RUI WANG

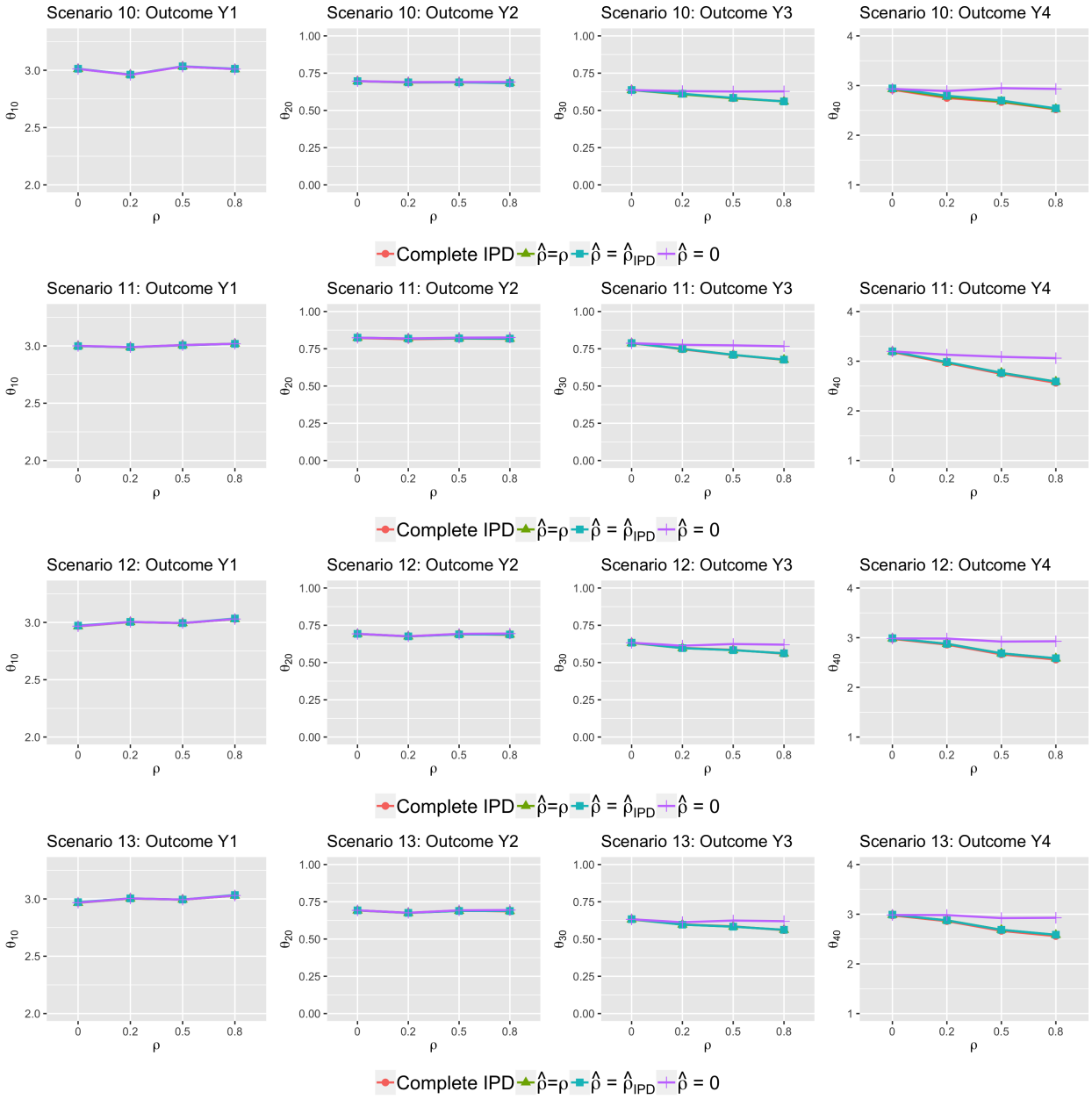
1 Simulation scenarios

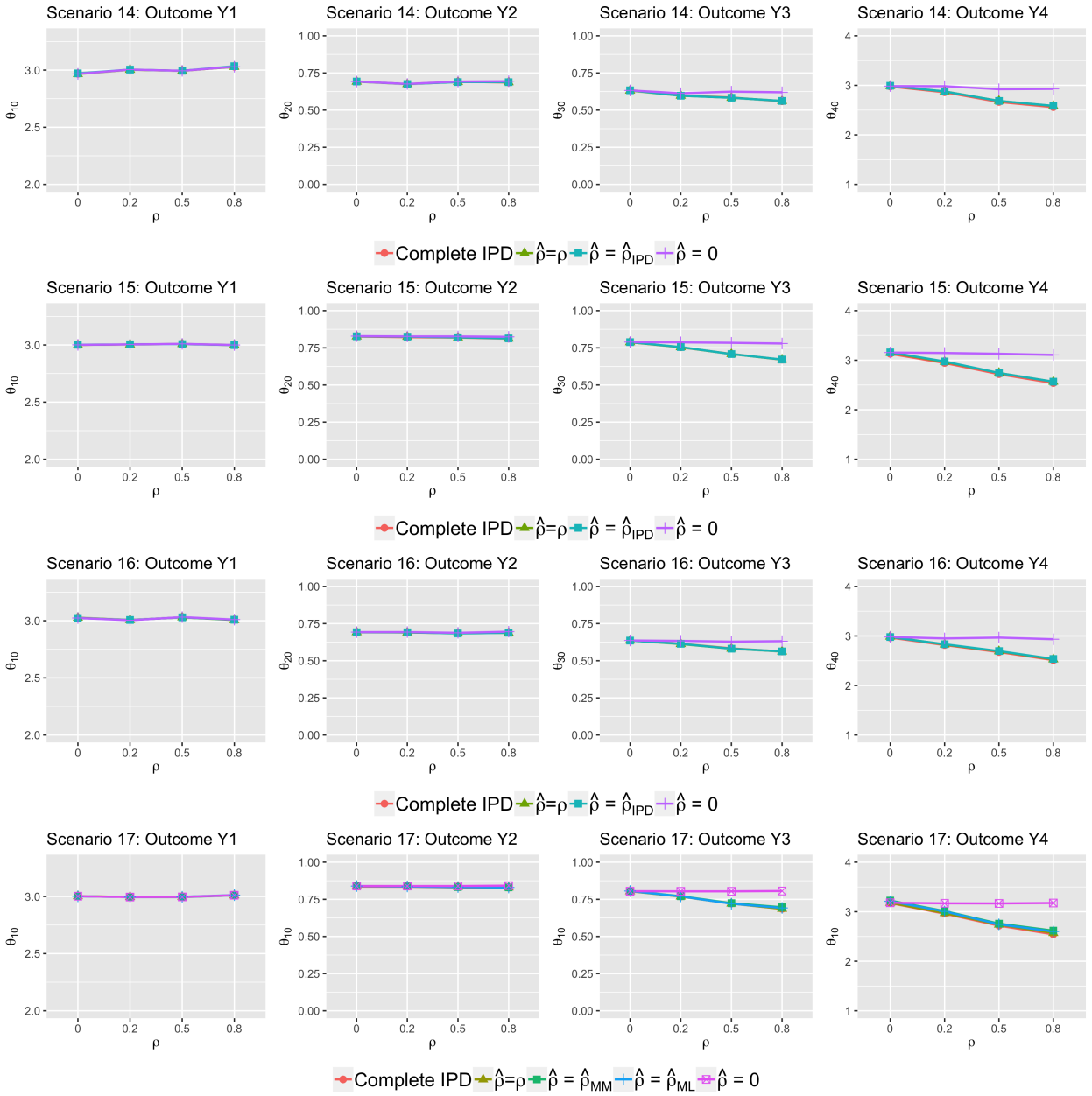
Table 1: Simulation scenarios

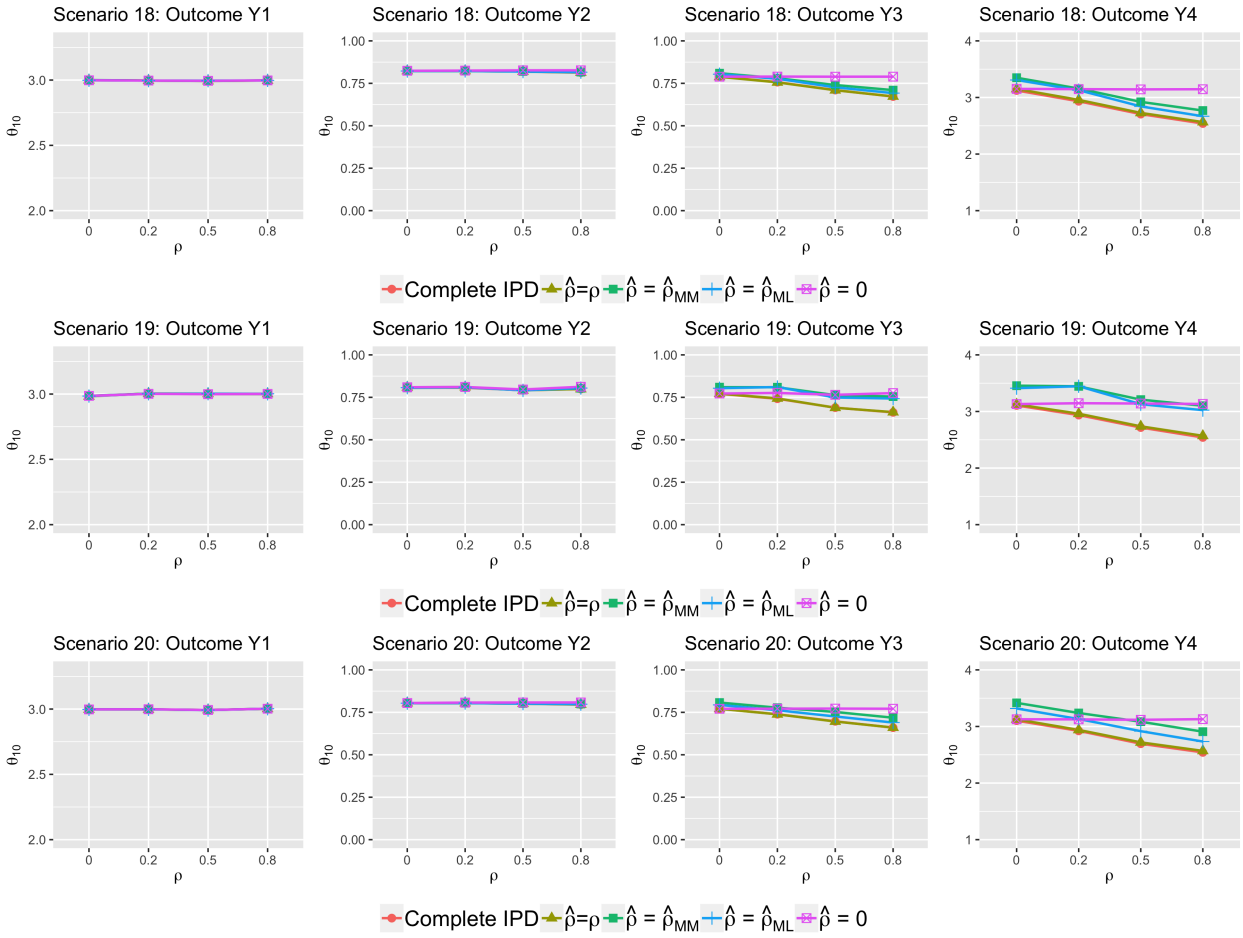
IPD and AD ($\kappa = 0.5$)				AD only ($\kappa = 0$)		
Scenario	S	$(\tau_i^U)^2, (\tau_i^V)^2$	n_{IPD}	Scenario	S	$(\tau_i^U)^2, (\tau_i^V)^2$
1	7	0.05	20	5	13	0.01
2	7	0.5	20	6	13	0.05
3	30	0.05	20	7	50	0.01
4	30	0.5	20	8	50	0.05
9	15	0.05	20	17	30	0.01
10	15	0.5	20	18	30	0.05
11	7	0.05	200	19	13	0.1
12	7	0.5	200	20	50	0.1
13	15	0.05	200			
14	15	0.5	200			
15	30	0.05	200			
16	30	0.5	200			

2 Additional Simulation Results: Average treatment effect estimates based on various $\widehat{\rho}$ and complete IPD (scenarios 1,3,4,9-20)




Scenario 10: Outcome Y1
Scenario 10: Outcome Y2
Scenario 10: Outcome Y3
Scenario 10: Outcome Y4
Scenario 11: Outcome Y1
Scenario 11: Outcome Y2
Scenario 11: Outcome Y3
Scenario 11: Outcome Y4
Scenario 12: Outcome Y1
Scenario 12: Outcome Y2
Scenario 12: Outcome Y3
Scenario 12: Outcome Y4
Scenario 13: Outcome Y1
Scenario 13: Outcome Y2
Scenario 13: Outcome Y3
Scenario 13: Outcome Y4
θ10
θ20
θ30
θ40
ρ
Complete IPD
ρ̂=ρ
ρ̂ = ρ̂IPD
ρ̂ = 0


Scenario 14: Outcome Y1
Scenario 14: Outcome Y2
Scenario 14: Outcome Y3
Scenario 14: Outcome Y4
Complete IPD
ρ̂=ρ
ρ̂ = ρ̂IPD
ρ̂ = 0
Scenario 15: Outcome Y1
Scenario 15: Outcome Y2
Scenario 15: Outcome Y3
Scenario 15: Outcome Y4
Complete IPD
ρ̂=ρ
ρ̂ = ρ̂IPD
ρ̂ = 0
Scenario 16: Outcome Y1
Scenario 16: Outcome Y2
Scenario 16: Outcome Y3
Scenario 16: Outcome Y4
Complete IPD
ρ̂=ρ
ρ̂ = ρ̂IPD
ρ̂ = 0
Scenario 17: Outcome Y1
Scenario 17: Outcome Y2
Scenario 17: Outcome Y3
Scenario 17: Outcome Y4
Complete IPD
ρ̂=ρ
ρ̂ = ρ̂MM
ρ̂ = ρ̂ML
ρ̂ = 0


Scenario 18: Outcome Y1
Scenario 18: Outcome Y2
Scenario 18: Outcome Y3
Scenario 18: Outcome Y4
Scenario 19: Outcome Y1
Scenario 19: Outcome Y2
Scenario 19: Outcome Y3
Scenario 19: Outcome Y4
Scenario 20: Outcome Y1
Scenario 20: Outcome Y2
Scenario 20: Outcome Y3
Scenario 20: Outcome Y4
θ10
ρ
Complete IPD
ρ̂=ρ
ρ̂ = ρ̂MM
ρ̂ = ρ̂ML
ρ̂ = 0

3 Additional Simulation Results: Standard errors (scenario 9-20)

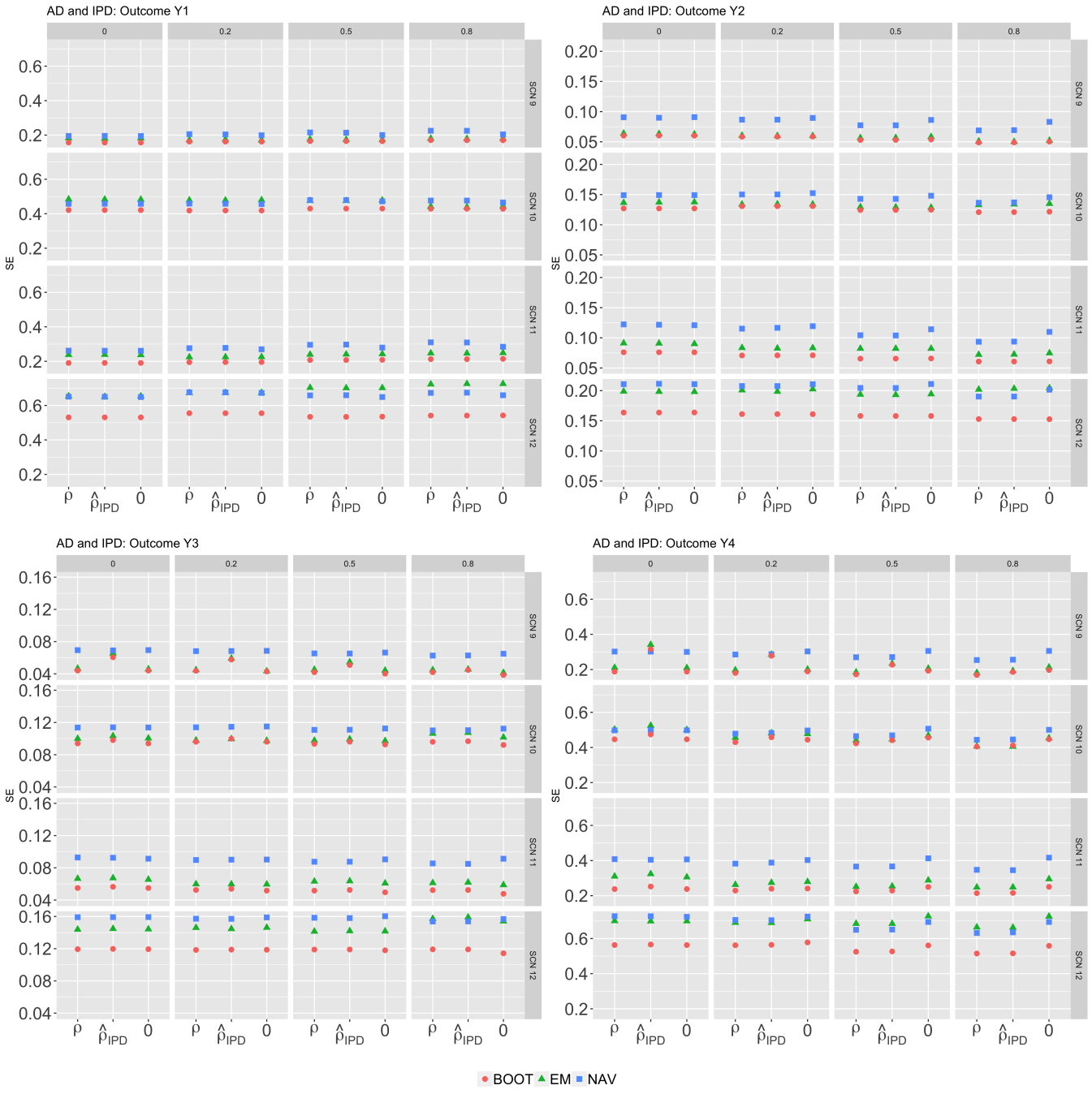


Figure 1: Standard errors (Scenario 9-12)

Comparisons of standard error estimates of treatment effect estimates on combined outcomes for various $\widehat{\rho}$. One study provides IPD and the rest provide AD. EMP refers to the empirical standard errors, NAV refers to the average standard error estimates obtained by a naive application of the Rubin's rule; BOOT refers to the average bootstrap standard error estimates.

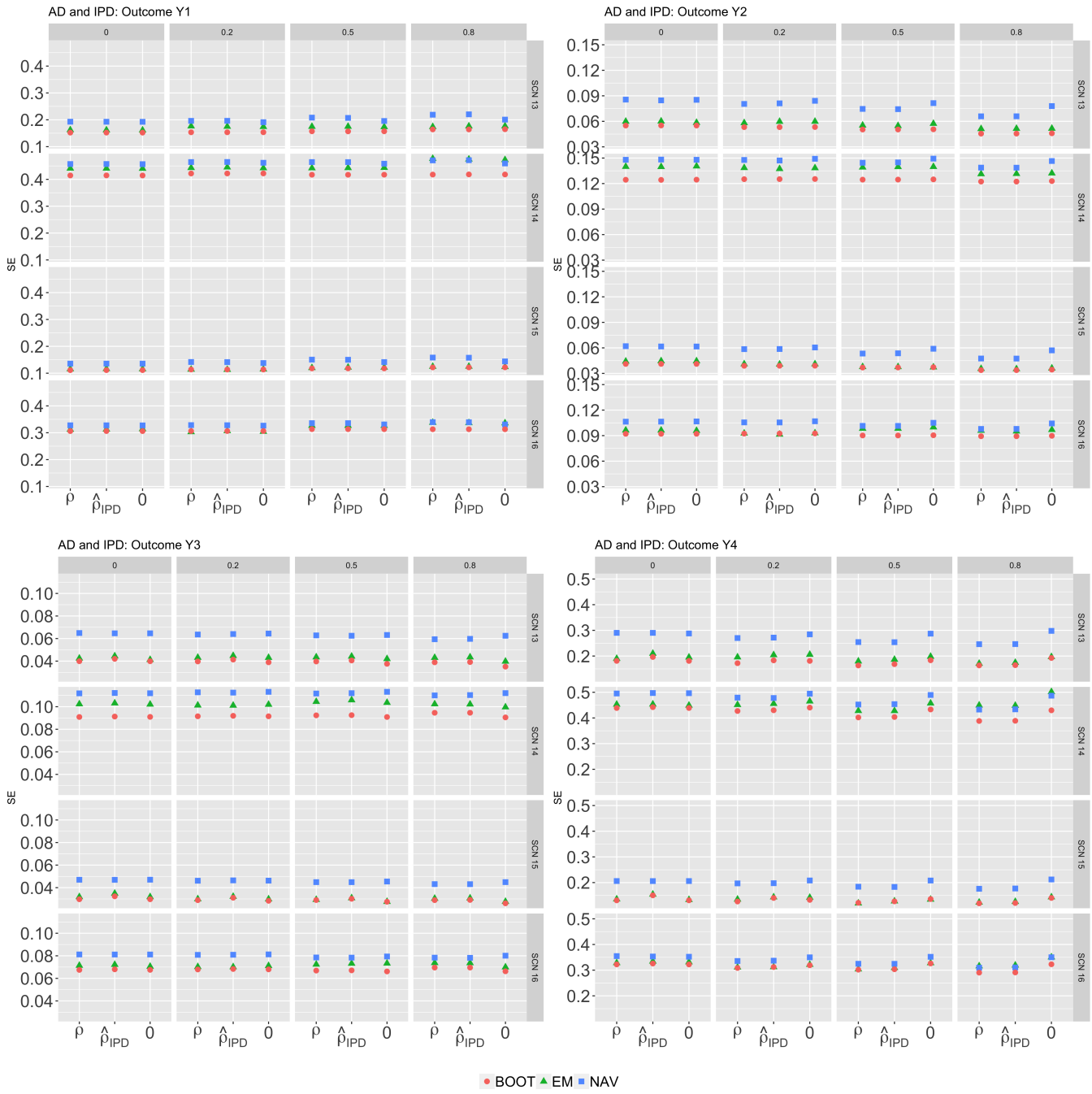


Figure 2: Standard errors (Scenario 13-16)

Comparisons of standard error estimates of treatment effect estimates on combined outcomes for various $\widehat{\rho}$. One study provides IPD and the rest provide AD. EMP refers to the empirical standard errors, NAV refers to the average standard error estimates obtained by a naive application of the Rubin's rule; BOOT refers to the average bootstrap standard error estimates.

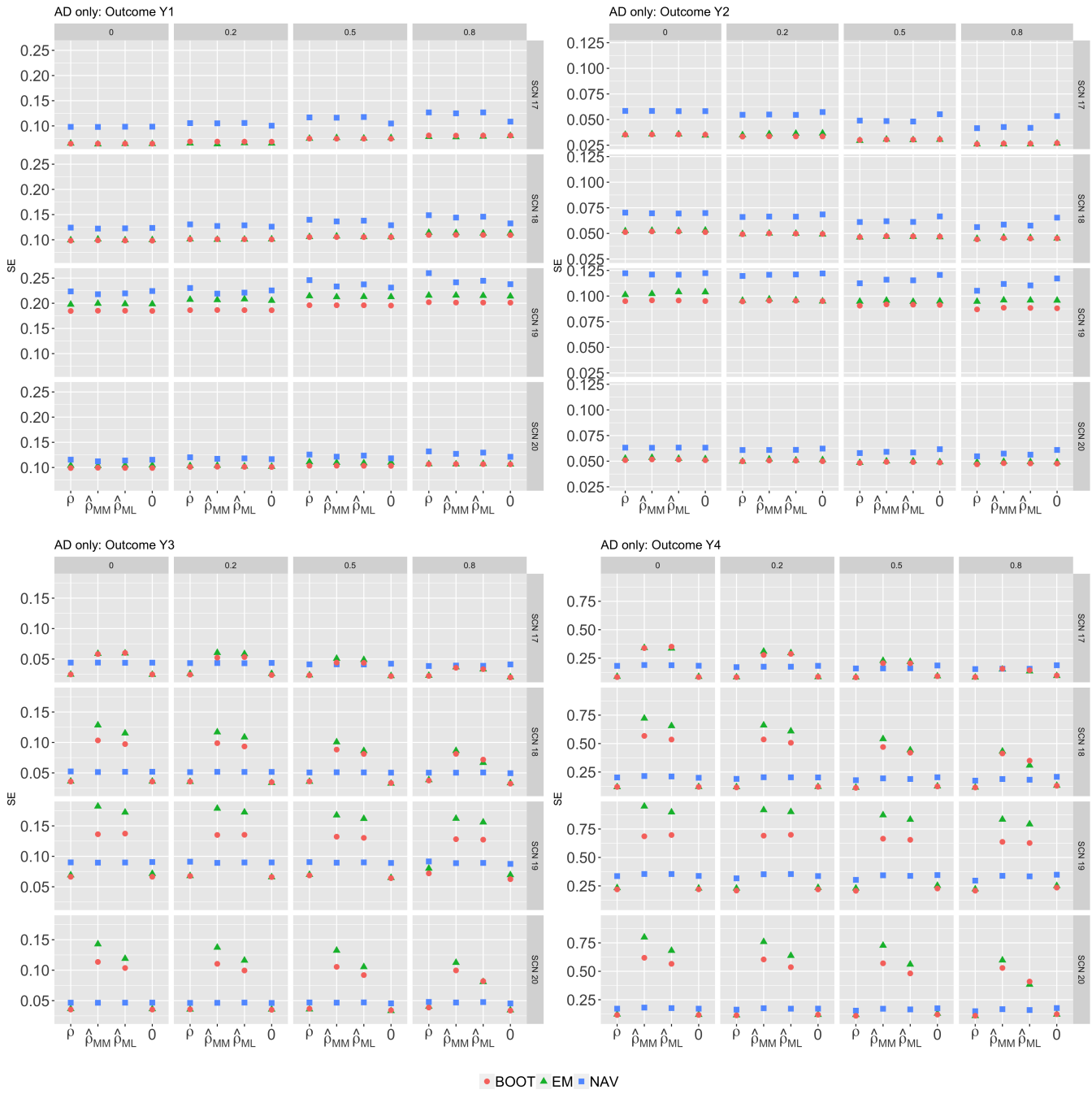


Figure 3: Standard errors (Scenario 17-20)

Comparisons of standard error estimates of treatment effect estimates on combined outcomes for various $\widehat{\rho}$. All studies provide AD only. EMP refers to the empirical standard errors, NAV refers to the average standard error estimates obtained by a naive application of the Rubin's rule; BOOT refers to the average bootstrap standard error estimates.