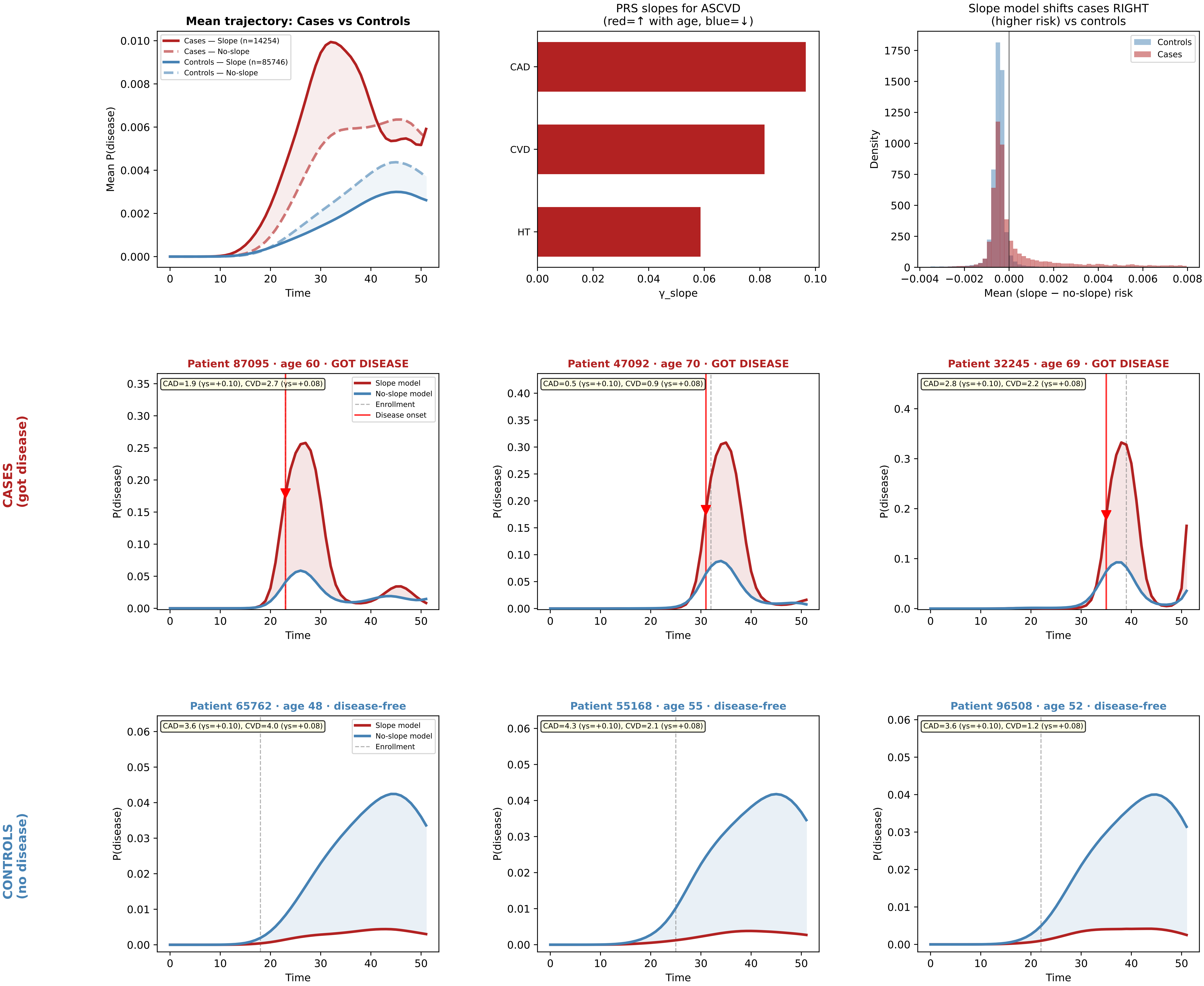
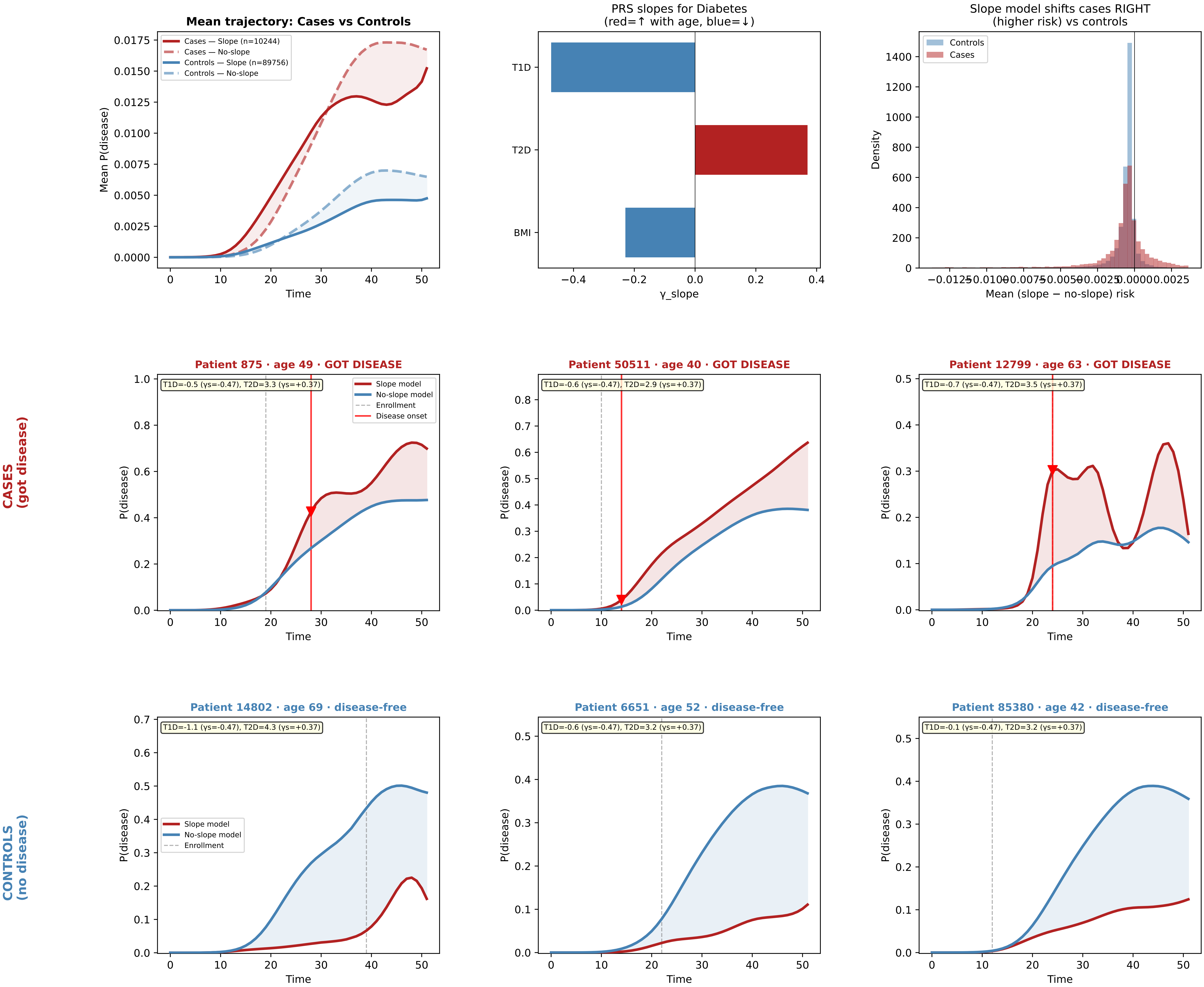
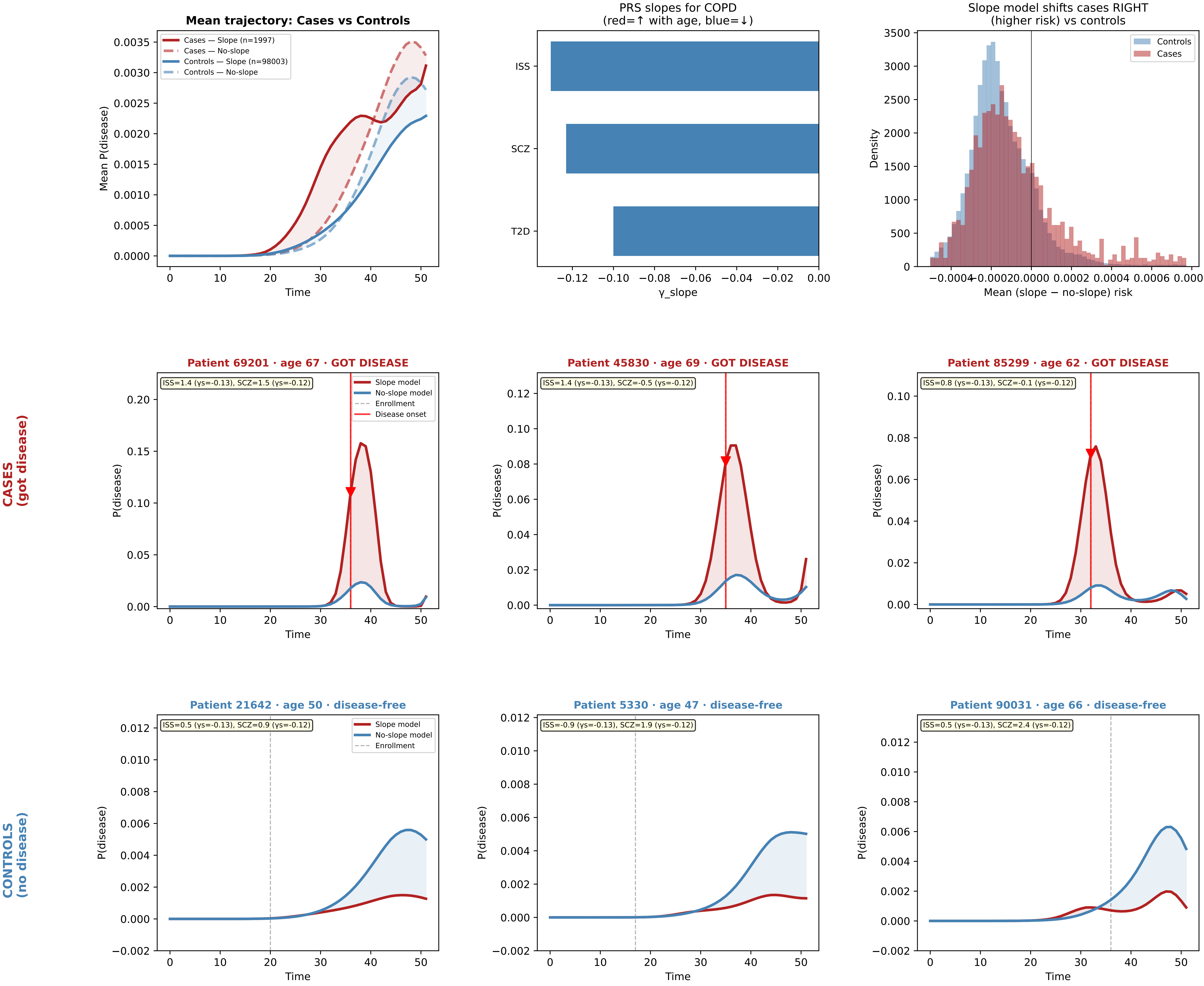
ASCVD: Slope Model Improves Discrimination
Cases rise more · Controls stay flatter



Diabetes: Slope Model Improves Discrimination
Cases rise more · Controls stay flatter

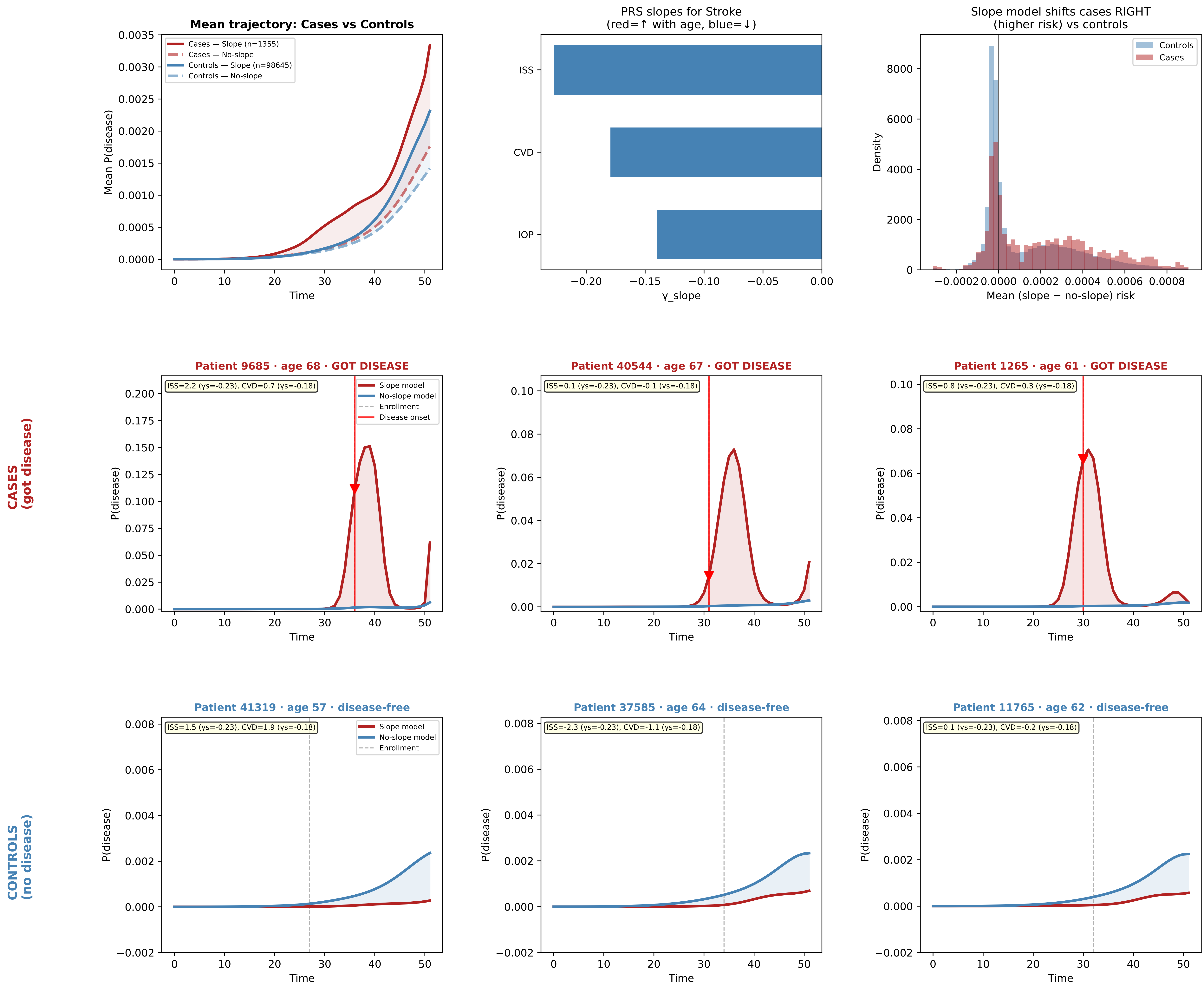


COPD: Slope Model Improves Discrimination
Cases rise more · Controls stay flatter

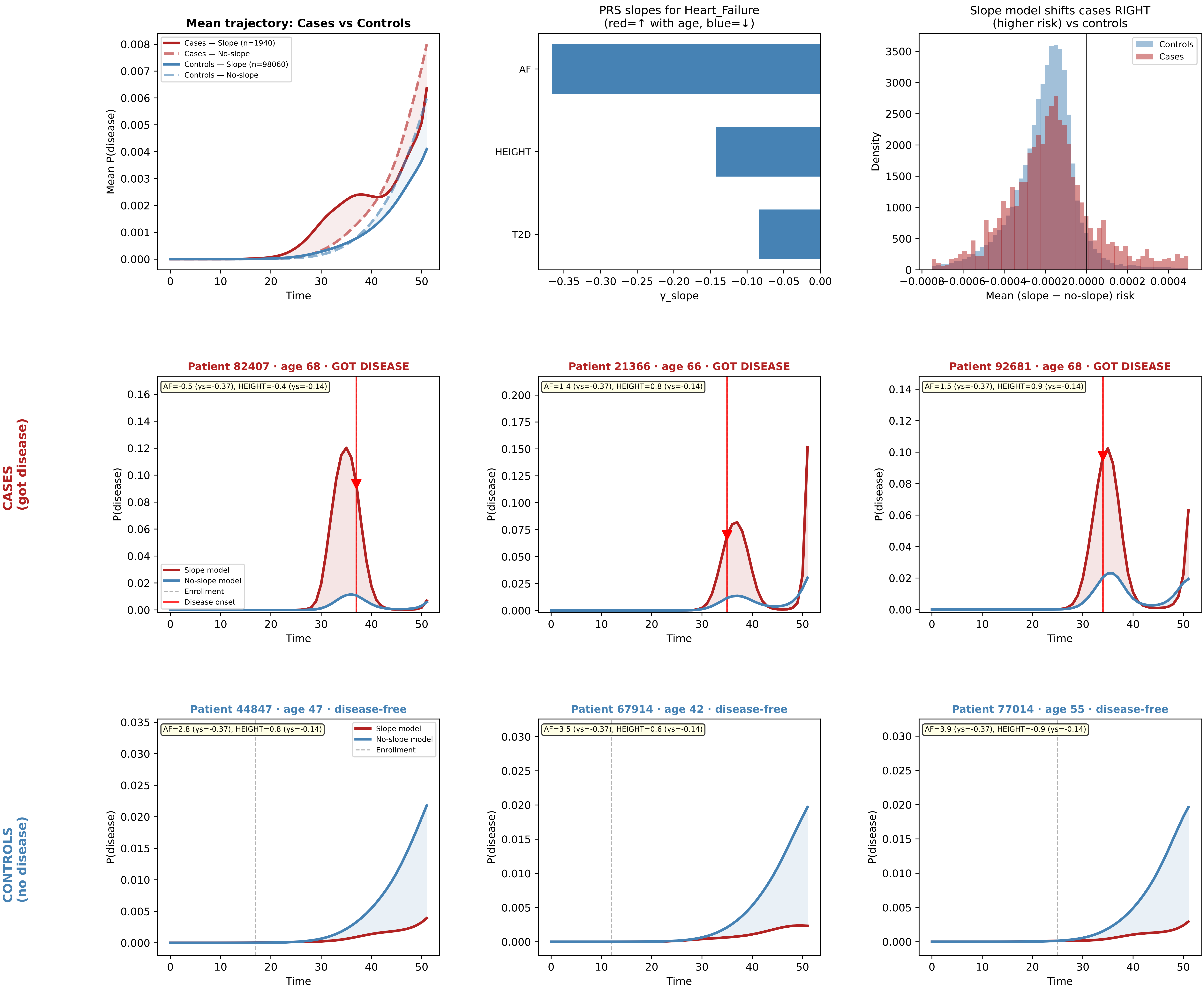


Stroke: Slope Model Improves Discrimination

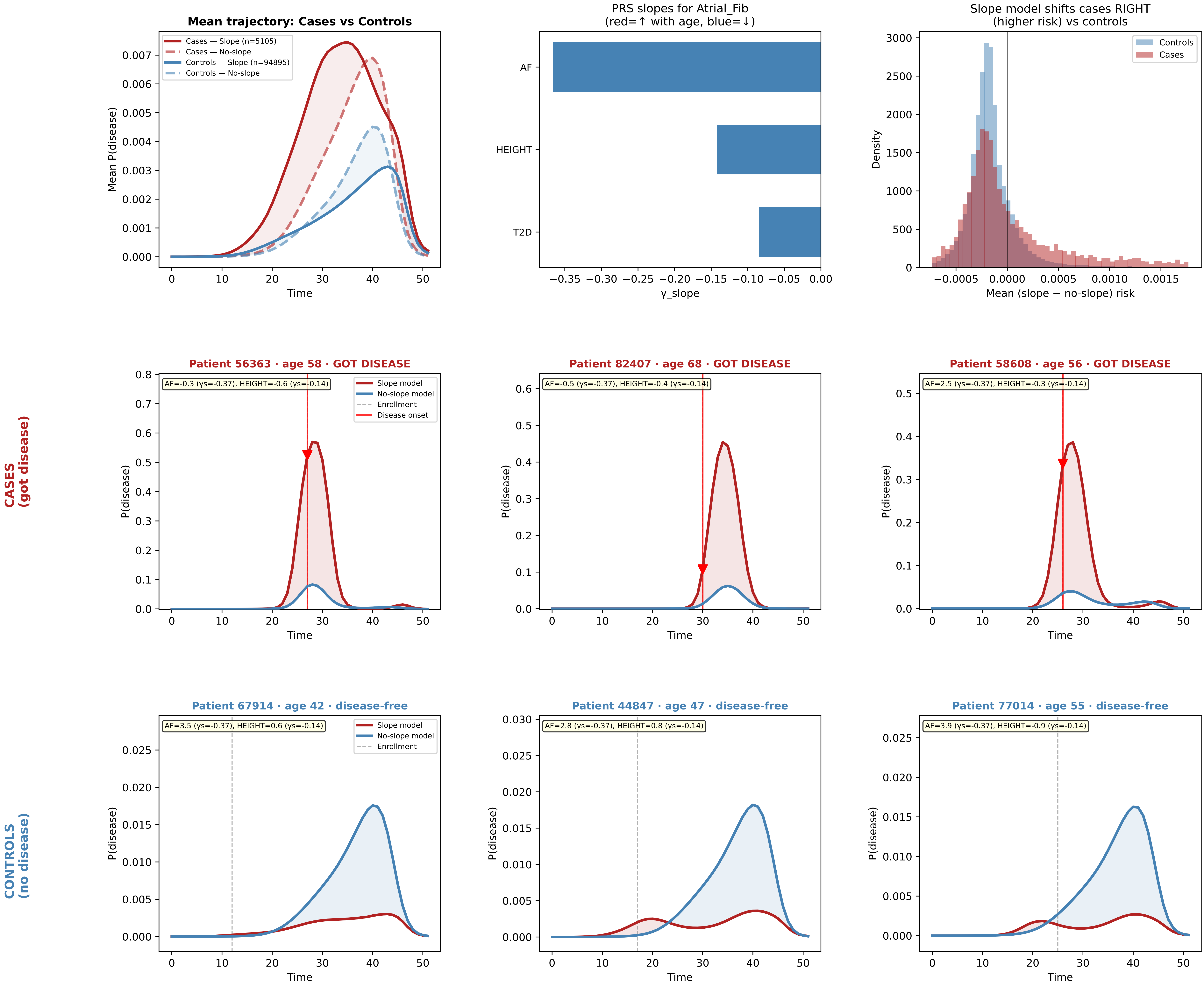
Cases rise more · Controls stay flatter



Heart_Failure: Slope Model Improves Discrimination
Cases rise more · Controls stay flatter



Atrial_Fib: Slope Model Improves Discrimination
Cases rise more · Controls stay flatter


Mean trajectory: Cases vs Controls
Cases — Slope (n=5105)
Cases — No-slope
Controls — Slope (n=94895)
Controls — No-slope
Mean P(disease)
Time
PRS slopes for Atrial_Fib
(red=↑ with age, blue=↓)
AF
HEIGHT
T2D
γ_slope
−0.35 −0.30 −0.25 −0.20 −0.15 −0.10 −0.05 0.00
Slope model shifts cases RIGHT
(higher risk) vs controls
Controls
Cases
Density
Mean (slope − no-slope) risk
−0.0005 0.0000 0.0005 0.0010 0.0015
CASES
(got disease)
Patient 56363 · age 58 · GOT DISEASE
AF=-0.3 (γs=-0.37), HEIGHT=-0.6 (γs=-0.14)
Slope model
No-slope model
Enrollment
Disease onset
Patient 82407 · age 68 · GOT DISEASE
AF=-0.5 (γs=-0.37), HEIGHT=-0.4 (γs=-0.14)
Patient 58608 · age 56 · GOT DISEASE
AF=2.5 (γs=-0.37), HEIGHT=-0.3 (γs=-0.14)
P(disease)
Time
CONTROLS
(no disease)
Patient 67914 · age 42 · disease-free
AF=3.5 (γs=-0.37), HEIGHT=0.6 (γs=-0.14)
Slope model
No-slope model
Enrollment
Patient 44847 · age 47 · disease-free
AF=2.8 (γs=-0.37), HEIGHT=0.8 (γs=-0.14)
Patient 77014 · age 55 · disease-free
AF=3.9 (γs=-0.37), HEIGHT=-0.9 (γs=-0.14)
P(disease)
Time