

$$E(Y | A, X, M) = \theta_0 + A\theta_1 + \theta_2 M + \theta_3 AM$$

$$CDE = \theta_1 + \theta_3 M$$

So, if $\text{logit}(E(Y | \dots)) = \theta_0 + \dots$, then

$$E(Y | A, X, M) = \frac{\exp(\theta_0 + \theta_1 A + \theta_2 M + \theta_3 AM)}{1 + \exp(\theta_0 + \theta_1 A + \theta_2 M + \theta_3 AM)}$$

$$E(Y | A=1, X, M) = \frac{\exp(\theta_0 + \theta_1 + \theta_2 M + \theta_3 M)}{1 + \exp(\theta_0 + \theta_1 + \theta_2 M + \theta_3 M)}$$

$$E(Y | A=0, X, M) = \frac{\exp(\theta_0 + \theta_2 M)}{1 + \exp(\theta_0 + \theta_2 M)}$$

we no longer have a nice equation for CDE.

