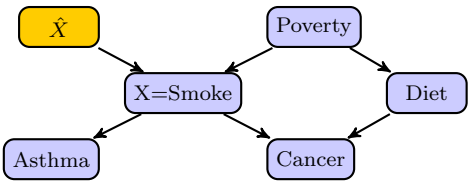
1. D-separation still applies after intervention.
   $(Cancer \perp\!\!\!\perp Asthma|Smoke)_{G_{\overline{X}}} \implies P(Cancer|do(Smoke), Asthma) = P(Cancer|do(Smoke)$
2. If there are no backdoor paths from X to Y then intervention≡observation.
   $(\hat{X} \perp\!\!\!\perp Cancer|X, Poverty)_{G^\dagger} \implies P(Cancer|do(Smoke), Poverty) = P(Cancer|Smoke, Poverty)$
3. If there are only backdoor paths from X to Y then intervention doesn't change $P(Y)$.
   $(\hat{X} \perp\!\!\!\perp Diet)_{G^\dagger} \implies P(Diet|do(Smoke)) = P(Diet)$

(a) $G^\dagger$



(b) $G_{\overline{X}}$