Example for Sufficiency holds but not Separation:

A = Region

C = Hyperlipidemia

Y = Vegetables

A = Region	C = Hyperlipidemia	Y = Vegetables	P(C|Y, A)	P(C|Y)	P(Y|C, A)	P(Y|C)	Separated	Sufficient
Countryside	YES	<400g/d	0.596703125	0.582128724	0.579	0.579	FALSE	TRUE
Countryside	YES	400-500g/d	0.387964107	0.373763069	0.284	0.284	FALSE	TRUE
Countryside	YES	>500g/d	0.201340449	0.191829499	0.137	0.137	FALSE	TRUE
Countryside	NO	<400g/d	0.403296875	0.417871276	0.283	0.283	FALSE	TRUE
Countryside	NO	400-500g/d	0.612035893	0.626236931	0.324	0.324	FALSE	TRUE
Countryside	NO	>500g/d	0.798659551	0.808170501	0.393	0.393	FALSE	TRUE
City	YES	<400g/d	0.568421814	0.582128724	0.579	0.579	FALSE	TRUE
City	YES	400-500g/d	0.360727087	0.373763069	0.284	0.284	FALSE	TRUE
City	YES	>500g/d	0.183281811	0.191829499	0.137	0.137	FALSE	TRUE
City	NO	<400g/d	0.431578186	0.417871276	0.283	0.283	FALSE	TRUE
City	NO	400-500g/d	0.639272913	0.626236931	0.324	0.324	FALSE	TRUE
City	NO	>500g/d	0.816718189	0.808170501	0.393	0.393	FALSE	TRUE

where Separated is True if P(C|Y, A) = P(C|Y)

Sufficient is True if P(Y|C, A) = P(Y|C).

Example for Separation holds but not Sufficient:

A = Vegetables

C = BMI

Y = Hyperlipidemia

A = Vegetables	C = BMI	Y = Hyperlipidemia	P(C|Y, A)	P(C|Y)	P(Y|C, A)	P(Y|C)	Separated	Sufficient
<400g/d	~18.5	YES	0.19852974	0.19852974	0.35994356	0.21560500	TRUE	FALSE
<400g/d	~18.5	NO	0.49179708	0.49179708	0.64005644	0.78439500	TRUE	FALSE
<400g/d	~24.0	YES	0.46963281	0.46963281	0.64335817	0.46857000	TRUE	FALSE
<400g/d	~24.0	NO	0.36267231	0.36267231	0.35664183	0.53143000	TRUE	FALSE
<400g/d	~28.0	YES	0.32815359	0.32815359	0.79281669	0.65161200	TRUE	FALSE
<400g/d	~28.0	NO	0.11946362	0.11946362	0.20718331	0.34838800	TRUE	FALSE
<400g/d	<18.5	YES	0.00368385	0.00368385	0.16449008	0.08778000	TRUE	FALSE
<400g/d	<18.5	NO	0.02606699	0.02606699	0.83550992	0.91222000	TRUE	FALSE
400-500g/d	~18.5	YES	0.19852974	0.19852974	0.19415510	0.21560500	TRUE	FALSE
400-500g/d	~18.5	NO	0.49179708	0.49179708	0.80584490	0.78439500	TRUE	FALSE
400-500g/d	~24.0	YES	0.46963281	0.46963281	0.43594018	0.46857000	TRUE	FALSE
400-500g/d	~24.0	NO	0.36267231	0.36267231	0.56405982	0.53143000	TRUE	FALSE
400-500g/d	~28.0	YES	0.32815359	0.32815359	0.62113375	0.65161200	TRUE	FALSE
400-500g/d	~28.0	NO	0.11946362	0.11946362	0.37886625	0.34838800	TRUE	FALSE
400-500g/d	<18.5	YES	0.00368385	0.00368385	0.07778593	0.08778000	TRUE	FALSE
400-500g/d	<18.5	NO	0.02606699	0.02606699	0.92221407	0.91222000	TRUE	FALSE
>500g/d	~18.5	YES	0.19852974	0.19852974	0.08744061	0.21560500	TRUE	FALSE
>500g/d	~18.5	NO	0.49179708	0.49179708	0.91255939	0.78439500	TRUE	FALSE
>500g/d	~24.0	YES	0.46963281	0.46963281	0.23510350	0.46857000	TRUE	FALSE
>500g/d	~24.0	NO	0.36267231	0.36267231	0.76489650	0.53143000	TRUE	FALSE
>500g/d	~28.0	YES	0.32815359	0.32815359	0.39467659	0.65161200	TRUE	FALSE
>500g/d	~28.0	NO	0.11946362	0.11946362	0.60532341	0.34838800	TRUE	FALSE
>500g/d	<18.5	YES	0.00368385	0.00368385	0.03245598	0.08778000	TRUE	FALSE
>500g/d	<18.5	NO	0.02606699	0.02606699	0.96754402	0.91222000	TRUE	FALSE

where Separated is True if P(C|Y, A) = P(C|Y)

Sufficient is True if P(Y|C, A) = P(Y|C).