

Study design	Cross sectional	Case-control	Cohort	Experimental (RCTs)
Type	observational (Analytic or descriptive)	observational (Analytic)	observational (Analytic)	experimental
Temporality	<ul style="list-style-type: none"> <li>Retrospective</li> </ul>	<ul style="list-style-type: none"> <li>Retrospective</li> </ul>	<ul style="list-style-type: none"> <li>Retrospective, or</li> <li>Prospective</li> </ul>	<ul style="list-style-type: none"> <li>Prospective</li> </ul>
Outcome: Disease / condition / cure ...	<ul style="list-style-type: none"> <li>several</li> <li>common</li> <li>chronic disease</li> </ul>	<ul style="list-style-type: none"> <li>single</li> <li>rare</li> <li>Diseases with long latency period</li> </ul>	<ul style="list-style-type: none"> <li>Several</li> <li>Common</li> <li>Diseases that take a long time to develop (Retrospective only)</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
Exposure / risk factors ...	<ul style="list-style-type: none"> <li>several</li> </ul>	<ul style="list-style-type: none"> <li>common</li> <li>Several</li> </ul>	<ul style="list-style-type: none"> <li>rare</li> <li>single</li> </ul>	<ul style="list-style-type: none"> <li>assigned by researcher</li> </ul>
Measure of frequency	Prevalence	Not suitable	Prevalence, and incidence: -Risk (incidence proportion) -Rate (incidence rate)	
Measures of association	odds ratio	odds ratio	Risk Ratio (relative risk)	Risk Ratio (relative risk)
Other measures			Risk Difference Attributable Risk Fraction	Efficacy of vaccine/drug
Temporal / causal relationships	Not useful	Not useful	Very useful	Very useful
Time	Relatively easy, quick	Least time-consuming	Takes a long time (prospective > retrospective)	Takes a long time
Cost	Relatively inexpensive.	Least expensive	More expensive (prospective > retrospective)	Most expensive
Evidence	Least	Modest	Better	Best
Advantages	Minimal ethical problems Allows for stratification		Can establish a natural history of disease	Control all main forms of biases
Disadvantages	Confounding is difficult to control Self-report bias Selection bias	Cases don't represent cases in the general population Selection bias Recall bias	There is potential loss/ Non response to follow up Measurement errors, multiple interviews and tests.	Ethical concerns Issues of generalizability