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# Cross-sectional design

David F Marks

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Cross-sectional designs obtain responses from respondents on one occasion only. With appropriate randomized sampling methods, the sample can be assumed to be a representative cross-section of the population under study and it is possible to make comparisons between sub-groups (e.g., males versus females, older versus younger people, etc.). However, cause and effect can never be inferred between one variable and another and it is impossible to say whether the observed associations are caused by a third, background variable not measured in the study.