

24. Jury Selection According to the State of New York Unified Court System, names of potential jurors are selected from a variety of different sources. When a trial requires a jury, names from the list are randomly selected in a way that is equivalent to writing the names on slips of paper, mixing them in a bowl, and selecting the required number of potential jurors.

25. Mall Research Mall managers commonly research how customers use the malls. The author was approached by a pollster at the Galleria Mall in Dutchess County, New York. The pollster was obviously selecting subjects who appeared to be approachable.

26. Car Crash Tests The National Highway Traffic Safety Administration (NHTSA) conducts crash tests of cars. One car of each different model is randomly selected for testing.

1-4 Beyond the Basics

In Exercises 27–30, indicate whether the observational study used is cross-sectional, retrospective, or prospective.

27. Nurses' Health Study The Nurses' Health Study was started in 1976 with 121,700 female registered nurses who were between the ages of 30 and 55. The subjects were surveyed in 1976 and every two years thereafter. The study is ongoing.

28. Drinking and Driving Study In order to study the seriousness of drinking and driving, a researcher obtains records from past car crashes. Drivers are partitioned into a group that had no alcohol consumption and another group that did have evidence of alcohol consumption at the time of the crash.

29. Smoking Study Researchers from the National Institutes of Health want to determine the current rates of smoking among adult males and adult females. They conduct a survey of 500 adults of each gender.

30. Meat and Mortality Researchers at the National Cancer Institute studied meat consumption and its relationship to mortality. Approximately one-half million people were surveyed, and they were then followed for a period of 10 years.

In Exercises 31–34, identify which of these designs is most appropriate for the given experiment: completely randomized design, randomized block design, or matched pairs design.

31. Lisinipril Lisinipril is a drug designed to lower blood pressure. In a clinical trial of Lisinipril, blood pressure levels of subjects are measured before and after they have been treated with the drug.

32. Aspirin A clinical trial of aspirin treatments is being planned to determine whether the rate of myocardial infarctions (heart attacks) is different for men and women.

33. West Nile Vaccine Currently, there is no approved vaccine for the prevention of West Nile virus. A clinical trial of a possible vaccine is being planned to include subjects treated with the vaccine while other subjects are given a placebo.

34. HIV Vaccine The HIV Trials Network is conducting a study to test the effectiveness of two different experimental HIV vaccines. Subjects will consist of 80 pairs of twins. For each pair of twins, one of the subjects will be treated with the DNA vaccine and the other twin will be treated with the adenoviral vector vaccine.

35. Blinding For the study described in Exercise 34, blinding will be used. What is blinding, and why was it important in this experiment?

36. Sample Design Literacy In "Cardiovascular Effects of Intravenous Triiodothyronine in Patients Undergoing Coronary Artery Bypass Graft Surgery" (*Journal of the American Medical Association*, Vol. 275, No. 9), the authors explain that patients were assigned to one of three groups: (1) a group treated with triiodothyronine, (2) a group treated with normal saline bolus and dopamine, and (3) a placebo group given normal saline. The authors summarize the sample design as a "prospective, randomized, double-blind, placebo-controlled trial." Describe the meaning of each of those terms in the context of this study.