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HW #1 (1, 4-12)

1. A) The population in Minnesota as of July 2008 was 5,220,393, compared to Michigan’s population of 10,003,422. Michigan’s population is double that of Minnesota’s, therefore the crime rate is higher. Michigan actually has a lower crime rate per person ratio. Also the law enforcement could be stricter in Minnesota then it is in Michigan.

B) I think the U.S. has become more law-abiding and agree with her. There are other factors that could play part too. For example, the law enforcement is stricter and bigger then it was in 1991, and the general population knows more about the laws that are in place. Also the court system has stricter penalties then it did in 1991.

*Source: U.S. Census Bureau,* ***Population*** *Division 2008*

[*http://www.google.com/publicdata?ds=uspopulation&met=population&idim=state:26000&q=michigan+population#met=population&idim=state:26000:27000*](http://www.google.com/publicdata?ds=uspopulation&met=population&idim=state:26000&q=michigan+population#met=population&idim=state:26000:27000)

4. A) They studied men and women and the different age groups separately, because young adults seem to smoke more then older adults and the elderly. Smoking also has an effect on the different age groups of people, plus the older age say from 50-80 have been smoking for a longer period of time then an 18 year old has been smoking.

B) No one should ever start to smoke. I think smoking is un attractive and very bad for your health. A reason why people who continued to smoke were healthier then those who stopped could be because of the withdrawal symptoms the one would occur. If you would take survey years from now about who were healthier, a majority of the time the quitter would be healthier.

5. Yes, zinc sulfate should be given to treat the disease. This is because it had an effect on those who were given it in the first trial even though they didn’t know they were receiving it. The second trial it had no effect but maybe something happened during the trial and it got messed up. If the zinc worked for one trial and it doesn’t harm the person then it should be given to treat the disease.

6. This can be explained because the people in the second half of the experiment knew they were getting the zinc. They would get the impression that the zinc was helping them so even though the 3rd group switched, they still had the impression the zinc was working, which affected the outcome. The people who stayed on zinc strictly knew it was working. The first two groups were given the placebo first and they got the impression it was not working so getting the zinc afterwards had no effect.

7. A) This is a controlled experiment because they are adjusting for age, education and martial status.

B) The investigators adjusted for age because oral contraceptives have different effects on the human body at different stages in life. A teenager would have a different effect then the elderly. Also some people are more sexually active then others. They adjusted due to martial status because one is who married is more sexually active then one that is not. Also for people who use a condom or no condom during marriage or being single. The investigators adjusted due to education because young adults are not as educated as older adults and are not as smart when it comes to protected sex.

C) Another factor would be an STD.

D) Yes, the data does support the study because investigators concluded that the pill causes cervical cancer. Also they adjusted certain factors and still found it caused cancer.

8. Yes, the statistics prove that burglars go to work when people go on vocations. This is because Memorial Day is during the month of May and Labor Day isn’t till September. Burglars have 3 months to go to work. Most people take summer vocations and have a lot more things going on. During the other months, if you have kids there in school, during Christmas you have family in town. The summer months are when people take there time off of jobs and take the family out for a while. Also its warmer outside and people usually leave there garage doors open and sliding doors to decks, even during the day. This is very easy for burglars because they can see if people are home by cars or through windows and gain access through the unlocked doors.

9. This is a false experiment because nowhere in the experiment did it mention beta-carotene. Beta-carotene is a harmful substance that changes the tint of your skin and is found in carrots and other vegetables.

A) False, the experiments did not conform the results from the observational studies. They talk about the decrease in cancer and not the increase, which was stated in the experiment.

B) True. Not every person who eats 5 or more servings of vegetables has the same life style. One could be an extreme smoker, another an athletic and another a hard drinker. They didn’t factor these people out during the groups.

C) True. People don’t all have the same life styles. One could be a partier and one could be Olympic runner. They should have separated the people due to there over all health. The healthy would stay and the non-healthy would leave.

10. A) This was an observation study. They observed the kids and there parents. No changes were made to alter the results.

B) No, the study did not find an association between mother’s behavior and her child’s level of body fat.

C) Yes this would be an association. By the mother being controlling, this causes the kid to eat more, therefore more body fat.

D) Yes and no. There could be a gene that passes down from the mother to child, but if the child was adopted then there is no association between the child and mother by genes.

E) The child could be around more kids that are fat and there parents being the same way. Also the mother could see nothing wrong with their child and think that it’s entirely normal.

F) No this data does not support this. This is because there is not really any data that’s portrayed. The only thing that’s said are peoples opinions on the subject. No numbers are displayed to support the study.

11. A) The treatment group are the prisoners who enter the program. The control group are the prisoners who don’t enter the program.

B) Observational study because the prisoners chose to go into the program or not to go into the program. The spokesman observed the prisoners after boot camp and compared to those who didn’t enter camp.

C) False. Even though the spokesman said that those who complete the camp are less likely to enter prison again, there is no actually evidence that supports this.

12. False. This is false because certain cities lean more towards democrats or more towards republicans. It depends on the geographic area also. The black population tends to vote more democratic then republican. There fore the city that was in this study could be a majority of black. Also Mexicans tend to do the same thing.