HW #2: For the "Mexican Dips" article on page 8 of the notes, what are the populations , parameters, and statistics?

10/10

EXAMPLE #4

HAZARDS

More Than a Kick in Mexican Dips

Tourists who venture into areas of Mexico where diarrhea is a problem will do well to avoid more than just the water. They should also watch out for the dips on the tables at many restaurants, a study warned yesterday.

Fecal contamination in the form of the bacteria E. coli was found in 41 of 71 sauces at 36 popular tourist restaurants in Guadalajara, in southwestern Mexico, researchers wrote in The Annals of Internal Medicine.

The dips tested in 1998 by Dr. Herbert L. DuPont of St. Luke's Episcopal Hospital in Houston and the University of Texas and his colleagues included green sauces, guacamole and pico de gallo.

For comparisons, the researchers also sampled dips from 12 popular nonchain restaurants in Houston. Ten of the 25 sauces were found to contain E. coli, but the strains there posed no health threat at all, Dr. DuPont said.

The bacteria found in Mexico were in concentrations 1,000 times as high as those in Houston, perhaps because the sauces often were left out at the tables, becoming warm, the researchers said. The sauces in Houston appear to have been refrigerated much of the time.

But even at the high levels found in Mexico, most strains did not pose risks to diners.

Still, some restaurants in Mexico were contaminated with strains of E. coli known to cause intestinal distress. In each country, guacamole was the dip most likely to contain bacteria.

The study casts doubt on the often-heard theory that foods high in acid, like some sauces, are inhospitable to bacteria, the authors said.

NY TIMES

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popln #1 : (1) all bowls of dips in popular tourist rest in Guad. Mx.

parm #1.1 : (1) percentage of bowls with E.Coli bacteria

" #1.2 : (1) mean concentration of E.Coli bacteria in dip bowls

popln #2 : (1) all bowls of dips from non chain restaurants in Houston Tx

parm #2.1 : (1) percentage of bowls w/ E. Coli bacteria

2.2 : (1) mean conc. of E. Coli bacteria in dip bowls

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statistic #1.1 = (1) $\hat{p}_G = 41/71 = 57.75\%$

#1.2 : (1) $\hat{\mu}_G$ not given but is 1000 * larger than $\hat{\mu}$ for Houston

statistic #2.1 : (1) $\hat{p}_H = \frac{10}{25} = 40.0\%$

#2.2 : (1) $\hat{\mu}_H$ is $= \hat{\mu}_G / 1000$