

**Environmental Microbiology, 3<sup>rd</sup> Ed. (Pepper, Gerba, Gentry)**

**ANSWERS TO QUANTITATIVE QUESTIONS and PROBLEMS**

**CHAPTER 1 Introduction to Environmental Microbiology**

- 3. Based on current U.S. population, how many food and drinking water infections can you expect to contract in a 70 year lifetime.**

*U.S. population is approximately 320m.*

*Number of food infections per year in U.S. = 48m*

*Number of water infections per year in U.S. = 20m*

*□ each year, 1 in 4.7 chance of getting infected*

*Over 70 years there is a very high probability of having multiple infections*

*Note that the probability of infection is the same every year*