

Lec:1 Descriptive Epidemiology

Epidemiology Lecture #1

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4. Chapter: Lec:1 Descriptive Epidemiology

1. Lec:1 Descriptive Epidemiology Questions

4.1.1. The term epidemic refers to:

Author: Janet Forrester

The term epidemic refers to:

Please choose only one answer:

- A disease that has a low rate of occurrence but that is constantly present in a population
- An disease that occurs in a population at a rate in excess of 10 per 1000 population
- A greater than normal occurrence of a disease for that population at that time
- Diseases of the respiratory system that occur seasonally

Check the answer of this question online at QuizOver.com:

Question: [The term epidemic refers to by Dr. Janet Forrester @Tufts University](#)

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4.1.2. When a new treatment is developed that prevents death but does not ...

Author: Janet Forrester

When a new treatment is developed that prevents death but does not produce recovery from a disease, the following will occur:

Please choose only one answer:

- The prevalence of the disease will decrease
- The prevalence of the disease will increase
- The incidence of the disease will decrease
- The incidence of the disease will increase
- The incidence and prevalence of the disease will both decrease

Check the answer of this question online at QuizOver.com:

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4.1.3. The annual all-cause mortality rate in HappyVille in 2009 was:

Author: Janet Forrester

You are a physician who practices medicine in HappyVille, a community of 100,000 persons.

During 2009, there were 1,000 deaths from all causes. All cases of cardiovascular disease were identified, and they totaled 300. During 2009, there were 60 deaths from cardiovascular disease.

The annual all-cause mortality rate in HappyVille in 2009 was:

Please choose only one answer:

- 300 per 100,000
- 60 per 1000
- 100 per 1000
- 10 per 1000

Check the answer of this question online at QuizOver.com:

Question: [The annual all-cause mortality rate in HappyVille You are a physician](#)

Flashcards:

<http://www.quizover.com/flashcards/the-annual-all-cause-mortality-rate-in-happyville-you-are-a-physician?pdf=1505>

Interactive Question:

<http://www.quizover.com/question/the-annual-all-cause-mortality-rate-in-happyville-you-are-a-physician?pdf=1505>

4.1.4. The prevalence of cardiovascular disease in HappyVille in 2009 was:

Author: Janet Forrester

You are a physician who practices medicine in HappyVille, a community of 100,000 persons.

During 2009, there were 1,000 deaths from all causes. All cases of cardiovascular disease were identified, and they totaled 300. During 2009, there were 60 deaths from cardiovascular disease.

The prevalence of cardiovascular disease in HappyVille in 2009 was:

Please choose only one answer:

- 0.03%
- 0.3%
- 3.0%
- 0.06%
- 0.6%

Check the answer of this question online at QuizOver.com:

Question: [The prevalence of cardiovascular disease You are a physician who](#)

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<http://www.quizover.com/flashcards/the-prevalence-of-cardiovascular-disease-you-are-a-physician-who?pdf=1505>

Interactive Question:

<http://www.quizover.com/question/the-prevalence-of-cardiovascular-disease-you-are-a-physician-who?pdf=1505>

4.1.5. The case fatality rate for cardiovascular disease in HappyVille in ...

Author: Janet Forrester

You are a physician who practices medicine in HappyVille, a community of 100,000 persons.

During 2009, there were 1,000 deaths from all causes. All cases of cardiovascular disease were identified, and they totaled 300. During 2009, there were 60 deaths from cardiovascular disease.

The case fatality rate for cardiovascular disease in HappyVille in 2009 was:

Please choose only one answer:

- 0.06%
- 0.6%
- 0.2%
- 2%
- 20%

Check the answer of this question online at QuizOver.com:

Question: [The case fatality rate for cardiovascular You are a physician who](#)

Flashcards:

<http://www.quizover.com/flashcards/the-case-fatality-rate-for-cardiovascular-you-are-a-physician-who?pdf=1505>

Interactive Question:

<http://www.quizover.com/question/the-case-fatality-rate-for-cardiovascular-you-are-a-physician-who?pdf=1505>

4.1.6. Epidemiologic studies examining exposure-disease relationships may ...

Author: Janet Forrester

Epidemiologic studies examining exposure-disease relationships may be observational or interventional.

What is the essential difference between an interventional and an observational study design?

- In an interventional study design the investigator intervenes to assign an exposure to a study volunteer, such a treatment or procedure (by random or nonrandom assignment) whereas in an observational study, the investigator merely observes the exposure as it occurs in the volunteer without intervening.

Check the answer of this question online at QuizOver.com:

Question: [Epidemiologic studies examining exposure by Dr. Janet Forrester](#)

Flashcards:

<http://www.quizover.com/flashcards/epidemiologic-studies-examining-exposure-by-dr-janet-forrester?pdf=1505>

Interactive Question:

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4.1.7. Influenza is spread by close contact between an infected person and...

Author: Janet Forrester

Influenza is spread by close contact between an infected person and an uninfected person who has not had the infection and therefore is “at risk”. There are 10 students living on your dorm floor, which is the second floor of the building. One of the students has returned on Sunday evening, October 3rd from a weekend away attending a friend’s wedding. On the morning of Tuesday, October 5th he shows all the typical symptoms of influenza including a mild fever and sore throat. By the end of the following Sunday, October 10th four other students on the floor are showing identical symptoms of influenza. What is the cumulative incidence rate for influenza for the period October 1 through October 10 on the second floor of the dorm? Your answer should be specific.

- The ten-day cumulative incidence for the second floor of the dorm is 5/10 or 50%.

Check the answer of this question online at QuizOver.com:

Question: [Influenza is spread by close contact between Dr. Janet Forrester](#)

Flashcards:

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Interactive Question:

<http://www.quizover.com/question/influenza-is-spread-by-close-contact-between-dr-janet-forrester?pdf=1505>

4.1.8. Abigail, Bret, Cindy and Dennis are the only four students living o...

Author: Janet Forrester

Abigail, Bret, Cindy and Dennis are the only four students living on the third floor of the building. They hear about the sick students on the second floor and are concerned that influenza will spread to their floor. Midterm exams are approaching and they want to stay healthy, at least until after the exams are over. Abigail presents with influenza symptoms on the morning of Monday, October 11th, one week before midterm exams begin. Bret and Cindy decide to leave the dorm and stay with friends until midterm exams are over. They leave first thing Tuesday morning, October 12th. Thursday morning (October 14th) Dennis is showing influenza symptoms. Starting from Monday, October 1st, what is the influenza incidence density for the third floor?

- The numerator is easy = 2 new cases of influenza (Abigail and Dennis).
It's the denominator that takes some thought:
Abigail contributes 10 person-days at risk before she gets sick (October 1st to 10th).
Bret and Cindy each contribute 11 person-days at risk (October 1st to 11th) before they leave the dorm.
Dennis contributes 13 person days before he gets influenza (October 1st to 13th)
So, the total number of person days for the denominator is: $10 + 2(11) + 13 = 45$
The influenza incidence density for the third floor is $2/45$ person-days. (Note the time frame is embodied in the person-days)
You can understand why in large studies we leave the calculation to the computer!

Check the answer of this question online at QuizOver.com:

Question: [Abigail Bret Cindy and Dennis are the only by Dr. Janet Forrester](#)

Flashcards:

<http://www.quizover.com/flashcards/abigail-bret-cindy-and-dennis-are-the-only-by-dr-janet-forrester?pdf=1505>

Interactive Question:

<http://www.quizover.com/question/abigail-bret-cindy-and-dennis-are-the-only-by-dr-janet-forrester?pdf=1505>

4.1.9. What is the exposure (risk factor, predictor) in this study?

Author: Janet Forrester

The causes of lupus are poorly understood but may involve mercury. You read a study in which an investigator measured the prevalence of lupus in workers in a mercury battery factory and compared this to the prevalence of lupus in factory workers who made wind generators, a process that does not involve mercury. Lupus was present in 1% of the battery workers and none of the workers in the wind generator factory.

What is the exposure (risk factor, predictor) in this study?

- The exposure of interest is mercury

Check the answer of this question online at QuizOver.com:

Question: [What is the exposure risk factor predictor causes of lupus are poorly](#)

Flashcards:

<http://www.quizover.com/flashcards/what-is-the-exposure-risk-factor-predictor-causes-of-lupus-are-poorly?pdf=1505>

Interactive Question:

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4.1.10. What is the outcome (end point, event) of interest in this study?

Author: Janet Forrester

The causes of lupus are poorly understood but may involve mercury. You read a study in which an investigator measured the prevalence of lupus in workers in a mercury battery factory and compared this to the prevalence of lupus in factory workers who made wind generators, a process that does not involve mercury. Lupus was present in 1% of the battery workers and none of the workers in the wind generator factor.

What is the outcome (end point, event) of interest in this study?

- The outcome of interest is lupus.

Check the answer of this question online at QuizOver.com:

Question: [What is the outcome end point event of interest causes lupus are](#)

Flashcards:

<http://www.quizover.com/flashcards/what-is-the-outcome-end-point-event-of-interest-causes-lupus-are?pdf=1505>

Interactive Question:

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