

Calculating Attack Rates

PREVIEW from Activities To Teach



PowerPoint Lesson with Practice Calculating Attack Rates for Each Type of Card

EPIDEMIOLOGY & ATTACK RATES

Introduction to the concept, career, and how to calculate.



What is epidemiology?

- Epidemiology is the study and analysis of the distribution and determinants of health and disease conditions in defined populations.
- It is the cornerstone of public health, and shapes policy decisions and evidence-based practice by identifying risk factors for disease and targets for preventive healthcare.
- It is the branch of medicine which deals with the incidence, distribution, and possible control of diseases and other factors relating to health.

What is an Epidemiologist?

- Epidemiologists are scientists who seek to find the source of a disease, illness, or outbreak.
- They typically work for public health within government agencies.

Education Required & Salary

- Master Degree in a Science Field
- As of 2018, the average income was \$69,665 per year or \$33.65 per hour.

What do Epidemiologists do?

- Epidemiologists investigate patterns and causes of disease and injury in humans.
- They seek to reduce the risk and occurrence of negative health outcomes through research, community education, and health policy.
- They work v
- They interv

Public health issues typically investigated by epidemiologists.

Environmental exposures	<ul style="list-style-type: none"> Lead and heavy metals Air pollutants and other asthma triggers
Infectious diseases	<ul style="list-style-type: none"> Foodborne illness Influenza and pneumonia
Injuries	<ul style="list-style-type: none"> Increased homicides in a community National surge in domestic violence
Non-infectious diseases	<ul style="list-style-type: none"> Localized or widespread rise in a particular type of cancer Increase in a major birth defect
Natural disasters	<ul style="list-style-type: none"> Hurricanes Katrina and Rita (2005) Haiti earthquake (2010)
Terrorism	<ul style="list-style-type: none"> World Trade Center (2001) Anthrax release (2001)

CDC Resource

Separate PowerPoint for EACH Type of Attack Rate Card with Solutions for Classroom Presentation/Activity

CALCULATING ATTACK RATES

Attack Card #33

Food Item	# Sick People	# Well People	Total People	Show Your Work	Attack Rate%
Sour Cream Topping	28	10	38	$28 / 38 = .74 \times 100 = 74\%$	74%
Ranch Dressing	14	39	53	$14 / 53 = .26 \times 100 = 26\%$	26%

What food most likely cause the sickness? **Sour Cream Topping**

Attack Card #1

12 people ate scrambled eggs. 8 of them got sick.

Calculate the attack rate. Round to the whole percent.

How many people got SICK? **8**

How many total people ate the food? **12**

Show your work

$8 / 12 = .67 \times 100 = 67\%$

Party Menu #50

Food Item	# Sick People	# Well People	Total People	Show Your Work	Attack Rate%
Veggie Lasagna	2	18	20	$2/20 = .10 \times 100 = 10\%$	10%
Meatballs	33	11	44	$33/44 = .75 \times 100 = 75\%$	75%
Chicken Parmesan	8	24	32	$8/32 = .25 \times 100 = 25\%$	25%
Eggplant Parmesan	7	18	25	$7/25 = .28 \times 100 = 28\%$	28%
Pasta	52	35	87	$52/67 = .60 \times 100 = 60\%$	60%
Marinara Sauce	9	32	41	$9/32 = .22 \times 100 = 22\%$	22%
Meat Sauce	33	11	44	$33/44 = .75 \times 100 = 75\%$	75%
Garlic Bread	42	25	67	$42/67 = .63 \times 100 = 63\%$	63%

What food most likely cause the sickness? **Meatballs & Meat Sauce**

