

Activities (1-4)

Q₁. What is health? is a state of complete physical, mental and social well being rather than the mere absence of disease or infirmity.

Q₂. What is public health? a science and art of preventing disease prolonging life and promoting health, through organized efforts of society.

Q₃: Difference between

clinical medicine.

- Focus on treatment only.

public health

- Focus on How and Why to prevent

diseases. وعشان تحقق أهدافها يبي نبحث بالتعريف.

⚡ Public health: benefit entire population.



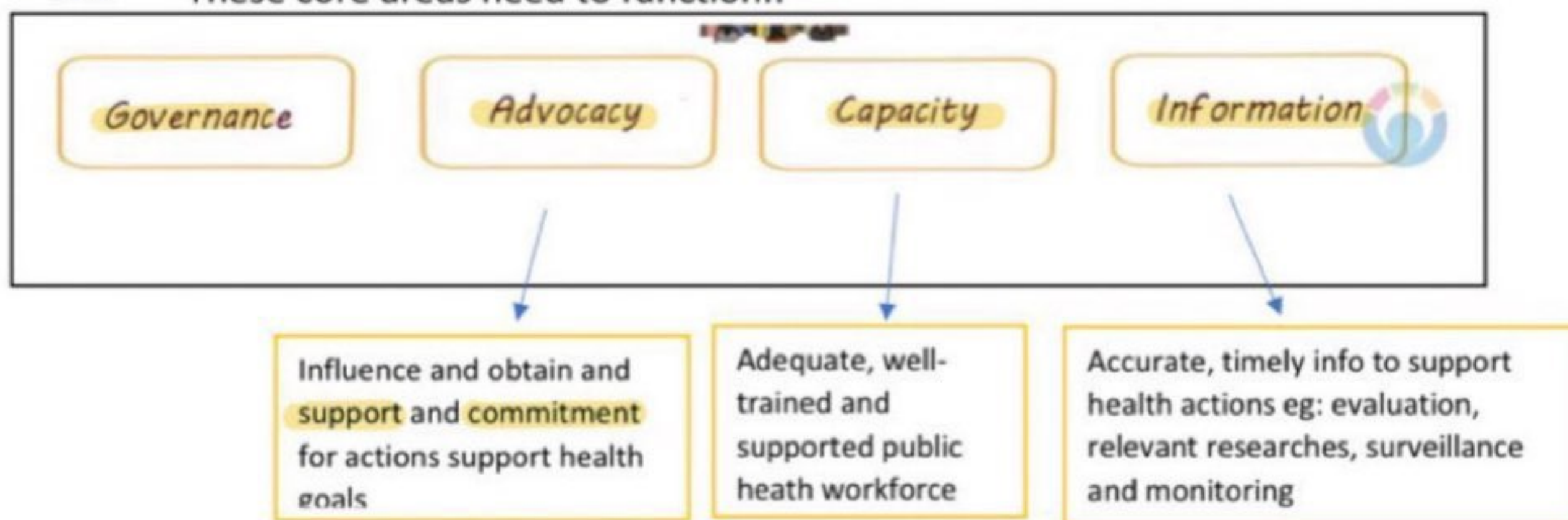
main goal:

- 1 Improving health
- 2 saving lives
- 3 making people healthy.
- 4 Increase life Expectancy

⚡ Who is responsible for public health?

- all sectors of society, Health department coordinated efforts - other stakeholders ويبي الهم مصابة :-
- private sector,
 - nongovernmental organization.

⚡ These core areas need to function::



Activity 2

SARS-COV-2

رج اكتب (المختصر) بالعربي.

بعام 2020 تمديداً بـ شيكاغو و (illinois) في شهر **Feb, march** من 2020 .
 كثفت التقارير أنه في **16** حالة إصابة مؤكدة و **3** وفيات من SARS نتيجة لتجمعات
 العائلية التي سهلت من انتشار المرض فمماثلك توصلح أنه ينتقل من شخص إلى شخص آخر نتيجة
 للتواصل بين الناس في القطاعات الصحية أو داخل المرافق الاجتماعية .

Summary

What is already known about this topic?

Early reports of person-to-person transmission of SARS-CoV-2 have been among household contacts, health care workers, and within congregate living facilities.

What is added by this report?

Investigation of COVID-19 cases in Chicago identified a cluster of 16 confirmed or probable cases, including three deaths, likely resulting from one introduction. Extended family gatherings including a funeral and a birthday party likely facilitated transmission of SARS-CoV-2 in this cluster.

What are the implications for public health practice?

U.S. residents should adhere to CDC recommendations for social distancing, avoid gatherings, and follow stay-at-home orders when required by state or local authorities.

يبي يجب
تقرأ وتأكد.

- ① Social distancing أنه يكون في
- ② Stay-at home
- ③ avoid gathering.

من (CDC) مركز
مركز معاني الأرقام والوقاية
منها .

Activity 1: Please pay attention to the example of the individual who had an accident
 Solution:
 • Let's say someone has an accident and has a broken leg.
 • A clinician's main focus is the immediate health problem, fixing the fractured leg.
 • Clinicians focus on the individual.
 • The public health approach would be holistic and would focus on figuring out how and why this person had an accident so that actions can be taken to prevent it from happening again.
 • For example:
 ◦ Why did he have the accident? Was there a problem with his vision?
 ◦ Was it poor knowledge of driving skills or bad attitudes towards driving?
 ◦ Was he under the influence of alcohol or drugs when he was driving? Are there laws against this and resources to enforce it?
 ◦ What are the community expectations or attitudes towards driving?
 ◦ Does he have a good social support network that will help in his recovery or prevent this from happening again?
 ◦ Was the road he was driving on safe?
 ◦ Was he driving a safe car that was well-maintained? If not, why not? Could he not afford it? If not, why could he not afford it? Does he have a job that doesn't pay well? Why is that? Is it because he did not have access to good education? Was there good access to health services which would determine his treatment and recovery?
 As you can see from this example health is determined by a complex interaction between many different factors or determinants of health. These include individual characteristics, lifestyle and behaviors and the physical, social and economic environments, the social determinants of health.
 • In order to make a difference in health there's action needed across all the different determinants.
 • Public health focuses on these upstream factors to make changes that can benefit the health of the population as a whole. This seems like a very broad and complex task.

اقرأوا هاي :-

Activity 3

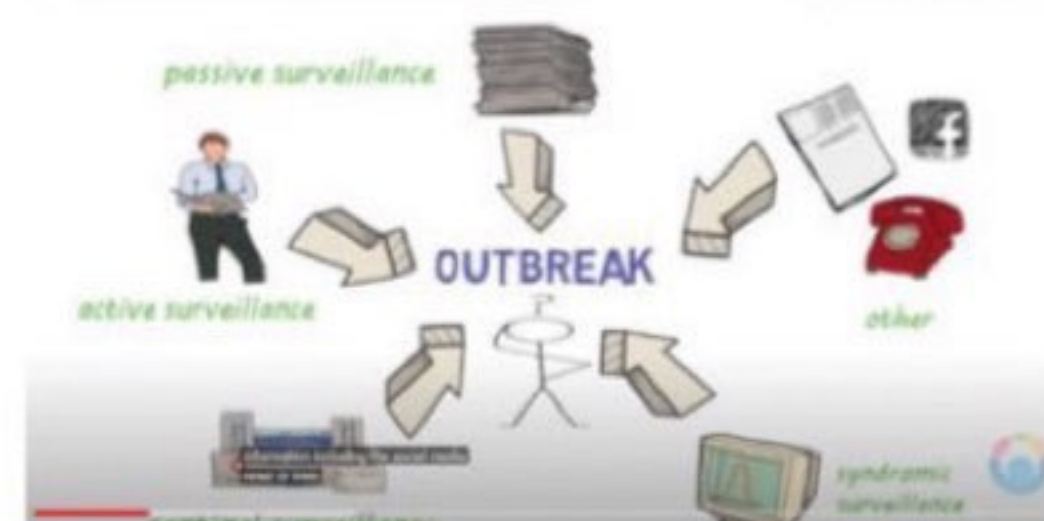
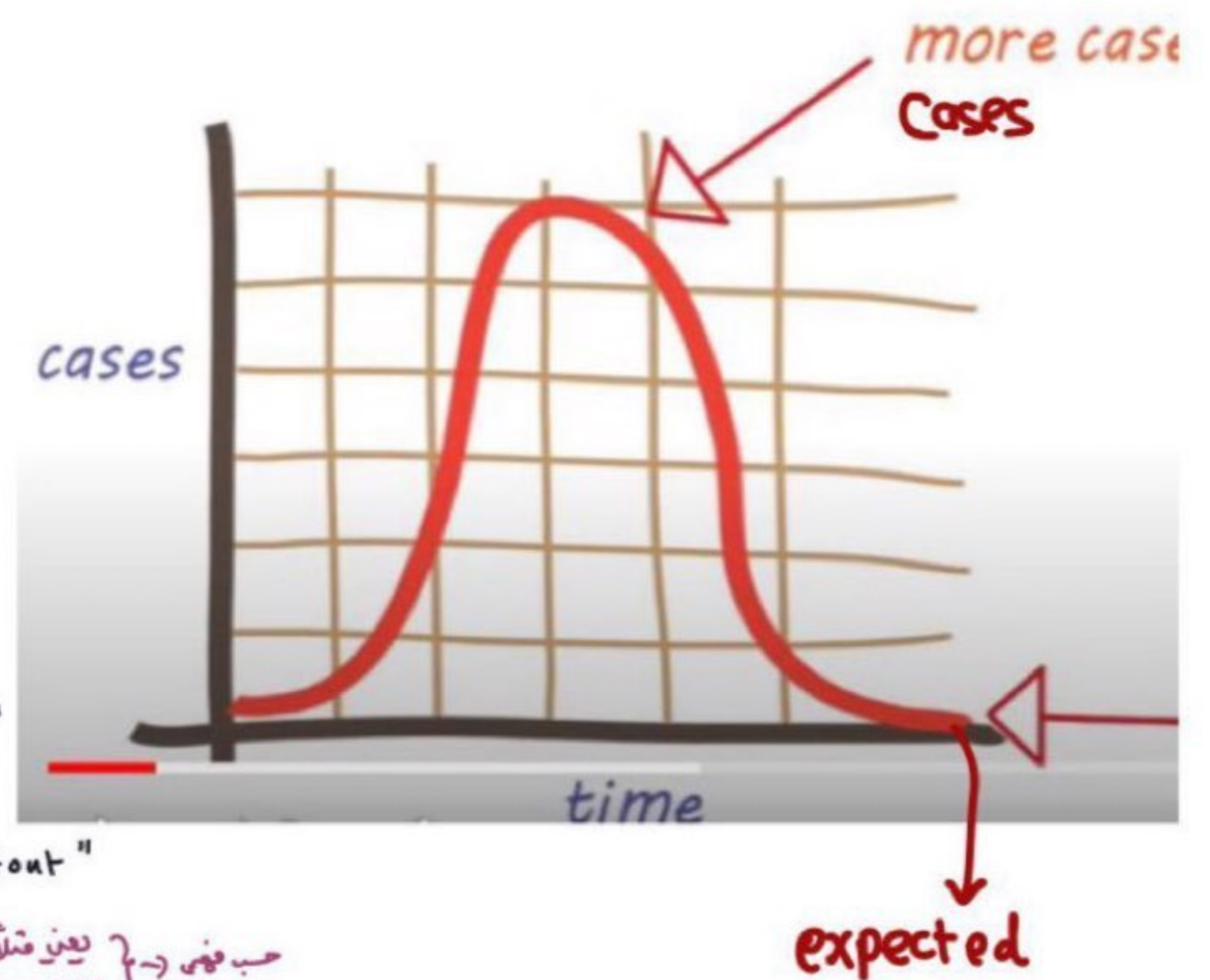
(Out break)

* **what is outbreak?** is Epidemic
 (more cases than expected)

* **How we can detect an outbreak?**

through a variety of method

- ① passive surveillance: مراقبة التقارير والبيانات الروتينية
 "monitoring routinely collected health data"
- ② active surveillance: عن طريق البحث بالمعلومات الصحية
 "health info is actively sought out"
- ③ Sentinal: institution provide health data
 يعني مثلا المدارس والكنائس حسب مفي
 ل تبليص تصيحي يعني الإصابات المظاهرة
- ④ syndromic: monitoring of illness syndrome.
 أ توقع يعني أنه يراقبوا المتلازمات
- ⑤ other: Social media, news.

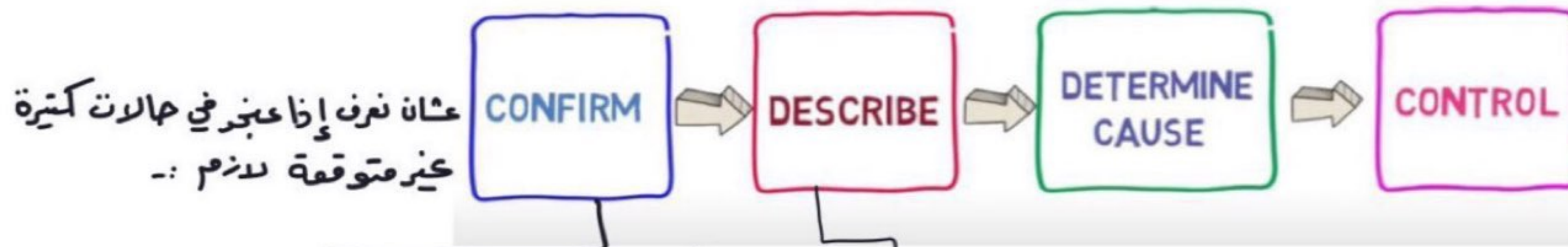


3. Outbreak Investigation

مع تحفيقوا بالموضوع: عن طريق عدة خطوات

more than one step happen at same time.
changing in order, number and content

systematic steps number, order, content can vary



1. We compare the cases we are seeing with the baseline of the illness in that population for given time.

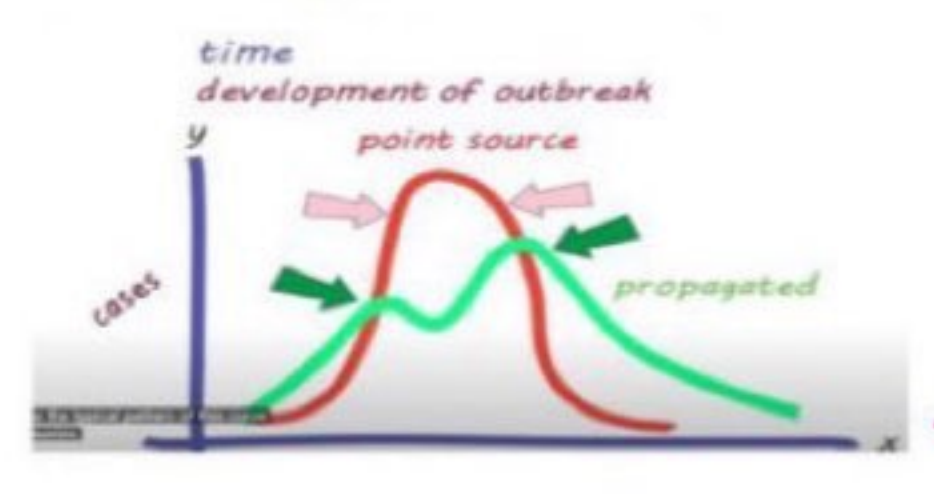
If there are more cases, the causes could be:

- 1. Increasing tests
- 2. Laboratory error
- 3. in population to be ruled out.

2. verify diagnosis
→ by receiving the clinical and lab finding

3. Immediate action to control the outbreak if the source and mode of transmission are known.

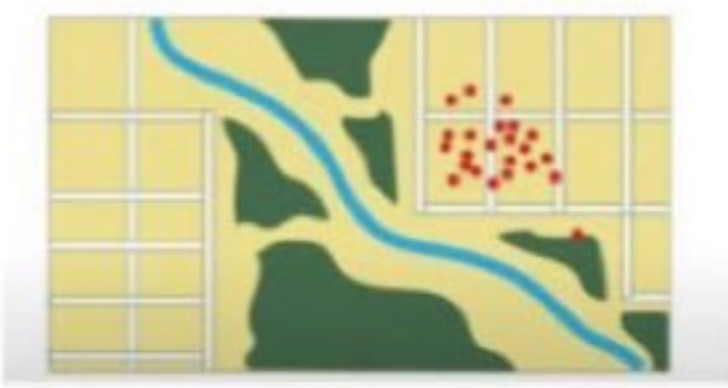
Who is affected? Where? When
Whether all cases have been found?
describe time by epidemic curve



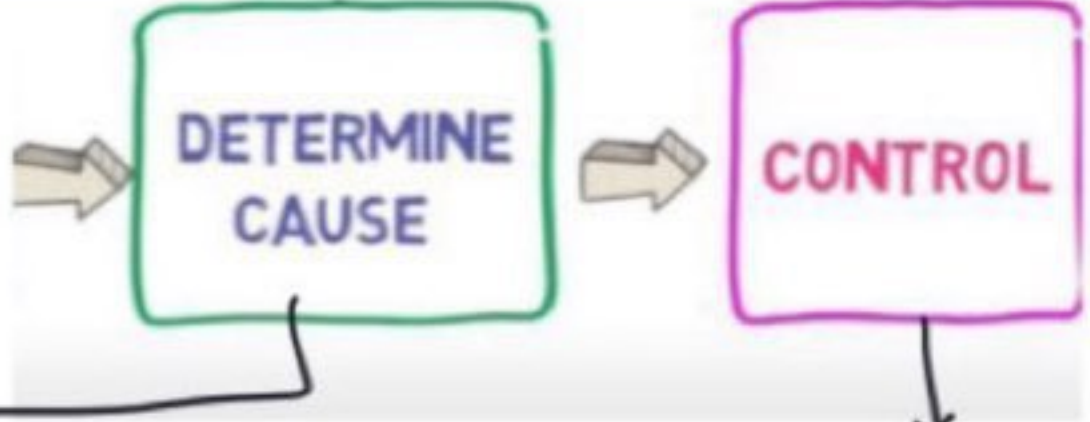
* point source :- outbreak comes from point source
يعني لقينا في القواب بالمعنة والأفماء نتيجة أكل ملوث
عادة "بجود ارتفاع بعين انخفاض سريع"

* propagated :- first wave is the cause of other wave (progressive peaks of illness)
نفس الكوبونا الإصابة تنتقل من شخص لشخص والموجات الأولى سبب الثانية وإي آخره

* describe place
→ by using 1. mapping tools
2. Geographic Info System (GIS)
geographical spread clusters?



* describe people
Describing age, sex, occupation, ethnicity
who is at risk?
who is affected?



= primary goal in the investigation.
can be at any stage
can be targeted at any step of transmission pathway between agent, host, environment

Important.
The outbreak is over for infectious diseases when there is no cases after 2 incubation periods

→ by putting hypothesis
If the pathogen is known, this will help in determining cause.
• Colera → Contaminated water

→ If the hypothesis isn't clear, it should be tested by analytical epidemiology by cohort + case control study

→ Also, laboratories → very useful microbiology info for environmental investigation → environmental factor



→ After control, active surveillance should be done to ensure that the control measure are working.

Communication about making sure that accurate timely information gets to right people it would be internal or external.

Activity 4



* Framingham Study (heart disease)

* When did it start?

→ it started in 1948 by United State public health services in the town of Framingham, Massachusetts in the United State.

→ it's longitudinal observational cohort study. (population-based)

- ① to identify "risk factor" for heart disease.
- ② to understand of heart disease and other cardiovascular and related illnesses

* From this study we identify psychosocial risk factor for heart disease and highlight the importance of positive lifestyle change in the prevention and treatment.

* more than 15,000 people participated in this study.

* 3 generations, participant their children and grandchildren

* it didn't end, it has been renewed for an additional 6 years in 2019.

→ most Important Findings

	↑ Risk to heart disease
1960s	- cigarette smoking (↑ cholesterol level) - electrocardiogram abnormalities
1970s	- High blood pressure (↑ risk of stroke) - atrial fibrillation (↑ stroke risk five-fold) - menopause (↑ risk of heart disease)
1980s	- high level of HDL cholesterol (↓ risk of death)
1990	- an enlarged left ventricle (↑ risk of stroke)
2000	- prehypertension (↑ risk of cardiovascular disease) - ↓ high normal blood pressure reduce ↓ risk of cardiovascular disease
2010	- sleep apnea (↑ risk of stroke) - identified genes that underlying major heart disease risk factor. FHS researchers identified genes that may play role in الزهايمر

قد تُخفق مرة، وثانية، وثالثة، حتى تشعر بأنك غير قادر على النجاح، ثم يهبك الله صبراً؛ لتعود إلى الواجهة، فلا تيأس أبداً.

Done by: maya Al Refai

* الرجاء قراءة الصوري بي بعينهم

Questions



1. The first step of outbreak investigation is ?

- A - Confirm
- B - Control
- C - Determine Causes
- D - Describe

2. The Framingham heart study is longitudinal Study that aims to identify risk factors of heart disease

- A - Case report
- B - Case Control Study
- C - Cohort Study
- D - Cross sectional

3. When the outbreak is over ?

- A - usually when there is no cases after 2 periods of incubation.
- B - usually when there is no cases after 3 periods of incubation.
- C - usually when there is no cases after 3 years of incubation
- D - usually when there is no cases after 2 years after the first case had been died

The Framingham study has been renewed for additional.....?

- A - 7 years
- B - 6 years
- C - 10 years
- D - 5 years



ACAB

الحمد لله