

History, Medicine through time

Lesson 25 of 30

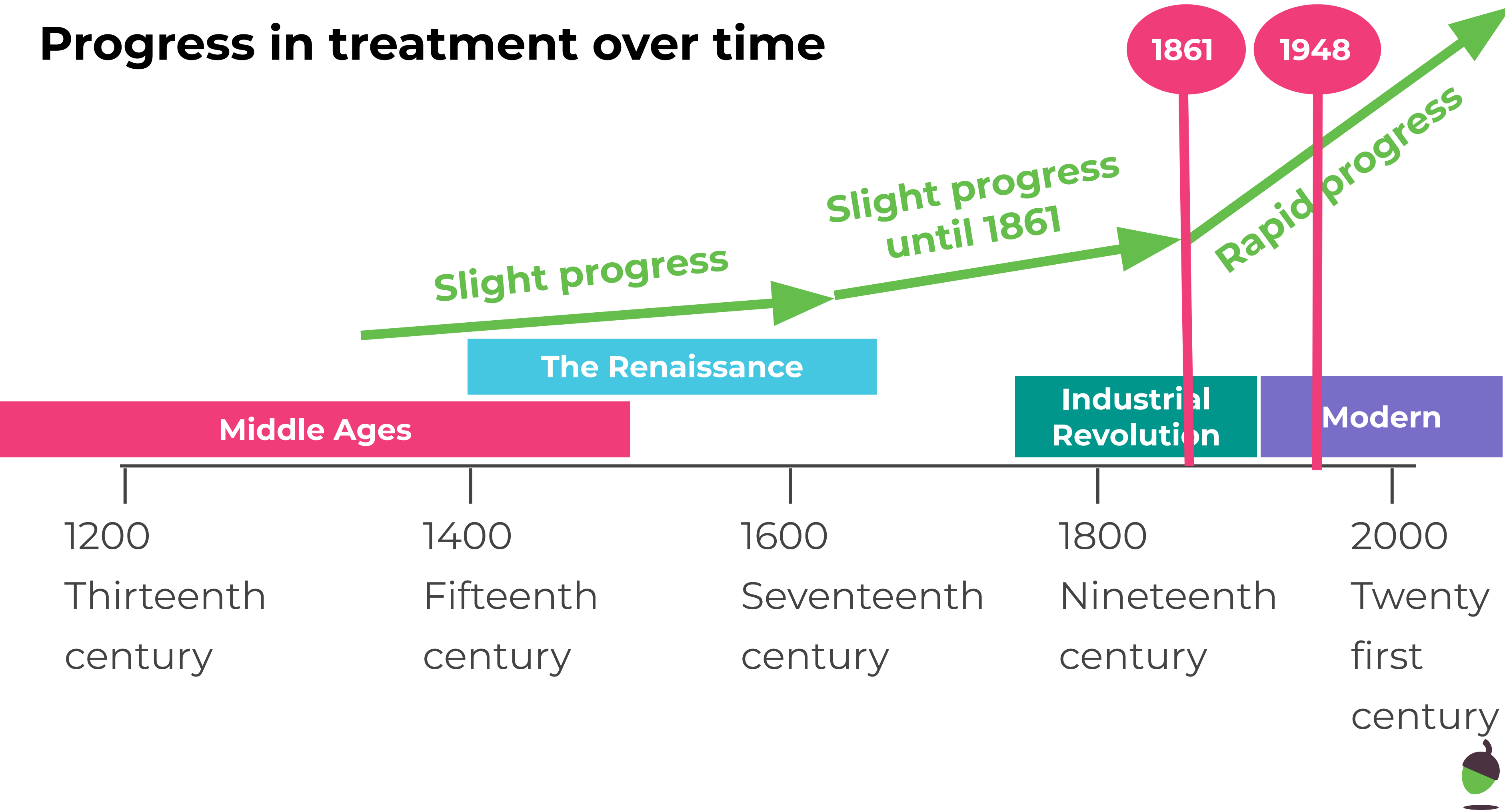
Worksheet:

How quickly did ideas about prevention and treatment of disease change and why did ideas change over time?

Mr Prudden



Progress in treatment over time



Medieval - Renaissance: Slight progress in treatment

- Physicians started to question **humoural treatments**, although the general public still expected to be **bled** and **purged**.
- There were successful new herbal remedies, for example **Peruvian bark** to treat **malaria**.
- There was slight progress in hospitals because patients were now treated by physicians, they were no longer just places of hospitality like they had been in medieval times.
- However, the **Theory of the Four Humours** still dominated so **humoural treatments** continued, and people still prayed to God to help them recover.
- Surgeons still lacked effective **anaesthetics** to carry out effective surgery.
- Many new treatments during the Renaissance didn't work, for example **transference** and **chemical cures** like mercury.



Renaissance - Industrial: Slight progress in treatment until 1861

- In **1861** scientists realised that **germs** caused illness and the hunt started to find cures that killed **germs**. Despite this, no new effective treatments were discovered until the 20th century because it took time to experiment and find them.
- There were important breakthroughs that took place in hospitals. For example, **Florence Nightingale** helped to make hospitals more **sanitary**. Surgery became safer because of **James Simpson's** discovery of **chloroform**, an effective **anaesthetic**. This meant more complex surgery could be conducted and patients would not die from shock.



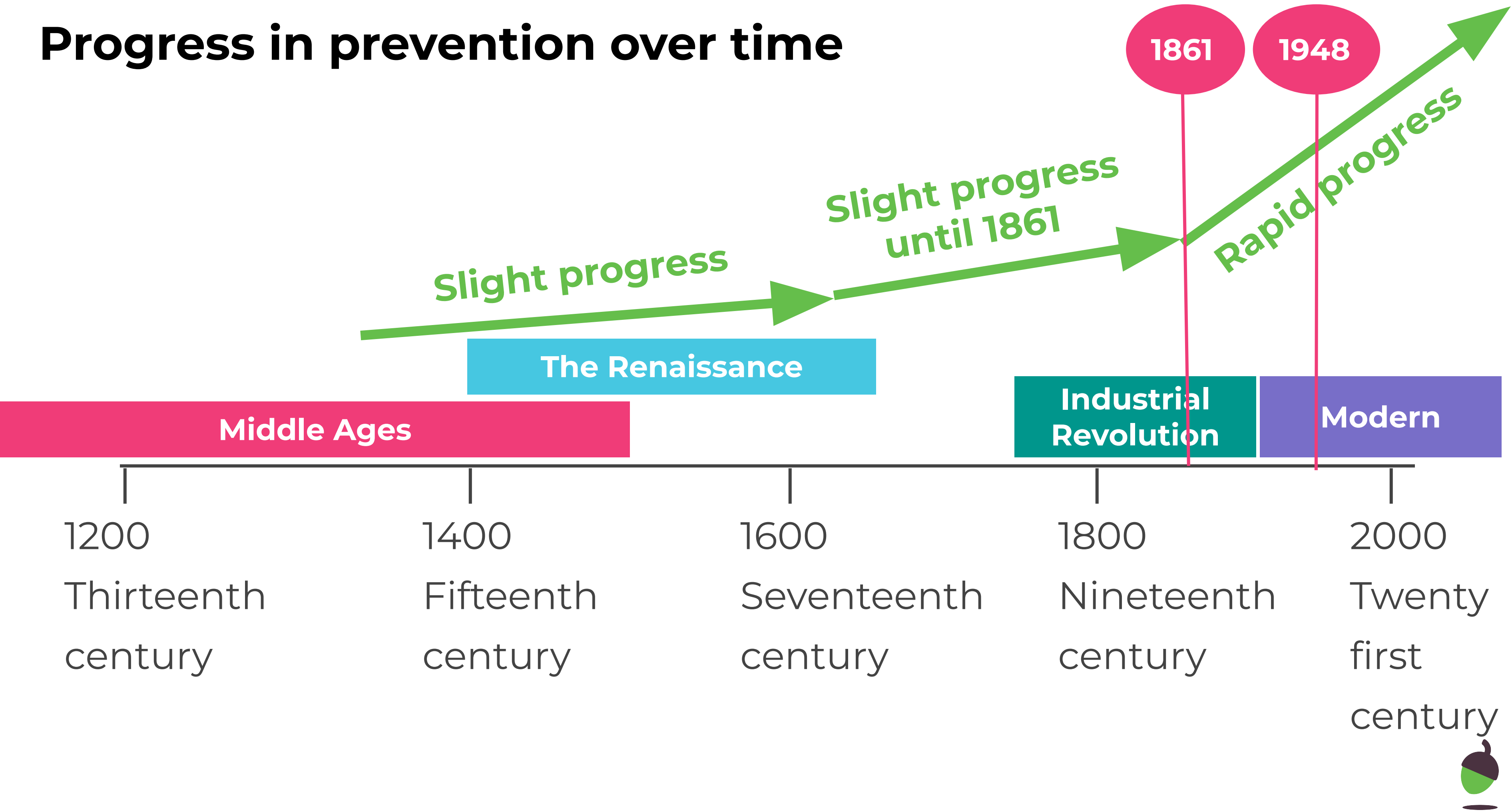
Industrial - Modern: Rapid progress in treatment from 1861

- The discovery of **germ theory** in **1861** eventually led to the discovery of successful treatments like **magic bullets** and **antibiotics**.
- There were also massive surgical developments such as **transplant** and **keyhole surgery**.
- High tech methods such as **radiotherapy** and **chemotherapy** have helped stop cancer being an incurable illness.
- The **National Health Service (NHS)**, set up in **1948**, allowed all to benefit from these new treatments as they were free at point of delivery. No longer were the wealthy healthy, and the poor poorly.

KEY POINT: 1861 was the key turning point as it kick-started the quest to discover successful treatments. And **1948** is another key turning point because it gave everyone access to these successful treatments.



Progress in prevention over time



Medieval - Renaissance: Slight progress in prevention

Methods of prevention essentially stayed the same between medieval and Renaissance times. For example, people in both time periods used sweet-smelling herbs to keep away **miasma**. However, during the Renaissance the government was more proactive in preventing the spread of plague, for example, they stopped all public entertainment and public gatherings such as fairs, theatres and games. This was to prevent the assembly of large crowds which might spread plague.



Renaissance - Industrial: Slight progress in prevention until 1861, rapid progress after 1861

Although **Edward Jenner** developed the **vaccination** against **smallpox** in 1796, it was not strictly enforced by the government until 1872. Similarly, steps were not really taken to address **cholera** until the later years of the 19th century. One reason was because of **Germ theory** in **1861** - with the science to prove **cholera** was caused by **germs** in water - the government abandoned their **laissez faire** (or 'leave be') approach and took action to clean up the country, for example passing the compulsory **Public Health Act** in 1875. Also, in 1867 more working men were given the right to vote. The numbers increased again in 1884. Politicians realised that if they wanted to win elections, they had to promise laws to win the votes of working men, not just the wealthy. This is why from the 1870s right up until the present time, many new laws have been passed designed to improve the lives of ordinary people.



Industrial - Modern: Rapid progress in prevention

The government has continued to be proactive in improving the health of the people since 1900. For example, more compulsory and optional **vaccines** have been introduced; the launching and promotion of lifestyle campaigns warning against the dangers to health, such as smoking and unprotected sex; laws have been passed to improve the health of the nation, for example banning smoking in offices in 2007. The **NHS** is the ultimate example of a proactive government taking action to prevent illness because it meant that all people, rich and poor, had equal access to medical specialists to prevent illness.

KEY POINT: 1861, 1867 and 1884 are key turning points as they encouraged a greater proactive attitude from the government. 1948 is another key turning point because it gave everyone access to health care that could prevent the onset of illness, for example free **vaccinations.**



The role of individuals in improving the treatment and prevention of disease.

E.g. *To some extent, I agree, it was the role of individuals that made the most important contribution in improving the treatment of disease since 1250. For example, in 1861 Louis Pasteur discovered and published germ theory. This changed forever our understanding about the cause of illness. As a result, scientists started looking for new treatments to kill the germ. This led to scientists discovering magic bullets like prontosil in 1932, and chemical cures that attack germs in the body causing disease. Therefore, individuals were to some extent the most important contribution in improving the treatment of disease because without the individual actions of Louis Pasteur in discovering and publishing his scientific theory about germs, subsequent scientists would not have been able to seek out cures that successfully kill germs.*



The role of science & technology in improving the treatment and prevention of disease.

E.g. *To some extent, I disagree, it was the development of science and technology that made the biggest difference. For example, radiotherapy and chemotherapy are used to try and shrink tumours. Concentrated waves of radiation are aimed at the tumour and patients are injected with powerful chemical medicine to attack the cancerous cells. Therefore, the development of science and technology was to some extent the most important contribution in improving the treatment of disease because it has helped to treat diseases like lung cancer, which prior to the 20th century was viewed as untreatable.*



The role of the government in improving the treatment and prevention of disease

E.g. *To some extent, I disagree, it was the actions of the government that made the biggest difference. For example, since the 19th century the government have enforced compulsory vaccinations. They first did this with smallpox in 1872, and then in 1942 they did the same with Diphtheria. The Polio vaccination followed in 1950. Therefore, the actions of the government was to some extent the most important contribution in improving the prevention of disease because the governments enforcement of vaccination has helped to prevent people catching infectious and life-threatening diseases, thereby saving countless lives. For example, the last case of polio was in 1984.*



Glossary

- **Anaesthetics** A drug or drugs given to produce unconsciousness before and during surgery.
- **Antibiotics** A treatment that destroys or limits the growth of bacteria in the body.
- **Chemotherapy** Treatment of a disease, such as cancer, by the use of chemicals.
- **Cholera** An infectious and often fatal bacterial disease, usually contracted from infected water supplies and causing severe vomiting and diarrhoea.
- **Humoural treatments** A treatment intended to restore the balance of the four humours.
- **Germs** Microorganisms that cause disease.



Glossary

- **Germ theory** The theory that germs (micro-organisms) cause disease, often by infection through the air.
- **Keyhole surgery** The use of tiny cameras and narrow surgical instruments to operate inside the body through tiny incisions, which results in quicker healing and less trauma to the body.
- **Laissez-faire** A French term which means 'leave be'. We use it to describe governments who don't get involved in day-to-day lives of their population.
- **Magic bullets** A chemical cure that attacks germs in the body causing disease with no after effects.
- **Malaria** A fever spread by mosquitoes.
- **Miasma** Bad smells were believed to cause disease.



Glossary

- **Radiotherapy** Treatment of a disease, such as cancer, by the use of waves of radiation.
- **Sanitary** Hygienic and clean. Something that is unhygienic and dirty is **unsanitary**.
- **Smallpox** It was highly contagious, meaning it spread quickly and easy from person to person.
- **Theory of the Four Humours** People believed the body contained four Humours of liquids - blood, phlegm, black bile and yellow bile. An imbalance of the four humours was believed to cause disease.
- **Vaccination** The process in which Jenner and public vaccinators infected people with cowpox to prevent them catching smallpox.



Your task

Explain why **the development of science & technology** OR **the actions of the government** was more important than the role of individuals in improving the treatment and prevention of disease since 1700.

You may want to use the following sentence starters:

*To some extent, I disagree, it was ... **[Hint: Write your factor here e.g. the development of science & technology]** that made the most important contribution in improving the treatment of disease since 1700.*

*For example... **[Hint: Show off your knowledge]***

*Therefore, ... was to some extent the most important contribution in improving the treatment/prevention of disease because... **[Hint: Link back to the question]***

Challenge Q: Which reason do you think was the most important?

