

# The future of infectious diseases

100 years since the  
Spanish Flu



# 100th anniversary of the Spanish Flu: The history

2018 marks the 100th anniversary of Spanish Flu.  
The deadly influenza (flu) pandemic:

- Infected 5300 million and killed between 50 and 100 million people
- Killed more people in 24 weeks than AIDS did in 24 years
- Claimed more lives than World War I or the Black Death

# Infectious diseases: Where are we today?

Deaths from infectious diseases have fallen due to:

- Clean water and improved hygiene
- Falls in poverty
- Investment in health
- Introduction of vaccinations

However, this should not be cause for complacency.

Infectious diseases today are far from defeated.

- The 2009 H1N1 Pandemic saw between 150,000 and 500,000 deaths globally
- Pneumonia and the flu remain to be the biggest infectious disease killers in the US, accounting for ca. 40% of deaths from infectious diseases
- From 1980-1995, there was an increase in death rate due to infectious diseases – especially HIV

Low-income countries are disproportionately affected:

- In 2010, infections still caused the majority of deaths in low-income countries
- An estimated 2.4 billion people still lack access to improved sanitation
- The burden of infectious diseases, including pneumonia, HIV, TB and malaria, remains

# Infectious diseases: The future

Academics and policymakers are concerned about a growing complacency surrounding the risks of infectious diseases.

## What are the risk factors?

### *Complacency impacting on vaccination uptake*

Just over one third of older people in Europe are vaccinated against the flu, leaving the majority at risk in the case of an outbreak.

### *Fake news undermining consensus science on vaccinations*

There is a growing anti-vaccination sentiment, which is limiting vaccination uptake in some places.

### *Antimicrobial resistance*

Antibiotic and antiviral resistance may reduce our ability to recover from disease.

### *Austerity*

Austerity in Europe has resulted in reduced investment in preventative health across the continent. Between 2009 and 2014, public spending on prevention fell by 2%.

### ***Climate change***

Climate change threatens to increase the likelihood of infectious diseases including vector borne diseases.

### ***Urbanisation***

With 70% of people predicted to inhabit towns and cities by 2050, urbanisation could create favourable conditions for infectious diseases to spread across large parts of the population. Alternatively urbanisation could help improve access to good healthcare to more people.

### ***Migration***

An increase in global migration and travel results in a heightened risk of diseases spreading rapidly.

*"It is now possible for a person to travel around the globe in less time than it takes for symptoms to appear following an infection."*

**Professor Dame Sally Davies**

# Infectious diseases: What happens next

Protecting against infectious diseases is much more than protecting against the flu.

The ILC is concerned that we need to tackle the growing complacency about infectious diseases.

We know the facts.

We know the risks of infectious disease.

What we don't know is what needs to happen next.

And that is where we come in.

# Infectious diseases: Guiding questions

## *What is the future of infectious diseases?*

- How will the trends we have identified, impact on the future of infectious diseases?
- How real is the risk of future infectious disease pandemics?

## *What should be done to reduce the risk of future pandemics and whose responsibility is it?*

- How can we keep infectious diseases at bay across the world?
- What should policymakers globally do to protect us all against infectious diseases?
- What is the role for vaccination across the life-course in terms of protecting adults and children against infectious disease?

## *How can we engage the public?*

- Are we becoming complacent about infectious diseases of old in the UK, e.g. diphtheria, polio?
- How well do the public understand the threat of AMR and the role of vaccines in tackling it?
- How aware is the general public of the benefit of vaccination to protect against infectious disease at all stages of life?



## Infectious diseases: Do you have the answers?

Share your views on the future of infectious diseases with us by emailing [lilyparsey@ilcuk.org.uk](mailto:lilyparsey@ilcuk.org.uk)

Following this series of events, ILC will be producing a final paper on the future of infectious diseases.

We would value your input.

**ilc...**

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What happens next