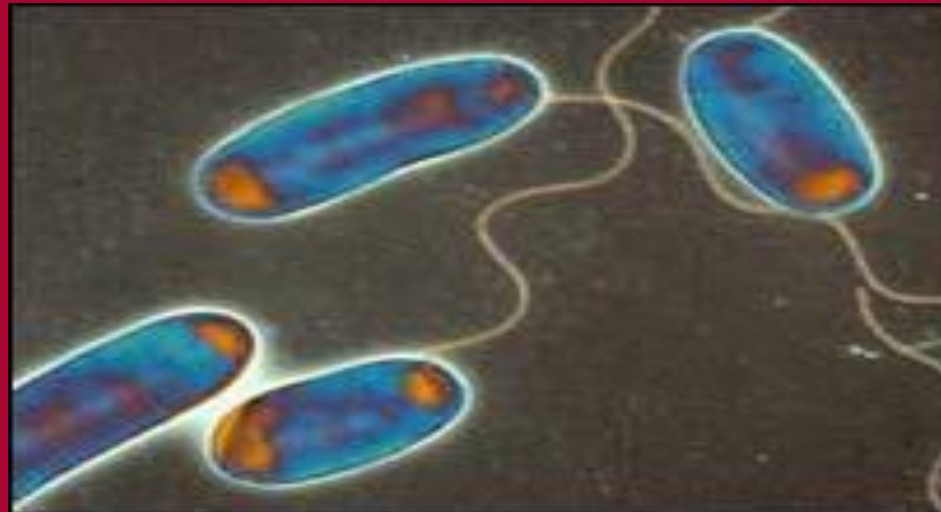


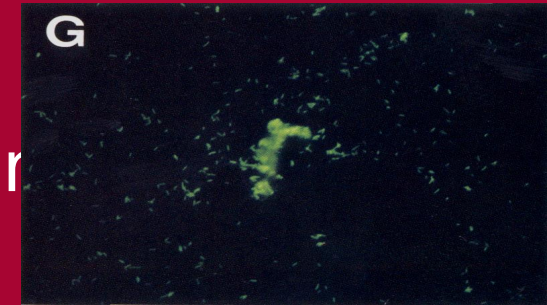
# *Control of Legionella in hot and cold water systems*



*Matthew Hamar*  
*HSE - Cardiff*

# What is Legionellosis?

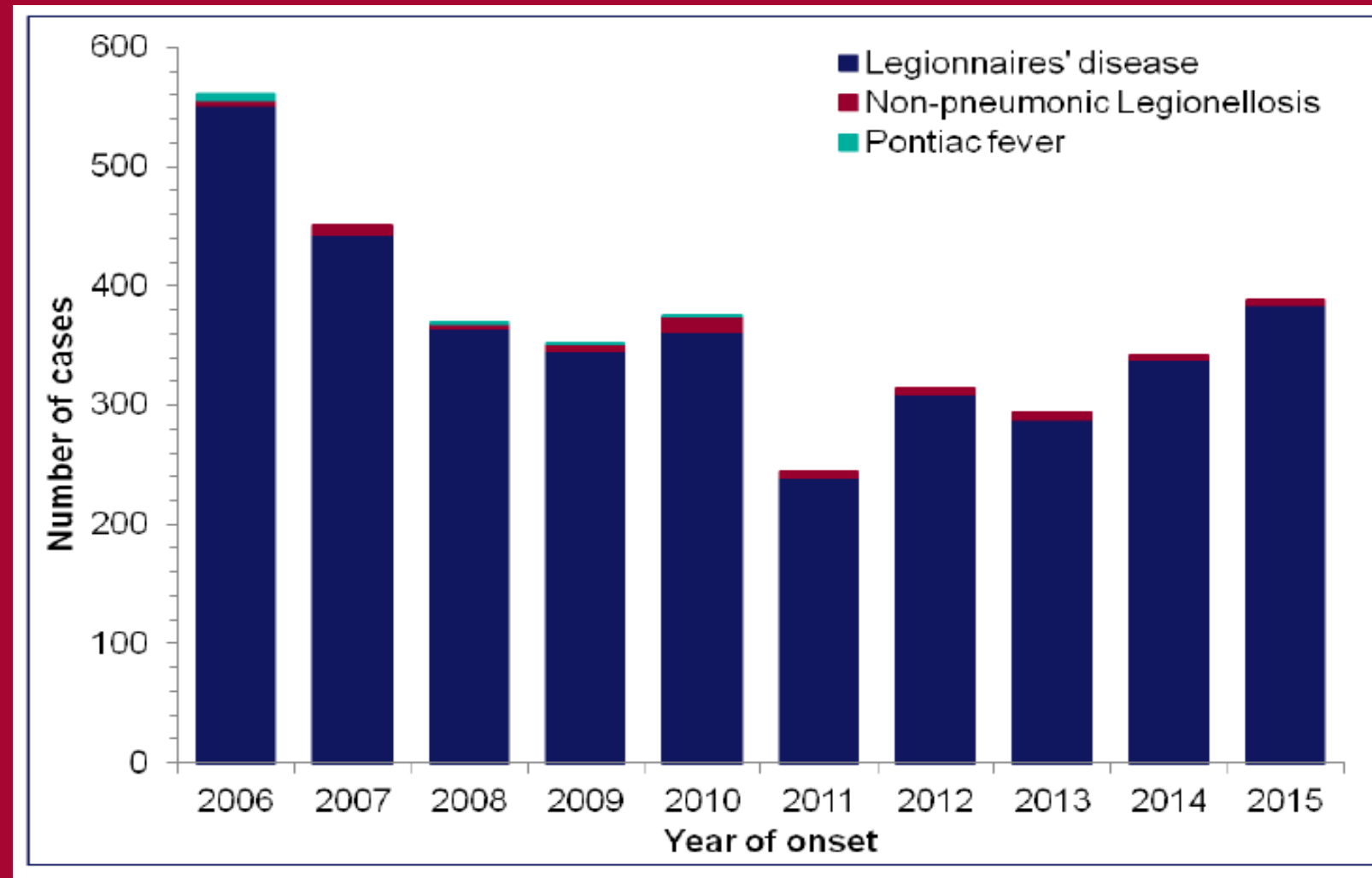
- *Collective name for diseases caused by bacteria legionella.*
- Both pneumonia and non-pneumonia varieties.
- The species *Legionella pneumophila* presents the most serious hazard.
- Non pneumonia diseases include pontiac fever-high strike rate with a legionella outbreak



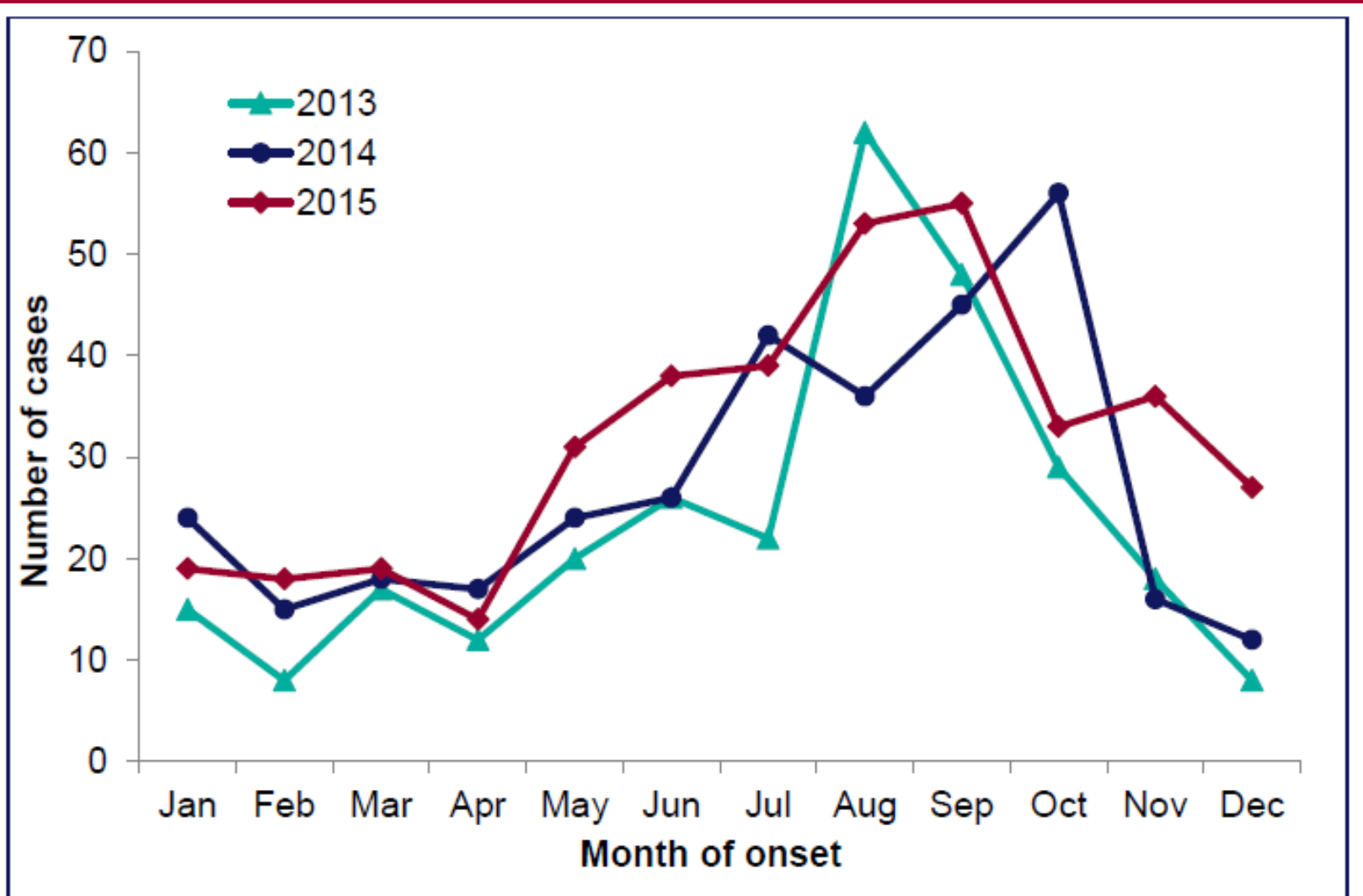
## *Legionella pneumophila*

- This pneumonia is fatal in 10-12% of cases.
- Incubation period 2-10 days (usually 3-6)
- Symptoms include high fever, general malaise, muscle and joint pains, headache, dry unproductive cough, chest pains and respiratory distress
- Not everyone exposed will develop symptoms
- Some people will not develop the full blown disease and may experience a mild flu like infection
- Can be treated effectively using antibiotics

# Number of cases of Legionellosis by year of onset of symptoms 2005 to 2014 (E&W)



# Number of confirmed cases of Legionnaires' disease by month and year of onset, 2013–2015 (E&W)



## People at greatest risk

- Old and infirm
- Men more susceptible than women
- Over 45 years of age
- Smokers
- Alcoholics
- Diabetics
- Existing respiratory problems
- Immuno-suppressed people

## Infection route

- Inhalation of contaminated water droplets containing the viable bacteria
- Water droplets less than 5 microns
- No person to person transmission
- Not contracted by drinking contaminated water

## Where is legionella found?

- *Legionella* is widespread in both natural water sources and artificial water systems.
- It multiplies:
  - where temperatures are between 20-45<sup>0</sup>C;
  - where nutrients are available; and
  - where water is stagnant or re-circulates.
- Infection can then occur by the inhalation of aerosols or particles generated from the source.



# Barrow-in-Furness outbreak

- 2500 people affected
- 494 clinically diagnosed cases
- 180 confirmed
- 7 deaths

**Battle to contain worst-ever Legionnaires' outbreak**

# 130 VICTIMS OF KILLER BUG

**BRITAIN was on the brink of its biggest ever outbreak of Legionnaires' disease last night.**

A man of 89 has already died of the killer bug, 18 other cases have been confirmed, and another 11 suspected victims have been identified.

And experts are warning that up to 130 could be struck down by the pneumonia-like illness.

Urgent investigations are under way to identify the source of the outbreak in Barrow-in-Furness, Cumbria.

Last night the Forum 28 arts complex, in the busy town centre, emerged as the most likely culprit. Police cordoned off the building and were standing guard outside.

The complex, the only town centre building with the type of water-cooled air-conditioning system associated with Legionnaires', has up to 1,000 visitors a day. Tests are being

carried out on water samples from the system and if it proves to be the source then anyone who has passed through the centre of Barrow recently could be at risk.

Legionnaires', which has an incubation period of ten days and is a particular threat to the elderly and unfit, is carried by water droplets which are pumped out by air-conditioning systems.

On average the disease can kill up to 15 per cent of its victims, although an outbreak in Stafford in 1985 affected 68, of whom 23 died.

Dr Nigel Calvert, a consultant in communicable disease control, who is in charge of tracking down the source, said: 'This is the largest outbreak I am aware of.'

Anyone who has visited Barrow since July 1 could have contracted the disease and if they display any

**Turn to Page 4, Col. 1**

By **Jenny Hope**  
Medical Correspondent



On guard: Police outside the building at the centre of the outbreak

YELLOW MAGENTA CYAN BLACK

# Legionnaires at Care Home

A screenshot of an Internet Explorer browser window displaying a press release from the HSE. The title is "Council sentenced after legionella death at care home". The date is "21 January 2016". The text states that Reading Borough Council (RBC) has been fined following an investigation into the death of a pensioner who died from exposure to legionella. It also mentions that during the HSE prosecution, Magistrates' Court heard how Mr Lewis Payne, a 95-year-old gentleman, arrived at RBC operated care facility, The Willows in 2012. A sidebar on the right contains a "Subscribe" button and social media icons for Twitter and eBulletin.

Council sentenced after legionella death at care home | Media centre - HSE - Internet Explorer provided by Internet Explorer -

http://press.hse.gov.uk/2016/council-sentenced-after-legionella-death-at-care

## Council sentenced after legionella death at care home

Date: 21 January 2016

Reading Borough Council (RBC) has been fined following an investigation into the death of a pensioner who died from exposure to legionella.

During the Health and Safety Executive (HSE) prosecution, Magistrates' Court heard how Mr Lewis Payne, a 95-year-old gentleman, arrived at RBC operated care facility, The Willows in 2012.

Subscribe

Keep in touch with news from HSE

Twitter eBulletin

A screenshot of a Firefox browser window displaying a news article on the EssexLive website. The article title is "Brentwood care home legionnaires' death: manager was too busy to do necessary training". The author is "libbymcbride1" and it was posted on "October 04, 2016". The website header includes the EssexLive logo, a weather widget showing "MON 5 °C Cloudy", and a navigation menu with categories like News, Sport, In Your Area, What's On, Jobs, Property, Directory, and Motors. A secondary menu lists topics like Crime, Education, Health, Business, Politics, Traffic & Travel, and Nostalgia. A notification at the top states "Firefox has prevented the outdated plugin 'Adobe Flash' from running on http://www.essexlive.news.".

Brentwood care home legionnaires' death: manager was too busy to do necessary training

By libbymcbride1 | Posted: October 04, 2016

EssexLive

MON 5 °C Cloudy

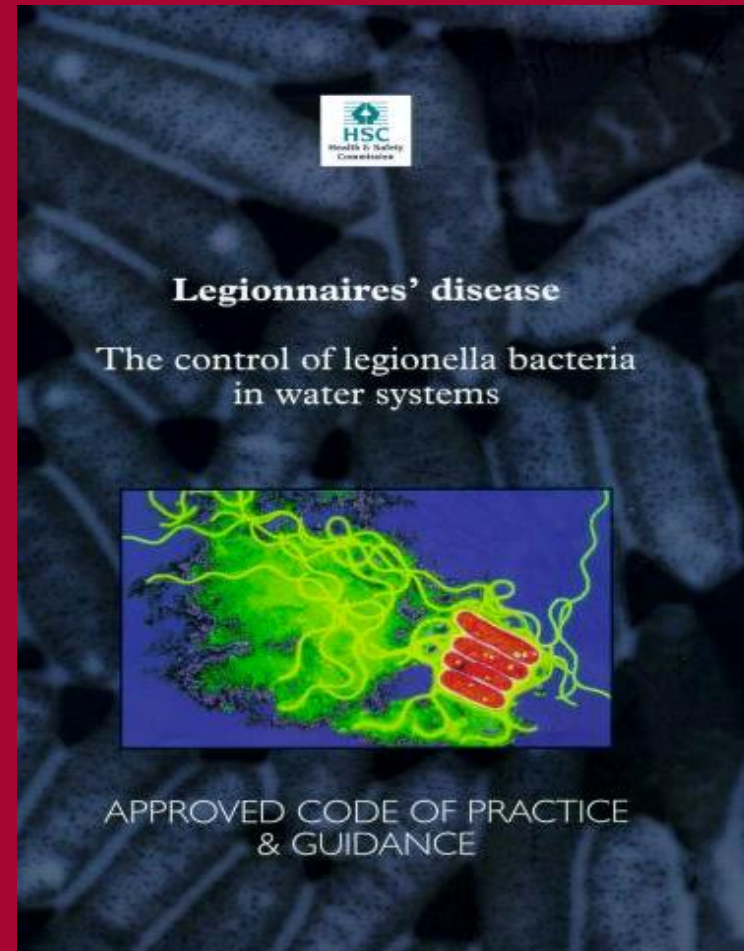
News Sport In Your Area What's On Jobs Property Directory Motors

Crime | Education | Health | Business | Politics | Traffic & Travel | Nostalgia

Firefox has prevented the outdated plugin "Adobe Flash" from running on http://www.essexlive.news.

## L8- Legionnaires' disease

*Foreseeable  
and  
Preventable*



## L8 ACOP describes the responsibilities of employers

- Identify and assess risks of legionellosis;
- avoid the use of systems that give rise to a foreseeable risk of legionellosis or, where this is not reasonably practicable, prepare a written scheme for minimising the risk from exposure;
- implement and manage the scheme of precautions including the appointment of a person, or persons, to take managerial responsibility and to provide supervision; and
- keep appropriate records.