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Health protection service bulletin

December 2010

Foreword

We cover a range of important issues this month in relation to health protection. World Aids Day was on 1 December 2010 and we released our annual HIV and STI report based on surveillance data from 2009. The number of new HIV



diagnoses made in Northern Ireland during 2009 fell by 25%, from 91 in 2008 to 68 in 2009; however, 424 people resident in Northern Ireland received HIV-related care during 2009, an increase of 7% on the previous year. This annual report provides detailed information on trends in STIs and reminds us of

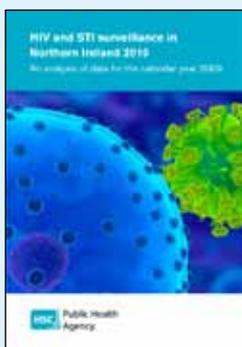
the need for ongoing prevention work. The health protection service continues to work with the regional sexual health network to look at ways of preventing STIs and HIV transmission in Northern Ireland.

A key issue also covered in this edition is the influenza immunisation programme launched in October. Although influenza levels currently remain low in Northern Ireland, it is important that all those who are eligible are immunised as soon as possible. There have been a small number of H1N1 influenza cases to date and this is likely to be the dominant flu strain this year.

Norovirus often challenges us during the winter months and the health protection duty room has developed arrangements to communicate with HSCTs when norovirus appears to be circulating in the community. This enables HSCTs to enhance their infection control measures to prevent hospital outbreaks. There are many other items in this bulletin and I am pleased to bring you more excellent reading material from the PHA health protection service.

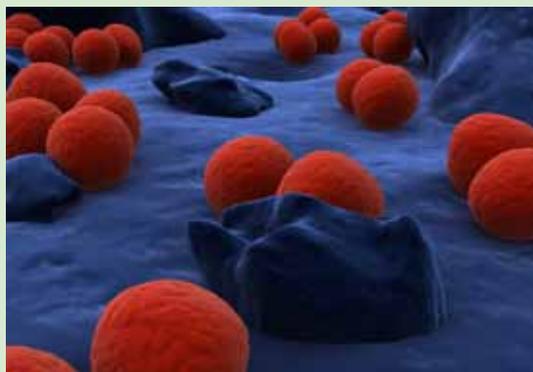
Dr Lorraine Doherty

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HIV and sexually transmitted infections (STIs) in Northern Ireland

This section provides a brief overview of HIV/STI surveillance data for 2009. A more detailed analysis is presented in the PHA's annual HIV/STI surveillance report, published on World AIDS Day, 1 December. The report is available on the PHA website at: www.publichealth.hscni.net/publications/hiv-and-sti-surveillance-northern-ireland-2010-analysis-data-calendar-year-2009



Regularly updated summary statistics for diagnoses of STIs made in Northern Ireland's GUM clinics are available at: www.cdscni.org.uk/surveillance/STI/KC60.htm and statistics for HIV at: www.hpa.org.uk

HIV and STIs represent an increasing public health problem in Northern Ireland. Young people are at particular risk of chlamydia and genital wart infections, and men who have sex with men (MSM) are disproportionately at risk of HIV, infectious syphilis and gonorrhoea.

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Important information about HIV, particularly about increasing and normalising testing, and updated guidance on post-exposure prophylaxis, can be found in the CMO letter 'Updated guidance on HIV – including HIV testing, management of HIV infection and post-exposure prophylaxis', available at: www.dhsspsni.gov.uk/hss-md-34-2008.pdf



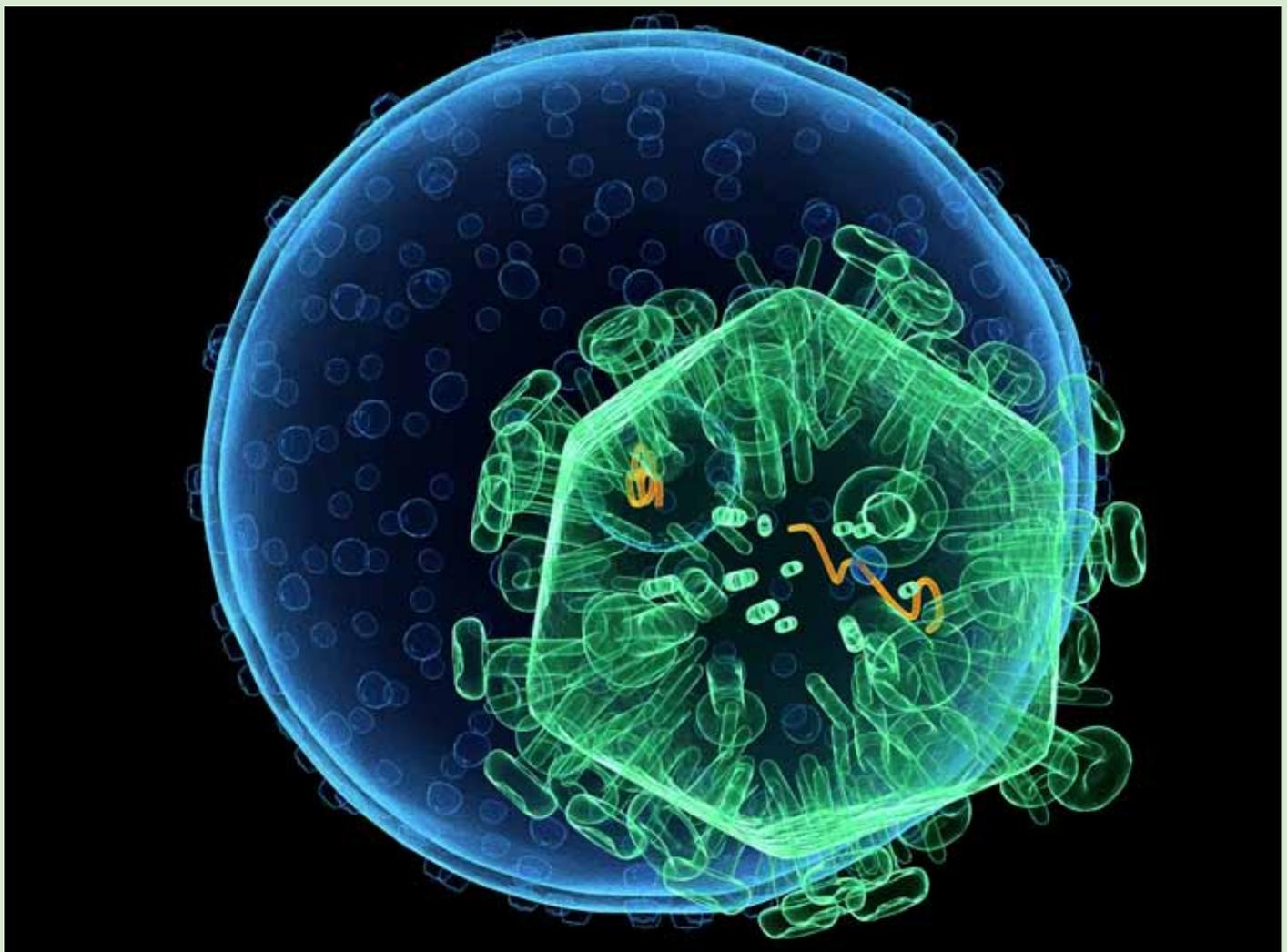
The past two years have seen the emergence of lymphogranuloma venereum (LGV) infection among MSM, with nine cases diagnosed to date. Highly prevalent in parts of Africa, Asia, and Central and South America, it was rare in Western Europe until 2003 when it emerged in a series of outbreaks in different European countries. LGV is a bacterial infection caused by a specific type of *Chlamydia trachomatis*. The most common presentation is proctitis, which is sometimes mistaken for Crohn's disease. The majority of cases seen in the UK have been HIV positive white MSM. Further information is available at: www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/LGV/

New HIV diagnoses

- 68 new first-UK HIV diagnoses were made in Northern Ireland during 2009, a decrease of 25% on 2008 (91).
- 42 (provisional) new first-UK HIV diagnoses were reported during the first two quarters of 2010 (33 male and 9 female).

Prevalent HIV infections

- 424 people resident in Northern Ireland received HIV-related care during 2009, an increase of 7% on 2008 (396).



New infectious syphilis diagnoses

- 56 new episodes of infectious syphilis were diagnosed in Northern Ireland during 2009, a decrease of 11% on 2008 (63).
- 80% (45/56) of episodes in 2009 were diagnosed in MSM.
- 11 new diagnoses were reported during the first two quarters of 2010.

Other STI diagnoses reported by GUM clinics in Northern Ireland

During 2009:

- new diagnoses of uncomplicated chlamydia decreased by 2%, 1,906 in 2009 compared with 1,946 in 2008;
- new diagnoses of uncomplicated gonorrhoea decreased by 20%, 180 in 2009 compared with 226 in 2008;
- new diagnoses of genital herpes simplex (first attack) increased by 17%, 346 in 2009 compared with 296 in 2008;
- new diagnoses of genital warts (first attack) decreased by 3%, 2,086 in 2009 compared with 2,143 in 2008.

Figure 1: Rates of selected STIs, Northern Ireland, 2000–2009

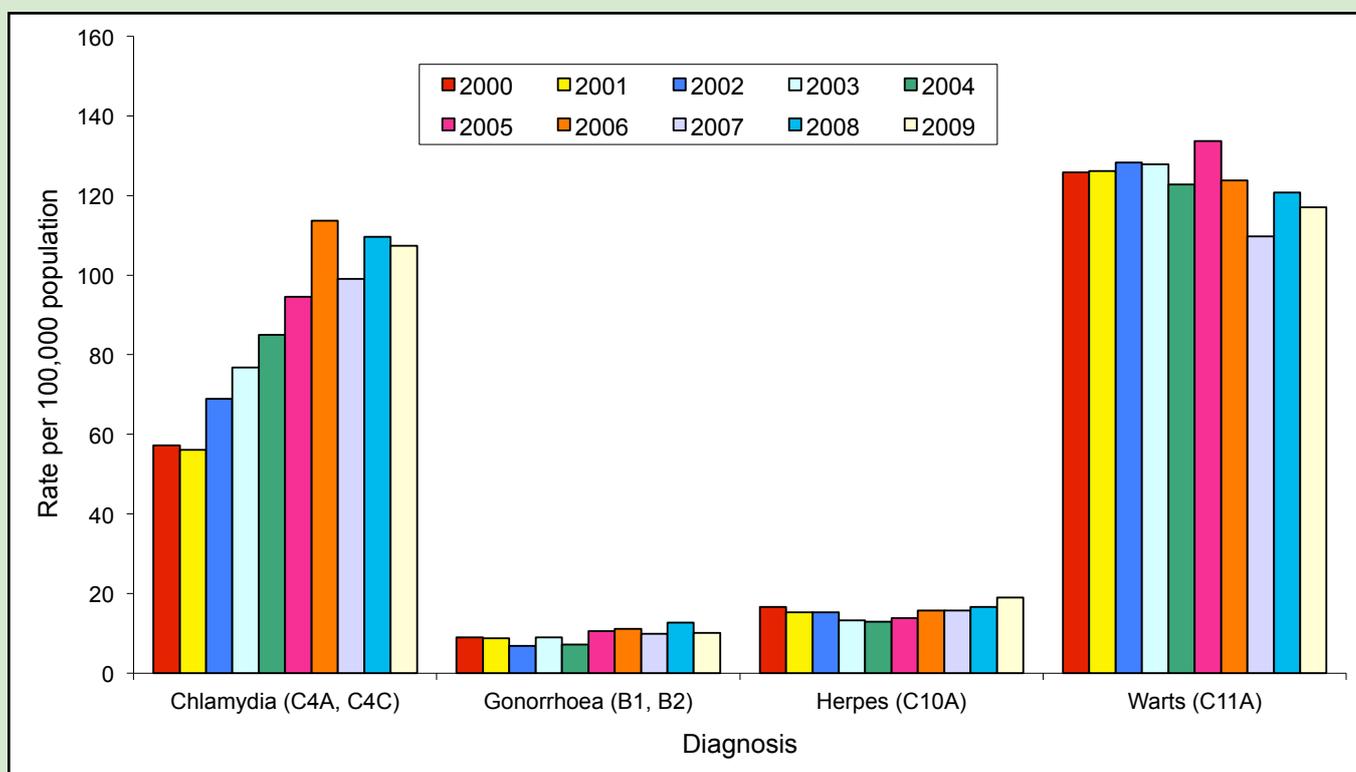


Table 1: Number of new episodes of selected STI diagnoses reported by GUM clinics in Northern Ireland, January–June 2010

	Chlamydia	Gonorrhoea	Herpes	Warts	Total diagnoses	Total workload
Female	389	15	114	447	2,527	5,095
Male	507	87	76	536	3,436	6,142
% in MSM	14%	32%	5%	6%	–	–
Total	896	102	190	983	5,963	11,237

Legionella infection in Northern Ireland

Seven cases of Legionnaires' disease were reported in 2009 (specimen dates tested during 2009).

Legionnaires' disease is notifiable in Northern Ireland. The disease, caused by *Legionella pneumophila*, is a multi-system illness that can have severe widespread clinical symptoms, though it mainly presents as pneumonia.

The organism is commonly found in various natural and man-made aquatic environments, often in low numbers. Water cooling towers, air conditioning systems and spa pools have been implicated as major sources of infection. Colonisation is enhanced by temperatures of 25–42°C, stagnation and the presence of scale and sediment. Airborne or aerosol transmission of the organism from contaminated water in large institutions' water systems has accounted for numerous worldwide outbreaks that were associated with hotels, leisure complexes and hospitals. A significant proportion of cases are travel-related. Sporadic cases are also common. The elderly, immunosuppressed and chronically ill are most at risk of infection.

Monitoring of legionella infections in Northern Ireland is carried out in conjunction with the European Legionnaires' Disease Surveillance Network (ELDSNet). Although the disease is not currently a serious risk to public health in Northern Ireland in terms of the number of notified cases, participation in this surveillance scheme ensures standardised methods of detection, diagnosis, recording and reporting of disease, and permits direct comparisons with data from other participating regions. Outbreaks or clusters of cases of Legionnaires' disease in returning travellers can be quickly identified through this European network, allowing rapid alerts to be communicated to all collaborating countries, WHO, ECDC and other relevant centres.



Cases are categorised as confirmed or presumptive in accordance with HPA classification:
www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/LegionnairesDisease/CaseDefinitions/

During 2009, seven cases of Legionnaires' disease were reported in Northern Ireland, a rate of 0.4/100,000 population. All met the 'confirmed' case definition. Compared with previous years, 2009 has seen the second highest number of cases since 1980. Cases peaked in 2007 (10), with six cases reported in 2008.

Of the seven cases reported during 2009, ages ranged between 39 and 70 years (mean 56 years) and five were male (71%). Four were associated with travel, the person having travelled outside the UK for all or some of the 2–10 days prior to the onset of symptoms. These individuals had visited Germany, Majorca, Portugal, and one had been on a Mediterranean cruise. Two deaths were recorded in 2009 (case fatality rate 29%). In all cases, the diagnosis was by urinary antigen tests. None had had a recent organ transplant or visited a whirlpool/spa in the two weeks prior to the onset of symptoms. All required hospitalisation.

Between 1980 and 2009, 73 cases (66 confirmed and 7 presumptive) were notified in Northern Ireland. This includes nine deaths (case fatality rate 12.3%) and two reported community clusters, each of three cases. Forty five cases (62%) were associated with travel outside the UK. Seventy one percent (32/45) of these cases had travelled to Mediterranean countries, with Spain (n=14) the country most frequently reported. Nine cases were associated with travel-related clusters identified through the European Surveillance Network. The patient's age was known in 71 cases – ages ranged from 30 to 83 years (median 56 years). Gender was known in 72 cases – 55 male and 17 female (3.2:1).

There was an increase in the number of cases reported after 2001, mainly due to better ascertainment, especially with regards to travel-related cases and the introduction of urinary antigen testing. Since the initial rise following 2001, between 4 and 10 cases have been reported annually.

For further information on Legionnaires' disease, visit: www.hpa.org.uk/infections/topics_az/legionella/menu.htm

Figure 1: Legionnaires' disease – cases and deaths in Northern Ireland, 1980–2009 (n=73)

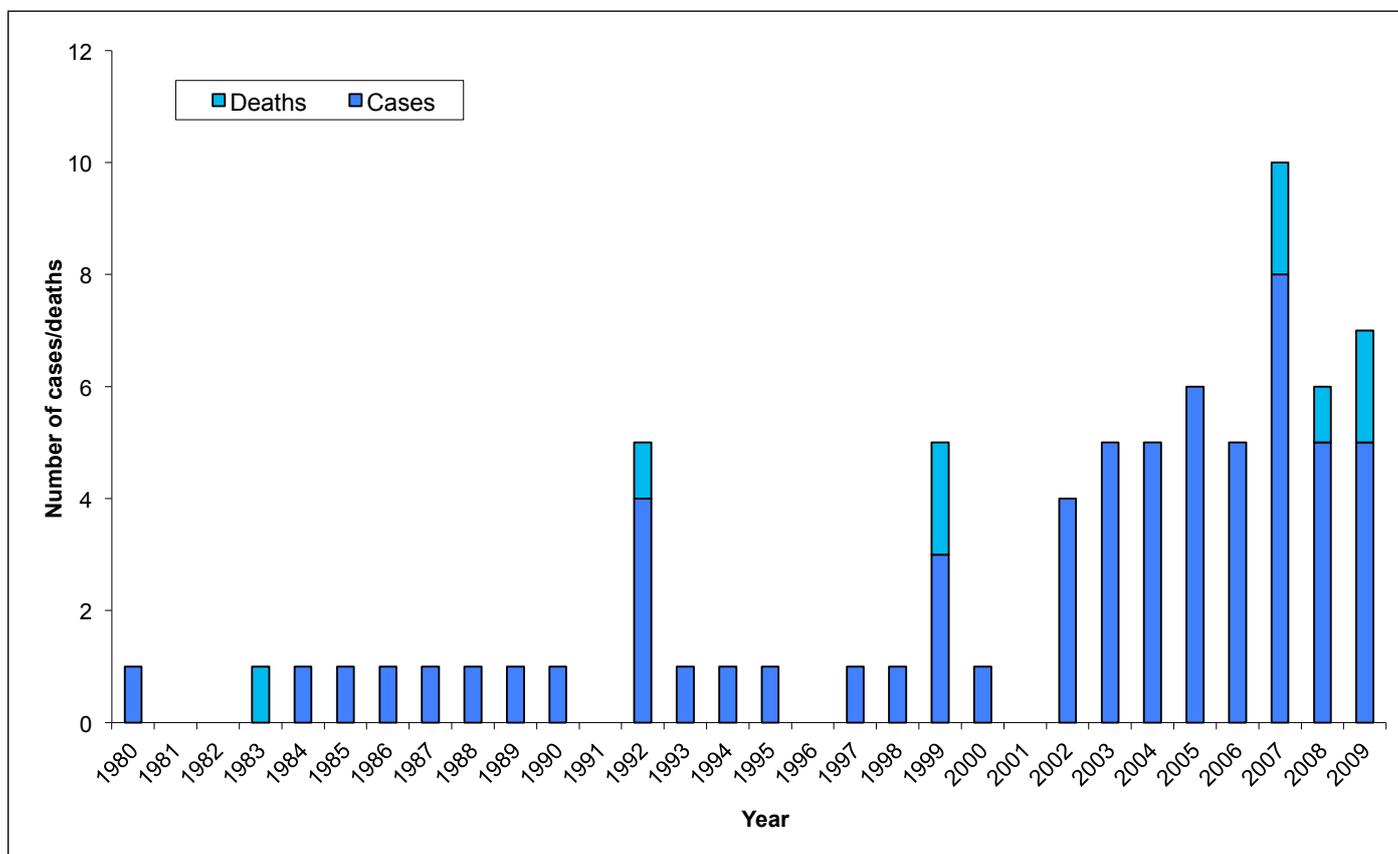


Figure 2: Legionnaires' disease – travel associations in Northern Ireland, 1980–2009 (n=73)

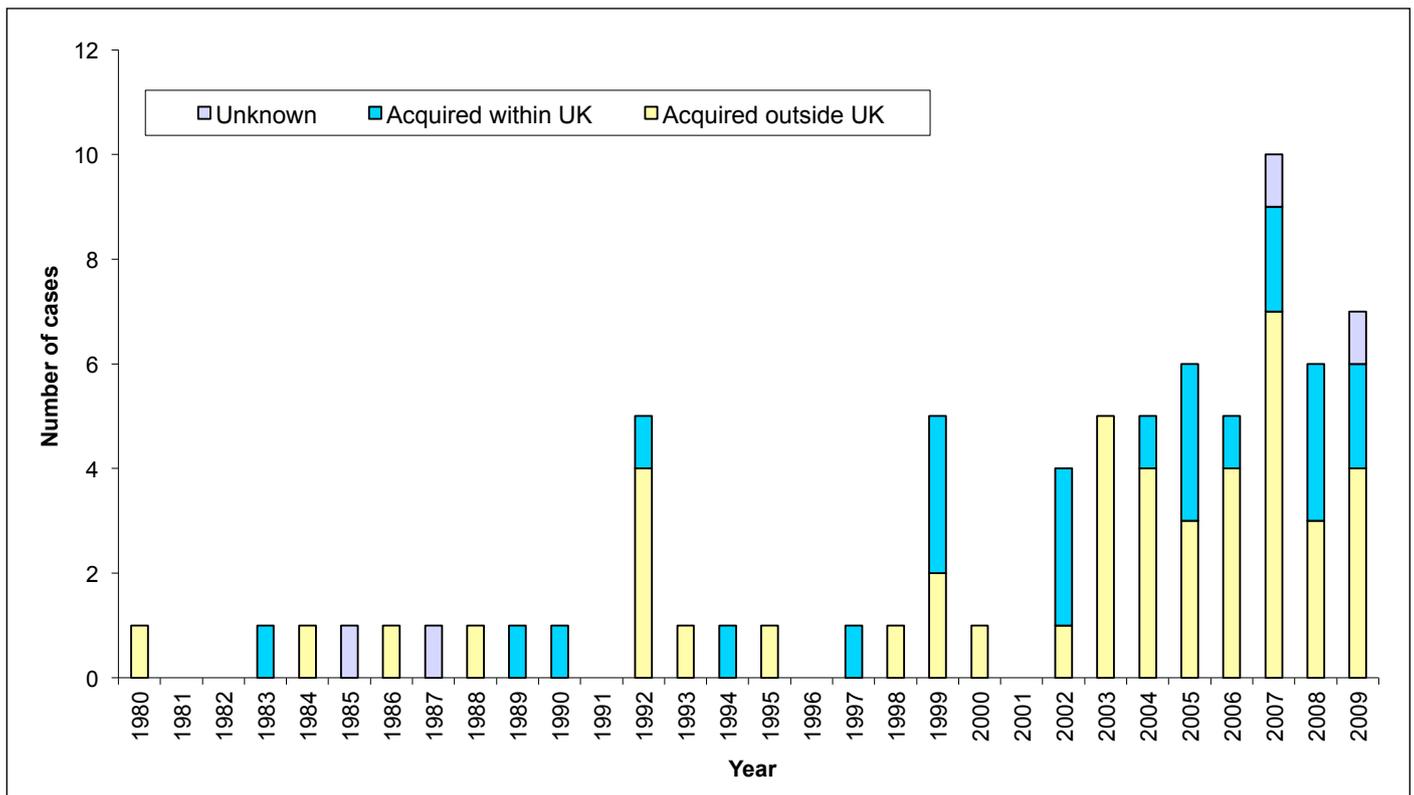
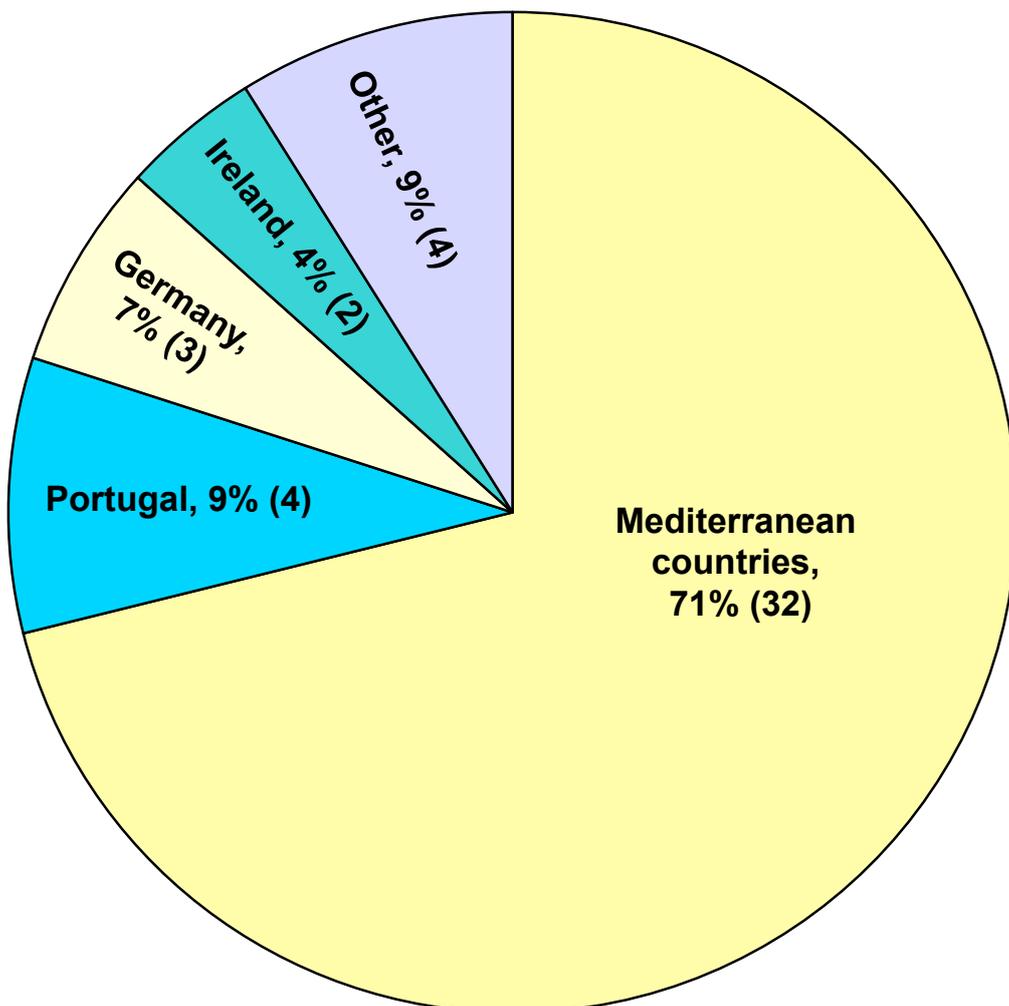


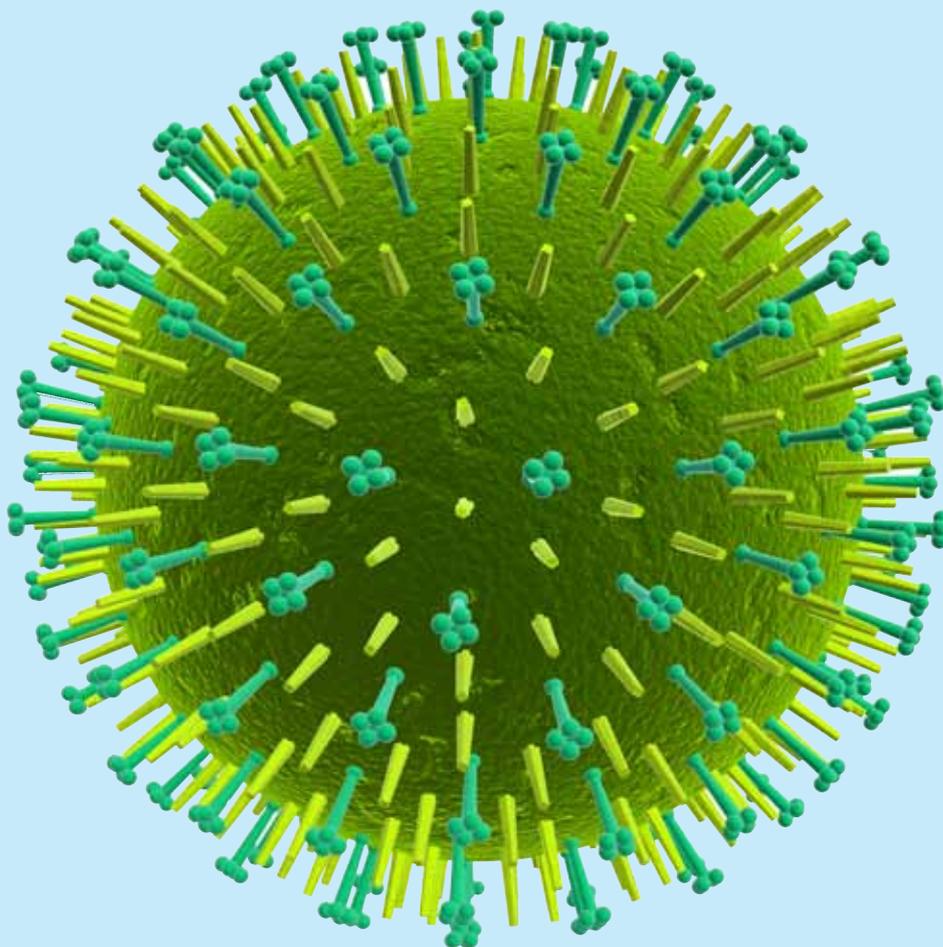
Figure 3: Legionnaires' disease – travel associated cases by travel destination, 1980–2009 (n=45)



Influenza vaccination programme: winter 2010/11

The DHSSPS has raised the regional target of influenza immunisation uptake for those aged 65 and over to 75% for the 2010/11 season, while the uptake target for the under 65 at-risk group remains at 60%.

To date, returns have been received from 93% of GP practices registered in Northern Ireland. By 31 October 2010, 55% of individuals aged 65 years and over, and 42.8% of those in the under 65 at-risk group, had received influenza immunisation. This is similar to the same period in 2008 but less than in October 2009, which was the height of the pandemic.



Interim Northern Ireland GP influenza vaccine coverage data to 31 October 2010			
	To 31 Oct 2010	To 31 Oct 2009 2009/2010	To 31 Oct 2008 2008/2009
Number of practices	355	357	358
Number of practices submitting return by 10 November	331	333	339
Number aged 65+ years who received influenza vaccine by 31 October	142,640	157,088	147,730
Number in 65+ years population registered at practices submitting a return	259,223	244,950	250,647
Uptake rate for 65+ years population by 31 October	55.0%	64.1%	58.9%
Number in under 65 years at-risk population who received influenza vaccine by 31 October	83,901	95,072	78,791
Number in under 65 years at-risk population registered at practices submitting a return	195,802	173,278	162,937
Uptake rate for under 65 at-risk population by 31 October	42.8%	54.9%	48.4%

Respiratory laboratory detections

Laboratory confirmed mycobacteria*

Mycobacteria	2010				2009
	Q1	Q2	Q3	Cumulative Q1-Q3	Cumulative Q1-Q3
Mycobacterium tuberculosis complex					
<i>M. tuberculosis</i>	12	14	8	34	36
<i>M. africanum</i>	0	0	0	0	0
<i>M. bovis</i>	0	1	0	1	0
Atypical mycobacteria					
<i>M. abscessus</i>	1	0	3	4	3
<i>M. avium-intracellulare group</i>	12	8	3	23	23
<i>M. chelonae</i>	2	2	1	5	6
<i>M. fortuitum</i>	1	1	1	3	0
<i>M. goodii</i>	5	2	2	9	10
<i>M. interjectum</i>	0	1	0	1	0
<i>M. kansasii</i>	3	0	0	3	6
<i>M. lentiflavum</i>	0	2	2	4	2
<i>M. malmoense</i>	4	2	2	8	6
<i>M. marinum</i>	0	0	0	0	1
<i>M. peregrinum</i>	1	1	0	2	1
<i>M. simiae</i>	0	1	0	1	0
<i>M. xenopi</i>	2	0	0	2	4

* Based on specimen date rather than date of notification.

All data taken from CoSurv.

Excludes duplicates within 26 weeks as per PHA guidelines.

Respiratory viruses	2010				2009
	Q1	Q2	Q3	Cumulative Q1-Q3	Cumulative Q1-Q3
Influenza – pandemic A* (H1N1)	17	0	0	17	363
Influenza – A* (other)	0	0	1	1	50
Influenza – B*	0	0	0	0	22
RSV*	180	4	3	187	135

* Includes spotter swabs (spotter specimens have only been tested for RSV since week 53, 2009).

Note: a new laboratory assay was introduced in 2010.

2009 and 2010 data for influenza and RSV taken from virology reporting database.

Respiratory bacteria	2010				2009
	Q1	Q2	Q3	Cumulative Q1-Q3	Cumulative Q1-Q3
<i>Coxiella burnetii</i>	0	0	0	0	2
<i>Mycoplasma pneumoniae</i>	0	0	3	3	5
<i>Chlamydia pneumoniae</i>	0	0	0	0	2

All data taken from CoSurv.

Duty room update

Norovirus

Norovirus (NV) is the most common cause of infectious gastroenteritis (diarrhoea and vomiting) in England, Wales and Northern Ireland. It was formerly known as small round structured virus (SRSV) or Norwalk-like virus, or, more commonly, 'winter vomiting disease' due to its seasonality and typical symptoms.

In addition to vomiting and diarrhoea, symptoms may include nausea, stomach cramps, fever, headache and muscle aches. It takes about 15 to 48 hours for symptoms to develop and patients usually recover fully within two or three days. Although the illness is generally mild, it can be serious for elderly people. Other than maintaining a good fluid intake, there is no specific treatment. The diagnosis of viral gastroenteritis is normally made on the basis of symptoms and through the testing of faeces or vomit.

Outbreaks of NV gastroenteritis are common in semi-closed environments such as hospitals and nursing/residential homes. Since January, more than 100 residential and nursing homes across Northern Ireland reported outbreaks of diarrhoea and vomiting to the duty room, the majority suspected to be caused by NV. Over the same period, a number of hospitals reported similar outbreaks.

A number of these outbreaks have been associated with the movement of patients between care facilities. It is important to remember that when a patient with vomiting and/or diarrhoea requires admission to

hospital, the A&E department should be contacted in advance of transferring the patient. This information will enable the appropriate infection control and isolation arrangements to be put in place to accept the patient. It is equally important to inform them of any patient being admitted from a facility where an outbreak is ongoing.

All outbreaks should be reported to the health protection duty room as soon as possible, and within 24 hours of an outbreak being suspected. Staff will provide further guidance and support on investigating the outbreak as appropriate. If necessary, a visit to the home will be undertaken by a health protection nurse.

The duty room will require a daily update report, as well as information about any significant developments, eg results of laboratory testing, need for hospital admissions associated with the outbreak, and staff illness.

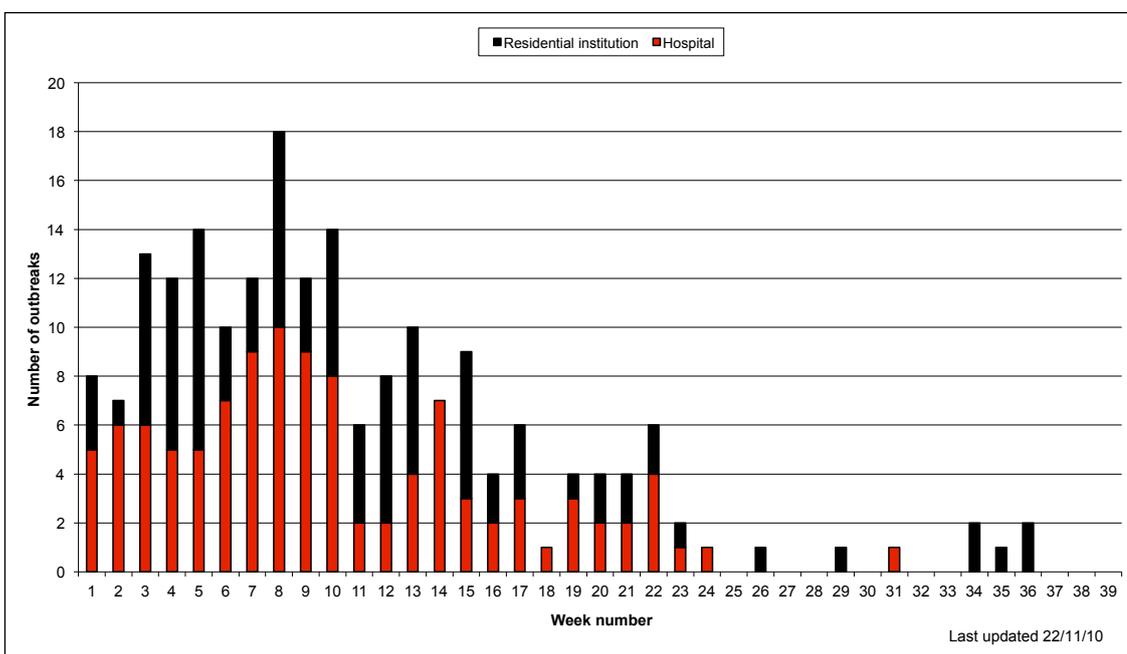
How is gastroenteritis spread?

Viral gastroenteritis is highly infectious. It can be spread:

- by person-to-person contact (for instance when the virus is on people's hands);
- by air – vomiting sends viruses into the air, creating an aerosol that may then settle on people, furniture or food in the same room;
- by swallowing contaminated food or drink.

Anyone with viral gastroenteritis is potentially infectious while they have symptoms and for at least 48 hours after the symptoms have stopped (longer in the elderly). Further information is available through the HPA website: www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Norovirus/

Outbreaks of norovirus reported in 2010 (provisional)*



* Includes reports of unconfirmed norovirus

Tuberculosis

The HPA has recently published its annual tuberculosis report, detailing UK epidemiological trends. In total, 9,040 new cases of TB in the UK were reported during 2009 – the highest number in the UK for nearly 30 years. This represents a rate of 15 cases/100,000 population. The majority were young adults aged 15–44 years (60%) and non-UK born (73%). Most of the non-UK born patients with TB were diagnosed two or more years after arrival in the UK. Cases of drug resistant TB, while low (1.2%), have nearly doubled in the past 10 years, from 206 cases in 2000 to 389 cases last year. The report highlights the importance of early diagnosis and prompt management, with clinicians having a high index of suspicion in patients within the various risk groups. It also recommends that control measures specifically targeting the non-UK born population, the homeless, drug users and prisoners, should be further developed.



Incidence of TB in Northern Ireland remains relatively low, with 55 cases provisionally reported in 2009 (a rate of 3.1 cases/100,000). Northern Ireland accounts for 1% of all UK cases of TB: www.hpa.org.uk/NewsCentre/NationalPressReleases/2010PressReleases/101104TB/

Shooting up – infections among injecting drug users in the United Kingdom 2009. An update: November 2010.

Another recent HPA publication is the annual report on infections among injecting drug users. This notes that while needle and syringe sharing have declined in recent years, almost a fifth of injecting drug users continue to share. Approximately half of injecting drug users have been infected with hepatitis C, one sixth with hepatitis B, and about a third reported a symptom of a bacterial infection (such as a sore or abscess) at an injecting site in the past year.



The prevalence of HIV among those who have injected drugs remains low and it is estimated to be 1.5% overall in the UK. Uptake of HIV testing is improving, with three quarters of injecting drug users now reporting that they have had a test. However, almost a third of injecting drug users with HIV remain unaware of their infection. The vast majority of HIV-infected injecting drug users in contact with specialist HIV treatment services are receiving antiretroviral therapy: www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1195733837406

Further information for health professionals and other agencies:

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