



Health Protection Report

weekly report

Current Issue: Volume 1 Number 14 **Published on:** 5 April 2007

Current News

- ▶ Meningococcal meningitis activity in Africa: revised vaccine recommendations
- ▶ Increase in cases of human H5N1 avian influenza reported from Egypt

Infection reports

Respiratory

- ▶ Laboratory reports of respiratory infections made to the Health Protection Agency Centre for Infections from HPA and NHS laboratories in England and Wales: weeks 09-13/07

Travel Health

- ▶ Imported infections, England and Wales: October to December 2006

HPR subscription

To subscribe to the Health Protection Report, please email hpr@hpa.org.uk

News

Last updated: 5 April 2007

-
- ▶ Meningococcal meningitis activity in Africa: revised vaccine recommendations
 - ▶ Increase in cases of human H5N1 avian influenza reported from Egypt
-

Meningococcal meningitis activity in Africa: revised vaccine recommendations

The National Travel Health Network and Centre (NaTHNaC) has revised its recommendations for meningococcal vaccine for travellers to Africa based on surveillance data from outbreaks and cases reported by the World Health Organization over the last five years [1].

Countries that are now considered to be risk destinations* include those considered to be 'meningitis belt' countries (from Senegal in the west to Ethiopia in the east) [2] as well as some which are not typically included in the belt: Angola, Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Eritrea, Ethiopia, The Gambia, Ghana, Guinea, Kenya, Mali, Niger, Nigeria, Rwanda, Senegal, Somalia, Sudan, Tanzania, Togo, Uganda, and Zambia.

Quadrivalent meningitis ACW135Y vaccine should be considered for those travelling to the above listed countries and whose planned activities may put them at a higher risk of infection. Higher risk activities may include working closely with local populations for extended periods either through medical or relief work for example, or visiting friends and relations. Travellers to these countries should also try where possible to avoid crowded conditions.

Although meningococcal disease occurs worldwide, the highest burden occurs in Africa. Epidemics in the meningitis belt countries usually occur in the dry season between November and May/June. The serogroups most commonly associated with the African meningitis belt are A and C, although, serogroup W135 emerged in Burkina Faso in 2002 [3].

Further information about meningococcal disease can be found in the NaTHNaC information sheet at <http://www.nathnac.org/pro/factsheets/meningococcal.htm> or on the HPA website at http://www.hpa.org.uk/infections/topics_az/meningo/menu.htm.

*Risk destinations may be subject to change over time.

References

1. The National Travel Health Network and Centre (NaTHNaC). *Meningococcal meningitis activity and revised vaccine recommendations*. *Clinical update* [online] 30 March 2007 [cited 4 April 2007]. Available at http://www.nathnac.org/pro/clinical_updates/meningitis300307.htm.
2. World Health Organization. *Meningococcal meningitis fact sheet 141* [online]. Revised May 2003 [cited 4 April 2007]. Available at <http://www.who.int/mediacentre/factsheets/fs141/en/>.
3. World Health Organization. 2002 - *Meningococcal disease in the African meningitis belt – update 2* [online] 6 May 2002 [cited 4 April 2007]. Available at http://www.who.int/csr/don/2002_05_06/en/index.html.

Increase in cases of human H5N1 avian influenza reported from Egypt

On 2 April 2007 the World Health Organization (WHO) reported three additional human cases of avian influenza A (H5N1) virus infection in Egypt [1]. All three cases are in children (two boys and one girl, aged between 4 and 7 years) who are receiving treatment and remain in a stable condition in hospital. Five cases in children aged between two and ten years were also reported in the previous two weeks. All have survived to date [1,2]. So far this year worldwide, the highest number of human cases of avian influenza A(H5N1) virus infection have been reported from Egypt – 14 cases (including three fatal cases that occurred in January and February). Eleven of these were in children aged 10 years or under. The youngest case occurred in a 2 year old boy.

The case fatality rate in Egypt (21.4%, 3/14) is low compared with the overall case fatality rate of 59.0% (170/288) globally. The reason for this is unclear but the following factors might all play a part: better awareness, early detection, and timely treatment. According to the World Organization for Animal Health (OIE), Egypt has carried out a poultry vaccination programme with H5N1 and H5N2 inactivated vaccines [3] but the completeness and quality of this programme is unknown.

According to WHO, the 14 Egyptian cases that have occurred this year were reported from the following Governorates, Beni Sweif, Fayyoun (two cases), Sharkia, Dakahlea, Ad Daqahliyah, Aswan (three), Qena (two cases in a brother and sister), Menia, Sohag, and Qalubiea. None of the children live in areas frequented by tourists and, according to OIE, all these Governorates have reported avian influenza H5N1 outbreaks in poultry [3].

Human cases of avian influenza A(H5N1) virus infection started to appear in Egypt in 2006 after poultry H5N1 outbreaks occurred in the same year. Poultry outbreaks were reported firstly in February 2006 and were followed by the reporting of the first human case in March 2006. In total, 18 human cases, ten of whom died, were reported in 2006. Egypt has the highest number of confirmed human cases outside Asia .

Indonesia has the second highest number of reported cases so far this year. Six have been reported, five of whom died [4]. Other country reports have come from Lao DPR (two fatal cases), China (two cases, one fatal) and Nigeria (one fatal case) [4].

References

1. *Avian influenza - situation in Egypt - update 13*. [online] [cited 5 April 2007] Geneva: World Health Organisation, 2007. Available at <http://www.who.int/csr/don/2007_04_02/en/index.html>.
2. *Disease Outbreak News*. Epidemic and Pandemic Alert and Response (EPR). [online] [cited 5 April 2007] Geneva: World Health Organisation, 2007. Available at <<http://www.who.int/csr/don/en/index.html>>.
3. *Update on avian influenza in animals (Type H5)*. [online] [cited 5 April 2007] Paris: World Organisation for Animal Health (OIE), 2007. Available at <http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm>
4. *Cumulative number of confirmed human cases of avian influenza A(H5N1) reported to WHO* [online] [cited 5 April 2007] Geneva: World Health Organisation, 2007. Available at http://www.who.int/csr/disease/avian_influenza/country/cases_table_2007_04_02/en/index.html

Respiratory

Last updated: 5 April 2007,

Laboratory reports of respiratory infections made to the Health Protection Agency Centre for Infections from HPA and NHS laboratories in England and Wales: weeks 09-13/2007

Table 1 Reports of influenza infection made to HPA Centre for Infections, by week of report: weeks 09-13/2007

Week	Week 09	Week 10	Week 11	Week 12	Week 13	Total
Week ending	04/03/07	11/03/07	18/03/07	25/03/07	01/04/07	
Influenza A	52	78	21	22	16	189
Isolation	15	11	4	–	3	33
DIF*	12	4	–	3	2	21
Four-fold rise in paired sera	2	–	–	1	2	5
PCR	13	41	4	1	1	60
Other†	10	22	13	17	8	70
Influenza B	1	4	2	2	–	9
Isolation	–	–	–	–	–	–
DIF*	–	–	–	1	–	1
Four-fold rise in paired sera	–	–	–	–	–	–
PCR	–	–	–	–	–	–
Other†	1	4	2	1	–	8
Influenza (untyped)	–	–	–	–	–	–
Isolation	–	–	–	–	–	–
DIF*	–	–	–	–	–	–
Four-fold rise in paired sera	–	–	–	–	–	–
PCR	–	–	–	–	–	–
Other†	–	–	–	–	–	–

DIF = Direct Immunofluorescence.

†'Other' = 'Antibody detection - Single high titre' or 'method not specified'.

Table 2 Respiratory viral detections by any method (culture, direct immunofluorescence, PCR, four-fold rise in paired sera, single high serology titre, genomic, electron microscopy, other method, other method unknown), by week of report: weeks 09-13/2007

Week	Week 09	Week 10	Week 11	Week 12	Week 13	Total
Week ending	04/03/07	11/03/07	18/03/07	25/03/07	01/04/07	
Adenovirus*	34	40	26	40	24	164
Coronavirus	–	–	–	–	–	–
Parainfluenza†	6	16	2	7	6	37
Rhinovirus	3	4	–	4	1	12
Respiratory syncytial virus (RSV)	124	126	45	38	40	373

*Respiratory samples only. Excludes diagnoses made by electron microscopy (EM)

†includes parainfluenza types 1, 2, 3, 4 and untyped

Table 3 Respiratory viral detections by age group: weeks 09-13/2007

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Unknown	Total
Adenovirus*	21	26	11	71	24	8	3	164
Coronavirus	–	–	–	–	–	–	–	–
Influenza A	24	12	13	65	42	30	3	189
Influenza B	1	–	–	3	1	4	–	9
Parainfluenza†	23	3	2	4	2	3	–	37
Rhinovirus	7	–	2	2	–	1	–	12
Respiratory syncytial virus (RSV)	304	30	7	10	8	14	–	373

*Respiratory samples only.

†includes parainfluenza types 1, 2, 3, 4, and untyped.

Table 4 Laboratory reports of infections associated with atypical pneumonia, by week of report: weeks 09-13/2007

Week	Week 09	Week 10	Week 11	Week 12	Week 13	Total
Week ending	04/03/07	11/03/07	18/03/07	25/03/07	01/04/07	
<i>Coxiella burnetii</i>	–	–	1	–	–	1
Respiratory <i>Chlamydia</i> sp*	3	5	2	–	2	12
<i>Mycoplasma pneumoniae</i>	23	23	13	34	11	104
<i>Legionella</i> sp	6	8	3	4	8	29

*Includes *Chlamydia psittaci*, *Chlamydia pneumoniae*, and *Chlamydia* sp detected from blood, serum, and respiratory specimens.

Table 5a Reports of legionnaires' disease cases in England and Wales, by week of report: weeks 09-13/2007

Week	Week 09	Week 10	Week 11	Week 12	Week 13	Total
Week ending	04/03/07	11/03/07	18/03/07	25/03/07	01/04/07	
Nosocomial	–	–	–	–	–	–
Community	2	8 (1*)	3	4	6(1*)	23
Travel abroad	3 (1*)	–	–	–	2	5
Travel UK	1	–	–	–	–	1
Total	6	8	3	4	8	29
Male	4	6	2	3	6	21
Female	2	2	1	1	2	8

*2006 case(s).

Twenty-nine cases were reported with pneumonia; 21 males aged from 38 to 80 years and eight females aged from 44 to 72 years. Twenty-three cases had community acquired infection. Three males aged from 53 to 71years and F 61y died.

Six cases were travel associated: three from Spain, and one from each of Germany, Tunisia and United Kingdom (1).

Table 5b Reports of legionnaires' disease cases by region of report in England and Wales: weeks 09-13/2007

Region	Nosocomial	Community	Travel (Abroad)	Travel (UK)	Total
North East	–	1	–	–	1
Yorkshire & Humber	–	4 (1*)	2 (1*)	–	6
East Midlands	–	3	–	–	3
East of England	–	1	1	–	2
London	–	3	1	–	4
South East	–	5	1	–	6
South West	–	3 (1*)	–	–	3
West Midlands	–	1	–	1	2
North West	–	–	–	–	–
Wales	–	2	–	–	2
Total	–	23	5	1	29

*2006 cases.

Travel Health

Last updated: 5 April 2007

Next update: 6 July 2007

Imported infections, England and Wales: October to December 2006

The data presented in this report should be interpreted in conjunction with the report *Illness in England, Wales, and Northern Ireland associated with foreign travel – a baseline report to 2002* [1], especially the content under the section 'Sources of data on travel-associated illness and their limitations for analysis'. Please note that all data presented are provisional and subject to change; the confirmed final data will be presented on a biennial basis.

Of the infections in table 1 reported via Co-Surv*, there was a decrease in the fourth quarter of 2006 of 2.1% (16,881)† compared to the same period in 2005 (17,246). (There may be late reports in 2006 that have yet to be loaded into Labbase2 ‡ that may account for this. In 2005, the quarterly report stated that there were 16,726 infections for the fourth quarter [2] and this has since increased by 3% once the late reports were loaded). Travel history reporting has increased by 4.6% to 20.5% in the fourth quarter of 2006 compared to the third quarter (15.9%). This seems to be as a result of more infections being reported as not travel-related as opposed to travel-related, as the proportion of infections which were associated with foreign travel have decreased slightly from 6.9% to 6.0% (figure 1). The proportion of reports with travel history information, however, remains low, and limits the interpretation of the following data.

Figure 1 Travel history reporting for laboratory reports by quarter, England and Wales: 2003 to 2006

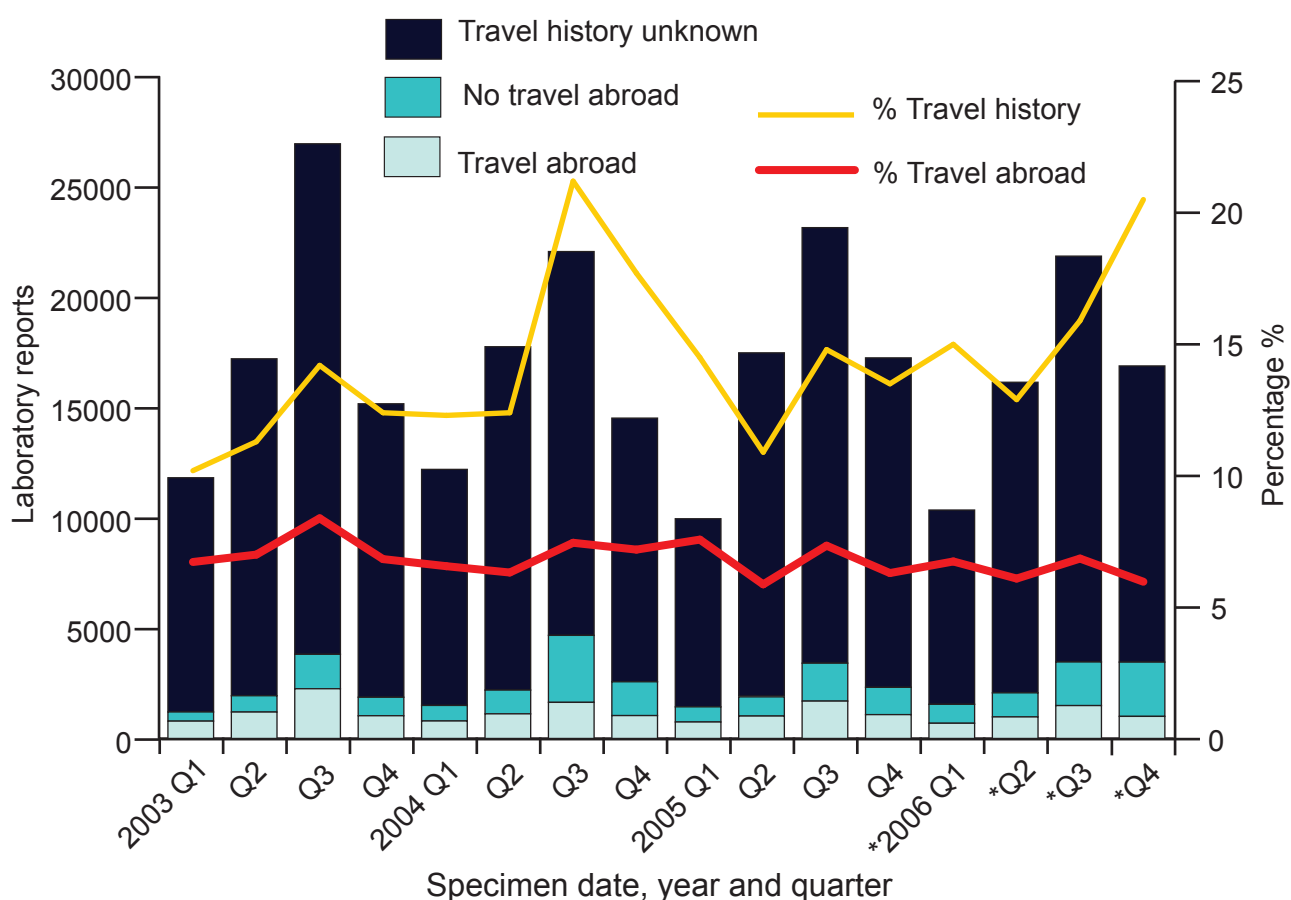


Table 1 Imported infections in England and Wales: October to December 2006

	Total reports for Oct to Dec				Cumulative totals			
	2006*		2005		2006*		2005	
Organism	Travel-related	All reports	Travel-related	All reports	Travel-related	All reports	Travel-related	All reports
Gastrointestinal Infections								
Bacterial								
<i>Salmonella</i> spp	586	3878	638	3247	2360	12167	2467	11358
<i>Campylobacter</i> spp	251	10574	239	10680	998	44556	1157	46403
<i>Shigella flexneri</i>	9	73	13	78	36	305	47	321
<i>Shigella dysenteriae</i> [†]	5	8	6	12	30	43	33	54
<i>Shigella sonnei</i>	17	165	20	271	85	619	106	990
<i>Shigella boydii</i> [†]	12	21	14	31	56	105	62	113
Other (species unknown)	32	24	3	34	10	118	8	127
<i>Salmonella</i> Typhi	23	49	25	67	117	233	110	222
<i>Salmonella</i> Paratyphi (A,B,C)	20	45	28	56	148	271	125	226
<i>Vibrio cholerae</i> O1 [†]	3	3	1	1	12	12	12	13
<i>Vibrio parahaemolyticus</i>	–	5	1	3	3	19	4	22
Protozoal								
<i>Entamoeba histolytica</i>	3	31	12	47	17	142	50	261
<i>Giardia lamblia</i>	50	778	64	842	232	2810	265	2912
<i>Cryptosporidium</i>	23	1162	23	1923	102	3521	126	4500
<i>Cyclospora</i> spp	2	6	1	4	4	21	14	52
Helminths								
<i>Strongyloides stercoralis</i>	–	2	1	8	5	19	3	20

<i>Strongyloides</i> spp	–	1	–	1	–	3	1	7
<i>Ancylostoma duodenale</i>	–	–	–	–	1	–	–	–
<i>Necator americanus</i>	–	–	–	–	–	–	–	–
Hookworm unspec	1	4	3	6	4	19	4	14
<i>Ascaris lumbricoides</i> (round worm)	4	10	2	19	9	44	7	77
<i>Trichuris trichiura</i> (whip worm)	–	3	–	5	3	20	7	38
<i>Hymenolepis diminuta</i>	–	–	–	–	–	–	–	–
<i>Hymenolepis nana</i>	–	2	–	–	–	11	–	4
<i>Hymenolepis</i> spp	–	–	–	–	–	–	–	–
<i>Taenia saginata</i>	2	9	4	12	4	36	10	41
<i>Taenia</i> spp	–	6	–	7	5	28	2	37
<i>Gnathostoma</i> spp	–	–	–	1	–	1	–	3
<i>Diphyllobothrium latum</i> (fish tape worm)	1	2	–	–	1	7	1	1
Arthropod borne infections								
Malaria UK‡	391	391	412	412	1747	1747	1754	1754
<i>Plasmodium falciparum</i>	309	309	305	305	1377	1377	1338	1338
<i>Pl. vivax</i>	33	33	64	64	218	218	258	258
<i>Pl. malariae</i>	9	9	9	9	26	26	29	29
<i>Pl. ovale</i>	33	33	29	29	106	106	116	116
<i>Pl.unspecified</i>	–	–	–	–	1	1	3	3
Mixed	–	–	5	5	11	11	10	10
Arboviruses								
Dengue virus	2	8	1	11	7	33	2	33
Chikungunya virus	1	6	–	–	3	21	–	–
Ross river virus	–	–	–	–	1	1	–	–
Sandfly fever virus	–	3	–	1	–	3	–	1
Unspecified	1	6	–	4	1	11	–	6

Leishmaniasis								
Cutaneous	3	5	5	5	10	21	21	27
Visceral	–	–	2	3	–	–	5	6
Unspecified	1	2	1	3	3	8	4	24
Filariases								
<i>Loa loa</i>	–	–	–	–	1	3	2	6
<i>Wucheria bancrofti</i>	–	–	–	–	–	–	–	–
<i>Mansonella perstans</i>	–	–	–	–	–	–	–	1
<i>Onchocerca volvulus</i>	–	–	–	–	–	–	–	–
Unspecified	–	–	–	–	–	–	–	1
Lyme borreliosis§	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Trypanosoma brucei</i>	–	–	1	1	–	–	1	1
Miscellaneous								
Schistosome infections								
<i>Schistosoma mansoni</i>	–	4	3	4	–	9	4	11
<i>Schistosoma haematobium</i>	–	3	2	10	5	23	12	39
<i>Schistosoma intercalatum</i>	–	–	–	–	–	–	–	–
<i>Schistosoma</i> spp	3	7	1	6	5	19	5	18
Other infections								
Leptospirosis§	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Legionnaires' disease**	30	158	49	82	152	513	148	358
<i>Coxiella burnetii</i> (Q fever)	–	1	–	3	3	14	–	16
<i>Rickettsia</i> spp	1	2	–	1	4	10	1	11

All data extracted from LabBase2 26 March 2007 unless otherwise specified.

* All data for 2006 is provisional and may be subject to change

†Data on cholera, *S.boydii* and *S.dysenteriae* were supplied by the CfI Laboratory of Enteric Pathogens.

‡Data for malaria were supplied by the HPA Malaria Reference Laboratory and are provisional. Trends are best interpreted on an annual basis.

§Data for Lyme borreliosis and leptospirosis were supplied by the Zoonoses Surveillance Reference Unit, CDSC Wales on behalf of the *Leptospira* Reference Unit, Hereford and the Lyme Disease Reference Unit, Southampton.

**Data on legionnaires' disease were supplied by the Legionella Section of the Respiratory Diseases Department of CfI.

Gastrointestinal infections

Bacterial infections

Gastrointestinal infections are the most frequently reported type of infection in England and Wales and are the most common infection reported in travellers. In the fourth quarter of 2006, *Salmonella* spp (non-typhoidal) were the most frequently reported infection associated with recent travel abroad (586/3878) even though more campylobacter infections are reported in England and Wales in general (10,574 in total of which 251 reported recent travel abroad). Travel history reporting is usually more complete for *Salmonella* spp than for *Campylobacter* spp, with 33% (1283) of *Salmonella* spp reports having any information about travel history, of which 586 (15%) stated they had travelled, compared with 16% (1648) for *Campylobacter* spp (an 8% improvement in travel history reporting since the third quarter) of which 251 (2%) stated they had travelled. It has previously been shown from the campylobacter sentinel surveillance scheme that around 20% of *Campylobacter* spp are imported from abroad [3].

Of the *Salmonella* spp reports that stated recent travel abroad, *Salmonella* Enteritidis was the most reported (262/586, 45%), with phage types (PT) 4 and 1 being the most common, followed by *Salmonella* Typhimurium and *Salmonella* Virchow. The countries of travel most frequently reported are listed in table 2, with 52 other countries also reported in much smaller numbers. *Salmonella* spp as well as other gastrointestinal infections are wide spread throughout the world and travel-associated infections tend to follow travel patterns of UK residents. Countries such as Spain (particularly the Spanish islands of the Canaries and the Balearics), Egypt, Morocco, and Tunisia tend to be winter sun destinations for UK travellers so we would expect to see more infections acquired in these countries in quarters one and four.

Table 2 *Salmonella* spp associated with foreign travel, England and Wales: fourth quarter 2006

Country of travel	<i>Salmonella</i> Enteritidis by phage type						S. Typhimurium	S. Virchow	Other <i>Salmonella</i> serotypes	Total
	4	1	8	21	14B	Other				
Spain	8	17	7	4	12	19	11	–	7	85
India	2	3	–	–	–	7	11	10	17	50
Egypt	9	–	2	3	–	5	6	8	16	49
Tunisia	8	1	8	–	–	4	2	–	12	35
Turkey	2	–	–	13	2	2	2	3	10	34
Greece	1	5	1	1	–	6	3	–	2	19
Cyprus	1	–	6	2	–	1	1	1	2	14
Morocco	–	3	–	–	–	1	6	1	3	14

Other countries (52)	19	15	6	6	1	23	32	17	112	231
Country not stated	5	3	2	1	5	10	5	2	22	55
Total	55	47	32	30	20	78	79	42	203	586

Of *Campylobacter* spp reports that stated recent travel abroad, the most frequently reported country of travel was Spain (51/251, 20%), followed by India, Morocco, and Turkey (table 3). Thirty-seven other countries were also reported in much smaller numbers. Sixteen reports had no country stated.

Table 3 *Campylobacter* spp associated with foreign travel, England and Wales: fourth quarter 2006

Country of travel	<i>Campylobacter</i> spp
Spain	51
India	35
Morocco	18
Turkey	17
France	8
Egypt	7
Tunisia	7
Other countries (37)	92
Country not stated	16
Total	251

In the fourth quarter of 2006, there were 291 reports of *Shigella* infection, of which 21 were caused by *S. boydii* and eight by *S. dysenteriae*, the organisms that cause dysentery-like (bloody diarrhoea) illness. Fifteen per cent (45/291) of all *Shigella* spp reported recent travel abroad (total with travel history was 71). Egypt and India (each 12/45, 27%) were the most frequently reported countries of travel, followed by Pakistan (six), Morocco and The Gambia (three each); the remainder of reports stated travel to seven other countries.

There were three reports of *Vibrio cholerae* serogroup O1; two were serotype El Tor Inaba and one was serotype El Tor Ogawa; all had reported travel to India.

Intestinal protozoal infections

During the fourth quarter, there were 1162 reports of cryptosporidium reported via Co-Surv in England and Wales (18.2% with travel history), of which 23/1162 (2%) reports stated recent travel abroad. Four reports each stated travel to India and Spain, with one each travelling to 13 other countries; two reports had no country stated. Sentinel surveillance submission forms to the UK Cryptosporidium Reference Unit (CRU) during the same time frame included 19 (3.4%) travel abroad-related cases. [Rachel Chalmers, Head of UK Cryptosporidium Reference Unit, NPHS Wales, personal communication, 2 April 2007] Countries of travel reported to CRU were Africa (five), India (four), Turkey (two), Africa and India (one), Brazil (one), Iran (one), Montenegro (one), Spain (one), United States (one), and two had no country stated.

There were 778 reports of *Giardia lamblia* (22% with travel history), of which 50 had stated recent travel abroad. The most frequently reported region of travel was the Indian sub-continent and sub-Saharan and southern Africa (11 reports each) followed by Europe (seven), north Africa and the middle east (six), and south east Asia and the far east (five).

Other infections reported in this category included 31 reports of *Entamoeba histolytica*, of which three stated foreign travel; one each to Malawi, South Africa and Somalia.

There were six reports of *Cyclospora* spp, of which one stated travel to the Dominican Republic and one to Nepal; the remainder had no travel history.

Enteric fever

During the fourth quarter of 2006, there were 49 reports of *Salmonella* Typhi and 45 reports of *S. Paratyphi* (44 were *S. Paratyphi* A and one *S. Paratyphi* B). Reports of *S. Paratyphi* have decreased by 27% compared to the same period in 2005 (67 reports) and *S. Typhi* reports decreased by 20% (56 reports in 2005). Fifty-three per cent of all enteric fever reports in the fourth quarter in 2006, had travel history information (12% lower compared to the same period in 2005).

Recent travel abroad was stated for 23/49 (47%) reports of *S. Typhi* and 24/44 (53%) of *S. Paratyphi* A reports. The one report of *S. Paratyphi* B had no travel history stated. Main countries of travel are indicated in table 4.

Table 4 Enteric fever reports associated with foreign travel, England and Wales, fourth quarter 2006

Country of travel	S. Typhi	S. Paratyphi A	Total
Pakistan	9	12	21
India	9	5	14
Bangladesh	3	1	4
Indonesia	1	1	2
Philippines	1	–	1
Country not stated	–	5	5
Total	23	24	47

Intestinal helminths

In the fourth quarter of 2006 there were 39 reports of helminth infection, of which only eight stated recent travel abroad. Countries of travel stated are in table 5. Helminth infections can persist in the body for years and it may not be possible to say for certain where these infections were acquired; they are probably associated with new entrants to the UK as well as short-term travellers.

Table 5 Intestinal helminths associated with foreign travel, England and Wales: fourth quarter 2006

Organism	Countries of travel	Total
<i>Ascaris lumbricoides</i>	Brazil, India, India & Pakistan, Not stated	4
<i>Diphyllobothrium latum</i>	South East Asia (country not specified)	1
Hookworm unspecified	Pakistan	1
<i>Taenia saginata</i>	Eritrea, Ethiopia	2

Arthropod borne infections

Malaria

During the fourth quarter of 2006, there were 391 cases of malaria reported in the United Kingdom; 79% (309 cases) of which were caused by the parasite, *Plasmodium falciparum* (which causes the most serious, and potentially fatal, form of malaria) and 8% (33 cases) were caused by *P. vivax*. Fifty-five per cent of malaria cases caused by *P. falciparum* were reported to be acquired in west Africa; a further 30% (94) did not have a country of travel stated. Of 33 *P. vivax* cases 20 (61%) were reported to be acquired in Asia (five vivax cases had no country stated). Of the 33 cases of *Plasmodium ovale*, 16 (48%) were reported to be acquired in west Africa and seven had no country stated.

Dengue

Eight cases of dengue fever were reported through Co-Surv compared to 11 in the same period in 2005. Two reports stated recent travel abroad, one to Malaysia and one to Australia. These figures are underestimated as data from the HPA Special Pathogens Reference Unit (SPRU) showed that there were 20 confirmed, 36 probable, and two possible cases of dengue fever (58 in total) diagnosed in November and December 2006. Where stated, countries of travel included India (20 cases), Pakistan (seven), Thailand (two), and Mexico (two).

Chikungunya

Six cases of chikungunya infection were reported through Co-Surv in the fourth quarter, of which one stated travel to India. In the same time period, data from the SPRU showed 19 confirmed, five suspected, and two probable cases (26 in total). Where stated, countries of travel included India (15 cases) and Sri Lanka (eight) where outbreaks have been occurring in recent months.

Leishmaniasis

There were seven cases of leishmaniasis reported in the fourth quarter, five of which were presumed to be cutaneous leishmaniasis. Of those, three stated recent travel abroad, two to Belize and one to South America (unspecified country); two had no country stated. There were a further two cases of leishmaniasis of unknown type, of which one had travelled to Afghanistan.

Other infections

Schistosomiasis

Fourteen cases of schistosomiasis were reported in the fourth quarter of 2006, three *S. haematobium* (all with no travel history), four *S. mansoni* (all no travel history), and seven

unspecified species of which one stated travel to Lake Victoria (country unknown), one to Uganda, and one to Tanzania.

Rickettsial infections

There were two reports of *Rickettsia* sp, one with stated travel to South Africa and the other had no travel history stated.

Legionnaires' disease

There was a general rise in the total number of legionella infections reported during the fourth quarter of 2006 (158 cases compared to 82 in 2005); this is continuing to be investigated [4]. A total of 30 cases were associated with foreign travel compared to 49 in 2005, and of those, two died and two were involved in two different outbreaks in Greece and Spain.

References

1. Health Protection Agency. *Illness in England, Wales, and Northern Ireland associated with foreign travel – a baseline report to 2002*. London: HPA, 2004. Available at <http://www.hpa.org.uk/infections/topics_az/travel/pdf/full_version.pdf>.
2. Health Protection Agency. Imported infections, England and Wales : October to December 2005. *Commun Dis Rep CDR Wkly* [serial online] [cited 28 March 2007] 2005; **16** (14): travel health. Available at <<http://www.hpa.org.uk/cdr/archives/2006/cdr1406.pdf>>.
3. The Campylobacter Sentinel Surveillance Scheme Collaborators. Foreign and Domestic Travel and the Risk of *Campylobacter* Infection: Results from a Population-based Sentinel Surveillance Scheme. *J Trav Med* 2003; **10** (2): 136-8.
4. Health Protection Agency. National increase in legionnaires' disease – update. *Commun Dis Rep CDR Wkly* [serial online] 2006 [accessed 21 December 2006]; **16** (45): news. Available at <<http://www.hpa.org.uk/cdr/archives/2006/cdr4506.pdf>>.

Footnotes

*Co-Surv is the routine laboratory reporting system that collects laboratory reports of all microorganisms isolated at nearly 400 NHS and other laboratories throughout England and Wales. The database is managed and accessed at the Centre for Infections.

†Note that these figures refer to data extracted from Co-Surv only, and do not include cholera, *S. dysenteriae*, *S. boydii*, legionnaires' disease, malaria, Lyme borreliosis, or leptospirosis where data has been obtained from other sources.

‡Labbase2 is the database that collects laboratory reports of all microorganisms isolated at nearly 400 NHS and other laboratories throughout England and Wales. The database is managed and accessed at the HPA Centre for Infections.