



Health Protection Report

weekly report

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News

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Laboratory confirmed number of mumps cases in England and Wales: update to end-November 2009

In the period between January and November 2009, 7,410 cases of mumps were confirmed in England and Wales from almost 19,000 notifications received (see table). The five weekly average of notified cases in 2009 (see figure) were lower than those seen during the epidemic of 2004 and 2005, but higher than the rates seen in 2007 and 2008. In 2009, notifications have been declining since the peak in week 23 (figure).

Of the 7,410 samples with onset between January and November 2009 where mumps was confirmed, 5% (389) had detectable viral RNA by PCR, 75% (5,249) IgM antibodies in oral fluid and in 15% (1,119) IgM was identified in serum. An additional 9% (653) of cases had samples with high IgG antibody levels and are believed to represent probable re-infection in individuals with some pre-existing immunity (either natural or vaccine acquired).

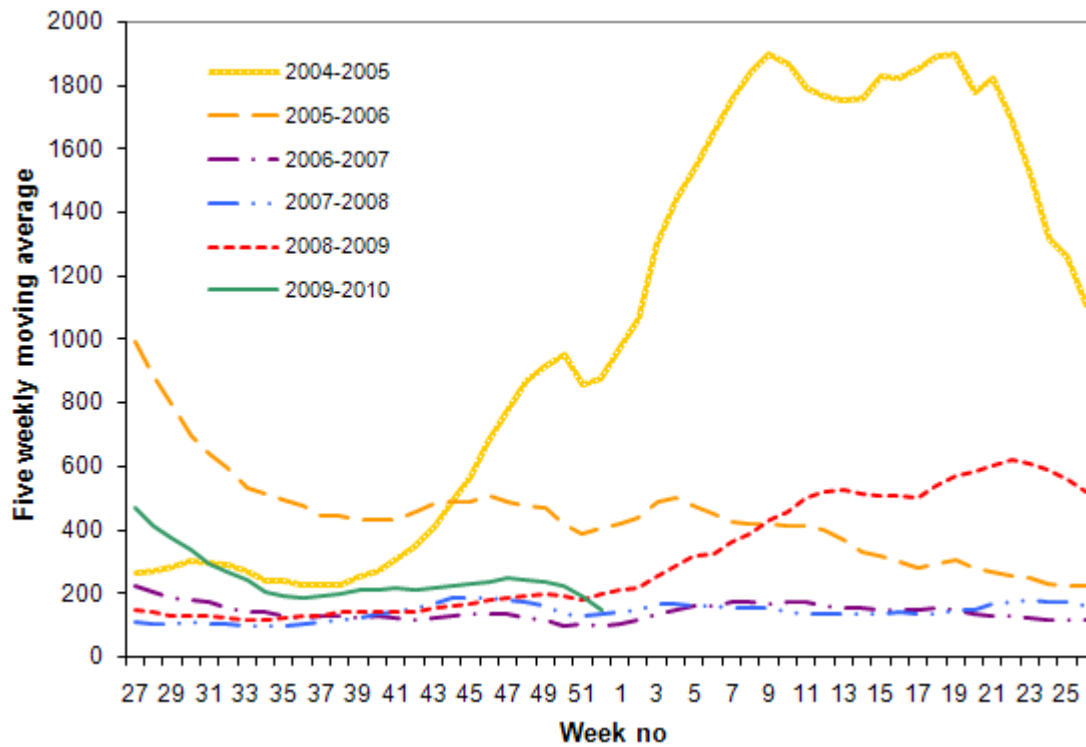
Since 2004, the majority of the confirmed cases have been linked with outbreaks in universities; the proportion of patients of university age remains high (table). Although it is recommended that new entrants to universities and colleges have had two doses of MMR before commencing their studies, many confirmed cases are still unvaccinated or have only received one dose (because these cohorts were included in the MR catch-up campaign but were not part of the routine two-dose MMR schedule). The high proportion of confirmed cases who have received at least one dose of MMR is consistent with high vaccine coverage in individuals born after 1988. Analysis of the 2004-05 epidemic [1,2] and data from US [3] suggest that decline in protection with time (since vaccination) may also contribute to cases in university students.

Confirmed cases of mumps by age group and region, England and Wales: January - November 2009

Region	Age group								Total
	Less than 1	1-4	5-9	10-14	15-19	20-24	25+	n/k	
East Mids	–	5	4	27	219	246	151	3	655
East of Engl'd	2	3	15	27	190	194	114	–	545
London	2	27	49	65	180	303	262	9	897
North East	–	3	3	7	100	138	85	2	338
North West	3	13	36	71	471	477	301	4	1376
South East	3	15	15	35	311	437	268	3	1087
South West	2	8	10	38	294	429	203	4	988
West Mids	4	5	11	17	150	210	103	4	504
Wales	–	5	11	21	103	136	81	2	359
Yorks & Humber	1	5	19	27	206	267	133	3	661
Total*	17	89	173	335	2224	2837	2582	34	7410

* Includes samples (oral fluid, serum and other) with detectable IgM, viral RNA or raised IgG levels.

Mumps notifications (five weekly moving averages) July-June, England and Wales



References

1. Savage E, Ramsay M, White J, Beard S, Lawson H, Hunjan R, et al. Mumps outbreaks across England and Wales in 2004: observational study. *BMJ* 2005; **330**(7500):1119-20.
2. Cohen C, White JM, Savage EJ, Glynn JR, Choi Y, Andrews N, et al. Vaccine effectiveness estimates, 2004–2005 mumps outbreak, England. *Emerg Infect Dis* 2007, January; **13**(1). Available at: <http://www.cdc.gov/ncidod/EID/13/1/12.htm> [accessed 15 January 2010].
3. Kyaw MH, Rue AM, Klahn J, Obrecht L, Krohn T, Rowland J, et al. Long-term persistence of mumps antibody after receipt of two measles-mumps-rubella (MMR) vaccinations and antibody response after a third MMR vaccination among a university population. *J Infect Dis* 2008, June 15; **197**(12):1662-8

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General outbreaks of foodborne illness in humans, England and Wales: weeks 45-48/2009

Preliminary information has been received about the following outbreaks

Health Protection Unit	Organism	Location of food prepared or served	Month of outbreak	Number ill	Cases positive	Suspect vehicle	Evidence
Essex HPU	Campylobacter	Restaurant	Dec-09	5	3	Chicken liver pate	D, M
Sth. West HPU	Campylobacter	Restaurant	Dec-09	3	3	Chicken liver pate	D, M
Thames Valley HPU	<i>Salmonella</i> Enteritidis PT 14b	Chinese take-away	Dec-09	4	4	Egg fried rice	D, M
Greater Manch'ter HPU	<i>Shigella flexneri</i>	Restaurant	Nov-09	85	1	n/a	n/a
NPHS Wales	Mixed aetiology	Private event	Nov-09	11	5	Partially cooked cow's liver / Raw pig's heart / Gherkin with faecal contamination	D, M

D = descriptive (ie a significant statistical association between consumption of the suspect vehicle and being a case).

M = microbiological (ie identification of an organism of the same type from cases and in the suspect vehicle, or vehicle ingredient(s), or detection of toxin in faeces or food)..

Common gastrointestinal infections, England and Wales, laboratory reports: weeks 49-53/2009

Laboratory reports	Number of reports received					Total reports 49-53/08	Cumulative total	
	49/09	50/09	51/09	52/09	53/09		01-53/09	01-53/08
<i>Campylobacter</i>	942	951	846	505	295	3539	56809	49904
<i>Escherichia coli</i> O157 *	28	9	12	–	7	56	1000	948
<i>Salmonella</i> †	108	114	70	31	5	328	8916	9889
<i>Shigella sonnei</i>	14	13	5	5	–	37	947	855
Rotavirus	63	61	54	66	34	278	15402	13935
Norovirus	224	169	187	177	200	957	7259	6828
<i>Cryptosporidium</i>	96	97	103	37	24	357	4760	4163
<i>Giardia</i>	73	66	57	33	19	248	3387	3399

*Vero cytotoxin–producing isolates (data from Health Protection Agency's Laboratory of Gastrointestinal Pathogens (LGP).

† Data from Health Protection Agency's Laboratory of Enteric Pathogens.

Less common gastrointestinal infections, England and Wales, laboratory reports: weeks 40-52/2009

Laboratory reports	Total reports 40-52/2008	Cumulative total to 52/2009	Cumulative total to 52/2008
Astrovirus	16	49	72
Sapovirus	8	28	17
<i>Shigella boydii</i>	29	94	127
<i>Shigella dysenteriae</i>	13	41	66
<i>Shigella flexneri</i>	84	369	387
Plesiomonas	10	40	36
<i>Vibrio</i> spp.	19	78	102
<i>Yersinia</i> spp	4	34	21
<i>Entamoeba histolytica</i>	19	69	67
<i>Blastocystis hominis</i>	123	308	447
<i>Dientamoeba fragilis</i>	14	48	80

Suspected and laboratory-confirmed reported norovirus outbreaks in hospitals, with regional breakdown: outbreaks occurring in weeks 40-44/2009

The norovirus outbreaks in hospitals reporting scheme recorded 148 suspected and confirmed norovirus outbreaks occurring between weeks 49 and 53. This is an increase on the number reported in the previous two periods. Eighty one percent (120) of these outbreaks involved some kind of ward closure or restriction to admissions and seventy six percent (112) were laboratory confirmed.

Suspected and laboratory-confirmed reported norovirus outbreaks in hospitals, with regional breakdown: outbreaks occurring in weeks 49-53

	Outbreaks between weeks 49-53/09			Total outbreaks 01-53/09		
	Outbreaks	Ward closure	Lab-confirmed	Outbreaks	Ward closure	Lab-confirmed
East of England	2	2	8	25	23	19
East Midlands	12	11	10	46	39	39
London	2	1	–	12	8	3
North East	13	10	10	62	45	41
North West	17	16	10	117	90	83
South East	22	21	18	81	78	40
South West	22	15	16	150	127	116
West Midlands	11	10	7	62	54	48
Yorkshire & Humberside	47	34	33	107	80	71
Total	148	120	112	662	544	460

Comparison of laboratory data on hospital norovirus reports in 2008 and 2009

The data in the above report (columns 2-4, outbreaks during the calendar weeks 49 and 53 of 2009) cover the sixth month of the current 2009/2010 norovirus season*.

The total number of laboratory reports to week 53/09, since the beginning of the current season, was 2387, which is 27% fewer than in the same period of the 2008/2009 season (3255 between weeks 27/08 and week 01/09).

* The norovirus season runs from July to June (week 27 in year one to week 26 in year two) in order to capture the winter peak in one season.

Salmonella infections (faecal specimens) England and Wales, reports to the HPA (salmonella data set): November 2009

Details of 688 serotypes of Salmonella infections recorded in November are given in the table below. In December 2009, 309 salmonella infections were recorded and preliminary information was received about one outbreak (see table above)

Organism	Cases November 2009
<i>S. Enteritidis</i> PT4	57
<i>S. Enteritidis</i> (other PTs)	222
<i>S. Typhimurium</i>	135
<i>S. Virchow</i>	13
Others (typed)	261
Total salmonella (provisional data)	688