Avian Influenza

Avian influenza (AI) type A/H5N1 is a disease currently affecting birds. For the moment, in the EU, most of the affected birds are wild water fowl such as swans and ducks. The AI A/H5N1 virus does not easily cross from birds to humans. People that have been infected in other parts of the world had been in close contact with live or dead infected birds, principally domestic poultry. As the virus affects wild birds, avian cases may continue to occur in various regions of the EU in the coming months and so we may have to learn to live with periodic cases in birds.

The disease may occasionally spread from birds to other animals such as cats. If ordinary precautions are taken in areas where infected birds were found, this does not lead to any significant increase in the risk to humans. Very stringent veterinary control measures are in place in the EU. These seek to prevent the spread of the virus from wild birds to poultry and to contain any outbreaks in domestic poultry. Temporary protection and surveillance zones are established in areas where infected birds are found. In these zones, movement of live animals is restricted, poultry is confined indoors and closely monitored, and disinfection measures are strictly applied.

Very specific measures are also in place to protect domestic poultry and to prevent infected birds entering the food chain. In any case, thorough cooking ensures that meat and eggs are free of any virus. The risk to the public of catching the AI H5N1 virus from live animals or from poultry products is very low and there is *no need to change food consumption habits or travel plans*.

Consumption of poultry products

- It is safe to eat poultry - meat or eggs – that you buy in shops in the EU. This is because strict food safety and veterinary measures are in place to prevent meat or eggs from unhealthy animals entering into the food chain.
- Trade from protection and surveillance zones within the EU (where infected birds have been found) is only allowed under strict veterinary controls and imports from affected third countries are banned.
- In the case of an outbreak in a poultry farm, the entire flock would be culled and disposed of immediately. Poultry meat and eggs produced in these farms are also destroyed.
- Even in the very unlikely event of the virus being present in meat or eggs sold in the EU, thorough cooking destroys the virus, so well-cooked meat and eggs pose no risk.

Groups at risk

- People who keep birds such as chickens, ducks and geese near where they live need not be overly alarmed, but they should be aware of the risks. In particular, they should:
  - Follow instructions from local veterinary authorities, especially if advised to feed and water poultry indoors and to keep poultry indoors in risk areas www.agriculture.gov.ie
  - Notify the authorities if unusually high numbers of dead wild birds are seen, or if unusually high numbers of their birds die.

    Helpline 1890 252 283
  - Keep the birds out of their home and follow good hygiene.
  - Discourage their children from playing with the birds and teach them to tell an adult if they see sick or dead birds.
  - Make sure children in particular understand the rules of basic hygiene.
  - Never slaughter or eat sick or dying birds, as this could carry greater risk.
- Other people who come into regular contact with poultry (e.g. farm workers, vets) or wild birds (e.g. hunters, bird watchers) also need to be aware of the risks and take precautions.
- ECDC has produced detailed guidance on the protection of people at risk and those living or travelling to areas where infected birds have been found. The Irish Department of Agriculture and Food will also advise on any questions.

Public Health

- The following good sense precautions are sufficient:
  - Don't touch sick or dead wild birds or poultry and inform your local veterinary authorities if you find any suspicious numbers of dead or ill birds.
  - Follow the normal rules of good hygiene - i.e. wash your hands with soap after contact with birds or their droppings
- If there is an outbreak of avian influenza among birds in your area:
  - national authorities may impose temporary restrictions on the movement of poultry and declare certain places off-limits. It is important that you follow these instructions as they are designed to stop the virus spreading.
  - In these areas, pet cats should be kept indoors to prevent them from coming into contact with wild infected birds or their droppings, and to prevent them transporting the virus on their paws and becoming infected themselves.

Travel

- There is little or no risk from travelling to countries outside the EU or areas inside the EU where avian flu has been detected, provided you avoid visiting poultry farms or bird markets and follow the precautions outlined above, as indicated in the ECDC and HPSC guidance.

HSE Mid-Western Area becomes HSE West

HSE MWA is now part of the new four new administrative areas of the Health Service Executive - "HSE West"

Notice: We would encourage general practitioners to make a copy of ID-Link available in the surgery waiting area.

If your contact details have changed, please let the Department of Public Health know **(061-483337)** and this will ensure timely delivery of your copy.

This report is produced with the assistance of the Area Medical Officers, Senior Area Medical Officers and the Mid-Western Regional Hospital Laboratory.

Some data are provisional and are subject to amendment.

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ID link

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Tuberculosis

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Avian Influenza

Bacterial Meningitis

Four cases of suspected bacterial meningitis were reported from January to May. Ten cases of invasive meningococcal disease, nine due to *Neisseria meningitidis* group B (and one untyped as yet) were detected in the same period, three were in Clare and seven were in Limerick. Five were male and five were female. A case of neonatal *E. coli* meningitis was reported.

Tuberculosis

A national report on the epidemiology of tuberculosis was published by the Health Protection Surveillance Centre (HPSC – www.hpsc.ie). Over 400 cases of TB disease are diagnosed annually in Ireland but the rate of infection with TB is higher (Not all people infected get disease). Advances in diagnostic technology have resulted in tests to allow diagnosis of latent TB infection. Such tests may result in improved sensitivity and specificity in diagnostic tests for infection, particularly those previously vaccinated with BCG. The epidemiology of tuberculosis is changing. (Foreign born cases are common and cases are younger)

An *Irish Times Health Supplement* (April 18th 2006) stated Ireland needs to strengthen control measures to reduce TB rates, specifically to have sufficient public health personnel for contact tracing and staff to monitor outcome. Ireland is not yet in a position to discontinue the current policy of neonatal BCG vaccination. Globally the crisis of TB and HIV infection is a major concern. Fears about resistance to antimicrobials in *M. tuberculosis* have been heightened by growing reports of extensively drug resistant *M. tuberculosis* (XDR-TB) in recent years. Effective surveillance, disease control and prevention are public health priorities to minimise the impact of the resurgence in TB.

Antimicrobial Resistance

While MRSA remains an enormous challenge in our healthcare facilities a recent phenomenon has been the emergence of community-acquired MRSA (CA-MRSA). CA-MRSA is different from hospital-acquired MRSA (HA-MRSA). The organism may contain a virulence gene, Panton Valentin Leukocidin (*pvl*+). There is little data available on the prevalence of the organism (colonisation or infection) in Ireland but in Europe generally the problem is not thought to be as extensive as in the United States. Those affected by CA-MRSA are usually younger than people affected by HA-MRSA and have no recent history of hospitalisation. Infections with CA-MRSA consist mainly of skin and soft tissue infections.

Skin and soft-tissue infection, like cellulitis, with CA-MRSA is important as there may be prescribing implications to achieve successful treatment and disease can be severe. General practitioners and hospital clinicians should be aware of the possibility of encountering these infections and send appropriate samples for laboratory investigation if they suspect CA-MRSA. There is an additional concern that this organism may enter the hospital setting where more vulnerable patients may develop more serious infections. Infection control measures (in the community but especially in hospitals) must be highly effective to respond to the continued threat posed by the evolution of bacteria.

Vaccination Uptake

Vaccination uptake at 24 months increased by 1% to 91% for diphtheria/tetanus and MMR to 88% in the most recent quarter (children born January – March 2004). Uptake is showing steady recovery but falls short of the desired 95% uptake level. Uptake of MMR in Tipperary is 4% higher than in Limerick and Clare in this quarter. There is little difference in five-in-one uptake. Neonatal BCG uptake is just over 90% in the Mid-West.

Up to May 2006, in Clare there were eight clinical notifications of mumps and one of rubella, in Limerick there were three notifications of measles and in East Limerick / Tipperary North there were two mumps notifications. There were no laboratory notifications of measles, mumps or rubella over the period.

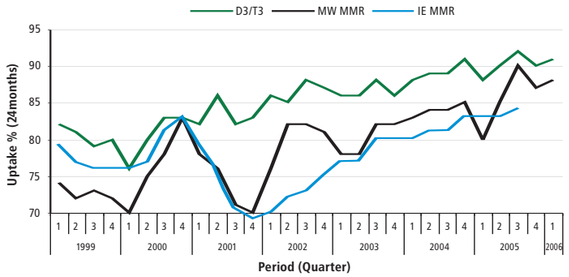

Figure 1: Quarterly vaccination uptake of diphtheria/tetanus (DT – 3 doses) in the Mid-West and MMR at 24 months in the Mid-West and Ireland, 1999-2006.

Gastroenteritis

Cryptosporidiosis has increased in recent months. There are several hypotheses as to why this seasonal pattern is present. Anecdotal evidence suggests that cases are more prevalent in rural areas and may be related to animals shedding oocysts in large numbers and contaminating surrounding land. Young children may acquire the parasite directly or it may be transmitted indirectly by person-to-person transmission. Water has been implicated as a possible source of cryptosporidium outbreaks in Ireland. Drinking water sources must be assessed for vulnerability to contamination by animal effluent and appropriate protective measures put in place. Cryptosporidium can be responsible for severe illness in people with poor immune systems.

Campylobacter remains the most common bacterial cause of food poisoning. As the weather warms and summer approaches, it is timely to consider good food handling. A substantial proportion of fresh/ frozen poultry is contaminated with campylobacter (some may have salmonella). It is vitally important to cook poultry thoroughly, avoid cross contamination of cooked meat and salads with uncooked meats. Campylobacter has a low infectious dose so hand-washing and clean utensils are very important in preventing food poisoning in the home.

There have been several outbreaks of norovirus in hospitals, nursing homes and health care institutions in the Mid-West. A report from the HPSC, "National Guidelines On The Management Of Outbreaks Of Norovirus Infection In Healthcare Settings" is available. (www.hpsc.ie) Few cases of salmonella were reported over the last 3 months. Anyone returning from travel abroad and feeling unwell is advised to seek the advice of their doctor.

A report on the epidemiology of human gastrointestinal infections was compiled and made available on the public health section of the website this month (www.mwhb.ie). It details the occurrence of salmonella, campylobacter, shigella, cryptosporidium, norovirus and *Clostridium difficile* in the area formerly known as HSE Mid-Western Area.

Two cases of shigellosis were reported in February and March 2006. The World Health Organisation have made data available on global salmonella distribution from a web-based surveillance system (www.who.int/salmsurv). Data on human and non-human serotypes are available for many regions and countries around the world. While there are some limitations to the dataset, it may be interesting to examine the prevalence of certain serotypes, *S.* Enteritidis and *S.* Typhimurium in other countries and continents.

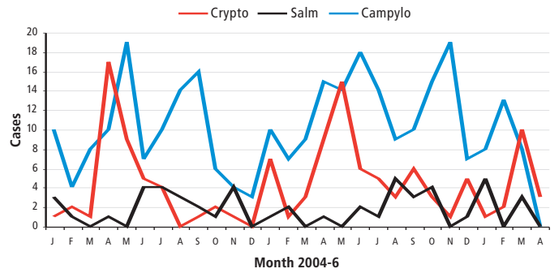

Figure 2: Laboratory confirmed cases of cryptosporidiosis, salmonellosis and campylobacteriosis by month 2004-2006 in the Mid-West.

Human Influenza

Three influenza pandemics (i.e. a large and severe world-wide epidemic of a new human influenza virus) occurred in the 20th century – in 1918-1920, in 1957 and 1968. Experts warn that another pandemic could occur at any time. Therefore the EU, including Ireland, the World Health Organisation and other UN bodies are preparing for this eventuality. We do not know when the next pandemic will happen or which virus will cause it. Avian Influenza H5N1 that evolves or mutates into a form of human influenza is one possible scenario. Currently, the virus does not transmit easily from human to human but mortality appears high among patients detected and hospitalised (Table 1). Vaccination against seasonal influenza will not protect people from the possible new (yet unknown) pandemic virus as each influenza vaccine is specific. EU and national public authorities have prepared contingency plans in case of a human influenza pandemic, in order to be able to respond to the health consequences very rapidly. This influenza pandemic preparedness requires the co-operation and participation of a vast number of professionals, not only in healthcare. This will ensure the response is appropriate, timely and effective when required.

Table 1: Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO 19 May 2006

Country	2003		2004		2005		2006		**Total**	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	**cases**	**deaths**
Azerbaijan	0	0	0	0	0	0	8	5	**8**	**5**
Cambodia	0	0	0	0	4	4	2	2	**6**	**6**
China	0	0	0	0	8	5	10	7	**18**	**12**
Djibouti	0	0	0	0	0	0	1	0	**1**	**0**
Egypt	0	0	0	0	0	0	14	6	**14**	**6**
Indonesia	0	0	0	0	17	11	24	21	**41**	**32**
Iraq	0	0	0	0	0	0	2	2	**2**	**2**
Thailand	0	0	17	12	5	2	0	0	**22**	**14**
Turkey	0	0	0	0	0	0	12	4	**12**	**4**
Viet Nam	3	3	29	20	61	19	0	0	**93**	**42**
Total	3	3	46	32	95	41	73	47	**217**	**123**

Total number of cases includes number of deaths. WHO reports only laboratory-confirmed cases.