Hazard/threat category	Sub-category
HUMAN HEALTH	
Hazard and threat description, plus scale	**Risk reference number**
Influenza-type disease (epidemic)	H22
Date of revision	**Next review**
NOVEMBER 2007	NOVEMBER 2008
Author	Health representative to TVLRF

1. Overview of hazard or threat

Influenza viruses infect humans and a large spectrum of birds and mammals. The viruses are grouped into three types:

Influenza A	Viruses circulate most years, generally cause more serious illness than B and C and are the cause of most winter epidemics. Viruses mutate much more rapidly than type B viruses. They can also infect pigs, horses, sea mammals and birds in addition to humans. From time to time, a major step-wise adaptation of a virus results in a major change which can then infect and cause disease in people and spread from person to person
Influenza B	Viruses circulate at low levels most years causing sporadic and generally less severe outbreaks and epidemics, particularly among young children in school settings
Influenza C	Viruses usually cause only minor respiratory illness, such as symptoms of the common cold, and are generally not considered a public health concern.

2. Key historical evidence

In most years influenza occurs predominantly during a six to eight week period between October and May. The very young, the elderly and people with underlying diseases such as heart or chest disease are particularly at risk of serious illness from influenza. An estimated 12,000 mainly elderly people die each year from seasonal influenza in England and Wales. Influenza epidemics occurred in 1962, 1964, 1972 and 1975.

3. Likelihood

Hazard	Outcome description	Likelihood
Influenza epidemic	A serious epidemic of much greater severity than seasonal flu. Weekly GP consultations for new episodes of flu-like illness likely to exceed 400 per 100,000 of population per week at peak	**Possible (4)**

4. Impact

Summary

Hazard	Outcome description	Impact			
		Social	Health	Env	Econ
Influenza Epidemic	Clinical attack rate of 5-10% of the population in Thames Valley	4	4	1	3

Details

Impacts
Primary
Winter epidemics can affect 1-5% of the population
Rates of infection are higher in children
Severe morbidity and mortality are more common among the elderly and in high-risk groups
Immunity following infection by one strain may not fully protect against subsequent virus changes
New vaccines against influenza must be designed each year to match the circulating strains that are most likely to cause the next epidemic.
Bacterial complications such as pneumonia are frequently associated with influenza.
Secondary
Economic impact of an influenza epidemic is considerable

5. Vulnerability and resilience

Influenza can be dangerous to the elderly, especially those who live in residential homes where there is more risk of contracting the virus through contact with others. People with lung and heart diseases are more likely to develop complications due to an attack of flu.

A bad case of influenza has the potential to develop into a more serious condition like pneumonia or sinus condition, and in rare cases it can be life-threatening.

6. Overall assessment

Category	Sub-category		
HUMAN HEALTH	**Influenza-type disease (epidemic)**		
Outcome description	**Impact**	**Likelihood**	**Risk**
5-10% increase in GP Consultations, A&E consultations, hospital admissions and deaths per hospital	**4**	**4**	**VERY HIGH**

Controls in place

Without interventions such as annual influenza immunisation the elderly and those of all ages in disease-based risk groups suffer significant morbidity and mortality even in a non-pandemic year.

Among health adults appropriate influenza vaccines will in general achieve protection rates of about 50%-80% against clinical disease. Vaccination of the elderly reduces the risk of serious complications or death by 70%-85%.

Oxfordshire County Council Emergency Plan (mobilisation of assets)
Oxfordshire County Council Business Continuity Plans
Milton Keynes Council Major Incident Guide
Royal Berkshire Hospital NHS Trust Major Incident Plan
Heatherwood and Wexham Park Hospitals NHS Trust Major Incident Plan
Berkshire Primary Care Organisations Major Incident Plan and Operational Response Manuals
Berkshire Healthcare Trust Major Incident Plan
Buckinghamshire Hospitals NHS Trust Major Incident Plan
Milton Keynes Hospital NHS Trust Major Incident Plan
Buckinghamshire Mental Health Trust Major Incident Plan
Buckinghamshire Primary Care Organisations Major Incident Plan
Oxford Radcliffe Hospitals NHS Trust Major Incident Plan
Oxford Mental Health Trust Major Incident Plan
Oxfordshire Primary Care Organisations Major Incident Plan
South Central Strategic Health Authority Major Incident Plan
Berkshire Integrated Emergency Planning Structure
Wokingham District Council Emergency Plan
Reading Borough Council Emergency Plan
West Berkshire Council Emergency Plan
Bracknell Forest Borough Council Emergency Plan
Royal Borough Council of Windsor and Maidenhead Emergency Plan
Slough Borough Council Emergency Plan
Environment Agency Incident Management Plans
Environment Agency 24/7 Incident Response
South Central Ambulance Service NHS Trusts Major Incident Plan
Thames Valley Police Emergency Procedures Manual
ACPO Emergency Procedures Manual

Additional risk treatment required
Providing public health messages containing the following health advice:

Encouraging people to drink as much as possible
Take plenty of rest
Try and get plenty of sleep
Paracetamol or aspirin will reduce fever and muscle aches, Ibuprofen and Nurofen are also suitable.
Encourage people to seek advice from their pharmacists and to buy the medication over the counter.