Diseases			
	SARS (H1N5)	**Equine Influenza**	**Swine Flu (H1N1)**
Type of Pathogen	The H1N5 virus is the pathogen that causes SARS. It is also known as the coronavirus.	There are two strains of the virus the H7N7 pathogen and the H3N8. Which are both types of influenza A	The H1N1 virus is the pathogen that causes Swine flu.
Mode of Transmission	1) Is through person to person contact. Primarily when an infected person coughs or sneezes respiratory fluid can spread through the air and may be deposited in the mouth, nose or eyes of a nearby person, who will then contract the virus. 2) It can also be spread when a person touches a contaminated surface then touches their mouth nose or eyes.	1) Only occurs to horses, isn't known to have affected humans. The virus is spread by inhalation of water droplets via the nose containing the virus. This is through direct contact between horses. 2) As humans cannot actually contract equine flu, they can still carry the virus from an infected horse to a non infected horse. Without actually falling sick. People can also transport contaminated grass or equipment between animals and cause them to contract virus.	1) Person to person contact has shown to be one of the methods of transmission. But Swine flu originally occurred in pigs through a mutation of Swine flu, Bird flu and Human flu, which was then transmitted through to humans upon contact with infected pigs. These people then transmitted the flu to others through contact when sneezing or coughing in the presence of non infected people. Who would then catch the virus and develop swine flu.
Epidemiological Studies	• Scientists have discovered that the virus that causes SARS is able to keep for a long time after it has left the infected human. Though the blood, urine and faeces. • There has also been a close study conducted by the world health organisation on the mode of transmission of SARS, that has lead to it spreading on a global level. • Also there were studies carried out on children to identity how many had been affected by the virus. • The use of various forms of epidemiological studies carried out all across the world has been done to help in the prevention, diagnosis and the containment of SARS	• Scientists across Australia studied the characteristics of the horses that contracted the disease, in hope of finding a similarity. They found that it was a very contagious virus that could be caught be any horse. • Researchers at the time of the outbreak were frantic to find a cure for the infectious animal disease, they used innovative technology including robotics. • Special teams of scientists studied the people that worked around the infected horses' as well as their households to develop a link between humans and the equine flu.	Australian Scientists have found that there are particular people who are more prone to catch swine flu and have a severe reaction to it. The groups of people who : • Have lung disease • Are very obese • Have chronic liver disease • Have chronic kidney disease • Have blood disorders • Have neurological disorders • Have weak immune systems • Are aboriginal Scientists know that these people are more likely to contract swine flu due to the studies they have conducted in the past in prior swine flu outbreaks and also from analysing the medical conditions of people who have died overseas as a result of swine flu in the last couple of months.
Societal Response in	Australia didn't have many people who contracted SARS, compared to the Asian	Australia's horses were severely affected with the global outbreak of equine flu. Horsing	Australia responded promptly to the threat of swine flu entering the country. They employed

Containing Outbreak	countries. After the many deaths that occurs around the world as result of SARS. • Government contributed $1.2 million to the world health organisation to help prevent outbreaks of SARS in neighbouring countries of Australia. • Specific guidelines have been sent to different government bodies to deal with SARS. Including prevention procedures such as always washing hands and maintaining good hygiene. Specific reporting protocols have also been established to combat the severity of the outbreak. • Society was well informed of the danger of SARS reaching Australia. • ASEAN operated a surveillance network for disease outbreaks, within Australia and compared the state of the outbreak to that of neighboring countries. •	communities: • Had their horses placed in quarantine to prevent the spread of the virus • All horsing events were cancelled to prevent contact between horses • There was tremendous debate as to how the virus had spread so rapidly in a short space of time. Also many of the horses had not even been exposed to infected horses, human error became the main reason that people say the spread of equine flu. • Due to the dramatic effect that the Flu had on the racing sector scientists were pressured into developing a vaccine. • Scientists also compared the pathogen that causes equine flu to that of bird flu. Then worked around that information in order to discover a vaccine to stop the spread of the virus. • Strict procedures needed to be followed by people in association with the infected horses.	many measures to prevent the spread throughout Australia. Including: • Using infrared scanners on people arriving from overseas. It sensed people with a high body temperature, who were sick. These people were then tested for swine flu. • The government tried to contain swine flu, by making infected people stay in in-home quarantine. Also for people who have visited locations where many people have disease (i.e Mexico and Melbourne). • Government made sure that people were informed about swine flu by issuing ads with influenza updates. Indicating the severity of the virus from being a pandemic at one stage to then being a mild flu type. • Compared to other countries around the world Australia hasn't been tremendously frightened with the rapidly spreading virus. Many have stocked up on Tamiflu and have had checkups from their doctor. • Australian scientists are currently in the final stages of developing a vaccine for swine flu.

Flow Chart of How Australia Dealt with the Outbreak of Swine Flu in 2009

- Australia identifys that there is a need to create an action plan as to what the country is going to do in order to contain the outbreak of Swine flu that is inevitable in occuring. This plan is made by the Government departments in charge of health care through a number of new protocols

- The first of the actions are implemented. Custom officers at the Major Australian Airports use infrared technology to detect if people arriving to Australia are ill. This is displayed by showing high body temperatures on a sceen as people walk through customs area. Particular reporting procedures are also now used by airlines. To report to Australian officials upon arrival of any passengers with flu.

- These people are then tested. If they test positive they are placed in quarantine. The government at this stage also implemented the rule that people who come from overseas countries that have a high number of people with swine flu. Then they will need to stay in home quarantine for a week and stay away from work or school

- This quarantine method was used in the case of the pacific dawn cruise ship containing 2000 people who needed to be contained for a set number of time, and also all individually tested.

- The next mechanism that the government used to tackle swine flu involved educating the public of the severity of the disease. This was done through extensive news forms and through advertising in newspapers. By showing what stage swine flu was evolving into, from a pandemic to a mild flu

- When children from various primary and high schools contracted the disease the government ordered the closure of the affected schools to contain the virus and prevent the spread of it to other children.

- The government is now helping to fund for a vaccine that has already been developed in Australia, but still needs to be extensively tested before it can be used.

Bibliography

http://www.emergency.health.nsw.gov.au/swineflu/factsheets/swineflu.asp

http://www.emergency.health.nsw.gov.au/swineflu/families/managing.asp

Daily Telegraph –Tuesday, June 16 2009

http://www.chw.edu.au/parents/factsheets/pdf/sars.pdf

http://www.health.gov.au/internet/main/publishing.nsf/Content/health-sars-faq-index.htm

http://www.csiro.au/resources/EquineInfluenza.html#2

http://www.horseracinginaustralia.com/equine_influenza.html

http://www.myaushorse.com/horseflu/310807c.php

http://www.pandemicflu.gov/faq/swineflu/epidemiological_investigations.html

http://www.ausaid.gov.au/media/release.cfm?BC=Media&Id=9777_4491_45_5779_1152

http://www.smh.com.au/news/opinion/regional-response-essential-for-a-deadly-threat-that-doesntrecognise-borders/2005/10/11/1128796525152.html

http://www.who.int/csr/sars/en/WHOconsensus.pdf