

Pandemic

Introduction

Influenza was first documented by Hippocrates in 421BC and the first documented pandemic was in 1580.

Since 1900 there has been 3 major pandemics (1918 the worst, 1957 and 1968). There has also been a number of near misses with 16 events with pandemic potential since 1977 and the last 8 have occurred since 2003. Historical data shows that since 1889 pandemics have occurred at intervals ranging between 10-40 years. It has been 37 years now since the last pandemic. As Dr K Stohr (WHO Global Influenza Programme team Coordinator) told us a few weeks ago, another pandemic will certainly occur; it is only a matter of time.

Influenza remains the most major health threat worldwide.

Why is World Health Organization so concerned?

- There has been an acceleration of events with pandemic potential since 2003.
- The H5N1 epidemic of 2004 was unprecedented in the history of influenza because of its spread to different countries and significant human exposure.
- The emergence of H5N1 HPAI (high pathogenic avian influenza).
- The epidemiological situation-this virus has succeeded in adapting in such a way to invade different hosts including a large number of birds, poultry and different mammals like felines, tigers, domestic cats, pigs and also humans.

What should Malta be doing?

1. Reduce/Eliminate virus in birds

The Veterinary Authorities are continuously monitoring the local poultry for signs of avian flu and a contingency plan is in place if the avian virus should be found.

2. Increase seasonal influenza vaccination coverage

WHO has asked all countries to increase their vaccination coverage especially in the elderly and high risk groups. This autumn Malta should be first in the whole world with the highest total population influenza coverage. It is the role of every Maltese doctor and pharmacist to educate the general population on the benefits of taking the seasonal vaccine. Our common goal should be to aim for 65-70% total population coverage rate every year.

3. Purchase essential pharmaceuticals for pandemic preparedness

The Minister of Health and DG have purchased antivirals to treat 25 % of the general population and put in an order for the pandemic vaccine to vaccinate 90% of the population once it is available.

4. Prepare for damage control

A committee has been set up, who are presently finalising the Pandemic Plan.

How will the Pandemic effect our little Island?

All over the world the pandemic will affect health care services and equally affect other essential community services like Police, Armed Forces, Water Services, Electricity services, Communications etc. There will be social and political disruption and considerable economic losses. One of the most notable impacts of the next pandemic will be work days lost. Besides the actual time away from work due to illness, there will also be the time lost due to workers staying home looking after sick family members.

Dr Martin Meltzer (Health Economist at CDC, USA) using Fluiad software, worked out the likely estimates for Malta with a 25% attack rate, using the scenario of the last pandemic 1968 (which was the mildest) and the scenario of the Spanish Flu Pandemic in 1918 which was the worst. Estimates for Malta are:

Health outcomes	1960's scenario	1918 scenarios
Deaths	272(149;451)	1,772 (1,003;2521)
Hospitalization	1,202 (420;1,487)	8,832(2,395;11,217)
GP consultations	51,933(40,070;75,186)	87,314(84,179;94,519)
Influenza like illness, no medical care needed	44,511(20,794;57,279)	

Difficulties pertaining to Malta

After Singapore and Hong Kong, Malta is the most densely populated country. This will have a major bearing on the infectivity rate and speed with which the disease will spread. It is imperative that we slow down the spread as much as we can to reduce morbidity and mortality, to enable us to cope with the excess demand both on primary and secondary care services and to buy time until the vaccine reaches our shores. Drastic public health measures must be taken at the appropriate time like closing schools, churches, places of entertainment etc. All confirmed cases must be isolated in their homes and their contacts quarantined also in their homes.

Malta produces only 20% of its food needs and has no domestic energy sources. We depend almost entirely on other countries for food and basic necessities. If during a pandemic other countries are unable to export to us we may face additional problems of limited food and fuel reservoirs. As part of our planning we need to ensure that we have an adequate 3 month supply of food and fuel on our island to minimize this serious potential problem from occurring.

The role of health care professions

Your main role is that of an educator. Your patients/clients listen to what you say so it is important that you convey the right information to them. These include:

- As soon as they develop symptoms they must go home and stay at home until symptoms clear completely;
- Antivirals should only be taken if the doctor prescribes it to them after confirming that they are suffering from influenza during the pandemic;
- Hand washing is the most effective way of minimizing spread of infection;
- One must ALWAYS use a tissue when coughing and sneezing and dispose of it immediately;
- Common objects like telephones, tapes, doorknobs etc should be cleaned regularly with alcohol based wipes both at home and at work places to minimize spread;
- Avoid places of mass gathering;
- Limit travel for work and to buy essential necessities;
- Encourage your patients to take the influenza vaccine every year including yourselves and your family.

What is your role at present?

Fill in the vaccination form for every person you give the influenza jab. It should be filled in only by the person giving the injection and not by the person who just sells it to the patient. Once you have given all your vaccines send it to Public Health. Those who have not received a self addressed envelop, can contact the Department of Public Health on 21322305/21332235.

Fill in the antiviral forms for those patients who have ordered to stockpile antivirals and explain to them that they can only take it after consulting with you.

Prepare from now ways to cope with your workload during a pandemic. Telephone consultations will be necessary. Avoid seeing your patients in small clinics in pharmacies. Know your patients' medical history well to enable you to decide which of your patients will definitely need to be seen by you and which you can deal with over the phone.

Influenza

Stockpile masks (FFP2 or 3) to wear when visiting flu patients. Get into the habit from now to wash your hands after each and every patient you examine.

Keep yourself informed of what is happening globally on influenza.

FACTSHEET

The time exposure to influenza virus and the onset of symptoms is usually two days but can vary from 1 to 5 days.

Symptoms vary with age but typically include:

- Raised temp (not always present in elderly)
- Dry cough
- Muscle pains
- Sore throat
- Headache
- Feeling weak and tired

Symptoms typically last 5-7 days.

Complications include:

- Otitis media (in children)

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Provide your contact details to the Department of Public Health to ensure you will receive timely information during the pandemic on what will be happening in our country.

Participate in the yearly influenza sentinel surveillance. [\[link\]](#)

- Primary influenza pneumonia
- Secondary bacterial bronchitis and pneumonia
- encephalitis(rare)

Worsening or destabilisation of pre-existing diseases like cardiac failure and diabetes.

People typically acquire influenza by inhaling the virus or by being in direct contact with the respiratory tract secretions of people who are infected. The potential to infect others lasts as long as viruses are being shed from the respiratory tract. Healthy adults shed viruses from one day before onset of symptoms until about 7 days thereafter. Children start shedding the virus from around 6 days before developing symptoms and can continue for as long as 14 days after getting symptoms and people who are immunocompromised shed the virus for as long as 21 days.