

# Preventing Infectious Diseases Among WPI Students

Aaron Behanzin, Ijeoma Ezeonyebuchi, Michelle Ly, Ting Ting Wang

Goal:

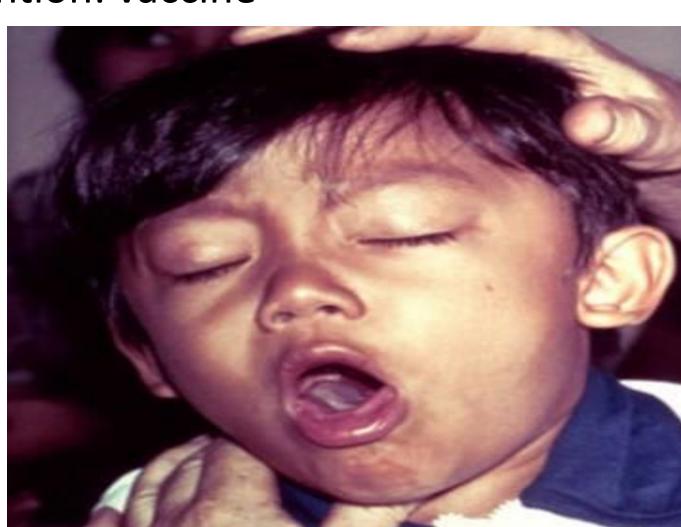
To educate the WPI community on the transmission of infectious diseases and how to avoid them both on campus and off campus, especially in IQP/MQP project centers.

## Direct Contact

A disease that is transmitted between an infected person and an uninfected person through touching.

#### **Examples:**

- Whopping Cough (Pertussis): a bacterial disease -Symptoms: runny nose, mild fever, sneezing, watery red eyes, exhaustion, severe coughing
- -Treatment: antibiotics -Prevention: vaccine



• Mononucleosis: a viral illness that causes fatigue -Symptoms: swollen glands & tonsils, fever, sore throat, weakness

-Treatment: throat lozenges, bed rest, Tylenol<sup>TM</sup> -Prevention: don't share items, wash hands often



http://medimages.healthopedia.com/large/oral-herpes.jpg

General Ways of Prevention:

## Indirect Contact

A disease that is transmitted through contact with surfaces that is contaminated by an infected person.

### **Examples:**

- Severe acute respiratory syndrome (SARS): an infectious respiratory illness
- -Symptoms: fever, cough, muscle aches, chills
- -Treatment: medicine to treat the symptoms -Prevention: avoid contact with infected people,



 Swine Flu (H1N1): influenza caused by a virus related to a virus isolated from infected swine -Symptoms: fever, cough, sore throat, stuffy nose -Treatment: medicine to treat the symptoms -Prevention: vaccine, sanitize surfaces, stay away from infected people, wash hands often



http://www.rpi.edu/~roecks/GeoI09/swine-flu.bmp

## Body Fluids

A disease that is transmitted through the waste, blood, or saliva and acquired through its ingestion.

#### **Examples:**

- •Cholera: an acute intestinal infection -Symptoms: vomiting, watery stool, dehydration
- -Treatment: water and rehydration solutions
- -Prevention: drink bottled water, eat food that is cooked thoroughly, wash hands often



- •Hepatitis A: inflammation of the liver -Symptoms: vomiting, jaundice, liver pain, diarrhea, dark brown urine
- -Treatment: medicine to treat the symptoms
- -Prevention: vaccine, wash hands often, eat food that is cooked thoroughly



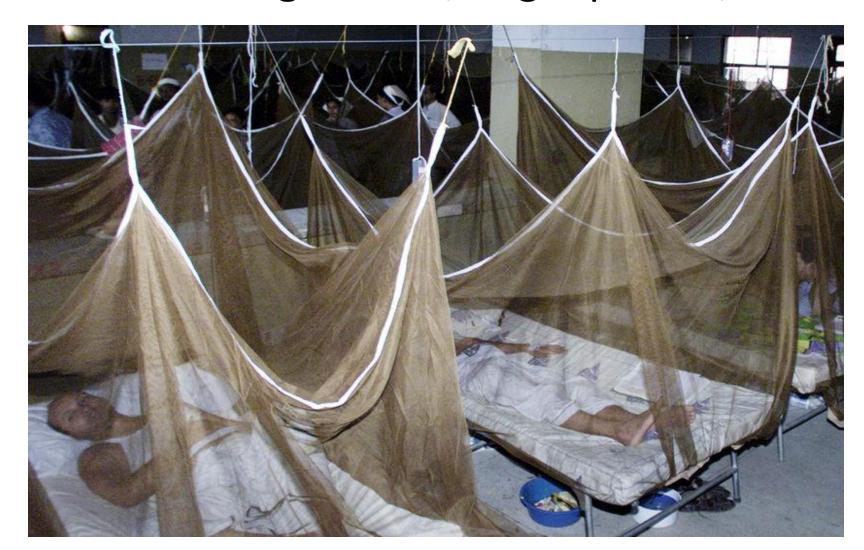
http://english.people.com.cn/200506/28/images/062802.jpg

## Vector-Borne

A disease that is transmitted to humans by another organism like an insect or mammal.

#### **Examples:**

- •Malaria: a disease caused by a parasite transmitted from the bite of mosquitoes
- -Symptoms: chills, high fever, sweating
- -Treatment: antiparasitic drugs
- -Prevention: long clothes, bug repellant, bed nets



- •Yellow Fever: a viral infection transmitted by mosquitoes
- -Symptoms: fever, headache, seizures, delirium, jaundice, vomiting blood
- -Treatment: medicine to treat the symptoms -Prevention: long clothing, bug repellant, bed nets, vaccine



http://diseaseandsymptoms.com/wp-content/uploads/2009/09/signs-symptoms-liver-disease-300x194.jpg

#### •Wash hands often and use hand sanitizer with at least 60% alcohol

- Wear long clothing and bug repellants
- Don't share items
- Make sure foods are thoroughly cooked and water boiled
- •Stay away from sick people (3 6 feet)
- Maintain proper hygiene
- Immunization

Bupa's health information team. (2008). Cholera. Retrieved November/2009, 2009, from <a href="http://hcd2.bupa.co.uk/fact\_sheets/html/cholera.html">http://hcd2.bupa.co.uk/fact\_sheets/html/cholera.html</a> Health Encyclopedia. (2009). Health encyclopedia- diseases and conditions. Retrieved November/2009, 2009, from http://www.healthscout.com/ency/68/347/main.html Mayo Clinic staff. Whooping cough.

Methods of disease transmission. Retrieved November/2009, 2009, from <a href="http://microbiology.mtsinai.on.ca/faq/transmission.shtml#four">http://microbiology.mtsinai.on.ca/faq/transmission.shtml#four</a> Severe acute respiratory syndrome. Retrieved November/2009, 2009, from https://health.google.com/health/ref/Severe+acute+respiratory+syndrome+(SARS) WebMD. (2007). Infectious mononucleosis. WebMD, , November 13,2009. Yellow fever. Retrieved November/2009, 2009, from https://health.google.com/health/ref/Yellow+fever

H1N1 influenza vaccine. (2009). Retrieved November/15, 2009, from <u>http://www.lysol.com/germ-information-center/h1n1flu/</u> H1NI flu. (2009). Retrieved November/15, 2009, from http://www.cdc.gov/H1N1FLU/

ector borne diseases. Retrieved November/15, 2009, from <a href="http://health.state.ga.us/epi/vbd/index.asg">http://health.state.ga.us/epi/vbd/index.asg</a>

Infection control and prevention. (2008). Retrieved November/15, 2009, from http://dhs.wi.gov/communicable/InfectionControl/Transmission.ht Infectious diseases and how they are spread. Retrieved November/15, 2009, from http://www.cftech.com/BrainBank/OTHERREFERENCE/HEALTH/Infectious.html List of common infectious diseases. (2009). Retrieved November/15, 2009, from http://www.buzzle.com/articles/list-of-common-infectious-diseases.html Malaria. (2009). Retrieved November/15, 2009, from http://www.healthscout.com/ency/68/347/main.html