Unit 1: Introduction to Infectious Diseases

Instructional Activities for Adults

Visual Aids

PKIDs’ Infectious Disease Workshop

Made possible by grants from the Northwest Health Foundation, the Children’s Vaccine Program at PATH and PKIDs.
PKIDs’ Infectious Disease Workshop
Acknowledgements

Producing this workshop has been a dream of ours since PKIDs’ inception in 1996. It has been more than two years since we began work on this project, and many people helped us reach our goal. It’s not done, because it is by nature a living document that will evolve as science makes strides in the research of infectious diseases, but it’s a great beginning.

There are people who’ve helped us whose names are not on this printed list. That omission is not deliberate, but rather from our own clumsiness in losing important pieces of paper, and we apologize.

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Warning: This section contains certain disease-related images that may not be suitable for young children.

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This publication contains the opinions and ideas of its authors. It is intended to provide helpful and informative material on the subject matter covered. Any information obtained from this workshop is not to be construed as medical or legal advice. If the reader requires personal assistance or advice, a competent professional should be consulted.

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Introduction

PKIDs (Parents of Kids with Infectious Diseases) is a national nonprofit agency whose mission is to educate the public about infectious diseases, the methods of prevention and transmission, and the latest advances in medicine; to eliminate the social stigma borne by the infected; and to assist the families of the children living with hepatitis, HIV/AIDS, or other chronic, viral infectious diseases with emotional, financial and informational support.

Remaining true to our mission, we have designed the *Infectious Disease Workshop (IDW)*, an educational tool for people of all ages and with all levels of understanding about infectious diseases. In this workshop, you will learn about bacteria and viruses, how to prevent infections, and how to eliminate the social stigma that too often accompanies diseases such as HIV or hepatitis C.

We hope that both instructors and participants come away from this workshop feeling comfortable with their new level of education on infectious diseases.

The IDW is designed to “train-the-trainer,” providing instructors not only with background materials but also with age-appropriate activities for the participants. Instructors do not need to be professional educators to use these materials. They were designed with both educators and laypersons in mind.

The IDW is comprised of a master Instructor’s Background Text, which is divided into six units: Introduction to Infectious Diseases, Disease Prevention, Sports and Infectious Disease, Stigma and Infectious Disease, Civil Rights and Infectious Disease, and Bioterrorism and Infectious Disease.

For each unit, instructors will find fun and helpful activities for participants in five age groups: 2 to 6 years of age, 6 to 9 years of age, 9 to 12 years of age, 13 to 18 years of age and adults.

We welcome any questions, comments, or feedback you may have about the IDW or any other issue relating to infectious diseases in children.

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Influenza
causes the flu

Influenza A virus.
Influenza

Image of germs (e.g., influenza) spreading by cough/sneeze.
B. pertussis bacterium.
Rubella causes rubella or “German Measles” and congenital rubella syndrome.
Rubella

Cataracts caused by rubella acquired prenatally.

Infant born with rubella.
Haemophilus influenzae type b (Hib) causes a common form of bacterial meningitis.

Hib bacterium.

Child with Hib infection in the tissue of the jaw and cheek.
Corynebacterium diphtheriae causes diphtheria.

C. diphtheriae bacteria.
Corynebacterium diphtheriae

Diphtheria bacterium adhering to throat cell.

A thick, gray coating may form on the back of the throat.
Measles

Measles virus.

Child with a measles rash.
Measles

New measles viruses budding off an infected host cell.
Tetanus

This baby’s muscles are so rigid they cannot be moved.

This baby cannot open his mouth to eat.
Varicella
causes chickenpox

Varicella-zoster virus particles.
Varicella

Classic case of chickenpox infecting a newborn.

Chickenpox rash on an older child.
Mumps

Mumps virus.

Genetic material of the mumps virus.
Mumps

Swelling caused by mumps.
Neisseria meningitidis causes meningococcal meningitis

Meningococcal bacteria.
Poliovirus
causes polio

Poliovirus.

Structural damage caused by polio.
Hepatitis A Virus (HAV) causes acute inflammation of the liver.

Hepatitis A viruses.

Jaundice (yellowing) of eyes and skin.
Hepatitis B Virus (HBV) causes acute and chronic inflammation of the liver.

Hepatitis B viruses and surplus protein particles.

Swollen stomach area caused by HBV-induced liver cancer.
Hepatitis C Virus (HCV) causes liver inflammation, usually chronic.

Liver cell.

Healthy liver cells.

Damaged liver cells with tumors.
Mycobacterium tuberculosis causes tuberculosis (TB)

Antibiotic-resistant strain of the bacteria *M. tuberculosis*. 
Cytomegalovirus (CMV)
typically causes asymptomatic chronic infection; can cause central nervous system damage to an unborn child

Human cells infected with cytomegalovirus.
Herpes Simplex Virus (HSV) causes oral (type 1) or genital (type 2) sores

Herpes simplex virus particle.
Human Immunodeficiency Virus (HIV) causes AIDS

HIV infection in lymph tissue.
HIV

T-lymphocyte blood cell (green) infected with HIV (red).
Smallpox
causes high fever and pustules

Smallpox virus.

Smallpox pustules.
West Nile Virus (WNV) known to cause encephalitis in humans

West Nile viruses.

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**Bacillus anthracis**
causes anthrax

*B. anthracis* in the vegetative and spore-forming stage.