Module 1
Understanding Infectious Diseases

- Impact
- Vulnerability
- Symptoms
- Spread
Types of Germs

- Viruses
- Bacteria
- Fungi
- Parasites
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What does infection mean?
What does contamination mean?
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- Contagious
- Infectious
- Communicable
A 20-month-old child wakes up from a nap and is flushed. She does not want to play with other children and is irritable. Her temperature was taken and is 101°F.

How does this affect:
- Parents?
- Caregivers/teachers?
- Health care professionals?

How will the impact influence their decision making?
Impact of Infectious Diseases

- Economic
- Contagion
- Disruptions
- Health care provider issues
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Impact of Infectious Diseases

Everyone is affected.
Bad News: Frequency of Illness

Children in early education and child care

• Sick more often
• Illnesses last longer
• More ear infections
• More antibiotic-resistant bacterial infections
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Good News: Annual Illness Incidence by Age

![Bar graph showing annual illness incidence by age]
More Good News

- Germs in early education programs are the same as those in community outbreaks
- 90% of infections are mild, self-limited, and require no treatment
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Good News for Child Care

• Illness incidence decreases after the first full year of attendance
• Kindergarten children with prior early education program attendance have fewer infections
• Children who attended early education programs were less likely to develop asthma at 6 years of age
Why are children more vulnerable to infectious diseases?
Who is most vulnerable to infection?

- Young infants
- Children with special health care needs
- Children with impaired immune systems
- Pregnant women
Symptoms of Infectious Diseases

What symptoms might this child have or develop in the next few days?
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Symptoms of Infectious Diseases

- Cough
- Runny nose and/or congestion
- Difficult or noisy breathing
- Vomiting, nausea, or stomachache
- Diarrhea
- Rash
- Itching
- Drainage or irritation of eye or other infected body part
- Fever
- Aches or pains: Sore throat, earache, headache, body ache
- Mouth sores
- Swollen glands
- Behavior changes
What do you think are the most common symptoms that children in early education settings have?
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Common Symptoms Reported in Early Education settings

- Respiratory: 66%
- Fever: 14%
- Gastroenteritis: 9%
- Earache: 6%
- Rash: 5%
- Others
What symptoms do you think cause the most absence?
Symptoms that Cause the Most Absence

- Gastroenteritis: 23%
- Rash: 25%
- Earache: 10%
- Earache: 10%
- Respiratory: 11%
- Fever: 15%
- Pinkeye: 16%
How Infectious Disease Spreads

- Respiratory droplets
- Fecal-oral
- Direct contact with people or objects
- Body fluids
- Insects
Bingo Matching Exercise

- Pull out your blank bingo card
- In random order on your card, fill in the squares with these methods of how infectious diseases are spread
- There are 9 squares and 8 items including free space

<table>
<thead>
<tr>
<th>Direct Contact 1</th>
<th>Direct Contact 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecal Oral 1</td>
<td>Fecal-Oral 2</td>
</tr>
<tr>
<td>Body Fluids 1</td>
<td>Body Fluids 2</td>
</tr>
<tr>
<td>Insects</td>
<td>Free Space</td>
</tr>
</tbody>
</table>
Bingo Matching Exercise

- The next slides will have photos of ways that disease can spread
- Match the photo with the way it spreads disease and put an x on that box
- Call out if you get BINGO!
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Summary

• Everyone is affected by the spread of infectious diseases in groups of children
• Children are more vulnerable
• Infectious diseases spread by different methods
• Each method of spread can be prevented by specific strategies, which will be discussed in the next module

Questions?
Acknowledgements

- This curriculum has been developed by the American Academy of Pediatrics (AAP). The authors and contributors are expert authorities in the fields of pediatrics and early childhood education and care.
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- Web site addresses are as current as possible, but may change at any time.
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