Infection Control Workshop #3

Review of Workshop #2

- Infection agents modes of transmission.
- Factors for transmission.
- Hand Hygiene/Cough Hygiene
- PPE
- Control/Eliminate
  - Reservoir
  - Portals of Exit
  - Modes of Transmission
  - Portals of Entry
  - Host Susceptibility

Review of Workshop #2

Modes of Transmission
- Direct
- Indirect
- Airborne
- Vehicles
- Internal Transmission
- External Mechanical

Factors for Transmission
Hand hygiene

- Simple habit
- Most effective means of removing organisms
- Cheap!
- Breaks “chain of infection” portal of exit
- Alcohol-based cleaners vs. sanitizers
- Soap & H2O
- Proper Technique

Respiratory/cough hygiene

- “Cough – into Sleeve”
- Educate
- Social Distancing
- Consumer placement
- Masks

Personal protective equipment (PPE)

- Equipment:
  - gloves
  - gowns/aprons
  - masks
  - shields/goggles
- Sequence on:
  - GOWN, MASK, GOGGLES/SHIELD, GLOVES.
- Sequence off:
  - GLOVES, GOGGLES/SHIELD, GOWN, MASK.
Workshop #3

- The learner will be able to:
- Describe basic infection control strategies r/t OMRDD facilities.
- Describe terms used in epidemiology and infection control strategies.
- Describe isolation and consumer placement.
- Describe infection outbreak investigation, management and control.

Infection Control Strategies

- Challenging as most conventional IC strategies and procedures of limited efficacy in OMRDD facilities.
- Strategies need to be modified to be implemented within the OMRDD environment.

IC in OMRDD-
complicating factors

Medical conditions of individuals:
- some people have few medical issues,
- many have a complex medical profile with multiple complicating diagnoses.
  - Pulmonary,
  - cardiac,
  - gastrointestinal and
  - neurological conditions
  - Endocrinological
  - Orthopedic, especially scoliosis, kyphosis impinging on cardiac and pulmonary function

Individuals frequently non-verbal and/or unable to articulate how they are feeling, so it is often difficult to diagnose illness.
IC in OMRDD-complicating factors

- Inability of many individuals to participate in infection control measures and/or respiratory "etiquette."
  - Some can follow simple infection control measures,
  - Vast majority are unable to participate in any infection control measures or to comply with the most basic part of respiratory etiquette.
- Staff frequently provides close personal care for the individuals they serve.
- Behaviors of many individuals make them at high risk to transmit/contract disease.

Day Program considerations

- Individuals from many residences may attend a single day program.
- Need to coordinate activities of multiple agencies
- Staff from residences may be assigned for part of their day to the day program.
- Bus drivers and bus aides are exposed to individuals within the confines of a bus for sometimes upwards of 2 hours/day.

Infection Control Strategies

- Infection control- prevent transmission of infectious agents.
  - Surveillance- looking out for changes-collecting, analyzing and reporting data-ongoing observation.
  - Social Distancing- keeping one's distance to protect from infection.
  - Break the "Chain of Infection"
  - Increase host defenses
  - Hand washing!!!!
  - PPE
  - Others
Epidemiological infection control strategies

- Line List - [Link](http://www.health.state.ny.us/professionals/diseases/reporting/communicable/infection/docs/line_list_form.pdf)
- Concentric Circles -
- Primary vs. Secondary Contacts - number of cases
- Isolation - containment of cases
- Consumer Placement - in lieu of isolation/social placement

Line List

- each column represents an important variable, such as
  - name or identification number
  - age
  - sex
  - Symptoms
  - classification (probable, suspected, confirmed)
  - date of onset
  - treatment received
  - hospitalization
  - outcome
- each row represents a different case, by number.
- New cases are added to a line listing as they are identified
- update as needed

Line List

<table>
<thead>
<tr>
<th>Infection:</th>
<th>Facility:</th>
<th>Initials</th>
<th>Age</th>
<th>Sex</th>
<th>Symptoms</th>
<th>Onset Date</th>
<th>Seen By MD?</th>
<th>Y/N</th>
<th>Date Result</th>
<th>ADMIT Date</th>
<th>D/C</th>
</tr>
</thead>
</table>
**Epidemiology strategies**

- **Concentric Circles**
  - OMRDD uses however initial circles much larger than in other settings.
- **Primary Contacts**
  - Health care providers
  - Staff
  - Close contacts
  - Others
- **Secondary Contacts**
  - Broader areas
  - Family
  - Staff family
  - Well contacts

**Infection control & investigation**

- Contact tracing-searching for people exposed to contagious disease (Stedman, 2005).
- **Purpose:** to investigate the cause and to control the spread of a communicable disease
- **Process of**
  - identifying persons exposed to communicable disease
  - informing them of exposure
  - monitoring for s/s of disease and/or testing,
  - offering prophylaxis if appropriate
Contact Tracing: the info

- Date of onset of symptoms. Date of onset helps determine the period of contagion.
- Characteristics of the individual:
  - Level of support needed [consider ADL and behaviors]
  - Ability to participate in respiratory etiquette and hand hygiene infection control measures
  - Behaviors that may place the person at higher risk of transmitting influenza
- Place of residence:
  - Type of residence
  - Characteristics of the persons at the residence

Contact Tracing, the info

- What were the person’s activities during the period of contagion
  - Day program
  - recreational programs;
  - after school/work program;
  - respite;
  - other activities where they would be in close contact with others

Contact Tracing: the info

For each of the programs identified one must answer the following questions:

- what was the date of last known exposure?
- type of program
- characteristics of the individuals at the program
  - individuals with medical conditions that place them at high-risk?
  - ability to participate in respiratory etiquette, hand hygiene, other infection control measures?
  - Behaviors that would place them at higher risk for contracting a communicable disease?
- level of intermingling of individuals in the program
- Staffing patterns:
  - do the staff float freely between individuals?
  - what is their level of contact with the identified individual?
- Are the potentially exposed individuals/staff still within the incubation period?
- Are there participants from other agencies? If yes, which ones?
And don’t forget the bus!
- How is the index case transported?
  - Residence’s own van
  - Bus?
    - Are their individuals from other agencies/programs on the bus?
  - Public transportation?

From Info to Action
- A list of primary contacts and involved agencies is developed
- OMRDD and DOH assist the agency to devise a management strategy that will address the unique circumstances of the situation
- Management strategy communicated to
  - Consumers and families
  - Staff
  - Involved programs
  - Other involved agencies

Epidemiology strategies
- Challenging as traditional IC procedures and strategies cannot be implemented in OMRDD facilities
- Isolation
  - Difficult to do in OMRDD settings
  - Individuals do not understand protection of others
  - Regulations limit usefulness
- Provide distance to the extent possible
- Consumer placement
- When can be used.
Epidemiology strategies
- Consumer Placement
  - Not possible in small residences
  - In large residences, may be able to cohort ill individuals
- Protective personal equipment
  - Use the appropriate PPE for the mode of transmission

Epidemiology Strategies
- Environmental Control
- Facility Assessment
  - Cleaning/Disinfection
  - Clinical Guidance
  - Teaching/Training

Infection Outbreak Management
- Outbreak-term to describe a local epidemic (Jekel et al., 2007).
- Use of Prophylaxis-The consumer or staff would be offered chemoprophylaxis (Clark, 2008). Secondary prevention
  - In OMRDD facilities, consumers AND staff offered chemoprophylaxis
- Scabies: all staff and consumers regardless of presence/absence of symptoms treated
Outbreak Management in OMRDD

- Quarantine
  - Only certain authorities can "quarantine"
  - Use term "activity restriction" instead
- Consumer activity restriction:
  - Primary contacts
  - No activities with other groups or persons outside the residence
  - Cannot attend day program
  - Can:
    - Go to the park or other outside venue where they will not be in close contact with other individuals
    - Go outside in the back yard
  - Restrict admissions, discharges and transfers to extent possible
- Restrict staff movement:
  - No "floating" in or out of the unit
  - No OT or ES in other programs or residences
  - Restrict visitors as much as possible.
  - Restrict use of respite

Outbreak management in OMRDD

- Reinforce need for strict hand hygiene, and appropriate use of gloves
- Educate staff about disease process, mode of transmission, s/s of disease.
- Educate staff to always care for ill individuals first, then well
- Feed well individuals first. When they are done, feed ill individuals if possible.
- When using common bathroom, bathe ill individuals first, clean bathroom, then bath well individuals.

Prevention of next outbreak

- Surveillance
- Follow up Treatment regimes
- Isolation
Questions?

- What questions?
  We have covered a lot of material