

TUSCARAWAS COUNTY HEALTH DEPARTMENT



RESPONDER HEALTH & SAFETY PLAN

Version: 2018.7

Date Originally Adopted: 05/15/2015

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INTRODUCTION

The Tuscarawas County Health Department (TCHD) *Public Health Responder Safety and Health Plan* is a multijurisdictional plan that addresses responder health and safety during response to public health emergencies within the jurisdictions of both the Tuscarawas County General Health District dba Tuscarawas County Health Department (TCHD) and the New Philadelphia City Health Department (NPCHD). From this point forward, the abbreviation **TCHD** is used to reference both agencies.

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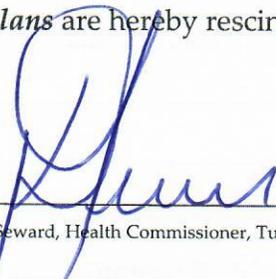
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STATEMENT OF PROMULGATION

The **Tuscarawas County Health Department (TCHD) Emergency Response Plan (ERP)** establishes the basis for coordination of Tuscarawas County General Health District (TCHD) and New Philadelphia City Health Department (NPCHD) resources and response to provide public health and medical services during an emergency or disaster. This plan shall serve as the operational framework for responding to all emergencies, minor disasters, major disasters and catastrophic disasters that impact the public health and medical system in Tuscarawas County.

All TCHD and NPCHD program areas are directed to implement training efforts and exercise these plans in order to maintain the overall preparedness and response capabilities of their respective agencies. TCHD and NPCHD will maintain this plan, reviewing it and reauthorizing it at least annually; findings from its utilization in exercises or real incidents will inform updates.

This **ERP is hereby adopted**, and all TCHD and NPCHD program areas are directed to implement it. All previous versions of the TCHD and NPCHD **Emergency Response Plans and/or Emergency Operation Plans** are hereby rescinded.



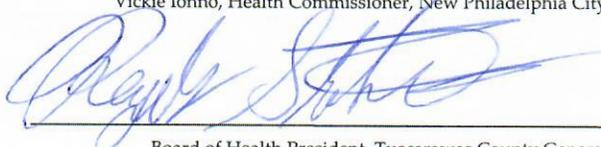
Katie Seward, Health Commissioner, Tuscarawas County General Health District

7/11/18
Date



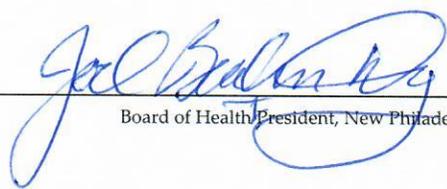
Vickie Ionno, Health Commissioner, New Philadelphia City Health Department

7/18/18
Date



Board of Health President, Tuscarawas County General Health District

7/11/18
Date



Board of Health President, New Philadelphia City Health Department

7/18/18
Date

RECORD OF CHANGES

The Health Commissioners for the Tuscarawas County Health Department and the New Philadelphia City Health Department authorizes all changes to the **RESPONDER HEALTH AND SAFETY PLAN**. Change notifications are sent to those on the distribution list. To annotate changes:

- Add new pages and destroy obsolete pages.
- Make minor pen and ink changes as identified by letter.
- Record changes on this page.
- File copies of change notifications behind the last page of this ERP.

Change Number	Date of Change	Print Name	Title
2018.7	7/1/2018	Paul Westlake	PHEP Coordinator
Version Number: 2018.7	Updated entire plan, to include TCHD plan format; adding PPE sections; addressing TCHD levels of PPE; subject matter experts; medical and mental health concerns for the responder; listing of other plans and appendices.		
Change Number	Date of Change	Print Name	Title
Version Number:	[DESCRIPTION OF CHANGE]		

RECORD OF DISTRIBUTION

A single copy of this Tuscarawas County Health Department **RESPONDER HEALTH AND SAFETY PLAN** is distributed to each person in the positions listed below.

Date Received	Program Area	Title	Name
	Administration	Health Commissioner, TCHD	Katie Seward
	Administration	Health Commissioner, NPCHD	Vickie Ionno
	PHEP	PHEP Coordinator	Paul Westlake

This plan is available in electronic format to all Tuscarawas County Health Department and New Philadelphia City Health Department employees via their respective agency websites. Two copies can also be found in the department operations center in hard copy format.

EXPLANATION OF COLLABORATION AND COOPERATION

The formal name of this agency is the Tuscarawas County General Health District, dba Tuscarawas County Health Department (TCHD).

The New Philadelphia City Health Department (NPCHD) is a separate, city-owned and managed public health department. For purposes of planning and emergency response, NPCHD has agreed to collaborate and cooperate on the development of Emergency Response Plans (ERP) and in the event of an emergency will respond utilizing this plan.

The Tuscarawas County Health Department (TCHD) **RESPONDER HEALTH AND SAFETY PLAN** is a multijurisdictional plan that covers all of Tuscarawas County, including the City of New Philadelphia.

In this plan, the words "Tuscarawas County Health Department" and/or "(TCHD)" are used to include both the Tuscarawas County General Health District and the New Philadelphia City Health Department.

DOCUMENT DESCRIPTION

The content of the **RESPONDER HEALTH AND SAFETY PLAN** is intended to provide guidance for emergency operations in regards to any planned or unplanned public health event. Position descriptions, checklists, and diagrams are provided to facilitate that guidance. The information contained in this document is intended to enhance the user's experience, training, and knowledge in the application of the emergency response and management principles. This document complies with the intent and tenets of the National Incident Management System (NIMS).

PURPOSE

The purpose of this plan is to outline the potential health and safety risks that public health responders in Tuscarawas County may face when responding to a public health event. The Tuscarawas County Health Department (TCHD) and the New Philadelphia City Health Department (NPCHD) will ensure that responders are aware of and are provided the necessary Personal Protective Equipment (PPE) and protective actions necessary to carry out their response role. All public health responders or potential responders will receive training on this plan.

SCOPE

According to the September 2017 Tuscarawas County Health Department and New Philadelphia City Health Department Hazard Vulnerability Analysis (HVA), as well as the Tuscarawas County Emergency Management Agency's Mitigation Plan, the natural and technological hazards most likely to affect Tuscarawas County residents and thus emergency responders are:

- Severe Weather – thunderstorms, tornados, floods, winter storms, temperature extremes
- Hazardous materials incidents
- Biological incidents – disease outbreaks

http://www.tchdnow.org/uploads/4/2/8/6/42860741/2017_phep_hazard_vulnerability_analysis.pdf

This plan will be used to guide public health responders on methods to protect their health and safety during an emergency response.

SITUATIONS AND ASSUMPTIONS

- Incidents may occur within Tuscarawas County which will require personal protective equipment and safety procedures to mitigate the hazard to employees and response personnel.
- Incidents and/or events pose unique health and safety hazards that may result in injury or death.
- The health and safety of agency and responding personnel are of primary concern for Tuscarawas County in the event of any public health or emergency response.
- Public health responders are assumed to be those who are employed by the TCHD or by the New Philadelphia City Health Department (NPCHD) or are part of the organized volunteer responders (i.e., Medical Reserve Corps).
- Information regarding public health and medical hazards likely to be encountered within the workplace and/or response environment (hazards, mitigation procedures, PPE requirements, job aids, etc.) is included in operational manuals and/or stand-alone plans horizontally linked with this document.
- This plan provides a mechanism for protecting public health responders only. First responders such as law enforcement, fire, emergency medical services (EMS), and hospital employees will follow the responder health and safety guidelines set forth by their agency.
- Development and dissemination of incident specific responder safety and health messages and materials may be appropriate.
- While in the field, personnel may be exposed to environmental conditions or assigned to a job that increase the risk of injury or illness, unless properly mitigated.

- TCHD will assure that public health responders have accurate information, training, proper vaccinations, and PPE to the assigned mission to mitigate risks.
- TCHD will provide PPE and training at or above the minimum standards set in place by governing bodies and/or experts.

DIRECTION AND CONTROL

- The National Incident Management System and Incident Command System will be utilized in all responses to public health incidents, regardless of size, scope, and complexity.
- The Incident Commander and the Safety Officer, if appointed, are responsible for incident safety, regardless of size, scope, and complexity.

SAFETY OFFICER

- In accordance with the Incident Command System, a Safety Officer will be appointed to oversee the health and safety of public health or medical response personnel.
- Safety officer duties include, but are not limited to, the following:
 - Identify and mitigate hazardous situations.
 - Ensure safety messages and briefings are made.
 - Exercise emergency authority to stop and prevent unsafe acts.
 - Review the Incident Action Plan for safety implications.
 - Assign assistants qualified to evaluate special hazards.
 - Initiate preliminary investigation of accidents within the incident area.
 - Review and approve the Medical Plan.
 - Participate in planning meetings.

SUBJECT MATTER EXPERTS (SME)

In the event that the public health emergency is outside of the normal capabilities and operations of the Tuscarawas County Health Department, the TCHD will utilize subject matter experts (SMEs) to guide the response and actions of the public health responders. The SMEs may include, but are not limited to:

- TCHD Epidemiologist(s)
- Tuscarawas County Hazardous Materials Response Team
- Tuscarawas County Emergency Management Agency
- Hospital infection control specialists
- Ohio Department of Health

- Centers for Disease Control and Prevention

ROLES

LEAD ROLE

Public Health will assume the lead role for biological hazards such as disease outbreaks and notify the appropriate community partners, which may include:

- Emergency Management Agency
- Law Enforcement
- Fire/Emergency Medical Services
- Hospitals
- Medical care community
- Coroner
- Health care facilities
- Community based organizations
- Media
- Others

SUPPORTIVE ROLE

The lead role in all other hazards affecting Tuscarawas County will be up to the jurisdiction having authority. TCHD and NPCHD will assume supportive roles as requested and/or needed.

For incidents that are non-biological in nature, such as natural disasters, chemical or HAZMAT incidents, and radiological emergencies, the TCHD will support its community partners (i.e. local fire/EMS, law enforcement, EMA, as well as state and federal agencies) in emergency response efforts. In these instances, responder health and safety requirements will be designated by the agency leading the response. TCHD staff who respond to such emergencies will follow the health and safety protocols designated by the lead response agency.

RESPONSIBILITIES

INCIDENT RESPONSE PERSONNEL

- Follow all safety and health rules.
- Receive Just in Time Training (JITT) and ask questions to ensure understanding and compliance to health and safety concerns.
- Wear/use all required safety gear or equipment.

- Follow safe work practices for your job.
- Report hazardous, unsafe, or unsanitary conditions to your director, team leader, supervisor, Safety Officer or appropriate authorities.

PERSONAL PROTECTIVE EQUIPMENT

The Health Commissioner/designee, Director of Nursing and Environmental Health Director will ensure that response staff are utilizing appropriate Personal Protective Equipment (PPE) and will notify community partners of incident appropriate PPE to use.

See *Appendix A – OSHA and NIOSH PPE Fact Sheets*

PPE PROCEDURE

- Gloves should be worn when there is a potential for contact with blood, body fluids, mucus membranes, non-intact skin or contaminated equipment.
 - Do not wear the same pair of gloves for the care of more than one patient.
 - Do not wear gloves for the purpose of reuse.
- Gowns should be worn to protect skin and clothing during procedures or activities where contact with blood or body fluids is anticipated.
- Wear mouth, nose and eye protection during procedures that are likely to generate splashes or sprays of blood or other body fluids.
- Hand hygiene is completed when PPE has been removed and is disposed.
- Staff will be educated upon hire and annually on universal precautions and when new equipment or protocols are introduced.

LEVELS OF PPE

There are 4 levels of recognized PPE. However, for Public Health Responders, there are only two levels:

LEVEL D

- Low risk working conditions
- Normal work clothes
- Elements can be added to increase protection:
 - Booties
 - Gloves
 - Fluid-resistant gown
 - Glasses

- N-95 respirators

LEVEL C

- Contaminant is known;
- Higher level of splash (liquid) protection is required as well as respiratory protection
- Generally, level C PPE is most likely to be used by public health/healthcare responders.
- Level C PPE includes:
 - NIOSH-certified N95 mask
 - Fluid-resistant gown
 - Tyvek suit
 - Boot covers
 - Gloves (extended cuff, when possible)
 - Face shield or eye protection if splashing is expected
 - Proper hand hygiene

NOTE: TCHD Public Health Responders are limited to Level D and Level C PPE. If the disease calls for skin or respiratory protection above those levels, TCHD response personnel are not to come in to contact with the patient without proper training and education. Patient care will need to be coordinated through the Ohio Department of Health and the Emergency management Agency.

The Health Department Epidemiologist(s), Nursing Director and/or Environmental Health Director will monitor the status of the event and will notify the Health Department Incident Commander or Safety Officer when PPE is no longer needed or if changes to PPE occur.

ENVIRONMENTAL HEALTH

Pesticides or other chemical use: Don appropriate PPE, including respirator protection, according to manufacturer instructions on product label.

Animal squalor, hoarding conditions: Coveralls, disposable boot covers, nitrile gloves, N95 masks

Indoor air quality issues, i.e. mold conditions, dust/contaminate conditions, etc.: N95 mask on initial approach.

FIT TESTING

- Fit testing for PPE tests the seal between the respirators face piece and your face to ensure that contaminated air is not able to leak through the mask. Fit testing should be done every 12 months or anytime an individual has a significant weight change, major dental work done, or facial surgery. TCHD will ensure that all employees who may be involved in a public health emergency response are fit tested annually.
- TCHD will follow the standards set forth by OSHA for PPE fit testing (1910.134 APP A): https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9780
- TCHD employees shall follow the CDC/NIOSH instructions: “How to Properly Put on and Take off a Disposable Respirator” which can be found in the Clinic Notebook and in *Appendix B – How to Properly Put on and Take Off a Disposable Respirator*.
- See **Attachment 2 – Tuscarawas County Health Department Respiratory Protection Plan**

CLEANING AND MAINTENANCE

PPE users must follow proper cleaning and maintenance procedures. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. PPE shall be inspected, cleaned, and maintained at regular intervals by the user.

PPE shall not be shared between employees unless it has been properly cleaned and sanitized in accordance to the manufacturer's specifications. PPE will be distributed for individual use whenever possible. It is also important that any contaminated PPE either be cleaned before reuse or if it cannot be cleaned, it must be disposed of.

PPE inventory shall be performed at least annually by Clinical and Environmental Health staff. PPE shall be rotated based on expiration date. Expired PPE will only be utilized for training/demonstration purposes.

SAFETY ISSUES AND MEDICAL MONITORING

Wearing PPE for an extended period of time, may pose health and safety risk for responders.

These include:

- Potential for heat stress
- Mobility/dexterity issues
- Vision
- Lack of air supply
- Trip hazards
- Communication

- Fatigue

Ensuring that responders are good physical health is essential to the safety of responders, before, during, and after wearing PPE. It is recommended that responders meet the following medical/health criteria before being assigned PPE:

- Resting pulse rate of 90 bpm
- Blood pressure from 100/50 – 140/90
- Temperature less than 99.6 °F

TCHD will ensure that responders who may be required to use PPE, meet these basic physical health standards.

SUGGESTED PPE

NON-BIOLOGICAL INCIDENTS

The following table (**Table 1**) outlines risks that public health responders may encounter when responding to the hazards identified by the Tuscarawas County and New Philadelphia City Health Department's Hazards and Vulnerability Assessment (HVA). While the table lists recommended safety equipment public health responders should utilize when responding to such incidents, responders should follow safety and health recommendations made by the agency who is leading the emergency response effort. The lead agency in charge of the response is responsible for providing the necessary safety equipment.

Table 1

Hazard	Health & Safety Risks to Responders	Recommended Health & Safety Measures/PPE
Flood	<ul style="list-style-type: none"> • Infection due to bacteria/fungi in waters • Vector borne diseases due to mosquitos/ticks • Death/Drowning • Slips/Falls due to unstable surfaces • Hypothermia 	<p><u>Equipment</u> Hard hat, goggles/safety glasses, heavy & waterproof work gloves, watertight and non-slip boots, life jacket, N95 respirator</p> <p><u>Other Safety Measures</u> Vaccines Insect repellent Long sleeve shirts/pants</p>

Severe Weather - thunderstorms	<ul style="list-style-type: none"> • Electrical hazards • Musculoskeletal hazards • Heat stress • Fire • Confined Spaces • Falls • Injury from debris (cuts, scrapes, etc) 	<p><u>Equipment/Clothing</u></p> <p>Heavy, cut resistant gloves, eye protection/goggles, protective head covering, boots/safety shoes with cut resistant soles, long pants, and long-sleeved shirt</p> <p><u>Other Safety Measures</u></p> <p>Frequent breaks avoid heat stress</p> <p>Tetanus vaccine</p>
Winter Storm	<ul style="list-style-type: none"> • Hypothermia • Frost bite • Falls due to ice 	<p><u>Equipment/Clothing</u></p> <p>Several layers of clothing, hats, gloves, ear protection (ear muffs) waterproof and insulated boots.</p> <p><u>Other safety measures</u></p> <p>Frequent breaks</p>
Temperature Extremes	Heat stress and Hypothermia a discussed in above sections	See above

BIOLOGICAL INCIDENTS

Table 2 outlines the recommended skin and respiratory protection for Class A Diseases, per the Ohio Department of Health and the CDC.

Table 2

Class A Reportable Disease	Skin PPE	Respiratory PPE
Anthrax*	<p>At a minimum:</p> <ul style="list-style-type: none"> * Tyvek or equivalent coveralls * Un-powdered disposable gloves made of lightweight nitrile or vinyl * Level A protective suit for maximum protection 	<p>When using respiratory protection, the type of respirator is selected on the basis of the hazard and its airborne concentration.</p> <ul style="list-style-type: none"> * Positive pressure (pressure demand), self-contained breathing apparatus

	<ul style="list-style-type: none"> * Once agent is no longer being aerosolized, responders may change to a Level B protective suit 	<p>(SCBA) (NIOSH approved)</p> <ul style="list-style-type: none"> * Powered air-purifying respirators (PAPRs) with P100 filters, or * Full-face negative pressure air purifying respirators (APRs) with N95 filters.
Botulism, foodborne*	<p>At a minimum:</p> <ul style="list-style-type: none"> * Tyvek or equivalent coveralls * Un-powdered disposable gloves made of lightweight nitrile or vinyl * Level A protective suit for maximum protection * Once agent is no longer being aerosolized, responders may change to a Level B protective suit 	<p>When using respiratory protection, the type of respirator is selected on the basis of the hazard and its airborne concentration.</p> <ul style="list-style-type: none"> * Positive pressure (pressure demand), self-contained breathing apparatus (SCBA) (NIOSH approved) * Powered air-purifying respirators (PAPRs) with P100 filters, or Full-face negative pressure air purifying respirators (APRs) with N95 filters.
Cholera*	<ul style="list-style-type: none"> * Goggles * Tyvek or equivalent coveralls * Waterproof gloves * Rubber boots * Level B protective suit 	<ul style="list-style-type: none"> * Positive pressure (pressure demand), self-contained breathing apparatus (SCBA) (NIOSH approved) * Protective face mask or splash-proof face shield: to protect nose and mouth from splashes of human waste or sewage.
Diphtheria*	<ul style="list-style-type: none"> * Tyvek or equivalent coveralls * Un-powdered disposable 	<ul style="list-style-type: none"> * P100 respirators is sufficient

	gloves made of lightweight nitrile or vinyl	
Ebola (for physical contact for public health workers – <u>no bleeding or diarrhea</u>)	<ul style="list-style-type: none"> * Dedicated clothing * Nitrile gloves (double layer) * Goggles/face shield * Fluid resistant impermeable gown * Shoe/boot covers 	* Disposable N95 respirator
Influenza A – novel virus	<ul style="list-style-type: none"> * Eye protection (e.g., goggles; eye shield) * Disposable non-sterile gloves * Disposable gown, when coming into close contact with the patient 	* N95 respirator
Measles	<ul style="list-style-type: none"> * Disposable non-sterile gloves * Disposable gowns * Goggles that offer mouth, nose and eye protection. 	* NIOSH-certified respirators that are N95 or higher. P100 respirators are recommended for all patients with respiratory symptoms such as cough
Meningococcal disease	<ul style="list-style-type: none"> * Disposable non-sterile gloves * Disposable gowns * Goggles that offer mouth, nose and eye protection. 	* NIOSH-certified respirators that are N95 or higher. P100 respirators are recommended for all patients with respiratory symptoms such as cough
Plague*	<p>At a minimum:</p> <ul style="list-style-type: none"> * Tyvek or equivalent coveralls * Un-powdered disposable gloves made of lightweight nitrile or vinyl * Level A protective suit for maximum protection * Once agent is no longer being aerosolized, 	<p>When using respiratory protection, the type of respirator is selected on the basis of the hazard and its airborne concentration.</p> <ul style="list-style-type: none"> * Positive pressure (pressure demand), self-contained breathing apparatus

	responders may change to a Level B protective suit	(SCBA) (NIOSH approved) * Powered air-purifying respirators (PAPRs) with P100 filters, or Full-face negative pressure air purifying respirators (APRs) with N95 filters.
Rabies, human	* Cover open wounds * Gloves * Goggles	* N95 Respirator
Rubella (not congenital)	* Disposable non-sterile gloves * Disposable gowns * Goggles that offer mouth, nose and eye protection.	* NIOSH-certified respirators that are N95 or higher. P100 respirators are recommended for all patients with respiratory symptoms such as cough
Severe acute respiratory syndrome (SARS)	* Disposable non-sterile gloves * Disposable gowns, preferably with fluid-resistant properties * Goggles or face shield	* NIOSH-certified respirators that are N95 or higher.
Smallpox	* Cover skin lesions * Disposable non-sterile gloves * Disposable gowns, preferably with fluid-resistant properties * Goggles or face shield * Leg and shoe coverings	* NIOSH-certified N95 respirators
Tularemia*	At a minimum: * Tyvek or equivalent coveralls * Un-powdered disposable gloves made of lightweight nitrile or vinyl * Level A protective suit for maximum protection	When using respiratory protection, the type of respirator is selected on the basis of the hazard and its airborne concentration. * Positive pressure (pressure demand), self-contained

	<ul style="list-style-type: none"> * Once agent is no longer being aerosolized, responders may change to a Level B protective suit 	<ul style="list-style-type: none"> breathing apparatus (SCBA) (NIOSH approved) * Powered air-purifying respirators (PAPRs) with P100 filters, or * Full-face negative pressure air purifying respirators (APRs) with N95 filters.
Viral hemorrhagic fever (VHF)*	<p>At a minimum:</p> <ul style="list-style-type: none"> * Tyvek or equivalent coveralls * Un-powdered disposable gloves made of lightweight nitrile or vinyl * Level A protective suit for maximum protection * Once agent is no longer being aerosolized, responders may change to a Level B protective suit 	<p>When using respiratory protection, the type of respirator is selected on the basis of the hazard and its airborne concentration.</p> <ul style="list-style-type: none"> * Positive pressure (pressure demand), self-contained breathing apparatus (SCBA) (NIOSH approved) * Powered air-purifying respirators (PAPRs) with P100 filters, or * Full-face negative pressure air purifying respirators (APRs) with N95 filters.
Yellow fever	<ul style="list-style-type: none"> * Insect repellent 	<ul style="list-style-type: none"> * N/A

* *Indicates a disease that requires a level of protection that exceeds Tuscarawas County Health Department's PPE policy. TCHD Public Health Responders are limited to Level D and Level C PPE. If the disease calls for skin or respiratory protection above those levels, TCHD response personnel are not to come in to contact with the patient without proper training and education. Patient care will need to be coordinated through the Ohio Department of Health and the Emergency management Agency.*

UNKNOWN SUBSTANCE INVESTIGATION POSSIBLE BIO-TERRORISM INCIDENT

The International Association of Fire Fighters requested PPE recommendations for all biological hazards. The CDC and NIOSH sent the following recommendations in a scenario format.

Scenario	Recommended PPE
Incident Scenario 1: Suspected biologic agent, dissemination of suspected agent by letter or package, letter or package can be easily bagged, and an aerosol generating device was not used.	NIOSH PPE Recommendation: Full face respirator with a P100 filter or a power air purifying respirator (PAPR) with a high efficiency particulate air (HEPA) filter. Also use disposable hooded coveralls, gloves, and foot coverings (Level C).
Incident Scenario 2: Suspected biologic agent, aerosol is no longer being generated, splash hazard may exist. (Exposure would be from contaminated surfaces or individuals.)	NIOSH PPE Recommendation: NIOSH approved SCBA Self-contained breathing apparatus with Level B* protective suit.
Incident Scenario 3: Suspected biologic agent, dissemination via aerosol device is still occurring or has stopped but there is no information on the duration of dissemination or exposure concentration.	NIOSH PPE Recommendation: NIOSH approved SCBA with Level A* protective suit.

PPE INFORMATION FOR DISEASE-SPECIFIC SITUATIONS

- See **Annex A – Ebola and Special Pathogens Plan**
- See **Annex B – TCHD Tuberculosis Control Protocol**

POST INCIDENT RESPONDER HEALTH CONCERNS

Following the response to a public health incident, upon request, the public health responder will receive, or be referred to SMEs, the following information:

- Potential signs and symptoms to be aware of.
- Exposure concerns.

- Follow up medical and safety recommendations.

Responders may request medical consultation from TCHD providers.

MENTAL HEALTH OF PUBLIC HEALTH RESPONDERS

Disaster stress and grief is common among public health responders. The following reactions and symptoms may indicate a need for mental health services. TCHD and partners should be aware of these symptoms:

- Bodily sensations and physical effects (rapid heart rate, trouble falling asleep, nightmares/flashbacks)
- Strong negative feelings (fear, anger, irritability, sadness)
- Difficulty thinking clearly (confusion, disorientation, difficulty making decisions)
- Problematic or risky behaviors (misuse of drugs/alcohol, refusal to follow orders)
- Social conflicts (withdrawal, isolation, hostility, blaming others)

Responders may request confidential counseling through their division director or the Health Commissioner. Responders may be referred to local mental/behavioral health agencies, as needed.

See *Appendix C – Tips for Disaster Responders: Preventing and Managing Stress*

TRAINING

Within 90 days of hire, the Director of Nursing and the Environmental Health Director shall ensure that all potential public health responders are properly trained on the following:

- The Responder Health and Safety Plan
- The Respiratory Protection Plan
- The Exposure Control Plan
- What special PPE is necessary for a given incident
- How to properly don, doff, adjust, and wear PPE
- The limitations of the special PPE
- The proper care, maintenance, useful life and disposal of the PPE

Potential public health responders include:

- Clinic staff including nursing staff, contagious disease personnel, lab personnel, providers
- Environmental staff including Sanitarians and SITs.

The employee must demonstrate the ability to use the PPE properly before beginning the work.

The Administrative Assistant will maintain documentation of this training in the employee's training file.

TCHD Personal Protective Equipment Procedure can be found in the Clinic Procedure/Policy Notebook.

BLOOD BORNE PATHOGEN TRAINING

Nursing, environmental, WIC and Alcohol/Addiction staff receive Blood Borne Pathogen training annually.

See **Attachment 1 – TCHD Exposure Control Procedure**

RECORDKEEPING

Written records shall be kept of the names of persons trained, the type of training provided, the dates when training occurred and the person(s) that provided the training. The Administrative Assistant shall maintain employees' training records for at least 5 years.

If an employee suffers a possible exposure due to a breach or failure of PPE, those records must be kept indefinitely, even after they have left employment of the Tuscarawas County Health Department.

OVERSIGHT AND COMPLIANCE

- The Safety Officer is responsible for the overall health and safety of the incident/event.
- Compliance to health and safety procedures and protocols is the responsibility of all incident response personnel.
- Incident and event supervisors are responsible for the following (including, but not limited to):
 - Assurance personnel have received the proper Just in Time Training (JITT) associated with the health and safety concern (PPE usage, maintenance and disposal; donning and doffing; etc.)
 - Compliance to established plans and procedures to mitigate the health and safety risk to response personnel.
 - Reporting of non-safe work habits, additional safety issues, exposure concerns or incidents, accidents or injuries, or other hazards to the Safety Officer.
- Failure to comply with established health and safety plans and procedures may result in severe injury, illness or death.

- Failure to comply with established health and safety plans and procedures may result in disciplinary action depending on the severity of the incident and/or issue. Discipline will be in accordance with current TCHD Personnel Manual.

ABBREVIATIONS

Below is a list of approved abbreviations and acronyms found in this document:

APR	Air Purifying Respirator
CDC	Center for Disease Control and Prevention
EMA	Emergency Management Agency
ERP	Emergency Response Plan
HAZMAT	Hazardous Materials
HEPA	High Efficiency Particulate Air Filter
HVA	Hazards and Vulnerability Analysis
JITT	Just in Time Training
NIOSH	National Institute for Occupational Safety and Health
NPCHD	New Philadelphia City Health Department
OSHA	Occupational Health and Safety Administration
PAPR	Powered Air Purifying Respirator
PHR	Public Health Responders
PPE	Personal Protective Equipment
SCBA	Self-Contained Breathing Apparatus
TCHD	Tuscarawas County Health Department
WIC	Special Supplemental Nutrition Program for Women, Infants and Children

ATTACHMENTS, APPENDICES, ANNEXES

ATTACHMENT 1 – TCHD EXPOSURE CONTROL PROCEDURE

ATTACHMENT 2 – TCHD RESPIRATORY PROTECTION PLAN

APPENDIX A – OSHA AND NIOSH FACT SHEETS

APPENDIX B – HOW TO PROPERLY PUT ON AND TAKE OFF A DISPOSABLE RESPIRATOR.

APPENDIX C – TIPS FOR DISASTER RESPONDERS

ANNEX A – EBOLA AND SPECIAL PATHOGENS PLAN

ANNEX B – TCHD TUBERCULOSIS CONTROL PROTOCOL

TUSCARAWAS COUNTY HEALTH DEPARTMENT



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ATTACHMENT 1

EXPOSURE CONTROL PLAN

DOCUMENT DESCRIPTION

This attachment to the Responder Health and Safety Plan is the TCHD Infection Control and Exposure Plan, written April 2016.

Purpose: The Tuscarawas County Health Department is committed to providing a safe and healthful work environment for our entire staff. The TCHD shall maintain an exposure control plan (ECP) to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

Procedure:

1. **Determination of Employee Exposure:** Nurses, physicians, Nurse practitioners, Medical Assistants, Environmental personnel, AAP personnel, laboratory technicians, Dental staff, WIC staff have potential for occupational exposure. Receptionist, billing staff, office staff, administrative staff, accounting staff, translators, health educators, PHEP coordinator, maintenance, medical record staff, board members have limited occupational exposure.
2. **Methods of Implementation and Control:**
 - a. All employees will utilize universal precautions. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.
 - b. Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens.
 - i. Sharps containers are available for needle and syringe disposal and will be discarded when 2/3 full
 1. Contaminated needles and other contaminated sharps must not be recapped, bent, removed, sheared, or purposely broken.
 2. Do not remove needles from the syringe.
 3. Place them directly into a red sharps container immediately or as soon as possible.
 - ii. Biohazard containers are available in clinic area, lab, and other areas in the facility for disposal of contaminated wastes
 - c. Employees covered by the bloodborne pathogens standard receive an explanation of this ECP upon hire and annually.
 - d. Personal Protective Equipment (PPE)
 - i. PPE is provided to our employees at no cost to them. Where occupational exposure remains after institution of these controls, PPE shall be used. Types of personal protective equipment available to employees are gowns, gloves, masks, eye protection.
 - ii. The employer shall clean, launder, and dispose of personal protective equipment at no cost to the employee.

- iii. Hands should be washed immediately after gloves are removed or other personal protective equipment. Employees shall wash their hand and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.
 - e. Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded, and closed prior to removal to prevent spillage or protrusion of contents during handling
 - i. The procedure for handling sharps disposal containers is
 - 1. The lab tech/WIC staff monitors, replaces sharps containers when it is 2/3 full.
 - 2. The containers are sealed per directions and placed in the lab area.
 - 3. The cleaning crew collects sharps containers and disposes of them in the container located in the maintenance department
 - 4. Accumedical picks up disposable wastes one time per month.
 - ii. The procedure for handling other regulated waste is
 - 1. The cleaning company collects biohazard trash, nightly
 - 2. The biohazard trash is stored in a cardboard box located in the maintenance department
 - 3. Accumedical collects the biohazards one time per month
 - iii. Contaminated sharps are discarded immediately or as soon as possible in container that are closable, puncture-resistant, leak proof on sides and bottoms, and labeled or color-coded appropriately
- 3. **Hepatitis B Vaccination:** TCHD will provide training to employees on hepatitis B vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability. The hepatitis B vaccination series is available at no cost after training and within 10 days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete hepatitis series, antibody testing has revealed the employee is immune, or the vaccine is contraindicated for medical reasons. If an employee declines the vaccination, the employee must sign a declination form. Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal is kept in the employee personnel file.

4. **Post-Exposure Evaluation and Follow-Up:** Should an exposure occur, contact department director, Director of Nursing, or Executive Director. The following procedure will be followed:
- a. Provide initial first aid by cleaning the wound, flushing eyes or other mucous membranes.
 - b. An immediately available confidential medical evaluation and follow-up will be conducted. Following the initial first aid, the following activities will be performed:
 - i. Document the routes of exposure and how the exposure occurred
 - ii. Identify and document the source individual, as able
 - iii. Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV and/or HBV positive, new testing need not be performed.
 - iv. Assure the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual
 - v. After obtaining consent, collect exposed employee's blood as soon as feasible after the exposure incident and test blood for HBV and HIV serological status
 - vi. If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.
 - c. TCHD ensures that the health care professional evaluating an employee after an exposure incident receives the following:
 - i. A description of the employee's job duties relevant to the exposure incident
 - ii. Rout (S) of exposure
 - iii. If possible, results of the source individual's blood test
 - iv. Relevant employee medical records, including vaccination status
 - v. TCHD provides the employee with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation
 - d. TCHD will review the circumstances of all exposure incidents of all exposure incidents to determine
 - i. Engineering controls in use at the time
 - ii. Work practices followed
 - iii. A description of the device being used (including type and brand)

- iv. Protective equipment of clothing that was used at the time of the exposure incident
 - v. Location of the incident
 - vi. Procedure being performed when the incident occurred
 - vii. Employee's training
- e. The Director of Nursing will record all percutaneous injuries from contaminated sharps in the Sharps Injury Log

If it is determined that revisions need to be made, the Director of Nursing will ensure that appropriate changes are made to this ECP.

5. **Communication of Hazards and Employee Training:** All employees who have occupational exposure to bloodborne pathogens receive training annually on epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:
- a. A copy and explanation of the standard
 - b. An explanation of our ECP and how to obtain a copy
 - c. An explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
 - d. An explanation of the use and limitations of engineering controls, work practice, and PPE
 - e. An explanation of the basis for PPE selection
 - f. Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
 - g. Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
 - h. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
 - i. Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
 - j. An explanation of the signs and labels and/or color coding required by the standard and used at the facility
 - k. An opportunity for interactive questions and answers with the person conducting the training session
6. **Recordkeeping:** training records are completed for each employee upon completion of training. These documents will be kept for at least three (3) years. The training records includes:
- a. The dates of the training sessions

- b. The contents or a summary of the training sessions
- c. The names and qualifications of persons conducting the training
- d. The names and job titles of all persons attending the training sessions.

Medical records are maintained for each employee with occupational exposure in accordance with 29CFR 1910.120. TCHD will maintain the medical records confidentially for the duration of their employment plus thirty (30) years.

7. OSHA Recordkeeping: An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (20 CFR 1904).
8. Sharps Injury Log: in addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in the Sharps Injury Log. All incidences must include at least:
 - a. The date of the injury
 - b. The type and brand of the device involved
 - c. The department or work area where the incident occurred
 - d. An explanation of how the incident occurred
 - e. The log is reviewed annually and is maintained for at least five (5) years following the end of the calendar year that they cover. If a copy is requested, it must have person identifiers removed.

04/2016AK

TUSCARAWAS COUNTY HEALTH DEPARTMENT



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ATTACHMENT 2

RESPIRATORY PROTECTION

PLAN

DOCUMENT DESCRIPTION

This attachment to the TCHD Responder Health and Safety Plan is the TCHD's Respiratory Protection Plan, written by the Director of Nursing 2/16/2017, and updated 5/11/2018.

PURPOSE

The purpose of this program is to establish requirements for the proper selection, use, fit-testing and care of respiratory protection equipment by Tuscarawas County Health Department employees and to ensure compliance with the Occupational Safety and Health Administration's (OSHA's) Respiratory Protection Standard codified in 29 CFR 1910.134. The standard requires an employer to establish a respiratory protection program if they have employees who are required to wear respirators.

This program provides necessary information to:

1. Evaluate tasks and workplaces to determine if respiratory protection is needed.
2. Evaluate employees' medical status before issuing respirators and, if necessary, accommodate those employees who cannot wear respiratory protection for medical reasons.
3. Provide training on the proper selection, use, care and limitations of respirators.
4. Provide properly fitted respirators to any employees who may need them.
5. Perform other tasks necessary to incorporate worker protection recommendations published by OSHA and the Centers for Disease Control (CDC) (*e.g., CDC's Guidelines for Preventing the Transmission of mycobacterium Tuberculosis in Health Care Facilities and OSHA's Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers*).

POLICY

This program applies to TCHD employees whose job duties require the use of respiratory protection. This includes employees who could potentially be exposed to airborne infectious diseases during normal work operations and/or airborne chemical hazards during non-routine or emergency situations. Voluntary use of respirator protection is permitted under certain circumstances as described in Section E of this document.

GLOSSARY OF TERMS

Air Purifying Respirator – A respirator which is designed to remove air contaminants (i.e. dust, fumes, mists, gases, vapors, or aerosols) from the ambient air as the air enters the respirator.

Filtering Facepiece (Dust mask) – A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Immediately Dangerous to Life or Health (IDLH) – An atmospheric concentration of any toxic, corrosive or asphyxiating substance that poses an immediate threat to life or would cause irreversible or adverse health effects or would interfere with an

individual's ability to escape from a dangerous atmosphere.

Negative Pressure Respirator – A respirator in which the air pressure inside the facepiece is negative during inhalation in respect to the ambient air pressure outside the respirator.

Oxygen Deficient Atmosphere – An atmosphere with oxygen content of less than 19.5% by volume (an IDLH atmosphere).

Permissible Exposure Limit (PEL) – or other Occupational Exposure Limit (OEL). An exposure limit determined for industrial exposures.

PLHCP – Primary Licensed Health Care Professional with responsibility for the medical surveillance, physical evaluation and examination, and medical approval for respirator use.

Protection Factor – The value regarded as applicable for an achievable ratio of average ambient concentration of an air contaminant in a workplace to the average concentration of the contaminant measured inside the respirator facepiece for a specific class of respirators. Also, recognized as assigned protection factor or APF.

Qualitative Fit Test (QLFT) – A pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

Quantitative Fit Test (QNFT) – An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

Respirator – Any device worn by an individual and intended to provide the wearer with respiratory protection against inhalation of airborne contaminants or oxygen-deficient air.

Respiratory Protection Administrator – (RPA) – Person responsible for managing and updating the Respiratory Protection Program.

Service Life – The period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

Supervisor – An employee who supervises a project activity which requires the use of a respirator.

PROCEDURES

A. Responsibilities

1. Respirator Program Administrator (RPA)

- a. Evaluates tasks and workplaces where respiratory protection is required.
- b. Determines what TCHD job tasks require the use of respiratory protection equipment.
- c. Maintains the TCHD written Respiratory Protection Program.
- d. Provides training and fit-testing as necessary.
- e. Periodically reviews and updates the written respiratory protection policies and procedures.

2. Supervisors

- a. Are aware of the hazards in the area in which they and their staff work.
- b. Has knowledge of the types of respirators that are to be used.
- c. Ensure the TCHD respirator program and worksite procedures are followed.
- d. Ensure employees receive medical evaluations, fit-testing, and training.
- e. Ensure that staff properly don, doff and wear respirators when required.
- f. Prioritize and coordinate employee availability with annual training and fit testing.
- g. Notify RPA or Medical Director with any problems with respirator use, or changes in work processes that would impact airborne contaminant levels for employees under their direction.

3. Employees

- a. Complete the required medical questionnaire.
- b. Identify the respiratory protection requirements for their work duties.
- c. Properly don and doff and correctly wear the appropriate respiratory protective equipment according to training and instructions provided.
- d. Follow site-specific procedures.
- e. Inspect respiratory protective equipment prior to each use.
- f. Perform a negative and positive pressure fit check before each use.
- g. Report damaged or malfunctioning equipment immediately.
- h. Properly clean store and maintain respirators in their possession. Reusable

respirators are the property of TCHD.

i. Help monitor colleagues in the event that respiratory protection is needed and report any misuse to the respective supervisor or designee.

B. Identification of Hazards

1. Personal Protective Equipment (PPE) Hazard Assessments have been completed which delineate the engineering, administrative and PPE controls that must be used by TCHD employees when performing their jobs. These controls are designed to protect employees from physical, chemical and biological hazards. When feasible, employee exposures will be controlled through the use of engineering and/or administrative controls. When these controls are not feasible or not effective, appropriate PPE, including respirators, will be used to control employees' exposure. A description of tasks that require the use of respirators, per the PPE Hazard Assessment, can be referenced in Appendix A (Task That Require the Use of a Respirator). Refer to the PPE Hazard Assessment for information concerning engineering and administrative controls.

2. Through normal working situations, TCHD employees may have contact with clients who could be infected with potentially airborne infectious diseases such as Mycobacterium tuberculosis and seasonal influenza. In emergency situations, TCHD employees may be exposed to other airborne infectious diseases such as Severe Acute Respiratory Syndrome (SARS), measles, smallpox, and pandemic influenza.

3. Important Note: The respirators selected for use by TCHD employees are used for respiratory protection from airborne biological agents (viruses, bacteria, mold, etc.): These do not provide protection from chemical exposure. In the event a TCHD employee is exposed to chemicals that require the use of respiratory protection, the TCHD employee will evacuate the area and contact local fire department.

C. Respirator Selection Procedures

Respirators used by TCHD employees are selected by the RPA or a qualified individual designated to specify the correct respirator. If a respiratory hazard is known or suspected to exist, the following factors are considered in the selection of a respirator:

- a. Nature of the hazard;
 - b. Characteristics of the hazardous operation or process;
 - c. Location of the hazardous area;
 - d. The time period that respiratory protection will be worn by employees during the work shift;
 - e. The work activities of the employees and the potential stress of these work conditions on employees wearing the respirators;
 - f. The physical characteristics, functional capabilities, and limitations of the respirator;
- and

g. The respirator protection factors and respirator fit.

Note: Only respirators approved by the National Institute for Occupational Safety and Health (NIOSH) will be selected and used.

D. Explanation of Respirator Used by TCHD Employees

1. There is one basic type of respirators that TCHD employees may wear: N95 masks, or M1870 mask which are designed to be disposed of after a single use. This respirator is designed to protect the wearer from exposure to particulates including dust, mist, fumes and biological agents.
2. The filter media for the disposable respirator is an integral part of the facepiece with the entire facepiece composed of the filtering medium.

E. Mandatory vs. Voluntary Use of Respirators

1. As indicated in Appendix A, some TCHD employees are required to wear respirators while performing certain tasks. Employees who are required to wear respirators -- regardless of which type -- must:
 - a. Complete a medical questionnaire initially prior to use and annually, unless determined otherwise by the Physician or Other Licensed Health Care Professional (PLHCP), as explained in Section F;
 - b. Undergo a physical exam if the PLHCP determines that an exam is necessary based on the answers provided on the medical disease questionnaire;
 - c. Be fit-tested on an annual basis as explained in Section H; and
 - d. Participate in annual respirator training as described in Section G.
2. Other TCHD employees may voluntarily choose to wear a respirator while performing tasks that do not require respiratory protection. The only type of respirator that these employees may wear is a particulate respirator. Respirators must comply with the pesticide label. Employees who choose to wear a particulate respirator voluntarily will receive a copy of Appendix D of 29 CFR 1910.134, Information for Employees Using Respirators When Not Required Under the Standard (Appendix E). Employees will be asked to sign a statement to indicate that they received a copy of the OSHA appendix, Appendix E of this policy. Employees who wear a respirator voluntarily are not required to complete a medical questionnaire, participate in annual training, or be fit-tested as long as the use is limited to a filtering facepiece.

F. Employee Medical Evaluation

1. As indicated in Section E, all TCHD employees who are required to wear a respirator must be medically evaluated prior to using a respirator to determine if they are physically able to wear a respirator per 29 CFR 1910.134. Medical reevaluation will be completed annually unless the PLHCP determines the more frequent evaluation is necessary. These determinations must be made prior to any use, including fit-testing, and must be completed by a physician or other licensed healthcare professional (PLHCP). The evaluation consists of two parts: Completing a Medical Questionnaire

and completing a physical exam if the PLHCP believes an exam is necessary based on the answers provided on the questionnaire.

2. Note: All information contained in the medical questionnaire and other medical information disclosed to the PLHCP is confidential between the employee and the physician.

3. The Medical Questionnaire, Appendix C, must be completed by TCHD employees who are required to wear respiratory protection prior to use and annually thereafter. All of these confidential questionnaires and records are maintained in accordance with HIPPA standards in the Confidential Medical Record File for the employee located in the administrative office at TCHD.

4. Note: Employees who are immunocompromised, have severe asthma, etc. who do not believe they can wear a respirator must still complete a medical disease questionnaire and submit it to the PLHCP. The PLHCP will issue a written opinion (as described below) stating that the individual cannot wear a respirator, and this will be placed in the employee's file.

5. The following information must be provided to the physician before a medical determination can be made:

- a. Type and weight of respirator that is to be used;
- b. Duration and frequency of respirator use;
- c. Expected physical work effort;
- d. Additional protective clothing and equipment to be worn;
- e. Temperature and humidity extremes that may be encountered; and
- f. Written copy of this program.

6. After the PLHCP has completed the medical evaluation of an employee, they will submit a written recommendation to the RPA that will include:

- a. Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator;
- b. The need, if any, for follow-up medical evaluations; and
- c. A statement that the PLHCP has provided the employee with a copy of the PLHCP's written recommendation.

7. Additional medical evaluations may be provided if any of the following occurs:

- a. An employee reports medical signs or symptoms that are related to the ability to use a respirator;
 - b. Information from the respiratory protection program, including observations made during fit-testing and program evaluation, indicates a need for employee re-evaluation;
- or
- c. A change occurs in workplace conditions that may result in a substantial increase in the physiological burden placed on an employee.

G. Respirator Training

1. Employees who are required to wear respirators must be trained prior to using a respirator and annually (if use continues). Additional training will also take place if the hazards change or the type of respiratory protection to be used changes.

2. Employee Training

Employees conducting activities where respiratory protection is required (Appendix A) must be trained in basic respiratory protection practices, the use and maintenance of the respirator selected for their protection. The training program will include information on:

- a. The nature, extent and effects of respiratory hazards;
- b. Respirator operations, capabilities and limitations;
- c. How improper fit, usage or maintenance can compromise the effectiveness of the respirator;
- d. Procedures for inspection; donning and removal; checking the fit and seals; and wearing of the respirator.
- e. Procedures for respirator cleaning, maintenance and storage;
- f. How to use respirators effectively in emergency situations, including situations in which the respirator malfunctions;
- g. How to recognize medical signs and symptoms that may limit or prevent the effective use of a respirator;
- h. General requirements of the OSHA respiratory protection standard and TCHD's Respiratory Protection Program; and
- i. The wearer's responsibilities under the respiratory protection program.

H. Respirator Fit-testing

1. All TCHD employees who are required to wear a respirator must be fit-tested prior to use and then annually thereafter using accepted fit-test methods as described in appendix A of OSHA CFR 1910.134, Fit Testing Procedures. Fit-testing must also be performed if the type of respiratory protection to be used changes or there is a change with regard to an individual that may affect the fit of the respirator (for example excessive weight loss or gain).

2. Employees with facial hair that interferes with the facepiece seal or the operation of the inhalation or exhalation valves are not permitted to be fitted with a respirator until such conditions are corrected.

3. Fit test records will be maintained by the RPA. The records will include:

- a. The name and identification of the employee;
- b. The type of fit-test performed;
- c. The make, model, style, and size of respirator tested;

- d. The date of fit-test; and
- e. Fit-test results.

I. Procedures for Respirator Use, Maintenance, Care and Storage

1. User Seal Check

- a. A user seal check must be performed immediately after donning and adjusting a respirator. This procedure will be demonstrated during training.
- b. Employees must perform a user seal check to ensure that an adequate seal is achieved each time a respirator is put on. TCHD employees will follow respirator manufacturers' recommended user seal check method as described in the literature that accompanies each type of respirator. Typically, the seal check procedure includes the following:
 - c. Negative Pressure Check: Cover the outside of the disposable respirator with the palms of hands and inhale to check that the respirator is drawn more tightly to the face.

2. Facial Hair

- a. Respirators must not be worn when conditions, such as facial hair, prevent a good respirator facepiece seal. TCHD employees who are required to wear respirators on a regular basis may grow facial hair but are required to grow it in such a manner that it will not interfere with the facepiece seal. Employees who would only wear respirators in emergency situations may grow facial hair but will be required to shave it in the places necessary to get a good seal for fit testing and if/when they need to don a respirator.
- b. Note: Employees wearing disposable filtering facepieces on a voluntary basis do not need to remove facial hair from the sealed area.

3. Inspections

- a. Respirators must be properly maintained and in working order. All respirators must be inspected before each use and during cleaning to identify any defects and to ensure that functioning parts are intact. Respirators which are not functioning properly must be immediately removed from use.
- b. Employees will keep a copy of the inspection checklist, Appendix E, with their respirators to assist with respirator inspection.

4. Cartridge/Filter Changing/Replacement

- a. Filters/cartridges used on re-useable silicone half-face respirators must be replaced when one of the following occurs:
 - i. As directed on the filter/cartridge instruction,
 - ii. Dirty or contaminated,
 - iii. Damaged, or
 - iv. Difficult to breathe through.

5. Cleaning and Disinfection

a. Disposable respirators must be disposed of when they are removed, if they become wet and/or soiled, if breathing becomes labored, or if the structural integrity of the respirator is compromised.

7.Storage

a. Individual

i. Respirators must be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. Respirators are not to be left in vehicles. Routinely used respirators, may be placed in plastic bags.

J. Documentation and Recordkeeping

- 1.A written copy of this program and the OSHA standard will be kept in the Safety Office and will be available to all TCHD employees upon request.
- 2.The RPA will also maintain copies of training and fit-test records. These records will be updated as new employees are trained, as existing employees are trained, as existing employees receive refresher training, and as new fit tests are conducted.
- 3.The RPA will retain the PLHCP written recommendations regarding each employee's ability to wear a respirator. The completed medical questionnaire and any follow up medical evaluations are confidential and are maintained in the employee's confidential medical file located in the administrative office at TCHD.
- 4.Written materials required to be maintained will be made available upon request to the affected employees, their designated representatives, and to OSHA.

K. Program Evaluation

- 1.The Respiratory Protection Program will be updated as necessary to reflect any changes made to the program.
- 2.The Respirator Program Administrator (RPA), and will be responsible for the administration of the respiratory protection program.

L. POLICY ADHERENCE AND REMEDIES

- 1.If an employee fails or refuses to follow the procedures put forth by this policy the following actions may be taken:
 - a. The employee may be removed from the hazardous situation.
 - b. The employee may be disciplined for violations of this policy and/or any violations of

TCHD Personnel Policy

2. Questions regarding this or any personnel policy should be directed to the health commissioner

REFERENCES

1. 29 CFR 1910.134 – Respiratory Protection
2. OSHA 3327-02N 2007 Guidance on Preparing Workplaces for an Influenza Pandemic
3. Small Entity Compliance Guide for the Revised Respiratory Protection Standard. – Prepared for: U.S. Department of Labor Directorate of Health Standards Programs, and the Occupational Safety and Health Administration – Prepared by: Eastern Research Group INC. September 30, 1998. City of Columbus, Columbus Public Health Respiratory Protection Program Appendix A: Tasks That Require the Use of Respiratory Protection

APPENDICES

- Appendix A: Task That Require the Use of Respirator Protection
- Appendix B: General Information Regarding the Respiratory Protection Medical Questionnaire for Department of Public Health employees
- Appendix C: Respirator Medical Evaluation Questionnaire for Department of Public Health/ Declaration Form
- Appendix D: Respirator Clearance Evaluation Report
- Appendix E: Appendix D of OSHA’s Respiratory Protection Standard 29 CFR 1910.134
- Appendix F: Respirator Inspection Checklist
- Appendix G: Fit Test Documentation

Appendix A

Tasks That Require the Use of Respirator Protection

Facilities directive: Clients/patients demonstrating signs and symptoms of respiratory infectious disease are offered and requested to wear a facemask/surgical mask while in the TCHD facility. They will not be provided a respirator.

1. Clinical Staff

- a. The CDC recommends a fit tested disposable N95 respirator or better be used when serving/caring for customers with known or suspected novel influenza and/or Pandemic Influenza.
 - i. The fit-tested N95 respirator 3M model 1860, or M1870 is to be used by TCHD staff.
 - ii. The 3M 6000 series half face piece mask with P100 filters should be used if and when supplies of the N95 respirator model 1860 or M 1870 are not available or CDC provides guidance that the level of protection from inhalable particulates should be increased.
- b. TB Program- Individuals identified as suspected or known infectious TB patients must wear a surgical mask when not in a negative pressure isolation room or a local exhaust ventilation (LEV) enclosure. TB Program employees are required to wear NIOSH-certified N-95 respirators, which have been approved for protection against TB, when:
 - i. In the presence of a suspected or confirmed infectious TB patient who is unable or unwilling to wear a mask unless care is being administered in TCHD TB Program negative pressure environment.
 - ii. Anytime assessing/treating/educating anyone who may have a transmissible respiratory disease and staff is not in a negative pressure environment. Staff members always wear a N95 respirator when providing care in the home of a patient with a positive TB smear.
 - iii. When entering a room, including an isolation room, which has been occupied by an unmasked suspected or confirmed infectious TB patient, prior to the time required for 99% of the airborne contaminants to be removed from the room.
 - iv. Transporting or accompanying a suspected or known infectious TB patient in an enclosed vehicle, even if that patient is wearing a surgical mask

v. In the presence of high-risk procedures (e.g., sputum induction), unless the patient is enclosed in an effective local exhaust ventilation device. If sputum collection is done in the field, staff wears a N95, the client is instructed on how to use the nebulizer and is sent to a separate room to collect the specimen.

2.Environmental Health

- a. Don appropriate PPE, including respirator protection, when applying pesticide according to manufacturer instructions on product label.
- b. Don appropriate PPE, including respirator protection, when attending to a work order in suspected and/or known animal squalor/conditions may be/are present.
- c. Employees are advised that they may want to use a respirator on initial approach when he/she suspects an indoor air quality issue exists for a work order i.e. mold conditions, dust/contaminate conditions, etc.

Appendix B

GENERAL INFORMATION REGARDING THE RESPIRATORY PROTECTION MEDICAL QUESTIONNAIRE FOR DEPARTMENT OF PUBLIC HEALTH EMPLOYEES

As an employee of the Tuscarawas County Health Department, clearance is being requested for filtering face piece (N-95) The purpose of the respirator is to provide protection against respiratory infectious diseases, especially during a pandemic.

Purpose of Questionnaire

To comply with OSHA standards 29 CFR 1910.134(e) and 29 CFR 1910.134(e)(1), it is required to provide a medical evaluation to determine an employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the

workplace. Using a respirator may place a physiological burden on an employee that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Accordingly, this medical evaluation determines the employee's ability to use a respirator.

Records Retention

Subject to 29 CFR 1910.134(m)(1) and 1910.1020(d)(1)(i)(A,C), the medical evaluation for each employee shall be preserved and maintained for at least the duration of employment plus 30 years. The responsibility for preserving and maintaining these medical evaluations will rest with administrative assistant and the medical evaluation will be kept in the employee's confidential medical file located in the administrative office. The completed questionnaires shall be stored in a manner consistent with the professionally accepted standards for the storage of medical records.

Privacy and Questionnaire Administration

Employees shall be given the opportunity to complete this questionnaire in a private setting during their normal working hours or at a time convenient to the employee. An employee's questionnaire shall not be viewed or inspected by another Department of Public Health employee. The questionnaire will only be viewed by the physician or other licensed health care professional for the purpose of determining an employee's ability to wear a respirator. This medical questionnaire shall be administered in a manner that the employee understands its contents. The Department of Public Health will provide the employee with an opportunity to discuss the questionnaire and examination results with the physician or other licensed health care professional. In the event the physician or other licensed health care professional determines a follow-up medical examination is required, the employee shall be contacted by the physician or other licensed health care professional to schedule the follow-up exam. This exam shall take place at Union Hospital Work well at a time mutually determined by the Clinic and the employee.

Appendix C

Respirator Medical Evaluation Questionnaire for Department of Public Health

This questionnaire must be used to determine whether or not a worker will require physical examination prior to wearing a respirator. (Questionnaire taken from the Respiratory Protection Standard 29 CFR 1910.134 Appendix C).

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

Respirator Medical Evaluation Questionnaire for Tuscarawas County Department of Health

To the employee:

Can you read (circle one): Yes No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health professional who will review it.

Part A. Section 1. The following information must be provided by every employee who has been selected to use any type of respirator (please print clearly).

1. Today's Date: _____

2. Your name: _____

3. Your Social Security Number (last 4 digits) _____

4. Your age (to nearest year): _____

5. Sex (circle one): Male Female

6. Your height: _____ ft. _____ in.

7. Your weight: _____ lbs.

8. Your job title: _____

9. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the area code): _____

10. The best time to phone you at this number: _____

11. Has your employer told you how to contact the Health Care professional who reviews this questionnaire (circle one): Yes No

12. Types of respirator requested for clearance by Department of Public Health:

a. Disposable filtering face piece, non-cartridge respirator such as N95.

13. Have you worn a respirator (circle one): Yes No

14. If "yes", what type(s):

Part A. Section 2. Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month? Yes No

2. Have you ever had any of the following conditions?

a. Seizures (fits) Yes No

b. Diabetes (sugar disease) Yes No

c. Allergic reactions that interfere with breathing Yes No

d. Claustrophobia (fear of closed-in places) Yes No

e. Trouble smelling odors Yes No

3. Have you ever had any of the following pulmonary or lung problems?

a. Asbestosis Yes No

b. Asthma Yes No

c. Chronic bronchitis Yes No

d. Emphysema Yes No

e. Pneumonia Yes No

f. Tuberculosis Yes No

g. Silicosis Yes No

h. Pneumothorax (collapsed lung) Yes No

i. Lung cancer Yes No

j. Broken ribs Yes No

k. Any chest injuries or surgeries Yes No

l. Any other lung problems that you've been told about? Yes No

4. Do you currently have any of the following symptoms of pulmonary or lung illness?

a. Shortness of breath Yes No

b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline Yes No

c. Shortness of breath when walking with other people or at an ordinary pace on level ground Yes No

d. Have to stop for breath when walking at your own pace on level ground Yes No

- e. Shortness of breath when washing or dressing yourself Yes No
 - f. Shortness of breath that interferes with your job Yes No
 - g. Coughing that produces phlegm Yes No
 - h. Coughing that wakes you early in the morning Yes No
 - i. Coughing that occurs mostly when you are lying down Yes No
 - j. Coughing up blood in the last month Yes No
 - k. Wheezing Yes No
 - l. Wheezing that interferes with your job Yes No
 - m. Chest pain when you breathe deeply Yes No
 - n. Any other symptoms that you think may be related to lung problems Yes No
5. Have you ever had any of the following cardiovascular or heart problems?
- a. Heart attack Yes No
 - b. Stroke Yes No
 - c. Angina Yes No
 - d. Heart failure Yes No
 - e. Swelling in your legs or feet (not caused by walking) Yes No
 - f. Heart arrhythmia (heart beating irregularly) Yes No
 - g. High blood pressure Yes No
 - h. Any other heart problem (that you've been told about) Yes No
6. Have you ever had any of the following cardiovascular or heart problems?
- a. Frequent pain or tightness in chest Yes No
 - b. Pain or tightness in chest during physical activity Yes No
 - c. Pain or tightness in chest that interferes with job Yes No
 - d. Heart skipping or missing beats in the past 2 years Yes No
 - e. Heartburn or indigestion that is not related to eating Yes No
 - f. Other symptoms that may be related to heart or circulation problems Yes No
7. Do you currently take medications for any of the following problems?
- a. Breathing or lung problems Yes No
 - b. Heart trouble Yes No
 - c. Blood pressure Yes No
 - d. Seizures (fits) Yes No
8. If you've used a respirator, have you ever had any of the following problems?
- a. Eye irritation Yes No
 - b. Skin allergies or rashes Yes No
 - c. Anxiety Yes No
 - d. General weakness or fatigue Yes No
 - e. Any other problem that interferes with your use of a respirator Yes No
9. Would you like to talk to the health care professional that will review this questionnaire about your answers? Yes No

QUESTIONS FROM PLHCP

1. Explain any “yes” answers on the above questions in the margin space next to the question and/or on the lines below. Provide any medications, surgeries or procedures including dates that you have had related to the “yes” answer. Describe whether you have had any symptoms or problems in the last 12 months from this diagnosis. Describe if the diagnosis is well controlled at this time.

2. Are you currently on any job restrictions or feel that you should be? Yes No
If yes, please explain: _____

3. Do you have any questions or concerns about your ability to perform the following activities?

a. Wearing a respirator face piece on your face. Yes No

If yes, please explain: _____

b. Strenuous activity while using a respirator. Yes No

If yes, please explain: _____

c. Tolerating extreme heat or cold while using a respirator. Yes No

If yes, please explain: _____

d. Wearing a respirator for extended hours of continuous use. Yes No

If yes, please explain: _____

4. Have you had any changes in your medical status related to the questions on this form since

the last time you completed this questionnaire? Yes No

If yes, please explain: _____

Annual Declaration Form

Name of Employee: _____ Date: _____

_____ I currently do not have any medical condition(s) that would hinder me from wearing the required respirator mask. I do not wish to have further evaluation at

this time. I am aware, that if circumstances change, I may request to have a medical evaluation at no cost to me.

_____ I currently have the following medical condition that may prevent me from wearing the respirator mask: _____.

I am requesting further medical evaluation at no cost to me.

Signature of Employee

Date

Signature of Respirator Program Administrator

Date

If employee is requesting further evaluation, have the employee complete Respirator Medical Evaluation Questionnaire for Department of Public Health

Appendix E

Appendix D of OSHA’s Respiratory Protection Standard 29 CFR 1910.134

Information for Employees Using Respirators

When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern.

NIOSH, the National Institute for Occupational Safety and Health of the U.S.

Department of Health and Human Services, certifies respirators. A label or statement of

certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

I acknowledge that I have received a copy of this information which is found in Appendix D of OSHA's Respiratory Protection Standard codified in 29 CFR 1910.134.

Employee signature: _____ Date: _____

Appendix F

Respirator Inspection Checklist

Inspection Checklist for Disposable Filtering Facepieces

Check for holes, cuts or tears in the filter media.

Check that straps are firmly attached, are not deteriorated and have good elasticity.

Check that metal nose clip is not deteriorated.

Check condition of the facepiece, looking for cracks, cuts, tears and dirt. Make sure the facepiece is not distorted.

Check head-straps to ensure they are properly attached and have good elasticity.

Check for broken buckles on head-straps, if applicable.

Examine all plastic parts for signs of cracking or fatiguing.

Appendix G

Fit Test Record

Name of Employee: _____

Respirator Type: N 95 Model: _____ Size: _____

Testing Agent: Sweet _____ Bitter _____

Use a particulate filter unless otherwise indicated. Note any other cartridge used when necessary

Results

Exercise	Fit	Taste Detected
Normal Breathing		
Deep Breathing		
Turning Head Side to Side		
Moving Head Up and Down		
Talking- reading a passage		
Grimace		
Bending Over		
Normal Breathing		

Prior to being fit tested this person was observed clean shaven and has no seal interference

Tested by: _____ Date Tested: _____

I have been instructed in and understand the proper fitting, use and care of the above-named respirator. I understand that this equipment is not to be used in oxygen deficient or immediately dangerous to life and health atmospheres and is not to be used for other than the uses specified by the manufacturer. To my knowledge, I have no medical problems to prevent me from using this equipment.

Employee Signature_____
Date

Notes:

Revision Page

Date	Pages/Section Revised or reviewed	Responsible Party
2/16/2017	Created Document	A. Kaser, RN DON, Caroline Terakedis EH Director, Paul Westlake, PHEP coordinator.
3/22/2017	Addition of N95 model	A. Kaser, RN DON

	1870 to explanation of Respiratory users; Appendix A	
5/11/2018	Updated branding, updated fit test record form	DON

TUSCARAWAS COUNTY HEALTH DEPARTMENT



Public Health
Prevent. Promote. Protect.

APPENDIX A – OSHA & NIOSH FACT SHEETS

DOCUMENT DESCRIPTION

Appendix to the TCHD Responder Health and Safety Plan, contains best practices Fact Sheets from OSHA and NIOSH

OSHA[®] FactSheet

Disaster Cleanup and Recovery PPE Matrix

Workers engaged in disaster cleanup and recovery activities may be exposed to a variety of hazards. A comprehensive list of potential hazards and controls, sorted by common tasks, can be found in OSHA's Hurricane [eMatrix](#).

Specialized operations, such as electrical power restoration, hazardous materials response, or confined space entry require controls specified in the applicable OSHA standards.

- Designing a way around a hazard is always the preferred control method. For example, installing a guardrail to prevent a fall from occurring is better than relying on a safety harness and lanyard to catch the worker after a fall occurs. However, in many cases personal protective equipment (PPE) may be the only practical control method. All PPE has limitations and is the control method of last resort.
- The suggested PPE Matrix is provided to assist employers in determining the PPE needed for a specific task. Respiratory protection is addressed below the matrix.

PPE \ Task		Normal Cleanup Activities	Working in Wet Conditions	Working with Chain Saws	Working Near/Over Water	Working at Heights Over 6 ft.	Working Near Loud Noise
Head	Hard Hat	X	X	X	X	X	X
Eyes	Safety Glasses	X		X	X	X	X
	Safety Goggles		X				
Face	Face Shield			X			
Ears	Hearing Protection			X			X
Hands	Work Gloves	X		X	X	X	X
	Latex/Rubber Gloves		X				
Body	Hi-Visibility Garment	X	X	X	X	X	X
	Impervious Body Suit		X				
	PFD and Life Ring				X		
	Chaps			X			
	Fall Protection					X	
Feet	Steel Toe Boots	X		X	X	X	X
	Waterproof Boots		X				
Other PPE	Workboat/Skiff				X		

Respiratory Protection: The employer must assess site-specific conditions for potential respiratory contaminants and protection.

- In many cases, N-95 filtering facepiece respirators may be adequate for dust or other particulates.
- Where mold is known to be or potentially may be present, use an approved respirator. See the OSHA fact sheet on Mold Hazards during Disaster Cleanup ([OSHA FS-3713](#)) for further guidance.
- Where asbestos is known to be or potentially may be present and disturbed, higher levels of protection are required (e.g., P100 particulate filter respirator).
 - In addition, the requirements of OSHA's Asbestos standard, [29 CFR 1910.1001](#), also need to be followed.
- Where chemical contaminants are present, such as organic chemicals, different cartridges or filters are required depending on the chemical.
- Common respirators do not protect workers from carbon monoxide (CO), which is present in the exhaust from generators and other internal combustion engines.
- Respirator selection and use is regulated due to the potential risk to workers.
 - Employers who provide N-95 filtering facepiece respirators for *voluntary* use by their employees need to provide their workers with [Appendix D](#) of OSHA's Respiratory Protection standard, [29 CFR 1910.134](#). Appendix D provides precautions that workers should take to ensure that the respirator does not present a hazard.
 - Where employers mandate the use of respirators, additional requirements of the Standard apply, including fit testing and medical evaluation.
- Training regarding the limitations of respirators, proper fitting, when they should be replaced, and medical considerations for the user is essential.

Sanitation and Hygiene: In addition to PPE, proper sanitation and hygiene are essential for minimizing the spread of contaminants and disease. Handwashing is a critical component of good hygiene. In the absence of suitable facilities, workers should be provided with hand sanitizer.

- It is essential that employers assess each site and operation individually to determine the actual or potential hazards based on site-specific conditions. Employees must always be trained to recognize hazards and take necessary precautions.
- Workers relying on PPE must be trained to recognize these limitations, as well as the safe ways to put on and remove PPE, properly store it, take care of it, and when it's time to replace it.

Additional guidance, Fact Sheets, and other information can be found on [OSHA's Hurricane webpage](#). Another source of information is the resource webpage maintained by the National Institute of Environmental Health Sciences ([NIEHS](#)).

This is one in a series of informational fact sheets highlighting OSHA programs, policies, or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



www.osha.gov (800) 321-OSHA (6742)



U.S. Department of Labor

OSHA FactSheet

Flood Cleanup

Flooding can cause the disruption of water purification and sewage disposal systems, overflowing of toxic waste sites, and dislodgement of chemicals previously stored above ground. Although most floods do not cause serious outbreaks of infectious disease or chemical poisonings, they can cause sickness in workers and others who come in contact with contaminated floodwater. In addition, flooded areas may contain electrical or fire hazards connected with downed power lines.

Floodwater

Floodwater often contains infectious organisms, including intestinal bacteria such as *E. coli*, *Salmonella*, and *Shigella*; Hepatitis A Virus; and agents of typhoid, paratyphoid and tetanus. The signs and symptoms experienced by the victims of waterborne microorganisms are similar, even though they are caused by different pathogens. These symptoms include nausea, vomiting, diarrhea, abdominal cramps, muscle aches, and fever. Most cases of sickness associated with flood conditions are brought about by ingesting contaminated food or water. Tetanus, however, can be acquired from contaminated soil or water entering broken areas of the skin, such as cuts, abrasions, or puncture wounds. Tetanus is an infectious disease that affects the nervous system and causes severe muscle spasms, known as lockjaw. The symptoms may appear weeks after exposure and may begin as a headache, but later develop into difficulty swallowing or opening the jaw.

Floodwaters also may be contaminated by agricultural or industrial chemicals or by hazardous agents present at flooded hazardous waste sites. Flood cleanup crew members who must work near flooded industrial sites also may be exposed to chemically contaminated floodwater. Although different chemicals cause different health effects, the signs and symptoms most frequently associated with chemical poisoning are headaches, skin rashes, dizziness, nausea, excitability, weakness, and fatigue.

Pools of standing or stagnant water become breeding grounds for mosquitoes, increasing the risk of encephalitis, West Nile virus or other mosquito-borne diseases. The presence of wild animals in populated areas increases the risk of diseases caused by animal bites (e.g., rabies) as well as diseases carried by fleas and ticks.

Protect Yourself

After a major flood, it is often difficult to maintain good hygiene during cleanup operations. To avoid waterborne disease, it is important to wash your hands with soap and clean, running water, especially before work breaks, meal breaks, and at the end of the work shift. Workers should assume that any water in flooded or surrounding areas is not safe unless the local or state authorities have specifically declared it to be safe. If no safe water supply is available for washing, use bottled water, water that has been boiled for at least 10 minutes or chemically disinfected water. (To disinfect water, use 5 drops of liquid household bleach to each gallon of water and let it sit for at least 30 minutes for disinfection to be completed.) Water storage containers should be rinsed periodically with a household bleach solution.

If water is suspected of being contaminated with hazardous chemicals, cleanup workers may need to wear special chemical resistant outer clothing and protective goggles. Before entering a contaminated area that has been flooded, you should don plastic or rubber gloves, boots, and other protective clothing needed to avoid contact with floodwater.

Decrease the risk of mosquito and other insect bites by wearing long-sleeved shirts, long pants, and by using insect repellants. Wash your hands with soap and water that has been boiled or disinfected before preparing or eating foods, after using the bathroom, after participating in flood cleanup activities, and after handling articles contaminated by floodwater. In addition, children should not be allowed to play in floodwater or with toys that have been in contact with floodwater. Toys should be disinfected.

What to Do If Symptoms Develop

If a cleanup worker experiences any of the signs or symptoms listed above, appropriate first aid treatment and medical advice should be sought. If the skin is broken, particularly with a puncture wound or a wound that comes into contact with potentially contaminated material, a tetanus vaccination may be needed if it has been five years or more since the individual's last tetanus shot.

Tips to Remember

- Before working in flooded areas, be sure that your tetanus shot is current (given within the last 10 years). Wounds that are associated with a flood should be evaluated for risk; a physician may recommend a tetanus immunization.

- Consider all water unsafe until local authorities announce that the public water supply is safe.
- Do not use contaminated water to wash and prepare food, brush your teeth, wash dishes, or make ice.
- Keep an adequate supply of safe water available for washing and potable water for drinking.
- Be alert for chemically contaminated floodwater at industrial sites.
- Use extreme caution with potential chemical and electric hazards, which have great potential for fires and explosions. Floods have the strength to move and/or bury hazardous waste and chemical containers far from their normal storage places, creating a risk for those who come into contact with them. Any chemical hazards, such as a propane tank, should be handled by the fire department or police.
- If the safety of a food or beverage is questionable, throw it out.
- Seek immediate medical care for all animal bites.

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For more complete information:



U.S. Department of Labor

www.osha.gov

(800) 321-OSHA

OSHA FactSheet

Protecting Workers from Lead Hazards

Cleaning up after a flood requires hundreds of workers to renovate and repair, or tear down and dispose of, damaged or destroyed structures and materials. Repair, renovation and demolition operations often generate dangerous airborne concentrations of lead, a metal that can cause damage to the nervous system, kidneys, blood forming organs, and reproductive system if inhaled or ingested in dangerous quantities. The Occupational Safety and Health Administration (OSHA) has developed regulations designed to protect workers involved in construction activities from the hazards of lead exposure.

How You Can Become Exposed to Lead

Lead is an ingredient in thousands of products widely used throughout industry, including lead-based paints, lead solder, electrical fittings and conduits, tank linings, plumbing fixtures, and many metal alloys. Although many uses of lead have been banned, lead-based paints continue to be used on bridges, railways, ships, and other steel structures because of its rust- and corrosion-inhibiting properties. Also, many homes were painted with lead-containing paints. Significant lead exposures can also occur when paint is removed from surfaces previously covered with lead-based paint.

Operations that can generate lead dust and fumes include:

- Demolition of structures;
- Flame-torch cutting;
- Welding;
- Use of heat guns, sanders, scrapers, or grinders to remove lead paint; and
- Abrasive blasting of steel structures

OSHA has regulations governing construction worker exposure to lead. Employers of construction workers engaged in the repair, renovation, removal, demolition, and salvage of flood-damaged structures and materials are responsible for the development and implementation of a worker protection program in accordance with Title 29 Code of

Federal Regulations (CFR), Part 1926.62. This program is essential to minimize worker risk of lead exposure. Construction projects vary in their scope and potential for exposing workers to lead and other hazards. Many projects involve only limited exposure, such as the removal of paint from a few interior residential surfaces, while others may involve substantial exposures. Employers must be in compliance with OSHA's lead standard at all times. A copy of the standard and a brochure — Lead in Construction (OSHA 3142) — describing how to comply with it, are available from OSHA Publications, P.O. Box 37535, Washington, D.C. 20013-7535, (202) 693-1888(phone), or (202) 693-2498(fax); or visit OSHA's website at www.osha.gov.

Major Elements of OSHA's Lead Standard

- A permissible exposure limit (PEL) of 50 micrograms of lead per cubic meter of air, as averaged over an 8-hour period.
- Requirements that employers use engineering controls and work practices, where feasible, to reduce worker exposure.
- Requirements that employees observe good personal hygiene practices, such as washing hands before eating and taking a shower before leaving the worksite.
- Requirements that employees be provided with protective clothing and, where necessary, with respiratory protection accordance with 29 CFR 1910.134.

- A requirement that employees exposed to high levels of lead be enrolled in a medical surveillance program.

[Additional Information](#)

For more information on this, and other health-related issues impacting workers, visit OSHA's Web site at www.osha.gov.

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For more complete information:



U.S. Department of Labor

www.osha.gov

(800) 321-OSHA

DSTM 9/2005

Mold Hazards during Disaster Cleanup

Flood and water damage inside buildings after disasters contribute to the growth of mold. Remediation of mold-contaminated building materials can be done safely.

What is Mold and Why is it Hazardous?

Mold is a type of fungi. Most molds reproduce by forming spores which are released into the air. When spores land on a suitable moist surface they begin to grow, can penetrate porous materials and release chemicals. Most molds are harmless but some can cause infections, allergy symptoms and produce toxins. Infections are rare in healthy individuals and the effect of toxins is still not well understood. Nevertheless, mold remediation is often necessary to return working spaces to a safe condition and make them suitable for occupancy.

Mold Clean-up Plan

The most important requirement is to control the source of moisture. Next, survey the types of materials and the size of the area involved. This may become important in determining the strategy for remediation and worker protection. Materials that cannot be dried and fully cleaned are removed using methods that minimize occupant exposure to spores. Mold remediation often involves construction activities.

Note: Drying can involve the use of fans, blowers and/or dehumidifiers. However, the more humid the air, the less effective the blowers will be.

Note: It is often more cost-effective to remove and replace the building materials than to dry and clean mold-contaminated materials.

Types of Building Materials: Porous (water absorbing), Non-porous, or Semi-porous

Non-porous materials (e.g., metal, glass, hard plastics, etc.) can be dried out, fully cleaned and reused. Clean hard and non-porous materials using a detergent. Surfaces can be rinsed with a disinfectant made of ½ cup liquid household bleach mixed into one gallon of water (**Caution:** DO NOT mix bleach with cleaning products that contain ammonia).

Semi-porous materials (e.g., wood and concrete) can be cleaned if they are structurally sound.

Porous materials (e.g., drywall, carpets, insulation, ceiling tile, etc.) are different because mold

penetrates into them making it very difficult to fully clean. As a general rule, if a porous material has been wet for over 48 hours it is best to remove and replace.

How Big an Area is Involved in Mold Remediation?

Small Areas of Mold Remediation (i.e., < 30 ft.²)

As a general rule, small areas of water damage require less control when remediating.

- The work area should be unoccupied; removing people from adjacent spaces is not necessary but is recommended for infants, persons recovering from surgery, immune suppressed people, or people with asthma, hypersensitivity pneumonitis and severe allergies.
- Containment of the work area is not necessary.
- Cover surfaces in the work area that could become contaminated with secured plastic sheets to contain dust and debris, and prevent further contamination.

Large Areas of Mold Remediation (i.e., 30-100 ft.²)

- The work area and areas directly adjacent to it should be unoccupied.
- Cover surfaces in the work area and adjacent areas that could become contaminated with secured plastic sheets to contain spores, dust and debris to prevent further contamination.
- Seal ventilation ducts/grills in the work area and areas directly adjacent with plastic sheeting.
- If remediation procedures are expected to generate a lot of dust (e.g., abrasive cleaning of contaminated surfaces, demolition of plaster walls) or the visible concentration of mold is heavy (i.e., blanket versus patchy coverage) follow the extensive contamination procedures below.

Extensive and Visible Mold Contamination

- Develop a suitable mold remediation plan. The plan should address: work area isolation, the use of exhaust fans with high-efficiency particulate air (HEPA) filtration, and the design of airlocks/decontamination room.

- Consult with industrial hygienists or other environmental health and safety professionals with experience performing mold remediation before beginning this level of remediation.

How to Protect Workers during Mold Remediation

Worker protection uses engineering controls, work practices and personal protective equipment (PPE) during mold remediation. Inhalation is the route of exposure of most concern to cleanup workers.

Engineering Controls

- Re-wetting materials with a mist of water to suppress spores, dust and debris.
- Wrap and seal the items that will be discarded in plastic bags or sheets to reduce the spread of spores.
- Provide natural or local exhaust ventilation during all cleaning steps.

Work Practices

- Do not eat, drink, or smoke in work areas.
- Avoid breathing dusts.
- After an area has been cleaned and is completely dry, vacuum the area with a HEPA vacuum. HEPA vacuums are also recommended for cleaning up dust that may have settled on surfaces outside the work area.
- The work area and areas used by remediation workers for egress should be cleaned with a damp cloth or mop and a detergent solution. Set up a decontamination area.
- Leave the area clean, dry and free of visible debris.
- After working, wash thoroughly, including hair, scalp and nails.

Personal Protective Equipment (PPE)

- Respirators:
 - For areas smaller than 100 ft.²; use an approved respirator, at a minimum, either a half-face or full-face N, R, or P-95 respirator.
 - For areas greater than 100 ft.², areas where mold is heavy (blanket coverage rather than patchy), or areas where substantial dust is generated during cleaning or debris removal (e.g., abrasives are used to clean surfaces); use an approved respirator, at a minimum, either a half-face or full-face N, R, or P-100 respirator.
 - Charcoal-impregnated filters may be used for odors.
- Non-vented goggles.
- Long gloves made of material that will protect workers from chemicals used for surface cleaning.
- Protective clothing (e.g., disposable coveralls) to prevent contamination and skin contact with mold and chemicals. For areas greater than 100 ft.², ensure that protective clothing covers entire body including head and feet.

Additional Information

Visit OSHA's Safety and Health Topics webpage on Mold at:

www.osha.gov/SLTC/molds/index.html

New York City Department of Health and Mental Hygiene Guidelines on Assessment and Remediation of Fungi in Indoor Environments:
www.nyc.gov/html/doh/html/epi/moldrpt1.shtml

This fact sheet creates no new legal obligations. It contains recommendations as well as descriptions of OSHA safety and health standards. By law, employers must comply with safety and health standards and regulations and provide their employees with workplaces free from recognized hazards likely to cause death or serious physical harm. The recommendations provide additional information intended to assist employers in providing safe and healthful workplaces. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

Fast Facts

Protecting Yourself from Cold Stress

Workers who are exposed to extreme cold or work in cold environments may be at risk of cold stress. Extremely cold or wet weather is a dangerous situation that can cause occupational illness and injuries such as hypothermia, frostbite, trench foot, and chilblains.

Hypothermia

A condition in which the body uses up its stored energy and can no longer produce heat. Often occurs after prolonged exposure to cold temperature.

Early symptoms

- Shivering
- Fatigue
- Loss of coordination
- Confusion and disorientation

Late symptoms

- No shivering
- Blue skin
- Dilated pupils
- Slowed pulse and breathing
- Loss of consciousness

First Aid

- Request immediate medical assistance.
- Move the victim into a warm room or shelter.
- Remove wet clothing.
- Warm the center of their body first—chest, neck, head, and groin—using an electric blanket; or use skin-to-skin contact under loose, dry layers of blankets, clothing, or towels.
- If conscious, warm beverages may help increase the body temperature. Do not give alcohol.
- Once temperature has increased keep them dry and wrapped in a warm blanket, including the head and neck.
- If no pulse, begin CPR.

Frostbite

An injury to the body that is caused by freezing, which most often affects the nose, ears, cheeks, chin, fingers, or toes.

Symptoms

- Reduced blood flow to hands and feet
- Numbness
- Aching
- Tingling or stinging
- Bluish or pale, waxy skin

First Aid

- Get into a warm room as soon as possible.
- Unless necessary, do not walk on frostbitten feet or toes.
- Immerse the affected area in warm (not hot) water, or warm the affected area using body heat. Do not use a heating pad, fireplace, or radiator for warming.
- Do not massage the frostbitten area; doing so may cause more damage.

Trench Foot

An injury of the feet resulting from prolonged exposure to wet and cold conditions that can occur at temperatures as high as 60 °F if the feet are constantly wet.

Symptoms

- Reddening of the skin
- Numbness
- Leg cramps
- Swelling
- Tingling pain
- Blisters or ulcers
- Bleeding under the skin
- Gangrene (foot may turn dark purple, blue, or gray)

First Aid

- Remove shoes/boots and wet socks.
- Dry feet.
- Avoid walking on feet, as this may cause tissue damage.

Chilblains

Ulcers formed by damaged small blood vessels in the skin, caused by the repeated exposure of skin to temperatures just above freezing to as high as 60 °F.

Symptoms

- Redness
- Itching
- Possible blistering
- Inflammation
- Possible ulceration in severe cases

First Aid

- Avoid scratching.
- Slowly warm the skin.
- Use corticosteroid creams to relieve itching and swelling
- Keep blisters and ulcers clean and covered.

Protect Yourself

- Monitor your physical condition and that of your coworkers.
- Wear appropriate clothing.
 - Wear several layers of loose clothing for insulation.
 - Tight clothing reduces blood circulation to the extremities.
- Be aware that some clothing may restrict movement resulting in a hazardous situation.
- Protect the ears, face, hands and feet in extremely cold or wet weather.
 - Boots should be waterproof and insulated.
 - Wear a hat to reduce the loss of body heat from your head.
- Move into warm locations during breaks; limit the amount of time outside.
- Carry extra socks, gloves, hats, jacket, blankets, a change of clothes and a thermos of hot liquid.
- Include chemical hot packs in your first aid kit.
- Avoid touching cold metal surfaces with bare skin.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

www.cdc.gov/niosh/topics/outdoor/

DHHS (NIOSH) Publication No. 2010-115

Telephone: 1-800-CDC-INFO

TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov



Fast Facts

Protecting Yourself from Heat Stress

Heat stress, from exertion or hot environments, places workers at risk for illnesses such as heat stroke, heat exhaustion, or heat cramps.

Heat Stroke

A condition that occurs when the body becomes unable to control its temperature, and can cause death or permanent disability.

Symptoms

- High body temperature
- Confusion
- Loss of coordination
- Hot, dry skin or profuse sweating
- Throbbing headache
- Seizures, coma

First Aid

- Request immediate medical assistance.
- Move the worker to a cool, shaded area.
- Remove excess clothing and apply cool water to their body.

Heat Exhaustion

The body's response to an excessive loss of water and salt, usually through sweating.

Symptoms

- Rapid heart beat
- Heavy sweating
- Extreme weakness or fatigue
- Dizziness
- Nausea, vomiting
- Irritability
- Fast, shallow breathing
- Slightly elevated body temperature

First Aid

- Rest in a cool area.
- Drink plenty of water or other cool beverages.
- Take a cool shower, bath, or sponge bath.

Heat Cramps

Affect workers who sweat a lot during strenuous activity. Sweating depletes the body's salt and moisture levels.

Symptoms

- Muscle cramps, pain, or spasms in the abdomen, arms or legs

First Aid

- Stop all activity, and sit in a cool place.
- Drink clear juice or a sports beverage, or drink water with food.
 - Avoid salt tablets.
- Do not return to strenuous work for a few hours after the cramps subside.
- Seek medical attention if you have the following: heart problems, are on a low-sodium diet, or if the cramps do not subside within one hour.

Protect Yourself

Avoid heavy exertion, extreme heat, sun exposure, and high humidity when possible. When these cannot be avoided, take the following preventative steps:

- Monitor your physical condition and that of your coworkers for signs or symptoms of heat illnesses.
- Wear light-colored, loose-fitting, breathable clothing such as cotton.
 - Avoid non-breathable synthetic clothing.
- Gradually build up to heavy work.
- Schedule heavy work during the coolest parts of day.
- Take more breaks when doing heavier work, and in high heat and humidity.
 - Take breaks in the shade or a cool area.
- Drink water frequently. Drink enough water that you never become thirsty.
- Be aware that protective clothing or personal protective equipment may increase the risk of heat-related illnesses.

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

www.cdc.gov/niosh/topics/outdoor/

DHHS (NIOSH) Publication No. 2010-114

Telephone: 1-800-CDC-INFO

TTY: 1-888-232-6348

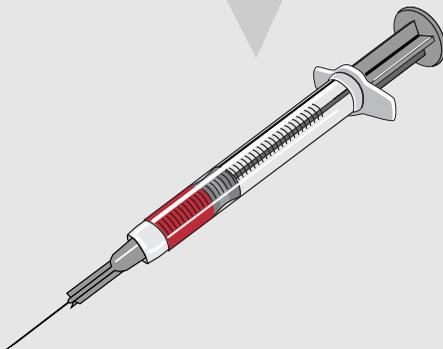
E-mail: cdcinfo@cdc.gov





What Every Worker Should Know

How to Protect Yourself From Needlestick Injuries



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health



U.S. Department of Health and Human Services

Public Health Service

Centers for Disease Control and Prevention

National Institute for Occupational Safety and Health

Robert A. Taft Laboratories

4676 Columbia Parkway

Cincinnati, OH 45226-1998

Official Business

Penalty for Private Use \$300

What infections can be caused by needlestick injuries?

Needlestick injuries can expose workers to a number of blood-borne pathogens that can cause serious or fatal infections. The pathogens that pose the most serious health risks are

- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)
- Human immunodeficiency virus (HIV)—the virus that causes AIDS

HBV vaccination is recommended for all health care workers (unless they are immune because of previous exposure). HBV vaccine has proved highly effective in preventing infection in workers exposed to HBV. However, no vaccine exists to prevent HCV or HIV infection.

Preventing needlestick injuries is the best way to protect yourself from these infections.

Who is at risk of needlestick injury?

Any worker who may come in contact with needles is at risk, including *nursing staff, lab workers, doctors, and housekeepers.*

How common are needlestick injuries among health care workers?

Estimates indicate that 600,000 to 800,000 needlestick injuries occur each year. Unfortunately, about half of these injuries are not reported. *Always report needlestick injuries to your employer to ensure that you receive appropriate followup care.*

What kinds of needles usually cause needlestick injuries?

- Hypodermic needles
- Blood collection needles
- Suture needles
- Needles used in IV delivery systems

Do certain work practices increase the risk of needlestick injury?

Yes. Past studies have shown that needlestick injuries are often associated with these activities:

- Recapping needles
- Transferring a body fluid between containers
- Failing to dispose of used needles properly in puncture-resistant sharps containers

How can I protect myself from needlestick injuries?

- Avoid the use of needles where safe and effective alternatives are available.
- Help your employer select and evaluate devices with safety features that reduce the risk of needlestick injury.
- Use devices with safety features provided by your employer.
- Avoid recapping needles.
- Plan for safe handling and disposal of needles before using them.
- Promptly dispose of used needles in appropriate sharps disposal containers.
- Report all needlestick and sharps-related injuries promptly to ensure that you receive appropriate followup care.
- Tell your employer about any needlestick hazards you observe.
- Participate in training related to infection prevention.
- Get a hepatitis B vaccination.

For additional information, see ***NIOSH Alert: Preventing Needlestick Injuries in Health Care Settings*** [DHHS (NIOSH) Publication No. 2000-108]. Single copies of the Alert are available from the following:

NIOSH-Publications Dissemination
4676 Columbia Parkway
Cincinnati, OH 45226-1998

1-800-35-NIOSH (1-800-356-4674)

Fax: 513-533-8573

E-mail: pubstaff@cdc.gov

Web site: www.cdc.gov/niosh

Needlestick injuries can lead to serious or fatal infections. Health care workers who use or may be exposed to needles are at increased risk of needlestick injury. All workers who are at risk should take steps to protect themselves from this significant health hazard.

TUSCARAWAS COUNTY HEALTH DEPARTMENT



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APPENDIX B – HOW TO PROPERLY PUT ON AND TAKE OFF A DISPOSABLE RESPIRATOR

DOCUMENT DESCRIPTION

This appendix serves as a reminder and guide on the proper procedures to put on and take off the N95A Disposable Respirator.

How to Properly Put on and Take off a Disposable Respirator

WASH YOUR HANDS THOROUGHLY BEFORE PUTTING ON AND TAKING OFF THE RESPIRATOR.

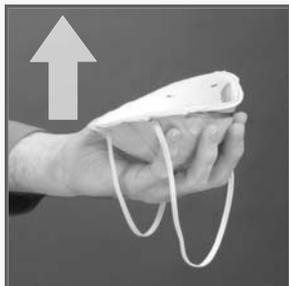
If you have used a respirator before that fit you, use the same make, model and size.

Inspect the respirator for damage. If your respirator appears damaged, DO NOT USE IT. Replace it with a new one.

Do not allow facial hair, hair, jewelry, glasses, clothing, or anything else to prevent proper placement or come between your face and the respirator.

Follow the instructions that come with your respirator.¹

Putting On The Respirator



Position the respirator in your hands with the nose piece at your fingertips.



Cup the respirator in your hand allowing the headbands to hang below your hand. Hold the respirator under your chin with the nosepiece up.



The top strap (on single or double strap respirators) goes over and rests at the top back of your head. The bottom strap is positioned around the neck and below the ears. Do not crisscross straps.



Place your fingertips from both hands at the top of the metal nose clip (if present). Slide fingertips down both sides of the metal strip of the mask area to the shape of your nose.

Checking Your Seal²



Place both hands over the respirator, take a quick breath in to check whether the respirator seals tightly to the face.



Place both hands completely over the respirator and exhale. If you feel leakage, there is not a proper seal.



If air leaks around the nose, readjust the nosepiece as described. If air leaks at the mask edges, re-adjust the straps along the sides of your head until a proper seal is achieved.

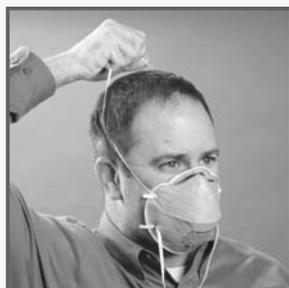


If you cannot achieve a proper seal due to air leakage, ask for help or try a different size or model.

Removing Your Respirator



DO NOT TOUCH the front of the respirator! It may be contaminated!



Remove by pulling the bottom strap over back of head, followed by the top strap, without touching the respirator.



Discard in waste container. WASH YOUR HANDS!

Employers must comply with the OSHA Respiratory Protection Standard, 29 CFR 1910.134 if respirators are used by employees performing work-related duties.

¹ Manufacturer instructions for many NIOSH approved disposable respirators can be found at www.cdc.gov/niosh/npptl/topics/respirators/disp_part/

² According to the manufacturer's recommendations

For more information call 1-800-CDC-INFO or go to <http://www.cdc.gov/niosh/npptl/topics/respirators/>



TUSCARAWAS COUNTY HEALTH DEPARTMENT



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APPENDIX C – TIPS FOR DISASTER RESPONDERS: PREVENTING AND MANAGING STRESS

DOCUMENT DESCRIPTION

This appendix to the TCHD Responder Health and Safety Plan, describes methods for dealing with the mental and psychological stress of responding to a public health emergency.



Tips for Disaster Responders: PREVENTING AND MANAGING STRESS

Responding to disasters and other emergencies is critically important, and while personally rewarding, it also carries the potential for affecting responders in harmful ways. Dealing with persons affected by natural disasters (e.g., hurricanes, earthquakes) is challenging. Disasters that are “human-caused” have the potential to produce even more negative mental health outcomes, whether harm is unintentional (e.g., industrial accidents, oil spill) or intentional (e.g., mass shootings, arson, acts of terrorism).

Engaging in disaster and emergency response work is stressful for both traditional first responders (e.g., fire, rescue, emergency medical services, law enforcement, emergency management personnel) and non-traditional first responders (e.g., substance abuse, public health, and mental health professionals; paid and volunteer staff of community and faith-based organizations active in disasters).

Depending on the nature of the event, sources of stress may include exposure to scenes of human suffering and massive destruction, risk for personal harm, life-and-death decision making, intense workloads, limited resources, and separation from family members who may also be in harm’s way.

Responders can take actions to protect themselves and to manage stress before a disaster or other traumatic event, as well as during the response and recovery phases. These actions can also help once the responder returns home after deployment or a particularly traumatic shift.

Introduction

Stress prevention and management begin long before you are called upon to respond to an emergency or disaster. This tip sheet presents a series of personal stress prevention and management skills that you can learn and practice *before* you are called upon to respond, as well as approaches you can apply to manage stress *during* your deployment. You can also download SAMHSA’s new Disaster Behavioral Health App and access resources specific to pre- and post-deployment (for responders, supervisors, and family members).

Stress Prevention and Management

PREPARING FOR YOUR DISASTER ASSIGNMENT

The ideal time for taking actions to prevent stress and to strengthen your stress management skills is *before* your disaster assignment. Responder stress can be diminished by practicing for the disaster role, developing a personal toolkit of stress management skills, and preparing yourself and your loved ones.

Practice for the Disaster Role: Know Your Job

- *Train hard and know your job well.* You will perform at peak capacity, with more confidence and less stress, if you know you are as ready as you can be.

- *Participate in exercises and simulations* that expose you to disaster stressors. This will strengthen your skills and prepare you to deal with the unexpected.
- *Keep a freshly stocked Go-Kit* in your car or at your worksite and make sure to include your top choices for stress reducers.
- *Know the Incident Command System* so that you understand the language, the lines of reporting, and ways to work effectively with responders from other units.
- *Live the “disaster-ready” healthy lifestyle:* regular physical activity, healthy diet, and emotional stability. Clear thinking will make you a valuable team member—while decreasing your personal risk for harm.

Practice Stress Management: Make Stress Management #1 on Your List

- *Know your personal signs of stress.* Include coworkers in your stress control plan; they can tip you off when they see your stress signs “showing.”
- *Identify the major stressors* associated with disasters to which you may respond, and plan how you will address them.
- *Create a team culture and a buddy system* where you can choose to spend off-duty time exercising, relaxing, or talking together.
- *Take time for yourself.* Mentally disconnect from the disaster scene as completely as possible during down time.
- *Select and practice constructive ways to release stress,* such as the following:
 - Choose physical activity that can be done safely while on deployment, like walking, stretching, and taking deep breaths.
 - Read or listen to music that is timed to your breath.
- *Practice healthy sleep behaviors.* Train your body to downshift by getting into a routine sleep pattern.

Prepare and Plan With Your Loved Ones

- *Reduce your concerns* by preparing your loved ones and protecting your home and your possessions for possible emergencies.
- *Create a communication plan* that allows you to stay connected to your loved ones, whether you are responding to a disaster close to or away from home.
- *Develop a home disaster plan for you and your loved ones,* being sure to actively involve all members in the process. Conduct disaster drills to test and improve your plan.
- *Prepare emergency supplies for sheltering* at home and Go-Kits for your loved ones in case they need to evacuate.
- *Consider declining the next disaster assignment* opportunity if you have had a recent death or trauma in your own family.

DURING YOUR DISASTER ASSIGNMENT

During the impact phase of a disaster or emergency event, the focus of stress management shifts to handling the real-time stressors of the rescue and recovery mission.

Set Your Personal Disaster Plan in Motion

- *Activate your personal disaster plan* and include loved ones who may be directly affected by the event.
- *Review your communication plan.* Know where each family member and/or loved one will be located and at what times each day you will be checking in with each other.
- *Double check your response “gear,”* including your Go-Kit and your communication equipment.

Take Stress-Reducing Precautions While on Duty

- *Make sure you are briefed and updated* regularly on the specifics of the event and the hazards.
- *Safeguard yourself* by always wearing the personal protective equipment recommended for use in the incident.

- *Verify your response duties* and reporting lines at the start of your assignment daily.
- *Mentally rehearse* your disaster response role as you approach each scene.
- *Communicate and check in* with your buddy, teammates, and supervisors regularly.
- *Take breaks* regularly. Pace yourself.
- *Limit time* spent working in very high-intensity settings (e.g., “ground zero,” “hot zone”).

Set Your Self-Care Plan in Motion

- *Try to eat nutritiously* and avoid excessive junk food (especially foods high in sugar), caffeine, alcohol, and tobacco.
- *Maintain contact* with family and other social supports during off-duty hours.
- *Get enough rest and sleep*, especially on long assignments.

Implement Stress Management Techniques

- *Reduce physical tension* by exercising, stretching, taking deep breaths, and walking.
- *Use time off* for reading, listening to music, talking with family, and thinking calmly.
- *Talk with teammates* about reactions and emotions as appropriate.

Practice Self-Awareness

- *Recognize* your personal stress signs—and those of your teammates. Agree with your buddies that you will accept each other’s instruction when signaled to stop and take a “stress break” to calm down.
- *Avoid over-identifying* with survivors’ grief and trauma. For example, remind yourself this is not happening to you or your loved ones.
- *Be aware* that some responders reach a limit in their abilities to continually provide care and empathy to survivors. This is known as “compassion fatigue.” Accept when you need to end direct contact with survivors and alert your team leader for support.

AFTER YOUR RESPONSE ASSIGNMENT

Stress Management When Response Extends Into the Recovery Phase

In the recovery phase, stress management techniques must also take into account your exposure to disaster survivors who may be experiencing severe hardships.

- *Recognize* that when you are working at a disaster scene with severely limited resources, your personal stress may increase.
- *Know where to refer survivors* so you can connect them to the services they need.
- *Conserve energy*. You will need to recognize the fatigue effects of long-term deployment and know when to conserve your energy.
- *Take time away from the scene*. Alternate between on-scene and off-scene duty, and between time spent doing physically exhausting work or working with highly stressed survivors and time on less stressful tasks.
- *Use stress management skills* like deep breathing as often as you can.
- *Focus on reintegration* with friends, loved ones, and coworkers who did not share the experience with you. Pay extra attention to rekindling relationships.



Signs of Stress

What are common signs that you may be experiencing stress? And how do you know when your stress level is becoming harmful? *Hint: You may be able to “see” these stress signs better in your teammates than in yourself.*

- **Bodily sensations and physical effects**
Rapid heart rate, palpitations, muscle tension, headaches, tremors, gastrointestinal distress, nausea, inability to relax when off duty, trouble falling asleep or staying asleep, nightmares or flashbacks
- **Strong negative feelings**
Fear or terror in life-threatening situations or perceived danger, anger, frustration, argumentativeness, irritability, deep sadness, difficulty maintaining emotional balance

- **Difficulty thinking clearly**
Disorientation or confusion, difficulty problem-solving and making decisions, difficulty remembering instructions, inability to see situations clearly, distortion and misinterpretation of comments and events
- **Problematic or risky behaviors**
Unnecessary risk-taking, failure to use personal protective equipment, refusal to follow orders or leave the scene, endangerment of team members, increased use or misuse of prescription drugs or alcohol
- **Social conflicts**
Irritability, anger and hostility, blaming, reduced ability to support teammates, conflicts with peers or family, withdrawal, isolation

Helpful Resources

Substance Abuse and Mental Health Services Administration Disaster Technical Assistance Center (SAMHSA DTAC)
Toll-Free: 1-800-308-3515
Website: <http://www.samhsa.gov/dtac>

SAMHSA Behavioral Health Disaster Response Mobile App
Website: <http://store.samhsa.gov/product/PEP13-DKAPP-1>

Administration for Children and Families*
Website: <http://www.acf.hhs.gov>

Department of Veterans Affairs*
National Center for Posttraumatic Stress Disorder (PTSD)
PTSD Information Voicemail: 1-802-296-6300
Website: <http://www.ptsd.va.gov>

Treatment Locators

Mental Health Treatment Facility Locator
Toll-Free: 1-800-789-2647 (English and español)
TDD: 1-866-889-2647
Website: <http://findtreatment.samhsa.gov/MHTreatmentLocator>

MentalHealth.gov
Website: <http://www.mentalhealth.gov>
MentalHealth.gov provides U.S. government information and resources on mental health.

Substance Abuse Treatment Facility Locator
Toll-Free: 1-800-662-HELP (1-800-662-4357)
(24/7 English and español); TDD: 1-800-487-4889
Website: <http://www.findtreatment.samhsa.gov>

Hotlines

Disaster Distress Helpline
Toll-Free: 1-800-985-5990
Text: “TalkWithUs” to 66746
Website: <http://disasterdistress.samhsa.gov>

National Suicide Prevention Lifeline
Toll-Free: 1-800-273-TALK (1-800-273-8255)
TTY: 1-800-799-4TTY (1-800-799-4889)
Website: <http://www.samhsa.gov>
This resource can be found by accessing the Suicide Prevention Lifeline box once on the SAMHSA website.

National Domestic Violence Hotline*
Toll-Free: 1-800-799-SAFE (1-800-799-7233)
TTY: 1-800-787-3224

**Note: Inclusion of a resource in this fact sheet does not imply endorsement by the Center for Mental Health Services, the Substance Abuse and Mental Health Services Administration, or the U.S. Department of Health and Human Services.*



TUSCARAWAS COUNTY HEALTH DEPARTMENT

Ebola and Other Special Pathogens Plan



Public Health
Prevent. Promote. Protect.

Revision Page

Date	Revisions	Revisions Made By:
8/20/15	Plan Created	Jennifer McCoy
10/22/15	Transportation Plan Added, MOU from Smith Ambulance added	Jennifer McCoy
11/30/2015	PPE, Responder Safety, Public Information Sections added	Jennifer McCoy
12/13/16	Alternate Housing, Waste Management Sections added	Paul Westlake
2/2/2017	Handling Human Remains Section added. Formatting changed. Cover Sheet added.	Paul Westlake
4/10/17	Ebola and Special Pathogens Plan approved by the Ebola Planning Partners Committee with clarification on resource management, appendices, and provision of daily essentials to a quarantined person.	Paul Westlake

Approval Signatures

Tuscarawas County Health Commissioner

Date

Board of Health President Signature

Date

Purpose

1. The purpose of the Tuscarawas County Ebola and Other Special Pathogen Response Plan is to provide a framework to prevent, mitigate, prepare for, respond to and recover from a contagious, infectious, or highly communicable disease incident affecting Tuscarawas County.

Scope

1. This plan outlines the policies and procedures, agreed upon by various agencies and partners in Tuscarawas County to promote a coordinated and collaborative response to a contagious, communicable, or infectious disease that is impacting or threatening to impact the citizens of Tuscarawas County.
2. Communicable, contagious or infectious diseases include, but are not limited to, the Class A Diseases listed within the Ohio Administrative Code (OAC) 3701-3-02. Additionally, this plan is scoped for unexpected patterns of cases, suspected cases, deaths, or an increased incidence of any other disease of major public health concern which is not identified in the OAC. A major public health concern may represent a severe disease with the potential for epidemic spread, a newly recognized infectious agent, outbreak, epidemic, related to a public health hazard, an act of bioterrorism, or a disease identified by the Center for Disease Control and Prevention (CDC) as representing a major public health concern.
3. Diseases within the scope of this plan (II.B.2) include diseases which may have a high communicability rate, high mortality rate, and/or high morbidity rate which has the potential to create an increased level of fear/panic and/or disruption within a jurisdiction.

Authorities and References

1. Authorities and References of this plan can be found in Attachment P: *Authorities and References*.

Situations and Assumptions

1. Situations
 - A. Tuscarawas County serves an estimated population of 92,788. This estimate does not include transient populations (US Census Bureau: Estimate 2014).
 - B. Tuscarawas County has the potential to experience, at any given time, a public health incident of varying size and complexity.
 - C. TCHD/NPCHD is familiar and operates in accordance with all other documents that may be pertinent to this incident. This includes, but is not limited to the *Tuscarawas County EOP, TCHD EOP, Epidemiology and Response Plan, Medical*

Countermeasure Dispensing Plan, SNS Plan, and Non-Pharmaceutical Intervention Plan.

- D. TCHD/NPCHD routinely conducts surveillance, monitoring, and investigation activities to identify and mitigate potential communicable, infectious, or contagious diseases within Tuscarawas County.
 - E. All emergencies and incidents managed in Tuscarawas County will be conducted using the National Incident Management System (NIMS) and the Incident Command System (ICS) procedures.
2. Assumptions
- A. The majority of those requiring assessment and treatment of EVD or another special pathogen will be those who are already being monitored by the TCHD/NPCHD.
 - B. Notification of an incident or the occurrence of a communicable, infectious, or contagious disease will be communicated to all applicable stakeholders as outlined in this plan
 - C. A significant communicable, infectious, or contagious disease may rapidly exhaust local resources, requiring assistance from NECO Region 5 partners, and/or the State of Ohio.
 - D. Containment measures (isolation/quarantine, social distancing) may be recommended by the TCHD/NPCHD to mitigate a diseases spread or impact.

Direction and Control

1. In accordance with 5502.28 of the Ohio Revised Code, the National Incident Management System (NIMS), of which the Incident Command System (ICS) is a component of, will be utilized to manage incident response operations within the State of Ohio.
2. Management (Incident Command) of biological incidents will occur primarily within the Tuscarawas County Department Operations Center (DOC).
3. Implementation of ICS will occur as outlined in *TCHD EOP ERF #1: Direction and Control* and will depend on incident complexity.

Notification and Warning/Information Sharing

1. Emergency notification and warning refers to how TCHD will communicate with community partners, the general public, and other stakeholders in a timely and organized manner.
2. The Ohio Public Health Communication System (OPHCS) will be the primary modality used for emergency notification and warning. Other modalities may include:
 - (1) Ohio Disease Reporting System (ODRS)

- (2) Multi-Agency Radio Communication System (MARCS)
- (3) Traditional communication methods such as telephone, email, fax, television, newspapers, internet, radio, etc.
3. The following stakeholders should be notified immediately of a potential public health threat within the scope of this plan:
 - (1) EMA
 - (2) EMS Providers
 - (3) Hospitals
 - (4) Regional Public Health Coordinator
 - (5) Regional Healthcare Coordinator
 - (6) Ohio Department of Health: Bureau of Infectious Disease
 - (7) Ohio Department of Health: Office of Emergency Preparedness
4. Other stakeholders may include:
 - (1) Local law enforcement
 - (2) Emergency dispatch
 - (3) Local fire departments
 - (4) Health Departments within the NECO region

Public Information

1. Public information shall be handled in accordance with existing Tuscarawas County policies and procedures. See the *Tuscarawas County General Health District Emergency Operations Plan, ERF#4: Public Information and Warning*.
2. A lead PIO should be named by the Incident Commander within one hour of ICS activation. For an Ebola or Other Special Pathogen incident, the TCHD will assume the lead PIO role. If the incident occurs within the city of New Philadelphia, NPCHD will assume the PIO role.
3. A Joint Information Center (JIC) will be established at the EOC to allow for the dissemination of one joint message to the media and public. Representatives from all affected and participating agencies should be invited to participate in all formal briefings. A JIC may be established using one of the following modalities:
 - A. In person at the EOC
 - B. Traditional conference call lines
 - C. Go To Meeting via the pre-established Regional Public Information Coordination line (see *Appendix A ICS 205A: Communication List* for the phone number and access code)
4. All statements regarding the incident shall be approved by the Incident Commander.

5. Ebola press release templates and social media resources have been developed which may be utilized by the PIO to disseminate information to the public (*Ebola Appendix B*)
6. Depending on the incident complexity, a call center may be established to answer public inquiries. TCHD maintains the capability to open up to 8 phone lines to respond to public inquiries.
 - A. TCHD Staff and/or Medical Reserve Corps (MRC) volunteers with a medical background will be requested to staff the call center.
 - B. Just-In-Time Training (JITT) and a list of common questions and answers related to EVD will be provided to call center personnel

Resource Management

1. Handling an Ebola or other special pathogen case may cause the need for resources outside of what is available locally. Resources will be managed according to the *Tuscarawas County Health Department Emergency Operation Plan, ERF #5 Resource Management*.

Concept of Operations

Hospital Care

- A. Ohio hospitals will manage the care of a person under investigation (PUI) for EVD based on a tiered approach that best suits their organizations capabilities. Ohio hospitals have been identified as one of three tier levels:
 - (1) Frontline hospital
 - (2) Assessment hospital
 - (3) Treatment hospital
- B. Seven assessment and one treatment center have been identified in Ohio. A complete listing and map of these facilities may be found in *Ebola Appendix C*
- C. Hospital Classifications for EVD:
 - (1) Frontline Hospital (FLH)
 - (a) Frontline hospitals are required to identify, evaluate, and isolate suspected EVD patients and arrange for transport to a higher level of care. These hospitals do not conduct laboratory testing for suspected EVD patients.
 - (b) All hospitals in the NECO region are designated as frontline hospitals.
 - (2) Assessment Hospital (AH)
 - (a) Assessment hospitals are those that will accept up to 3 suspected EVD patients for 72-96 hours to confirm or rule out the EVD diagnosis

- (b) There are NO EVD assessment facilities in the NECO region. The closest assessment facilities are located in Franklin County.
- (3) Treatment Hospital (TH)
 - (a) Treatment hospitals are those that can treat up to 2 patients (with pediatric support capability) who are confirmed to have EVD.
 - (b) There are NO Ebola treatment facilities in the NECO region. The closest (and only), treatment facility in Ohio is: MetroHealth Medical Center, 2500 Metro Health Drive, Cleveland, Ohio 44109
- D. Criteria for each hospital tier level may be found on the CDC's website at:
<http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/frontline-healthcare-facilities.html>

Transportation

- A. The TCHD Infectious Disease Nurse or designee monitors individuals who reside in Tuscarawas County (except within New Philadelphia City limits) who have either traveled to a country where there is an Ebola outbreak or who have had contact with someone diagnosed with Ebola. These individuals are referred to as "monitored travelers". (*Note: if the monitored traveler becomes symptomatic, they will be referred to as a "person under investigation (PUI)"*)
- B. NPCHD will be notified of monitored travelers who reside within the New Philadelphia city limits and will assume the responsibility to actively monitor the individual.
- C. Monitored travelers will be instructed to contact the TCHD/NPCHD as soon as they exhibit symptoms of the Ebola virus and are provided with 24/7 contact information to the TCHD/NPCHD.
- D. Algorithm's have been developed to guide the initiation of a PUI to an assessment hospital for three scenarios:
 - (1) PUI contacts LHD to inform of symptoms
 - (2) PUI calls dispatch
 - (3) PUI goes directly to a Frontline hospital
 - (4) Algorithms for each scenario may be found in *Ebola Response Plan Appendix D*
- E. Whenever possible, a PUI will be taken directly to the designated Assessment hospital. Frontline Hospitals (e.g.; Union Hospital, Trinity Twin City Hospital) will not be utilized unless a life-threatening emergency exists or the PUI does not follow TCHD/NPCHD recommendations and transports themselves directly to a frontline hospital.
- F. Tuscarawas County has designated the following assessment hospitals to be utilized if transport of a monitored traveler/PUI becomes necessary:

- (1) Primary: Ohio State Wexner Medical Center/Nationwide Children's (Franklin County)
 - (2) Secondary: TBD
- G. Monitored travelers should be informed of the difference between Frontline, Assessment, and Treatment Hospitals.
- H. Individuals should be given written instructions/protocols on what to do should they become symptomatic.
- I. Individuals should be given a list and map of the nearest Frontline and Assessment Hospitals. It should be conveyed to the individual that Frontline Hospitals are only to be used as a last resort and that they should not go to a Frontline hospital unless there is a life-threatening emergency.
- J. Methods of Transport
- (1) Should a monitored traveler become symptomatic of EVD, Tuscarawas County will utilize local EMS resources to transport the PUI to an assessment hospital.
 - (2) Tuscarawas County has identified the following EMS transport providers:
 - (a) Primary EMS Transport Provider: Smith Ambulance
 - (b) Secondary EMS Transport Provider: Dover or New Philadelphia Fire Department HazMat team.
 - (c) An MOU has been established with Smith Ambulance to serve as the primary transportation agency for EVD/Other Special Pathogen transport in Tuscarawas County. See *Ebola Appendix E*
- K. Initiating Transport
- (1) If an individual contacts the TCHD/NPCHD and states that they are exhibiting symptoms of EVD, the Health Commissioner will notify the TCHD/NPCHD Medical Director and ODH (via the 24/7 Emergency Line) to determine if the symptoms warrant assessment for Ebola.
 - (2) If hospital assessment is needed, the primary transport agency shall be immediately notified so that transport preparations can begin.

(3) The TCHD/NPCHD OPHCS Coordinator will send a high priority OPHCS alert to the “Tuscarawas County Ebola/OSP group”:

Required Participants	Optional Participants
Local <ul style="list-style-type: none"> • TCHD/NPCHD • Smith Ambulance • Union Hospital/Trinity • EMA 	Local <ul style="list-style-type: none"> • Law enforcement • Dover/New Philadelphia Hazmat
Regional/Cross Regional <ul style="list-style-type: none"> • NECO Public Health Preparedness Coordinator • NECO Hospital Coordinator • Assessment Hospitals (AH) • Regional Coordinators of AH regions 	Regional/Cross Regional <ul style="list-style-type: none"> • Treatment Hospital • LHD’s in AH Locations
State <ul style="list-style-type: none"> • ODH 	State

- (4) The conference call should take place as soon as possible (no later than 30minutes) after determination is made to have the PUI assessed for EVD.
- (5) Message templates and a contact group have been pre-established in OPHCS. See *OPHCS SOG (Appendix F)* for more details.
- (6) The pre-established NECO Region “Ebola Region/Coordination” Go-To-Meeting phone line will be utilized for the conference call.
- (7) The conference call will be facilitated by the TCHD and will follow the agenda provided by the NECO region (*Ebola Response Plan Appendix D*)
During the conference call, stakeholders will determine:
- Route of transportation
 - Timeframes for transportation including estimated time of arrival
 - Procedures upon arrival to Assessment facility
 - PPE requirements
- (8) A Communication List (ICS-205A) with contact numbers for the participants listed above may be found in *Ebola Response Appendix A*

L. EMS Transport

- (1) TCHD/NPCHD and hospital officials can request EMS transport for a PUI by calling Smith Ambulance Dispatch.

- (2) If the PUI calls 9-1-1, the call will be transferred to Smith Ambulance dispatch. Smith Ambulance will notify the TCHD. TCHD officials will follow the conference call procedures as outlined in section 7.2.2.1.
- (3) Upon completion of the conference call a determination will be made as to which assessment facility the PUI will be transported to, estimated time of arrival at the assessment facility, and arrival procedures.
- (4) Smith Ambulance maintains Ebola Response and Transportation plans which includes policies and procedures for the logistics of transport, PPE requirements, responder health and safety and decontamination. These plans may be found in *Ebola Appendix G*. Tuscarawas County will support and adhere to these plans for EMS transportation of a PUI for the Ebola virus.
- (5) EVD policies and procedures for Union Hospital and Trinity Twin City may be found in *Ebola Appendix H*

Responder Health and Safety

- A. For EVD, responders will follow health and safety recommendations and donning/doffing procedures in accordance with the CDC and OSHA guidelines.
- B. When caring for a patient with confirmed EVD or a PUI for Ebola who has bleeding, vomiting, or diarrhea, the following guidance should be followed:
<http://www.cdc.gov/vhf/ebola/healthcare-us/ppe/guidance.html>
- C. When caring for a PUI for EVD with NO bleeding, vomiting, or diarrhea, the following guidelines should be followed:
<http://www.cdc.gov/vhf/ebola/healthcare-us/ppe/guidance-clinically-stable-puis.html>
- D. Public Health
 - (1) It is expected that public health responders may come into contact with a PUI for EVD during the very early stages of the disease (i.e. during patient surveillance and monitoring).
 - (2) TCHD personnel will follow the PPE requirements for Public Health Responders who may come into contact with EVD as defined in the *Tuscarawas County Health Department Responder Health and Safety Plan* as well as the OSHA guidelines as outlined in the "Occupational Exposure to Ebola Virus" document:
 - Dedicated clothing
 - Double layer nitrile gloves
 - Face mask/surgical mask/N-95 respirator
 - Face Shield
 - Goggles

- Fluid-resistant impermeable gown
- Shoe/Boot covers

E. Hospital

- (1) Union Hospital and Trinity Twin City have set forth policies and procedures to care for a PUI for Ebola. Both hospitals follow CDC recommendations for the type of PPE to be used and donning/doffing procedures. Union and Trinity Twin City Hospital's plans may be found in *Ebola Appendix H*

F. EMS

- (1) Smith Ambulance has developed stringent policies and procedures to ensure responder health and safety during the transport of a suspected or confirmed EVD patient.
- (2) EMS responders will wear the following PPE:
 - Tyvek Suits with impermeable gown/apron over the suit
 - Goggles
 - Triple gloves
 - Shoe covers and lower leg covers
 - Protective hood
 - N95 or P100 respirators
- (3) Patients will be placed in the same PPE as responders to provide double layer protection.
- (4) EMS transport for EVD patients will be done in 3 person crews, with the driver having no contact with the patient or the patient compartment of the ambulance. The driver will also act as the Safety Officer/trained observer during the donning process.
- (5) Smith Ambulance policies and procedures may be found in *Ebola Appendix G*

G. Monitoring

- (1) Per guidance from the State Health Department and/or CDC, TCHD/NPCHD will monitor any person residing in Tuscarawas County who has been exposed to EVD, including responders.
- (2) Four tier levels of exposure have been developed for EVD:
 - ***Tier 1A***: Direct skin to skin or mucus membrane contact or contact with blood and bodily fluids without using appropriate PPE
 - ***Tier 1B***: Any healthcare worker on one of the countries impacted by EVD who had been treating patients with EVD within 21 days, including healthcare workers who used PPE.
 - ***Tier 2***: No direct skin to skin or mucus membrane contact or contact with blood and bodily fluids, but within a 3 foot radius of an infected individual OR any traveler who has been to a county infected with EVD within 21 days but with no direct contact or known exposure OR

U.S. based healthcare workers caring for symptomatic patients while wearing the appropriate PPE.

- ***Tier 3:*** Brief proximity, such as being in the same room for a brief period of time, with a person with EVD while the person is symptomatic
- (3) Based on the exposure category (i.e. tier level), public health may implement/recommend various monitoring and restriction of movement actions.
 - (4) Tier 1a and 1b shall be quarantined, with direct active monitoring occurring twice daily for 21 days. Various movement restrictions may also be put into place at the discretion of the local health department.
 - (5) Individuals considered to be Tier 2 or 3 will not be quarantined, however, the TCHD/NPCHD will participate in either direct or active monitoring for 21 days and may implement various movement restrictions.
 - (6) The “ODH Crosswalk for Ebola Exposure and Risk Intervention” outlines the public health actions for monitoring, quarantine, and restriction of movement requirements for individuals exposed to EVD (*Ebola Appendix K*).
 - (7) TCHD/NPCHD will utilize the ODH Fever and Symptom Monitoring Form (*Ebola Appendix L*)

Isolation and Quarantine

1. Legal Authority

A. Ohio Revised Code 3707.08 – 3707.17 authorizes and defines the procedures for isolating and quarantining patients.

2. Responsibilities

A. TCHD will be responsible for the following activities:

- (1) The health commissioner will assess the public health threat and establish criteria and determine whether isolation and quarantine are necessary in any given outbreak
- (2) The health commissioner may initiate the isolation and quarantine of individuals
- (3) TCHD will seek cooperation and compliance from infected and/or exposed individuals
- (4) Local law enforcement will be responsible for the following activities:
 - Assist with the service of Notices
 - Provide escort for individuals requiring transportation for the purposes of involuntary isolation and quarantine
 - Execute arrest warrants

- (5) The Tuscarawas County Prosecutor's Office will be responsible for the following activities:
 - Petition the court to authorize involuntary detention when ordered by the Health Commissioner
 - Represent TCHD in any petition or appeal hearings necessary to carry out involuntary isolation or quarantine of individuals
 - Coordinate with Public Health and law enforcement officials
3. Determination of Need for Isolation or Quarantine
 - A. The following would prompt the initiation of isolation and/or quarantine of whole organizations within the community:
 - (1) Declaration by Ohio Department of Health (ODH), Centers for Disease Control and Prevention (CDC), and/or the World Health Organization (WHO) that isolation and/or quarantine is appropriate
 - B. Before isolation and quarantine is initiated the Health Commissioner will:
 - (1) Confer with ODH, CDC or WHO that isolation is appropriate
 - (2) Contact the Director of the Tuscarawas County Emergency Agency to activate EOC if necessary
 - C. TCHD's epidemiologist will make recommendations to the Health Commissioner regarding the need for isolation and/or quarantine strategies to control a communicable disease. The Health Commissioner will then authorize the use of isolation and/or quarantine strategies as recommended by the Epidemiologist.
 - D. The Health Commissioner will be responsible for the activation of the Incident Command System (ICS). TCHD will seek voluntary compliance with requests for isolation and quarantine unless the Medical Director advises the Health Commissioner that the following conditions are present:
 - (1) Reason to believe that individual or group is contaminated with a chemical, biological, or radiological agent that could be spread to others
 - (2) Reason to believe the individual or group would pose a serious risk to the health and/or safety of others is not isolated or quarantined
 - (3) Seeking voluntary compliance would create a risk of serious harm
 - (4) If any of the above are believe to be true the Health Commissioner should seek ordered isolation and/or quarantine.
4. Involuntary Detention
 - A. Health Commissioner may issue orders for involuntary detention for isolation and/or quarantine under the following conditions:
 - (1) Reason to believe that individual or group is contaminated with a chemical, biological, or radiological agent that could be spread to others
 - (2) Reason to believe the individual or group would pose a serious risk to the health and/or safety of others is not isolated or quarantined

- (3) TCHD has made reasonable efforts which have been documented to obtain cooperation and compliance from the individual or group
 - (4) The Medical Director believes that seeking voluntary compliance would create a risk of serious harm
 - (5) If the above conditions are met, the Health Commissioner may initiate involuntary detention for a specific number of days by taking one or more of the following actions:
 - Emergency detention order
 - Petition to the superior court for an order authoring involuntary detention
- B. The prosecuting attorney's office will represent the Health Commissioner in court for involuntary detention. The Health Commissioner, Medical Director, Prosecutor's Office will resolve issues related to locations for detained persons. The Epi Team will provide monitoring and support services to the individual or group being detained.
5. Release from Isolation and Quarantine
- A. The Health Commissioner, based on the advice of the Medical Director, will determine whether to release an individual or group from isolation or quarantine when there is no longer a threat to the health and safety of others.

Alternate Housing

1. Monitored travelers and Persons Under Investigation
 - A. At the recommendation of Dr. Bhatta, Tuscarawas County Health Department's Epidemiologist, monitored travelers and persons under investigation will be quarantined in their own residence.
 - B. Family members who have had contact with monitored travelers or PUI will remain quarantined in the same residence.
 - C. The TCHD, the Tuscarawas County EMA and the American Red Cross will work collaboratively together to determine temporary housing for family members who have not had any contact with the monitored traveler or PUI. Examples of alternate temporary housing include:
 - Trailers/Campers
 - Rental properties
 - Hotels
 - Temporary housing provided by church organizations
 - Family members
2. First Responders and Healthcare Workers
 - A. It is assumed that first responders and healthcare workers are trained on the proper use, donning and doffing of PPE. Public healthcare officials will be

- monitoring the traveler for Ebola symptoms, decreasing the risk of exposure for first responders and healthcare workers.
- B. The CDC classifies healthcare workers in countries without a widespread EVD outbreak, and who wear appropriate PPE, as Tier 2 level for monitoring and thus will not be required to be quarantined. (See 3 G (2))
 - C. EMS personnel who have been involved in the treatment and transportation of a PUI will be monitored in their own homes unless one of the following is evident:
 - (1) No PPE was worn during contact with a PUI
 - (2) There was a breach in the PPE during use, donning or doffing process that may have exposed the responder or healthcare worker.
 - (3) There was direct contact with bodily fluids of a symptomatic Ebola patient while not wearing PPE.
3. Daily Living Essentials
- A. Meeting daily needs of monitored persons or PUI will be met by procedures defined in the TCHD Isolation and Quarantine Plan and Procedures. (*Ebola Appendix I*)
 - B. The hospital and other community partners may provide essentials for daily living such as food and bedding for their alternate housing location.
 - C. It will be requested that donated items be dropped off at a safe location (i.e. the Health Department) and a health official who is trained in infection control practices/PPE will ensure that the quarantined individual receives the items.
 - D. It will be recommended that pets do not accompany their owner when alternate housing becomes necessary. TCHD and EMA will work with the individual being quarantined to ensure care of pets during the quarantine period.
4. Transportation
- A. Every effort will be made for a monitored traveler or PUI to self-transport in their own vehicle. In the event they are unable to, arrangements will be made in accordance to Transportation Section 3.F. of this plan.
 - B. In the event a PUI or monitored person becomes symptomatic for EVD, or requires medical transport due to an illness or injury, medical transportation will be provided according to Transportation Section 3.F. of this plan.

Waste Management

- Waste that is contaminated (or suspected to be contaminated with) Ebola is a category A infectious substance and is regulated as a hazardous material per the U.S. Department of Transportation (DOT).
- Waste that has been incinerated, autoclaved, or otherwise inactivated is not infectious, does not pose a public health threat and is not considered to be hazardous material under federal law.

- See the *“Safe Handling, Treatment, Transport, and Disposal of Ebola-Contaminated Waste” fact sheet found in Attachment M.*
1. Hospital/Environmental
 - A. Waste management procedures will be followed as outlined in Union Hospital’s Infectious Waste Procedure and in conjunction with the most up to date guidance provided by the CDC, OSHA, and the Department of Transportation (DOT): <http://www.cdc.gov/vhf/ebola/healthcare-us/cleaning/waste-management.html>
 - B. Spills of blood or other bodily fluids that may be contaminated with Ebola shall be cleaned by individuals trained on proper PPE protocols and by following CDC guidance <https://www.cdc.gov/vhf/ebola/healthcare-us/cleaning/hospitals.html> :
 - (1) “Use a U.S. Environmental Protection Agency (EPA)-registered hospital disinfectant with a label claim for a non-enveloped virus (norovirus, rotavirus, adenovirus, poliovirus) to disinfect environmental surfaces in rooms of PUIs or patients with confirmed EVD. Although there are no products with specific label claims against the Ebola virus, enveloped viruses such as Ebola are susceptible to a broad range of hospital disinfectants used to disinfect hard, non-porous surfaces. In contrast, nonenveloped viruses are more resistant to disinfectants. As a precaution, selection of a disinfectant product with a higher potency than what is normally required for an enveloped virus is being recommended at this time. EPA-registered hospital disinfectants with label claims against non-enveloped viruses (norovirus, rotavirus, adenovirus, poliovirus) are broadly antiviral and capable of inactivating both enveloped and non-enveloped viruses.”
 - (2) Spills should be managed by the doctors and nurses caring for a suspected Ebola patient and by wearing the appropriate PPE.
 - (3) Isolate the area of the spill and do not let others near the spill until disinfection is complete
 - (4) Place an absorbent material on the spill, such as a solidifier agent and pour EPA registered disinfectant over the spill and allow for sufficient contact time per the manufacturer’s instructions.
 - (5) Use disposable towels to remove bulk spill materials and dispose in a biohazard bag.
 - (6) Pour EPA registered disinfectant over the spill and allow for sufficient contact time per the manufacturer’s instructions.
 - (7) Use disposable cleaning cloth or wipes to wipe the treated area.
 - (8) Follow handling of solid waste protocols to discard materials
<https://www.cdc.gov/vhf/ebola/healthcare-us/cleaning/handling-waste.html>
 - (9) Disinfect and doff PPE according to CDC guidance.

2. Residential

A. For monitored persons and persons under investigation without symptoms of Ebola, all household waste generated during the monitoring period will be discarded as normal.

B. For individuals who are quarantined (voluntarily and involuntarily) and who develop Ebola symptoms, waste management should be handled as outlined in the table below, based on CDC guidance:

<http://www.cdc.gov/vhf/ebola/prevention/cleaning-us-homes.html>

C. Attachment N *List L: EPA's Registered Antimicrobial Products that Meet the CDC Criteria for Use Against the Ebola Virus* provides a listing of disinfectants approved by the CDC for use against the Ebola virus

Category	Definition	Decontamination and Disposal	PPE/Training
Cleaning by residents	Residence where a person with EVD only had a fever and no gastrointestinal symptoms	- Residents can clean and launder normally using detergent and/or an EPA registered disinfectant (see attachment N) -Residents can discard waste as normal	-No training required -Follow detergent and disinfectant instructions
Cleaning by contract company (Stericycle)	Residence where a person with EVD had a fever AND gastrointestinal symptoms	-Members of the residence or property owner should not clean the residence or handle contaminated materials -Contact local public health -Contract company should	-Contract company will follow local state and OSHA guidelines

		conduct decontamination and disposal procedures.	
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Human Remains

The following protocol and procedures have been taken from the CDC “Guidance for Safe Handling of Human Remains of Ebola Patients in U.S. Hospitals and Mortuaries” (<http://www.cdc.gov/vhf/ebola/healthcare-us/hospitals/handling-human-remains.html>). Please reference the above link during an incident for updated guidance/instructions

If a death occurs directly or indirectly associated with EVD (or other special pathogen) within the scope of this plan, the following guidelines will be assessed. Local jurisdictions should consult the ODH and the CDC prior to the handling, movement, and transport of the deceased at the above link.

Important Points

- A. Ebola virus can be transmitted in postmortem care settings through unsafe handling of human remains.
- B. Ensure that only personnel trained in handling infected human remains and wearing recommended / required PPE (per agency protocol) touch or move any remains.
- C. Do not wash or clean the body.
- D. Do not embalm the body.
- E. Do not remove any inserted medical equipment from the body such as intravenous (IV) lines, endotracheal or other tubing, or implanted electronic medical devices.
- F. Do not perform an autopsy. If an autopsy is necessary, consult ODH regarding the necessary precautions / requirements.
- G. Cremate the body. If cremation cannot be done due to safety concerns or other reason (i.e., religious practice, cultural, family reasons, etc.) the body should be buried in a standard metal casket or other comparable burial method within 24 hours. No open showings are to be permitted and additional restrictions may apply regarding funeral services / showings.

Handling of Human Remains

- A. The handling of any human remains associated with EVD is required to have proper training regarding PPE usage and the hazards associated with handling the remains of an EVD suspected or confirmed patient. Training and equipping the employee with the proper PPE and materiel is the responsibility of the employer.
- B. The handling of human remains associated with EVD (or other special pathogen), whether confirmed or suspected may occur within a healthcare setting, ambulance, or in a non-clinical setting (i.e., residence, workplace, etc.) based and the scenario / situation.
- C. Prior to the handling of human remains, it is required to consult current guidance information by the CDC. The information can be found in the CDC "Guidance for Safe Handling of Human Remains of Ebola Patients in U.S. Hospitals and Mortuaries (<http://www.cdc.gov/vhf/ebola/healthcare-us/hospitals/handling-human-remains.html>). Please reference the above link during an incident for updated guidance / instructions.
- D. The Ohio Department of Health: Bureau of Infectious Disease should be informed / consulted if an individual expires when under evaluation / treatment for possible / confirmed EVD (or other special pathogen).

Equipment / Supplies for the Handling of Human Remains

- Three pre-opened cremation compatible body bags
- PPE per agency protocol (in accordance with CDC PPE guidelines)
- Thermal sealer for sealing the second bag.
- Scissors
- Camera
- EPA registered disinfectant and wipes (use against non-enveloped virus)
- Alcohol-based hand rub (ABHR)
- Red biohazard bag(s) for medical waste
- Zip ties
- Gurney or mortuary stretcher
- Adhesive-backed pouch that is applied to the decontaminated body bag (for patient identification information / paperwork)
- Single-use (disposable) gloves with extended cuffs and a long-sleeved disposable gown.
- Biohazard Spill Kit (PPE, absorbent material, EPA disinfectant, biohazard waste bag)

- Infectious substance labels that are applied to the decontaminated body bag. (black and white “infectious substance” label, United Nations (UN) 2814 label, “Do No Open” label, Name and Phone Numbers for POC).

Procedures for Handling Human Remains

Human remains are to be handled in accordance with Center for Disease Control’s *Guidance for Safe Handling of Human Remains of Ebola Patients in U. S. Hospitals and Mortuaries*. (<http://www.cdc.gov/vhf/ebola/healthcare-us/hospitals/handling-human-remains.html>)

- A. Copy of the Mortuary Guidance Job Aid: Postmortem Preparation in a Hospital Room. See *Attachment O*.
 - (1) The remains will be triple bagged (pre-opened cremation-compatible body bags).
 - (2) First Bag (top of gurney): Vinyl or other chlorine-free material, minimum of 6 mil thickness (152 micrometers). To prevent any leakage of fluid, all seams should be factory heat-sealed or welded, not sewn, and the zipper should be on top.
 - (3) Second Bag (middle layer on gurney): Chlorine-free material impervious to fluids that can be heat-sealed around the body to form a leak-proof body bag. This bag should be specifically designed for the containment and transport of infectious bodies. The material should be pre-cut to provide sufficient material to envelop the body and first bag.
 - (4) Third Bag (bottom layer on gurney): Laminated vinyl or other chlorine-free material, minimum of 18 mil thickness (457 micrometers) with handles that are not sewn on, such as riveted handles reinforced with handle straps that run under the pouch. To prevent any leakage of fluids, all seams should be factory heat-sealed or welded, not sewn, and the zipper should be on top.

Transport of Human Remains

- A. Ensure that those handling the body bag wear single-use (disposable) gloves with extended cuffs and a long-sleeved disposable gown.
- B. Minimize transportation of remains that contain Ebola virus.
- C. Coordinate all transportation, including local transport for mortuary care or burial, with relevant local and state authorities in advance.
- D. Coordinate interstate transport with CDC by calling the Emergency Operations Center at (770) 488-7100 (Note: ODH Responsibility)
- E. Avoid transporting non-cremated remains via aircraft.

- F. Human remains transported for interment, cremation, or medical research at a college, hospital, or laboratory are excepted from the U.S. Department of Transportation's Hazardous Materials Regulations (49 C.F.R., Parts 171-180). See §173.134(b)(14).

Transportation Guidelines:

- A. This should be performed by a minimum of two healthcare or mortuary workers.
- B. Place patient identification and any other documents that need to accompany the body, including a printout of the photograph taken before the body was bagged, in an adhesive-backed pouch that is attached to the body bag. This will serve the function of toe tags. This should be done after the bagged body enters the cold zone but before the bagged body is transported to the morgue or out of the hospital.
- C. Affix the following labels to the body bag before it is placed into the hearse or other vehicle used to transport the body:
- Black and white "infectious substance" label
 - United Nations (UN) 2814 label
 - "Do not open" label
 - Name and phone number of the POC
- D. Hospital, EMS, or First Responders should identify processes to transport human remains from the location to the dedicated transport vehicle. This should include a secure, pre-identified route. The route should take the body directly to the hearse or vehicle that will transport the body.
- E. A hospital or Local Health Department (LHD) official should be identified to accompany the body from the hospital to the place of final disposition to ensure the safety of all those involved in the process.
- F. The official accompanying the body is required to know what to do if the body bag is compromised during transport and how to safely decontaminate it. The official is to have a biohazard spill kit with all of the equipment needed for any situation in which the body bag is compromised, including:
- All recommended PPE
 - Absorbent materials such as paper towels, kitty litter or a solidifier
 - An EPA- registered hospital disinfectant
 - Additional body bags, and
 - Biohazard waste bags
- G. Transport the body using a pre-identified hearse or vehicle to a pre-identified place of final disposition using a pre-identified route.
- (1) Note: It is recommended the remains be cremated. If cremation is not an option, the remains are to be buried in a standard metal casket within 24

hours. The casket containing the bagged remains can be handled without PPE. If cremation is to occur, notify the crematorium of any known implanted electronic medical devices. There is to be no public showing and other restrictions may apply during the funeral process.

(a) Refer to *Ebola Attachment J* for the list of Preapproved Crematoriums in Ohio for Ebola Remains with Pacemakers

Non-Human Remains (Pets)

- H. The handling of non-human remains (i.e., pets, animals, livestock, etc.) with suspected or known exposure to EVD (or other special pathogens) which have expired is to be handled with extreme caution.
- I. Consult the Ohio Department of Health: Bureau of Infectious Disease to coordinate the proper handling of non-human remains.

TUSCARAWAS COUNTY GENERAL HEALTH DISTRICT

TUSCARAWAS COUNTY TUBERCULOSIS CONTROL PROTOCOL

Purpose

The purpose of this plan is to document all components of TCHD tuberculosis control program developed to prevent the spread of TB to employees, physicians, clients, students, and visitors.

Responsibility

Tuscarawas County Health Department is designated as the Tuberculosis Control Unit for Tuscarawas County by the County Commissioners as established in Ohio Revised Code 339.72. The Health Commissioner is responsible for coordinating the TB control program throughout Tuscarawas County. A master copy of this plan will be kept in the Clinic and the Administration office. The plan will be reviewed every two years and revisions will be made at the discretion of the Health Commissioner, Medical Director, Director of Nursing, and the TB Coordinator(s).

Protocol for TB Disease Reports

Compliance with TCHD reportable Disease, Surveillance and Investigation and Reporting will prevent or reduce the spread of infectious illnesses in Tuscarawas County. Procedures are adapted from the Ohio Department of Health, Bureau of Infectious Disease Control.

1. The communicable disease nurse, who is designated as the TB coordinator, will be responsible for the daily entry of new cases and updates to cases in ODRS.
2. Disease reports may be made by phone, fax, mail or electronically and may originate from any lab, health care facility, health care provider, health department, citizen, blood bank or ODRS.
3. When a report is received, the communicable disease nurse will verify that the patient resides in Tuscarawas County.



897 East Iron Avenue
Dover, Ohio 44622

PHONE (330) 343- 5555
FAX (330) 343-1601
EMAIL director@tchdnow.org
WEB SITE www.tchdnow.org

4. All positive reportable disease lab reports from TCHD clients will be verified by the ordering TCHD physician.
5. TCHD communicable disease nurse confirms the diagnosis by lab report and ODH case definitions. The ordering physician, outside of TCHD, is contacted to determine if the patient has been notified, if clinical symptoms are present and what, if any, treatment has been provided.
6. The nurse will then call the affected individual or parent/guardian. Any information that is necessary will be obtained.
7. The nurse will instruct the individual on treatment, prevention and the potential source of infection/illness. Any questions the individual has will be addressed. It may be necessary to send the individual information regarding the infection/illness.
8. The communicable disease nurse will be responsible for performing timely follow-up on cases missing key information in ODRS.

Protocol for Diagnosis

Clients with symptoms of TB, which include persistent or bloody cough, weight loss, chills and/or night sweats, will be evaluated with the following diagnostic tests:

1. Mantoux skin test or QuantiFERON Gold Blood Test
2. Chest X-Ray and/or Scans
3. Sputum smears for 3 consecutive days (or bronchial washings)
4. Physical exam as soon as possible

The chest x-ray will not be done at this facility. Union Hospital or another capable facility will do this procedure after they have been notified in advance that the client will be coming to their facility; if symptomatic. The client will be given surgical masks to wear to appointments, etc. Drivers will be given a respirator mask for transport of client, as needed. By notification, they can make all the precautionary preparations that need to be done before the client arrives. If possible, sputum samples can be collected at TCHD and then sent via courier directly to ODH for processing. In the event that the client is unable to produce a sputum sample, they will be scheduled to have collections at Union Hospital or another capable facility.

The Medical Director will review all labs and x-ray results and the TB coordinator(s) will be notified of any positive findings. If the above tests are inconclusive the client will be referred to the appropriate specialists. Note: See Rooming a Suspected/Confirmed Tuberculosis Patient Protocol

Management of a Client in need of Financial Assistance

The TB Coordinator will assist the client to secure financial assistance, as needed. Avenues of assistance may be, but not limited to: Setting up an appointment with a Certified Navigator, coordinating with hospitals to assist with HCAP application,

assisting client to make an appointment with Department of Job and Family Services. If the client is unable to secure financial assistance per ORC 339.73 The board of county commissioners is the payor of last resort for tuberculosis treatment and shall pay for treatment only to the extent that payment is not made through third-party benefits.

The TB Coordinator will coordinate with the County Commissioners office and the client in need of financial assistance in order to secure payment for Tuberculosis services, only. See attached consent form.

Management of Reactors/Converters

Any client who, after receiving his PPD at this facility, is found to have a positive test as outlined below:

- 5 mm or more

Persons with HIV or AIDS

Recent contacts to an infectious case of TB

Persons with fibrotic lesions of chest radiography

Persons with organ transplants or other immunosuppressed persons

Persons receiving treatment with tumor necrosis factor-alpha antagonists

-10 mm or more

Foreign born persons recently arrived (within 5 years) from countries with high TB incidence or prevalence

Persons who inject drugs

Alcoholics

Residents or employees of high risk, congregate settings (homeless shelters, jails, healthcare facilities, etc.)

Mycobacteriology lab personnel

Children younger than 5 years old

-15 mm or more

Persons with no known risk factors to TB

Clients returning positive skin tests will be given a requisition for a chest x-ray and follow up appointment scheduled here at the health department. If the client has a private physician and would like to schedule with him/her, stress the need to see him/her immediately for follow-up studies. Within one week, a call will be made to the physician's office to verify if the client did in fact see the physician for care. The TB coordinator will make this call, and all information will be documented in the client's TCHD chart.

The client should be given information on prophylactic therapy and strongly encouraged to receive prophylactic therapy especially if they are at a high risk of developing TB disease.

Prophylactic therapy consists of a 6-9 month course of daily INH. One-month supply will be dispensed at a time. The medication is self-administered unless otherwise indicated. A nurse will question the client on side effects of the drug at each medication pick-up.

Management of women of child-bearing age

A pregnancy test will be administered prior to treatment. The provider will discuss and prescribe a form of birth control, as needed. Depo Provera or a LARC is preferred. If the patient chooses oral contraceptive medication or if the patient is not ordered birth control, then prior to distribution of each month's medication the last menstrual period will be documented and a pregnancy test will be performed. The client will assume the cost of the pregnancy test. See attached Consent Form.

Prophylactic therapy is not a cure, but will aid in the prevention of the active disease by at least 69% for those who complete a six-month course.

Early Identification of Persons with Active Disease

Clients with known signs and symptoms of possible TB disease will be asked to identify themselves to the admitting personnel upon arrival to TCHD. Admissions personnel will immediately remove these clients from the common waiting area, move them exam room number 7 and ask them to wear a surgical mask if they are symptomatic.

If the client refuses to wear a mask, the client will immediately be taken to exam room number 7, the Policy for Rooming a Suspected/Confirmed Tuberculosis Patient will be initiated, and the TB coordinator and Director of Nursing will be notified. Before entrance into the exam room all personnel will wear a respirator mask until the client is evaluated.

Management of Patients with Active Disease

Since Tuberculosis is a public health concern and Tuscarawas County Health Department is the Tuberculosis control unit for the county this health department will be involved in all active cases of TB in our county.

Private physicians may follow their own patients, but it TCHD's responsibility to work with the physician and offer assistance if needed. Let the physician know that TCHD will be following the patient and that the health department is responsible for completing all reporting forms for the Ohio Department of Health TB registry.

Tuberculosis is a Class B disease and must be reported to the Ohio Department of Health within by the close of business the next day. Case investigation must be started within 72 hours of the report. Management of TCHD clients with active TB will include education, case investigation, contact investigation, follow up on lab work, chest x-rays,

sputums, response to treatment, distribution of medication and DOT (direct observation therapy).

Response to Treatment

1. There will be initial bloodwork done on all clients with active TB. This will include LFT's and will be repeated monthly to monitor the patient's liver function during treatment.
2. Sputums: These will be obtained monthly after the initiation of therapy until there are three consecutive negative cultures. A decrease in the number of AFB seen on the smear will be used to determine the end of isolation. This usually occurs after the first three weeks of therapy. If the sputum remains positive after three months of therapy, further evaluation is indicated to determine patient's compliance and the possibility of drug resistance. This is why DOT is of the essence for active cases of TB and should strongly be advised.
3. Chest x-ray: A copy of the initial chest x-ray should be placed in the patient's file at TCHD. A follow-up x-ray at the completion of therapy may be done. In the case of extreme cavitation a yearly chest x-ray should be considered.
4. Patient Adherence: A public health nurse and medical director will monitor patient understanding and compliance throughout the treatment process. If the patient does not show for appointments, the TB coordinator and medical director will be notified immediately. The patient will be contacted immediately and arrangements will be made to ensure compliance. This may include delivering medications to the home, arranging for incentives to be initiated at DOT. In extreme cases the Health Commissioner will be notified and legal action may be taken.

All direct care providers who have the potential for the exposure to TB are trained at the time of hire and updated annually regarding the hazards and control of TB. The TB committee conducts the training or and educator supplied by the committee. The training will include at least the following elements: hazards of TB transmission in health care facilities, epidemiology of TB (including signs and symptoms), distinction between latent TB and Active TB disease, preventative therapy and treatment for active disease, risk factors, and information about multi-drug resistance TB, medical surveillance, therapy policies and the proper use of TB controls specific to TCHD.

TB Direct Observation Therapy (DOT)

All cases of active TB will be required to undergo DOT. Supportive services and incentives that reduce barriers to adherence will be provided or arranged by the health department to ensure completion of therapy and protect the health of the general public. If necessary the Health Commissioner may obtain an order from the court to administer DOT.

When conducting direct observation therapy:

1. Assess for and respect cultural, individual, and family differences that will contribute to development for strong, trusting relationships with the person and the family.
2. Determine the need for interpreters and/or translators
3. Assess the client's knowledge about their condition and provide appropriate education.
4. Correct myths and misunderstandings as they arise.

Isolation and Quarantine

Tuscarawas County Health Department will require all persons will suspected or confirmed infectious tuberculosis to exercise all precautions to prevent the spread of infection to others. It is important to educate the individual and the family on ways to reduce the risk of transmission. Stress the importance of staying home or at another agreed upon location. Place emphasis on the importance of excluding previously unexposed persons until non-infectious. If the individual fails to comply with isolation an order issuing the individual to comply may be issued under Ohio Revised Code 339.84. A sample order is contained below:

Date

RE: ORDER OF ISOLATION FOR KNOWN TUBERCULOSIS PATIENT

To: XXXX

Address: XXXX

You have been identified to have positive sputum smear and culture results for mycobacterium Tuberculosis (TB). You pose a substantial threat to the health of the citizenry. In order to prevent transmission of TB you were ordered by XXXX the Tuscarawas County Health Department to remain in home isolation and comply with direct observational therapy (DOT) to ensure medication treatment completion. On multiple occasions, you have violated the initial order of the Health Department to remain in home isolation and comply with Ohio Revised Code (ORC) 339.82. The Tuscarawas County Health Department, under ORC 339.84, is now issuing an order compelling you to comply with home isolation and ORC 339.82.

The location where you are to be isolated is XXXX. During the period of isolation you are to remain apart from other persons. You may not have visitors and you cannot have direct contact with other people. You will however, be required to submit for daily direct observational therapy (DOT) by a Tuscarawas County Health Department representative at your home address. During your isolation period you will be required to undergo medical exams and bodily specimens will be collected for analysis. In addition, you should accept any treatment recommended by your health care providers. Failure to

accept treatment may significantly increase the duration of isolation that will be necessary and may require the Department to issue an order compelling treatment.

This isolation order will be in effect until you are deemed non-contagious by the Tuscarawas County Health Department and therefore no longer pose a substantial threat to the health of the public. It is anticipated that it will take at least 6-8 weeks to verify and render you non-contagious provided you continue and respond to treatment. A Tuscarawas County Health Department representative will notify you when this occurs. If it is necessary that you leave your home isolation for medical reasons or otherwise, you must first gain permission from the Tuscarawas County Health Department and wear a mask provided to you.

If you leave the place of isolation designated above without the prior consent of the Department, action will be taken as authorized under ORC 339.85.

Any questions regarding this order may be directed to XXXX at 330-343-5555 extension XXX.

I hereby certify that this order was served in-hand to the above-named individual on _____ at _____ a.m./p.m by _____.

Tuscarawas County Health Department Commissioner

Acknowledgement of Receipt and Understanding

Date: _____

In the event that the individual fails to comply with this order and injunction can be issued by the court under Ohio Revised Code 339.85.

Release from Isolation

An individual with active, pulmonary tuberculosis will be released from isolation after the following four conditions:

1. 3 or more weeks of medications
2. 3 negative sputum smears
3. Clinical improvement
4. Release from physician

Confidential Information

As outlined in Ohio Revised Code 339.81, any information, data, and reports with respect to a case of tuberculosis that are furnished to, or procured by, a county or district tuberculosis control unit or the department of health shall be confidential and used only for statistical, scientific, and medical research for the purpose of controlling tuberculosis in this state. No physician, hospital, or other entity furnishing information, data, or

reports pursuant to this chapter shall by reason of such furnishing be deemed to have violated any confidential relationship, be held to answer for willful betrayal of a professional confidence, or be held liable in damages to any person.

Conducting a Contact Evaluation

Epidemiologic investigations may be indicated for several situations. These include, but are not limited to, a) the occurrence of PPD test conversions or an active case of TB; b) the occurrence of possible person to person transmission of Mycobacterium Tuberculosis; and c) situations in which patients with active TB are not promptly identified and isolated, thus exposing other persons to MTB. The general objectives of the epidemiological investigations in these situations are as follows:

1. To determine the likelihood that transmissions of MTB has occurred
2. To determine the extent to which MTB has been transmitted
3. To identify those persons who have been both exposed and infected
4. To enable individuals to receive appropriate clinical management
5. To identify factors that could have contributed to transmission and infection and to implement appropriate interventions
6. To evaluate the effectiveness of any interventions and to ensure that exposure to and transmission of MTB have been completed. The exact circumstances of these situations are likely to vary considerably and the associated epidemiologic investigations should be tailored to the individual circumstances. More information may be accessed in the Ohio Department of Health's Ohio Tuberculosis Prevention & Control, and Surveillance Manual: 2013.

Employee Evaluation, Surveillance and Management

1. A two-step Mantoux PPD step skin test will be performed for all new TCHD hires. The first step will be completed at the time of hire or within one week of employee's start date. The second step will need to be administered 7-14 days from the first TB skin test. If the skin test returns a positive, a chest x-ray will be ordered and the medical director or private physician must evaluate the employee. See Protocol for TCHD Employee with Positive TB Skin Test.
2. If the new employee can show documentation of a PPD done within the last 90 days the PPD skin test is not required. Records and subsequent TB skin testing will be kept in a separate file in the Office of Administration and are confidential.
3. If a new employee has previous documentation of a positive skin test the TCHD infectious disease nurse will assess the individual. The medical director may order a chest x-ray. If the assessment is negative the employee may start work; if the assessment is positive the employee may not begin work until he is evaluated by the medical director or his private physician and has received medical clearance to work. Annually thereafter, employees with positive skin test are assessed for pulmonary disease and followed up accordingly. The employee is counseled at

the time of hire on the importance of reporting symptoms suggestive of TB to his supervisor who will refer the employee for proper follow-up.

4. Mantoux skin testing will be conducted yearly per the following protocol:
 - a. All TCHD employees must be skin tested annually.
 - b. Any employee who has continued direct contact with an active case of TB will be tested once every six months for the year of care.
5. Routine chest x-rays are not required or recommended for the asymptomatic reactor. After the initial CXR, an employee with a positive skin test does not need annual CXR's unless he/she becomes symptomatic.
6. BCG is not a contraindication for PPD testing and a skin test of 10mm or greater is considered a positive and an evaluation will be conducted.
7. Pregnancy is not a contraindication for PPD testing.
8. Immunosuppressed employees will be referred to the medical director for evaluation and counseling.

TCHD Employee Conversion

Employees with a positive PPD conversion should be evaluated for active disease and managed according to CDC guidelines with regard to treatment and or preventative therapy. An employee who has infectious TB will not be allowed to work until a non-infectious state is determined as above and be placed on paid administration leave.

Revisions

Changes	Date	Person Responsible
Revised	2/2015	Health Commissioner
Revised Management of Reactor/Convertor section to address LTBI female patients of childbearing age	1/30/17	Director of Nursing/Medical Director
Addition of LTBI Treatment and Contraception Agreement	2/17/2017	Director of Nursing/Communicable Disease Nurse/Medical Director
Updated Protocol for Diagnosis, Added Management of a Client in need of Financial Assistance and consent	4/18/2017	DON TB Coordinator

form, added examples of high risk congregate settings, added consent form for LTBI treatment/birth control, added policy for rooming a suspected/confirmed TB patient, added protocol for TCHD employee with positive TB test		
Formatting changed	4/24/2017	Health Commissioner
Approved	5/10/2017	Board of Health