

How Do I Use This Database?

OVERVIEW

The *Pennsylvania Competency Mapping Project* database contains over 330 public health emergency preparedness competencies.

You can use it for a variety of purposes:

- To **develop competency-based courses.**
- To **identify areas for employee development.**
- To **identify skills that you've already acquired.**

The database makes use of a *triangulation* method to search for competencies, based on three search categories:

- **Functional Categories** (occupational role within the organization)
- **Disaster Phase** (Preparedness and Planning, Response and Mitigation, and/or Recovery and Evaluation)
- **Key Topics** (key words list)

By using the combining terms *Find All Of* (i.e. *AND*, more specific) and *Find Any Of* (i.e. *OR*, more general) you can refine your search, as shown in the diagram below:



****NOTE**:** Searches using this database may give you more results than you need. You must rely on your own professional expertise and knowledge of your course materials to select which competencies are most relevant for you.

INSTRUCTIONS

FOR OPENING THE DATABASE

- *You'll need to have Microsoft Access on your computer for this step. Most computers with Microsoft Office Suite have Access.*
 - Because of the database file type, you may get a variety of security warnings. Do not be alarmed! Simply follow the instructions below to open the database.
1. Click on the link [Preparedness Competencies.mde](#) to download and save the database, and follow the instructions below.
 2. A Security Warning pop-up will appear. Click "Save," and save the file to your desktop.
 3. A pop-up box that says "Download Complete" will appear. Click on "Open."
 4. Another Security Warning pop-up will appear. Click "Run" or "Open."
 5. If another Security Warning pop-up appears, click "Open."
 6. The database will appear as a pair of nested windows. Open both windows to their maximum size by clicking on the "maximize" icons in the top right corner of each window.

DATABASE KEY

SEARCH CATEGORIES (top portion of database screen)

There are 3 search categories (Functional Category, Disaster Phase, and Key Topics), located in the upper left (aqua-colored) portion of the database screen.

Up to 3 selections can be made from each category, using drop-down menus.

To clear out a drop-down menu, highlight the blank selection at the top of the drop-down menu list. Drop-down menus should be cleared between searches.

Selections in each category can be combined by selecting Find Any Of (e.g. *OR*, for more general searches) or Find All Of (e.g. *AND*, for more targeted searches).

The three search categories are listed below, along with their drop-down list options.

I. Functional Category

- A PHYSICIANS
 - A1 All Physicians
 - A2 Medical Examiners
 - A3 Psychiatrists
- B NURSES
 - B1 Registered Nurses
 - B2 Nurse Practitioners
 - B3 Licensed Practical Nurses
 - B4 Nursing Assistants
- C1 PHYSICIAN ASSISTANTS
- D1 PHARMACISTS
- E ADMINISTRATORS
 - E1 Health Departments
 - E2 Hospitals
 - E3 Clinics
 - E4 Nursing/Group Homes
 - E5 Mental Health Administrators
- F FIRST RESPONDERS
 - F1 Dispatchers
 - F2 Paramedics
 - F3 Emergency Medical Technicians
 - F4 Fire Fighters
 - F5 Law Enforcement
 - F6 Hazmat Technicians
- G1 EPIDEMIOLOGISTS – HEALTH DEPARTMENTS
- H LABORATORY WORKERS
 - H1 Health Departments
 - H2 Hospitals
- I PUBLIC RELATIONS PERSONNEL
 - I1 Health Departments
 - I2 Hospitals
- J1 ENVIRONMENTAL HEALTH WORKERS – HEALTH DEPARTMENTS
- K1 PUBLIC HEALTH EDUCATORS
- L1 FUNERAL DIRECTORS/CORONERS

II. Disaster Phase

- 1 (Preparedness and Planning)
- 2 (Response and Mitigation)
- 3 (Recovery and Evaluation)

III. Key Topics (with definitions and related words)

Agency Planning

Definition: Pertaining to process of getting ready for all hazards emergencies, including staffing and organization, emergency response actions, linkages, communications systems, resource allocation.

Related Words: authority, backup support, capacity, chain of command, directory, gaps, implementation, internal, management system, methods, mission, needs assessment, plan, policies and procedures, practices, preparedness programs, procedures, protocols, risk assessment, scenario, volunteers

Agents: Biological

Definition: Pertaining to viruses, bacteria, or other germs (agents) with the potential to cause illness or death in people, animals, or plants.

Related Words: agent identification, category a, category b, category c, hazardous substances, hazards, outbreak

Agents: Chemical

Definition: Pertaining to hazardous chemicals with the potential to cause illness or death in people, animals, or plants.

Related Words: agent identification, chemical weapons, hazardous substances, hazards

Agents: Explosive

Definition: Pertaining to explosive substances with the potential to cause illness or death in people, animals, or plants.

Related Words: agent identification, hazardous substances, hazards

Agents: Radiological/Nuclear

Definition: Pertaining to radiological or nuclear substances with the potential to cause illness or death in people, animals, or plants.

Related Words: agent identification, hazardous substances, hazards, radiation

Bioterrorism

Definition: Pertaining to the deliberate release (or threat of release) of viruses, bacteria, or other germs (agents) with the potential to cause illness or death in people, animals, or plants.

Related Words: agent identification, hazardous substances, outbreak

Clinical Skills: Diagnosis

Definition: Pertaining to the recognition of chemical, biological, radiological, nuclear, or explosive (CBRNE) agents and symptoms.

Related Words: agent identification, associated illnesses, autopsy, community health indicators, determine, diagnostic evaluation, epidemiology, medical histories, physical examinations, routes of exposure, rule-out testing, signs and symptoms

Clinical Skills: Treatment

Definition: Pertaining to the care of persons exposed to chemical, biological, radiological, nuclear, or explosive (CBRNE) agents and symptoms.

Related Words: antibiotics, antidotes, confidentiality, follow-up, immunizations, indicators, interventions, signs and symptoms, stabilization, therapeutic, therapies, vaccination

Clinical Skills: Triage

Definition: Pertaining to the process of sorting survivors and casualties for purposes of prioritizing persons who are in most need of treatment.

Related Words: agent identification, assessment, immunizations, isolation, mass casualty incident, medical histories, vaccination

Communication: Interagency

Definition: Pertaining to the interaction of persons within the same organization or institution.

Related Words: consult, consultation, fax, internal, management system, multi-agency, other agencies and responders, partner agencies, phone, radio, redundant communication systems, referral, response community

Communication: Intra-agency

Definition: Pertaining to the interaction of persons in different organizations or institutions.

Related Words: chain of command, fax, implementation, mission, phone, redundant communication systems

Communication: Media

Definition: Pertaining to the interaction of organizational/institutional employees with representatives from news agencies.

Related Words: confidentiality, disseminating, privileged information, radio

Communication: Public

Definition: Pertaining to the interaction of organizational/institutional employees with the general population.

Related Words: confidentiality, disseminating, family, personal, privileged information, regional

Criminal Investigation

Definition: Pertaining to the reconstruction of a violation of criminal law in order to identify and locate the perpetrator and gather evidence to convict the perpetrator.

Related Words: autopsy, crime scene, evidence, forensic, preserving

Cultural Awareness

Definition: Pertaining to an understanding of the unique needs and help-seeking behaviors of individuals and families based on the values, beliefs, language, customs, and institutions of racial, ethnic, religious, or social groups.

Related Words: confidentiality, culture, ethical challenges, rights, social challenges, social issues, socio-cultural responses, spiritual issues

Decontamination

Definition: Pertaining to the use of physical or chemical means to remove, inactivate, or destroy biological, radioactive, or chemical hazards.

Related Words: hazardous substances, hazards, interventions, personal protective equipment, protection, radiation

Drills and Exercises

Definition: Pertaining to an activity that tests, develops, or maintains skills; evaluates plans and procedures; or tests and evaluates the complex activities.

Related Words: practices, scenario, simulation, tabletop, workforce programs

Equipment

Definition: Pertaining to instruments used in emergency preparedness, response, or evaluation activities.

Related Words: fax, instruments, personal protective equipment, phone, radio, redundant communication systems

Evaluation

Definition: Pertaining to the systematic review of emergency preparedness, response, or evaluation activities for the purpose of improvement.

Related Words: effectiveness, follow-up, gaps, improvements, needs assessment

Functional Roles

Definition: Pertaining to public health responsibilities involved in emergency preparedness, response, recovery, and mitigation.

Related Words: responsibility, professional skills

Incident Command System

Definition: A standardized on-scene emergency management structure in which participants adopt integrated functions and responsibilities equal to the complexity and demands of the emergency situation.

Related Words: management system, official, phases of a disaster, Public Health Incident Commander, Unified Command System

Information Systems

Definition: Pertaining to the mechanisms used for the transmission of facts, data, or updates.

Related Words: data, pathways, disseminating, fax, phone, radio, redundant communication systems

Infrastructure

Definition: Pertaining to the overarching physical, systemic, and/or jurisdictional support available for emergency response.

Related Words: backup support, capacity, federal, mechanisms, pathways, public health support, regional, resources, systems

Laboratories

Definition: Pertaining to a place for conducting tests and research procedures(particularly involving potentially hazardous substances).

Related Words: Laboratory Response Network, methods, rule-out testing, security, specimen

Laws

Definition: Pertaining to legal jurisdictions, authorities, regulations, and documents.

Related Words: authority, federal, jurisdiction, legal, local, official, state, national, regional, regulations, regulatory issues, rights

Leadership

Definition: Pertaining to the use of personal influence to enable a group to work together for a common purpose.

Related Words: authority, chain of command, management system, professional skills, volunteers, workforce programs

Mental Health

Definition: Pertaining to the overall emotional and psychological condition of persons who have been affected by an emergency situation.

Related Words: acute distress, coping, critical incident stress reaction, fear, panic, phases of a disaster, psychiatric counselors, interventions, psychological, Psychological First Aid, impact, psycho-social, therapeutic, therapies, trauma

National Pharmaceutical Stockpile

Definition: Pertaining to the Strategic National Stockpile (SNS), which has large quantities of medicine and medical supplies to protect the American public if there is a public health emergency severe enough to cause local supplies to run out.

Related Words: antibiotics, immunizations, pharmaceuticals, pharmaceuticals, vaccinations

Natural Disasters

Definition: Physical damage caused by cyclones, hurricanes, hail, earthquakes, volcanic eruptions, avalanches, flooding, overflowing of rivers, lakes or inlets, fires, land and rock slides, the fall or collapse of constructions, buildings, structures or other Related objects, and falling trees or branches.

Related Words: floods, hurricanes, phases of a disaster, tornado

Partnerships

Definition: Pertaining to the collaborative working relationship between organizations or institutions.

Related Words: collaborate, consult, consultation, other agencies and responders, partner agencies, partner professionals, partners, referral, resources, response community, volunteers

Problem Solving

Definition: Pertaining to skills and thought processes needed to resolve conflicts and challenges.

Related Words: flexible thinking, new situations, range of emergency situations, scenario, unusual events

Remains: Human

Definition: Pertaining to the handling of deceased persons and body parts.

Related Words: forensic, mass casualty incident, medical examiner, preserving

Safety

Definition: Pertaining to assurance that adverse effects will not be caused by some agent under defined conditions.

Related Words: hazards, precautions, protection, radiation, safety measures, security

Scene Assessment

Definition: Pertaining to the evaluation of sites of potential or actual disasters for human safety.

Related Words: assessment, hazard vulnerability analysis, hazardous substances, hazards, risk assessment

Social Support

Definition: Pertaining to the network of family, friends, neighbors, and community members that is available in times of need to give emotional, instrumental, and informational help and support.

Related Words: assistance, coping, critical incident stress reaction, displaced persons, family, fear, personal, psycho-social, resources, social challenges, social issues, socio-cultural responses

Surge Capacity

Definition: Pertaining to the health care system's ability to rapidly expand beyond normal services to meet the increased demand for qualified personnel, medical care and public health in the event of a large-scale public health emergencies or disaster..

Related Words: capacity, resources

Surveillance

Definition: Pertaining to the close observation of an individual or population, for purposes of disease containment and control.

Related Words: algorithms, community health indicators, contain, containment, control measures, data collection protocols, epidemiological investigation, epidemiology, health care utilization data, indicators, signs, symptoms, isolation, outbreak, population protection, reporting requirements, sources, tracking

Terms and Definitions

Definition: Pertaining to the required acquisition and/or use of all-hazards, emergency-specific vocabulary.

Related Words: concepts, knowledge, principles, terminology

Training

Definition: Pertaining to the accumulation of knowledge and/or experience in disaster preparation, response, recovery, mitigation, and evaluation activities.

Related Words: classes, concepts, continuing education, knowledgeable, professional skills, workforce programs

Vulnerable Populations

Definition: Pertaining to groups of people who need extra support to be prepared, as well as those needing community support to successfully respond and recover in disasters or emergencies situations.

Related Words: aged, displaced persons, immunosuppressed, special needs, special populations, target populations, very young

DATABASE KEY (cont.)

RESULTS CATEGORIES (middle-to-lower portion of database screen)

- Search results are shown in the middle-to-lower (dark gray) portion of the database screen.
- Depending on the size of the browser window, up to two competency results can be seen at a time.
- The total number of search results is the furthest number to the right, in the bottom (light gray) bar on the screen.
- Competency results can be scrolled through in a number of ways:
 - by using the scroll bar on the right-hand side,
 - by pressing the “Page Down” button on the computer keyboard, or
 - by clicking on the left and right arrows located at the very bottom (light gray) bar on the screen.
- In addition to the searchable categories (**Functional Category**, **Disaster Phase**, and **Key Topics**), search results will also contain three other non-searchable categories: **Level**, **Number**, and **Competency** (described below).

Level Indicates the **amount of cognitive skills** required, based on the verbs used in the competency.
Level results range from 1-6.
Cognitive Skill level definitions can be found in the document [Level.pdf](#).

Number A randomly-assigned number corresponding to the competency source material.
Competency source materials can be found in the document [Number.pdf](#).

PRACTICE EXAMPLES

Now let's get started! Go through the following examples to practice using the database for a variety of searches. You may want to print these next two pages out to use along with the database.

Example 1: Developing Competency-Based Courses

- You work in a metropolitan hospital, and want to design a course based on the competency needs of nurses at the hospital.
- You decide to search the database by Functional Categories. From the drop-down **Functional Categories** menus, you select *Find All Of + B NURSES* from the list, and then click on **Show matching records**.
- The search pulls up 151 competencies. These are far too many to develop an effective course, so you decide to further refine your search.
- The training you want to develop involves the actions that should be taken by nurses *immediately following a bioterrorist* incident. Therefore, to refine your search, you add selections from the other two drop-down menus.
- You consult the bottom of page 2 (the Database Key Portion) of your printed How Do I Use This Document, to find the pertinent disaster phase number.
- In the database, from the **Disaster Phase** menu, you selects *Find All Of + 2*. This Disaster Phase level corresponds to Response and Mitigation.
- From the **Key Topics** menu, you select *Find All Of + Bioterrorism*, and then click on **Show matching records**.
- This search gives you 8 competencies, which you will choose from to develop your hospital nurse training (these can be printed out).
- For step-by-step information on developing competency-based trainings, you can consult Columbia University's publication [*Competency-to-Curriculum Toolkit: Developing Curricula for Public Health Workers*](#) (available on-line or as a link through this project).

[Before proceeding to the next example, please clear your drop-down menus by choosing the blank selection from the top of each drop down menu list.]

Example 2: Identifying Areas for Employee Development

- You are a supervisor for an ambulance service. You just returned from a meeting with the state's regional emergency preparedness task force, which is working to increase emergency response trainings for paramedics in the area.
- You use the database to find employee development areas for the paramedics you supervise.
- From the **Functional Category** drop-down menu, you select *Find All Of + F2 First Responders Paramedics*, and click on **Show matching records**.
- Your search results in 49 competencies. This is more than you want.
- The task force is concentrating on emergency *response* categories. You consult your printed Database Key, and find on page 2 that phase 2 in the database corresponds to Response and Mitigation.
- In the database, from the **Disaster Phase** drop-down menus, you select *Find All Of + 2*, and click on **Show matching records**.
- The results give you 22 competencies. Still too many.
- You look at the **Key Topics** drop-down menu in the database. You want to ensure that your paramedics know their roles and responsibilities while in the field, so you select *Find All Of + Functional Roles* from the drop-down menus, and click on **Show matching records**.

- Your search results in 10 competencies; a much more manageable number. You print out the 10 competencies, and make plans to search for trainings that address these employee development areas.

[Please clear your drop-down menus before proceeding to the next example.]

Example 3: Identifying Skills That You’ve Already Acquired

- You are a hospital administrator, and have completed three trainings on emergency preparedness in the last year. You want to know which competencies you have already worked towards, and which ones you still need to work on.
- You don’t know what competencies the trainings specifically addressed, but you still have the syllabi with the learning objectives. You find some key words in the learning objectives (“capacity,” “resources,” “surge”), and compare them to the **Key Topics** portion of your Database Key. Your key words look similar to those for the key topic Surge Capacity.
- Using the triangulation technique, you select *Find All Of + E2 Administrators Hospitals* from the **Functional Category** drop-down menus.
- Your previous trainings involved *preparing* the hospital for an emergency, so you select *Find All Of + I* (Preparedness and Planning) from then **Disaster Phase** drop-down menus.
- Since the key words from your trainings corresponded to the Surge Capacity category in the database key document, you select *Find All Of + Surge Capacity* from the **Key Topics** database drop-down menus in the database, and click on **Show matching records**.
- Your search only gave you one result. You need to expand your search.
- You look again in the **Key Topics** part of the database key document. You find that “capacity” and “resources” also correspond to Infrastructure.
- In the database, you expand your **Key Topics** search to *Find Any Of + Surge Capacity + Infrastructure*, and click on **Show matching records**.
- You now have 28 competencies to choose from. You look at this expanded list for competencies that the trainings contributed to helping you meet. (You can print them out if you choose).
- You realize that you may need additional training to fully reach the level and breadth indicated in some of the competencies. You can print out the list of all competencies for your Functional Category and compare them to the list of competencies you have met in whole or in part. The difference between these two lists is the competencies that you still need to meet.
- You can put the printed list of competencies you have already worked towards in your personnel file along with the trainings you have taken.
- You can log on to the Pennsylvania Department of Health [Online Education System](#) to see if you can identify trainings that will help you meet these additional competencies.