The Division of High-Consequence Pathogens and Pathology (DHCPP) improves public health and safety nationally and globally by investigating, monitoring, and controlling sickness, disability, and death caused by highly-lethal viral, bacterial, prion, and related infections and diseases of unknown origin.

DHCPP’s Core Activities include:

- **Investigating outbreaks.**
  - Uses epidemiological and laboratory techniques to determine agents responsible for outbreaks.
  - Discovers the source of outbreaks including environmental, animal, and transplant-associated infections.
  - Monitors trends in disease transmission to identify outbreaks early and help control and prevent their spread.

- **Identifying previously unrecognized infectious diseases.**
  - Performs laboratory tests on tissue specimens from humans and animals that are sick or deceased from unknown causes. Specimens can be submitted by state and local health departments, medical examiners, and international partners.
  - Identifies new infectious agents and study how they cause illness.

- **Monitoring highly lethal diseases.**
  - Manages major surveillance networks and systems such as MicrobeNet and develops new tests for use by key domestic and international collaborating laboratories.
  - Tracks diseases including rabies, poxviruses, human prion diseases, anthrax, hantavirus, and other select bacterial and viral diseases.
  - Serves as WHO Collaborating Center for select viral and bacterial diseases.

- **Improving capabilities to diagnose, prevent, and treat diseases.**
  - Conducts laboratory-based studies of human papillomavirus (HPV) infection to monitor and improve vaccination effectiveness and reduce risk of HPV-associated cancers.
  - Researches potential causes of chronic fatigue syndrome and work with public health communities to promote new interventions.
  - Provides regular laboratory diagnostic support and training to state and local health departments and international partners.
  - Conducts laboratory research to understand disease processes in the body and develop vaccines and treatments.

- **Contributing science to emergency response preparation.**
  - Monitors over 70 pathogens and diseases including many select agents, those with the potential to pose a severe threat to public health.
  - Studies agents that could be used in a bioterrorist attack in biosafety level four (BSL-4) containment facilities.
  - Provide expert consultation on planning emergency responses and medical countermeasures.
Pathogens that DHCPP works with include:

<table>
<thead>
<tr>
<th>Bacterial Pathogens</th>
<th>Viral Pathogens</th>
<th>Prion Diseases</th>
<th>Chronic Diseases</th>
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<tbody>
<tr>
<td>• Actinomycoses and nocardiosis</td>
<td>• Orthopoxviruses</td>
<td>• CJD (Creutzfeldt-Jakob disease, classic)</td>
<td>• Chronic fatigue syndrome</td>
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<tr>
<td>• Anthrax</td>
<td>• Parapoxviruses</td>
<td>• vCJD (variant Creutzfeldt-Jakob disease)</td>
<td>• Human papillomavirus</td>
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<td>• Brucellosis</td>
<td>• Rabies</td>
<td>• BSE (bovine spongiform encephalopathy, or mad cow disease)</td>
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<td>• Buruli ulcer</td>
<td>• Ebola virus disease</td>
<td>• Lassa fever</td>
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<td>• Glanders (Burkholderia mallei)</td>
<td>• Hantavirus pulmonary syndrome</td>
<td>• Marburg hemorrhagic fever</td>
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<td>• Hansen's disease (Leprosy)</td>
<td>• Lassa fever</td>
<td>• Rift Valley fever</td>
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<td>• Leptospirosis</td>
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<td>• Melioidosis (Burkholderia pseudomallei)</td>
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<td>• Pasteurella sp. infections</td>
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<td>• Rat-Bite fever</td>
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DHCPP's Branches

**Bacterial Special Pathogens Branch (BSPB)**
- Researches, prevents, and controls illnesses due to a varied group of zoonotic and environmental bacterial pathogens.

**Viral Special Pathogens Branch (VSPB)**
- Researches, prevents, and controls illnesses caused by zoonotic and environmental viral pathogens.

**Infectious Diseases Pathology Branch (IDPB)**
- Evaluates tissues from patients with confirmed or suspected infectious diseases to determine causes of death or illness and identify previously unrecognized pathogens.

**Chronic Viral Diseases Branch (CVDB)**
- Conducts research on chronic fatigue syndrome (CFS) and human papillomavirus (HPV) with the goal of reducing the health burden of these conditions.

**Poxvirus and Rabies Branch (PRB)**
- Consults and conducts disease surveillance and investigations related to poxviruses and rabies.

**Prions and Public Health Office (PPHO)**
- Fulfills CDC's responsibilities as the lead agency for monitoring the occurrence of human prion diseases in the United States.