**Data Supplement S1. MEDLINE/PubMed search strategies**

**Disaster Response + Healthcare system + (disaster OR natural disaster OR pandemic OR terrorism)**

(“Disaster recovery”[tiab] OR “Disaster Resiliency”[tiab] OR “disaster preparedness”[tiab] OR “disaster planning”[tiab] OR “disaster mitigation” OR “Disaster leadership”[tiab] OR “Crisis Management”[tiab] OR “emergency operations”[tiab] OR “disaster operations”[tiab] OR leader\*[tiab] OR leadership[tiab] OR “Needs Assessment”[tiab] OR “Hazard Vulnerability Analysis”[tiab] OR “hazard vulnerability analyses”[tiab] OR “Hospital Incident Command System”[tiab] OR “hospital incident command systems”[tiab] OR “hospital emergency operations”[tiab] OR “Incident Command System”[tiab] OR “hospital incident command systems”[tiab] OR “Information Management”[tiab] OR "Information Management"[Mesh] OR Communication[mesh] OR communication\*[tiab] OR “disaster exercise”[tiab] OR exercise[tiab] OR tabletop[tiab] OR “disaster training”[tiab] OR “disaster communications”[tiab] OR “incident management”[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**(ethics OR legal) + (disaster OR natural disaster OR terrorism OR pandemic) + Healthcare system**

("Ethics"[Mesh] OR "Bioethics"[Mesh] OR Ethics[tiab] OR bioethics[tiab] OR Liability[tw] OR liabilities[tiab] OR legal[tiab] OR law\*[tiab] OR legislation[tiab] OR "Liability, Legal"[Mesh] OR "Legal Services"[Mesh] OR “Scarce resources”[tiab] OR “Crisis Standards of Care”[tiab] OR “allocation of scarce resources”[tiab] OR (“Resource allocation”[tw] AND disaster\*[tw])) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR 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OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**(Communications OR IT) + Healthcare system +** **(disaster OR natural disaster OR terrorism OR pandemic)**

((“Disaster Medicine”[tw] AND Informatics[tw]) OR “Social Media”[mesh] OR “social media”[tiab] OR Twitter[tw] OR Facebook[tw] OR “Crisis Mapping”[tiab] OR “crisis mappers”[tiab] OR “Information Management”[tiab] OR "Information Management"[Mesh] OR Communication[mesh] OR communication\*[tiab] OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR cybersecurity[tiab] OR “hospital information system”[tiab] OR “hospital IT”[tiab] OR informatics[tiab] OR "Informatics"[Mesh] OR technology[tw] OR “electronic medical record”[tiab] OR “electronic medical records”[tiab] OR EMR[tiab] OR "Electronic Health Records"[Mesh] OR “electronic health record”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic 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agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Utilities + Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(blackout[tiab] OR “power failure”[tiab] OR “power failures”[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “water outage”[tiab] OR “water outages”[tiab] OR “water shortage”[tiab] OR “water shortages”[tiab] OR “electricity outage”[tiab] OR generator[tiab] OR ((“air conditioning”[tiab] OR "Air Conditioning"[Mesh] OR "Heating"[Mesh] OR heating[tiab] OR heat[tiab] OR “climate control”[tiab]) AND (outage[tiab] OR broke\*[tiab])) OR “gas shortage”[tiab] OR utilities[tiab] OR utility[tiab] OR HVAC[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Mental Health + Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(“Mental health”[tw] OR “mental health”[mesh] OR “disaster behavioral health”[tiab] OR PTSD[tiab] OR “Post-Traumatic Stress Disorders”[tiab] OR “Post-Traumatic Stress Disorder”[tiab] OR "Stress Disorders, Post-Traumatic"[Mesh] OR “psychological health”[tiab] OR “behavioral health”[tiab] OR “psychological first aid”[tiab] OR “mental disorders”[mesh] OR “stress, psychological”[mesh] OR “disaster mental health”[tiab] OR “emotional trauma”[tiab] OR anger[tiab] OR depression[tiab] OR “psychological effects”[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Patient Management** **+ Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(“Patient tracking”[tiab] OR "Patient Identification Systems"[Mesh] OR “patient identification systems”[tiab] OR “patient identification”[tiab] OR “patient tags”[tiab] OR “Alternate Care Sites”[tiab] OR “alternate care site”[tiab] OR “alternative care sites”[tiab] OR “Hospital Surge”[tiab] OR “surge capacity”[tiab] OR “surge capability”[tiab] OR “surge capabilities”[tiab] OR "Surge Capacity"[Mesh] OR “patient triage”[tiab] OR surge[tiab] OR “patient management”[tiab] OR “functional needs”[tiab] OR “special needs”[tiab] OR “medical special needs”[tiab] OR “access and functional needs”[tiab] OR “vulnerable population”[tiab] OR “vulnerable populations”[tiab] OR “at risk”[tiab] OR “Disabled Persons”[mesh] OR “Mentally Disabled Persons”[tiab] OR “Mentally ill”[tiab] OR “mental illness”[tiab] OR “Persons With Hearing Impairments”[tiab] OR “hearing impaired”[tiab] OR deaf[tiab] OR deafness[tiab] OR “hard of hearing”[tiab] OR “Visually Impaired Persons”[tiab] OR “visually impaired”[tiab] OR blind[tiab] OR blindness[tiab] OR disabled[tiab] OR disabilities[tiab] OR elderly[tiab] OR seniors[tiab] OR “older adults”[tiab] OR "Renal Dialysis"[Mesh] OR “renal dialysis”[tiab] OR dialysis[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Fatality Management/Morgue/Family Reunification** **+ Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(“fatality management”[tiab] OR “Mortuary Practice”[mesh] OR morgue[tiab] OR morgue[mesh] OR morgues[tiab] OR “victim identification”[tiab] OR "Forensic Medicine"[Mesh] OR “Forensic Anthropology”[mesh] OR “DNA Fingerprinting”[mesh] OR reunification[tiab] OR “family reunification”[tiab] OR “family tracing”[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Sheltering/Evacuation + Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(“shelter in place”[tiab] OR shelter[tiab] OR evacuation[tiab] OR “patient evacuation”[tiab] OR “patient transfer”[tiab] OR "Patient Transfer"[Mesh] OR "Emergency Shelter"[Mesh]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Resource Management + Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(“strategic national stockpile”[tiab] OR SNS[tiab] OR “Volunteer Management”[tiab] OR (volunteer\*[tw] AND manage\*[tw]) OR "Volunteers"[Mesh] OR volunteer\*[tiab] OR staff[tiab] OR personnel[tiab] OR manpower[tiab] OR "Health Personnel"[Mesh] OR "Strategic Stockpile"[Mesh] OR “resource management”[tiab] OR “resources management”[tiab] OR “medical countermeasures”[tiab] OR “medical countermeasure”[tiab] OR antidote\*[tiab] OR vaccine[tiab] OR vaccines[tiab] OR “mass vaccination”[tiab] OR “mass prophylaxis”[tiab] OR "Mass Vaccination"[Mesh] OR “personal protective equipment”[tiab] OR "Personal Protective Equipment"[Mesh] OR PPE[tiab] OR gloves[tiab] OR mask\*[tiab] OR respirator\*[tiab] OR ventilator\*[tiab] OR “diagnostic device”[tiab] OR antiviral\*[tiab] OR antimicrobial\*[tiab] OR “blood product”[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Preparedness + Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(“Disaster preparedness”[tiab] OR “Community Preparedness”[tiab] OR “National Preparedness”[tiab] OR “International Preparedness”[tiab] OR “Public health preparedness”[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Veterinary Issues** **+ Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

((animal\*[tiab] OR mice[tiab] OR mouse[tiab] OR rodent[tiab] OR "Animal Experimentation"[Mesh] OR “animal experiments”[tiab] OR “housing, animal”[mesh] OR “animals, laboratory”[mesh] OR “laboratory animals”[tiab]) AND (“research facility”[tiab] OR “research facilities”[tiab] OR “academic research center”[tiab] OR “research center”[tiab] OR “academic health center”[tiab] OR “academic medical center”[tiab] OR “University Medical Centers”[tiab] OR "Academic Medical Centers"[Mesh] OR “animal facility”[tiab] OR “animal facilities”[tiab] OR hospital\*[tiab])) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Natural Disasters** **+ Healthcare system**

(“Climate Change”[mesh] OR “climate change”[tiab] OR “global warming”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR weather[tiab] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab])

**Responder Safety** **+ Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(“Emergency Responders”[mh] OR “first responders”[tiab] OR “first responder”[tiab] OR “responder safety”[tiab] OR “responder security”[tiab] OR “responder health”[tiab] OR "Personal Protective Equipment"[Mesh] OR “personal protective equipment”[tiab] OR PPE[tiab] OR gloves[tiab] OR mask\*[tiab] OR respirator\*[tiab] OR “Ear Protective Devices”[mh] OR “Eye Protective Devices”[mh] OR “Head Protective Devices”[mh] OR Tyvek[tiab] OR Masks[mh] OR “Protective Clothing”[mh] OR “Gloves, Protective”[mh] OR “Respiratory Protective Devices”[mh] OR “Safety glasses”[tiab] OR goggles[tiab] OR visors[tiab] OR boots[tiab] OR “Protective Devices”[mh] OR “occupational health”[tiab] OR "Occupational Health"[Mesh] OR “industrial hygiene”[tiab] OR “industrial health”[tiab] OR “occupational safety”[tiab] OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw])) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Prehospital/EMS** **+ (disaster OR natural disaster OR terrorism OR pandemic)**

(“Tactical EMS”[tiab] OR “tactical emergency medicine”[tiab] OR EMS[tiab] OR “emergency medical services”[tiab] OR "Emergency Medical Services"[Mesh] OR “prehospital emergency care”[tiab] OR “Emergency health services”[tiab] OR ambulance\*[tiab] OR "Ambulances"[Mesh] OR “patient transportation”[tiab] OR “patient transport”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR “prehospital care”[tiab] OR paramedic\*[tiab] OR EMT[tiab] OR “emergency medical technician”[tiab] OR "Emergency Medical Technicians"[Mesh] OR triage[tiab] OR triage[mesh] OR “Physician EMS Field Response”[tiab] OR “EMS field response”[tiab] OR “field response”[tiab] OR “field management”[tiab] OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw]))) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Infectious Disease Outbreak/Bioterrorism** **+ Healthcare system**

(Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab])

**Displaced Populations/Humanitarian Crises + Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(“displaced population”[tiab] OR “displaced populations”[tiab] OR refugees[mesh] OR refugee\*[tiab] OR migrant\*[tiab] OR "Transients and Migrants"[Mesh] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Complex Humanitarian Emergencies”[tiab] OR “complex emergency”[tiab] OR “complex emergencies”[tiab] OR famine\*[tiab] OR starvation[mesh] OR starvation[tiab] OR “food insecurity”[tiab] OR “humanitarian crises”[tiab] OR “humanitarian crisis”[tiab] OR “Foreign Medical Teams”[tiab] OR “foreign medical team”[tiab] OR "Medical Missions, Official"[Mesh]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Mass Violence/Blast/Penetrating Trauma + Healthcare system**

(“mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR “building collapse”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR "Bombs"[Mesh] OR "Explosions"[Mesh] OR “penetrating trauma”[tiab] OR “blunt trauma”[tiab] OR “blast lung”[tiab] OR “Explosive bomb”[tiab] OR “incendiary bomb”[tiab] OR “Fire bomb”[tiab] OR “improvised explosive devices”[tiab] OR IED\*[tiab] OR “ballistic injury”[tiab] OR “ballistic injuries”[tiab] OR “gunshot wound”[tiab] OR “gunshot wounds”[tiab[ OR “Wounds, Gunshot”[mh] OR “mass shooting”[tiab] OR “active shooter”[tiab] OR “trauma MCI”[tiab] OR “trauma mass casualty incident”[tiab] OR “multiple-casualty incident”[tiab] OR “multiple-casualty situation”[tiab] OR “incendiary explosion”[tiab] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR “mass casualty incidents”[mesh] OR “mass casualty incidents”[tiab] OR “Mass physical trauma”[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab])

**Personal/Family Preparedness** **+ Healthcare system + (disaster OR natural disaster OR terrorism OR pandemic)**

(“family preparedness” OR “personal preparedness” OR “willingness to work” OR “staff preparedness” OR “emergency kit” OR “go kit” OR absenteeism[tw] OR willingness[tiab] OR “Attitude of Health Personnel”[mh] OR ((“health personnel”[mh] OR “health manpower”[mh] OR nurses[tiab] OR physicians[tiab] OR doctors[tiab] OR clinicians[tiab] OR “health personnel”[tiab]) AND (“Disaster Planning”[mesh] OR preparedness[tiab] OR “disaster planning”[tiab]))) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Chemical/Rad/Nuc Terrorism** **+ Healthcare system**

(“Chemical Agents”[tiab] OR “chemical agent”[tiab] OR “chemical terrorism”[tiab] OR “nuclear terrorism”[tiab] OR “chemical weapon”[tiab] OR “chemical weapons”[tiab] OR "Weapons of Mass Destruction"[Mesh] OR "Chemical Warfare Agents"[Mesh] OR "Nuclear Weapons"[Mesh] OR “nuclear weapon”[tiab] OR “chemical warfare agent”[tiab] OR “chemical warfare agents”[tiab] OR “nuclear detonation”[tiab] OR "Chemical Terrorism"[Mesh] OR “radioactive terrorism”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (radiation[tiab] AND terrorism[tiab]) OR "Nerve Agents"[Mesh] OR "Mustard Gas"[Mesh] OR "Sarin"[Mesh] OR "Soman"[Mesh] OR "tabun" [Supplementary Concept] OR "cyclohexyl methylphosphonofluoridate" [Supplementary Concept] OR "lewisite" [Supplementary Concept] OR "Phosgene"[Mesh] OR "trichloromethyl chloroformate" [Supplementary Concept] OR "Chlorine"[Mesh] OR "Cyanides"[Mesh] OR "Potassium Cyanide"[Mesh] OR "Muscarinic Antagonists"[Mesh] OR “nerve agent”[tiab] OR “nerve agents”[tiab] OR sarin[tiab] OR soman[tiab] OR tabun[tiab] OR “VX gas”[tiab] OR cyclosarin[tiab] OR “vesicating agent”[tiab] OR “blistering agent”[tiab] OR “mustard gas”[tiab] OR “lewisite”[tiab] OR “phosgene gas”[tiab] OR “diphosgene gas”[tiab] OR “chlorine gas”[tiab] OR cyanide[tiab] OR adamsite[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab])

**Disaster Response & Healthcare + Healthcare system + (disaster OR natural disaster OR pandemic OR terrorism)**

(“Disaster recovery”[tiab] OR “Disaster Resiliency”[tiab] OR “disaster preparedness”[tiab] OR “disaster planning”[tiab] OR “disaster mitigation” OR “Disaster leadership”[tiab] OR “Crisis Management”[tiab] OR “emergency operations”[tiab] OR “disaster operations”[tiab] OR leader\*[tiab] OR leadership[tiab] OR “Needs Assessment”[tiab] OR “Hazard Vulnerability Analysis”[tiab] OR “hazard vulnerability analyses”[tiab] OR “Hospital Incident Command System”[tiab] OR “hospital incident command systems”[tiab] OR “hospital emergency operations”[tiab] OR “Incident Command System”[tiab] OR “hospital incident command systems”[tiab] OR “Information Management”[tiab] OR "Information Management"[Mesh] OR Communication[mesh] OR communication\*[tiab] OR “disaster exercise”[tiab] OR exercise[tiab] OR tabletop[tiab] OR “disaster training”[tiab] OR “disaster communications”[tiab] OR “incident management”[tiab]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Other Terms** **+ Healthcare system + (disaster OR natural disaster OR pandemic OR terrorism)**

(Telemedicine[mesh] OR telemedicine[tiab] OR Ultrasound[tiab] OR Ultrasound[mesh] OR "Vaccine Distribution”[tw]) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Triage** **+ (disaster OR natural disaster OR pandemic OR terrorism)**

((Triage\*[tw] AND disaster\*[tw]) OR (Triage\*[tw] AND “critical care”[tiab]) OR (Trauma[tw] AND disaster\*[tw])) AND (“healthcare preparedness”[tiab] OR “health care preparedness”[tiab] OR “health care system preparedness”[tiab] OR “healthcare system preparedness”[tiab] OR “healthcare coalition”[tiab] OR “health care coalition”[tiab] OR “healthcare coalitions”[tiab] OR “health care coalitions”[tiab] OR “healthcare disaster planning”[tiab] OR “health care disaster planning”[tiab] OR “medical disaster planning”[tiab] OR “medical disaster plans”[tiab] OR “medical disaster plan”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster plan”[tiab] OR “hospital disaster planning”[tiab] OR ((healthcare[tiab] OR hospital[tw] OR hospitals[tw] OR clinic[tw] OR clinics[tw] OR medical[tw] OR “healthcare system”[tiab] OR “health care system”[tiab] OR “health system”[tiab] OR “medical system”[tiab]) AND (preparedness[tiab] OR prepare[tiab] OR planning[tiab] OR plan[tiab] OR “disaster planning”[mesh])) OR (hospital\*[tiab] AND disaster\*[tiab]) OR “healthcare disaster planning”[tiab] OR “Hospital Mitigation”[tiab] OR “dialysis center”[tiab] OR "Hemodialysis Units, Hospital"[Mesh] OR “urgent care center”[tiab] OR “ambulatory care center”[tiab] OR “ambulatory care centre”[tiab] OR “urgent care centre”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])

**Healthcare system/Hospital emergency operations/Planning**  **+ (disaster OR natural disaster OR terrorism OR pandemic)**

(“hospital disaster mitigation”[tiab] OR “hospital preparedness”[tiab] OR “hospital disaster response”[tiab] OR “hospital recovery”[tiab] OR “hospital evacuation”[tiab] OR “hospital shelter”[tiab] OR ((hospital\*[tw] OR “healthcare system”[tiab] OR “health care system”[tiab]) AND (“Disaster recovery”[tiab] OR “Disaster Resiliency”[tiab] OR “disaster preparedness”[tiab] OR “disaster planning”[tiab] OR “disaster mitigation” OR “Disaster leadership”[tiab] OR “Crisis Management”[tiab] OR evacuation[tiab] OR “emergency operations”[tiab] OR “disaster operations”[tiab] OR leader\*[tw] OR leadership[tw] OR “Information Management”[tw] OR Communications[tw] OR “Needs Assessment”[tw] OR “Hazard Vulnerability Analysis”[tiab] OR “hazard vulnerability analyses”[tiab])) OR “Hospital Incident Command System”[tiab] OR “hospital incident command systems”[tiab] OR “hospital emergency operations”[tiab] OR “Incident Command System”[tiab] OR “hospital incident command systems”[tiab]) AND (disaster[tiab] OR disasters[tiab] OR Disaster[mesh] OR “Climate Change”[mesh] OR “climate change”[tiab] OR “Natural disaster”[tiab] OR “natural disasters”[tiab] OR Tornado\*[tiab] OR tornadoes[mesh] OR weather[mesh] OR Earthquake\*[tiab] OR earthquakes[mesh] OR Hurricane\*[tiab] OR cyclones[mesh] OR cyclone[tiab] OR cyclones[tiab] OR snow[tiab] OR snow[mesh] OR blizzard\*[tiab] OR ice[mesh] OR ice[tiab] OR “ice storm”[tiab] OR flood\*[tiab] OR floods[mesh] OR blackout[tiab] OR “power outage”[tiab] OR “power outages”[tiab] OR “extreme heat”[mesh] OR “extreme heat”[tiab] OR “heat wave”[tiab] OR heatwave[tiab] OR “extreme cold”[tiab] OR “extreme cold”[mesh] OR typhoon\*[tiab] OR “cyclonic storms”[mesh] OR “tropical storm”[tiab] OR “tropical storms”[tiab] OR landslides[mesh] OR landslide\*[tiab] OR volcano\*[tiab] OR “volcanic eruptions”[mesh] OR “volcanic eruption”[tiab] OR tsunami\*[tiab] OR tsunamis[mesh] OR drought[tiab] OR droughts[mesh] OR famine\*[tiab] OR starvation[mesh] OR “winter storm”[tiab] OR “winter storms”[tiab] OR fire\*[tiab] OR wildfire\*[tiab] OR fires[mesh] OR "Weather"[Mesh] OR "Climatic Processes"[Mesh] OR “building collapse”[tiab] OR "Airline Emergencies”[tiab] OR “airline emergency”[tiab] OR “plane crash”[tiab] OR “airplane crash”[tiab] OR “Complex Humanitarian Crisis”[tiab] OR “complex humanitarian disaster”[tiab] OR “Mass Gathering”[tiab] OR “mass gatherings”[tiab] OR Stampede\*[tw] OR “mass casualty”[tiab] OR “mass casualties”[tiab] OR "Mass Casualty Incidents"[Mesh] OR “mass fatality”[tiab] OR “mass fatalities”[tiab] OR terrorism[mesh] OR “chemical terrorism”[mesh] OR bioterrorism[mesh] OR bioterrorism[tiab] OR “chemical terrorism”[tiab] OR terrorism[tiab] OR terrorist\*[tiab] OR “asymmetrical threat”[tiab] OR “asymmetrical threats”[tiab] OR “mass shooting”[tiab] OR “mass shootings”[tiab] OR “mass violence”[tiab] OR explosion\*[tiab] OR explode\*[tiab] OR “structural collapse”[tiab] OR (Radiation[tw] AND terror\*[tw]) OR “Nuclear detonation”[tiab] OR “Mass physical trauma”[tiab] OR “Blast injuries”[tiab] OR “blast injury”[tiab] OR “Bomb injuries”[tiab] OR “bomb injury”[tiab] OR (“Information Systems Downtime”[tiab] AND (hospital[tw] OR hospitals[tw] OR cyberattack\*[tiab] OR healthcare\*[tiab])) OR ((“hospital information system”[tiab] OR “electronic medical record”[tiab] OR EMR[tiab]) AND (cyberattack\*[tiab] OR cyberterrorism[tiab] OR hack\*[tiab])) OR cyberattack\*[tiab] OR cyberterrorism[tiab] OR “Active Shooter”[tiab] OR Decontamination[tiab] OR decontaminate\*[tiab] OR decontamination[mesh] OR (Triage[tw] AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“Disaster triage”[tw] OR triage\*[tw]) AND (“mass casualty”[tw] OR “mass casualties”[tw] OR “mass casualty incidents”[mesh])) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND injur\*[tw]) OR ((“hazardous material”[tw] OR “hazardous materials”[tw]) AND (EMS[tiab] OR “emergency medical services”[tw])) OR Pandemics[mesh] OR pandemics[tiab] OR pandemic[tiab] OR MERS[tiab] OR “middle east respiratory syndrome”[tiab] OR Ebola[tiab] OR ebola[mesh] OR Zika[tiab] OR zika[mesh] OR “Highly infectious disease”[tiab] OR “highly infectious diseases”[tiab] OR “Novel infectious disease”[tiab] OR “novel infectious diseases”[tiab] OR “Influenza pandemic”[tiab] OR “Infectious disease outbreak”[tiab] OR “disease outbreak”[tiab] OR “disease outbreaks”[tiab] OR "Disease Outbreaks"[Mesh] OR “emerging infectious disease”[tiab] OR “emerging infections”[tiab] OR epidemic[tiab] OR “Biologic Agent”[tiab] OR “biological agents”[tiab] OR bioterrorism[tiab] OR bioterrorism[mesh] OR “Biological Terrorism”[tiab] OR “biological weapon”[tiab] OR bioweapon\*[tiab] OR “Biowarfare Agent”[tiab] OR "Biological Warfare Agents"[Mesh] OR “bioterrorism agent”[tiab] OR “biological warfare”[tiab] OR “Bacillus anthracis”[tiab] OR anthrax[tiab] OR “Clostridium botulinum toxin”[tiab] OR botulism[tiab] OR “Yersinia pestis”[tiab] OR plague[tiab] OR “Variola major”[tiab] OR smallpox[tiab] OR “Francisella tularensis”[tiab] OR tularemia[tiab] OR “Viral hemorrhagic fevers”[tiab] OR Arenaviruses[tw] OR Junin[tw] OR Machupo[tw] OR Guanarito[tw] OR Chapare[tw] OR Lassa[tw] OR Lujo[tw] OR Bunyaviruses[tw] OR Hantaviruses[tw] OR “Hanta Pulmonary syndrome” [tw] OR “Rift Valley Fever”[tw] OR “Crimean Congo Hemorrhagic Fever”[tw] OR Flaviviruses[tw] OR Dengue[tw] OR Filoviruses[tw] OR Ebola[tw] OR Marburg[tw] OR "Botulism"[Mesh] OR "Botulinum Toxins"[Mesh] OR "Anthrax"[Mesh] OR "Plague"[Mesh] OR "Yersinia pestis"[Mesh] OR "Smallpox"[Mesh] OR "Tularemia"[Mesh] OR "Francisella tularensis"[Mesh] OR "Hemorrhagic Fevers, Viral"[Mesh])