DISASTER NURSING | NCM 120

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THE PHILIPPINE DISASTER AND RISK PROFILE

TOPIC OUTLINE

A. Concepts and Types of Disaster
- a. Natural vs. Technological
- b. Internal vs. External Disaster

B. Natural Disasters
- a. Geophysical
- b. Meteorological/Hydrological/Climatological
- c. Biological

C. Man-made Disasters
- a. Environmental Degradation
- b. Terrorism
- c. Technological
- d. Transitional human shelters

D. Trends and Patterns of Disaster
- a. Phases of a Disaster

Overview

The Philippines is one of the most disaster-prone countries in the world due to its **archipelagic location along the Pacific Ring of Fire and the Western Pacific typhoon belt**. This geographic and climatic setting exposes a large portion of the country to frequent typhoons, floods, earthquakes, volcanic eruptions, landslides, and storm surges. As a result, around **60% of the land area and 74% of the population** are at risk, leading to repeated disruption of communities, strain on health systems, and serious threats to the health and safety of Filipinos (Hernando-Malipot, 2025).

DISASTER (IFRC, 2023)

- are serious disruptions to the functioning of a community that exceed its capacity to cope using its own resources.
- **Can be caused by:**
  - natural
  - man-made
  - technological hazards
  - various factors that influence the exposure and vulnerability of a community

DISASTER NURSING (Rojas, 2020)

- the adaptation of professional nursing knowledge, skills, and attitude in recognizing and meeting the physical and emotional needs of disaster victims
- role of a disaster nurse begins long before catastrophic events even occur and different agencies offer disaster training and preparedness for nurses

DISASTER NURSING TERMINOLOGIES

Hazard
- Any natural or human-made event or phenomenon that has the potential to cause injury, loss of life, damage to property, or disruption to communities.

Vulnerability
- Refers to the conditions or factors that increase the susceptibility of individuals or communities to the harmful effects of a hazard, such as poverty, poor health, weak infrastructure, or lack of access to resources.

Capacity
- The ability of individuals, communities, or systems to anticipate, cope with, resist, and recover from the impact of hazards using available skills, resources, and strengths.

Disaster Risk Reduction and Management (DRRM)
- A systematic approach that aims to analyze, reduce, and manage disaster risks through prevention, mitigation, preparedness, response, and recovery to minimize loss of lives and damage to property and the environment.

Triage
- The process of prioritizing patients based on the severity of their condition and the urgency of care needed, especially during disasters or mass casualty incidents, to ensure the most effective use of limited medical resources.

Psychological First Aid (PFA)
- An immediate, humane, and supportive response provided to individuals affected by a disaster to reduce distress, promote coping, and help restore emotional stability.

Mental Health and Psychosocial Support (MHPSS)
- Refers to a range of services and interventions designed to protect and promote psychological well-being and address mental health conditions of individuals and communities affected by emergencies or disasters.

Health Cluster Approach (DOH-led)
- A coordination mechanism led by the Department of Health that brings together government agencies, NGOs, and humanitarian partners to ensure an organized, effective, and timely health response during disasters.

A. CONCEPTS AND TYPES OF DISASTERS

NATURAL VS. TECHNOLOGICAL

- **MAIN TYPES OF DISASTERS:**
  a. Natural
  b. Man-made/Technological

NATURAL DISASTERS

- Any calamitous event caused by weather, climate events, earthquakes, landslides, or other occurrences originating at Earth's surface or within the planet itself (Metych, 2024).
- **Examples:**
  - Typhoon Tino (November 2025)

  - 6.9 magnitude earthquake that hit offshore Cebu last September 30, 2025

- **Classifications of Natural Disasters**
  - Geophysical (e.g. earthquake)
  - Meteorological (e.g. storms)
  - Hydrological (e.g. flash floods
  - Climatological (e.g. drought)
  - Biological(e.g. epidemics)

TECHNOLOGICAL DISASTERS

- Disasters induced by human processes.
- Can be due to human intent, negligence, or error involving a failure of a man-made system.
- Includes Environmental Degradation, Terrorism, Technological disasters.

Examples:

- Binaliw Garbage Landslide (Jan 2026)

INTERNAL VS. EXTERNAL DISASTER

INTERNAL DISASTERS

- Disasters that occur within a facility or a specific location.
- Directly affect both human and material resources needed for daily functioning .
- **Examples:**
  - Fire inside a building
  - Power outage or utility failure
  - Structural damage or building collapse
  - Worker strikes
  - Bomb threats/Violence

EXTERNAL DISASTERS

- Disasters that occur outside a facility or a specific location.
- Indirectly affect facilities and the people working/living inside them.
- **Examples:**
  - Earthquake
  - Typhoon
  - Plane crashes
  - Volcanic eruptions

B. NATURAL DISASTERS

GEOPHYSICAL

- Natural earth processes or phenomena that include processes of endogenous origin or tectonic or exogenous origin such as mass movements, Permafrost, snow avalanches.
- Refers to natural hazards that arise from the solid earth.
- Phenomena/Examples: *earthquake, tsunami, volcanic activity, mass movements, landslides, surface collapse, geographical fault activities*, etc.

THE PACIFIC RING OF FIRE

- Referred to as the **Circum-Pacific Belt**, is a path along the Pacific Ocean characterized by active volcanoes and frequent earthquakes.
- A term used to describe an area in the Pacific Ocean where a large number of earthquakes and volcanic eruptions occur.
- An area of great geological activity, but it is also a region where many people live. This means that there is a higher risk earthquakes, eruptions, and geophysical hazards in these areas. Scientists and authorities in these countries work together to monitor and study the Ring of Fire to better understand these natural phenomena and help protect the communities living in these regions.

SEISMICITY

- Refers to the occurrence and distribution of earthquakes in a particular region or globally. It is a measure of the frequency, intensity, and distribution of seismic events, including both natural and human-induced earthquakes.
- Understanding seismicity is crucial for assessing earthquake hazards, designing resilient infrastructure, and implementing effective emergency response plans.

ACTIVE FAULTS AND TRENCHES

Trench

Long, narrow, and deep depression or cavity on the Earth's surface. Trenches are typically formed as a result of tectonic movements commonly areas where one tectonic plate is being forced beneath another in a process called subduction.

Trenches are often located in the deepest parts of the world's oceans and can reach depths of several kilometers. The Mariana Trench in the western Pacific Ocean is the deepest known trench, reaching a depth of approximately 11 kilometers (6.8 miles)

Fault Line

A fracture or break in the Earth's crust where rocks on either side have moved relative to each other. It is a boundary where the Earth's tectonic plates interact. These plates are large sections of the Earth's crust that float on the semi-fluid layer beneath.

METEOROLOGICAL / HYDROLOGICAL

- Interchangeable terms with "**Climatological Disasters**"
- A term used to describe a natural event or phenomenon that is caused by the Earth's atmosphere and can have harmful effects on people, property, and the environment.
- These disasters are related to weather conditions and can include events like *hurricanes, tornadoes, floods, droughts, and blizzards.*

THE PACIFIC TYPHOON BELT

The Pacific typhoon belt, also known as the *typhoon alley*, is a region in the western Pacific Ocean where tropical cyclones, known as typhoons, commonly form and travel. It is an area that stretches from the eastern coast of Asia, including countries like the Philippines, Taiwan, Japan, and South Korea, to the western Pacific Ocean.

The Pacific typhoon belt is characterized by warm ocean waters and favorable atmospheric conditions that support the development and intensification of tropical cyclones. These cyclones, known as typhoons in this region, are powerful storms with strong winds and heavy rainfall.

BIOLOGICAL

- Processes of organic organs or those conveyed by biological vectors, including exposure to pathogenic, microorganism, toxins and bioactive substances
- Dangers that arise as a result of biological processes
- Natural scenarios involving *disease, disability, or death* on a large scale among humans, animals, and plants *due to microorganisms like bacteria, or viruses, or toxins.*

EPIDEMIC

- Affecting a disproportionately large number of individuals within a population, community, or region at the same time.
- **Examples:** Cholera, Plague, Measles

PANDEMIC

Is an epidemic that spreads across a large region, that is, a continent, or even worldwide of existing, emerging or reemerging diseases and pestilences.

Examples: COVID 19 Virus, Influenza H1N1 (Swine Flu), Spanish Flu

Prevention of Biological Hazards

- **Engineering controls:** Proper ventilation and safe facility design to reduce airborne transmission
- **Personal hygiene:** Handwashing, respiratory etiquette, and safe food practices
- **Personal protective equipment (PPE):** Masks, gloves, and gowns to prevent exposure
- **Sterilization and disinfection:** Proper cleaning of equipment and frequently touched surfaces

Prevention of Biological Disasters

- **Safe water supply and sanitation:** Clean water and well-maintained sewage systems
- **Hygiene awareness and reduced overcrowding:** Especially in evacuation centers
- **Vector control**: Mosquito and pest control to prevent disease spread

Post-Disaster Epidemic Prevention

- **Disease surveillance:** Integrated systems to detect, monitor, and investigate outbreaks early
- **Rapid response**: Timely reporting, isolation, and treatment to prevent further spread

Role of the State and Government

- **Policy and public health programs**: Disease prevention and control measures
- **Health system support:** Adequate facilities, manpower, vaccines, and supplies
- **Public communication:** Clear and timely health advisories

Geophysical	Meteorological / Hydrological/ Climatological	Biological
• Earthquake • Volcanic Eruption • Tsunami • Landslide • Tectonic Plate Movement/ Seismic Activity	• Typhoon/Cyclone /Hurricane • Flood • Drought • Storm Surge • Extreme Heatwave	• Epidemic/ Pandemic • Cholera Outbreak • Ebola Virus Outbreak • Avian Influenza (Bird Flu) • Locust Infestation

C. MAN-MADE DISASTERS

Environmental Degradation

- Induced by human behaviors and activities that damage on adversely alter nature processes or ecosystems.
- It is defined as any change or disturbance to the environment perceived to be deleterious or undesirable.
- Examples: land degradation, deforestation, desertification, wildland fire, loss of biodiversity, land, water, and air pollution, climate change, sea level rise and ozone depletion.

Terrorism

- The destructive method of political action which utilizes violence, intimidation, or coercion to achieve political, ideological, or religious objectives by instilling fear.
- Can be a product of or a rational strategy decided by a group; This approach is rather close to the political one because it requires collective decision making in the utilization of terrorist tactics to reach group goals.

Technological Disaster

- Danger associated with technological or industrial accidents, infrastructure failures, or certain human activities, which may cause the loss of life or injury, property damage, social or economic disruption, or environmental degradation.
- Houses surrounding industrial establishments are particularly vulnerable due to their proximity, placing them at the highest risk of potential and accidents.
- Ageing, abandoned, or inattentive installations coupled with insufficient institutional and legal capacities pose significant risks in industrial settings. Moreover, the threat of natural hazards such as storms, landslides, floods, or earthquakes further exacerbates the potential for industrial accidents.

Transitional Human Shelters

- These are temporary housing solutions designed for people affected by disasters, conflicts, or displacement. They are usually quick to set up, mobile, and provide basic protection until permanent housing can be established.

THREE APPROACHES	
Shelter Centre, IOM (International Organization for Migration): Transitional Shelter Guidelines	Incremental process rather than a multi-phased approach. ➔ Transitional Shelters can be: • Upgradeable • Reusable • Relocated from a temporary to a permanent site • Resellable • Recyclable
IFRC (International Federation of Red Cross and Red Crescent Societies): Post Disaster Shelter	Rapid, post disaster household shelters made from materials that can be upgraded or re-used in more permanent structures, or relocated from temporary to permanent locations, designed to facilitate the transition by affected populations to more durable shelter.
USAID (United States Agency for International Development) : Transitional Shelter	Addresses short to medium term needs (up to 3 years). Involves the provision of inputs, such as salvaged materials, construction assistance, technical advice, and oversight needed to create shelters consistent with internationally recognised guidelines.

SHELTER CENTRE'S 10 PRINCIPLES OF TRANSITIONAL SHELTER

1. The situation of the affected population should be carefully assessed before providing transitional shelter.
2. The community must be actively involved in planning, designing, and implementing shelter solutions.
3. A clear strategy should be developed to ensure that shelter support is part of a wider recovery plan.
4. Shelters should reduce vulnerability and contribute to disaster risk reduction.
5. Standards for shelter quality, space, and safety should be agreed upon with the affected population.
6. Households should have the ability to recycle, upgrade, reuse, resell, or relocate their shelters as needed.
7. Transitional shelters should buy time while sustainable reconstruction is taking place.
8. Shelters should support an incremental upgrading process, allowing households to improve them at their own pace until permanent solutions are achieved.
9. Shelter sites should be planned on land that is safe, legal, and appropriate for settlement.
10. Transitional shelters should be designed to complement and contribute to permanent reconstruction programs.

➔ All three approaches incorporate disaster risk reduction measures to reduce the vulnerability of households to future natural disasters

ALTERNATIVE POST-DISASTER APPROACHES	
Temporary Shelters or Housing	Can be resided for up to three years before moving into permanent housing
Semi-Permanent Shelter	Building parts of some elements of a house in order to offer shelter while the remainder of the house is completed
Sites and Services	Preparing the site for the permanent house and all wet services and utilities, such as the bathroom, sewage and electrical supply
Core House or One Room (ORS)	Building at least one complete room of a final house, to offer shelter while the remainder of the house is completed by the household, using their own means and resources

D. TRENDS & PATTERNS OF DISASTERS

- The Philippines is an island country in Southeast Asia, located in the western Pacific Ocean.
- It is an archipelago of about 7,100 islands and islets, covering a total land area of approximately 300,000 km².
- The country is divided into three major island groups: **Luzon** (largest), **Visayas** (smallest), and **Mindanao** (second largest).
- The population is estimated at 117.3 million people according to the World Bank in 2023.
- The Philippines is highly vulnerable to disasters, **ranked third globally for disaster risk** in the World Risk Report 2018 (index value: 25.14%).
- Reports from 2017 indicate that 60% of the country's land area and 74% of its population are exposed to multiple hazards.
- Its geographical location contributes to high disaster risks: coastal hazards such as typhoons, storm surges, and sea-level rise are common, and *the islands lie within the* **"Pacific Ring of Fire,"** making them prone to earthquakes and volcanic eruptions.
- Flooding, landslides, droughts, and tsunamis also contribute to hazard exposure.
- Approximately 80% of natural disasters in the Philippines are hydro-meteorological events, such as typhoons and floods.

8 PHASES OF DISASTER	
PRE-DISASTER	▶ The state of the social system preceding the point of impact. ▶ This is when individuals, communities, and governments make preparation efforts after perceiving possible threats to their safety. ▶ These efforts include mitigation measures, planning, public education, and risk management strategies, ▶ At this stage, the public may not fully understand the risks of the threat or may underestimate them.
WARNING	▶ Precautionary activity includes consultation with members or own social network. ▶ This is when imminent disaster is recognized. People will receive alerts through various media about the disaster and is prompted to prepare. ▶ Actions involved in this phase are communication, public response, and early reaction such as evacuation and stocking up on necessities. ▶ It is important to take note that not everyone will heed the warning or is knowledgeable enough to respond effectively.
SOCIAL AND PHYSICAL IMPACT	▶ It is the *immediate aftermath of a disaster event*, where the most visible physical damage to infrastructure and environment is present, alongside the initial effects on the affected population, including injuries, displacement, loss of homes, disruption of social networks, and psychological trauma.
EMERGENCY	▶Spontaneous, local, unorganized extrication and first-aid; some preventive measures are taken to minimize further consequences ▶ This phase is *focused on immediate response efforts aimed at providing basic needs* (ie. shelter, food, water, and medical care) *to the affected population.* ▶ It is often chaotic and is heavily dependent on the community and first responders.
ISOLATION	▶ This refers to *"closing-off"* access to the area for a temporary period to prevent the further spread of hazards or contamination. ▶ Isolation phase involves prohibiting entry to a certain locality and exit of locals from the area to contain the infection or hazards, should it be deemed necessary.
RESCUE	▶ This phase focuses on s*earching for and extracting the survivors from danger* which often involves emergency responders actively bringing people away from damaged structures or hazardous environments to preserve lives. ▶ Contrary to the *Emergency Phase*, this phase is more planned and strategized and involves more trained and skilled professionals when it comes to emergency response and rescue operations.
REMEDY	▶ The main goal of this phase is *to prevent the further escalation and worsening of the situation*. ▶ This is done by addressing immediate environmental hazards, preventing the further spread of contaminants, and mitigating secondary risks such as fires, chemical leaks, and infrastructural collapse.

RECOVERY	▶ This phase is the period when a community initiates efforts to restore and recover itself from the disaster and eventually does, adapting to its 'new normal'. ▶ Rebuilding infrastructure, providing financial assistance, and restoring essential services are few examples of activities done in this phase.

- While the **8-phase disaster model** describes the social and operational progression of disasters, the official framework used in the Philippine context is the **4-Phase Disaster Management Cycle**, which includes *Mitigation*, *Preparedness*, *Response*, and *Recovery*.
- This 4-phase cycle is the framework followed by the *Department of Health (DOH) and* the *National Disaster Risk Reduction and Management Council (NDRRMC)*.

PHASE ALIGNMENT	
4-PHASE	**8-PHASE**
Mitigation and Preparedness	Pre-disaster and Warning
Response	Emergency, Isolation, and Rescue
Recovery	Remedy and Recovery

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NCM 120: Disaster Nursing
Week 3: Disaster Management Continuum: Pre-Impact Phase

PREVENTION OR MITIGATION

Prevention

- refers to measures taken to completely avoid the occurrence of disasters or prevent hazards from causing harm, especially those that are human-induced or controllable.
- **Examples:**
  - Fire
    - Prohibition of illegal electrical connections.
    - Banning open flames in high-risk residential areas.
    - Regulation of storage and sale of flammable substances.
    - Mandatory fire safety inspections before building occupancy.

Mitigation

- refers to long-term measures implemented before a disaster occurs to reduce or eliminate the risk, severity, and impact of hazards.
- **Examples:**
  - Fire
    - Installation of fire-resistant building materials.
    - Firewalls and proper spacing between buildings.
    - Smoke detectors and automatic sprinkler systems.

SUMMARY: Difference between Prevention & Mitigation

Prevention and mitigation are both pre-impact disaster risk reduction strategies, but they differ in purpose and intent. Prevention focuses on completely avoiding disaster risks or eliminating exposure to hazards by stopping unsafe practices and restricting human activity in high-risk areas, such as prohibiting settlements in danger zones or banning illegal electrical connections. Meanwhile, mitigation accepts that some hazards cannot be fully prevented and instead aims to reduce the severity of their impacts by minimizing damage, injuries, and losses through structural and non-structural measures, such as hazard-resistant buildings, flood control systems, and resilient infrastructure.

Disaster Risk Reduction Frameworks:

UNISDR

- United Nations Office for Disaster Risk Reduction
- Is the UN body responsible for coordinating global DRR efforts.

Purpose:

- Promote a culture of disaster prevention and resilience
- Support countries in implementing DRR policies and strategies
- Reduce loss of lives, livelihoods, and assets due to disasters

Key Functions:

- Develop global DRR frameworks (e.g., Hyogo Framework, Sendai Framework)
- Advocate DRR integration into sustainable development
- Provide technical guidance and capacity-building

HYOGO Framework for Action

- *Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters*
- Substantially reduce disaster losses in lives, social, economic, and environmental assets.
- First comprehensive global DRR framework
- Predecessor of the **Sendai Framework (2015–2030)**

Five Priority Areas:

- ❖ Ensure DRR is a national and local priority
  - ➢ Strong institutions, policies, and laws
- ❖ Identify, assess, and monitor disaster risks
  - ➢ Early warning systems
- ❖ Use knowledge, innovation, and education
  - ➢ Build a culture of safety and resilience
- ❖ Reduce underlying risk factors
  - ➢ Environmental management, land-use planning
- ❖ Strengthen disaster preparedness
  - ➢ Effective response at all levels

Philippine DRRM

- **Republic Act No. 10121 (2010)** – *Philippine DRRM Act of 2010*

- **Vision**: *"Safer, adaptive, and disaster-resilient Filipino communities."*
- Decentralized approach (national to barangay level)
- Community-based DRRM
- Mainstreaming DRR and Climate Change Adaptation (CCA)

Four Thematic Pillars:

- ❖ Disaster Prevention and Mitigation
  - ➢ Risk assessments, hazard mapping, climate change adaptation
- ❖ Disaster Preparedness
  - ➢ Early warning systems, drills, capacity-building
- ❖ Disaster Response
  - ➢ Emergency assistance, search and rescue, relief operations
- ❖ Disaster Rehabilitation and RecoverY
  - ➢ Reconstruction, livelihood restoration, "build back better"

Hazard, Risk, and Vulnerability Analysis (HRVA)

I. Introduction

A Hazard, Risk, and Vulnerability Assessment (HRVA) is a fundamental component of disaster preparedness and management, particularly in health care and community settings. It emphasizes proactive planning—often described as "*planning before patients arrive"*—to ensure that systems are prepared to respond effectively before an actual emergency or disaster occurs.

II. Definition of HRVA

A Hazard, Risk, and Vulnerability Assessment (HRVA) is a systematic process of identifying potential hazards and analyzing the risks and vulnerabilities of a community, institution, or population to their possible impacts. It provides a structured approach to understanding what hazards are most likely to occur, how severe their effects may be, and which populations or systems are most at risk.

In health care settings, HRVA directly guides preparedness decisions, including:

- The number of beds to open
- The number of nurses and healthcare staff to mobilize
- The amount of oxygen, intravenous fluids, medications, and personal protective equipment (PPE) to stock
- The activation of surge capacity and evacuation plans

III. Definition of Terms

Hazard refers to any source of potential harm or situation with the capacity to cause injury, damage to health, property, the environment, or other things of value.

Risk refers to the likelihood that a hazard will occur and the severity of its potential impact on health, property, the environment, or other assets.

[The difference between a hazard and a risk is that a hazard represents the source of potential harm, whereas risk reflects the probability of that hazard occurring and the magnitude of its consequences.]

Vulnerability refers to the characteristics of people, property, infrastructure, resources, or environments that make them more susceptible to the adverse effects of a hazardous event.

IV. Purpose of HRVA

Its primary purpose is to determine the level of exposure, vulnerability, and resilience of a community or institution to disasters and emergencies. It supports evidence-based planning by identifying weaknesses and capacities that influence how severely a hazard may affect a population.

The HRVA process involves the collection and analysis of both qualitative and quantitative information related to potential hazards and the conditions to which a community is exposed. It considers multiple vulnerability factors that, when combined, may lead to loss or harm to people, property, services, infrastructure, livelihoods, and the environment.

V. Importance of HRVA

Understanding potential hazards and their impacts is essential for effective emergency planning. HRVA enables communities and institutions to prevent, mitigate, prepare for, respond to, and recover from a wide range of hazards. It helps determine which hazards are most likely to occur, how they may affect different populations, and what actions can be taken

to reduce risks and prevent harm.

By identifying priority risks and vulnerable groups, HRVA ensures that resources and interventions are allocated efficiently and equitably.

VI. Uses of HRVA

HRVAs inform a wide range of policies, plans, and programs, including but not limited to:

1. Emergency Management Across the Disaster Cycle

- **Prevention:** Fire safety regulations, vaccination programs, prevention of deforestation, and other measures to reduce hazard occurrence
- **Mitigation:** Early warning systems, flood barriers, levees, and forest management strategies
- **Preparedness:** Evacuation plans, community training and simulation exercises, and stockpiling of emergency supplies
- **Response:** Guiding emergency response efforts by identifying high-risk and highly vulnerable populations
- **Recovery:** Ensuring recovery plans prioritize the needs of the most vulnerable groups and promote equitable rehabilitation

2. Municipal and Local Authority Planning

HRVAs support land-use planning, development decisions, building codes, bylaws, and policies by identifying hazard-prone areas and guiding safe development practices.

3. Community Planning

HRVA findings can guide the planning of community facilities, recreation programs, and centers to ensure safety and accessibility during emergencies.

4. Social Service Program Planning

By identifying populations that are more vulnerable to disasters, HRVAs assist in the development of social service programs aimed at reducing vulnerability and strengthening resilience.

5. Infrastructure Planning

HRVAs inform capital projects and mitigation works such as roads, berms, dikes, and coastal defense structures to reduce disaster-related damage.

VII. Conclusion

A Hazard, Risk, and Vulnerability Assessment is a vital tool in disaster preparedness and emergency management. By systematically identifying hazards, evaluating risks, and analyzing vulnerabilities, HRVA enables communities and health care institutions to plan proactively rather than reactively. Integrating HRVA into planning processes strengthens resilience, protects vulnerable populations, and supports effective, timely, and coordinated responses to disasters and emergencies.

Site-Specific Hazard, Risk, and Vulnerability Analysis (HRVA)

I.Methodology

The HRVA was conducted through a review of common hazards in the local Philippine context, analysis of healthcare facility capabilities, and assessment of community characteristics such as population density, socioeconomic status, and access to health services. Hazards were categorized into natural, technological, and human-induced events.

II. Hospital-Based HRVA

A. Identified Hazards

1. *Natural Hazards*
    - *Typhoons and flooding*
    - *Earthquakes*
    - *Extreme heat*
2. *Technological Hazards*
    - *Power outages*
    - *Medical gas failure*
    - *Information system breakdown*
3. *Human-Induced Hazards*
    - *Fire incidents*
    - *Infectious disease outbreaks*
    - *Mass casualty incidents*

B. Risk Assessment

Hospitals are high-risk environments due to continuous operations and dependence on utilities. Flooding and power interruptions pose significant risks, potentially disrupting life-sustaining equipment, communication systems, and critical services such

as dialysis units and intensive care areas.

C. Vulnerability Analysis

- *Presence of critically ill, elderly, and immobile patients*
- *Dependence on electricity, water supply, and oxygen systems*
- *Limited surge capacity during disasters*
- *Staff shortages during large-scale emergencies*

D. Implications for Disaster Nursing

- *Need for clear evacuation and shelter-in-place protocols*
- *Regular disaster drills and staff training*
- *Stockpiling of emergency supplies and medications*
- *Strengthening interdepartmental coordination*

III. Community-Based HRVA

A. Identified Hazards

1. *Natural Hazards*
   - *Flooding in low-lying areas*
   - *Typhoons and storm surges*
   - *Landslides in mountainous or upland barangays*
2. *Technological Hazards*
   - *Power and water supply interruption*
   - *Transportation system disruption*
3. *Human-Induced Hazards*
   - *Fires in densely populated areas*
   - *Disease outbreaks*
   - *Road accidents and mass gatherings*

B. Risk Assessment

Communities face moderate to high risk due to exposure to environmental hazards and limited resources. Informal settlements and coastal areas are particularly at risk during typhoons and flooding, increasing the likelihood of injury, displacement, and disease transmission.

C. Vulnerability Analysis

- *High population density and poverty levels*
- *Limited access to healthcare facilities*
- *Presence of vulnerable groups (children, elderly, pregnant women, persons with disabilities)*
- *Low disaster awareness and preparedness*

D. Implications for Community Health Nursing

- *Strengthening community disaster education and early warning systems*
- *Identification and mapping of vulnerable households*
- *Coordination with barangay officials and local disaster risk reduction councils*
- *Establishment of evacuation centers with basic health services*

IV. Comparative Analysis: Hospital vs Community HRVA

Aspect	***Hospital-Based***	***Community-Based***
Primary Focus	*Continuity of care*	*Population safety*
Main Vulnerabilities	*Critical patients, utilities*	*Poverty, access to care*
Key Risks	*Service disruption*	*Displacement, outbreaks*
Nursing Role	*Emergency response, triage*	*Health educatio surveillance*

V. Recommendations

- *Conduct regular, site-specific HRVA updates*
- *Integrate hospital and community disaster plans*
- *Enhance training of nurses in disaster preparedness and response*
- *Strengthen referral systems and communication networks*

VI. Conclusion

A site-specific HRVA is essential in identifying and addressing the unique hazards, risks, and vulnerabilities present in both hospital and community settings. For nurses, understanding these factors enhances preparedness, ensures continuity of care, and promotes effective disaster response. Integrating hospital-based and community-based HRVA supports a comprehensive and resilient health system capable of responding to disasters effectively.

PREPAREDNESS

Hazard-Specific Preparedness (Philippines)

- **Fire**
  - Often considered structural or household disasters and can escalate into mass casualty incidents requiring coordinated health responses. They can occur concurrently with other hazards (e.g., during typhoons or earthquakes), disrupting health services and increasing patient loads. Institutional fire safety is part of wider disaster risk reduction in healthcare facilities.
  - **Nursing Roles**
    - Fire safety education:
      - Conduct training for staff, patients, and communities about fire risk reduction and evacuation procedures.
    - Drills & protocols:
      - Regularly participate in fire drills and evaluate adherence to safety protocols.
    - Triage & acute care:
      - Prepare for burns, smoke inhalation, shock, and related emergencies.
    - Psychosocial support:
      - Provide psychological first aid to victims and families during and after fire incidents.
  - **Hospital Readiness**
    - Functional fire detection, suppression systems, and alarms throughout facilities.
    - Clear evacuation routes and fire exits, with routine checks and drills.
    - Coordination with local fire departments and emergency services to ensure rapid response and hospital safety.
- **Earthquake**
  - The Philippines is situated in the Pacific Ring of Fire and is exposed to frequent tectonic activity (fault lines and seismic events). It also shares geological vulnerability with nearby countries in the region.
  - **Nursing Roles**
    - Education & drills:
      - Train staff and communities in “Drop, Cover, and Hold On” techniques and evacuation.
    - Continuity planning:
      - Ensure critical care and chronic condition management even when service disruptions occur.
    - Mass casualty triage:
      - Prioritize care for traumatic injuries, fractures, crush syndrome, and shock.
    - Psychological first aid:
      - Address anxiety and trauma following earthquakes.
  - **Hospital Readiness**
    - Seismic assessment of health facilities and securing equipment to prevent injury or damage.
    - Backup systems for electricity, water, and communication to continue critical operations.
    - Emergency triage areas with surge capacity plans and stockpiles of essential supplies for rapid response.
- **Volcanic Eruption**
  - The Philippines hosts dozens of volcanoes; several are active and pose recurrent threats such as ashfall, pyroclastic flows, and lahars. This places nearby communities and by extension health systems, at risk of respiratory, ocular, and thermal injuries.
  - **Nursing Roles**
    - Respiratory care:
      - Prepare for high caseloads of patients with respiratory distress, especially children and elderly.
    - Protective equipment:

- Use and distribute masks, goggles, and other PPE in ashfall zones.
    - Evacuation assistance:
        - Support coordinated community evacuations and manage health needs in evacuation centers.
    - Hygiene & water safety:
        - Provide guidance in shelters to prevent hygiene-related illnesses due to ash contamination.
- **Hospital Readiness**
    - Adequate PPE and respiratory equipment for mass care.
    - Air filtration systems and ash-proofing methods to protect water and ventilation.
    - Integration of volcanic hazard plans into broader health facility emergency operations.

- **Typhoons, floods, and tsunamis**
    - The Philippines is in the northwestern Pacific tropical cyclone basin, experiencing an average of approximately 20 tropical cyclones annually, about 8 of which make landfall, contributing to flooding and storm surges.
    - **Nursing Roles**
        - Community education:
            - Teach about early warning systems, evacuation procedures, and what to include in emergency “Go bags.”
        - Disease surveillance:
            - Monitor for water-borne diseases (e.g., diarrhea, leptospirosis) common after flooding.
        - First aid & clinical care:
            - Manage injuries from debris, drowning incidents, and chronic disease exacerbations during extended power/water outages.
        - Psychosocial support:
            - Provide support to displaced populations and families coping with losses.
    - **Hospital Readiness**
        - Flood-resilient infrastructures and protection of essential services (e.g., power, water).
        - Established evacuation and surge capacity plans to handle increased patient loads.
        - Stockpile and maintain inventories for medicines, clean water, and medical supplies to last through prolonged disruptions.

Communication Planning

- **Universal Emergency Code System (Hospital Use)**

Hospitals often use color codes to alert staff to an emergency or another significant event. These emergency codes allow trained hospital personnel to respond quickly and appropriately to various incidents.

Code	Meaning	Purpose
Red	Fire	To provide an appropriate response in the event of a suspected or actual smoke condition or fire in order to protect life, property and vital services.
Blue	Medical Emergency (Adult)	To provide an appropriate response to a suspected or imminent cardiopulmonary arrest or a medical emergency for an adult
White	Medical Emergency (Pediatric)	To provide an appropriate response to a suspected or imminent cardiopulmonary

		arrest or a medical emergency for a pediatric patient
Pink	Infant Abduction	To provide an appropriate response in the event an infant is abducted from the facility.
Purple	Child Abduction	To provide an appropriate response in the event of the abduction of a child from the facility.
Yellow	Bomb Threat	To provide an appropriate response in the event of a bomb threat or the discovery of a suspicious device or item.
Gray	Combative Person	To provide an appropriate response to situations involving an aggressive, hostile, combative or potentially combative persons.
Silver	Person with a weapon, active shooter and/or hostage situation	To provide an appropriate response in the event of an incident involving a person with a weapon, an active shooter or a hostage situation within the facility.
Green	Patient Elopement	To provide an appropriate response in the event of a missing or eloping patient who is determined to be a danger to himself, herself, others or

		who is identified as a safety risk.
Orange	Hazardous Material Spill/ Release	To provide an appropriate response to an actual or suspected hazardous material spill or release in a manner that is safe for staff, patients and visitors.
Triage	Alert, Internal and External Disaster	To provide an appropriate response to all hazards and events that may potentially have a significant impact on the normal operation of the facility.

- **Family Communication Plan during disasters**

When a disaster strikes, your family might not be together, and communication channels might be down.

It is important to plan how you will contact one another and discuss how you will communicate in different disaster situations.

❖ Before a Disaster

- ➢ Have a list of emergency contacts (fire, police, ambulance, etc.) in your cell phone and near your home phone.
- ➢ Agree on a family meeting place, both in your neighborhood and out of town, in case you cannot get in touch or are unable to go home.
- ➢ Program "I.C.E" (in case of emergency) numbers into your phone and family members' phones.
- ➢ Prepare a family contact sheet with the names, addresses and phone numbers of important contacts.
- ➢ Be sure every family member has emergency phone numbers and a cell phone.
- ➢ Teach children how and when to call 911 for help.
- ➢ Make sure everyone in your family knows how to send a text message. Texts can often get around network

disruptions when phone calls cannot.
    - ➢ Subscribe to alert services.
- ❖ <u>During a Disaster</u>
    - ➢ If you have a life-threatening emergency, call 911.
    - ➢ Avoid making phone calls except in serious emergencies. If you must make a call, keep the conversation brief.
    - ➢ For non-emergency communication, use text messages, email and social media instead of making phone calls.
    - ➢ Keep your out-of-town contact updated on your location and condition.
- ❖ <u>After a Disaster</u>
    - ➢ After a disaster, let friends and family know you are safe and well.
    - ➢ Update any contact information as needed.

Personal and Home Disaster Preparedness

Emergency Go-Bag
Keep one bag per person in an accessible location near the exit.

Food and Water
- Bottled Water
- Canned goods (easy-open)
- Biscuits/crackers
- Protein bars

Utensils
- Plastic plates
- Spoons
- Forks

Health and Hygiene
- Hygiene Kit Soap
    - Shampoo
    - Toothbrush
    - Toothpaste
    - Sanitary pads

First Aid Kit
- Bandages
- Alcohol
- Betadine
- Cotton
- Medical tape.

Medicines
- Paracetamol (fever)
- Loperamide (diarrhea)
- 2 weeks of maintenance meds.

Protection
- N95 masks
- Alcohol spray
- Wet wipes
- Tissue

Tools and Communication
- Flashlight with extra batteries
- Solar-powered lamp
- Battery-operated radio (AM/FM).

Power
- Fully charged power bank and charging cables (inside a Ziploc bag).

Signaling
- Whistle (high-pitch)

Important Documents & Cash
- Waterproof Folder
    - Copies of Birth Certificates
    - Marriage Contracts
    - Land Titles
    - Insurance
    - IDs

Emergency Cash
- Stored in small denominations (P20, P50, P100) and coins.

Basic Preparedness skills
- Every family member should master these:

- Duck, Cover, and Hold: Standard procedure for earthquakes.
- Utility Shut-off: Knowing how to turn off the LPG regulator and the main electrical breaker.
- Flood Safety: Identifying the highest point in the house and the neighborhood evacuation route.
- First Aid: Knowledge of wound cleaning and basic CPR.

Consideration for vulnerable groups (children, elderly, PWDs)

<u>Children</u>
- Identification: ID card in the child's pocket

with parents' contact details.
- Comfort: One small toy or book to reduce stress.
- Nutrition: Formula milk and sterilized water if applicable.

Elderly and PWDs
- Mobility: Keep walkers/canes beside the bed at all times.
- Lifeline: Assign a specific family member to be the designated "Buddy" for evacuation.
- Sensory: Extra eyeglasses or hearing aid batteries.

PACE Planning
- is a contingency planning framework used in emergency management, healthcare, military, disaster response, and operations to ensure continuity when things go wrong.

P – Primary
- The main plan or first-choice method.
- What you normally use when everything is working as expected.

A – Alternate
- The backup option if the primary fails.
- Usually similar to the primary but uses a different resource or method.

C – Contingency
- A more drastic fallback if both primary and alternate are unavailable.
- Often slower, less efficient, or more manual.

E – Emergency
- The last-resort option used in extreme situations.
- Focuses on survival, safety, and minimal function, not efficiency.

Simple Example – *Communication during a hospital disaster:*
Primary: Hospital landline phones
Alternate: Mobile phones
Contingency: Two-way radios
Emergency: Runners / handwritten notes

Why PACE planning matters:

- Prevents single points of failure
- Improves response speed and coordination
- Ensures patient safety during crises
- Commonly used in disaster preparedness, nursing leadership, and incident command systems

Decision Making On:

SHELTER-IN-PLACE

Definition:

- Staying indoors and remaining where you are during a disaster to avoid exposure to danger.

When to Choose Shelter-in-Place

- Hazard is outside (e.g., typhoon winds, chemical spill, ashfall).
- Evacuation routes are unsafe or inaccessible.
- The structure is strong and safe.
- Disaster is short-term and predictable.

Key Reminders:

- Remain Calm
- Immediately cease all operations. Confine any hazardous materials and turn off oxygen/flammable gases
- Shut doors behind you
- Proceed to a designated SIP room/area or to a safe interior windowless room
- Accompany and assist employees or visitors with disabilities or special needs, or any co-workers who appear to need direction or assistance
- Listen to radio or television for updates on the situation.
- **DO NOT** leave the building until authorities give the verbal “all clear” message.

EVACUATION (BUGGING OUT)

Definition:
- Leaving the current location to move to a safer area when staying poses greater risk.
- The term "bug out" refers to quickly evacuating your current location, typically your home, to retreat to a safer place during an emergency.
- The concept originated from military tactics, where troops would "bug out" when their position became compromised.

Four Essential Components of Bugging Out

The Bug Out Plan (BOP)

- A Bug Out Plan is an emergency evacuation strategy that defines who is responsible for what, where to meet, and where to go. The purpose is to create a detailed roadmap that every family member understands and can follow even under extreme stress.
- Plan should clearly identify the circumstances that would trigger evacuation. These triggers might include official evacuation orders, visible threats like approaching wildfires, or predetermined thresholds like "if water supplies are disrupted for more than 48 hours." The plan should assign specific responsibilities to each family member, designate primary and backup meeting locations, map multiple evacuation routes, and establish communication protocols when normal channels might be unavailable.
- A well-crafted plan eliminates confusion during high-stress situations, allowing your family to act decisively when minutes count. Practice drills can make the difference between panic and smooth execution when real emergencies occur.

The Bug Out Bag (BOB)

- Bug Out Bag, also known as a 72-hour kit, go bag, or emergency kit, is a backpack filled with essential supplies that can sustain you for at least three days away from home. Unlike everyday carry items, your BOB contains a comprehensive array of survival tools specifically selected for emergency situations.
- The contents of your bug out bag should address fundamental survival needs: water, food, shelter, first aid, tools, communication, navigation, and important documents. Water solutions should include both stored water and purification methods. Food should be non-perishable, calorie-dense, and require minimal preparation. Shelter components might include emergency blankets, a compact tent, tarp, and cordage. A comprehensive first aid kit with any prescription medications is essential, as are basic tools like a multi-tool, knife, fire starters, and a tactical flashlight.
- Remember, your bug out bag should be personalized to your specific needs, environment, and skill level.

The Bug Out Vehicle (BOV)

- Bug Out Vehicle is your means of transport to your safe location. This could be a dedicated vehicle specifically outfitted for emergencies or your everyday car, but it should be reliable and appropriately equipped for emergency evacuation.
- When considering your bug out vehicle, think about more than just transportation. Your vehicle needs to reliably get you to your destination, potentially through challenging conditions, while carrying your family and essential supplies. That means considering factors like fuel efficiency and range, potential off-road capability depending on your environment, sufficient cargo capacity, and overall reliability.
- During widespread emergencies, roads may be congested or impassable, so your vehicle choice and route planning should account for alternative paths. Keep your vehicle well-maintained, with at least a half-tank of fuel at all times, and consider storing additional emergency supplies in your vehicle beyond your bug out bags. These might include extra water, tools, maps, jumper cables, a spare tire, and emergency cash.

The Bug Out Location (BOL)

- Bug Out Location is your predetermined destination, a safe haven where you can wait out the emergency with adequate supplies and protection. This destination should be planned in advance, not decided in the midst of a crisis when options may be limited and judgment clouded by stress.
- Ideally, your bug out location should be outside major population centers to avoid the competition for resources and potential civil unrest that can accompany major disasters in urban areas. It should be stocked with emergency supplies to supplement what you bring, accessible via multiple routes in case primary roads are blocked, and known only to trusted individuals to maintain operational security during a crisis.
- This could be a family cabin, a friend's rural property, or another secure location where you've arranged to stay during emergencies. Not everyone has access to a dedicated retreat property, but creative alternatives can include arrangements with family members in different regions, reciprocal agreements with

like-minded friends, or even identifying public campgrounds or other facilities that could serve as temporary refuge locations.

When to Choose Evacuation

- Area is directly threatened (flooding, storm surge, fire, structural damage).
- Authorities issue a mandatory evacuation order.
- Building is unsafe or compromised.
- Long-term danger is expected.

Key Decision Factors

- Timing (early evacuation is safer)
- Distance and safety of evacuation routes
- Transportation availability
- Capacity and safety of evacuation centers

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WEEK 4 | DISASTER MANAGEMENT CONTINUUM: IMPACT PHASE (RESPONSE)

BSN–4A Group 3

DISASTER TRIAGE

Disasters create sudden, large-scale health emergencies that require rapid, organized, and efficient nursing response. Disaster nursing plays a vital role in ensuring lifesaving care through effective *disaster triage*, which prioritizes victims based on injury severity and available resources. By understanding these hazards and applying appropriate triage strategies, nurses can enhance preparedness, improve response coordination, and reduce morbidity and mortality during mass-casualty events.

I. DISASTER TRIAGE

Triage during:

- Typhoon-related flooding
- Earthquake collapse scenarios
- Fire and Stampede incidents

A. Triage Systems Used in the Philippines

- Simple Triage and Rapid Transport (START)
- JumpSTART (for pediatric victims)

B. Triage Categories

- Immediate/Emergent (RED - class I)
- Delayed/Urgent (YELLOW - class II)
- Minimal/Non-urgent (GREEN - class III)
- Expectant (BLACK - class IV)

II. MASS CASUALTY INCIDENT (MCI) RESPONSE

A. Scene & Patient Management

- Scene size-up and safety (Flooded areas, unstable structures, aftershocks, live wires)
- Patient identification and tagging (Use of color-coded triage tags or improved markers)
- Rapid primary assessment
- Focused history (when feasible)
- Rapid trauma assessment
- Ongoing reassessment and re-triage

B. Philippine MCI Challenges

- Limited emergency medical services in rural areas
- Delayed ambulance transport
- High patient-to-nurse ratios
- Communication disruptions during disasters
- Use of schools, barangay halls, and gymnasiums as temporary treatment areas

❖ **Ethical Dilemmas**

- Pediatric vs adult patients
- Expectant patients with limited resources
- Re-triage when evacuation or transport becomes available

Critical Emphasis (Disaster Nursing Reality in the Philippines) - Nurses aim to save the greatest number of lives, especially when:

- Hospitals are overwhelmed
- Supplies are limited
- Transport is delayed due to flooding
- Debris, or damaged roads
- Not all patients can be treated immediately during MCIs

TYPHOON - RELATED FLOODING

Typhoon-related disasters produce severe flooding, storm surges, landslides, and mass displacement. Disaster nursing plays a central role in response efforts, particularly in rapid triage, stabilization, and ensuring continuity of care for large populations affected by water-related hazards. Typhoons and floods consistently appear as major catalysts for mass-casualty events requiring prehospital triage, with ambulance and EMS systems responding to large surges in victims (Ng & Ong, 2015).

A. Disaster Profile

Typhoons generate:

- Extreme rainfall → flash floods
- Storm surges
- Landslides
- Infrastructure collapse

Large-scale flooding results in:

- Drowning, aspiration, hypothermia
- Traumatic injuries from debris
- Vector- & waterborne diseases

B. Triage Priorities in Mass Flooding Events

In mass flooding events, nurses apply START/JUMPSTART principles while accommodating water-related injuries:

1. **IMMEDIATE (RED)**
- Respiratory distress from aspiration
- Signs of shock or hypothermia
- Open fractures or severe bleeding
- Head injuries from debris
- Contaminated wounds with high infection risk

2. **DELAYED (YELLOW)**
- Moderate hypothermia
- Stable fractures
- Minor aspiration without cyanosis

3. **MINIMAL (GREEN)**
- Minor wounds
- Mild respiratory symptoms

4. **EXPECTANT (BLACK)**
- Pulseless, apneic after airway repositioning
- Severe drowning injuries not compatible with survival

C. Nursing Responsibilities

A. Acute Phase

- Airway suctioning
- Rewarming measures (active/passive)
- Rapid IV access and fluid management
- Immobilization of fractures
- Administration of prophylactic antibiotics when indicated

B. Subacute/Post-Impact Phase

- Surveillance for cholera, leptospirosis, skin infections
- Community triage and shelter nursing
- Mental health first aid

EARTH-QUAKE COLLAPSE SCENARIOS

Earthquakes cause structural collapse, generating high rates of severe trauma, entrapment injuries, and internal organ damage. Hospital infrastructure may also fail during earthquakes, complicating emergency response efforts. Historical data shows hospitals experiencing structural collapse or dangerous internal conditions, such as ceiling failures during post-quake surges (Barten and colleagues, 2021).

A. Disaster Profile

Earthquakes produce:

- Building collapse → entrapment
- Blunt trauma, crush injury, compartment syndrome
- Spinal, head, thoracic, and abdominal injuries

Note: Hospitals may also sustain structural damage, severely affecting disaster response capacity.

B. Triage Priorities in Collapse Events

In collapse events, nurses apply START/JUMPSTART principles while accommodating collapse-related injuries:

1. IMMEDIATE (RED)

- Active severe bleeding
- Impending airway compromise
- Crush injury with suspected crush syndrome
- Altered mental status
- Severe chest trauma or breathing difficulty

2. DELAYED (YELLOW)

- Stable fractures
- Mild to moderate soft-tissue injuries
- Concussion

3. MINIMAL (GREEN)

- Walking wounded
- Minor lacerations, sprains

4. EXPECTANT (BLACK)

- Non-survivable head or thoracic trauma
- Pulseless/apneic without resources to resuscitate

C. Specialized Nursing Interventions

A. Crush Syndrome Prevention

- Initiate IV fluids BEFORE extrication

Monitor for:

  - Rhabdomyolysis
  - Hyperkalemia
  - Kidney failure

B. Compartment Syndrome

- Pain disproportionate to injury
- Pallor, pulselessness
- Requires urgent surgical referral

C. Psychological Trauma

- Earthquake survivors commonly experience acute stress responses
- Nurses provide psychological first aid and monitor for PTSD indicators

FIRE & STAMPEDE INCIDENTS

Fire-related emergencies and stampedes represent rapid-onset mass casualty events with high fatality potential. Fires frequently occur alongside structural collapse and evacuations, whereas stampedes are associated with crowd density and panic behaviors. Literature highlights the need for preplanning to prevent crush-related fatalities in mass gatherings (Merson and colleagues, 2025).

A. Fire Incidents

A1. Disaster Profile

Fires produces:

- Burns
- Smoke inhalation
- Carbon monoxide poisoning
- Cyanide inhalation in enclosed fires

Note: Fire events often coincide with evacuations, chaos, and secondary injuries

A2. Fire-Specific Triage Priorities

In Fire events, nurses apply START/JUMPSTART principles while accommodating Fire-related injuries:

1. IMMEDIATE (RED)

- Airway burns (soot, singed nasal hair)
- Stridor, hoarse voice
- Altered mental state from CO poisoning
- Burns >20% TBSA

2. DELAYED (YELLOW)

- Stable partial-thickness burns
- Smoke exposure without respiratory distress

3. MINIMAL (GREEN)

- Minor burns
- Mild irritation symptoms

4. EXPECTANT (BLACK)

- >90% TBSA
- Apneic without resources

A3. Nursing Interventions

- High-flow O_2 (NRB)
- Early intubation for airway edema
- Burn cooling (not with ice)
- IV fluids guided by Parkland formula
- Pain management
- Psychological support

B. Stampede Incidents

B1. Disaster Profile

Stampedes are high-casualty, sudden-onset events producing:

- Asphyxia
- Blunt trauma
- Crush injuries
- Cervical spine injuries

Note: Mass gatherings require pre-event planning to prevent such outcomes

B2. Triage Priorities in Stampede Events

1. **IMMEDIATE (RED)**
   - Cyanosis / apnea
   - Chest trauma impairing ventilation
   - Suspected spinal injury
   - Rapidly deteriorating consciousness
2. **DELAYED (YELLOW)**
   - Stable fractures
   - Contusions
   - Mild respiratory distress
3. **MINIMAL (GREEN)**
   - Walking wounded
   - Minor abrasions
4. **EXPECTANT (BLACK)**
   - Cardiac arrest without resources
   - Massive chest crush injury

B3. Nursing Interventions

- Airway opening maneuvers (jaw-thrust for suspected spine injury)
- Assisted ventilation
- Continuous O_2 monitoring
- Spinal precautions
- Bleeding control
- Psychological first aid

DISASTER TRIAGE CATEGORIES

SIMPLE TRIAGE AND RAPID TRANSPORT (START)

Triage means ***"to sort"*** - to figure out *which patients need immediate care and which patients can wait.* It is a fundamental action that need to be implemented whenever medical need is larger then medical resources.

- There is no perfect triage system, but one of the methods available to us the ***START (Simple Triage and Rapid Transport)*** method. START was developed in ***1983*** by *Newport Beach (California) Fire Department* and *Hoag Hospital* in Newprt Beach, California.
- It is currently the most widely used triage system in the United States for mass casualty incidents.

- It was developed to allow first responders to triage multiple victims in ***30 seconds or less***, based on three primary observations: ***Respiration, Perfusion, and Mental Status (RPM).***
- The START system is designed to assist rescuers to find the most seriously injured patients.
- As more rescue personnel arrive on the scene, thepatients will be re-triaged for further evaluation, treatment, stabilization, and transportation.
- This system allows first responders to open blocked airways and stop severe bleeding quickly.

By using START triage, patients are sorted ***based on objective criteria*** on how they present. The severity of injury and therefore treatment and/or transport priority in START triage is sorted by ***color code.*** Triage tags contain these colors so treatment and transport crews can see at a glance which patients have been triaged to which level. The triage colors may be assigned by ***giving triage tags*** to patients or simply by ***physically sorting patients*** into different designated areas.

START

Clear out all ambulatory patients and tag them as **GREEN**. The best way to do this is to ***direct in a loud voice*** (with public address or loudspeaker assistance) for *anyone that is injured* and *needs medical assistance* to move to a designated area, a ***casualty collection point.*** While it is possible that these patients may have serious injuries, if they are able to liste, understand directions and get up and walk on their own to a casualty collection point, the chances of them dying in the next hour is low. As soon as enough medical resources arrive on location, the "green" or "minor" injury patient will need to be re-triaged to look for more serious conditions.

Rest of the patient will require more traige (3 steps):
They will either be RED, **YELLOW**, BLACK

- **R**espiratory effort
- **P**ulses/Perfusion
- **M**ental status

Step 1: RESPIRATORY EFFORT

- **Not breathing** — manually open the airway
- **If they start breathing** — RED
- **If they don't start breathing** — BLACK
- **Breathing >30 or <10** — RED
- **Breathing normal 10 - 30** — **Next step**

Step 2: PULSES/PERFUSION

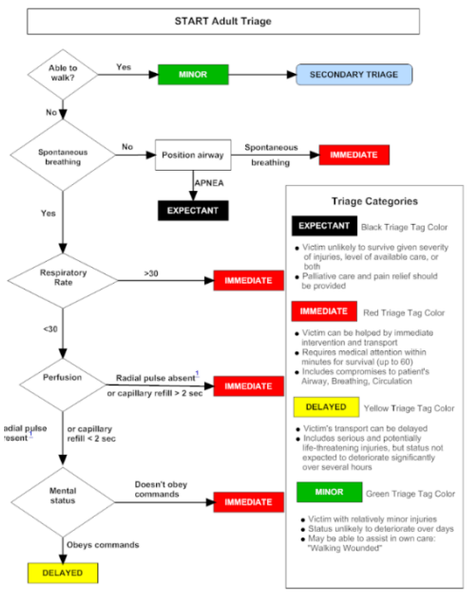
Check for Radial pulse/Capillary refill

- **Radial pulse absent/capillary refill > 2 secs** - RED
- **Radial pulse present/ capillary refill < 2 secs** - **Next step**

Step 3: MENTAL STATUS

Assessing whether or not the person can follow a simple command:

- "Squeeze my hand" - **can follow a simple command** — **YELLOW**
- **Cannot follow a simple command** — RED



IMMEDIATE/EMERGENT (CLASS 1) RED

Casualties that are classified as the **highest priority** and **need quick medical attention**. The color red is universally recognized as **STOP!** When the patient is tagged as red, a healthcare provider would have to STOP and get this patient immediate attention or a life-saving treatment for they are a top priority. These patients should not wait for another minute for they could be in a life-threatening situation but could likely survive if given immediate intervention.

- They should be seen first.
- They have a severe alteration in breathing, circulation, and neuro/mental status
- Conditions that would cause a wounded individual to be tagged red (think of conditions or systems ofthe body that if severely damaged could majorly alter the breathing, circulation, and neuro system)

CONDITIONS	
Spinal Cord Injuries	Remember various areas of the spinal cord control breathing, brain and heart function. Shock can occur like neurogenic, cardiogenic etc.
Severe Bleeding (Internal or External)	If the patient is treated immediately so the bleeding could be stopped and transfused with blood products they may live.
Major Burns (that affect a high percentage of the body)	Burns can affect the circulation and the respiratory system (depending on the burn type and where it's located)
Some Types of Major Respiratory Trauma	Conditions such as hypoxia, chest pain, pneumothorax, hemothorax, etc.

DELAYED/URGENT (CLASS II) YELLOW

Patients are tagged yellow when their **treatment may be delayed for an hour or two.** Some would also have stable conditions at the moment but would require or need a possible re-triaging later. In short, yellow tags are **second in priority which are delayed yet still urgent.** This is typically used to identify patients with injuries requiring medical treatment, but who have injuries that are not life-threatening.

- Seen as second in priority
- Significant injuries but their breathing, circulation, and mental status is within normal range but is possible to change.

CONDITIONS	
BONE FRACTURES	Major fractures that require medical treatment, minor fractures that need immobilization such as fingers,arms or legs.
INTEGUMENTARY	Open wounds, deep lacerations, minor burns, minor wounds, discoloration, and abrasions.

MINIMAL/NON-URGENT (CLASS III) GREEN

Patients who are wounded victims that have **minimal injuries** and the **most stable condition.** They indicate non-life threatening injuries. Treatment may be delayed for several hours but these people still need medical care and first aid. Sometimes referred to as **"walking wounded."**

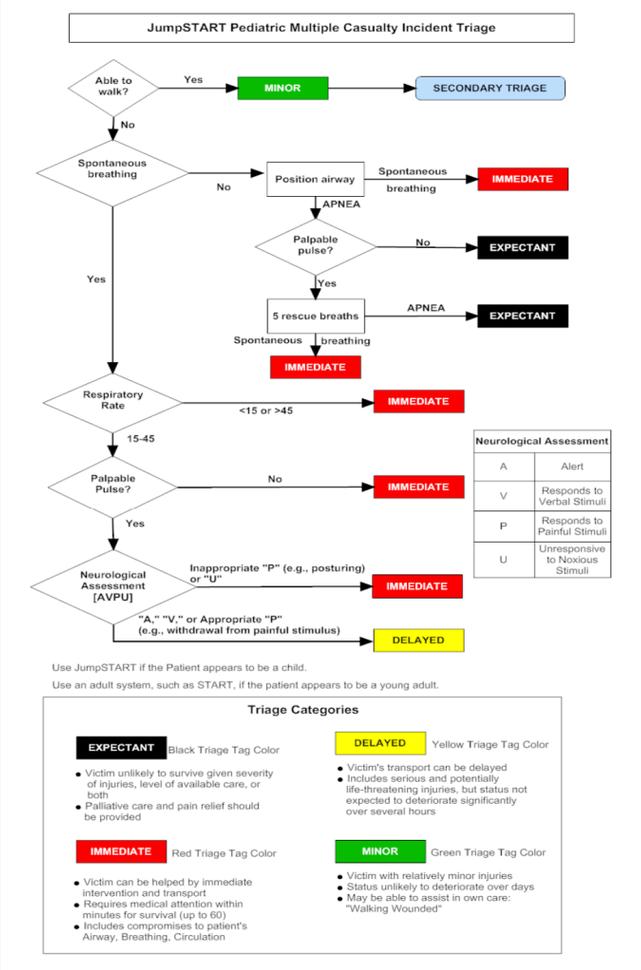
CONDITIONS
• Breathing, circulation, mental status not expected to change. • Moderate blood loss • Conscious patients with stable vital signs

EXPECTANT (CLASS IV) BLACK

Patients who are **unresponsive or dead are tagged black.** These include victims who are pulseless and have no respirations for **more than 20 minutes** and with severe injuries that even resuscitation procedures could not help.

- Wounded is dying or expired
- Injuries are deadly to the point the individual will not survive.
- Absence of breathing, circulation, mental status.
- Palliative care and pain relief should be provided

JUMPSTART (PEDIATRIC)



The physiology of adults and children is not the same. Primary MCI triage (e.g., START) is based on physiology.

JumpSTART is a pediatric MCI triage tool developed in 1995 to streamline the assessment of children in disaster scenarios.

START: Potential Problems with Children

- An apneic child is more likely to have a primary respiratory problem than an adult. Perfusion may be maintained for a short time and the child may be salvageable.
- Capillary refill may not adequately reflect peripheral hemodynamic status in a cool environment.
- Obeying commands may not be an appropriate gauge of mental status for younger children.

Why do we need a pediatric tool?

- Optimizing initial triage for children
- Improving resource allocation
- Reducing emotional strain on personnel.

JumpSTART adjusts for pediatric respiratory rates and sets an **age cutoff at eight years old**. If age is unknown, underarm hair in males or breast development in females helps determine exclusion from the pediatric cohort.

The differences in this algorithm include:

- Five rescue breaths are given to apneic children with a pulse; then, they are given a black tag.
- Normal RR are more than 15 or less than 45
- Neurological assessment is done using the mnemonic AVPU (alert, responds to verbal stimuli, responds to painful stimuli, and responsive).

STEP 1

- All children who are able to walk are directed to an area designated for **MINOR** injuries where they will undergo a secondary and more involved triage.
- Infants carried to this area or other non-ambulatory children taken to this area must undergo a complete medical and primary evaluation using modifications for non-ambulatory children to ascertain triage status.

STEP 2

- All remaining non-ambulatory children are assessed for the presence/absence of spontaneous breathing. If spontaneous breathing is present, the rate is assessed and the triage officer moves on to step three.

- If spontaneous breathing is not present and is not triggered by conventional positional techniques to open the airway, palpate for a pulse (peripheral preferred). If no pulse is present, the patient is tagged **DECEASED/ EXPECTANT** and the triage officer moves on.
- If there is a palpable pulse, the rescuer gives five breaths (approximately 15 sec) using **mouth to mask barrier technique**.
    - If the ventilatory trial fails to trigger spontaneous respirations, the patient is tagged **EXPECTANT/ DECEASED** and the triage officer moves on.
    - However, if respirations resume, the patient is tagged **IMMEDIATE** and the triage officer moves on without providing any further ventilations.

STEP 3

- If the respiratory rate is 15-45/minute, proceed to checking perfusion.
- If the respiratory rate is less than 15 (less than 1/every 4 seconds) or faster than 45/minute or irregular, tag as **IMMEDIATE** and move on.

STEP 4

- Assess perfusion by palpating pulses on a (seemingly) uninjured limb. If pulses are palpable, proceed to assessing neurological assessment (AVPU)

STEP 5

- If there are no palpable pulses, the patient is tagged **IMMEDIATE** and the triage officer moves on.

STEP 6

- At this point all patients have “adequate” ABCs.” The triage officer performs a rapid AVPU assessment of mental status.
- If the patient is Alert, responds to Voice, or responds **appropriately** to Pain (withdraws from stimulus or pushes away), the patient is tagged **DELAYED** and the triage officer moves on.
- If the patient does not respond to voice and responds **inappropriately** to pain (moans or moves in a non-localizing fashion) or is Unresponsive, an **IMMEDIATE** tag is applied and the triage officer moves on to the next patient.

MASS CASUALTY INCIDENT (MCI) RESPONSE

A. SCENE AND PATIENT MANAGEMENT

SCENES SIZE-UP AND SAFETY

- A complex procedure that takes place both before and immediately following arriving at the site, before carrying out any more actions.
- It aims to quickly ensure a secure environment exists in which to deliver care, and that the right resources are brought in in order to meet the number of patients and their individual care needs.

Steps followed during a scene size-up:
1. Assess scene safety

- Evaluating the scene's safety is the first stage in the scene size-up process. This involves locating any dangers that can endanger responders or patients, such as fallen power lines, gas leaks, or unstable buildings.

2. Eliminate the number of patients

- First responders should make an effort to determine the approximate number of patients involved in the incident as soon as the site is judged safe. This can be accomplished by gathering information from onlookers and performing a visual assessment of the scene.

3. Request additional resources

- First responders should request more resources, such as ambulances, fire trucks, and law enforcement personnel, as needed, based on the estimated number of patients and the severity of their injuries.

4. Establish a command post

- The Incident Commander (IC) should set up a command post to manage the response operations after further resources have been requested. Although it should be far enough from the scene to allow for supervision and guidance for responding personnel, the command post should be situated nearby
- It is crucial to remember that scene size-up in an MCI is a dynamic process that can require revision when new information becomes accessible. To guarantee that first responders have the abilities and information needed to handle MCIs, regular training and readiness exercises must be implemented.

PATIENT IDENTIFICATION

- In order to treat, monitor, and ensure continuity of care and family reunification, **patient identification** is essential.
- The core management strategy for critically ill patients is the **assessment of airway, breathing, circulation, disability, and exposure** (ABCDE). In many cases, including unresponsive patients, cardiac arrests, and urgent medical or trauma patients, the ABCDEs are the crucial initial actions that must be taken. ABCDE is incorporated into the first assessment, the primary survey, and the care of injuries for the trauma patient.
- The ABCDE strategy entails clinical assessment, investigations, and interventions at every level. Issues are resolved as they arise, and the patient undergoes frequent reevaluations to track how well they are responding to treatment.
- The first assessment done on a trauma patient to determine and treat potentially fatal injuries is called a **primary survey.**

RAPID PRIMARY ASSESSMENT

1. AIRWAY (Goal: To have a patent airway)

Assess:

- Airway noises
- Position of head
- Foreign body
- Fluid or secretions
- Edema

What to do?:

- Open airways - use head tilt, chin lift
- Suction
- Secure the airway
- O2 supplementation

2. BREATHING (Goal: Sufficient oxygenation and ventilation)

Look-listen- feel approach

SpO2 - ETCO2 - USG - X-ray - CT

Assess:

- Respiratory rate and effort
- Breath and added sounds
- Subcutaneous emphysema
- Symmetry of chest movement
- Tracheal deviation
- Jugular vein distention
- Cyanosis

What to do?:

- O2 supplementation on according to SpO2
- Pneumothorax therapy - if with NO breath sounds
- Inhalation therapy - if with abnormal breath sounds (wheezing)
- Ventilation absent, no advanced airway

3. CIRCULATION (Goal: Stabilization of circulation)

Assess:

- Heart rate
- Blood pressure
- Capillary refill
- Bleeding
- Skin color
- Blood samples
- Diuresis

What to do?:

- Establish an IV/IO access (intravenous or intraosseous)
- Control of bleeding
- Massive hemorrhage protocol
- Fluids
- Drugs
- Transfusion

4. DISABILITY (Goal: Evaluation of neurological state)

Assess:

- AVPU/GCS
- Reactivity and symmetry of pupils (PERRLA)
- Blood glucose level
- Basic neurological examination
- Posture
- Toxicological examination

What to do?:

- Glucose - for low blood glucose levels
- Antidotes - for overdoses

5. ENVIRONMENT OR EXPOSURE (Goal: Revealing other symptoms and the thermo management)

Assess:

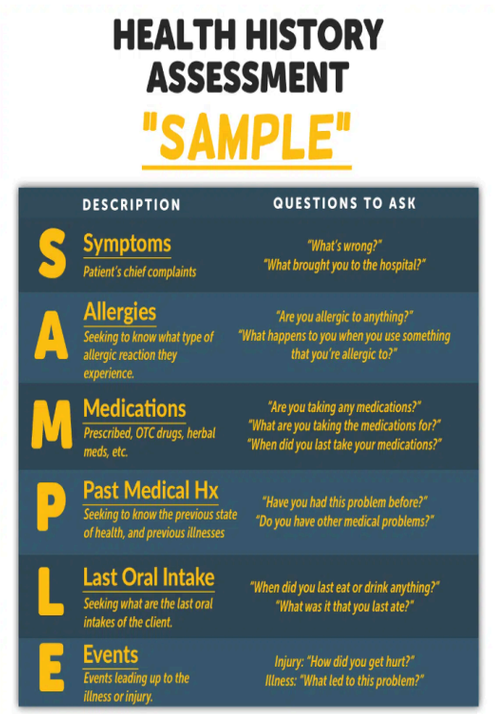
- Head to toe examination

- Medical history
- Temperature
- Injuries
- Edemas
- Scars
- Signs of drug abuse
- Skin changes
- Signs of infection/sepsis

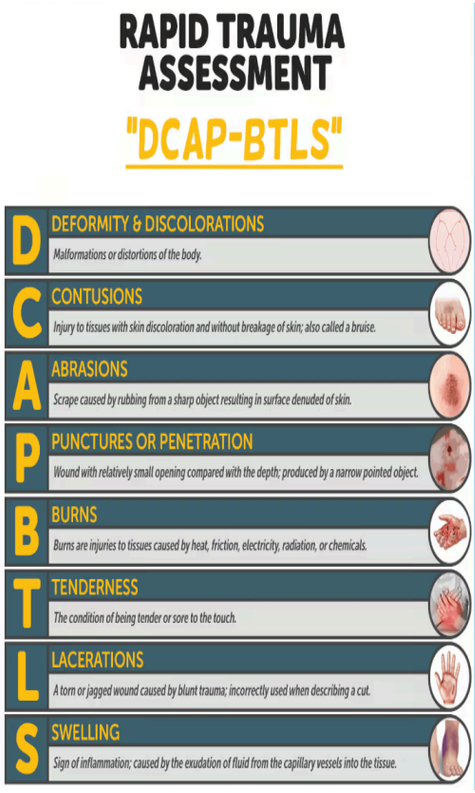
What to do?:

- Identified cause therapy
- Thermo management
- Insertion of NGT, IUC, FBC

FOCUSED HISTORY



RAPID TRAUMA ASSESSMENT



ONGOING ASSESSMENT

- Ongoing assessment is a process used to measure and document how an individual progresses. This assessment is performed during transport on all patients.
- The Ongoing Assessment will be repeated every 15 minutes for the stable patient and every 5 minutes for the unstable patient.

This assessment is used to answer the following questions:

1. Is the treatment improving the patient's condition?
2. Are any known problems getting better or worse?
3. What is the nature of any newly identified problems?

It's important to make sure the assessment tool is valid, reliable, culturally and linguistically appropriate, and made for ongoing assessment.

REPEAT INITIAL ASSESSMENT

- Reassess mental status.
- Maintain an open airway.
- Monitor breathing for rate and quality.
- Reassess pulse for rate and quality.
- Monitor skin color and temperature (CTC)
- Re-establish patient priorities

Continue to reassess mental status, ABCs, re-establish patient priorities, reassess vital signs, and continually recheck your interventions.

CHECK INTERVENTIONS

- Assure adequacy of oxygen delivery/artificial ventilation
- Assure management of bleeding
- Assure adequacy of other interventions

B. PHILIPPINE MCI CHALLENGES

- **Limited Emergency Medical Services (EMS) Resources**
  - There is a shortage of ambulances, trained emergency responders, and essential equipment which slows the initial response and patient transport.
- **Geographical and Traffic Barriers**
  - The country's archipelagic geography, combined with heavy traffic in urban areas can delay emergency access to the affected sites, especially in remote or island communities.
- **High Frequency of Disasters**
  - The Philippines experiences frequent natural disasters such as typhoons, earthquakes, and floods, which often overwhelm existing healthcare and emergency systems.
- **Hospital Overcrowding**
  - During mass casualty Incidents

(MCI's), local hospitals and emergency rooms can quickly exceed capacity, limiting their ability to provide timely care to all casualties.

- **Coordination Gaps Between Agencies**
  - Limited integration and communication between local government units (LGUs), Department of Health (DOH), Philippine National Police (PNP), and Bureau of Fire Protection (BFP) can lead to delayed or duplicated response efforts.
- **Communication Failures**
  - Power outages, damaged communication infrastructure, or network congestion during disasters impede effective reporting and coordination among responders
- **Inconsistent Triage and Preparedness**
  - Many areas lack standardized triage protocols, regular MCI drills or training, reducing the efficiency of casualty prioritization and emergency management.

ETHICAL DILEMMAS

Ethical dilemma - a situation in which a healthcare provider must choose between two or more conflicting moral principles, where any available option may result in harm or compromise ethical values such as beneficence, justice, autonomy, or nonmaleficence.

In Mass Casualty Incidents, ethical dilemmas arise because resources are insufficient to provide optimal care to all patients, requiring difficult decisions about prioritization, allocation of care, and triage.

The following are ethical dilemmas of MCI:

- Pediatric vs adult patients
- Expectant patients with limited resources
- Re-triage when evacuation or transport becomes available

PEDIATRIC VS ADULT PATIENTS

Healthcare providers may feel morally compelled to prioritize pediatric patients due to their vulnerability and emotional appeal. However, **MCI triage prioritizes patients based on likelihood of survival and effective use of limited resources, not age.**

Ethical principles involved:

- **Justice** – fair and impartial distribution of care
- **Utility** – greatest good for the greatest number
- **Nonmaleficence** – avoiding futile or ineffective interventions

Ethical consideration: Age alone should not determine triage priority. A pediatric patient with low survivability may be classified as expectant, while an adult with a higher chance of survival may receive immediate care.

EXPECTANT PATIENTS WITH LIMITED RESOURCES

Expectant patients have injuries that are **unlikely to be survivable given the current availability of resources**. The ethical dilemma involves balancing life-saving efforts for others while still providing humane care.

Ethical principles involved:

- **Utility** – maximizing overall survival
- **Beneficence** – promoting patient comfort and well-being
- **Respect for human dignity**

Ethical Consideration:
Expectant patients should not be abandoned. While life-saving interventions may not be provided, palliative and comfort care should be offered when possible without diverting critical resources.

RE-TRIAGE WHEN EVACUATION OR TRANSPORT BECOMES AVAILABLE

Re-triage means **rechecking and reassessing patients after the initial triage**. In a mass casualty incident, a patient's condition can improve or worsen, and resources such as ambulances, hospital beds, or medical staff may become available over time.

Ethical principles involved:

- **Justice** – ensuring fair access as circumstances evolve
- **Fidelity** – duty to continuous patient assessment
- **Beneficence** – providing appropriate care based on current needs

Ethical consideration:
It is ethical and necessary to change a patient's triage category when new information or resources become available. This ensures that patients receive care based on their current condition and chances of survival, not just the initial assessment. It allows healthcare providers to use limited resources fairly and effectively, helping save the most lives as the situation changes.

CRITICAL EMPHASIS

(Disaster Nursing Reality in the Philippines) - Nurses aim to save the **GREATEST NUMBER OF LIVES**, especially when:

- Hospitals are overwhelmed
- Supplies are limited
- Transport is delayed due to flooding, debris, or damaged roads
- Not all patients can be treated immediately during MCIs

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Universally Accepted Hospital Emergency Color Codes

Hospital emergency color codes are designed to alert staff to critical situations without causing panic among patients and visitors. While no single global law exists, organizations such as the International Association for Healthcare Security and Safety (IAHSS) and national health authorities provide widely adopted standards.

In the Philippines, the Department of Health (DOH) and institutions such as St. Luke's Medical Center and Ateneo de Davao University generally follow a blended international framework, though exact policies may vary by institution.

CODE	MEANING
Code Blue	Medical Emergency (Cardiac or Respiratory Arrest – usually Adult)
Code Red	Fire or Smoke Detected
Code Pink	Infant Abduction (Baby missing from the nursery)
Code Purple	Child Abduction (Older child missing)
Code Amber	Unified Code for Any Missing Minor
Code Black	Bomb Threat or Suspicious Package
Code Orange	Hazardous Material Spill (Chemical, Biological, or Radiological)
Code Silver	Active Shooter or Person with a Weapon
Code White / Gray	Violent or Aggressive Person (Security needed, no weapon)
Code Green	Evacuation / Activation of Emergency Operations Plan
Code Yellow	Internal Emergency (Utility failure, flooding, missing patient)

*Calling the wrong code in a hospital can cause significant confusion, but hospitals are designed with "failsafes" to handle human error—especially during high-stress moment*s.

Here is what typically happens if the wrong color is called:

1. The "Correction" Protocol

If a staff member shouts, "Code Red!" (Fire) when they meant "Code Blue!" (Cardiac Arrest), the consequences are immediate but manageable:

The Dispatcher's Role: When a code is paged over the intercom, the operator (usually at the "PBX" or Command Center) will often ask for a quick verification or location. If they hear "Room 402, patient is not breathing," but the caller said "Code Red," a trained operator will likely page both or clarify: "Confirming, is this a medical emergency or a fire?"

Double-Paging: If the wrong code is paged over the air, the caller usually has to call back immediately to say, "Cancel Code Red, activate Code Blue, Room 402."

2. The Risk of "Resource Misallocation"

This is the biggest danger.

Scenario: You call a Code Silver (Active Shooter) instead of a Code White (Aggressive Patient).

Result: The police and armed security will swarm the floor with guns drawn, potentially escalating a situation where only a nurse and a tranquilizer were needed. Meanwhile, the specialized team needed for the actual emergency might stay at their desks because their color wasn't called.

3. "The Boy Who Cried Wolf" Effect

In the Philippines, hospitals like St. Luke's or Chong Hua have strict reporting requirements. If you call a code erroneously:

Incident Report: You will be required to fill out an Incident Report (IR) or a "Near Miss" form. This isn't necessarily to punish you, but to see if the colors are too confusing or if the staff needs better training.

Operational Fatigue: Calling a Code Pink (Abduction) triggers a total building lockdown. If it was just a misplaced baby, the hospital loses thousands of pesos in productivity and causes massive stress to patients.

4. Legal and Professional Standing

Good Samaritan/Professional Grace: Generally, if you acted in "Good Faith" (you genuinely thought there was a fire), you are protected.

Negligence: If a patient dies because you called Code Green (Evacuation) instead of Code Blue (Resuscitation), and it's proven you weren't paying attention to training, it could lead to an administrative case or a review of your license by the Professional Regulation Commission (PRC).

In the Philippines, the DOH Health Emergency Management Bureau (HEMB) uses a specific "Alert System" for hospital-wide readiness during disasters or mass casualty incidents (MCIs). This is slightly different from "paging" a code for a single room.

DOH Disaster Alert Levels

- **Code White:** Hospitals are on standby; response teams (surgeons, nurses) are ready for mobilization. Usually declared during holidays or expected typhoons.
- **Code Blue:** Partial activation; used when 20–50 casualties are expected or an internal emergency reduces hospital capacity to 50%.
- **Code Red:** Full mobilization; used for mass casualty incidents (>50 red-tag patients) or when the hospital itself is structurally damaged.

The National Disaster Risk Reduction and Management Council (NDRRMC) use a color-coded alert system that differs from hospital "paging" codes (like Code Blue). These codes signify the readiness level of a disaster response unit or a specific geographical area.

When these are applied to a hospital setting, they dictate whether staff can go on leave and how many personnel must be physically present in the building.

NDRRMC Disaster Alert Codes

These are the standard colors used by the NDRRMC to communicate the status of Operations Centers (OpCen) across the country:

- **White Alert (Normal / Standby)** - Business as usual." The situation is monitored, and personnel are on call but not necessarily confined to the office.
- **Blue Alert (Heightened Alert)** - 50% of personnel must be at the station. This is raised when a hazard (like a Typhoon or a large festival) is imminent. It ensures a 24/7 monitoring presence.

- **Red Alert (Maximum Alert)** - 100% of personnel (Full Response) must be at the station. This is the highest level of readiness. Leaves are usually cancelled, and all response teams are deployed or ready for immediate deployment.

NDRRMC Rainfall/Flood Warning Codes

Aside from operational readiness, the NDRRMC (via PAGASA) uses a specific color code for public weather warnings that hospitals must monitor for evacuation purposes:

- **Yellow (Monitor):** Flooding is possible in low-lying areas.
- **Orange (Alert):** Flooding is threatening. Residents and hospitals in flood-prone zones should prepare to evacuate.
- **Red (Evacuate):** Severe flooding is expected or occurring. Immediate evacuation is required.

In the Philippines, emergency response is a combination of nationwide "Unified" hotlines and specialized local numbers.

1. National Emergency Hotlines (Nationwide)

The Philippines has transitioned to a centralized system, though legacy numbers like "117" still function in some areas as they reroute to the new system.

- **National Emergency** 911
- **DOH Mental Health** 1553
- **Red Cross** 143
- *PNP 117 (phased out)*

2. Cebu City Emergency Hotlines

Cebu City uses both the national 911 and specific local short codes. For the fastest response in Cebu, the ERUF (private foundation) is often the gold standard for medical rescue.

Primary Cebu City Shortcuts

- **Medical/Ambulance (ERUF):** Dial 161 (Emergency Rescue Unit Foundation)
- **Fire Department:** Dial 160
- C3 - **Cebu City Command Center:** Dial 166 This is the local "brain." It monitors the CCTV cameras across the city and dispatches the Police and CCTO

Moving into 2026, the Philippine National Police (PNP) has officially and fully transitioned to 911.

117 (Patrol 117): This was the old national emergency number for the police for decades. It is now considered "legacy." While some old landlines might still reroute to a dispatch center, the government has spent the last few years phasing it out in favor of the international standard (911).

If you dial 911 from any phone in the Philippines, the system is designed to prompt you or automatically route you. Under the "Revitalized E911" system:

Press 1: For Police Assistance (PNP)

Press 2: For Fire (BFP)

Press 3: For Medical Emergencies (DOH/Ambulance)

Prank calling an emergency hotline in the Philippines is a serious criminal offense. Because nearly 98% of calls to the 911 system are unfortunately pranks or dropped calls, the government has cracked down hard on violators using advanced tracking technology.

If you prank call 911, 166, or any emergency line, you face the following consequences:

1. Severe Legal Penalties

Under Presidential Decree No. 1727 (and various new local ordinances passed in 2025/2026), the penalties are steep:

Imprisonment: Up to 5 years in jail.

Fines: Up to ₱40,000 (Nationally) or higher depending on local city ordinances.

Local Ordinances: Many cities (including Cebu and Pangasinan) have passed specific laws. For example, in some areas, repeat offenders face mandatory "educational home visits" from social workers and police before being formally charged.

2. Advanced Tracking (You Will Be Caught)

The "Upgraded 911" system launched recently includes geofencing and geodata capabilities.

Location Tracking: Dispatchers can see your exact location and the camera feed (if calling from a smartphone) often within seconds.

SIM Registration Act: Since every SIM card in the Philippines is now registered to a legal ID, authorities can instantly link a prank call to a specific name and address.

3. Consequences for Minors

If a child or minor makes a prank call:

Parental Liability: The fines are charged to the parents or guardians.

Loss of Benefits: In cities like Muntinlupa (and similar proposed ordinances in Cebu), a second offense can lead to the withdrawal of local government scholarship grants.

Mandatory Seminars: The minor and parents may be required to attend whole-day seminars on disaster responsibility.

4. Real-World Impact

The most "human" consequence is that prank calls congest the lines. In the Philippines, the average response time for a legitimate 911 call is now roughly 5 minutes. Every second a dispatcher spends talking to a prankster is a second they aren't helping someone whose life is actually in danger.

- First Offense — Formal warning + Fine (₱1,000 to ₱5,000)
- Repeat Offense — Heavier fines + Arresto Mayor (1 month to 6 months jail)
- Hoax/Bomb Threat — Up to 5 years imprisonment + ₱40,000 fine