



N-12 Public Health Nursing I
Second Semester, AY 2023-2024 [BATCH 2]

Unit 3: Environmental Health

Site Visit and Group Presentation of Findings

Asst. Prof. Jan Vincent T. Delos Santos, MAEd, RN

Learning Outcomes:

- Discuss the different aspects of environmental health and their effects to individual, family, and community health: *Water Sanitation, Food Sanitation, Solid Waste Management, Proper Excreta and Sewage Disposal, Environmental Pollution, Vector Control, and Proper Housing.*
- Recognize the roles of the nurse in facilitating the different aspects of environmental health towards health promotion and disease prevention.
- Present pertinent information on environmental health measures, policies, methods, and processes.

Guidelines:

- The class shall be divided into 7 groups.

<i>Jan 13-Feb 5</i>	<i>Feb 24-Apr 23</i>	<i>Apr 25-Jun 4</i>	<i>Jun 20-Jul 31</i>
Escosura Jardaleza Layug Co Peralta Uy Marin	Lloren Tagamtam Mamaug Corpuz Natividad Lagaya Guillermo	Ascarraga Mendoza Rivera Bernardino Sentero Ayuyao	Fadul Paningsoro Gutierrez Coronel Sibug Guevarra
<i>Aug 4-Aug 27</i>	<i>Aug 30-Oct 11</i>	<i>Oct 20-Dec 20</i>	
Dimaunahan Garcia Villas Sumiran Banada Santiago	Solomon Masbang Valera Obra Puntanar Raytana	Tanilon Francisco Tamos Gonzales Dela Cruz Remolona	

- During your free time, **meet** with your groupmates and select a **leader**.
- The seven leaders shall:
 - Create a **Viber group** with Asst. Prof. Delos Santos. This shall be for coordinating, monitoring, and updating.

- Approach Asst. Prof. Delos Santos for the **drawing of lots**. This shall determine the topic of the group.
- Organize meeting with groupmates to discuss **site** options and communications.
- Each group shall organize and schedule a site visit on Week 1 of N-12 PHN I. You may utilize the following:
 - Afternoon of February 20, 21, 22
 - Entire day of February 23 (*No class to give you time for the visit*)
 - February 24, 25
 - Afternoon of Feb 26, 27, 28, 29
- Immediately communicate with suggested sites using the template given. Communicate with Asst. Prof. Delos Santos for the signing of letters (either printed or PDF soft copy). Communications may be done during class and office hours through:
 - Viber group
 - Viber personal message
 - Email (jtdelossantos1@up.edu.ph)
 - Room 301
 - Room 212 (N-12 Room)
- Findings of site visits shall be discussed through a **45 to 60-minute presentation**. Make sure that assigned topics shall be covered.
- Schedule of group presentations shall be as follows:

		Suggested Sites to Visit
EH Day 1 Feb 27	Introduction to Environmental Health	
	● Water Sanitation	<ul style="list-style-type: none"> ● Balara Filtration Plant, Quezon City ● Manila Water Company Inc., Quezon City ● Maynilad Water Services, Inc., Quezon City ● Metropolitan Waterworks and Sewerage System, Quezon City
	● Food Sanitation	<ul style="list-style-type: none"> ● Wet market - dry market - grocery ● Food establishments ● Ambulant vendors ● Slaughter house
EH Day 2 Feb 28 (Japanese Visitors)	● Solid Waste Management	<ul style="list-style-type: none"> ● Local garbage disposal site / materials recovery facility of any local government unit ● Metropolitan Manila Development Authority
	● Proper Excreta and Sewage Disposal	<ul style="list-style-type: none"> ● Metropolitan Waterworks and Sewerage System, Quezon City ● Sewage Treatment Plant
EH Day 3 Feb 29	● Environmental Pollution	<ul style="list-style-type: none"> ● Environmental Management Bureau, Department of Environment and Natural Resources
	● Vector Control	<ul style="list-style-type: none"> ● Department of Health
EH Day 4 Mar 1	● Proper Housing	<ul style="list-style-type: none"> ● National Housing Authority
	● Synthesis, Evaluation, and Feedback of Environmental Health	

	<ul style="list-style-type: none"> • Time for Occupational Health Visit • Time to prepare for Family Health Nursing
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- The group presentation of findings is equivalent to **10%** of your grade. Peer evaluation and class participation comprise another 10% while the written exam shall constitute 20%.

Guide Questions:

1. Water Sanitation
<ol style="list-style-type: none"> 1. What is <u>water sanitation</u>? 2. What are the different water <u>sources</u>? <ol style="list-style-type: none"> a. Ground b. Surface c. Rain 3. What are the different approved <u>levels</u> of water facilities? <ol style="list-style-type: none"> a. Point source b. Communal faucet system / stand posts c. Waterworks system / individual house connections 4. What are the different water <u>treatment methods</u> in households and communities? Which can be done in households? In communities? <ol style="list-style-type: none"> a. Chlorination b. Standard water treatment <ol style="list-style-type: none"> i. Coagulation ii. Flocculation iii. Sedimentation iv. Filtration v. Disinfection 5. What is the <u>frequency</u> of water treatment depending on the point source? 6. What are the physical, chemical, and biological <u>properties</u> of water? 7. What are the characteristics of safe water supply? What are the <u>Philippine standards</u> for drinking water? 8. Discuss water-related <u>diseases</u>. How will you discuss these with your client in the context of their family, home, and community environments? <ol style="list-style-type: none"> a. Water-borne b. Water-washed c. Water-based d. Water-related insect vector 9. In the local context, what are the <u>laws</u> / policies governing water sanitation? 10. What is the importance of water sanitation in relation to health? What are its implications to <u>nurses' care</u> of families?

2. Food Sanitation

1. What is **food sanitation**?
2. What are the standards for food freshness? How are hazards controlled throughout the stages of the food supply chain, '**from farm to fork**' of food safety?
 - a. Pork
 - b. Beef
 - c. Chicken
 - d. Fish
 - e. Vegetables
 - f. Fruits
 - g. Canned goods
 - h. Processed foods
3. What issues concern **expiration dates**? How do these differ from best before dates?
4. How are food **products** regulated and controlled? How are these approved for release in the market? How should these be arranged and stored?
5. In the Philippines, what are the policies regarding regulation of food **establishments**?
6. In the local context, what are the **laws** governing food sanitation?
7. What are sources of food **contamination**? Of cross contamination?
8. What are the **five keys to safer food**?
 - a. Keep clean.
 - b. Separate raw and cooked.
 - c. Cook thoroughly.
 - d. Keep food at safe temperatures.
 - e. Use safe water and raw materials.
9. Discuss food-borne **diseases**. How will you discuss these with your client in the context of their family, home, and community environments?
 - a. Food-borne infection
 - b. Food-borne intoxication
10. What is the importance of food sanitation in relation to health? What are its implications to **nurses' care** of families?

3. Solid Waste Management

1. What is **waste management**?
2. What is **refuse**? What is **garbage**?
3. What are the major **sources and composition** of solid wastes?
4. What are the **processes** involved in solid waste management?
 - a. Avoidance
 - b. Reduction
 - c. Reuse
 - d. Recycling
 - e. Recovery
 - f. Treatment
 - g. Safe disposal
5. What are the different **methods** of garbage disposal in urban and rural communities?
 - a. Hog feeding
 - b. Open dumping
 - c. Open burning
 - d. Burial pit
 - e. Composting (anaerobic and aerobic)
 - f. Garbage collection
6. How does the Philippine government (national and local) address problems in waste management? In the local context, what are the **laws** / policies governing solid waste management?
7. Discuss the following **components** of solid waste management:
 - a. Waste characterization
 - b. Segregation and storage
 - c. Collection and transfer
 - d. Processing
 - e. Source reduction
 - f. Recycling program
 - g. Solid waste management facility and final disposal
8. What are the **guidelines** in proper disposal of wastes, including effective and proper handling, collection, transport, treatment, storage, and disposal of health care wastes? What are the guidelines on categorized final disposal facilities (sanitary landfills)?
9. Discuss **diseases** related to poor solid waste management. How will you discuss these with your client in the context of their family, home, and community environments?
10. What is the importance of solid waste management in relation to health? What are its implications to **nurses' care** of families?

4. Proper Excreta and Sewage Disposal

1. What is **excreta**? What is **sewage**?
2. What is **wastewater**?
3. What are the **categories** of wastewater?
 - a. Gray water
 - b. Black water
4. What are the different **levels** of toilet facilities according to context of use?
 - a. Individual facility
 - b. Shared facility
 - i. Local single toilet
 - ii. Communal
 - iii. Public
5. What are the different **types** of toilet facilities? Differentiate and give examples.
 - a. Pail system / bucket toilet
 - b. Open pit privy
 - c. Close pit privy
 - d. Bored hole latrine
 - e. Overhung latrine
 - f. Antipolo style
 - g. Water sealed latrine
 - h. Flush type
6. Characterize and differentiate excreta and sewage disposal systems in **urban and rural communities of the Philippines**.
7. Discuss **septic tanks**.
 - a. What are septic tanks?
 - b. How do septic tanks work?
 - c. How are these maintained?
8. What are the **requirements** for septic tanks and disposal of septic tank effluent?
9. In the local context, what are the **laws** / policies governing proper excreta and sewage disposal?
10. What is the importance of proper excreta and sewage disposal in relation to health? What are its implications to **nurses' care** of families? How will you discuss these with your client in the context of their family, home, and community environments?

5. Environmental Pollution

1. What are the **kinds and major causes / sources** of air pollution in the Philippines?
2. What are effects of air pollution? What are its **impacts / threats to health**? Include health effects of the following:
 - a. Particulate matter
 - b. Nitrogen dioxide
 - c. Sulfur dioxide
 - d. Ozone
 - e. Secondhand smoke
3. In the local context, what are the **laws** / policies governing air pollution and management?
4. What are the **kinds and major causes / sources** of land pollution in the Philippines? Include the following:
 - a. Deforestation and soil erosion
 - b. Agricultural practices
 - c. Mining
5. What are effects of land pollution? What are its **impacts / threats to health**? Include the following:
 - a. Eutrophication
 - b. Developmental deficits
6. In the local context, what are the **laws** / policies governing land pollution and management?
7. What are the **kinds and major causes / sources** of water pollution in the Philippines?
8. What are effects of water pollution? What are its **impacts / threats to health**? Include the following:
 - a. Red tide and dinoflagellates
 - b. Coliform
 - c. Ground water poisoning (leaching)
9. In the local context, what are the **laws** / policies governing water pollution and management?
10. What is the importance of managing air, land, and water pollution in relation to health? What are its implications to **nurses' care** of families? How will you discuss these with your client in the context of their family, home, and community environments?

6. Vector Control

1. What are **vectors**? What is **vector control**?
2. What are the most common vectors in **urban and rural communities of the Philippines**? Discuss their characteristics and nature, in relation with prevention and control. Describe the environments that support their breeding.
 - a. Mosquitoes
 - i. Anopheles
 - ii. Culex
 - iii. Aedes
 - b. Flies
 - c. Cockroaches
 - d. Rats
 - i. Norway / brown / sewer
 - ii. Roof / black / gray
 - iii. Mice
3. What are the mechanisms for vector-borne disease **transmission**?
 - a. Mechanical
 - b. Biological
4. Discuss common vector-borne **diseases**.
5. Elaborate on **dengue**. How will you discuss this with your client in the context of their family, home, and community environments?
6. Elaborate on **leptospirosis**. How will you discuss this with your client in the context of their family, home, and community environments?
7. How are vector-borne diseases managed by the government? What are the prevention and control **programs** being implemented? What are their mechanisms of action?
8. In the local context, what are the **laws** / policies governing vector control?
9. Discuss vector control **measures**. Give examples.
 - a. Physical
 - b. Chemical
 - c. Biological
 - d. Environmental
 - e. Education
10. What is the importance of vector control in relation to health? What are its implications to **nurses' care** of families?

7. Proper Housing

1. What is **proper housing**?
2. What are the **standards** followed in building houses in the Philippines?
 - a. Location
 - b. Ventilation
 - c. Lighting
 - d. Temperature
 - e. Toilet condition
 - f. Water source
 - g. Others
3. What is the **standard measurement** for adequate housing per family?
4. What is **crowding index**? Discuss household crowding and overcrowding.
5. Discuss **diseases** associated with improper / inadequate housing. How will you discuss these with your client in the context of their family, home, and community environments?
6. In the local context, what are the **laws** / policies governing proper and adequate housing?
7. What are the **principles** of healthy housing?
 - a. Protection against communicable diseases
 - b. Protection against injuries, poisonings, and chronic diseases
 - c. Reduction of psychological and social stresses to a minimum
 - d. Improvement of housing environment
 - e. Informed use of housing
 - f. Protection of populations at special risk
8. What are the fundamental **physiologic and psychologic needs** that should be provided through proper and adequate housing?
9. Relate housing with **injury, safety, and hazards** (e.g. housing materials, elderly, falls, fire, accessibility).
10. What is the importance of proper and adequate housing in relation to health and well-being? What are its implications to **nurses' care** of families?

- Presentations shall be evaluated using the following **criteria**:

○ Completeness	20%	<i>Are all components comprehensively discussed?</i>
○ Correctness	20%	<i>Are all contents accurately presented?</i>
○ Comprehension	30%	<i>Do learners demonstrate understanding?</i>
○ Connection to Care	30%	<i>Do learners integrate towards nursing care?</i>

100%		

- These presentations of findings are not just considered as the usual class 'reporting'. Groups are encouraged to make their presentations as **contextualized, creative, and interactive** as possible. Activities and assessments may be facilitated. Contents of discussions shall be **current, critical, and integrated**. The class shall be engaged to maximize learning throughout the time allotted and must ensure that scheduled groups shall finish the presentations within the allotted day.

- All members of the presenting group shall be **prepared to respond** to questions and clarifications from the class and the faculty.

- Members of the groups shall undergo self and **peer evaluation** at the end of the Environmental Health component (Total Score: 50).
 - Attended group meetings and contributed in the conceptualization of site visit and presentation of findings
 - Contributed meaningful and useful insights about assigned environmental health concept during planning of site visit and presentation of findings
 - Assumed a fair share of group tasks
 - Completed assigned task/s on time
 - Prepared assigned task/s with quality and excellence
 - Demonstrated a cooperative and supportive attitude
 - Stimulated the group to appropriate action or decision
 - Worked with integrity at all times
 - Contributed significantly to the success of the site visit and presentation of findings
 - Demonstrated values of leadership and love of learning

- Per group, bring a manila paper and markers on February 20, 2024.



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February 15, 2024

Dear _____,

Warmest greetings!

The second year Bachelor of Science in Nursing students of the University of the Philippines Manila – College of Nursing intend to conduct site visits to various environmental and health agencies as part of their course, N-12 Public Health Nursing I. This learning activity aims to provide students with a deeper understanding of the concepts and actual processes related to _____(topic)_____ and its relation with individual, family, and community health.

On behalf of my group members whose names are listed below, I, _____(name)_____, group leader, would like to respectfully request permission to visit your site / agency, _____(name)_____, at _____(address)_____. We hope to conduct the visit on _____(date)_____, _____(day)_____, at _____(time)_____.

During our visit, we intend to observe your actual operations and conduct interviews in relation to our topic. Our group members are as follows:

- _____
- _____
- _____

Attached is a copy of the guide questions we wish to inquire on. For questions and/or clarifications, you may contact our group through _____(email)_____ and _____(mobile)_____.

We sincerely hope for your generous acceptance of our humble request. We look forward to this learning opportunity to visit your agency.

Thank you very much.

Respectfully,

 Student Nurse

Noted by:

Asst. Prof. Jan Vincent T. Delos Santos, MAEd, RN
 Faculty-in-charge for Environmental Health, Public Health Nursing I

Endorsed by:

Asst. Prof. Earl Francis R. Sumile, PhD, RN
 Course Coordinator, Public Health Nursing I