Unit 12: Vital Signs & The Philippine Healthcare Delivery System

Vital Signs: Overview & Definition (Johns Hopkins Medicine, 2024)

- **Vital signs** are measurements of the body's most basic functions. The four main vital signs routinely monitored by medical professionals and healthcare providers include:
    - Body Temperature
    - Pulse Rate
    - Respiration Rate
    - Blood Pressure

BODY TEMPERATURE

- The core temperature of the body that is considered one of the most tightly controlled physiological variables and one of the four basic vital signs used in the daily assessment of health
- Depends on gender, recent activity, food and fluid consumption, time of day, and, in individuals assigned female at birth (AFAB), the stage of the menstrual cycle.
- A person's body temperature can be measured in any of the following ways:
    - Orally (by mouth)
    - Rectally (by rectum/the other side of the anal canal)
    - Axillary (under the arm)
    - By ear (eardrum)
    - By skin (on the forehead)

PULSE RATE

- A measurement of the heart rate, or the number of times the heart beats per minute.
- Also indicates the heart rhythm and strength of the pulse
- May fluctuate and increase with exercise, illness, injury, and emotions
- There are multiple pulse points in the human body and it can be palpated in the following areas:

    - Wrist (Radial Pulse)
        - The radial artery is a **major artery in the lower arm** that branches from the brachial artery and supplies blood to the arm and hand. It is **the most commonly used site for counting heart rates in adults** due to its accessibility and ease of palpation.
        - The radial pulse is <u>located on the underside of the wrist</u>, near the base of the thumb, along the radial bone.
        - To locate it, extend the arm with the palm facing upward. Press lightly on the soft area between the wrist bone (radius) and the flexor tendons, just below the thumb.
        - Because the radial artery lies close to the skin's surface, only gentle pressure is needed to feel the pulse. This makes it an **ideal point for quickly assessing heart rate and rhythm in adults**.

- Neck (Carotid Pulse)
  - The carotid pulse is the **primary site** used for checking the pulse during CPR in adults. This major artery supplies blood to the **neck**, **face**, and **brain**.
  - When assessing the carotid pulse, it's important to **palpate only one side at a time** to avoid stimulating the vagus nerve, which could slow the heart rate and reduce blood flow to the brain.
  - To locate this pulse, tilt the head slightly to one side and gently feel below the jawline, in the space between the trachea and the sternomastoid muscle.

- Chest (Apical Pulse)
  - The apical pulse is assessed **during a head-to-toe evaluation**. The apical pulse is located at the apex of the heart on the left side of the chest at the 5th intercostal space along the midclavicular line.
  - It is known as **the point of maximal impulse**
  - To locate it:
    - Identify the sternal notch.
    - Move down to the Angle of Louis.
    - Find the 2nd intercostal space on the left side.
    - Continue to the 5th intercostal space at the midclavicular line—this is the apical pulse point.

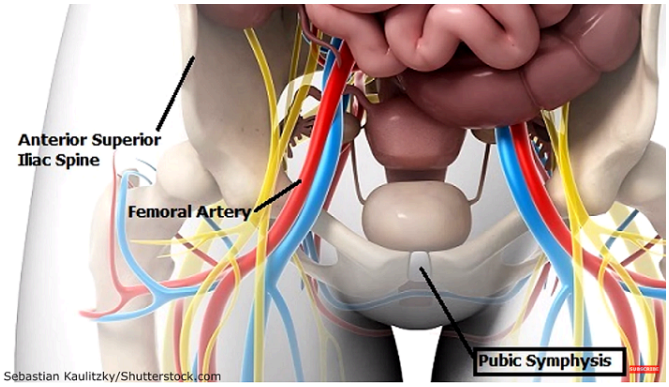
- Inner side of the Elbow (Brachial Pulse)
  - The brachial artery is a major blood vessel in the upper arm that branches into the radial and ulnar arteries.
  - It is commonly **used for measuring blood pressure** and checking the pulse in infants during CPR.
  - The brachial pulse is located on the inner side of the bicep muscle and is typically assessed near the elbow crease, where it is easier to feel. While the pulse can be felt at multiple points along the arm, it **often requires firm pressure to palpate** because it is situated deeper beneath the skin.
  - To locate it, extend the arm with the palm facing upward for better accessibility.

- Behind the Knee (Popliteal Pulse)
  - The popliteal artery, a continuation of the femoral artery, is located behind the knee and supplies blood to the lower leg. Like the femoral artery, it is positioned deep beneath the surface, making it **more challenging to palpate**.
  - To locate it, the knee should be flexed. Use one hand to support the flexed knee and the other to press firmly on the popliteal fossa to feel the pulse.
  - Because of its depth, the popliteal pulse often **requires significant pressure to detect** and may be difficult to palpate in some individuals.

- Top of Foot (Dorsalis Pedis Pulse)
  - The dorsalis pedis artery is a key pulse point **used to assess peripheral circulation and perfusion in the lower extremities**.
  - It is located on the top of the foot, near the first intermetatarsal space, along the tendon of the extensor hallucis longus (EHL), which moves the big toe.
  - To find this pulse, ask the patient to extend their big toe upward. Trace the EHL tendon with two fingers, and when you reach the end of the tendon, move slightly to the side to locate the pulse. This assessment is especially useful for **evaluating blood flow in the feet**.

- Ankle (Posterior Tibial)
  - The posterior tibial artery is a **key pulse point** assessed during a head-to-toe evaluation, particularly in patients with peripheral vascular disease or those recovering from vascular procedures.
  - This pulse is located on the inside of the ankle, between the medial malleolus (the bony prominence of the ankle) and the Achilles tendon.
  - To locate the posterior tibial pulse, place two fingers just behind and slightly below the medial malleolus and apply moderate pressure.
  - This pulse point is essential for evaluating peripheral perfusion and ensuring adequate blood flow to the lower extremities.

- Groin (Femoral Pulse)
  - The femoral artery is a **major blood vessel in the groin** that supplies circulation to the legs.
  - To find the femoral pulse, palpate deeply below the inguinal ligament, in the crease between the pubic bone and the anterior iliac crest.
  - This pulse is l**ocated deeper in the tissue**, so it requires **more pressure to feel** compared to pulses like the radial or carotid.
  - It is also an important pulse point for assessing circulation to the legs.



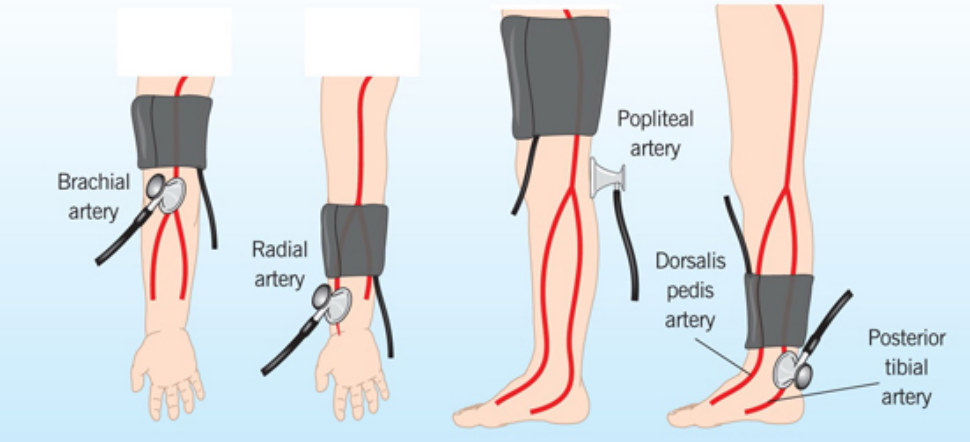
RESPIRATION RATE

- The number of breaths a person takes per minute.
- Usually measured when a person is at rest and simply involves counting the number of breaths for one minute by counting how many times the chest rises
- Whether a person has any difficulty breathing is also a factor to be considered when measuring this vital sign

BLOOD PRESSURE

- The force of the blood pushing against the artery walls during contraction and relaxation of the heart
- Measures the systolic pressure and diastolic pressure:
  - Systolic - pressure inside the artery when the heart contracts and pumps blood through the body
  - Diastolic - pressure inside the artery when the heart is at rest and is filling with blood

- Areas for Blood Pressure Measurement:
  - Arm
    - The **most common site** for measuring blood pressure is the upper arm, using a cuff placed around the upper arm, just above the elbow. It provides accurate and reliable readings when the patient is positioned correctly and the cuff is the proper size.
  - Wrist
    - Blood pressure can be measured at the wrist using a wrist cuff, though it **may be less accurate than the upper arm**.
  - Ankle
    - The blood pressure at the ankle can be measured using a cuff placed around the lower leg. This method is often **used to assess peripheral vascular health**.
  - Thigh
    - In certain cases, particularly when arm measurements are not possible, blood pressure can be measured on the thigh. A large cuff is used, and the measurement is typically higher than arm pressure due to the positioning of the measurement site.



Typical & Atypical Values

CLASSIFICATION	VALUE
TEMPERATURE	**Typical Values:** • 97.8°F to 99.1°F (36.5°C to 37.3°C); • average 98.6°F (37°C) **Atypical Values:**

<table>
<tr><td></td><td>

- Fever (High Temperature): Body temperature rises about 1 degree or more over the normal temperature of 98.6°F (37°C).
- Hypothermia (Low Temperature): A drop in body temperature below 95° (35°C).

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<tr><td>PULSE RATE</td><td>

Typical Values:

- 60 to 100 beats per minute

Atypical Values:

- Tachycardia: heart rate above 100 beats per minute
- Bradycardia: heart rate of under 60 beats per minute

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<tr><td>RESPIRATION RATE</td><td>

Typical Values:

- 12 to 18 breaths per minute while resting

Atypical Values:

- Under 12 or over 25 breaths per minute while resting
  - Tachypnea: more than 25 breaths per minute at rest
  - Bradypnea: less than 12 breaths per minute at rest

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<tr><td>BLOOD PRESSURE</td><td>

Typical Values:

- between 90/60 mmHg and 120/80 mmHg

Atypical Values:

<table>
<tr><th>Blood Pressure Category</th><th>Systolic mm Hg (upper number)</th><th></th><th>Diastolic mm Hg (lower number)</th></tr>
<tr><td>Elevated</td><td>120-129</td><td>and</td><td>Less than 80</td></tr>
<tr><td>High Blood Pressure (Stage 1 Hypertension)</td><td>130-139</td><td>or</td><td>80-89</td></tr>
<tr><td>High Blood Pressure (Stage 2 Hypertension)</td><td>140 or Higher</td><td>or</td><td>90 or Higher</td></tr>
<tr><td>Hypertensive Crisis</td><td>Higher than 180</td><td>and/ or</td><td>Higher than 120</td></tr>
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Step-by-Step Procedure of Measuring Vital Signs

TEMPERATURE

Oral Temperature Measurement

- **Type of Thermometer used:** Glass/Digital Thermometer

A. Preparation: If using a digital thermometer, ensure it is clean and turned on. If using a glass thermometer, shake it down to below 96°F (35.5°C).
B. Position the thermometer: Place the thermometer under the patient's tongue, making sure it is positioned to one side.
C. Instruct the patient: Ask the patient to close their mouth gently around the thermometer and breathe normally through their nose. Ensure they avoid talking.
D. Wait for the reading: Wait for the thermometer to beep (for digital thermometers) or check the thermometer after the recommended time (for glass thermometers).
E. Read the temperature on the digital display or glass thermometer, and record it.

Rectal Temperature Measurement

- **Type of Thermometer used:** Glass/Digital Thermometer

A. Preparation: Ensure the thermometer is clean, and if it's digital, turn it on. Apply a small amount of lubricant (such as petroleum jelly) to the tip of the thermometer.
B. Position the patient: Babies can be placed on their backs, with their legs in the air. Children and adults may be more comfortable lying on their stomachs.
C. Insert the thermometer: Gently insert the thermometer about 1-1.5 inches into the rectum. Be sure to hold the thermometer in place during the measurement.
D. Wait for the reading: For digital thermometers, wait for the beep. For glass thermometers, leave it in place for about 2-3 minutes.
E. Carefully remove the thermometer and read the temperature. Record it immediately.

Axillary Temperature Measurement

- **Type of Thermometer Used:** Glass/Digital Thermometer

A. Preparation: Make sure the thermometer is clean and turned on (digital) or shaken down (glass).
B. Position the thermometer: Place the thermometer in the center of the patient's armpit, ensuring it makes good contact with the skin.
C. Close the arm: Instruct the patient to lower their arm and press it gently against their body to keep the thermometer in place.
D. Wait for the reading: For digital thermometers, wait for the beep. For glass thermometers, wait 5-10 minutes.
E. Remove the thermometer and record the temperature.

Ear Temperature Measurement

- **Type of Thermometer Used:** Tympanic Thermometer

A. Preparation: Clean the probe cover and ensure the thermometer is functioning.
B. Position the ear: Gently pull the patient's ear upward and backward (for adults) to straighten the ear canal.
C. Insert the thermometer: Place the thermometer gently into the ear canal, making sure it forms a good seal.
D. Wait for the reading: Press the button to take the reading. Most ear thermometers provide a reading within a few seconds.

E. Remove the thermometer and immediately record the reading.

Skin Temperature Measurement

- **Type of Thermometer used:** Forehead Thermometer

A. Preparation: Ensure the thermometer is clean and ready for use.
B. Position the thermometer: Place the thermometer probe on the patient's forehead, just above the eyebrow or on the temporal artery (usually at the temple).
C. Scan the forehead: Gently swipe the thermometer across the forehead to measure the temperature.
D. Wait for the reading: Most temporal thermometers provide a result in a few seconds.
E. Remove the thermometer from the forehead and record the reading.

- **Type of Thermometer used:** Forehead Thermometer Strip

A. Ensure the thermometer is clean and ready for use. Make sure the thermometer is used in a room with a temperature between 68°F and 86°F (20°C to 30°C), and avoid direct sunlight or strong heat.
B. Position the thermometer: Remove the backing from the thermometer. Hold it at both ends and press it firmly on the dry forehead, just above the eyebrow or on the temporal artery.
C. Measure the temperature: Keep the thermometer in place for approximately 15 seconds.
D. Read the thermometer: Once the reading appears, check the color indicator:
    a. Green: Indicates the correct temperature.
    b. Blue: Add 1°F/0.5°C to the reading.
    c. Tan: Subtract 1°F/0.5°C from the reading.
E. Remove the strip and record the temperature.

PULSE RATE

- In an Speech-Language Pathology (SLP) setting, the radial pulse at the wrist is the **most commonly used pulse point for patient care and monitoring** due to its accessibility and ease of use during routine assessments. The carotid pulse and brachial pulse may also be utilized when necessary, but they are **less** frequently relied upon in comparison.
- Other pulse points, such as those behind the knee, at the ankle, or on the foot, are generally not as relevant in SLP practice as they are more suited for evaluating peripheral circulation or vascular conditions.

Wrist (Radial Pulse)

A. Ask the patient if they've been active in the last 20 minutes, and wait 20 minutes if they have.
B. Have the patient sit or rest quietly for at least five minutes.
C. Place the tips of your index and middle finger on the inside of the patient's wrist, below the base of their thumb.
D. Press gently against the pulse.
E. Count the beats for 30 seconds or 60 seconds.
    - IF counted for 30 seconds: Double the number of beats to get the beats per

minute.

F. Record the pulse rate.

Neck (Carotid Pulse)

- Have the patient sit, ask if they've been active in the last 20 minutes, and wait 20 minutes if they have.
- Place the index and middle fingers on the side of the neck, just below the jawline and next to the windpipe.
- Press gently until the pulse is felt.
- If the pulse is not felt, move the fingers slightly and increase pressure.
- Using a stopwatch/wristwatch, count the beats for 30 seconds or 60 seconds.
    - IF counted for 30 seconds: Double the number of beats to get the beats per minute.

Inner side of the Elbow (Brachial Pulse)

- Ask the patient to slightly bend their arm with the inner side facing up.
- Locate the bicep tendon in the crease of the elbow (antecubital fossa).
- Place your index and middle fingers about 2–3 cm above the elbow crease and slightly inward from the tendon.
- Press firmly until you feel the pulse.
- Count the beats for either 30 seconds and multiply by 2, or for a full 60 seconds for a more accurate heart rate in beats per minute.

Other Considerations:

- Always make sure the Patient is at rest before taking their pulse rate
    - Activity, stress, or anxiety can elevate their heart rate.
- Avoid using the thumb — Use your index and middle fingers to feel the pulse, as the thumb has its own pulse that can interfere with an accurate reading.
- Avoid pressing too hard to maintain accuracy
    - Pressing too hard can obstruct the artery and make it difficult to feel the pulse accurately.
- Consider baseline factors
    - Be aware of factors that may affect the heart rate, such as medications, recent activity, fever, or medical conditions like arrhythmia or dehydration.

RESPIRATION RATE

A. After counting the pulse, leave your fingers in place to avoid alerting the client.
    a. This helps ensure that the client is unaware that you are counting their respirations, which may cause them to alter their normal breathing pattern.
B. Begin observing the rise or fall of the chest.
C. One respiration includes both inspiration (chest/abdomen rises) and expiration (chest/abdomen falls), counting as one full breath.
D. If the rhythm is regular, count for 30 seconds and multiply by 2.

a. For a regular respiratory pattern, counting for 30 seconds provides an accurate estimate of the respiration rate in a shorter time frame.

E. If the rhythm is irregular, count for a full minute.
   a. Irregular breathing patterns can vary significantly, so counting for a full minute ensures accurate measurement.

BLOOD PRESSURE

Pre-Measurement Patient Requirements

1. **Patient should abstain from food and beverages for 30 minutes prior**
   - Recent food/drink intake, especially caffeine, can temporarily elevate BP through sympathetic activation and hemodynamic effects
2. **Ensure patient has voided bladder**
   - Full bladder can raise systolic BP by 10-15 mmHg due to sympathetic stimulation and mechanical pressure effects
3. **Patient's body temperature should be normothermic (normal body temperature)**
   - Cold temperatures cause peripheral vasoconstriction, artificially elevating BP readings; vasodilation in heat can lower readings
4. **Assess and address any patient anxiety or agitation**
   - Acute stress/anxiety triggers sympathetic response ("white coat effect" or the anxiety of being around doctors in white coats), potentially elevating BP by 20-30 mmHg
5. **Maintain silence during measurement**
   - Speaking activates sympathetic nervous system and can elevate systolic BP by 10-15 mmHg
6. **Ensure direct cuff-to-skin contact; clothing should not interfere**
   - Clothing underneath cuff can cause irregular compression and inaccurate readings through improper oscillometric detection
7. **Position patient seated upright with back supported; allow 3-5 minutes rest**
   - Standardized positioning enables reliable measurement, rest period allows for hemodynamic stabilization
8. **Patient's feet flat on floor, legs uncrossed**
   - Crossed legs can increase systolic BP by 2-8 mmHg through altered peripheral resistance
9. **Left arm (preferred) supported at heart level, palm supine**
   - Heart level positioning eliminates hydrostatic pressure effects; left arm preferred due to anatomical proximity to heart and reduced likelihood of subclavian stenosis

- Compare bilateral readings (both arms) if clinically indicated

10. **Select appropriate cuff size and ensure proper fit**
    - Improper cuff size is a major source of measurement error:
        - Too small: overestimates BP by 2-10 mmHg
        - Too large: underestimates BP
        - Optimal cuff: 80% arm circumference coverage
        - Width ≈ 40% arm circumference

11. **If measurement of the upper arms and forearms is not possible, the thigh or lower calf/ankle is used.**
    - Ankle blood pressure is clinically effective in diagnosing hypertension when the upper arm is not available for proper cuff placement.

Procedure

- In most healthcare settings, **blood pressure measurement is primarily done on the arm** because it is considered the most accurate and reliable method. The upper arm provides a direct measurement of arterial pressure and is easy to access.
- Though alternative sites like the wrist, ankle, or thigh can be used in certain situations, they are generally reserved for specific cases, such as when the arm is unavailable or when assessing peripheral artery disease. The **arm** remains the go-to choice for routine blood pressure measurements in most healthcare settings.

Upper Arm Blood Pressure Measurement

1. Seat the patient comfortably with their back supported and legs uncrossed, feet flat on the floor.
2. Place the left arm (preferred) on a table
    - Could be supported with a pillow to keep the arm level with the heart or make sure the patient's arm is relaxed and not stiff
3. Ensure the arm is not higher or lower than the heart, as it will affect accuracy.
4. Ensure no contraindications such as lymphoedema, IV infusions, trauma, previous surgery, or fistula on the arm being used.
5. Align the Artery Index Marker on the cuff with the brachial artery, and wrap the cuff around the upper arm, 2 cm above the brachial artery.
6. Position the sphygmomanometer vertically at eye level for easy monitoring.
7. Palpate the brachial artery and place the stethoscope's diaphragm over it.
8. Inflate the cuff while continuing to listen for the pulse. Note when the pulse disappears.
9. Inflate the cuff by an additional 30 mmHg to ensure the artery is fully occluded.
10. Slowly release the air at a rate of 2-3 mmHg per second.

11. Listen carefully for the Korotkoff sounds:
    - The first sound marks the systolic pressure.
    - The last sound marks the diastolic pressure.
12. Continue deflating until the cuff is fully deflated and remove it from the arm.

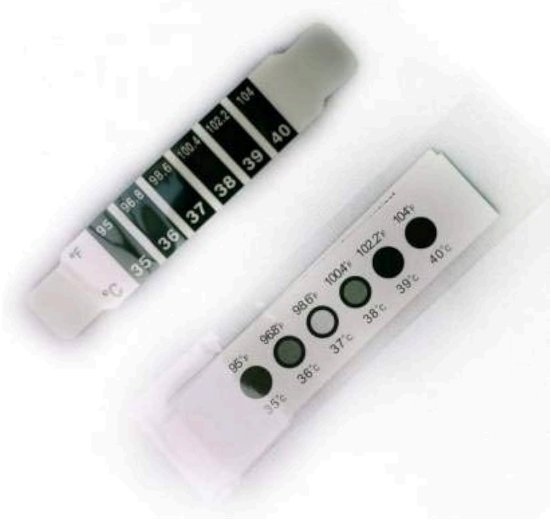
Instruments Needed (Unitek College, 2024)

THERMOMETERS	● Indispensable for measuring body temperature ● Range from traditional to mercury types to advanced digital models, providing quick and accurate readings **Types of Thermometers:** ● **GLASS** ○ The mercury-in-glass or mercury thermometer is a thermometer that uses the thermal expansion and contraction of liquid mercury to indicate the temperature.  ● **DIGITAL** ○ A digital thermometer uses an electrical sensor, such as a thermocouple or a thermistor, which responds to temperature in predictable ways.

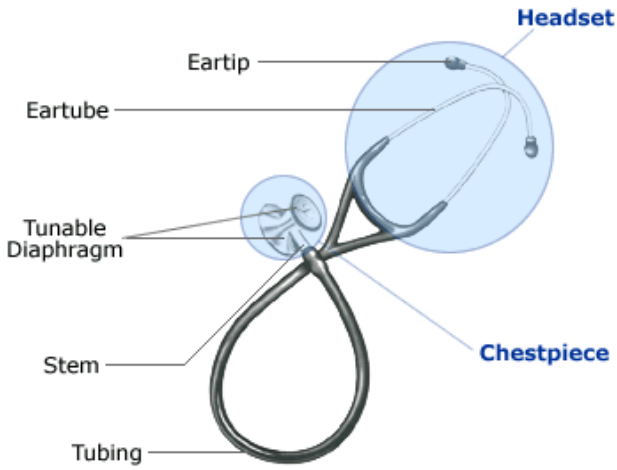
- **INFRARED**
  - IR radiation is collected from the field of view of the detector and is converted into an electrical signal for the calculation of the temperature of the subject.

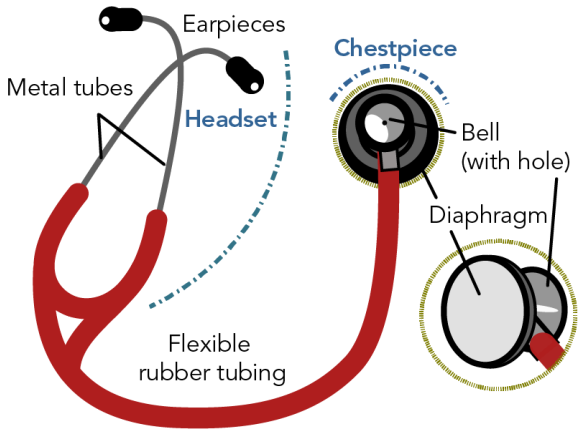
- **TYMPANIC**
  - Remote ear thermometers that use an infrared ray to measure the temperature inside the ear canal

- **STRIP-TYPE**
  - Strip-type or plastic tape thermometers are applied to the forehead and change color based on the body's temperature.

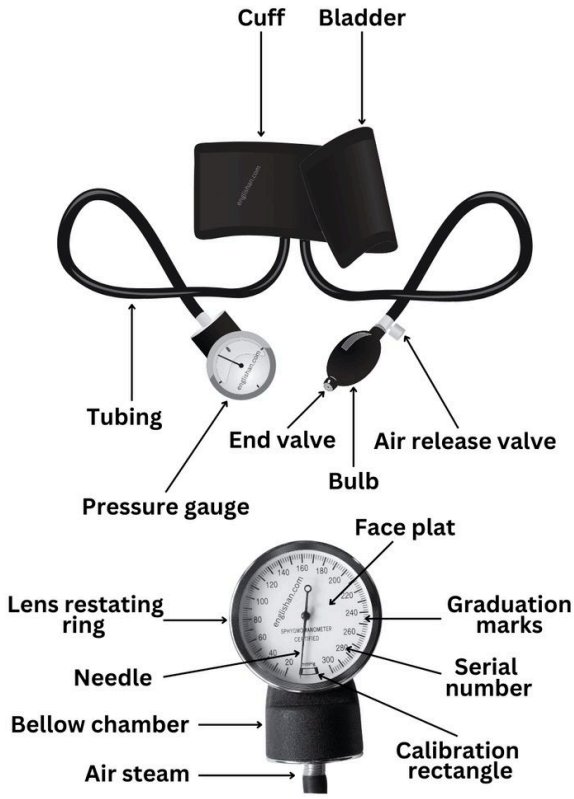


- About glass thermometers containing mercury (Johns Hopkins Medicine, 2024):
  - According to the Environmental Protection Agency, mercury is a toxic substance that poses a threat to the health of humans, as well as to the environment. Because of the risk of breaking, glass thermometers containing mercury should be removed from use and disposed of properly

STETHOSCOPES	• A fundamental tool in any medical kit • Used to listen to internal sounds of the body, particularly heartbeats and lung sounds, which are key indicators of cardiovascular and respiratory health
	STETHOSCOPE ANATOMY (Standris Medical Supply, Inc., 2024)  **1. Headset** ○ The metal part of the stethoscope onto which the tubing is fitted ○ Made up of 2 earubes, tension springs, and the eartips ○ The wearer can adjust the tension to a comfortable level by pulling the eartubes apart to loosen the headset or crossing them over to tighten ○ How to Wear Appropriately: ■ Keep the stethoscope at a 15-degree angle ■ The earpieces should point toward the bridge of your nose ■ The tips should produce a fit that keeps outside noise from entering while insulating whatever sounds the stethoscope receives **2. Chestpiece** ○ Part of the stethoscope that is placed on the location where the user wants to hear sound ○ Some stethoscopes have a tunable diaphragm on each side of the chestpiece

	■ Large side - used for adult patients ■ Small side - used for pediatric or thin patients, around bandages and for carotid assessment **3. Tunable Diaphragm**  ○ A traditional stethoscope consists of a bell and a diaphragm ■ Bell - used with light skin contact to hear low frequency sounds ■ Diaphragm - used with firm skin contact to hear high frequency sounds ○ If your stethoscope is a Littmann stethoscope, it has a patented tunable diaphragm technology that alternates between bell and diaphragm modes with a simple pressure change on the chestpiece ■ Use light contact to hear low frequency sounds ■ Press firmly for high frequency sounds
SPHYGMOMANOMETERS	• An instrument used to measure blood pressure **Types of Sphygmomanometers** • **MERCURY** ○ Most conventional form of blood pressure apparatus and is considered to be the golden standard ○ Consists of manually inflatable cuffs that are attached to the mercury-infused tubes ○ In order to get the correct readings, the instrument should be kept on a flat surface

	and in an upright position ○ If the instrument is dropped accidentally, there are high chances of risks ○ The advantage of this sphygmomanometer is that they can last for a lifetime, easy to use and there is no need for recalibration. ○ Due to its toxic contents, it is banned in some countries. ● **ANEROID** ○ Aneroid means “without fluid” and in this instrument, there is no use of mercury ○ Consists of a stethoscope that is attached to the cuff which is further attached to a dial gauge with tubing ○ To convert the cuff pressure to gauge pressure, the gauge head has a mechanical part ○ The instrument needs to be recalibrated to avoid faulty readings ● **DIGITAL** ○ the most technologically advanced sphygmomanometer
	PARTS OF A SPHYGMOMANOMETER (BYJU’s, 2024)



1. **Bladder**
    - An inflatable bag that is used to compress the arm to occlude the artery
    - To ensure full arterial compression, bladders must have specific sizing parameters

2. **Cuff**
    - Designed to hold the bladder around the arm during the measurement
    - For accurate measurement, the cuff must be designed properly with respect to placement and the position

3. **Manometer**
    - The device used to measure the air pressure in mmHg
    - Consists of a watch-like movement to measure the air pressure applied to the cuff

4. **Valve**
    - Used as a deflation valve to control the cuff

5. **Bulb**
    - Used to pump the air into the cuff

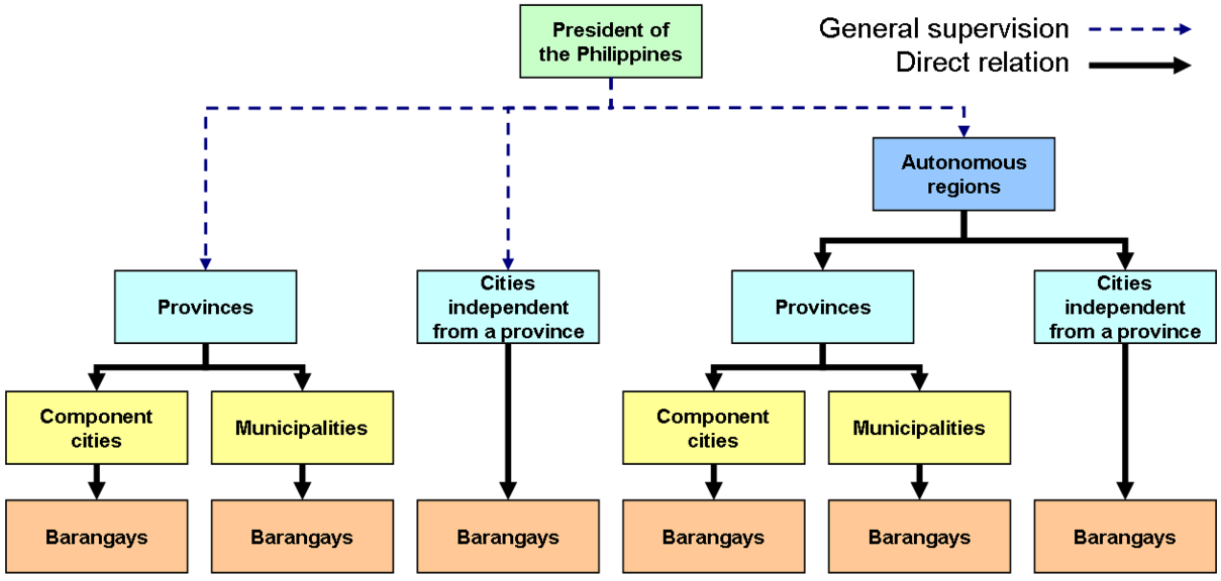
COMBO KITS (STETHOSCOPE + BLOOD PRESSURE DEVICE)	• Combines a stethoscope and a blood pressure cuff for professionals who need to conduct comprehensive assessments frequently
PULSE OXIMETRY	• Non-invasive tool measures the oxygen saturation level of the blood • Essential for monitoring patients' oxygen levels, especially in critical care
ELECTROCARDIOGRAM (ECG) MACHINES	• Crucial for assessing the heart's electrical activity • Can identify various cardiac issues, from minor irregularities to severe conditions
PENLIGHTS	• Used for examining areas like the eyes, mouth, and throat • Assist in checking pupil response and oral health, which can indicate various health conditions

Overview of the Philippine Healthcare Delivery System

PHILIPPINE HEALTHCARE SECTORS (International Trade Administration, 2024)

- **Public**: Public hospitals focus their efforts on preventive and primary care while also taking the lead in educating the public on health issues.
- **Private**: Private hospitals focus on specialized care for cardiovascular diseases, cancer, pulmonology, and orthopedics.

PHILIPPINE HIERARCHY OF GOVERNANCE



- **Philippine Political Structure** (Edleman, n.d.)
    - **Executive Branch**
        - Established under the 1987 Constitution after the People Power Revolution.
        - Headed by the President, elected directly by the people for a single six-year term.
    - **Legislative Branch**
        - Bicameral legislature: Senate (24 members, elected at-large, six-year terms) and House of Representatives (234 district members and 57 party-list representatives).
        - Party-list representatives aim to provide proportional representation for underrepresented groups.
        - House representatives serve three-year terms, limited to three consecutive terms.
    - **Judicial Branch**
        - Independent judiciary headed by the Supreme Court (15 justices appointed by the President).
        - Lower courts include the Court of Appeals, Sandiganbayan (anti-corruption court), and Shari'a Courts for Muslim personal laws.
    - **Local Government Units (LGUs)**
        - Administrative divisions: Provinces, cities, municipalities, and barangays.
        - Barangays are autonomous but under the oversight of municipalities or provinces.
        - LGUs generate their revenue and operate under the 1991 Local Government Code, which enhances autonomy and decentralization.
- **Barangays and Local Governance**
    - Responsibilities include infrastructure development, community projects, local legislation, and budget allocation.
    - Barangay assemblies (7 council members, the captain, and a youth council chair) govern under elected leadership.
- **Key Features of 1991 Local Government Code**
    - LGUs gained control over basic services (health, agriculture).
    - Enforcement authority for laws and regulations, including environmental policies.
    - Local taxation powers and increased national funding shares.
    - Strengthened local civil society via elected assemblies and referendums.
    - Encouraged private-public partnerships for local development.
- **Why should we be aware of this structure as SLPs?**
    - *This knowledge equips us SLPs to work more effectively within the community, ensuring we not only provide therapy but also empower individuals and families by connecting them with resources, rights, and support systems.*
    - *This understanding fosters holistic care, advocacy, and meaningful contributions to public health and education in the Philippines.*

SUSTAINABLE DEVELOPMENT GOALS (United Nations Development Programme, n.d.)

- The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

17 Goals

1. **No Poverty**: End poverty in all its forms everywhere.
2. **Zero Hunger**: End hunger, achieve food security, and improve nutrition and sustainable agriculture.
3. **Good Health and Well-Being**: Ensure healthy lives and promote well-being for all at all ages.
4. **Quality Education**: Ensure inclusive, equitable quality education and lifelong learning opportunities.
5. **Gender Equality**: Achieve gender equality and empower all women and girls.
6. **Clean Water and Sanitation**: Ensure availability and sustainable management of water and sanitation for all.
7. **Affordable and Clean Energy**: Ensure access to affordable, reliable, sustainable, and modern energy for all.
8. **Decent Work and Economic Growth**: Promote sustained, inclusive economic growth, and decent work for all.
9. **Industry, Innovation, and Infrastructure**: Build resilient infrastructure, promote sustainable industrialization, and foster innovation.
10. **Reduced Inequalities**: Reduce inequality within and among countries.
11. **Sustainable Cities and Communities**: Make cities and human settlements inclusive, safe, resilient, and sustainable.
12. **Responsible Consumption and Production**: Ensure sustainable consumption and production patterns.
13. **Climate Action**: Take urgent action to combat climate change and its impacts.
14. **Life Below Water**: Conserve and sustainably use oceans, seas, and marine resources.
15. **Life on Land**: Protect, restore, and promote sustainable use of terrestrial ecosystems, forests, and biodiversity.
16. **Peace, Justice, and Strong Institutions**: Promote peaceful, inclusive societies, access to justice, and accountable institutions.
17. **Partnerships for the Goals**: Strengthen global partnerships for sustainable development implementation.

Levels of Healthcare (Physiopedia, n.d.)

- **Primary Care**: First point of contact for healthcare; focuses on people-centered care addressing physical, mental, and social well-being across a person's lifetime.
  - Health promotion, disease prevention, treatment, rehabilitation, and palliative care.
  - Healthcare Providers: General practitioners, family physicians, and other professionals (e.g., speech-language therapists, pharmacists).
  - Key Features:
    - Continuity of care with long-term patient relationships.
    - Addresses a wide variety of health issues and demographics.
    - Reduces reliance on emergency services and hospitalization.

    - WHO Recommendations:
        - Meet health needs across life stages.
        - Address broader determinants of health.
        - Empower individuals and communities.
    - Primary care facilities:
        - Barangay Health Centers: Located in most barangays, they provide basic health services such as immunizations, maternal care, and treatment of common illnesses (e.g., Cebu City Health Office)
        - Primary Care Clinics: Privately run clinics offering general consultations and minor procedures. (e.g., MyHealth Clinic Cebu in Ayala Center Cebu)

- **Secondary Care:** Specialist care for patients referred by primary care providers for specific expertise.
    - More complex or severe health conditions, provided in hospitals or clinics.
    - Healthcare Providers: Specialists like cardiologists, dermatologists, psychiatrists, and allied health professionals (e.g., physical or speech therapists).
    - Examples: Cancer treatment, pneumonia care, broken bone management, planned surgeries.
    - Referral: Often requires referral from primary care, though some systems allow direct access.
    - Secondary care facilities:
        - District Hospitals: Provide specialized services, including laboratory testing and outpatient specialty consultations, often requiring a referral (e.g., Cebu Provincial Hospital – Danao City)
        - Private Specialty Clinics: Offer services like cardiology, dermatology, and rehabilitation (e.g., CDU SLP Cares Clinic in Cebu)

- **Tertiary Care:** Highly specialized care for complex and advanced medical needs, often involving long-term treatment.
    - Advanced diagnostics, surgeries, and treatments in state-of-the-art facilities.
    - Providers: Specialist consultants with access to advanced technology.
    - Examples: Neurosurgery, organ transplants, cancer management, severe burn treatment.
    - Features:
        - Regional or national-level availability.
        - Often inpatient-focused, though some outpatient services exist.
        - High costs and potential travel for patients.
    - Tertiary care facilities:
        - Tertiary Hospitals: Provide advanced medical services, including complex surgeries, specialized diagnostics, and treatment for severe conditions (e.g., Chong Hua Hospital, Cebu Doctors' University Hospital, Vicente Sotto Memorial Medical Center [government-operated tertiary hospital])

Levels of Prevention (Merck, n.d.)

- **Primary prevention**: a disorder is actually *prevented from developing*.
    - E.g., Vaccinations and Counseling to change high-risk behavior

- **Secondary prevention**: disease is detected and treated *early*, often before symptoms are present, thus *minimizing serious consequences*.

    - E.g., Newborn hearing screening

- **Tertiary prevention**: an existing, usually chronic disease is managed to prevent complications or further damage.
    - E.g., Providing supportive and rehabilitative services to prevent deterioration, maximize quality of life, and prevent complications, such as rehabilitation from injuries, heart attack, or stroke.

Habilitation v.s. Rehabilitation (Murphy, 2022)

- **Habilitation:** refers to a process aimed at helping individuals with disabilities *attain, keep, or improve* skills and functioning for daily living. For pediatric patients, habilitative therapy often aims to help a child develop motor skills that they have yet to accomplish.
    - For example, a child may need speech therapy to learn how to say their R sounds. Because both of these are skills that the children have yet to accomplish, the aim of the therapy is habilitation.

- **Rehabilitation:** Rehabilitation refers to regaining skills, abilities, or knowledge that may have been lost or compromised as a result of illness, injury, or acquiring a disability.
    - For example, a 45-year-old teacher experiences a stroke that results in aphasia, affecting their ability to communicate effectively. They seek the help of a speech therapist to regain their ability to express themselves and return to teaching. The aim of this therapy is considered rehabilitation, helping the teacher recover their lost communication skills.

Disability-Inclusive Healthcare

- Health and Wellness Program for Persons with Disabilities (PWDs) (Cuevas, n.d.)
    - In the Philippines, 1.57% of the population are PWDs, with limited access to health services.
    - The DOH is mandated under the Magna Carta for Disabled Persons to establish a national health program for PWDs, focusing on rehabilitation, accessibility, and integration. The program aligns with the WHO Global Disability Action Plan (2014-2021) and Universal Health Care goals.

Vision and Mission

- Vision: Inclusive health and rehabilitation services for all PWDs.
- Mission: Promote the highest standards of health for PWDs through a multi-sectoral approach.

Objectives

- Address barriers and improve access to health care for PWDs.
- Ensure habilitation and rehabilitation services are accessible, affordable, and appropriate.
- Develop evidence-based policies and service packages for PWDs.
- Build health providers' capacity to improve PWDs' health.
- Strengthen collaboration among stakeholders for inclusive health initiatives.
- Facilitate collection and analysis of disability-related data for policy development.

Action Framework (Adapted from the WHO Global Disability Action Plan)

- Removing barriers to health services: Address physical, systemic, and attitudinal barriers to ensure equal access.
- Strengthening rehabilitation and habilitation: Expand services, assistive technology, and community-based programs to promote independence and participation.
- Improving data collection and research: Collect internationally comparable data to inform policies and allocate resources effectively.
- These efforts aim to integrate PWDs into society by addressing health and accessibility issues comprehensively.

Health Service Delivery for Rehabilitation in the Philippine Context (WHO Service Delivery Platforms)

- **Facility-based:** Rehabilitation services provided in designated healthcare facilities, such as hospitals, rehabilitation centers, or specialized clinics.
  - These facilities are equipped with the necessary resources, trained professionals, and infrastructure to offer comprehensive rehabilitation services, including therapy, medical management, and long-term care.
  - Examples in the Philippine Context: Philippine General Hospital (PGH) Rehabilitation Medicine Department, St. Luke's Medical Center Rehabilitation Services.

- **Community-based:** A rehabilitation approach that takes place within the community, focusing on delivering services close to where individuals live.
  - CBR utilizes local resources, including healthcare workers, community members, and local organizations, to provide rehabilitation services for individuals with disabilities.
  - It promotes inclusion, social integration, and the participation of individuals with disabilities in their community life.
  - Examples in the Philippine Context: DOH Community-Based Rehabilitation Program, Philippine Foundation for the Rehabilitation of the Disabled (PFRD).

- **Outreach-based:** Rehabilitation services that are brought directly to individuals in remote, underserved, or hard-to-reach locations.
  - These programs often involve traveling teams of healthcare professionals (e.g., doctors, therapists) who deliver services in various communities, schools, or other local settings. Outreach-based services are designed to bridge gaps in access to care for people living in rural or geographically isolated areas.
  - Examples in the Philippine Context: Operation Smile Philippines, Cerebral Palsy Outreach Programs.

- **Integrated:** An integrated rehabilitation model involves combining different types of rehabilitation services (medical, physical, speech, occupational, psychological) in a single coordinated approach.
  - This model ensures that various aspects of care are delivered in a seamless and holistic manner, either within a facility or across different platforms, ensuring comprehensive care for individuals with disabilities.
  - Examples in the Philippine Context: National Center for Mental Health (NCMH), Philippine Cerebral Palsy Inc. (PCPI), Philippine Hearing Impaired Association.

Programs Related to SLP or Rehabilitation

- **Government Programs**: programs or initiatives funded, implemented, and regulated by government agencies or local government units (LGUs). These programs are designed to address public health, education, and rehabilitation needs as part of the government's responsibility to its citizens.
    - **Early Childhood Care and Development (ECCD) Program**
        - Provides early intervention programs and services for children with developmental delays or disabilities.
        - Department of Education (DepEd), Department of Social Welfare and Development (DSWD), and local government units (LGUs).
    - **Philippine Health Insurance Corporation (PhilHealth) Z-Benefits**
        - Includes rehabilitation services for conditions like hearing loss, cerebral palsy, and developmental delays under its Z-Benefits package.
        - PhilHealth.
    - **Persons with Disability Affairs Office (PDAO)**
        - Coordinates and implements programs for individuals with disabilities, including access to therapy services.
        - Local Government Units (LGUs).
    - **Center for Health Development Rehabilitation Services**
        - Provides rehabilitation services in government-run hospitals and health centers, often including speech therapy for specific conditions.
        - Department of Health (DOH).
    - **Special Education (SPED) Centers**
        - SPED centers provide specialized education and therapy services to children with communication and developmental challenges.
        - Department of Education (DepEd).
- **Non-Government Programs**: programs initiated and run by private organizations, non-profits, or charitable foundations that are independent of government funding or administration. These programs often supplement government efforts by focusing on underserved communities or specific conditions.
    - **Smile Train Philippines**
        - Provides free cleft lip and palate surgeries and supports speech therapy to help individuals with cleft conditions improve their communication and quality of life. They collaborate with hospitals and rehabilitation centers nationwide to ensure comprehensive care.
    - **Operation Smile Philippines**
        - Provides free surgery and therapy for individuals with cleft lip and palate, including speech therapy to improve articulation and resonance.
    - **The Philippine Cerebral Palsy, Inc. (PCPI)**
        - Offers comprehensive rehabilitation services, including speech therapy, for individuals with cerebral palsy and other disabilities.

- **The Galing Foundation**
  - Provides therapy support and education to children with disabilities in underserved areas, focusing on improving communication skills.

- **Kaakibat ng Autism Society Philippines (ASP)**
  - Offers therapy services and support for children and adults on the autism spectrum, including speech and language therapy.

- **Collaborative Programs**: involve partnerships between government agencies, NGOs, private institutions, and/or community groups. These programs pool resources, expertise, and efforts to deliver rehabilitation services more effectively and address gaps in care.

  - **CBR (Community-Based Rehabilitation)**
    - Focuses on inclusive rehabilitation services for individuals with disabilities in rural areas.
    - DOH in collaboration with NGOs and local communities.

  - **Project BRAVE Kids**
    - Aims to help children with rare diseases access therapy, including speech-language pathology services, through partnerships with hospitals and organizations.

The Philippine Healthcare Delivery System Within the SLP Field

What is the role of SLP in health and development? (American Speech-Language-Hearing Association, n.d.)

- **SLPs work with the full range of human communication and swallowing disorders in individuals of all ages. SLPs:**
  - Evaluate and diagnose speech, language, communication, and swallowing disorders.
  - Treat speech, language, communication, and swallowing disorders.
  - Provide training and education to family/caregivers and other professionals.
  - Work collaboratively with professionals from many other disciplines.

Current Access of Care (Philippine Association of Speech Pathologists [PASP], 2020)

- People can access speech-language pathologists (SLPs) through a variety of settings: *Schools, Hospitals, Private clinics, Rehabilitation centers, Colleges and universities, Research centers, Government and non-government agencies*. In the Philippines, SLPs face challenges in the equitable distribution of services, particularly in the provinces and hospital settings, which are significantly underserved.
  - Provincial Practice: Approximately 60% of SLPs practice in Metro Manila, leaving only 40% scattered across 16 regions, resulting in a ratio of one SLP per 8,108 clients in the provinces.
  - Hospital-Based Practice: Only 8.3% of Filipino SLPs work primarily in hospitals.

Resource Allocation

- **Financial Resources**
  - SLP services are often expensive and are typically paid out-of-pocket by clients. Public insurance coverage (e.g., PhilHealth) does not fully cover SLP services, making therapy inaccessible to low-income families.

    - Some organizations, non-profits, and universities provide subsidized or free therapy services, though these are limited.

- **Educational Resources**
    - Universities Offering SLP Program
        - Four universities in the Philippines offer SLP programs: University of the Philippines Manila (UPM), University of Santo Tomas (UST), Cebu Doctors' University (CDU), and De La Salle Medical and Health Sciences Institute (DLSMHSI).
    - CHED Scholarship for SLP students (Commission on Higher Education, n.d.):
        - CHED has included the SLP program in its scholarship program, increasing accessibility to the profession for students with financial constraints.
        - This initiative reduces the financial burden of pursuing an SLP degree and encourages students from diverse socioeconomic backgrounds to join the field.

- **Challenges in Resource Allocation**
    - Geographic Disparities: Resources remain concentrated in urban areas, leaving rural populations underserved.
    - Shortage of Professionals: The number of SLPs is insufficient to meet national demand.
    - Assessment Tools: Lack of culturally relevant tools for Filipino clients.

Referral Networks

- Medical Professionals
    - **Otolaryngologists (ENTs)**: Often refer clients with voice disorders, swallowing difficulties, or speech issues stemming from structural abnormalities.
    - **Neurologists**: Refer cases involving neurogenic speech, language, or swallowing disorders (e.g., aphasia, dysarthria).
    - **Pediatricians**: Refer children with developmental delays, speech and language disorders, or feeding problems.
    - **Occupational and Physical Therapists**: Collaborate with SLPs in school or clinic-based therapy, referring cases requiring specialized communication or feeding interventions.
- **Special Education (SPED) Teachers**: Refer children who show signs of speech, language, or social communication difficulties in school settings.
- **Self-referral**: Parents or clients directly contact private SLPs based on recommendations or online searches.
- **Client Referrals**: Existing clients may refer other individuals requiring similar services.
- **Professional Networks**: SLPs in private practice often refer cases to colleagues with specialized expertise (e.g., AAC or voice therapy).

Policy and Regulation

SLP Act of 2019 (Republic Act No. 11249)

- This law regulates the practice of SLP in the Philippines and establishes the Professional Regulatory Board of Speech-Language Pathology under the Professional Regulation Commission (PRC).
- Key Provisions:

- **Licensure**: SLPs must pass the Licensure Examination for Speech-Language Pathology, administered by the PRC.
- **Scope of Practice**: Defines the roles of SLPs, including assessment, diagnosis, treatment, consultation, and advocacy for individuals with communication and swallowing disorders.
- **Accreditation**: Requires SLPs to maintain a valid PRC license and comply with continuing professional development (CPD) requirements.
- **Title Protection**: Only individuals licensed by the PRC may use the title "Speech-Language Pathologist" or "SLP."

Code of Ethics

- The PASLP Code of Ethics outlines the ethical responsibilities of SLPs in the Philippines.
- Core Ethical Principles:
  - **Client Welfare**: Prioritizing the health, safety, and rights of clients.
  - **Confidentiality**: Safeguarding client information and only disclosing it with proper consent.
  - **Professional Competence**: Engaging in evidence-based practices and seeking further education to enhance skills.
  - **Non-Discrimination**: Providing services regardless of a client's race, religion, gender, or socioeconomic status.
  - **Interprofessional Relationships**: Maintaining respectful and collaborative relationships with colleagues and other professionals.

Laws Relevant to the SLP Practice

- **Data Privacy Act (RA 10173):** SLPs must comply with this law to ensure the confidentiality and protection of client data.
  - **Client Records**: Store and manage client records securely, preventing unauthorized access.
  - **Informed Consent**: Obtain client or caregiver consent before sharing information with third parties.
  - **Data Breaches**: Promptly report and address any breaches of client information.

- **Universal Health Care Act (RA 11223)**: This law emphasizes inclusive access to healthcare services, including rehabilitation.
  - **SLP Services in UHC**: Integration of SLP services in public healthcare facilities to make therapy accessible to underserved communities.
  - **Collaboration**: SLPs may work with government agencies to promote the inclusion of communication and swallowing services in health programs.

- SLPs play a role in implementing disability-related laws.
  - **Magna Carta for Disabled Persons (RA 7277)**: Ensuring equal opportunities and access to rehabilitation services for individuals with disabilities.
  - **Early Childhood Care and Development Act (RA 10410)**: Supporting early intervention programs for children with developmental delays.

Philippine Association of Speech-Language Pathologists (2020) Guidelines for SLP Practice

These guidelines were designed to advise clinicians in their assessment and treatment practices of various speech-language pathology cases across age groups with careful

consideration of the current infection prevention and control protocols released by the WHO, DOH, IATF, and other related policy-making bodies.

- **Scope of Practice**: the range of services that SLPs are qualified to provide, emphasizing their expertise in assessing, diagnosing, and treating communication and swallowing disorders across the lifespan.
    - **Communication Disorders**: Includes speech (articulation, fluency, voice), language (expressive, receptive, pragmatics), and cognitive-communication disorders.
    - **Swallowing Disorders** (Dysphagia): Management of feeding and swallowing challenges in various populations.
    - **Specialized Services**: SLPs may provide alternative and augmentative communication (AAC) interventions and advocate for inclusive communication strategies.
    - **Population Served**: Covers infants, children, adults, and geriatric clients in diverse contexts such as clinical, educational, and community-based settings.

- **Ethical Guidelines**: SLPs must adhere to the highest standards of professional ethics to protect the welfare and rights of their clients.
    - **Confidentiality**: Respecting clients' privacy by securely handling personal and medical information.
    - **Informed Consent**: Ensuring that clients or guardians understand and agree to assessment and intervention plans.
    - **Non-Discrimination**: Providing equitable care regardless of gender, ethnicity, socioeconomic status, or disability.
    - **Professional Integrity**: SLPs must practice within their competence level, referring to other professionals when necessary.

- **Assessment and Intervention**: SLPs are responsible for delivering evidence-based, individualized care for clients with speech, language, and swallowing difficulties.
    - Assessment:
        - Comprehensive evaluations using standardized tools and observational techniques.
        - Functional and culturally responsive assessments tailored to the client's context.
    - Intervention:
        - Creating goal-driven therapy plans based on assessment results.
        - Applying evidence-based practices that are measurable and client-centered.
        - Adjusting interventions dynamically based on progress and feedback.

- **Documentation and Reporting:** Accurate documentation is essential for legal, professional, and administrative purposes.
    - **Initial Reports**: Detailed records of initial evaluations, including history, findings, and proposed intervention plans.
    - **Progress Notes**: Regular updates on client progress, treatment goals, and adjustments to the care plan.
    - **Discharge Summaries**: Comprehensive reports summarizing achieved outcomes and recommendations for follow-up.

- **Continuing Professional Development (CPD):** SLPs are required to pursue ongoing education to maintain their professional competence and knowledge.

    - **Training and Certifications**: Participation in workshops, seminars, and advanced certifications to stay updated on new techniques and technologies.
    - **Research Engagement**: Encouragement to contribute to the field by conducting or applying research in clinical practice.
    - **CPD Compliance**: Meeting the mandated CPD points set by regulatory bodies to ensure quality practice.

- **Interdisciplinary Collaboration**: SLPs often work as part of a team to provide holistic care, emphasizing the need for seamless coordination with other professionals.
    - **Collaboration**: Working with healthcare providers, educators, and caregivers to address client needs comprehensively.
    - **Advocacy**: Promoting awareness of communication and swallowing disorders within the community and collaborating on preventive strategies.
    - **Team-Based Decision-Making**: Encouraging shared decision-making to optimize client outcomes.

- **Quality Assurance and Accountability**: SLPs must ensure that their services meet high-quality standards through regular self-evaluation and adherence to national and international benchmarks.
    - **Outcome-Based Practice**: Monitoring the effectiveness of therapy through measurable goals and client feedback.
    - **Peer Review**: Engaging in peer consultations and audits to improve practice quality.
    - **Legal Compliance**: Abiding by laws and regulations governing the practice of speech-language pathology in the Philippines.

- **Cultural Sensitivity**: SLPs must consider the cultural and linguistic diversity of their clients in all aspects of service delivery.
    - **Language Considerations**: Delivering assessments and therapy in the client's preferred or primary language.
    - **Culturally Relevant Materials**: Ensuring that intervention tools and methods are contextually appropriate and culturally sensitive.
    - **Respect for Traditions**: Acknowledging and respecting traditional beliefs and practices related to health and communication.

- **Client and Family Involvement**: Recognizing the crucial role of clients and their families in achieving therapy success.
    - **Education**: Providing families with knowledge about their loved ones' conditions and empowering them with strategies for support.
    - **Collaboration**: Actively involving clients and families in goal-setting and therapy planning.
    - **Feedback Mechanisms**: Establishing regular communication to address concerns and gather insights.

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References

American Speech-Language-Hearing Association. (n.d.). Speech-Language Pathologists. ASHA. Retrieved November 20, 2024, from https://www.asha.org/students/speech-language-pathologists/

BYJU's. (2019, March 11). *Sphygmomanometer Types, Parts And How To Use Sphygmomanometer*. BYJUS; BYJU'S. https://byjus.com/physics/sphygmomanometer/

Capati, P. (2021, December 10). Spaces in the Profession: SLPs in Provinces and Hospitals. Philippine Association of Speech-Language Pathologists. Retrieved August 18, 2024, from https://pasp.org.ph/Articles/12182803

Cleaveland Clinic. (2023). How To Take Blood Pressure Measurements. Cleveland Clinic. Retrieved August 19, 2024, from https://my.clevelandclinic.org/health/diagnostics/25068-blood-pressure-measurement

Commission on Higher Education. (n.d.). CHED Scholarship 2024-2025 Application – Apply Now. CHED Scholarship. Retrieved November 20, 2024, from https://chedscholarship.com/#a-national-priority-courses

Cuevas, F. P. (n.d.). HEALTH AND WELLNESS PROGRAM FOR PERSONS WITH DISABILITIES. GOVPH. Retrieved November 20, 2024, from https://doh.gov.ph/uhc/health-programs/persons-with-disabilities/

Edleman, P. R. (n.d.). Philippine Government Structure with a Focus on the Philippine Barangay. Sauk Valley Community College. Retrieved November 20, 2024, from https://www.niu.edu/clas/cseas/_pdf/lesson-plans/fulbright-hays/philippine-political-structure.pdf

Icahn School of Medicine at Mount Sinai. (2024). *Vital signs Information*. Mount Sinai. Retrieved August 17, 2024, from https://www.mountsinai.org/health-library/special-topic/vital-signs

International Trade Administration. (2024, January 23). Philippines - Healthcare. International Trade Administration. Retrieved November 20, 2024, from https://www.trade.gov/country-commercial-guides/philippines-healthcare

Johns Hopkins Medicine. (2024). *Vital signs (body temperature, pulse rate, respiration rate, blood pressure)*. Johns Hopkins Medicine Health Library. https://www.hopkinsmedicine.org/health/conditions-and-diseases/vital-signs-body-temperature-pulse-rate-respiration-rate-blood-pressure

Lukey, A. (2023, January 24). Pulse Points And How To Find Them. NurseTogether. Retrieved November 20, 2024, from https://www.nursetogether.com/pulse-points/

Mendelson, Y. (2012). Biomedical Sensors. *Elsevier EBooks*, 609–666. https://doi.org/10.1016/b978-0-12-374979-6.00010-1

Merck. (n.d.). Table: Three Levels of Prevention-Merck Manual Consumer Version. Merck Manuals. Retrieved November 20, 2024, from https://www.merckmanuals.com/home/multimedia/table/three-levels-of-prevention

Murphy, L. (2022, November 14). Difference Between Habilitation and Rehabilitation - NAPA. NAPA Center. Retrieved November 20, 2024, from https://napacenter.org/difference-between-habilitation-and-rehabilitation/

Physiopedia. (2018). *Sphygmomanometer*. Physiopedia. https://www.physio-pedia.com/Sphygmomanometer

Physiopedia. (n.d.). Levels of Healthcare. Physiopedia. Retrieved November 20, 2024, from https://www.physio-pedia.com/Levels_of_Healthcare

Pulse Points Nursing Assessment. (n.d.). Registered Nurse RN. Retrieved November 20, 2024, from https://www.registerednursern.com/pulse-points-nursing-assessment/

Respiration Technique – Vital Sign Measurement Across the Lifespan – 2nd Canadian Edition. (n.d.). BC Open Textbooks. Retrieved November 20, 2024, from https://opentextbc.ca/vitalsignmeasurement/chapter/respiration/

Standris Medical Supply, Inc. (2024). *Stethoscope Anatomy*. Standris.com. https://www.standris.com/Stethoscope-Anatomy_ep_43-1.html#

United Nations Development Programme. (n.d.). Sustainable Development Goals. United Nations Development Programme. Retrieved November 20, 2024, from https://www.undp.org/sustainable-development-goals

Unitek College. (2024, January 22). *2024 Step-by-Step Master's Guide to Taking Vital Signs | Unitek College*. Unitek College. https://www.unitekcollege.edu/blog/a-step-by-step-guide-to-taking-vital-signs/

Sites for measuring blood pressure. (2024). https://www.jove.com/science-education/13310/sites-for-measruring-blood-pressure#:~:text=Blood%20pressure%20measurement%20is%20a,the%20reliability%20of%20their%20readings.