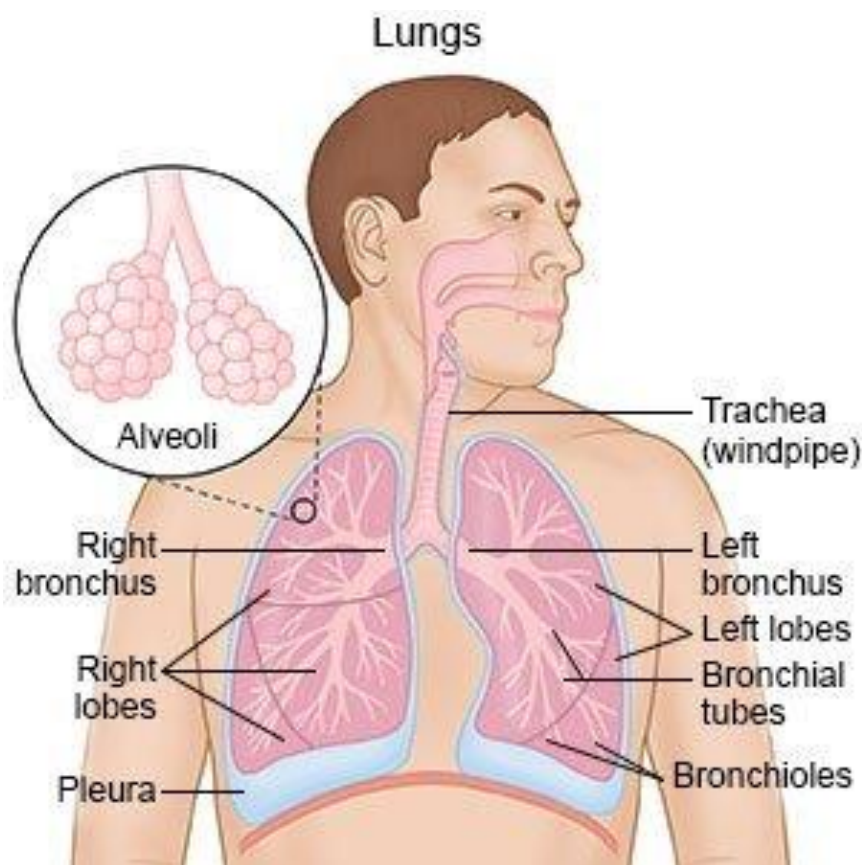


Healthy Village Facilitator's Guide

Respiratory Diseases



Ministry of Health and Medical Services, Solomon Islands

May 2021

Table of Contents

1. Introduction	1
1.1 What are Respiratory Diseases?	1
1.2 How common are Respiratory Diseases?	1
2. Influenza	2
2.1 What is influenza (flu)?	2
2.2 What causes Influenza?	2
2.3 Which part of the body does it affect?	2
2.4 How does influenza spread?.....	2
2.5 Who are the people at risk?	3
2.6 What are the signs and symptoms?	4
2.7 How can you treat influenza?	4
2.8 What is the complication of influenza?.....	5
2.9 How can you prevent influenza?	5
3. Pneumonia	7
3.1 What is Pneumonia?	7
3.2 What causes Pneumonia?	7
3.3 How does Pneumonia spread?	7
3.4 What are the signs and symptoms?	8
3.5 How can you treat Pneumonia?	9
3.6 What are complications of Pneumonia?	11
3.7 How do you prevent Pneumonia?	12
Glossary of Terminology	14

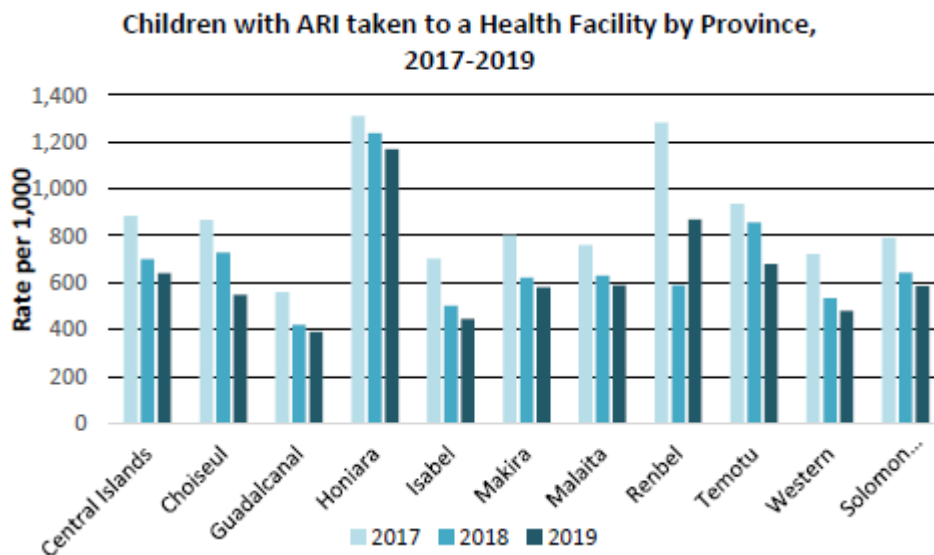
1. Introduction

1.1 What are Respiratory Diseases?

- Respiratory diseases are illnesses that affect the organs and tissues in the lungs and airway systems, making gas exchange and breathing difficult.
- The airway systems start from the nose, lead to the large and small wind pipes and reach the lungs. These systems are divided into upper and lower respiratory systems.
- Respiratory conditions include acute respiratory infections as well as chronic respiratory diseases.
- Most common respiratory diseases include influenza, pneumonia, asthma, bronchitis, chronic obstructive airways disease (COAD) and lung cancer.

1.2 How common are Respiratory Diseases?

- Lower respiratory infection was the 3rd and chronic obstructive airways disease (COAD) was the 6th leading cause of death in the country in 2019 (Global Health Metrics 2019).
- In the Solomon Islands, 59% of children under 5 years of age experienced moderate or severe acute respiratory infection (ARI) and were taken to a health facility in 2019 (MHMS Statistical Health Core Indicator Report 2019).



- Influenza and pneumonia deaths alone reached 171 or 7% of total deaths, making it the 5th leading cause of death in the country (WHO 2018).
- This guide will provide information on the most important respiratory diseases in the Solomon Islands: **influenza** and **pneumonia**.

2. Influenza

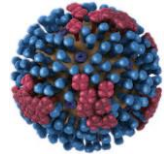
2.1 What is influenza (flu)?

- Influenza (flu) is a sickness of the respiratory or breathing airway tubes which can infect the nose, throat and tubes in the lungs.
- It can cause mild to severe illness, and at times can lead to death.



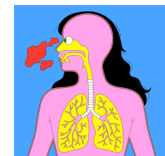
2.2 What causes Influenza?

- The influenza is caused by germs or viruses that infects the nose, throat and lungs.



2.3 Which part of the body does it affect?

- The germ or virus starts attacking the respiratory or breathing airway tubes, which start from the nose to the throat and lead to the lungs.



2.4 How does influenza spread?

- These germs or viruses spread when people with flu cough, sneeze or talk, sending tiny droplets (small water balls) with the virus into the air.
- People nearby may be infected if they inhale them or breath them in through the mouth or nose.
- People might get flu by touching a surface of a table, a chair or an object that has the flu germ or virus on it and then touching their own mouth, nose or eyes.



2.5 Who are the people at risk?

Anyone can be affected, but the **5 groups below** are at **high risk** of developing influenza-related sicknesses:

- 1) Children younger than 5 years old, especially those younger than 2 years old.



- 2) Adults older than 65 years of age.



- 3) People with chronic illnesses (Chronic Obstructive Airways Diseases - COAD), heart diseases, diabetes, liver and kidney disorders.



amputated leg due to diabetes

- 4) People with a weakened immunity system (body soldier)



- 5) Pregnant women and women up to 2 weeks postpartum (after giving birth).



2.6 What are the signs and symptoms?

Flu usually comes on quite quickly. People who have flu often feel some or all of these symptoms:



fever or feeling feverish/chills



muscle or body aches



headaches



sore throat



cough

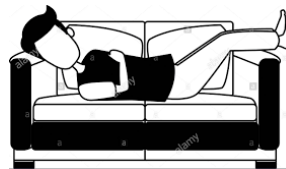


runny or stuffy nose



fatigue (tiredness)

2.7 How can you treat influenza?



home remedies

There is **no cure** for influenza. The body takes care of the virus. **Recovery** can be **improved** with **supportive care** such as **bed rest** and **take plenty of fluids** to treat the flu.

- If you are sick with flu-like illness, stay home for at least 24 hours (one day) after your fever is gone.
- Your fever should be gone without taking any medicine for fever.
- You could take herbal tea (lemon tea, guava tea, ginger tea and green tea) to relax breathing muscles to breath freely.

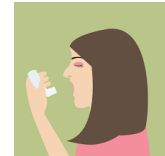


2.8 What is the complication of influenza?

- Flu can develop into the complication such as pneumonia, dehydration, ear infections and sinus infections, especially in children.



- The flu can worsen long-term medical conditions, like congestive heart failure, asthma or diabetes.



asthma

2.9 How can you prevent influenza?



It is important to practice the following healthy habits to prevent flu:

- 1) Practice good health habits.



get plenty of sleep



eat healthy food



be physically active



manage your stress or worries



drink plenty of fluids



wash hands with soap



avoid cold



avoid wet diapers

2) Avoid touching your eyes, nose or mouth.



3) Avoid close contact with people who are sick.



4) When you are sick, stay home and away from work, school and tasks to avoid infecting others.



5) Cough and sneeze into your shirt or inside your elbow. You could also cover your nose and mouth with a tissue. Throw the tissue in the rubbish bin after you use it.



6) Clean surfaces and objects with detergent or soap to kill germs like flu virus.



7) If soap and water are not available for handwashing, use an alcohol-based hand rub.



hand sanitizer

8) Get vaccination or nila against flu if available.

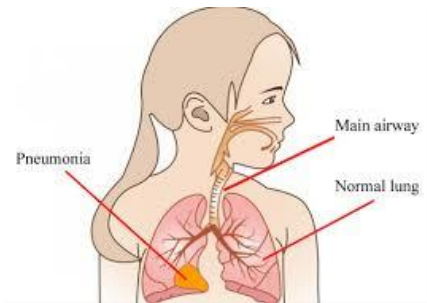


3. Pneumonia

Pneumonia kills millions of people annually and is a leading cause of death among infants. Globally more than 808,000 children under the age of 5 died of pneumonia in 2017, accounting for 15% of all deaths in this age group. People at-risk for pneumonia also include adults over the age of 65 and people with underlying health problems (WHO).

3.1 What is Pneumonia?

Pneumonia is an **infection (sickness) in one or both lungs**. The infection causes **inflammation (swelling) in the air bags in the lungs**, which are called alveoli. When the alveoli are filled with fluid or pus, they cause cough with pus and difficulty to breathe. It mainly affects small children, adults aged 65 or older, and people with weak immunity (body soldier).



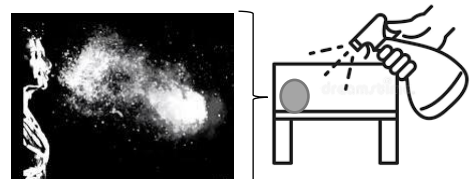
3.2 What causes Pneumonia?

- The main germ which causes sickness pneumonia are bacteria called *streptococcus pneumoniae*
- It occurs when there is a breakdown in your body's immunity or body soldier is weak and allows germs to come in and multiply within the lungs.



3.3 How does Pneumonia spread?

- The germs that cause pneumonia are very infectious, which means that it can easily pass from one person to another.
- Pneumonia germ or bacteria can spread to others through inhalation or breathing in of airborne droplets (water float in air) from a sneeze or cough.
- You can also get pneumonia by coming into contact with surfaces of tables, chairs or objects that are contaminated with pneumonia-causing bacteria on them.



3.4 What are the signs and symptoms?

Signs and symptoms of pneumonia can be mild, moderate or severe, which include:



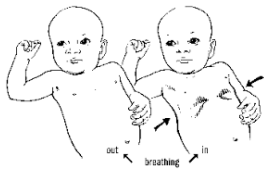
cough that may produce mucus (nguru)



fever



sweating or chills (body shaking)



shortness of breath (short wind) - that occurs while doing normal activities or even while resting



chest pain that's worse when you breathe or cough



fatigue or feelings of tiredness



loss of appetite (don't feel like eating)



nausea or vomiting



headaches

Other symptoms can vary according to your age and general health:

- Fast breathing or wheezing (whistling sound) in children under 5 years old.



- Vomiting, feeling weak or having trouble drinking or eating in infants.

- Confusion (not sure) and with unusually low body temperature in older people.



3.5 How can you treat Pneumonia?

It is important that you go to a clinic/hospital to see a nurse or doctor to get treatment (medicine) for the sickness pneumonia.

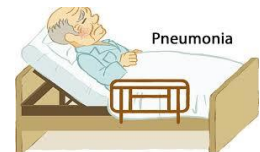


- Treatment (medicine) will depend on the type of pneumonia you have and how severe or dangerous it is. The nurse or doctor will give you the right medicine for your pneumonia.
- **Pneumonia** that is caused by bacteria is **treated** with antibiotics. These medicines kill these bacteria (germs).
- Most people can take antibiotic tablets at home, but some people need to be **treated** in the hospital.
- It is very important to take your full course of antibiotics medicine as advised by nurse or doctor, even if you begin to feel better.



Clinic/Hospital Care

At the clinic/hospital, a nurse or doctor keeps track of your heart rate, temperature and breathing and give the treatment.



- Antibiotics medicine is commonly injected straight into a vein in the body.
- Respiratory treatment involves giving special medicine directly into the lungs or teaching patients to breathe deeply to increase oxygen intake.
- Oxygen treatment may be given, to keep oxygen levels in your bloodstream (received through a nasal tube, face mask or ventilator, depending on how severe or dangerous the pneumonia)



Home Care

Home remedies

- Some plants help alleviate symptoms. For example, peppermint tea for cough, ginger or turmeric tea is for chest pain, warm liquid for chills.



- You can help your body recover by getting a lot of rest and drinking plenty of fluids.



- Aspirin or paracetamol may be taken to reduce fever and pain at home, if given or recommended by the nurse or doctor.



- Cough medicine may be taken to calm your cough, so you can rest. Remember that coughing helps remove fluid from your lungs, so you don't want to stop coughing entirely.



Special Reminder

Seek help from nurses

- It is very important to **recognise severe symptoms** and quickly go to see a nurse or doctor in the nearest clinic or hospital.
- In some villages, there is a **local myth or belief** which recognises any pain in the knee and body muscles as pneumonia. If you have such pain, seek help from a nurse or doctor from the nearest clinic or hospital.



3.6 What are complications of Pneumonia?

If you have other existing health conditions, pneumonia could make them worse. These conditions include:

- **Heart failure** - fluid builds up within the heart and causes heart muscles to be weak to pump efficiently.



- **Chronic lung sickness** - air bags in the lungs (alveoli) are damaged, causing shortness of breath.



- **Blood poisoning** - bacteria (germs) from the pneumonia infection may spread to your bloodstream and damage body organs. This can lead to very low blood pressure, septic shock, and in some cases, organ failure.



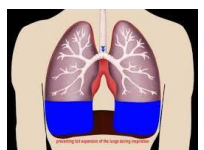
- **Lung abscesses** - these are cavities (holes) in the lungs that contain pus. Antibiotic medicine can treat them. Sometimes they may require drainage or operate on the lungs to remove the pus.



- **Breathing problem** - you may have trouble getting enough oxygen when you breathe. You may need to use a ventilator or machine that helps breathing.



- **Water on the lungs** - If your pneumonia isn't treated, you may develop fluid around your lungs in your pleura (membrane or skin) covering of the lungs, called pleural effusion. The fluid may become infected and need to be drained.



- In some cases, pneumonia can be deadly if not treated early.



3.7 How do you prevent Pneumonia?

Pneumonia sickness can be prevented through the following:

Everyday practice

- Get enough rest, eat a healthy diet and do regular exercise.



enough sleep hours



healthy diet



regular exercise

- Maintain a healthy lifestyle to strengthen your immune system (body soldier) to fight sickness.



plenty of rest

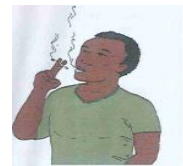


drink plenty water



walking outdoors

- Stop smoking, because it damages the lungs of you and of people around you. Those exposed to tobacco smoke are more likely to get respiratory infections, especially pneumonia.



- Have your kitchen well ventilated with windows to avoid breathing fire smoke.



- Regularly wash your hands with soap and water.



- Cough and sneeze into your shirt, inside your elbow or use a tissue paper. Promptly dispose used tissues into a rubbish bin.



- Try to stay away from crowded places. Overcrowding is a main cause of spread of respiratory diseases.



Clinical intervention

- Vaccination or nila can be given by a nurse or doctor if it is available in the clinic or hospital.



Glossary of Terminology

Antibiotics	They are medicines that fight infections caused by bacteria in humans.
Bacteraemia	It is blood poisoning in which a bacterial infection has spread to the bloodstream. This is serious because it can cause a lot of harm to the body organs.
Complication	A medical problem that occurs as a result of another illness or disease.
Heart failure	It is a chronic, progressive condition where the heart is unable to pump enough blood around the body to meet its demands.
Emphysema	Chronic lung condition that causes breathing difficulties.
Influenza	It (also known as the flu) is a contagious respiratory illness caused by influenza viruses. It attacks the respiratory system which includes the nose, the throat and the lungs.
Oxygen	It is a colourless, odourless, tasteless gas essential to living organisms. It is vital for respiration (breathing), which is the process that transfers energy from glucose to cells.
Pneumonia	Bacterial chest infection which affects the tiny air sacs in your lungs, called alveoli.
Pleural effusion	Water on the lungs - especially in the pleura (skin covering the lungs).
Vaccination	Medicine given to reduce risks of getting a disease by working with your body's natural defenses to build protection.
Ventilators	Ventilators are machines that blow air - or air with extra oxygen - into your airways and your lungs. They are often referred to as life support machines and used in intensive care units for patients who cannot breathe on their own.



Health Promoting Village Project
Japan International Cooperation Agency