

# How to have a healthy respiratory system

¿What are the most  
common respiratory  
diseases?

Infections: pneumonia,  
tuberculosis, flu, COVID-19...

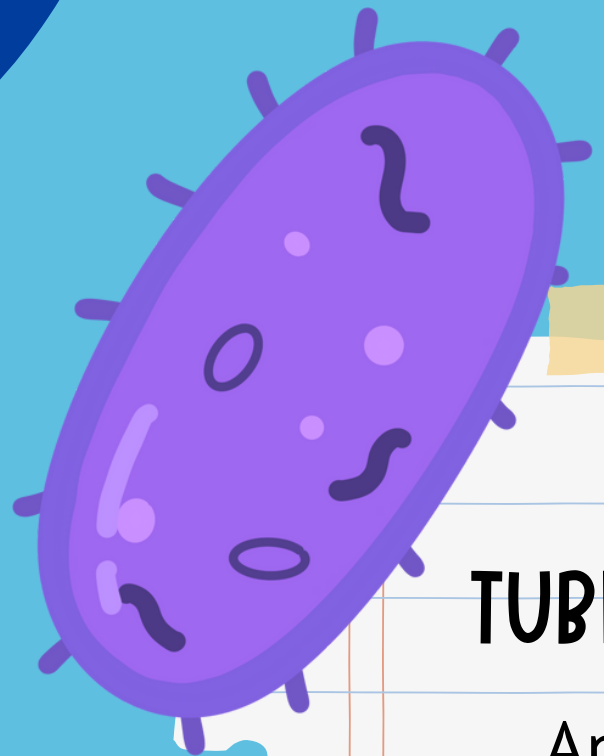
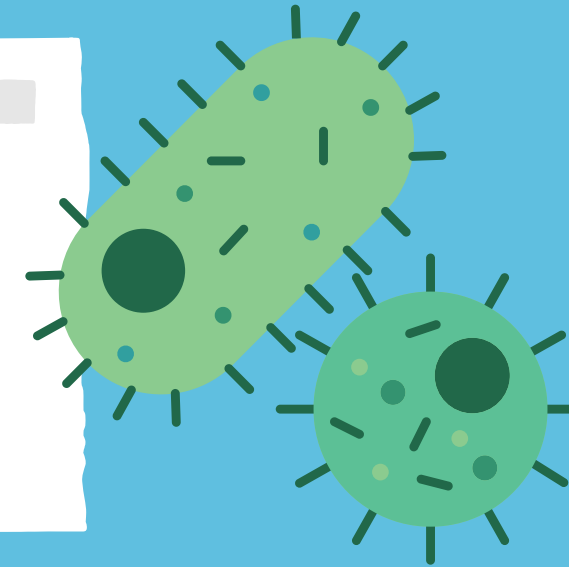
Lung Cancer

Chronic respiratory diseases:  
chronic obstructive pulmonary  
diseases (COPD), asthma

Globally in 2017, 545M people  
had chronic obstructive  
pulmonary disease.

Every year 3.9 millions of people  
die of chronic pulmonary disease  
across the world.

# Infectious Diseases



## TUBERCULOSIS

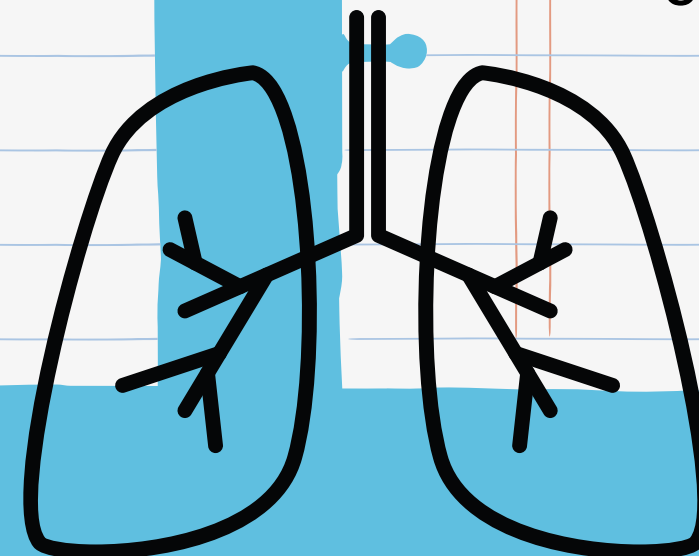
An infection caused by a type of bacterium called *Mycobacterium tuberculosis*

## PNEUMONIA

A viral or bacterial infection that affects one or both lungs

## OTHER RESPIRATORY TRACT INFECTIONS

Flu, COVID-19, other infections



# Lung Cancer



Cancer most commonly spreads in the lymph nodes within the lungs or around major airways



The main cause of cancer mortality for men in Spain

# Chronic respiratory diseases



## ASTHMA

A disease caused by an inflammation to the lungs which makes it difficult to breath. Allergies or other factors may cause asthma.

## CHRONIC OBSTRUCTIVE PULMONARY DISEASE

A disease caused by an alteration to pulmonary arteries that leads to an inadequate air flow to the lungs



## OTHER CHRONIC DISEASES

Silicosis,  
Asbestosis...



# ¿What is COPD (Chronic Obstructive Pulmonary Disease)?



COPD is characterized by persistent respiratory symptoms with limited airflow caused by alveolar abnormalities or in airways paths.

Chronic inflammation leads to the narrowing of airways, and destruction of lung parenchymas. This obstructs and limits airflow to the lungs.

According to the WHO, COPD is the third cause of mortality across the world.



# Symptoms of COPD



- Shortness of breath, especially during physical activities
- Chronic cough with mucus (sputum)
- Wheezing and chest tightness
- Fatigue, weight loss and anemia

# Diagnosis for COPD



- A common disease that is preventable and treatable
- Physical examination and medical history: identify risk factors and presence of comorbidities
- Spirometry: diagnostic tool used to confirm COPD

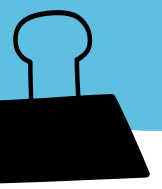


¿What is a  
spirometry?



A spirometry is a  
test that measures  
the velocity and  
airflow when a  
patient inhales and  
exhales air





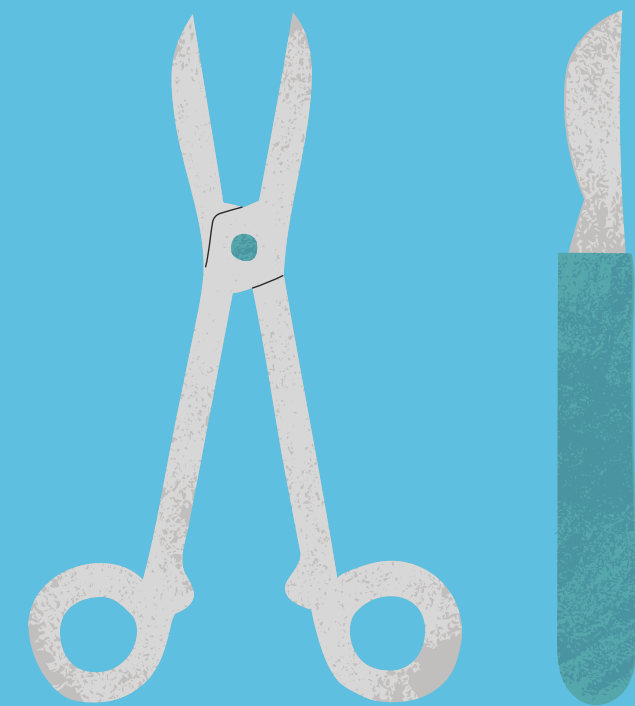
# Treatment for COPD



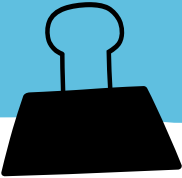
**Pharmacologic  
therapy:  
bronchodilators,  
corticosteroid...**



**Oxygen therapy  
and pulmonary  
rehabilitation**



**Surgeries,  
transplants**



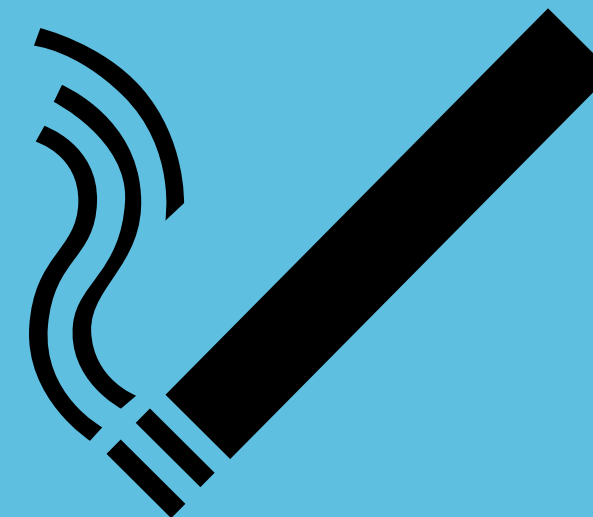
# Treatment for COPD



**Vaccines: Flu,  
COVID-19...**



**Treatments  
for infections**



**Healthy Habits-  
Smoking cessation**



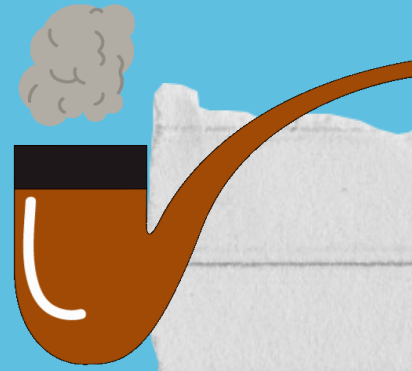
**PREVENTION**

**Prevention is  
better than  
cure!**



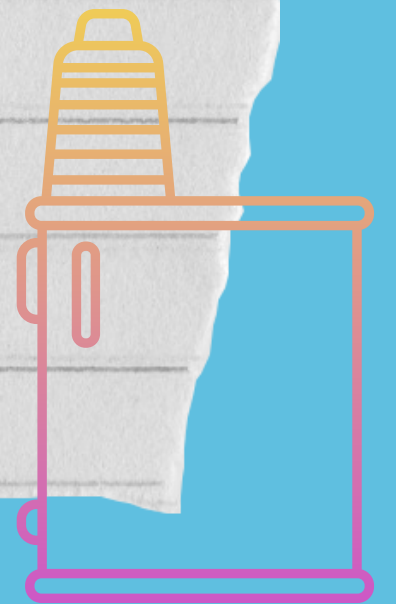


# Risk Factors



## Tobacco:

Smokers have a higher risk to develop COPD compared to non-smokers. Including, pipes, cigars, bong, vapes or marijuana



! Approximately, 40-50% of smokers develop COPD compared to non-smokers with a 10% risk!





# Risk Factors



**Occupational  
risk factors:  
chemicals, dust,  
wood, mining,  
agriculture**

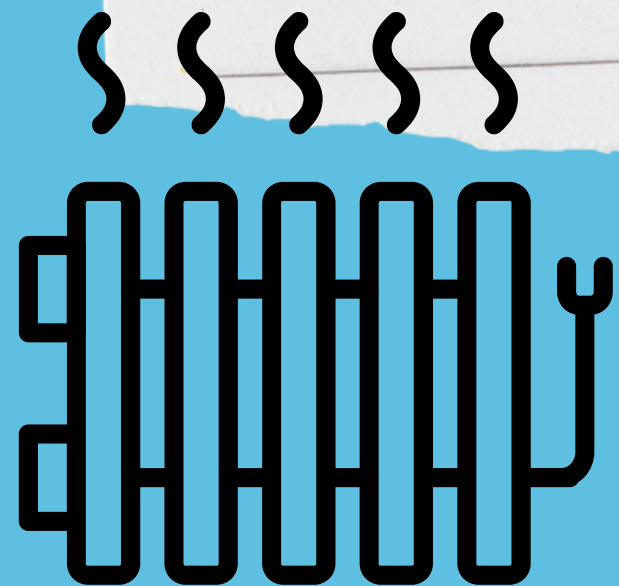




# Risk Factors



**Air pollution: indoor  
and outdoor  
environmental  
contaminants**

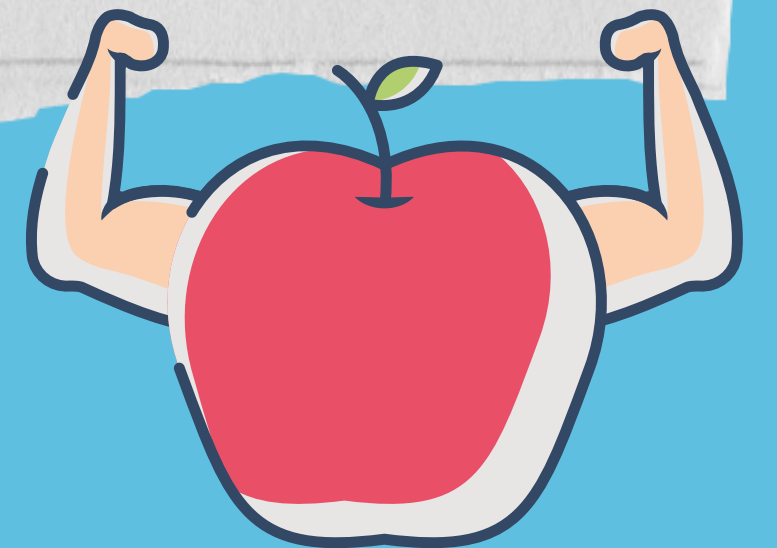






# Risk Factors

**Socio-economic status & lifestyle: nutrition, physical activity, access to parks and gardens/green space, and occupation**





# Risk Factors



Factors in early  
childhood: Mothers  
who smoke, infantile  
asthma, exposure to  
contamination...  
(chemicals, pollution)

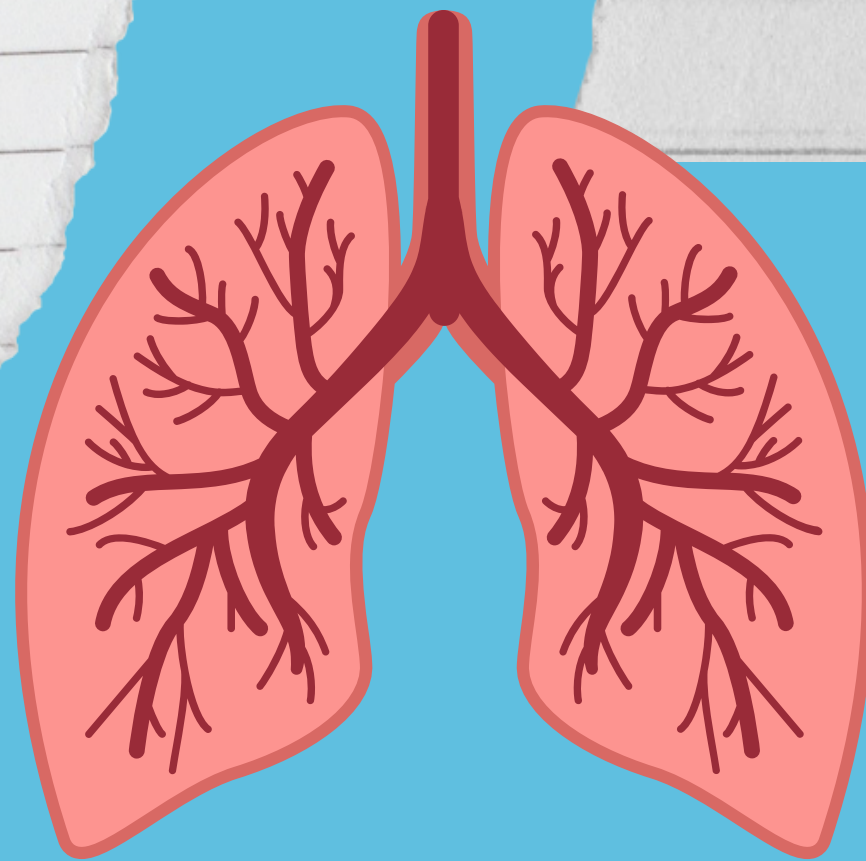
SICK OF  
POLLUTION





# Risk Factors

**Genetic factors:  
Alpha-1 antitrypsin  
deficiency (AATD)**





**It is important...**



1 Have a balanced diet (fruits and vegetables)

2 Avoid smoking

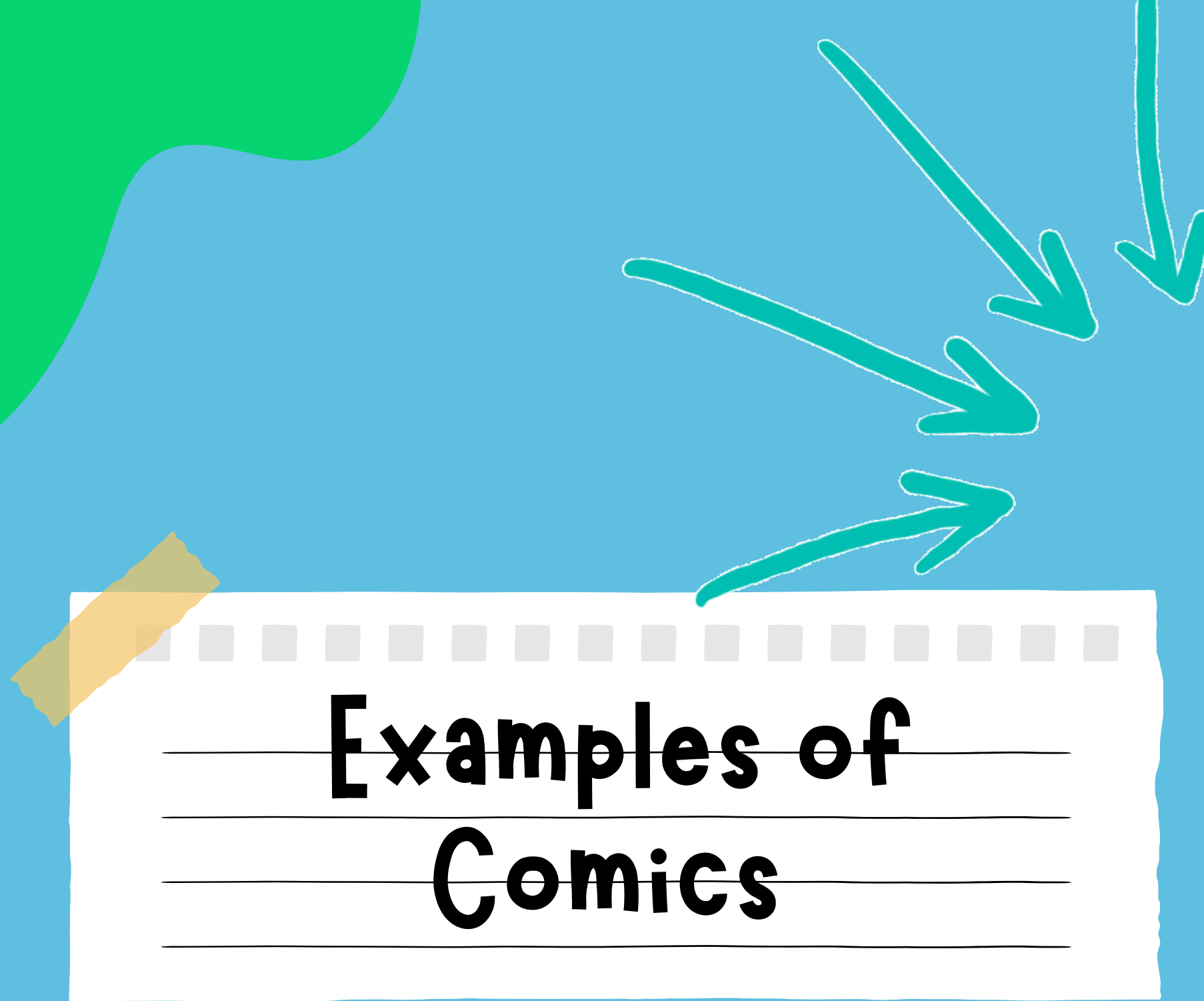


3 Practice outdoor physical activities or near nature



4 Breathe clean and uncontaminated air





# Examples of Comics

Medikidz - sobre EPOC

Cómic - El Plan de Tuberculosis

Redrawing Barcelona, about  
urbanism and health



# Bibliography

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