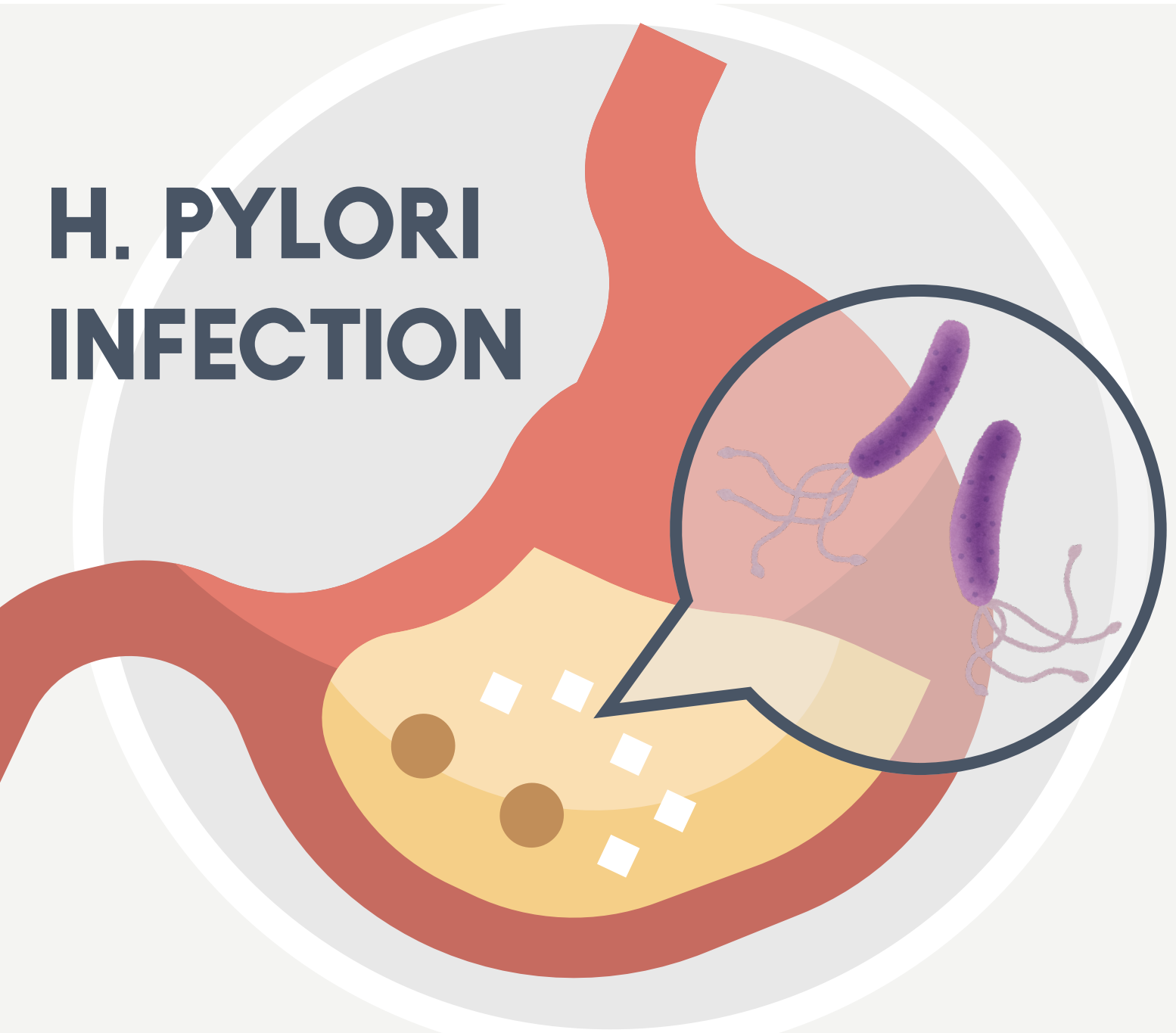




IGEM UI 2021

# H. PYLORI INFECTION



@igem\_ui

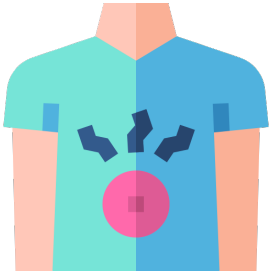


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# WHAT IS "INDIGESTION"?



Indigestion or "dyspepsia" is commonly used to describe **one or more symptoms** felt immediately after eating, which simply indicates **a digestive disorder**

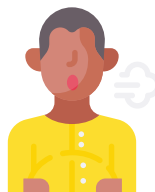
The symptoms are:



- nausea
- vomit
- bloated
- upper stomach discomfort



- fatigue
- feverish
- headache



- burping
- farting
- mouth discomfort

Sometimes indigestion is also used to describe a burning feeling in the upper abdomen that radiates to the neck and throat or **heartburn**

Penyebab:

The cause of indigestion involves various factors. However, the exact cause is still not fully known. One of the risk factors associated with indigestion is **Helicobacter pylori (H. pylori) infection**. H. pylori is a gram-negative bacteria that has infected 50% of the world's population, especially developing countries.

H. pylori is a **major cause of chronic gastric infection (gastritis), gastric ulcers, and gastric cancer.**

# PREVALENCE OF H. PYLORI INFECTION



Based on data collected in 2014, the prevalence of H. pylori infection in **Indonesia** varies widely in several areas, including:

Jakarta 8%

Solo 51.8%

Makassar 55%

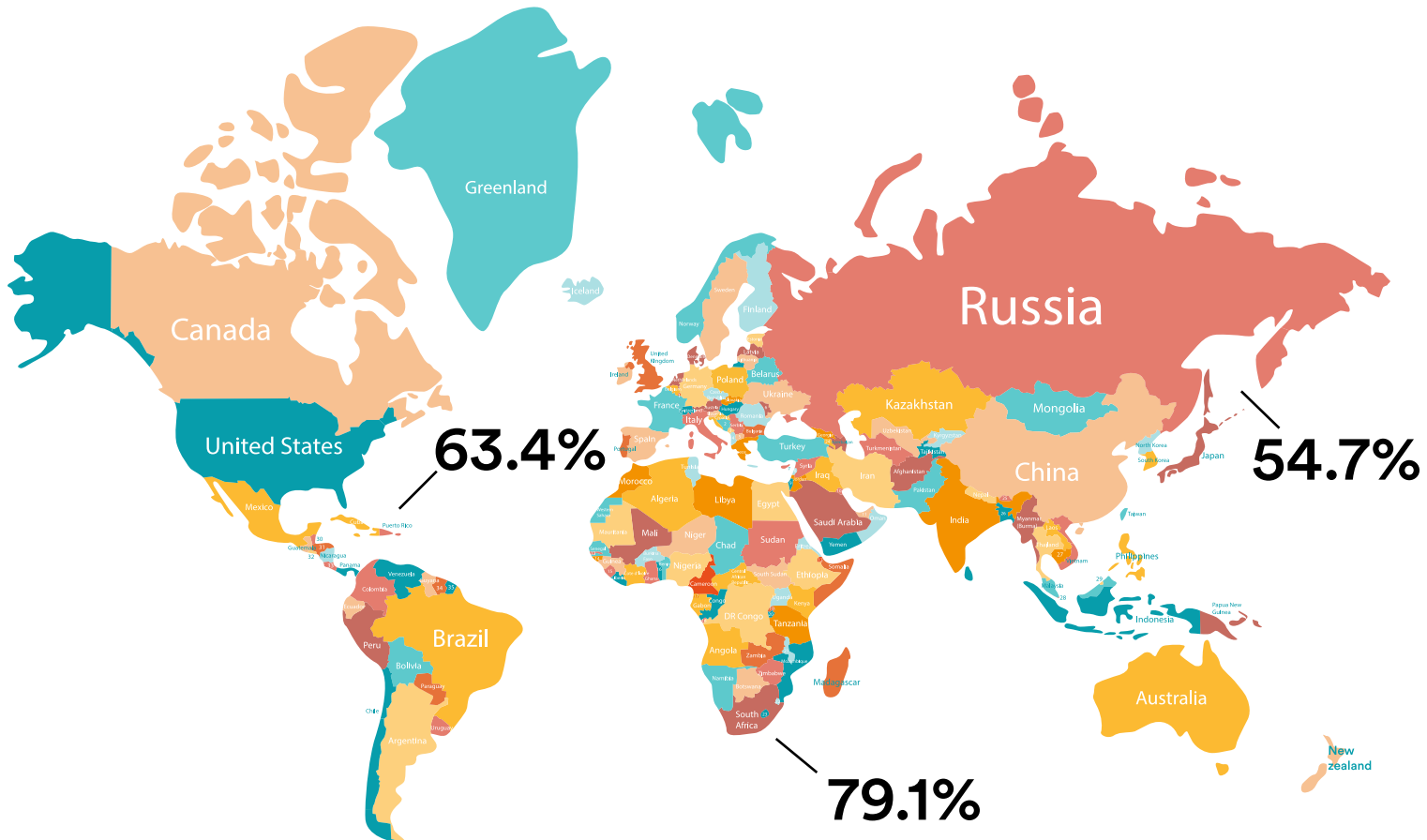
Surabaya 23.5%

Yogyakarta 30.6%

# PREVALENCE OF H. PYLORI INFECTION



## IN THE WORLD



Africa 79.1%

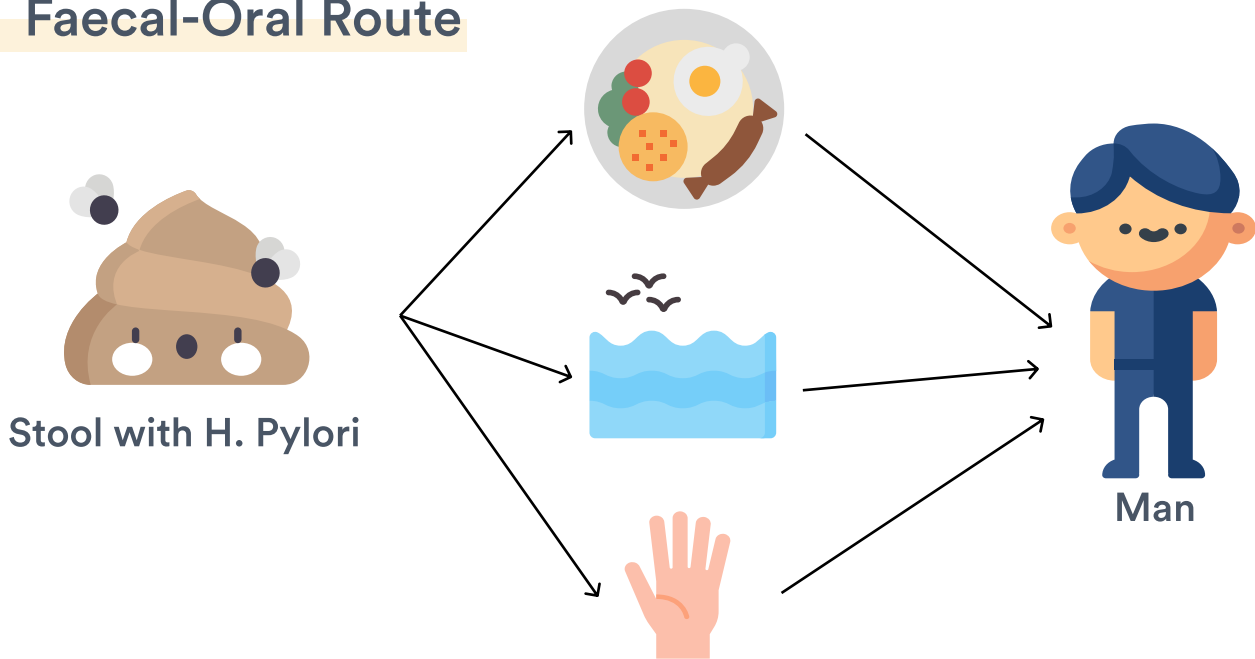
USA  
63.4%

Asia 54.7%

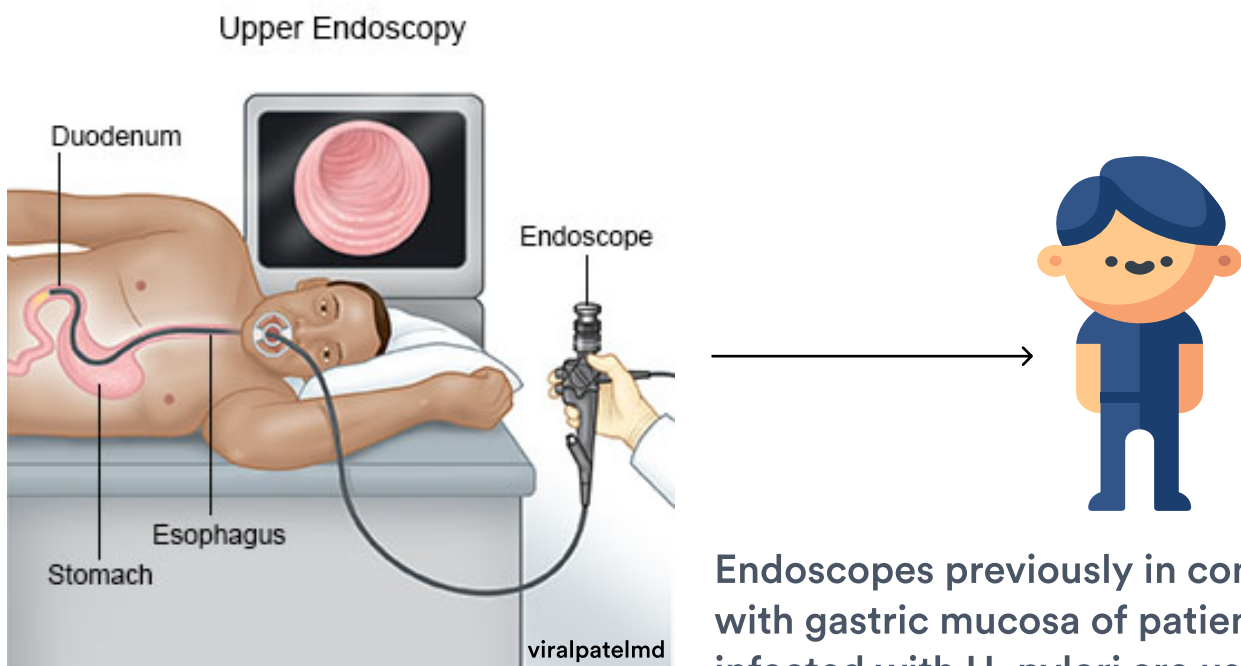
# SO, HOW DOES H. PYLORI INFECTION SPREAD?



## 1. Faecal-Oral Route



## 2. Gastric-Oral Route (Iatrogenic)

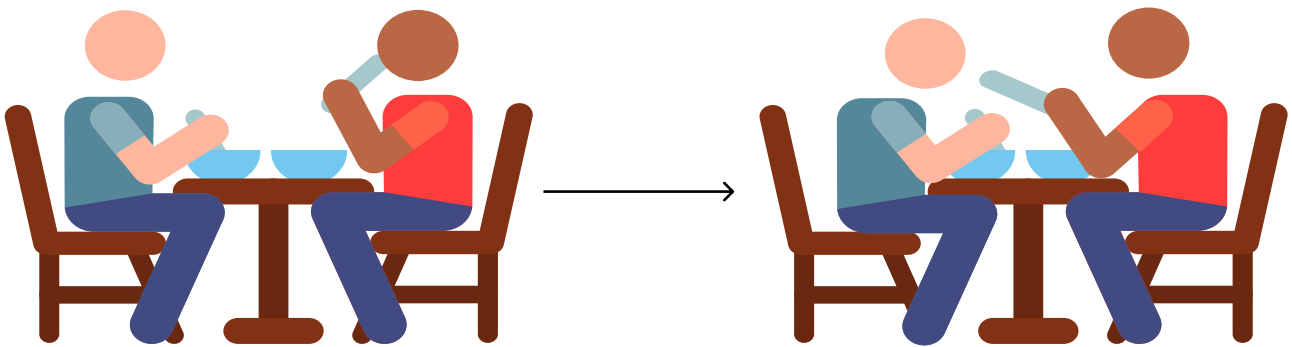


Endoscopes previously in contact with gastric mucosa of patients infected with H. pylori are used in other patients

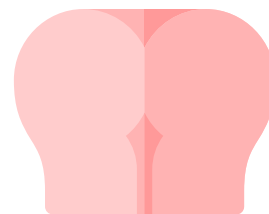
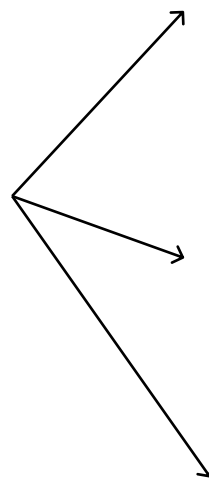
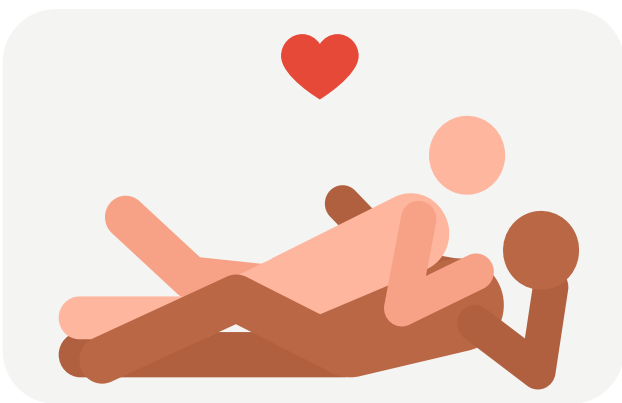
# SO, HOW DOES H. PYLORI INFECTION SPREAD?



## 3. Oral-Oral Route



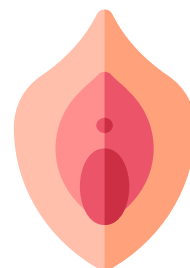
## 4. Sexual Route



Anal

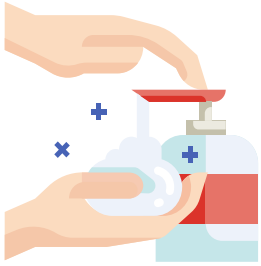


Oral



Vaginal

## HOW TO PREVENT IT?



Wash hands and maintain hygiene, especially when preparing food



All patients with chronic GI symptoms that may be associated with *H. pylori* infection should be examined and treated to prevent exposure



Finish all drug therapy plans to maximize recovery



Contribute in maintaining the environment clean and healthy



Increase your intake of vegetables, such as cauliflower, cabbage, broccoli, and other vegetables



Maintain a good and balanced nutrition habit



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# ABOUT HELICOSTRIKE



iGEM is an international synthetic biology community that annually organizes a competition: iGEM competition. IGEM UI consists of Indonesian university students from various faculties who have been working in the health sector, since 2013. This year, gastrointestinal health, specifically H. pylori, is the focus of the problem we are trying to solve.



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