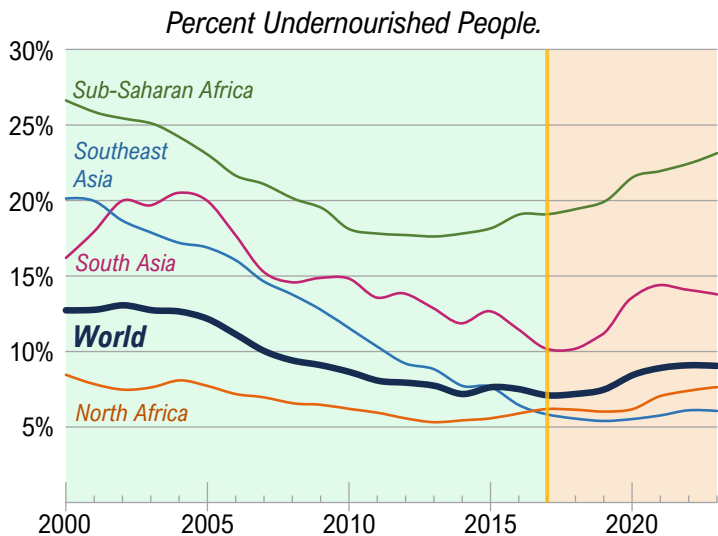# TOPIC: GLOBAL FOOD INSECURITY

Global Hunger

◆ World population ~8 billion. 2050 may reach ~_____ billion people.

  ‣ _____ than enough food; _____ is the problem.

Percent Undernourished People.

Data Page: Share of people who are undernourished", part of the following publication: Hannah Ritchie, Pablo Rosado, and Max Roser (2023) - "Agricultural Production". Data adapted from Food and Agriculture Organization of the United Nations. Retrieved from https://archive.ourworldindata.org/20250718-112320/grapher/prevalence-of-undernourishment.html [online resource] (archived on July 18, 2025).

Key Statistics:

◆ ~ ___% of all people are undernourished.

  ‣ Greatest _____ in Sub-Saharan Africa.

  ‣ Greatest _____ in South Asia.

◆ Trends.

  ‣ ___ from 2000-2017.

  ‣ ___ since 2017.

Causes:

◆ **Poverty:** _____ cause.

  ‣ _____ in women & children.

  ‣ __ population growth in regions of __ poverty.

◆ **Famine:** _____ food shortage in an area.

  ‣ Natural disasters, crop failures, _____, etc.

  ‣ Climate change can make worse: _____ predictable, more _____ weather.

PRACTICE

Which of the following regions has the greatest number of individuals suffering from undernourishment?

a) Sub-Saharan Africa.   b) North Africa.   c) Southern Asia.   d) South-Eastern Asia.

PRACTICE

Which of the following would most likely decrease poverty and increase food security in a region?

a) Increase education and economic opportunities for women.

b) Advancements in agricultural technology that would allow for greater worldwide food production.

c) Provide incentives for larger family sizes.

d) Instruction on modern farming techniques.

TOPIC: GLOBAL FOOD INSECURITY

Malnutrition

◆ Undernutrition can be devastating to _____:

|	Severe Acute Malnutrition (_____)	Chronic Malnutrition
Cause	◆ _____ level food deprivation: often associated with _____.	◆ Prolonged lack of sufficient or _____ food supply.

Physical manifestation	◆ **Wasting:** low body weight.
	‣ _____: severe calorie deficiency.
	  - Muscle loss.
	‣ **Kwashiorkor:** severe protein deficiency.
	  - Abdomen swelling.
		◆ **Stunting:** short stature for age → can be irreversible.
		‣ Affects ~_____% of children under 5 in 2024 (WHO).

◆ _____ **Hunger:** nutrient deficiencies with _____ Calories:

Iron	_____	Zinc	_____
Vitamin A	_____	Iodine	_____ / developmental delays

WHO, The Global Health Observatory. Accessed August 2025 at
https://www.who.int/data/gho/data/themes/topics/joint-child-malnutrition-estimates-unicef-who-wb

---

EXAMPLE

Fill in the Venn diagram below about Severe Acute Malnutrition and Chronic Malnutrition using the statements from the box.

SAM — Both — Chronic Malnutrition
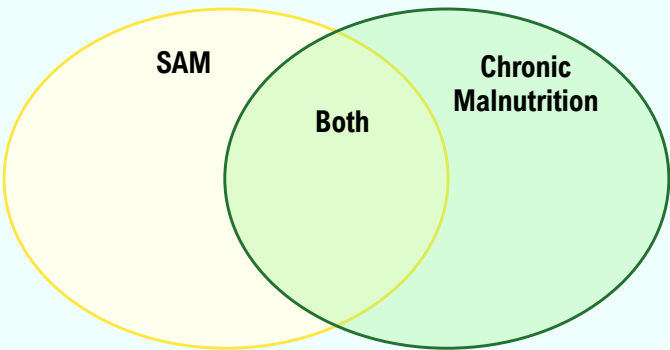
Statements

a. Can cause irreversible issues with growth.

b. Caused by extreme food deprivation.

c. Caused by long-term lack of adequate food.

d. Often associated with famine.

e. Affects approximately 23% of children worldwide.

TOPIC: GLOBAL FOOD INSECURITY

Which pair below correctly matches the deficiency with the outcome that is seen in cases of hidden hunger?

a) Iodine: rickets.

c) Iron: thyroid issues.

b) Vitamin A: blindness.

d) Zinc: anemia.

Which of the following options are most closely associated with a severe protein deficiency?

a) Chronic malnutrition.

c) Kwashiorkor.

b) Wasting.

d) Marasmus.