Agenda

1. Administrative
2. Studying populations
3. Demographic theories

Studying populations

STUDYING POPULATIONS

Demography

- Study of populations at a macro-scale
- At its most basic: understanding the ways populations grow, shrink, and otherwise change
- Relationship between population and other sociological factors

Population characteristics

- Overall size
- Proportions of socially relevant categories
  Ethnicity, gender, religion, etc.
- Rates of change in these populations
- ***Theories*** and ***mechanisms*** of change in these populations

Three factors affect changes in population size:

Birth

Crude birth rate
Number of children born in a given time period, per 1,000 population

Fertility rate
Average number of children that a childbearing person would have over their lifetime, assuming current rates by age

Death

Crude death rate
Number of deaths in a given time period per 1,000 population

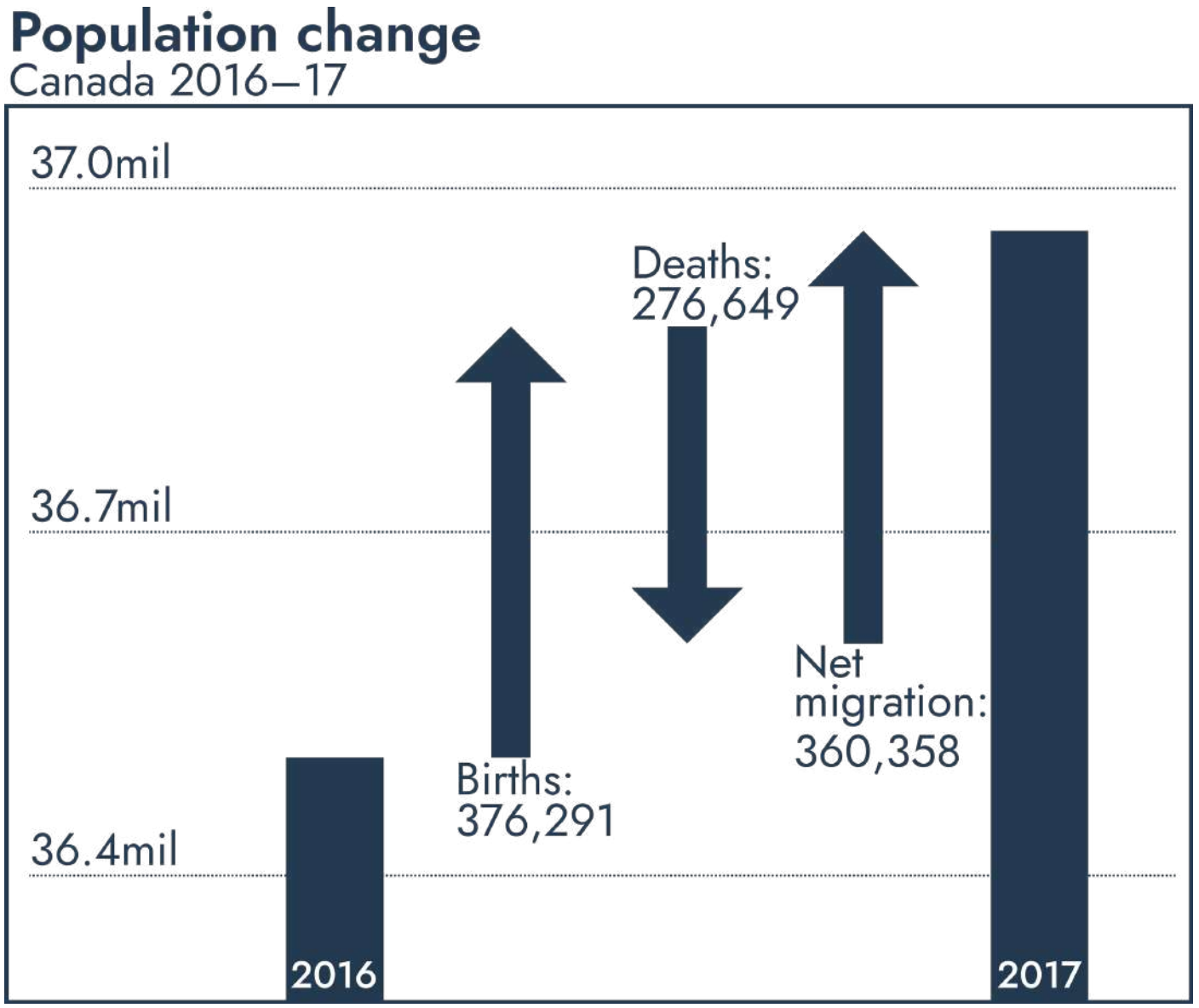
Age- and sex-specific mortality rates
E.g. infant mortality (number of children who die within a year of birth, per 1,000 live births)

Migration

Immigration versus emigration
Immigration is migration into a country, *emigration* is migration out of a country

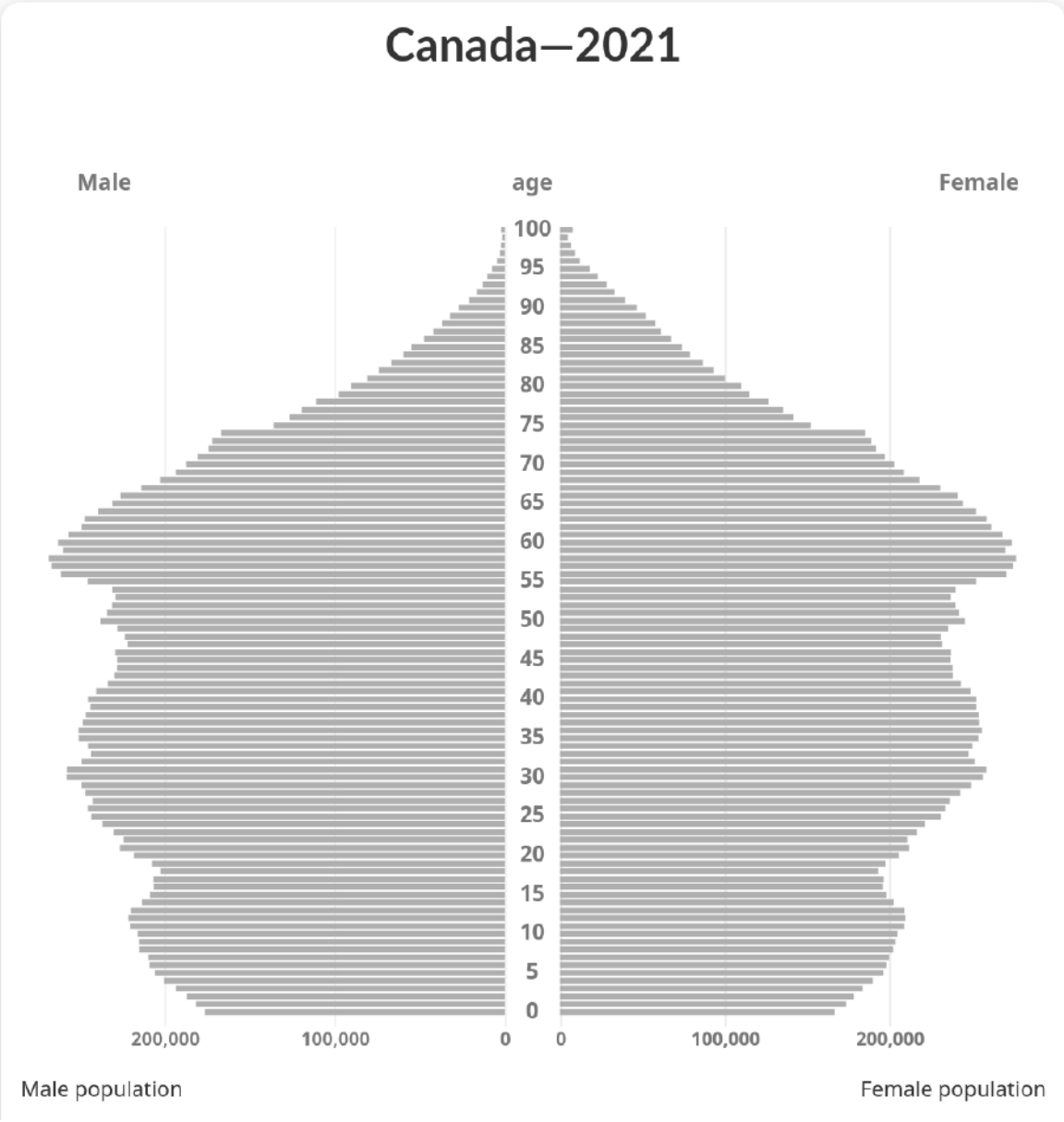
Net number of migrants
Immigrants minus emigrants

Total growth = (Birth) – (Death) + (Migration)



Population pyramids
(a.k.a. age pyramids)

- Ubiquitous visual tool in demography
- Picture of the 'shape' of an entire population
- Shows size of a population at different ages
- Can compare sub-populations on right and left
  (traditionally gender binary)



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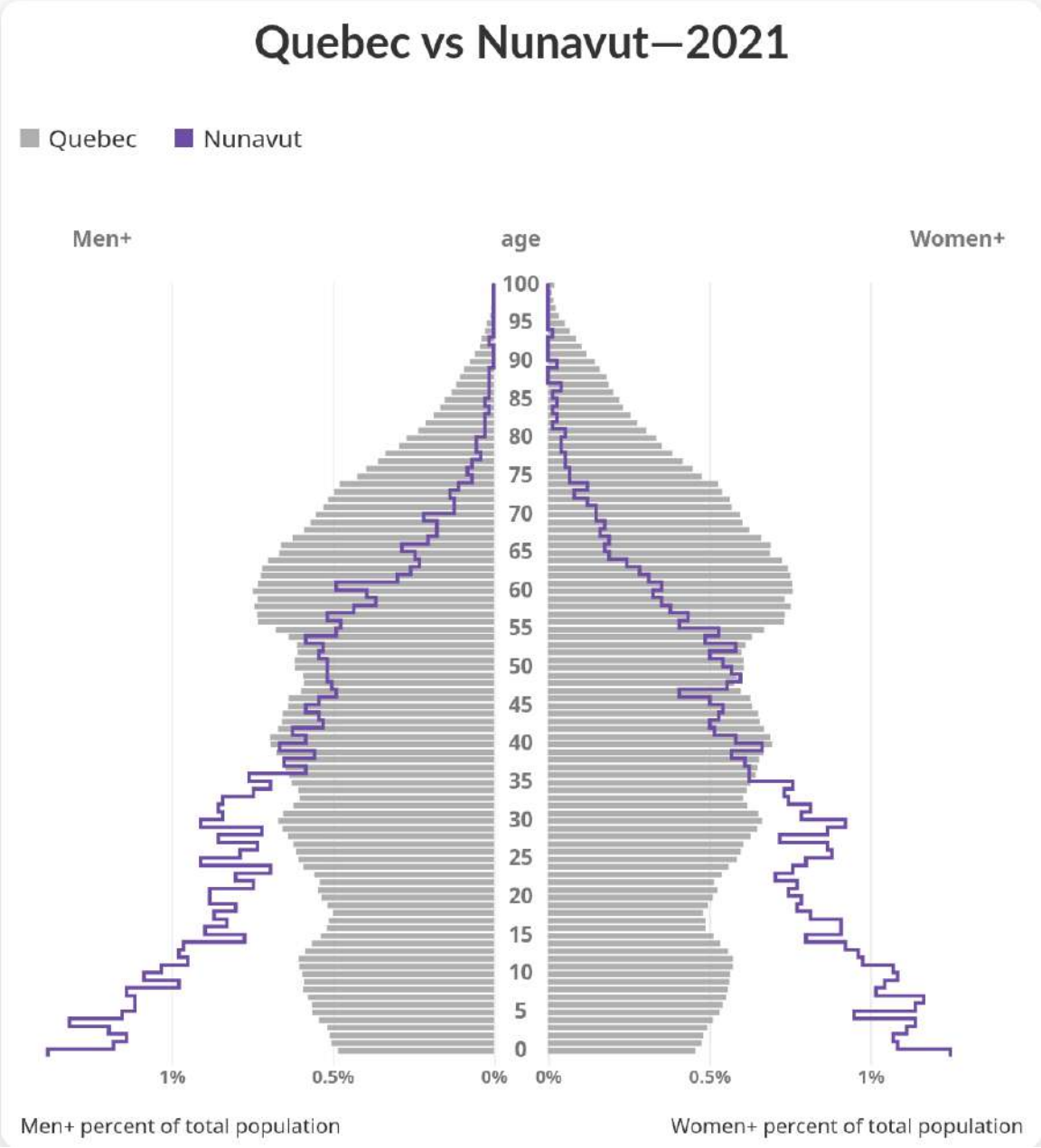
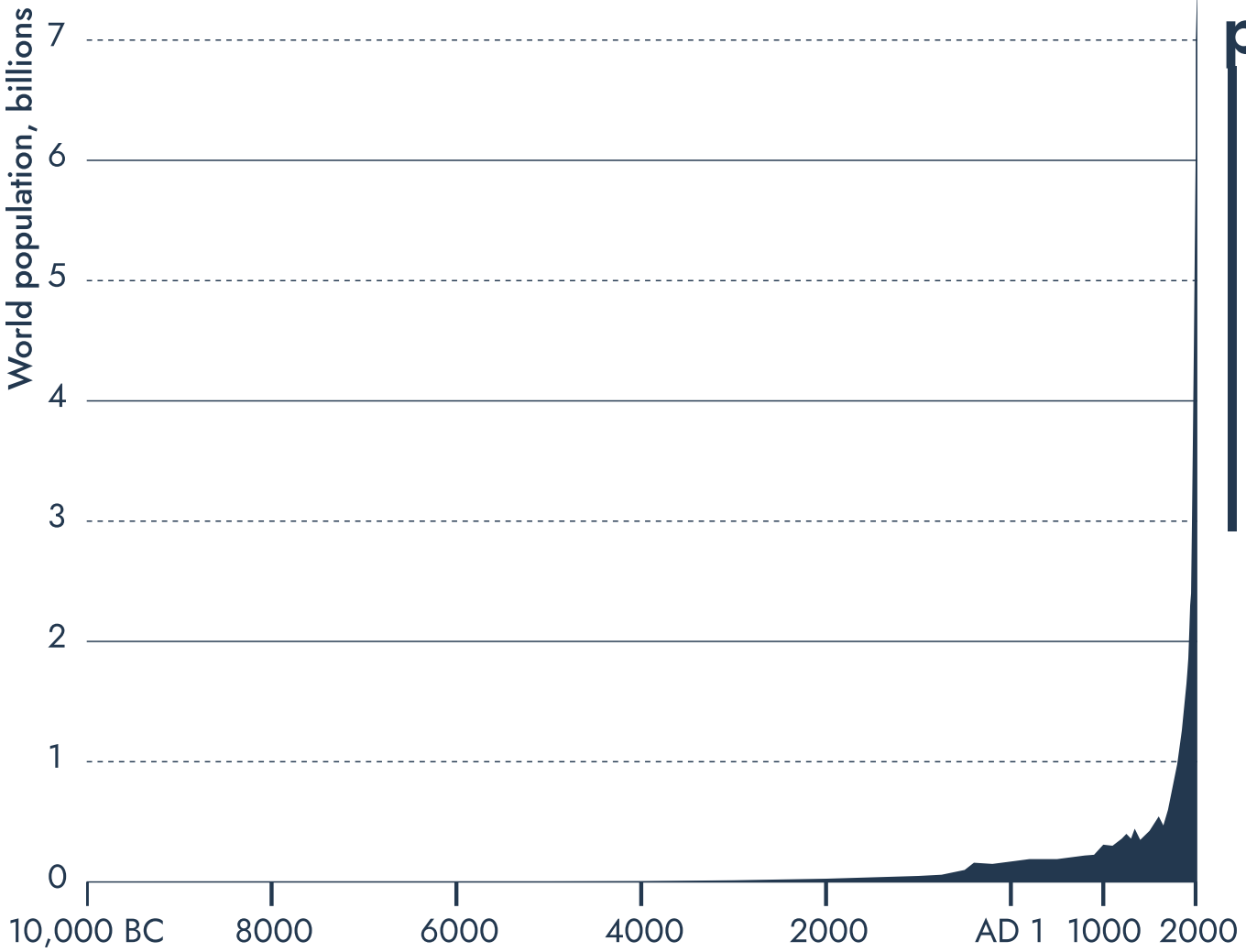


Demo-graphic theories

DEMOGRAPHIC THEORIES



Global population

- Increased from about 1.6 billion in1900 to about 6 billion in 2000
- 7 billion in 2012
- 8 billion in 2022
- Continuous growth since 14th century

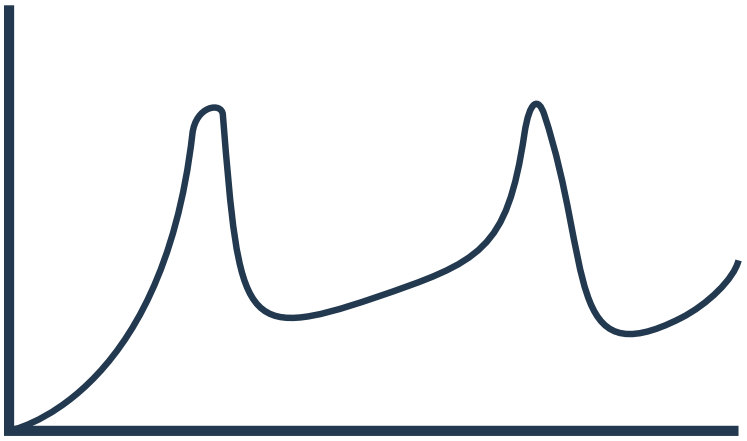
Source: Wikimedia Commons (multiple data sources)

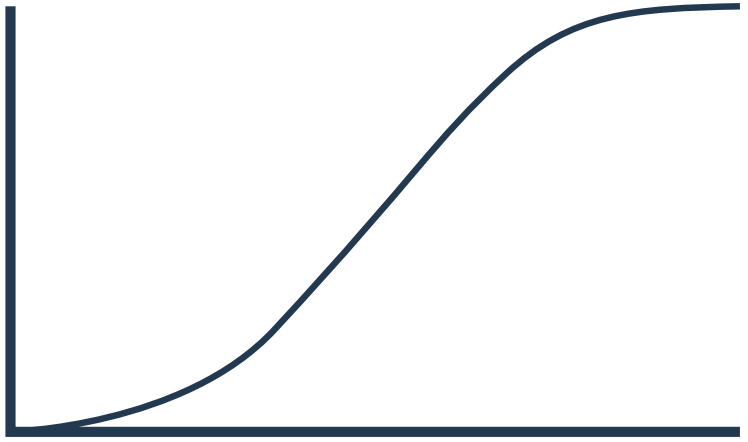
Malthusian theory (18th–19th century)

- Based on Thomas Robert Malthus' (1766–1834) ideas about the capacity of the earth for human populations
- Food, violence, and disease create "positive checks" on population
- Low fertility provides "preventive checks"
- Predicted a cycle of growth and decline of human population

Theories similar to Malthus' are common

- Ecological theories of resource limitations
  - Formal models of populations in resource-scarce environments
- Either cyclic (as in Malthus' theory) or predict slow decline in population growth
  - "Sigmoid" or "logistic" growth
- Still, global population continues to grow
  - Though growth rate peaked in the early 1960s





Demographic transition theory

- By far the most widespread theory of population change in social sciences
- Aims to explain the empirical observation that birth and death rates have both dropped significantly over the past few hundred years
- **Major claim**:
  Changes associated with industrialization and modernization cause subsequent changes in mortality and fertility

Demographic transition in four "stages"

DEMOGRAPHIC TRANSITION

The four stages of demographic transition theory:

Stage 1

- Birth and death rates are high, life expectancy is short
- Minimal population growth
- Ubiquitous throughout most of human history
  Transition out of stage 1 began in some places in the 18th century

Stage 2

- Death rates begin to drop, life expectency begins to increase
- Birth rates are still high
- Population growth accelerates
- Many current populations display this pattern
  E.g. some sub-saharan African nations

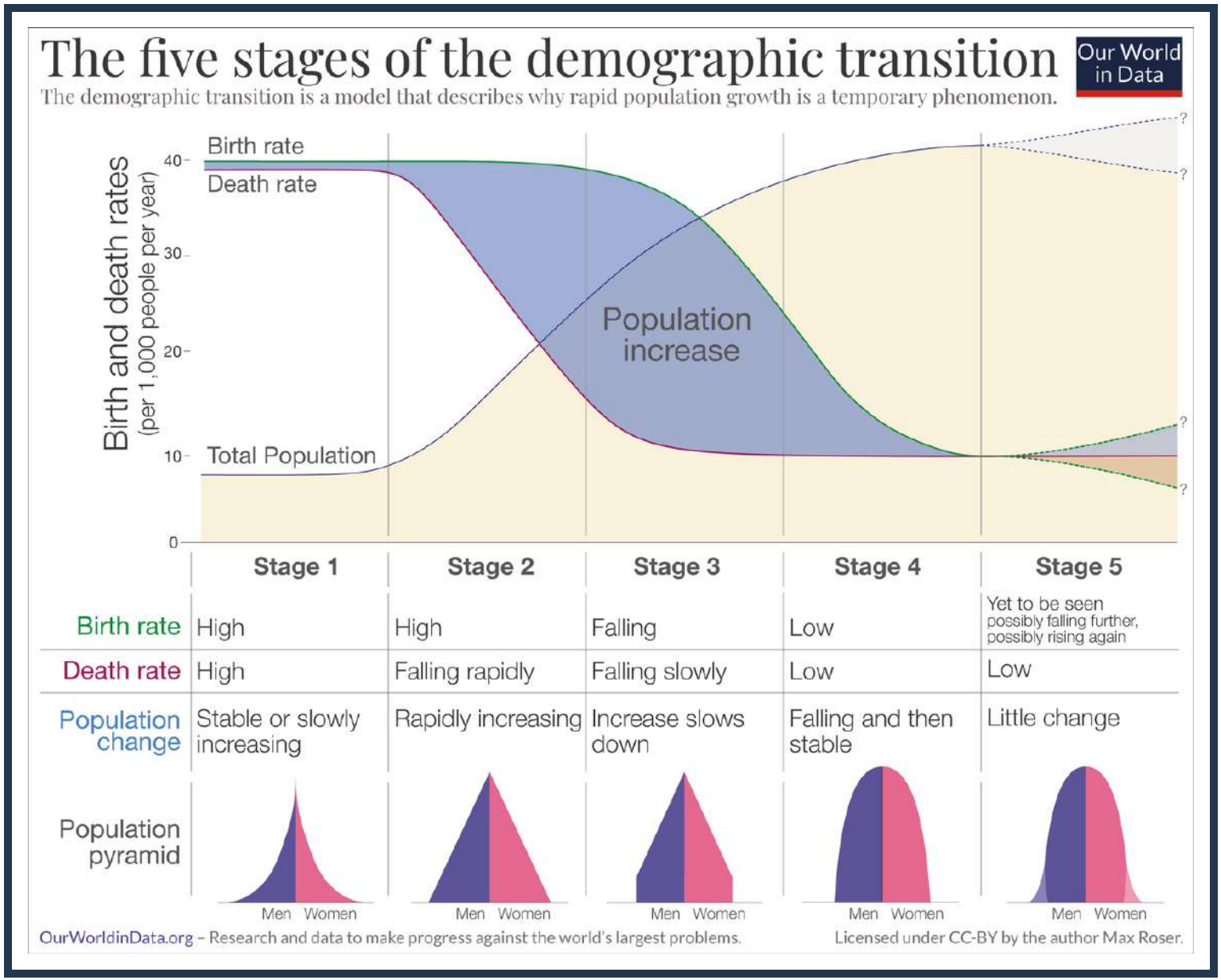
Stage 3

- Birth rate begins to drop
- Mortality rate remains low
- Rate of population growth slows
- Identified by significant drop in growth
  E.g. some Central American nations

Stage 4

- Birth and death rates are both low
- Balanced rates mean slow population increase, or even decreasing population size
- Identified by low birth rate (<2.5%)
  E.g. many European and North and South American nations

DEMOGRAPHIC TRANSITION



Theoretical mechanisms for …

… decrease in mortality

- Industrialization
  - Increased access to food and other resources
- Civic and scientific advances
  - Sanitation, medicine, infrastructure
- Economic modernization

… decrease in fertility

- Decrease in childhood mortality leads do decreased "demand" for children
  - SLag in fertility and mortality transitions
- Urbanization
  - SChanging role of children in family life
- Increases in employment and education
  - Employment for women normalized, contraception widespread

Demography and society

- Although demographic theories are primarily concerned with changes in population size, they are inextricably linked with theories of culture, norms, politics, and institutions.
- Differences in social environment can explain demographic differences between places.

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Population pyramids from Statistics Canada

Image from Wellcome Collection

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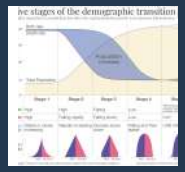

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