

# BIRTH CONTROL and its ENVIRONMENTAL IMPACT

[Group 24]



**FIND A TYPE OF  
BIRTH CONTROL  
IN THE ROOM  
THAT WOULD  
BE BEST**



# Intro

- \*Waste from top birth control methods can harm the environment due to their primary components; but some forms are much less environmentally harmful
- \*Consider the effects of birth control on population, and the potential positive effects of birth control on the environment because of this link
- \*Does birth control pose a net positive on the environment when we consider its effect on population?

# Some Birth Control Background in the U.S.

## 1860s

The first rubber condoms introduced to the market

## 1907

Indiana passes the world's first forced sterilization law

## 1921

Margaret Sanger founds the American Birth Control League, which will become Planned Parenthood

## 1960

The first oral contraceptive marketed in the U.S.

## 1972

Bans on contraceptive use for unmarried people lifted

## 1873

Congress passes the Comstock Act, which made contraception illegal

## 1920

Latex Condoms

## 1941

The National Council of Negro Women becomes the first national women's organization to officially endorse contraception

## Mid 1960s

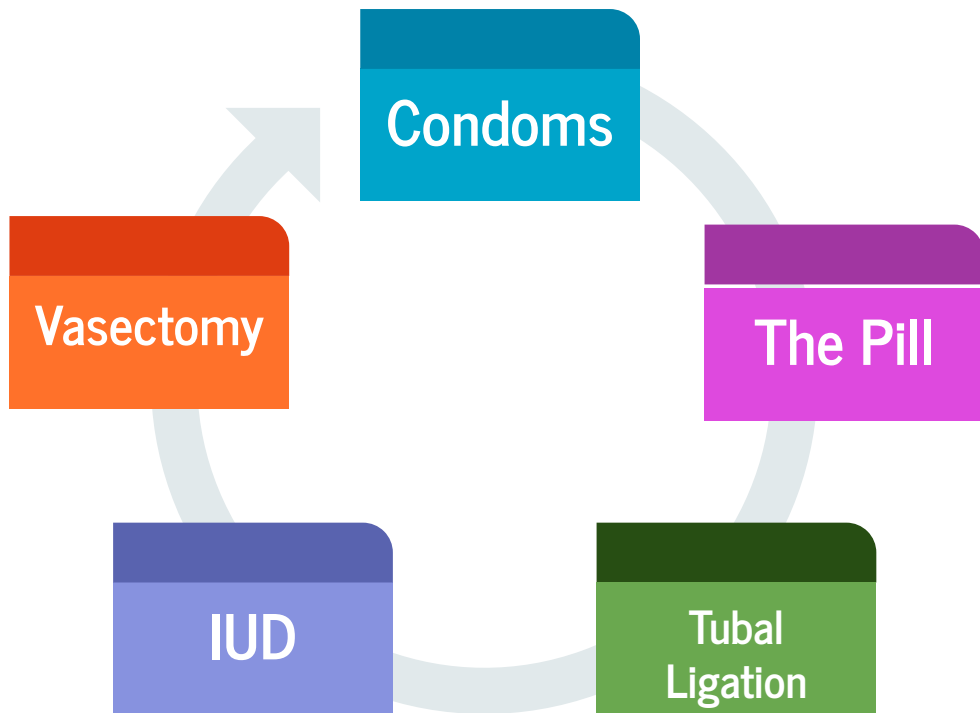
Supreme Court rules against ban on contraceptive use by married people

## 80s and 90s

Contraception tech advances rapidly



# Common forms of birth control



# Defining features of different forms of birth control

## Condoms:

Cost: ~\$30/month

Use: 189 million people -21%

- Accessible

Environmental impact:

- Produces most amount of direct waste
- Latex



## The Pill:

Cost: \$50/month

Use: 151 million people -16%

Environmental impact:

- Water Pollution
  - EE2 (ethinyl estradiol)



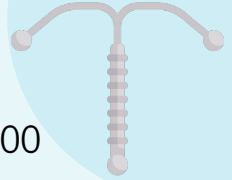
## IUD:

Cost: \$500-\$1,300

Use: 159 million -13%

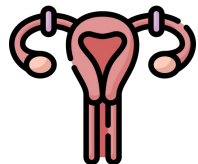
Environmental impact:

- Little to no environmental impact



# Defining features of different forms of birth control

## Tubal Ligation:



Cost: \$6,000

Use: 219 million-24%

Environmental impact:

- Medical waste

## Vasectomy:



Cost: \$700-\$1,000

Use: 16 million-2%

Environmental impact:

- Medical Waste

## 70% of hospital waste

Created from the operating rooms and labor/delivery suites

## > 41,844 \$

Average money saved per year when using recyclable surgery materials in hospitals

## 355,924 tonnes/year

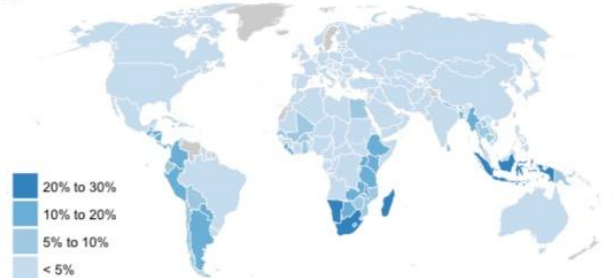
CO2 admission for minimally invasive surgeries.

**Figure 7a. Estimated prevalence of individual contraceptive methods among women of reproductive age (15-49 years), 2019**

**(a) Female sterilisation**



**(c) Injectable**



**(b) IUD**



**(d) Implant**



Data source: Calculations are based on the data compilation *World Contraceptive Use 2019*, additional tabulations derived from microdata sets and survey reports and estimates of contraceptive prevalence for 2019 from *Estimates and Projections of Family Planning Indicators 2019*. Population-weighted aggregates.

NOTE: The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). Countries or areas in grey colour have no data available.



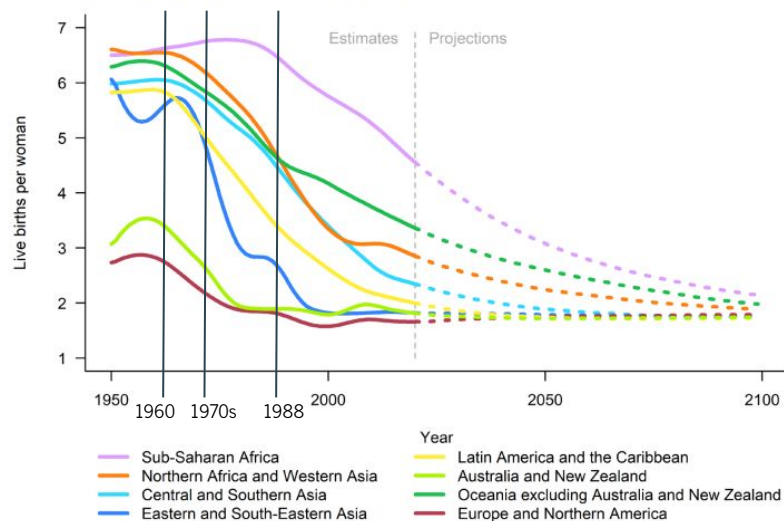
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# Effects of Birth Control on Population

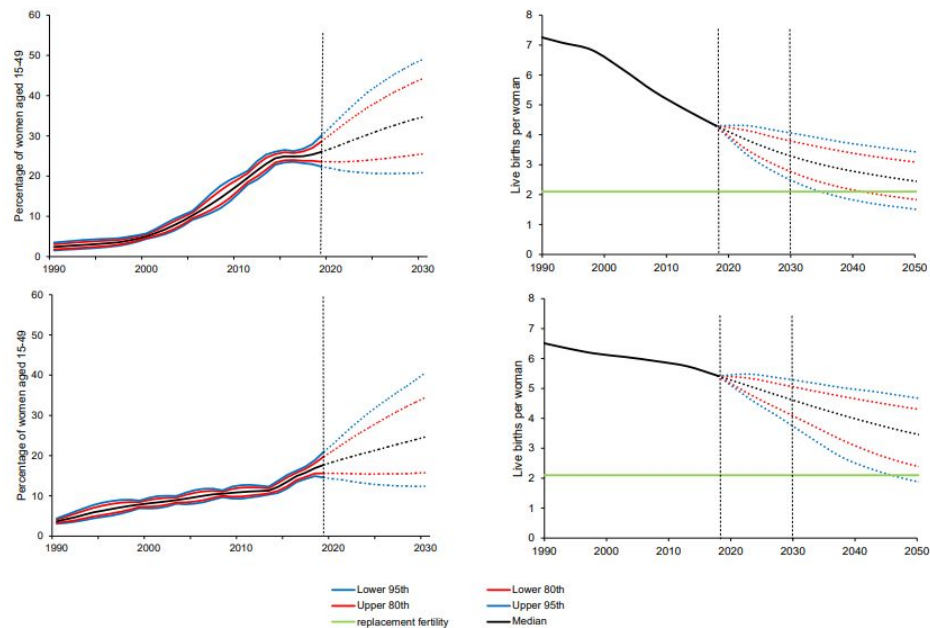
- ↑ Family Planning, ↓ Unwanted Pregnancies
- ↓ Fertility Rate → Slower Population Growth

Total fertility rate by region, estimates and projections, 1950-2100



Source: United Nations Department of Economic and Social Affairs, Population Division (2019a). *World Population Prospects 2019*.

Prevalence of modern contraceptive use among women aged 15-49, Ethiopia (upper left) and Nigeria (lower left), 1990-2030. Total fertility rate, Ethiopia (upper right) and Nigeria (lower right), 1990-2050

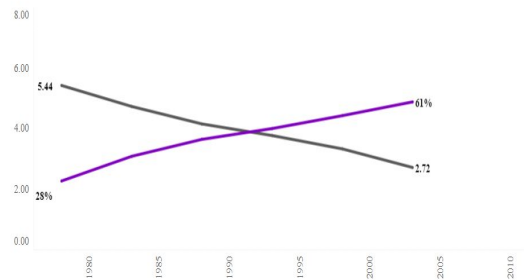


Sources: United Nations Department of Economic and Social Affairs, Population Division (2019b). *Estimates and Projections of Family Planning Indicators 2019*, and United Nations, Department of Economic and Social Affairs, Population Division (2019a). *World Population Prospects 2019*. Note: For all four graphs, the estimated or projected trend is depicted by a black line, and the 80 per cent and 95 per cent uncertainty or prediction intervals are displayed as red and blue lines, respectively.

## El Salvador

Change country  
El Salvador

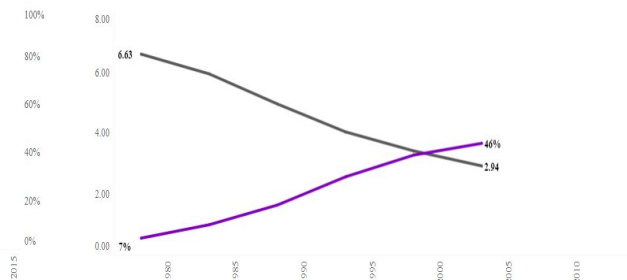
■ Total fertility rate (TFR)  
■ Contraceptive prevalence



## Bangladesh

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Bangladesh

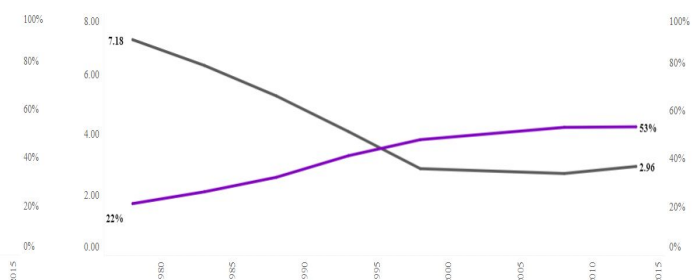
■ Total fertility rate (TFR)  
■ Contraceptive prevalence



## Algeria

Change country  
Algeria

■ Total fertility rate (TFR)  
■ Contraceptive prevalence



Liu, D.H. and Rathay, A.E. (2020), How Do Education and Family Planning Accelerate Fertility Decline?, Population and Development Review. doi:10.1111/padr.12347

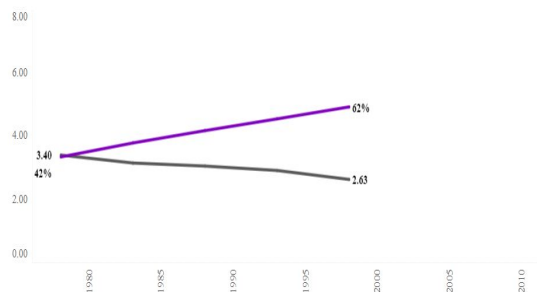
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## Argentina

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Argentina

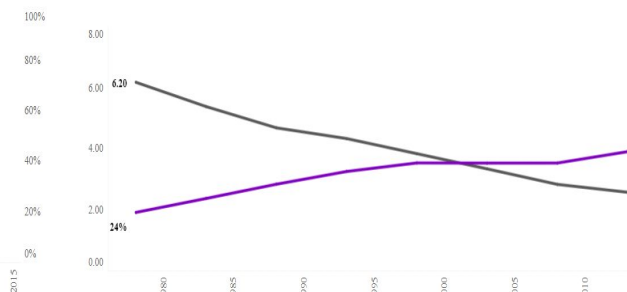
■ Total fertility rate (TFR)  
■ Contraceptive prevalence



## Belize

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Belize

■ Total fertility rate (TFR)  
■ Contraceptive prevalence

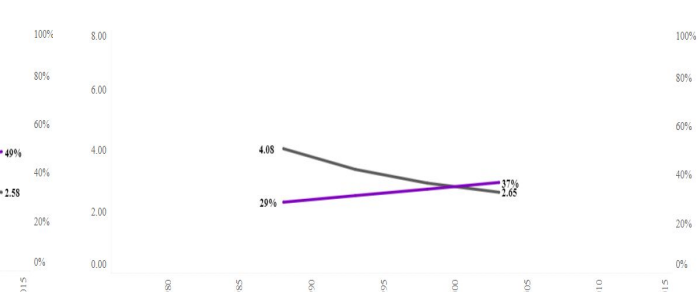


Liu, D.H. and Rathay, A.E. (2020), How Do Education and Family Planning Accelerate Fertility Decline?, Population and Development Review. doi:10.1111/padr.12347

## Bahrain

Change country  
Bahrain

■ Total fertility rate (TFR)  
■ Contraceptive prevalence

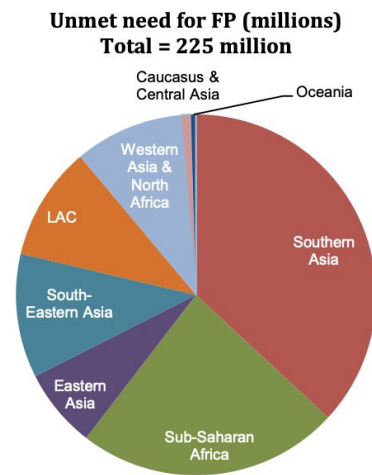
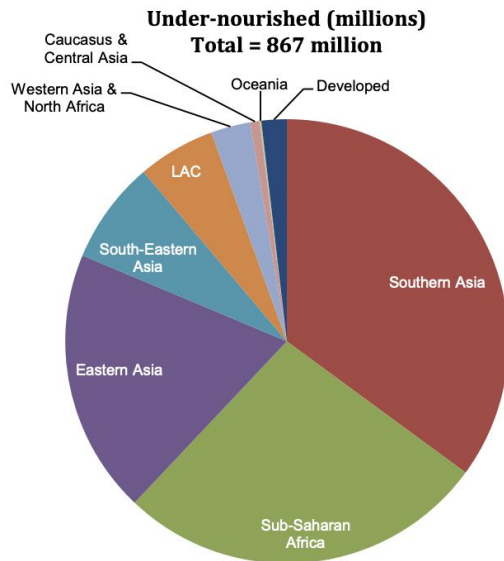


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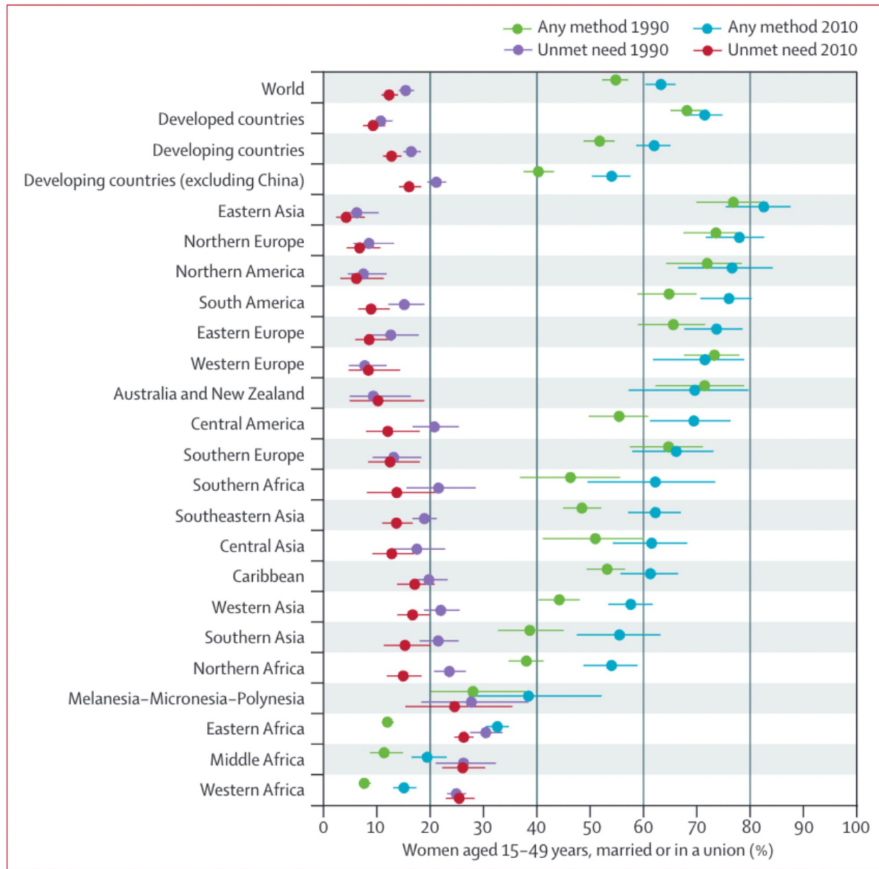
# Unintended pregnancy/unmet need for family planning

- ~ 40% of pregnancies in developing countries are unintended
- 25% of women not using family planning want to stop/delay childbearing
- Most undernutrition → highest rates of unmet need for family planning



(Food and Agriculture Organization (FAO) of the UN)

# Growth in Contraceptive Use Among MWRA (1990-2010)



- From 1990-2010, contraceptive use in Married Women of Reproductive Age (MWRA) increased globally and in developing countries.
- Global contraceptive prevalence rose from 54.8% in 1990 to 63.3% in 2010.
- This rise was mainly driven by increased use in developing countries, from 51.8% in 1990 to 62.0% in 2010.
- A larger increase was noted when excluding China.
- Most growth occurred in the 1990s; the growth rate slowed significantly in the 2000s.



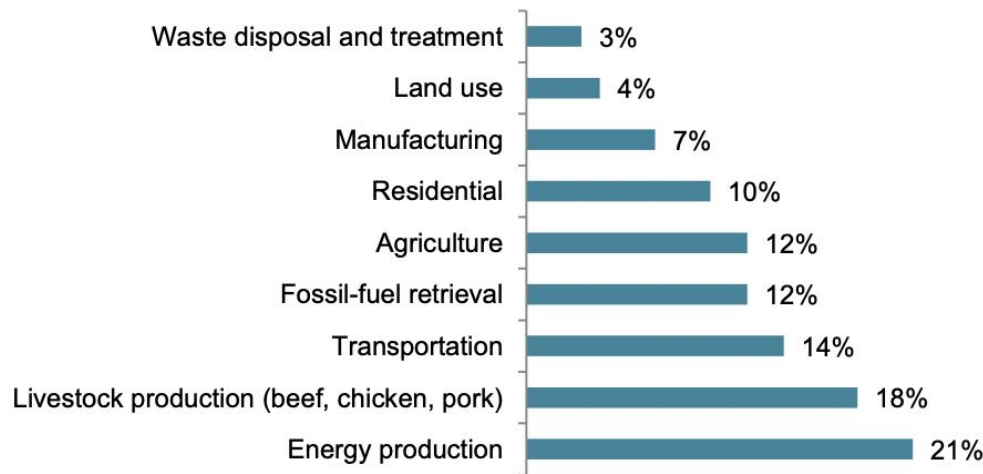
# 9,441

metric tons of CO<sub>2</sub> per child are added to an average parent's carbon legacy in the U.S.



# Population and the Environment

- Climate change, food security, and poor health and wellbeing usually co-occur
- Family planning → inexpensive method of slowing population growth, improving these issues



Greenhouse gases emissions, as a percent of the total from each source (Scientific American; 300(2):72-75)

# Future of Birth Control

## Increased Accessibility

Campaigns and initiatives aimed at increasing awareness and education about birth control, with an emphasis on affordability and accessibility, leading to increased adoption of birth control methods.

1

## New Developments

Research has been ongoing, with new methods of contraception such as male and long-acting methods like injectables, implants, and patches currently under development.

2

3

## Policy Changes

Policy changes aimed at reducing legal restrictions on birth control and increasing its availability and affordability.



“In part because of the demand for and availability of modern contraception, the worldwide rate of annual population growth has declined from just over 2 percent in the late 1960s to 1.5 percent during 1980–2001. It is projected to decrease to 1 percent during 2001–15. **Although the growth rate has slowed, population growth in absolute terms is unprecedented.** World population increased from 2.5 billion people in 1950 to 6.3 billion in 2003 and is expected to rise to 7.1 billion by 2015 (Levine et al., chap.57).”



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