



Ankara University  
**SCHOOL OF MEDICINE**

*The First Medical School In The Republic of Turkey (1945)*



# ***Demography and Public Health***

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**Professor of Public Health**

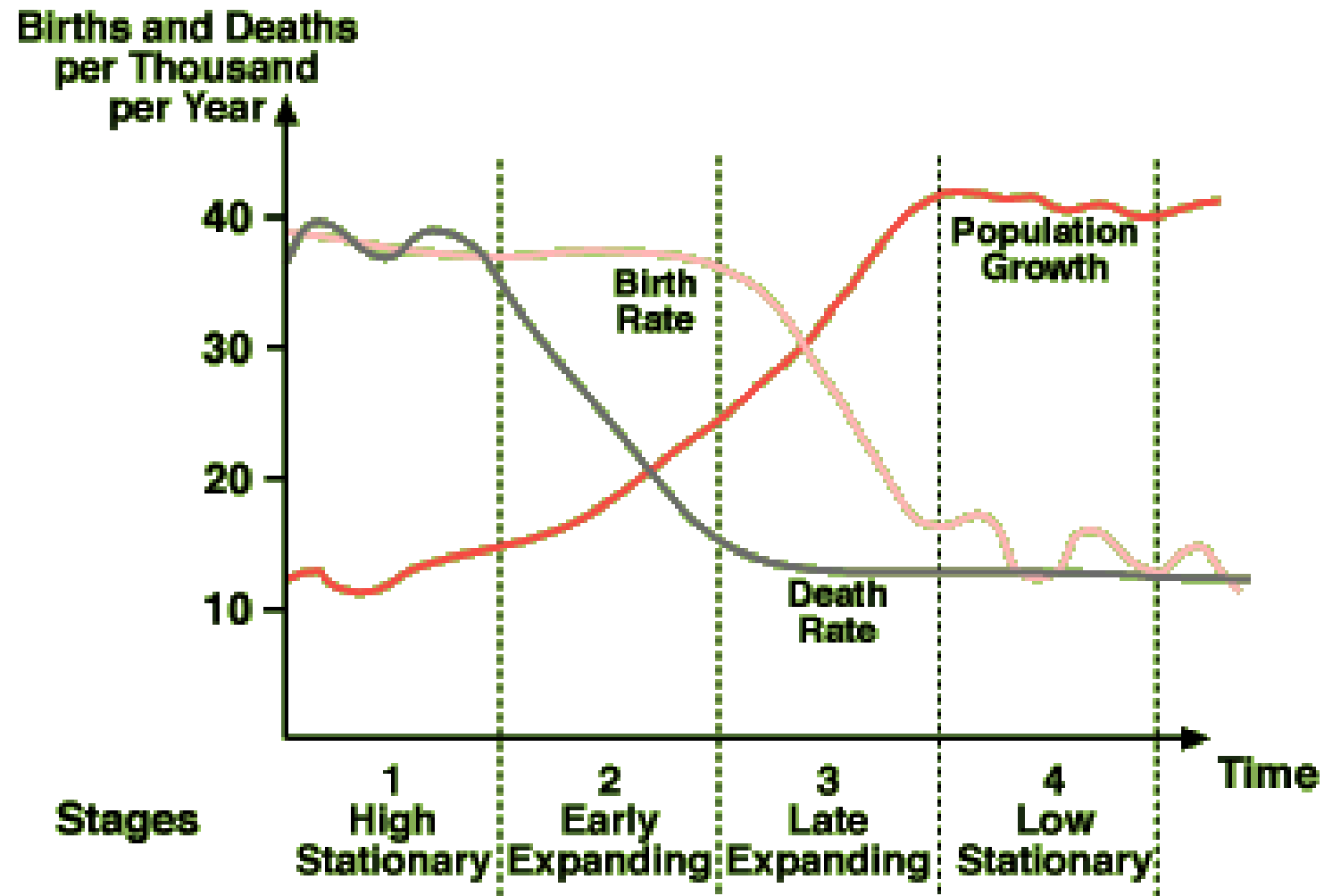
***{ MSc in Health Law, BSc in Public Administration & Political Sciences }***

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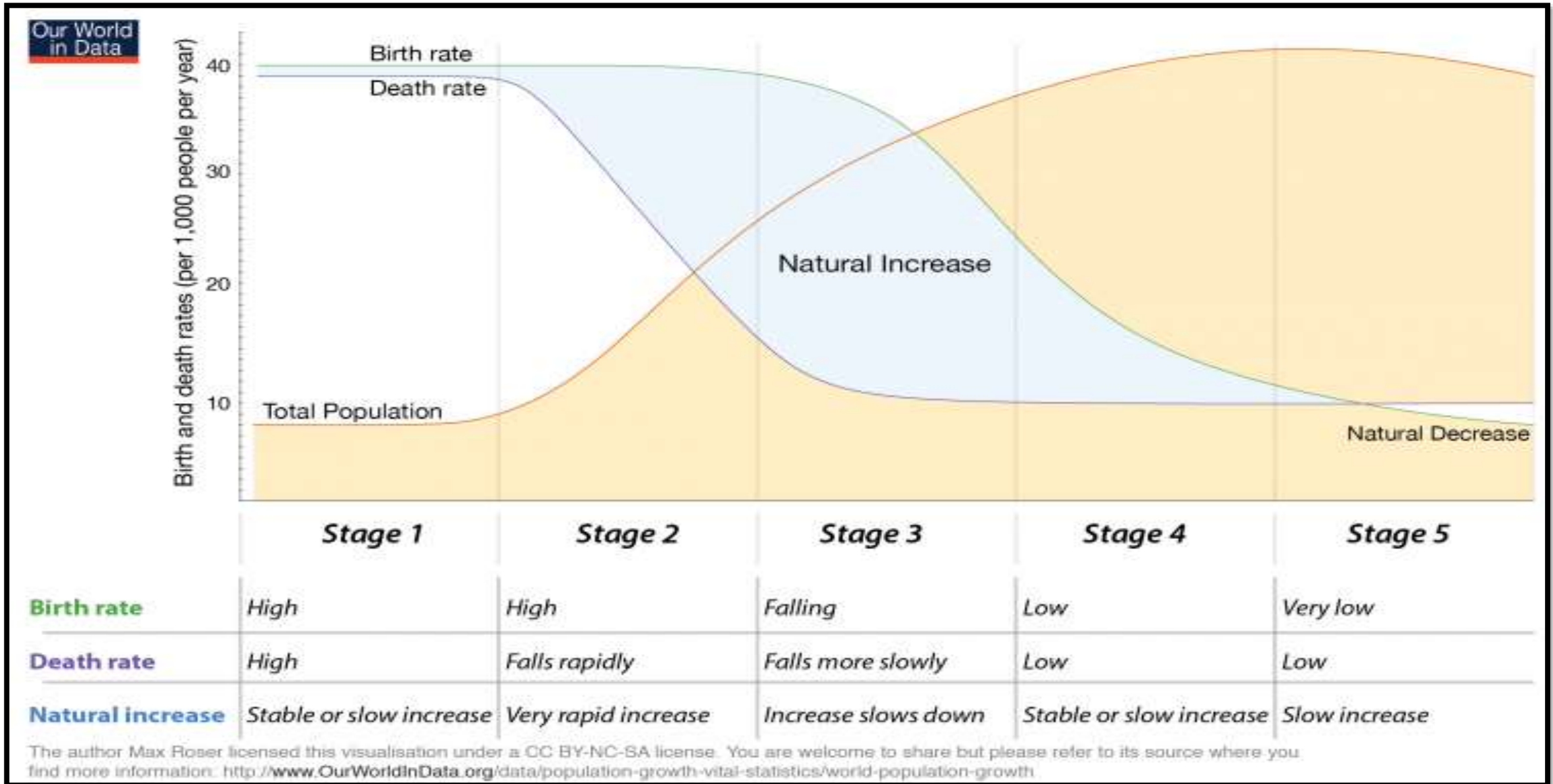
**Ankara University Medical School, Dept. of Public Health**

**23rd October 2019, Ankara - TURKEY**

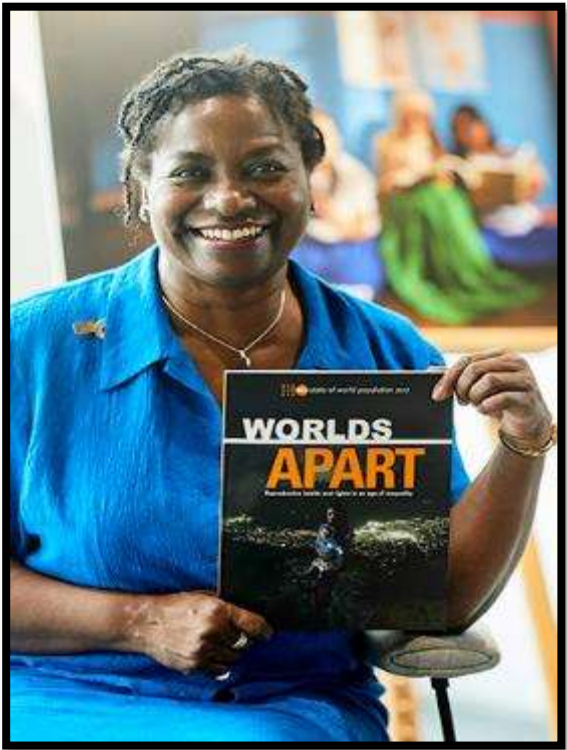
## Demographic Transition Model



# The five stages of the demographic transition – Max Roser



<http://ourworldindata.org/data/population-growth-vital-statistics/world-population-growth/>



***“Worlds Apart:  
Reproductive Health  
and Rights in an  
Age of Inequality.”***

**2017 Annual Report of the UNFPA-**  
<https://www.unfpa.org/press/state-world-population-20187>

**UNFPA : *World Population exceeded 7,7 billion at the end of 2018!***  
[www.unfpa.org/](http://www.unfpa.org/) 17.02.2019

# 2019 Annual Report of the UNFPA

<https://www.unfpa.org/swop-2019>, 24.10.19

Can we do better for women and girls today?

If history is a guide, the answer is yes.

What are some of the obstacles still standing in the way of women reaching their full potential in life?



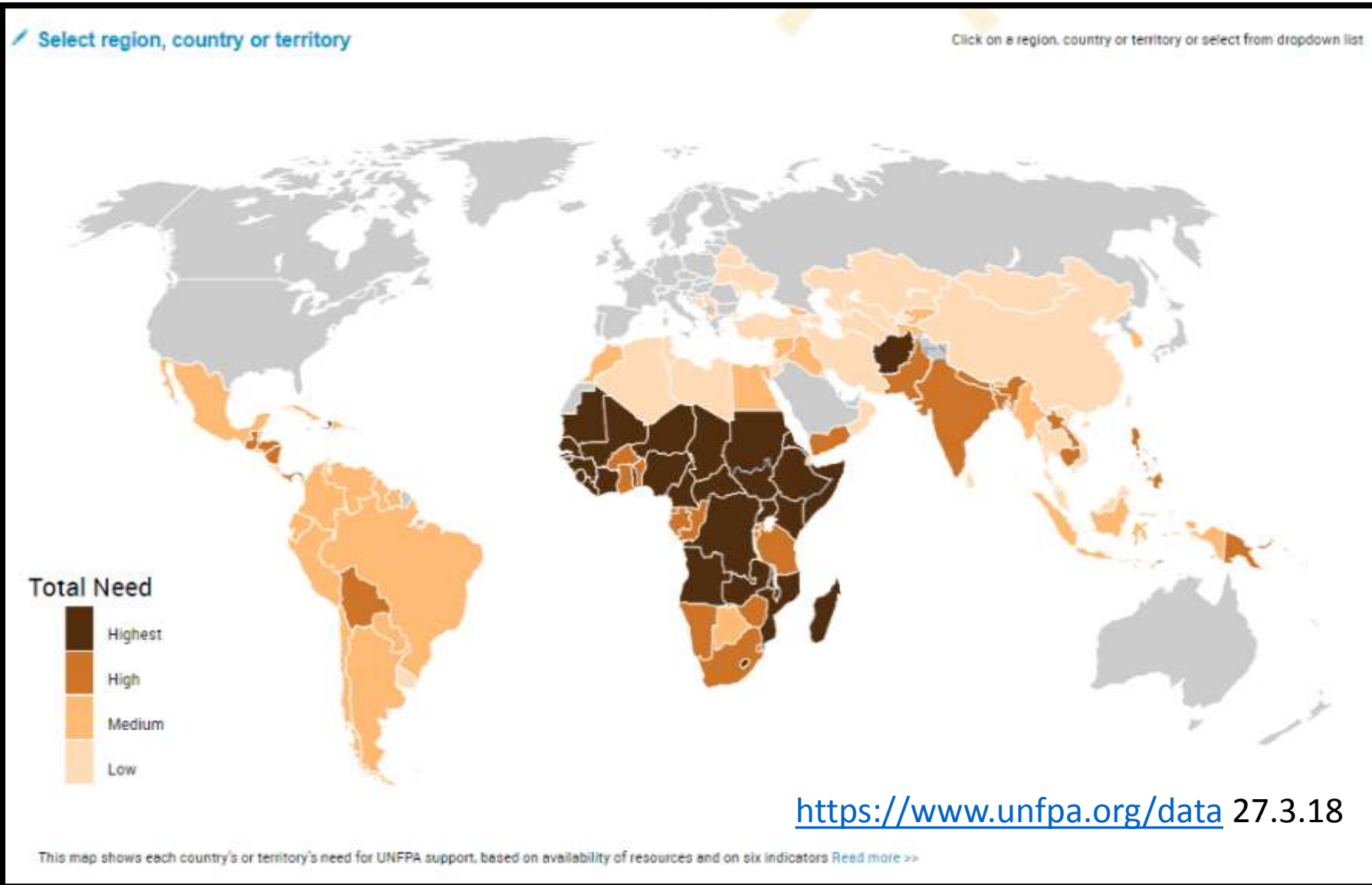
Fifty years ago, it was hard for women to obtain contraception and relatively easy to die giving birth. Many women were unable to decide whom and when to marry, and when or whether to have children.

Since 1969, when UNFPA was established, much has been accomplished. But there is still more to be done before all women and girls are able to exercise their rights.

**UNFPA : *World Population exceeded 7,7 billion at the end of 2018!***



# World Population Density and...



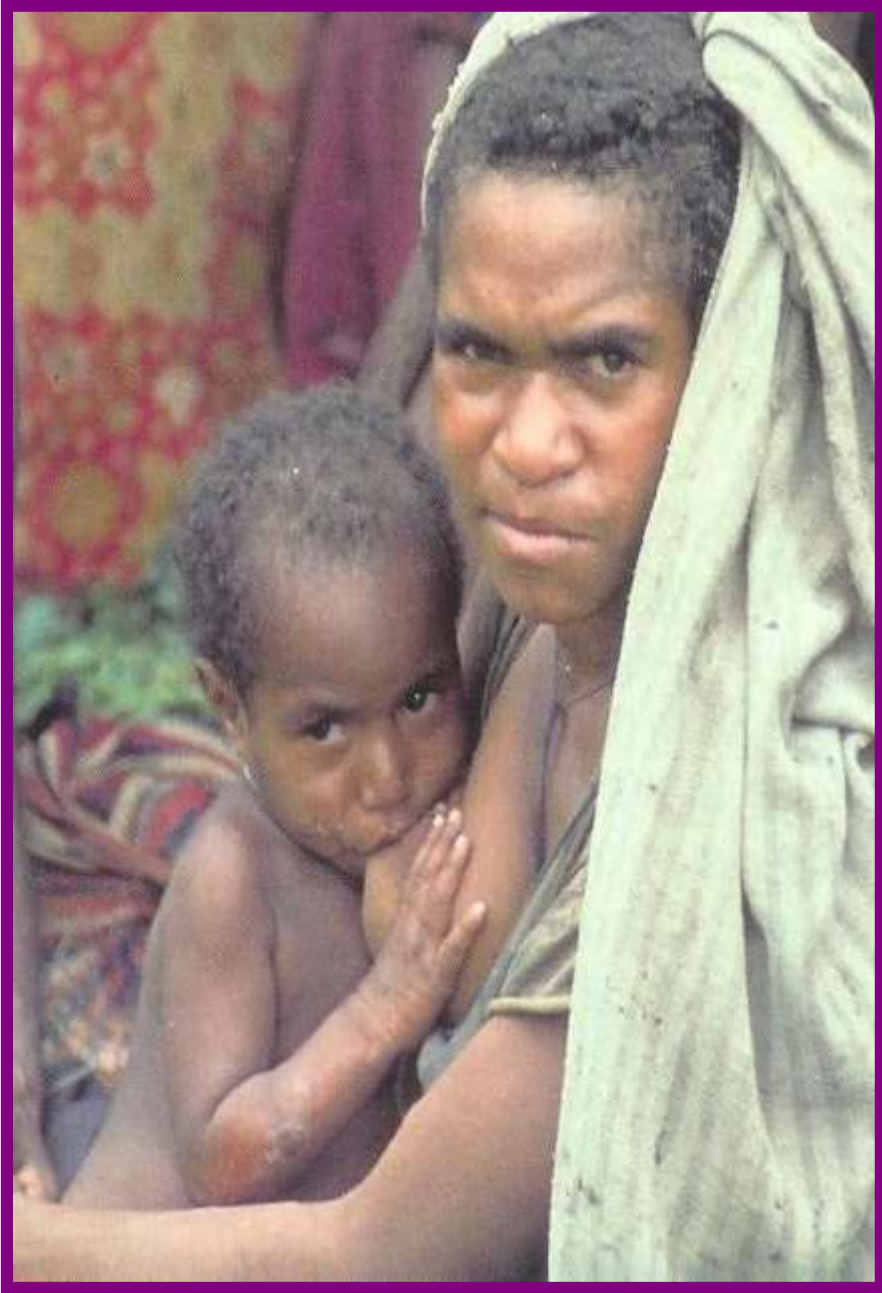
**World population density :**  
**7,7 billion population /**  
**144 million km2 land surface**  
**= 53,5 person per km2**

**Turkey's population density :**  
**82 billion population /**  
**780 000 km2 land surface**  
**= 107 person per km2**

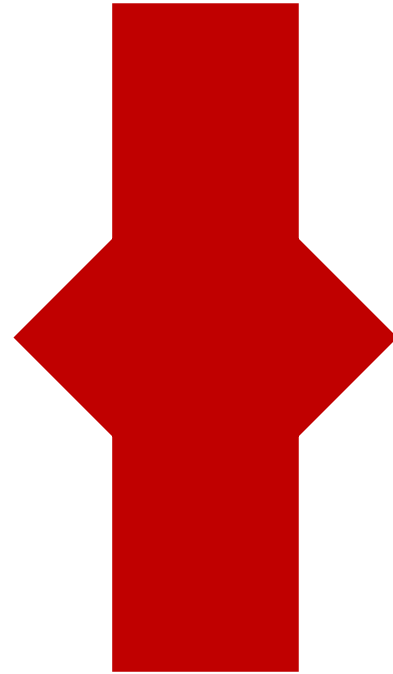
**Turkey's population /**  
**World population = 1,1 %**  
**But Turkey has only 0,2% of**  
**World energy resources and**  
**only 0,6% of water resources!**

**Turkey's population growth**  
**rate is 1,47% (2018);**  
**World population growth rate**  
**is 1,15 %.**

**Having average number of**  
**unintended child for families =1**  
**due to unmet family planning**  
**requirement (TDHS 2013)**



***Dichotomous,  
miserable  
status quo  
of the  
Humanity  
in the 21st  
century..***



# Demography and public health-1

*Chapter: Demography and public health Author(s): Emily Grundy*

*DOI:10.1093/med/9780199218707.003.0044*

- The health and healthcare needs of a population cannot be measured or met without knowledge of its size and characteristics.
- Demography is concerned with this essential 'numbering of the people' and with understanding **population dynamics** how populations change in response to the interplay between **fertility, mortality, and migration**.

<http://oxfordmedicine.com/view/10.1093/med/9780199218707.001.0001/med-9780199218707-chapter-0702> 19.02.2019



# Demography and public health-2

*Chapter: Demography and public health Author(s): Emily Grundy*

*DOI:10.1093/med/9780199218707.003.0044*

- This understanding is a pre-requisite for making the forecasts about future population size and structure which should underpin **healthcare planning**.
- Analysis of both the present and the future necessitates a review of the past.
- The number of very old people in a population, for example, depends on the number of **births** eight or nine decades earlier and risks of **death** at successive ages throughout the intervening period.

<http://oxfordmedicine.com/view/10.1093/med/9780199218707.001.0001/med-9780199218707-chapter-0702> 19.02.2019

# Demography and public health-3

Chapter: Demography and public health Author(s): Emily Grundy

DOI:10.1093/med/9780199218707.003.0044

- The *proportion* of very old people depends partly on this numerator but more importantly on the denominator (the size of the population as a whole) -itself a function of reproductive behaviour, mortality, and net migration from yesterday back through time.
- *The number of births in a population depends not just on current patterns of family building, but also on the number of women 'at risk' of reproduction -itself a function of past trends in fertility and mortality.*
- Similarly, the number of deaths (*and their distribution by cause*) is strongly influenced by age structure.

<http://oxfordmedicine.com/view/10.1093/med/9780199218707.001.0001/med-9780199218707-chapter-0702>19.02.2019

# Demography and public health-4

Chapter: Demography and public health Author(s): Emily Grundy

DOI:10.1093/med/9780199218707.003.0044

- ❑ Formal or pure demography is largely concerned with answering questions about how populations change and how these changes can be measured. The broader field of population studies embraces the questions of *why these changes occur*, and with what consequences.
- ❑ This chapter presents information on demographic methods and data sources, in the context of their application to health and population issues, together with information on demographic trends and their implications and the major theories about demographic change in order to elucidate the *complex inter-relationship between population change and human health*.

<http://oxfordmedicine.com/view/10.1093/med/9780199218707.001.0001/med-9780199218707-chapter-0702> 19.02.2019

# Top 10 Most Common Health Issues

1. [Physical Activity and Nutrition](#)
2. [Overweight and Obesity](#)
3. [Tobacco](#)
4. [Substance Abuse](#)
5. [HIV/AIDS](#)
6. [Mental Health](#)
7. [Injury and Violence](#)
8. [Environmental Quality](#)
9. [Immunization](#)
10. [Access to Health Care](#)

<http://www.urmc.rochester.edu/senior-health/common-issues/top-ten.cfm>, 29.11.13

*Our Planet is extremely crowded, limited but packed with people. She is full of people which not capable of take care, feed.. so on!*

www.ahmetsaltik.net



23.10.2019

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**1 child for 1 family; no delay!**

# Family Planning :

## Contraceptive prevalence rate and unmet need

**CPR any method 63%; Unmet need 12%**

- Contraceptive prevalence rate, women aged 15-49, any method, per cent, 2017: 63
- Contraceptive prevalence rate, women aged 15-49, modern method, per cent, 2017: 58
- Unmet need for family planning rate, women aged 15-49, per cent, 2017: 12
- Proportion of demand satisfied, women aged 15-49, per cent, 2017: 85
- Proportion of demand satisfied with modern methods, women aged 15-49, per cent, 2017:

<https://www.unfpa.org/data/world-population-dashboard> 27.3.18



## **The State of World Population 2017**

<https://www.unfpa.org/press/state-world-population-2017>

- **UNITED NATIONS :**
- Unless **inequality** is urgently tackled and the poorest women empowered to make their own decisions about their lives, countries could face unrest and **threats to peace** and development, according the The State of World Population 2017, published by **UNFPA**, the **United Nations Population Fund**.
- The costs of inequalities, including in sexual and reproductive health and rights, could extend to the entire global community's goals, adds the new UNFPA report, entitled,
- ***"Worlds Apart: Reproductive Health and Rights in an Age of Inequality."***

## The State of World Population 2017

<https://www.unfpa.org/press/state-world-population-2017>

- Unchecked **inequality** and failure to protect the *rights of poorest women* could **undermine peace** and world's development goals, new UNFPA report warns
- Only about half of the world's women hold paid jobs
- Globally, women earn 77 % of what men get
- 3/5 women worldwide lack maternity leave, many pay "**motherhood penalty** «!

# UNFPA PRESS RELEASE - 17 October 2017

## The State of World Population 2017

<https://www.unfpa.org/press/state-world-population-2017>

The costs of **inequalities**, including in sexual and reproductive health and rights, could extend to the entire global community's goals, adds the new UNFPA report, entitled,

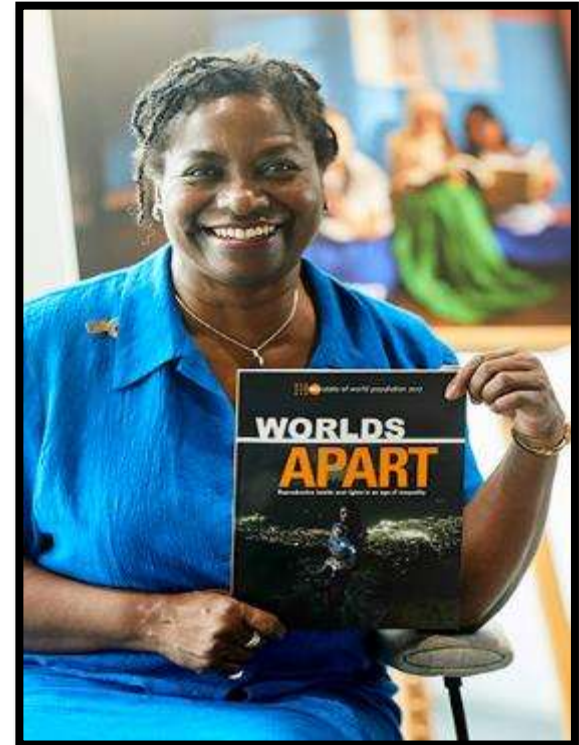
***“Worlds Apart: Reproductive Health and Rights in an Age of Inequality.”***

Failure to provide reproductive health services, including family planning, to the poorest women can weaken economies and sabotage progress towards the ***number one sustainable development goal***, to **eliminate poverty**.

## The State of World Population 2017

<https://www.unfpa.org/press/state-world-population-2017>

Economic **inequality** reinforces and is reinforced by other inequalities, including those in women's health, where only a privileged few are able to control their fertility, and, as a result, can develop skills, enter the paid labour force and gain **economic power**.



**1 child for 1 family; no delay!**

***"Worlds Apart:  
Reproductive Health  
and Rights in an  
Age of Inequality."***

**UNFPA** PRESS RELEASE - 17 October 2017  
**The State of World Population 2017**

<https://www.unfpa.org/press/state-world-population-2017>

“**Inequality** in countries today is not only about the haves and have nots,” UNFPA Executive Director Dr. Natalia Kanem says. “**Inequality** is increasingly about the cans and cannots. Poor women who lack the means to make their own decisions about family size or who are in poor health because of inadequate reproductive health care dominate the ranks of the cannots.”

In most developing countries, ***the poorest women*** have the fewest options for family planning, the least access to antenatal care and are most likely to give ***birth without the assistance of a doctor or midwife.***



# UNFPA PRESS RELEASE - 17 October 2017

## The State of World Population 2017

<https://www.unfpa.org/press/state-world-population-2017>

Limited access to family planning translates into **89 million unintended pregnancies and 48 million abortions** in developing countries annually. This not only harms women's health, but also restricts women's ability to join or stay in the **paid labour** force and move towards **financial independence**, the report argues.

Lack of access to related services, such as affordable child care, also stops women from seeking jobs outside the home. For women who are in the labour force, the absence of paid maternity leave and employers' discrimination against those who become pregnant amount to a **motherhood penalty**, forcing many women to choose between a career and parenthood.

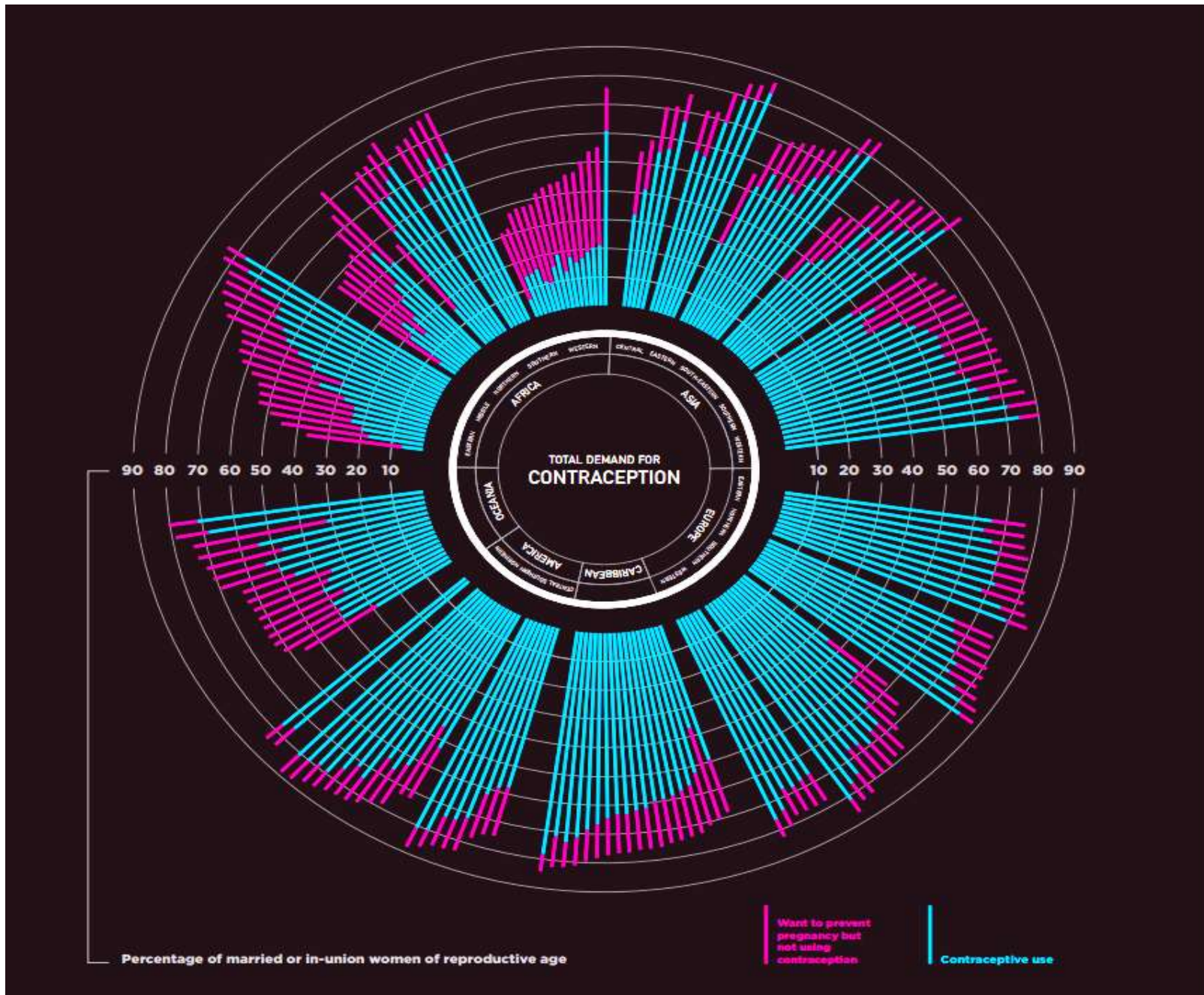
# UNFPA PRESS RELEASE - 17 October 2017

## The State of World Population 2017

<https://www.unfpa.org/press/state-world-population-2017>

“Countries that want to tackle ***economic inequality*** can start by tackling other inequalities, such as in reproductive health and rights, and tearing down social, institutional and other obstacles that prevent women from realizing their full potential,”

**The UNFPA report** recommends focusing on the furthest behind first, in line with the United Nations blueprint for achieving ***sustainable development*** and inclusive societies by 2030. The 2030 Agenda for Sustainable Development has “envisaged a better future, one where we collectively tear down the barriers and correct disparities,” the report states. “***Reducing all inequalities*** needs to be the aim. Some of the most powerful contributions can come from realizing... ***women’s reproductive rights.***”



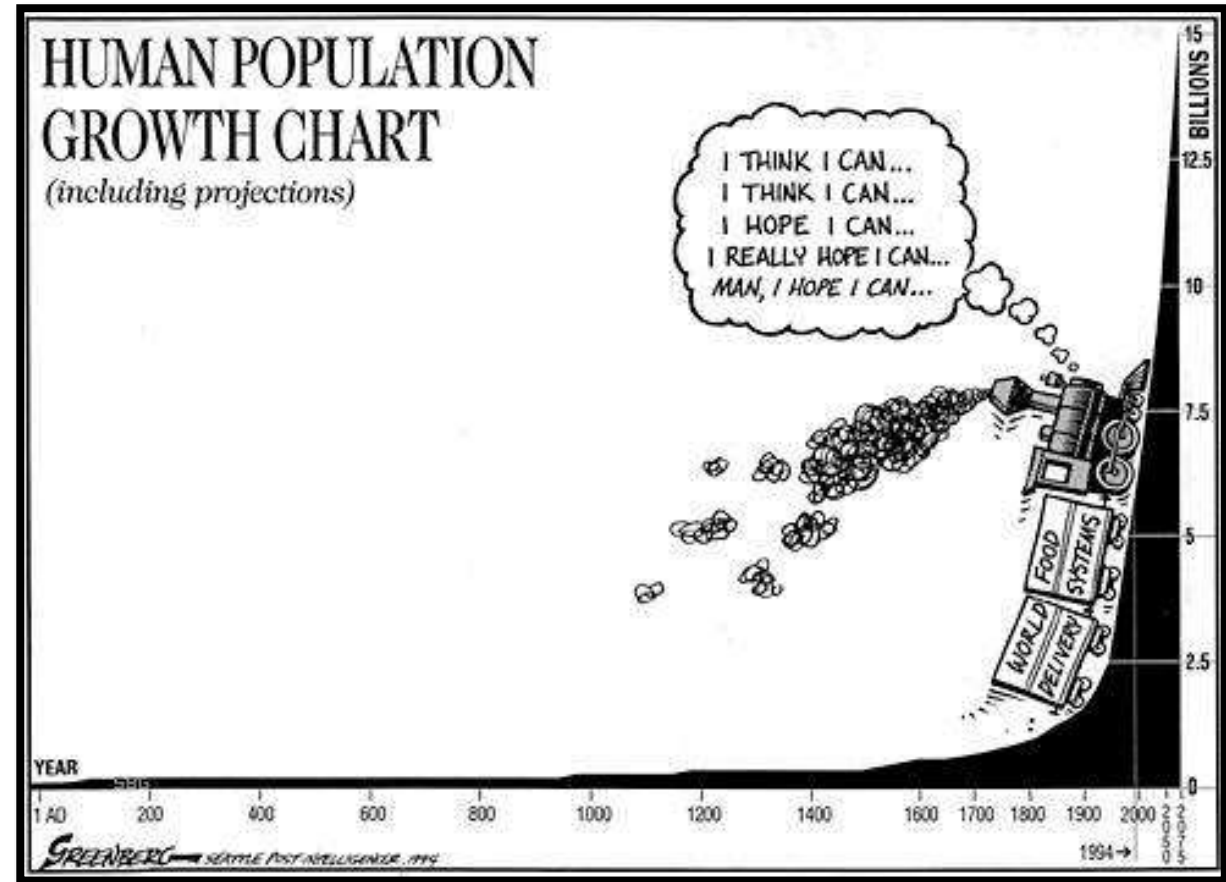
1 child  
for 1  
family;  
no delay!

# Total Population of the World by Decade

1950 – 2050 U.S. Census Bureau, International Database.

[www.infoplease.com/ipa/A0762181.html](http://www.infoplease.com/ipa/A0762181.html), 17.01.09

<u>Year</u>	<u>Total world population (mid-year figures)</u>	<u>10 year growth rate (%)</u>
1950	2,556,000,053	18.9%
1960	3,039,451,023	22.0
1970	3,706,618,163	20.2
1980	4,453,831,714	18.5
1990	5,278,639,789	15.2
2000	6,082,966,429	12.6
2010 <sup>1</sup>	6,848,932,929	10.7
2020 <sup>1</sup>	7,584,821,144	8.7
2030 <sup>1</sup>	8,246,619,341	7.3
2040 <sup>1</sup>	8,850,045,889	5.6
2050 <sup>1</sup>	9,346,399,468	—





# World population characteristics-1

- **Armed conflict** continues to blight the lives of millions: since 1990, 3.6 million people have died as a result of **civil wars and ethnic violence**, more than 16 times the number killed in wars between states.
- *Civilians have accounted for more than 90% of the casualties - either injured or killed- in post-cold war conflicts.*
- 90 countries are affected by **landmines** and unexploded ordinance, with rough estimates of 15,000 to 20,000 mine victims each year.

[www.infoplease.com/ipa/A0004373.html](http://www.infoplease.com/ipa/A0004373.html), 17.01.09





# World population characteristics-2

## HIGHEST GDP PER CAPITA (PPP in U.S. dollars)

1.	<a href="#">Luxembourg</a>	91,388
2.	<a href="#">Qatar</a>	87,765
3.	<a href="#">Norway</a>	65,640
4.	<a href="#">Singapore</a>	61,853
5.	<a href="#">Switzerland</a>	53,367
6.	<a href="#">Brunei</a>	53,348
7.	<a href="#">USA</a>	49,965
8.	<a href="#">Kuwait</a>	45,455
9.	<a href="#">Australia</a>	44,598
10.	<a href="#">Austria</a>	44,208
11.	<a href="#">Ireland</a>	43,592

23.10.2019

## LOWEST INFANT MORTALITY RATE (deaths per 1,000 births)

1.	<a href="#">Sweden</a>	3.40
2.	<a href="#">Iceland</a>	3.48
3.	<a href="#">Singapore</a>	3.55
4.	<a href="#">Finland</a>	3.70
5.	<a href="#">Japan</a>	3.77
6.	<a href="#">Norway</a>	3.83
7.	<a href="#">Andorra</a>	4.21
8.	<a href="#">Netherlands</a>	4.21
9.	<a href="#">Australia</a>	4.28
10.	<a href="#">Switzerland</a>	4.30

[www.ahmetsaltik.net](http://www.ahmetsaltik.net)


## Lowest GDP per capita (with US \$, ppp)

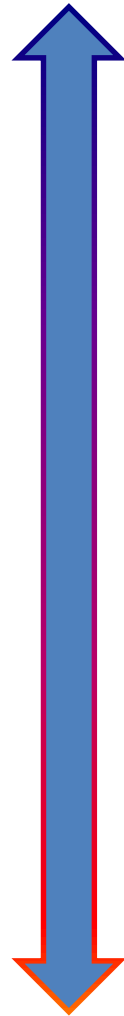
1. Congo,	400
2. Zimbabwe	600
3. Burundi	600
4. Somalia	600
5. Liberia	700
6. Central African Republic	800
7. Eritrea	800
8. Niger	800
9. Malawi	900

24

1 child for 1 family; no delay!

# World population characteristics-3

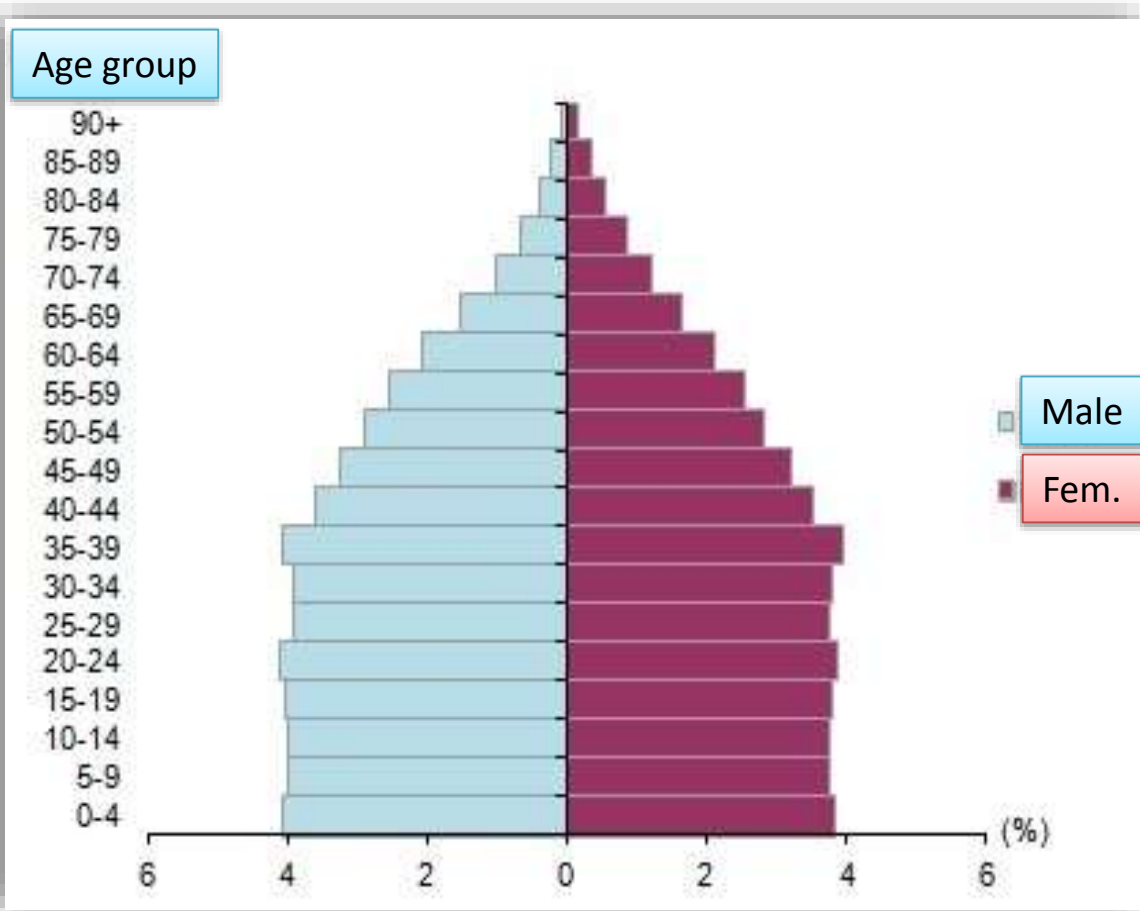
Overall rank	Country	Overall life expectancy
1	<a href="#">Japan</a>	83 
1	<a href="#">Switzerland</a>	83
1	<a href="#">San Marino</a>	83
4	<a href="#">France</a>	82
4	<a href="#">Andorra</a>	82
4	<a href="#">Spain</a>	82
4	<a href="#">Monaco</a>	82
4	<a href="#">Luxembourg</a>	82
4	<a href="#">Italy</a>	82
4	<a href="#">Singapore</a>	82
4	<a href="#">Australia</a>	82
4	<a href="#">Israel</a>	82
4	<a href="#">Sweden</a>	82
4	<a href="#">Canada</a>	82
4	<a href="#">Iceland</a>	82
4	<a href="#">Qatar</a>	82



Country	Life expectancy at birth (years)
•Swaziland	31.9
•Angola	38.2
•Zambia	38.63
•Lesotho	40.4
•Mozambique	41.18
•Sierra Leone	41.24
•Liberia	41.8
•Djibouti	43.37
•Malawi	43.82
•Central African Republic	44.5

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# Turkey's Population Pyramide... (TSI, end of 2018)



<http://www.worldometers.info/world-population/>

*Please click to see how dreadfully and awfully  
World population is growing every second!*

M: 41 139 980; 50,2 %  
F : 40 863 902; 49,8 %

*Turkey is double fold  
more crowded when  
compared with World.  
Population density  
which is 107 in Turkey,  
but 53 in the World !*

**Last 5 years PGR, TR :**

**2014 : 1,33 %!**

**2015 : 1,35 %!**

**2016 : 1,36 %!**

**2017 : 1,24 %!**

**2018 : 1,47 %!**

***Extreemly high and  
entirely unnecessary!***

At 31st December 2018, Turkey's population is 82 003 882 persons. Turkish population, unfortunately, due to totally irrational promotion by the government, was increased 1 193 357 persons through 2018!

$\text{Natural PGR} = (1\ 193\ 357 / 80\ 810\ 525) \times 1000 = 14,7 \text{ ‰ or } 1,47 \%$ .. World PGR 1,15% (UNFPA-2018)

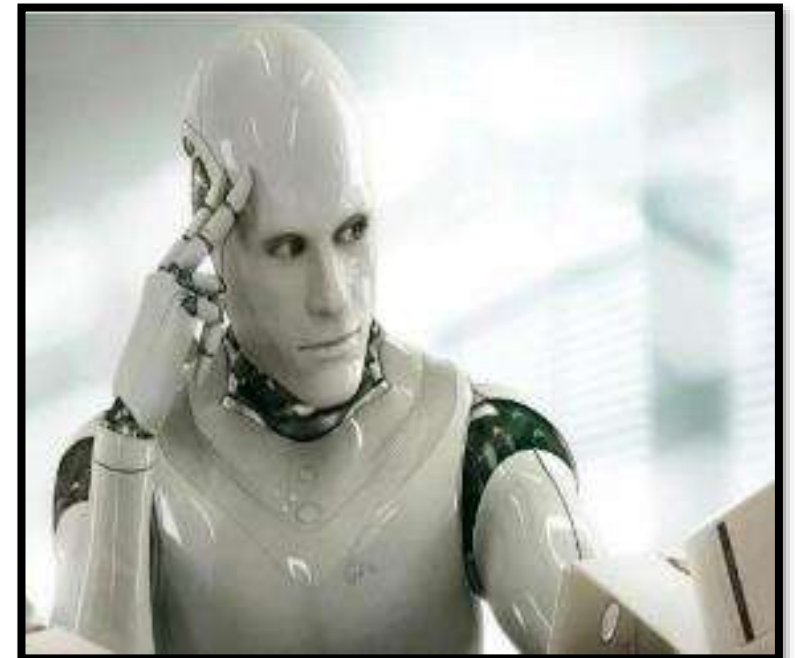
*4+ milion Iraki & Syrian and informal (!?) population excluded..*

Mr. President. This is The Abortion Bill  
which was just sent up from Congress



The Abortion Bill?  
I thought I paid that!!

Robots and artificial  
intelligence will take  
over -*push out of  
employment*- 800  
million people by 2030!



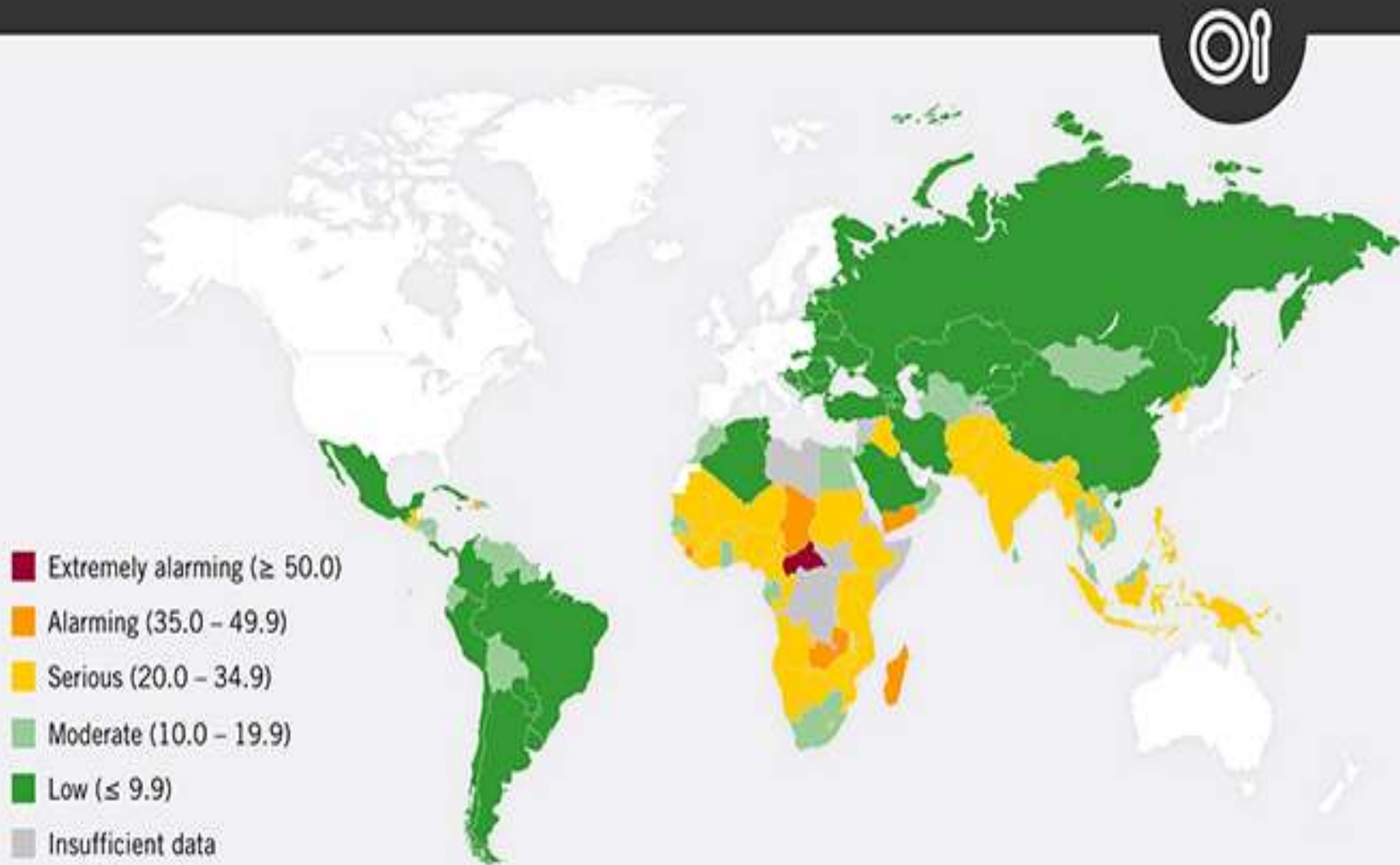


# Making childbirth safer..

<http://www.unfpa.org/public/> 22.5.12







<https://www.globalhungerindex.org/results/>, 20.03.2019

**FOR DECADES, THE NUMBER OF HUNGRY PEOPLE HAD BEEN DECLINING - THIS ISN'T TRUE ANYMORE**

**MORE THAN 820 MILLION PEOPLE DO NOT HAVE ENOUGH TO EAT**

**AT THE SAME TIME, NO REGION IS EXEMPT FROM THE EPIDEMIC OF OVERWEIGHT AND OBESITY**

<http://www.fao.org/state-of-food-security-nutrition/en/>, 23.10.19



**Pope warns :**  
*Do not reproduce  
as rabbits!*

**1 child for  
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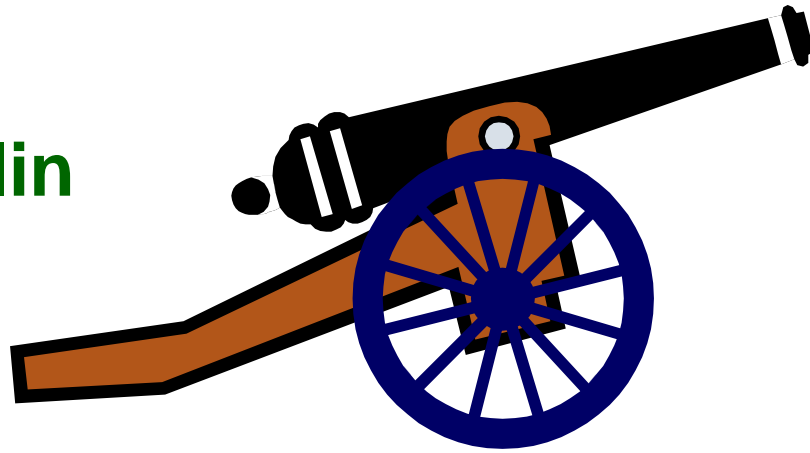
<http://www.worldometers.info/world-population/>  
<http://www.worldometers.info/world-population/turkey-population/>



# ***Lifestyle Factors***

***“Genes load the gun. Lifestyle pulls the trigger”***

**Dr. Elliot Joslin**



***Thank you  
for your attention...***

