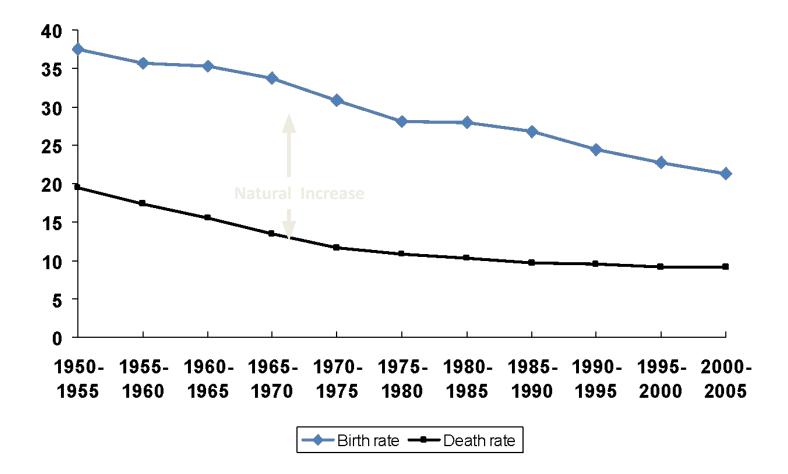
Natural increase & Demographic structures

Stage	1 High stationary	2 Early expanding	3 Late expanding	4 Low stationary	5 ? Declining?
40	Death rate	Birth rate			?
30- Birth and death			Natural		
rates 20 (per 1000 people per year) 10			increase		Natural decrease ? ?
Examples	A few remote groups	Egypt, Kenya, India	Brazil	USA, Japan France, UK	Germany
Birth rate	High	High	Falling	Low	Very low
Death rate	High	Falls rapidly	Falls more slowly	Low	Low
Natural increase	Stable or slow increase	Very rapid increase	Increase slows down	Stable or slow increase	Slow decrease
Reasons for changes in birth rate	Many children needed for farming. Many children die at an early age. Religious/social encouragement. No family planning.		Improved medical care and diet. Fewer children needed.	Family planning. Good health. Improving status of women. Later marriages.	
Reasons for changes in death rate	Disease, famine. Poor medical knowledge so many children die.	Improvements in medical care, water supply and sanitation. Fewer children die.		Good health care. Reliable food supply.	

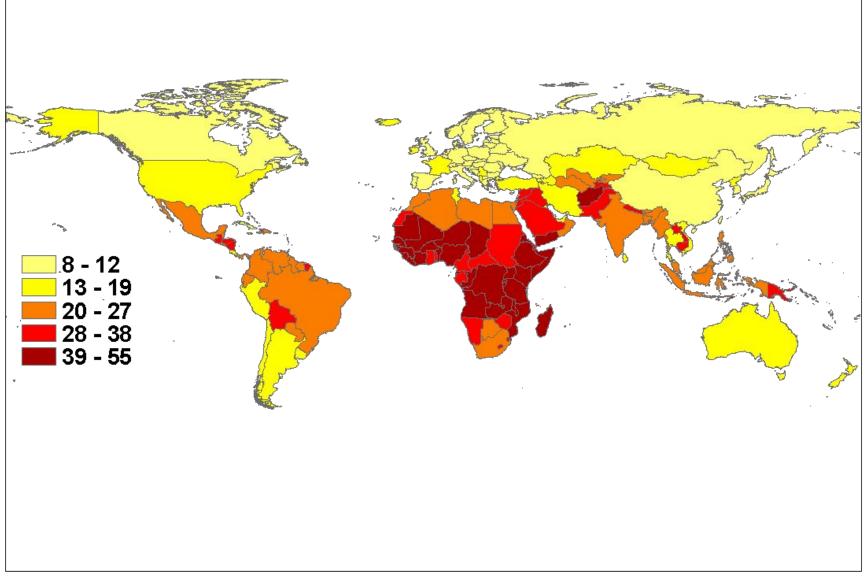
Birth and Death Rates, Worldwide

Rates of birth, death, and natural increase per 1,000 population

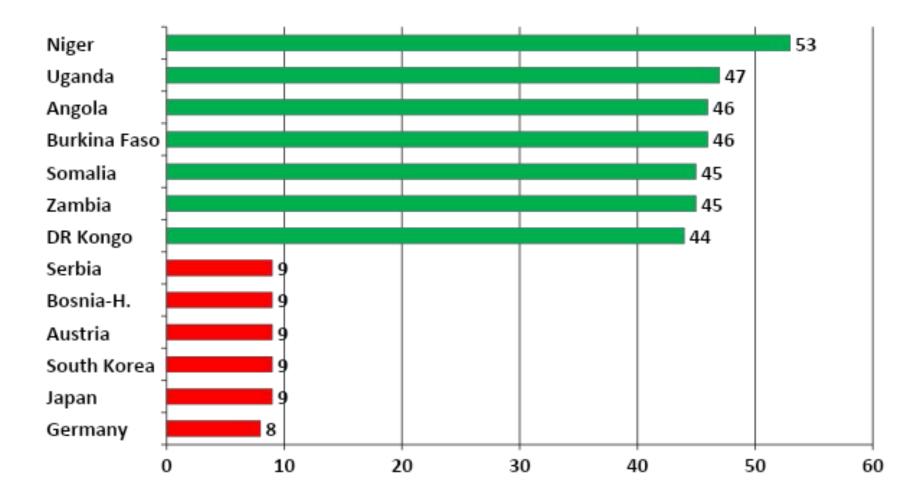


Source: United Nations, World Population Prospects: The 2004 Revision, 2005.

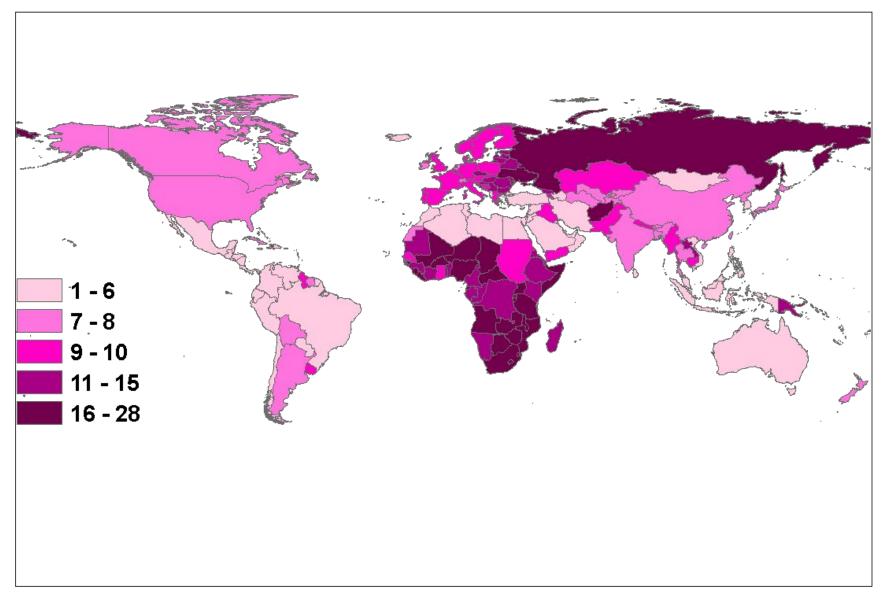
Birth rates in 2006



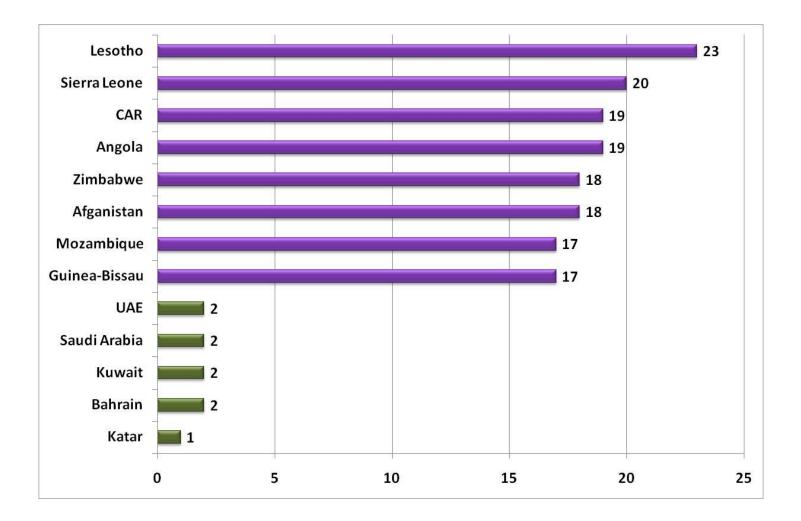
The highest and lowest birth rates in 2009 (per 1,000 population)



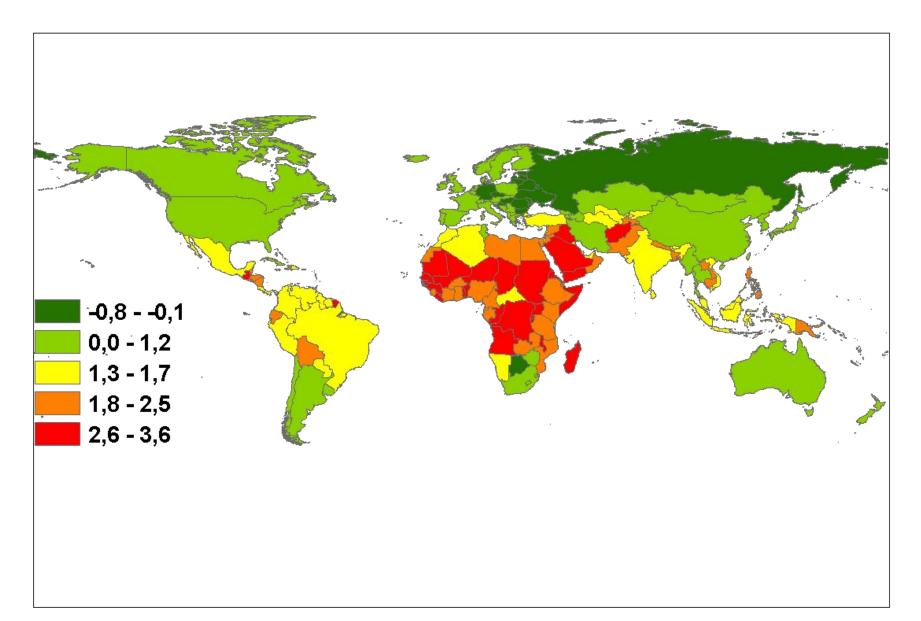
Death rates in 2006



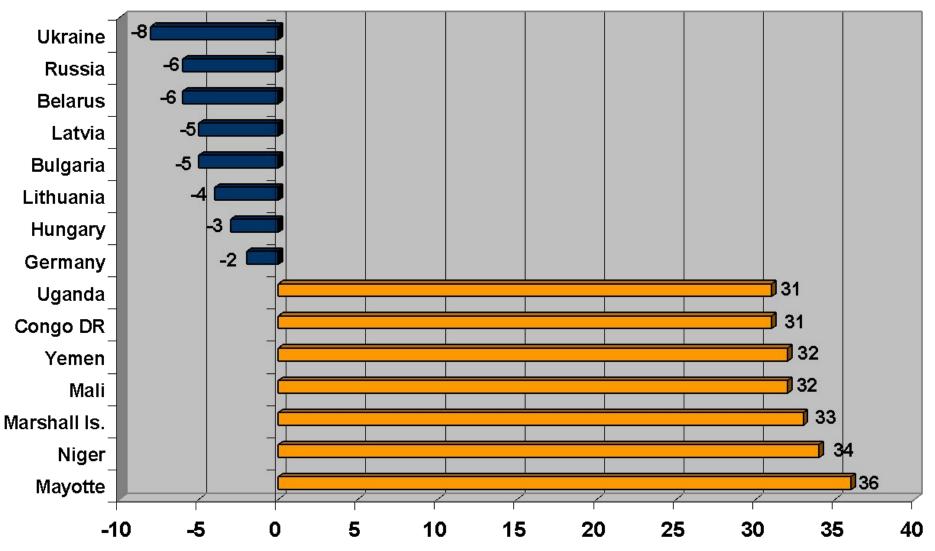
The highest and lowest death rates in 2009 (per 1,000 population)



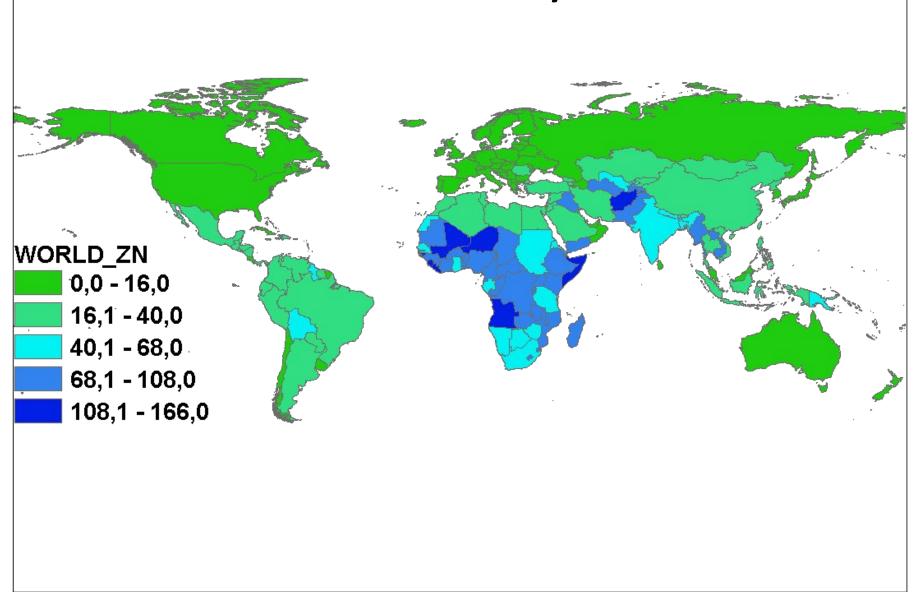
Natural increase - 2009



Natural increase rates in 2006 (per 1,000 population)

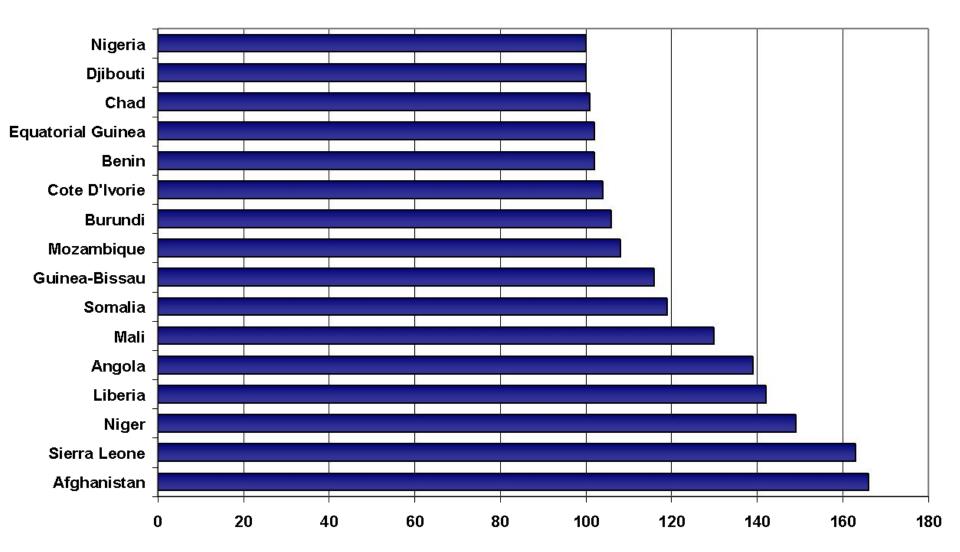


Infant mortality - 2006

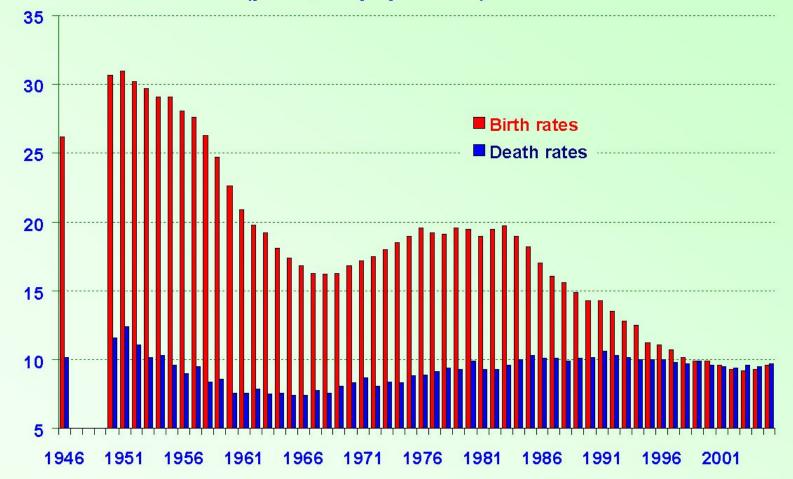


Infant mortality – 2006 per 1000

Zgony niemowląt w 2006 r.

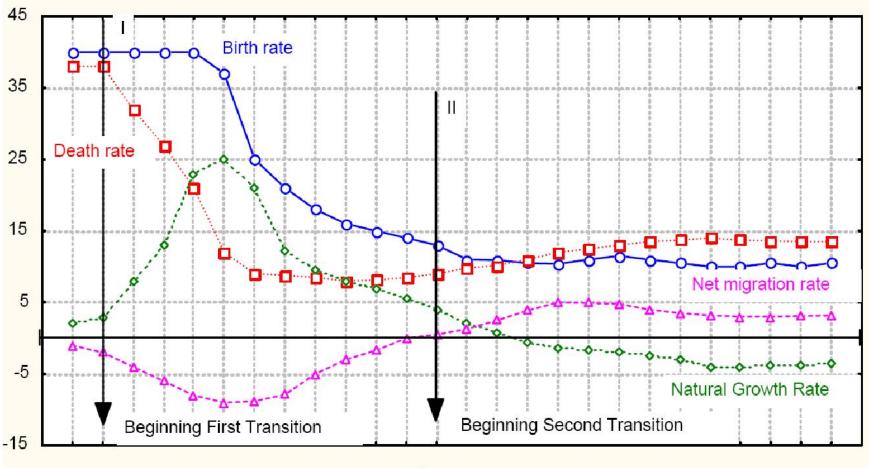


Birth and death rates in Poland in the years 1946 - 2003 (per 1,000 population)



- The theory of Demographic Transition
- Established in 1945 by American scientist F. Notestein
- The main issue: the change of demographic reproduction from traditional to modern one.

The scheme of the first and the second demographical transition

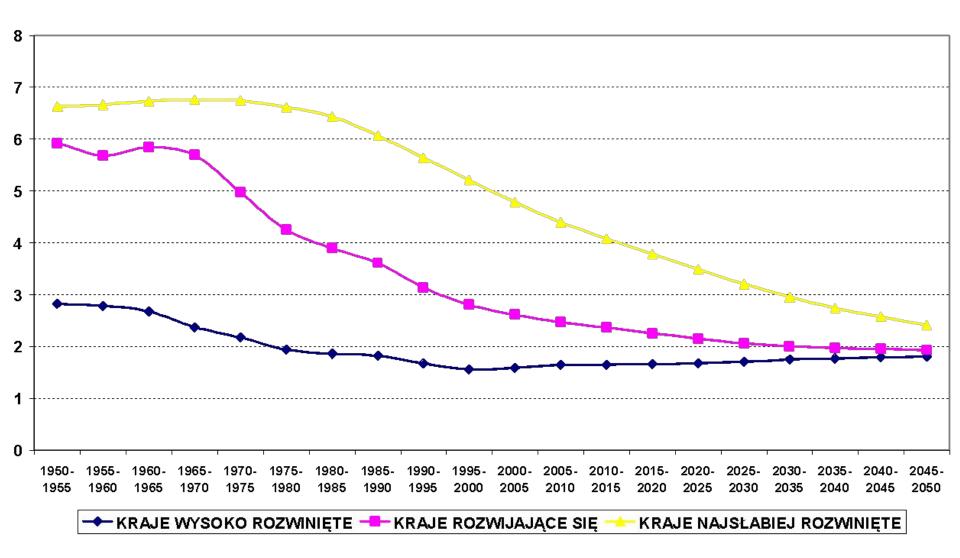


Time

Źródło: Opracowanie własne na podstawie Van de Kaa, 2002, The Idea of a Second Demographic Transition...

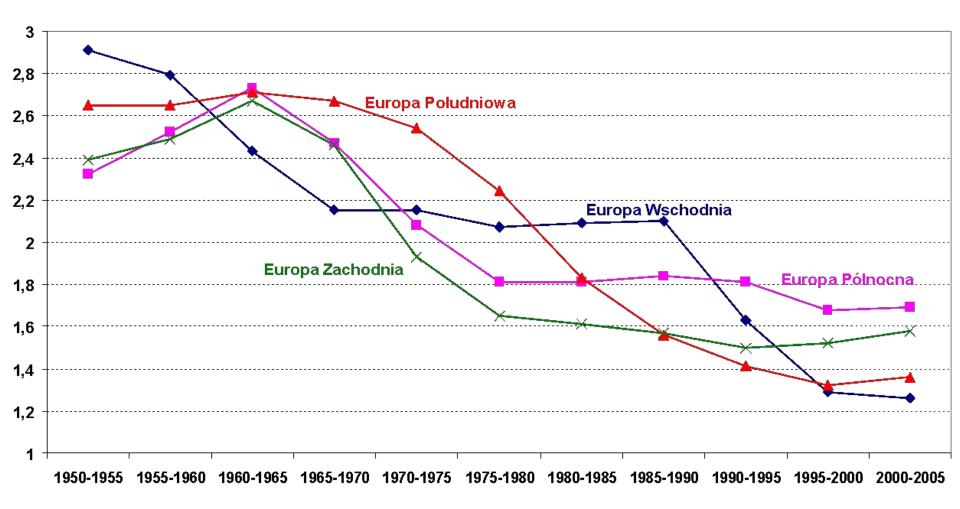
Total Fertility Rate (TFR) by UN Regions

WSPÓŁCZYNIK DZIETNOŚCI WG REGIONÓW ONZ



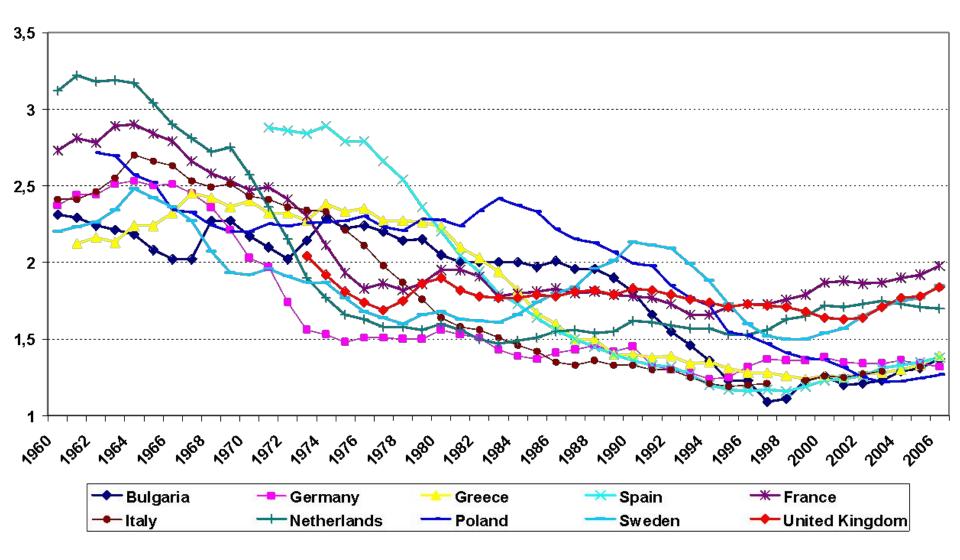
The change of TFR by UN regions in Europe

Zmiany współczynnika dzietności w regionach geograficznych Europy (wg podziału ONZ)



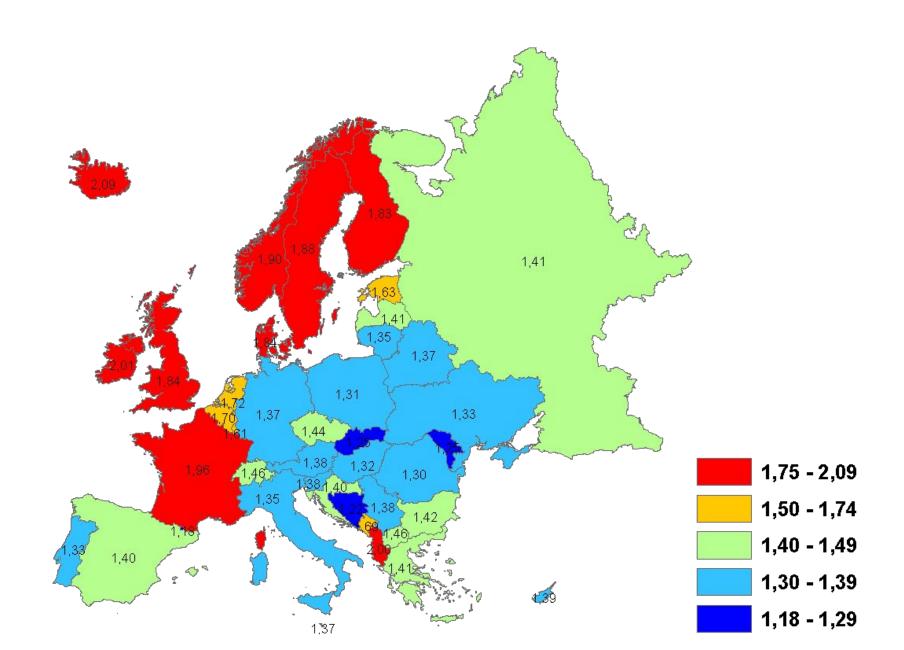
The change of TFR in selected EU member states

Zmiany współczynników dzietności w wybranych krajach Europy

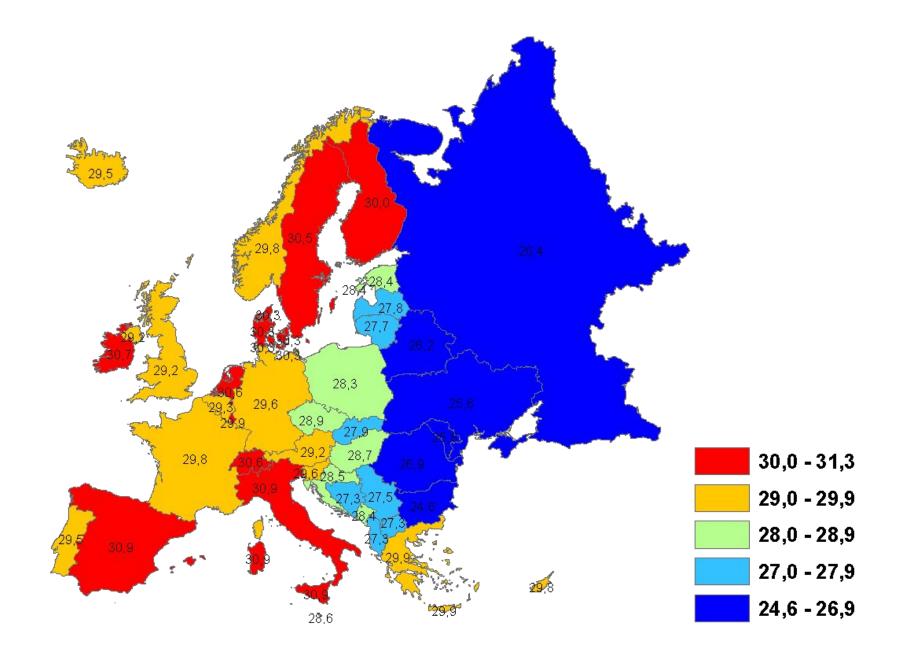


The influence of TFR on natural dectease

TFR	Decrease per year	The number of years needed for population reduction by half
1,5	-1,07%	64,7
1,3	-1,57%	44,3
1,1 źródło: Billari (2005)	-2,14%	32,4

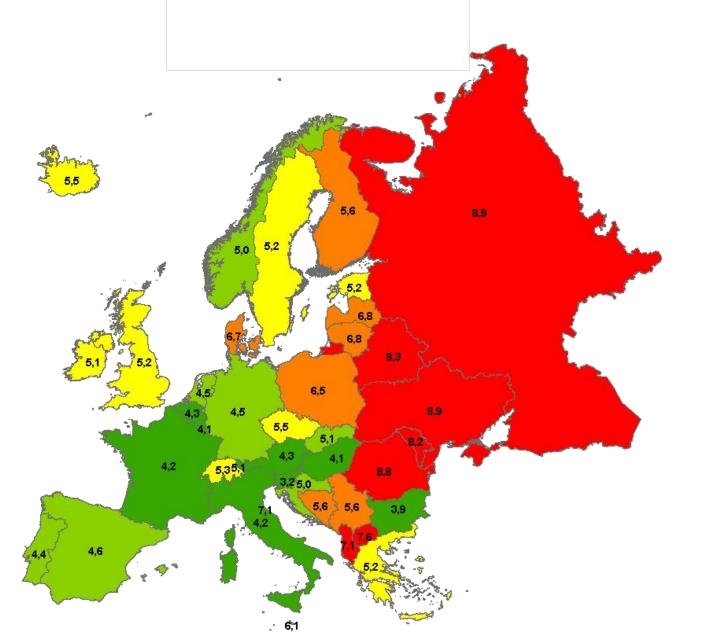


The average age of mother giving her first birth



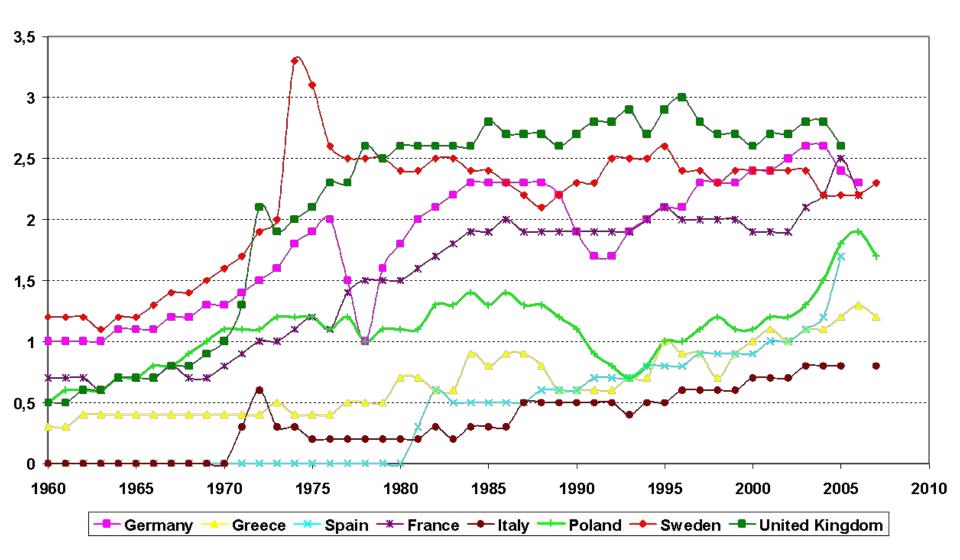
Marriages per 1000 inhabitants

Małżeństwa na 1000 mieszk. w 2006 r.

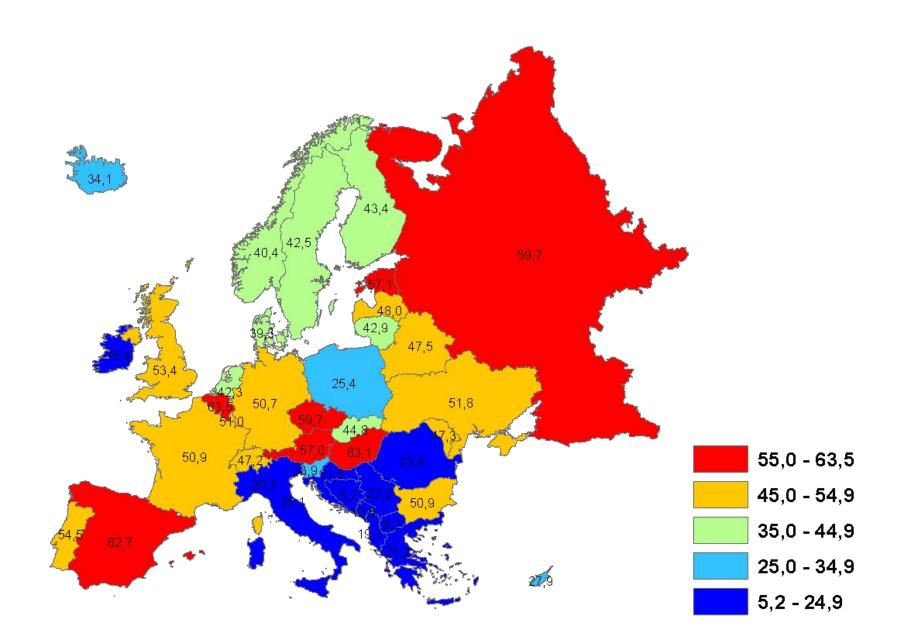




Divorces per 1000 inhabitants Współczynnik rozwodów (na 1000 ludności)

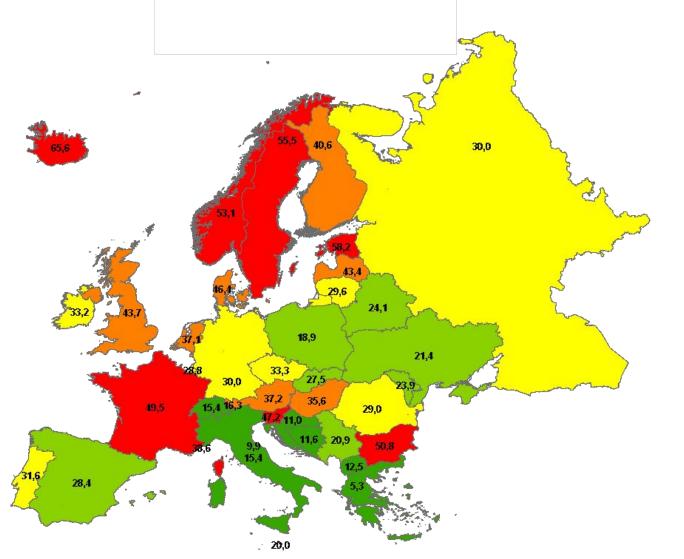


Divorces per 100 matrimonies in 2008



Extramartial births

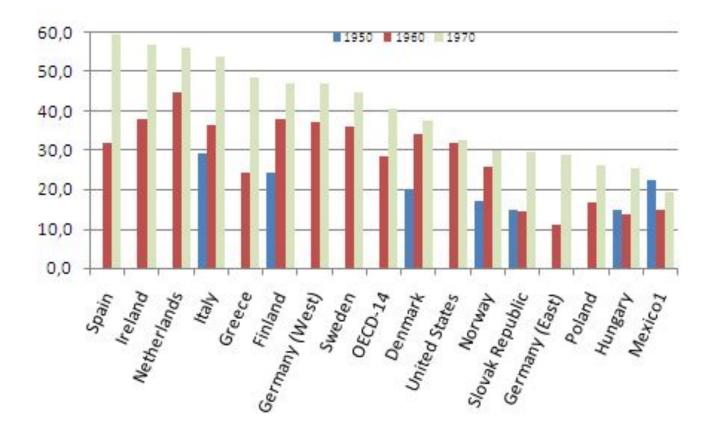
Urodzenia pozamałżeńskie w 2006 r. (w %)





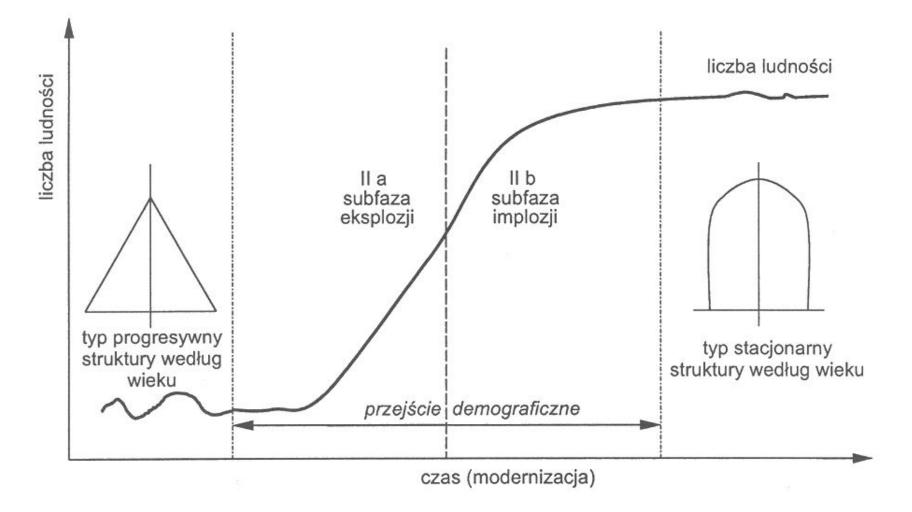
Trends in childlessness among women by cohort

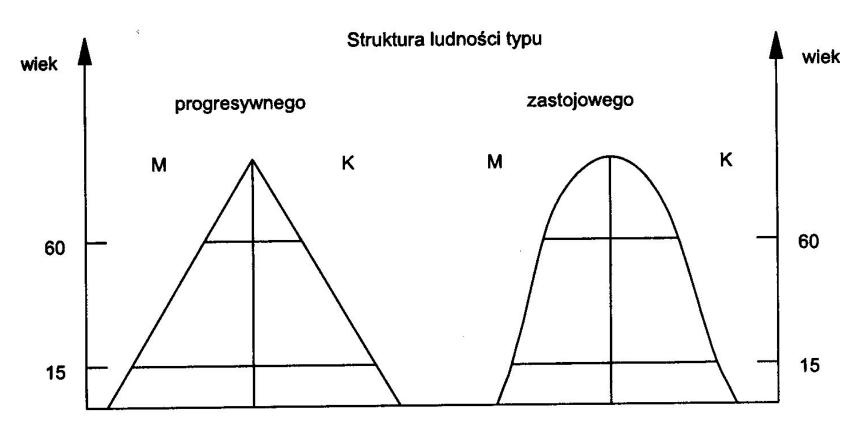
The proportion of childless women at age 30



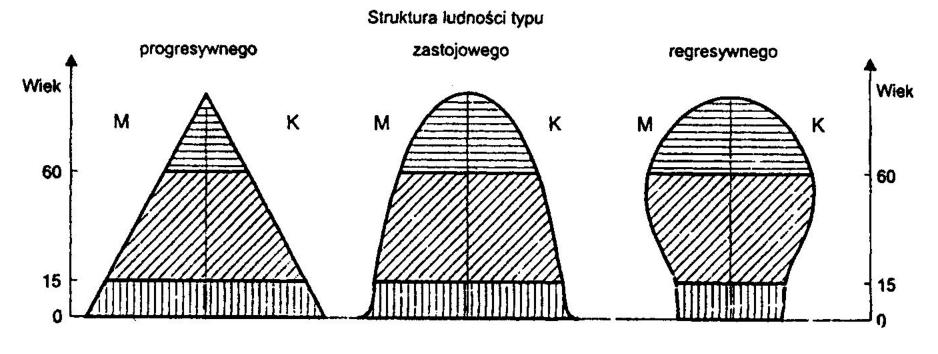
Summary

- Decrease of TFR below "Zero Growth Minimum"
- Putting the first and next births aside
- Increasing number of extramartial births
- TFR extremely varied in different regions
- Diffusion of processes connected with 1st and 2nd transition
- Importance of pro-family policies
- Results of low fertility:
 - Ageing of societies
 - Depopulation

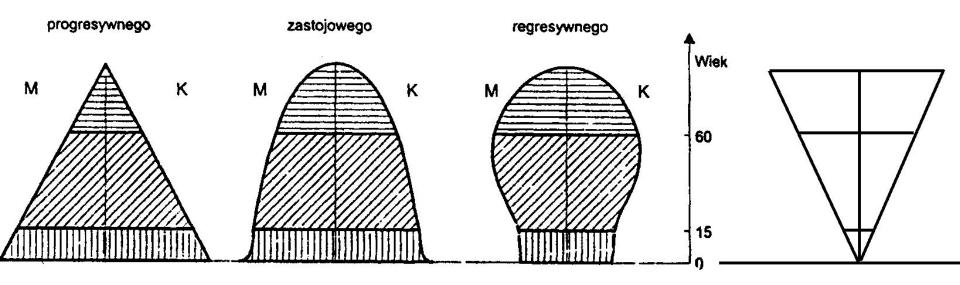




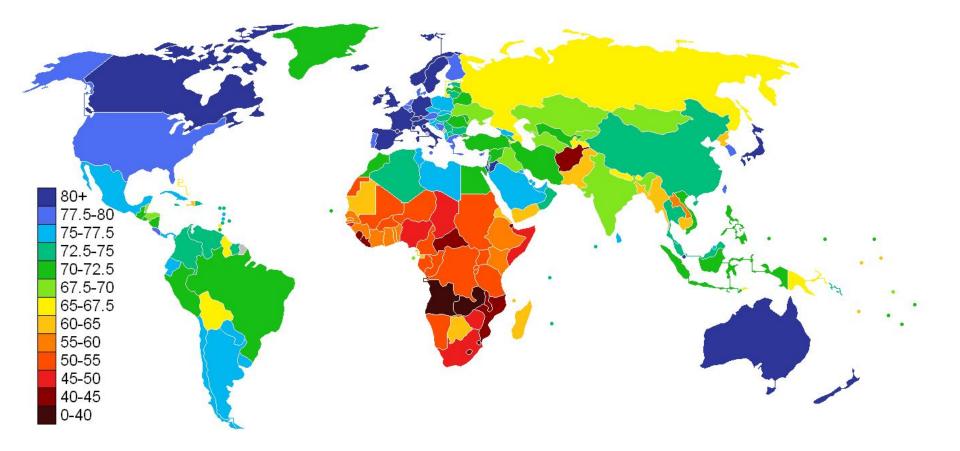
Piramidy wieku – typy struktur populacji według wieku (według G. Sundbärga)



Podstawowe rodzaje piramid wieku Holzer 1999

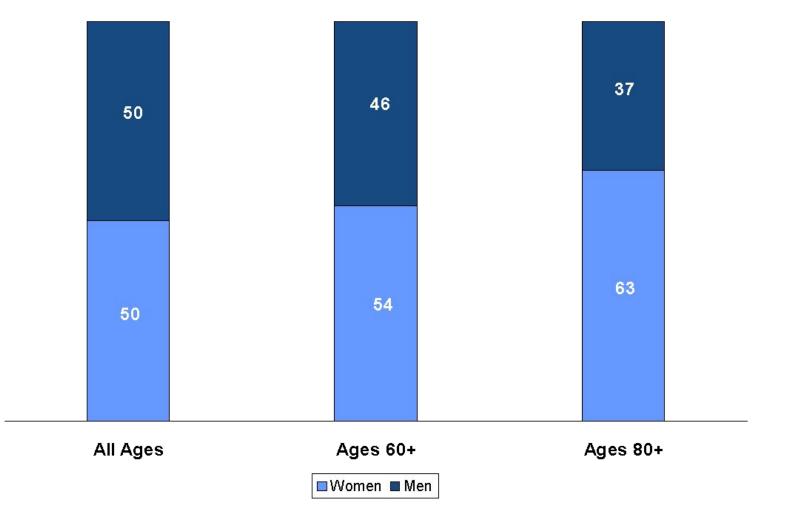


Life Expectancy, 2011



Women and Aging

Projected World Population, by Sex, at Specified Age Groups, 2025 Percent

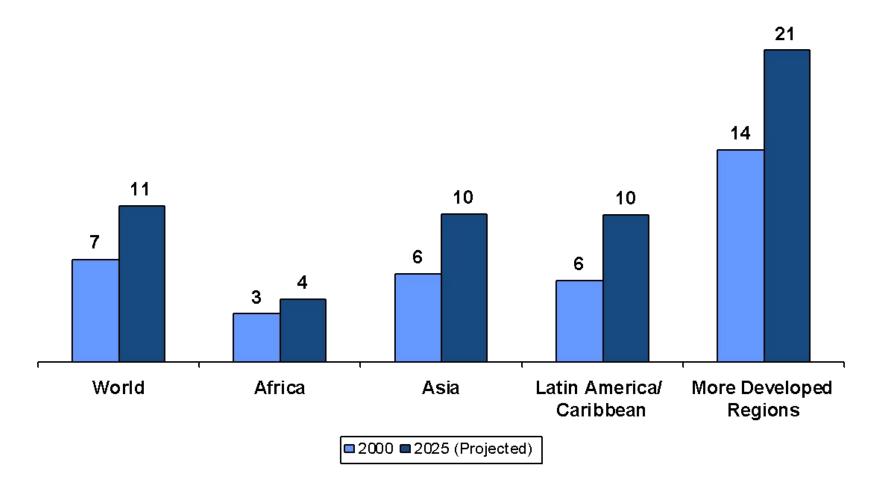


Source: United Nations, World Population Prospects: The 2002 Revision (medium scenario), 2003.

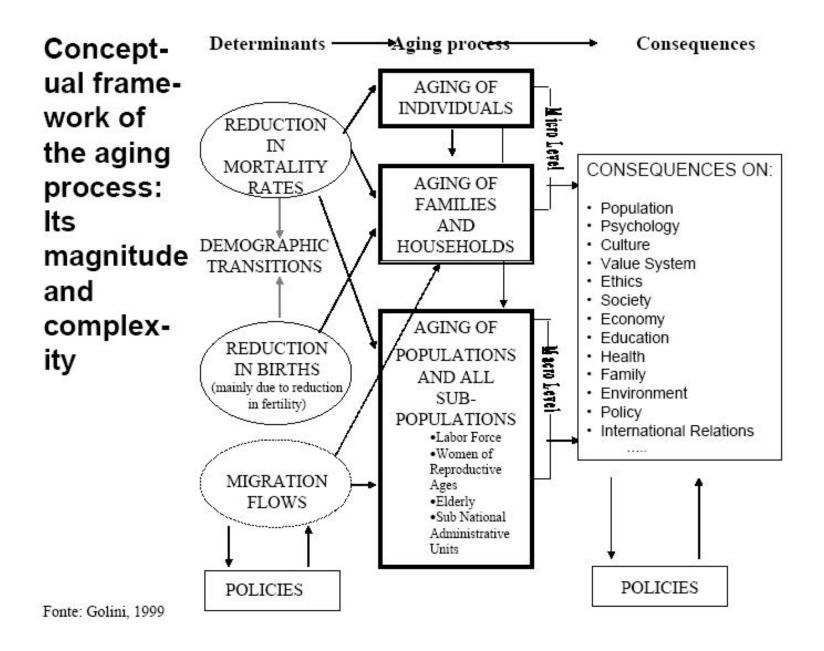
Trends in Aging, by World Region

Population Ages 65 and Older

Percent

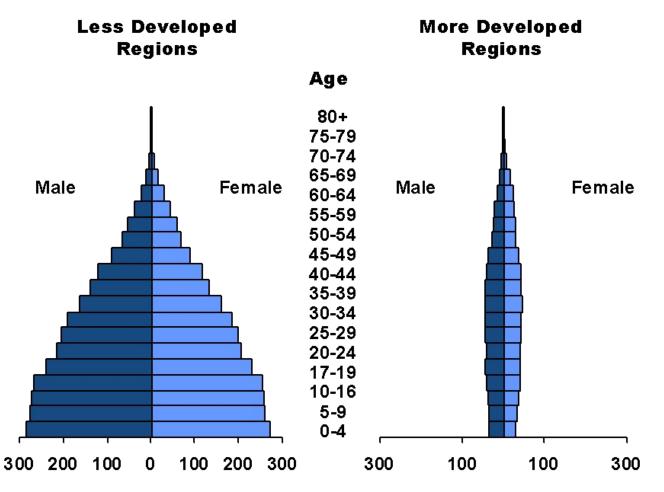


Source: United Nations, World Population Prospects: The 2002 Revision (medium scenario), 2003.



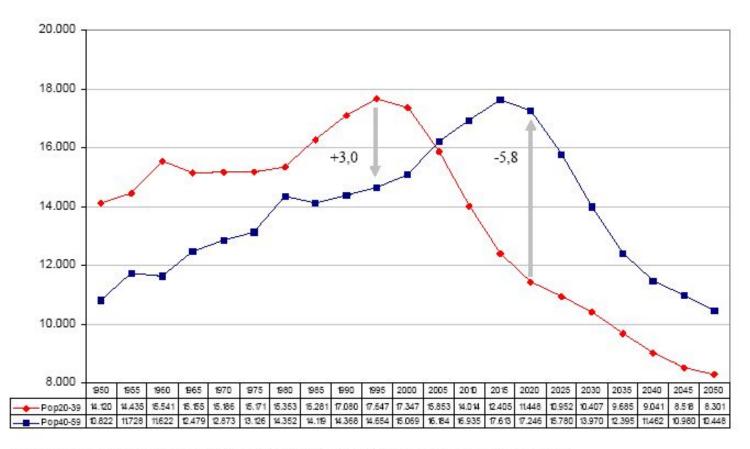
Age Distribution of the World's Population

Population Structures by Age and Sex, 2005 Millions



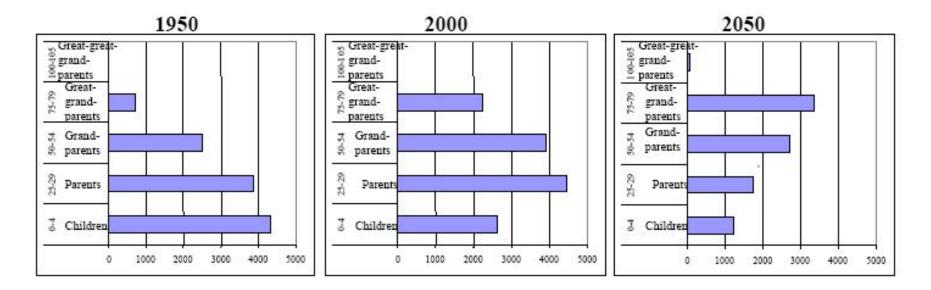
Source: United Nations, World Population Prospects: The 2002 Revision (medium scenario), 2003.

Huge decrease and aging of working age population, Italy 1950-2050 (broad age groups (20-39 and 40-59), 000)



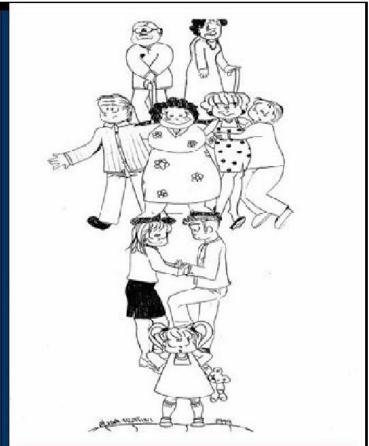
Source: UN, World Population Prospects. The 2002 Revision (medium variant), New York, 2003

A rough evaluation of the size of 5 coexistent generations (in thousands), Italy 1950, 2000, 2050



Fonte: our elaboration on data UN, World Population Prospects. The 2002 Revision, New York, 2003

Aging of families and households The coexistence of several generations in Western countries



Source: GoliniThe changing age structure of population and its consequences for development Panel discussion – Thursday, 12 October 200 Dag Hammarskjold Library Auditorium of United Nations

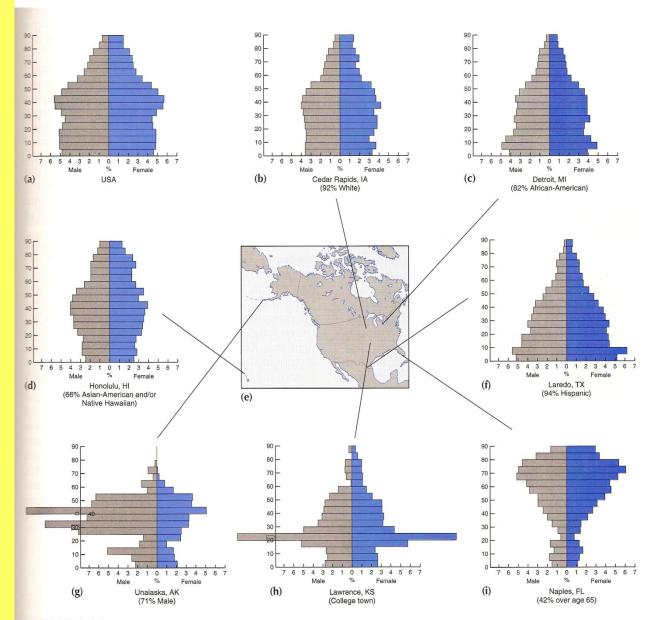
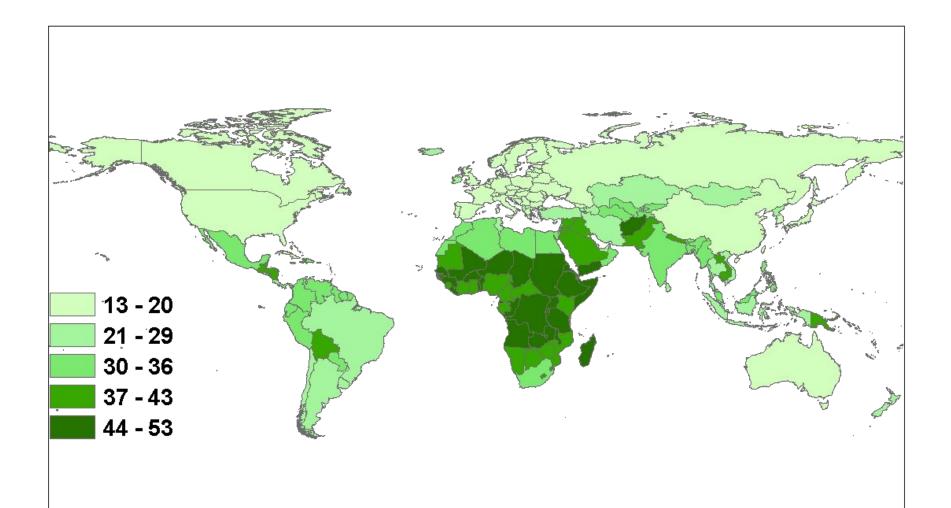


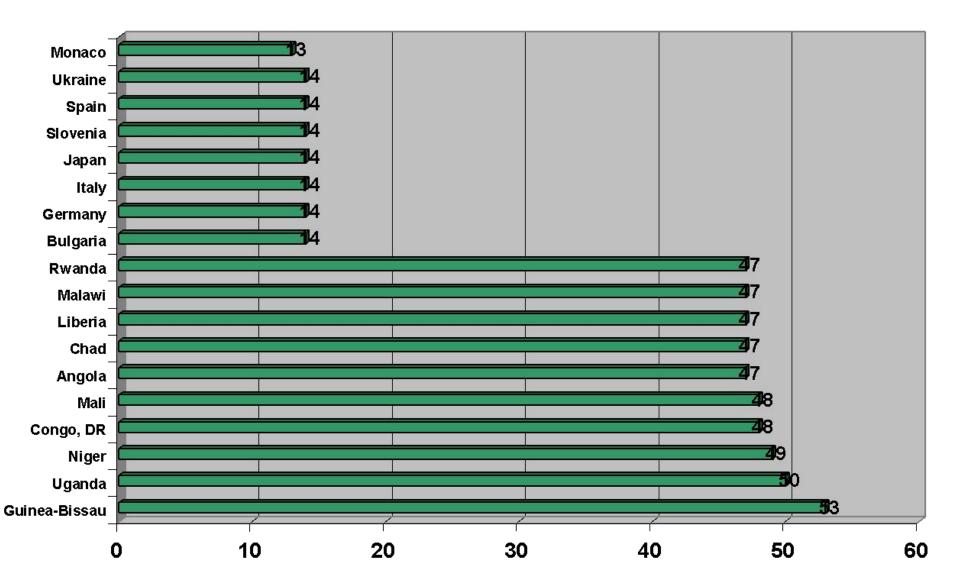
FIGURE 3.32

Population pyramids for selected communities in the United States reflect a diverse suite of demographic conditions. In college towns, a disproportionately large number of young adults is evident. In retirement communities, such as Naples, Florida, there are far more elderly than young people. Note the imbalance between males and females in Unalaska, a reflection of the labor market there.

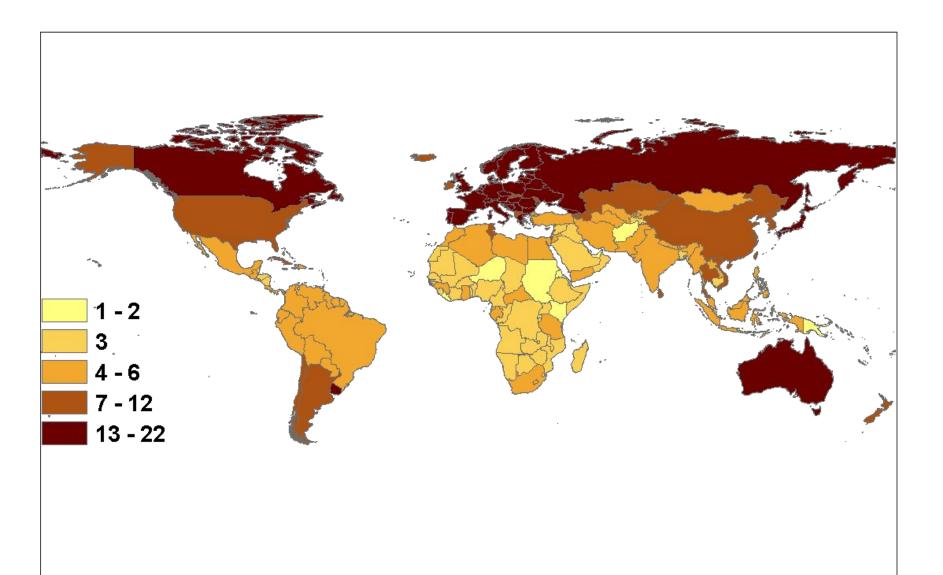
POPULATION AGED UNDER 15 (%)



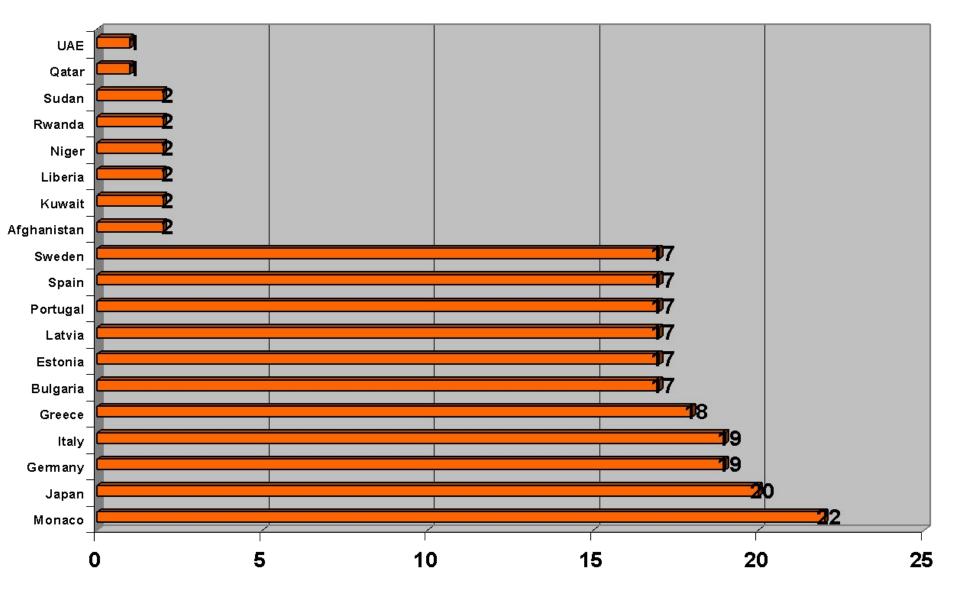
POPULATION AGED UNDER 15 (%)



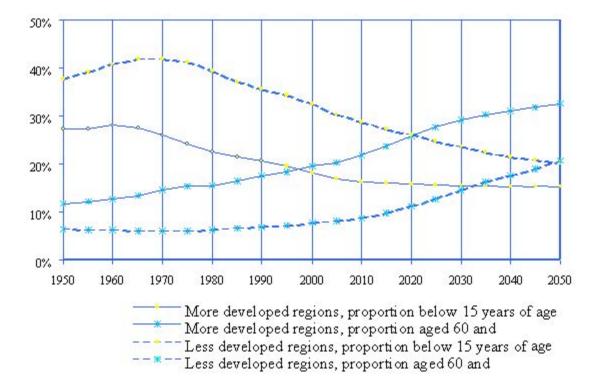
POPULATION AGED 65+ (%)

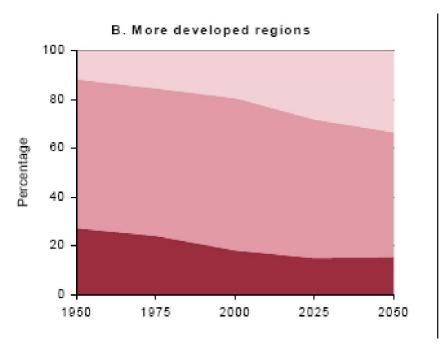


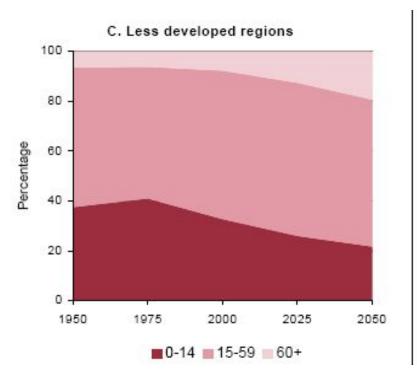
POPULATION AGED 65+ (%)



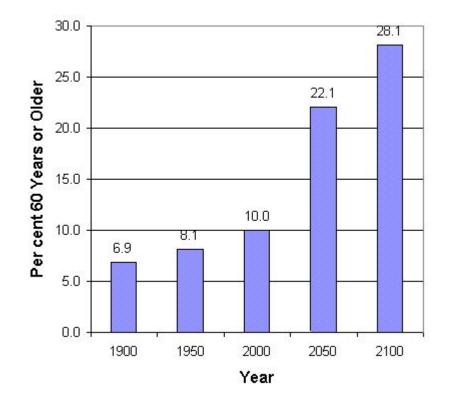
The percentage of people aged 0-14 and 60+ w, 1950-2050. (Medium projection)





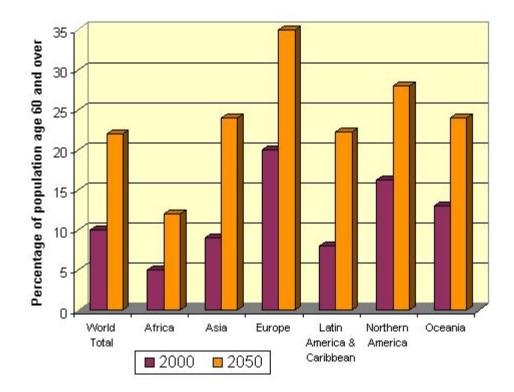


Three centuries of world population ageing

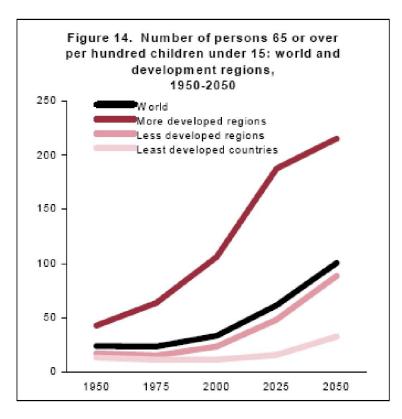


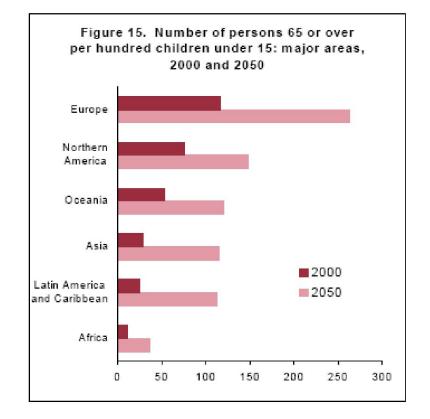
Source: Long-Range World Population Projections: Based on the 1998 Revision. The Population Division, Department of Economic and Social Affairs, United Nations Secretariat

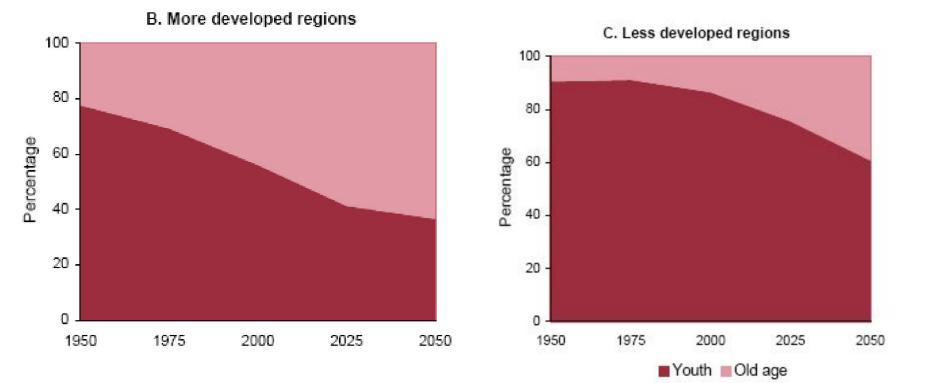
Percentage Increase in Age 60 and Over by Region, 2000-2050



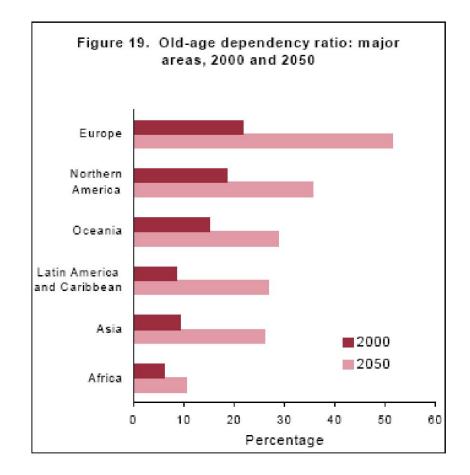
Source: World Population Prospects, The 1998 Revision, Volume II: Sex and Age. The Population Division, Department of Economic and Social Affairs, United Nations Secretariat



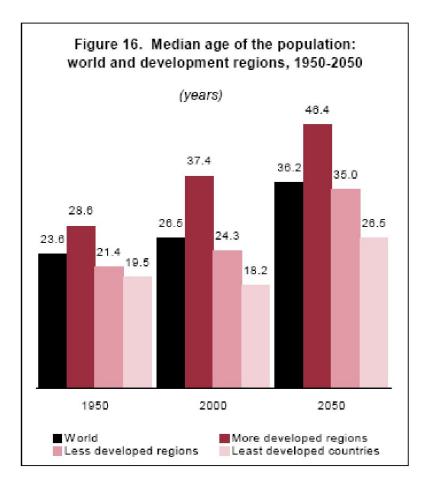




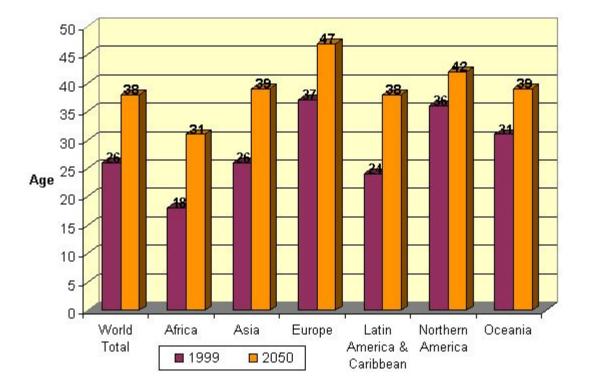
People aged 65+ / people aged 18 - 65



The median age of Europe is double that of Africa

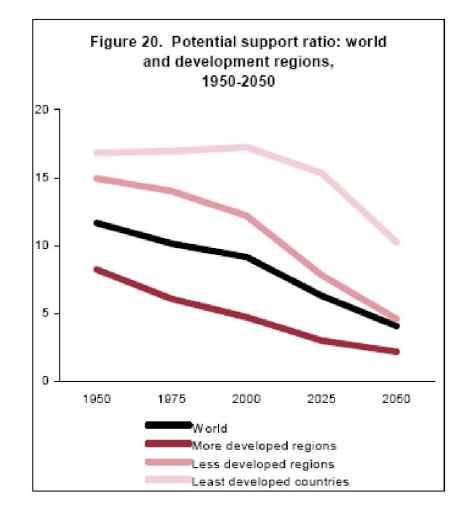


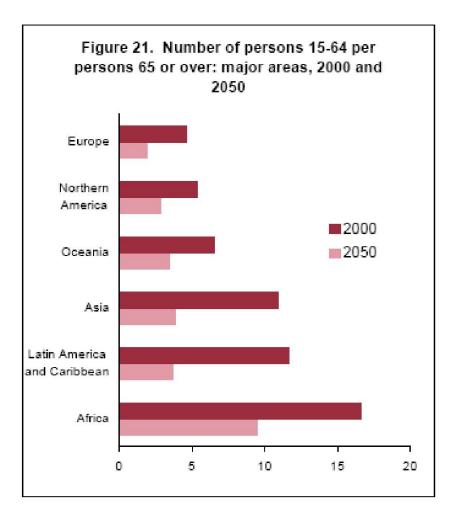
Median Age by Region, 1999-2050



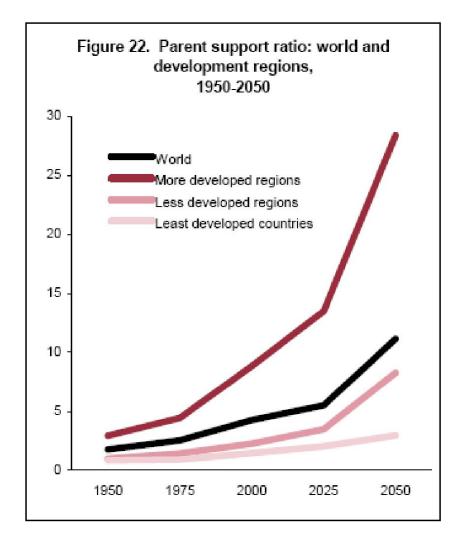
Source: World Population Prospects, The 1998 Revision, Volume II: Sex and Age. The Population Division, Department of Economic and Social Affairs, United Nations Secretariat

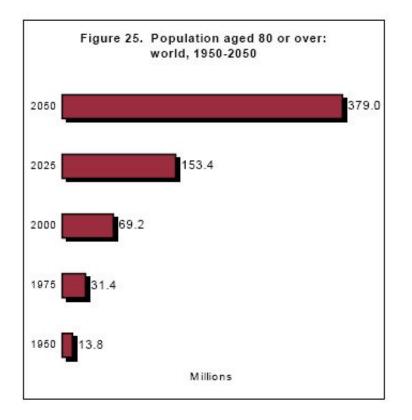
People aged 15-65 / People aged 65+

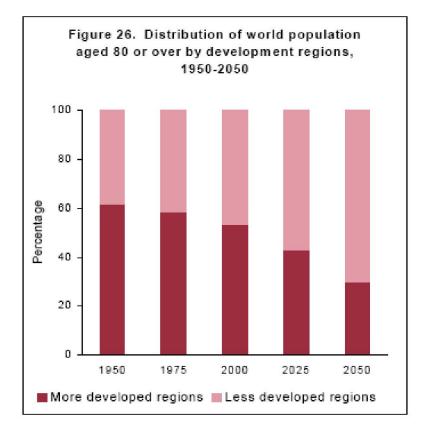


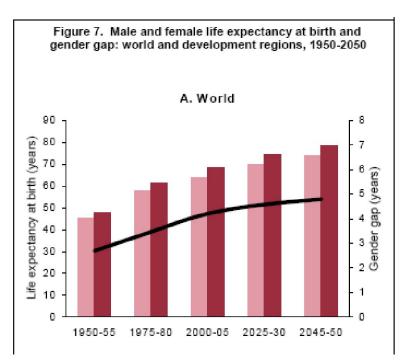


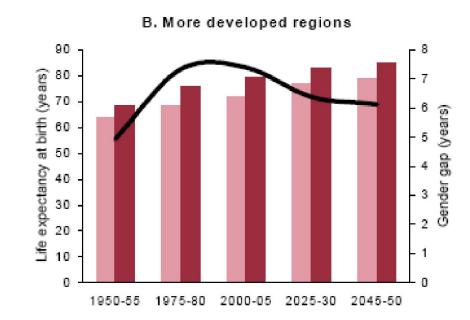
People aged 85+ / people aged 50 - 64

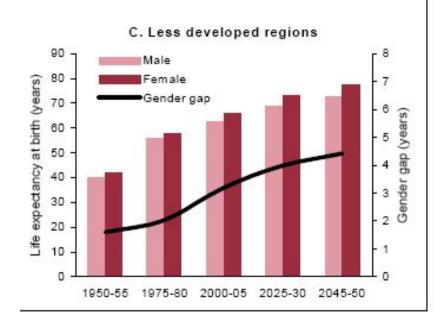


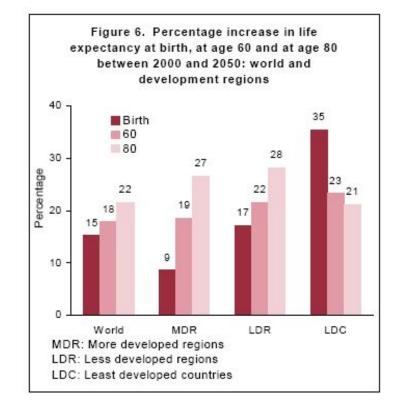




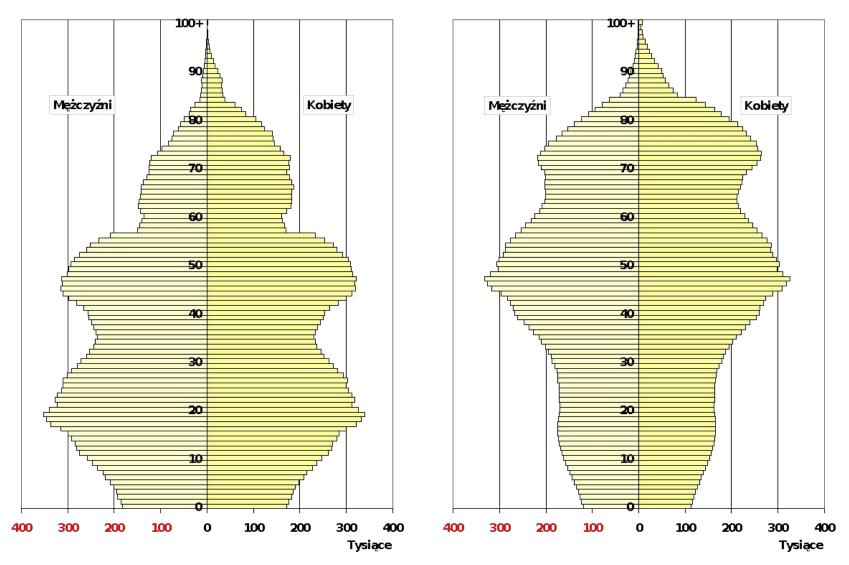




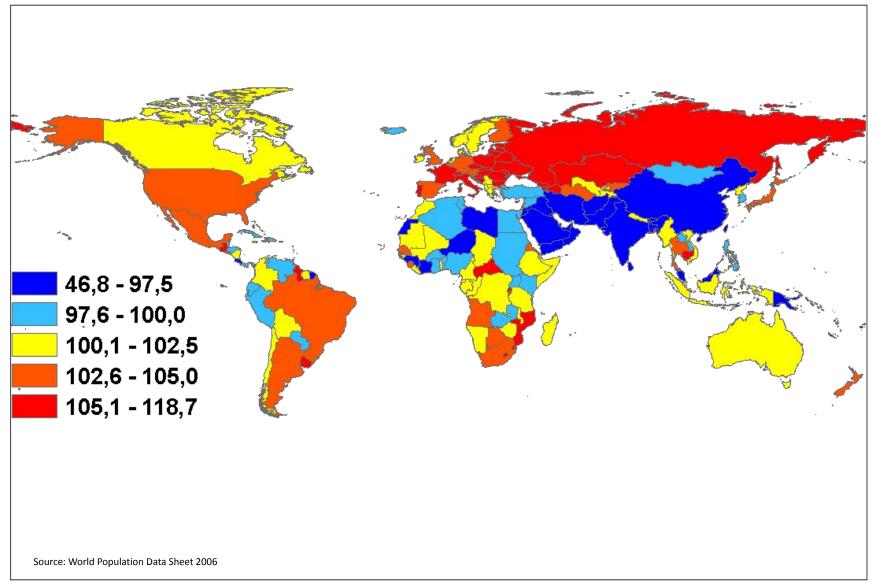








Female sex ratio in 2006



Highest and lowest female sex ratio in 2006

