

***DEAN ACHESON (1969):  
PRESENT AT THE CREATION  
MY YEARS IN THE STATE DEPARTMENT.***

## ***What is past is prologue...***

- Meeting of interested agencies followed by a feasibility study
- Expanded Programme of Research, Development and Research Training in Human Reproduction
- UNDP/UNFPA/WHO/WORLD BANK Special Programme of Research, Development and Research Training in Human Reproduction
- Postgraduate Course for Training in Reproductive Medicine and Reproductive Biology

2003 Postgraduate Training in Reproductive Health/Chronic Disease (GFMER-WHO)

There is no history of mankind, there are only many histories of all kinds of aspects of human life. And one of these is the history of political power. This is elevated into the history of the world.

Karl Popper  
(1945)

***Some ideas that have changed  
our perception of the world***

**Contraception  
Reproductive health  
Gender equity  
Health equity**

**"Theoretically, it would be one of the greatest triumphs of humanity... if the act responsible for procreation could be raised to the level of a voluntary and intentional behaviour in order to separate it from the imperative to satisfy a natural urge."**

*Sigmund Freud, 1898*  
Wiener Klinische Rundschau.

# The First contraceptive Pills

1959: Norethynodrel + ME.  
(Enovid-Searle)

1961: Norethist.Acetate + EE.  
(Anovlar-Schering)

1962: Norethisterone + ME.  
(Ortho Novum-Ortho)

## ***Contraceptive prevalence in the World in 2001***

	Prevalence rate %
World	62
Less developed regions	60
More developed regions	70

(ONU, 2002).

In my opinion the invention of ***contraceptives*** was just as fundamental as the invention of the wheel; it triggered off the most powerful social revolutions of the century in reproductive health and gender equity and contributed to an unparalleled demographic change in the history of humankind.

## **Projections and predictions**

**Estimates are estimates,  
Projections are uncertain,  
Predictions are fairytales,  
Humility is endless...**

**E.D. 1999.**

# ***The Global Population***

YEAR	MILLIONS
14	256
1000	280
2000	6057

## *Developing Countries Supporting FAMILY PLANNING*

YEAR	PERCENT
1952	< 1
1974	55
1996	90

*United Nations 1998.*

***Estimated and projected  
world population (millions)***

Region	2000	2050
All regions	6,056	9,322
Less developed	4,865	8,141
More developed	<b>1,191</b>	<b>1,181</b>

United Nations, 2001.

## ***PERCENTAGE OF ELDERLY***

YEAR	WORLD	REGIONS	
		Developed	Developing
1975	8.6	15.4	6.2
2000	10.0	19.4	7.7
2025	15.0	28.2	12.6
2050	21.1	33.5	19.3

Elderly : Aged 60 and over.

***The global population (millions)  
of older persons (> 60)  
and of the oldest old (> 80)  
in 2000 and 2050***

	2000	2050
Older persons	606	1967
Oldest old	69	379

World Population Prospects: The 2000 Revision

**All projections are uncertain  
but some of them are less  
uncertain than others.**

## ***PERCENTAGE OF CHILDREN***

YEAR	WORLD	REGIONS	
		Developed	Developing
1975	36.7	24.2	41.1
2000	29.9	18.3	32.9
2025	24.3	15.0	26.0
2050	21.0	15.6	21.7

Children: Aged 14 and below.

## ***MEDIAN AGE OF THE WORLD*** (years)

<b>Year</b>	<b>AGE</b>
<b>1975</b>	<b>22.0</b>
<b>2000</b>	<b>26.5</b>
<b>2025</b>	<b>32.0</b>
<b>2050</b>	<b>36.2</b>

United Nations, 2001.

## ***MEDIAN AGE*** (years)

YEAR	NORTH.AM.	EUROPE	JAPAN
1975	28.7	32.1	30.4
2000	35.6	37.7	41.2
2025	39.7	45.4	50.0
2050	41.0	49.5	53.1

United Nations, 2001.

**A Brave New World  
with  
A Brave Old Humankind**

E.D. 2000.

# ***WHAT HAPPENED?***

## **Total fertility rate per woman**

(Replacement level : 2.1 children per woman)

YEAR	WORLD	EUROPE	CHINA
1965	4.9	2.4	6.1
1975	3.9	2.0	3.3
1985	3.4	1.8	2.5
1995	2.8	1.4	1.8

United Nations, 2001.

## ***PERCENTAGE OF ELDERLY***

YEAR	WORLD	REGIONS	
		Developed	Developing
1975	8.6	15.4	6.2
2000	10.0	19.4	7.7
2025	15.0	28.2	12.6
2050	21.1	33.5	19.3

Elderly : Aged 60 and over.

## ***European and African Population Prospects (millions)***

<b>YEAR</b>	<b>EUROPE</b>	<b>AFRICA</b>
<b>1950</b>	<b>548</b>	<b>221</b>
<b>2000</b>	<b>727</b>	<b>794</b>
<b>2050</b>	<b>603</b>	<b>2,000</b>

United Nations, 2001.

## European population (millions)

Region	2000	2050	Diff.
Northern Europe	95.1	92.8	- 2.3
Western "	183.3	170.9	- 12.4
Southern "	144.9	116.9	- 28.0
Eastern "	304.2	222.7	- 81.5
<b>TOTAL</b>	<b>727.5</b>	<b>603.3</b>	<b>- 124.2</b>

(UN 2001)

Global population below  
replacement level of fertility  
(less than 2.1 children per woman)

<u>YEAR</u>	<u>PERCENTAGE</u>
1955	0.1
2000	44.0
2015	67.0

**Never before in history have birthrates fallen so *far, so fast, so low, for so long* all around the world.**

**The implications - for good and for ill - are as yet unclear.**

# PROXIMATE DETERMINANTS OF **FERTILITY**

Contraception

Pattern of marriage

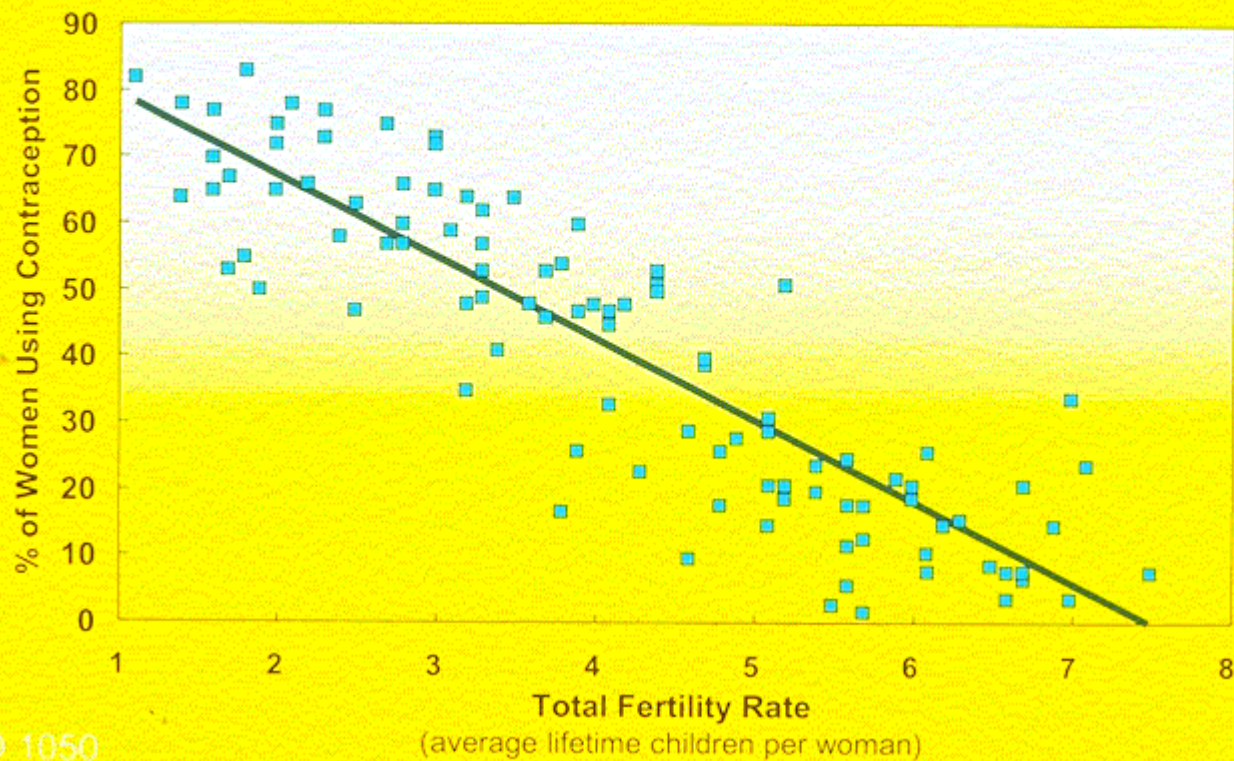
Sexual activity outside marriage

Duration of breastfeeding

Practice of abortion.

(Source: ONU, 1999).

## Contraceptive Use and Fertility in Less Developed Countries



## ***Key determinants of low fertility***

Increasing female autonomy

Gains in female education

Female labour force participation

Pattern of union formation

Increasing instability of unions

Ideational changes

Lesthaeghe & Willems (1999)

## *Classical ingredients of demographic change*

The rise in life expectancy

New anti-natalist technologies

The urbanization and densification process

Elimination of illiteracy

Instability replaces tradition

Jean-Claude Chesnais (1999).

## *New ingredients of demographic change*

Social atomization and related feminism

Collectivized pension benefits

Globalized nomadism

The youth loss of majority

The „end of work“ syndrome

Jean-Claude Chesnais (1999).

## Proportion of Japanese women never married, by age (Percentage)

AGE	1975	1985	1995
20 - 24	69.2	81.4	96.4
25 - 29	20.9	30.6	48.0
30 - 34	7.7	10.4	19.7
35 - 39	5.3	6.6	10.0
40 - 44	5.0	4.9	6.7

Source: Population Census of Japan, Bureau of Statistics, Management and Coordination Agency.

## ***GLOBAL POPULATION STRUCTURE*** (percentages)

<b>Age group (years)</b>	<b>1950</b>	<b>2000</b>	<b>2050</b>
<b>0 – 14</b>	<b>34.3</b>	<b>29.9</b>	<b>21.0</b>
<b>15 – 59</b>	<b>57.0</b>	<b>59.0</b>	<b>53.8</b>
<b>60 – 79</b>	<b>8.2</b>	<b>10.0</b>	<b>21.1</b>
<b>80+</b>	<b>0.5</b>	<b>1.1</b>	<b>4.1</b>
<b>Population (millions)</b>	<b>2,519</b>	<b>6,057</b>	<b>9,322</b>

Our institutions don't serve us well any longer; they have been designed to cater for the needs of a population structure that doesn't exist any longer.

***Examples of institutions catering  
for the needs of yesteryear***

**Social security**

**Health care**

**Housing**

**Education**

**Nation-state**

During millions of years nature was shaping *humankind*; today *homo sapiens* is shaping nature and sets the boundaries between the artificial and the natural. Contraception, assisted reproduction and genetic manipulation are just examples.

In my lifetime, I have seen  
more progress in *science*,  
than *all* scientists of *all*  
preceding periods together,  
since the dawn of history.

**Social change is taking place today with enormous acceleration. The globalization of politics, economy and culture, changes in information technology and the revolution in genetic engineering are the major transforming powers.**

Jain et. al. European Review, 2002;10:131-157.

# ***A world of new realities and old value systems***

In a world in which the amount of new scientific information doubles in every 7th year, the value systems of our societies - that are based on historical tradition, parochial identities and religious dogma - are more and more in conflict with the new realities.

Our contemporary history gives the impression of a stormy sea, where the fragile vessel of rationalism is constantly threatened by the high waves of passion, fanatic faith and emotion.

Diczfalusy, 1994

## ***The history of ideas***

**When an idea meets the exigencies of an epoch it becomes stronger than political power; it becomes the common property of humankind and may resist the historical forces of destruction for a long time.**

***The scientific revolution***  
**is the only method by which**  
**most people can gain the**  
***primal* things (years of life,**  
**freedom from hunger,**  
**survival for children)**

C.P.Snow  
(1963)

## ***Knowledge and Research***

Human knowledge is imperfect and it will remain imperfect forever...

However, it is *indefinitely perfectible*.

Research is indefinitely perfecting human knowledge; it constantly improves the human condition.

**The creations of our mind  
shall be a blessing and not  
a curse to mankind.**

**Albert Einstein**

**The Stone Age may return  
on the gleaming wings of  
Science.**

Winston Churchill  
Science 1969;163:1175

**Scientific knowledge *per se*  
is neither good nor evil –  
it is just an instrument,  
*A N C I L L A .***

# ***The past and future of Science***

**Ancilla theologiae**

**Ancilla belli**

**Ancilla pecuniae**

***Ancilla humanitatis***

## ***Information, knowledge and wisdom***

**Information is no knowledge, *unless* systematized and critically assessed and knowledge is no wisdom, *unless* it is used to improve the human condition.**

***Some ideas that have changed  
our perception of the world***

**Contraception  
Reproductive health  
Gender equity  
Health equity**

**The miserable have no other medicine  
But only hope.**

*Measure for measure*

(1604)

*Act 3, sc.1, 1.2.*

# ***Health equity?***

Our generation is the first in the history of humankind that dared to think it possible to create a new world that intends to provide medical care and medicines for every human being in need of them.

E.D.

**In dreams begins responsibility**

**W. B. YEATS  
(Responsibilities)  
(1914.)**

**... It can happen  
if we let it happen.**

Today we have all the means to:  
greatly reduce human suffering,  
provide health services for all,  
eliminate very many diseases and  
eradicate hunger and poverty.

**The longer you can  
look back,  
the further you can  
look forward.**

**Winston Churchill  
(1944)**

Eight hundred life spans can bridge more than 50,000 years. But of these 800 people, 650 spent their lives in caves or worse; only the last 70 had any truly effective means of communicating with one another, and only the last 6 ever saw a printed word or had any real means of measuring heat or cold...

...only the last 4 could measure time with any precision; only the last 2 used an electric motor; and the vast majority of the items that make up our material world were developed within the lifespan of the *eight hundredth* person.

Leshner & Howick

1966

**Man can look forward to a future  
immeasurably longer than his past,  
inspired by a new breadth of vision,  
a continuing hope perpetually fed  
by a continuing achievement.**

**Bertrand Russell  
(1961)**

## **Key words for reflecting over the 21st century and Our Common Future.**

**Scientific progress  
Political confusion  
Globalisation  
Fragmentation  
Fluctuation  
Uncertainty  
Unpredictability  
Need for Humility  
and Infinite Hope**

**... The only Wisdom we can hope to  
acquire is the wisdom of humility:  
humility is endless.**

T.S. Eliot  
East Coker (1940)

**The infinite wisdom  
of *HOPE*.**

**E.D. 1997.**

**We can combat ill-health.  
We can do our part to combat  
poverty and suffering.  
Nothing in life as I see it  
has more meaning.**

**Dr. Gro Harlem Brundtland, 1998**

***Le bruit ne fait pas de bien,  
le bien ne fait pas de bruit.***

**François de Sales  
1602**

(The noise doesn't do any good,  
doing good doesn't make any noise.)