

## **DISPARITIES IN HEALTH : A REFLECTION OF THE WORLD'S GLOBALISATION AND FRAGMENTATION**

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### **Summary**

To assess a particular population's level of development and living conditions, there can be no better indicator than the health of the people concerned. The return of infectious diseases in richer countries and the growing tide everywhere of non-infectious ones are leading to a globalisation of public health requirements, a trend which has been steadily gathering pace in the last 50 year. In spite of this, and paradoxically, the world is also becoming fragmented with populations pulled apart along social, spatial and gender lines. Invariably, it is the poorest countries and societies' poorest, wherever they may be, who carry the heaviest burden. The fracture lines no longer separate the "Third World" from the developed, but the poorest people anywhere and everywhere, from the rest. Albert Sauvy's "*Third World*" is no more. The poorest exist in a multitude of "third worlds" which thrive in all latitudes, segregating the rural poor in the developing world, fragmenting urban communities and creating "shanty towns". And Sub-Saharan Africa is a unique case. In spite of the undeniable progress which has taken place over the last 40 years, the pace of development has been much slower than in the other nations which formed the "Third World" of the 1950s.

## 1. Introduction

An accurate assessment of a population's health gives a unique insight into levels of development, living conditions and the variable efficiency of national health systems in delivering health care, treating and preventing diseases, and enforcing laws aimed to reduce risks to health. On May 5<sup>th</sup> 1980, the World Health Organisation celebrated the eradication of smallpox, one of the most devastating scourges ever-known to humanity and the first infectious disease to be completely eradicated. In June 2003, twenty years later, the Pasteur Institute in France organised a vast campaign, urging people as follows: “*SARS, meningitis, tuberculosis, malaria, AIDS, hepatitis, newly-emerging viruses... This is a genuine EMERGENCY. Donate to the Pasteur Institute so that medical research outpaces diseases*”. As the 20<sup>th</sup> century drew to a close, a period so rich in remarkable medical advances, evidence of new dangers to world health began to cause alarm. The theory of orderly epidemiological transition described by Omran in 1971 became unsustainable, due to a multiplication of global risk factors:

- The failure to eradicate infectious diseases - the success with smallpox has been, to this day, unique.
- The re-emergence of ancient, half-forgotten diseases, such as sleeping sickness (human trypanosomiasis), cholera, diphtheria...
- The emergence of serious infectious pathologies, such as HIV/AIDS, Creutzfeldt-Jacob and Legionnaire's diseases, Ebola, SARS and avian influenza.

The national health systems of poorer countries have shown their shortcomings and the richer ones', their limitations. The latter are faced with the return of infectious diseases and the complexity of the situation has increased accordingly. The simplistic North-South divide has lost its relevance and been replaced by a globalisation of health needs – though disparities have never been as wide and are growing. As a result, the world today is torn between globalisation and fragmentation: this process, particularly exacerbated by events of the late 20<sup>th</sup> Century and the advent of the 21<sup>st</sup> Century, can be observed on multiple levels.

## 2. Undeniable convergence

### 2.1. « *Unheard-of* » statistics in mankind's history.

Global health indicators have never been as good as now and are at levels never previously recorded in mankind's history, as shown by the figures below.

During the last 50 years, life expectancy at birth has risen from 48 in 1950-1955 to 66 in 2004. In 130 states (home to 5 billion people), it stands at 60 or more. Male and female babies born in 2000-2005 have a 64% and 73.1% probability, respectively, of reaching the age of 65. The world's population is getting older through this rise in life expectancy and the concurrent drop in birth rates. The 65+ age group, which accounted for 6% in 2003, is expected to increase to 8.4% in 2015. Not only is life expectancy improving, but so is, fortunately, the expectancy of leading a healthy life, which exceeds 65 years in half the world's states.

The under-5 mortality rate in 1970, per 1000 live births, was 146. It dropped to 80 in 2003. According to the World Health Organisation, the resulting number of deaths dropped from 17 million in 1970 to 10.5 million in 2000-2003. Smallpox has been eradicated. Polio, measles, leprosy, dracunculosis and onchocercosis are losing ground.

Within a few decades, the world has undeniably become a much healthier place; with a large number of “Third World” countries, though still very disadvantaged in the 1950s, having successfully managed to catch up with the more advanced ones.

## **2.2. A worldwide struggle**

The improvement in global health observed throughout the 20<sup>th</sup> Century has been achieved through the cumulative effect of a number of factors. The diffusion of medical progress, the use of economic resources to foster human development (education, health and access to safe drinking water), the effectiveness of public health policies, and a general reduction in poverty levels.. The countries which used all those tools succeeded in thwarting ancient infectious diseases, which had plagued the world for millennia. Such a positive trend continued unabated for a whole century, from the “Louis Pasteur” revolution to the 1970s, with a remarkable series of medical breakthroughs which progressively benefited the entire world.

Immunisation, in particular, led to a spectacular drop in child mortality. Where countries have enforced appropriate public health policies, the grim battalion of so-called ‘childhood diseases’ (measles, polio, diphtheria, whooping cough and tetanus) has been brought under control. Some countries have even made immunisation compulsory. In the last ten years, about 500,000 lives have been saved in the developing world thanks to G.A.V.I. (Global Alliance for Vaccines and Immunisation).

Antibiotic therapy combined with improvements in standards of living has caused a dramatic drop in mortality caused by bacterial infections. The industrial production of penicillin started in England and the US in 1942. As a result, tuberculosis and syphilis mortality dramatically reduced. In the US between 1930 and 1959, for example, mortality caused by TB dropped from 71 to 6.5 individuals in 100,000.

The steady progress made throughout the 19<sup>th</sup> and 20<sup>th</sup> Centuries in safe drinking water production and delivery, and also in sanitation (collection and treatment of waste water), has checked the growth and dissipation of micro organisms responsible for so many “water-borne” diseases, such as diarrhoea and cholera. Even if such illnesses are still a tragedy for the populations of most of the less developed countries, about 1.2 billion people in the last decade have, according to the UN, have gained access to safe drinking water.

An unprecedented number of laws and regulations now exist with the common aim to reduce all types of risks to health: in the work environment, on the road, in food production, and in the consumption of tobacco and alcohol (to name just a few). Because of all this progress in medicine and public health, it is easy to believe that the world has never been safer. However, other arguments fuel the debate by pointing in the opposite direction, towards an increase in dangers to health.

### **3. Increased globalisation of health needs**

#### **3.1. The threat of new infectious pandemics.**

The return of infectious diseases in the most advanced countries became a cause of alarm. The spectacular spread of AIDS, a mysterious disease that turned into an epidemic in 1981, shocked North America and black Africa. Just five years later, they were not the only ones; 149 countries had reported cases.

Twenty nine new diseases have appeared within the last thirty years of the 20<sup>th</sup> Century. Apart from bacterial infections such as Legionnaire's disease (first recorded among American Legion veterans gathered at a convention centre in Philadelphia) and Creutzfeldt-Jacob disease (a prion encephalopathy), the new infectious pathologies are caused by viruses. Their number is rising - SARS (Severe Acute Respiratory Syndrome) in spring 2003, being the first new arrival in the 21<sup>st</sup> Century.

Not only are we seeing the emergence of new diseases, but those we thought had been brought under control are making a strong comeback: cholera; sleeping sickness in Black Africa; bubonic plague in Madagascar, India (1996) and Algeria (2003); and dengue fever. Moreover, those "old" diseases are spreading: cholera into Latin America and Africa and dengue fever (transmitted by the mosquito *Aedes aegypti*) into Asia, the Pacific and tropical America – the most severe form causing potentially fatal haemorrhages in children. They have become drug resistant, like malaria, which is caused by *Plasmodium falciparum*, a human blood-specific protozoan parasite. The mosquito, the main carrier of parasitic and viral diseases, has become resistant to insecticides. As a result, the faith in a continuous progress of medicine is shaken, infectious diseases are once more feared and no region feels safe from the onslaught. Action is taking place across the globe in the form of health campaigns - notably in 2003 and the winter of 2005 concerning SARS and avian influenza - to contain the threat of fatal global pandemics.

#### **3.2. Worldwide epidemic of non-infectious diseases.**

Simultaneously, other risks to health frequently make front page news. To name but a few: lead poisoning; nitrates; road accidents; alcohol and tobacco; excessive consumption of fatty, sugary and salty foods which lead to serious weight problems and obesity. They serve as a constant reminder that life can never be risk-free and that life styles can jeopardise good health.

The global increase in life expectancy, which seemed unstoppable until recently, may decelerate as a consequence. The fear of seeing it stagnate, or even go in reverse, is not unreasonable since it happened to the ex-Soviet republics in the 1990s and to the African nations hardest hit by AIDS.

In its 2002 World Report, the WHO endeavoured to establish an international ranking of different health risks recognized within member states. Unsettlingly, the results showed that the evolution of lifestyles pose a greater threat to the general health of a population than living conditions. Five out of the ten most common high risk factors in this study are not infectious diseases: high blood pressure, high blood cholesterol, tobacco consumption,

alcohol consumption and obesity. They are not found in any particular group of countries – but in all countries worldwide. One of the most salient outcomes of the late 20th Century is the globalisation of health risks caused by a similar evolution in lifestyles. In May 2002, Dr. Gro Harlem Brundtland, then WHO Director-General, declared in her opening message to the 55th World Health Assembly: “*The world is living dangerously, either because it has little choice, or because it is making wrong choices in terms of nutrition and exercise*”. The spread of unhealthy patterns of behaviour across the globe represents now the biggest challenge to world health because, even though extreme destitution still exists (reminding us of all that remains to be done), it is a poignant fact that standards of living have enormously improved in the 20<sup>th</sup> Century: hunger is becoming rarer and access to safe drinking water has increased.

Changes in lifestyles at the end of the 20th Century are the single most important factor explaining the appearance or aggravation of numerous risks to health, because of their global reach. The world’s urbanisation accelerates the pace and leads to a standardisation of life styles. Cities foster a feeling of freedom and a willingness to experiment. It is in cities that the nutritional trend towards the over-consumption of fatty and sugary foods and under-consumption of fibre, fruit and vegetables began. It largely explains the obesity epidemic and the rise in associated metabolic disorders which lead directly to cardio-vascular diseases and some cancers.

#### **4. But a powerful dynamic of divergence**

Whilst the forces of globalisation have never been as powerful and effective as during this last half-century, our world now, in this beginning of the 21st century, is fractured along fault lines which are pulling people apart again. As a result, world health has never presented such stark contrasts: an ever-widening gap for numerous countries and societies. It is clear that we must ask ourselves why this is: especially given that globalisation is so powerful and mortality causes are well known and largely avoidable.

Those inequalities in health can be observed in three different dimensions: social, territorial and gender-related. For every area in the world it is possible to see such differences in life expectancy.

##### **4.1. Gender-based disparities.**

The mean difference in life expectancy at birth between men and women, globally, is only 4 years. But disregarding the mean, the gap between highest and lowest figures has never been as wide. It is a known fact that the natural ratio of male to female at birth is 1005/1000 and that women live longer than men do. The following tables (1 & 2) show both extremes.

	<b>Men</b>	<b>Women</b>	<b>Gap (in years)</b>
<b>Largest gap :</b>			
Russia	58	72	14
Bielorussia	63	75	12
Estonia	65	77	12
Latvia	65	77	12

Lithuania	66	78	12
Ukraine	62	74	12
Porto Rico	73	82	9
Brasil	67	75	8
Uruguay	71	79	8
<b>Smallest gap :</b>			
Bangladesh	60	60	0
Bhutan	66	66	0
Zambia	35	35	0
Nigeria	52	52	0
Afghanistan	42	43	1
Maldives	73	74	1
East Timor	48	49	1
Ivory Coast	42	43	1
Mali	48	49	1
Niger	45	46	1

Table 1 - Higher and lower disparities in male/female life expectancy at birth:  
World Population Data Sheet 2004

	<b>Men</b>	<b>Women</b>	<b>Gap in years</b>
Nepal	59	58	1
Namibia	48	46	2
Swaziland	45	42	3

Table 2 - Countries where female life expectancy is lower than male:  
World population Data Sheet 2004

With the exception of Nepal, Namibia and Swaziland, female life expectancy is equal to or higher than that of the male. Where the situation is reversed, the difference to their detriment remains modest compared to the usual difference in their favour. However, the staggering figures of 12 to 14 years observed in the ex-Soviet republics after the collapse of the USSR (table 3) are unheard-of, in the absence of conflicts and/or famine. As shown in table 3, the difference between male and female life expectancy grew steadily throughout the 20<sup>th</sup> Century to end up in 2003 with those record figures. Estimates show that, between 1992 and 2001, such gender inequalities represented between 2.5 and 3 million excess deaths, responsible for a 5% fall in the overall population. According to the World Bank, if mortality rates remain unchanged, 40% of the boys presently aged 15 will die before 60.

<b>Years</b>	<b>Men</b>	<b>Women</b>	<b>Gap in years</b>
1900	29	32	3
1920	40	46	6
1940	40	47	7
1960	63	71	8
1970	63	73	10
1980	62	73	11

1990	64	74	10
1993	60	72	12
2003	59	72	14

Table 3 - Evolution of male and female life expectancy in 20th Century Russia:  
Source : Zakharov S., in *Narodonaselenie, enciklopedicheskij slovar*, Moscou 1993 and  
2004 World Population Data Sheet.

The gender-based disparities in life expectancy reflect the various levels of exposure to a number of risks to health. Russia and neighbouring states (table 1) are paying a heavy cost due to alcohol abuse (a contributing factor to suicide and crime), cardiovascular diseases (from poor nutrition and lifestyle) and the collapse of the Iron Curtain with the rapid economic changes which have allowed otherwise avoidable infections (notably HIV/AIDS, TB and diphtheria) to spread - in part because public health systems have been unable to cope. Men, particularly the single and the uneducated, are the most vulnerable because their pattern of behaviour and lifestyles show how little they care for their health.

The countries where the normal gap in life expectancy between men and women is smallest, or even reversed (tables 1 and 2), are countries offering typically particularly hostile conditions to women. Their status in society and the lives they lead are heavily burdened by legal, social, economical, political and gender-based inequalities which overexpose them to all categories of risks, within cultures which are fundamentally and structurally biased against them. All indicators of access to education, to decent food, to health care, to employment and to property point to their “second-class citizen” status compared to men. For example, women and young children are the most vulnerable to passive smoking because they have little choice. In India, female child mortality (1 to 5) is 50% higher than male. The high rate of female mortality from birth to 30 reverses the normal demographic ratio between men and women. And because young women are overexposed to unsafe sexual practices, there is a clear feminisation of AIDS. A 2004 UNAID worldwide survey has estimated that 4.6% of women but only 1.7% of men in the 15-24 age group were HIV positive. In South Africa the proportion was 20% and 10%. Another survey of the 15-19 age group in Kisumu (Kenya) showed that the rate of infection amongst girls was 8 times higher than amongst boys: 23% against 3%. Such disparities can be explained by women’s lack of education and poverty, their subservience to men, their overexposure to violence and the higher infection rates for transmission of the disease from men to women than vice-versa. Numerous health indicators indicate how far there is to go in order to achieve a better equality between genders.

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## Biographical Sketch

**Jeanne-Marie Amat-Roze** is a geographer with an Agregation degree and a Doctorate in Geography. She holds a chair as geography professor at the University of Paris XII-Val de Marne. Her body of work and publications specialise in the study of health inequalities in the world, a subject she has been strongly instrumental in developing in France, where she lectures in numerous medical schools. She is vice-president of the French National Geography Committee, president of the "Commission Géographie de la santé" and is member of the "Académie des Sciences d'Outre-Mer" and corresponding member of the Royal Academy of Overseas Sciences of Belgium.