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## **The Coming Acceleration of Global Population Aging**

Laxenburg, 20 January 2008 – However you look at it, the world's population is aging with increasing speed, according to research published online by *Nature* this week. This speed of aging will continue to increase over the coming decades but is likely to slow by mid-century.

Wolfgang Lutz and colleagues use both traditional measures and new concepts that include changes in longevity to investigate how fast the population is aging in thirteen major regions. Conventional concepts of aging rely on a fixed age boundary - for example, everyone of sixty years or over - and assume that a sixty-year-old in 1900 was just as old as a sixty-year-old in 2000. The team introduces and quantifies three new indicators of age that explicitly take changes in the remaining life expectancy into account. Both sets of measures show that we will face the challenge of an acceleration of global population aging over the coming decades, with the prospect of a slower speed of aging towards the second half of the century.

### **Frequently asked questions:**

*What is the main finding of your paper?*

Although populations will be growing older throughout this century, the speed at which aging will occur will not be steady. Populations will be growing older at a faster pace in the next few decades. After 2030-50, in most regions of the world, the pace of aging will slow down.

*Why study the speed of aging?*

It is more difficult to adjust to rapid changes than to slow ones. The period of the fastest speed of aging will be the one in which adjustments will be the most difficult. Policy-makers need to be aware of when aging will be the most rapid, so that they can make appropriate decisions ahead of time. After mid-century, the speed of aging will be slowing down.

*When will the maximum speed of population aging happen for the world?*

Our article shows that, for the world as a whole, the maximum speed of population aging will occur in the decade 2020 to 2030.

*Will there be a great deal of difference in timing of the maximum speed of aging in different regions?*

In most regions of the world, the maximum speed of aging will have passed by mid-century. Some regions, like Japan/Oceania and Pacific Asia are already nearing the periods of peak aging speed. In those regions, the peak speeds are expected in the decade 2010-20. North America, the China Region and the European portion of the former Soviet Union will experience their peak aging speeds in 2020-30. Western Europe and Eastern Europe will have

a longer period of peak aging speed lasting from 2010 through 2030. South Asia will experience its maximum speed of aging in 2035-2045 and the Middle East in 2040-2050.

*What determines the timing of the peak speed of aging in different regions?*

In general, the timing of the peak speed of aging depends on past patterns of fertility. In the US and in parts of Western Europe the timing is determined by when baby boomers start becoming elderly. In China, it is determined by the timing of the implementation of strict fertility control policies. In many developed countries, fertility started falling in the 1960s and 1970s, in part because of family planning programs and in part because of economic development. The wave of aging, in all cases, is caused by large cohorts being followed by much smaller ones.

*How can we prepare for a period of especially rapid aging?*

In a period of especially rapid aging, there is always a danger of more instability in political processes. Policies made at one point could be overturned only a few years later as the age composition of the electorate changes. It is important to establish sustainable policies with respect to the financing of pensions and healthcare for the elderly while such policies are still politically feasible.

*What is the connection between this work and your previous work on population forecasting?*

In 2001, we published an article in *Nature* entitled “The End of World Population Growth” in which we used probabilistic population forecasts to demonstrate that it was highly likely that the world population growth would come to an end during this century. This article is based on an updated set of probabilistic forecasts, where we have taken into account the changes in birth and death rates that have been observed since our previous paper. We show in this article that the likelihood of world population growth coming to an end during this century is essentially the same as we estimated it to be earlier.

*What do your forecasts show for the period after 2050?*

Our forecasts show diminishing population stress on a global level. World population growth around mid-century will be close to zero for a number of decades and aging will be happening at a slower pace.

*How do increases in life expectancy affect your forecasts for the speed of aging?*

We assess the speed of aging using 6 indicators, three of them are not adjusted for life expectancy increase and three of them are. Indicators of aging that are adjusted for life expectancy change show a slow pace of aging than unadjusted measures, but generally, the six indicators tell a reasonably consistent story about the timing of changes in the speed of aging.

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**Notes to the Editors:**

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