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**Global Aging and Health
Bridging Science, Policy, and Practice**

António Francisco (Ph.D), IESE. Session: “Social Research, Policy, and Practice”

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‘Gerontogrowth’ vs. Population Ageing: Why does this differentiation matter?

António A da Silva Francisco



San Francisco, July 24, 2017



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'Gerontogrowth' vs. Population Ageing: Why the distinction matters?
António A. da Silva Francisco

Introduction
The short and direct answer to the question in the title is: All countries are experiencing a progressive increase in the number of people aged 60 and over, but not all of them are experiencing an ageing population. These two distinct demographic dynamics can be accurately captured by distinguishing the widely used concept of 'population ageing' from the 'gerontogrowth' neologism.

What is 'Gerontogrowth'?
As the word suggests - geronto + growth - means the increase in the number of elderly people (60 and over). The growth of the elderly population is a more certain phenomenon than the ageing population; it depends solely on the reduction of mortality in general, and among the elderly in particular, while population ageing depends mainly on reduced fertility.

What is 'Population Ageing'?
Population ageing is the process that results in increasing proportions of the elderly in the total population. It can be measured by the 'Ageing Index' (AI), a demographic indicator that relates the proportion of the elderly to the proportion of the young. It is usually expressed as the number of people aged 60 and over (or 65+) for 100 people under the age of 15; a number less than 100 means that there are fewer elderly than young people.

Analysis
Table 1: The Different Characteristics Between Gerontogrowth and Population Ageing

Gerontogrowth	Population Ageing
It depends on the number of elderly people in a given population.	It depends on the proportion of elderly people in a given population.
It is measured by the increase in the number of elderly people.	It is measured by the ageing index of the country.
It is a demographic indicator.	It is a demographic indicator.
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Results
Table 2: Population Structure Indicators: Percentage of Elderly, Ageing Index (AI), Total Fertility Rate (TFR), and Infant-Age of the Population, 2015 and 2050

Country	Year	% of Elderly	AI	TFR	Infant-Age
USA	2015	16.5	100	1.8	12.5
USA	2050	22.5	100	1.8	12.5
France	2015	21.5	100	1.8	12.5
France	2050	28.5	100	1.8	12.5
Germany	2015	23.5	100	1.8	12.5
Germany	2050	31.5	100	1.8	12.5
Japan	2015	26.5	100	1.8	12.5
Japan	2050	35.5	100	1.8	12.5
India	2015	6.5	100	2.5	14.5
India	2050	11.5	100	2.5	14.5
China	2015	13.5	100	1.8	12.5
China	2050	18.5	100	1.8	12.5
Sub-Saharan Africa	2015	4.5	100	4.5	16.5
Sub-Saharan Africa	2050	11.5	100	4.5	16.5

Conclusions
Gerontogrowth and the ageing of the human population are two of the most significant achievements of the 20th century that are expected to be widespread and consolidated throughout the 21st century. Recognizing the difference between these two demographic processes is essential for three reasons: 1) To better understand the real and diversified nature of the demographic dynamics in progress; 2) To understand the differential impact dimension of the overall process of demographic transition resulting from the staggered effect of changes in mortality and fertility; 3) To identify different processes usually require distinct policies.

Today, the challenges faced by a significant number of countries in sub-Saharan Africa are not more due to population ageing than to the ageing of the population. Therefore, policy makers do not prioritize the issue of population ageing as the greatest challenge they face in the short term stems primarily from population rejuvenation.

While it is unclear how long the process of rejuvenation in countries like Mozambique may last, international experience knows no doubt that population ageing only becomes relevant if and when the fertility transition becomes effective. Fortunately, sub-Saharan Africa already has some encouraging examples that this region does not remain an exception in the world that example, Botswana, Lesotho, Mauritius, South Africa and a few others.

References

The World Development Report 2015
The World Bank
World Development Indicators
World Bank

- **IESE (Institute of Social and Economic Studies)**, Maputo, Mozambique



www.iese.ac.mz

- **This presentation is a more extensive development of the Academic Poster. Its content is a by-product of IESE's research focused on social protection issues, based on a structuring rather than merely charitable perspective, and in this specific case. It is oriented towards the investigation and debate on the pertinence, feasibility and sustainability of a universal old age pension for Mozambicans.**

After attending this session participants should be able...:

Objective 1: ...To grasp the difference between ‘gerontogrowth’ vs. population ageing and its analytical relevance;

Objective 2: ...To understand the overrepresentation of the low income countries at the bottom of the HelpAge International’s *Global AgeWatch Index*;

Objective 3: ...To draw the appropriate and relevant implications for the policy framework of the aging population in relation to rejuvenation, particularly in low-income African countries.

Living to the age of 60 years or more is a notable achievement of the human population and one of the most remarkable privileges in the recent evolution of humanity. Longevity is a privilege because only a small portion of the people who are born and survive their first year of life manage to reach old age. Globally, 12,3% of the total population (901 million people) are elderly, ranging widely between 24% in the More Developed Regions and less than 5% in the Sub-Saharan Africa.



Is 'Population Ageing' happening in all countries?

Ageing in the
Twenty-First Century:
A Celebration and A Challenge



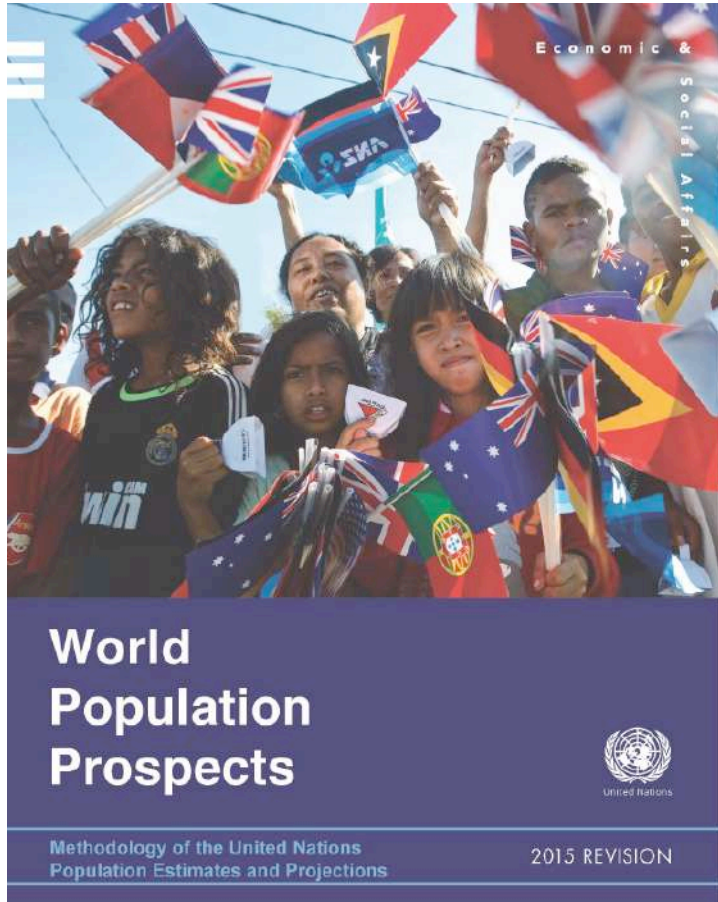
Population ageing

Population ageing is happening in all regions and in countries at various levels of development. It is progressing fastest in developing countries, including in those that also have a large population of young people. Of the current 15 countries with more than 10 million older persons, seven of these are developing countries.

Ageing is a triumph of development. Increasing longevity is one of humanity's greatest achievements. People live longer because of improved nutrition, sanitation, medical advances, health care, education and economic well-being.



KEY SOURCES

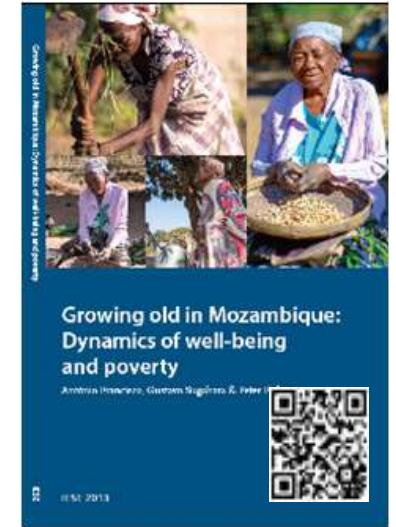



Global AgeWatch Index 2015 at a glance

The **Global AgeWatch Index** ranks **96 countries** according to the social and economic wellbeing of older people.

Income security	Health status	Index Rank
<ul style="list-style-type: none"> Pension coverage Income Poverty rate in old age Relative wealth of older people \$100 per month 	<ul style="list-style-type: none"> Life expectancy at 60 Healthy life expectancy at 60 Psychological wellbeing 	<ol style="list-style-type: none"> Switzerland Norway Sweden Germany Canada
<ul style="list-style-type: none"> Enabling environment Social connections Physical safety Civic freedom Access to public transport 	<ul style="list-style-type: none"> Capability Employment of older people Educational status of older people 	<ol style="list-style-type: none"> Pakistan West Bank & Gaza Mozambique Malawi Afghanistan

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Full length article

'Gerontogrowth' and population ageing in Africa and the Global AgeWatch Index[☆]

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Table 1: The Different Characteristics Between Gerontogrowth and Population Ageing

Gerontogrowth	Population Ageing
Definition	
Increase in the number of elderly people in a given population.	Increase in the proportion of older generations in a given population.
Intensity factors	
<ol style="list-style-type: none"> Increase in the life expectancy of the elderly; Effects of demographic inheritance; Migratory contribution of elderly people (cases in public services in Maputo City). 	<ol style="list-style-type: none"> Fall of fertility at different speeds; Increase in the survival rates of the elderly; Composition by age and fertility behavior due to migration; Effects of demographic inheritance (factors to be analyzed in a specific way if it concerns the working population, the population of a company).

Gerontogrowth	Population Ageing
Measuring Indicators	
<ol style="list-style-type: none"> Measures of variation of the number of elderly, in absolute (effective) and relative (growth rate of the elderly age groups) terms; Life expectancy in the elderly groups. 	<ol style="list-style-type: none"> Ageing Index (AI); Median age and mean age of the population; Total Fertility Rate and Life Expectancy at Birth.
Perspectives after 2015 in Mozambique	
<ol style="list-style-type: none"> Slow structural changes, unless external factors arise; Gerontogrowth should continue depending on the external influence (import of technological innovations and external savings). 	<ol style="list-style-type: none"> Population ageing likely to be delayed, depending on the intensity of rejuvenation, the onset and speed of fertility transition.
Source: Adapted from Dumont (2003).	



Table 2: Population Structure Indicators: Percentage of Elderly, Ageing Index (AI), Total Fertility Rate (TFR) and Median Age of the Population, 2015 and 2050

Selected countries	ESTIMATES				PROJECTIONS (MEDIUM VARIANT)			
	60+ (%)	AI (%)	TFR (Children per woman)	Median age (years)	60+ (%)	AI (%)	TFR (Children per woman)	Median age (years)
	2015				2050			
WORLD	12.3	47.0	2.49	29.6	22	111	2.23	36.1
More developed regions	24.0	146.0	1.68	41.2	33	209	1.83	45.1
Less developed regions	10.0	35.2	2.61	27.8	20	89.3	2.28	34.9
Least developed countries	5.0	13.6	4.11	19.7	10	32.1	2.85	26.1
Less developed regions, excluding China	8.0	26.3	2.91	25.2	17	69.2	2.34	32.6
High-income countries	22.0	128.0	1.75	39.7	32	203	1.83	44.7
Middle-income countries	11.0	39.8	2.39	28.9	22	108	2.12	37.1
Low-income countries	5.2	12.2	4.70	18.5	8	25.6	2.99	24.6
Sub-Saharan Africa	4.8	11.2	4.93	18.3	8	22.7	3.14	23.7
AFRICA	5.4	13.3	4.57	19.4	9	27.6	3.03	24.8
ASIA	12.0	47.3	2.17	30.3	25	136	1.91	39.9
EUROPE	24.0	151.9	1.61	41.7	34	226	1.80	46.2
LATIN AMERICA AND THE CARIBBEAN	11.0	43.5	2.10	29.2	26	149	1.78	41.2
NORTHERN AMERICA	21.0	111.8	1.85	38.3	28	165	1.90	42.1
OCEANIA	16.0	70.2	2.38	32.9	23	117	2.50	37.4
Australia/New Zealand	20.0	107.6	1.91	37.6	28	167	1.79	41.6

Source: HelpAge International 2015; UN, 2015

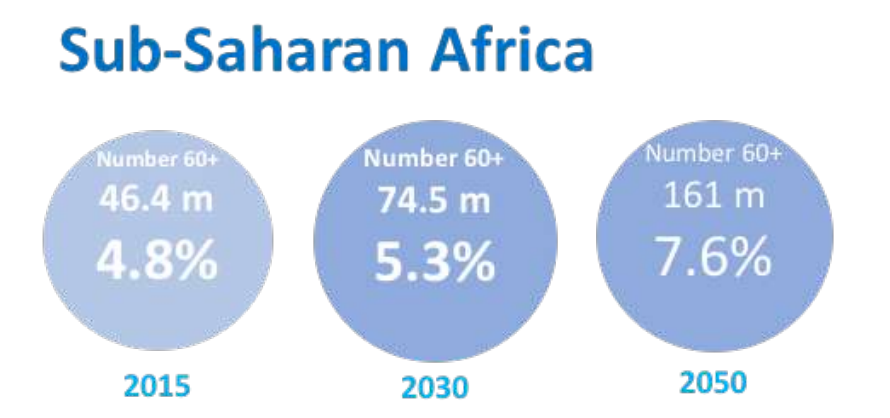
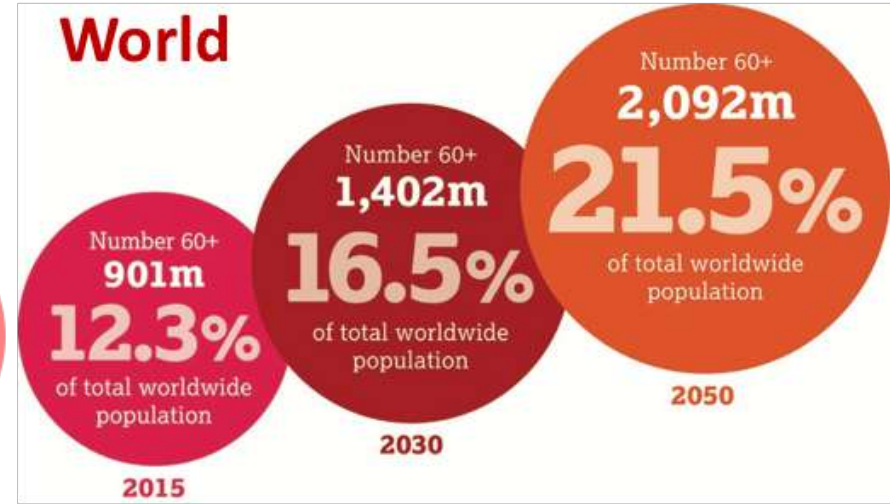
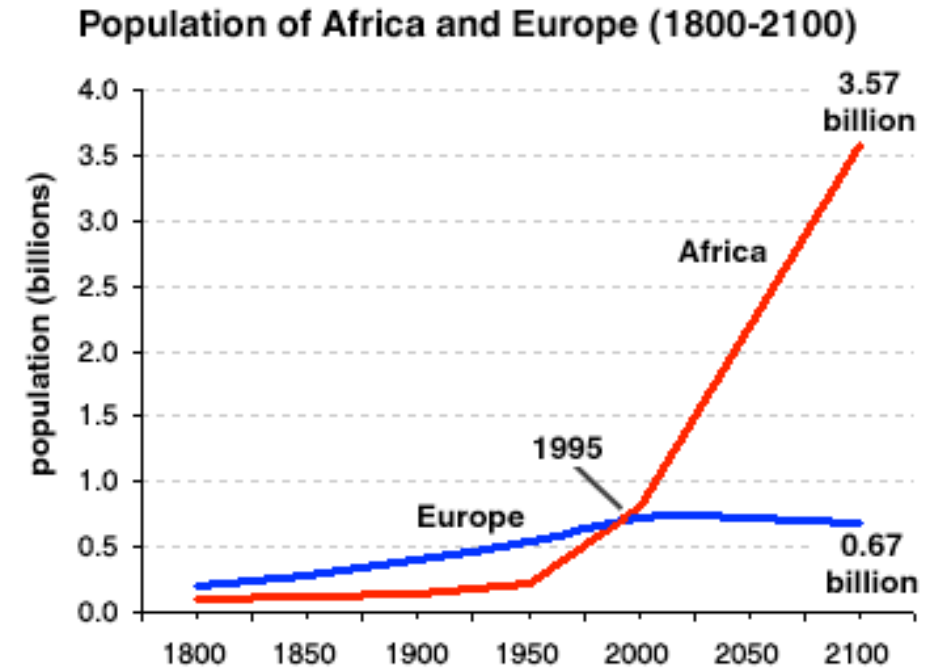
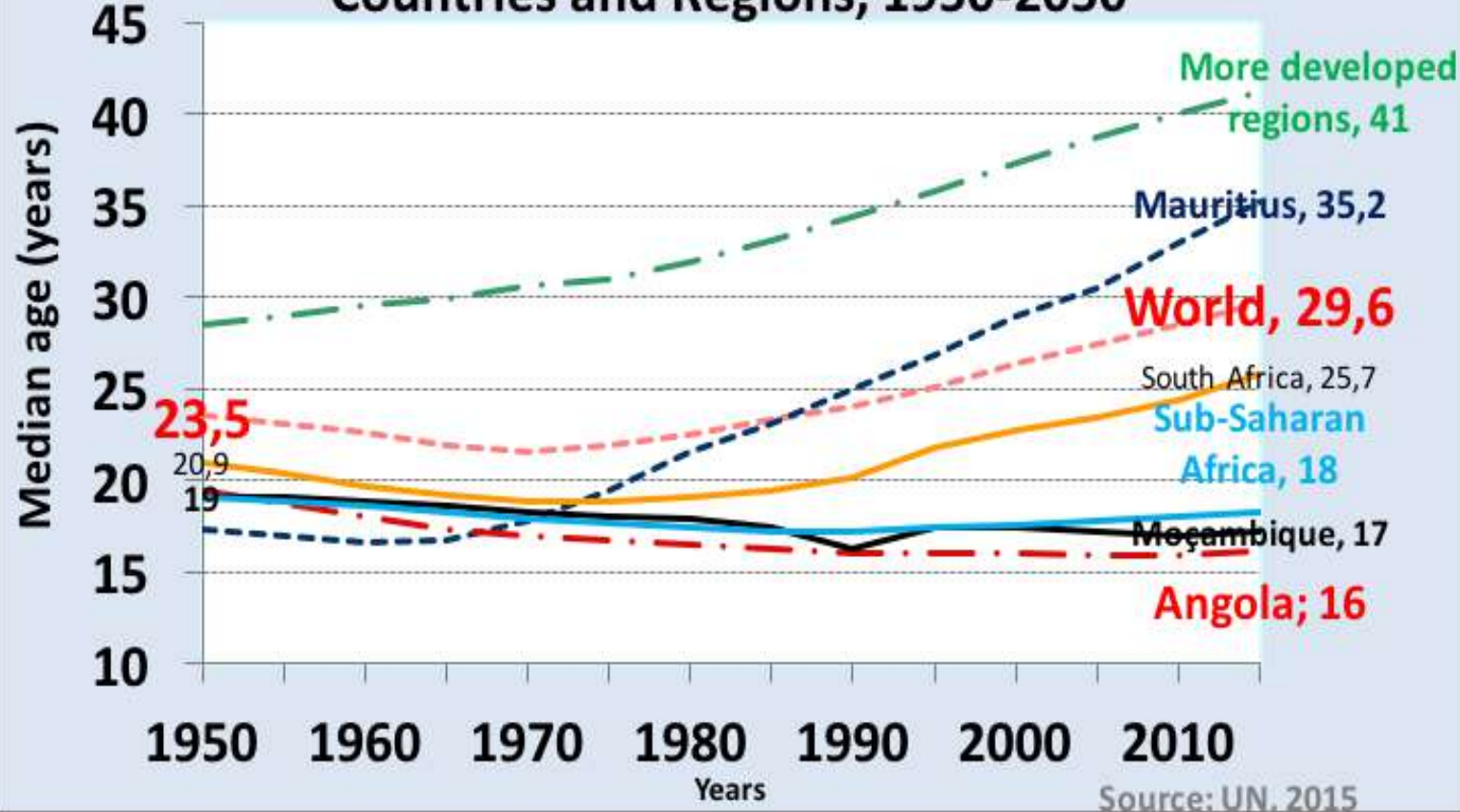




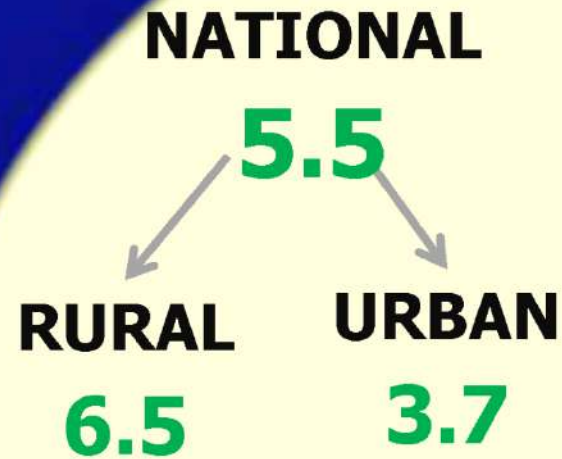
Fig. 1. Median Age of the Population in Selected Countries and Regions, 1950-2050





HOW MANY ARE TOO MANY?

Total Fertility Rate (TFR)
(Children per woman) 2012

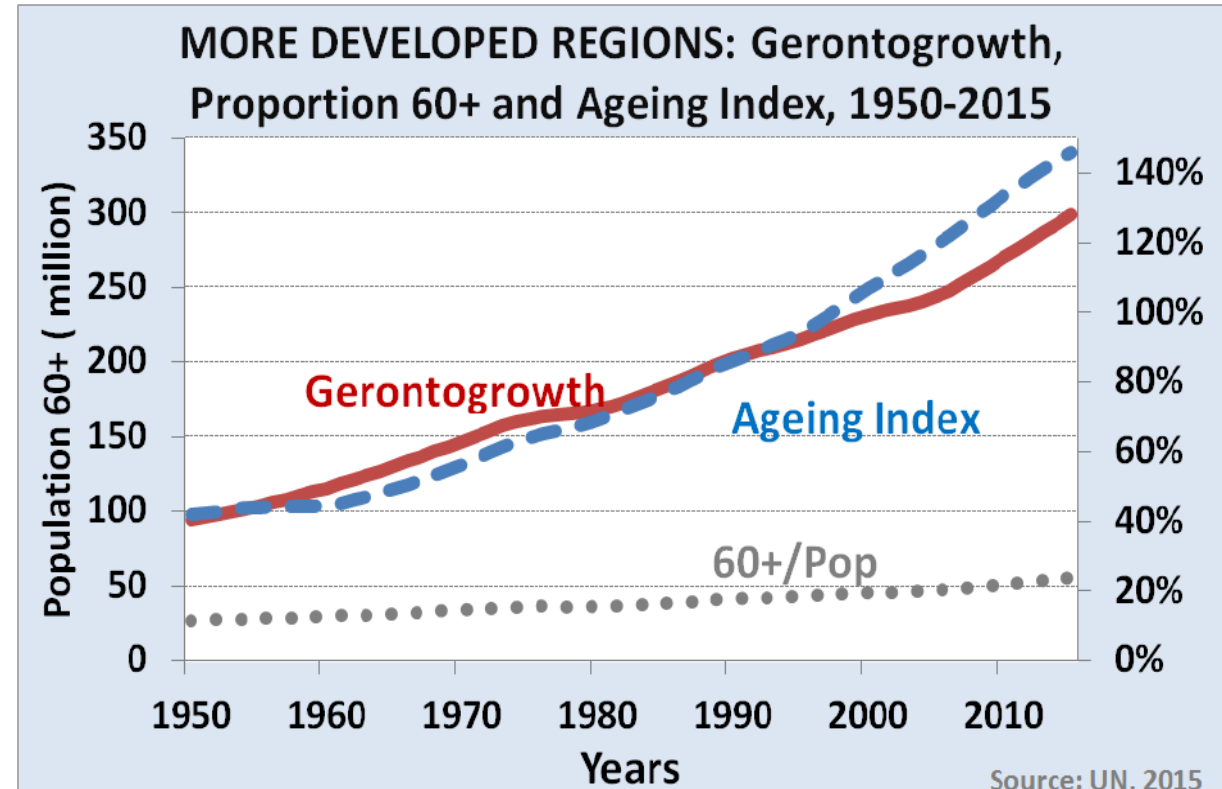
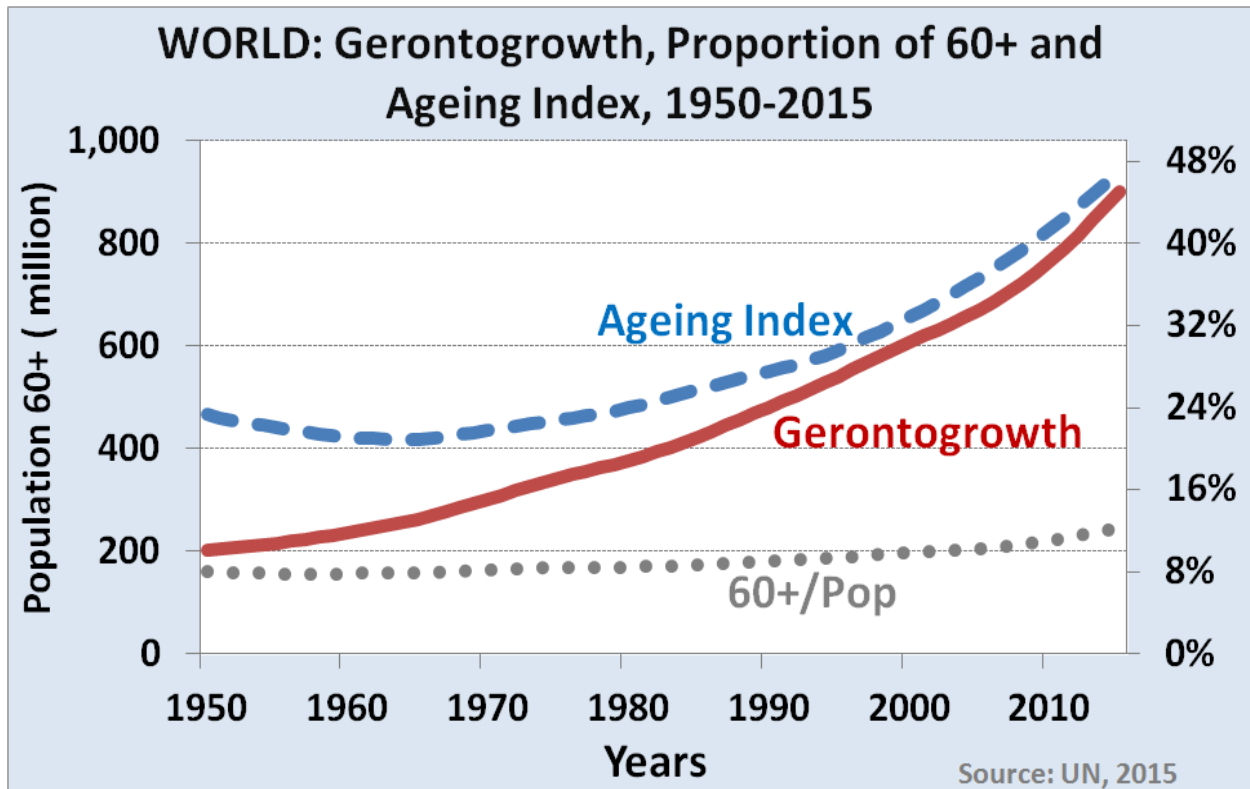


INE, 2010

Having too many children continues to be the main form of social protection in many Sub-Saharan African countries, including Mozambique.

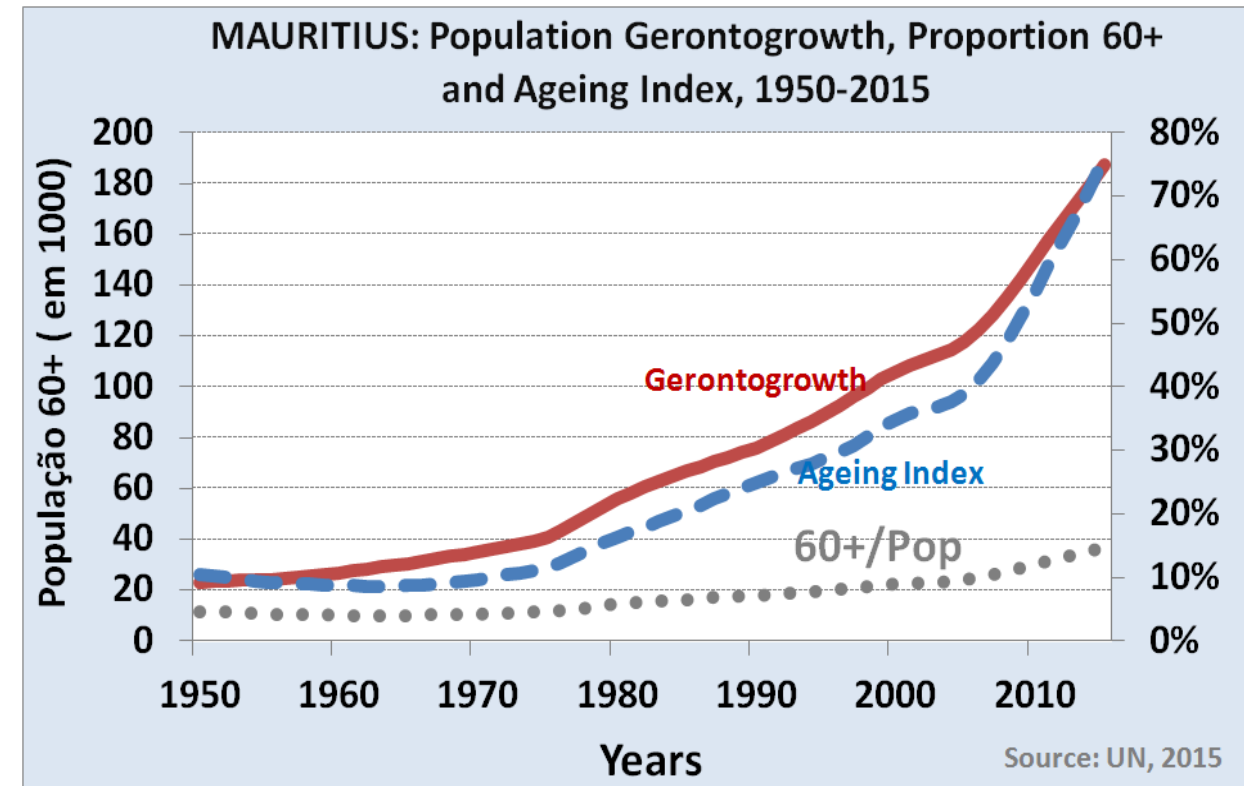
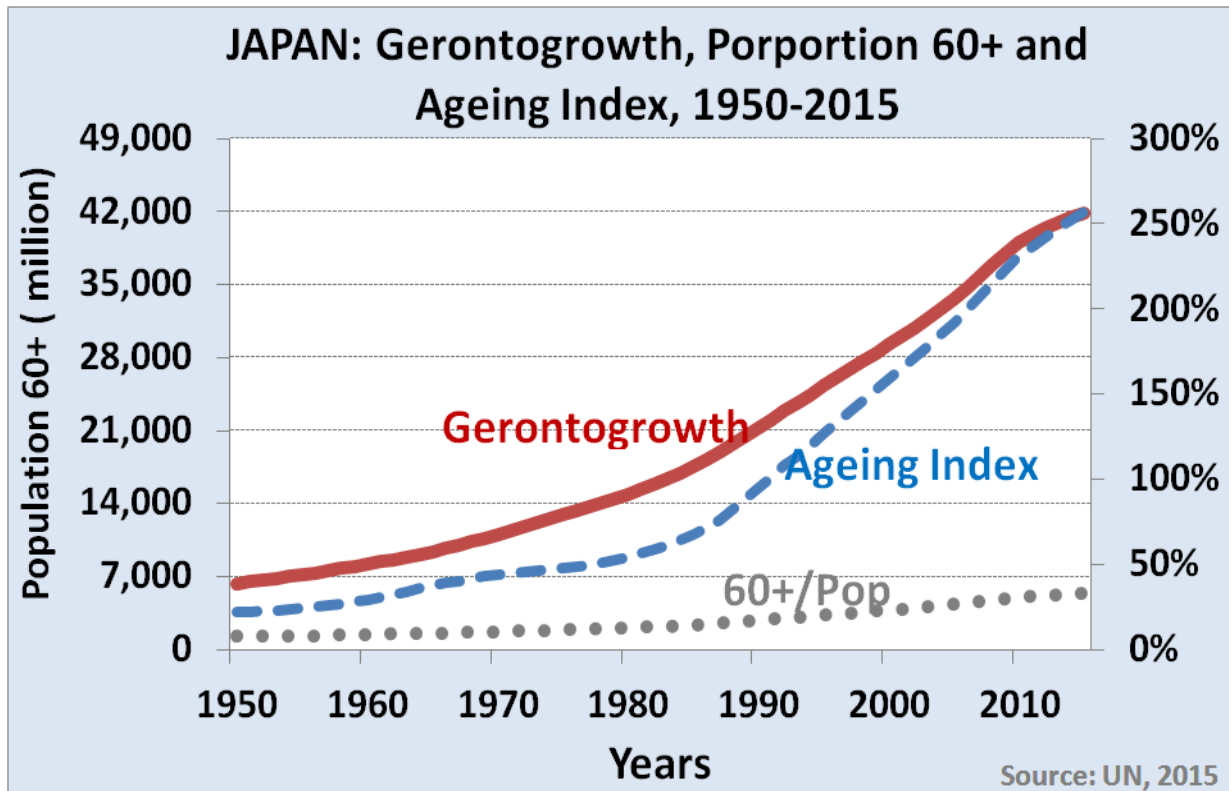


Gerontogrowth and population ageing in the **WORLD** and the **MORE DEVELOPED REGIONS**



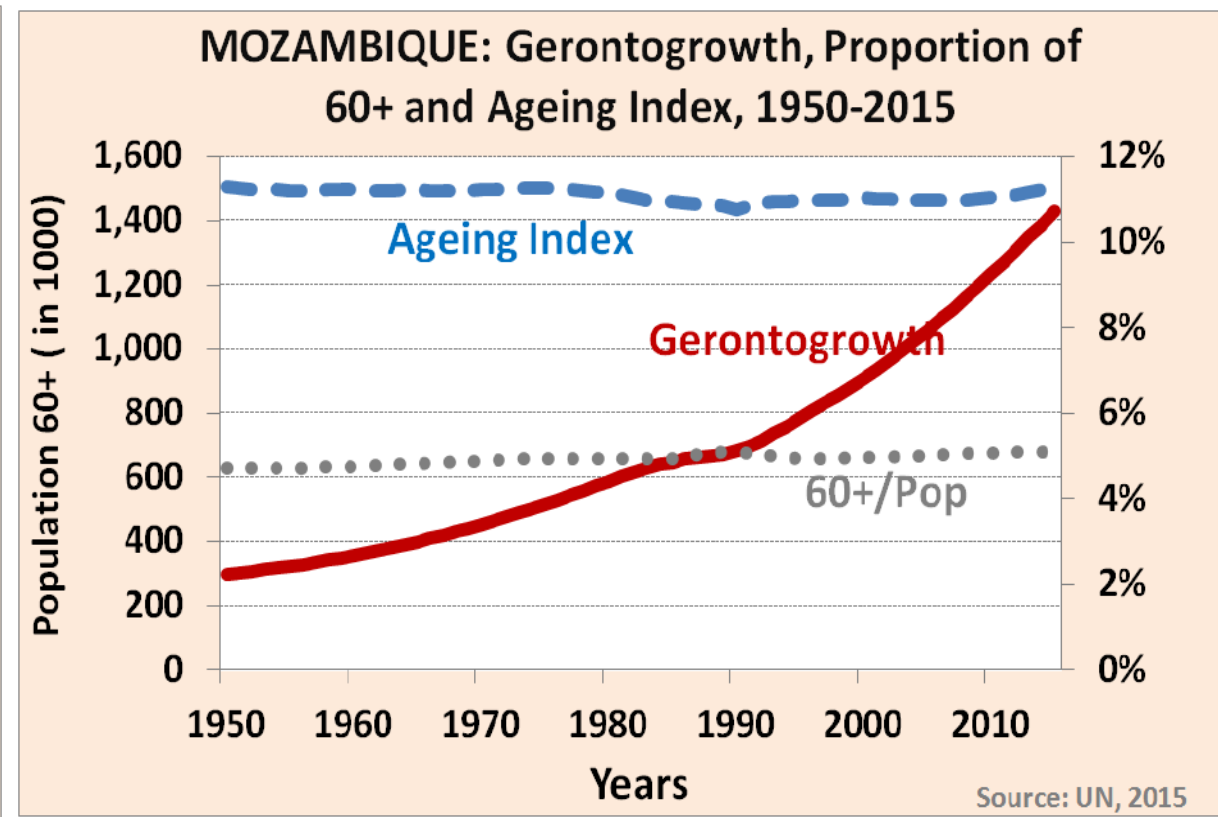
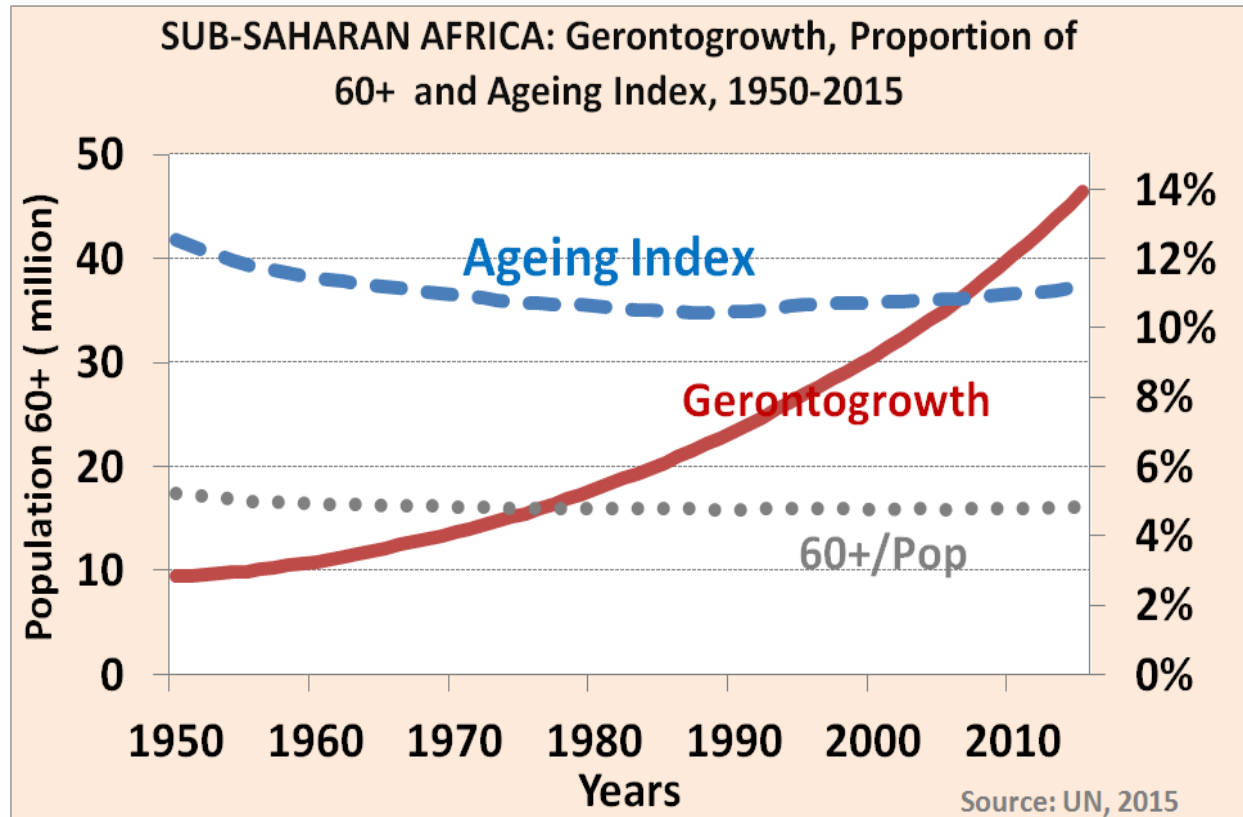


Gerontogrowth and population ageing in JAPAN and MAURITIUS



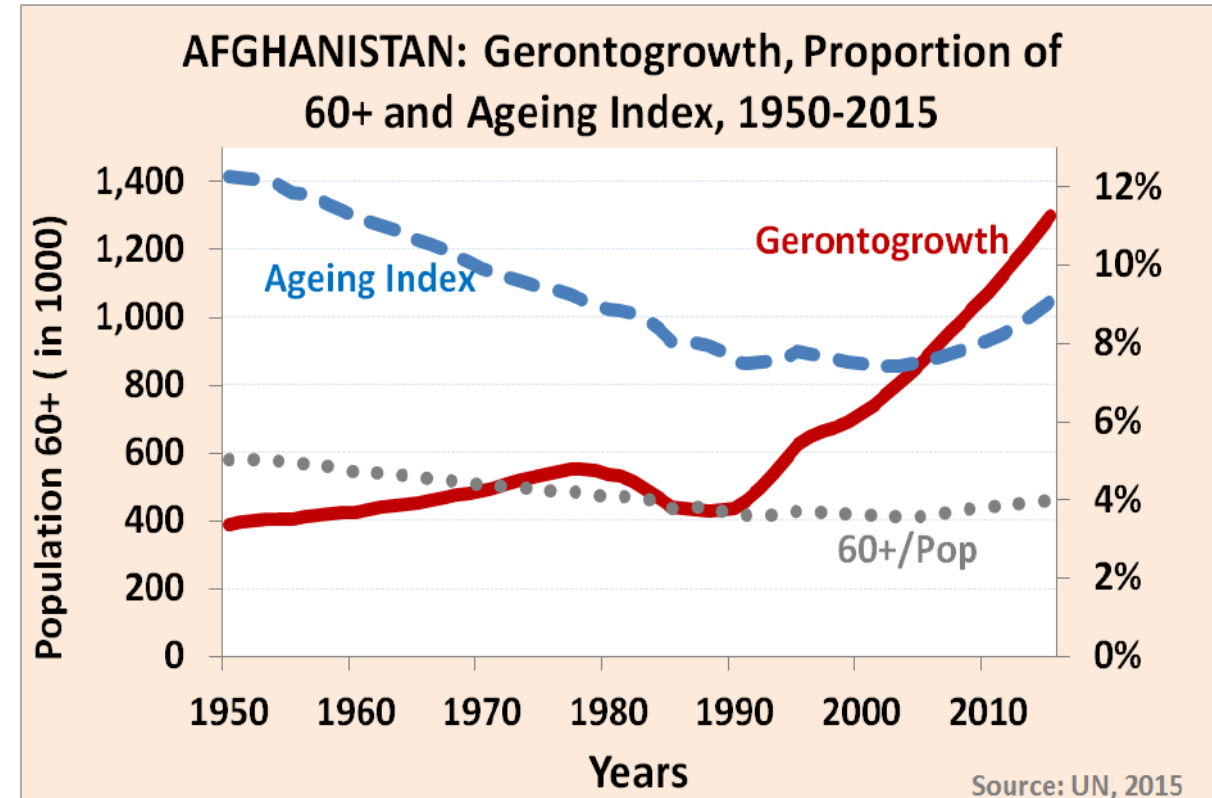
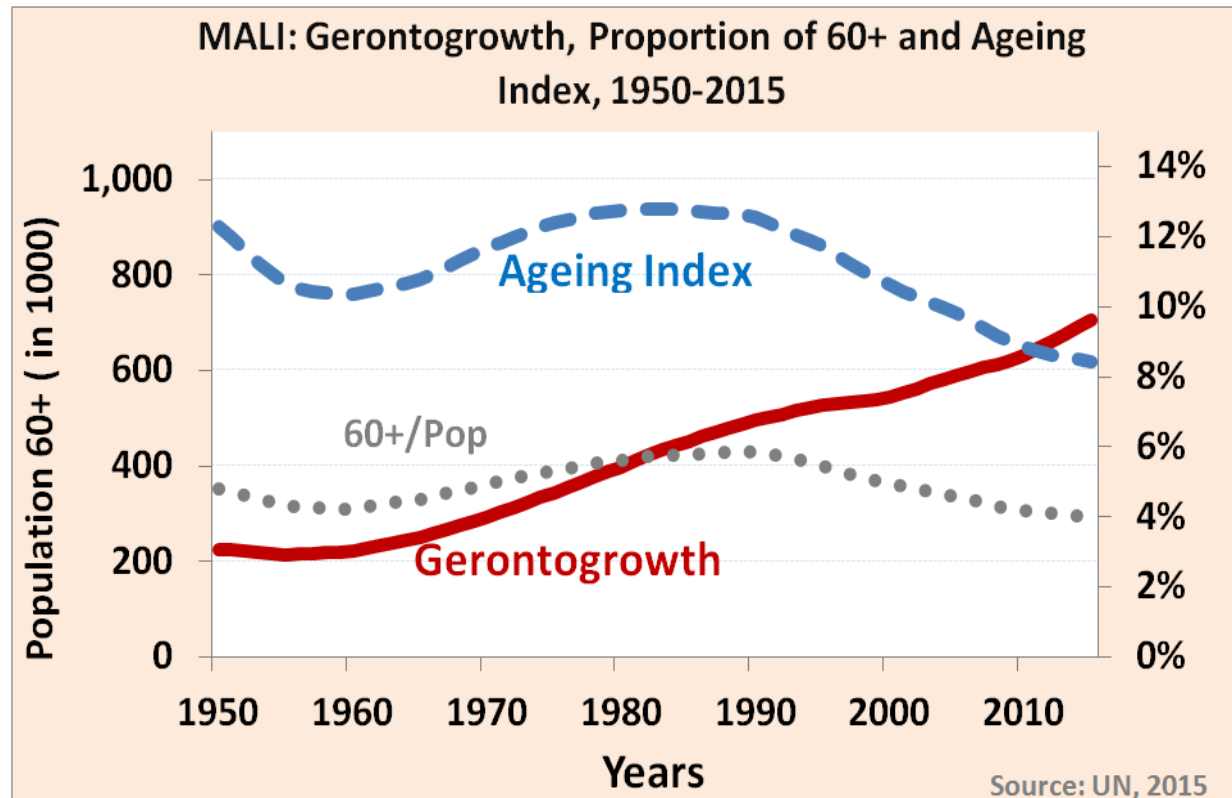


Gerontogrowth, REJUVENATION and ageing in SUB-SAHARAN AFRICA and MOZAMBIQUE





Gerontogrowth, REJUVENATION and ageing in MALI and AFGHANISTAN

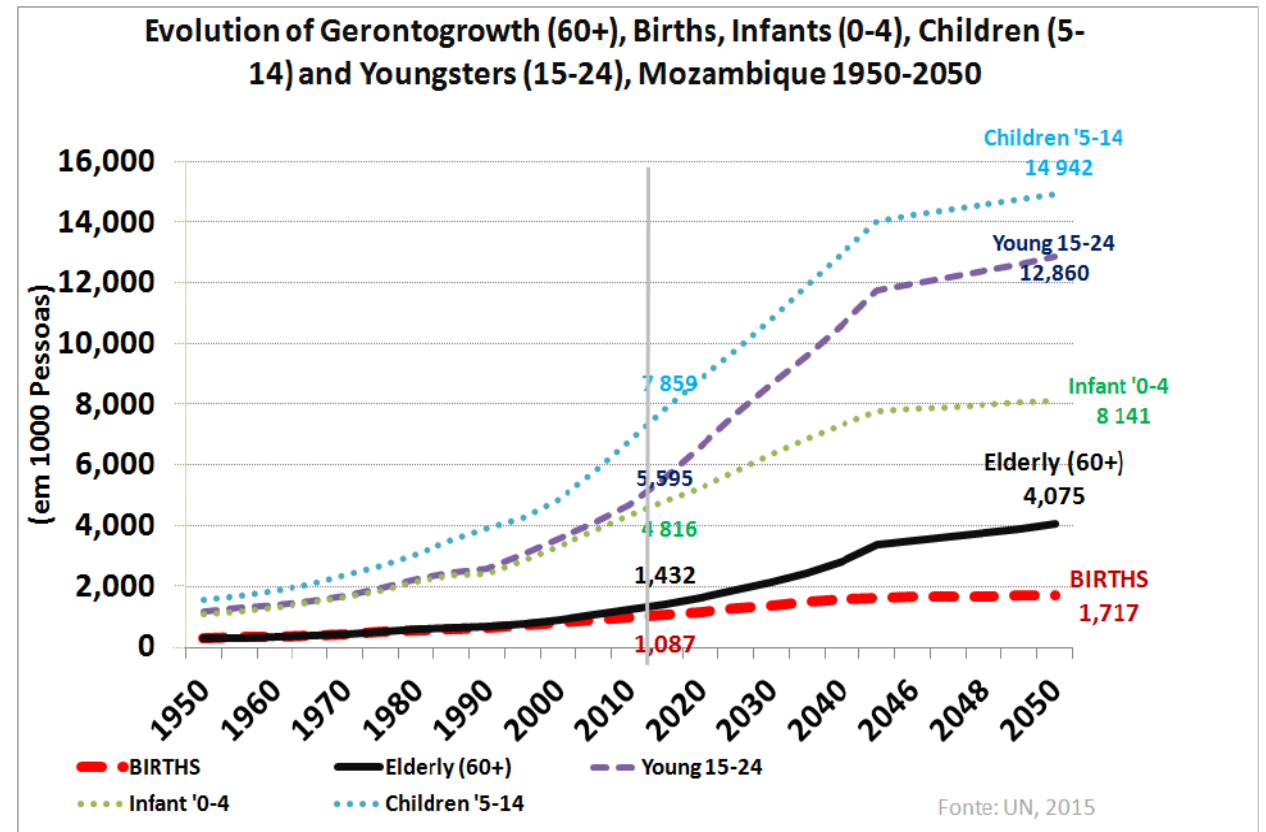




According to the HelpAge International countries with the worst performance lack a comprehensive approach to policy framework to address the challenges posed by the aging of their populations. Although this conclusion is not entirely wrong, it needs careful attention and qualification:

❑ What does it mean to have a comprehensive approach to population ageing in countries where increasing numbers of elderly is overshadowed by the rejuvenation of the younger population?

❑ Why people would worry in advance with a phenomenon that they still do not live or feel?



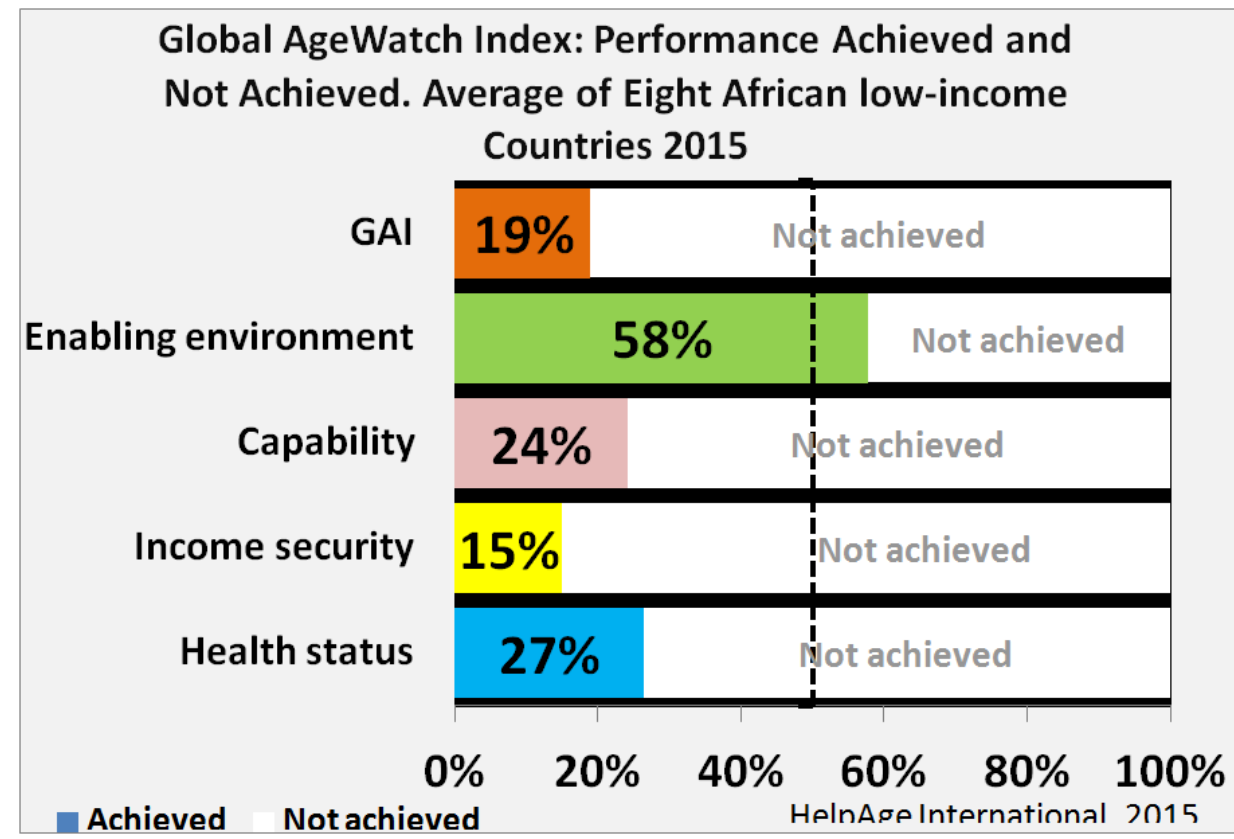
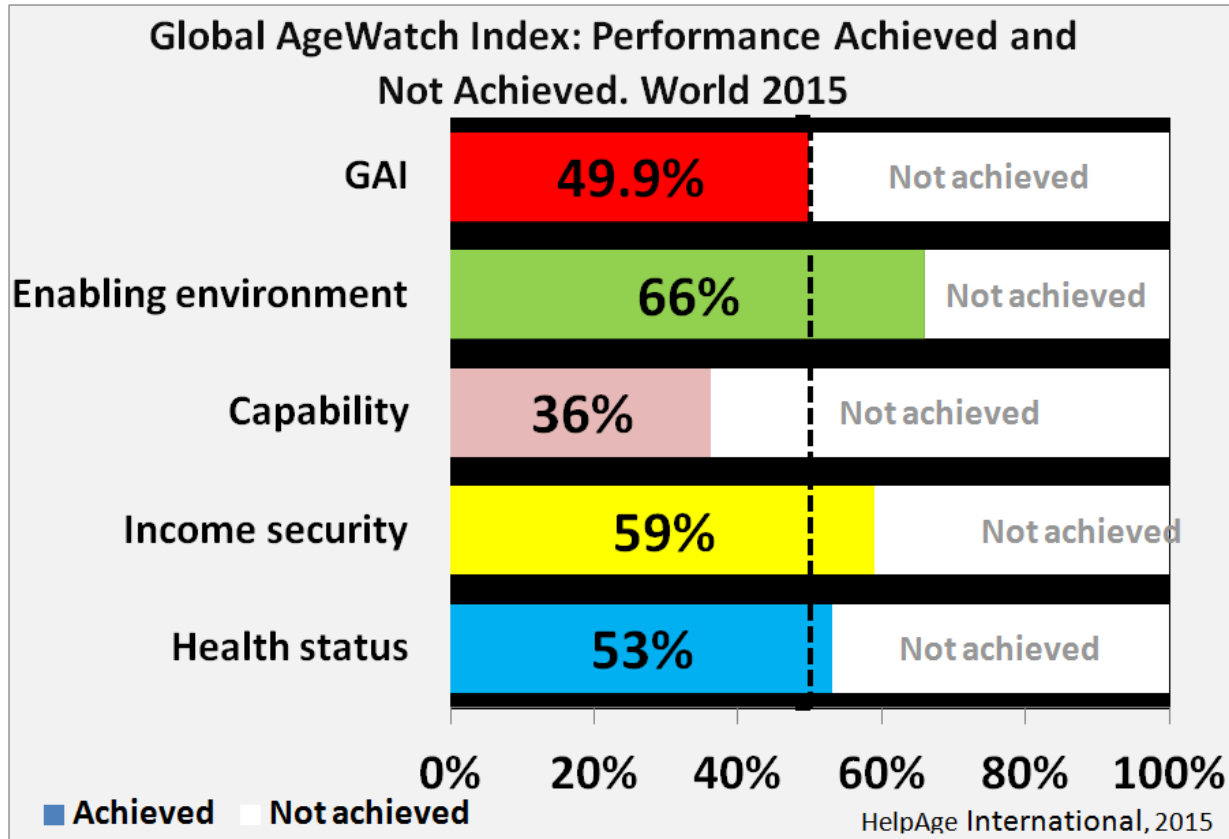


No less important than the increase in the numbers is the remarkable global progress in quality of life and satisfaction of the elderly. At this level, most African low-income countries are overrepresented as the worst countries for the elderly to live in, as shown by the Global Gerontological Index (*Global AgeWatch Index 2015*).



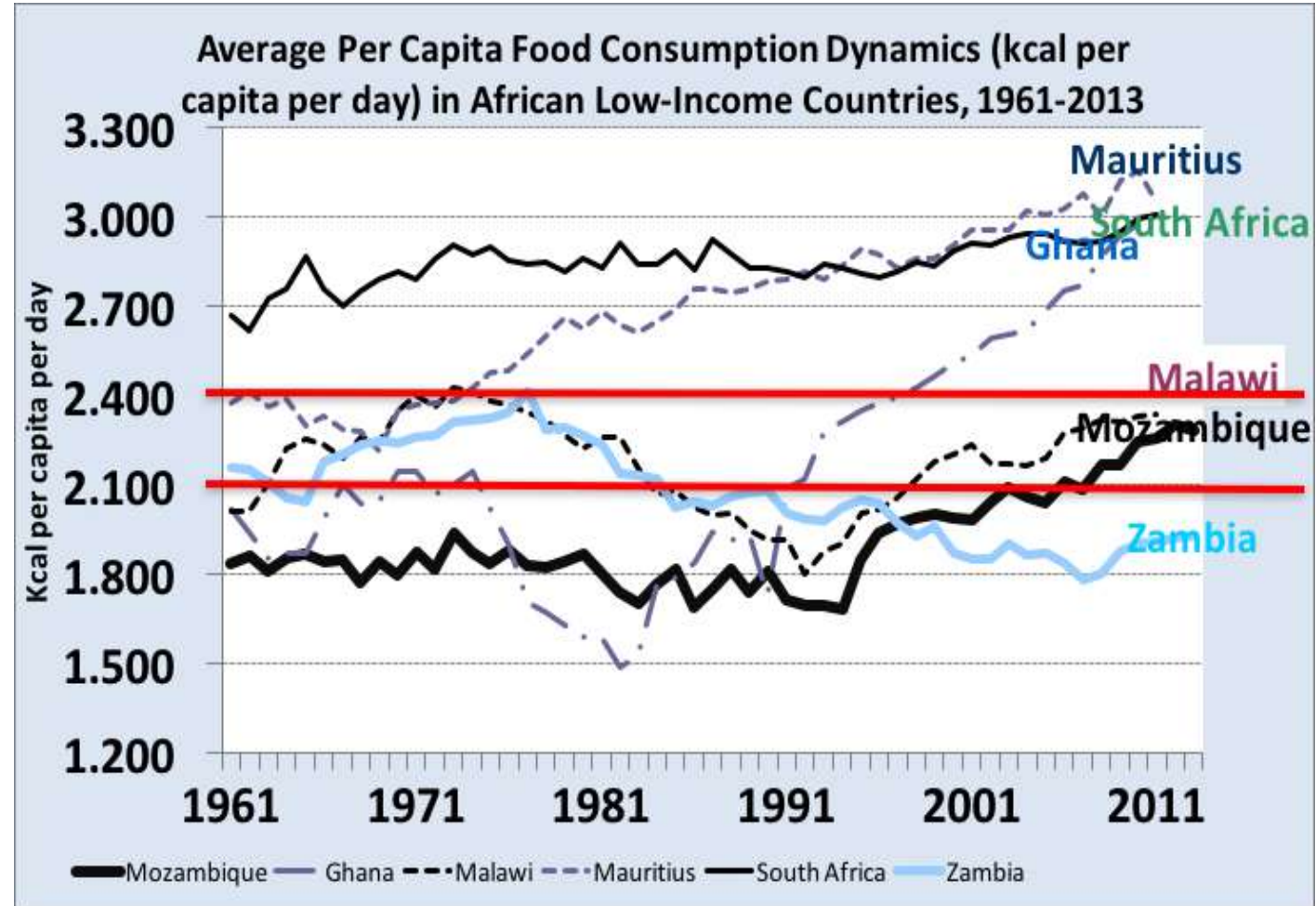


Global Gerontological Index: World vs. 8 African low-income countries, 2015



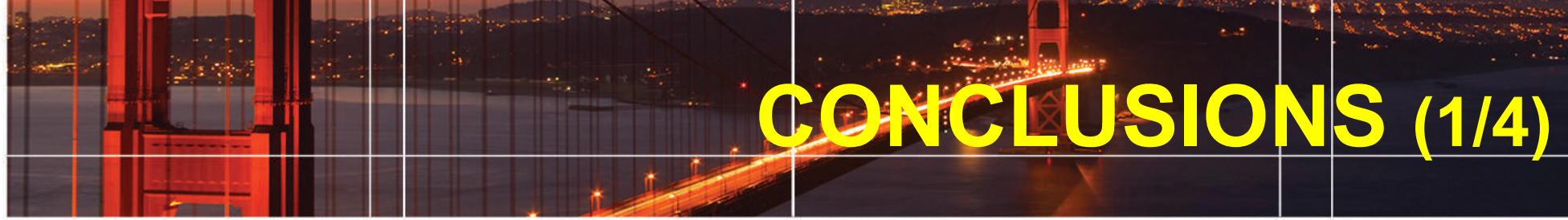


RESULTS (8/9)





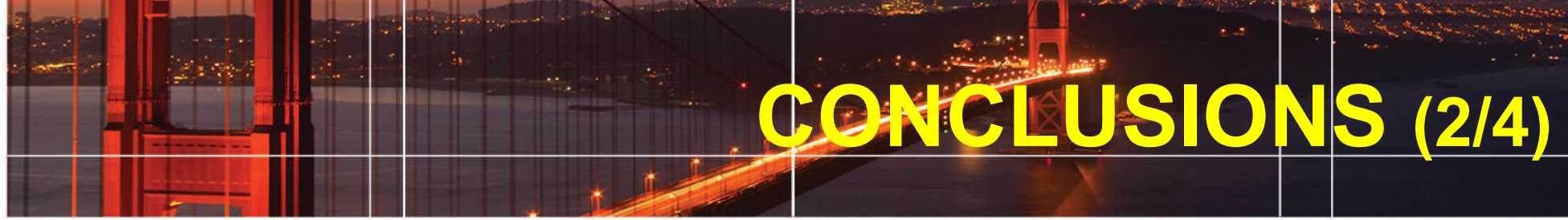
Without questioning the new Index's potential of HelpAge International, our research and analysis show that its explanatory power and reach can and should be substantially improved with a really more comprehensive analytical and methodological framework. A framework that articulates the concept of capabilities with crucial structural concepts of population dynamics, in the context of the different stages of global demographic transition, where the world's elderly population is integrated.



CONCLUSIONS (1/4)

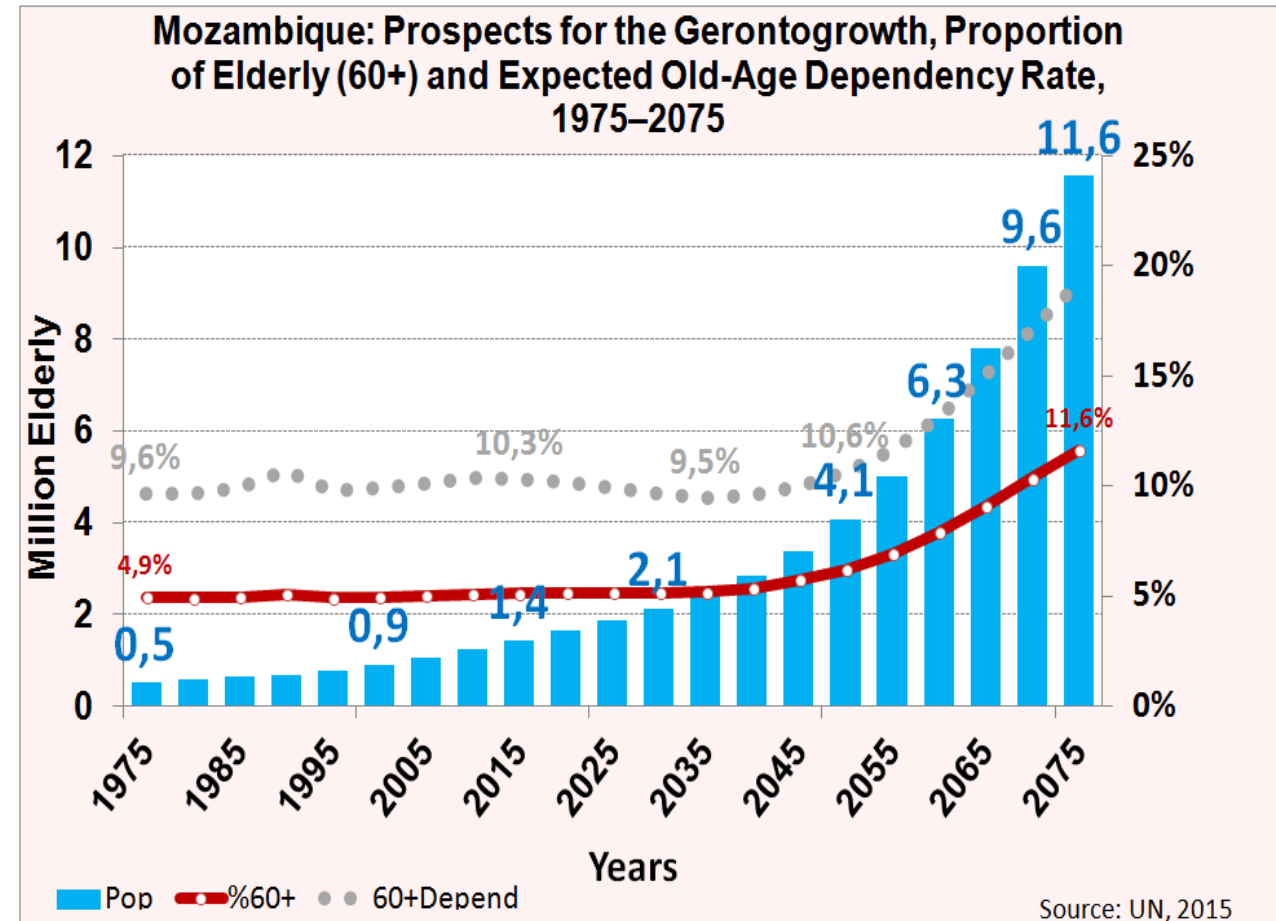
Gerontogrowth and the aging of the human population are two of the most significant achievements of the 20th century that are expected to be widespread and consolidated throughout the 21st century. Recognizing the difference between these two demographic processes is essential for three reasons:

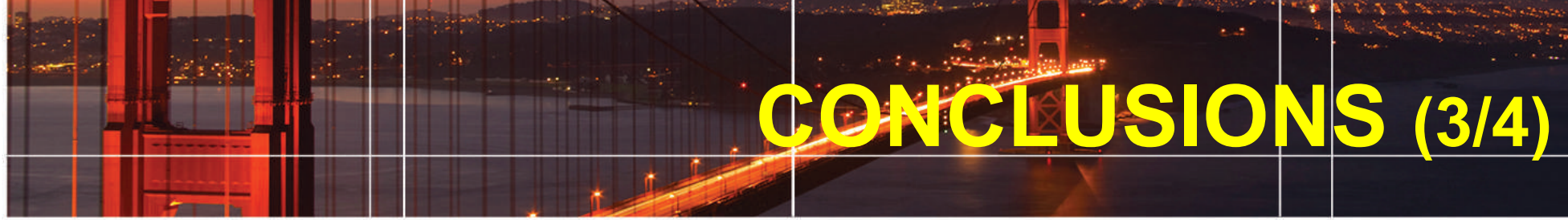
- 1) To better understand the real and diversified nature of the demographic dynamics in progress;**
- 2) To understand the differential impact dimension of the overall process of demographic transition resulting from the combined effect of changes in mortality and fertility;**
- 3) Two different processes usually require distinct policies.**



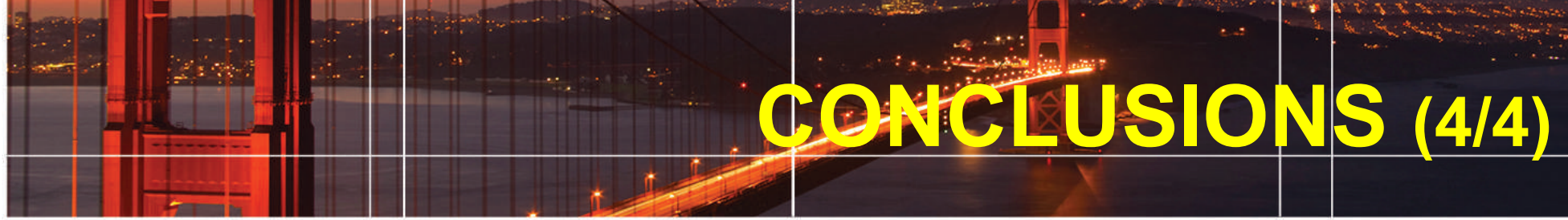
CONCLUSIONS (2/4)

Today, the challenges faced by a significant number of countries in sub-Saharan Africa are still more due to rejuvenation than to the ageing of the population. Therefore, policy makers do not prioritize the issue of population ageing, as the greatest challenge they face in the short term stems primarily from population rejuvenation.

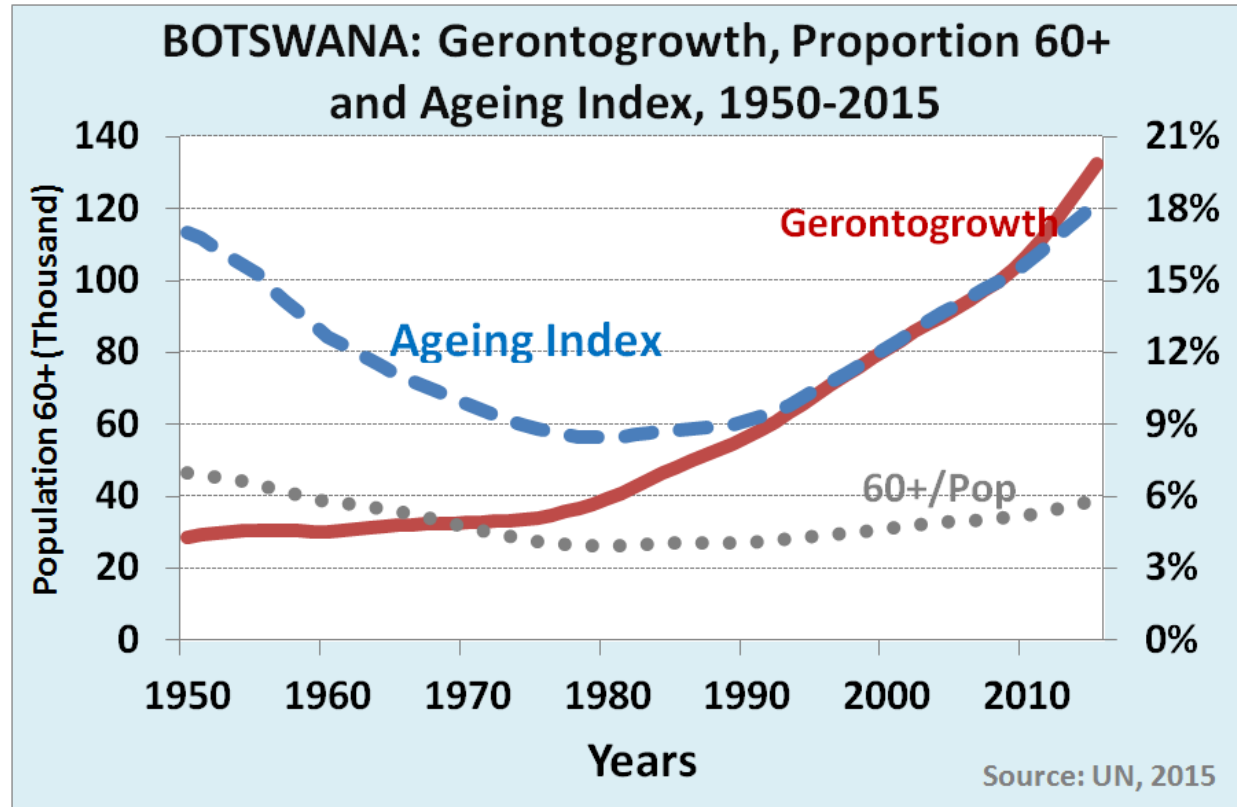




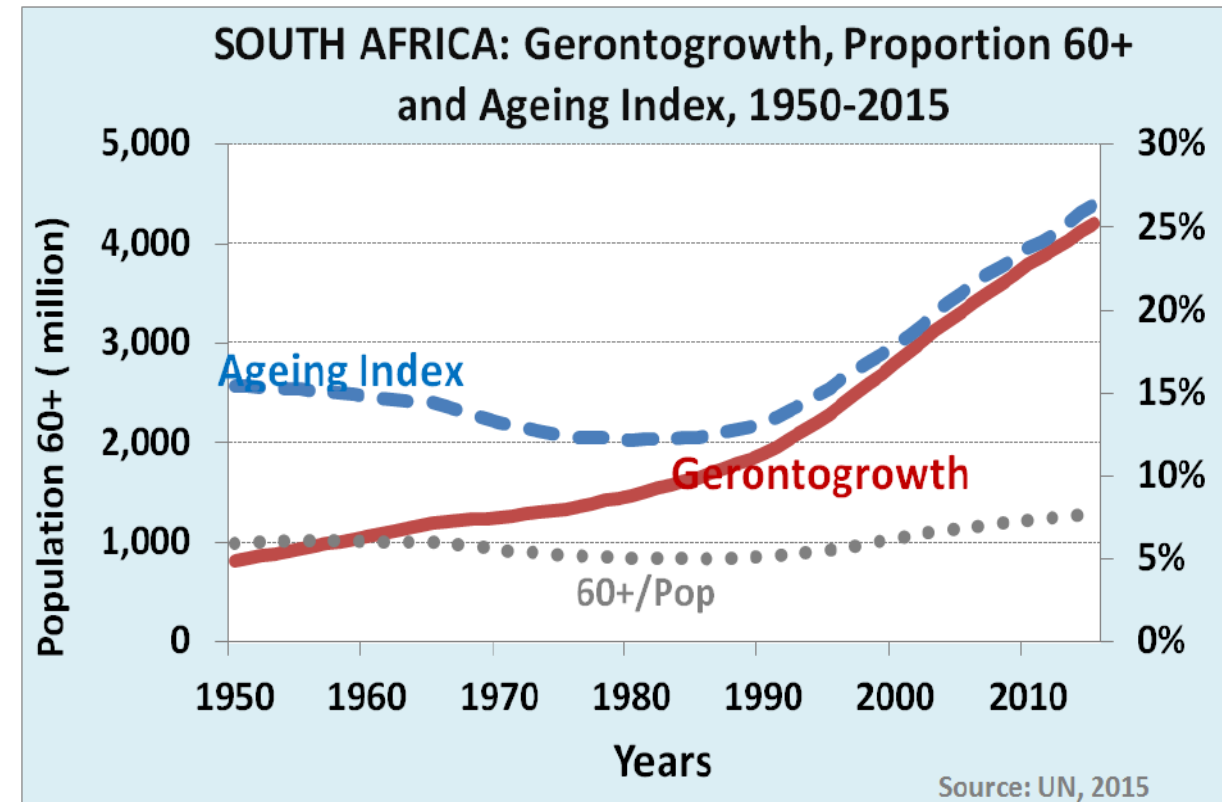
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BOTSWANA



SOUTH AFRICA



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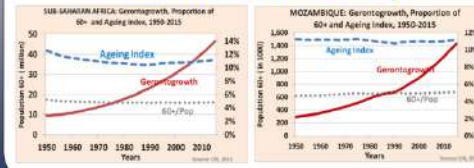
Results

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Upper-middle income countries	11.0	39.8	2.39	28.9	22.0	109	2.12	37.1	
Lower-middle income countries	5.2	12.2	4.70	18.5	6.25	29.9	2.59	24.8	
Sub-Saharan Africa	4.8	11.2	4.93	18.3	8.22	33.4	2.34	23.7	
AFRICA	8.4	13.3	4.57	19.4	9.27	33.3	2.43	24.8	
ASIA	12.0	47.3	2.17	30.3	25.1	136	1.91	39.9	
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Australia/New Zealand	20.0	107.6	1.91	37.6	28.1	167	1.79	41.6	

Gerontogrowth and ageing in the World and in More Developed Regions



Gerontogrowth and rejuvenation (ageing?) in Sub-Saharan Africa and Mozambique



Conclusions

Gerontogrowth and the aging of the human population are two of the most significant achievements of the 20th century that are expected to be widespread and consolidated throughout the 21st century. Recognizing the difference between these two demographic processes is essential for three reasons: 1) to better understand the real and diversified nature of the demographic dynamics in progress; 2) To understand the differential impact dimension of the overall process of demographic transition resulting from the combined effect of changes in mortality and fertility; 3) Two different processes usually require distinct policies.

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The Journal of the Economics of Ageing and Gerontology
 António A. da Silva Francisco
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