

### III. CHANGING BALANCE BETWEEN AGE GROUPS

#### A. BROAD AGE GROUPS

*The young-old balance is shifting throughout the world*

The increasing proportions of aged persons have been accompanied, in most populations, by steady declines in the proportion of young persons. Over the last half century, the proportion of children (0-14 years old) dropped worldwide from 34 per cent in 1950 to 30 per cent in 2000 (figure 13a). Over the next 50 years, the proportion of children is projected to decline by almost one third, so that by the year 2050, the share of persons aged 60 or over in the population will, for the first time in history, match that of persons younger than 15 (about 21 per cent each). During this period, the proportion of persons between the ages of 15 and 59 will change only slightly, from 60 per cent in 2000 to 58 per cent in 2050.

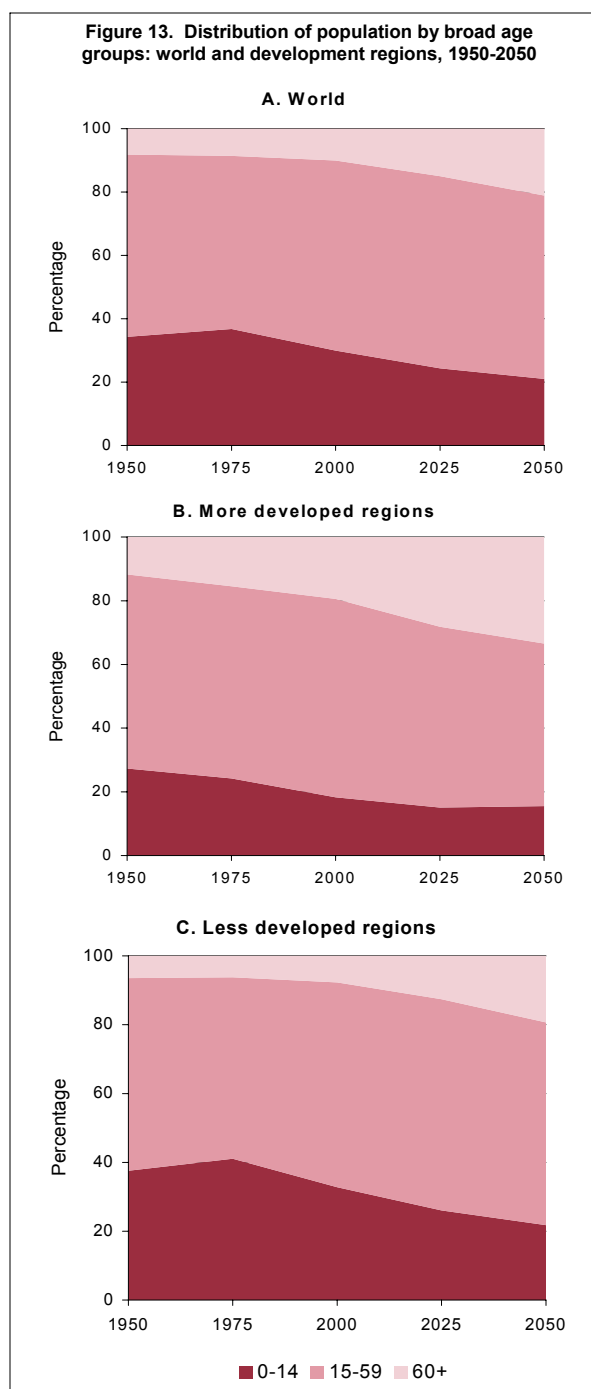
*In the more developed regions, the proportion of older persons already exceeds that of children; by 2050 it will be double*

In 2000, the proportion of persons aged 60 or over in the more developed regions (19 per cent) was slightly higher than the proportion of children below 15 years (18 per cent) (figure 13b). By the year 2050, the proportion of children is projected to decline to 16 per cent, while the proportion of older persons is projected to increase to 34 per cent. As the baby boom generations reach old age and the inflow of young people shrinks, the proportion of persons aged 15 to 59 in the more developed regions is also expected to decline substantially over the coming half century, from 62 per cent in 2000 to 51 per cent in 2050.

*Age-distribution changes in less developed regions have been slow, but will accelerate over the next 50 years*

From 1950 to 2000, the proportion of people aged above 60 years in the less developed regions increased only slightly, from 6 per cent to 8 per cent, while the proportion of children under 15

years of age declined from 38 per cent to 33 per cent (figure 13c).



Substantially greater changes are expected to occur during the period between 2000 and 2050. The proportion of older persons will increase by a

factor of 2.5 to reach 19 per cent, and the proportion of children will fall by about one third to reach a projected 22 per cent. Nevertheless, during this period the share of the population aged 15-59 years will remain practically unchanged at around 59 per cent.

## B. AGEING INDEX

*The ageing index will triple over the next half century*

Over the last 50 years, the ratio of people aged 60 or over to children younger than 15 increased by about half, from 24 per hundred in 1950 to 33 per hundred in 2000 (figure 14). Over the next 50 years, this ratio is projected to triple. By the year 2050, there will be 101 people 60 years or older for every one hundred children 0-14 years in the world. As observed in the introduction to the present report, this trend may lead to compelling demands for changes in the way a society's resources are shared between the generations.

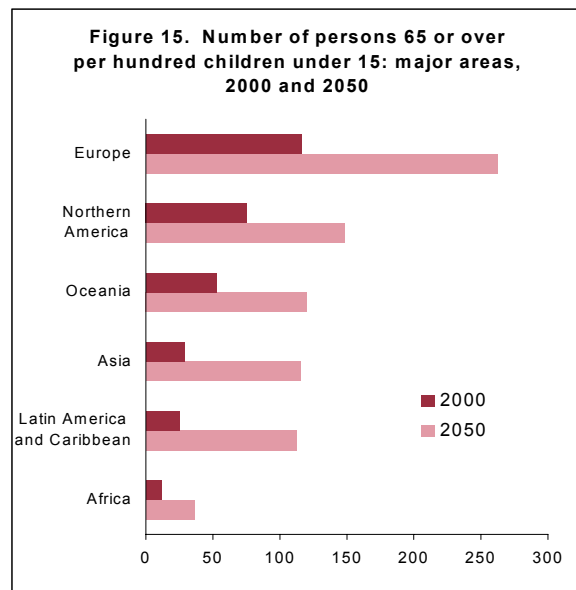
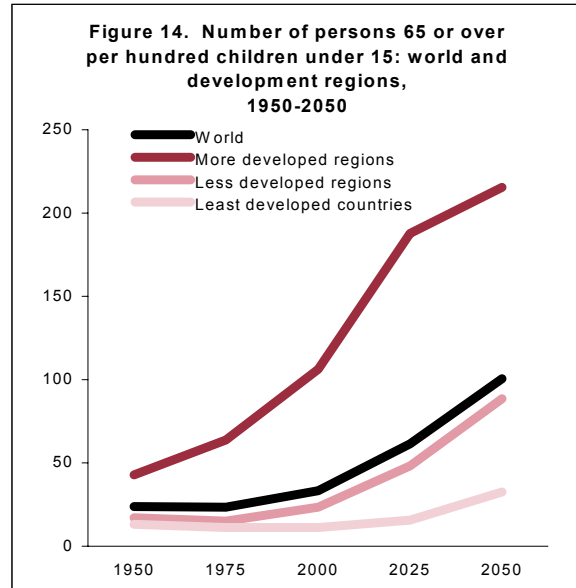
*The ageing index is significantly higher in the more developed regions but will grow faster in the less developed regions*

In 2000, there were only 23 people 60 years or older for every hundred children under 15 in the less developed regions. Over the next 50 years, this ratio is projected to become almost four times as large. It is expected to reach 89 in 2050 (figure 14). During this same period, the ageing index in the more developed regions is projected to grow from 106 to 215 per hundred children.

*Regional differentials in ageing indices are substantial*

By the year 2000, the ageing index in Europe (116 per hundred) was practically ten times that of Africa (12 per hundred) (figure 15). Between 2000 and 2050, the ageing index is expected to rise significantly in all six major areas. Asia and Latin America and the Caribbean, in particular, are projected to experience remarkable increases in the ageing index, which will more than quadruple. However, the index for Europe will remain the highest. By 2050, the ageing index is

projected to range from a high of 263 per hundred in Europe to a low of 37 per hundred in Africa. This means that by the end of the first half of this century, there will be almost three persons aged 60 or over for every child under 15 years in Europe, and almost three children under 15 years for every person aged 60 or over in Africa.



*Ageing index disparities are even greater at the country level*

In the year 2000, there were already 27 countries with an ageing index above 100; all of

them were in Europe except Japan. In six countries—Bulgaria, Germany, Greece, Italy, Japan, and Spain—the index was above 130 persons. In that same year, the ageing index in 18 countries, mostly in Africa, was below 10. By the year 2050, there will be more than 3 persons aged 60 or over per child (ageing index above 300) in 10 countries or areas, including 1 from the less developed regions, China, Macao SAR. In Italy and Spain, this ratio is expected to reach nearly 4 older persons per child (ageing index above 360). At the same time, the index is projected to remain under 25 (more than 4 children per older person) in 16 countries or areas, mostly in Africa.

### C. MEDIAN AGE

*The median age of the world's population is projected to increase by about 10 years over the next half century*

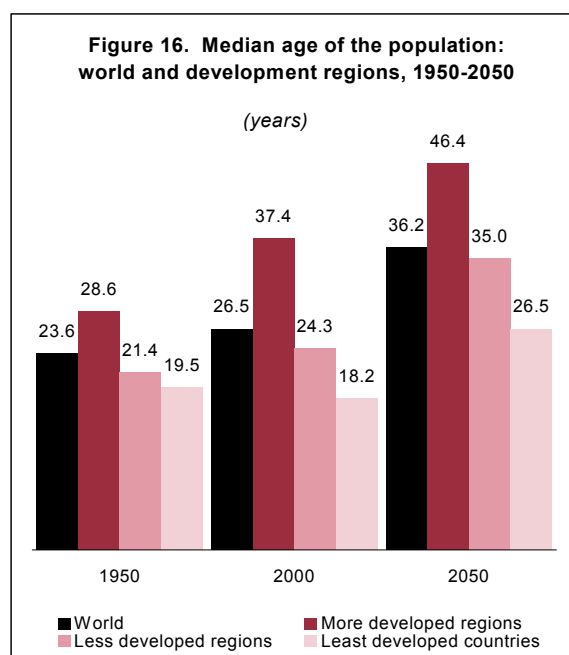
During the last 50 years, the median age of the world's population increased by only about 3 years, from nearly 24 years in 1950 to nearly 27 years in 2000 (figure 16). Over the next half century, the increase will be approximately 10 years. By 2050, half of the world's population is projected to be more than 36 years old.

*The median age in the more developed regions is more than 13 years higher than in the less developed regions and almost 20 years higher than in the least developed countries*

The median age of the population in the more developed regions was about 37 years in 2000, up from 29 years in 1950. In the less developed regions, the median age changed much less over the last half century, from 21 years in 1950 to 24 years in 2000. In the least developed countries, the median age decreased over the same period, from nearly 20 years in 1950 to 18 in 2000 (figure 16).

Over the next half century, the median age of the population is projected to reach a remarkable level of 46 years in the more developed regions. In the less developed regions, the median age will increase by more than 10 years to reach 35 in 2050, a level approaching that currently observed in the more developed regions. During this

period, the median age is also projected to increase significantly in the least developed countries, although its level in 2050 (26 years) will still be 20 years lower than that of the more developed regions.



*The median age of Europe is double that of Africa*

By the year 2000, the median age of Europe was 38 years, more than twice as high as the median age of 18 years found in Africa. By 2050, the median age in Europe is projected to rise to 49, a level 22 years higher than that projected for Africa. At the country level, the median age in 2000 ranged from 41 years in Japan to 15 years in Yemen. Just below Japan were Italy, Switzerland, Germany and Sweden, all with median ages around 40 years.

By 2050, the oldest population is expected to be that of Spain, where one in every two persons is projected to be at least 55 years old. Slovenia, Italy and Austria will come next, all with median ages around 54 years. Thirteen other countries or areas, mostly from Europe, will also have populations where persons over 50 years of age will predominate. At the opposite extreme, in 15 countries, mostly in Africa, persons under 25 years of age are expected to be the majority of the population.

#### D. DEPENDENCY RATIO

The total dependency ratio is a commonly used measure of potential social support needs. It is based on the simple notion that all persons under 15 and those 65 or older are likely to be in some sense dependent on the population in the working ages of 15-64. Those in the working ages are assumed to provide direct or indirect support to those in the dependent ages (Kinsella and Gist, 1995). Such support may be provided within the family, through religious or communal institutions, or by the State.

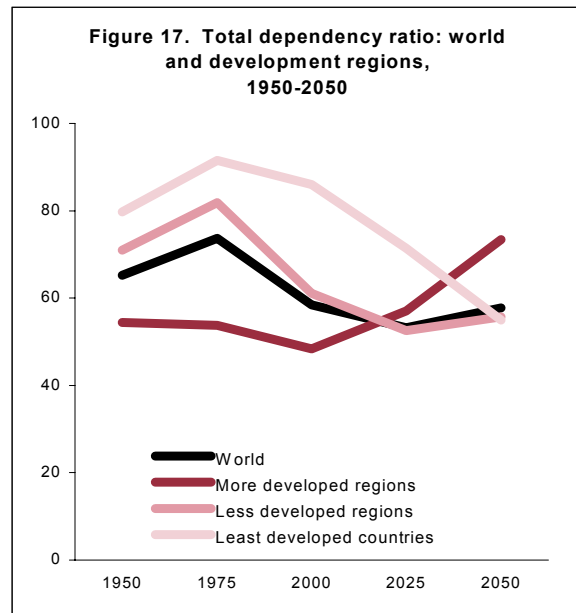
However, it must be recognized that the dependency ratio gives no more than a rough approximation of the burden of dependency. Not all young and old persons require support, nor do all working-age persons actually provide direct or indirect support (Taeuber, 1992). On the contrary, evidence exists that older persons in many societies are providers of support to their adult children (Morgan, Schuster and Butler, 1991; Saad, 2001). Thus, although a useful indicator of trends in the level of potential support needs, the dependency ratio, and particularly the old-age dependency ratio, should be used cautiously.

*The global ratio between “dependent” and working age populations has decreased; it will increase in the future*

From 1950 to 1975, the total dependency ratio increased globally from 65 to 74 (figure 17). This change was mainly due to the substantial increases in the proportion of children observed in most of the countries of the less developed regions, which in turn resulted from the combination of high fertility and declining infant and child mortality. Then, as fertility declined sharply over the more recent decades, the total dependency ratio also went down (to 58 in the year 2000).

This decline in the ratio occurred despite the increasing proportion of older “dependants” over the period. The tendency to decrease is projected to continue at least through the next quarter century, before the total dependency ratio starts increasing again. By 2025, the ratio will fall to 53, but by 2050 it will return to the year 2000

level of 58. However, in the more developed regions, the increase in the total dependency ratio is expected to start earlier, so that by 2025 the ratio will rise to 57, up from 48 in 2000, and by 2050 it will climb further to 73.

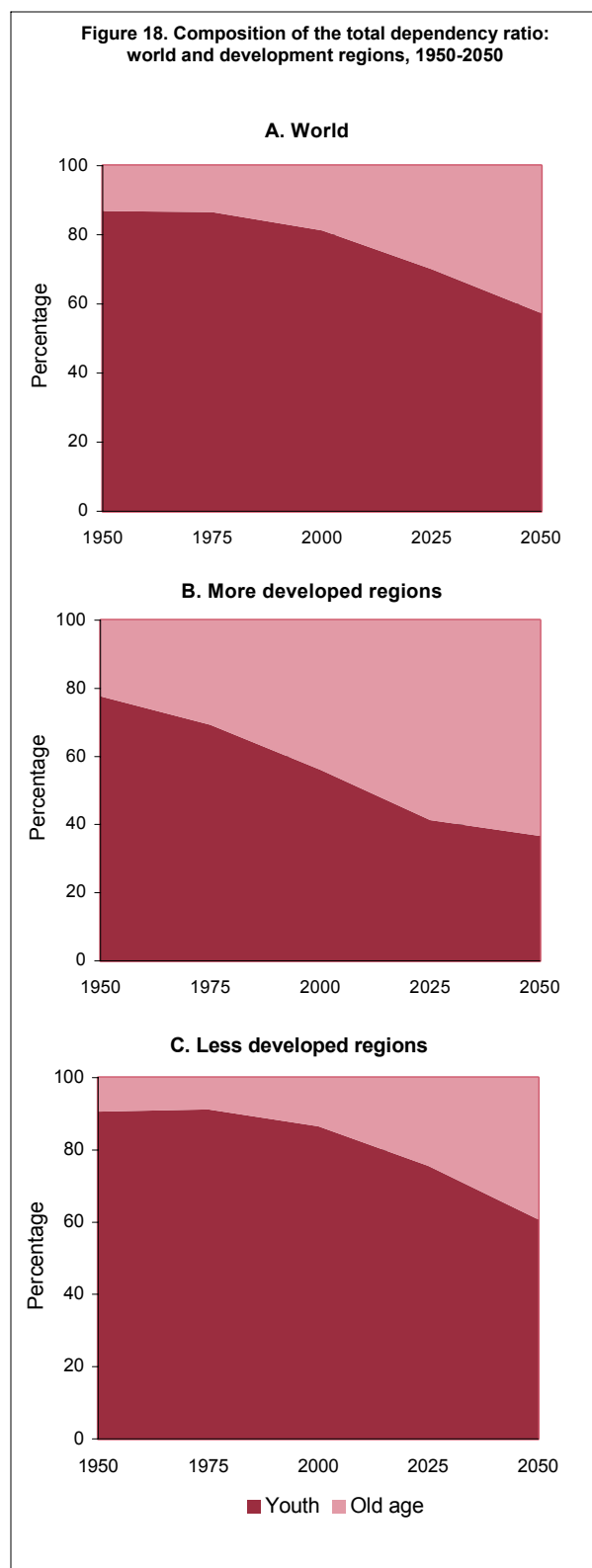


*A profound shift is expected in the composition of the total dependency ratio*

Although the world’s total dependency ratio in 2050 is projected to remain at almost the same level as in 2000, the composition of the ratio will undergo important changes over the next 50 years. Currently, the younger population accounts for the large majority of the world dependent-age population. In the future, the balance between the youth component of the dependency ratio and the old-age component will become more equal. This shift will be the result of the combined effects of longevity increases and fertility declines. In the year 2000, the old-age component contributed less than 20 per cent of the world’s total dependency ratio. By 2050, this share is projected to more than double, to 43 per cent (figure 18a).

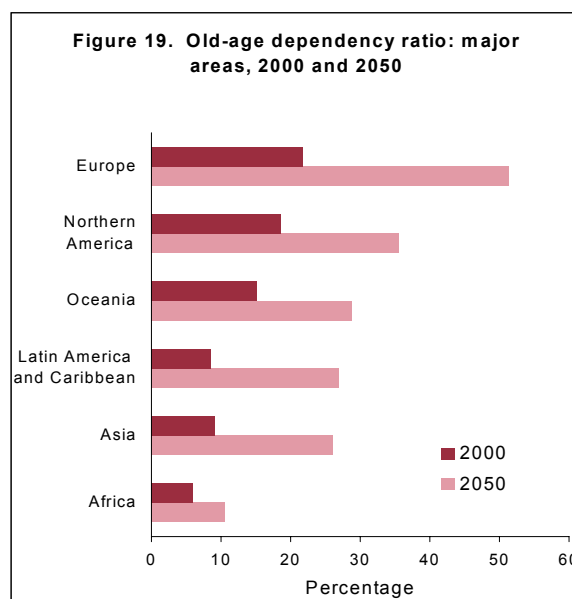
In the more developed regions, where the share of older persons in the dependent ages is already large (44 per cent in 2000), the old-age component is projected to rise by the year 2050 to 63 per cent of the total dependency ratio (figure 18b). In the less developed regions, on the other

hand, the old-age component at mid-century will still account for much less than half (39 per cent) of the total (figure 18c).



*The old-age dependency ratio will almost double in Northern America, Africa and Oceania; it will more than double in Europe; and more than triple in Asia and in Latin America and the Caribbean*

Although current regional differentials in the old-age dependency ratio are expected to persist well into the foreseeable future, all six world major areas will experience remarkable growth in this ratio over the next half-century. From 2000 to 2050, the ratio of persons aged 65 or over to those of working age is projected to grow from 6 per hundred to 11 per hundred in Africa, from 9 to 26 in both Asia and Latin America and the Caribbean, from 15 to 29 in Oceania, from 19 to 35 in Northern America and from 22 to 51 in Europe (figure 19).



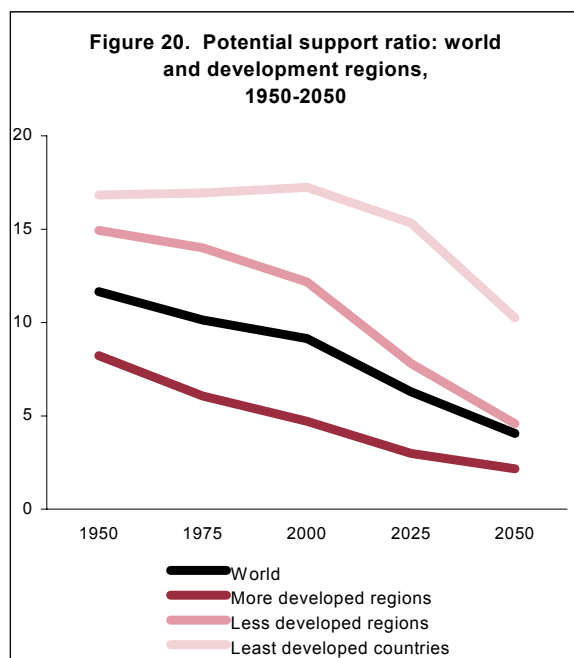
*The world's highest old-age dependency ratio will almost triple in the next 50 years*

In 2000, Sweden had the world's highest old-age dependency ratio of 27, followed closely by Italy and Greece, where the ratios were between 26 and 27. Over the next 50 years, the old-age dependency ratio is projected to increase substantially in most countries of the world. By 2050, Spain, at 74, will have the world's highest ratio, followed by Japan (71) and Italy (68). In another 18 countries, mostly in Europe, the ratio is projected to be over 50. At the same time, in 32 countries or areas, mostly in Africa, the

population aged 65 years or over will be less than one tenth the size of the working-age population.

#### E. POTENTIAL SUPPORT RATIO

The potential support ratio is an alternative way of expressing the numerical relationship between those more likely to be economically productive and those more likely to be dependants. It is the inverse of the old-age dependency ratio, that is, the number of people in the working ages of 15-64 per every person 65 or older.



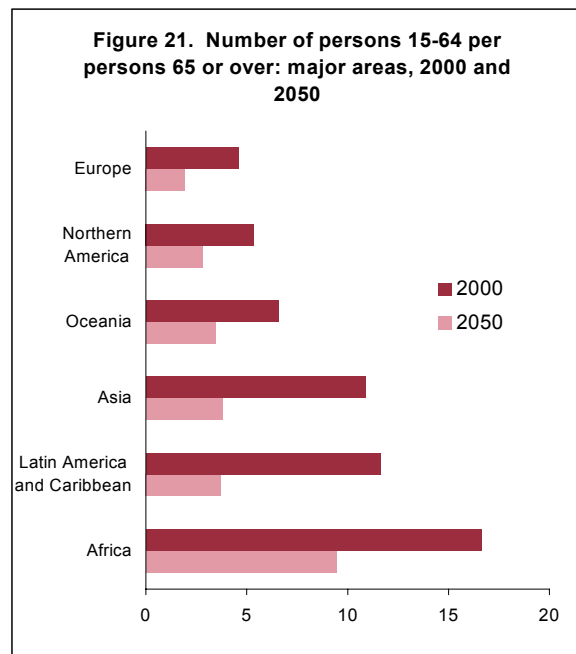
*The number of working-age people per older person is expected to drop globally by more than 50 per cent over the next 50 years*

During the past 50 years, the ratio of people aged 15-64 to persons 65 or older decreased globally by a little more than 20 per cent, from 11.6 in 1950 to 9.1 in 2000. The decrease was larger in the more developed regions, where the ratio dropped by almost half, from 8.2 in 1950 to 4.7 in 2000. During this same period, the potential support ratio decreased by under 20 per cent in the less developed regions (from 14.9 in 1950 to 12.2 in 2000) and increased slightly in the least developed countries (from 16.8 in 1950 to 17.2 in 2000) (figure 20).

Large decreases, however, are expected to take place over the next half century. By 2050, the number of people in the working ages for every person 65 or older is projected to be 4.1 globally (a decrease of 56 per cent relative to the year 2000), 2.2 in the more developed regions (a decrease of 55 per cent), 4.6 in the less developed regions (a decrease of 63 per cent), and 10.2 in the least developed countries (a decrease of 41 per cent).

*Currently, there are fewer than 5 persons in the working ages for every person 65 or older in Europe; by 2050, there will be fewer than 2*

In 2000, there were 4.6 persons aged 15-64 per person 65 or over in Europe, the lowest potential support ratio among the major areas. Relatively low ratios could also be found in Northern America (5.4) and Oceania (6.6). In Asia, Latin America and the Caribbean, and Africa the ratios were higher: 10.9, 11.6, and 16.6 respectively (figure 21).



Over the next 50 years, the ratio is projected to drop substantially in all major areas, particularly in Asia and Latin America and the Caribbean. By 2050, the ratio is projected to drop to under 2 in Europe, to under 3 in Northern America, and to under 4 in Asia, Latin America

and the Caribbean, and Oceania. In Africa, there will still be almost 10 persons in the working ages for every person 65 or older by the end of the next half century.

*Important variations in the potential support ratio will remain at the country level*

In 2000, the ratio of persons aged 15-64 to those 65 or older was under 5 in 23 European countries, plus Japan and Uruguay. In 5 countries—Belgium, Greece, Italy, Japan and Sweden—the ratio was under 4. At the same time, the ratio was above 20 in 17 countries, mostly in Eastern Africa and Western Asia. In 3 of them—Kuwait, Qatar and United Arab Emirates—the ratio was above 25.

By 2050, the potential support ratio is projected to be below 5 in 114 countries and to remain above 20 in only one, Djibouti. In 21 countries, including 3 from the less developed regions—Barbados, China, Hong Kong SAR and China, Macao SAR—the ratio is expected to decline to under 2 persons aged 15-64 for each aged 65 or older. In Italy, Japan and Spain, the ratio is expected to be under 1.5. At the other extreme, 20 countries are expected to remain with potential support ratios above 12 by mid-century.

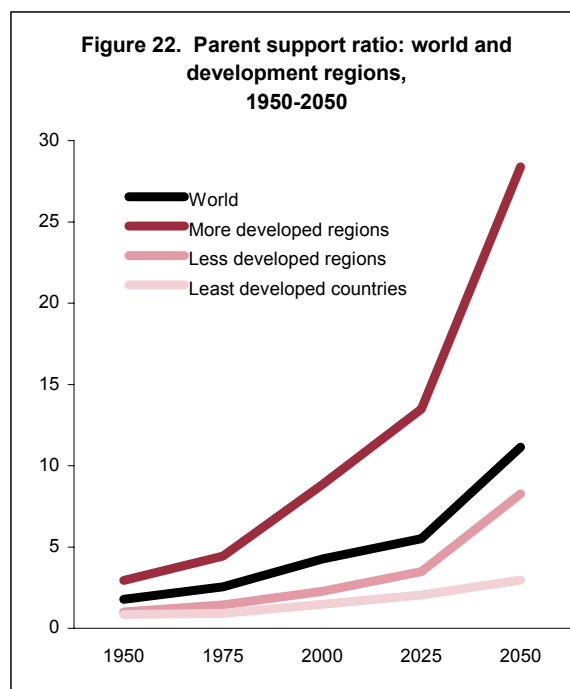
#### F. PARENT SUPPORT RATIO

The parent support ratio is a measure that has been commonly used to assess the demands on families to provide support for their oldest-old members. It relates the oldest-old to their presumed offspring, who were born when the older persons were in their twenties and thirties. However, since the people in the numerator and those in the denominator are not necessarily related by kinship ties, the parent support ratio should be taken only as a rough indicator of changes in the family support system required for the oldest-old (Kinsella and Taeuber, 1993).

*More and more people in their fifties and sixties are likely to have surviving parents or other very old relatives*

Because people are living longer and thus are more likely to experience multiple chronic

diseases, more and more adults are expected to face the need to care for very old and sometimes frail relatives. An indicator of this trend is found in the parent support ratio, which shows the number of persons aged 85 years or over in relation to those between 50 and 64 years. At the global level, there were fewer than 2 persons over 85 years per hundred persons 50-64 in 1950. By 2000, this ratio had more than doubled to reach 4 per hundred, and by 2050 it is projected nearly to triple (figure 22).



*Remarkably high levels of parent support ratio are projected in the more developed regions, particularly in Japan*

In 2050, the parent support ratio in the more developed regions is projected to reach 28, up from 9 in the year 2000 (figure 22). At 13, France currently has the world's highest parent support ratio. By 2050, Japan is projected to have by far the world's highest ratio, of 56. In that same year, the number of people aged 85 or over for every hundred people aged 50-64 is expected to surpass 30 in another 15 countries or areas, mostly in Europe.

On the other hand, the parent support ratio is projected to remain significantly lower in the less

developed regions. It is expected to rise from 2 in 2000 to 8 in 2050. Thus, by the end of the next 50 years there will still be approximately 12 people

aged 50-64 for every person above 85 in the less developed regions as compared with fewer than 4 people in the more developed regions.