CONSEIL D'ORIENTATION DES RETRAITES
Plenary session February 11, 2021 at 10:00
« Inequalities and recent changes in life expectancy»

Brief

Prepared by the General Secretariat of the Council, under the direction of the President of the COR

Summary: Life expectancy is an important element in the pension debate, whether it concerns projecting the expenditure of pension schemes or comparing the length of retirement of successive generations. As INSEE prepares to make new demographic projections, the continued increase in life expectancy is being questioned by the slowdown in its growth rate in recent years and the current health crisis. Moreover, recent studies shed new light on inequalities in life expectancy.

I. Inequalities in life expectancy by social level are very significant

- **How important are inequalities in life expectancy?** The higher socio-professional status, the higher the level of education or the higher the standard of living, the longer a person lives, with gaps being more marked among men than among women. The differences in life expectancy at 35 between managers and workers are 6 years for men and 3 years for women. The gaps between higher education graduates and non-graduates are comparable: 7 ½ years for men and 4 years for women. The gaps by standard of living between the poorest 5% and the richest 5% are much larger: 12 years for men and 8 years for women (*documents no 2 and 3*).

- **How can these inequalities be explained?** Inequalities in life expectancy can result from multiple causes: inequalities in access or use of health care, living conditions; working conditions and occupational risks; behaviors harmful to health (tobacco, alcohol, etc.). Conversely, a low standard of living can also be the consequence of a poor health, for example hampering the pursuit of studies or job search.

- **How are inequalities in life expectancy changing?** In France, life expectancy has increased evenly in all categories since 1976. Thus, the gap between male managers and manual workers remains at 6 years (*document no 2*). On the contrary, life expectancy inequalities by standard of living have increased in the United States since 2001, as life expectancy rose among the wealthiest, while it stagnated among the poorest.

II. Life expectancy has been increasing at a slower pace in recent years

- **Is life expectancy still increasing?** For several decades, life expectancy has been increasing steadily over time or over generations, and it was still increasing in France on the eve of the Covid health crisis. However, two recent facts have led to a slowdown in the increase in life expectancy (or in the decline in mortality):
  - the first one is a generation effect: the mortality rates at different ages (after the age of 15) hardly decreased between the 1941 cohort and the 1955 cohort. They then resumed their downward trend over generations (*documents no 4 and 4bis*);
  - the second one is a period effect: the mortality rates at different ages decreased less quickly between 2013 and 2019 than in previous decades (*documents no 5 to 7*).

- **How to explain the lack of progress between the 1941 and 1955 generations?** This observation is not unique to France: a similar phenomenon is observed in many European countries as in the United States (*document no 4bis*). It could be the repercussion of the sharp drop in infant mortality enjoyed by these generations, thanks in particular to the widespread use of antibiotics in the post-war period: more fragile individuals would have survived infectious diseases in childhood. The behaviors of these generations, in particular the rise in female smoking, would be another explanation. Finally, these generations came to adulthood when road accidents, suicides and then the AIDS epidemic were causing many deaths among young men.

- **How to explain the slower progress between 2013 and 2019?** This slowdown is not unique to France either: it is observed among our European neighbors (Italy, Spain, Germany, United Kingdom); and in the United States the opioid crisis has even led to a decrease in life expectancy (*document no 7*). The slowdown in Europe can be explained without a doubt by the end of the spectacular drop in cardiovascular mortality, which had allowed significant gains in life expectancy at older ages in recent decades (*document no 6*). The decline in cancer mortality should now take over, but it is thwarted by the rise in smoking, especially among women.

III. With the health crisis, life expectancy fell from 5 to 6 months in 2020

- **What was the impact of the health crisis on mortality in 2020?** INSEE data makes it possible to draw up a provisional assessment for the whole of 2020 (*document no 8*). From March 1, 2020, INSEE recorded more deaths than during the same period of the year in 2019. This excess mortality is concentrated at older ages. It resulted in a drop in life expectancy of around 5 months for women and 6 months for men in 2020. Conversely, mortality has slightly decreased among those under 50, especially among young men, because there have been fewer accidental deaths.

- **Can we compare with previous health crises?** During the 2003 heatwave, an additional 15,000 deaths were observed, concentrated over a short period of time (*document no 9*). The Hong Kong flu epidemic in 1969-1970 caused nearly 30,000 additional deaths, without shielding or lock-down measures. These two health crises were followed by a significant rebound in life expectancy in subsequent years, as the elderly who survived the crisis were less fragile than those who died. Such a rebound should not be excluded after the end of the coronavirus epidemic, but uncertainties remain about the duration of the epidemic and a poorer management of other pathologies.

- **Has excess mortality been comparable abroad?** During the first wave, excess mortality was comparable in France to the European average, while being lower than that of Spain, Italy and Belgium (*document no 10*).