

Risk classification and innovation

One of the most important benefits of risk classification is that it encourages innovation. As discussed earlier, risk classification enhances competition in the insurance market. One way to compete is through innovation on products and prices. To be more successful than its competitors, an insurer has the motivation to become more refined in its risk classification system and to innovate. With the refining in risk classification, consumers will pay a price that better reflects their expected costs. With the constant development of insurance products, consumers will be able to obtain insurance products that were previously unavailable to them.

The following examples illustrate the phenomenon on the basis of real cases:

Illustration 1¹: Increased insurability for Breast Cancer applicants

In the past any history of breast cancer resulted in an insurance denial. Due to developments in medical science, if details of staging are available and if the cancer has been diagnosed at an early stage, terms may today be possible even straight after surgery.

Illustration 2²: Increased insurability for Multiple Sclerosis (MS) applicants

MS is a chronic inflammatory illness with several stages that can evolve in different ways and on different timescales. The Studies undertaken in the last two decades, in their majority, did not analyze MS in respect to invalidity and work incapacity. Accurate statistics on the death probability were also not available. An Evidence Based Rating was undertaken. It consists of a systematic analysis of the available literature and the resulting deduction of trustworthy ratings. But the Evidence Based Rating could not take into account some factors like the age of the patient when the first symptoms appeared because of lack of data in this respect. Nevertheless, resulting from the dynamic of this illness, we know that the age when the first symptoms appear is a relevant factor. The current rating practice of the symptoms with a little load of premium reflects therefore the experience of insurance medicine and risk assessment. With the Evidence Based Rating, the insurance coverage could be extended to cases with a more severe evolution of the illness than previously.

Illustration 3³: Development of risk products for the HIV-positive population

An actuarial working group within the Dutch Association of Insurers has been looking at the consequences of HIV for the insurance industry since 1988. In 2005, the Working Group published a report⁴. The mortality of a group of 3478 people with HIV residing in the Netherlands has been observed since 1995. The members of the group concerned were all being treated and were receiving highly active antiretroviral therapy (HAART). The study focused on people with HIV who had not used intravenous drugs, did not have an illness which was diagnosed as being AIDS and whose treatment with HIV antiretroviral drugs appeared to have had at least a reasonable effect.

A mathematical model was developed for the extra mortality resulting from HIV, compared to population mortality, which corresponded well with the observations of the aforementioned group. Although the premiums are calculated at an adequate level, there is insufficient data on long-term mortality probabilities. However, a greater probability of further improvement is expected.

¹ Example presented by Mr. André Chuffard at the Council of Europe, Strasbourg, 2-4 December 2007

² Based on an article by Dr. Med. Robert Ostermann-Myrau, Gen Re LifeHealth, *Evidence Based Underwriting am Beispiel der Multiplen Sklerose* in *Versicherungsrundschau*, ausgabe 7-8/08, p. 14.

³ Report of the Working Group on AIDS of the Dutch Association of Insurers, *Insurability of HIV: A step closer*, 8 March 2005

⁴ Report of the Working Group on AIDS of the Dutch Association of Insurers, *Insurability of HIV: A step closer*, 8 March 2005

As a result of the study, the six largest members of the Association of Dutch Insurers, representing 80 per cent of the market, have agreed to offer life insurance cover to those people who are HIV-positive, subject to various conditions. The main stipulation is that patients must have already responded to ART which represents a quarter of the HIV population in the Netherlands⁵.

Protection cover for people with HIV is also available for example in the UK and France, and outside Europe in the USA and South Africa. Logically, these products are not available to non HIV-positive people.

Illustration 4⁶: Increased insurability of applicants with cardiovascular problems

In 1952, for example, 55% of U.S. applicants with cardiovascular problems were declined, compared with 25% in 1992.

Illustration 5⁷: Increased insurability of type I diabetics

In the past almost all type I diabetics were declined. Due to developments in medical science, over 90% of all diabetics who have no end organ damage (e.g. kidney failure) are today insurable for death.

⁵ Mrs. Susan Foster, LIMRA Europe, *The Development of Risk Products for HIV-Positive Lives*, in European Marketplace, Volume 9, Number 1, p. 12, 2008

⁶ Example presented by Mr. André Chuffart at the Council of Europe, Strasbourg, Council of Europe, Strasbourg, CDBI Seminar on predictivity, genetic tests and insurance, 2-4 December 2007.

⁷ Example presented by Mr. André Chuffart at the Council of Europe, Strasbourg, Council of Europe, Strasbourg, CDBI Seminar on predictivity, genetic tests and insurance, 2-4 December 2007.