

U.S. Structured Finance Newsletter

Volume 4, Issue 25, June 23, 2008



Claire Mezzanotte

Managing Director, ABS/RMBS
U.S. Structured Finance,
+1 212 806 3272
cmezzanotte@dbrs.com

Jan Buckler

Senior Vice President,
Research and Modeling
U.S. Structured Finance
+1 212 806 3925
jbuckler@dbrs.com

David Hartung

Senior Vice President, ABS
U.S. Structured Finance
+1 212 806 3269
dhartung@dbrs.com

Quincy Tang

Senior Vice President, RMBS
U.S. Structured Finance
+1 212 806 3256
qtang@dbrs.com

Kathleen Tillwitz

Senior Vice President,
Operational Risk
U.S. Structured Finance
+1 212 806 3265
ktillwitz@dbrs.com

Toronto

DBRS Tower
181 University Avenue
Suite 700
Toronto, ON M5H 3M7
+1 416 593 5577

New York

140 Broadway, 35th Floor
New York, NY 10005
+1 212 806 3277

Chicago

101 North Wacker Drive
Suite 100
Chicago, IL 60606
+1 312 332 3429

INCREASED LIFE EXPECTANCY: IMPLICATIONS FOR LIFE SETTLEMENT TRANSACTIONS

The key factor in the entire life settlement marketplace, whether relating to individual policy valuation or securitization, is the determination of the distribution of life expectancies. As soon as one becomes familiar with the latest mortality tables, new data comes to light that can radically modify previously held assumptions.

The latest such data was released by the U.S. National Center for Health Statistics on June 11, 2008, showing a significant drop in mortality. This means longer life expectancies but also a reduction in the value of life insurance policies and a lower yield for investors in securitized transactions. According to the study, declines of 5.5%, 1.6% and 6.4% were seen in the three leading causes of mortality in the United States, heart disease, cancer and stroke, respectively.¹ The table below demonstrates that the leading causes of mortality (and specifically, the leading causes of mortality in life settlement transactions) declined 2.6% in 2005 and 4.0% in 2006, suggesting that higher improvement factors may be necessary when calculating life expectancy. Even more so, some "new" technologies may prove to extend the life expectancies of each of these three impairments.

Mortality Rates (Deaths per 100,000 on an Age-Adjusted Basis)

	Heart Disease	Cancer	Stroke
2004	217.0 ¹	185.8	50.0
2005	210.3	183.8	46.6
2006	198.7	180.9	43.6

1. <http://www.cdc.gov/nchs/pressroom/07newsreleases/lifeexpectancy.htm>.

While reduction of heart disease may be due to many factors, it is noted that this disease claims more women each year than men. One tool aimed at reducing the instance of this disease in women is the Reynolds Risk Score, which accurately evaluates seven risk factors for this disease and can focus efforts on the most efficient methods for a woman to minimize her risk. An article in the *Journal of the American Medical Association*,² highlighted the efficacy of this prediction method over traditional models. Improved classification may lead to earlier detection and treatment and therefore reduced mortality.

On the cancer front, as the population ages, the percentage of smokers among the prime age group for life settlements will likely decrease, resulting in lower overall mortalities from several types of cancer. In addition, new research is demonstrating the notion of a "cancer stem cell," a type of cancer cell able to cause tumors on its own. Possibly, the stem cells rally the far more prevalent non-tumorigenic cancer cells to create tumors. Drugs are being pioneered to specifically target the cancer stem cells, which appear to be resistant to chemotherapy. Some articles link the return of cancers following remission to these cancer stem cells. A consortium of researchers in California and Canada has recently received more than \$100 million in funding for cancer stem cell research.³

New drug therapies designed to be administered during the first six hours following a stroke are being investigated aggressively. For example, one protective drug, tissue plasminogen activator (tPA), is FDA-approved and has been shown to be a "clot buster." Another drug, minocycline, which has been used as an intravenous antibiotic and thus already been shown to be a safe drug, is undergoing a study that may show its effectiveness in minimizing stroke damage if administered shortly after the stroke and then regularly afterward. Protecting the brain from blood clots or mitigating damage by targeting the brain-cell destroying enzymes activated by the stroke may reduce the mortality rate from this impairment.⁴

Naturally, mortality tables include improvement factors. Reductions in mortality, as reported above, coupled with drivers of increased longevity, may force life settlement portfolio managers to re-examine their assumptions. After all, life expectancy derived from a mortality table, assuming a 5% per year improvement, will be significantly longer, as time extends, than that observed in a mortality table assuming a 1% per year improvement.

While death is a certainty, the mortality rate certainly is not. Today's conservative measure of improvement seems destined to become tomorrow's aggressive assumption. At DBRS, we are committed to studying all factors affecting the life settlement markets, especially those dealing directly with mortality estimation.

For questions or comments, please contact Jan Buckler at jbuckler@dbrs.com

1. www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_16.pdf.
2. <http://jama.ama-assn.org/cgi/content/short/297/6/611>.
3. www.cbc.ca/health/story/2008/06/18/clement-stemcells.html.
4. www.news-medical.net/?id=38450.