Title: Disability Income Insurance in a Declining Life Expectancy. (The Impact of H.I.V in Sub-Saharan Africa)

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ABSTRACT

This is a product providing cover against various risks of accident and sickness. Disability among populations the world over is an increasingly major issue to be considered in demography, public policy and economic studies. There is need for provision of equal opportunities, work participation and social security benefits to ensure that the disabled populace remains a functional part of society. One of the major impacts of disability on a previously able-bodied person is the inability to make a living. There exists a need for people to protect themselves from a loss of income occurring as a result of disability.

The data required for successful completion of the study included:

- Claims experience for an existing DII product for at least ten years.
- Statistics on Disability/Rates of disability in Kenya classified under age, gender and occupation.
- Information on the interest rates used by insurance companies in premium calculations.
- Total expenses as a percentage of the Premium.
- Amounts of claims paid out.

RATING FACTORS.

These are those factors which significantly affect the nature of claims and the associated claim cost. As a result, they affect the amount of premium paid by a particular class of policyholders.

CLAIM TERMINATION RATES

Lapse rate is the term used to describe the ratio of the number of censored policies to the number of policies.

Conversely, the **Persistency rate** is the proportion of policyholders persisting to the end of a designated time period, and is given as: **Persistency Rate = 1- Lapse Rate.**

The total sum assured that would provide an adequate benefit payable in the event that disability occurs is dependent on:

- The insured's current salary, **Sj**

- Annual salary growth rate, **e.**

- An arbitrary multiplier, **F,** usually lying between 3 and 5. It is determined by the insurance company.

- The probability of disability at age x, S(x)

- A discounting factor, v

The formula for computing the Sum Assured (SA) is:

$$SA = F \{(S1 + S1{*}e)S(X) \, v + (S2 + S2{*}e)S(X) \, v^2 + \ldots\ldots\ldots + (Sj + Sj \, {*}e)S(x) \, V^J \}$$

Where: j is the term of the policy term.

Am able to estimate the calculation of premiums and benefits using the weibull distribution and stochastic method for a person who was previously healthy and working and is currently disabled.