

Mitigating the Impact of Adverse Selection in Term Life Micro-Insurance

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Abstract

Microinsurance, which involves policies with small premiums and small benefits, offers insurers some unique challenges, the foremost being the problem of **adverse selection**. To develop premiums for traditional life insurance products, insurers usually include two important steps: (i) they choose a mortality table that accurately reflects the mortality of the applicant pool; and (ii) they subject applicants to an extensive and costly underwriting process in order to guard against adverse selection. In the case of microinsurance, however, the situation is somewhat more problematic. Because the low income poor usually do not buy traditional life insurance products, their mortality experience may not be contained in insurance company mortality tables. And, because the amounts (death benefits and premiums) involved are relatively small, costly underwriting processes are automatically ruled out. A practical underwriting solution commonly used by microinsurers is to: (i) require applicants to complete a questionnaire on their personal/family medical history, (ii) require applicants to sign a statement declaring their “good health,” and (iii) institute a waiting period before death benefits can be paid. We use this practical approach as the starting point of our research to develop **self-selecting insurance contracts**. In our paper we assume the results of the practical underwriting solution are used to separate applicants into three groups: (1) a low-mortality insurable group, (2) a high-mortality insurable group, and (3) an uninsurable group. Only those in the first two groups are offered insurance. We assume each insurable group is homogeneous and has its own utility function. By varying the length of the term, the length of the waiting period, and the amounts of death benefit offered to each group, we develop life insurance contracts that are attractive to one insurable group but not the other, thus encouraging a form of **self-selection** that further reduces the impact of adverse selection.

Key words and phrases: adverse selection, self-selection, waiting time, optimal contracts, separating contracts

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