Loss of hearing is certainly the most-well known adverse effect of noise, and probably the most serious. During the last few decades, greater understanding of the effects of noise on hearing has led to minimum standards of workplace noise exposure being adapted and legislation passed to limit noise exposure. As a general rule, a continuous noise exposure above 85dBA for more than 8 hours per day is regarded as detrimental to hearing. Noise still remains a major problem in our workplaces and has continued to cause hearing loss unabated. Against this background, a cross-sectional study was carried out at four different work places in Nairobi Province, Kenya based on 401 subjects aged between 19 and 61 years and with varying levels of noise exposure to establish the levels of noise produced at these workplaces and the prevalence of noise-induced hearing loss. Current noise exposure was estimated by noise-dosimeter while past exposure was estimated by interview questionnaire. Conventional pure tone audiometry was used to assess the hearing ability in each subject. Hearing threshold levels (HTL) were calculated using the WHO revised criteria based on pure-tone average over the frequencies 0.5, 1, 2 and 4 for the better hearing ear (M4 BE). The study revealed that 86.4% of all workers were exposed to noise levels way above 85dBA and only 40% of these use any form of hearing protection. Some 43.5% of the workers in the studied industrial plants were noted to have some degree of hearing impairment ranging from mild to profound. It was also noted that workers exposed to the above recommended noise levels had more incidences of deafness than the general population (44% against 9%). A majority of those exposed to dangerous noise levels were noted to be machine operators and in the age group 20-40 years and were all male. In spite of the grim statistics on hearing loss among this population of workers, both the employees and the employers did not make use of hearing protectors seriously and there is a need to enforce the same. One of the major reasons for non-use of these devices was noted to be discomfort. Employers have an obligation to ensure provision of user-friendly hearing protector appliances and any other appropriate method to reduce hazardous noise exposure to the workers. Governments the world over have a duty to protect workers against one of the commonest occupational hazards by enacting registration and enforcing the relevant laws especially on hearing conservation programmes. The findings of his study could inform the ministries of Labour and Human Resources Development and Health in designing and enforcing relevant occupational and safety regulations and legislation to protect the otherwise very vulnerable workforce exposed to these hazardous noise levels.