

Occupational noise-induced hearing loss among workers at Jomo Kenyatta International Airport, Nairobi.

[Anino JO](#), [Afullo A](#), [Otieno F](#).

Source

Department of Public Health, Kenyatta University, P.O Box 43844, Nairobi, Kenya.

Abstract

BACKGROUND:

Occupational noise induced hearing loss (NIHL) occurs among workers exposed to excessive amounts of noise for long durations. The average level of noise in some locations at Jomo Kenyatta International Airport (JKIA) was above the safe limit of 85dB hence workers were thought to be at risk.

OBJECTIVE:

To determine the occurrence and socio demographic attributes for NIHL at JKIA.

DESIGN:

Cross sectional descriptive study. Setting: Jomo Kenyatta International Airport, Nairobi, Kenya.

RESULTS:

Mean age of respondents was 37 years with range 22 to 62, SD 8.98. Mean duration of exposure to noise was 10.7 years with range 1 to 40, SD 8.15. Prevalence of NIHL was 15.3%, with ground crew at 14.8% and air crew 16.1%. Ground crew had significantly poorer mean hearing threshold level at 3, 4 and 6 kHz than air crew ($p = 0.015$). Male workers were affected more than female counterparts with a male to female ratio of 4:3. 97% of those affected were non-managers, 3% managers while 68% of those affected resided in Embakasi Division close to the airport. Hearing threshold level at 4 kHz deteriorated with increasing age whereby those aged 50 years and above had a 13.7 times higher relative risk than those aged 20 to 29 years. Duration of exposure more than 10 years also had significantly higher risk ($p < 0.01$) for hearing loss at 4 kHz.

CONCLUSION:

Occupational noise induced hearing loss occurs at JKIA and that ground crew and older workers are more vulnerable. We recommend that prevention programmes be put in place.