SUMMARY

OBJECTIVE

The main objective of this cross-sectional comparative study was to assess the prevalence of respiratory symptoms and the lung function abnormalities in quarry workers in Abakiliki South-East Nigeria.

SUBJECTS/METHODS

Three hundred and forty quarry workers in Abakiliki, South – East Nigeria, chosen by simple random sampling method and one hundred and seventy control subjects not occupationally exposed to silica dust and not involved in any dusty job were evaluated. The control were age, height, weight and sex matched with the subjects. Two hundred and twenty of the subjects were males while one hundred and twenty were females.

A questionnaire on respiratory symptoms, knowledge and attitude of quarry workers on potential respiratory hazards and use of protective devices were administered on all subjects and their lung functions assessed using spirometer and standard wright’s peak flow meter. The measurements done were FEV₁, FVC, FEV₁/FVC% and PEFR.

RESULTS
The results showed high prevalence of respiratory symptoms in quarry workers compared to control. The mean values of lung function tests were generally lower for quarry workers compared to controls and reached statistically significant levels except for FEV$_1$/FVC%. There was inverse relationship between lung function tests and duration of employment. Majority of the quarry workers were aware of the hazards of occupational exposure to silica dust (84.54% males, and 80% females). Only 5% of males and 5.83% of female quarry workers used protective devices. Non-availability of the protective devices was the major reason for the gap between knowledge of hazards and use of protective devices.

**CONCLUSION**

Silica dust has deleterious effect on the lungs and should be controlled at quarry sites. There is also urgent need for provision of protective devices.