Antimicrobial copper (Cu +) implementation and its influence to the epidemiological data in elementary school population

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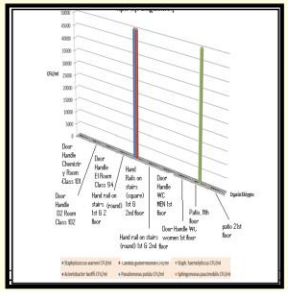
Aim

The aim of this study was to evaluate the epidemiological data in elementary school students after implementing Cu^+ in multi-touch surfaces.

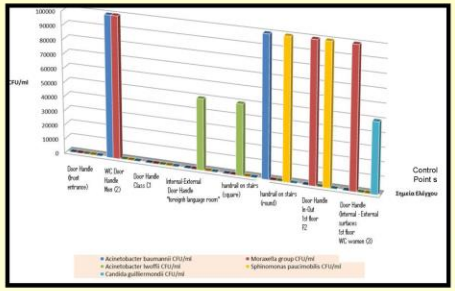
Method

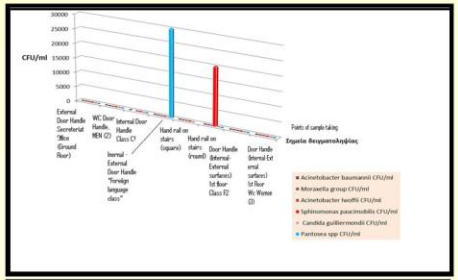
Antimicrobial copper alloy (Cu 63% - Zn 37%, Low Lead) was used to cover or replace multi-touch surfaces (handrails, stair railings), in five elementary schools (N = 1596 students). Epidemiological surveillance of flu-like symptoms was conducted from the 40th week of 2011 to 15th week of 2012 and recorded absenteeism among students based on a specific protocol.

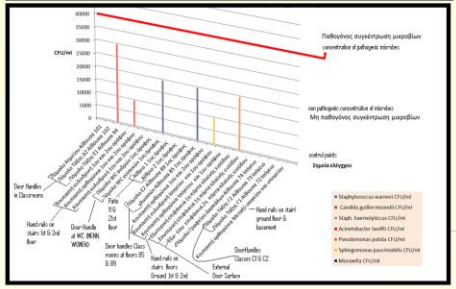


Results

A significant reduction of pathogenic strains and viruses after the implementation of antimicrobial copper Cu^+ influenced the occurrence of respiratory infections of viral aetiology. A decrease of seasonal influenza (Influenza-Like-Illness) was recorded on the students of these schools. Clinical morbidity index of students was recorded at 36, 01% (average 5 schools), while in the community the same period (2011-2012) the rate was 48, 8%.







Conclusions

The use of antimicrobial copper in places with great population concentrations and crowded places such as schools is an innovative application, which in combination with hand hygiene contributes significantly to the reduction of viral respiratory tract infections and emerging as one of the most important allies to the Public Health.