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## HEALTH RISKS OF ENVIRONMENTAL POLLUTION BY SOLID/LIQUID WASTE, AND COWS DROPLETS IN NIGERIA

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### ABSTRACT

Introduction; The problem of environmental pollution is a huge health burden on developing countries of which Africa forms the major group the purpose of this study therefore, was to determine- the environmental health risks posed by cows that are allowed to traffick across Nigeria without adequate control, for the purpose of grazing and commercialization, discharging their droplets indiscriminately where ever they go. The pathogenic microbial contents of the cow. Droplets put the inhabitants of the area where these droplets are deposited at high risk of microbial infections. The analysis of the microbial contents of these droplets will be a useful index in putting up control and intervention measures to check the overall environmental health hazards, to which people in these areas are exposed. Materials and methods ;One hundred cows from the field among those trafficking along the majors high ways were randomly selected for this study., their droplets we collected using sterile cotton wool swabs and delivered to the laboratory with minimum delay for processing. and were examined bacteriological using routine methods in Medical Microbiology department of University of Benin Benin City Nigeria. Results; Twenty-six enter virulent *Escherichia coli* strains belong to serotypes 01,026,015,044,0126,0127,00157,08,0159,044,0148,0159,08,0158 were isolated from the samples. Conclusion; this study shows a high health risks posed by cow droplets which constitute major solid waste in Nigeria among others.

**Keywords:** *Droplets, Solid Waste, Environmental Pollution.*

### INTRODUCTION

Environmental pollution posed by solid/liquid waste is a major health risk to people in the developing countries of the world. Stagnant polluted surface water is the main source of water for domesticated animals of which cows contribute to the majority. In Nigeria cows are allowed to move across the country indiscriminately, for the purpose of grazing and commercialization. Many of them are reservoirs for pathogenic bacteria, thereby putting the nation at great risk of infection There have been many reports from all parts of the world about transmission of infection from animals to human.(1-6)Moreover, solid waste is another serious health hazard,. In Nigeria, there is no available system programme, or intervention as at now to completely tackle the environmental pollution posed by the solid waste. Most respiratory diseases are acquired from the air around us and respiratory diseases are very fast killers more devastating than the dreaded HIV/AIDS, for example SARS and all kinds of flues raved the world especially the Asia continent some few years ago. (7-10)In order to

maintain public health , we must have a clean and healthy environment devoid of pollutions from solid,liquid gaseous and internet, pollutants. (11-13) With the mixing of populations Health challenges in a particular country can be transferred to other countries, therefore, public health in a particular country can mean public health globally.. Therefore, the need to maintain clean and safe environment should be the responsibility of all nations of the world.

**MATERIALS AND METHODS:** Droplets from One hundred cows grazing on fields in some rural areas of Nigeria were randomly collected aseptically and sent to the laboratory for analysis. The samples were cultured using routine methods of stool culture in Medical microbiology department of University of Benin, Benin City Nigeria.

**RESULTS:** Seventy four *E. coli* strains were isolated from the one hundred samples of droplets cultured from the cows. Twenty-six enter virulent strains, belonging to the following 0 serotypes; 01-3,044-4, 06-3,026-3.027-2,0157-8,029-3. Table1

**DISCUSSION:** The isolation of enter virulent bacteria from cows that traffic across the country for purpose of grazing and commercialization is a serious environmental health risks to inhabitants of the areas where they traffic. These cows traffic in search of stagnant surface water polluted by all sorts of micro organisms,. This can lead to their infection which can be transferred to humans as the end users, Therefore, the need to provide RANCHES where these animals can be kept, controlled and treated properly, by Vertinary Surgeons cannot be over-emphasized.. Moreover,- the stagnant surface water are breeding habitats for mosquitoes and other dangerous insects parasites that have been vectors of dangerous tropical diseases that have plagued man for centuries. The need for Legislation on the proper environmental pollution prevention of liquid/solid, internet and poisonous gaseous emission is desirable.

**CONCLUSION:** This study presents, high risks of environmental pollution posed by soli/liquid, internet and poisonous gaseous emission to humans living in the environments where these abound.

Table 1. Incidence of Enterovirulent Escherichia Coli Serotypes Isolated From Cows

Serotype	Frequency	Percentage
0157	8	30.76
044	4	15.44
015	3	12.5
026	3	12.5
027	2	7.6
029	3	12.5
06	3	12.5
01	3	12.5

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