

There is increased range of human health disorders due to exposure to toxic metals such as lead as well as negligible levels of essential elements in the bodies of males. Exposure to lead may emanate from manufacturing industries (where adult males predominate), consumption of exposed and canned foods among other lifestyle changes. Human males are poor eaters of foods that are considered essential yet they work in areas that expose them to lead pollution. The findings of this study showed that males from urban areas had significantly higher levels of lead than the rural counterparts. Consequently the levels of essential elements in urban subjects was significantly lower than in the rural subjects. This shows that low levels of essential elements exacerbates the absorption of lead. Risk factors were showed to highly influence the levels of lead as well as essential elements. The findings of this study will be used to recommend the use of nails and hair as bio-indicators of essential element status and lead overload instead of blood. It is hoped that the findings will be used by relevant authorities to formulate policies for appropriate action as well as to sensitize the public.