The emerging global significance and the possible faster rate of increase in interest of herbal drugs for treating various illnesses cannot be underestimated. This coupled with the associated health risk posed by these drugs due to hazardous metal contamination of various herbs used in the preparation of these drugs gives credence to concerns raised by health conscious people. In this study the Atomic Absorption Spectroscopic analysis was conducted on some selected traditionally used unregistered herbal drugs sold in Kumasi, Ghana to assess the concentrations of four hazardous metals lead (Pb), arsenic (As), cadmium (Cd) and zinc (Zn). Results indicated that with the exception of Cd which generally occurred in higher concentrations (ranging from 0.000 to 2.560 mg/L) than the WHO maximum permissible limits (MPL) of 0.3 mg/L, the others, with WHO MPL of 100 mg/L for Zn, 10 mg/L for Pb and 1.0 mg/L for As were generally lower; As (0.000 mg/L to 1.012 mg/L), Pb (0.001 mg/L to 1.510 mg/L) and Zn (ranging from 0.004 mg/L to 0.830 mg/L) were lower. This, not withstanding poses growth impairment threat. This situation calls for a more effective enforcement measures of the foods and drugs law in the bid to address the problem of consumption of unsafe herbal products. Keywords: Hazardous metals, concentration, herbal drugs