# A TIME –DEPENDENT COX REGRESSION MODEL TO DETERMINE THE EFFECTIVENESS OF PLANNED DURATION OF RESIDENTIAL DRUG ABUSE TREATMENT

G.A.Okyere [1], F. Amankonah [1], A. Ayebo[1], F.T. Oduro [2]

[1] *University of Nevada, Reno, USA*
[2] *Kwame Nkrumah University of Science and Technology, Kumasi, Ghana*

Email: *goasare@yahoo.co.uk*

This study was carried out in the framework of survival analysis to determine a time-dependent Cox regression model to compare treatment programs of different planned durations designed to reduce drug abuse and also to determine whether alternating residential treatment approaches are variable in effectiveness and whether efficacy depends on planned program duration. We will demonstrate that time-dependent Cox regression model could be obtained to a secondary data made up of two concurrent randomized controlled trials of program with well defined planned duration .Even though site of treatment was relevant in the time dependent Cox regression, the confidence interval of the estimated relative hazard ratio of an individual in one site to the other suggest that there is no significant difference between the sites. Furthermore we will establish the fact that the estimates of the survival function within and across sites for treatment randomization assignment indicates that there is no much difference in planned duration after six months.