

**PROGRAM – Pwani R Training****10<sup>th</sup> Feb – Submit Presentations**

<b>WEEK ONE:- DAY ONE – 15<sup>th</sup> Feb 2016</b>	
<b>Time</b>	<b>Description</b>
9.20 – 10.00am	Opening of workshop
10.00 – 10.30am	Outline of course & describing data, types and outcomes= <b>Osman</b>
	BREAK
11.30 – 1.00pm	Introduction to ‘R’ <b>KEN MWAI/James</b>
	LUNCH
2 – 3.30 pm	Introduction to ‘R’ <b>KEN MWAI/James</b>
	BREAK
4 – 4.30 pm	Introduction to ‘R’ <b>KEN MWAI/James</b>
<b><u>DAY TWO -- 16<sup>th</sup> Feb 2016</u></b>	
8.30 – 10.00am	Review of Monday’s activities
10.00 – 10.30am	Measures of data-brief lecture= <b>Osman</b>
	BREAK
11.30 – 1.00pm	Numerical explorations: means, SD <b>Michael\James</b>
	LUNCH
2.00 - 3.00pm	Practical 1 <b>Michael\James</b>
3.00 – 3.30 pm	Review of solutions to Practical 1 <b>Michael\James</b>
	BREAK
4.00 – 5.00pm	Recap of the day’s activities <b>Michael\James</b>
<b><u>DAY THREE -17<sup>th</sup> Feb 2016</u></b>	
<b>Time</b>	<b>Description</b>
8.00-9.00am	Review of assignment and other help
9.00- 9.30am	Graphs- brief lecture <b>James\Ken</b>
9.30 – 10.30am	Graphical exploration of data <b>James\Ken</b>
	BREAK
11.00-12.00pm	Practical on graphs <b>James\Ken</b>
12.00pm-1.00pm	Review of practical on graphs <b>James\Ken</b>
1 – 2.00pm	LUNCH
2.00pm- 2.30pm	Introduction to confidence intervals = <b>David Mburu\Boniface</b>
2.30 – 3.00pm	Practical 3 on R and deskwork <b>David Mburu\ Boniface</b>
	BREAK
3.00-3.30pm	Review of solutions to Practical 3 <b>David Mburu\ Boniface</b>
3.30pm-4pm	T-test for single and paired data

	t-test for unpaired data, testing two means David Mburu\ Boniface
4.00-5.00pm	Practical 4 and solutions to practical 5 David Mburu\ Boniface
<b><u>DAY FOUR – 18<sup>th</sup> Feb 2016</u></b>	
8.00 – 9.00am	Review of assignment and other help David Mburu
9.00 – 9.35am	Binomial distribution: proportions, SE, 95%CI OSMAN
	hypothesis testing for single proportion OSMAN
9.35 – 10.30am	Difference in proportions, SE, 95% CI and hypothesis testing for a difference proportion OSMAN/ Otiende/Alice
	BREAK
11.00-11.30am	Chi-squared tests and analysis. contingency tables OSMAN/ Otiende/Alice
11.30 – 1.00pm	Practical 5 and review OSMAN/Otiende/Alice
	LUNCH
2.00 – 2.30pm	Effect estimated for binary data
	RR, OR, 95%CI of RR and OR OSMAN/ Otiende/Alice
2.30-5.20pm	Practical 6 and 7 and review OSMAN/ Otiende/Alice
	<b>Day 5 – 19<sup>th</sup> Feb 2016</b>
8.00 – 9.00am	Assignment solutions and other help Otiende/ALice
9.00 – 9.30am	Continuation with help on assignments Otiende/ALice
9.30 – 9.45am	Risks and rates: person time Otiende/ALice
9.45 – 10.00am	Confidence interval for a rate Otiende/ALice
10.00 – 10.30am	Deskwork -practical 8 Otiende/ALice
	BREAK
11.00 – 11.20am	Comparing two rates- rate ratio
	Confidence intervals for rate ratios Otiende/Alice
11.20 – 11.40am	Making inferences from analysis Otiende/Alice
11.40 – 12.20pm	Practical 9 Otiende/Alice
12.20 – 1.00pm	Review of solutions of practical's Otiende/Alice
	LUNCH
2.00 – 2.30pm	Plotting the data: assessing correlations- Alice/Otiende
2.30 – 3.00pm	Correlation Alice/Otiende
3.00 – 4.00pm	Practical 10 Alice/Otiende
4.00 – 5.00pm	review of solutions for practical 10 Alice/Otiende

## Week 2

	<b>DAY 1 – 22<sup>nd</sup> Feb 2016</b>
8.00 – 9.00am	assignment and other help
9.00 – 9.50am	ANOVA <b>KITI/David /Victor/Boniface</b>
9.50 – 10.30am	Practical 11 – ANOVA <b>KITI/David Mburu//Boniface</b>
	BREAK
11.00 – 11.45	Review of solutions for practical 11 <b>KITI/David Mburu/Victor Nyawanga</b>
	LUNCH
2.00-2.30pm	Linear regression <b>KITI/David Mburu//Boniface</b>
2.30 – 3.00pm	Practical and solutions for linear regression <b>KITI/David Mburu//Boniface</b>
3.00 – 4.00pm	Diagnostics- residuals and model fit <b>KITI/David Mburu//Boniface</b>
	<b>DAY 2 – 23<sup>rd</sup> Feb 2016</b>
8.00 – 9.00am	Assignments and other help
9.00 – 9.30am	Logistic model to estimate OR from binary exposure <b>Ojal/Emily/James</b>
9.30 – 9.45 am	Test null hypothesis of no exposure for binary exposure <b>Ojal/Emily/James</b>
9.45-10.30 am	Practical - logistic models for binary variables <b>Ojal/Emily/James</b>
	BREAK
11.00-11.45am	Log. Regression to estimate OR for exposure with >2 levels <b>Ojal/Emily/James</b>
11.45-12.15pm	Test hypothesis of no effect for each of the different levels <b>Ojal/Emily/James</b>
12.15 – 1.00pm	Practical-log. Models for variables with >2 levels <b>Ojal/Emily/James</b>
	LUNCH
2.00 – 2.30pm	Application of log.model on an unmatched case-control study <b>Ojal/James</b>
2.30 – 3.45pm	Practical - interpretation of 'R' output <b>Ojal/Emily/James</b>
3.45 – 4.00pm	Effect modification - Likelihood ratio tests <b>Ojal</b>
4.00- 4.30pm	Practical <b>Ojal/Emily/James</b>
4.30- 5.00pm	Summary for the day
	<b>Day 3- 24<sup>th</sup> Feb 2016</b>
8.00 – 9.00am	assignments and other help –Ojal/Emily

9.00-9.30am	Recap of time-to-event data <b>PHILIP/Alex Mutuku/ Victor</b>
9.30 – 9.45am	Classical analysis of rates <b>PHILIP/Alex Mutuku/ Victor</b>
9.45 – 10.30am	Poisson regression for rates + practical <b>PHILLIP/Alex Mutuku/ Victor</b>
	BREAK
11.00-11.45am	Hypothesis testing in Poisson regression <b>PHILLIP/Alex Mutuku/ Victor</b>
12.15-1.00pm	Desk work <b>PHILLIP/Alex Mutuku</b>
	LUNCH
2.00-2.30pm	Recap of time-to-event data <b>PHILLIP/Alex Mutuku/ Victor</b>
2.30-3.45pm	Practical- analysis of events over time <b>PHILLIP/Alex Mutuku/ Victor</b>
3.45-4.00pm	Solutions to practical <b>PHILLIP/Alex Mutuku/ Victor</b>
	<b>Day 4- 24<sup>th</sup> Feb 2016</b>
8.00-9.00am	Assignments and other help
9.00-9.30am	Principles of multivariable regression analysis <b>PHILIP /GPO/Tuju</b>
9.30-10.00am	introduction- Interaction/effect modification <b>PHILIP/GPO</b>
10.00-10.30am	Detection/interpretation of interaction & effect modification <b>PHILIP/GPO</b> Effect modification and test for linear trend in Poiss. Regression <b>PHILLIP/GPO</b>
	BREAK
11.00-12.15pm	Practical <b>PHILIP//GPO</b>
12.15- 1.00pm	Confounding and stratification <b>PHILIP//GPO</b>
	LUNCH
2.00-2.45pm	Confounding II (logistic regression analysis) <b>PHILIP//GPO</b>
2.45-4.00pm	Practical - handling confounding <b>PHILIP/GPO</b>
4.00-4.30pm	Summary of day's activities <b>GPO</b>
	<b>Day 5 – 25<sup>th</sup> Feb 2016</b>
8.00-9.00am	Package management, Reproducible research including LaTeX <b>James/Ken</b>
9.00-9.20am	Where you can find help ,support, information <b>James/ Ken</b>
9.20-10.15am	Appraisal of scientific papers <b>Ojal/David/Osman</b>
	BREAK
11.00-12.00pm	Presentation of by groups on scientific papers <b>ALL FACILITATORS</b>
12.00 – 1.00pm	Summary - Appraisal of scientific papers <b>Osman/Ojal/David</b>
	THE END