Female Sterilization Clients at the Komfo Anokye Teaching Hospital in Kumasi, Ghana

Background

As a master’s student in the Population, Family, and Reproductive Health Department at the Johns Hopkins Bloomberg School of Public School I was awarded funds by the Gates Institute for a research internship in Kumasi, Ghana in 2006 at the Komfo Anokye Teaching Hospital. One of those research activities was a study of female sterilization clients.

My main research interest is family planning use in sub-Saharan Africa. There are many modern family planning methods, including: oral contraceptive pills, male and female condoms, injectables, implants, IUDs, and sterilization. Female sterilization is a permanent, effective family planning method. This method is quite popular in certain regions of the world, most notably in India where 37% of women used this method of contraception in 2004. In comparison, any use of family planning in Ghana is low – just 24% of women surveyed by the Demographic and Health Survey team were using a method of contraception in 2008. Among the minority of women who do use family planning, very few choose sterilization. In the same survey in Ghana, just 2% of women were using female sterilization for family planning. The study I am conducting arose from an interest in understanding who chooses female sterilization in this environment – and to explore the factors that motivate that choice.

Female sterilization data had been collected in individual booklets for each client beginning in 1996. I was in Ghana in 2006 so was able to use the data on female sterilization clients from 1996 – 2005. The booklets changed over time – so not all variables are available for every year, but the variables that are consistently available are: age, partner’s age, marital status, education, religion, gravidity, abortion history, parity, child death, number of live children, number of contraceptive methods known, ever use of modern contraception (by type), source of information about female sterilization, and satisfaction with female sterilization.

I presented these data at a Gates Institute Family Planning conference in Uganda in 2009. At this time I am working with colleagues at the Johns Hopkins Bloomberg School of Public Health and at the Komfo Anokye Teaching Hospital to update our database by entering data on female sterilization clients for the years between 2006 and 2012.

Project Importance

Increased use of family planning, especially in areas with high maternal and infant mortality, such as Ghana, can be life-saving. In Ghana, as in many other countries in sub-Saharan Africa, use of female sterilization is very low even though it is one of the most effective methods of family planning. By
investigating the characteristics and motivators of women who chose female sterilization we can assist programmers and policy-makers in identifying ways to attract more women to use this effective method of family planning, thereby reducing premature mortality.

Methods

This research project has three main components: literature review, data cleaning and analysis, and manuscript preparation. I will first work on reviewing the literature related to female sterilization in Ghana, as well as publications on female sterilization in the region and the world. Once the literature review is completed, I will begin data cleaning and analysis. To clean the data I will tabulate each variable, examining the tabulation for outliers and investigating issues as they arise. I will also use visual representations of each variable to identify outliers.

Once the data are clean I will next analyze the data. First I will look at bivariate associations between the independent variables and the dependent variable – my main dependent variable will be contraceptive use prior to female sterilization. Finally, I will use logistic regression to account for confounding as I examine the association between the dependent variable and the main independent variable of interest, which will be identified through the literature review and initial data analysis. Once the analysis is complete I will prepare the tables for the manuscript – showing the significant findings from the data.

Finally, I will write the introduction, methods, results, and discussion sections of the manuscript. All of this work will be done in collaboration with my Johns Hopkins and Komfo Anokye colleagues. At the end of this process we will have a manuscript ready for submission to a journal. It is possible for us to accomplish this project, preparation of the manuscript for submission to a journal, during the summer of 2014.

Expected Outcome

I expect to analyze the data and prepare the manuscript during the summer of 2014. Once I have completed the analysis and the manuscript is finalized by all of the authors then I plan on submitting the manuscript for publication in a public health journal that has a focus on reproductive health. I expect the ultimate outcome from this experience to be a published article.

A publication from this research would likely aid me in securing funding from external sources for future research on my topic of interest – family planning use in sub-Saharan Africa.