

Princess Marina Hospital HIV rates: Interrupted time series analysis for policy review

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Objective

We aimed to assess the effect of the amended Public Health act of 2013 on facility-based HIV testing in Princess Marina Hospital

Introduction

HIV testing remains the mainstay of optimal HIV care and is pivotal to control and prevention of the disease, however efforts to attain optimal testing levels have been undermined by low HIV testing especially in developing countries. Botswana in response, amended its Public Health Act in September 2013 but the effect of this action on facility based HIV testing rates has not been evaluated

Methods

We carried out an effect assessment using interrupted time-series analysis method, where we accessed electronic medical records of patients seen in Princess Marina Hospital from June 2011 to May 2015. Rates were developed from the proportion of patients that tested each month out of the number that registered, and that figure used that as our data point in the series. September 2013 served as our intervention period in the series. We ran the (i) crude and (ii) sex-stratified model regression models in stata® yielding Newey-West coefficients with their 95% confidence intervals. Graphical display of the models were also produced to visual appreciation and inspection

Results

Two hundred and twenty-nine thousand six hundred and ninety two patients were registered between June 2011 and May 2015. Of those tested the significant majority being females (65%). From the Newey-regression output there was no significant change in the level of HIV testing immediately after the intervention however there was a change in trend ($p=0.002$) post the intervention. Stratification by gender, revealed no statistically significant difference between males and females, either in the levels nor the trend post intervention compared to pre-intervention

Conclusions

The amendment of the Public Health act of 2013, has brought about trend change in HIV testing however there has not been any apparent difference in the levels nor trends on HIV testing between males and females. Nationwide health facility-based studies could assist assess the overall effect of the amended act on HIV testing rates

Keywords

HIV testing rates; Interrupted time series analysis; public health act; Princess Marina Hospital

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