

The association between family planning program variables and current modern contraceptive use among women in Kenya

Table 1 presents the role of family planning program exposure variables on modern contraceptive use for urban areas outside of the Tupange study cities and for rural areas. Notably, the exposure variables measured in the KDHS are general measures and not specific to the Tupange program, however, they represent the types of activities implemented by the Tupange program to create a demand for family planning and improve the supply environment. Women can also be indirectly exposed to mass communication through social interaction. We test this by including the percent of women in a community that were exposed to masscommunication via the radio in addition to direct exposure. In Table 1, we see a marginally significant increase in use among women exposed to family planning messages through the social media compared to women who did not see family planning in the social media. Community level exposure to family planning

messages on the radio was significantly associated with increased mCPR. Other factors in other urban areas that had positive but not significant associations included exposure to family planning pamphlets, exposure to family planning messages on the mobile phone, and exposure to family planning messages on the radio. In rural areas, seeing information pamphlets, and individual exposure to family planning on the radio were all positively associated with modern method use. Community level exposure to family planning on the radio was marginally associated with increased use. In addition, women who lived further away from a Tupange study city were less likely to be using than those who lived closer. Each of these factors are suggestive of diffusion of program effects.

It is important to note that this analysis does not correct for possible recall bias in an individual's response to exposure to the various program variables. As a result, there could be some degree of bias in the estimated associations that could be in either direction.

Table 1. Multivariate associations between program exposure and modern contraceptive use outside of Tupange study cities, KDHS, 2014

| Program exposure variables | Other urban areas N=4,308 | | | All rural areas N=9,248 | | |
|---|------------------------------|-----------|---------|----------------------------|-----------|---------|
| | OR | 95% CI | p-value | OR | 95% CI | p-value |
| Community level radio exposure | 1.17 | 1.00-1.37 | 0.047 | 1.17 | 0.98-1.40 | 0.081 |
| Heard FP at public forums | 1.13 | 0.95-1.34 | 0.162 | 1.07 | 0.95-1.21 | 0.249 |
| Saw FP informational material | 1.12 | 0.94-1.33 | 0.207 | 1.17 | 1.05-1.32 | 0.006 |
| Visited by a health worker to discuss FP | 0.96 | 0.72-1.26 | 0.748 | 1.15 | 0.95-1.40 | 0.156 |
| Received FP messages through social media | 1.22 | 0.98-1.52 | 0.076 | 0.92 | 0.73-1.16 | 0.490 |
| Received FP messages through mobile phone | 1.24 | 0.96-1.61 | 0.094 | 1.03 | 0.77-1.38 | 0.822 |
| Heard political, religious, or community leaders speak favorably about FP | 1.03 | 0.86-1.23 | 0.773 | 1.03 | 0.91-1.16 | 0.687 |
| Heard FP on radio in the last few months | 1.12 | 0.93-1.35 | 0.228 | 1.16 | 1.01-1.33 | 0.033 |
| Heard FP on TV in the last few months | 0.96 | 0.79-1.16 | 0.676 | 1.12 | 0.97-1.29 | 0.111 |
| Saw FP in newspaper/magazine in the last few months | 0.95 | 0.79-1.15 | 0.613 | 0.96 | 0.82-1.12 | 0.613 |
| Distance to closest city where Tupange worked | 1.00 | 1.00-1.00 | 0.000 | 1.00 | 1.00-1.00 | 0.000 |

*Models control for age, education, religion, wealth, marital status, and county, and adjusted for clustered survey design.

DIFFUSION OF THE TUPANGE PROGRAM AND MODERN CONTRACEPTIVE USE IN KENYA



Through a combination of acrobatics and theatrical productions large crowds are taught about the benefits and issues that surround family planning. Nairobi. ©2012 Tobin Jones/Tupange

Key Points:

- Modern contraceptive use increased nationally from 2010 to 2014 with large increases in the five cities where Tupange worked.
- Larger mCPR increases were observed after the start of program implementation in counties neighboring areas where Tupange worked relative to counties that are more distant.
- Exposure to family planning program activities was highest in the five program cities followed by other urban areas and then rural areas. This suggests that program diffusion may have started in program cities, moved to other urban areas and then into rural areas.

Background

The Tupange program, funded by the Bill & Melinda Gates Foundation (BMGF) and led by Jhpiego, had the goal of increasing modern contraceptive use in five cities in Kenya. From 2010 to 2015, Tupange implemented a diverse set of supply and demand side

interventions such as ensuring contraceptive security and training providers at health facilities, undertaking community outreach activities, and developing and airing mass media advertisements. The Measurement, Learning & Evaluation (MLE) Project, also funded by BMGF and led by the Carolina Population Center, undertook an impact evaluation of the Tupange program using longitudinal data collected in 2010 and 2014. In addition to the impact evaluation, an objective of the MLE project was to study whether the Tupange program activities diffused to other cities and to neighboring rural areas. The Urban Reproductive Health Initiative defined diffusion as, “the spread and adoption of new information, ideas, beliefs, or social norms capable of influencing family planning decisions and behaviors that occur through social interaction and influence, either at the interpersonal level or through impersonal channels such as the mass media.” A social multiplier effect may amplify the direct program effect as information networks can increase the speed of change in fertility behavior already taking place. To do this, MLE utilized the 2014 Kenya Demographic Health Survey (KDHS) that included a large sample of

households representative at the county level for all 47 counties in Kenya. Although the 2014 KDHS is cross-sectional, it includes a five-year contraceptive calendar which allows us to determine if modern contraceptive use increased differentially over time in intervention cities, other urban areas, and rural areas. If in fact it did, further analysis would be warranted to determine if diffusion was part of the causal mechanism.

Modern contraceptive use by place of residence

The KDHS survey captured retrospective information about modern contraceptive use (mCPR) using the contraceptive calendar which covered an approximately five year time frame, ending at the time of interview. As Figure 1 shows, mCPR increased over time at the national level regardless of place of residence. mCPR was highest at every time point in the five cities where Tupange worked: Nairobi, Mombasa, Kisumu, Machakos and Kakamega. This is not surprising given that the larger urban areas often have higher overall mCPR. Modern use in other urban sites is lower in all years, however, it also increases over time. In the rural sites, use was the lowest and increased more slowly than in the other sites.

To explore diffusion to surrounding counties, particularly for Nairobi and Mombasa

which are entirely urban counties, Maps 1-5 show mCPR by county. These maps provide further support that mCPR increased over time nationally but also show larger mCPR increases after the start of program implementation in counties neighboring areas where Tupange worked relative to counties that are more distant.

Exposure to FP program activities

Exposure to family planning program activities was highest in the five program cities followed by other urban areas and rural areas (Figure 2). In other urban areas exposure to program activities was higher than rural areas, but lower than the Tupange cities. This suggests that program diffusion may have spread from program cities to other urban areas and then into rural areas.

Figure 1. Any modern contraceptive use in each year by place of residence

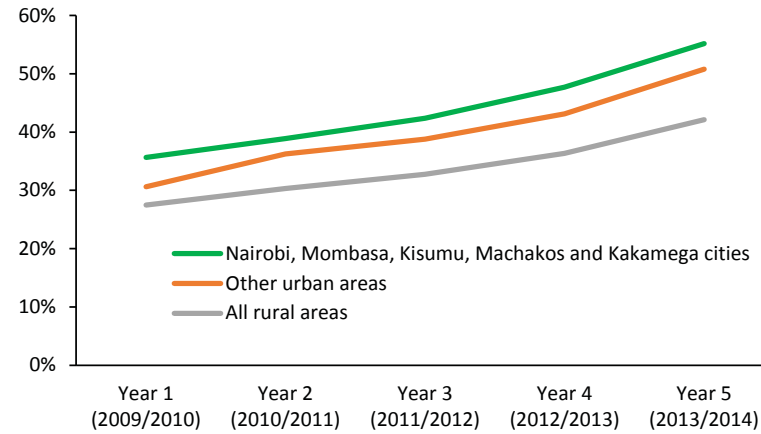


Figure 2. Exposure to FP program activities by place of residence

