

dramatically strengthen the voice of TB. Data on message timing, ideal SM platform, and message quality should inform these efforts to maximize impact.

Source of Funding: None.

Abstract #: 2.011_INF

Traditional and Conventional Treatment for Cutaneous Leishmaniasis in an Endemic Rainforest Area of Northern Ecuador

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Background: Cutaneous leishmaniasis (CL) causes unsightly lesions and can cause permanent disfigurement. The gold standard CL treatment is a toxic antimonial drug. Our study examined the traditional and conventional treatment knowledge, beliefs, and practices (KAP) of an endemic rainforest population in Ecuador and compared the findings with those we published two decades ago in the same area.

Methods: We used grid sampling to randomly select 10% of households in the 21 rural communities, and from those, a subsample of 351 adult participants aged > 18 years. Participants were interviewed with closed- and open-ended questions focused on CL treatment KAP. The protocol received institutional review board approval and participants gave their informed consent. The data were collected during a 24-month period (2013–2015).

Findings: One-third of participants had a positive CL history, 75% reported familiarity with the disease and 58% identified > 1 treatment method. Their diverse ethnomedical treatment inventory included cauterization, medicinal plants, acids, heavy metals, toxic chemicals, veterinary products, and other remedies. More participants than before reported familiarity with antimonial treatment but the number of medicinal plant species identified was decreased by 54%. As before, beliefs about the adverse consequences of untreated lesions appeared to motivate getting treated. Treatment among participants with a positive CL history was somewhat reduced compared to prior studies (82% vs. 87–88%). Males were slightly more likely to be treated than females (90% vs. 78%; aPR=1.15; 95% C.I. 1.04, 1.28). Among those treated, 17% got only antimonials, 80% only traditional remedies, and 3%, both. The proportion of males treated with “strong/harsh” methods (cauterization, acids, veterinary tick dips, heavy metals/chemicals) was higher than females (34% vs. 18%; aPR=1.62, 95% C.I.=1.02, 2.59).

Interpretation: Most participants knew about CL treatment especially traditional methods. Their untreated lesion beliefs appeared to motivate them to seek treatment. Most used only traditional methods, some of which are potentially efficacious but may be toxic and promote scarring. Antimonial drug knowledge/use continues to be low, suggesting the need for public health system improvements

in CL education and treatment access. Studies of promising medical plants should be conducted before these traditions are lost.

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Quality of Tuberculosis Diagnosis at DOTS Centers in Niger & Kwara states, Nigeria - Lessons from TB REACH

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Program/Project Purpose: Quality assured bacteriology at DOTS centers is a recommended tuberculosis (TB) control strategy by the STOP TB program¹. Maryland Global Initiative Cooperation (MGIC) in collaboration with the Center for Clinical Care and Clinical Research Nigeria (CCCRN) implemented a WHO funded project called TB-REACH in Niger and Kwara States, from June 2014 to October 2015. Goal of the project was Rapid Identification and Treatment of TB (RITT) and improved quality assurance methods at TB DOTS microscopy centers in Kwara and Niger states to ensure accurate TB diagnosis. Baseline assessment of forty-six (46) DOTS diagnostic centers in primary and secondary health care facilities identified lack of quality assurance processes and therefore inaccurate TB diagnosis.

Structure/Method/Design: Our intervention in the project year included training using National curriculum and guidelines by nationally accredited trainers and mentorship of forty-six (46) microscopists on sputum microscopy. Panel testing for External Quality Assurance (EQA) and internal quality assurance by use of positive and negative control slides was introduced at the DOTS diagnostic laboratories. Other inventions included infrastructural upgrade, provision and maintenance of microscopes and provision of alternative power source.

Outcome & Evaluation: Proficiency of microscopists improved based on increased performance in panel testing. Quarterly EQA reports collated by state laboratory quality assurance officer showed improvement in quality assured bacteriology and TB diagnostic services after the project intervention.

Going Forward: To ensure accuracy of TB diagnosis at DOTs sites, state TB program should invest in human capacity building and laboratory QA processes. Nigerian State TB programs should utilize TB Panel Testing as an audit check for the IQA processes to assure quality of TB microscopy tests done and thus reduce burden of TB.

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Abstract #: 2.013_INF

An Analysis of Viewer Engagement in YouTube Videos Related to HIV/AIDS Awareness and Prevention

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Background: Everyday approximately a billion viewers watch hundreds of millions of hours on YouTube. Currently YouTube videos are used as internet based media for dissemination of public health information. To characterize viewer engagement pattern, we measured viewership, viewer-preferences and viewer-responses to the HIV/AIDS awareness and prevention related videos on YouTube.

Methods: We performed a search on YouTube (www.youtube.com) using the keywords ‘HIV/AIDS awareness’, ‘HIV/AIDS prevention’, and ‘HIV/AIDS education. YouTube videos possessing ≥ 5000 viewership were selected for analysis. Viewer engagement was measured by recording total number of views, likes, dislikes, shares, and comments. Views per day were calculated by dividing total number of views by number of days since upload. Number of reaction was obtained by combining number of likes and dislikes. To assess differences in continuous variables across different categories, non-parametric Kruskal-Wallis test was used for non-normal distributions.

Findings: We analyzed 143 video clips of which 49% were posted by YouTube channels, 27.3% by organizations, and 23.8% by individual users. Regarding the target audience, majority (80.4%) of the videos were targeted for general public, whereas 11.2% were targeted for people living with HIV/AIDS and 8.4% for health care professionals. Cumulative numbers of views, likes, dislikes, shares, and comments for all videos were 10,491,885, 15689, 2771, 1199, and 7300, respectively. Median numbers of views, likes, dislikes, shares and comments were 14537 (IQR 8578–34394), 23 (IQR 8–58), 2 (IQR 1–7), 15 (IQR 2–48), and 7.5 (IQR 2–25.75), respectively. Median number of views per day was 9.82 (IQR 5.07–27.2), and median number of likes per 100 reactions was 93.02 (IQR 83.22–98.14). The Kruskal-Wallis test showed that there was a statistically significant difference in number of comments between different upload sources ($p = 0.002$). Mean-rank of comments was highest for individual-posted videos (82.56), followed by YouTube channel videos (66.24), and was lowest for organization-posted videos (49.97). Other measurements of viewer engagement did not show any significant difference across different upload sources or target audiences.

Interpretation: Because a considerable number of viewers interact with HIV/AIDS related videos on YouTube, YouTube could be a useful platform for HIV/AIDS awareness and prevention.

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Human Papillomavirus (HPV) and Pap Smear Testing among HIV+ Women in La Romana, Dominican Republic, 2015–2016

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Background: Sexually transmitted infections (STIs) are major health issues in the Dominican Republic. Little is known about the prevalence of common STIs, such as human papillomavirus (HPV), as comprehensive screenings are not available to the general population. HPV infection can cause abnormal Pap smear results, and can eventually lead to cervical cancer if gone undiagnosed; HIV+ women are at elevated risk of HPV disease progression to cervical cancer. One of the aims of *Estudio de Prevalencia de Infecciones de Transmisión Sexual en Poblaciones Claves* (EPIC) is to assess HPV and abnormal cytologies among HIV+ women. The study participants in this analysis were recruited from Clinica de Familia La Romana (CFLR) HIV clinic.

Methods: This project is a retrospective study of the HIV+ population, specifically HIV+ women, and aims to: (1) Identify the patients with HPV and/or abnormal Pap smears, (2) describe these patients according to their clinical, demographic, and social characteristics, (3) describe the colposcopy results of patients with HPV and/or abnormal Pap smears, (4) describe the frequency of different strains of HPV and abnormal Pap results, (5) identify the patients who have not returned for their follow-up appointments at the clinic through a chart review and secondary data analysis.

Data sources include EPIC study data (test results and sociodemographic information) and patient clinical data (e.g. CD4 counts and viral load). The abstracted data was entered into Microsoft Excel and merged with EPIC study analyzed using SAS Studio.

Findings: Fifty-six percent of the 104 women tested positive for HPV and/or had an abnormal Pap smear. Sixteen-percent of women with HPV and/or abnormal Pap results did not return to clinic; 46% of those referred for colposcopy did not complete it.

Thirty percent of the women who had a colposcopy were found with Grade I Cervical Intraepithelial Neoplasia (CIN I) and eleven-percent had exocervical colposcopy results of hyperplasia, atrophied changes, or koilocytosis. Three percent of the women who had a colposcopy were diagnosed with cervical cancer.

Interpretation: The high prevalence of positive HPV and abnormal Pap results demonstrates the importance of routine testing, especially for HIV+ women. Equally important is encouraging patients to attend their follow-up appointments.

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