

were queried on basic health perceptions, attitudes, and health status, including the Multidimensional Health Locus of Control (MHLC) and the CDC's Healthy Days core questions (CDC HRQOL-4). MHLC ascertains whether an individual perceives their health is controlled by internal or external factors (with five subscales) and HRQOL-4 ascertains overall health status and healthy/unhealthy days. The unadjusted and adjusted (age, gender, education, and socioeconomic status) effects of MHLC scales on HRQOL-4 components were examined using generalized estimating equation (GEE) modeling.

**Findings:** After adjusting for covariates, MHLC-P (Powerful Others scale) was statistically significantly associated with poorer health in both the India and US samples; in particular, as perception that one's health was controlled by "powerful others" increased, the number of unhealthy days increased in both samples, after adjustment. Further, MHLC-P was significantly associated with poor mental health days, with increasing perception of control over one's health by powerful others associated with higher reported poor mental health days. Additionally, participants qualitatively indicated concern about access to their health information by employers, insurers, and others, and about social repercussions of inappropriate access to personal medical information.

**Interpretation:** This study provides compelling cross-national evidence that feeling one's health is controlled by "powerful others" is associated with an increase in poor quality of life and worsening subjective mental health. A perception of powerlessness across a range of global economic settings could interfere with the ability of health education and disease control efforts to improve health, emphasizing the imperative for better understanding health locus of control in delivering health interventions.

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### **Avoiding "A Massive Spin-off Effect in West Africa and Beyond": The Tobacco Industry's Role in Stymieing Tobacco Control in Nigeria**

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**Background:** Nigeria plays important economic and political roles in Africa and is a significant market for the tobacco industry. This study describes the tobacco industry's efforts to block Nigeria's early tobacco control attempts, especially the Tobacco Smoking (Control) Decree 20 of 1990, and efforts to strengthen it in 1995.

**Methods:** Analysis of tobacco industry's internal documents publicly available at University of California San Francisco's Truth Tobacco Documents Library and other Internet sources related to Nigeria's Decree 20 and earlier tobacco control efforts.

**Findings:** The World Conferences on Smoking and Health and World Health Organization in the late 1970s spurred the Nigerian government to take steps towards tobacco regulation. The emergence of tobacco control in Nigeria threatened the tobacco industry, which feared that success in Nigeria would have a domino effect, spreading across Africa. The tobacco industry, in response, lobbied

government ministries, formed alliances, and created a trade group, the Tobacco Advisory Council of Nigeria (TACON), to block and weaken government's tobacco control efforts. The tobacco industry actively intervened to stall tobacco control in Nigeria since the 1970s, including blocking tobacco control laws in 1982 and 1983. While a tobacco control law (Decree 20) was passed in 1990, TACON had obtained a draft of Decree 20 two years before it was enacted, considered the Decree anti-business, and proposed changes in language that led to the passage of a weaker Decree. The tobacco industry also blocked the strengthening of the Decree in 1995.

**Interpretation:** This is the first detailed account of tobacco industry interference with tobacco legislation in Africa. Decree 20 was a strong law for its time, but was weakened due to tobacco industry interference. Nigeria ratified the WHO Framework Convention on Tobacco Control (FCTC) in 2005, and enacted a comprehensive National Tobacco Control Act (NTCA) in May 2015. The lessons learned from Decree 20's experience should be applied to protect NTCA 2015, from the tobacco industry's interference and possible attempt to weaken or block its implementation. This is in line with the WHO-Framework Convention on Tobacco Control Article 5.3, requiring parties to protect tobacco control policies from the tobacco industry's interference.

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### **Relationship Between Patients Sense of Wellbeing and Adherence to ARTs**

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**Background:** Poor adherence to antiretroviral drugs can result in serious health consequences including emergence of opportunistic infections. There is limited data particularly in resource-limited settings like Nigeria that examines the relationship between sense of well-being and adherence to ARVs. Identification of negative correlates of adherence can contribute to developing a "risk profile" that care providers can use to identify patients "at risk" of being non-adherent and thus provide interventions to enhance adherence. This study explored the relationship between wellbeing and adherence to determine if patients' poor self-assessment of wellbeing could be considered a potential risk factor for poor adherence.

**Methods:** This is a retrospective study utilizing cross sectional review data of 1281 randomly selected HIV positive adult patients who had been on ART for at least nine months and responded to a six component survey administered as part of a patient – level evaluation carried out for quality improvement of service delivery at PEPFAR supported ART clinical sites in Nigeria. The survey included the WHO 5 well-being index. Patients responded to the five items on the index and adherence was assessed using a one month missed ARV doses recall. SPSS Pearson correlation analysis