

A Statistical Assessment of Urban–Rural Differences in HIV Outcomes Following ART Introduction in Kenya, 2003–2008

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The purpose of this study was to examine the effects of antiretroviral therapy (ART) upon introduction to Kenya in 2003–2008, focusing on the urban–rural difference in treatment access and its implications for HIV-related outcomes. Previous studies (Dos Santos et al., 2025) suggest rural communities suffer from isolation to medical facilities, resulting in lack of adherence to HIV maintenance care and poor health outcomes. The age distributions of HIV-positive Kenyan women (in 2003 and 2008) were analyzed separately for urban and rural regions according to Demographic and Health Surveys (DHS) classification. To examine these effects over time, statistical testing (t-tests, p-values, regression models) was used to evaluate significant change in age distributions. Findings indicated that the implementation of ART increased the average age of HIV-positive women by 1.8 years, with negligible difference between regional settings. However, when the relationship was examined with respect to wealth inequality, the highest quintiles of HIV-positive women in urban areas displayed significant increases in age. These findings suggest that, despite greater proximity to medical facilities in urban areas, this nearness does not necessarily translate into improved medical access due to social inequality. Thus, study results highlight the need for efforts to reduce health disparity within urban regions, and further study into the contribution of regional wealth inequality may be of interest.

Leveraging Forum Theatre to Enhance Communication and Confidence in Biostatistical Practice

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Biostatisticians in research cores within learning health systems face unique interprofessional communication and collaboration (ICC) challenges when working with clinicians and learners from diverse backgrounds. Traditional training often lacks experiential, emotionally engaged practice needed to build confidence in these situations. To address this, we developed a Forum Theatre–based professional development program for biostatisticians.

Forum Theatre, created by Augusto Boal, uses short scenes of unresolved conflict and invites participants (“spect-actors”) to intervene, replace the protagonist, and rehearse alternative approaches. In this workshop, participants explored common scenarios: navigating ethical or methodological conflicts, managing imposter syndrome, and advocating for recognition. Sessions combined staged scenes, structured audience analysis, small-group strategy development, and interactive reenactments.

Participants reported that the format provided a psychologically safe yet realistic space to practice communication, experiment with language, and build a shared vocabulary around ICC challenges. The approach also reinforced that these challenges are widely shared. By engaging emotional and relational dynamics, this model offers a practical framework for strengthening communication skills among biostatisticians and other research professionals.

End of Life Healthcare Utilization among Medicare Beneficiaries with Parkinson’s Disease at US Academic Movement Disorders Centers: A 2019 Pre-Intervention Assessment

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Evaluating end-of-life (EOL) care for hospitalized Medicare decedents with Parkinson’s disease (PD), defined here as the last 90 days of life in 2019, poses statistical challenges. The four primary outcomes were: non-elective inpatient hospitalization, intensive care unit (ICU) admission, in-hospital death, or receiving palliative care consultation. Beneficiaries first visited either a comparison Academic Movement Disorders Center (AMDC) or an AMDC intervention-scheduled center. The adjusted odds ratios (AOR) for the simultaneous effect of visiting AMDCs, controlling for sex, race, age, Social Vulnerability Index (SVI), and the cluster AMDC effect, are reported. The sample sizes were 2040, 2029, 1984, and 1819 for each outcome, respectively. There were statistically significant differences in ICU admission between beneficiaries first visiting an AMDC intervention-scheduled center versus an AMDC comparison center (AOR=1.27; 95% CI 1.04–1.55). Quartiles 3 (AOR=1.57; 95% CI 1.03–2.41) and 4 (AOR=1.72; 95% CI 1.07–2.75) of the SVI were associated with in-hospital death. After adjustment, beneficiaries of races other than non-Hispanic white had higher odds of palliative care consultation than non-Hispanic white beneficiaries (AOR=1.91; 95% CI 1.12–3.26). How AMDC centers and socio-demographic characteristics influence PD outcomes 90 days before death helps to inform future program design and policy recommendations aimed at optimizing care for PD Medicare beneficiaries.

Motivating young adults to pursue (and hold) the careers of their choice

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We live in the era of AI and digital transformation, with rapid technological changes. Children who are now in primary school are expected to work in the future in specializations and professions that do not even exist today. Organizations need to explore new ways to increase productivity and business performance. Matching employees’ skills with the job market appears to be a challenge, especially when considering young adults. This special group of employees, who are recent university graduates, is evidenced to be constantly shifting between jobs until expectations are met. The presentation focuses on identifying practices and conditions under which young employees will experience high levels of work motivation and job satisfaction. A comprehensive modeling framework has been developed, testing the effect of “job dimensions”, such skill variety, job significance and feedback, technology use, decision-making and autonomy on “personal and work outcomes”. This relation is mediated by employees’ psychological states, such as self-confidence and experienced meaningfulness of the work. The discussion stresses the importance of effective job design and redesign strategies that are focused on young employees, aiming to match their qualifications and skills with the careers of their choice.

