1. **Potential mHealth application for cancer prevention in Cambodians living with HIV**

**Global Integrative Oncology: Use in Cancer Prevention**

**Background**: With the effectiveness of antiretroviral therapy (ART), non-AIDS-defining cancers have become a leading cause of morbidity and mortality among people living with HIV (PLWH), and tobacco smoking is among the leading causes of these cancers. This pilot study aimed to evaluate the feasibility of a mHealth-based intervention for smoking cessation and potential application to other cancer preventive behaviors among PLWH in Phnom Penh, Cambodia.

**Methods**: Fifty PLWH receiving HIV-related clinical services at a large ART clinic located in Phnom Penh were recruited and were randomized to smoking cessation treatment groups: Standard Care (SC, n=25), or Automated Messaging (AM, n=25). SC consisted of brief advice to quit smoking delivered by research staff and self-help written materials. AM consisted of the SC components plus a fully automated smartphone-based treatment program that involved interactive and tailored proactive messaging. All participants were followed for 2 months. This analysis focuses on the feasibility of intervention message delivery for AM group and weekly smartphone-delivered ecological momentary assessments (EMA) for both groups throughout the 2-month treatment period.

**Results**:Of all messages and weekly EMAs, 75% were delivered properly at the prescheduled time (i.e., the phones were properly charged, turned on, and not lost), and 81% were read or completed as indicated by digital date/time stamp. The mean number of times opening or having any activity in the app per day was 1.1 for both groups. Most participants (88%) felt comfortable with receiving our encrypted messages with personalized information on the phones.

**Conclusion**: mHealth-based interventions are highly acceptable and feasible in Cambodia where mobile phone services are widely used and inexpensive. The feasibility and suitability suggest that mHealth approach has the potential for large scale implementation in promoting other cancer preventive behaviors (e.g., cancer screening or medication adherence) in Cambodia.

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**Funding:** This work was supported in part by the US National Cancer Institute Cancer Center Support Grant P30CA225520 awarded to the University of Oklahoma Stephenson Cancer Center and used the mHealth Shared Resource. This work was also supported in part by a grant from the Oklahoma Tobacco Settlement Endowment Trust (092-016-00021). The content is solely the responsibility of the authors and does not necessarily represent the official views of the funding agency.

**Acknowledgement**: We would like to thank all staff at the National Institute of Public Health of Cambodia and at the Social Health Clinic of the National Center for HIV/AIDS, Dermatology, and STDs for their support in data collection.