

**INVESTIGATING INCREASING NUMBERS OF
HIV-VE YOUNG WOMEN WITH ADVANCED
STAGES OF CERVICAL CANCER IN A WESTERN
KENYA HOSPITAL**

Research Findings

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BACKGROUND

- HIV/AIDS has been shown to lead to the reduction at age of diagnosis of cancer of the cervix from the usual diagnoses at the 4th-6th decades of life.
- We observed in recent years, an increase of cancer of the cervix diagnoses of young women, 13-35 years of age, at JOOTRH, who were HIV-VE.

BACKGROUND

- This has led to the young women having aggressive managements, including hysterectomies, hence leading to psychological conditions attached to the consequences of the surgeries.
- This grave observation, led us to undertake this study, to find out if there was any new factor leading to the development of cervical cancer in the young women, between 13-35 years of age at JOOTRH and pursue mitigation measures for purposes of control.

METHODOLOGY

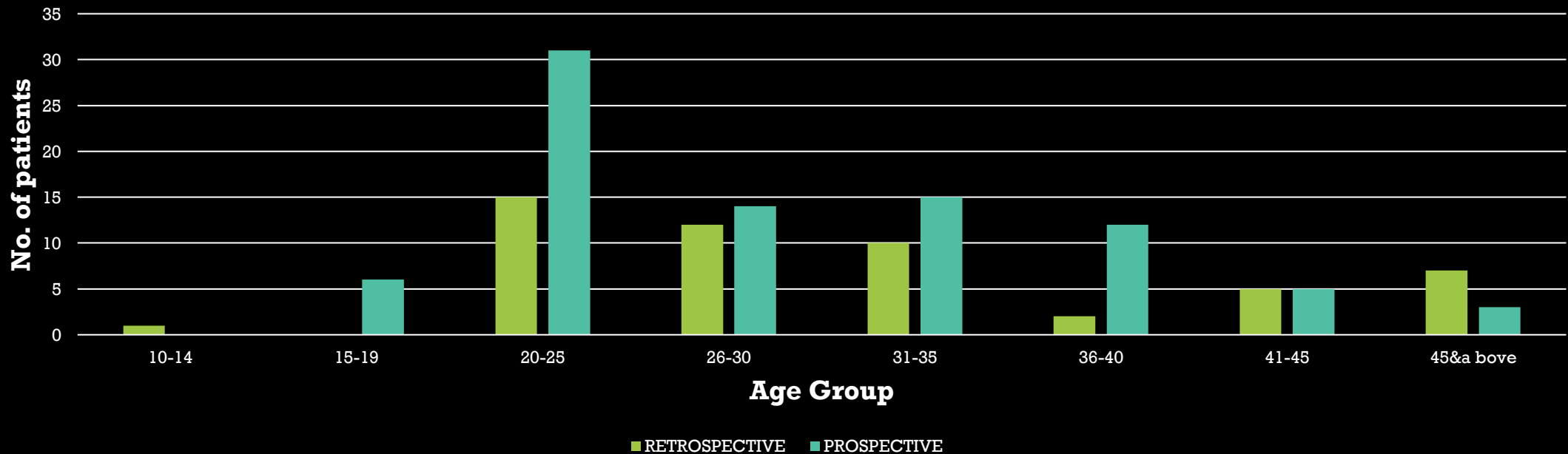
- The study had a retrospective arm of an 8 year review (2012-2019) of a sample of 52 patients, with a cohort of HIV+VE and HIV-VE patients with cancer of the cervix being treated at the Oncology Clinic of the Jaramogi Oginga Odinga Teaching and Referral Hospital in Kisumu County of Western Kenya.
- The study also had also a prospective arm of a 1 year period (2020-2021) of a sample of 86 patients, with a cohort of HIV+VE and HIV-VE patients with cancer of the cervix being treated at the Oncology Clinic of the Jaramogi Oginga Odinga Teaching and Referral Hospital in Kisumu County of Western Kenya.

EPIDEMIOLOGY

- In Africa currently, the annual new cases are at 117,316, with the annual deaths being at 76,745.
- In Kenya, the annual cases are at 5,236, and the deaths yearly are at 3,211.
- Locally at our proposed study site that is the Oncology clinic for Western Kenya, there are 230 registered Ca.cervix patients in total.

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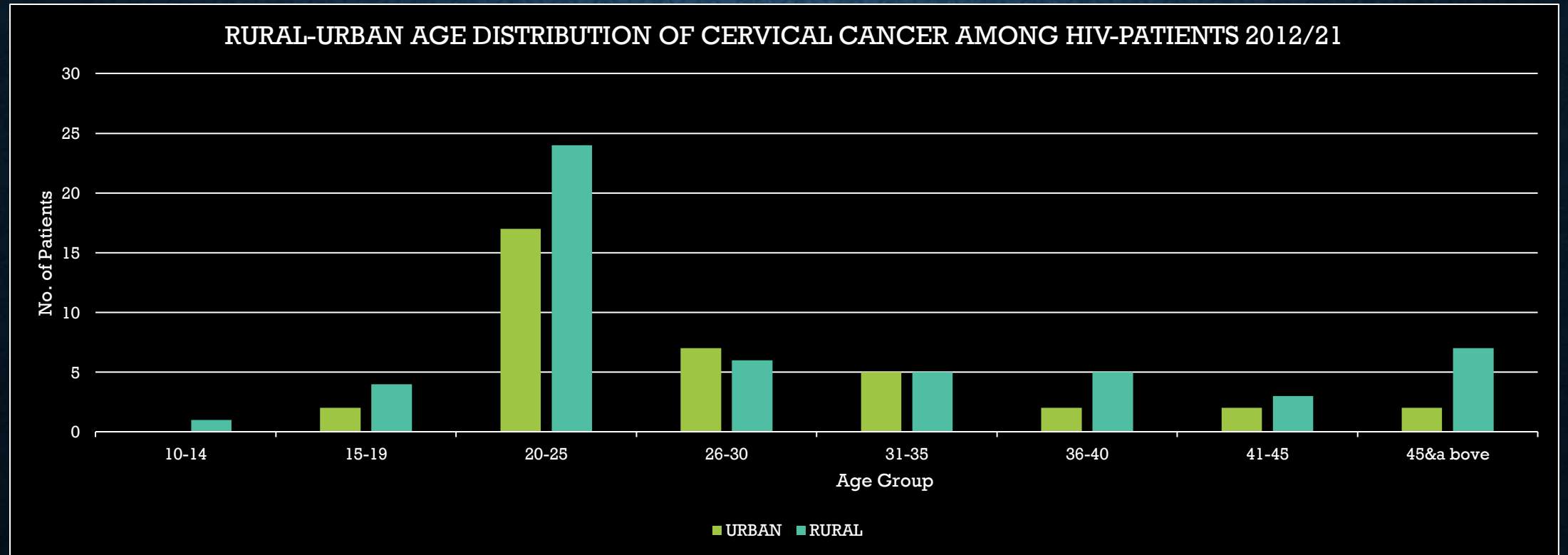
COMPARISON BETWEEN RETROSPECTIVE 2012/19 AND PROSPECTIVE 2020/21 CERVICAL CANCER PATIENTS BY AGE DISTRIBUTION



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- Although the number of observations are different (prospective 86, retrospective 52), there is more prevalence of cervical cancer among young (<35yrs old) women.
- Although retrospective period is longer than prospective, more cases were reported in the latter. The prevalence rate of cancer of the cervix is increasing with time.
- Women in the 20-25 years age bracket exhibit more cases compared to other child-bearing age groups, although with a longer period of eight years (2012-2019) in the prospective arm, as compared to a shorter period of one year (2020-2021) in the prospective study.

RURAL HIV-VE YOUNG WOMEN BEARING THE BURDEN OF CANCER OF THE CERVIX AT A WESTERN KENYA HOSPITAL



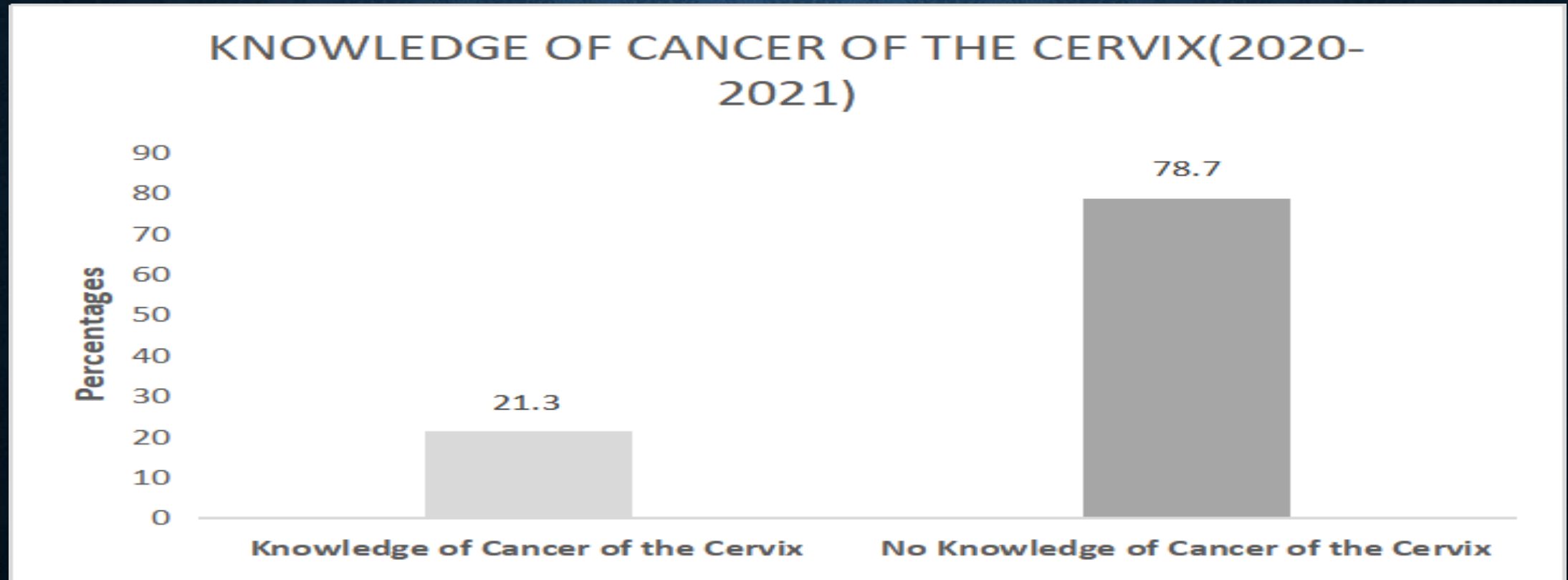
RURAL HIV-VE YOUNG WOMEN BEARING THE BURDEN OF CANCER OF THE CERVIX AT A WESTERN KENYA HOSPITAL

- It is surprisingly 1 patient below 14 years in rural area presented with cervical cancer, in the retrospective arm.
- 4 patients aged between 15-19 in rural presented cervical cancer cases, in the prospective study.
- The prevalent age bracket is 20-25 years old and biased towards rural patients, even though the retrospective arm is longer at 8 years (2012-2019), while the prospective study is shorter at one year (2020-2021).

RURAL HIV-VE YOUNG WOMEN BEARING THE BURDEN OF CANCER OF THE CERVIX AT A WESTERN KENYA HOSPITAL

- There was a higher percentage of rural residing HIV negative (HIV -VE) young women (<35 years of age), diagnosed with cancer of the cervix in the prospective study, at 57% , compared with 43% residing in the urban centers.
- The retrospective arm, although is a longer duration of eight years, between 2012-2019, the young (<35 years old) HIV negative (HIV -VE) women diagnosed at FIGO Stages III and IV, are at 80% for those residents of the rural settings, as compared to 20% of those who reside in the urban centers.
- There is a preponderance of young (<35 years of age) HIV negative (HIV -VE) women being diagnosed at advanced stages (FIGO Stages III and IV) of cancer of the cervix at 74% residing in the rural areas, as compared to 26% urban dwellers, all in a period of one year (2020-2021) of prospective study.

KNOWLEDGE GAP ON CANCER OF THE CERVIX INCREASING THE PREVALENCE OF THE DISEASE AMONGST HIV-VE YOUNG WOMEN AT A WESTERN KENYA HOSPITAL



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- A total of 21% (18 patients) of patients, had some prior knowledge of cancer of the cervix, as compared to 79% (68 patients) of patients, who had no idea at all on cancer of the cervix as a disease.
- The patients who had some knowledge on cancer of the cervix were mostly the ones who had self referrals, as compared to those who had no knowledge at all, and thought they had normal vaginal discharge and bleeding post coitus, hence were referred in advanced stages to the oncology clinic.
- In the 21% who had some prior knowledge of cancer of the cervix, 22% (4 women) from the rural areas had some knowledge as compared to 78% (14 women) urban residents who had some knowledge.
- Amongst the 79% who had no knowledge of cancer of the cervix, 81% (55 women) were residents of the rural communities, whereas 19% (13) were urban dwellers.

MANDATORY AND ROUTINE EARLY SCREENING OF CANCER OF THE CERVIX AND TREATMENT IS DECREASING THE DISEASE AMONGST HIV+VE YOUNG WOMEN AT JOOTRH

- There was a reduction in the prevalences of the cancer in young women who are HIV+VE, this was evident with only 5 participants (20%) being diagnosed in the one year (2020-2021) period of the prospective study, as compared to 20 participants (80%) who had been diagnosed in the eight years (2012-2019) of the retrospective arm .
- This is in agreement with the revised CDC-AIDS case definition since 1993, which included the development of cervical cancer in an HIV +VE patient as a sufficient criterion for AIDS, even in the absence of an opportunistic infection, this led to the active early mandatory and routine screening of Ca. Cervix in all newly diagnosed HIV infected persons, for early diagnosis and treatment.

RURAL HIV-VE YOUNG WOMEN PRESENT WITH ADVANCED FIGO STAGES (III & IV) OF CANCER OF THE CERVIX COMPARED TO THEIR URBAN COUNTERPARTS AT JOOTRH

- The study found out that most patients presented to the hospital in advanced stages of cancer of the cervix, and 39 (64%) were diagnosed at FIGO Stages III and IV, while just 22 (36%) were diagnosed at Stages II and III in the prospective study, mostly due to presenting themselves for the voluntary screening programme.
- The preponderance of these patients who were diagnosed at advanced stages (FIGO III and IV) of Ca. Cervix, were rural residents, at 20 (74%), while urban residents were just at 7 (26%) of the total 27 participants.

LOW UPTAKE OF SCREENING FOR CANCER OF THE CERVIX

- The first unexpected finding in this study, was the overall low uptake of screening for cancer of the cervix amongst the participants at the JOOTRH, with a higher percentage or young rural HIV-VE women with CA. Cervix who had never been able to get screened voluntarily even once, and yet the services are free of charge and being offered in public health centers.
- This is seen in the findings of the Prospective HIV-VE study arm, where of the 20% patients who had been screened prior, just 2 (17%) were rural dwellers, yet 10 (83%) were from the urban centers. On the contrary, of the 49 (80%) who had never been screened even once prior in this Prospective HIV-VE arm, 35 (71%) were residents of rural areas, while just 14 (29%) of urban residents had not been screened.

CONCLUSION

- The study concludes that, there is an increase of incidences of advanced cancer of the cervix in young HIV negative women at the Oncology Clinic of JOOTRH in Western Kenya.
- This study also analyzed the burden of cancer of the cervix (Ca. Cervix) between young women who reside in the rural areas versus those in the urban areas, and the finding was that the young rural women were bearing the burden of Ca. Cervix more than their urban counterparts.
- Knowledge Gap and low uptake of free screening of cancer of the cervix are contributing factors.

RECOMMENDATION

- The study recommends that, the above factors which may be contributing to the upsurge of cancer of the cervix cases in young HIV-ve patients, need to be researched comprehensively, in a multi-centre, multi-national prospective study, and with a larger sample size.
- This study did not involve laboratory investigations (clinical study), hence it needs a follow up research that will involve taking Paps smears to the laboratory to investigate the presence of HPV in the cervix of the respective patients, identify the various types of the HPV, ascertain if there are particular patients who have a combination or mixed presence of two or more HPV, & cases of congenital infection.

RECOMMENDATION

- The mitigation also should be done using the WHO's (90-70-90 goals) Global strategy towards the elimination of cervical cancer, and any other novel methods, as per the study findings to the contributing factors to the young age at diagnosis of HIV-VE women with advanced cancer of the cervix.