**Vaccination against Human Papilloma Virus (HPV)**

Writing this column is an important part of my personal advocacy work against cancer because knowledge is power. I urge you all to continue reading and spreading the word.

January is my favourite month of the year for boundless reasons and let me share a few with you. Firstly, it’s right in the middle of the rainy season, which comes with mangoes and mushrooms. Secondly, it symbolises new beginnings – a fresh year and perhaps a fresh start for some, a chance to do better or grow. Somewhere in hierarchy of things, the fact that it’s my birthday month also makes it special, although I don’t per say celebrate this event quite as illustriously as I used to when I was younger. I prefer to give on my birthday nowadays than receive, a trend I find most adults fall into.

A very important reason as to why January is an important month is that it is cervical cancer awareness month. It allows me to splurge attention on this cancer without any guilt! Cervical cancer is a very preventable and treatable disease yet we continue losing a great number of women to this disease.

This time is particularly special for Zambia as we have been chosen as one of the 6 ‘first wave’ countries to implement directives that will ensure the elimination of cervical cancer as a public health problem.

In this month we will address different aspects of cervical cancer control across the spectrum of disease starting with vaccination against the causative agent Human Papilloma Virus (HPV) to palliation of women for whom it is too late to cure.

Cervical cancer plagues our society in low resource regions compared to high income regions due to a lack of implementation of a vaccination program. The fact that high-income regions can have low caseload is an indication something can be done about it.

Cervical cancer is largely caused by persistence of the HPV virus in the cells of the neck of the womb (cervix) leading to transformation of the blueprint (genes) into cancerous ones. The first step to control of this heinous disease, therefore, is to form immunity against this HPV.

HPV is a sexually transmitted disease. It therefore follows that any woman who has had a sexual encounter is at risk of developing cervical cancer and must therefore be screened. It is also logical that immunity to this virus must be developed before a female becomes sexually active. This is the rationale behind the recommendation for young girls to be vaccinated. The exact age for vaccination varies across different countries and must take into account the different peculiarities of societal structure ensuring widest coverage to the target group. The acceptable age range is from 9 – 26 years.

HPV vaccination protects against development of warts that can be quite debilitating.

Three HPV vaccines are currently available on the market Gardasil 9, Gardasil and Cervarix. It is very important to know the differences in these vaccines and the protection they offer.

Gardasil 9 is a 9-valent vaccine. This means it offers concrete protection against 9 HPV types namely 6, 11, 16, 18, 31, 33, 45, 52 and 58. HPV subtypes 16, 18, 31, 33, 45, 52 and 58 cause cancer whilst 6 and 11 cause warts. Gardasil is a quadrivalent vaccine and offers protection against 4 types of HPV – 6, 11, 16 and 18. Cervarix is a bivalent vaccine offering protection against 16 and 18 HPV subtypes only, although it has been found to be effective against a few additional HPV types not included in the vaccine and this is called cross-protection.

Ideally both girls and boys should be vaccinated against HPV to form herd immunity but where resources do not allow at least girls should be targeted.

Women who get vaccinated still need to screened for cervical cancer because they are not fully protected against all HPV subtypes. There are over 200 types and vaccines only cover 9 concretely so far.

Although multiple dose schedules are the standard recommendation globally even one dose alone is effective in increasing immunity.

In Zambia we contend with the double burden of HIV and malnutrition. Women living with HIV (WLHIV) are six times more likely to develop cervical cancer. A recent article by Stelzle et al published in the Lancer Global Health articulated this risk well. The use of antiretroviral treatment has increased the life expectancy of WLHIV inadvertently increasing the proportion of a population at greater risk. A concert of factors leads to the increased risk of cervical cancer here. WLHIV are more likely to acquire HPV and for it to persist than women who are HIV negative. Most women in their lifetime would have acquired HPV but cleared it if their immune system is intact. HIV has this indirect role in cancer development through immune suppression. A lower CD4 count and no anti retroviral treatment is associated with a higher cervical cancer incidence.

The most unfortunate issue about WLHIV and cervical cancer is that these individuals are in constant contact with the health system through disease monitoring and drug collection. This should present a direct access point for screening, prevention and early detection.

HPV vaccination is a long-term investment. The positive results are likely to be seen in the next generation. It is none the less a comforting thought of a life without cervical cancer.

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