

1. ESSAY TITLE: OCI'S CERVIBREAST APP AND
CERVICAL CANCER IN THE DEVELOPING WORLD
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INTRODUCTION

Tedros Ghebreyesus, the director-general of the World Health Organisation (WHO), had said that “Through cost-effective, evidence-based interventions, including improving access to diagnosis and treatment of invasive cancers, we can eliminate cervical cancer as a public health problem and make it a disease of the past” (WHO, 2020). OCI (Onyebuchi Chris Ifediora) Foundation’s CerviBreast Phone Application matches the brief for any intervention that can eradicate cervical cancer as set out by Mr Ghebreyesus. But how is cervical cancer a public health problem?

CERVICAL CANCER AND PUBLIC HEALTH

With more than half a million new cases annually, cervical cancer ranks fourth among the cancers that commonly affect women. This number is projected to rise even further, and with it, the number of deaths. Put differently, while “one woman dies of cervical cancer every two minutes” (WHO, 2018), that number per time is expected to increase in the coming years. This is even though cervical cancer is a preventable disease, and is readily curable if detected early enough and adequately managed (WHO, 2020).

While affecting all countries, the cancer of the cervix accentuates inequalities: the developing world has twice as many cases and thrice as many deaths as compares to the developed world. To live in the poorest countries, to be young and to be uneducated dramatically increases the chances of getting cancer (WHO, 2020). In Nigeria, out of the 15,000 cases that were diagnosed, more than 10,000 died; thus making cervical cancer the second most active cancer killer among women. By 2050,

deaths would have increased by 63% for those below 65years and by 50% for those above 65 years (Human Papillomavirus Centre, 2019; OCI Foundationa, 2021)

To further accentuate the seriousness of this public health issue, most of those who get infected and eventually die from the cancer are also mothers of young children. It follows therefore that the life outcomes of those children left behind hang in the balance further complicates public health (Mailhot, et al., 2019).

With regards to strategies for overcoming cervical cancers, three options exist; namely, vaccination, screening, and preventive lifestyles (OCI Foundationb, 2021). Vaccinations target the human papillomavirus which causes cancer; screening carries out surveillance on this virus. Both measures, however, are unavailable for most in developing countries because of financial constraints and the asymptomatic nature of the virus – even in its advanced stages. In reality, therefore, preventive lifestyles are the way to go in resource-constrained settings when it comes to combating the virus. It is precisely at this point that the OCI Application reigns supreme.

OCI'S CERVIBREAST APP (OCI Foundationb, 2021.).

First open to Android users on 6th September 2019 and then to IOS users five months later, the CerviBreast App was to serve as an important milestone along the path to eradicating cervical cancer. The APP was part of a broader campaign called the Arm our Youth Health campaign or ArOY Campaign for short. The campaign, (championed by the OCI head - an internationally trained and practising physician) itself had arisen out of a series of high-level health symposia aimed at emphasizing breast and cervical cancer-preventive techniques (OCI Foundationc, n.d). These origins of the

App suggest an evidence-based and peer-reviewed foundation – a quality that is a *sine qua non* for interventions aimed at turning the tide against cervical cancer. Capturing another essential for cervical cancer interventions the App is freely available and has no compulsory in-app purchases: it is therefore cost-effective. This quality is especially important for the developing world that carries a greater burden of the cancer.

Recommendations are also made about nearby places where people can go to have their cervix screened for cancer.

Designed by seasoned app designers, the app boasts of being the only inbuilt algorithm for personalized reminders about a once-every-two-year cervical cancer screening. Linking up cervical cancer with breast cancer – another serious health concern –the app integrates monthly reminders that are personalized to match individual menstrual cycles. Accompanying videos demonstrate breast self-examination and feature popular Nollywood stars.

It is instrumental to note that the App came about during the COVID-19 pandemic when all forms of human contact, including hospital consultations, were at a standstill or kept to a minimum at best. This app would have helped fill the information gap that the pandemic created. In effect, the app together with other tools of telemedicine would not have fanciful options; they would have been the only option.

POSSIBLE INHIBITIONS TO CERVIBREAST APP UPTAKE

The first factor that would limit the degree to which the app is embraced is culture. A culture where people approach telemedicine with scepticism would mean people would doubt the validity of the health information that they receive through it. To

put it another way, patients, especially the rural ones, have come to identify healthcare as something that one travels over long distances to access and that it is only accessed from a white-coated doctor of a certain age. Healthcare that is relatively easy and gotten from screens does not amount to healthcare for them. Thus, they keep away from it.

CerviBreast App cannot function in an absence of internet access and electricity, or the phone itself. Where these structural issues do not prevent health information from being delivered, they may summarily slow the speed at which healthcare is delivered – with potentially morbid and mortal consequences.

Where present, “internet service provider and telephone call fees can be two to four times as high in developing countries [i.e. most African countries] as in developed market economies”(Dzenowagis, 2009). If the costs involved in assessing application outstrip the income of patients, its uptake would necessarily be hampered.

RECOMMENDATIONS

With English not being the first language for many in the developing world, messages may not be successfully passed conveyed solely in English. Local languages would help to reach a wider reach – especially the rural and uneducated ones that are most at risk of coming down with cancer. In a survey cited in Harvard Business Review, it was found that 72.1% of consumers spent a large fraction of their time surfing websites that were in their language own language; 72.4 are more likely to buy a product through an application if it is in their own language and 56.2% valued the ability to obtain information in their own language rather than even the apps price (Kelly,

2012). The sum of these figures is that local languages would make users more comfortable and help to break down the initial cultural resistance to the app that may be.

Secondly, the CerviBreast benefit from being made offline-first. Offline-first “is a development approach that ensures that an app will work as well offline as it does online” (Melamed, 2018). This approach is important in developing countries because connectivity is likely to be poor. The content of the app could be made to not require a constant online connection for functionality through downloads when connectivity is stronger.

Still arising from the nature of the developing world and the transience of both data and connectivity, it would be an improvement to the application if screening reminders were integrated into text messages. Text messages require a cellular network which is more widespread than data network. Also, text messages can be received on simpler phones that have long-lasting batteries due to their abbreviated functions compared to smartphones.

CONCLUSION

Cervical cancer is a serious public health issue as has been established. Beyond the statistics that make the news, there are people – flesh and blood – whose lives or livelihoods are cut short. They mostly do not make the news. It is only natural that every tool aimed at combating cancer, once it does not make the problem worse, should be welcomed. But to then have a tool such as the OCI CerviBreast app which is cost-efficient, evidence-based, and easy to use is providential. While the app would be dogged by structural issues such as cost, infrastructure, and culture, it can be improved

through the integration of local languages, offline content, and offline reminders. For the future, as it has begun in the present, the impact that can arise from this app would be instrumental in eliminating cervical cancer. The possibilities are boundless.

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