

# Viewpoint on realigning the Nigerian secondary school curriculum to prevent communicable diseases

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## Abstract

The school is an important agent of community health promotion through its curricular and extracurricular activities. This article highlights the various actions that could be taken to realign the Nigerian secondary school curriculum to prevent communicable diseases. The documentary research approach was used to identify and examine relevant literature sources, and to analyse and synthesise the information obtained. The results indicated that realigning the Nigerian secondary school curriculum to prevent communicable diseases would require several actions, such as the inclusion of school health and well-being in the objectives of Nigeria's National Policy on Education (NPE). We also observed that as school curriculum objectives and activities are based on the NPE, the incorporation of health education as a core theme in the policy could help to realign the curriculum and adequately prepare secondary school students to combat communicable diseases. Recommendations include the development of more school-targeted health research projects to provide curriculum planners with reliable data to make proactive and informed curriculum innovation decisions regarding communicable disease prevention in Nigerian secondary schools.

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**Introduction**

A fundamental aim of schools is to promote those ideals and skills that society values and are necessary for social continuity, such as good health and general well-being.<sup>1</sup> These cherished ideals and skills are reflected in the school curriculum, which is the school's programme guide.<sup>1</sup> Ideals such as health and well-being are incorporated into the school curriculum so that children are taught from an early age to cultivate useful health skills and habits that contribute to a healthy society. To ensure that the societal need for good health is continually met, the school curriculum must be regularly repositioned or realigned so that it emphasises school health and healthy living through various curricular and extracurricular activities. Realigning the curriculum requires deliberate curriculum innovation, which involves the consideration of recent and relevant health information and actions, the design of new school curricula or the updating of existing curricula to promote healthy living in schools. As Nigerian secondary schools are prone to frequent disease outbreaks,<sup>2-5</sup> realigning the curriculum to achieve more efficient disease prevention would prepare students against 'disease X'; that is, a disease we are not yet aware of, but should expect.<sup>6</sup>

Prior to a 2001 review of the Nigerian secondary school curriculum, most secondary schools used curricula developed between 1982 and 1985.<sup>7</sup> Thus, there was a great need for curriculum change; this placed intense pressure both on schools and the curriculum to incorporate

numerous competing societal needs into the curriculum review. Eventually, a new curriculum was introduced in 2007 and reviewed in 2012 (this was to reduce the number of subjects, as the curriculum was considered to be overloaded).<sup>7,8</sup> The new curriculum included themes on information and communication technology, HIV and AIDS, and 33 trade/entrepreneurial subjects.<sup>7,8</sup> However, despite the inclusion of HIV and AIDS themes, several other communicable diseases such as syphilis, gonorrhoea, Ebola, meningitis, avian influenza, Lassa fever, leprosy, malaria, monkeypox, herpes, viral hepatitis and tuberculosis<sup>2-5</sup> have yet to be included in the new curriculum even though they pose a substantial threat in schools and communities in Nigeria. These diseases may have been excluded because they are not considered deadly, or because the curriculum could no longer accommodate such content. These possibilities prompted us to examine how the Nigerian secondary school curriculum could be realigned to incorporate information about a large number of communicable diseases.

Communicable diseases are a global threat; they account for 63% of deaths in children worldwide.<sup>9</sup> They also cause 48% of premature deaths and kill more individuals under 21 years of age compared with other categories of infections.<sup>9</sup> Mortality from these diseases is highest in Africa; in 2016, seven of the top ten causes of death were communicable diseases and lower respiratory infection was the most deadly communicable disease, resulting in 3 million deaths globally.<sup>10</sup> Therefore, a

curriculum-oriented approach in the fight against communicable diseases, particularly in Nigerian secondary schools, is needed now. Recent studies that have discussed the role of schools in promoting student health indicate that schools' potential can be harnessed to curb tobacco use<sup>11</sup> and manage meningitis<sup>12</sup> in the student population. We also suggest that schools can play a critical role in preventing communicable diseases by realigning their curricula. Therefore, the research aim was to highlight ways of realigning the Nigerian secondary school curriculum to prevent communicable diseases.

## Methodology

The documentary research method<sup>13–15</sup> was used to gather and analyse relevant literature. Information about communicable disease outbreaks in schools was obtained from websites, grey literature, peer-reviewed journals, newspapers and expert opinions. The popular search engines Google and Google Scholar, and the databases PubMed and Scopus, were searched between November 2018 and April 2019 using the search terms 'communicable diseases', 'health education in Nigeria', 'curriculum innovation and disease prevention' and 'disease outbreaks in Nigerian schools'. During the period of drafting the paper, the researchers individually extracted information from different sources and then crosschecked it for similarities. The methodology used for this review has been used in recent studies focusing on school and/or community health.<sup>11,12,16–18</sup>

## Results and discussion

### *Realigning the school curriculum for communicable disease prevention*

The research objective was to highlight ways of realigning the Nigerian secondary

school curriculum to prevent communicable diseases. The results of the literature search indicated that realigning the school curriculum for the prevention of communicable diseases would demand the following actions. Nigeria's National Policy on Education (NPE) does not currently include school health and well-being; these topics must be included in the policy. In addition, as curriculum objectives and activities are based on the NPE, the incorporation of health education as a core theme in the NPE could help realign the school curriculum and adequately prepare students to combat communicable diseases. At present, health education is combined with physical education. As a result, major themes that address communicable diseases are not adequately covered.<sup>19</sup> One study showed that only one of the fifteen themes covered in the 9-year health and physical education basic education course addressed pathogens and diseases.<sup>20</sup> In our view, this is counter-productive to the efforts being made toward the prevention of communicable diseases.

Combining health education with other subjects such as physical education and basic science does not allow proper monitoring and measurement of impact. The present arrangement limits the scope of the subject<sup>21</sup> and tends to shift teachers' attention to the sports aspect (physical education). If health education was taught as a single subject, its scope could be broadened to accommodate more health topics such as communicable diseases. To ensure that a large number of communicable diseases are addressed in the secondary school curriculum, we suggest that at least one communicable disease should be included in the work scheme for each school term. This would ensure that by the end of the secondary school period, a student would have studied about 18 or more communicable diseases and he/she would have a broader and deeper knowledge of these diseases. As the present curriculum terminates after

junior secondary school,<sup>19</sup> we suggest that health education that emphasises communicable diseases should continue until the end of secondary school education and should be a core subject. These measures would equip students with the knowledge, attitudes and skills they require to combat existing communicable diseases.

Furthermore, the Nigerian government should complement global disease prevention efforts by incorporating World Days, which are promoted by the United Nations, for communicable diseases<sup>22</sup> into the secondary education curriculum. On such days, schools should engage in activities such as health talks, shows, debates, awareness campaigns and community sanitation exercises. These would significantly boost students' awareness and interest about general health issues and communicable disease prevention. In addition, Open Days should be introduced into the school calendar. Activities on these days could include excursions to hospitals, clinics and medical centres, which would provide students with the opportunity to interact with different health personnel and obtain first-hand health information about communicable diseases.

Our recommendations could be implemented through the design and approval of an action-oriented school curriculum, student health education programmes, the teaching of health education as a distinctive subject, training and retraining of teachers, and the inclusion of health education as a compulsory course for preservice secondary school teachers. Teachers require additional or on-the-job training in public health management, which would equip them with the skills necessary to teach students about communicable diseases. Teachers also need to receive additional training on how to manage and prevent health crises generated by communicable disease outbreaks in schools. There is also a need for the development of a national undergraduate

education curriculum for communicable disease prevention and management in Nigeria. Such a curriculum could be adapted from an existing curriculum, such as the National Undergraduate Curriculum for Chronic Disease Prevention and Management.<sup>23</sup>

### *Characteristics and relevance of the school curriculum for disease prevention*

Experts have indicated that the school curriculum should contain instructional strategies and learning experiences that are based on theories such as social inoculation theory and social cognitive theory, which have effectively influenced health-related behaviors.<sup>24</sup> Additionally, the school curriculum should encompass instructional techniques and learning experiences that are student-centred, interactive and experiential, such as cooperative learning, group discussions, role playing, problem solving and peer-led activities.<sup>24</sup> More information about the characteristics, learning objectives and relevance of the school curriculum for health education, promotion and disease prevention can be found in previous literature.<sup>24-29</sup>

The lack of a school curriculum for disease prevention undermines the significance of global public health education.<sup>26</sup> To ensure that schools meet the health needs of the global community, there is a need for a new emphasis on curricular initiatives that highlight disease outbreaks and societal complexities.<sup>26</sup> Such a curriculum could help students to develop the skills and knowledge required to critically examine the main issues in disease prevention, and to recognise the importance of disease prevention.<sup>25</sup> Some curriculum guidelines for medical residents require the inclusion of structured didactic lectures, journal clubs, conferences and workshops to supplement experiential learning and to emphasise outcomes-oriented, evidence-based research

on common diseases that affect patients across the lifespan.<sup>28</sup> In addition, curriculum experts have used adult learning theory to develop and integrate health promotion and disease prevention into several major courses in the Harvard Medical School student curriculum, and have designed educational experiences to align with the professional development of students throughout their medical education.<sup>29</sup> These efforts highlight the need for curriculum experts to consider educational theories while attempting to realign the Nigerian secondary school curriculum for communicable disease prevention and health promotion.

## Conclusion

This review identifies the importance of realigning the Nigerian secondary school curriculum to prevent communicable diseases. Communicable diseases pose an enormous threat to students in Nigerian secondary schools. However, the school curriculum is facing competing pressures, which makes the incorporation of themes to fully address a range of communicable diseases a complex task. We suggest that the Nigerian secondary school curriculum could be realigned to embrace teaching on a large number of communicable diseases. Given the role of schools in student health promotion, we have argued that through the realignment of the Nigerian secondary school curriculum, students could be better repositioned in the fight against communicable diseases. Some relevant curriculum realignment actions were highlighted, which we believe could lead to better prevention of communicable diseases in Nigerian secondary schools. It is recommended that more school curriculum-related research should be conducted to generate information to guide future academic decisions and encourage proactive actions in innovating the school curriculum;

this would improve disease prevention among students in Nigerian secondary schools. Teachers should be given additional training on how to manage and prevent health crises arising from communicable disease outbreaks in schools.

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The authors declare that there is no conflict of interest.

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