2018

Low Vaccination Rates: Africa

Karen Ruiz
Augustana College, Rock Island Illinois

Low Vaccination Rates in Africa

Overview:

Africa is a developing continent with a current population of 1.281 billion. It is traced as the oldest inhabited continent on planet Earth. Africa is made up of 54 countries, and is the world's second largest continent. There are several thousand ethnic groups in Africa (National Geographic Society, 2012). The major religions are Christianity and Islam, which grew as colonialism spread throughout the continent (South African History Online, 2017). Government forms in Africa range from presidential republics to semi-presidential republics, depending on the country (CIA).

The Public Health Issue:

The public health issue that has grown significantly is the decreasing rate of vaccination amongst African populations. Africa has the lowest rates and coverage for vaccination on a worldwide scale (WHO, 2017). Low vaccination rates are a social problem. Additionally, low vaccination is a social condition that is spread, not through an infectious process, but from social processes like interactions between individuals within a society. Low vaccinations are an environmental issue as individuals play a large role in their cause. (Favin et al., 2012) Additionally, they raise environmental issues because low vaccination rates pose a threat to the well-being of the general population living in that environment.

Causes of Low Vaccination:

Low vaccination rates are caused by a variety of factors. Among children and adolescents, they are often caused by a lack of knowledge from parents on how or where their children can be vaccinated. One of the most common causes is also lack of resources among adults and parents. The social determinant of access to health services is a significant problem. While a large portion of the population can get vaccinated inexpensively and/or for free through insurance and government public health clinics, the lack of access to a public health facility worsens the rates of vaccination (Favin et al., 2012). More than twenty countries in Africa fall under 80 percent for measles vaccinations in particular, the lowest being South Sudan at 20 percent (WHO, 2017). *(See Images 1 & 2)* To put into perspective how widespread this issue is, Asia and Europe combined comprise only nine countries which fall under 70 percent for vaccination rates. The largest group population in Africa affected by low vaccination rates are children and infants. In extent, Africa has the "lowest childhood vaccination coverage worldwide" (Kazungu & Adetifa, 2017, pg. 1).

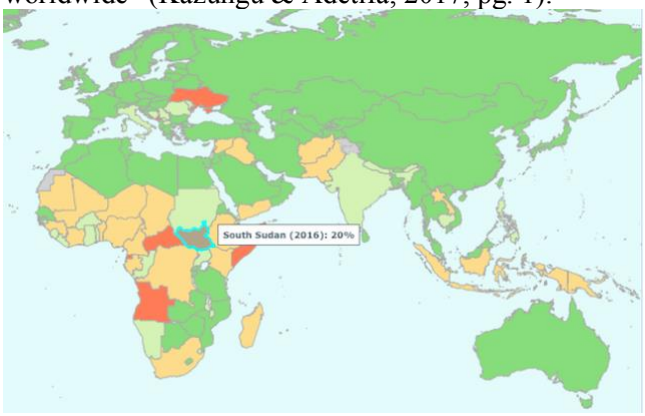

Image 1: (above) Measles vaccination rates in Africa, Asia, and Europe (WHO, 2017).

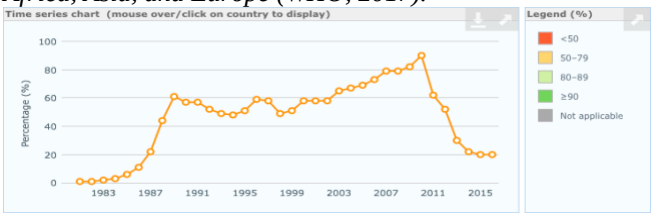

Image 2: (left) Percentage of measles vaccinations in South Sudan; (right) color-coded legend of percentages (WHO, 2017).

Epidemiology:

Vaccines are an agent that safely expose individuals to a germ so their immune systems can produce antibodies to fight a particular virus. Low vaccination rates are incidents in a given area where an individual, group, or community is not getting vaccinated. Lack of vaccination prevents a person's immune system from growing strong to fight off illness and disease. Low vaccination rates in communities can be identified by the outbreak of an easily preventable disease, such as measles. In 2012, one in five children in Africa had not received the appropriate vaccinations (WHO). The risk factors of low vaccination aid the spread of diseases, especially those that had previously been eliminated in a region. Non-vaccinated individuals and groups risk bad health outcomes like morbidity and mortality. Those who are not

vaccinated also pose a greater threat in the spread of diseases to larger populations.

Social Determinants of Impact:

According to an evaluation of a study conducted to "identify reasons why eligible children had incomplete or no vaccinations," there were several identifiable causes for low vaccinations (Favin, Steinglass, Fields, Banerjee, & Sawhney, 2012, pg. 229). From this study review, 53.9 percent of the projects took place in African regions. The most prevalent factor that contributed to low vaccination in children included difficulties with long distance in terms of traveling conditions and access to services. Among significant factors affecting child vaccinations was the exposure to unpleasing and disrespectful attitudes from health staff. Mothers included in the study cited being addressed with hostility for forgetting appointments, which often made them feel "humiliated and discouraged from returning" (Favin et al., 2012, pg. 230). Other key factors include lack of resources, unreliability from healthcare providers, waiting time, and false contraindications for vaccine eligibility such as the child being too under-weight or too old in age to qualify. The study review also concluded that low vaccination rates are also tied to "security challenges, civil war, insurgency, and political unrest," which weaken health systems in continents like Africa (Kazungu & Adetifa, 2017, pg. 10). Other social determinants of health that had a correlation with low vaccination facing African countries were lower educational achievements, lower incomes, and place, as many African countries have a "higher distribution of country populations in rural areas" (WHO-AFRO).

Solutions:

An existing plan for intervening with low vaccination in Africa is the African Region: Regional Strategic Plan for Immunization 2014-2020. This plan addresses nearly 50 countries in the African regions, and plans to provide "universal access to immunization by 2020" (WHO-AFRO). It also aims to stop the spread of particular disease transmissions, and eliminate diseases such as measles and rubella, all while ensuring that eliminated diseases do not reemerge (WHO-AFRO).

Another form of intervention is a core area of public health, which is promotion. African Vaccination Week is a full week dedicated to promoting vaccination. One of the campaign goals of this year's African Vaccination Week is to highlight the importance of vaccination and for people to update their vaccination statuses throughout their lives (WHO-AFRO). To build on this intervention, another feature that can be implemented is an incentive for greater health benefits for families who have fulfilled vaccination status for all family members. Such benefits can include reduced charges for doctor consultations, free consultations, and reduced-price medications for other treatable illnesses and injuries. This feature would, of course, require adequate funding of Africa's health systems.

Works Cited:

Central Intelligence Agency (2018). The World Factbook 2018. Retrieved from https://www.cia.gov/

Favin, M., Steinglass, R., Fields, R., Banerjee, K., & Sawhney, M. (2012). Why children are not vaccinated: A review of the grey literature. *International Health, 4*(4), 229-238. doi:10.1016/j.inhe.2012.07.004

Kazungu, J. S., & Adetifa, I. M. O. (2017). Crude childhood vaccination coverage in West Africa: Trends and predictors of completeness. *Wellcome Open Research*,*2*, 12, http://doi.org/10.12688/wellcomeopenres.10690.1

National Geographic Society. (2012). Africa: Resources. Retrieved from https://www.nationalgeographic.org/

South African History Online. (2017). African Traditional Religion. Retrieved from http://www.sahistory.org.za/

United Nations International Children's Emergency Fund [UNICEF] & World Health Organization [WHO]. 1 in 10 infants worldwide did not receive any vaccinations in 2016. *Global Health Observatory [GHO]*. Retrieved from http://www.who.int/

World Health Organization. (2017). Measles containing-vaccine first-dose (MCV1) immunization coverage among 1 year-olds. Retrieved from http://www.who.int/

WHO Regional Office for Africa (WHO-AFRO). (n.d.). Immunization in Africa. Retrieved April 20, 2018, from http://immunizationinafrica2016.org/