

HOW COVID-19 AFFECTS RURAL GHANA – A First Report from Adaklu District, Volta Region

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1 Introduction

The country of Ghana would appear to be well placed to deal with the current threat of a massive spread of Covid-19 due to its experience with earlier epidemics, in particular the Ebola epidemic in Western Africa (2013-2016). Back then Ghana was praised by the WHO and others for dealing very successfully with the Ebola threat. Experts asserted that this success was due to an:

“interministerial supervisory effort of Port Health, immigration, security services and the Ghana Health Service, as well as national and regional technical coordinating committees and public health sensitisation efforts. Three Ebola treatment centres were set up to manage cases. They were charged with surveillance, situation monitoring and assessment; case management; health education, social mobilisation and risk communication; logistics, security and financial resources; and planning and coordination. The approved insurance package for frontline health staff working on Ebola prevention and control by the government was another positive step. To keep Ebola out of Ghana, the government instituted education and training across the health and social divide; created awareness in the media, churches, schools and public places; and encouraged prevention measures of hand washing, avoiding unnecessary physical contact with ill people, changing burial procedures and increased surveillance/screening at the ports.”¹

There are, of course, important differences between Ebola and Covid-19. Ebola is about 30 times more deadly than Covid-19, but the latter spreads much more easily. Nevertheless many of the procedures tried and tested during the Ebola epidemic can be applied to the current challenge as well.

The first case of individuals infected with Covid-19 were reported in Ghana on 12 March, 2020. By 12 April, 566 cases have been reported, 8 of which have died. The first cases were reported in the Volta region on 12 April.²

¹ Oleribe, O. O., Salako, B. L., Ka, M. M., Akpalu, A., McConnochie, M., Foster, M., & Taylor-Robinson, S. D. (2015) ‘Ebola virus disease epidemic in West Africa: lessons learned and issues arising from West African countries’, *Clinical medicine*, 15(1): 54–57. www.ncbi.nlm.nih.gov/pmc/articles/PMC4954525/

² https://en.wikipedia.org/wiki/2020_coronavirus_pandemic_in_Ghana

The government response to the outbreak of Covid-19 has demonstrated strong commitment. On 15 March 2020, the government banned all public gatherings including conferences, workshops, funerals, festivals, political rallies, church activities and other related events to reduce the spread of Covid-19. Basic schools, senior high schools and universities, both public and private, have also been closed. Since 22 March, all of the county's borders have been closed until at least 19 April. A lockdown of at



least two weeks was put into effect on 30 March concerning three city regions in which cases of infections had been reported by that date: Accra, Tema and Kumasi including suburbs,



respectively. In these areas, only residents providing essential services like health workers, some key government officials, restaurants and food vendors are allowed to leave their home. Exceptions are also being made for allowing people to buy food. Major effort is being put into contact tracing and in stepping up testing exercise in the country. Other measures have included disinfection of markets mainly in the Accra region; special life insurance cover for the professionals at the frontline dealing with the pandemic; and the set-up of quarantine centres. The government and GHS have also taken a number of steps to inform the public about appropriate

behaviour to mitigate the threat posed by Covid-19, such as a Whatsapp-based notification service and distribution of posters.

The question is now to what extent the measures taken can help avoid the virus spreading to larger numbers of residents within the country. Scientists are not yet clear about whether warm weather inhibits spread of the virus³, which would shield countries such as Ghana – where most of the population rarely experiences temperature below 20°C – from the worst impacts of Covid-19.

There remains the possibility, however, that the emergence of this new disease will have a devastating and lasting impact on already fragile health system of the country. Health officials are very aware “that hospitals can deal with only a fraction of those needing care if the virus spreads through overcrowded cities, remote villages and among vulnerable populations such as

³ Healio Primary Care (2020) ‘Seasonality of COVID-19 remains uncertain’, online article, 18 March, www.healio.com/primary-care/infectious-diseases/news/online/%7B0a14f604-44fb-4d50-9df8-b10af77fe519%7D/seasonality-of-covid-19-remains-uncertain

refugees, the malnourished or those suffering from HIV and other chronic conditions.”⁴ On the basis of the recent experience of other countries around the world, Ghana certainly needs to prepare for the worst. The situation is exacerbated by the recent plunge of oil prices, which deprives the Ghanaian state of one of its most important sources of income, and therefore will make it harder to finance investments in the health sector.

As in other low and lower medium income countries (LMICs), basic conditions for both mitigation and suppression of Covid-19, the two primary tools against Covid-19, are unfavourable in Ghana. Hand washing and social distancing are challenging in many places mainly because of limited access to piped water and crowded living conditions. Case isolation (where confirmed cases are isolated from others) and home quarantine (where those who have been exposed and may be infected remain at home for 14 days to prevent infecting others) depend on the willingness of the population to comply with government and health service representatives, which can be a challenge because of fear of stigmatisation and lack of insight into the logic of the epidemic, i.e. the fact that persons with no or mild symptoms can transmit it to others who might then develop serious symptoms. Enforcement of lockdowns may not be possible outside of the big agglomerations.

These challenges may be exacerbated by the prevalence of diseases such as malaria and tuberculosis. Mortality rates of persons who develop pneumonia or other lower respiratory tract infections, which are also typical for serious cases of Covid-19, are significantly higher in sub-Saharan Africa than in higher-income countries⁵. Such infections are responsible for more deaths than any other cause (around 20,000 annually) when considering all-age mortality in Ghana. Around 5,000 children younger than 5 years die from pneumonia each year in the country⁶. Under these conditions, the Coronavirus could easily lead to huge numbers of additional deaths.

While a fast spread of Covid-19 among the population of Ghana could thus have disastrous consequences, **the pandemic will have far-reaching effects on health outcomes even if the virus will not directly cause a significant increase in mortality rates.** This is because of indirect effects on health care provision and other determinants of well-being resulting from the measures taken to combat the spread of Covid-19. Such effects include unemployment and the resulting pressure on household incomes; increasing prices for convenience goods; and a widespread reluctance of sick persons, pregnant women and others who require care to seek medical assistance for fear of infection or being quarantined (see next section).

⁴ Burke, J. & Okiror, S. (2020) ‘Africa's fragile health systems rush to contain coronavirus’, 20 March, www.theguardian.com/world/2020/mar/20/africas-fragile-health-systems-rush-to-contain-coronavirus

⁵ Abbey, M. et al. (2018) ‘Pneumonia in Ghana—a need to raise the profile’, *International Health*, 10(1): 4–7 <https://doi.org/10.1093/inthealth/ihx062>

⁶ *ibid.*

The combination of direct and indirect effects of the pandemic means that there is a high risk that country's efforts in meeting health-related Sustainable Development Goals, such as the decrease in maternal and under-5 mortality, will be pushed back by years.

2 General challenges facing Ghana in the current situation

The first cases of Covid-19 in the Volta Region were reported on 12 April only, but in the weeks before the measures taken by the government, reports in the media and communication in social networks have already started to affect daily life in even the remotest parts of the country.

The spread of misinformation

A major challenge is what has been dubbed the Corona “infodemic”, i.e. the enormous spread of myths, superstitions, misinformation and disinformation around the current epidemic. Some of these cause harm by lulling people into a false sense of security, e.g. by claiming that black people are immune to the virus or that it will be killed when exposed to more than 26°C. This myth may appeal to common sense because of the fact that most reported cases of infected individuals are among persons arriving to the country from outside of Africa. Due to the extremely low number of persons being tested for the virus in Ghana, however, it is easily possible that it has already spread widely among the endogenous population without being recognised. Some myths being spread have caused direct damage by making people try harmful types of self-medication such as drinking bleach. Misinformation tends to spread quickly mouth to mouth, especially in those parts of the country where only few inhabitants have access to television or mobile phones and where many cannot read English.



Under-utilisation of health services

Anecdotal evidence suggests that residents even in regions far away from the Coronavirus hotspots in Ghana have started to avoid visits to hospitals and health posts, as they believe that these places expose them to persons who might pass on the virus. Decreasing rates of attended births were reported during the 2013-2016 Ebola epidemic for most of Western Africa⁷. Availability of transport to move persons who require professional care to a health facility is also becoming harder to arrange.

The current practice of isolating persons who are believed may be infected with the Coronavirus makes matters worse. We received reports that in Adaklu and the city of Ho (which is situated

⁷ Oleribe et al. (2015), see footnote 1

close to Adaklu and provides the District's population with advanced health services) individuals who visit a doctor because of symptoms that could be caused by Covid-19, or who for other reasons are thought to have been infected, are typically not allowed to return home, but are quarantined for 14 days in a building on the premises of the hospital. Naturally, many people will avoid visiting a health facility if they risk to be quarantined in this way, without proof that they are actually Corona-infected.

Unaffordability of products for personal hygiene

Market prices for soap and disinfectants, not to speak of protective face masks and clothing, have soared since the outbreak of the epidemic. This makes it much more difficult for people to take care of personal hygiene, such as frequent hand-washing, at a time when it is of much importance for containing the spread of Covid-19.

Increasing prices for convenience goods

Prices for all kinds of convenience goods, not only soap and infectants, have increased markedly in recent weeks. As a result, more households will find it difficult or impossible to supply all family members with sufficient amounts of nutrients. The government has responded by cutting electricity bills of private households by half (by 100% in the case of households with very low income) – a move which needs to be seen in the context of the general election scheduled for end of this year.

Unemployment and resulting loss of income

While prices increase, large numbers of employees and workers in the informal economy have lost their jobs or at least been asked to take unpaid leave as a result of the lockdown. Families who are already living close to the poverty line are particularly likely to suffer, which is bound to have a negative effect on their health.

Disruption of public life

The request of health authorities to avoid hand-shaking and the prohibition of religious gatherings and funerals affects behaviours that are being held sacred in the lives of Ghanaians. As Ghanaian journalist Elizabeth Ohene states in a report for the BBC:

„Here in Ghana, there are some things that are sacred in our lives and nobody touches them under any circumstance: religion, handshakes and funerals. These are subjects that are not up for discussion and many people believe they define our very existence. [...] The ban on religious gatherings [...] is having a big impact on people for whom communal prayer and the discipline of the religious calendar are central to their lives.”⁸

⁸ Ohene, E. (2020) 'Coronavirus: Why Ghana has gone into mourning after mass funeral ban', online article, BBC News, 26 March, <https://www.bbc.com/news/world-africa-52010868>

Churches remained closed throughout Easter, the most sacred festival on Ghanaian Christians' calendar. If this policy is going to be upheld for a longer period, a strong communication effort will be required to enforce it, and to avoid scapegoating. Under-reporting of health issues that may be caused by an infection with Covid-19 is also highly likely given that nobody wants to be known as the person who brought the virus into a community. Community ownership of activities against the spread of Covid-19 is urgently needed to improve compliance and counter feelings of inefficacy.

Mental well-being and domestic violence

Experts working in the area have voiced concerns that a lockdown such as currently in place in Accra, Tema and Kumasi could trigger an increase in domestic violence placing, in particular, women and children at risk. The psychological stress resulting from not being allowed to leave one's home, under crowded living conditions such as prevalent across Ghana, may also lead to mental health problems in more general. Measures are needed to help families and communities cope with the situation, especially if lockdowns will be required to stay in place over a longer period.

3 Key challenges facing Adaklu District, Volta Region, Ghana

Adaklu District is one of the 18 Districts making up the Volta Region of the Republic of Ghana, with Adaklu-Waya as its capital. The District has a population of 36,391 according to the 2010 population and housing census (Ghana Statistical Service estimates put the 2019 population at 44,300). The large majority (~90%) of the workforce in the District are engaged in the agricultural sector.

The Adaklu District is one of the most deprived in the country. The 2015 Ghana Poverty Mapping Project⁹ published by the Ghana Statistical Service found the incidence of poverty, i.e. the proportion of the District's population living below the national poverty line, to be by far the highest (89.7%) in the Volta Region (average: 33.3%) and the second highest in the whole country. Poverty in Adaklu is not only widespread but also severe: According to the indicator "depth of poverty", which measures how much below the poverty line the poor's standard of living is on average, Adaklu shows the 3rd worst performance of Ghana's 216 Districts. As opposed to some of the other poor parts of Ghana, however, inequality in Adaklu District is very low – lower than in any other District of the Volta Region.

The widespread economic hardship means that many residents rely on subsistence agriculture production to make ends meet. To top up their measly income, the majority of women in Adaklu are engaged in food processing and petty trading as well as handicraft production for their livelihood.

⁹ Ghana Statistical Service (ed)(2015) 'Poverty Map for Ghana', Accra: GSS.
<http://www2.statsghana.gov.gh/docfiles/publications/POVERTY%20MAP%20FOR%20GHANA-05102015.pdf>

Concrete challenges related to fighting Covid-19 in Adaklu include the following:

- Lack of potable drinking water in many parts of the Adaklu District;
- Low spending power to purchase soap and disinfectants, as well as convenience goods in general, which have become much more expensive since the outbreak of the current epidemic;
- Living conditions in settlements in most parts of Adaklu do not allow isolating family members from other members of the community;
- High share of residents who cannot read or understand English and therefore depend on information passed on by other members of the community.

4 How to respond to the Covid-19 challenge

The discussion above showed that much depends on the way in which the measures taken against the spread of Covid-19 are being put into practice. In this regard, Shannon Smith from the African Center for Strategic Studies stresses that:

“maintaining public trust during the course of this pandemic will be essential. Governments should communicate rather than simply compel. Strategic communications are a crucial element for public health. The Ebola epidemic in West Africa ended ultimately because of behavior change under very difficult circumstances. This required community input, local interlocutors, and communication.”¹⁰

Other experts agree that the level of the community and family are of key importance in fighting the disease:

“Like Ebola, Covid-19 is a family disease, in the sense that many infections occur in the home. Restrictions on travel can slow the spread of the disease, but it also helps if individuals and families understand infection pathways and implement domestic precautions.”¹¹

How can communities and families be engaged within their living environment in the fight against spread of Covid-19 most effectively, beyond simply targeting them with public health information messages? Is it possible to use approaches of co-creation and co-development to establish ownership of measures taken against the disease? And what role could modern information and communication technology (ICT) play? Can the fight against Covid-19 benefit from the huge numbers of smartphones and the dense mobile network in place even in the most peripheral parts of the country?

¹⁰ Smith, S. (2020) ‘Managing Health and Economic Priorities as the COVID-19 Pandemic Spreads in Africa’, online article, Washington, DC: Africa Center for Strategic Studies, <https://africacenter.org/spotlight/managing-health-economic-priorities-covid-19-pandemic-spreads-africa/>

¹¹ Richards, P. (2020) ‘What Might Africa Teach the World? Covid-19 and Ebola Virus Disease Compared’, online article, African Arguments, 17 March, <https://africanarguments.org/2020/03/17/what-might-africa-teach-the-world-covid-19-and-ebola-virus-disease-compared/>

What is needed is an approach could help share good practice in dealing with the Covid-19 threat as effectively as possible, but also help develop and establish novel approaches towards stopping the spread of the virus in ways which are adapted to local conditions and needs – in direct partnership with communities and key stakeholders such as community health workers and representatives of the GHS.

Ongoing activities

Since mid-March 2020, Grow Your Dream Foundation (GYDF) team has included information on Covid-19 in their activities in communities across Adaklu. In meetings at community level with key members of each village GYDF is stressing the need to take seriously the threat posed by Covid-19. Special emphasis is placed on educating community members about false information that is being spread via social networks and word of mouth, such as the myth that Africans are immune to the virus.



The practical advice given includes the need to frequently wash your hands with running water and soap. Unfortunately only small parts of Adaklu Districts are connected by the piped water network, which means that hand washing poses a challenge. Commercial suppliers offer so-called Veronica Buckets¹², which consist of a wooden stand which holds the bucket, towel and soap, and a washbasin placed below the tap to collect the used water. Veronica Buckets are a Ghanaian invention serving as a simple way to encourage proper hand washing.

The price for purchasing a Veronica Bucket is modest, but may still be too high to make it affordable for the poorest communities in the country, such as in Adaklu. The team of GYDF have come up with a solution which is even more inexpensive: By fixing a tap to a used canister and placing it on a fence or branch fork (see photo), a hand washing facility can be implemented for very little money. As canisters of this type are usually readily available in each community (since they are used to transport fresh water from nearby rivers), the device can be set up quickly.

¹² https://en.wikipedia.org/wiki/Veronica_bucket



Other communities already have hand washing facilities in place as a result of an earlier initiative by an American NGO. These are called “tip tap” and consist of a simple structure made from readily available materials. Often to be found by a latrine or cowshed, a tip tap allows residents to wash their hands by pressing a lever with their foot, thereby reducing the risk of transmitting a disease by touching a traditional tap.

While the rural population can comparatively easily be convinced of the need for hand washing, some of the other changes to established behaviour are more controversial. Many Ghanaians find it difficult to replace the obligatory handshake by safer methods of greeting, such as a wave, a nod or a bow. The same is true for maintaining at least one metre distance between oneself and anybody else (social distancing). What is more, the fear of stigmatisation (and of being quarantined in central facilities) can make individuals with symptoms that may be related to Covid-19, such as coughing or sneezing, try to hide their condition rather than seek medical attention. To convince community members of the need to behave according to the recommendations of the health authorities will often require a concerted effort and continuous communication, including the will to listen to people’s fears and wishes. Ideally, members of the community should get the possibility to discuss and co-develop ways of suitable behaviour which are workable and acceptable by all those who are concerned.

First efforts are therefore already being made at local level, in cooperation with the rural communities in Adaklu, to prevent the spread of Covid-19 and to mitigate the consequences of the epidemic, should infection occur in this part of the country as well.

HITA is currently in close contact with the Grow Your Life Foundation team as well as with our longer established local partners and with a number of European development aid organizations to discuss ways and means of how our ICT, mLearning and mHealth based approach could be applied in the current situation and what steps are needed next.

We will publish more information here as it becomes available.