



Risk of COVID-19 in Small-Scale Fisheries

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ABOUT THE STUDY

The novel coronavirus is predicted to have dire implications on global food systems including fisheries value chains due to restrictions imposed on human movements in many countries. In food production, both agriculture and fisheries, is exempted from restrictions as an essential service. The enforcement of COVID-19 prevention protocols, particularly social distancing, has been widely reported in agricultural markets whereas casual observations and media reports on fish landing sites suggest no such enforcements are in place. This study aimed to provide sound scientific evidence as a basis for informed policy direction and intervention for the artisanal fishing sector in these challenging times. We employed an Unmanned Aerial Vehicle (UAV) in assessing the risk of artisanal fishers to the pandemic using physical distancing as a proxy. From analysis of cumulative distribution function (G-function) of the nearest-neighbour distances (NND), this study underscored crowding at all surveyed fish landing beaches, and identified potential “hotspots” for disease transmission. Aerial measurements taken at times of peak landing beach activity indicated that the highest proportion of people, representing 56%, 48%, 39% and 78% in Elmina, Winneba, Apam and Mumford respectively, were located at distances of less than one metre from their nearest neighbour. Risk of crowding was independent of the population at the landing beaches, suggesting that all categories of fish landing sites along the coast would require equal urgency and measured attention towards preventing and mitigating the spread of the diseases.

The COVID-19 pandemic was projected to have significant impacts on global fisheries systems throughout value chains. Although SARS-CoV-2 is not known to infect or contaminate fish, fishing communities are considered to be at high risk, serving as potential “hotspots” for rapid spread of the virus due to the migratory and huddling behaviour of fishers, and at times

poor hygienic practices in these communities. While implementing stringent restrictions on movement and physical contact to curb the spread of the disease, countries have also critically weighed the balance between disease control and nutritional needs, and most have allowed sectors within the national food system, including the fishing industry, to continue operating. Ghana, in its implementation of an emergency response to the COVID-19 pandemic, exempted fishers from a partial lockdown due to their essential role in food supply. Despite being recognised “hotspots” for virus transmission, no targeted and coordinated measures have been instituted to control physical contact and ensure adherence to the protocols on social distancing and other preventive measures at fish landing beaches

The risk of artisanal fishers to the COVID-19 disease from clustering was independent of the size of landing beach. Therefore, an urgent concerted effort across relevant health and fisheries governance institutions is required to institute radical prevention and mitigation measures. This effort should be focused primarily on implementing targeted landing beach-wide interventions on one hand and workplace or activity-specific measures on the other hand. Specifically, the judicious use of land spaces adjacent to landing beaches could present an opportunity for interspersing fish trading activities to reduce clustering. It is also recommended that fishers be compelled to adhere to wearing nose masks during fish offloading, canoe hauling, and fish trading, when it is impractical to observe social distancing. It is noteworthy that this assessment was conducted during the lean fishing season and crowding situation could worsen in the main or bumper fishing season posing an even greater risk should the disease persist. These findings provide a point of entry for government agencies, donors and NGOs in identifying potential support that could be provided to the landing beaches to reduce the risk to fishers, their families and community to the novel coronavirus disease.

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