

**March 23, 2020**

### **A statement from the Sudanese National Academy of Sciences on the current Corona Pandemic**

Epidemics are thought to have emerged early in human history following our cultural transformation with the advent of agriculture and animal husbandry. These two revolutions created the prerequisites for disease transmissions by forming large crowds of human settlements. Our collective conscious remains wary of these gruesome events of human suffering especially like the recent Spanish flu of 1919 where 50 M were estimated to have perished, and continue to Influence and shape our response to epidemics and pandemics like the current Covid19.

In the perpetual tug of war between our species and microbes, viruses and germs will continue to cross species barriers and wreak havoc in immunologically naïve human populations, no matter how technologically advanced we are. Population vulnerability, climate differences, genetic history, degree of crowdedness and other factors will decide the outcome of a particular disease epidemic. But most of all it is incumbent, in this day and age, upon societal and state resolve to act swiftly and effectively as the recent experience have shown particularly in China. Epidemics are transient or ephemeral in by nature, with few exceptions. Nevertheless the aim should always be to minimize human causality and other consequences of the epidemic, including collateral socio economic bearings.

Epidemics have always evoked social stigma against the ill and the frail. Health anomalies will be seen as potential threats to others, especially against a background of ignorance and misinformation. Prejudice becomes even more if those were outliers either in the form of foreigners or ethnic minorities given the human tendency to blame others. Against prejudice and a culture of blame people often tend to conceal health status and illness which could have serious consequences since self-reporting and self-isolation is critical in poor resource situations like ours.

Ethnicity is a genuine parcel of the human identity; the question remains of why we are coy when it comes to associating health conditions to differential population susceptibilities and clinical response. The abuse of human differences in our recent past can and should no longer block science from taking advantage of the data and knowledge of population variation in response to an epidemic due to unique evolutionary history. For instance Immune parameters should be characterized in larger cohorts of people with COVID-19 with different disease severities, which might then help to predict disease outcome models of transmission. It is obvious from the current outbreak that communities with larger subclinical to clinical ratio may pose serious threats to others with a potential to display adverse clinical responses.

As the Covid19 has been declared a pandemic, global human cooperation against such common threats is mandatory. It will be of essence if the Minister of Health is to appoint a high level advisory panel of the best experts from related fields in the country to closely and continuously monitor the pandemic, nationally, regionally and globally and recommend appropriate action; including discussing with leaders in the neighboring countries a joint strategy to cope with the virus, and ensure that the General Public is regularly briefed about what to do to contain the disease.

Countries must avail scientific data, on the cases, deaths, ages, gender, ethnicity, duration of disease, symptoms, that should be ready by now. These sets of data, along with other data sources (WHO, CDC, etc.) are important for modeling the dynamics of the epidemic in each country / region under the lock down. Testing is of the utmost importance and a critical component in drawing meaningful epidemiological conclusions. Priority should be given to improving national testing capacity, including serological and epidemiological surveys that allow insights into exposure and infection patterns, populations at-risk, etc. Even in the absence of specific, 100% sensitive tests

Viruses are ultimate parasites that use our cells to propagate and then be transmitted to others. It is clear that close contact for a considerable period of time is needed for transmission. Our best practice to halt the epidemic in the absence of a vaccine or established effective treatment is to restrict human contacts, effect precautionary measures individually by washing hands with soap and water, wearing mask and at community levels by establishment of field hospitals preparing for the worst scenario to prevent spread of any potential infectious agent. Appropriate measures to strengthen and better prepare the fragile national health system to cope with any outbreak of the virus in the country should be taken, by mobilizing the entire might of the state including the regular forces and faculties of medicine and public health institutes and their staff to help in controlling the virus. Whether nationally regionally or globally, complacency and acting irresponsibly are dangerous and can be catastrophic.

Khartoum 23/3/2020