Delayed diagnosis refers to taking an overly longer time than it would normally take to identify symptoms/signs of a disease, make necessary investigation and decide on what the specific diagnosis is and communicate it to the patient. Testing in most African countries is limited to highly skilled laboratories. Using Uganda as an example, it takes on average two days for test result to be communicated to the person from whom a sample was taken. This includes one day of sample collection and transportation to the testing laboratory, 12 hours of testing, release of results to the ministry of health who subsequently communicate to the person tested. The timeframe is longer for non-quarantined persons as is the case for truck drivers who are left to continue their journey after sample collection. However, countries like Ghana have devised means of shortening the time of transportation of samples to the testing centers using drones which is commendable.

The danger with this delay is increase in the reproduction number – a case in point is when truck drivers who are tested for Covid-19 at Kenya and Tanzania border points and left to interact with communities before their results are received yet, some of them end up with positive results in Uganda. Delayed diagnosis may also be experienced due to asymptomatic cases highly associated with Covid-19 infection. Asymptomatic cases who weren’t contacts of earlier confirmed cases will most likely not be prioritized for testing and may experience either delayed (if they eventually have samples collected from them) or missed diagnosis.

Missed diagnosis

Refers to a situation where a person apparently has a disease but is not detected. In Italy, missed diagnosis has been blamed for the rapid spread of the disease during the early stages. Consequently, it has the potential of increasing the reproductive number which is the average number of infections generated by an infectious person in a population.

Much emphasis has been placed on contact tracing, sample collection and eventual testing of suspects by surveillance officers through the formal government health systems. However, in Africa many people access health services from private clinics where little has been done to have these primary healthcare facilities on board when fighting the pandemic. Many cases could be missed in the private healthcare facilities. Cases may
also be missed if the primary health care contacts fail to suspect Covid-19 because of a low index of suspicion. One other major determinant of missed diagnosis is travelers and migrants who may test negative yet actually are still in the window period. The point of exposure of travelers is unknown yet they are travelling to other places where the opportunity of timely re-testing them after the window period is uncertain.

**Misdiagnosis**

Misdiagnosis in this case denotes failure to detect Covid-19 when the opportunity to do so is available hence labeled another diagnosis to such a patient. Misdiagnosis is more likely to happen in health systems and health facilities with low index of suspicion so that tests can subsequently be ordered. It may also occur where there is inadequate capacity to manage suspicious patients. This may include facilities with inadequately trained personnel: especially in private, for profit and not for profit health facilities. It would be disastrous if such a misdiagnosis occurred to a hospitalized patient who may end up infecting not only other patients but also health workers.

On the other hand, a high index of suspicion presents another dilemma where common flu and other pathologies with similar symptoms like Covid-19 might be labeled as such. It may therefore not be surprising to see increase in deaths from conditions such as cardiovascular diseases, severe malaria, pneumonia and other causes (other than Covid-19) during the time of this pandemic as a consequence of misdiagnosis – either due to over attention to Covid-19 or where diagnosis of Covid-19 is missed out in such cases.

Thus, it is important for response teams to be cognizant of how diagnostic errors could manifest. This will go beyond improving the laboratory and investigative capacities of the tests. It requires strengthening the health system to confront the potential ways Covid-19 and other disease conditions would be missed, delayed or misdiagnosed.