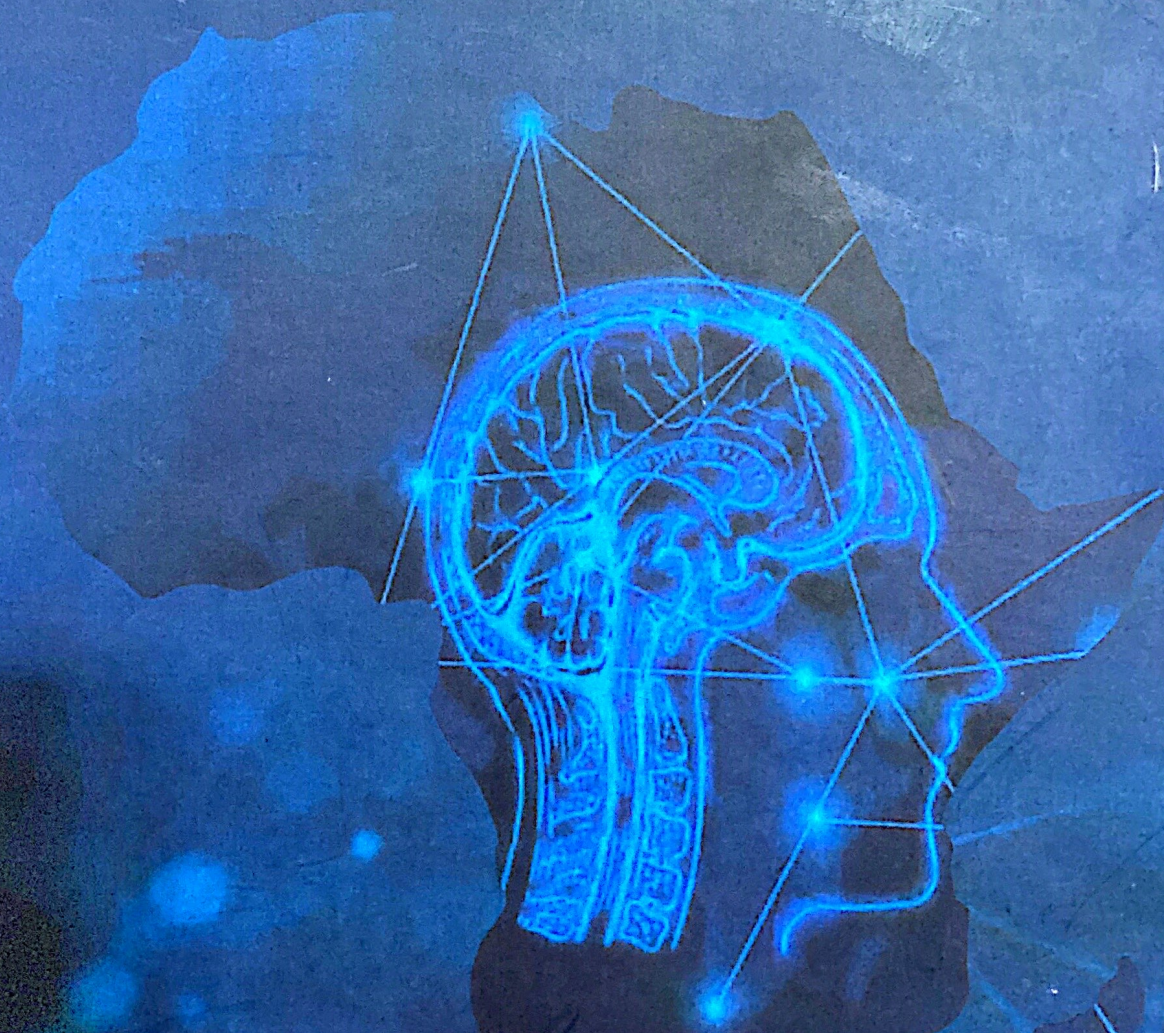


HUMANISING SCIENCE: SCIENCE COMMUNICATION AND DEVELOPMENT IN AFRICA



Emmanuel Samu Dandaura
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Osime Samuel

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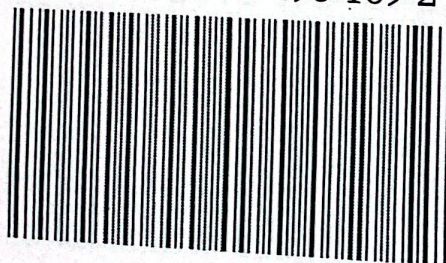


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Reporting Emerging Infectious Diseases: Expectations, Challenges and the Way Forward

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Introduction

From creation, humanity has been contending with the outbreak of diseases of all sorts most of which are contagious in nature. Their emergence throws a huge challenge to scientists and medical practitioners to research and invent drugs and vaccines that would serve as placebo. An example is the outbreak of malaria fever symptomatic of mosquito bites that claimed and is still claiming millions of people the world over. Following its outbreak, malaria subsisted unchecked until the discovery of chloroquine as a viable drug. Even as developed countries have been able to suppress malaria scourge, developing countries still suffer the rampaging effect of mosquito attack. The imprint of bubonic and other diseases in the Americas cannot be easily forgotten. In Europe, the Portuguese flu and Chikungunya disease in Italy are typical examples just like the Asian Bird Flu and SARS that broke out in Asia. Africa and specifically, Tanzania also experienced Chikungunya infectious disease. We also have AIDS/HIV, tuberculosis, Hepatitis, Chicken pox, Polio meningitis, Yellow fever that have registered their presence on the global health map. Similarly, in 2014, the global community witnessed the outbreak of the Ebola virus which was

replaced by another deadly infectious disease, COVID-19 which is a strain of coronavirus at the twilight of 2019.

At every juncture of the emergence of these diseases, journalists were always alive to inform, educate and enlighten society. They convey information about the various risks associated with the outbreak and the most effective ways for people to protect themselves, their families, and their country (Curran & Seater, 2009). At the same time, many health experts and government officials are concerned to avert envisaged security risks resulting from public reactions to such a phenomenon; such as mass movement of population, for example, people fleeing a city, public unrest, and perhaps crime. Journalists sometimes fail to provide complete and encompassing reports about the disease. For example, during the SARS outbreaks in Great Toronto Area, the media reported focusing mainly on the number of hospitalised SARS patients, and also the only available and reliable data was the number of hospitalised cases (Ronosong, Jianhong & Hunping, 2007).

News reports are either straight news, commentaries, editorials, opinions, features, cartoons and other genres that constitute their reportage. Journalists recognise that they are socially responsible to discharge a duty; the obligation of getting people informed to be able to avert or take curative measures against the spread of these diseases. Subsarao cited in Mostafavi (2016) amplifies the need for reporting emerging infectious diseases that once the outbreak is established, the accurate and timely information have to be disseminated to the citizenry and through various sources so that a timely and prompt action can be taken.

However, by virtue of the novelty associated with the emerging diseases, journalists like health personnel or practitioners are constrained to articulate in-depth about these diseases. On account of the foregoing, this chapter is aimed at making an insightful incursion into activities of journalists, whose beat is science or health-inclined, carry out their routine while covering emerging infectious diseases, examine the journalistic guiding principles which serve as barometer for their conduct, interrogate the dilemma or challenges journalists face, and chart a way forward. Doing this will extend literature in health communication as well as shape negative attitudes and behaviour of journalists, health practitioners,

citizens, and government to invest in the current COVID-19 outbreak and for future diseases.

Theoretical Framework

The study makes use of field theory developed by Kurt Lewin in the 1940s and was popularised by Pierre Bourdieu which accounts for the forces that shape journalistic work (Vos, 2019). Its pre-occupation is to describe society through differentiated fields which when recognised internally and externally by members of society provides boundaries around the work of social actors (Eldridge, 2016). This is suggestive that society is configured such that people work in clusters based on their professional callings. The clusters they work in can be likened to space which Bourdieu (2005) says is characterised by actions and reactions.

Given that fields are structured systems of social relations, aggregating them represent large environments between the organisational and societal levels that structure social relations (Willig, Waltop & Hartley, 2015). This provides insights that field is not omnibus space. Thus, social space works as a field when the interrelated institutions and characters that enter it are a part of and feel its states, values, and logic. According to the theory, fields operate with their sets of rules that are the result of historic struggles to establish and maintain distinction externally while reinforcing order (Benson, 2006).

Contributing to the theory, Willig (2016) posits that inter-organisational and professional environment of journalism field is rooted in socio-economic, cultural, political base. The culture, economic, and politics that serve as building blocks for journalism to thrive exert considerable influence on journalists and organisations. As Benson (2006) argues, the economic imperative for example nurtures production values shaped by almost all news outlets producing a corresponding consensus on routines of news policy. Willig (2016) points out that those news organisations with the most cultural capital are also those with the audiences most prized by advertisers. Similarly, media organisations shape the socio-cultural, economic and political character of society. Journalists are, therefore, perceived as possessing enormous power vis-à-vis audiences and sources. While sources like scientists and health workers or practitioners may

dictate conditions and rules of access and designate certain events and issues as important by providing an arena for them, journalists can and do determine what is newsworthy and how to craft it into a coherent story. Benson (2006) subscribes to this behaviour that journalists bring their own particular perceptions of newsworthiness to bear when they approach their work. To further buttress this, Bourdieu (1984) cited in Willig (2016, however, argues that there is a pre-established harmony between two systems of interests namely, production and reception – one only preaches to the converted.

Against the backdrop that field theory suggests for fields where other structured and regulatory definitions may be less applicable as with journalism, the outward articulation of boundaries to define journalism plays a significant role in distinguishing the field from other social actors. This tends to show the autonomy of journalism that enables journalists to function.

Giving perspective on the field theory as an indicator of journalistic autonomy, Krause (2011) explains that active news gathering from a variety of sources is the distinctive innovation in examination of journalism as journalism. In view of the field theory, relevance can be established between the theory and the workability of reporting emerging infectious diseases like COVID-19.

Literature Review

Conceptual Clarifications

Reporting or better put, news reporting is the act or process of collecting, analysing, and writing news stories for public consumption. It is a type of journalism typically written or broadcast in news style by journalists distributed to various outlets through news agencies. In the context of this study, reporting means writing for the mass media on COVID-19 to keep people informed to be able to make a reasoned decision.

With the advent of Internet and the new media, news reporting is no longer an exclusive preserve of the traditional mass media of radio, television, newspapers and magazines. Owners of blogs and users of social media platforms have become emergency reporters technically known as citizen journalists. Due to the alluring benefits of social media as preferred sources

of news, even some reporters with mainstream media fail to resist the compelling urge to own blogs and report on certain platforms. Their deep involvement as purveyors of news has widened the horizon of news outlets, thereby creating room for variety of perspectives for readers, listeners or viewers. Examples of social media platforms are Facebook, Instagram, Twitter, YouTube, and Whatsapp. The blogs components include Ars Technica (@arstechnica on Twitter), Infectious Disease Hub (@IDHubFSG on Twitter), and National Foundation for Infectious Diseases (@NFIDvaccines on Twitter) just to mention few. Boitnott (2018) provides additional platforms namely; Penscope and Ustream Apps which according to Al Najar (2018) are applications used to disseminate information. Al Najar (2018) introspectively elaborates that news reporting evolved from an age where there was only a man behind a desk to deliver news to the modern times where there are mobile phones with news applications and various news reporting blogs over the Internet. Irrespective of the epoch, it is the information gathering part of the job is sometimes called reporting as distinct from the production part of the job, such as writing articles.

Emerging infectious diseases: a disease is considered an emerging one when it has never been known or experienced. They are defined as those diseases related to new agents, as well as those with already known causative agents that recently have acquired an epidemic nature which can turn into a threat and occur in regions where previously they were inexistent (Kun-Morales, Guzman-Morales, Dela Paz-Nicolau & Salas-Fernandez, 2015). This presupposes they are new in all ramifications. All currently known diseases and those that emerged but have been successfully managed were hitherto unknown until their outbreak. Imbued with this background, Mostafavi (2016) asserts elaborately that emerging infectious diseases are those that are caused by a newly discovered infectious agent or by newly identified variant of a known pathogen, which has emerged and whose incidence in humans has increased during the last two decades and are threatening to increase in the near future. A remarkable feature of this definition is the period that spells out when an infectious disease could be regarded an emerging one. For clarity, COVID-19 strain would remain unknown granted it did not broke out in 2019. The same thing can be said of Ebola virus that predates it. And this is likely a

similar way other diseases will emerge in the future.

COVID-19

Covid-19 is an emerging infectious disease that broke out in December 2019. The contagious disease is traced to China and is presumed to have escaped from a Wuhan Science laboratory. It is a family of viruses that causes illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV) (AbdulAzeez, 2020).

Long after the outbreak of the deadly Severe Acute Respiratory Syndrome or Asian flu and Ebola virus, the emergence of COVID-19 disease commonly known as Corona virus shook the emotional foundation of the global community (Udende, Akpede & Adisa, 2020). From its insignificance outbreak in China, it spread to other countries of the world. Common signs of the infectious disease include fever, cough, shortness of breath, and other breathing difficulties. In more severe cases, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death (WHO, 2020). Its mode of transmission is human-to-human specifically through droplets from cough, sneezes and infected surfaces when one gets in contact with. The human-to-human transmission has been described with incubation times between 1-14 days, facilitating spread through droplets, and contaminated hands and surfaces (Kampf, Todd, Pfaender & Steinermann, 2020).

To contend with the disease, the need arose to build or reactivate isolation and treatment centres. Some of the isolation and testing centres in Nigeria are identified by AbdulAzeez (2020) to include NCDC, Abuja, Centre for Human and Zoonotic Virology; Lagos University Teaching Hospital; College of Medicine of the University of Lagos; Centre for Genomic of Infectious Diseases of Redeemers University of Nigeria, and Irrua Specialist Hospital, Edo State. These were extended to few other states of the Nigeria.

Effects of the disease are numerous. Outbreak of the disease led to loss of life. As at 20th June, 2020, global recorded deaths were put at 465, 855, recovered cases were 4,643,007 out of the total of 8,804,051 cases (WHO, 2020). In Nigeria, as at same date confirmed cases were 19,147, recorded deaths were 487 while those recovered were 6,518 (BBC, 2020). Even

those infected with the disease but survived it after a successful management would have undergone serious pains. It has also caused anxiety, depression, and creates sense of uncertainty and fear among people. This is more worrisome considering the mode of infection of COVID-19 which is by human-to-human through droplets.

The outbreak of COVID-19 disrupted social, political, and economic activities. To avoid exponential spread of the disease, governments of the world shut down business activities by suspending opening of malls and market centres and cancellation of international flights. Sequel to the outbreak of COVID-19 disease, Ogunle (2020) expressed fears that the world economy was now declined to be in recession by the World Bank and IMF and could eventually lead to the deepest depression since 1929.

Similarly, social activities like elaborate marriage celebrations, worship activities, visiting recreational centres like beaches, and organising get together parties. On the political front, party activities that involved more than 20 people were embargoed in Nigeria. In the same vein, institutions of learning were closed just as business centres and civil servants had their offices closed. To compound the problem, unplanned and unanticipated expenditure on improving on basic hygiene like regular washing of hands with soap and water that went with cost, use of sanitisers, and procurement and use of face masks meant people had to compromise their meager resources. The general inconveniences and the lack of ease of movement within towns or cities, state, inter-state, and on international travels occasioned by government restriction deprived people from productive engagements. Generally, there was lockdown that inhibited movement of people except those on special duties like health practitioners, security operatives, suppliers of essential materials and providers of special services like bankers and sewage disposal personnel. AbdulAzeez (2020) points out that on 18th March, 2020, Nigerian government officially announced a travel ban on 13 countries considered to be high risk for COVID-19 including China, Italy, India, South Korea, Spain, Japan France, Germany, Norway, the USA, the United Kingdom, Netherlands, and Sweden.

Journalists' Relationship with Sources

The public turn to the media for information during emerging infectious diseases (Tang, Bie, Sung-Eun & Zhi, 2018). Journalists, who report on

emerging infectious diseases, are placed on specialised zone known in journalism parlance as health/medical or science beat. Maurer and Margin (2019) provide elaborate and expanded meaning of the concept of beat reporting that it refers to thematic specialisation and routines (places to go, people to see) in journalism; it reflects the distribution between general assignment reporters and specialised (beat) reporters covering a specific area (beat) as well as the subject-matter or geographic divisions between areas of reporting by which media organisations seek to structure the social environment they cover.

The relationship existing between journalists and their sources is more of complementary than adversary. Journalists report about their beat and sources therein who are journalists' information mine. The story featured in news media is a product of interaction between journalists and sources. Sources are everywhere. Some are routine points of contact for journalists while others may be off routine points of contact. Some proactive, approaching and others may be indisposed and difficult to access.

Beats shape journalists' routines and interactions in the news gathering process; they pivotally affect their relationships with sources in many ways (Reich, 2012). The fact that journalists are assigned to specific beats means they quickly develop an understanding regarding who the potentially relevant news sources in that domain are and begin to draw a "map of relevant knowers" (Fishman, 1980 cited in Maurer & Margin, 2019, p.11). That is to say, the people they need to be familiar with and rely on for information.

Typical sources for a journalist assigned to cover emerging infectious COVID-19 disease include World Health Organisation (WHO), Centre for Disease Control and Prevention (CDC) both at international levels with national bodies as National Centre for Disease Control (NCDC) that assumes similar status in Nigeria. Activities of NCDC are complemented by Presidential Task Force (PTF). Others are Heads of governments at all levels, Ministry of Health, Health practitioners (doctors, nurses, laboratory personnel), scientists, pharmacists, hospitals/isolation centres, patients, mass media, social media etc. Intricately related to the various sources is how well the journalist is grounded in the terminologies related to emerging COVID-19 disease some of which are presented in the next sub-

heading.

Terminologies Related to COVID-19

Journalists reporting COVID-19 need to be acquainted with related terminologies including but not limited to the followings (<https://www.tmc.edu>).

- i. Acute Respiratory Disease Syndrome (ARDS)- a fatal condition in which fluids build up in the air sacs of the lungs thereby prohibits the lungs from getting enough air, leading to a deprivation of oxygen in the blood stream.
- ii. Asymptomatic – Absence of symptoms of disease like fever, dry cough, sore throat, shortness of breath and body aches common with COVID-19 disease.
- iii. Case Fatality Rate – The ratio of deaths from COVID-19 to the total number of individuals diagnosed with the disease.
- iv. Clinical Trial – Research experiments on human participants designed to answer questions about new treatments to determine the efficacy of potential vaccines.
- v. Community Spread – The spread of contagious COVID-19 disease in a geographical area in which there is no knowledge of how someone contracted the disease. Contact could be traced to other infected persons.
- vi. Confirmed Positive Case – This is the confirmation from the Centre for Disease Control and Prevention (CDC) of a positive COVID-19 test in an individual in contrast to presumptive positive case.
- vii. Contact Tracing – Identifying and monitoring people, who may have come in contact with an infectious person in the case of COVID-19, monitoring usually involves self-quarantine as an effort to control the spread of the disease.
- viii. Containment Area – Refers to the geographical zone with limited access in or out in an effort to contain an outbreak.
- ix. Coronavirus – Is a family of viruses that include Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) as well as other respiratory illnesses spread between animals and humans known as zoonotic transfer.

- x. Epidemic – Is widespread occurrence of an infectious disease in a country or geographical area.
- xi. Epidemiology – a branch of medicine which deals largely with public health, including the incidence, distribution, analysis, and control of diseases.
- xii. Essential business – Involves critical purposes and activities like opening of shops, pharmacies, waste collection, health care providers, fuel or gas stations, and banks.
- xiii. Flattening the curve – Attempt to create a more gradual uptick of cases, rather than a steep rise in an effort to avoid overburdening the health care system at once.
- xiv. Hydroxychloroquine – An oral drug used to treat rheumatoid arthritis and lupus.
- xv. Immunosuppressed – An individual, who experiences reduced efficacy of the immune system as a result of health conditions not related to COVID-19 disease.
- xvi. Incubation period – Time an individual is first exposed to the virus and the appearance of symptoms normally 1-14 days as in COVID-19.
- xvii. Index Case – First person infected with the disease in an epidemic.
- xviii. Lockdown – Emergency measure to restrict people's movement in attempt to control exposure or transmission of disease i.e, stay at home,
- xix. Novel coronavirus – A new strain of coronavirus (nCov) that has never been detected in humans.
- xx. Pandemic – A worldwide spread of an infectious disease with larger reach than an epidemic.
- xxi. Personal Protective Equipment (PPE) – Specialised clothing and equipment used as a safeguard against health hazards to cover nose, mouth, eyes, hands, and feet.
- xxii. Person Under Investigation (PUI) – Is an individual, who is suspected of potentially having COVID-19.
- xxiii. Respirator – A device designed to protect individuals from inhaling something hazardous in the air.
- xxiv. Self-isolation – The act of separating oneself from others.

xxv. Self-quarantine – Act of refraining from any contact with other individuals for a period of time. In case of COVID-19, two weeks is the mandatory period to observe for symptoms of the disease to manifest after potential exposure.

xxvi. Social Distancing – Act of remaining physically apart in an effort to stem transmission of COVID-19. It includes a move to remote work, cancellation of events and remaining at least six feet away from other individuals.

xxvii. Ventilators – A machine designed to move air in and out of the lungs for a patient, who is physically unable to breathe well.

Criteria for COVID-19 News Selection

Stories are selected by journalists, editors, producers and publishers, for their newsworthiness or elements of news values, an intangible quality that has been determined by audience reaction over the years (Cameron-Doy, 2009). In order to determine the newsworthiness of COVID-19-related stories, journalists rely on established criteria otherwise known as news values endorsed by researchers (see Itule & Anderson, 2008; Harcup & O'Neil, 2001).

News values comprise a number of individual factors and, although most researchers put forward similar key elements of newsworthiness, they differ in their priorities and descriptions. Most often referred to as the classic study in this connection, the Galtung and Ruge study (1965) cited in Harcup and O'Neil (2001) listed among its twelve news factors: frequency threshold, unambiguity, composition, reference to elite people, meaningfulness, and consonance. These factors are similar to elements defined by subsequent researchers (see Harrower, 2013; Curtis, 2006; Itule & Anderson, 2005). But there is justifiable suspicion of the validity of what journalists believe, or say they believe, to be the basis of news, or even of the idea that they write news according to what they believe (Masterton, 1998 cited in Cameron-Doy, 2009). Irrespective of the nomenclature, priority and number of the news values, for the purpose of this study, we shall limit discussion on the followings:

Novelty: This implies newness of the disease. In the case of COVID-19, its emergence marks a drastic departure from the nature of other existing

diseases. For example, the unique symptoms associated with the virus as well as mode of transmission make it distinct to qualify for an emerging infectious disease that should attract media attention.

Conflict: This can be seen from the prism of conspiracy theories (political and economic dominance among world powers and business tycoons) that greeted emergence of COVID-19 disease. Apart from controversies generated regarding its place of origin, how it originated, mode of transmission, possible preventive and curative measures, reasons advanced from its emergence, unconfirmed and contradictory reports especially from social media that abound the media ecology.

Impact/consequence: Decision to report on emergence of the disease is based on the magnitude of those affected. This is measured in terms of economic, social and political situations. The emergence of COVID-19 has left no one in doubt that its adverse effects on the global population are overwhelming. Daily reports show a steady increase of rate of infection and deaths which on the aggregate run to millions, just as social, economic and political activities were grounded.

Proximity: This refers to nearness of the outbreak. Proximity equation goes that journalists are inclined to prioritise issues closest to them. Proximity could be geographical or psychological. As such it tends to overshadow prominence and even impact depending on ownership and location of the media house. Therefore, in spite of the COVID-19 being a global phenomenon, reports from individual media houses of given countries are likely to be streamlined to mainstream their immediate environment. This is why Nigerian media would dwell heavily on issues of COVID-19 as they affect Nigerians within and abroad more than foreign nations.

Timeliness/recency: Media reports on COVID-19 are normally based on up-to-date developments. The presumption is that news is best consumed when it is 'hot'. So, it will be best served as soon as it occurs. This criterion does not disqualify old happenings from being reporting as far as a twist is given to the report to make it significant. Such reports encapsulate momentous rate of infections, deaths, those discharged, government's efforts to flatten the curve of the virus, attempts at drugs and vaccines etc.

Prominence: this criterion deals with personalities involved.

Personality is the function of one's status in society. Thus, reports about world leaders, politicians, and other senior officials infected by COVID-19 were newsworthy. Examples of some of these personalities globally are as presented below:

1. Abba Kyari - Nigeria's Former President Muhammadu Buhari's Chief of Staff, who died of the COVID-19 infection on April 17, 2020.
2. Bala Mohammed – Nigeria's Bauchi State Governor.
3. Boris Johnson – United Kingdom Prime Minister.
4. Prince Charles – Next in line to the British throne.
5. Justin Trudeau – Canadian Prime Minister.
6. David Beasley – Executive Director, United Nations World Food Programme.
7. Peter Dutton – Australian Home Affairs Minister.
8. Susan McDonald – Senator from the Liberal National Party, Queensland, Australia.
9. Andrew Bragg, Senator of Liberal Party of Australia from New South Wales.
10. Prince Johnson – Belgium.
11. Fabio Wajngarten, Press Secretary of Brazilian President, Jair Bolsonan.
12. Augusto Heleno – Brazil's National Security Adviser.
13. Bento Albuquerque – Brazil's Mines and Energy Minister.
14. Ouman Idani – Mister of Mines, Burkina Faso.
15. Sophie Gregoire – Canadian Prime Minister.
16. Faisal bin Bandar bin Abdulaziz Al Saud – Saudi Arabia Senior Royal and Governor of Riyadh.
17. Friedrich Merzi – German politician.
18. Amadou Salif Kebe – Chairperson, Guinean election body, Independent National Electoral Commission.
19. Sanjay Jha – National Spokesperson, India.
20. Jyotiraditya Scindia – Leader and candidate, Bharatiya Janata Party – India.

21. Ali Larijani – Speaker of the Parliament, Iran.
22. Lou McDonald – Leader of the major Irish party, Sinn Fein.
23. Yaakov Litzman – Health Minister, Israel.
24. Nicola Zingaretti – Head of Italian Deocratic Party.
25. Roberto Stella – President, Order of Doctors in Varese in Lombardy Region, Italy.

Reporting emerging infectious diseases like COVID-19 is not a task that can be accomplished by a novice whose output will be shallow and unpalatable. Therefore, journalists on this beat need to possess certain attributes which may not be too different from normal qualities of a professional journalist. Researchers (Ingram & Henshall, 2008) have identified these qualities including education which is a product of training; good command of written and spoken language particularly of the medium and area of coverage; vast knowledge in area of coverage and working tools in journalism, alertness which is pejoratively known as 'nose for news' that enhances easy identification of what is newsworthy. Others are friendliness that exudes attraction to news sources; patience and perseverance which is the quality of waiting and going extra mile to pursue a story as sources may have news to offer but unwilling to divulge and undue haste will knock the journalist out, damage the investigation by causing the journalist to miss the vital information; modesty has to do with personality or outlook of journalist and it commands respectability and believability; comportment exudes confidence and calmness; tact has aura of diplomacy, skills and dexterity; and curiosity or inquisitiveness nudges journalists to probe. Equipped with these attributes, the reporter covering emerging infectious diseases will be placed on elevated pedestal to efficiently and effectively discharge his/her responsibility of reporting.

Suffice it to note that, possession of these attributes without taking recourse to guiding principles of journalism is not a guarantee for excellence. This is why journalists must adhere to journalism principles namely; objectivity, fairness, balance, truthfulness, and speed and accuracy (see Mencher, 2010). Among these principles, Jervis (1988) cited in Cameron-Doy (2009) is convinced that accuracy is the cardinal rule in journalism and prioritises it in his listing thus:

“accuracy, brevity, simplicity, and topicality” (p.33). A close look at his listing reveals additions to the principles.

Dilemma or Challenges and Shortcomings of Reporting Emerging Diseases

Journalists assigned health or science beat which embodies emerging infectious diseases are plagued with several shortcomings and are confronted with of risks or dilemma in the course of discharging their duties.

A major challenge journalist's face in attempt to report emerging COVID-19 disease is that, not all journalists are pre-disposed to science and health reporting. Even those officially placed on science beat prove sub-optimal in performance due to their inability to understand the nature of the disease and terminologies associated with the disease. Consequently, they end up turning-in terse and unpalatable reports. In event of emergence of such diseases, journalists are in the vanguard of offering unparalleled capacity to communicate with the broad span of highly differentiated publics and to swiftly disseminate information and directions critical to reducing harm or treating the disease (Hooker & King, 2012). Yet they can perpetuate half-truths, negative stereotypes and simplistic thinking. They are guilty of omissions on such a broad scale as to render public and policy responses deeply incapacitated (Downing, Mcqail, Schlesinger & Wartella, 2004), when it comes to confronting complex health problems. Due to journalists' deficiency in this regard, Sixsmith, Doylia, D'Eath and Barry (2014) argue that journalists and the media have chosen to give undue focus and attention to issues of politics, business, sports and very little is done about health protection, prevention and treatment as well as health promotion and awareness. Nwagbara and Azonwa (2018) reinforce the lack of interest shown in science reporting generally based on the complexities and technicalities science experts use in explaining what happens in the field.

In addition, the technical language of science also complicates issues to most journalists reporting this beat. Due to lack of good background in science discipline, most journalists are unable to break down scientific information for public consumption. Little wonder so many journalists shy away from reporting science and health issues. Stocking (1999), argues

that journalists' lack of scientific knowledge or training is one of the most commonly cited reasons for reporting patterns that media critics define as problematic. In addition, lack of understanding of the issues being addressed due to the formal training deficit on science journalism brings to mind why stories often written are based on press releases. Given this lack of knowledge, many journalists do not possess the skills to question scientific and technological innovations particularly when the innovators or scientists seek to hide their negative aspects.

Lack of dependable information from scientists and other stakeholders about the trajectory of the disease is another challenge. Journalists necessarily rely on scientists, health professionals and other personnel for information about the emergence, evolution, and medical or clinical methods and processes of stemming the spread of the disease. Insufficient information renders them handicapped. The problem is compounded if they are fed with overly contradictory information about the mode of transmission, drugs and vaccine development while the disease is on rampage. Nwafor (2013) confirmed this position when he avers that in most newsrooms in Nigeria media houses, reporters are reluctant to take up assignments dealing with science and technology and most time are compelled by external factors and forces to cover a field neglected for a long time.

To further buttress this challenge, there are the problems of knowledge gap in the field of science and technology. Ordinarily, reporting science issues should be of great interest to the media because of the importance of such issues to society. Unfortunately, there is a widely held view that this is hardly the case because journalists and the media often do not possess the knowledge and attendant interest to cover science (Waithera, 2019). In addition, science is complex to report to the public. This means if journalists are to report science effectively they have to engage in research that would unravel the implications of scientific discoveries to the common man.

Budgets of media houses do not help matters. Constrained by financial resource, owners of media houses starve journalists financially. The implication is that instead of embarking on research and investigative journalism that is richer, journalists, in most cases rely mainly on information subsidies or hand outs and what is churned out from social

media. Gopfert (2007) amplifies this culture that information subsidy in the guise of press releases under increased pressure from restricting and expectations of writing on diseases erodes journalists' ability and ultimately independence. In addition, the frustration journalists feel towards certain sources of information that may be unwilling or may be unavailable also significantly poses as a challenge.

Given that emerging diseases like COVID-19 is not respecter of anybody irrespective of social standing and professional calling, journalists are at risk. They are prone to vulnerability of infectious diseases. High possibility of their becoming vulnerable to the diseases is occasioned by the lack of personal protective equipment that serve as safeguard in event they are to physically visit isolation centres, interview health personnel potentially exposed to the disease or even patients.

Another dilemma is situated in how journalists can stay independent from their sources. Guiding principles of good journalism are independence, objectivity, fairness, balance, accuracy, and truthfulness. But these principles are never seen reflected in the conduct and reports of journalists as most seemed compromised. However, as Reich (2012) argues, journalists need to balance the closeness necessary for collecting information and the distance necessary for impartial coverage, which can be characterized as a walk on a tightrope.

The Way Forward

In spite of importance attached to the understanding of emerging infectious diseases globally, its reportage takes subordinate position when placed on the ladder of beats reporting. Reasons for this assertion are obvious in view of the discourse thus far. As a way to, not only make a case for reporting emerging infectious diseases generally and COVID-19 disease in particular, it is the belief of authors of this study that the following suggestions may not holistically address all the concerns revolving around disorientation about emerging diseases' reportage, but will go a long way in addressing the issues raised with a view to generating interest in health communication generally.

Against the backdrop that journalists lack the penchant and zeal to involve in emerging infectious diseases reporting due to lack of incentives and

absence of government health policy, it is recommended that media owners should incentivise journalists by offering them packages and institute awards for science and health journalists. On its part, government should institutionalise health policy to cover risks journalists are exposed to. This will wither journalists' interest in focusing on spectacular and sensational beats like fashion, sports and politics at the expense of emerging infectious diseases.

A corollary to the above is the need for media owners to invest heavily in education of journalists and science which is complex to report to the public. This is against the background that journalists lack tools and are not sufficiently trained on the state-of-the-art equipment where available. Some journalists even lack the basic journalism background. If they are to report science effectively they have to engage in research that would unravel the implications of scientific discoveries to the common man. This can only be achieved through procurement of basic equipment and on-the-job training through workshops, seminars and conferences.

Sources should trust and have confidence in journalists. As partners in progress in the science and health sector, much as they may be inclined to negatively influencing journalists or starve them of information, they must realised that both are working for humanity and misdeed on their part could be catastrophic.

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