Article

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Letter to the editors

One health; the need to integrate human and veterinary diseases data bases in Nigeria

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One health; the need to integrate human and veterinary diseases data bases in Nigeria

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To the Editors PAMJ One Health

In 2004, the concept of one health was conceived at the conference for *"Wildlife Conservation"* which held at the Rockefeller University New York tagged *"One World, One Health"*, where the twelve *Manhattan principles,* which established the link between human, animal and the environment was developed [1]. One health approach was designed to implement programs, policies, legislation and research within the tripartite sector (human, animal, environment) aimed at improving intersectoral communication, co-ordination towards achieving improved public health outcome [2]. A health system that allows information shearing enables stakeholders to develop integrated responses towards

understanding the epidemiology of diseases pathogens and develop control strategies for zoonosis [3]. However, two decades after the adoption of the one health strategic policies by member nations there appear to be a disconnection regarding harmonization and integration of public health diseases data bases within the tripartite sub-sector. Furthermore, the proliferation of official and non-official diseases data bases such as program for monitoring of emerging diseases (ProMED), global public health intelligence network, (GPHIN) with unique technological, data requirements and standards created an overlap with ProMED in Canada leading to loss of health information [3]. The author highlighted the disconnects existing between diseases data bases used by public health agencies in Nigeria within the tripartite sector and provided an adaptable template to improve integration/communication between public health agencies, (Figure 1) with a view to provide information necessary for public health action.

Conclusion

Early detection of diseases is germane for effective control, [4], more so disease drivers or risk factor cuts across agro-ecological landmarks, including land use, climate, and population demographies. In the last century the world has experience major pandemic including influenzas, Bubonic plagues, and more recently COVID-19, all has an animal reservoir, although the natural reservoir of the COVID-19 is yet to be identified a putative zoonotic link has been established with infected individual at the wet market in Wuhan China with 96% genetic relatedness to SARS-like Coronavirus (CoV) isolated in bats [5]. Sheared disease data between public health databases may help to identify these drivers of disease emergence, [3] when a trend is identified in disease incidence by one or more components of the one health pillar, this may serve as an early warning system for the identification of emerging or re-emerging pandemics [5]. In Nigeria, the Ministry of Health, Ministry of Agriculture and Ministry of Environment constitute the major stakeholder of the tripartite sector. These agencies operate disease databases which appear to be in parallel with one another, either reporting to the World Health Organization or the World Animal Health Organization. In the country, communication between them remains at a low ebb, except during an outbreak of zoonotic diseases. The non-integration of these public health disease databases in Nigeria may be inimical to the global drive towards prevention and control of zoonoses. We recommend the integration of the zoonotic component of animal disease databases in Nigeria with its human and environmental counterpart in the Ministry of Health.

Competing interests

The author declares no competing interest.

Authors' contributions

The author has read and agreed to the final manuscript.

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Figure

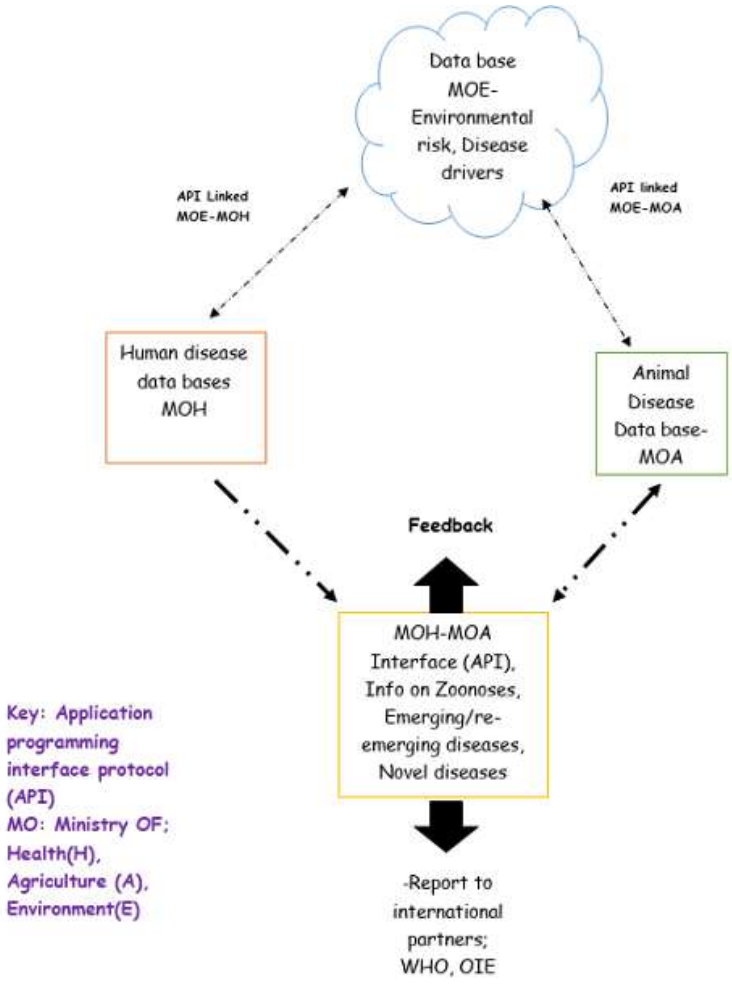
Figure 1: an organogram showing communication between integrated public health diseases databases following the one health protocol

References

1. Gibbs Paul J. The evolution of one health: a decade of progress and challenges for the future. Vet Rec. 2014;174(4): 1-95. **PubMed** | **Google Scholar**
2. Rwanda One Health Steering Committee. One Health Strategic Plan (2014-2018). RBC. 2014.

3. Mariner Jeffrey, Pfeiffer D, Costard S, Knopf L, Zingeser J, Chibeu D *et al*. Surveillance for the present and the future; challenges of animal health information systems and surveillance for animal diseases and zoonoses. CGIAR. 2011;15-19. **Google Scholar**

4. Chieloka Okoli S, Kussiy MH, Garba S. A review of the avian influenza control strategies in Nigeria: a case study of the epidemiological unit of the Federal Ministry of Agriculture Enugu State, 2015-2017. PAMJ - One Heal. 2020;2: 16. **Google Scholar**
5. Chieloka Okoli S, Kikelomo AL, Awele O. Canine corona virus in Nigeria: a missed diagnosis or an under reported panzootics. PAMJ - One Heal. 2021;4(14). **Google Scholar**



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