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Interim analysis of the HIFA thematic discussion and PHE evidence briefing on Knowledge Management for Global Health and Disaster Preparedness

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Contents

Introduction	3
Highlights of the Evidence Briefing	3
Highlights of the HIFA thematic discussion.....	4
Additional resources identified	5
Key messages from the discussion.....	9
Actual LIS experiences.....	10

“To be an information professional or a librarian is to be someone who believes they can change the world for the better through knowledge”

Professor R.D.Lankes, CILIP Conference keynote, 2015

Introduction

The Healthcare Information For All (HIFA) Project on Library and Information Services (LIS) aims to leverage the individual and collective HIFA membership to support communication, understanding and advocacy for library and information services as they relate to global public health and evidence-informed decision making by health professionals, citizens, and policymakers. The project's focus is global health, especially (but not exclusively) population health, preparedness for disasters (natural or man-made), emergencies, and disease outbreaks. To achieve this, a literature review and a thematic discussion were carried out, and the purpose of this document is to summarise the findings from these two outputs.

Highlights of the Evidence Briefing

In March 2017, Public Health England produced an Evidence Briefing (EB) looking at the role of libraries in providing support to disaster management teams and the general public during times of crisis. The purpose of the briefing was to identify existing work and gaps in the knowledge for this area of work, with a view to finding opportunities to provide further support. For the purpose of this evidence briefing, natural disasters include tsunamis, storms, floods, earthquakes, etc. and man-made disasters include off-shore oil drilling, wars, civil unrest, terrorism, etc. Outbreaks refer to disease outbreaks, pandemics, infections, etc.

A total of seven databases were searched: CINAHL, Embase, Global Health, LISTA, Medline, and PubMed, and Google. Out of 130 references, 68 met the inclusion criteria and were included in the EB.

The results fell in to 6 categories:

1. Access to information
2. Knowledge management
3. Existing programmes/resources
4. Roles:
 - health librarians
 - knowledge brokers
 - libraries
 - public libraries
5. Potential and implied roles
6. Social media

The key messages were:

- Access to timely, accurate, and quality health information for disaster teams is essential, but there is a digital divide, which could be overcome with free or low-cost Internet-based initiatives, such as open access journals, and online training for library staff.
- There is a digital divide, and in times of crises, and at other times, in low and middle income countries (LMIC), power can fail and access to vital information is

interrupted, presenting significant challenges to emergency services, who are then unable to make informed decisions.

- Knowledge management tools are available to support global health.
- Effective data sharing is vital in environments facing crisis, such as disease outbreaks.
- Knowledge brokering can play a key role in supporting data sharing and facilitating access to information, and librarians have the skills to be effective knowledge brokers.
- Awareness of local context, such as cultural sensitivities, fears, insecurities, and inequity in literacy levels is needed.
- Several programmes and resources are already available to people who are operating in crisis situations. The literature discussed the following examples:
 - Book Aid International - www.bookaid.org/
 - Healthcare Information for All - <http://www.hifa.org/>
 - INASP - www.inasp.info/en/
 - Information Training and Outreach Centre for Africa - www.itoca.org/
 - Phi (Partnerships in Health Information)
 - Health Books International - www.talcuk.org/
 - Tropical Health and Education Trust - www.thet.org/
 - Research4Life - www.research4life.org/
 - Evidence Aid - www.EvidenceAid.org
 - National Library of Medicine (NLM) Disaster Information Management Research Center - disaster.nlm.nih.gov/
 - Central American Network for Disaster and Health Information - www.cridlac.org/ing/proyecto_ing.html
- Librarians have a variety of roles to play in supporting disaster management teams, including knowledge brokering, and Disaster Information Specialist, who are emerging as part of the health library workforce. With adequate training in disaster planning, information professionals can become valuable members of a disaster management team.
- Libraries and librarians can provide shelter, charging centre, Internet connection point, warming centre, a meeting place, a communication channel, and pastoral care, in addition to information.
- Social media can be used effectively in global health protection: information dissemination, disease surveillance, and communicating with the general public.

To conclude, the evidence shows that libraries and librarians have a very important role to play in terms of providing support during, and after disasters, but information professionals should receive training in disaster planning and management.

The full briefing is available here

http://www.hifa.org/sites/default/files/publications_pdf/Evidence_briefing_global_health_library_services_EAHIL_June_2017_FINAL_VERSION.pdf.

Highlights of the HIFA thematic discussion

As an accompaniment to the Evidence Briefing, HIFA supported a major thematic discussion on the role of libraries and information services in disaster preparedness, and times of crisis. The discussion started on 17 July and continued until 18 August 2017. Having looked at the published evidence, the purpose of the discussion was to find out more about librarian activity in areas of crisis and disaster.

More information about the thematic discussion is available here:

<http://www.hifa.org/news/join-hifa-major-thematic-discussion-library-and-information-services-emergencies-disasters-and>

The following questions were posted to the forum on an intermittent basis during the discussion time-frame:

1. What do we know about the availability and use of reliable information for global health emergencies, disasters and disease outbreaks? What works and what doesn't?
2. Do you (or your organisation) have any real-life experience in dealing with an emergency/disaster/outbreak? Were you able to access/provide the information needed? What were the challenges and lessons learned?

HIFA and PHE were especially keen to hear from library and information professionals who have been involved in an emergency, disaster, or disease outbreaks, and from health professionals and policymakers who have been involved in an emergency response, to find out what the challenges were, and how were they dealt with.

There were 78 messages from 19 contributors in 9 countries (Ethiopia, Germany, New Zealand, Nigeria, Norway, Tanzania, UK, USA, Zambia).

More information about the scope and remit of the HIFA Library and Information Services (LIS) Project is available here: <http://www.hifa.org/projects/library-and-information-services>

Additional resources identified

Contributors to the HIFA discussion highlighted the following additional resources that support information provision and knowledge management in times of disaster.

National Library of Medicine (NLM) Disaster Information Management Research Center

The NLM Disaster Information Management Research Center has produced the following new resources:

- ***Guide to Disaster Medicine and Public Health Literature***
<https://disasterinfo.nlm.nih.gov/dimrc/medscilit.html>
- ***PubMed disaster medicine-related content***
https://disasterinfo.nlm.nih.gov/dimrc/mesh_disaster.html
- ***Disaster Lit[®]: The Resource Guide for Disaster Medicine and Public Health***
This database is a source of grey literature, containing free online resources on disaster medicine and public health including expert guidelines, factsheets, websites, technical reports, webinars, and other tools.
<https://disasterlit.nlm.nih.gov/>
- ***Training programme on information roles in disaster management***
The National Library of Medicine Disaster Information Management Research Center is very interested in the roles librarians play in disaster preparedness and response. They have developed a training program that includes a course on

Information Roles in Disaster Management

<https://disasterinfo.nlm.nih.gov/dimrc/trainingresources.html>

- ***Bibliography of articles librarians and emergency and disaster events***

This is a webpage/bibliography of articles written by or about librarians and their role in their communities, during times of emergency and disaster. The PHE Knowledge and Library Services (KLS) Evidence Briefing is in the Disaster Lit database <https://disasterlit.nlm.nih.gov/record/15625>

<https://disasterinfo.nlm.nih.gov/dimrc/bibliographydisaster.html>

- ***DISASTR-OUTREACH-LIB Discussion Listserv***

This is a discussion list where topics related to library services and disaster preparedness can be discussed, and experiences shared.

<https://disasterinfo.nlm.nih.gov/dimrc/dimrclistserv.html>

<https://disasterlit.nlm.nih.gov/record/15566>

Medbox

The Aid Library, MEDBOX, went online in October 2013, and it collates professional medical and humanitarian guidelines, textbook, practical documents on humanitarian and health action available online, and brings these into the hands of aid workers: when the need it, where they need it. MEDBOX provides fast and free access to relevant guidelines, posters, assessments, country-specific information and much more. Specialized toolboxes have been established to be able to respond to on-going disasters, emergencies and disease outbreaks. So far, 10 Toolboxes have been made available, including Ebola, Cholera, Natural Hazard, Syria, South Sudan, Rapid Response. In particular, during the Ebola outbreak, the EBOLA TOOLBOX was established quickly, providing online the most important treatment and infection control guidelines in French. Furthermore, country-specific statistics, posters and education materials were also made available. The CHOLERA TOOLBOX has responded to the cholera outbreak in Haiti offering Information, Education, and Communication (IEC) material in Creole and, to the current one in Yemen, providing guidelines in Arabic.

<http://www.medbox.org>

<http://www.ebolabox.org>

<http://www.cholerabox.org>

Evidence Aid

Evidence Aid was established following the tsunami in the Indian Ocean in December 2004. It uses knowledge from systematic reviews to provide reliable, up-to-date evidence on interventions that might be considered in the context of natural disasters and other major healthcare emergencies. Evidence Aid seeks to highlight which interventions work, which don't work, which need more research, and which, no matter how well meaning, might be harmful; and to provide this information to agencies and people planning for, or responding to, disasters.

<http://www.evidenceaid.org>

Alliance for Useful Evidence

This organisation has looked at what works in providing evidence to policy makers.

<http://www.alliance4usefulevidence.org/publication/using-evidence-what-works-april-2016/>

OpenWHO

The World Health Organization (WHO) has launched a new e-learning platform, OpenWHO, with video courses on epidemics, pandemics and health emergencies. The courses are free and accessible to anyone wishing to register. OpenWHO transforms complex scientific knowledge into easy-to-understand introductory video lessons, using a smaller bandwidth so that people in any country can access them. Offline versions are

available for IOS and Android devices.

<https://openwho.org/>

Integrated Social and Behavior Change Communication (SBCC) Programs Implementation Kit (I-Kit)

The Health Communication Capacity Collaborative (HC3) has launched this resource, which brings together current best practices to guide program planners and/or implementers in asking the right questions before starting an integrated SBCC program and throughout the course of design, implementation and evaluation.

<https://sbccimplementationkits.org/integrated-sbcc-programs/>

Healthcare Emergency Preparedness Information Gateway

This planning resource can help emergency healthcare planners and providers prepare for and address response concerns related to the 2017 solar eclipse (and unplanned and planned mass gatherings in rural and urban areas).

<https://asprtracie.hhs.gov/>

Resources in sections I through V are specific to the eclipse event; the rest of the sections include resources related to planned mass gatherings.

<https://asprtracie.hhs.gov/documents/aspr-tracie-solar-eclipse-resources.pdf>

Preparedness and Emergency Response Learning Centers (PERLC)

The Centers for Disease Control and Prevention (CDC) provides funding for 14 PERLC across the U.S. PERLC provide training to state, local, and tribal public health authorities within self-defined service areas and meet partners' unique workforce development needs in the area of public health preparedness and response; specialized training, education, and consultation.

<https://www.cdc.gov/phpr/perlc.htm>

Northwest Centre for Public Health Practice online catalog

This resource contains more than 400 emergency preparedness trainings and other learning materials, from the Preparedness and Emergency Response Learning Centers. Public health professionals and their partners can use these resources to enhance the preparedness and response skills of individuals and teams. The materials are intended mainly for local, state, and tribal public health agencies in the US, but are looking for recommendations for similar materials in other countries.

<http://perlc.nwcphp.org/>

Book chapter: A2I for better health: How access to information can help ensure healthy lives and promote well-being

Chapter 4, by Simon Chaplin, of the Wellcome Trust, appears in Development and Access to Information 2017, written by Fackson Banda, Dave Banisar, Fiona Bradley et al, and published by the International Federation of Library Associations and Institutions (IFLA) and the Technology and Social Change Group (TASCHA), at the University of Washington, in July 2017.

<https://da2i.ifla.org/sites/da2i.ifla.org/files/uploads/docs/da2i-2017-full-report.pdf>

Book: Building communication capacity to counter infectious disease threats: Proceedings of a workshop

To learn about current national and international efforts to develop the capacity to communicate effectively during times of infectious disease outbreaks, and to explore gaps in the research agenda that may help address communication needs to advance the field, the Forum on Microbial Threats of the National Academies of Sciences, Engineering, and Medicine convened a 1.5 day workshop on December 13 and 14, 2016, in Washington, DC. Participants reviewed progress and needs in strengthening communication capacity for dealing with infectious disease threats for both outbreaks and routine challenges in the United States and abroad. This publication summarizes the presentations and discussions

from the workshop.

<https://www.ncbi.nlm.nih.gov/books/NBK436241/>

Review: The effectiveness of disaster risk communication: A systematic review of intervention studies

A review of communication interventions relevant to disasters, including infection outbreaks. Interventions associated with increased knowledge of preventive measures include individual and group face-to-face information sessions, telephone calls, delivery of written information, mass media campaigns, mass SMS text messages and games for children. There was mixed evidence of change in planned risk behaviours relating to infection.

<http://www.evidenceaid.org/disaster-risk-communication/>

Report: Development and Access to Information

The International Federation of Library Associations and Institutions has recently published this report which contains a chapter on how access to information drives better health.

Full report: <https://da2i.ifla.org/>

Chapter: <https://da2i.ifla.org/node/43>

Report: Use of Interactive Voice Response (IVR) for Professional Development in Kenya

Knowledge for Health has produced this white paper, which is a guiding example for other program implementers and organizations interested in using IVR to train health professionals.

<https://www.k4health.org/sites/default/files/ivr-report-final.pdf>

Report: WhatsApp as a platform for continued professional development

Knowledge for Health has produced this report, to highlight the importance of technology, particularly the WhatsApp Group Chat messaging feature, in sharing access to quality health information.

<https://www.k4health.org/sites/default/files/whatsapp-report-final.pdf>

Report: Asian Development Bank

This 131-page report discusses the most recent projections pertaining to climate change and climate change impacts in Asia and the Pacific, and the consequences of these changes to human systems, particularly for developing countries. It also highlights gaps in the existing knowledge and identifies avenues for continued research. Section 3.2 discusses Climate Change and Human Health.

<https://www.adb.org/publications/region-at-risk-climate-change>

Video: Beating the media crush during a crisis

This one-hour, 32-minute webinar is co-sponsored by the Society for Healthcare Epidemiology of America. It is the third in the Effective Communication Webinar Series, and is designed to train hospital epidemiologists in the interpersonal skills important in an outbreak situation. It discusses how communication is key to an organized response to prevent, protect, and control the spread of disease during an infectious disease crisis. It discusses best practices for fostering rapid and collaborative internal and external communication.

<https://disasterlit.nlm.nih.gov/record/15565>

Video: From reaction to prevention: A call to action

This one-hour, 12-minute presentation provides an overview of disaster response and preparedness approaches, and an analysis of how disaster risk reduction strategies can be used to build resilience and produce better outcomes. It defines resilience, risk, and hazards, and discusses examples of disaster risk reduction.

<https://disasterlit.nlm.nih.gov/record/15556>

Building Bridges Forum

The forum was developed in Uganda, by a local team working with the US National Library of Medicine, in partnership with African Health Sciences, and assisted by the Association of Health Care Journalists, Partnerships in Health Information (Phi) and the Alfred Friendly Press Partners, in the context of the African Journal Partnership Program (AJPP).

No link found.

Emergency Hub in Nairobi

The WHO Africa Regional Office made an announcement about a new Emergency Hub in Nairobi.

<http://www.afro.who.int/news/who-establishes-emergency-hub-nairobi>

Key messages from the discussion

Many important messages were shared via the thematic discussion, and we have attempted to highlight some of the key messages. Please note that some of the text below has been taken directly from the discussion, which is available here:

<http://www.hifa.org/news/join-hifa-major-thematic-discussion-library-and-information-services-emergencies-disasters-and>

1. For low and middle income countries, the digital divide is not just during times of crisis. Lack of investment in libraries and essential utilities like reliable power supply meant that poor access information is normal for them, and not just during times of crisis.
2. Terminology should be considered when approaching health communications in all countries.
3. The Building Bridges forum proposes a network to facilitate sharing knowledge for health between researchers, policymakers and knowledge intermediaries like journalists, broadcasters, librarians and journal editors.
4. The implementers in all countries need to cascade the readiness plan and processes to rural, lay, media and professional stakeholders, well before the epidemics strike. Awareness and ownership of readiness plans if they are effectively disseminated as health information, to our understanding was the cornerstone of the success that Nigeria recorded when Ebola struck the country.
5. We are not well prepared. There is clearly a huge gap between what is needed and what is available, with each player (whether WHO, Evidence Aid, or whoever) not having the capacity to deliver to their potential. There is a sense of great urgency in building political and financial investment to improve preparedness.
6. The topic under discussion has been tabled before routine library and information professionals/practitioners who had never participated in any vivid emergency because most often during such situations hardly library and health information staffs are actively engaged.
7. We should increase our people-to people mutual exchange and understanding, even if we have completely different political systems. People to people mutual exchange of ideas can work miracles in fostering peaceful co-existence. That is where public libraries come in, in fostering peace among communities. Efficient public libraries stock books published about different cultures and peoples. By making those materials available for public consumption, the library is indirectly encouraging people to appreciate each others culture and live in peacefully.
8. Nigeria and Senegal were very successful in tackling the threat of an Ebola outbreak, because they were alert and sensitized. Several countries have now established rapid/emergency response teams.

9. The best way to prepare for pandemics is to prevent outbreaks from becoming pandemics. This includes strengthening various aspects of health systems including a comprehensive workforce agenda for public health, strengthening and or establishing National Public Health Institutions in all member states with the ability to conduct disease surveillance; coordinate laboratory networks; manage emergency operation centers, and establish innovative information systems.
10. As in all of the major new epidemic outbreaks - from HIV/AIDS to Avian Flu, Ebola and Zika - at the onset, the health system typically has only one weapon to hand: knowledge. In the case of Ebola, it was the knowledge that certain cultural practices, and specific hospital and mortuary behaviours, put people at risk of contamination. The only viable initial approach in confronting this emergency was to disseminate information through all media to those at risk, and to send people to share their knowledge face-to-face - while the race to develop vaccines and other treatments began.

Actual LIS experiences

The US Disaster Information Management Research Center illustrates how library and information services (LIS) mobilise at national and local levels to respond to the declaration of a national emergency. In July 2017, the US government reported an opioid crisis, where 142 Americans are dying of drug overdoses every day. The National Library of Medicine (NLM) has been gathering material on this public health crisis. The information is relevant for anyone who is addressing addiction, from healthcare providers to patients and their family members:

- NLM Opiate Addiction and Treatment Information Guide
<https://sis.nlm.nih.gov/enviro/addiction.html>
- Search of Disaster Lit database
<https://go.usa.gov/xRVHr>
- PubMed searches
<https://sis.nlm.nih.gov/enviro/addiction.html#a7>
- Opioid Abuse and Addiction from MedlinePlus
<https://medlineplus.gov/opioidabuseandaddiction.html>
- Understanding The Opioid Overdose Epidemic• in NIH MedlinePlus, Fall 2016 edition
<https://medlineplus.gov/magazine/issues/fall16/articles/fall16pg12-14.html>
- Bulletin (5/10/2017): Resources on Opioid Abuse from NLM for Diverse Populations
<https://content.govdelivery.com/accounts/USNLMOS/bulletins/194bcf7>

The news has been filled with stories of local public libraries responding to the epidemic, and their partnerships with public health and law enforcement agencies. For example, see Saving lives in the stacks: how libraries are handling the opioid crisis.

(<https://americanlibrariesmagazine.org/2017/06/21/saving-lives-in-the-stacks/>). Find more information on local response efforts by contacting your Regional Medical Library (<https://nmlm.gov/>).

In Oxford in the 1990s we ran a programme called the 'Librarian of the 21st Century' - it was sponsored by Muir Gray, who had initiated a lot of the evidence-based health care projects in England, a lot of which were in collaboration with McMaster University in Canada, and which also set up the Centre for Evidence Based Medicine, and Critical Appraisal Skills Programme. The 21stC programme set out to give librarians and information specialists post-qualification training in change management, teaching and

learning, critical appraisal, research methods, negotiation and selling skills amongst other topics. We have worked with AHILA [Association for Health Information and Libraries in Africa] and African librarians to spread this approach over the years, and it has been very successful - but systems and organisations change, and I think we need a new model to make sure that this support, learning, mentoring and leadership is cascaded. The support of Public Health leaders such as Muir, Iain Chalmers and others gave us an opportunity to expand our role, and your current learning programmes will provide another opportunity to do that.

Anne Brice is the Head of Knowledge Management for Public Health England,

Working during the Ebola outbreak in Sierra Leone was an eye opener. When the outbreak started and for a few months after there was little information on what Ebola was, how to combat it and how to prevent it. As a young doctor who was dedicated to working, I got asked questions over and over again. I learnt about Ebola as a one page note during medical school. No special information was provided to doctors so I took to google like everyone else. I continued working right through the outbreak and we faced challenges that we just muddled through. Even after the outbreak when we started seeing survivors with complications, no information was sent to us clinicians on how to manage them. As I said before, we muddled through. Information on the outbreak was slow in coming so if there could be a library for teams to access in times of disasters or outbreaks that will be amazing. Electronic transfer on what to do via email to staff even if it's on a weekly basis will be lifesaving.

CHIFA profile: Bintu Mansaray is a Medical Doctor at the Sierra Leone Medical and Dental Association. Professional interests: I am currently a junior doctor doing her rotations in Pediatrics

Have been an Information Management Consultant with WHO in Sierra Leone for 2 years during the Ebola Outbreak and response... There were clear deficiencies in health information which not only caused fear and frustration but also affected the response in many ways. I had to burn the midnight oil trying to put together any information coming in to feed the information hungry and thirsty global audience. Little appreciation of health information systems added challenges as people continued to believe in more superstitions and myths concerning the disease as every response from the truth about Ebola, information on vaccines, the cause etc remained a mystery as there was little or no documented information on the disease hence the wide transmission. If only information on the disease from previous outbreaks in Sudan, DRC and Uganda was well documented and the health information systems improved to ensure that proper dissemination was in place, a lot of deaths, cases and effects of one of the biggest outbreaks in the public health history could have been avoided. For us who were trying to get the much needed information to feed the world, it was really frustrating.

Beatrice Muraguri is a Health Information/Public Health Specialist with the Ministry of Health, Kenya.

We are facing one of the toughest challenges of our times in an outbreak response i.e. information and knowledge management during the Ebola outbreak. A lot have been said about this disease which only a few knew about until recently when it threatened the world from the poor to the mighty economies. It's an eye opener to those of us who are advocating for information access and dissemination to all. There has never been such an information vacuum hence the wide spread of the menace.

Beatrice Muraguri is a Health Information/Public Health Specialist with the Ministry of Health, Kenya.

During my early career years at the British Council Library Enugu Nigeria, we were thought [taught] how to deal with emergencies in the library especially fire outbreaks. During those years, library staff and users were trained on what to do in-case of fire out break. The training involves sounding the alarm bells and encouraging staff and users to walk out calmly to safety.

Unfortunately in my present place of work, there was no such drills to prepare staff and users for emergencies. Unfortunately around 2006 in the library, a staff on duty collapsed in-between the shelves. Everybody around including fellow staff and users ran away screaming. Others seeing them joined in the running and screaming without knowing what was happening. It was when almost every body have ran out off the library that people were able to ask questions about what happened. On getting the information on what happened, nobody was eager to volunteer his/her car to drive the collapsed person to the hospital. It was only my humble self, then about seven months pregnant that volunteered. An elderly man, standing some distance away watching the collapsed man being lifted into my car volunteered to drive the collapsed man to the hospital in the company of some library staff.

Ngozi Eunice Osadebe is a librarian at the University of Nigeria, Nsukka.

This article in Library Journal describes how last week the library in Charlottesville, USA led the way as a place of dignity, remembrance and reconciliation

<http://lj.libraryjournal.com/2017/08/public-services/charlottesville-libraries-weather-violent-protests-offer-unity/>

Bob Gann is a digital health consultant, specialising in digital health strategy, partnerships & stakeholder engagement, and digital inclusion.

I received the message below earlier this week, and I wanted to share it with the discussion, because it emphasises the important role of libraries in terms of crisis, and the selflessness and bravery of librarians. I have seen lots of news about the sad events in Charlottesville, but this message really brought it home to me. I just feel so privileged to be part of a profession, which immediately adapts its role to support the community in need.

My thoughts are with all my colleagues who are working in dangerous and difficult environments, and I hope that somehow, via this forum, we can work together to strengthen our position, and support and protect each other.

Caroline De Brún is a Knowledge and Evidence Specialist for Public Health England. Professional interests: health information literacy, information skills, knowledge management, outreach librarianship, patient information. She is a member of the HIFA working group on Library and Information Services.