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EVALUATION OF SOCIAL MEDIA SURVEILLANCE FOR IMPROVED DISEASE RECOGNITION AND MONITORING IN SRI LANKA

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ABSTRACT — The aim of this research is to develop an understanding of the effectiveness and potential of new communication media such as social media and mobile technology as tools for sending and receiving health messages along with providing insights into the use of new technology in the dissemination of health messages. **Methods-** a questionnaire was developed as a google form to gather information from Sri Lankans under five age groups. Special attention was paid to public opinion regarding the relationship between social media and healthcare. The research team collected information from general public regarding the actual usage of social media for healthcare. **Results-** responses for the questionnaire were studied and presented in the form of tables. According to results, the majority of people came across health education-related messages on social media platforms. In conclusion, there is a low tendency of using popular media for healthcare purposes in several areas of Sri Lanka which can be developed in the future productively and effectively with the help of the government. Some of the latest methodologies of media usage are to be introduced in healthcare sectors for the better performance of service.

KEYWORDS — Sri Lanka, Social Media, Communication, Healthcare, Patients, Healthcare professionals, Telemedicine, Dengue, HIV/AIDS.

INTRODUCTION

Traditional media and the internet are crucial sources of health information. Media can significantly shape public opinion, knowledge, and understanding of emerging and endemic health threats. Recently, however, public health surveillance has expanded to include social media information. Many people use social media, to communicate with others about the same health concerns and share information related to their illnesses, medication use, and many other aspects. As digital communication rapidly progresses

in Sri Lanka, local access and dissemination of health information contribute significantly to global disease detection and reporting. The general public sees social media as efficient and accessible, but health care has been slow to embrace this advance in communication [3]. Therefore, a pressing issue for public health institutions is to determine how to strategically get health information across to its target audience. One such important strategic decision is the choice of communication media used to send out health information [2]. In terms of benefits, social media has provided healthcare professionals with a way to overcome barriers in delivering healthcare to patients, has enhanced self-management skills among patients who can familiarize themselves with specific illnesses and also provides numerous opportunities for providers to research in their relevant fields. Some clinicians have suggested that social media is among the best ways to design, collect, and analyze data into scientific papers for academic journals [4].

METHODS

According to recent statistics, internet usage in Sri Lanka has experienced rapid growth. It signifies 6.9 million of the community, among them 6 million are active social media users (Digital Sri Lanka 2019). Health messaging is an area that has been relatively ignored in the literature and almost no research focuses on the effectiveness of social media and other new technologies as tools for sending health messages [2]. Regarding this matter, decisions were made to carry on research on the usage of social media for healthcare communication. Several media platforms have been analyzed including social media forums and government web sites to surveillance access to health information and disease detection. The health assessment questionnaire form was created and distributed randomly among Sri Lankan citizens respectively. This questionnaire consists of four main parts: Biographic data (2 questions), Health promotion and mass communication media (5 questions), Social media (4 questions) and Health promotion (4 questions). Collected data has been thoroughly processed and presented. Sri Lanka community has been divided into four groups based on their needs to use social media regarding healthcare. They are the general public, patients,

healthcare professionals, and healthcare organizations significantly. The questionnaire was focused on gathering information about the usage of social media platforms to access health information and to evaluate the reachability of the general public to healthcare information.

RESULTS

Only Sri Lankan citizens were invited to the survey. It was found that more than half of the respondents (52.3%) are people from 15 to 25 years old and almost 82% — from 15 to 35 years old. The vast majority of respondents own a mobile phone (97.7%), a computer (56.3%) and a tablet (25.3%). Most of the respondents (88.6%), are subscribed to social networks (Facebook, Whatsapp, etc.). Among the respondents, Whatsapp uses 79.3%, Facebook — 73.6%, Instagram — 65.5%, Twitter — 10.3%. From this, it is clear that the questionnaire is available only to those Sri Lankans who use their electronic devices. 77.3% of respondents admitted that they had previously seen messages related to health education and medical information on their social networks, and 35.6% heard about telemedicine. Among the respondents, the majority (86.4%) had previously heard about health education. The leading information resources providing the population with information related to disease prevention, include television (78.2%), the Internet (59.8%) and social networks Facebook (59.8%). Unfortunately, in only a quarter of cases (25.3%) medical workers act as providers of health education (Fig. 1).

Least of all, Twitter (5.7%) provided health information. According to respondents, the most effective resources among them there are Facebook (37.5%), television (29.5%) and Internet recourses (22.7%). Youtube holds an intermediate position (4.5%). The ef-

fectiveness of leaflets, newspapers, and health workers as a source of sanitary information is rated low (1.1%, 2.3%, 2.3%, respectively).

As you can see, the main issue of health education that came upon in the population of Sri Lanka is Dengue - a disease that has taken in epidemic form and was noted by 88.6% of respondents. The top three health issues highlighted by health education also included HIV/AIDS (69.3%) and drug abuse (56.8%) (Fig. 2).

DISCUSSION

In conclusion, traditional disease surveillance systems are reliant on health data from a hospital or public health department records to detect and monitor disease across populations. Recently public health surveillance has expanded to include digital information. Digital disease surveillance involves the collection of health-related information from web-based or mobile telephone sources to better understand the distribution, incidence, or risk factors associated with a disease. The major benefits of using digital disease detection methods include the rapid acquisition and dissemination of real-time or near real-time information and the ability to significantly expand the quantity of information not easily gained through more traditional methods of disease surveillance through official records. With the increase in the availability of information, changes in the way people communicate and a general increase in concerns about one's health, new technologies are influencing and will continue to influence the healthcare sector. For this reason, further investigation needs to be conducted to assess the real impact of social media on the healthcare decisions taken by both healthcare professionals and patients in Sri Lanka.

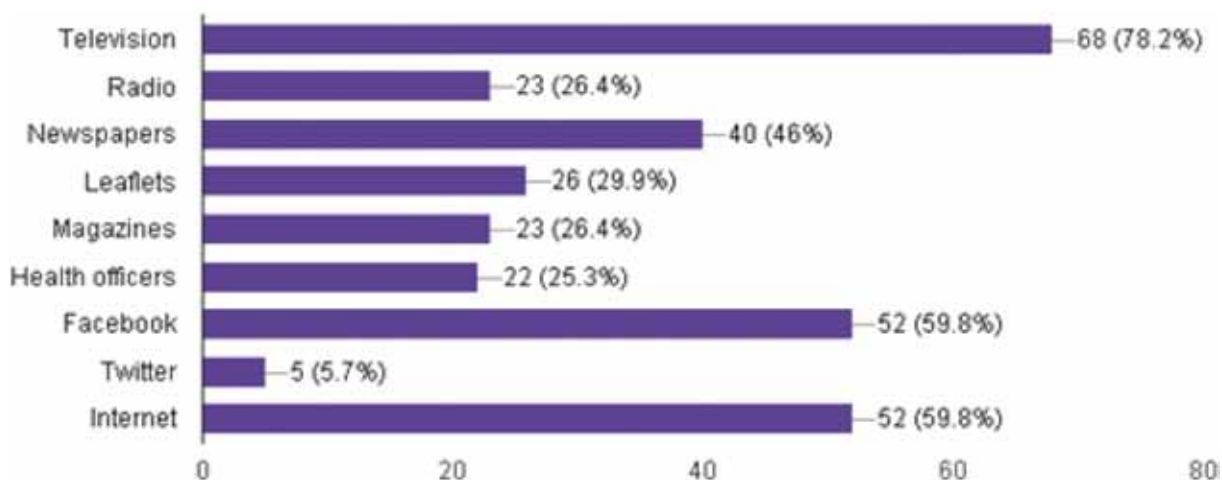


Fig. 1. Media rating as a source of public health education in Sri Lanka

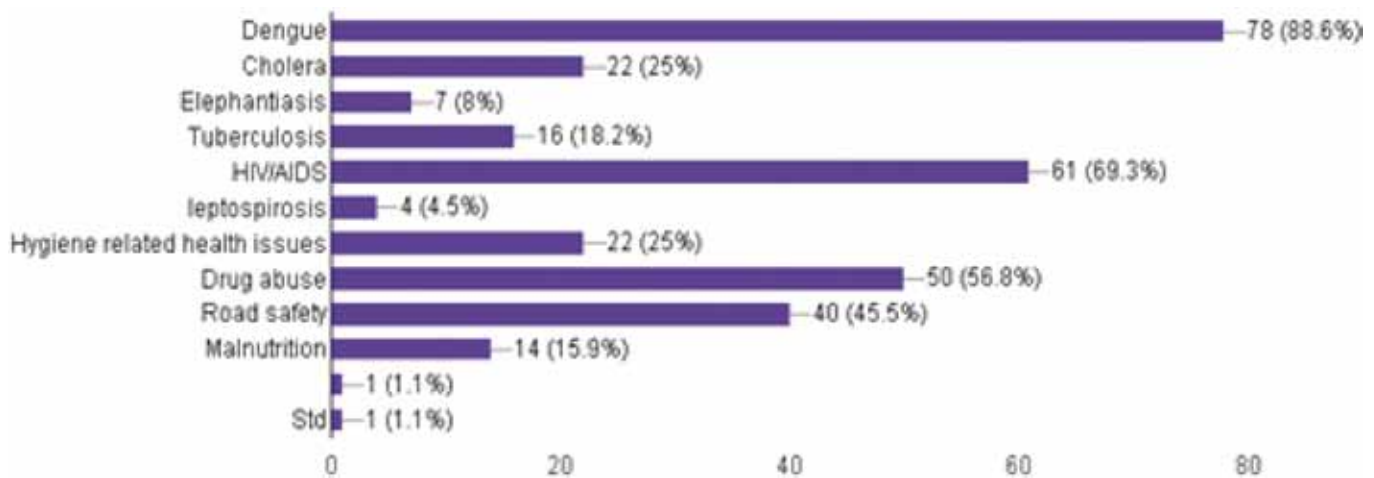


Fig. 2. Leading health education advertisement issues for Sri Lanka

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