

# Communicating about the Middle East respiratory syndrome outbreak to the international community and in-country foreigners, Republic of Korea, 2015

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Under the *International Health Regulations (2005)*, risk communication is one of the eight core capacities that are critical to effectively detect and respond to public health threats.<sup>1</sup> During outbreaks, international visitors and foreign residents may be poorly informed about the risk of infection and response measures due to language barriers. Specific strategies targeting these groups are needed for effective outbreak communications.

The Republic of Korea has a large number of international visitors annually and has a large population of foreign residents. In 2014, there were 14.3 million international visitors to the Republic of Korea. There were also 1.8 million foreign residents in the country in 2014, representing 3.6% of the total population. Among international visitors, China had the largest proportion (52.7%) followed by Japan (16.1%) and English-speaking countries (9.2%), including the United States of America, Canada, the United Kingdom, Australia and New Zealand. Among foreign residents, Chinese were also the largest group (52.3%, though 66% of them were Korean-Chinese) followed by people from the United States of America (7.6%) and Viet Nam (7.2%).<sup>2</sup>

During the Middle East respiratory syndrome (MERS) outbreak in 2015,<sup>3</sup> the Ministry of Health and Welfare (MOHW) of the Republic of Korea provided outbreak information targeting international visitors and foreign residents through multiple channels. The MOHW created a MERS portal website in Korean and English on 10 June 2015;<sup>4</sup> in addition, the existing MOHW website

provided English-language press releases beginning 28 May.<sup>5</sup> A toll-free telephone hotline also started service in English on 12 June;<sup>6</sup> it expanded to include 18 other foreign languages on 15 June.<sup>7</sup> This report describes the usage of these multi-language communication channels during this MERS outbreak.

## METHODS

Postings on the MOHW and the MERS portal website from 28 May to 5 July 2015 were screened using the keyword(s) “Middle East respiratory syndrome” or “MERS”. Postings that contained these keywords were extracted and grouped into three categories: press release, statistics and other information for analysis. Website usage was evaluated by counting the total number of visits to the site and average visits per posting in the period of data collection. Hotline usage was evaluated by the number of calls received. Telephone hotline data from 12 June to 5 July 2015 were collected and stratified by day and by language for analysis. Data manipulation and analysis were conducted using Excel (Microsoft Excel, Redmond, USA).

## RESULTS

There were 66 MERS-related postings on the MERS portal website and 61 related postings on the English-language MOHW website. For the MERS portal website, there were 25 press releases, 14 statistics postings and 27 postings of other MERS information. Similarly there were 24 press releases, 13 statistics postings and 24 postings for other information on the MOHW

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**Table 1. Number of MERS-related postings provided on the MERS portal and English-language MOHW websites, Republic of Korea, 28 May to 5 July 2015**

Category	MERS portal website			English-language MOHW website		
	Number of postings	Number of site visits	Average site visits per posting	Number of postings	Number of site visits	Average site visits per posting
Press releases	25	18 272	731	24	11 409	475
MERS statistics	14	5534	395	13	5234	403
Other information	27	17 175	636	24	9146	381
<b>Total</b>	<b>66</b>	<b>40 981</b>	<b>621</b>	<b>61</b>	<b>25 789</b>	<b>423</b>

MERS, Middle East respiratory syndrome; and MOHW, Ministry of Health and Welfare.

website. The total number of site visits during the study period was 40 981 on the MERS portal website and 25 789 on the English-language MOHW website. On both websites, press releases had the highest number of visits with an average of 731 visits on the MERS portal website and 475 visits on the English-language MOHW website (Table 1).

The most popular postings were those related to the Republic of Korea–World Health Organization (WHO) joint mission conducted on 9–13 June 2015. The press release of the joint mission had 5447 visits on the MERS portal website and 1007 visits on the English-language MOHW website. The posting about high-level messages from the joint mission had 3409 visits on the MERS portal website and 388 visits on the English-language MOHW website.

In total, there were 787 MERS hotline calls using the foreign languages service from 12 June to 5 July 2015, representing 0.91% of the total calls ( $n = 86\,826$ ) in that period. The English-language hotline service received the most calls ( $n = 677$ ) followed by the Japanese ( $n = 57$ ) and Chinese ( $n = 50$ ). The number of calls received was high at the beginning on 12 June 2015 and peaked on 16 June 2015 ( $n = 150$ ), but it decreased to less than 20 calls per day from 20 June 2015 onwards.

## DISCUSSION

The Republic of Korea government realized that outbreak information sharing in multi-languages is essential to communicate with the international community as recommended by the Republic of Korea–WHO joint mission.<sup>8</sup> The government responded immediately after

the joint mission to provide daily press release summaries and statistics in English for the MERS outbreak situation. The information was disseminated through official websites.

Unlike the hotline call services, the MOHW and MERS portal websites provided information only in English. This might be a limitation, but sharing information in English should cover most of the foreign populations as we found English was the most commonly accessed language in the hotline service in this study. While Chinese accounts for the largest portion of international visitors and foreign residents in the Republic of Korea, utilization of the Chinese hotline was less than expected. This may be due to the fact that 66% of the Chinese residents were Korean-Chinese. They might not need the service as they are able to speak the Korean language or have Korean relatives who are able to translate the information for them.

While effective outbreak communication focuses on five key points: trust, early announcement, transparency, understanding the public and planning, it is essential to build, maintain and restore the public's trust during outbreak situations.<sup>9</sup> Establishing a hotline system has proved to be effective for building trust with the public.<sup>10</sup> This report gives evidence that dedicated English language MERS websites and multi-language hotlines were useful to share information with the international community for outbreak communications, although it is difficult to quantify the impact and effectiveness of these efforts.

Effective outbreak communication is essential to build the public's trust. Keeping the international community and foreign residents well informed is

important to streamlining implementation of timely and effective response measures during outbreaks.

### Conflicts of interest

None declared.

### Funding

None.

### References

1. *International Health Regulations implementation: ensuring effective responses to public health emergencies – strengthening risk communication capacities of national systems*. Geneva, World Health Organization, 2012 ([http://www.who.int/ihr/about/07\\_risk\\_communication.pdf](http://www.who.int/ihr/about/07_risk_communication.pdf), accessed 27 January 2016).
2. *Korea Immigration Statistics, 2014* [In Korean]. Kyunggi-do, Korea Immigration Service, Ministry of Justice, 2014 (<http://www.korea.kr/archive/expDocView.do?docId=36355>, accessed 20 January 2016).
3. *High-level messages*. Manila, World Health Organization Regional Office for the Western Pacific, 2015 (<http://www.wpro.who.int/mediacentre/mers-hlmsg/en/>, accessed 29 December 2015).
4. *Middle East Respiratory Syndrome Information*. Sejong, Ministry of Health and Welfare, 2015 (<http://www.mers.go.kr/>, accessed 15 February 2016).
5. *Ministry of Health and Welfare website*. Sejong, Ministry of Health and Welfare, 2015 (<http://english.mohw.go.kr>, accessed 15 February 2016).
6. *Press Release – MERS Hotline English Service (12 June 2015)*. Sejong, Ministry of Health and Welfare, 2015 (<http://cdc.go.kr/CDC/cms/cmsFileDownload.jsp?fid=5767&cid=63414&fieldName=attach1&index=1>, accessed 27 January 2016).
7. *Press Release – MERS Hotline 109 Expands Services to 19 languages (16 June 2015)*. Sejong, Ministry of Health and Welfare, 2015 ([http://english.mohw.go.kr/front\\_eng/sg/ssg0111vw.jsp?PAR\\_MENU\\_ID=1001&MENU\\_ID=100111&page=11&CONT\\_SEQ=323458](http://english.mohw.go.kr/front_eng/sg/ssg0111vw.jsp?PAR_MENU_ID=1001&MENU_ID=100111&page=11&CONT_SEQ=323458), accessed 27 January 2016).
8. *Joint mission to Republic of Korea on MERS-CoV begins well*. Manila, World Health Organization Regional Office for the Western Pacific, 2015 (<http://www.wpro.who.int/mediacentre/releases/2015/201506010/en/>, accessed 27 January 2016).
9. *WHO Outbreak communication guidelines*. Geneva, World Health Organization, 2005 ([http://www.who.int/csr/resources/publications/WHO\\_CDS\\_2005\\_28en.pdf](http://www.who.int/csr/resources/publications/WHO_CDS_2005_28en.pdf), accessed 27 January 2016).
10. Miller LA et al. Use of a Nationwide Call Center for Ebola Response and Monitoring During a 3–Day House-to-House Campaign–Sierra Leone, September 2014. *Mortality and Morbidity Weekly Report*, 2015, 64(1):28–29 (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6401a7.htm>, accessed 27 January 2016).