

COVID-19 Vaccination Misinformation and the Clarification by the Public Sectors in Hong Kong ¹

(Episode 2 of 2)

1. Background and Research Objectives

Vaccine hesitancy is described as an individuals' intention to delay or refuse vaccination despite the availability of vaccine services (Abdulmoneim et al., 2021; Butler & MacDonald, 2015). Among many communication factors influencing vaccine hesitancy, exposure to misinformation about COVID-19 could reduce the public's intention to be vaccinated (Daly & Robinson, 2020; Roozenbeek et al., 2020). Debunking rumours and clarifying misinformation are thus playing an important role in overcoming vaccine hesitancy. An informed citizenry and an accountable and reliable public health system are crucial.

To achieve this goal, from the aspect of government–citizen interaction and public health communication, the public sectors—including the government officials and public health institutions—need to debunk rumours and clarify the vaccine misinformation and rumours in a timely and transparent manner.

The present report examines the extent to which COVID-19 vaccine misinformation has been debunked and clarified by the public sectors in Hong Kong. By analysing the rumours or misinformation that have been rated as false and debunked by the public or professional sectors, as well as the clarification practices adopted by the communicators, the current inspection has three objectives:

- 1. to examine the types, sources, themes of the COVID-19 vaccine rumours and misinformation in Hong Kong as identified by the public sectors;**
- 2. to review the current rumour-clarification and debunking practices by the public sectors; and**
- 3. to offer suggestions to improve the quality and effectiveness of vaccine misinformation clarification messages in the public sphere.**

¹ This report is adapted from the paper, “A Mixed-Methods Analysis of COVID-19 Vaccination Misinformation and the Clarification by the Public Sectors in Hong Kong” (under review) by Xinzhi Zhang, Yuanyuan Chang, and Hiu Yan Ping.

2. Related Works and Research Questions

As the second report of this project, the focus is on the debunking practices of COVID-19 vaccine misinformation and rumours by the public sectors in Hong Kong and asks the question:

What are the major methods used in debunking vaccine misinformation and rumours by public sectors in Hong Kong?

3. Data

3.1. Data Sources

We focused on the publicly available data sources operated by the Hong Kong government to communicate to the public:

- 1) the HKSAR Government Press Releases (<https://www.info.gov.hk/gia/general/today.htm>).
- 2) government's public communication channels on social media, which include
 - 2.1. *Tamar Talk*, a public Facebook page operated by the Hong Kong government (<https://www.facebook.com/TamarTalk.hk/>),
 - 2.2. The Facebook page of the Centre for Health Protection (CHP) (<https://www.facebook.com/CentreforHealthProtection/>), and
 - 2.3 the YouTube channel of the CHP (<https://www.youtube.com/channel/UC5Ot-VIC1x7xxzEnY2OK3-w>), and
- 3) the “clarifications” column of the COVID-19 Thematic Website operated by the government (<https://www.coronavirus.gov.hk/eng/clarifications.html>).

For the Government Press Release, we used the combinations of “vaccine” [疫苗 in Chinese] with “rumour debunking/clarification/untrue facts” [闢謠/澄清/不實信息/不實資訊 in Chinese] and all the possible combinations as the search keywords and searched related messages published from 1 Jan 2021 to 6 July 2021. For social media channels, we browsed all the videos and posts published in 2021 containing the keywords “vaccines” [疫苗 in Chinese]. For the COVID-19 Thematic Website, we browsed all the messages in the “Clarification” column.

We selected the messages to be analyzed based on two criteria: (1) the posts must be directly related to vaccines (debunking messages on other issues, such as the social distance policies, were not included for the current analysis); (2) there should be an instance of debunking or clarification of a particular rumour of misinformation (for example, expressions like “the government is watching the situation and will clarify the rumours” were not included). After removing the duplicated items and irrelevant cases, we obtained a total of 59 pieces of clarifying messages, as reported in Table 1.

Table 1.

Public communication sources and the number of clarifications (1 Jan 2021–30 June 2021)

Sources	01-01 ~ 02-22	02-23 ~ 03-30	04-01 ~ 04-30	05-01 ~ 05-31	06-01 ~ 06-30	Total
Press release	6	5	1	2	2	16
<i>Tamar Talk</i> (Facebook)	1	4	0	0	0	5
Centre for Health Protection (Facebook)	4	5	0	1	0	10
Centre for Health Protection (YouTube)	7	0	6	7	8	28
Total	18	14	7	10	10	59

Note 1: 22 Feb 2021 was the implementation of the first dose of vaccination in Hong Kong.

Note 2: We identified 11 messages published on the “Clarification” section of the Covid-19 theme page, which were all included in the press release and other social media channels.

Note 3: on the Facebook channel of the CHP, two posts are re-publication of the posts by *Tamar Talk*.

3.2. Measurements

For each instance of clarification, we focused on the following variables.

1. What is the modality of the debunking message?
2. What are the appealing methods?
3. To what extent are the debunkers using trackable external sources?

Two trained coders, both holding a journalism and communication postgraduate degree with industry experience, manually coded all the messages and the intercoder reliability for all the variables reached 0.75 and above.

4. Findings

4.1. Modality of the debunking messages

The modality of the debunking message is reported in Table 1.

Table 1.

The modality of debunking messages

Modality	The number of messages
Plain text	17
Text + picture	11
Text + video	3
Video	28

The modality of the debunking messages is determined by the platform. For example, video debunking is based on YouTube whereas text debunking is based on the press release or the written responses to the inquiries.

We found that Facebook is a viable debunking channel to combine text with a picture or use text with a picture.

4.2. Appeal to coherence is frequently used

We found that over half of the debunking messages were appealing to coherence and provided the chain of events and causal alternatives of the rumours to be clarified (Walter & Murphy, 2018).

For example, sometimes misinformation is corrected by denying the misbelief. For example, a Facebook post published on 17 Mar 2021 by the CHP mentioned that it is “false” to say that the COVID-19 vaccine will lead to the COVID case. It does not provide a further explanation (example 01).

Example 01: debunking the rumours by denying misinformation

【新冠疫苗會引致 2019 冠狀病毒病？】錯

(*【COVID-19 vaccine may make me sick with COVID-19?】FALSE*)

Source: The Facebook page of CHP
 URL: <https://www.facebook.com/CentreforHealthProtection/posts/4448035608545655>
 Date: 17-Mar-2021

A similar debunking message containing merely denial was sent by the Hospital Authority and the message was published in the Press Release of the Hong Kong government (example 02).

Example 02: debunking the rumours by denying misinformation

醫院管理局就部份醫護人員發布疫苗接種計劃的失實批評發表聲明

醫管局絕不認同部份醫護人員對疫苗接種計劃發布失實批評，敦促有關醫護人員停止發布有關資訊，以免誤導市民。

(Hospital Authority's (HA) statement on the dissemination of unfounded allegations towards the COVID-19 vaccination scheme by some healthcare workers. While strongly refuting the unfounded allegations by some healthcare workers on the vaccination scheme, the HA strongly urges them to stop further promulgation of the information and avoid misleading the public.)

Source: The Press Releases

(Chinese) <https://www.info.gov.hk/gia/general/202103/17/P2021031700778.htm>

(English) <https://www.info.gov.hk/gia/general/202103/17/P2021031700779.htm>

Date: 17-Mar-2021

In terms of debunking by appealing to coherence, when there was misinformation featuring a comparison on vaccination ratio and confirmed cases in different countries using different vaccines, it was corrected by *Tamar Talk*, the official government social media account. *Tamar Talk* corrects misinformation on how to evaluate the actual efficiency of the vaccine by using logical explanations (example 03).

Example 03: debunking the rumours by appealing to coherence and offering causal alternatives

一個地區的 2019 冠狀病毒病感染情況取決於眾多因素，如防疫措施、疫苗接種、衛生情況、抗疫意識等。即使有地區展開新冠疫苗接種計劃後短期確診數字沒有下跌，亦不代表疫苗無效...接種疫苗的實際功效，不宜單單看表面確診數字短期的變化，而是需要嚴謹的科學研究去印證。

(The infection status of COVID-19 in a region depends on many factors, such as epidemic prevention measures, vaccination, sanitation, and anti-epidemic awareness. Even if the number of short-term cases does not fall after the launch of the COVID-19 vaccination plan, it does not mean that the vaccine is ineffective.” “It is inappropriate to just look at the short-term changes of the diagnosed numbers, but we need to confirm it by rigorous scientific research.)

Source: The Facebook page of *Tamar Talk*

URL: <https://www.facebook.com/TamarTalk.hk/posts/292374152251584/>

Date: 19-Mar-2021

Another example of debunking rumours by providing the entire development of the event (the causal chain) is made by Nip, who clarified a rumour that the government would stop offering the BioNTech vaccine in mid-August 2021. Rather than simply denying the case that “No, that is

not the case and the government will offer the vaccine at that time,” a causal-based debunking is like example 04.

Example 04: debunking the rumours by appealing to coherence and offering the development of the event

我要澄清，並非暫停復必泰疫苗的供應，絕對不是這樣的情況。情況是我們和藥廠原本定下一些疫苗運送到香港的日程，例如分多少批，每一批有多少疫苗到香港。我們因應疫苗接種情況，以及考慮疫苗到香港後通常只有三、四月的使用期限，我們一定要確保不能浪費未用的疫苗，所以我們調整藥廠運送疫苗到達香港的時間。現時來說，我們有疫苗，也會和藥廠繼續溝通，按接種情況來供應疫苗到香港。我剛才提出，因為我們有一些疫苗，本身要求延後供應，屆時遲些當我們有需要再問藥廠時，並沒有一個保證可以按我們心目中希望的時間去做，這個情況希望大家明白。

(I would like to clarify that the supply of the BioNTech vaccine will not be suspended. This is definitely not the case. We have set schedules for the delivery of vaccines to Hong Kong with the drug companies, such as how many batches and how many vaccines of each batch will be delivered. In light of the vaccination situation and considering that usually the vaccines expire within three to four months after arriving in Hong Kong, we must ensure that the unused vaccines will not be wasted. That is why we adjusted the time for the delivery of vaccines from the drug companies to the city. At present, there is supply of the vaccines and we will continue to liaise with the drug companies to provide supply for us based on the vaccination situation. As I have just mentioned, since there are some vaccines we have requested to postpone the supply, later when we need to ask the drug companies again, there is no guarantee that we can do it according to our expected schedule. I hope everyone will understand this.)

Source: The Press Releases

URL: <https://www.info.gov.hk/gia/general/202106/05/P2021060500342.htm>

Date: 5-June-2021

4.3. More trackable external sources can be provided

Adding external sources can add more transparency. The external sources include official documents and records, press releases, publications, and external news media reports (Hellmueller & Mellado, 2016). It is worth mentioning that some debunking messages did not provide external links. For example, some of the press releases stated that the decision by the government “was supported with public health justifications,” but with no data or link to the public health data.

Some messages contained external sources. For example, on 19 Feb 2021, the press release titled “Government responds to the approval of vaccine by Sinovac for emergency use” (<https://www.info.gov.hk/gia/general/202102/19/P2021021900029.htm?fontSize=1>) spelled out

some detailed information related to the Prevention and Control of Disease (Use of Vaccines) Regulation (Cap. 599K).

Another example is a vaccine promotional video produced by the CHP on YouTube on 27 Apr 2021 (Family Doctors on Vaccination Episode 5 [Dr Jacqueline Choi & Dr Lau Ho Lim]) (<https://www.youtube.com/watch?v=qBdn6tHkjaY>). When clarifying the myths that the younger generation is safe and does not need to get vaccinated, the video featured a bar chart showing a high proportion of confirmed cases in the younger generation.

5. Discussion and Reflection (part 2)

Based on the above analysis, the project team raises several discussions and recommendations.

First, the modality of the debunking messages can be more diverse. In addition to the text debunking (via the written response of the press releases) and video explication (via the YouTube channels), more graphical format can be used. Previous studies have found that visual elements can increase the messages' visibility by attracting more audience engagement (Zhang & Zhu, 2021). **We suggest the public sectors can consider using more picture debunking messages and increase graphical elements, such as cartoons, infographics, and data visualization.**

The debunkers can also consider widening the channels, from press releases to all the social media channels. We also suggest the public sectors can synchronize different messages when one channel has published a message. We also suggest that the video information can add graphical bulletin points at the beginning of and at the end of the videos and provide related references in the video information section.

Second, the method of appealing to coherence is useful. Particularly, it will be helpful to reveal the chain of events, and how a certain situation is developed from its earlier stage. This will not only add more transparency to the debunking message but will also make the communicator more trustworthy.

Third, **we suggest the debunkers from the public sectors add more external references to support the argument whenever it is possible**, especially when using written responses or there is an opportunity to add text information, such as the "text" section of the Facebook post, or the "video information" on YouTube. It adds professionalism and accountability for the communicators.

To sum up, we believe that an active debunker and rumour clarification will help to overcome vaccine hesitancy and nurture an informed and healthy society.

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