

Survey on Pandemic Preparedness Plan (PPP) among Malaysian Corporate Health Advisers' Forum (MCHAF) Members

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ABSTRACT: *The Covid-19 outbreak has increased the interest in Pandemic Preparedness Planning. A survey on this subject was conducted among MCHAF members. Nine companies participated in the survey. The industries represented were aviation, chemical, electronic, healthcare, manufacturing, oil and gas, social services and utilities. All of them had a pandemic plan. The plan of most companies covered work restriction (77.8%), communication plan (88.9%), stockpiling masks during peacetime (66.7%) and the roles and responsibilities of various departments (100%). Most plans however did not cover stockpiling on antivirals during peacetime (66.7%). There was a variety in ownership of the PPP, essential components of the plans, where the plan was adopted from, main concerns and advice. Among the concerns shared were: differences in directives and leadership mindset, need for rapid response, lack of preparedness i.e. no mock drill conducted earlier, logistic challenges, i.e. getting PPE and conducting business, estimating adequate PPE supplies and countering inaccurate information. Advice given include: conduct risk assessment and respond accordingly, align with the local ministry of health and company directive; familiarize leaders with the PPP and conduct mock drills, close monitoring of the situation and timely communication. We believe that the knowledge and understanding on PPP from this study can be used by companies to enhance their PPP.*

Keywords: *Health Adviser, Industry, Occupational Health, Pandemic Plan, Preparedness*

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1.0 INTRODUCTION

A pandemic is the worldwide spread of a new disease (World Health Organisation, 2010). Influenza pandemics are unpredictable but recurring events that can significantly affect health, communities and economies worldwide. Planning and preparation are critical to help mitigate the risks and impacts of a pandemic, and to manage the response and recovery. Knowing who will do what, when, and with what resources is critical to managing a pandemic situation. Successful operations occur when stakeholders know their roles and responsibilities, understand how they fit into the plan and how to work together, and have the capacities and resources to implement the plan (World Health Organisation, 2018). Although pandemic preparedness is often associated with influenzas, it may also be due to other viruses. The current concern is that Covid-19, which is not an influenza virus, may result in a pandemic.

Among the aspects that need to be addressed at the workplace include pandemic preparedness and response plan, communication, antiviral medication, facemasks, temperature screening and health declaration, cleaning and disinfection measures, vaccination, travel health and medical leave (Jefferelli *et al*, 2009).

PPP contents and implementation are often based on local and company advice and guidance which are developed by agencies such as the Health Authorities in Malaysia (Ministry of Health Malaysia, 2006; Ministry of Health Malaysia, 2020), National Council for Occupational Safety and Health (2020) and Professional bodies (Ministry of Health Malaysia & The Society of Occupational and Environmental Medicine of the Malaysian Medical Association, 2006). Advice from Health Authorities outside Malaysia (Ministry of Health Singapore, 2014; Food and Health Bureau, Department of Health, Centre for Health Protection, Hong Kong, 2020) may also be considered. The health advisories may differ based on the nature of health pandemics and hence there is a need to review the existing PPP to suit the pandemic of concern.

In view of the Covid-19 outbreak, there was an increased interest in PPP among organizations. This included the Malaysian Corporate Health Advisers Forum (MCHAF), an informal group of occupational health doctors in Malaysia who serve the various industries. Among the industries represented are aviation, chemical, electronic, healthcare, manufacturing, oil and gas, social services and utilities.

2.0 METHOD

In February 2020, MCHAF members were invited by e-mail to share their responses to a brief survey in word format on PPP. The survey form was newly developed by the two authors based on what they felt were questions that would be of interest and relevance to MCHAF members. Some of the questions were open ended and some were binary i.e. ‘yes’ or ‘no’.

3.0 RESULTS

3.1 Respondents

Nine MCHAF members responded to the survey. The response by the industries are as follows: aviation-1, chemical-1, healthcare-2, manufacturing-1, mixed-1, oil and gas-1, social services-1 and utilities-1.

3.2 Response

3.2.1 Does your Company Have a Pandemic Plan and What Does the Plan Define?

All companies have a pandemic plan. The plan in most companies covered work restriction (77.8%), communication plan (88.9%), stockpiling masks during peacetime (66.7%) and roles and responsibilities of various departments (100%). Most plans however did not cover stockpiling on antivirals during peacetime (66.7%).

Table 1 Does your Company Have a Pandemic Plan and What Does the Plan Define?

Question	Response (Number and Percent)		
	Yes	No	Total
Does your company have a pandemic plan?	9(100)	0(0)	9 (100)
Does plan define:			
Work restriction?	7(77.8)	2 (22.2)	9(100)
Communication plan?	8(88.9)	1(11.1)	9(100)
Stockpiling masks during peacetime?	6(66.7)	1(33.3)	9(100)
Stockpiling antivirals during peacetime?	3(33.3)	6(66.7)	9(100)
Role and responsibilities of various departments?	9(100)	0(0)	9(100)

3.2.2 Ownership of PPP

There was a variation in the ownership of the PPP which included: Emergency Management; Health; Health Safety Security and Environment; Human Resource; Medical Affairs and Quality; National Crisis Management Team; Risk Division and Safety and Health Committee and senior executive of the operation site.

3.2.3 What Other Essential Component Does Your Plan Include

Other essential components included were: preventive and mitigating measures; pandemic threat and impact assessment; Standard Operating Procedure for disease outbreak, detailed action plan for operation stockpile of personal protective and potential source for emergency supply; travel restriction policy; disinfection procedure; visitor or employee screening process; emergency deployment of employees performing essential services; employee sickness surveillance; agile work arrangements; business continuity plan; supply chain risks; and Crisis Incident Management team and pandemic control team.

3.2.4 Where is the Plan Adopted From

The plans were adopted from various organisations including: The Collaboration Arrangement of Public Health Events in Civil Aviation (CAPSCA) Forum, the Joint Commission International (JCI); Ministry of Health Malaysia; Ministry of Health Singapore; individual Corporate Guidance; the University of Pittsburgh Medical Centre; and the World Health Organisation.

3.2.5 Main Concerns

The main concerns were: need for rapid response to a new disease; organizational preparedness to enable effective response; did not conduct mock drill of different pandemic scenarios during peace time; new directives, i.e. need for exit screening due to destination countries ad-hoc health directive; managing related logistics; Standard Operating Procedures (SOP) that were operational centric rather than holistic; leaders are either over anxious or cautious, have different risk appetite at different sites within the same organization or are not familiar with the pandemic plan; insufficient stockpiling during peace time; differing practices in different countries and unauthorised information being circulated.

3.2.6 Main Advice

The main advice was: to conduct a risk assessment of the situation; tailor the plan according to your organizational needs; align plan with the Ministry of Health Malaysia and individual company directives; have simulation exercises involving senior executives so that they are familiar with the pandemic preparedness plan and risk mitigation measures, and are able to drive decision making; have a crisis response team and committee that can make evidence-based decisions; understand the local pandemic preparedness plan of the respective country as the level of preparedness varies among countries even though both countries may be under the same WHO alert level; closely monitor the situation and update plans; and have periodic communication with respective stakeholders.

4.0 DISCUSSION

4.1 Respondents, Whether Company Has Plan and Whether Key Aspects Covered?

Despite the relatively small sample size, it represents a wide range of industries. Since MCHAF members represent large organizations, it was not surprising that they all had a pandemic plan. Most plans covered important aspects such as work restriction, communication plan and responsibilities of various departments. It was interesting that one third of the plans did not specify stockpiling masks during peacetime because mask use is often seen as an important prevention measure for pandemics and it is difficult to obtain masks once a pandemic has been declared. Most of the plans did not cover stockpiling of antivirals which is aligned with the general thought that stocks are not required by industry. Among the reasons are that at preparedness stage it is often unclear if and what type of antivirals would be effective against the circulating virus. Another

point is that the antivirals have an expiry date and if not used would have to be disposed. However, two of the respondents were from the healthcare sector and their plans did include stockpiling of antivirals.

4.2 Ownership of PPP

The variety of parties owning PPPs reflect the diversity in approach among the different organizations. Such parties are deemed as the most appropriate by their organizations to lead in such matters. However, they will still need to work closely with other key team members such as health, human resources, safety and operations.

4.3 What Other Essential Component Does Your Plan Include?

Apart from key components such as the communication plan, stockpiling masks and role and responsibilities of various departments there were many other elements included in pandemic plans. These ranged from elements such as detailed action plans to disinfection procedures, visitor and employee screening process to business continuity plans. Many organizations have an overarching Crisis Management Plan (CMP) in place. Some companies would cross-refer to elements in CMP and not duplicate such elements in their PPP. However, some may prefer a complete standalone document and hence mention such elements in PPP too. Others may also feel the need for a different approach in a pandemic. For example, the company physician may not be included as member of the incident management in CMP but included in their PPP. Essential elements in PPP also depend on the type of industry. For example, elements required in the aviation industry such as provision of meals to passengers onboard flights would differ from the healthcare industry which would need to ensure stocks of medication.

4.4 Where were the Plans Adopted from?

Company PPPs were adopted from a variety of sources. WHO, MOH Malaysia and individual company guidance were common resources for all members. For certain industries, industry specific guidance i.e. JCI and CAPSCA were available. It was interesting that some companies also referred to overseas MOH and medical centre practices.

4.5 Main Concerns

The concerns raised were understandable. When there is a new disease causing a pandemic there are often new directives and rapid response required. There could be doubts on the organization's ability to respond effectively especially if they did not optimise preparedness measures such as conducting mock drill for similar scenarios. Companies will also need to manage the logistic challenges not only in obtaining the related PPE, but in running their normal business operation. The company's SOPs can be operational centric and not cover aspects not directly related to operations such as support team members. Leaders differ in mindset, perception and experience when dealing with crises and pandemics, even in the same organization. This would explain the difference in risk perception among them. There is always a need to be objective in risk assessment to reach a well-balanced assessment of the situation and decision on actions to be taken. Leaders are usually very busy, responsible for and engaged on multiple issues and hence may not have familiarized themselves with their pandemic plan. It is difficult to estimate the stockpiles that would be adequate. Among the factors that would influence this include measures recommended by authorities, availability of stocks in the market and estimated duration of pandemic. Health departments in different countries may give advice in different countries and this can be difficult to explain to employees especially if the company has employees in these different countries i.e. some countries may require use of mask in public whereas others do not. Another challenge in the age of digital era is the quick and wide spread of unauthorised information which could result in wrong perception and panic among the population.

4.6 Main Advice

Good advice on PPP were given by members. As for any crisis, risk assessment of the situation needs to be carried out and plans need to be suited to organizational needs. To ensure the plan is effective and accepted, it is also important that it is aligned with the Ministry of Health, Malaysia and individual company directives. Leaders need to be familiar with their PPP and simulation exercises during peacetime would facilitate this. In a crisis, the crisis management team will make important decisions on measures to institute. It is important that there are members in this team who will be able to convincingly share relevant evidence and for the members to fully consider it when making decisions. The crisis management team should also understand the difference between local alert levels and worldwide levels. In view of the rapid change in situation, close monitoring is required. Periodic communication is also important to ensure stakeholders are aware of the latest developments and continue to receive authentic information.

5.0 CONCLUSION

This study shows a variety of approaches and resources for PPP. It also shares the concerns and advice on PPP. It should add to the knowledge and understanding of this topic and be used by companies to enhance their PPP.

REFERENCES

- Food and Health Bureau, Department of Health, Centre for Health Protection, Hong Kong (2020). Preparedness and Response Plan for Novel Infectious Disease of Public Health Significance.
https://www.chp.gov.hk/files/pdf/govt_preparedness_and_response_plan_for_novel_infectious_disease_of_public_health_significance_eng.pdf
- Jefferelli, S.B., Abu Hasan S., & Abed O. (2009) Issues Arising from Managing Influenza A(H1N1/09) Pandemic in the Workplace. *Journal Occupational Safety and Health*, (6), 1-7.
- Ministry of Health Malaysia (2006). National Influenza Pandemic Preparedness Plan.
http://nktmhealth.net/sites/default/files/docs/01012016/NIPPP_PoA_Msia.pdf
- Ministry of Health Malaysia (2020). Guidelines on 2019 Novel Coronavirus Management in Malaysia, No 05/2020.
<http://covid-19.moh.gov.my/garis-panduan/garis-panduan-kkm>
- Ministry of Health Malaysia & The Society of Occupational and Environmental Medicine of the Malaysian Medical Association (2006). Recommendations on Influenza Pandemic Preparedness for Industry in Malaysia.
<https://www.scribd.com/document/17478788/Preparedness-for-Pandemic-Flu-in-Industry>
- Ministry of Health Singapore (2014). MOH Pandemic Readiness and Response Plan for Influenza and Other Acute Respiratory Diseases. https://www.moh.gov.sg/docs/librariesprovider5/diseases-updates/interim-pandemic-plan-public-ver-_april-2014.pdf
- National Council for Occupational Safety and Health (2020). Nasihat kepada majikan dan pekerja berkaitan langkah-langkah pencegahan terhadap wabak jangkitan 2019 Novel Coronavirus. Siaran Media. 28 January 2020.
- World Health Organisation (2010). Emergency preparedness, response. What is a pandemic?
https://www.who.int/csr/disease/swineflu/frequently_asked_questions/pandemic/en/
- World Health Organization (2018). A checklist for pandemic influenza risk and impact management: building capacity for pandemic response.
https://www.who.int/influenza/preparedness/pandemic/influenza_risk_management_checklist_2018/en