

# AN INSIGHT OF BEHAVIOUR RESEARCH

DURING COVID-19  
IN MALAYSIA



# ADVERTORIAL TEAM

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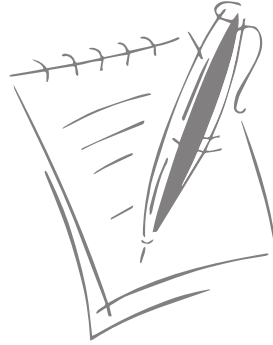
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# FOREWORD

## MESSAGE FROM DIRECTOR GENERAL OF HEALTH, MINISTRY OF HEALTH MALAYSIA TAN SRI DATO' SERI DR NOOR HISHAM ABDULLAH

The World Health Organization (WHO) recommends behavioural change as the most effective management in preventing COVID-19 transmission. These were facilitated by the evolution and advancement of information technologies and the internet as we march into the 21st century, which enabled healthcare practitioners to disseminate health education and promotion for behavioural change with a click of a button. Social media such as Facebook, Twitter, and Instagram are readily accessible to healthcare practitioners to leverage on the live streaming of information alongside the mainstream media in conveying information such as behaviour change recommendations.

The arrival of the 'Behaviour Research During COVID-19 in Malaysia' report is pertinent to understand the impact of these behavioural recommendations introduced by the Ministry of Health and the Malaysian Government. It gives us insights into the effectiveness of mainstream and alternative media in achieving these public health recommendations, and it is a privilege to present the compiled behavioural insights studies accomplished during this COVID-19 pandemic. The compilation of behavioural science studies highlighted in this report will explore and explain the psychological, social, and environmental factors that influence the lifestyle adjustment of the public to the new normal.

I would like to extend my heartiest congratulations to the Institute for Health Behavioural Research of the Ministry of Health for the accomplishment of this study report. I hope that the findings of these studies are in many ways beneficial; possibly serving as a window and guideline to future pandemic outbreaks, and its effective mechanisms for the promotion of preventive behaviour even with the availability of a vaccine.



Tan Sri Dato' Seri Dr Noor Hisham Abdullah  
Director-General of Health  
Ministry of Health, Malaysia



MESSAGE FROM THE DEPUTY DIRECTOR OF HEALTH  
(RESEARCH AND TECHNICAL SUPPORT),  
MINISTRY OF HEALTH MALAYSIA

**DATUK DR. HISHAMSHAH BIN MOHD IBRAHIM**

Bismillahirrahmanirrahim,

Assalamualaikum w.r.b.k.

It gives me great pleasure to pen a few words in this insightful compilation of health behavioural research on COVID-19. The publication of this book brings together behavioural researches pertaining to COVID-19, which was conducted by the research institutes under NIH.

As we already know, the World Health Organization (WHO) has declared COVID-19 as a public health emergency of international concern (PHEIC) on the 30th of January 2020. Globally and nationally, key preventive measures were adopted to combat this ongoing outbreak. Under such conditions, people's adherence to preventive measures must break the chain of infection. However, the actual scenario worldwide cannot be known entirely without any study. Since then, various researches on COVID-19 have been conducted worldwide. As one of the prime institutes in social and behavioural research, IHBR together with other research institutions have responded to this challenge by conducting COVID-19 related behavioural studies to understand the public response, attitude, and behaviour about COVID-19 issues.

I feel delighted with the compilation of the study findings contained in this book. It encompasses various dimensions of social research covering knowledge, perceptions, attitudes, intentions, self-efficacy, social norms, and media roles. This continuous effort demonstrates the earnestness and commitment of all IHBR researchers in providing significant behavioural findings for stakeholders as policy and program makers. Through the results of the studies, the Ministry of Health (MOH) will increase communication capacity to ensure all people receive the accurate, reliable information they need to protect themselves and their families.

For the researchers at NIH, please continue this noble effort in helping the MOH to find the best behavioural solution in dealing with this COVID-19 pandemic. May all your efforts yield good results and gain the pleasure of Allah s.w.t.

I wish you success in whatever endeavours you make in the future. Thank you.



Datuk Dr. Hishamshah Bin Mohd Ibrahim

Deputy Director of Health (Research and Technical Support), Ministry of Health Malaysia





MESSAGE FROM THE DIRECTOR OF  
INSTITUTE FOR HEALTH BEHAVIOURAL  
RESEARCH (IHBR)  
NATIONAL INSTITUTES OF HEALTH  
MINISTRY OF HEALTH MALAYSIA

**DR MANIMARAN KRISHNAN**

It is an honour to be given an opportunity to express my appreciation for releasing a compilation of all research related to health behaviour during the early stages of pandemic COVID-19 which have affected all aspects of our daily life.



Under the National Institutes of Health, Malaysia, we have embarked on research on health behaviour since early 2020 on COVID-19 and its effects on Malaysians. It held up a challenge to the researcher due to the difficulties imposed in collecting data during the Movement Control Order (MCO). Much of the research is alternatively conducted online. Nevertheless, the researches achieved its objectives in understanding Malaysian health-related behaviour on COVID-19. It is hoped that the insightful research findings will help us to better understand public behaviour during the pandemic and how MOH can play the crucial role in addressing issues pertaining to public's health misconceptions.

I want to give my utmost appreciation to all the researchers involved in the projects, higher-level management who have supported this effort and make all that research a success. Sincerely, the National Institutes of Health must conduct more behaviour-related research to assist the policymaker in the future direction of health-related preparedness concerning human behaviour and activity.

Dr Manimaran Krishnan  
Director of Institute for Health Behavioural Research



# PREFACE

This book publishes behaviour health research on the emergence of the COVID-19 pandemic conducted by research institutions under the National Institutes of Health, Ministry of Health. As we know, the COVID-19 has affected the world since early 2020. Society has been outraged by the various challenges posed by the COVID-19, including the limitations of economic and social activities, forced internal isolation, and the practice of new norms to prevent the spread of the disease. It affects health and different parts of our lives, and socio-economic impact whereby some people lose their source of income because of shutting down most business entities except for essentials services. Frontliners parted with their family members due to the enforcement of movement control orders.

Studies conducted by the Institute for Health Behavioral Research and other research institutions such as Institute for Public Health and Institute for Clinical Research aimed to identify aspects of peoples' behaviour in response to the disease.

These studies gave insights on how the public responded to quarantine instruction, do they follow the new norms as advised by the Government, the psychosocial effect of COVID-19 towards front-liners, and people's sentiment in social media regarding the disease.

We have to accept the fact that we may have to live with the pandemic for some time until most of the world's population is vaccinated. People need to embrace the situation with fully equipped knowledge on the medical part and preventive behaviour that will help to predict to what extent the disease can spread if we fail to comply with the new norms.

In conclusion, the findings from these studies may provide valuable insights for policy-makers, researchers, and students to embark on further studies on the COVID-19 behaviour effect.







# Survey on

## KNOWLEDGE, ATTITUDE, PRACTICE, BELIEF, & HEALTH SEEKING BEHAVIOUR

*ON COVID-19 AMONG MALAYSIANS WHO TRAVEL FREQUENTLY TO SINGAPORE*

Author (s): Saiful Adli Suhaimi, Khairulnissa Abdul Kadir, Komathi Perialathan, Abu Bakar Rahman, Kamarulzaman Salleh, Teresa Yong Sui Mien, Azman Ab Rashid, Suraiya Syed Mohamed, Norazah Ahmad, Faizah Jurimi, Abd Lajid Abu Hassan, Yasmin Md Rais, Dr. Manimaran Krishnan

### Introduction

During COVID-19, it is essential to monitor the public's perceptions of risks, protection behaviour, preparedness, and knowledge and misinformation to enable the authorities to implement an adequate response.

Research has also shown that people who regularly travelled to the COVID-19 affected countries are exposed to a higher risk of getting the virus.

Previous studies have revealed that Knowledge, Attitudes, and Practices (KAP) play a significant role in personal experience and affect behaviours during a pandemic.

Other studies have shown that improved knowledge has increased the uptake of preventive measures and has an influence on protective behaviour at the individual and community levels.

Public knowledge and awareness about COVID-19 are essential in suppressing the pandemic status.

### METHODOLOGY

1

**STUDY DESIGN**

A cross-sectional study



2

**SAMPLING TECHNIQUE**

Purposive sampling / Convenience sampling



3

**TARGET POPULATION**

Malaysian, 18 years and above whom frequent to Singapore for working purpose



4

**INSTRUMENT**

KAP questionnaire on COVID-19 Bahasa Malaysia version



5

**DATA COLLECTION**

9th - 11th March 2020 (Pre-test 4th to 6th March)



6

**ETHICAL APPROVAL**

Medical Research and Ethics Committee (MREC), NMRR 20-594-54206



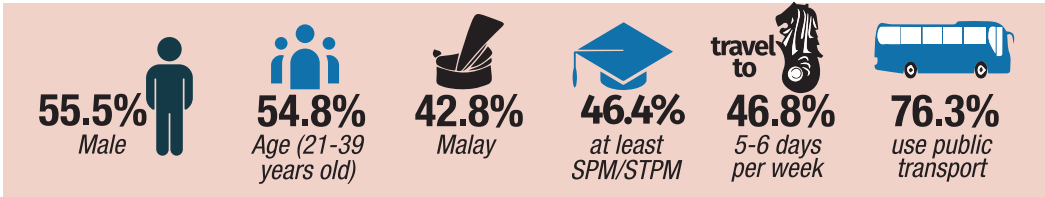
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**TOTAL RESPONDENTS**

299 respondents (pre-test 30 respondents)

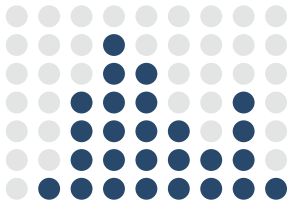


# RESPONDENTS' PROFILES



## Objective:

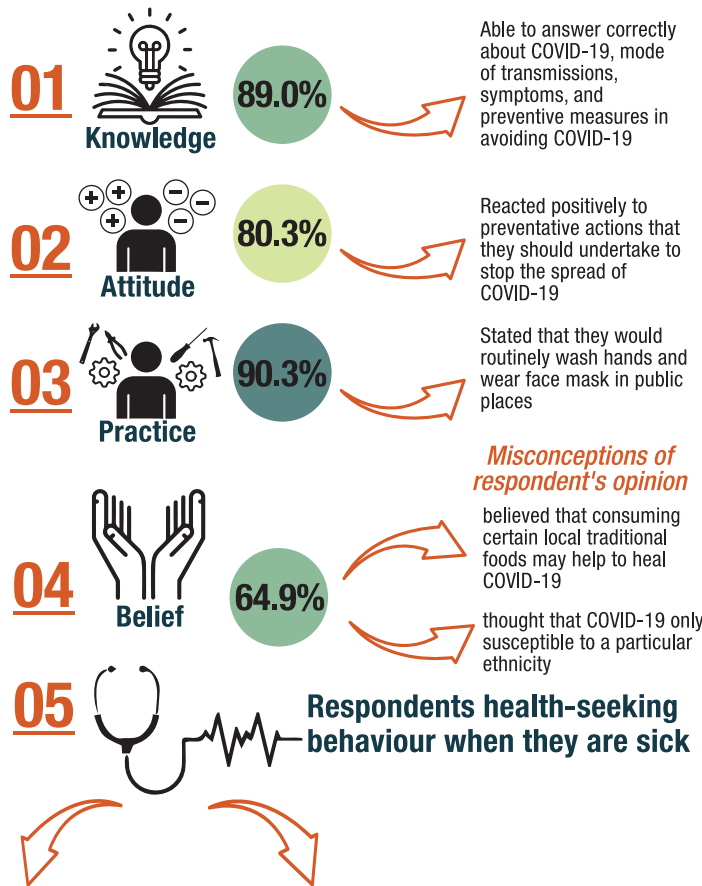
To assess knowledge, attitude, belief, practice (KAP) and health seeking behaviour on COVID-19 among Malaysians who work and travel regularly to Singapore



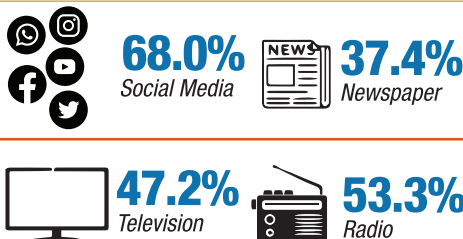
## Our findings

During the early phase of the pandemic in Malaysia the misconception of belief is a concern compare to knowledge, attitude and practise (KAP) on COVID-19

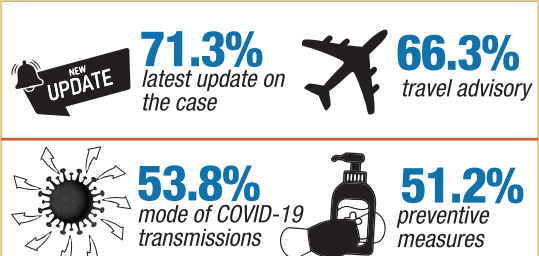
## Results:



## The preferred medium of information



## Most types of information searched





## ***Our findings***

suggest that health education messages and interventions with appropriate channels must be directed to this particular high-risk population of getting COVID-19.



*Educational level is*

**PREDICTOR OF**

*knowledge*

meaning

*low educated population*

had a high risk of getting COVID-19



*Ethnicity is*

**PREDICTOR OF**

*belief*

meaning

*particular ethnicity*

had a high risk of getting COVID-19 because of misconception in their belief

## ***CONCLUSION***

This study started on the initial phase of COVID-19. The public still had some misconceptions about this disease, such as only specific ethnicity get infected or consuming particular traditional food or medicine can cure the disease.



# THE COVID-19 SOCIAL MEDIA:

## *Dissemination of information in Facebook and Twitter and the public sentiment on it*

Author (s): Khairulnissa Abdul Kadir, Logeswary Krisnan, Saiful Adli Suhaimi, Ika Cemalia Ahmad Rohimin & Dr. Manimaran Krishnan

### ***Introduction***

One of the research areas in infectious diseases that have recently gained popularity was public health dissemination of information using social media. As it seems, the emerging of new communication media has altered the way public agencies and public responded to in the time of crisis. Social media allows disseminating information faster during an extreme event, even before responsible agencies arrive at the location to help or solve the situation.

The potential of social media to directly interact with the public and stakeholders is vast and pertinent, especially during a health crisis. Today's doctors and patients take online platforms such as blogs, social media, and websites to convey opinions on health matters (Afyouni et al., 2015).

This study collected data on public responses in social media throughout the early phase of COVID-19.

A total of 170,000 social media engagements were analysed between the 1st of February until 31st of May 2020. For analysis purposes, we selected the top 10 influencers/Page from Facebook and Twitter, which pooling around 51 million Malaysian Facebook and Twitter users, engaging around 6,068 mentions, and a few thousand shared and views, including data from the Ministry of Health.

### ***Objectives***

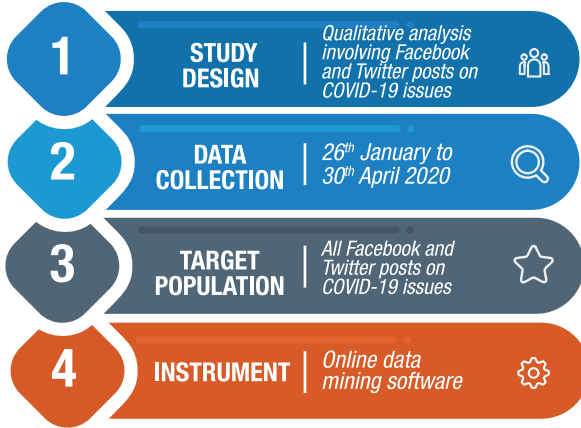
“

To identify public sentiments towards COVID-19 issues in social media & to explore emerging themes in Facebook and Twitter during a pandemic.

”



## METHODOLOGY

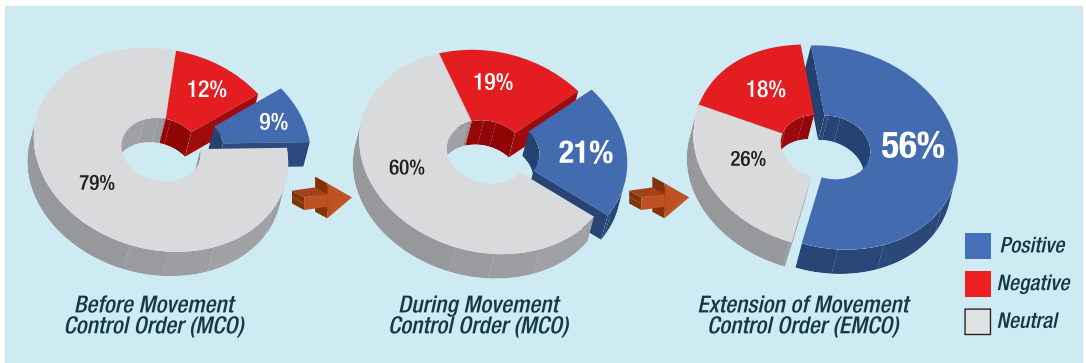


### Classification of sentiments:

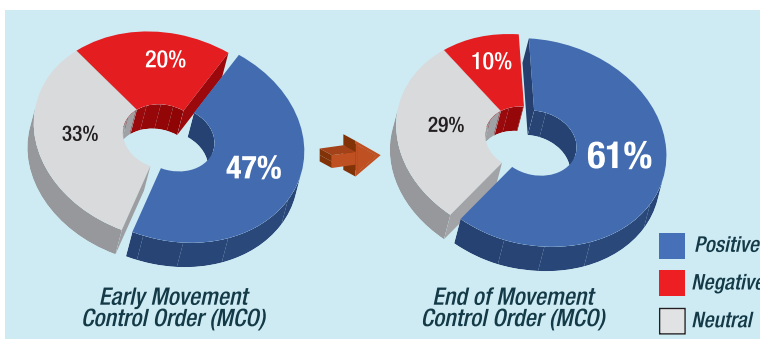
Positive	Statement consisting of clear positive words like “Good”, “Agree”, “Better”, “Like”
Negative	Statement consisting of clear negative words like “Bad”, “Not”, “Less”, “Hate”
Neutral	Any ambiguous statement and not related to COVID-19

(El-Din, 2017; Kang et al., 2017)

## CHANGES IN PUBLIC SENTIMENTS TOWARDS THE GOVERNMENT BEFORE, DURING & AFTER THE EXTENSION OF MCO



## PUBLIC SENTIMENTS ON TABLIGH CLUSTER

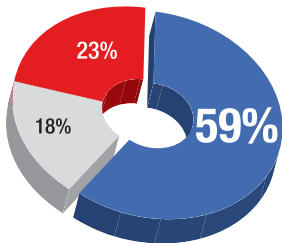


### Our findings:

The public sentiments keep changing over time depending on emerging themes in social media. The faster researchers could gather the data; the more immediate action could be taken to address the issue.

Positive Negative Neutral

Overall Public Sentiment on How Ministry of Health (MOH) Handling the Pandemic



Analysis showed:

Most Malaysians acknowledged that the best course of action was on how the Government handles the pandemic. Especially in the case of Bazar Ramadhan decision.



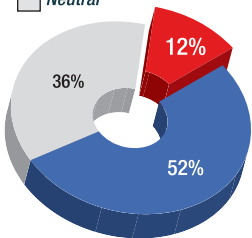
Analysis revealed:

97%

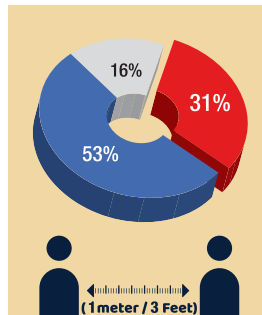
agreed on the decision of not allowing Bazar Ramadhan to operate during the MCO

## PUBLIC SENTIMENTS ON NEW NORMS

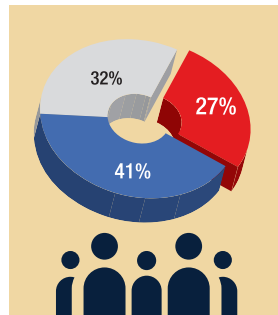
Positive Negative Neutral



Overall Public Sentiment on the New Norms



Public Sentiment on Social Distancing



Public Sentiment on No Mass Gathering or Events

To take note:

The public opinion on the new norms is mainly positive. However, preventive measures like "Social Distancing" and "No Mass Gathering" created negative sentiments due to some difficulties in following those practices.

## PUBLIC SENTIMENT ON ONLINE SHOPPING

Positive Negative Neutral

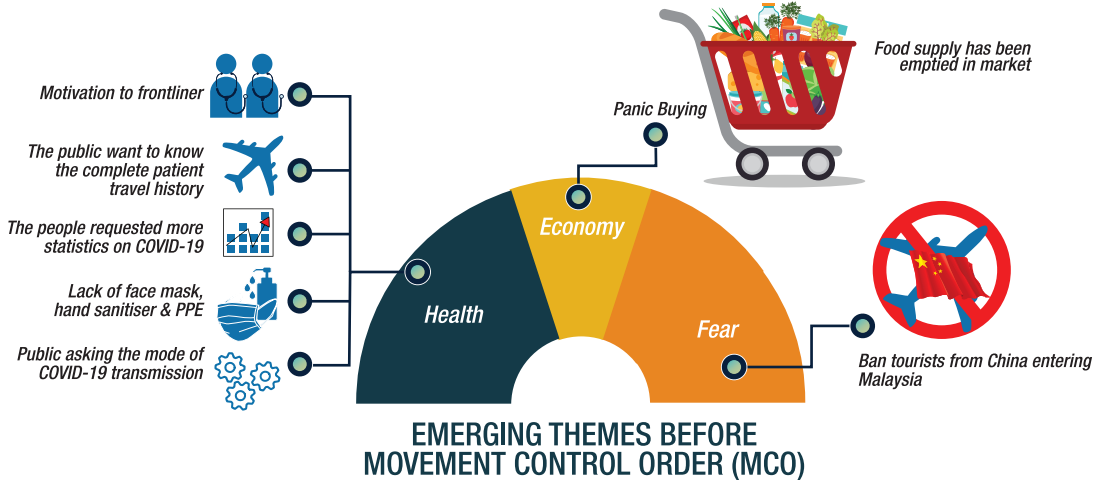
Analysis revealed:

The pandemic brings about a new way of shopping whereby most of the non-essential stores were ordered to close. As a result, the public was having difficulties purchasing some of the items online. Following an online survey, there has been significant growth in merchants' sales across various product categories online during MCO.

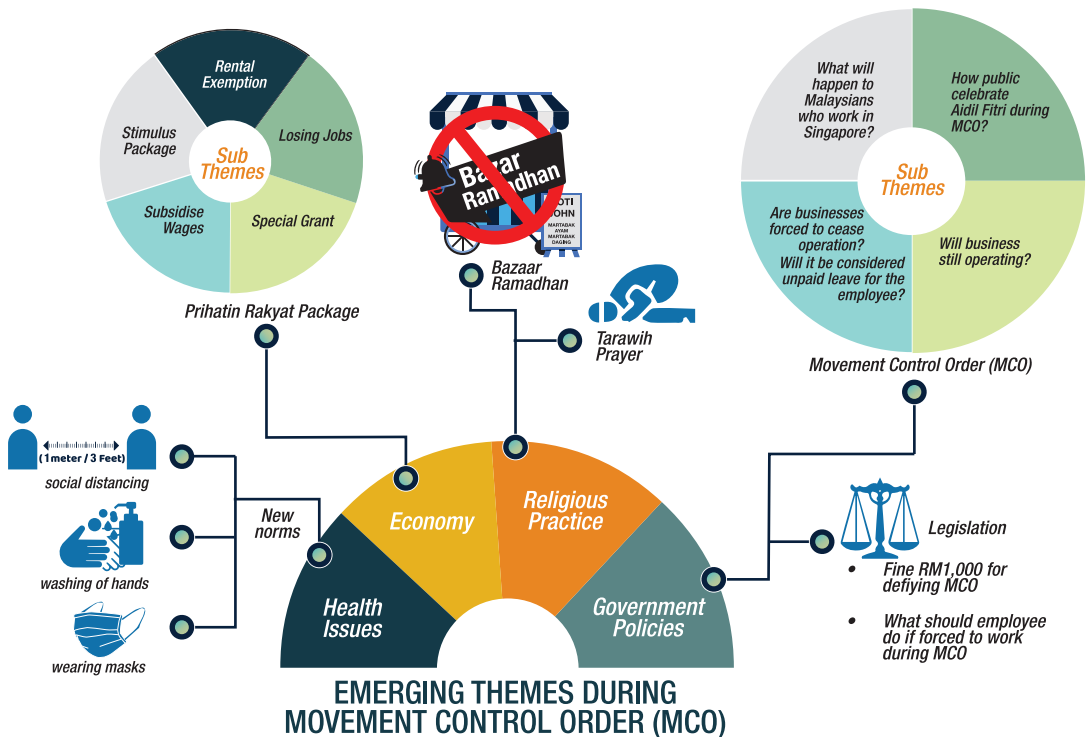


Public Sentiment on Online Shopping

## EMERGING THEMES : BEFORE MOVEMENT CONTROL ORDER (MCO)

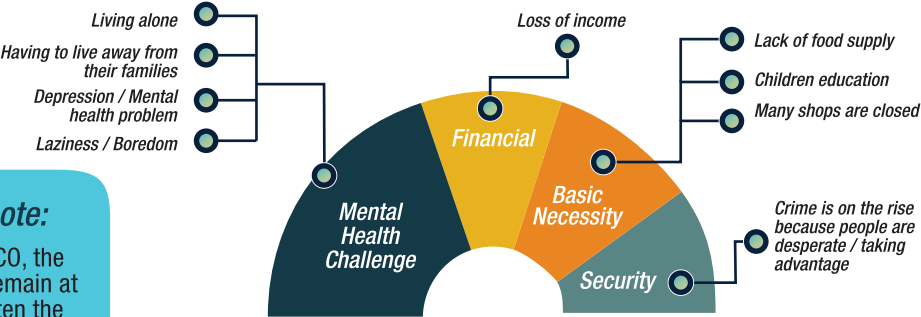


## EMERGING THEMES : DURING MOVEMENT CONTROL ORDER (MCO)



EMERGING THEMES : AFTER EXTENTION OF MOVEMENT CONTROL ORDER (MCO)

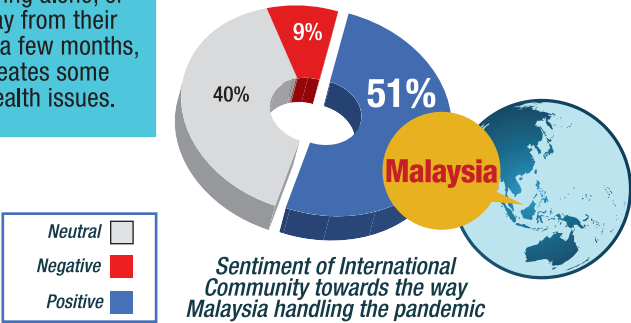
The 28-day Movement Control Order has held 32 million people in Malaysia at home. On the 18th of April 2020, the Government extended the MCO. Emerging themes from the extension of MCO were



EMERGING THEMES AFTER EXTENTION OF MOVEMENT CONTROL ORDER (MCO)

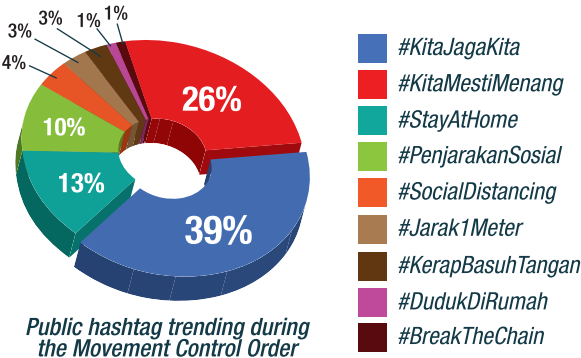
**To take note:**  
During the MCO, the public has to remain at home to "flatten the curve." Later as the MCO had extended, people need to adjust their lifestyle routines drastically. This situation has become difficult for most people due to loss of income, living alone, or living away from their families for a few months, which creates some mental health issues.

SENTIMENT OF INTERNATIONAL COMMUNITY



**Analysis has shown:**  
The Malaysian Government action in addressing COVID-19 and initiatives in flattening the curve had gained recognition and appreciation from across the world.

SOCIAL MEDIA #HASHTAG TRENDING



**Analysis revealed:**  
**#KitaJagaKita** (We take care of each other) is the highest keyword besides COVID-19 and MCO. It demonstrated how Malaysians stick together to participate in combating the COVID-19 and flattening the curve. Even the other keywords are mostly related to the new norms.



# Discourse Analysis

## ON MEDIA REPORTS AND HOW IT AFFECTS HUMAN BEHAVIOUR

during the Corona Virus (COVID-19) outbreak

To conduct a discourse analysis on media reports and the reported effects on human behaviour, specifically during the Coronavirus (COVID-19) outbreak.

Author (s) : Dr. Mohammad Zabri Johari, Teresa Yong Sui Mien, Komathi Perialathan, Masitah Ahmad, Nor Haryati Ahmad Sanusi & Nurashma Juatan

### Introduction

Information relayed to the public is highly important, especially during an outbreak. The COVID-19 epidemic that began in December in Wuhan, China, has caused many pandemics worldwide. The world responded with measures to contain it, including the Movement Control Order (MCO) conducted in Malaysia. These measures are conveyed through media but unfortunately are also marred with misinformation or even fake news that caused panic and confusion, which in turn causes chaos in public.

### METHODOLOGY

1

#### STUDY DESIGN

Qualitative analysis on reported media



2

#### DATA COLLECTION

March 18<sup>th</sup> and July 4<sup>th</sup> 2020  
(Phase 1 - 3 of MCO)



3

#### TARGET POPULATION

Reported media and responses towards these media



4

#### ETHICAL APPROVAL

Medical Research and Ethics Committee (MREC), NMRR-20-622-54492



5

#### REPORTS EXTRACTED

508 reports extracted revealing four main themes with multiple sub-themes



## THEME 1: COMMUNICATION CHALLENGES

**SUB-THEME 1**  
*Accuracy of information disseminated*

- needs to be vetted
- accurately portrayed
- the tone must be empowering
- the tone must not be meant to scare



**SUB-THEME 2**  
*Reach of information*

- needs to be widespread and as far-reaching through various channels



**SUB-THEME 3**  
*Trust in information*

- It severely lacked in the beginning
- trust for the Ministry of Health (MOH) gradually increased



**SUB-THEME 4**  
*Fake news / Information*

Misinformation can cause

- distress
- panic
- riots (worse case)



**SUB-THEME 5**  
*Handling of misinformation*

- need to be managed in a decisive but not totalitarian that stops the spread and reduces widespread panic



**SUB-THEME 6**  
*Resource allocation*

- It is vital in ensuring communication and services reaches the target audience





## THEME 2: COMMUNICATION CONSIDERATIONS AND MEDIA

**SUB-THEME 1**  
*Clear and understandable recommendations & messages*

- needed to be easy for news media and targeted audiences to understand



**SUB-THEME 2**  
*Rapid & accurate information dissemination*

- needs to be disseminated as fast as possible



**SUB-THEME 3**  
*Credible spokesperson*

- A single or several key spokespersons are imperative in delivering accurate information



**SUB-THEME 4**  
*Communication tailoring towards sub-groups*

- It is recommended that materials are essential to ensure the information can be easily understood and accepted



**SUB-THEME 5**  
*Media & Networking*

- Relationship with media is imperative as the information conveyed by media who themselves act as a tool in information dissemination



## THEME 3:

### DEVELOPMENT & EVALUATION OF MEDIA & PUBLIC COMMUNICATION

#### SUB-THEME 1

##### Communication plans and chain of command

- must follow a standardised process that is credible and through a transparent chain of command



#### SUB-THEME 2

##### SME and expertise essential to process information

- Input from scientists and subject matter experts (SME) are critical in formulating key messages and developing plans or materials



#### SUB-THEME 3

##### Outcomes in assessing communication effectiveness

- Various methods can be used for evaluating the effectiveness of communication, and its effect can be reasonably prevalent



“Malaysia is amazing!” is one of the responses from Japanese netizens to a tweet praising Malaysia's guidelines to its people in the wake of the COVID-19 coronavirus disease outbreak in China.

(Japanese citizens hail Malaysia's response to COVID-19 outbreak on social media / Malay Mail / 20-02-2020)

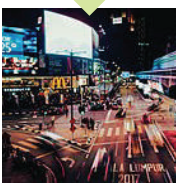


## THEME 4:

### AMPLIFICATION OF RISK

#### SUB-THEME 1 Traditional and social media

- The mix between traditional and social media can effectively influence the public



#### SUB-THEME 2 Experts in providing information

- especially in infectious disease experts, physicians and hospitals are perceived as the best public influencer in communicating information

#### SUB-THEME 3 Government agencies in managing the event

- have a solid role to play in influencing the public's behaviour through regulations and management

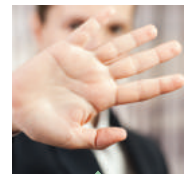


#### SUB-THEME 4 NGO's role

- can also help manage the crisis, especially NGO's that are familiar to the public

#### SUB-THEME 5 Negative effects

- Sometimes, media reporting can cause undesirable reactions due to misinterpretation and may cause panic; especially during disease outbreaks



#### SUB-THEME 6 Individual privacy

- Public concealment of information, especially on an individual's identity, is necessary to avoid unwanted attention or cause backlash

## CONCLUSION

Although information cannot be fully controlled, better management can be applied to the outbreak incidences via proper information dissemination. The following recommendations can be used for future outbreaks:

## Recommendations

- 01** Pre-emptive information dissemination via a singular, formal channel to avoid misinformation or spread of fake news
- 02** Constant updates to the targeted population or sub-population through a trustworthy spokesperson would allay speculation and answer all impending questions
- 03** All experts should corroborate in talking in the same language to avoid conflict of information that can lead to further confusion







# HEALTH & SOCIAL BEHAVIOUR

## DURING MOVEMENT CONTROL ORDER (MCO) FOLLOWING COVID-19: AN ONLINE SURVEY AMONG ADULT INTERNET USERS IN MALAYSIA

Author (s): Norbaidurah Ithnain, Albeny Joslyn Panting, Rosnani Kassim, Nadia Amirudin, Saiful Adli Suhaimi, Khairul Amar Musa

### *Introduction*

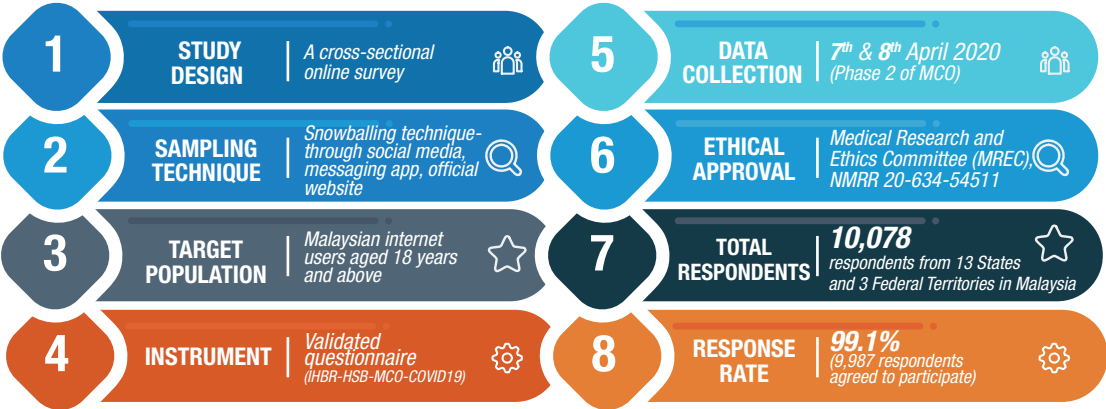
Malaysians face new challenges with the impact of COVID-19, especially with the enforcement of the Movement Control Order (MCO). This health crisis significantly impacts every individual and the overall population - from lifestyle changes, food access issues, income disruptions, emotional distress, and beyond.

### *Objectives*

To investigate the Malaysian health behaviour on smoking, physical activity, eating behaviour, responsibility on preventive measures, effects of MCO, and coping strategies. This study also assessed public acceptance of behavioural changes after MCO.

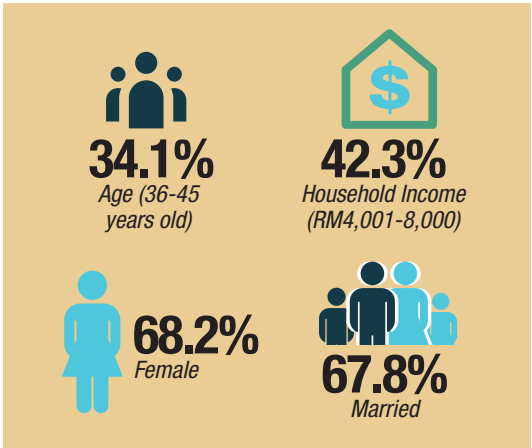
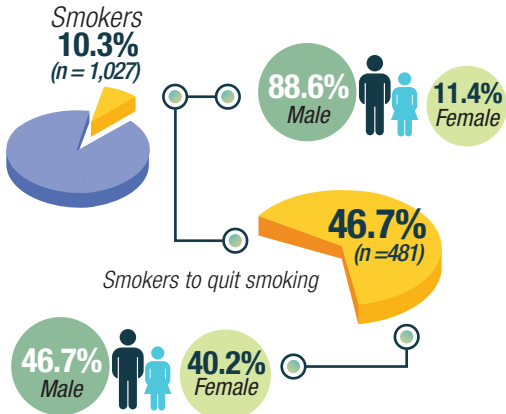
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# METHODOLOGY

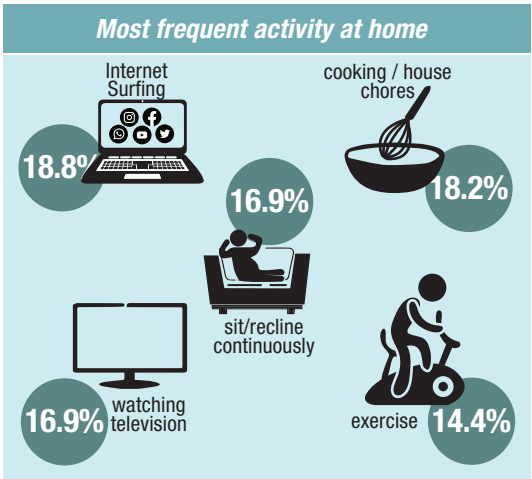
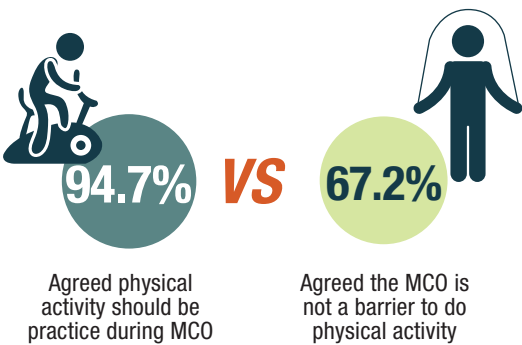


# RESPONDENTS' PROFILES

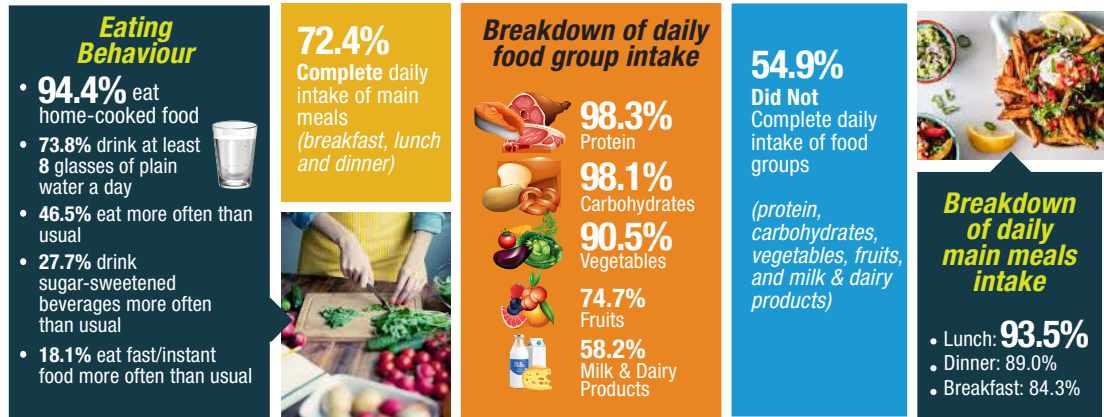
## SMOKING Status



## PHYSICAL Activity

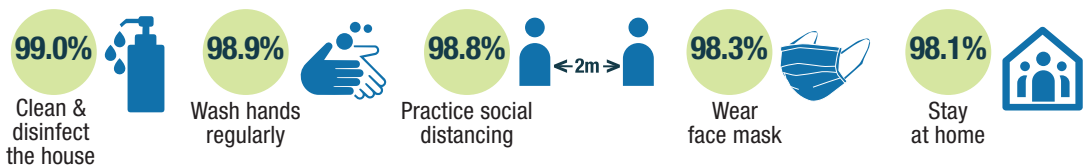


## EATING *Behaviour* during Movement Control Order (MCO)

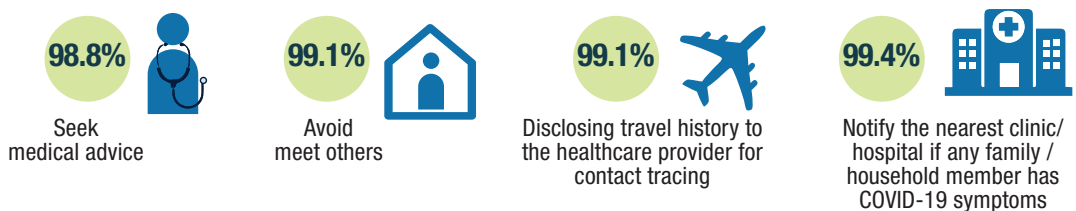


## RESPONSIBILITY TOWARDS COVID-19 PREVENTIVE MEASURES

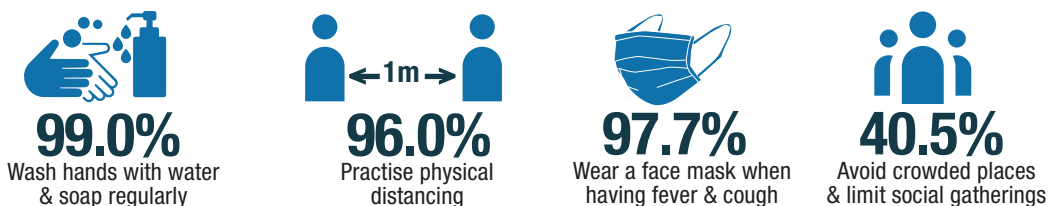
### Main Preventive Measures



### What to do when sick




## ACCEPTED CHANGES IN NORMS AFTER MCO




EFFECTS OF MOVEMENT CONTROL ORDER (MCO)

**ENFORCEMENT OF MCO**

- **98.4%** Agreed it can prevent spread of COVID-19
- **55.8%** Worried MCO would be extended
- **53.6%** Worried when the Government announced MCO
- **33.7%** MCO disrupts daily routines
- **30.0%** Felt stressed being confined at home








**FAMILY RELATIONSHIP**

- **94.8%** Agreed family relationship become more closer
- **86.7%** Worried about the safety of family living apart
- **7.1%** Often fight with couple / family throughout MCO

**PANIC BUYING**

- **50.9%** Bought more food supply than usual
- **39.2%** Worried food supply on the market is insufficient






**WORK/STUDY FROM HOME**

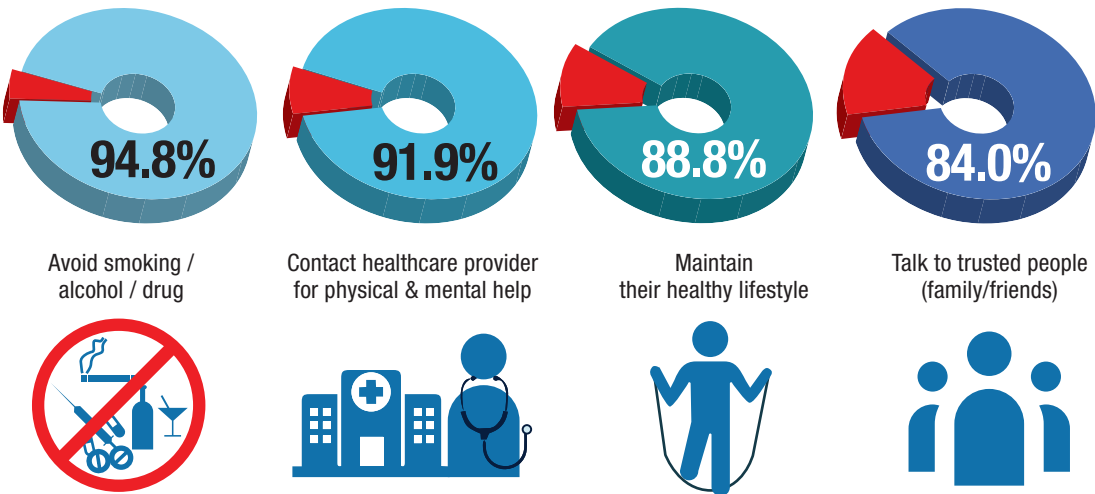
- **73.7%** Worried of MCO effect on work/education
- **44.1%** More productive learning/working from home

**FINANCIAL**

- **57.9%** Worried source of income affected because of MCO
- **57.3%** Worried if government financial support is insufficient



RESPONDENT COPING STRATEGIES FOR STRESS DURING MCO



**Disclaimer:** This online survey uses a non-probability sampling technique. Thus results of this study only represents feedback given by Malaysians answering this survey.





# ADHERENCE TOWARDS PREVENTIVE MEASURES

AMONG MALAYSIAN PUBLIC DURING COVID-19 PANDEMIC

USING THEORY OF PLANNED BEHAVIOUR (TPB): AN ONLINE SURVEY

## Introduction

During this pandemic, the Malaysian Government imposes and enforces the Movement Control Order (MCO). The public was urged to comply with the MCO and practice advice provided by the Ministry of Health (MOH). These require the public to make significant changes in daily lifestyles and habits.

## MCO INSTRUCTION

- 01 Stay at home
- 02 Remain wherever you are
- 03 Only one person per family is allowed to go out to buy groceries

## MOH ADVICE

- 01 Wash hand with water and soap or use hand sanitiser frequently
- 02 Avoid crowded places
- 03 Practice social distancing at least 1 meter

## Objective:

To evaluate respondent **Attitude, Subjective Norm, Perceived Behavioural Control** and **Behavioural Intention** towards MCO Instruction and MOH Advice

Author (s): Muhammad Ridzwan bin Zakaria, Zaikiah Mohd Zin, Norrafizah Jaafar, Mohamad Zaidan Zulkepli, Sheikh Shafizal bin Sheikh Ilman

1

DATA COLLECTION | 10<sup>th</sup> to 21<sup>st</sup> April 2020



2

TOTAL RESPONDENTS | 12,251 respondents



3

TARGET POPULATION | Malaysian, an Internet user aged 18 years and above



## RESPONDENTS' PROFILES



working as public servant

37.2%



living at home with families

88.8%



Malay

73.5%



Bachelor Degree

44.3%



between 31-40 years old

41.95%



Female

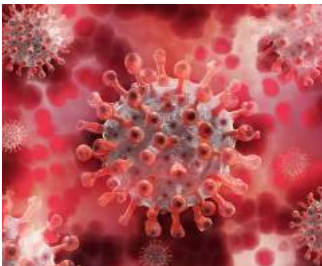
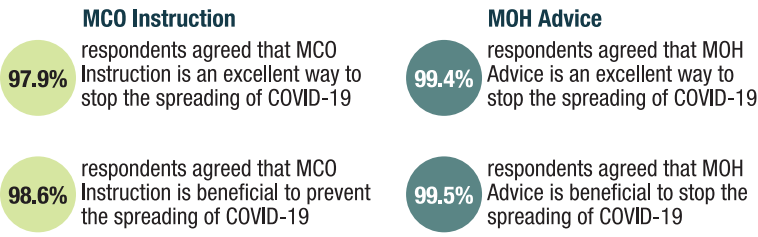
69.5%

Results:

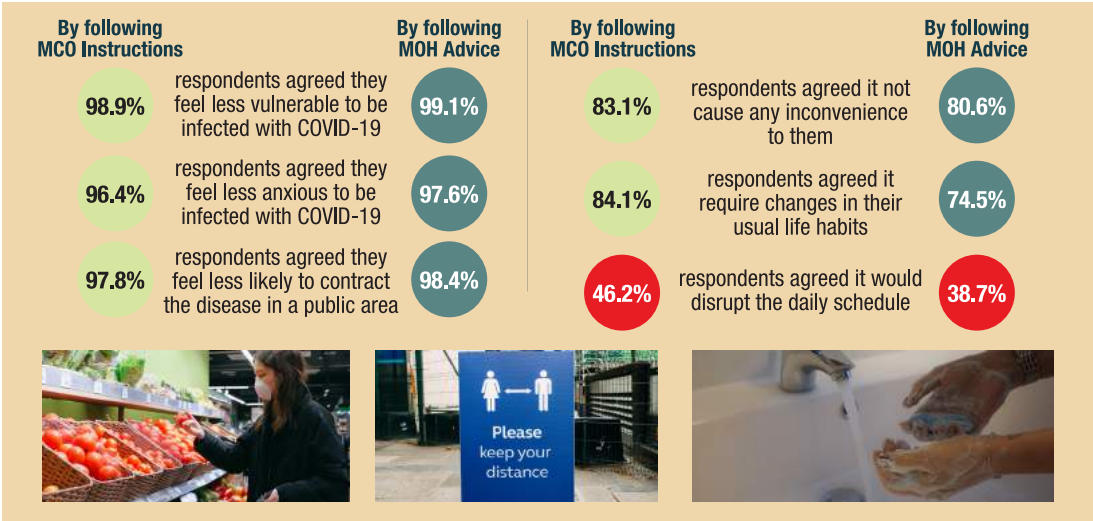
RESPONDENT ATTITUDE TOWARDS MCO INSTRUCTION & MOH ADVICE

Attitude towards the behaviour is defined as the person's overall evaluation of the behaviour.

i. Behavioural beliefs

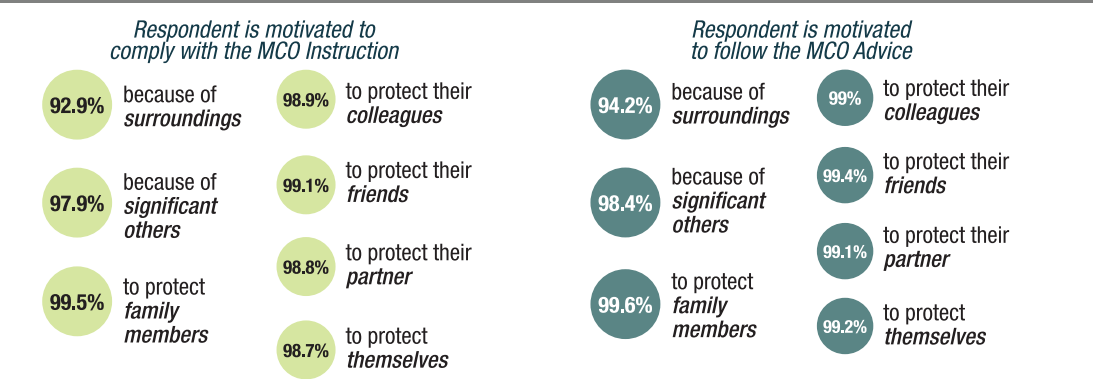


ii. Outcome evaluation



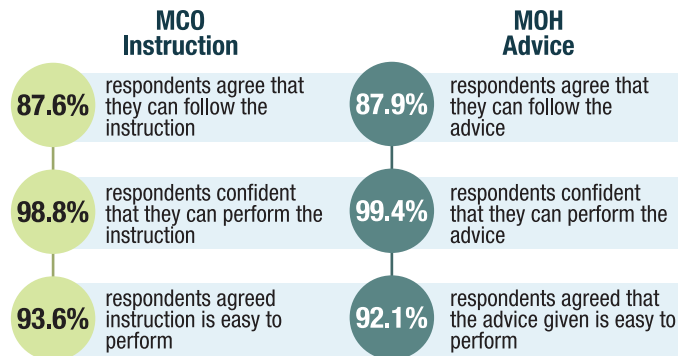
SUBJECTIVE NORMS TOWARDS MCO INSTRUCTIONS AND MOH ADVICE

Subjective norms are a person's estimate of the social pressure to perform, or not perform, the target behaviour.



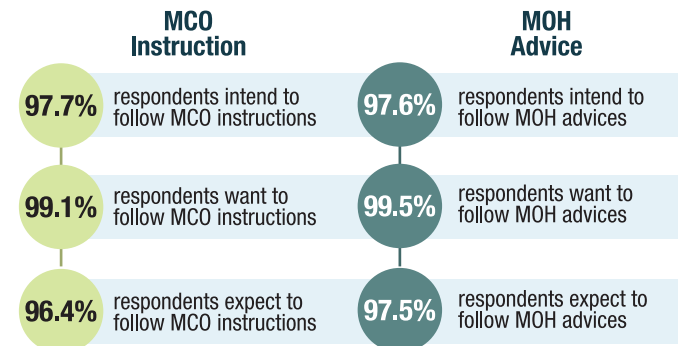
## PERCEIVED BEHAVIOURAL CONTROL TOWARDS MCO INSTRUCTION & MOH ADVICE

Perceived behavioural control refers to individuals' perceptions of the ease of performing a behaviour and confidence in their ability to perform it.



## BEHAVIOURAL INTENTION TOWARDS MCO INSTRUCTIONS AND MOH ADVICE

Behavioural intention is the possibility to perform the behaviour.

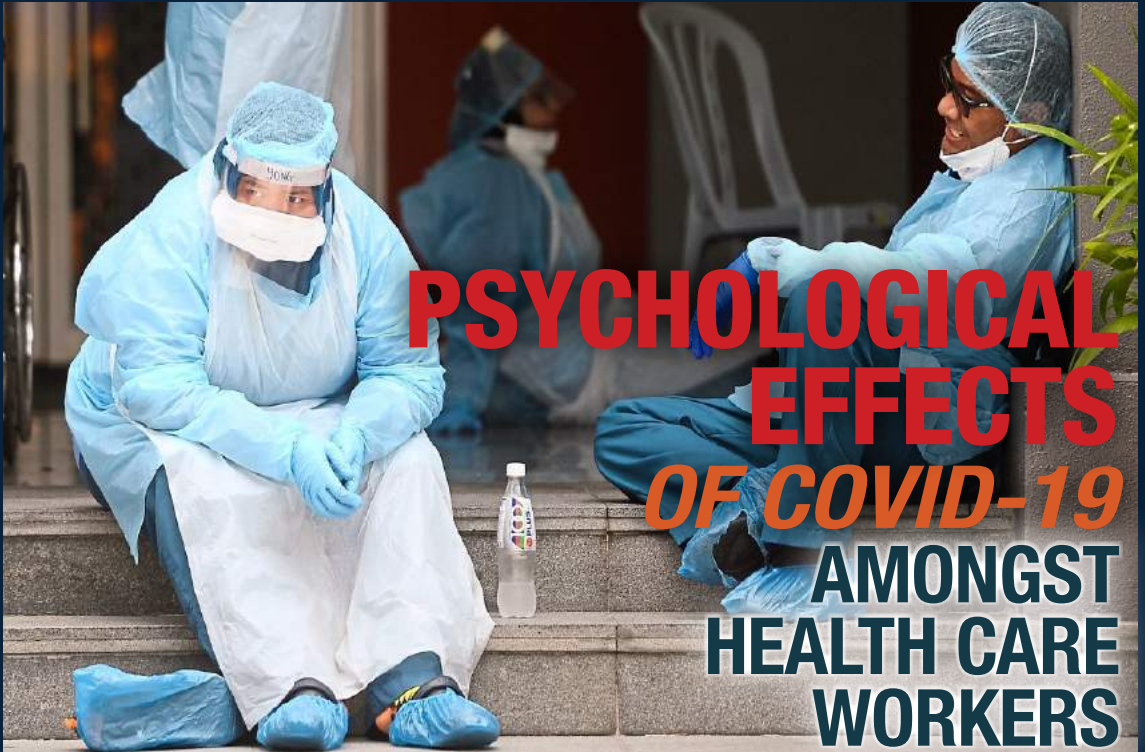


## CONCLUSION

In summary, most Malaysian public is motivated to follow preventive measures to protect themselves and their loved ones, and their surroundings and significant others influence these.

The public agrees with these measures introduced by the Government as good ways and beneficial to stop the spread of COVID-19. Results also indicate that most respondents have the confidence and intention to perform these measures.

Although this study revealed that the behavioural intention is high, necessary strategies need to be strengthened to ensure it is translated into actual behaviour.



# PSYCHOLOGICAL EFFECTS OF COVID-19 AMONGST HEALTH CARE WORKERS

AN ONLINE SURVEY AMONG HEALTHCARE WORKERS IN MALAYSIA

Author (s) : Kamarul Zaman Salleh, Noorlaile Jasman, Normawati Ahmad, Abu Bakar Rahman, Siti Nur Farhana Harun, Dr. Manimaran Krishnan

## INTRODUCTION

During the COVID-19 pandemic, healthcare workers, especially those working on the front lines, may experience short-term stress and long-term psychosocial consequences. Among psychosocial reactions that commonly occur are fear of contagion, feelings of stigmatisation, loneliness, isolation, anger, anxiety, and a sense of uncertainty (Mauder et al., 2003).

The psychological well-being of healthcare workers are paramount and have to be prioritised to ensure an excellent fight against the new Coronavirus.

### Objective

To collect baseline data on the psychological effects of COVID-19 among healthcare workers both public and private sectors during this pandemic.

### LIKELIHOOD OF HAVING A MENTAL DISORDER (psychological distress):

*Mental health levels were measured using the Kessler Psychological Distress test (K10), consisting of 10 questions related to anxiety and depression.*

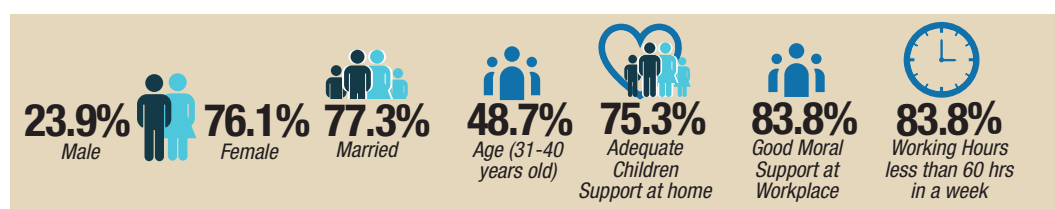
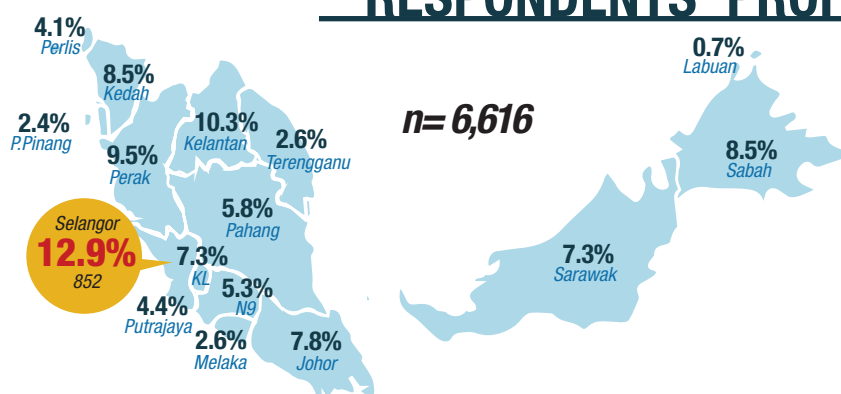
- 01** Likely to be well
- 02** Likely to have mild mental disorder
- 03** Likely to have moderate mental disorder
- 04** Likely to have severe mental disorder



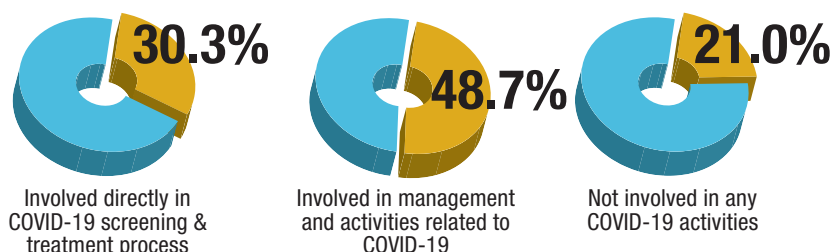
## METHODOLOGY



## RESPONDENTS' PROFILES



### INVOLVEMENT IN COVID-19 ACTIVITIES

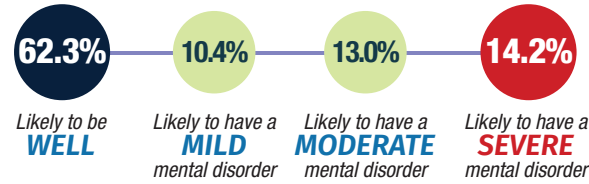




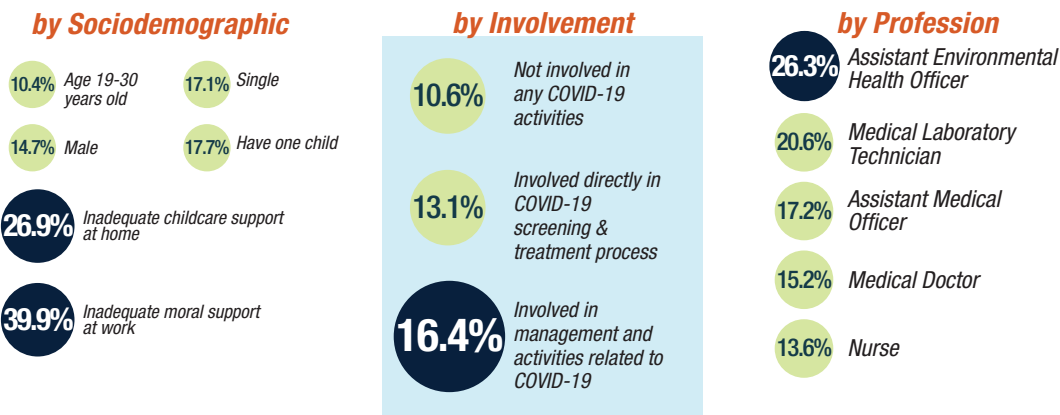
# MENTAL HEALTH STATUS

## OVERALL MENTAL HEALTH STATUS

LIKELIHOOD OF HAVING A MENTAL DISORDER  
(psychological distress)



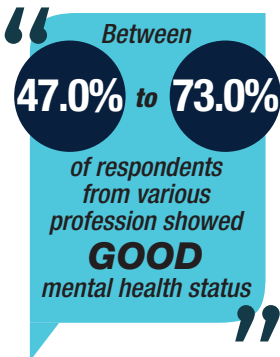
## LIKELY TO HAVE SEVERE MENTAL DISORDER

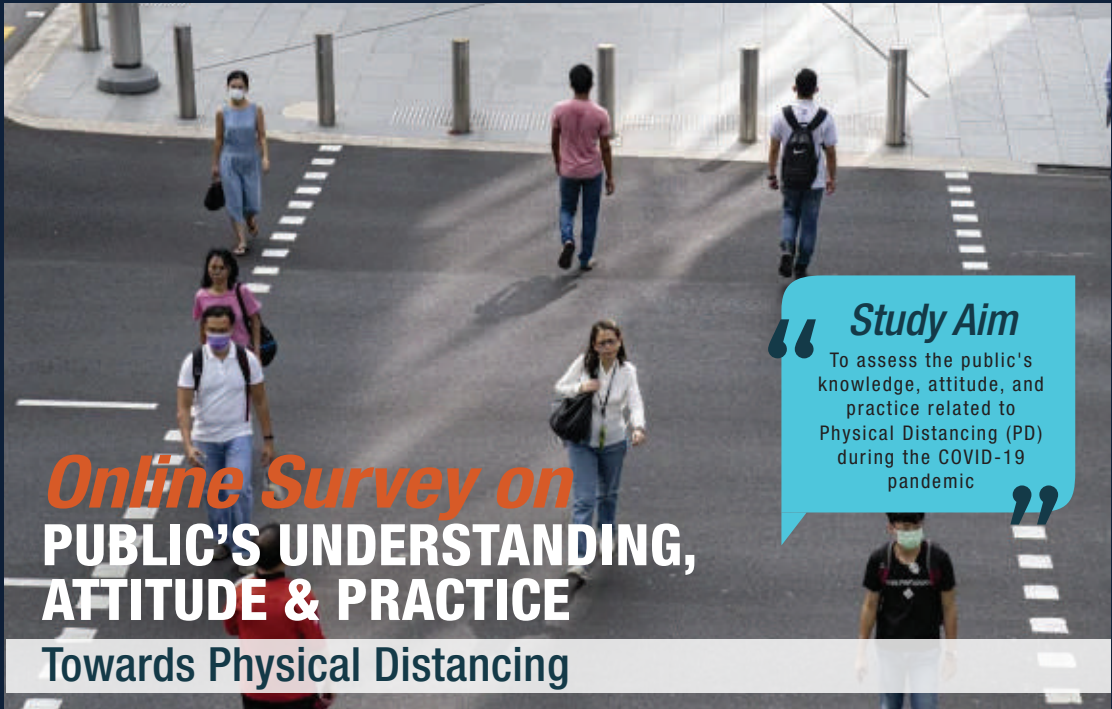


## CONCLUSION

Overall, the psychological effects of healthcare workers during the COVID-19 pandemic are likely to be well.

However, respondents who showed a likelihood to have severe mental disorders should not be overlooked considering the high percentage, especially among frontliners such as Medical Officers, Medical Assistants, Nurses, Assistant Environmental Health Officers, and Medical Laboratory Technicians.





# Online Survey on PUBLIC'S UNDERSTANDING, ATTITUDE & PRACTICE Towards Physical Distancing

**Study Aim**  
To assess the public's knowledge, attitude, and practice related to Physical Distancing (PD) during the COVID-19 pandemic

Author (s) : Komathi Perialathan, Masitah Ahmad, Teresa Yong Sui Mien, Dr. Mohammad Zabri Johari, Norrafizah Jaafar, Nurashma Juatan, Norharyati Sanusi, Khairul Amar Bin Musa, Dr. Shubash Shander Ganapathy, Dr. Manimaran Krishnan, Dr. Feisul Idzwan Dato' Mustapha

## Introduction

While a vaccine is unavailable, Physical Distancing (PD) is one of Malaysia's (MOH) key recommended prevention measures for COVID-19. This measure has proven to effectively control the spread of the pandemic COVID-19.

Research on PD revealed ambivalent public views. Therefore it's essential to explore further the public's knowledge, self-reported adherence, perceptions, and behaviour related to PD.



## METHODOLOGY

1

**STUDY DESIGN** | A cross-sectional online survey

2

**SAMPLING TECHNIQUE** | Non-probability sampling; unrestricted, self-selected survey and snowballing method

3

**TARGET POPULATION** | Malaysian Internet user, aged 18 years old and above

4

**INSTRUMENT** | A pretested and validated questionnaire on Physical Distancing (PD)

5

**DATA COLLECTION** | 19<sup>th</sup> of June - 19<sup>th</sup> of July 2020 (During Recovery Movement Control Order Phase)

6

**ETHICAL APPROVAL BY** | Medical Research and Ethics Committee (MREC), NMRR-20-1052-55093

7

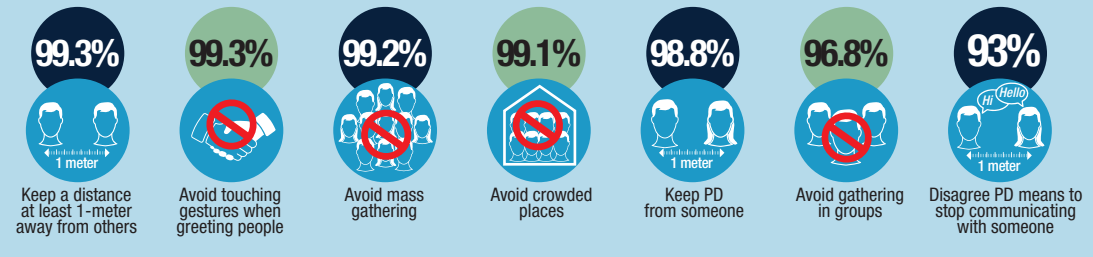
**TOTAL RESPONDENTS** | 3,489 respondents

8

**RESPONSE RATE** | 99.2% (3,460 agreed to participate)

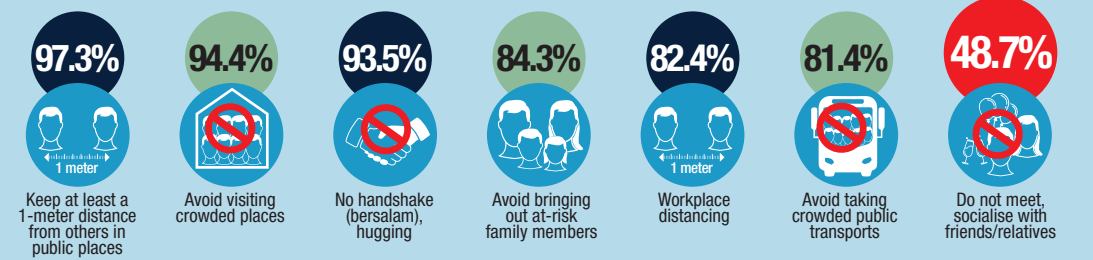
KNOWLEDGE ON PHYSICAL DISTANCING

Majority of respondents knows PD requires:



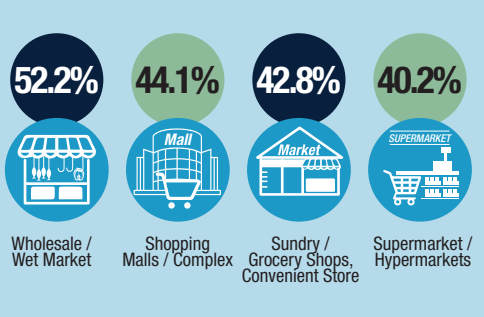
CURRENT PRACTICE ON PHYSICAL DISTANCING

The majority of respondents self-reported they practised PD measures:



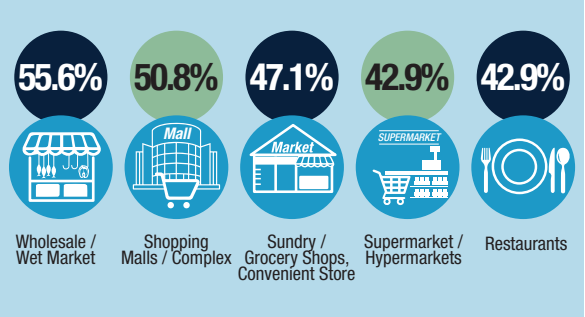
LOCATIONS DIFFICULT TO PRACTICE PHYSICAL DISTANCING

Places where respondents say difficult to practice PD at:



LOCATIONS SEEN OTHERS NOT PRACTISING PHYSICAL DISTANCING

Places where respondents have seen others not practising PD at:



## ATTITUDES TOWARDS PHYSICAL DISTANCING

Majority of respondents AGREE...

97.2%

PD is the new normal that need to be adapted

82.0%

To practice PD seriously

95.9%

PD is an effective measure to control the spread of COVID-19 infection

95.9%

PD is effective in reducing the risk of getting infected with COVID-19

92.0%

They will be exposed to the health severity of COVID-19 if they do not practice PD

91.4%

Get tensed when see others do not practice PD in public

89.0%

Legal action was taken on the owner of premises /business operations that do not follow SOP guidelines

82.0%

Will adhere strictly to PD as how during the MCO

## PERCEPTION ON BENEFITS OF PHYSICAL DISTANCING

The majority of respondents perceive the practice of PD helps to:

94.7%



Reduce personal risk of COVID-19 infection

91.9%



Stop COVID-19 transmission in a community

82.9%



Protect own health

82.5%



Protect the health of people around

Surprisingly only

67.8%



Agreed on benefits of PD is to avoid loss of life due to COVID-19.

The lower response to this perception could be attributed to lower death rates due to COVID-19 reported at that point of time (March-July 2020).

\*This perceptions may differ in the current situation.

## RESPONDENTS INTENTION TO PRACTICE 3W (WASH, WEAR, WARN)

97.8%



Agreed to wash hands frequently with water and soap

89.8%



Agreed to bring own hand sanitizer and use it every time after touching surfaces at public

85.2%



Agreed to wear face mask every time when leaving house

95.6%



Agreed to avoid bringing out at-risk family members to the public place

95.1%



Decided to seek treatment at hospital or clinic if they develop symptoms like fever, cough

79.0%



Approved to prevent hanging out for leisure activities with a friend or work colleagues

## CONCLUSION

Survey findings generally showed respondents have high knowledge and positive attitudes towards the practice of Physical Distancing (PD). However, there were discrepancies in their response towards the practice component.

Regardless of the high level of knowledge portrayed by respondents in this survey, due to the human tendency to need close interactions and the need to follow the standard norms practised in society and have more inadequate control over it, it affects the practice of PD.

Strict enforcement of Government on Standard Operating Procedures for PD at public places will enhance the adherence to this practice among public.





# Knowledge, Perception & Practice

## of Infection Control among Ministry of Health staffs

### during COVID-19 Outbreak in Malaysia

Author (s) : Dr. Halizah Mat Rifin, Dr. Shubash Shander Ganapathy, Wan Shakira Rodzlan Hasan, Komathi Perialathan, Dr. Manimaran Krishnan, Dr. Noor Ani Ahmad

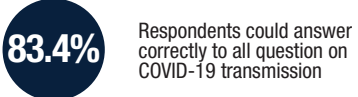
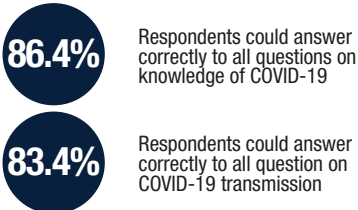
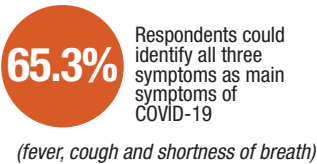
#### Results:

#### Objective:

- To measure MOH staffs of their:
- 1) Knowledge of COVID-19
    - i) Overall knowledge towards COVID-19 clinical presentation
    - ii) General knowledge of COVID-19
    - iii) Transmission route of COVID-19
  - 2) Perception
  - 3) Practice of infection control

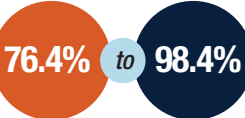


#### KNOWLEDGE OF COVID-19



#### PERCEPTION OF COVID-19 PREVENTIVE MEASURES

The result of respondents preventive measures perceptions range from





## PERCEPTION OF COVID-19 PREVENTIVE MEASURES

The result of respondents preventive measures perceptions if respondents develops COVID-19 symptoms range from

85.5% to 98.8%



Respondents aware that they have to throw their used tissue and face mask in the rubbish bin



## PRACTICES OF INFECTION CONTROL

The result of respondents preventive measures practices range from

88.8% to 99.7%



77.8%

Respondents practice wearing face mask at public places

The result of respondents preventive measures practices if respondent develops COVID-19 symptoms range from

89.8% to 99.7%



89.8%

Respondents practice wearing face mask all the time



93.1%

Respondents practice throwing their used tissue and face mask in the rubbish bin

### Our findings

Only a moderate number of the respondents had good knowledge on COVID-19 symptoms, a better understanding of the disease, and transmission of the disease.

The least practised preventive measure by MOH staffs was wearing the face mask, following the WHO guidelines at the time survey whereby only those with symptoms were encouraged to wear the face mask.

The majority of MOH staffs reported positively to practice measures should they develop symptoms of COVID-19. There were gaps observed between the practices and perception of their effectiveness.

### Recommendation

The symptoms and information regarding COVID-19 need to be communicated to avoid confusion. The gaps between the practices and perception of their effectiveness should be tackled with targeted and specific health messages. The importance of these practices is well understood and will continue to be practised in the future.

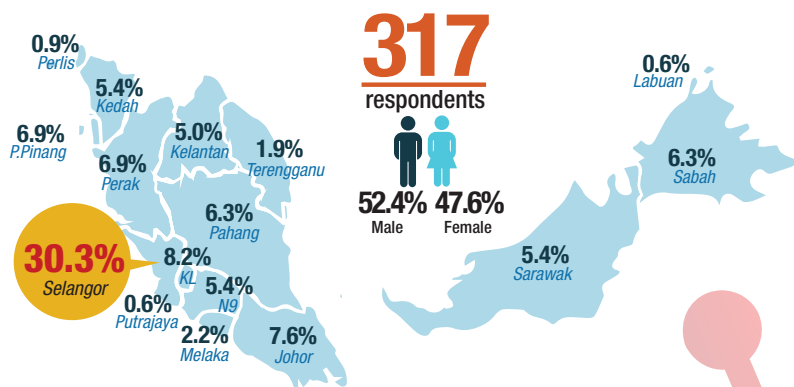
However, these messages must be instructive and be accompanied with clear reasoning to educate the staff of its importance. These measures will become a new norm in the future, even when the threat of COVID-19 is low.



# KNOWLEDGE & PRACTICE

## *of Infection Control Among Malaysians during COVID-19 Outbreak*

Author : Dr. Shubash Shander Ganapathy

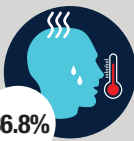


“ A total of 317 respondents answered this telephone interview from all 16 states and federal territories in Malaysia. ”

DATA COLLECTION : MARCH AND APRIL 2020

### RESPONDENTS WHO ABLE TO IDENTIFY 3 MAIN SYMPTOMS OF COVID-19

01



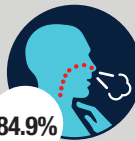
Fever

02



Cough

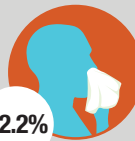
03



Shortness of breath

### RESPONDENTS WHO THINK THESE BELOW ALSO MAIN SYMPTOMS OF COVID-19

01



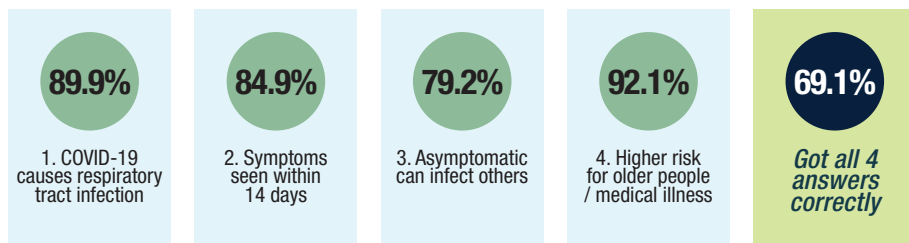
Flu

02

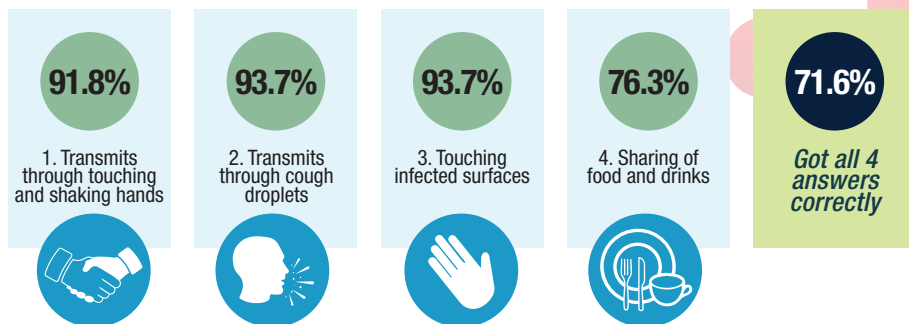


Diarrhea

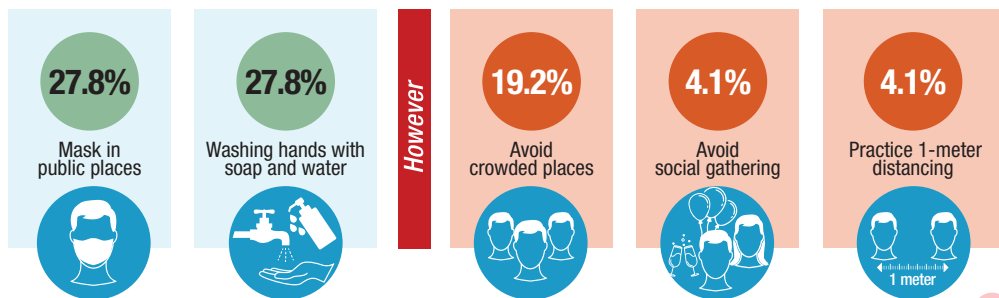
PERCENTAGE OF PEOPLE WITH GOOD KNOWLEDGE OF THE DISEASE AS STATEMENTS BELOW:



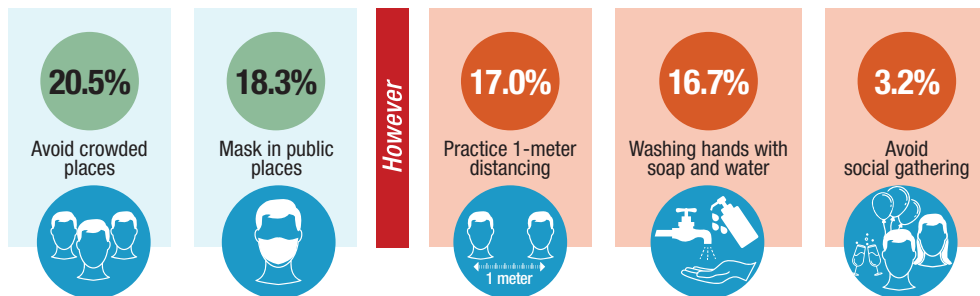
PERCENTAGE OF PEOPLE WITH GOOD KNOWLEDGE OF DISEASE TRANSMISSION AS QUESTIONS BELOW:

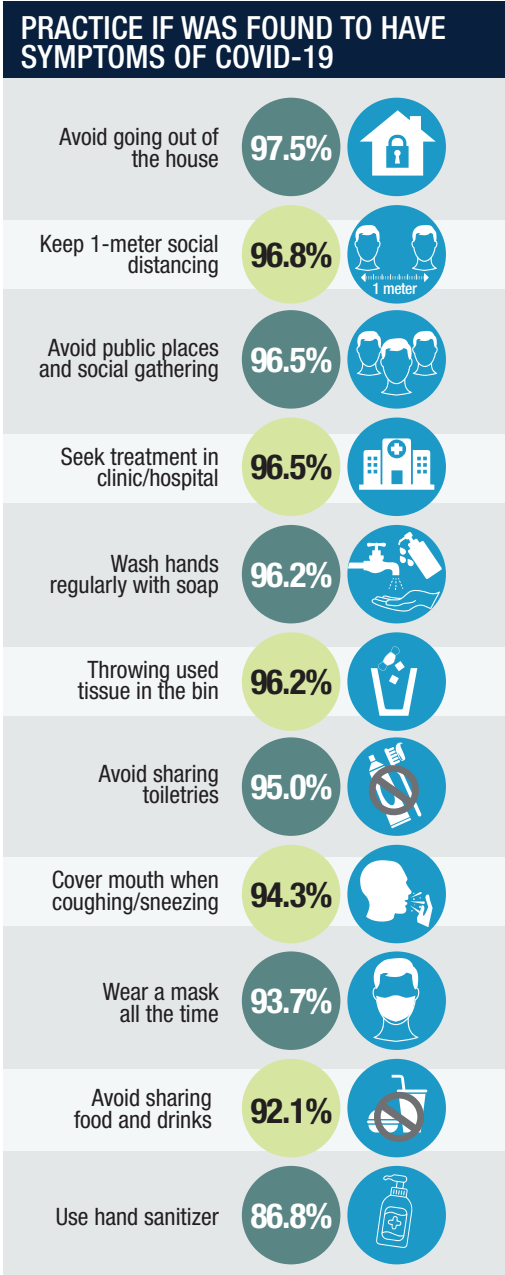


MAIN PREVENTIVE MEASURES UNDERTAKEN



PERCEPTION OF MOST IMPORTANT PREVENTIVE MEASURES







# KNOWLEDGE, ATTITUDE & PRACTICE OF COVID-19 DURING MCO & CMCO

AMONG SOCIAL MEDIA USERS IN MALAYSIA

## Introduction

Movement Control Order (MCO) was imposed from the 18th of March 2020 to the 14th of May 2020. The order included restrictions on the general prohibition of mass movements and gatherings across the country and was slowly lifted in the Conditional MCO (CMCO) and subsequent phases.

The Ministry of Health (MOH) and National Security Council (NSC) has been actively providing information on COVID-19 and the recommended measures to prevent the infection.

These practices include social distancing, hand hygiene, face masks, cough etiquette, and avoidance of gatherings. Social media was the primary tool used to disseminate information on the latest news, updates, and predictions related to the outbreak.

Author (s): Dr. Chern Phei Ming, Dr. Darmini Selvan, Dr. Azim Hazizuddin bin Nasaruddin, Dr. Halimah Hana binti A Karim

*CLINICAL RESEARCH CENTRE,  
HOSPITAL REHABILITASI CHERAS*

## METHODOLOGY

1

**STUDY  
DESIGN**

Online survey  
questionnaire



2

**DATA  
COLLECTION**

MCO: 17<sup>th</sup> to 24<sup>th</sup> April 2020  
CMCO: 5 to 19 June 2020



3

**TARGET  
POPULATION**

Malaysian, 18 years  
old and above &  
active in social media



4

**ETHICAL  
APPROVAL**

NMRR: 20-743-54644  
NMRR: 20-1064-55142

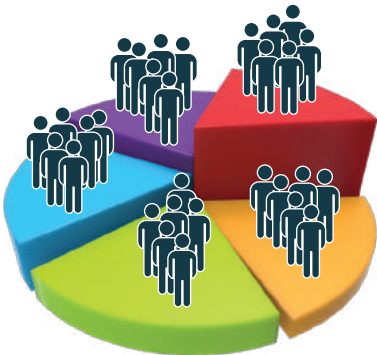




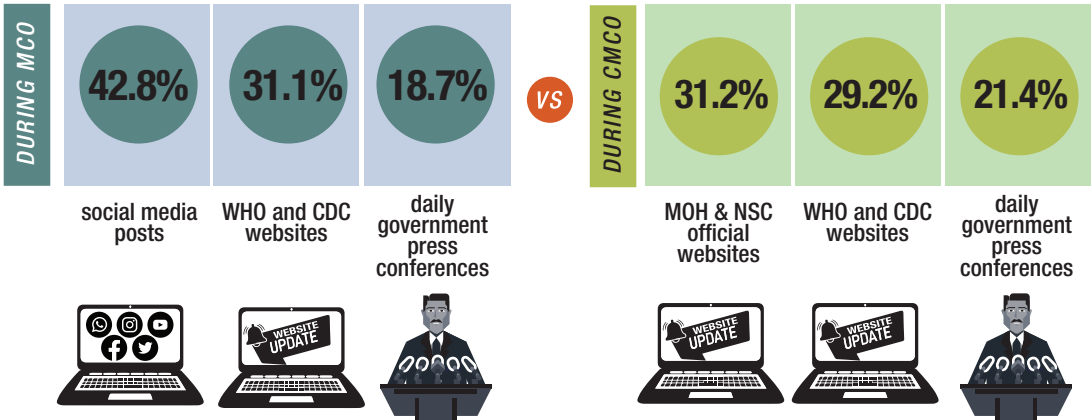
COMPARING **SOCIODEMOGRAPHIC** OF RESPONDENTS

DEMOGRAPHIC BACKGROUND							
DURING CMCO VS DURING MCO	2,158	36.7 (±9.99)	72.7%	61.7%	91.7%	85.5%	46.9%
	Subjects Responded	Mean Age	Females	Married	Tertiary Education	Employed	From Klang Valley
	2,865	34.69 (±9.10)	68.7%	56.1%	90.4%	81.4%	42.2%

DURING MCO VS DURING CMCO	EMPLOYMENT BACKGROUND			
	46.9%	39.2%	7.0%	1.9%
	Healthcare	Non-healthcare	Student	Retired
	16.0%	67.0%	9.8%	2.0%



MAIN SOURCE OF INFORMATION FOR COVID-19

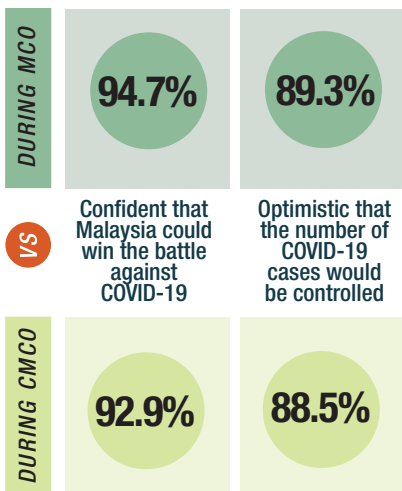


## KNOWLEDGE ON COVID-19 AMONG SOCIAL MEDIA USERS IN MALAYSIA

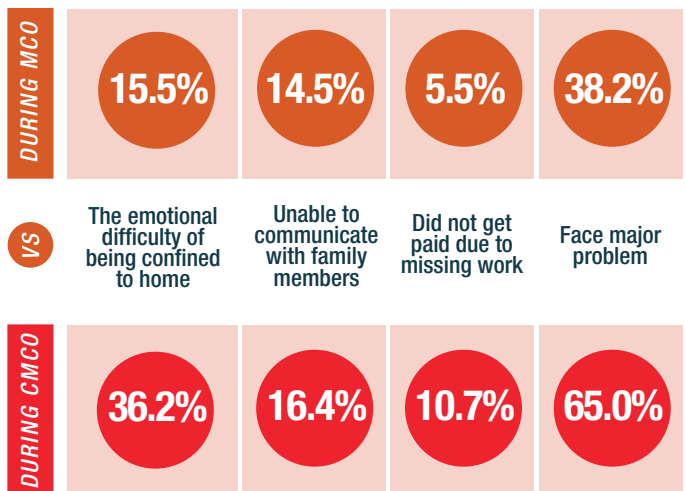


## ATTITUDE TOWARDS COVID-19

### CONFIDENCE IN BATTLING AGAINST COVID-19



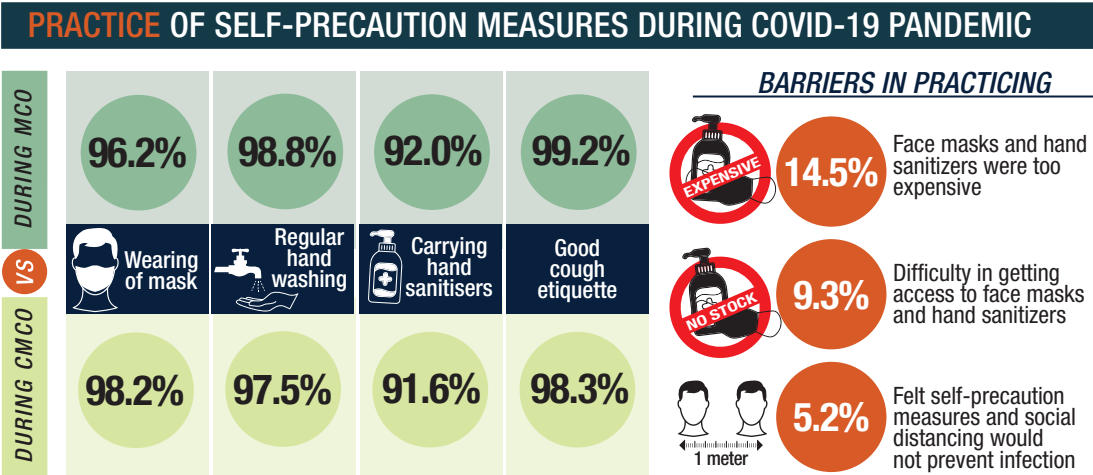
### MAJOR PROBLEMS FACED



### Our findings

There is decreasing confidence and less optimistic gain from the respondents during CMCO compare to during MCO. In comparison, there is an alarming increase in problems faced by the respondents for prolonging CMCO.





### Conclusion

In summary, there was an increase in respondents' total knowledge score during CMCO compared to MCO. However, there was a slight decrease in winning the battle against COVID-19 and optimism that positive COVID-19 would be controlled. This may be due to the disease's inadequate evidence and evolving information.

Our studies showed that Malaysians have good knowledge, positive attitudes, and correct practice regarding COVID-19 either during MCO or CMCO. The public also has high confidence and was optimistic that Malaysia could overcome the pandemic.



# An Analysis of Public Inquiries

*Received by CPRC during COVID-19 Pandemic*

## Introduction

National Crisis Preparedness and Response Centre (CPRC) is the national command centre for infectious disease surveillance that manages health-related crises and disasters. During the COVID-19 pandemic, CPRC plays a vital role in providing relevant information about COVID-19 to the public. In essence, preparedness and response capacity are prerequisites for effective risk reduction and effective information transmission during emergency outbreaks in Malaysia.

## Objectives

“To explore the types of inquiries submitted by the public to the CPRC during the COVID-19 pandemic and further identify the trend of inquiry calls, emails, and WhatsApp when the Government started to impose Movement Control Order (MCO).”

Author (s) : Logeswary Krisnan, Khairulnissa Abdul Kadir, Zainudin A. Hamid

*INSTITUTE FOR HEALTH BEHAVIOURAL RESEARCH, NATIONAL INSTITUTES OF HEALTH, MINISTRY OF HEALTH MALAYSIA*

*DISEASE CONTROL DIVISION, MINISTRY OF HEALTH MALAYSIA*

## METHODOLOGY

1

**STUDY DESIGN**

Quantitative involving secondary data obtained from CPRC Putrajaya.

2

**DATA COLLECTION**

March until April 2020

3

**ETHICAL APPROVAL**

Medical Research and Ethics Committee (MREC), 20-745-54659

4

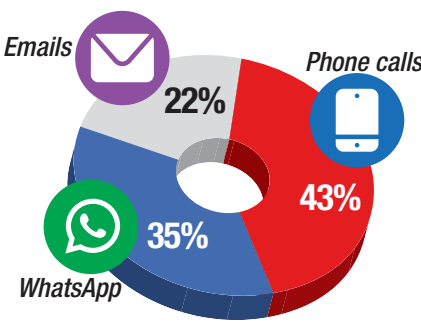
**TOTAL INQUIRIES**

64,331 inquiries

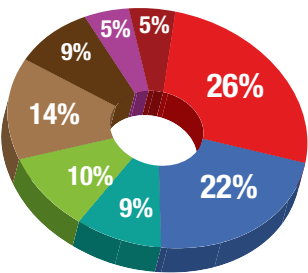
INQUIRIES CLASSIFICATION



MOST PREFERRED MODE OF COMMUNICATION



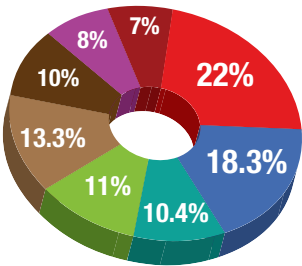
INQUIRIES RECEIVED DURING MCO



**Our findings**

The inquiry trend changed significantly ( $p < 0.05$ ) with MCO imposition as the total number of inquiries increased from 38% to 62%

OVERALL INQUIRIES RECEIVED BY CATEGORY



Conclusion

Our data suggests that Malaysians opt for a trusted source of information, and CPRCs are considered the central nerve point in providing relevant information during the COVID-19 pandemic.

However, our study also found that a proper data management system is highly needed in CPRCs to strengthen the command capacity.

Besides, CPRCs should develop an effective risk communication format to cater to the public's concern on health education during pandemics.







**Published and distributed by:**



**MOH number: MOH/S/IPSK/181.20(TR)-e**

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