

## DENGUE AWARENESS CAMPAIGNS IN THE MEDIA: A STUDY ON SELANGOR RESIDENTS' PERCEPTION

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### Abstract

*This research sought to fulfill three (3) objectives; 1. To study the audiences' perception towards the dengue awareness campaigns based on the visual content in the campaign, 2. To study the audiences' perception towards the dengue awareness campaigns based on the verbal content in the campaign, and 3. To study the audiences' perception towards the dengue awareness campaigns based on the type of media used for the campaign. This research is a combination of quantitative (survey) and qualitative (in-depth interview) method based on a non-probability sampling (purposive sampling) of 738 respondents from three (3) areas in Selangor namely Shah Alam (269 respondents), Subang Jaya (199 respondents) and Petaling Jaya (270 respondents) and six (6) informants of which two (2) from each area. These respondents and informants were chosen based on the following criteria; 1. Malaysian citizens, 2. Selangor residents (more than 5 years of residency and aged from 25 years old to 50 years old). The quantitative data received were analyzed through SPSS and tabulated according to the objectives of the research. Meanwhile, the qualitative data were categorized according to themes and tabulated also based on the research objectives.*

*Keywords: dengue, awareness campaigns, social marketing, audience perception*

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### 1 INTRODUCTION

Dengue fever is categorized as one of the most serious and dangerous viral disease in Malaysia, which could cause death if the patients receive delayed treatment. The latest statistics from <http://idengue.remotesensing.gov.my> shows that there are 41,749 cases nationwide with 92 deaths, dated from 3 January 2016 until 16 April 2016. The report shows that the highest number of case comes from Selangor with a total of 22,164 cases in the state.

Therefore, various strategies have been planned and executed by the government, in order to help solve or at least reduce the number of dengue fever cases, especially critical ones that could lead to death. In Selangor alone, many dengue awareness campaigns have been introduced to the public in order to educate them on the dangers of the disease and how to avoid the disease from spreading.

According to a report in <http://www.freemalaysiatoday.com> dated 12 February 2014, Selangor had an increase of 354% of dengue cases in the first two months of 2014, which brought to a total number of 6,211 cases compared to 1,367 cases in 2013. Until 8 February 2014, four main districts held the highest number of cases as follows; Petaling (2,738), Hulu Langat (1,784), Klang (775) and Gombak (644).

In another report on [www.abnxcass.com](http://www.abnxcass.com) dated 7 February 2015, Azmin Ali, the Chief Minister of Selangor announced that Selangor sees a rise of 75% of dengue fever cases in January 2015 (6,686 cases with 17 deaths) compared to the number in January 2014 (3,813 cases). Due to this alarming rate of dengue fever cases in Selangor, there is an urgent need to understand why does the statistic continue to rise although the government and local authorities have carried out many strategic efforts and actions in trying to solve or at least decrease the number of dengue cases in Selangor. Is there something wrong with the campaign or might there be something wrong with the targeted audiences' acceptance of the campaign?

In order for a campaign to succeed in creating awareness it must be forcefully implemented and frequently exposed to the public – without these serious efforts, the campaign would be meaningless. The effect of exposures on audience awareness depends on the exposure's reach, frequency and impact (Kotler *et al.* 2009, page 568). Therefore, it is also important for the initiator of the campaign to do research and gain knowledge on the demographic and psychographic profile of a particular targeted audience before introducing any kind of product or in this case a social marketing campaign, so that awareness is effectively created and the important messages are successfully conveyed across to the intended audience.

In the past, the public has doubted the effectiveness of campaigns that highlighted on grave issues such as road safety, anti-drugs (*Belia Benci Dadah*) campaigns and especially the anti-smoking campaign (*Tak Nak! Merokok*). According to a front page report in *Utusan Malaysia* on 18 January 2010 described the campaign as a failure. This statement was made following a research and report made by the Ministry of Health that stated three strong arguments:

- 1) A number of 45 to 50 new smokers among children under the age of 18 years old have emerged every day.
- 2) There is an increase of 30,000 smokers every year and currently there are 3.12 million smokers in the country and
- 3) The goal to build 270 clinics around the nation in an effort to help smokers quit smoking since 2001 has failed due to smokers' negative attitude towards the campaign.

Considering these arguments, it can be assumed that the government is not entirely responsible for the failed campaign, but it is also because of the targeted audience's (smokers and future smokers) negative attitude towards the campaign.

Therefore, in relation to previous campaigns, this research serves to study the audiences' perception towards dengue awareness campaigns in the media, specifically in Selangor.

## 2 LITERATURE REVIEW

In January 6, 2016, Selangor was reported by the Health Ministry to have the highest number of dengue hotspots at 107 out of 145 hotspots in the country (The Star) with number of dengue cases continue to rise with 1,163 (New Straits Times, January 10, 2016). A month after, The Star (February 16, 2016) reported there is no indication that the number of reported dengue cases are decreasing anytime soon. Deputy Director of Selangor Health Department Vector Department, Dr Sharifah Malihah Wan Mustapha indicated a few reasons of extreme number of dengue cases that were not present in other states includes high density population and rapid movement of people in and out of the state.

### 2.1. Social Marketing

#### 2.1.1 Social Marketing Campaign Approaches in the Media (International)

In the present paper, the researchers are studying the audiences' perception towards the dengue awareness campaigns based on the visual content in the campaign, audiences' perception towards the dengue awareness campaigns based on the verbal content in the campaign and the audiences' perception towards the dengue

awareness campaigns based on the type of media used for the campaign.

The following literature review attempts to demonstrate the perception of dengue awareness campaign in the media.

In a research conducted by Ahmet Itrat, Abdullah Khan, Sunniya Javaid, Mahwash Kamal, Hassan Khan, Sannia Javed, Saira Kalia, Adil Haleem Kan, Mohammad Imran Sethi, Imtiaz Jehan, two specific objectives were addressed to guiding the study. First, the objective of their study was to assess the level of knowledge about dengue, its spread, symptoms and prevention among the population of Karachi. Second, they were also keen to find out the level of awareness regarding the preventive measures against dengue fever. The focus of the study was either patients or their attendants aged 18 years or above who were visiting the outpatient department (OPDs) who were residents of Karachi. The study had implemented face-to-face interview based on a pretested questionnaire through convenience sampling.

The result found that about 89.9% of individuals interviewed had heard of dengue fever. 38.5% of the sample had sufficient knowledge about dengue. The study also found that literate individuals were relatively better informed about dengue fever as compared to the illiterate people ( $p < 0.001$ ). 78.3% knowledge based upon preventive measure was found to be predominantly focused towards prevention of mosquito bites rather than the eradication of mosquito population (17.3%). 48.1% of the respondents agreed that the use of anti-mosquito spray was the most prevalent preventive measure. Television was considered as the most important and useful source of information on the disease.

All of the results combined concluded that adult population of Karachi has adequate knowledge on 'dengue' disease but nevertheless, overall prevalence of 'sufficient knowledge' was poor. Even though the study did not concentrate on the campaign visual content and verbal content, further result correlate the association between knowledge and its effective against dengue will be helpful in demonstrating the implications of awareness campaigns.

Tawadchai Suppadit, Pukkamong Pongsuk, Wisakha Phoochinda and Achara Taweearn (2005) conducted a research entitled Evaluation of Health Media and Public Relations in Prevention and Control of Dengue Haemorrhagic Fever in Thailand to evaluate these objectives (1) to investigate the people's perception on data about DHF through mass media, (2) to investigate factors affecting people's perception on data or information and behaviors on DHF prevention and control.

Data was collected in sample provinces and districts of Bangkok with high and low DHF incidences using questionnaires. Multiple random sampling was used on

65 persons for one municipality and one sub-district and in districts of Bangkok for a total of 1,170. The results of this study on sample groups in areas where there was high DHF incidence are as follows:

- 1) 66.5% respondents in the municipality areas never attended a seminar.
- 2) 70.4% respondents in the municipality areas never participated in activities or exhibits about DHF.
- 3) 95.4% respondents in the municipality areas never participated in the activities and exhibits but they obtained data or information through various media.
- 4) 55.4% respondents in the municipality areas had high level of exposure to data or information through various media.
- 5) 90.4% respondents in the municipality areas obtained data or information mainly through TV, followed by information campaign (73.5%) and radio program (72.7%).

Whereby, the result among sample groups in areas where there was low DHF incidence is as follows:

- 1) 50.0% respondent in the municipality never attended a seminar.
- 2) 52.7% respondent in the municipality never attended activities or exhibitions about DHF but received data or information through media.
- 3) 87.7% respondent in the municipality received data or information mainly through TV.
- 4) 76.2% respondent in the municipality received data from radio program.
- 5) 74.3% respondent in the municipality received data from district or provincial public health staff.

Based on the results of this study, the sample groups knew the DHF prevention and control methods, but they might have insufficient knowledge and understanding about the DHF problem, so that their knowledge and understanding did not affect the activation of behavioral change on DHF prevention and control. Nevertheless, they had a low level of preventing and control behavior towards DHF. The study indicated that this might be because people in these areas had insufficient information on DHF prevention and control. One of the reasons stated that they did not have enough exposure to direct media to continually activate them towards DHF prevention and control.

This study too did not concentrate on respondents' perception towards visual content and verbal content

On the same note, a social marketing campaign is treated like any other advertising campaign and could be best described as social marketing. It began as a formal discipline in 1971 with the publication of

*"Social Marketing: An Approach to Planned Social Change"* in the Journal of Marketing by marketing experts Philip Kotler and Gerald Zaltman (Dan, 2009 and Brennan & Binney, 2009). It was defined as the application of commercial marketing technologies to the analysis, planning, execution, and evaluation of programmes designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of their society (Andreasen, 1995; Hastings 2007 in Wymer, 2009).

In this time and age, social marketing is still defined as the use of commercial marketing concepts and tools in programs designed to influence individuals' behaviour to improve their well-being and that of the society (Kotler & Armstrong, 2008). Meanwhile, Duncan (2005) described it as the use of marketing to address societal problems. As previously described, the basis of social marketing practices is based on the commercial marketing concepts of the four Ps which are *Price, Product, Promotion and Place*.

According to Flotapepost.Com, an awareness campaign towards Dengue used social media to target and connects with the target audience at both global and local levels. By using several social media channels, they reached out to different audiences with information on dengue prevention, the latest news on dengue fever, and provide real stories from everyday people as well as healthcare professionals who have encountered dengue.

On the other hand, mass media campaigns are widely used to expose high proportions of large populations to messages through routine uses of existing media, such as television, radio, and newspapers. Exposure to such messages is, therefore, generally passive. Such campaigns are frequently competing with factors, such as pervasive product marketing, powerful social norms, and behaviours driven by addiction or habit. (Wakefield, 2010)

Mills (2009) described the recent research by James Cook University, Australia has revealed that despite extensive public awareness campaigns and significant media attention there is still a lack of understanding in the community about dengue fever and how it is transmitted.

### **2.1.2 Social Marketing Campaign Approaches in the Media (Local)**

Advertising in Malaysia has seen a rapid and positive development since the 1970's and since then, has come to a level where Malaysian agencies are at par with international agencies. It has become the source of revenue for almost every media in the industry. Due to its profiting nature, it supports and helps many media to survive until today i.e. advertising revenue supports the publishing of magazines and also newspapers. AC Nielsen reported that advertising is a big and profitable

business in Malaysia; the advertising expenditure in Malaysia for the year 2009 only was RM 5.4 million (Media Fact Book, 2009).

Albeit the growing development of advertising in Malaysia, majority of the advertisements that make way into the media are of consumer related advertisements; which persuade either the purchase of products or services. Mohamad Md. Yusoff (2006) emphasized the importance of advertising's role in the development of a country due to its nature and capability of reaching the mass audience – to sell ideas, knowledge and information and also to persuade the public to accept them, in hope to change their attitude and belief towards a cause.

However, with the ineffectiveness in creating awareness of *Tak Nak! Merokok*, a basis could be established – Malaysians are resistant to campaigns which try to positively develop their well-being. The government has even gone to the extent of printing gruesome pictures of the effects of long-term smoking on cigarette boxes, but yet the figure has failed to decrease.

The Tak Nak campaign launched by government in 2004 was meant to get smokers to stop smoking and to make them aware the harmful effect of smoking. According to Global Adult Tobacco Survey (GATS), that effective campaign should prompt smokers to participate in both cognitive and affective processes. Nevertheless, the study did not look at the content and visual communication of the campaign (2015).

With relevance to this, we can take a look at *Kami Prihatin* which advocates moral messages on baby-dumping, values which are against premarital intercourse and other related social illnesses. But, the country has not seen any positive developments to date. The number of babies being abandoned is still high. Be it fear, guilt or shame appeals, the Malaysian public seem to be resistant of these messages and strategies. Visuals used in *Kami Prihatin* are supposedly to evoke strong emotions among the audience by using the approaches similarly used in the Barnardo's social marketing campaign in the United Kingdom.

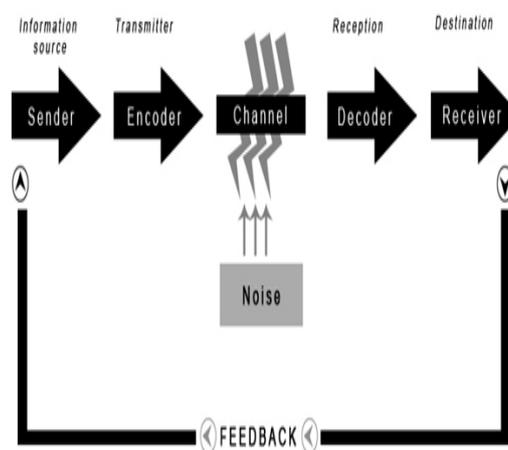
In a research conducted by Yong (2013) entitled Effectiveness of Anti-Smoking Advertising: The Role of Message and Media, the findings proved that Internet was the most effective medium to promote anti-smoking advertisement. Additionally, the findings proved that the respondents are neutral about the anti-smoking messages except for fear message carried by the advertisement.

## 2.2 Discussion

The literature review discusses on two important elements of the campaign; the media and the audience. The media has carried out its responsibility by acting as

the mediator in conveying messages on dengue and the seriousness of dengue cases among the society. The communication process is an important route in delivering the messages to the targeted audience. The most basic communication process which was introduced by Shannon & Weaver in 1949 (West & Turner, 2010, page 11), might as well explain the flow of information to the receivers and how they react to the message from the communicator.

The Linear Model of Communication has three basic important elements; sender/source, message that goes through a channel and the target/receiver. Surrounding the model is noise which is distortion in the channel not intended by the source (Ibid, page 12). The noise includes; semantics, physical, psychological and physiological. A similar model to explain the communication process flow is depicted in **Figure 1.1** in the next page.



SHANNON-WEAVER'S MODEL OF COMMUNICATION

Source: <http://communicationtheory.org/wp>

**Figure 1.1: Communication Process Model (Dengue Awareness Campaign) Adapted from Shannon & Weaver (1949) in West & Turner, 2010**

Relating the model to this study, the sender/source is the communicators of the campaign (*City Council*) by using channels/media (billboards, social media, brochures, transport media, word-of-mouth) to the targeted audience/intended receiver. As discussed, the campaign wishes to create awareness (cognitive) among the audience on the dengue issues. However, communicators must consider the noise that may occur in the process of disseminating this important message that may hamper their objective in creating awareness; the noise might come intrinsically from the receiver – disinterest, finding it irrelevant and so on, meanwhile, the noise might also originate from the communicators themselves with improper and unstrategic planning of

the campaign. The model also explains about response/feedback (affects on the respondents' emotions).

To add, the approach used in social marketing campaigns might also be one of the reasons to why some campaigns are ineffective. As discussed, Brennan & Binney (2009) found that the use of certain emotional appeals; guilt, shame and fear, if overused will be ignored by targeted audiences because they most possibly find it irritating, irrelevant to them and also a little unrealistic.

However, in Malaysia it is difficult to understand the exact reason to their oblivious behaviour towards social marketing campaigns. This can be seen in the anti-smoking campaign which with reports from the Ministry of Health admitting that it was a failure due to the rise and additional numbers of new smokers.

### 2.3 Conceptual Framework

## Models and Conceptual Framework

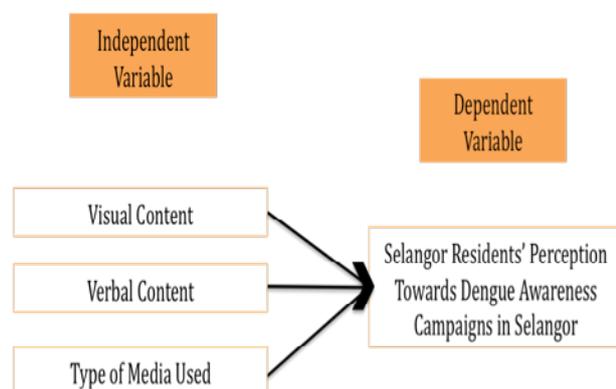


Figure 1.2: Selangor Residents' Perception Towards Dengue Awareness Campaigns in Selangor

#### Figure 1.2: Creating Awareness Effectively Through the Media

The conceptual framework shows the relationship between the independent and dependent variables. The residents' perception toward the dengue awareness campaign depends mainly on three independent variables; the visual content towards, the verbal content and the type of media used in the campaign.

If the residents' are aware of the campaign, it would shape how they perceive the campaign and if they are unaware, it is difficult to understand their opinion

towards the campaign. However, the message acceptance of the campaign was then studied among those who were aware of the campaign in the media; how was their acceptance of the campaign's messages especially in terms of the visuals and verbal content used in their campaigns. For example, residents were queried on their opinions on whether the campaign should be continuously promoted through a certain type of media or the contrary.

And finally, the researchers studied the type of media used for dengue awareness campaign that is incorporated within oneself when the respondent accepted the campaigns messages. Their newly learnt values and attitudes which were obtained in the process of being exposed to the campaign were portrayed in their attitude towards the dengue awareness campaign.

All three independent variables determined the respondents' perception towards the campaign. Apart from these three core independent variables, the respondents' psychographic and demographic profile also plays a role in shaping their intrinsic attitudes towards the campaign; for example age, gender, level of education and also number of years living in Selangor.

#### 2.3.1 AIDA Model

AIDA is an acronym that stands for *Awareness, Interest, Desire* and *Action* which was developed by E.K. Strong in 1925 in *The Psychology of Selling* (Kotler *et al.* 2009, page 533). This model is selected because it explains consumer's specific responses to communications (Kotler *et al.* 2009, page 532). The model also explains that the messages developed for an advertising campaign must ideally get *Attention*, hold *Interest*, arouse *Desire* and obtain *Action*. In this context and by treating the campaign similar to a commercial advertisement, the same rules can be applied. The model will be helpful in explaining the audiences' responses towards dengue awareness campaign because the model assumes that the buyer (audience) will pass through a cognitive, affective and behavioural stage respectively (Ibid).

Awareness at the cognitive stage is the most crucial part in any commercial advertising campaign. This applies to social marketing campaigns as well. In the event of dengue awareness campaign, the communicator (initiators of the campaign) must first build a strong *awareness* and knowledge among the targeted audience (Kotler & Armstrong, 2001, page 520). There is a distinct difference between awareness and knowledge; targeted audiences might have awareness but not know much more about a product (*dengue awareness campaign*) (Kotler *et al.* 2009, page 533). Therefore, it is strongly believed that brand awareness is the *essential* indicator of brand health (Ibid).

Before creating awareness effectively by using the AIDA model as an indication, there is an eight-step process in developing effective communications that communicators should consider before applying the AIDA model. The eight-step model is illustrated below:

**Figure 1.3: Eight-step process in developing effective communications model**

1. **Identify target audience**
2. **Determine objectives**
3. **Design communications**
4. **Select channels**
5. **Establish budget**
6. **Decide on media mix**
7. **Measure results**
8. **Manage integrated marketing communications**

The main focus here is in the first step; identifying the target audience. It is most important for the communicators of the campaign to understand the identified target audience before carrying on with the campaign, for a more effective strategy in building awareness or knowledge on the campaign.

### 2.3.2 Uses and Gratification Theory

While the AIDA model is best applied in examining and predicting the relationship between the media and the audience, the uses and gratifications theory gives the idea that individuals use the media depending on the perceived satisfactions, needs, wishes or motives (McQuail, 2010, page 423). It surveys audiences about why they choose to use different types of media. This approach sees the users as actively seeking to use different media to fulfill different needs (Rubin, 2002 in Grant & Meadows, 2010).

This is significant because in order to fulfill the objectives of the study (to identify the type of media that would be most effective in creating awareness among the residents and to discover the other types of media that can be used to support the campaign in creating awareness among the residents), we must first find out how and why do residents use a particular type of media.

The eight-step process in developing effective communications suggests that the most important element that a communicator must first have knowledge on is to identify the target audience. In this stage, the communicator of the message must be able to define the target audience based on their demographic and psychographic profile so that the three following steps (determining the objectives, designing the communications and selecting the channels) can be strongly established. This is to gain effectiveness in creating awareness (cognitive stage).

The theory provides a framework for understanding when and how individual media consumers become more or less active and the consequences of that increased or decreased involvement. It also contends five (5) basic assumptions (Katz, Blumler & Gurevitch, 1974 in West & Turner, 2010, page 397):

- 1) The audience is active and its media use is goal oriented.
- 2) The initiative in linking need gratification to a specific medium choice rests with the audience member.
- 3) The media compete with other sources for need satisfaction.
- 4) People have enough self-awareness of their media use, interests and motives to be able to provide researchers with an accurate picture of that use.
- 5) Value judgments of media content can only be assessed by the audience.

These five assumptions are used as a basis to understand the relationship between the media and the targeted audiences' media consumption habit; in this case it is important to identify which media gives them the best satisfaction especially when it is commonly known that youths are more interested in media that can cater to their entertainment as well as other personal and functional needs.

### 2.3.3 Cognitive Dissonance Theory

The third theory focuses on the targeted audiences or respondents themselves – something which is intrapersonal; the acceptance of a certain message is decided by their intrinsic attitudes and beliefs. As presented in **Figure 1.1** in the communication process for *dengue awareness campaign*, noise is included in the model and it involves something that originates within the audiences as well – which is called dissonance or disagreement of their own ideas with those that are presented in the campaign. The cognitive dissonance theory has four (4) basic assumptions which are (West & Turner, 2010, page 115):

1. Human beings desire consistency in their beliefs, attitudes and behaviours.
2. Dissonance is created by psychological inconsistencies.
3. Dissonance is an aversive state that drives people to actions with measureable effects.
4. Dissonance motivates efforts to achieve consonance and efforts towards dissonance reduction.

Although this study does not intend to deeply investigate behavioural or attitude change among the respondents after they are exposed to the campaign, the theory will help to understand the respondents' perception towards the campaign – is the campaign effective in creating awareness and how are they so far

affected by the campaign in terms of their perception through the visuals and copies used in the campaign – the feelings of anger, sad and etc.

By referring to the study carried out by Brennan and Binney (2009), respondents were reluctant to change because of the emotional approaches which were used campaigns; guilt, fear and shame. Some of the approaches if overused tend to become unrealistic and at times annoying. For example, if the respondents are aware, what did they think of the campaigns current method and emotional approaches used in the campaign?

And if the respondents are unaware, their reasons to their lack of knowledge are studied; are they disinterested, is the campaign irrelevant to them or is it because of the lack of exposure from the media. Referring to the theory, only the two first reasons of unawareness are related to the intrinsic values of the respondents while the third reason is skewed to factors relating to the media.

### 3 METHODOLOGIES

#### 3.0 Introduction

The method used in this study is a combination of quantitative (survey) and qualitative method (in-depth interview). Using questionnaires, the researchers sought respondents' perception towards the campaign. These respondents were selected by using a non-probability sampling (purposive sampling) based on these criteria:

1. Malaysian citizen
2. Selangor resident (more than 5 years of residency)
3. Aged from 25 years old to 50 years old

#### 3.1 Research Design

The study employed a survey using questionnaires as a tool for the purpose of gaining information to respondents' perception based on the three independent variables, visual content, verbal content and media used for the campaign.

This study employed a descriptive survey design, which attempts to describe or document current conditions or attitudes – that is, to explain what exists at the moment. For example, professional pollsters survey the electorate to learn its opinions of candidates or issues (Wimmer & Dominick, 2011). In this particular study, the researcher surveyed the respondents' perception towards the dengue awareness campaigns.

This type of research presents a picture of the specific details of a situation, social setting or relationship and focuses on "how" and "who" questions (Neuman, 2006). By relating this to the context of the study, the researchers focused on the respondents' perception

towards dengue awareness campaigns in Selangor. The outcome or findings of a descriptive study is a detailed picture of the subject. For example, results may indicate the percentage of people who hold a particular view or engage in specific behaviours (Neuman, 2006).

#### 3.2 Research Instrument

According to Sulaiman (2009), the term 'instrumentation' involves not only the selection or the design of the instruments but also the conditions under which the instruments would be administered. He separated them into five smaller elements, which are administration, date and time of collecting data, location, frequency (how frequent is the data collection process) and strategy used to collect data. Here, the use of the research instrument will be explained in detail accordingly.

##### 3.2.1 Administration

The researchers have identified that the most number of dengue cases in Selangor, namely Petaling with 75% rise in dengue cases (The Star, February 2015). The researchers have also identified the districts with the highest number of dengue cases in Petaling. Table 1.0 below is the list of districts administered by three city councils in Petaling with the target population.

Table 1.0 : Petaling Administrative Districts

| No. | Administrative District           | District                  | Total Population (2010) |
|-----|-----------------------------------|---------------------------|-------------------------|
| 1   | <i>Petaling Jaya City Council</i> | SS (DU SS 22 - 2)         | 125,863                 |
| 2   | <i>Shah Alam City Council</i>     | Seksyen 7                 | 35,713                  |
| 3   | <i>Subang Jaya City Council</i>   | Puchong (Jalan Wawasan 2) | 420                     |

Source: [www.statistics.gov.my](http://www.statistics.gov.my)

##### 3.2.2 Date and Time of Collecting Data

The collection of data from the districts with the highest number of dengue cases in Selangor was administered from June 2015 until February 2016.

##### 3.2.3 Location

The researchers selected respondents from the highest cumulative cases in Petaling, Selangor and approached these respondents at their housing area.

##### 3.2.4 Frequency (How frequent is the data collection process)

All of the respondents are approached at any convenient time for the researcher and their aide. It also depended on the convenience of the respondents. For a clearer understanding of the process, it is best listed down in Table 2.0 such as below:

Table 2.0: Schedule for data collection

| No. | City Council         | Date                           | Time                                 |
|-----|----------------------|--------------------------------|--------------------------------------|
| 1   | <i>Petaling Jaya</i> | June 2015 – August 2015        | Any convenient time for respondents. |
| 2   | <i>Shah Alam</i>     | September 2015 – November 2015 | Any convenient time for respondents. |
| 3   | <i>Subang Jaya</i>   | December 2015 - February 2016  | Any convenient time for respondents. |

### 3.2.5 Strategy Used to Collect Data

A set of questionnaire was distributed to each respondent for the purpose of gathering data. The questions covered matters regarding the demographic and psychographic profile of the respondents and adopt a five-point Likert's Scale or also known as the summated rating approach in measuring respondents' feedback throughout the questionnaire. The questions covered on matters regarding their opinion towards the campaign and also to study their level of awareness of the campaign. Their media consumption habits were also inquired so that the researcher would have a clearer grasp on their opinions on the campaign. Before the exact questionnaires were distributed, the researchers first conducted a pilot test among 30 persons to test the validity of the questionnaire. The final questionnaire included five (5) sections; Sections A, B, C, D and E.

#### 3.2.5.1 Section A

Section A of the questionnaire sought the demographic profile of the respondent. This is to better understand their basic information because it is significant to their opinions on the campaign. This section is also important to the study because respondents from different demographic profiles might have different views about the campaign.

#### 3.2.5.2 Section B

The psychographic profile of respondents is sought after in this section. The respondents are asked on their hobbies and how much time they spend on their hobbies. Later, they are queried on their knowledge on current issues and then specifically on dengue awareness. At the end of the section, respondents are asked of their opinions or attitude towards the government and media in handling dengue issues in Malaysia. This section is relevant to the study because through the questions, the researcher is able to

understand their media consumption habits and lifestyle, their attitude towards current issues, the government and media.

#### 3.3.5.3 Section C

Section C sought to understand respondents' perception towards the campaign based on the visual elements found in the campaigns' medium.

#### 3.2.5.4 Section D

Section D of the data collected focuses on respondents' opinion towards the campaign based on the verbal information found in the campaigns.

#### 3.2.5.5 Section E

Section E is significant to the research because it studies the respondents opinion on the current media used to promote the campaign and which media should be preferably used to promote the campaign.

### 3.3 Population and Sampling Techniques

#### 3.3.1 Sampling Procedure for the Survey

Due to the large number of population in Petaling, the researchers have identified the highest cumulative number of dengue cases in the area. Table 3.0 below states nine latest dengue cases for each district reported from June 2014 until January 2015.

Table 3.0: Cumulative Dengue Cases

| No.   | Dengue Hot Spot      | Area  | Cumulative Dengue Cases | Dengue Start Date      |
|-------|----------------------|---|-------------------------|------------------------|
| 1     | <i>Petaling Jaya</i> | DU SS 22 (2)  | 118                     | 21/6/2014              |
| TOTAL |                      |   | 256                     |                        |
| 2     | <i>Shah Alam</i>     | Seksyen 7 (Pusat Komersial A : Jalan AA 7/AA – AC 7/AC, T 7/T – Z ) | 220                     | 20/8/2014              |
| TOTAL |                      |   | 220                     |                        |
| 3     | <i>Subang Jaya</i>   | Jalan Wawasan 2 Taman Puchong Perdana                               | 49<br>43                | 10/5/2014<br>29/9/2014 |
| TOTAL |                      |   | 92                      |                        |

Source: [idengue.remotesensing.gov.my](http://idengue.remotesensing.gov.my)

Because of this reason, a nonprobability sampling (purposive sampling) method was used in the process of gathering data. Only respondents who have been living in the area for more than five years and are aware of the dengue issue are selected as the respondents. This is significant to the research because the research seeks to gather opinions from the residents.

The researcher's main population is residence that has the highest cumulative of dengue cases in Petaling. The researchers have identified three areas with the highest cumulative dengue cases as reported by

idengue.remotesensing in 2015. Shah Alam had a large sum of dengue cases which totaled up to 381 cases from August 2014 until 31 January 2015; Petaling Jaya had a total of 256 cases from June 2014 until 31 January 2015 and Subang Jaya with 126 cases reported from May 2014 until 31 January 2015.

The numbers of respondents were chosen based on the guideline suggested by Wimmer & Dominick (2011, page 90). According to Wimmer & Dominick, there are seven issues that need to be considered when choosing a sample size:

- 1)Project type
- 2)Project purpose
- 3)Project complexity
- 4)Amount of error tolerated
- 5)Time constraints
- 6)Financial constraints and
- 7)Previous research in the area

This research study is not designed to generalise the results to the population but rather to investigate variable relationships. Therefore, a nonprobability sampling is appropriate for this study. Another reason for choosing only these respondents from the affected areas are because of the time given to conduct the study is only one year. This rationale is supported by Wimmer & Dominick; researchers often use samples from the affected area. Therefore, the researcher decides to use only respondents for this research study; it is appropriate for the purpose of the study, which is to investigate the issue only at a preliminary stage.

### 3.5 Data Processing

After collecting data through the questionnaires, the data is transferred and keyed into the Statistical Package for Social Science (SPSS) software for MS Windows version 22. Later, the data is processed and analysed using the software. By using the SPSS software, the data was calculated based on each item and variable, which have been organized systematically in the document sheet by the researcher.

Relevant data were converted to tables and presented with elaborate explanations based on the tables. And through the findings, the researchers were able to provide suggestions and recommendations on how creating awareness effectively can be achieved in the future for the dengue campaigns in Malaysia.

## 4 FINDINGS AND CONCLUSION

The findings are organized accordingly to councils and the objectives of the research, and the conclusion is summarized at the end of all three councils respectively.

### 4.1.1 Introduction (Petaling Jaya)

Table 4.0: Respondents' Awareness of Dengue Awareness Campaigns in Petaling Jaya

| No.             | Level of Awareness                                      | Frequency |
|-----------------|---|-----------|
| 1.              | Aware of dengue awareness campaigns in Petaling Jaya.   | 151       |
| 2.              | Unaware of dengue awareness campaigns in Petaling Jaya. | 119       |
| Total Frequency |   | 270       |

A number of 151 respondents are aware of dengue awareness campaigns in general, while 119 respondents were not aware of it. However, all 270 respondents are aware of the specific campaigns promoted in Petaling Jaya.

Table 4.1: Reason for Respondents' Awareness of Dengue Awareness Campaigns in Petaling Jaya

| No. | Reason for Awareness                                | Frequency |
|-----|---|-----------|
| 1.  | Aware because infected by dengue.                   | 110       |
| 2.  | Aware because family or friends infected by dengue. | 79        |
| 3.  | Aware because of the media.                         | 99        |

A total of 110 respondents know about the campaign because the disease infected them, 79 because their family or friends were infected and 99 respondents knew from the media. In this item, respondents are allowed to answer more than one option.

In Petaling Jaya, there are five existing dengue awareness campaigns since 2012 namely Kempen Cegah Denggi 2010, Kempen Anti Kutu Sampah dan Denggi 2012, Kempen Kebersihan Pencegahan Denggi dan Basmi Tikus 2013, Operasi Denggi Ops Mega 2014, and Kempen Terjah dan Hapus Denggi 2015.

Table 4.2: Respondents' Awareness Based on Specific Dengue Awareness Campaigns in Petaling Jaya

| No. | Name of Campaign   | Frequency |
|-----|--|-----------|
| 1.  | Kempen Cegah Denggi 2010                                 | 139       |
| 2.  | Kempen Anti Kutu Sampah dan Denggi 2012                  | 132       |
| 3.  | Kempen Kebersihan Pencegahan Denggi dan Basmi Tikus 2013 | 122       |
| 4.  | Operasi Denggi Ops Mega 2014                             | 141       |
| 5.  | Kempen Terjah dan Hapus Denggi 2015                      | 145       |

According to Table 4.2, a total of 139 respondents are aware of Kempen Cegah Denggi 2010, 132 are aware of Kempen Anti Kutu Sampah dan Denggi 2012, 122 are aware of Kempen Kebersihan Pencegahan Denggi dan Basmi Tikus 2013, 141 respondents are aware of Operasi Denggi Ops Mega 2014, and 145 are aware of Kempen Terjah dan Hapus Denggi 2015. The lowest number of awareness can be seen for Kempen Kebersihan Pencegahan Denggi dan Basmi Tikus 2013 with only 122 respondents, and the highest number of awareness is for Kempen Terjah dan Hapus Denggi 2015 with 145 respondents. The increase in awareness can be seen from Operasi Denggi Ops Mega 2014 with 141 respondents.

Table 4.3: Respondents' Source of Awareness for Dengue Awareness Campaigns in Petaling Jaya

| No.             | Source of Media | Frequency |
|-----------------|-----------------|-----------|
| 1.              | Billboards      | 46        |
| 2.              | Social Media    | 57        |
| 3.              | Brochures       | 25        |
| 4.              | City Councils   | 12        |
| 5.              | Transport Media | 6         |
| 6.              | Word-of-mouth   | 5         |
| Total Frequency |                 | 151       |

In Petaling Jaya, through the media, a number of 46 respondents found out about the campaign from billboards, 57 from social media, 25 from brochures, 12 from city councils, 6 from transport media and 5 from word-of-mouth.

Table 4.4: Respondents' Perception on the Most Effective Medium in Creating Awareness for Dengue Awareness Campaigns in Petaling Jaya

| No.   | Type of Media   | Frequency |
|-------|-----------------|-----------|
| 1.    | Billboards      | 180       |
| 2.    | Brochures       | 80        |
| 3.    | Transport Media | 10        |
| Total |                 | 270       |

When asked the most effective medium for creating awareness, 180 respondents answered billboards, 80 agreed that brochures were effective and 10 agreed to transport media.

#### 4.1.2 To Study the Audiences' Perception Towards the Dengue Awareness Campaigns Based on the Visual Content in the Campaign

At the moment, all of the campaigns in each city council are promoted via billboard, brochures and transport media (buses, and official transports of the city council).

##### 4.1.2.1 Billboards

In Petaling Jaya, 218 respondents agreed that they felt fear when looking at the visual information on billboards. And 211 respondents agreed that the visual messages on the billboards are clear. In terms of layout,

208 respondents said that the layout of the billboards is able to get their attention. In every campaign, logos are also important for the audiences to be able to identify a logo with a certain campaign. A number of 118 respondents agreed that the use of the campaign logos is inconsistent; in other words, the campaigns do not use the same logo for every campaign in the council. And this confuses the audiences.

##### 4.1.2.2 Brochure

For brochures, a number of 177 respondents agreed that the visual messages invoke fear in them, and 181 respondents agreed that the visual messages are clear. In terms of layout, a total of 180 respondents agreed that the layout is able to get their attention. Compared to billboards, 131 respondents agreed that the use of campaign logos is inconsistent in brochures.

##### 4.1.2.3 Transport Media

The visual messages in transport media are also important to be studied assuming that they are driven around and almost everyone is exposed to the medium. A total number of 130 respondents agreed that the visual messages are clear and the layout is interesting. In terms of logo usage for each campaign under the council, 135 respondents agreed that the use of logos is inconsistent.

#### 4.1.3 To Study the Audiences' Perception Towards the Dengue Awareness Campaigns Based on the Verbal Content in the Campaign

##### 4.1.3.1 Billboards

Verbal messages include the write-ups, slogans or taglines, and other written information that can be read by the respondents. For billboards, a number of 214 respondents admitted that they felt afraid when they read the verbal content found in brochure, and 203 respondents agreed that the verbal messages on the billboards are clear. Compared to logos, there is only a slight difference with only 132 respondents agreeing that slogans used in each campaign are inconsistent with each other.

##### 4.1.3.2 Brochures

The verbal content in brochures also arouses fear among 177 respondents, and 180 respondents think that the verbal messages in the brochures are also clear. A number of 125 respondents feel that the campaign slogans used in each different campaign by year is also inconsistent; a slight difference from the number for billboards.

##### 4.1.3.4 Transport Media

The verbal messages that could be found on transport media for this particular campaign are mostly only the name of the campaign and its slogan. A number of 132 respondents agreed that the verbal messages on transport media is very clear, however it does not invoke fear as it does not contain any other detailed

verbal messages like billboards and brochures. In terms of slogans used, a number of 135 respondents feel that they were inconsistent.

#### 4.1.4 To Study the Audiences' Perception Towards the Dengue Awareness Campaigns Based on the Media Used for the Campaign.

##### 4.1.4.1 Billboards

The respondents' perception in the current promotion method of the campaign via billboard is positive with a number of 165 respondents agreeing that it reaches the audience. And a number of 172 respondents agreed that the campaign should continuously be promoted via billboards. Another 164 respondents agreeing that billboards are effective in creating awareness among audience supports this statement.

##### 4.1.4.2 Brochures

There is slightly a smaller number of respondents who agree to use brochures as a promotional tool for the campaign; 160 respondents. Another 157 respondents agree that brochures are also effective in creating awareness, which is comparatively low to billboards.

##### 4.1.4.4 Transport Media

Respondents' concern on transport media in terms of continuous promotion and effective in creating awareness is lower than the numbers for billboards and brochures, with only 142 and 131 respondents respectively agreeing to it.

#### Conclusion (Petaling Jaya)

The researchers found that all respondents are mainly positive in their perception towards the three independent variables. However, to add to the survey results, the two indepth interview informants reviewed the scenario differently. Although they also have positive comments about the efforts made by local authorities, they suggested that the campaign be more reachable via social media, and that it is time to move on to a medium, which can reach the mass at anytime available, for example Facebook, Twitter, and Instagram.

#### 4.2.1 Introduction (Shah Alam)

Table 4.5: Respondents' Awareness of Dengue Awareness Campaigns in Shah Alam

| No.             | Level of Awareness                                  | Frequency |
|-----------------|---|-----------|
| 1.              | Aware of dengue awareness campaigns in Shah Alam.   | 216       |
| 2.              | Unaware of dengue awareness campaigns in Shah Alam. | 54        |
| Total Frequency |   | 270       |

In general, a number of 216 respondents are aware of the national campaigns while 54 respondents were not

aware of it. On the other hand, all respondents in Shah Alam are aware of the campaigns in Shah Alam.

Table 4.6: Reason for Respondents' Awareness of Dengue Awareness Campaigns in Shah Alam

| No. | Reason for Awareness                                | Frequency |
|-----|---|-----------|
| 1.  | Aware because infected by dengue.                   | 149       |
| 2.  | Aware because family or friends infected by dengue. | 183       |
| 3.  | Aware because of the media.                         | 207       |

A total of 149 respondents know about the campaign because the disease infected them, 183 because their family or friends were infected and 207 respondents knew from the media. In this item, respondents are allowed to answer more than one option.

Shah Alam has four existing dengue awareness campaigns since 2012 namely Kempen Kebersihan MBSA 2012, Gerak Advokasi Denggi MBSA 2014, Gerak Gempur Denggi MBSA 2014 and Gerak Gempur Denggi MBSA 2015.

Table 4.7: Respondents' Awareness Based on Specific Dengue Awareness Campaigns in Shah Alam

| No. | Name of Campaign                | Frequency |
|-----|---------------------------------|-----------|
| 1.  | Kempen Kebersihan MBSA 2012     | 138       |
| 2.  | Gerak Advokasi Denggi MBSA 2014 | 116       |
| 3.  | Gerak Gempur Denggi MBSA 2014   | 137       |
| 4.  | Gerak Gempur Denggi MBSA 2015   | 138       |

According to Table , a total of 138 respondents are aware of Kempen Kebersihan MBSA 2012, 116 are aware of Gerak Advokasi Denggi MBSA 2014, 137 are aware of Gerak Gempur Denggi MBSA 2014 and 138 respondents are aware of Gerak Gempur Denggi MBSA 2015. The lowest number of awareness can be seen for Gerak Advokasi Denggi MBSA 2014 with only 116 respondents, but in the same year, the second campaign is more apparent with 137 respondents agreeing that they are aware of the campaign.

Table 4.8: Respondents' Source of Awareness for Dengue Awareness Campaigns in Shah Alam

| No.             | Source of Media | Frequency |
|-----------------|-----------------|-----------|
| 1.              | Billboards      | 83        |
| 2.              | Social Media    | 81        |
| 3.              | Brochures       | 22        |
| 4.              | City Councils   | 14        |
| 5.              | Transport Media | 10        |
| 6.              | Word-of-mouth   | 6         |
| Total Frequency |                 | 216       |

In Shah Alam, through the media, 83 respondents found out about the campaign from billboards, 81 from social media, 22 from brochures, 14 from city councils, 10 from transport media and 6 from word-of-mouth.

Table 4.9: Respondents' Perception on the Most Effective Medium in Creating Awareness for Dengue Awareness Campaigns in Shah Alam

| No.   | Type of Media   | Frequency |
|-------|-----------------|-----------|
| 1.    | Billboards      | 161       |
| 2.    | Brochures       | 71        |
| 3.    | Transport Media | 38        |
| Total |                 | 270       |

When asked the most effective medium for creating awareness, 161 respondents answered billboards, 71 agreed that brochures were effective and 40 agreed to transport media.

#### 4.2.2 To Study the Audiences' Perception Towards the Dengue Awareness Campaigns Based on the Visual Content in the Campaign.

##### 4.2.2.1 Billboards

In Shah Alam, a number of 111 respondents agreed that they feel afraid when they look at the visual content of the campaigns on billboards. And a total of 188 respondents agreed that the visual information used in the billboards is clear. In terms of layout, 160 respondents agreed that the billboard's layout is interesting to look at. On the other hand, 114 respondents said that they believe there is an inconsistency in the use of logos for all five campaigns in Shah Alam.

##### 4.2.2.2 Brochures

There are 129 respondents who agreed that they felt fear when they are exposed to the visual messages used in the brochures. Meanwhile, another 183 respondents agreed that although they invoke fear, the messages are clear. The layout used in the brochures is also interesting based on 156 respondents' opinions. A total of 119 respondents agreed that the use of logos in the brochures vary and are not consistent.

##### 4.2.2.3 Transport Media

For transport media, a number of 176 Shah Alam respondents agreed that the visual messages are clear and that of 186 respondents agreed that the layout is attention grabbing. However, a number of 132 respondents stated that the logos used are inconsistent with each campaign year.

#### 4.2.3 To Study the Audiences' Perception Towards the Dengue Awareness Campaigns Based on the Verbal Content in the Campaign.

##### 4.2.3.1 Billboards

A number of 114 respondents admitted that they felt fear when they read the verbal messages on the

billboards especially when they provide statistics on death tolls due to dengue. Another 185 respondents agreed that the verbal messages used in the billboards are also clear. However, 127 respondents believe that the use of slogans is inconsistent.

##### 4.2.3.2 Brochures

As it is with other media, brochures show a high number of respondents with 127 agreeing that verbal content creates fear among them. And 182 respondents agreed that the verbal messages in brochures are clear and accurate. A total of 124 respondents in Shah Alam agreed that the slogans used for each different campaign are inconsistent.

##### 4.2.3.3 Transport Media

Verbal messages found in transport media are generally clear and this is shown also in Petaling Jaya. In Shah Alam, a number of 175 respondents agreed that the verbal messages are clear.

#### 4.2.4 To Study the Audiences' Perception Towards the Dengue Awareness Campaigns Based on the Media Used for the Campaign.

For this particular area, there are three issues concerned which are whether the promotion method reaches the audiences or not, whether the current promotion method and medium should be continuously used or not, and whether the particular medium is effective or not.

##### 4.2.4.1 Billboards

A number of 172 respondents agreed that billboards reaches the audiences, and 200 respondents agreed that it should still be used in the future. A number of 199 respondents agreed that billboards are effective in creating awareness.

##### 4.2.4.2 Brochures

A total of 170 respondents agreed that brochures should continuously be used as a promotional tool for the campaigns and another 170 respondents agreed that it is effective in creating awareness.

##### 4.2.4.3 Transport Media

A number of 174 respondents agreed that the council continues using transport media as a tool to promote dengue awareness campaigns in the future. The same number also agreed that it creates awareness among audiences in Shah Alam.

#### Conclusion (Shah Alam)

Similarly to Petaling Jaya, the researchers found that all respondents are mainly positive in their perception towards the three independent variables. However, to support the survey results, the two in-depth interview informants in Shah Alam discussed the issues from a different perspective. Although the informants are also positive in their perception about the current promotional tools like billboards, brochures and transport media, they also suggested that the campaign

should start promoting the campaigns on social media aggressively due to the lack of time in reading, and poor reading habits among the society.

#### 4.3.1 Introduction (Subang Jaya)

Table 4.10: Respondents' Awareness of Dengue Awareness Campaigns in Subang Jaya

| No.             | Level of Awareness                                    | Frequency |
|-----------------|---|-----------|
| 1.              | Aware of dengue awareness campaigns in Subang Jaya.   | 167       |
| 2.              | Unaware of dengue awareness campaigns in Subang Jaya. | 32        |
| Total Frequency |   | 199       |

A number of 167 respondents are aware of the national campaigns, while 32 respondents were not aware of them. But at a local scale, all respondents are responsive of the local campaigns promoted by their local authorities.

Table 4.11: Reason for Respondents' Awareness of Dengue Awareness Campaigns in Subang Jaya

| No. | Reason for Awareness                                | Frequency |
|-----|---|-----------|
| 1.  | Aware because infected by dengue.                   | 77        |
| 2.  | Aware because family or friends infected by dengue. | 84        |
| 3.  | Aware because of the media.                         | 127       |

A total of 77 respondents know about the campaign because the disease infected them, 84 respondents because their family or friends were infected and 127 respondents knew from the media.

Subang Jaya has two existing dengue awareness campaigns since 2012 namely Kempen Cegah Demam Denggi 2011 and Kempen Basmi Denggi MPSJ 2014.

Table 4.12: Respondents' Awareness Based on Specific Dengue Awareness Campaigns in Subang Jaya

| No. | Name of Campaign               | Frequency |
|-----|--------------------------------|-----------|
| 1.  | Kempen Cegah Demam Denggi 2011 | 109       |
| 2.  | Kempen Basmi Denggi MPSJ 2014  | 118       |

A total of 109 respondents are aware of Kempen Cegah Demam Denggi 2011, and 118 are aware of Kempen Basmi Denggi MPSJ 2014. Although there is a three-year gap between the two campaigns, there was only a slight increase in awareness.

Table 4.13: Respondents' Source of Awareness for Dengue Awareness Campaigns in Subang Jaya

| No.             | Source of Media | Frequency |
|-----------------|-----------------|-----------|
| 1.              | Billboards      | 51        |
| 2.              | Social Media    | 61        |
| 3.              | Brochures       | 19        |
| 4.              | City Councils   | 28        |
| 5.              | Transport Media | 8         |
| 6.              | Word-of-mouth   | 0         |
| Total Frequency |                 | 167       |

In Subang Jaya, through the media, 51 respondents found out about the campaign from billboards, 61 from social media, 19 from brochures, 28 from city councils, and 8 from transport media.

Table 4.14: Respondents' Perception on the Most Effective Medium in Creating Awareness for Dengue Awareness Campaigns in Shah Alam

| No.   | Type of Media   | Frequency |
|-------|-----------------|-----------|
| 1.    | Billboards      | 83        |
| 2.    | Brochures       | 43        |
| 3.    | Transport Media | 73        |
| Total |                 | 199       |

When asked what would be the most effective medium for creating awareness, 83 respondents answered billboards, 43 agreed that brochures were effective and 73 agreed to transport media.

#### 4.3.2 To Study the Audiences' Perception Towards the Dengue Awareness Campaigns Based on the Visual Content in the Campaign.

##### 4.3.2.1 Billboards

In Subang Jaya, 116 respondents agreed that they felt fear when they saw the visual messages used in the billboards. There is a slight increase of 144 respondents who agree that the visual messages used are clear. However, only 92 respondents stated that the layout is interesting, and 69 respondents stated that the use of logos for each campaign is inconsistent.

##### 4.3.2.2 Brochures

A total of 98 respondents agreed that the visual messages in brochures leave an emotional impact of fear on audiences. A small number compared to respondents' perceptions in Petaling Jaya and Shah Alam. However, 121 respondents agreed that the visual messages used in the brochures are clear. And that of 75 respondents agreed that the layout is interesting. A lower number of 58 respondents stated that the use of logos for each campaign by year is inconsistent.

##### 4.3.2.3 Transport Media

In terms of transport media, a number of 63 respondents in Subang Jaya agreed that layout is interesting and able to create attention. However, a number of 54 respondents say that the logos used are inconsistent.

### 4.3.3 To Study the Audiences' Perception Towards the Dengue Awareness Campaigns Based on the Verbal Content in the Campaign.

#### 4.3.3.1 Billboards

A total of 107 respondents agreed that fear is invoked when they read the verbal messages on the billboard, and 138 of them agreed that the verbal messages are clear. However, another 74 respondents perceive that the use of slogans is not consistent by year.

#### 4.3.3.2 Brochures

A number of 92 respondents agreed that verbal content in brochures create fear, especially when details of the dangers of dengue are included. A higher number of 121 respondents perceive that the verbal messages in brochures are clear too. And a lower number of 59 respondents feel that the campaign's slogan is not consistent.

#### 4.3.3.3 Transport Media

For transport media, such as buses and official transport for the councils, a number of 54 respondents perceive that verbal messages are clear, and the same number of respondents agreed that the slogans used for each campaign by different years are inconsistent.

### 4.3.4 To Study the Audiences' Perception Towards the Dengue Awareness Campaigns Based on the Media Used for the Campaign.

#### 4.3.4.1 Billboards

Similarly to the issues in Petaling Jaya and Shah Alam, a total of 136 respondents agreed that billboards reach a large audience, and a number of 154 respondents agreed that the promotions should continue with using billboards. Surprisingly, only 95 respondents agreed that billboards are effective in creating awareness.

#### 4.3.4.2 Brochures

A number of 128 respondents agreed that the campaigns should continuously use brochures in promoting and creating awareness. Contradictorily, only 90 respondents perceive that brochures are effective in creating awareness.

#### 4.3.4.3 Transport Media

The respondents in Subang Jaya perceive that the campaign should continuously be promoted via transport media with 124 number of respondents, and 120 respondents agreed that transport media is effective in creating awareness.

#### Conclusion (Subang Jaya)

In Subang Jaya, the results do not have much difference from the other two previous areas. The researchers found that all respondents also have positive perception towards the campaigns in Subang Jaya based on the visual, verbal and type of media used in the campaigns. Nonetheless, to support the quantitative data, the researchers have found that the two in-depth interview

informants have different views from the other four informants in Petaling Jaya and Shah Alam. They recommended to keep continuing with the current tools such as billboards and brochures, however, they also suggested that local city councils should consider new media to distribute information on dengue awareness with more interesting and clear visual and verbal content.

## 5 RECOMMENDATIONS

In the course of completing the study, the researchers faced many constraints especially time, and sources. The researchers would like to suggest a few recommendations for future researchers who are interested in carrying on with the research topic.

Apart from suggesting a longer period of time to conduct a study such as this, the researchers would also like to recommend for the research tools like the questionnaires and guided interview questions to be improvised, especially the latter. This is because the research will be able to flourish and receive better data, if the data were collected via focus group interviews where informants can be shown the visual and verbal contents of the campaign clearly to get their perception on the campaign. The researchers would also like to suggest that in the future, the study should delve further into looking at attitude and behaviour, instead of only measuring the level of perception.

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