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RESEARCH ARTICLE

The Effect of Roadside billboards on Health Campaigns: A Case Study in Zone 8th Jalalabad City

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ABSTRACT

This study examines the effects of roadside billboards in the case of a health services campaign in Zone 8, Jalalabad City. Health communication is one of the components of public health programs. Outdoor advertisement means include roadside billboards. In Afghanistan, health organizations have realized many campaigns. Jalalabad City is one of the largest cities in eastern Afghanistan. Zone 8 is one of the densely populated zones of this city, which has 395,945 residents. The main objectives of this research are to assess the level of exposure to and awareness of roadside health services campaign billboards, to determine the relationship between exposure to roadside billboards, and to measure the effectiveness of roadside billboards in influencing residents' intentions and behaviors. The researcher uses a quantitative research approach. By using a sample size calculator, 384 residents from different parts of the zone filled out the questionnaires. Random sampling and systematic random sampling were used in this research. Data analysis was conducted using Excel 2016. Based on the descriptive findings of this study, it was shown that these kinds of campaigns are usually considered sources of information about health. Most of the respondents (91.2%) said that they had seen roadside health services billboards. Also, the majority of the respondents reported encountering these kinds of billboards daily or many times a week. Roadside health billboards represent an important source of health campaign information for a large percentage of residents. Their reported contributions to awareness, knowledge, attitudes, intentions, and health-related behaviors showed that these billboards provide much practical information about health services.

ARTICLE INFO

Keywords: *Attitudes, Awareness, Health Service, Intention, Knowledge, Roadside Billboard.*

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Introduction

Health is among the fundamental measures of social development, human welfare, and economic progress, improving health status of the public includes not only provision of proper medical facilities but also effective communication measures used to inform people and persuade them to implement some healthy habits. The role of health promotion campaigns is rather significant as far as prevention of diseases, improvement of health literacy, and inclination to make use of health services are concerned (World Health Organization, 2021).

Health communication is one of the components of the programs of public health since it allows the medical institutions to send clear and accessible messages to people. Various tools of communication can be used for spreading the ideas. This includes the use of mass media, printed information, social networking sites, and outdoor advertisement means, including roadside billboards

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(Baghaei,2023). Considering the fact that the billboards are visible and can be placed in absolutely any public area, they reach lots of individuals and can deliver clear and understandable health messages that can reshape people's understanding, opinions, and behaviour in health issues (Kotler & Lee, 2008).

In Afghanistan, health institutions and development organizations have realized many campaigns related to vaccination, maternal and child health, nutrition, preventing contagious diseases, and implementation of health services. The Ministry of Public Health of Afghanistan has emphasized the importance of health education and involvement of the community in achieving better health results. Nevertheless, not much is known about the effect good roadside advertisement can have on the overall level of awareness and behaviour change (Ministry of Public Health {MoPH}, 2016). Jalalabad is one of the major cities in eastern Afghanistan and is characterized by considerable public activity and movement. Roadside billboards are a widely visible form of outdoor advertising that can provide opportunities to communicate health-related information to diverse population groups. According to data collected by the National Statistics and Information Authority (NSIA) in 2025, Behsood (Zone 8) has a reported population of 395,945 residents and covers an area of 220.5 square kilometres (Thomas Brinkhoff: City Population, 2026). The zone is bordered by Kuz Kunar and Qarghayi districts to the north, Rodat district and the Kabul River to the south, the Kunar River to the east, and Jalalabad City and Surkhrod district to the west.

Given its substantial population and the public activity within the area, Zone 8 provides a relevant setting for examining the potential role of roadside billboards in communicating health information. However, the extent to which these billboards contribute to public awareness and knowledge of health issues in this area remains unclear. In particular, it is important to investigate whether exposure to health-related billboard messages is associated with people's awareness, knowledge, and understanding of health issues. Therefore, this study examines the role of roadside billboards in communicating health information among residents of Zone 8, Jalalabad. The selection of this zone is based on its reported population size and its suitability for investigating public exposure to roadside health messages.

According to the Health Belief Model, which details how opinion and beliefs are associated with health actions, people take action when they face some health risks and believe that by doing so, they will experience some beneficial changes (Rosenstock et al.,1988). As a matter of fact, billboards that are placed in the roads and used for advertisement purposes are considered cues to action because they provide health information that can raise awareness of the audience about their health and health-related issues. Based on the model, this study investigates how seeing billboards and getting necessary health-related information can impact the behavioural and get disseminated information through the use of theory in the context of the 8th zone of Jalalabad city.

Literature Review

Health Communication and Public Health

Health communication plays an important role in public health by providing individuals and communities with information that supports health literacy, informed decision-making, and disease prevention. Effective health communication can improve people's understanding of health risks and encourage healthier behaviours (Nutbeam, 2000). In developing countries such as Afghanistan, public health communication is particularly important for disseminating information about vaccination, disease prevention, maternal and child health, hygiene, and healthcare services. The Ministry of Public Health (MoPH, 2016) has emphasized health promotion and strategic communication as important components of public health initiatives.

Roadside Billboards as a Health Communication Medium

Health campaigns use various communication channels, including radio, television, social media, print media, and outdoor advertising. Roadside billboards are a form of outdoor advertising that communicates brief messages through visual and textual elements. Their placement in public spaces provides opportunities to expose diverse audiences to health-related information. Elrod and Fortenberry (2017) discuss the potential of billboard advertising as a means of communicating healthcare information, including to underserved populations.

The use of billboards in health promotion can also be understood through social marketing, which applies marketing principles to encourage voluntary behaviours that benefit individuals and society (Kotler & Lee, 2008). Billboards may therefore be used to communicate messages about disease prevention, hygiene, vaccination, and healthcare services. However, exposure to a billboard does not necessarily mean that its message has been noticed, understood, or translated into behavioural change.

Effectiveness of Health Communication Campaigns

Previous research indicates that mass media campaigns can contribute to public awareness and influence health-related attitudes and behaviours. Wakefield et al. (2010) reviewed evidence on the effects of mass media campaigns on health behaviour, while Noar (2006) examined the design and evaluation of health communication campaigns. These studies highlight the importance of message design, audience characteristics, and campaign evaluation when assessing communication outcomes. Consequently, the effectiveness of roadside billboards should be examined in terms of whether people notice, understand, and respond to the health messages they encounter.

Health Communication Research in Afghanistan

Research on health communication in Afghanistan provides a relevant context for examining the role of different communication channels in public health promotion. Miakhel (2024) investigated the role of media in improving public understanding of the appropriate use of medicines in Jalalabad. As reported in that study, media can contribute to health awareness and understanding of medicine use (Safi and Atish 2024). However, the study focused on media generally rather than roadside billboards specifically.

Although previous studies have examined health communication, mass media campaigns, and the role of advertising in public health, the specific contribution of roadside billboards to health awareness in Afghanistan remains insufficiently documented in the literature reviewed for this study. In particular, limited evidence is available concerning how exposure to roadside health messages relates to people's awareness, knowledge, and understanding of health issues in Zone 8 (Behsud), Jalalabad. Therefore, this study examines roadside billboards as a medium of health communication in the selected area, focusing on their relationship with public awareness and knowledge of health issues. The findings are expected to provide context-specific evidence that may inform the planning and evaluation of outdoor health communication initiatives.

Research Objective

1. To assess the level of exposure and awareness of roadside health services campaign billboards among residents of Zone 8, Jalalabad city (behsood).
2. To determine the relationship between exposure to roadside billboards and residents' knowledge and attitudes toward the health services promoted through this campaign.
3. To measure the effectiveness of roadside billboards in influencing residents' intentions and behaviors the use of promoted health services in zone 8, Jalalabad city (behsood).

Research questions

1. What is the level of exposure and awareness of roadside health services campaign billboards among residents of Zone 8, Jalalabad city(behsood)?
2. What relationship exists between exposure to roadside health services campaign billboards and residents' knowledge and attitudes toward promoted health services?

To what extent does exposure to roadside billboards promoting health services influence residents' intentions to use and actual use of the promoted health services in Zone 8 (Behsood), Jalalabad City?

Research Hypotheses

Main Hypotheses

H1: Exposure to roadside billboards has I significant impact on residents' awareness, knowledge, attitudes and health services related behaviours in zone 8, Jalalabad city.

H2: exposure to roadside billboards does not have a significant impact on residents' awareness, knowledge, attitudes and health services related behaviours in zone 8, Jalalabad city.

Specific Hypotheses

H1,1: There is significant positive relationship between residents' exposure to roadside health services billboards and them awareness of available health services in zone 8, Jalalabad city.

H2,1: There is no significant positive relationship between residents' exposure to roadside health services billboards and them awareness of available health services in zone 8, Jalalabad city.

H1,2: There is significant positive relationship between exposure to roadside health services billboards and residents' knowledge and attitudes the promoted health services.

H2,2: There is no significant positive relationship between exposure to roadside health services billboards and residents' knowledge and attitudes the promoted health services.

H1,3: Exposure to roadside health services billboards has significant positive effect on residents' intentions and behaviours regarding the use of promoted health services.

H2,3: Exposure to roadside health services billboards has no significant positive effect on residents' intentions and behaviours regarding the use of promoted health services.

Research Methodology

In this study the researcher uses the quantitative research approach to examine the impacts of roadside billboards in health service campaigns in zone 8, Jalalabad city. A quantitative approach is appropriate because the study collects numerical data from residents and statistically analyses the relations between exposure and roadside health service billboards and residents' awareness, knowledge, attitudes, intentions and behaviours.

This study employs a descriptive and correlational cross- sectional research design, it determines the level of residents' exposure to and memories of these kind of billboards. The correlational props for data is examines whether there is a significant relationship inside roadside billboards and health related awareness, attitudes, intentions, and behaviours. The area of this is study is 8th zone of Jalalabad city, the area is selected because roadside billboards are used to communicate public health information and campaigns to local papulation.

The target papulation is ingredients of adult residents (18 years and above) which are living in 8th zone of Jalalabad city (Behsood). The selected because they are the primary audience exposed to these billboards.

In 2025 by the National Statistics and Information Authority (NSIA) provided information on the population of Behsood (Zone 8) which is 395,945 people. By using of sample size calculator 384 persons answered the questionnaires, random sampling and systematic random sampling were used in this research. To give eligible residents and a fair opportunity to participate. a complete list of population is not available; therefore, the researcher has used systematic approach to select households or participants from 8th zone of Jalalabad city.

Data collection

In this study the structured questionnaires were used to collect the first-hand data from the 384 residents of 8th zone of Jalalabad city. The questionnaires have been consisting the six sections (Demographic information, exposure of roadside health service billboards, awareness and knowledge of health service, attitudes toward roadside health service billboards, influence on health – service intentions and behaviours and overall effectiveness of roadside billboards). The questionnaires were assessed using the Cronbach's alpha for the Likert- scale items. A Cronbach's alpha value approximately 0,70 or higher was generally be considered acceptable for demonstrating internal consistency. Also the researcher distributes the questionnaires to zone 8 residents and the participants have been informed about the purpose of this study.

Data Analysis

Data analysis was conducted using excel 2016. The analysis occurred at two levels, with descriptive statistics (frequencies, percentage, means and standard deviations) summarizing demographic information and recognizing overall response trends. Pearson correlation analysis was conducted using inferential statistics to assess the direction and strength of the relationship among variables. Furthermore, Multiple linear regression was employed evaluate the main research hypotheses and identify the key Effect of Roadside Advertisements on Health Campaigns: A Case Study in Zone 8th Jalalabad City.

Interpretation of the data:

Section one: Demographic Characteristics of the Participants:

This section presents the demographic characteristics of the 384 participants who took part in the study. The demographic information includes gender, age, occupation, and educational level. These characteristics provide an overview of the respondents' backgrounds and help describe the composition of the study population. In this study the Data collected from 384 responders living in zone 8 of Jalalabad city. The demographic finding showed that the 75% which are the majority of responders were male and the rest 25% were female (M=288. F=96). 130 (33.85 %) of responders were between 18-28 years' old, 105 (27.34%) were between 29-38 years' old, 95 (24,73%) were between 39-49 years' old and the rest 54 (14.06%) of responders were older than 50 years old.

In case of occupation 150 (39,06%) of them were students, 60 (15.62%) were Government employee, 64 (16,66%) were Private sector employee and Self-employed, 60 (15.62%) were Unemployed and 50 responders' occupations were Others. Among the respondents, 5 individuals (1.30%) hold a doctorate, 25 (6.50%) hold a master's degree, and 160 (41.66%) hold a bachelor's degree. Thirty-five responders (9.11 %) of theme are

illiterate, while 159 (41.40 %) have attained other levels of education.

The distribution of participants across these demographic categories is presented in Figure 1.

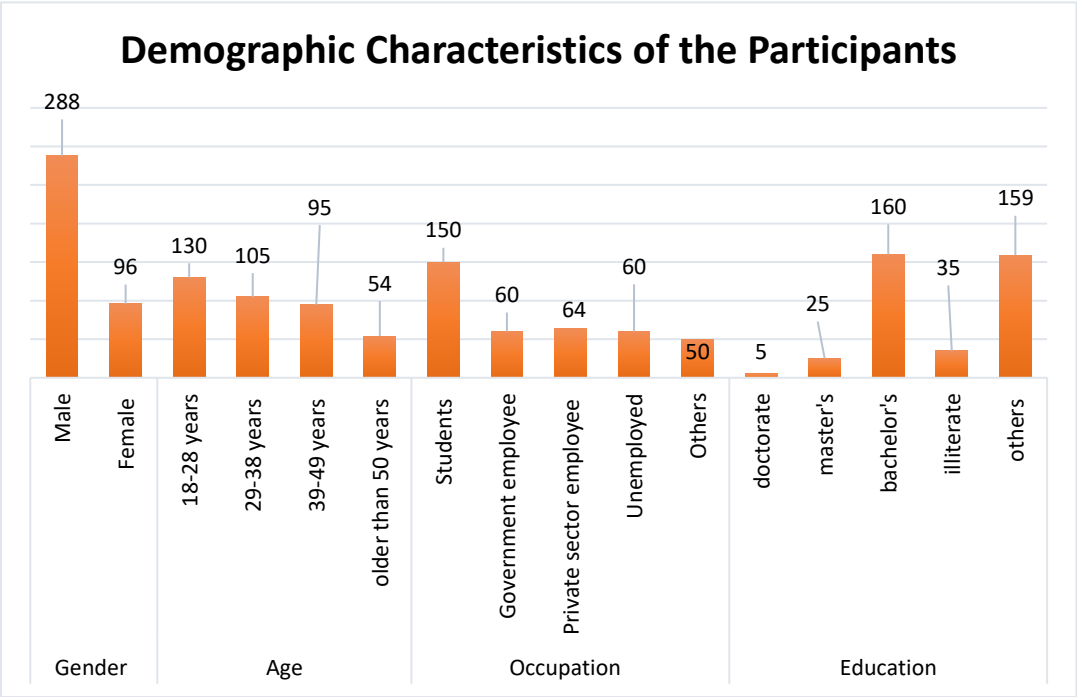


Figure 1. Demographic Characteristics of the Participants

Section Two: Exposure to roadside health service billboards

Question 1. Have you seen roadside billboards promoting health services in zone 8? See the figure 2:

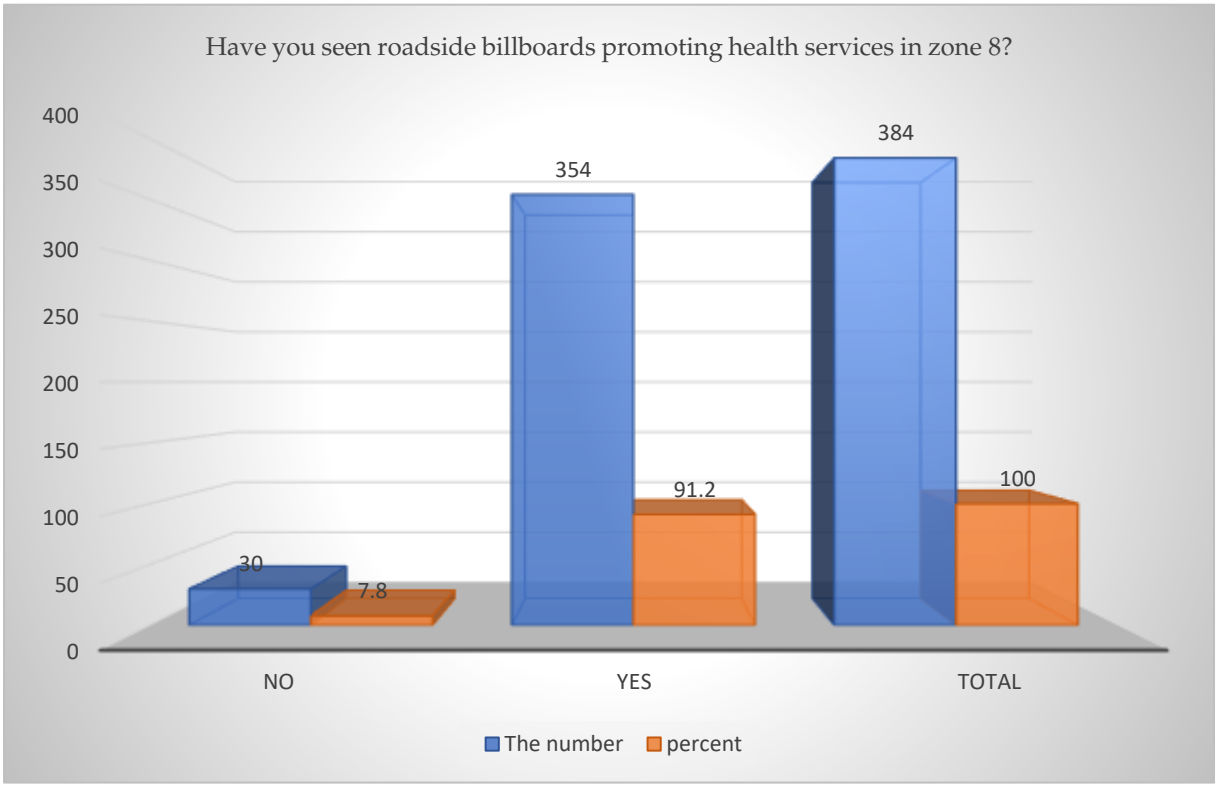


Figure 2. Have you seen roadside billboards promoting health services in zone 8?

Question 2: Where do you usually see this health service billboards? See the figure 3:

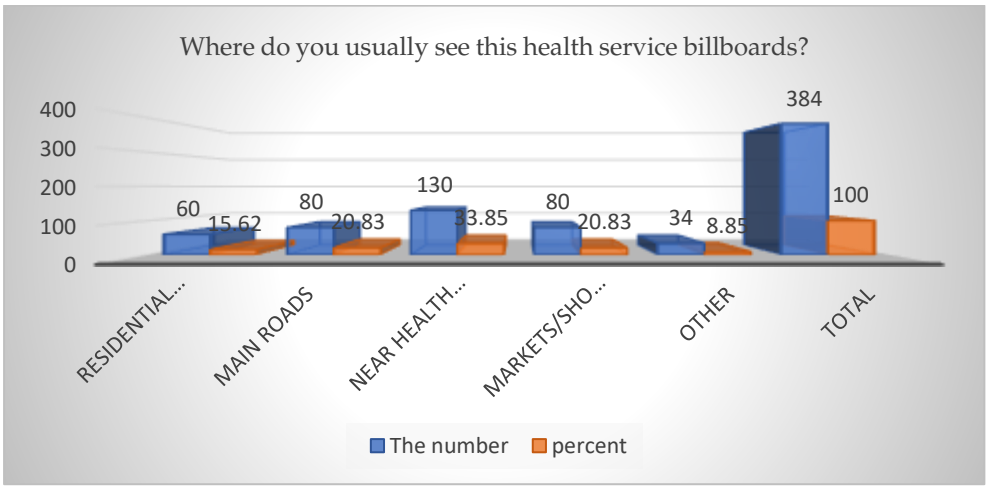


Figure 3. Responses to Question 2

Question 3: How much attention do you usually pay to health service billboards? see the figure 3:

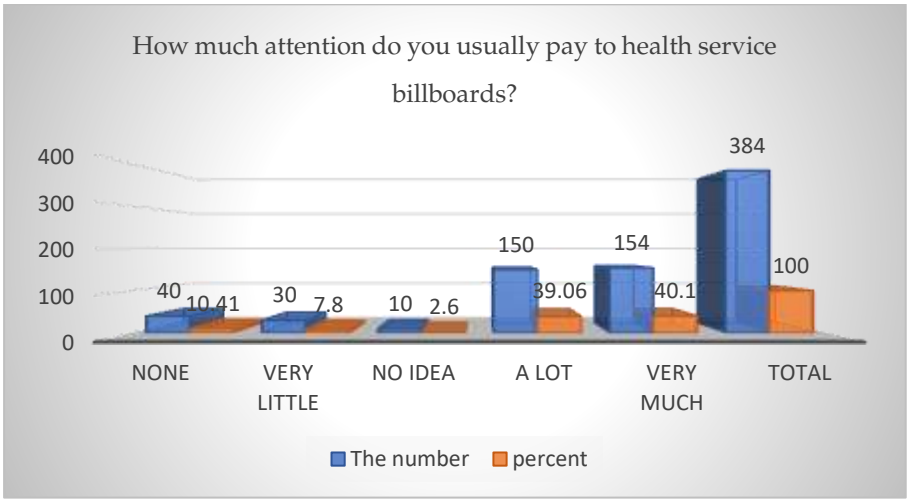


Figure 4. Responses to Question 3

Question 3: How frequency do you pass locations that have health services billboards?

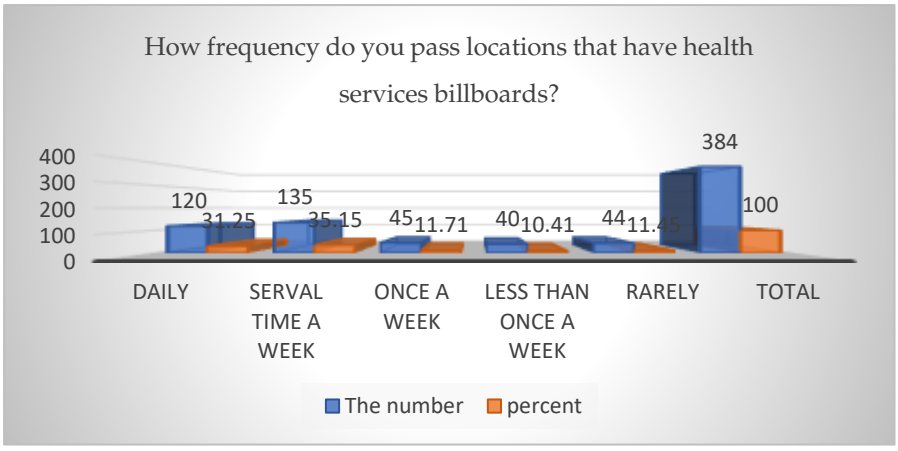


Figure 4. Responses to Question 3

Question 4: How easy is it for you to obtain information about health services through such advertisements? See the figure 5:

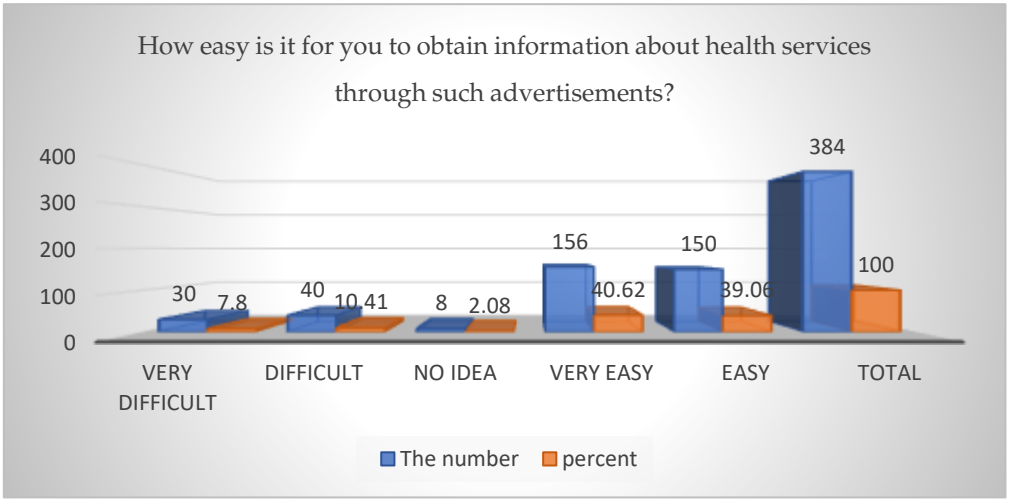


Figure 5. Responses to Question 4

Section 3: Awareness and knowledge

Question 1: In case of health service campaign billboards have increased my awareness about health services. See the figure 6:

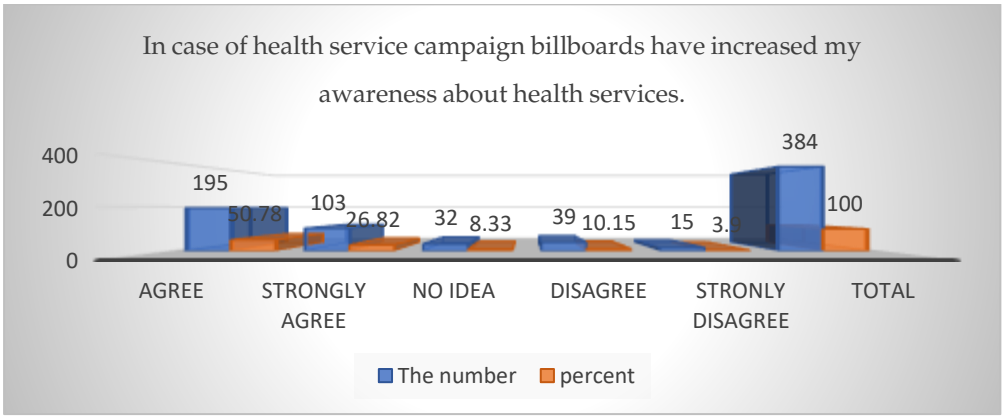


Figure 6. Responses to Question 1

Question 2: with billboards the health Service campaigns provide effective information about health services. See the figure 7:

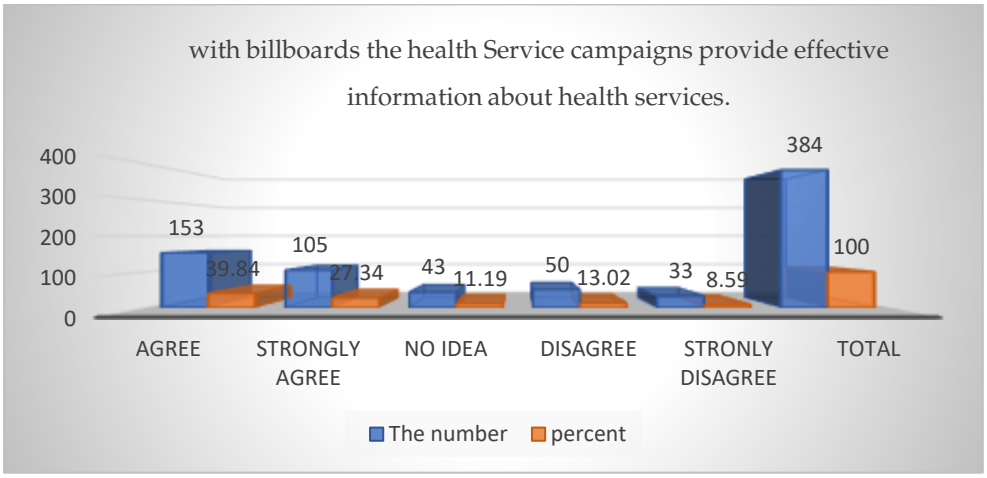


Figure 7. Responses to Question 2

Question 3: From health service billboards I have learned new messages regarding the health care in my life. See the figure 8:

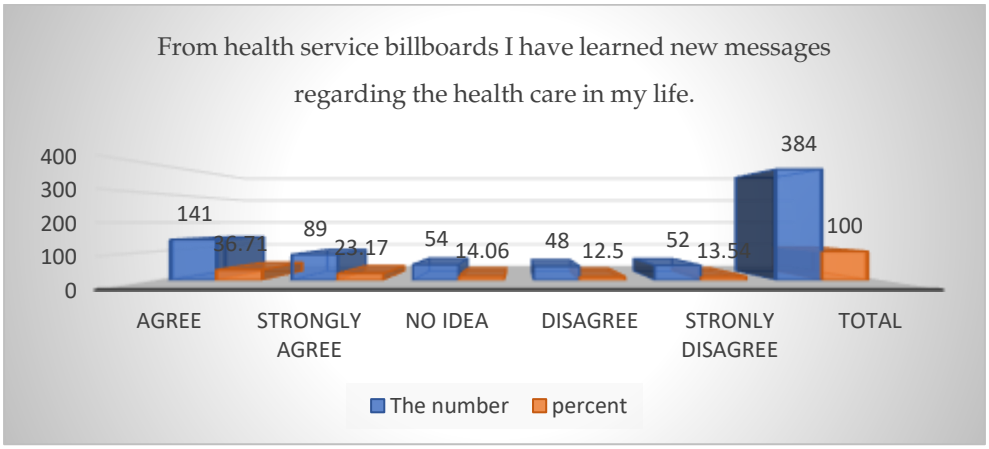


Figure 8. Responses to Question 3

Question 4: Billboards have increased my knowledge about health services. See the figure 9:

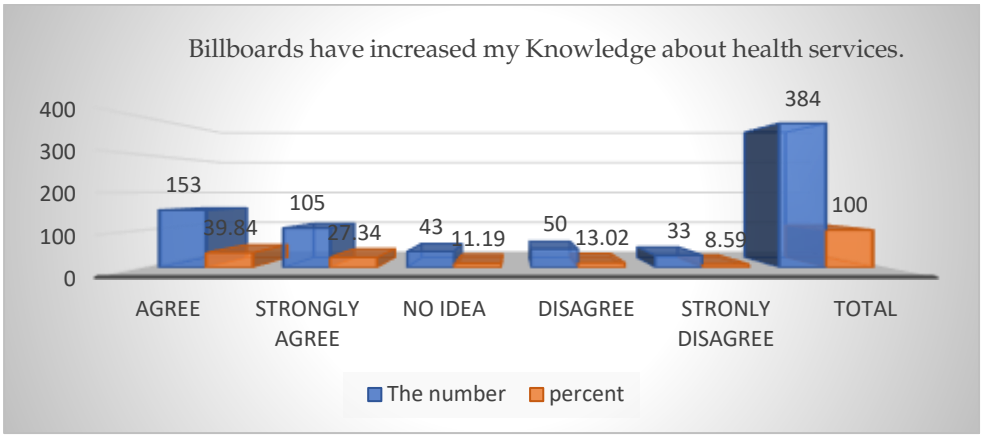


Figure 9. Responses to Question 4

Question 5: with billboards the health Service campaigns provide knowledge about health services. See the figure 10:

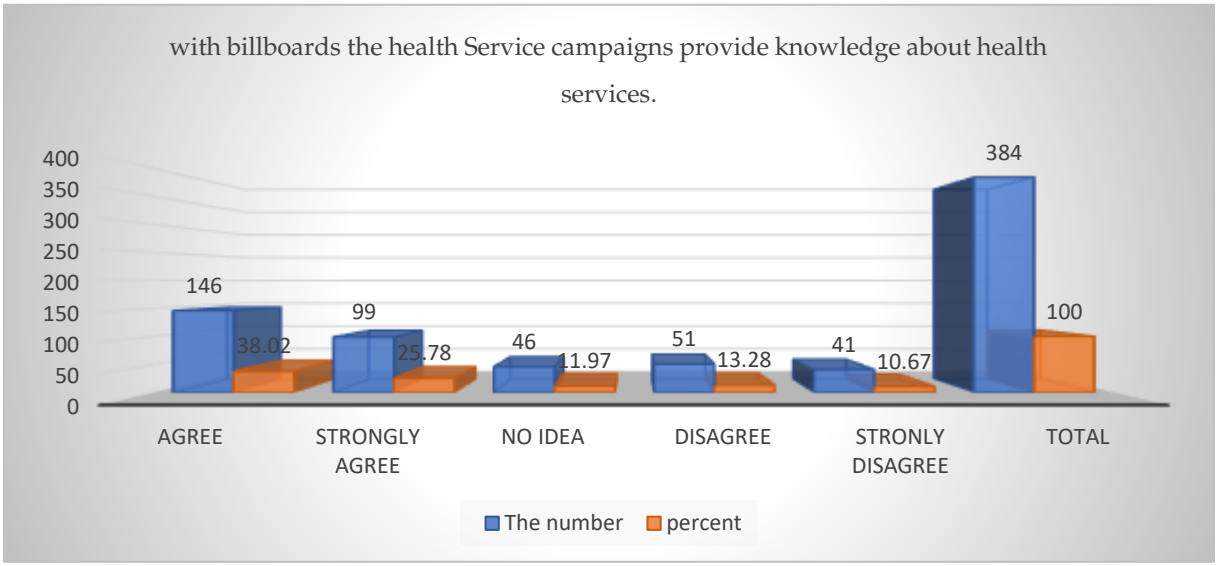


Figure 10. Responses to Question 5

Question 6: Health services billboards help me to understand where to abstain health services. See the figure 11:

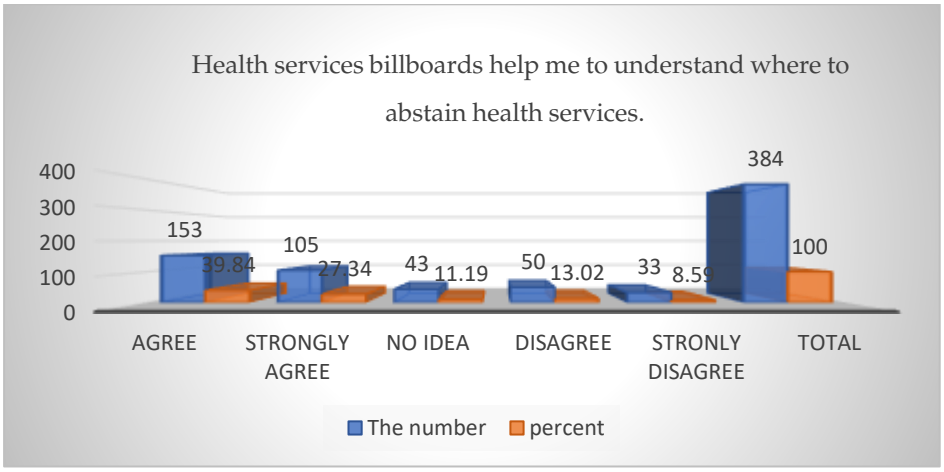


Figure 11. Responses to Question 6

Section 4: Attitudes about health service campaigns

Question one: Roadside billboard is a useful and effective way for health service campaigns in zone 8. See the figure 12:

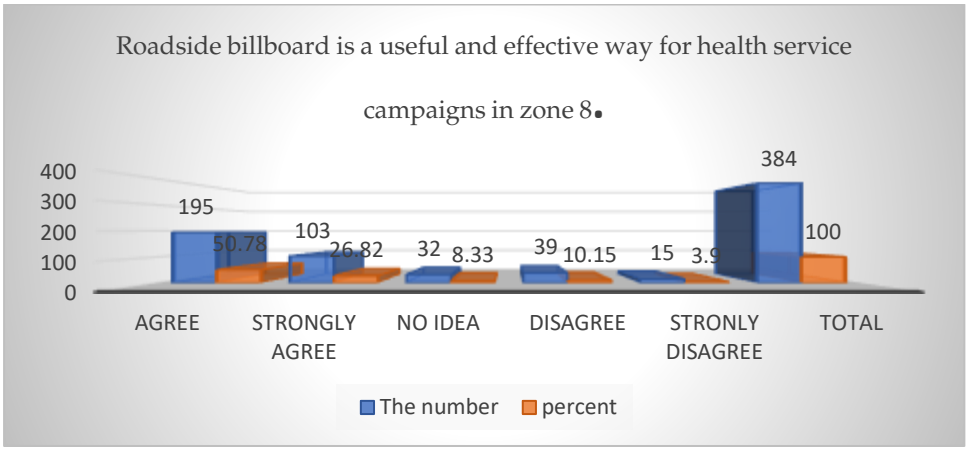


Figure 12. Responses to Question 1

Question two: I belief on messages and information provided on these kind billboards in zone 8. See the figure 13:

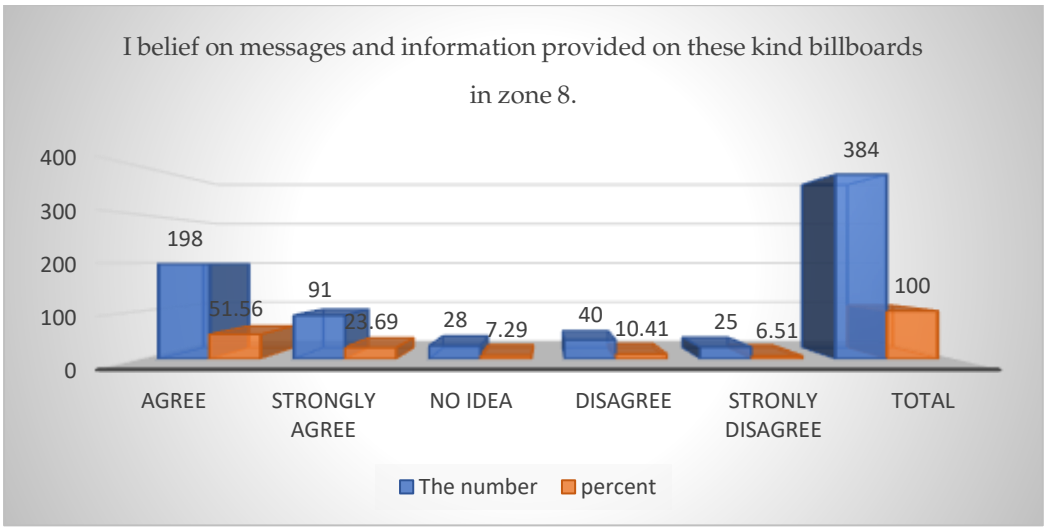


Figure 13. Responses to Question 2

Question 3: Roadside health billboards on zone 8 catches my attention. See the figure 13:

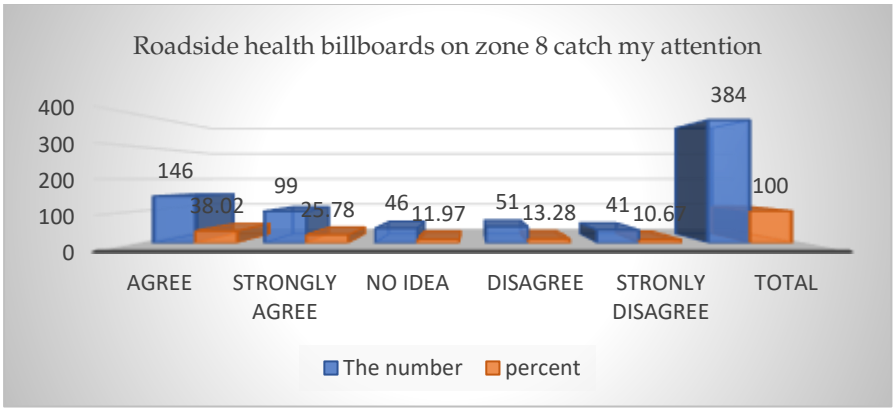


Figure 13. Responses to Question 3

Question 4: The visual design and color of these billboards makes the messages understandable. See the figure 14:

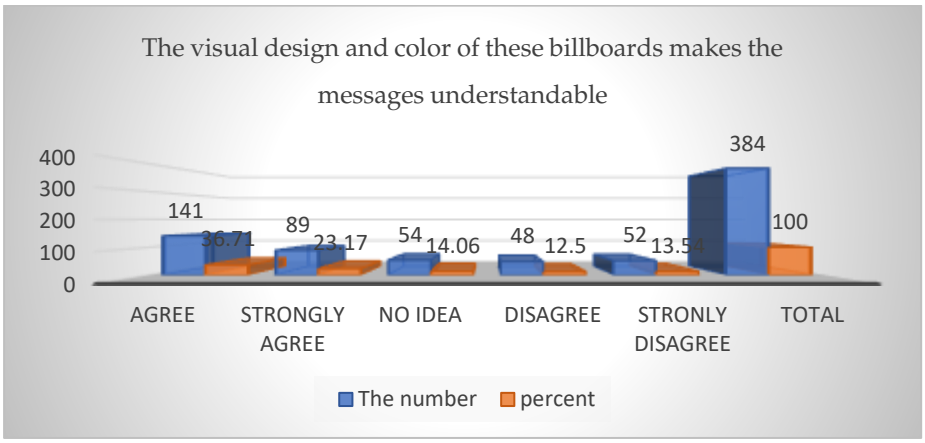


Figure 14. Responses to Question 4

Section 5: Impacts on health services objective and conduct.

Question one: Health service billboards have motivated me to look for health news and information in zone 8. See the figure 15:

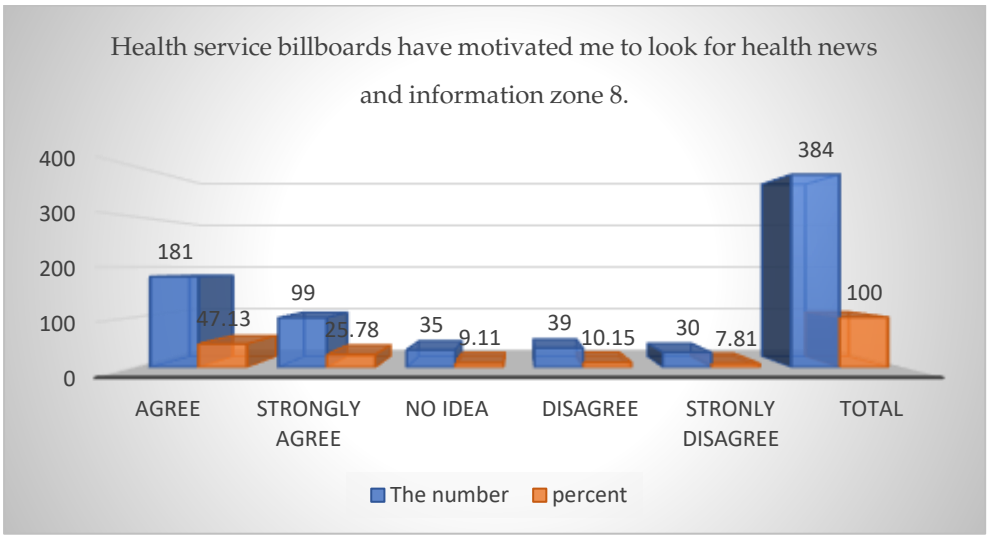


Figure 15. Responses to Question 1

Question 2: health service billboards have motivated me to use health facility when needed in zone 8. See the figure 16:

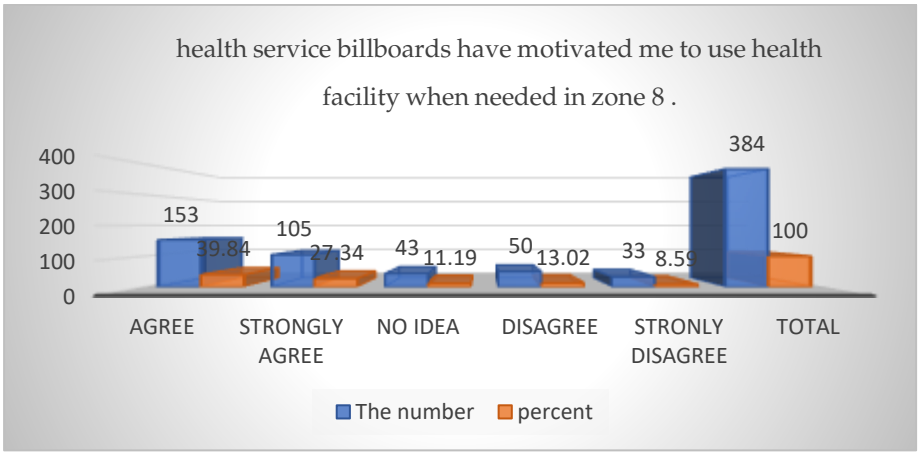


Figure 16. Responses to Question 2

Question 3: information from health billboards in zone 8 has affected my decisions. See the figure 17:

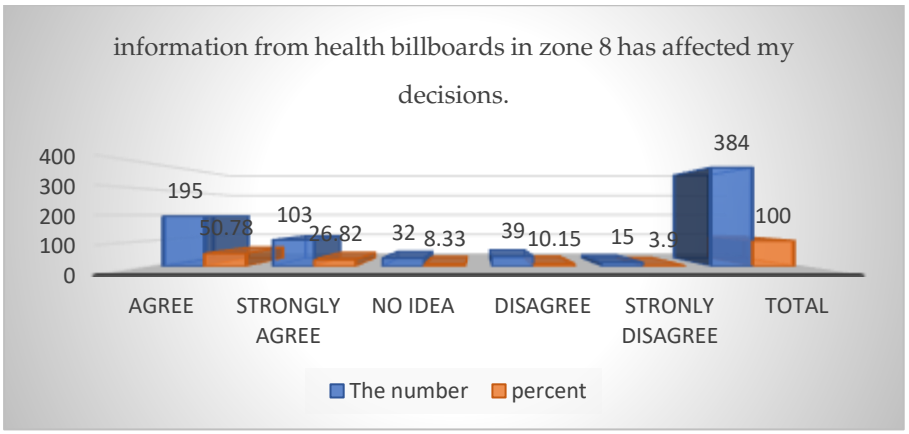


Figure 17. Responses to Question 3

Question 4: Roadside health services billboards have positively affected me health related behavior. See the figure 18:

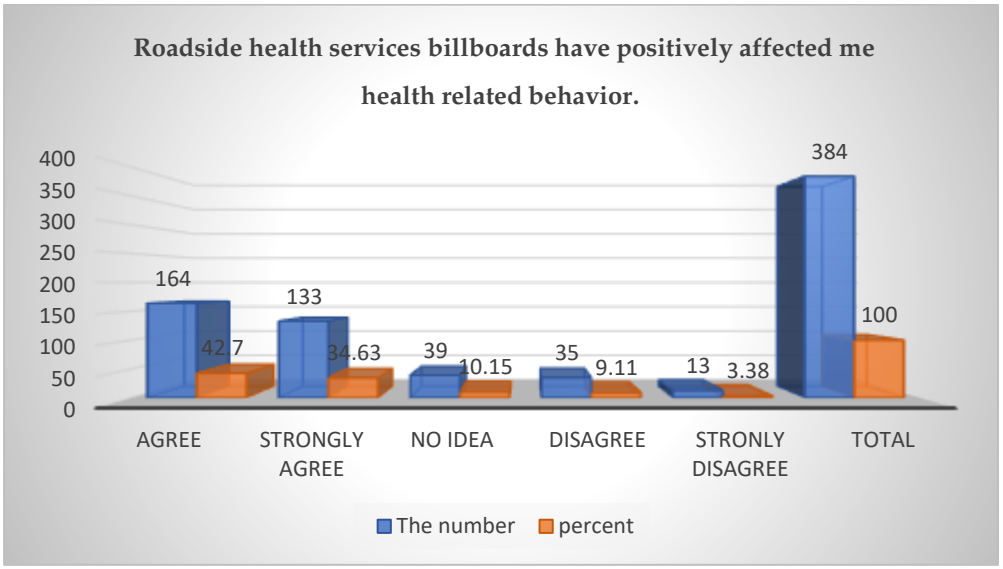


Figure 18. Responses to Question 4

Descriptive Statistics

From the finding of this research paper 30 respondents, representing 7.8 percent answered that, they had not seen roadside billboards to promote health service in zone 8, but 354 (92.2%) of them said that, they had seen this kind of billboards. The most commonly reported location for viewing these billboards was near health centers, where 130 responders (33.85%) reported seeing them. This was followed by main reads and supermarkets, with 80 responders (20.83%) reporting each location, while 60 responders encountered them in residential areas and 34 respondents' other location.

The frequency of exposure was also relatively high, 40 responders said, they had not pay attention to health service billboards, 30 (7.8%) of them said, they had very little, 10 persons had not any idea, 150 (39.06%) responders said, they usually pay attention a lot to this kind of advertisements and 154 (40.1) of them said that, they usually pay attention very much to health service billboards. Among the respondents, 120 (31.25%) stated that they encounter such advertisements daily; 135 (35.15%) reported encountering billboards for health services several times a week; 45 said they encounter them once a week; 40 (10.42%) indicated they come across such billboards less than once a week; and 44 (11.45%) stated that they rarely encounter them. This finding suggest that a substantial proportion of respondents not only encountered health service campaigns but also paid attention to them. The responders also specially answered that health service billboards made the information about these services accessible, 44 individuals representing 14.41% of respondents said that such health advertisements are difficult; 156 individuals comprising 40.62% of respondents stated that health service campaigns on billboards are very easy; and 154 (40.06%) individuals said that such advertisements are easy, while 30 considered them very difficult.

Awareness and knowledge of health services

The descriptive finding of this study indicates positive responses about the contribution of roadside billboards campaigns to health services awareness and knowledge, 195 (50.78%) agreed that billboards used in health service campaigns increased awareness, while 103 (26.82%) strongly agreed, but (14.05%) of responders were disagree and strongly disagree with this. 153 respondents (39.84%) agreed, while 105 (27.34%) strongly agreed that these advertisements provided effective health information, the finding showed 141 individuals agreed that they have been learned new messages from such billboards; 89 people representing 23.17% of respondents strongly agreed. Also 153 respondents (39.84%) agreed and 105 strongly agreed that billboards have increased their knowledge about health, furthermore 146 (38.02%) individuals agreed that with billboards the health Service campaigns provide knowledge about health services; 99 people (25.78%) of respondents strongly agreed, this result prove that a considerable proportion of respondents perceived roadside billboards as a source of health information and knowledge.

Attitudes toward health services campaigns

The finding of this study indicates generally positive attitudes regarding the use of roadside health service billboards, large number of respondents are agreed with this statement, 195 residents of zone 8 agreed that Roadside billboard is a useful and effective way for health service campaigns in zone 8. Also 103(26,82%) were strongly agreed, 32 responders had not any idea, but 39(10.15) were disagree with this opinion, 15 persons showed strongly disagreement with Roadside billboard is a useful and effective way for health service campaigns in zone 8. Although 51.56% (198 responders) trust these billboards; 91 persons (23.69%) strongly agreed with this opinion, but 40 responders (10.41%) did not agree that the information and messages on these billboards are trustful; 25 of the responders were strongly disagree with this view. Some of the respondents remained uncertain about the trust on this information.

In a case of attention and visual viewing of this billboards, (38.02%) 146 of responders agree that, Roadside health billboards on zone 8 catch their attention; 99 people representing 25.78% of respondents strongly agree; but 51 responders disagreed, and 41 (10.67%) people expressed strong disagreement with this. It showed that the attention and visualization of these billboards are positive.

Impact on health services intentions and behaviour

The finding of this research paper regarding of health service intentions and behavior showed the positive percentage, 181 (47.13%) agreed that health related billboards in zone 8 encourage people to view health information and updates, while 99 individuals strongly agree; additionally, 153 respondents (39.84%) agreed that billboard have motivated them to use health facilities, while 105 strongly agreed with this view. 195 responders

(50.78%) agreed that information from health billboards in zone 8 has affected their decisions, while 103 (26.82%) strongly agreed, regarding behavior Among the respondents, 164 agree with the statement, 133 (34.63%) strongly agree, 39 have no opinion, 35 (9.11%) disagree, and 13 strongly disagree. The finding showed that health services campaign by roadside billboards impact on health services intentions and behavior.

Decision on the main hypotheses

This study has two main hypotheses, based on the descriptive finding, a substantial proportion of respondents reported exposure to roadside health services billboards and perceived these billboards as contributing to awareness, knowledge, positive attitudes, intentions to use health facilities and health related behavior. However, descriptive showed the relationship between billboards exposure and the specified health services outcomes, so the study rejects hypotheses 2.

Finding

People living in zone 8, Jalalabad city are have seeing the roadside billboards promoting health services on their aria. Also they have been saw these billboards in residential areas; main roads; near health centers; supermarkets and in various other locations. Residents of the zone 8 pay attention to the billboards regarding health services located in various parts of this zone in Jalalabad city, which has enabled them to effectively benefit from the messages displayed on these billboards. Furthermore, they encounter the messages on these health-related billboards daily, several times a week, once a week, or in some cases very infrequently. Respondents stated that these health service campaigns are quite straightforward for them; according to them, these messages are highly beneficial to the public because they are easy to understand.

In case of health service campaign billboards have increased their awareness about health services. Billboard campaigns regarding health services provide effective information to the residents of Jalalabad City's zone 8; this information is obtained from billboards installed in various parts of the area. Respondents to the questionnaires stated that they are gaining new health related information and messages from these billboard campaigns for health services. These billboards have increased knowledge of the 8 zone residents about health service. with billboards the health Service campaigns provide knowledge about health services for theme too. Health services billboards help these people to understand the address and location of health services.

The residents of zone 8 agreed that, Roadside billboard is a useful and effective way for health service campaigns in zone 8. Respondents trust these billboards; the information and messages on these billboards are trustful. Roadside health billboards on zone 8 catch their attention; the visual design and color of roadside health service billboards in case of messages understanding is useful and effective. Also Health service billboards have motivated them to look for health news and information in zone 8. Health related billboards in zone 8 encourage people to view health information and updates, Health service billboards have motivated the Residents in zone 8 for using health facility when needed in zone 8. The information from health billboards in zone 8 has affected the decisions of those people which are living here. Roadside health services billboards have positively affected the health-related behavior of zone 8 residents.

Dissection:

The findings of this study indicate that roadside billboards are a visible and frequently encountered source of health-related information among residents of Zone 8, Jalalabad City. A considerable majority of respondents (91.2%) reported having seen roadside health service billboards, while many indicated that they encountered these billboards daily or several times a week. This high level of exposure highlights the potential of roadside billboards as an accessible channel for communicating health information to the public. This finding is consistent with Elrod and Fortenberry (2017), who discussed the potential of billboard advertising to communicate healthcare information to different population groups. It also supports the importance of selecting accessible communication channels when designing public health campaigns.

Regarding awareness and knowledge, the findings show that most respondents perceived roadside health service billboards as useful sources of information that increased their awareness and knowledge of available health services. This finding is consistent with Wakefield et al. (2010), who highlighted the contribution of mass media campaigns to increasing public awareness and influencing health-related behaviours. Similarly, Miakhel (2024), in a study conducted in Jalalabad, reported the positive role of media in improving public understanding of the appropriate use of medicines. Although Miakhel's study examined media generally rather than roadside billboards specifically, both studies highlight the importance of communication channels in disseminating health information within the local context.

The findings also revealed generally positive attitudes toward roadside billboard-based health campaigns. Many respondents considered these billboards useful and informative, expressed trust in the information presented, and indicated that visual elements such as colours and design helped them understand the messages. These findings highlight the importance of message presentation and audience engagement in health communication. They are also consistent with Noar (2006), who emphasized the importance of effective campaign design and message development in achieving communication objectives. Furthermore, the findings support the social marketing perspective of Kotler and Lee (2008), which recognizes the role of persuasive communication in encouraging socially beneficial behaviours.

In terms of health service utilization, many respondents reported that roadside billboard messages motivated them to use health facilities when necessary and positively influenced their health-related behaviour. These findings suggest that roadside billboards may contribute not only to communicating information but also to encouraging positive health-related intentions and self-reported behaviours. However, as the findings are based on respondents' reported experiences, they should not be interpreted as evidence that billboard exposure directly caused changes in actual health service utilization. This distinction is important when interpreting the relationship between exposure to health messages and behavioural outcomes.

Overall, the findings suggest that roadside health service billboards have considerable potential as a public health communication channel in Zone 8, Jalalabad City. The results are broadly consistent with previous research emphasizing the contribution of mass media and health communication campaigns to public awareness and health-related decision-making. However, this study provides a more specific local perspective by focusing on roadside billboards rather than mass media in general. Therefore, greater attention should be given to the clarity, visibility, credibility, and visual presentation of billboard messages when planning health communication campaigns. Further research using longitudinal or experimental designs could provide stronger evidence regarding whether repeated exposure to roadside health messages leads to sustained changes in health knowledge, intentions, and actual health service utilization.

Conclusion

This study examined the relationship between exposure to roadside health service billboards and health service awareness, knowledge, attitudes, intentions and reported health related behavior among residents of zone 8, Jalalabad city. The research included 384 responders and estimated billboards exposure through facts such as frequency of exposure, attention, visibility and understanding of billboards information and messages. descriptive finding of this study it showed that roadside health services billboards are usually conformed sources of information about health services among residents of zone 8, Jalalabad city. The most of responders (91.2%) said that they had seen roadside health services billboards, also majority of the respondents reported run into these kinds of billboards daily or many time in a week, this showed the high level of exposure and important context for understanding responders' awareness of billboard health communication.

The study also found indicate many favorable attitudes toward billboard-based health campaigns relative a lot of the responders considered roadside billboards useful and effective for health services campaigns, many of the responders showed them trusting about this kind of information, they said that the visual design and colors helped them to understand the message.

The finding showed the potential importance of message clarity, visual design, visibility and attention in health service billboard. Many responders stated that health service billboards motivated them to use health facilities in zone 8 when they need, the majority also said that messages from these billboards had positive rule on their health-related behaviour.

The final conclusion regarding the main hypotheses showed that the Exposure to roadside billboards has significant impact on residents' awareness, knowledge, attitudes and health services related behaviours in zone 8, Jalalabad city. The study provide evidence that roadside health billboards are very visible and are perceived by majority residents of zone 8. These billboards give the information daily or several time in a week for the residents, the billboards had been showed the facts about the health service awareness, visible, knowledge, attitudes, intentions and behaviour. The finding also showed the importance of considering accessible and visually clear information channels when giving health service awareness in zone 8, Jalalabad city.

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