

Implementing Social Marketing Strategies to Improve Food-Safety Awareness During Eid-Al Adha Festival in Indonesia

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ABSTRACT

Indonesia is the world's largest Muslim-majority nation. As a result, Eid-Al Adha, the annual Muslim Festival of Sacrifice, is one of the largest religious festivals in Indonesia. During the festival, there will be prayers and ritual sacrifice of animals; the meat will be distributed to the poor and shared among families. The slaughtering and butchering process of the animals usually involves many volunteers and occupies public spaces, such as mosque car park areas, public parks, or side streets. Since it is a public holiday, the pilgrims and people who live around the sites usually come to watch the process. This becomes a public health issue because slaughtering animals in open areas and butchering the carcasses under ambient temperature (230C-300C) might increase the risk of animal-borne and food-borne infection to the public.

The local governments usually deploy veterinarians to inspect ante- and post-mortem status of animals and the carcasses to make sure none of sick animals or unhealthy carcasses being slaughtered and/or distributed to public. However, since these animals are usually slaughtered at the same time, it is almost impossible to have all animals and carcasses being inspected because the number of veterinarians are lower compared with the pace of the animals being slaughtered. Furthermore, sanitation is also a major issue because the remaining blood and fecal material from animals might contain infectious agents and thus increase the risk of public exposure to environmental hazards.

The most feasible way for the local governments to improve this condition is to conduct campaign based on social marketing strategies to raise community awareness about these problems. Many agencies around the world have implemented the principles of social marketing and have been successful in dealing with public health issues. In influencing the customer to change health behavior, social marketers are prefer to promote the most appealing motivation to their customer rather than reinforce fears, rewards, or penalties. Since the idea of Eid-Al Adha is a charity action to the poor, this campaign will focus to motivate mosque volunteers to provide hygiene meat to the poor; improving sanitation during slaughtering and butchering process is the new health behavior the local governments expect to see from the volunteers. This campaign will also point out the act of cleaning out the public venues after the festival because being responsible to environmental health is one of religious actions. The leaders of mosque volunteers are the target customer for this campaign because they have power to influence other volunteers. In conclusion, improving social awareness by implementing social marketing strategies is powerful to minimize the risk of animal-borne and food-borne diseases during Eid-Al Adha festival in Indonesia.

Keywords: Social marketing, social awareness, Eid Al Adha, food-borne disease, animal-borne disease.

1. Introduction

Eid-Al Adha is one of the important Muslim Festivals celebrated by the Muslims worldwide. According to the Muslim tradition, it celebrates the sacrifice that Abraham was willing to make of his own son Ishmael when he was

commanded to show his commitment to Allah. At Allah's direction, the angel Gabriel substituted a lamb for Ishmael, after Allah was convinced that Abraham would indeed sacrifice Ishmael to prove his faith. In Indonesia, this festival is also known as Idul Adha or Hari Raya Haji. Since Indonesia has the largest Muslim population in the world, it

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is one of the largest religious festival celebrated by most of its citizens.

The number of animals slaughtered for Eid-Al Adha is much higher compared to the number of animals slaughtered on a daily basis. Ministry of Agriculture of Indonesia reported that 1,019,777 animals were slaughtered on Eid-Al Adha 2016; this number including 279,221 cattle, 7,535 buffaloes, 650,583 goats, and 82,438 sheep (Ministry Agriculture, 2016). As compared to the number of livestock slaughtered for the whole year, these numbers compose almost 10% of cattle, 5% of buffaloes, 2% of goats, and 7% of sheep (Directorate General of Animal Husbandry and Animal Health, 2015).

Furthermore, a high number of people would be able to watch the slaughtering process because it occupies public venues and Eid-Al Adha is a public holiday. Although some of the animals are slaughtered and butchered in the slaughterhouses, most of these animals usually slaughtered by occupying public venues, such as parking lots, public parks, or side street. During this time, Indonesians have their national holiday; most of the working-age adults, college students, and school-age children will get at least one day off. Traditionally, Eid-Al Adha in Indonesia is identical with mass gathering; the pilgrims, children in the neighborhood, and the volunteers gather together for watching or helping the slaughtering and butchering process. In this case, there is an intense interaction between humans, animals, and environment during this annual event.

2. The Animal Sacrifice Process in Indonesia

Following is a description of the common animal sacrifice process in Indonesia. Each mosque will decide the site for the slaughtering and butchering process. They will either coordinate the fund from the pilgrims to buy the animals or let the pilgrims buy the animals on their own. The animals bought from farmers will be rested at the site of slaughtering for one week or at least one-night before the festival. The event will be held at the site for one to four days. The animals are slaughtered according to Islamic law; the animal laid down gently with the head of the animal be facing the *Qiblah*. The act of slaughtering is preceded by mentioning the name of God, then cutting the large arteries in the neck along with the esophagus and trachea with one swipe of the non-serrated blade. Butchering involves several processes, such as removing of the feet, pulling the skin, cutting the carcasses, and separating the internal organs. The volunteers will then distribute the meat and the non-meat products to the poor, the pilgrims, and other people who are involved in the process.

The Indonesian government under the administration of Directorate General of Animal Husbandry and Animal Health Ministry of Agriculture is usually involved in every step of these processes to ensure every animal slaughtered are healthy and the carcasses are safe to distribute to the public. Few weeks before Eid Al Adha, the Ministry of Agriculture will disseminate information to the local governments to strengthen health status monitoring of livestock animals that are being transported into or out of

their local authorities. Veterinarians will be assigned to monitor the animals' health status at the site of festival before slaughtering process (ante-mortem) and inspect carcasses after the slaughtering process (post-mortem) (Ministry Agriculture, 2016). Figure 1 depicts animal sacrifice process in Indonesia.

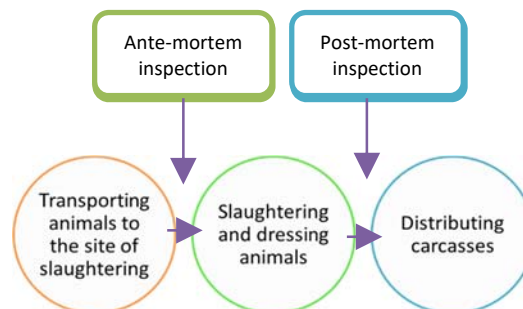


Fig. 1. Flow chart of animal sacrifice process in Indonesia

3. Public Health Perspective of Animal Sacrifice Process in Indonesia

Mass gatherings with such interaction to animals in certain condition have been reported to expose humans to infectious agents from the animals; this type of infectious disease also known as zoonotic disease. Bender and Shulman (2004) collected reports from the United States, United Kingdom, and Canada about zoonotic disease outbreaks associated with animal exhibitions, such as petting zoo, farm visits, county fair and a zoological park. Several pathogens such as bacteria, virus, protozoa, and fungal were the causes of the outbreaks. They also found the contributing factors related to the outbreaks were contact with sick animals, inadequate handwashing facility, inadequate manure management, and hand-to-mouth activities in animal areas (e.g., eating, drinking, smoking, and sucking thumbs).

Since the animals are rested at the site of animal sacrifice for several days, the site would be contaminated by the animal feces and urine. Pelzer and Currin (2005) reported that pathogens such as *Escherichia coli* O157, *Salmonella typhimurium*, *Cryptosporidium spp*, *Giardia lamblia*, and *Leptospira interrogans* are commonly present in the animal feces and urine. Similarly, Bender & Shulman (2004) reported these pathogens as the most common causes of human zoonotic outbreaks in animal exhibits. The infected animals may show no signs of illness, but they carry and pass the organism in their urine and/or feces. The pathogen may infect humans through direct contact; they can also persist in the environment and become a source of infection (Pelzer & Currin, 2005). Consequently, resting the animals without proper manure disposal might expose the public to zoonotic diseases.

The volunteers, the pilgrims, and other people that being around during and/or the process might be infected from direct contact with the contaminated feces, urine, and environment. Among these people, the volunteers and children are two groups that have the higher risk of infection.

The volunteers have a higher risk of infection because they are handling raw meat during the slaughtering and processing. Pal, Tesfaye, and Dave (2013) reported slaughterhouse workers that deal directly with animals/tissue of animals encountered zoonotic diseases by being exposed regularly with multiple pathogens. Having skin injuries, low standard of personal hygiene, improper use of personal protective equipment (PPE) are risk factors that contributed to pathogen exposure. Not only feces and urine, other internal organs such as gastrointestinal, respiratory, urinary, and reproductive system are the common organs where zoonotic agents persist (Pelzer & Currin, 2005). Children are vulnerable to the infectious agents because of their greatest risk of developing serious illness and mortality once they are infected (Gerba, Rose, & Haas, 1996; Bender & Shulman, 2004). Since some public parks are occupied as animal sacrifice sites where children usually play at the sites, they might come across to the infectious agents through petting the animals, sucking thumbs, eating at the sites, and/or playing at the sites after the festival.

Furthermore, handling raw meat at ambient temperature (23°C-30°C) might increase the risk of foodborne infection to those who receive the meat. Most of the pathogenic bacteria have their optimum growth at this temperature (Mitscherlich & Marth, 1984). Thus, the longer period of time between slaughtering and distributing the carcasses, the higher number of bacteria grow in the carcasses. Additionally, packaging meat and non-meat products by using the same plastic bag could also increase the risk of cross-contamination. Every bacterium has its preference to grow at particular site or tissue; every tissue produces different organic compounds that are required by bacteria for their growth factor (Mitscherlich & Marth, 1984). Cross contamination would occur if the contaminated non-meat products were mixed with the non-contaminated meat or vice versa.

4. Social Marketing Promotional Strategies to Minimize the Risk of Infection

Considering risk of infection that might occur during and after the festival, thanks to the Government of Indonesia that have already made efforts to minimize the risk of animal-borne and food-borne infection. The efforts include strengthening animal health status monitoring and involving local and private veterinarians to conduct ante- and post-mortem inspection (Ministry Agriculture, 2016).

To maximize those efforts, another feasible approach that can be used by the national and local governments is by involving the community. Raising public awareness to minimize the risk of infection is powerful so that the community will be working on the same goal with the government. Yet, to educate the community, one should understand that promoting awareness to the community is a challenging project. Also, because this is an annual event the goal of educational campaign is a sustainable behavior. To answer these challenges, social marketing promotional strategies would be the most effective way because it tries to

understand the target audience's perspectives, thereby promoting the longer-term behavior.

Social marketing is the use of marketing principles to design and implement programs to promote social behavior change. Social marketing resembles marketing strategies that begin with a focus on understanding people. The promotional strategies are focused on the people's wants, needs, aspirations, and lifestyles; social marketers also must recognize that people have the freedom to make their own choices and engage in behaviors (Lefebvre, 2013).

The principles of social marketing have been applied by agencies around the world, including the United States Agency for International Development (USAID), the Center for Disease Control and Prevention (CDC), the government of United Kingdom, Germany, Canada, Netherlands, and Australia. A successful example of a social marketing program is the VERB™, a physical activity promotional program for teenagers launched by the CDC. The VERB™ program uses a tone consistent with its positioning of physical activity as fun and exciting rather than using a serious, factual description of the health benefits of physical activity. The program was successful to engage teenagers in physical activity behavior (Grier & Bryant, 2005).

5. Designing a Social Marketing Campaign to Promote Social Awareness

In this chapter, the author describes a design of social marketing campaign that can be used as a recommendation to the local governments to involve the community. Based on personal observation, the author found that there is the same pattern of individuals and behaviors of interest regarding this event in several parts of Indonesia. This pattern can be used to design a social marketing campaign.

5.1. Defining and Understanding the Issues and Choosing Strategies

The first step of a social marketing campaign is defining the problem. The problem is something that the social marketers, the people who are interested in promoting the new behavior, already understand. As described in the previous chapter, the problem for this event is a risk of human zoonotic outbreaks.

The next step is setting up the goal. Minimizing the risk of infection by involving the community is the primary goal of this campaign. To be able to evaluate the campaign, surveillance is highly recommended, particularly surveillance related to zoonotic disease outbreak associated with this event. Local authorities of human health and animal health are suggested to work together to obtain the more reliable surveillance data.

The third step is defining the audience. Based on the previous chapter, children and volunteers are the two groups that a higher risk of infection because of their degree of contact and their degree of vulnerability. Yet, other people who are at the site and/or receive the carcasses could also be exposed to the pathogens. Targeting broad types of audiences could be challenging as the capacity (time,

budget, human resources) of the local governments in each region could be varied. Therefore, targeting the Mosque leaders and the leaders of the event is the most feasible target audience for this purpose. With respect to the cultural values of Indonesia, community leaders are the key individuals who have strong power to persuade their communities. Thus, persuading the leaders is a powerful strategy because once the social marketers succeed to convince the leaders, they have the power to convince other mosque volunteers. The social marketers can invite the mosques to send their representative, and can be very specific to mention that they require the mosque leaders and the leaders of the event to attend the campaign. One more thing that is also extremely important is the campaign should be held at least 3 to 4 weeks before the event so that allowing the leaders to have sufficient time to disseminate the information to the other volunteers and to the pilgrims.

Probably the most important step of this design is defining the key message to the target audience. The message should be something that appeals to the target audience. In order to find the key message, the social marketers should understand the motivation that lies behind this event. Furthermore, the key message should always be repetitively included during the campaign because the repetition of the message can stimulate motivation.

The social marketers of the VERB program tried to approach teenagers by positioning physical activity as fun and exciting activities because this strategy appeals their young-target audience more than if they were tried to approach their audience by educating them serious health implications of not engaging in physical activity. They believed that young people are more attracted to the fun and exciting actions (Grier & Bryant, 2005).

In light of this, positioning animal sacrifice as charity and religious activity is the powerful way to approach the target audience. The idea of Eid-Al Adha is to have the pilgrims that whole-heartedly donate a sacrificed animal to their community, especially to the poor people. Also, this event is a religious activity that runs in a community

5.2. Recommended New Behaviors to Adopt

The last important part of the social marketing campaign is the new behaviors the social marketers promote to the target audience; another term for new behaviors promoted by the social marketers is the products. The author made this recommendation based on the most feasible way for the animal sacrifice event organizer to adopt and the most current recommendation to prevent and control human zoonotic disease outbreaks in animal exhibitions (Bender & Shulman, 2004).

Following are recommended new behaviors for the event organizers, the volunteers, the pilgrims and the visitors of the events, and the carcass receivers. The event organizers are recommended to:

- Provide adequate handwashing facilities for volunteers, pilgrims, and visitors.
- Provide PPE for the volunteers.

- Provide clean lunch/break room for volunteers. It is highly recommended if they can provide the room that separated from the animal sacrifice site.
- Prepare a hole/holes and slaughtered in such a way so that the animals' blood will flow down into the hole. This strategy would help the event organizers to keep the environment clean after the festival because they can simply bury the hole so the animals' blood would not contaminate superficial part of the soil.
- Provide two different colors of plastic bag to separate meat from non- meat products.
- Provide adequate manure management, especially if animals are rested at the site for several days.
- Clean the site right after the festival by disposing manure properly and disinfecting the environment.

The volunteers are recommended to pay attention to their personal hygiene and the use of PPE. The audience should understand that hand-to-mouth activity (e.g., smoking, eating, drinking) are strictly prohibited if the volunteers are working with the animal/animal tissues. Handwashing practice and the importance of covering and cleaning broken skin should be highlighted to prevent disease transmission to the volunteers. Additionally, PPE such as a head cap, gloves, apron, and rubber boots are beneficial to reduce the risk of infection to the volunteers.

The pilgrims and the visitors are encouraged not to have direct contact with the animals, especially if not necessary. Avoiding fecal materials and urine from the animals when they are walking at the animal sacrifice site or simply keep their distance from the slaughtering and butchering site is recommended.

The carcass receivers are recommended to cook the carcass thoroughly and wash their hands after cooking the carcass. Cooking carcass thoroughly is the most recommended way to prevent food-borne infection.

While the social marketers promote these products, there will be the 'price' that comes as a consequence for the target audience when they are choosing to engage in these new behaviors. It is not always easy to persuade people to engage in a new behavior, especially if they do not aware the health consequences of their old behavior. Therefore, to persuade the target audience on the campaign, the social marketers need to influence them by tighten it with the key message; positioning these new behaviors upon their motive to provide the best carcass to the poor and because they care about their community, such as the volunteers, the pilgrims, the visitors, and the people who use the site after the festival. Again, repetition the key message during the campaign is extremely important to persuade the target audience.

6. Limitations and Suggestions

To be able to have a sustainable and powerful social marketing campaign, it requires a more comprehensive research. Research is important to obtain more information about the target audience. Social marketing design in this paper was written merely based on the author's perspective. Behavioral surveys, detailed interviews, and focus group

discussions could be helpful for future research to understand more about target audience's values, needs, and beliefs.

Evaluation is important, especially when the community already using this program. Once the campaign is held in a community, the research could focus more on understanding barriers for the target audience to adopt such new behaviors. Evaluation is also helpful to see how social marketers might improve their strategies.

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References

- Directorate General of Animal Husbandry and Animal Health. (2016). Statistik Peternakan dan Kesehatan Hewan 2016 [Livestock and Animal Health Statistic 2016]. Jakarta: Direktorat Jenderal Peternakan dan Kesehatan Hewan Kementerian Pertanian Republik Indonesia.
- Bender, J. B., & Shulman, S. A. (2004). Reports of zoonotic disease outbreaks associated with animal exhibits and availability of recommendations for preventing zoonotic disease transmission from animals to people in such settings. *Journal of the American Veterinary Medical Association*, 224(7), 1105-1109. doi:10.2460/javma.2004.224.1105
- Gerba, C. P., Rose, J. B., & Haas, C. N. (1996). Sensitive populations: Who is at the greatest risk? *International Journal of Food Microbiology*, 30(1), 113-123. doi:10.1016/0168-1605(96)00996-8
- Grier, S., & Bryant, C. (2005). Social Marketing in Public Health. *Annual Review Of Public Health*, 26(1), 319-339. <http://dx.doi.org/10.1146/annurev.publhealth.26.021304.144610>.
- Kementerian Pertanian Jamin Ketersediaan Dan Kesehatan Ternak Untuk Hari Raya Idul Adha Tahun 2017 Aman [The Ministry of Agriculture Guarantees Availability and Health Status of Livestocks for Eid-Al Adha 2017]. (2017). Retrieved 31 Aug 2017, from Direktorat Jenderal Peternakan dan Kesehatan Hewan website: <http://ditjenpkh.pertanian.go.id/>
- Lefebvre, R. (2013). *Social Marketing and Social Change* (1st ed.). New York, NY: John Wiley & Sons.
- Mitscherlich, E., & Marth, E. H. (1984). *Microbial survival in the environment : Bacteria and rickettsiae important in human and animal health* (1st ed.). Berlin/Heidelberg: Springer. doi:10.1007/978-3-642-69974-0.
- Pal, M., Tesfaye, S., & Dave, P. (2013). Zoonoses occupationally acquired by abattoir workers. *Journal of Environmental and Occupational Science*, 2(3), 155. doi:10.5455/jeos.20131013121517.
- Pelzer, K. D., & Currin, N. (2005). Zoonotic diseases of cattle. Retrieved from <http://hdl.handle.net/10919/50703>.