Forms of Health Care Communication: An Integrated Approach

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Utilizing specific forms of communication will lower health care costs by increasing productivity and efficiency in the health care sector. Firstly, we analyzed the form of communication in the context of risk management. The health care provider was the focus. Specifically we examined the checklist used by surgeons to prevent malpractice incidences; reducing complications after surgery or general treatments will therefore lower the mortality rate and result in lowering health care costs. Secondly, from the potential-patient aspect of health care (preventive medicine), we took up the form of communication in the context of Kotler's social marketing. Through promotional strategies, such as campaigns, the general public will have more knowledge of diseases; people would know what to expect and what would be the consequences. This paper sets the framework for analyzing the two forms of health care communication.

Key words: Forms of Health Care Communication, Risk Management, Social Marketing, Health Care Sector

1. Introduction/Background of Communication and Health Care

Premise: Skyrocketing education and health care costs are social problems that must be dealt with; high costs in health care and education are due to the very nature of these sectors being low productivity service sectors (Baumol, 2012). Baumol states that compared to health care and educational sectors, other sectors such as the manufacturing sector have relatively high productivity with falling costs. For example, the cost of manufacturing computers or automobiles has fallen because labor time and/or wages could be cut due to innovation or automation. However, according to Baumol, health care and education involve "personal services, or in-person contact", requiring teachers, doctors or nurses to have direct contact or communication with their students or patients; that is, these sectors are highly labor intensive sectors in which reduction in the amount of time put into personal services cannot easily be done without affecting the quality administered.

In addition, there is the difficulty of measuring quality since the product, human health and well being may not be totally objective. That is, patient satisfaction may be highly subjective depending on the values of the patient. While some patients are happy with partial recovery, others may not be content unless he/she has fully recovered. Therefore, objective data such as mortality or morbidity rates should be introduced. However, let us look at, in particular, the communication factor highly crucial in the health care sector since patients must interact with health care providers to obtain the highest quality with the best outcome. We shall examine how the role of communication in health care is to efficiently provide high quality care; in turn, defining the forms of communication will lower costs by increasing productivity and efficiency. At the same time, quality cannot be compromised since the product, health care, is literally a matter of life or death for the patient. Intuitively, this observation appears too simple or obvious; however, the harsh reality is that communication in health care is not always optimal since the health care sector, with its specialized environment involving highly professionalized staff, at times lacks transparency, i.e., the problem of asymmetric information. By approaching the forms of communication via risk management and social marketing, we may be able to alleviate the problems arising from asymmetric information or communication barriers.

This is similar to the judicial or legal systems in which attorneys use jargon or methods at times incomprehensible to lay people. Lawyers are bound by law to work in the best interest of their clients. However, in some cases, unforeseen circumstances or discrepancies, not necessarily beneficial for the client, may arise. Although justified as a form of negotiation, at times, lawyers are said to make secret "special deals" to end the dispute and reach an agreement. Therefore, these are cases in which there exist asymmetries of information due to the intrinsic nature of highly specialized sectors.

Moreover, it is important to note that a simplification of integrating supply and demand of health care is difficult because supply and demand analysis cannot readily be applied to the health care sector as applied to other sectors. Since health care is a public good, the government strongly influences health care policies; thus, price is not simply determined by supply and demand. In other words, the fact that health care has a relatively inelastic demand means that

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people will attempt to seek medical attention regardless of price. In addition, in certain cases, insurance companies may play a role in distorting the supply and demand of health care; that is, people may have a tendency to seek medical attention since it is (fully/partly) covered by insurance (Cooper and John, 2012).

Therefore, in this paper, the subheadings, "Affecting Supply (Healthcare Providers): A Risk Management Perspective," and "Affecting Demand (Preventive Medicine): A Social Marketing Perspective," are not to be confused with the orthodox approach of supply/demand analysis. The risk management perspective will analyze health care from the health care providers' aspect while the social marketing perspective will take up the patient-to-be aspect (preventive medicine) of health care communication in which the general public will be the target audience.

Both from a policy and strategy implementation viewpoint, governments all over the world are attempting to tackle and control the increase in health care expenditure. For example the Japanese government urges the use of less expensive generic drugs in treatments. In Japan, in order for a patient to seek treatment to an advanced treatment hospital, they are required to get a letter of referral from their general practitioner or local doctor.

Improved communication in health care directly affects health care costs. From the aspects of both government policy and/or strategic marketing in the private sector, improvements in health care communication directly influence outcome. The outcome, in this case, means an improvement in health condition or higher overall welfare for the population. In terms of overall social welfare, we can assume that the healthier we are, the happier we will be. Hence, attaining improved health should be a win-win solution with no losers; the health care providers win by being able to cut costs while treating and curing patients.

Meanwhile, patients also win or benefit by receiving higher quality health care and an improved quality of life if the disease is fully cured or controlled. In turn, this outcome hopefully spells out higher productivity for the economy when the patient can go back to work and join the workforce; thus, this translates to increased labor. At the same time, from a societal viewpoint, the cured individual or patient will mean a reduction in the mortality or morbidity rate. Therefore, theoretically in this model, there are no losers.

As stated in Atkin and Silk (2009), health care communication campaigns conveying effective health messages to prevent the spread of diseases have a long history. Dating back almost 300 years in U.S. history, in an attempt to control the Boston smallpox epidemic in 1721–22, pamphlets promoting inoculation were distributed by a religious and political leader, Cotton Mather (Harvard Univ. Library Collections Open Program, 2016).

On the other hand, in Japan the Leprosy Prevention Law enacted in 1907 can be interpreted as a so-called negative campaign communicated by the former militaristic government. It was finally abolished after nearly 90 years in 1996; this was so much later compared to other industrialized nations since with the discovery of a cure, these nations had freed their patients. In Japan, there was a strong inclination to believe in preserving the so-called "supremacy and purity of the Japanese race". This was one of the factors that contributed to the strong discrimination against leprosy (Hansen's disease) patients who were believed to be a disgrace to the entire Japanese race (MacGregor, 1996). Discrimination was so prevalent and acute that not only did the patients' relatives (even the parents) themselves not want to be associated with the patients, but they also hid the fact that they had leprosy patients as relatives. Believed to be highly contagious, leprosy patients were isolated from the rest of society and sent off to be incarcerated in horrific concentration-camp-like hospitals in remote islands or mountains. Only in May of 2001 has the Japanese government admitted to the ghastly and inhumane treatment of these patients and formally apologized agreeing to pay full compensation to the surviving 4,500 patients (Sims, 2001).

2. Affecting Supply (Healthcare Providers): A Risk Management Perspective

From the supply aspect, that is, looking at factors affecting health care providers, let us take up specifically the topic of risk management in order to improve the quality of health care. There are many facets to risk management; Berwick, Godfrey and Roessner using the concept and strategies of quality improvement, (i.e., quality control and quality circles), approached health care issues (Berwick *et al.*, 1990). Tompkins (2015), a specialist in the field of organizational communication, analyzes how risk can be dealt with through open communication and teamwork. As a former consultant at NASA, Tompkins introduces how NASA uses checklists to fly rockets and insure the safety of the astronauts. Tompkins (2015) refers to how Browning, a professor of organizational communication, saw the importance of checklists back in 1992.

In his book, "The Checklist Manifesto: How to Get Things Right", Gawande (2010) introduces how in 2001, Pronovost, a medical doctor and holding a Ph.D. in health care, started using checklists for surgery for the intensive care unit teams at the Johns Hopkins University Hospital. Furthermore, Gawande analyzes how the concept of utilizing checklists can be dated back to 1935 when a group of pilots came up with a checklist of instructions to fly the rather intricately designed Boeing Model 299, "too much airplane," that had crashed earlier during a demonstration flight due to pilot error.

There is no doubt that from a physician and patient care level, hospitals should provide the highest quality of health care possible for their patients. Gawande depicts how a checklist can help reduce malpractice incidences in health care. Gawande, a surgeon himself, vividly cites actual cases and statistics of how surgeons are faced with the same risk of making errors while performing surgeries just as any other professional. Highly trained and specialized, surgeons are often too proud and do not want to be questioned or checked by others. Gawande states that surgeons do not listen to other peoples' suggestions or criticisms especially from interns or nurses attending the surgery. The hierarchy in the surgery room is quite blatant and at times, is an obstacle to a successful high performance surgery. Although an oversimplified generalization may be dangerous, these hierarchical traits of health care providers may elucidate contributing factors to complications and/or malpractice incidences.

However, by using a checklist as a communication tool, these malpractice incidences can be decreased substantially. With the checklist, the routine procedure or simple task is carried out smoothly and efficiently even when the situation is critical such as in the emergency room. Specifically, Gawande emphasizes how "boring charts and checklists, thought to be for nurses" have prevented complications. Checklists are communication tools significantly reducing the death rate. In 2008, working with the World Health Organization (WHO), Gawande implemented a two-minute 19-step checklist to be used by surgical teams in eight hospitals in Seattle, Toronto, London, New Zealand, Manila, Amman, Jordan, New Delhi, and Tanzania. The statistical results of introducing the checklist were as follows: major complications for surgical patients in all eight hospitals decreased by 36 percent; deaths decreased by 47 percent; infections decreased by almost half; 150 people were spared from harm (27 of them from death.) According to Gawande, overall in a group of nearly 4,000 patients, only 277 developed serious complications (435 were originally expected).

In addition, Gawande stresses that the team or teamwork is the key to success. He points out that the checklist fosters teamwork; before performing a surgery, they were required to state their names and roles. According to Gawande, by knowing each other's names prior to the operation, communication improved significantly. In January 2009, the final WHO safe surgery checklist was made public and can be accessed (WHO Homepage).

3. Affecting Demand (Preventive Medicine): A Social Marketing Perspective

Let us now turn to the social marketing perspective affecting potential patients. Kotler's social marketing strategies are aimed not to increase demand but rather decrease demand of unnecessary health care costs. Specifically, promotional strategies to prevent the spread of diseases use social marketing strategies.

According to Lee and Kotler (Lee and Kotler, 2016), in commercial marketing, corporate stakeholders seek to reap the benefits or profit of the firm. Whereas, first labeled in the early 1970s by Kotler, in social marketing, society as a whole is the primary beneficiary. They emphasize how social marketing aims to influence behaviors to improve health, prevent injuries, protect the environment, contribute to communities and more recently, enhance financial wellbeing". Therefore, the focus is on influencing behaviors of the target audience. They specifically list four: accept a new behavior such as composting food waste; reject a potentially undesirable behavior such as starting smoking; mod*ify* a current behavior such as increasing physical activity from three to five days of the week or decreasing number of fat grams consumed; abandon an old undesirable behavior such as texting while driving.

As a case study to illustrate successful social marketing, Lee and Kotler (2016) give the eradication initiative of polio (estimated 2000,000 to zero) in India from 1988 to 2012. Just as in commercial marketing, in this polio case study,

Table 1. Reported cases of Rubella, Japan.

Year	Number of reported cases
2010	87
2012	2392
2013	5442

Source:	Data	adapted	from	National	Institute	of	Infectious	Diseases,
Rubella	Homep	page.						

the target audience and desired behaviors were set. The marketing mix strategies used illustrated the necessity to analyze the 4Ps: product, price, place and promotion.

4. Other Campaigns and Studies

In Japan, with the increase in breast cancer patients, advertising campaigns are promoted using pink ribbons to urge women to receive annual breast cancer checkups to scan for early stage cancer. Often in these events, famous celebrities who had been actually diagnosed with cancer, but have survived, give convincing talks to the general public to encourage regular checkups for early stage diagnosis. As a result, recently, some companies are allowing their employees to receive checkups during regular working hours by having the medical companies' examination vehicle equipped with mammography equipment, etc. come to the workplace so that the employees' time loss is minimized. This so-called health exam catering service makes it difficult for employees to give work as an excuse to evade the checkup. At the same time, it allows companies to encourage employees to get examined while keeping track of who actually underwent the checkup.

Therefore, we can see that health campaigns or public service announcements (PSAs) are important in educating the general public. PSAs are not only effective in the field of preventive medicine, but also reduce risk in other fields such as automobile accidents; that is, PSAs attempt to reduce major traffic accidents related to drinking and driving. For example in Japan, there are television commercials with catchy slogans campaigning against driving under the influence of alcohol as well as illegal use of drugs/drug abuse. There are television commercials also encouraging smokers to quit smoking specifically by seeking medical attention.

From a global perspective, even when millions are dying from hunger and malnutrition in poverty-stricken developing countries, the advanced nations such as the U.S. are faced with diseases caused by over-eating and obesity. In addition, in order to tackle hypertension and/or diabetes, PSAs calling for healthy eating habits and daily exercise are broadcasted over the radio, TV and other forms of channels or mass media. Therefore, providing common ground, via the media, in order to cope with problems related to health care services will then lead to improving total quality of life in the long run.

For example, according to a U.S. Dept. of Health and Human Services article on March 25, 2015, HIV campaigns to control the spread of the disease using digital storytelling or personal narratives as a tool are highly effective for HIV outreach.

HHS Secretary Sylvia M. Burwell said that a key goal

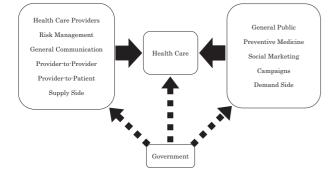


Fig. 1. A framework of two forms of health care communication.

of the project is to promote and demonstrate digital storytelling as a tool for HIV outreach. "These compelling and emotionally engaging stories will serve as an important tool in helping to counter the misconceptions, stigma and discrimination that continue to create significant barriers to HIV testing and treatment for all populations."

"We hope the personal narratives in Positive Spin will inspire more people who are living with HIV to get tested and treated, so that they can protect their health and the health of their partners," added Miguel Gomez, AIDS gov. director (U.S. Department of Health and Human Services, 2015).

Meanwhile, Atkin and Silk (2009) show that studies such as the Three Community Study, a Stanford University program was successful; it proved that a media campaign with public service announcements, direct mail, etc. could produce measureable risk reduction in free-living population (without face-to-face instruction). The results were especially crucial in improving smoking and dietary habits directly linked to lowering cholesterol and blood pressure.

These results led to other studies such as the Stanford Heart Disease Prevention Program as well as the twentyyear Five City Project in 1978 in which Modesto, San Luis Obispo and Santa Maria were education communities, while Monterey and Salinas were designated as education communities. This educational campaign, not just targeting a sample but the entire population of the community, was significant in that, "It generated a pool of expertise at Stanford in the field of health promotion and community development, which pointed the way to the next stage of development" (The Stanford Preventions Research Center Homepage).

As depicted in Table 1, in 2013 in Japan there was an outbreak of rubella, in which 5,442 cases were reported as of May 1, 2013 (twice the number reported in 2012 and 87 cases in 2010). 90 per cent of the reported cases consisted of adults (over 20 years old) with 3.5 times more cases of male adults compared to female. There were many cases especially among male adults, in their twenties to forties and female adults in their twenties because these age groups were not vaccinated. The outbreak was the result of the Japanese law regulating the vaccination schedule system; that is, from August 1977 to March 1995 only middle school girls were vaccinated. However, in 1994 the law was amended to include boys. Furthermore, with various

changes to the law, although the vaccination rate for toddlers were high, the rate for middle school children greatly decreased. One factor contributing to the decrease was thought to be lack of information dissemination to the target audience. Hence, there are now posters available for every season to promote future parents to get vaccinated against rubella.

Contracting the disease was especially detrimental for pregnant women since the virus causes congenital rubella syndrome (CRS). Many babies were affected (heart, eye, ear complications, diabetes, etc.) because the parents' age group had not received the vaccination as children. This resulted in the contraction of the disease later as an adult. In the seven months period from October, 2012 to April, 2013, 10 cases of CRS were reported in Japan (National Institute of Infectious Diseases Homepage).

5. An Integrated Framework of the Two Forms

Health care communication is a specialized field not very known to the general public; however, communication is a very important factor and can be correlated to risk management and social marketing. In this paper, we examined how the role of communication in health care is to efficiently provide high quality care. Therefore, defining and then utilizing specific forms of communication will lower health care costs by increasing productivity and efficiency; this integrated framework is shown as Fig. 1.

Firstly, we took up the form of communication in the context of risk management. The health care provider was the focus. Specifically we analyzed the checklist used by surgeons to prevent malpractice incidences. Factors affecting communication in health care should not be underestimated but should be utilized to serve society. That is, the overall well being of society depends on the effective collaboration of health care providers who are specialists and general administrative people who oversee patients and/or projects, etc.

Preventing health malpractice incidences in hospitals fewer complications after surgery or general treatments will lower the mortality rate, which leads to lower costs of health care. Therefore, using checklists to save lives or prevent complications is a malpractice solution. The problem is the medical culture is very difficult to change. Surgeons, like other highly skilled specialists, do not like to be checked or questioned (left side of Fig. 1).

Secondly from the potential-patient aspect of health care (preventive medicine) in which the target audience is the general public, we examined the form of communication in the context of social marketing, first dubbed by Kotler. Through promotional strategies, such as nation-wide or global campaigns, the general public will be equipped with more knowledge of diseases; people would know what to expect and what would be the consequences. Hence, people can protect themselves from pandemics through immunizations, or other preventive measures, etc. (right side of Fig. 1).

For example, by properly educating how good dietary habits affect overall health in the long run, people will become healthier. Using flyers or naming diseases over the media would be effective in getting out warning messages both quickly and efficiently. In addition, these communication tools should prove to be potent in preventing pandemics or spread of diseases, such as HIV, Ebola, Dengue fever and recently the Zika virus. Thus, "What kind of campaign would be the most effective in tackling the Zika virus," may be a future topic for research.

In the middle of Fig. 1 is the government. Careful analysis of how government policies should be designed to intervene with health care may shed light on this topic. The government must evaluate both forms of communication to seek the optimal combination to ensure that health care is efficiently provided. Therefore, analyzing how universal health coverage, such as the Japanese health care system or ObamaCare, would influence (or be influenced by) the two forms of communication may be a topic for further study.

6. Conclusion

In this paper firstly, we analyzed the form of communication in the context of risk management. The health care provider was the focus. Specifically we examined the checklist used by surgeons to prevent malpractice incidences; reducing complications after surgery or general treatments will therefore lower the mortality rate and result in lowering health care costs. Secondly, from the potentialpatient aspect of health care (preventive medicine), we took up the form of communication in the context of Kotler's social marketing. Through promotional strategies, such as campaigns, the general public will have more knowledge of diseases; people would know what to expect and what would be the consequences. For further research in the context of risk management, an in-depth analysis of not only provider-to-provider aspect (checklists), but also a patientto-provider communication may contribute greatly to tackling health care issues. In addition, the risk management approach should be analyzed comprehensively to incorporate and match the specific country or culture of health care providers. Although in this paper, the two forms of health communication could not be fully bridged to find an optimal model incorporating the two forms, this paper has set the framework in analyzing the forms of health care communication.

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