

CREATING PUBLIC AWARENESS OF THALASSEMIA AS A MARKETING COMMUNICATION STRATEGY AT GENETIC CLINIC GENNEKA

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Abstract-Indonesia, with the population of almost 250 millions people, have high number of genetic disorders which should be treated and managed. One of genetic disorders in Indonesia with high number of registered patients is Thalassemia, a red blood cell disorders that cause severe anemia and required regular blood transfusion. Patients that have severe thalassemia disease could result in death before birth or at young age if not treated intensively. Genetic Clinic Genneka is a genetic clinic that is located at the Eijkman Institute for Molecular Biology, a research institute under the Indonesian Ministry of Research and Technology, which provides various services related to genetic diseases, especially thalassemia. The issue of this research is the low number of patients that come by their own initiative for this service compared to the potential patients. Based on the business issues exploration, which included internal, external, and SWOT analysis, the root problem found in this research is low awareness of the general public towards genetic diseases especially thalassemia. The SWOT analysis that described the strengths and weaknesses of the internal company, as well as opportunities and threats of the external environment, are further analyze to find out the company position and develop strategies through the use of SWOT Matrix and TOWS Matrix. The result was promotion strategy creation to increase public awareness of thalassemia disease. The business solution selected is promotion strategy through digital media and direct promotion.

Keywords: Thalassemia, Promotion Strategy, Public Awareness

1. Introduction

Beginning in 1996 with the cooperation of sub department Fetomaternal of Obstetrics and Gynecology Faculty of Medicine University of Indonesia/ Dr. Cipto Mangunkusumo Hospital (FKUI-RSCM) and the Eijkman Institute for Molecular Biology started a research with beta thalassemia carrier screening in pregnant women at antenatal clinic. This project is the final part of the three years study funded by the RUT (*Riset Unggulan Terpadu*) III. The purpose of this research is to apply the results of beta thalassemia research conducted with a program called 'prevention of birth with severe beta thalassemia through prenatal diagnosis'. This project lasted for two years and three months from January 1996 until March 1998. During that time they have examined 391 pregnant women with results of 17 (4.3%) people carrying or trait of beta thalassemia and 4 patients with beta thalassemia.

Since then, the obstetricians at Dr. Cipto Mangunkusumo routinely performed prenatal diagnosis for thalassemia and this procedure including thalassemia screening and DNA analysis for thalassemia were also required by obstetricians from other hospitals as well as other clinicians (pediatricians and internal medicine). Therefore, on the third of October 2001 with the collaboration of the Eijkman Institute and the Department of Obstetrician-Gynecology FKUI-RSCM, Indonesian Minister of Health and Minister of Research and Technology officially established the Genetic Clinic Genneka.

Because thalassemia is the most frequent genetic disease in Indonesia, the clinic started their service with carrier detection, genetic counseling, and prenatal diagnosis (PND) for thalassemia only. But the demand for other genetic tests, such as chromosome analysis, phenylketonuria and congenital hypothyroid screening, DNA analysis for Duchenne Muscular Dystrophy (DMD), Spinal Muscular

Atrophy (SMA), Fragile X, and other genetic diseases have been increased. Since then gradually Genetic Clinic Genneka services are developed to meet the demand.

Genneka business activities consist of two main services, which are Genetic Counseling and Laboratory Diagnosis and Screening. These two services are related one to the other and support the fund for all Genneka activities. The other activities include Genneka's commitment to education and research, which will be their success factor in achieving their vision and mission.

Genneka provide services to its customers such as:

- Genetic Counseling
- Thalassemia Screening
- Prenatal Diagnosis for Thalassemia (PND)
- Alpha and Beta Thalassemia DNA Analysis
- Cyto genetic or Chromosome Analysis consists of Karyotyping and FISH (Fluorescence In Situ Hybridization)
- Red Blood Cell Protein Membrane Analysis
- DNA Analysis for several genetic diseases

Based on the current data of the clinic, since the last ten years of operational, Genetic Clinic Genneka had shown increased number of customers and type of services. The type of service with the highest number of customers is Thalassemia Screening. This is not surprising considering the number of severe thalassemia patients currently being treated is very high, around 5,000 severe patients are registered all over Indonesia. However, the number of thalassemia screening and prevention program is still lower than expected because new patients with severe thalassemia are still high. For example at Cipto Mangunkusumo Hospital, new patient with severe thalassemia were around 70 in 2010. As stated before that the Beta Thalassemia carrier frequency in Indonesia are between 1-36% (Sofro, A.S, Molecular Pathology of Beta Thalassemia in Indonesia, 1995, p.8), if the average frequency is 5%, it means around 500,000 people in Jakarta are Beta Thalassemia carriers. Moreover, if the Thalassemia screening only performed on pregnant women in Jakarta, more than 200,000 samples should be analyzed in 2010, because according to *Badan Pusat Statistik Indonesia*, there were more than 200,000 birth recorded in 2010 (Statistik Indonesia 2012, 2012, p.40). Ideally Thalassemia Screening should be performed on people during reproductive age (15-39 years old).

Another interesting data is that most patients came to the clinic were referred by medical doctors and mostly are specialized (pediatricians, obstetricians and internist), and only very few (9%) were come by their own initiative. This data indicate that medical doctors played an important role to the number of samples sent to Genneka, and the low number of patients that come to the clinic by their own initiative should be further analyzed to find out the reason to it.

Currently Genetic Clinic Genneka is conducting several programs to educate medical doctors all over Indonesia about thalassemia detection on patients and pregnant women through seminars. These seminars create awareness and education to people in the medical community, but not to the general public. Therefore, this research is conducted to give Genneka strategies, as a business solution, to improve its marketing communication so that it would increase new patients that visit the clinic by their own initiative. The solution might also be useful in creating general public awareness and education of thalassemia disease, and for Genneka to achieve one of their program's goals, which is 'prevention of thalassemia in Indonesia'.

2. Business Issue Exploration

The business issue of the Clinic Genetic Genneka is the low number of patients that visit Genneka by their own initiative for thalassemia screening compared to the potential customer. By examining internal and external data that affect, as well as SWOT of the business, this research hoped can gain

the solution for business issue that exist as well as information about the market profile, and public motivations to check their health and the important factors that influence them to get medical examination especially on thalassemia disease.

A. Conceptual Framework

Genetic Clinic and Laboratory business as we know has a different business model and costumer profiles. In this case, the research will be based on a simple conceptual framework illustrated below.

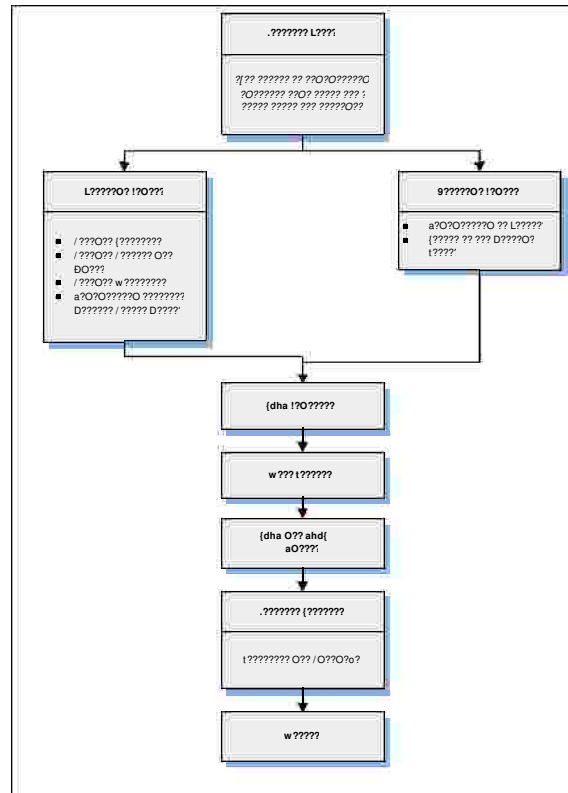


Figure 1 .Conceptual Framework

B. Method of Data Collection and Analysis

1) Internal Analysis

In doing the internal analysis we have thoroughly analyze the company's current state and the incidents that occurs within the company itself, with the expectation of knowing the condition, the strength and the weakness of the company.

a) Company Structure

Genneka organizational structure is simple yet functional to accommodate each specialty and provide specific services to the customers. Genneka have four division, which are Thalassemia, Cytogenetic / Chromosome, Other Red Cell Disorder, and Other Genetic Disease. Each division function according to the service and specialty provided.

b) Company Culture and Values

The culture of the company can be described as unique because the relationship between all the staffs regardless of their position in the company is not based on their levels or divisions, but the relationship are based on scientific problems and knowledge. This culture leads to a company environment that is conducive for the people that worked at Genneka to gain knowledge and experience and committed to research and education.

At Genetic Clinic Genneka the people values knowledge, research and the effort to reach it. The development of the human resources and the services were also based on these values.

c) Company Resources

Genetic Clinic Genneka resources can be described below, they are the key factors to make the company function and operate at the current time. From resources analysis we are hoping to find out which resources are the strength of the company, which could be their competitive advantage, and which resource is the weakness of the company.

- *Human Resource*
Human resource is the most important factor to the development of the Clinic Genetic Genneka because it is the core competency of this business. The knowledge, expertise, experience and initiative for the key people in the company cannot be easily imitate by other companies.
- *Technology*
Machine and method for thalassemia screening is quite simple and in Indonesia there are other laboratories have these facilities. However, the interpretation of the results sometimes requires extended knowledge and experience.
- *Finance*
Genetic Clinic Genneka financial condition is well funded by the Genneka Foundation. The foundation raised funds from its members and other parties who are willingly donated to the foundation for the reason of research, technology, health and education.
- *Marketing*
The marketing at Genetic Clinic Genneka is not structured yet because they do not have a division dedicated for marketing. However the people at Genetic Clinic Genneka have conducted several education and training activities for medical doctors and laboratory technicians, which can be categorized as marketing.

The activities consist of trainings and seminars at Genneka's clinic and laboratory facilities to educate medical doctors and laboratory technicians from all over Indonesia. The education materials consist of early detection of genetic diseases, taking and handling of samples, prenatal diagnosis of genetic diseases for pregnant women, and prevention program that can be done. The education and training for thalassemia service (screening, PND, DNA analysis) as one of the core services at the clinic is still only focused on medical doctors. Meanwhile the number of patients that come and visit Genetic Clinic Genneka by their own initiative for the thalassemia screening service is low, due to absence of marketing or promotion program for the general public.

d) *Thalassemia Service at Genetic Clinic Genneka*

Genetic Clinic Genneka was established in 2001, which provided only Prenatal Diagnosis for Thalassemia (PND) and genetic counseling service as explained before, because this procedure required DNA analysis, which was at that time not available at other laboratories in Indonesia. Since then, the clinic gradually provided other thalassemia related analysis such as thalassemia screening and DNA analysis for Alpha and Beta thalassemia.

From Genneka Progress Report (Laporan Perkembangan Pelayanan *Klinik Genetik*, 2012, p.6), Genneka has examined 7674 patients are related to Thalassemia disease on the last three years.

Table 1 - Service Growth

	Thalassemia Screening	PND	DNA	Total	Growth
2009	2280	8	337	2625	N/A
2010	2128	12	450	2590	-1%
2011	1900	21	538	2459	-5%

From the Table shown above, we can see that the growth is declining, that is not directly proportional to the potential. This is because in last three years Genneka did not create any marketing communication to make general public aware about thalassemia and having their own initiative to check to the clinic. In 2010 for thalassemia screening service, the total number of

patients / samples are 2,128 (Table 1). By looking at Figure 2, 40% of the samples were sent by pediatrician (SpA), 23% by Obstetrician (SpOG) and 10% by Internist (SpPD), which means that medical doctors played an important role to this service. The data also showed that patients that visit the Genneka Clinic by their own initiative are still low, only around 9%.

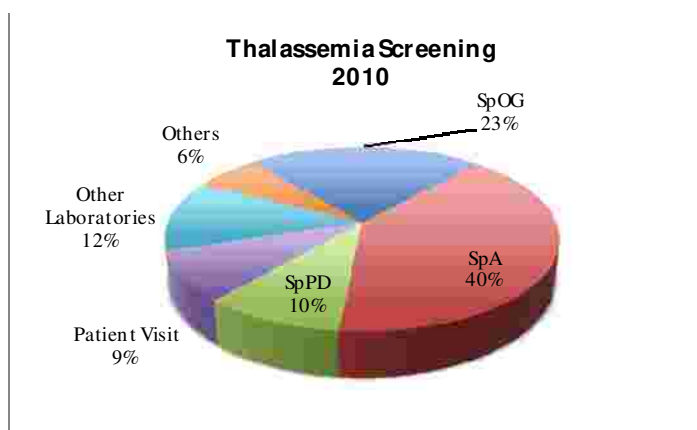


Figure 2. Source of Samples for Thalassemia Screening In 2010 (Laporan Perkembangan Pelayanan Klinik Genetik Genneka, 2012)

2) External Analysis

External analysis conducted in this research is intended to see the market for thalassemia service provided by Genneka. The external analysis will also be looking at external factor that will be related to thalassemia.

a) Thalassemia in Indonesia

As pointed out by Weatherall & Clegg on The Thalassemia Syndromes, "Thalassemia is a hereditary disease in the world, including Indonesia" (1981, p.25). Thalassemia is forms of inherited autosomal recessive blood disorders that originated in the Mediterranean region. Thalassemia is a disease affecting hemoglobin synthesis, main component of red blood cells, characterized by anemia (pale) with small size and pale red cell or known as microcytic hypochromic anemia. This disease is autosomal recessive; because human has pair of genes from the parent, if only one gene affected or heterozygous individuals or carriers are clinically asymptomatic with, at most, minor hematological abnormalities. If both genes are affected or homozygous patients usually require regular blood transfusions and intensive iron chelating therapy to sustain a reasonable quality of life.

The major component of adult hemoglobin is HbA consisting of two alpha-globin chains, two beta-globin chains and four iron containing (hem) sub-units (Weatherall & Clegg, 1981, p.25). The thalassemias are classified according to which chain of the hemoglobin molecule is affected. In α thalassemias, production of the α globin chain is affected, while in β thalassemia production of the β globin chain is affected. The globin chain (alpha or beta) synthesis is reduced or absent due to mutations in the alpha or beta globin gene. This leads to an imbalance of alpha and beta globin chain content in the red cells precursors resulted in the weakening and destruction of red blood cells.

Whilst possessing the ability to cause significant complications, including anaemia, iron overload, bone deformities and cardiovascular illness, thalassemia may confer a degree of protection against malaria, which is or was prevalent in the regions where the trait of thalassemia is common. This selective survival advantage on carriers may be responsible for perpetuating the mutation in populations.

For the autosomal recessive forms of the disease, both parents must be carriers in order for a child to be affected. If both parents are thalassemia carriers, there is a 25% risk with each pregnancy for an affected child, which is illustrated in Figure 3.

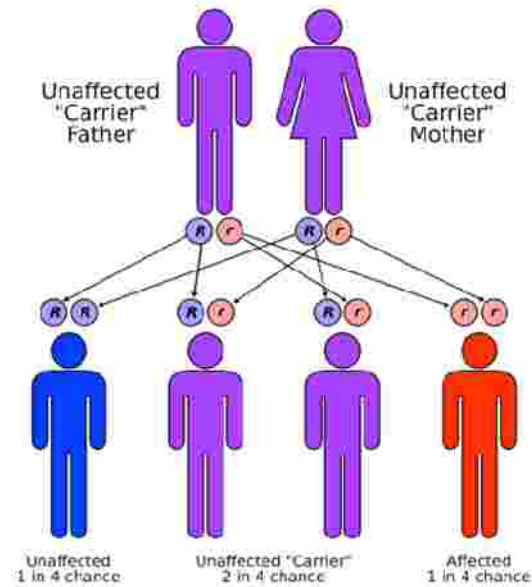


Figure 3 - Thalassemia Autosomal Recessive Pattern of Inheritance (<http://en.wikipedia.org/wiki/Thalassemia>, 2012)

From Current Situation of Thalassemia Control Strategies in Indonesia report, Indonesia have significant frequency of β Thalassemia carriers (Wahidiyat, P.A., 2012), as illustrated in Figure 4. The number of Beta-Thalassemia carriers varies from one province to another province. The highest is South Sumatra province with frequency of around 15 percent, followed by South Celebes with around 9 percent. The whole java island have frequencies of around 8 percent. Even though Sumba have a really high frequency of 36%, only 3% are severe Beta thalassemia mutation, while the 33% are mild mutation.

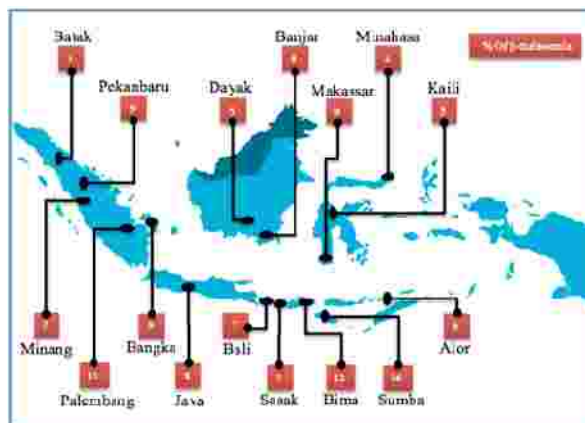


Figure 4 - The Distribution and Frequency (%) of Beta Thalassemia Carriers in Indonesia (Sofro, 1995)

According to data presented in Current Situation of Thalassemia Control Strategies in Indonesia report (Wahidiyat, P.A., 2012), until October 2011 there are more than 5,000 severe thalassemia patients registered all over Indonesia. The numbers of severe patients were quite large but far below the real number in population due to under diagnosed mild mutation of thalassemia and lack of knowledge of health workers causing undetected patients. The data from the report also showed the number of new severe thalassemia patients in Thalassemia Centre Jakarta for period between 1994 until 2010, which can be seen in Figure 5. The data indicate that in Thalassemia Centre Jakarta alone, there are more than 1,300 patients registered there.

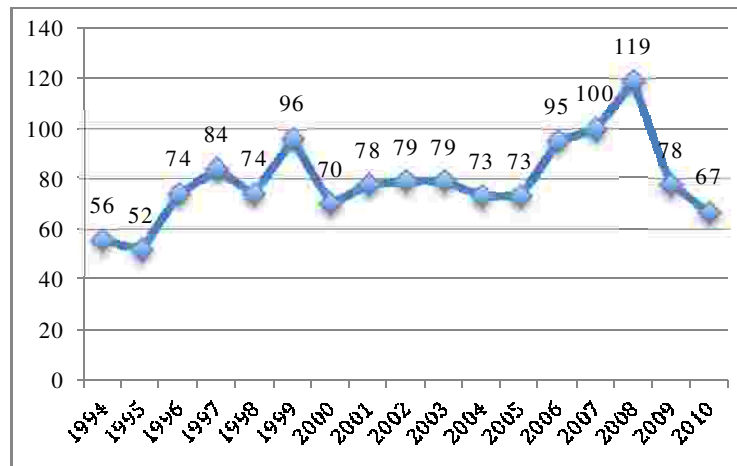


Figure 5 - Number of New Severe Thalassaemia Patients in Thalassaemia Centre Jakarta (1994-2010) (Wahidiyat, P.A., 2012)

Meanwhile Figure 6 showed that the distribution according to age for patients at Thalassaemia Centre Indonesia. The highest age range of patient is between 10 to 14 years old; with total number of patients are 1,569 and the range is between 9 months to 43 years old.

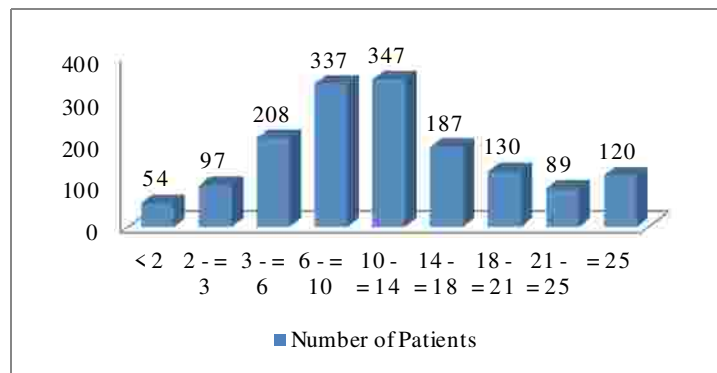


Figure 6 - Distribution of Patient According to Age in Thalassaemia Centre Jakarta (Wahidiyat, P.A., 2012)

From all the data shown above, according to Current Situation of Thalassaemia Control Strategies in Indonesia report (Wahidiyat, P.A., 2012), it is estimated that there will be 2,500 children affected with severe thalassaemia disease will be born each year. Meanwhile national prevention program is not yet established, but since 2009 the Indonesian Ministry of Health had only launch a Health Technology Assessment on thalassaemia screening protocol and prevention program, and the progress to make it into national program is still yet unknown.

3) SWOT Analysis

SWOT analysis is used in this research to know the Strengths, Weaknesses, Opportunities, and Threats of Genetic Clinic Genneka. The strengths and weaknesses are internal factors inside Genneka, meanwhile opportunities and threats are external factors outside the company.

Table 2 - SWOT of Genetic Clinic Genneka

Genetic Clinic Genneka	
Strengths	<ul style="list-style-type: none"> • The high expertise and competency of human resource for the service • The high technology sample processing and interpretation, resulting accurate results for the service • The clinic location within a research institute, making it always updated with the latest medical science trend • Professional network nationally and internationally
Weaknesses	<ul style="list-style-type: none"> • No marketing division to promote the service extensively • Genetic diseases services are unique and rare
Opportunities	<ul style="list-style-type: none"> • High number of potential patients • People nowadays are more concerned about health • Support from government and NGO's • Low level of competition
Threats	<ul style="list-style-type: none"> • Public misconception about genetic diseases • Low public awareness on thalassemia • No education of genetic disease especially thalassemia for general public

4) *Root Problem*

Based on the business issues exploration, which included internal, external, and SWOT analysis, the root problem found in this research is low awareness of the general public towards genetic diseases especially thalassemia. This root problem is related to the business issue, which was the low number of patients that visit the clinic by their own initiative compared to the potential patients. Next step will analyze the strategy that can be implemented as a solution to solve this problem.

5) *Strategy Formulation*

Based on the previous analyses, the next step is to create strategy formulation for Genetic Clinic Genneka. TOWS Matrix analysis will be used to illustrate how the external opportunities and threats facing a particular corporation can be matched with that company's internal strength and weaknesses to result in four set of possible strategic alternatives. (Wheelen, Thomas L. and Hunger, J David, 2010: 230). The matrix shown in Table 3 will explain further on the strategy that can be developed by Genetic Clinic Genneka:

Table 3 - TOWS Matrix

<p>External Factors</p>	<p>Opportunities (O): 1.High number of potential patients 2.People nowadays are more concerned about health 3.Support from government and NGO's 4.Low level of competition</p>	<p>Threats (T): 1. Public misconception about genetic diseases 2. Low public awareness on thalassemia 3. No education of genetic disease especially thalassemia for general public</p>
<p>Internal Factors</p> <p>Strengths (S): 1. The high expertise and competency of human resource for the service 2. The high technology sample processing and interpretation, resulting accurate results for the service 3. The clinic location within a research institute, making it always updated with the latest medical science trend 4. Professional network nationally and internationally</p>	<p>Strategies that use strengths to maximize opportunities: 1.Create advertising campaign to the potential patients about the expertise and advance facility of Genetic Clinic Genneka (O1, S1, S2) 2.Cooperate with government and NGO's for national thalassemia prevention program (O3, S1, S4) 3.Make thalassemia screening a health trend to the general public through promotion campaign (O2, S3, S4) 4.Collaborate with other laboratories to extend the reach</p>	<p>Strategies that use strengths to minimize threats: 1. Publish genetic diseases articles on medias to minimize public misconception (T1, S1, S4) 2. Create nationwide promotion and advertising campaign to increase public awareness on thalassemia (T2, S4) 3. Create education programs for the general public about genetic diseases especially thalassemia (T3, S1, S3)</p>

<p>External Factors</p>	<p>Opportunities (O):</p> <ol style="list-style-type: none"> 1.High number of potential patients 2.People nowadays are more concerned about health 3.Support from government and NGO's 4.Low level of competition 	<p>Threats (T):</p> <ol style="list-style-type: none"> 1. Public misconception about genetic diseases 2. Low public awareness on thalassemia 3. No education of genetic disease especially thalassemia for general public
<p>Internal Factors</p>	<p>of the service while still maintaining competitive advantage (O4, S2, S4)</p>	
<p>Weaknesses (W):</p> <ol style="list-style-type: none"> 1. No marketing division to promote the service extensively 2. Genetic diseases services are unique and rare 	<p>Strategies that minimize weaknesses by taking advantage of opportunities:</p> <ol style="list-style-type: none"> 1.Create marketing division to accommodate marketing and promotion strategies to capture potential patients (O1, O2, W1) 2.Cooperate with government and NGO's to create nationwide education 	<p>Strategies that minimize weaknesses and avoid threats:</p> <ol style="list-style-type: none"> 1. Create awareness programs aimed at general public to dispel misconception of genetic diseases especially thalassemia (T1, W1)

<p>External Factors</p>	<p>Opportunities (O):</p> <ol style="list-style-type: none"> 1.High number of potential patients 2.People nowadays are more concerned about health 3.Support from government and NGO's 4.Low level of competition 	<p>Threats (T):</p> <ol style="list-style-type: none"> 1. Public misconception about genetic diseases 2. Low public awareness on thalassemia 3. No education of genetic disease especially thalassemia for general public
<p>Internal Factors</p>	<p>programs on genetic diseases especially thalassemia (O2, O3, W2)</p>	

a) *Corporate Level Strategy*

O1, O2, W1 Create marketing division to accommodate marketing and promotion strategies to capture potential patients. The most important strategy that has to be done firstly is creating a marketing division to be responsible for activities that are related to marketing.

b) *Marketing Strategy*

O2, O3, W2 Cooperate with government and NGO's to create nationwide education programs on genetic diseases especially thalassemia. The support of the government and Non Government Organization to research and education can be developed into joint education program targeted at young people at reproductive age (high school students).

O3, S1, S4 Cooperate with government and NGO's for national thalassemia prevention program. The strategy comprised of national thalassemia program, which include nationwide thalassemia screening and making thalassemia screening a standard procedure on PND for pregnant women.

O4, S2, S4 Collaborate with other laboratories to extend the reach of the service while still maintaining competitive advantage. By collaborating with other laboratories all over Indonesia to process the samples locally, Genetic Clinic Genneka would be extend their service nationwide, meanwhile without making any competitions because their competitive advantage is the interpretation of the sample results.

c) *Marketing Communication Strategy*

O1, S1, S2 Create advertising campaign to the potential patients about the expertise and advance facility of Genetic Clinic Genneka. This strategy will increase public and potential patients' awareness of the clinic and its superior services. This strategy is used to overcome the very low awareness of general public to the existence of Genetic Clinic Genneka.

O2, S3, S4 Make thalassemia screening a health trend to the general public through promotion campaign. This strategy is targeted for people who are concerned about health and follows the latest trends.

T1, S1, S4 Publish genetic diseases articles on medias to minimize public misconception. This strategy goal is to educate and reduce public misconception about genetic diseases.

T2, S4 Create nationwide promotion and advertising campaign to increase public awareness on thalassemia. This strategy will increase public awareness on thalassemia all over Indonesia.

T3, S1, S3 Create education programs for the general public about genetic diseases especially thalassemia. This strategy will increase general public knowledge about genetic diseases especially thalassemia.

T1, W1 Create awareness programs aimed at general public to dispel misconception of genetic diseases especially thalassemia. This strategy is aimed to dispel public misconception about genetic diseases especially thalassemia.

All of the marketing communication strategies that are produced by the TOWSmatrix analysis can be simplified into one strategy, which is creating marketing communication strategy on thalassemia disease to increase public knowledge and awareness of the disease that will lead to the increase of patients for the services provided by Genetic Clinic Genneka.

b) Promotion Strategy

This research solely focused on marketing communication strategy, thus the solution is in form of promotional strategy, with the objective of creating awareness and education for the general public to know about thalassemia.

a) Promotion Strategy Objectives

The main objective of the promotion strategy is to create awareness of the general public about thalassemia disease. The second objective is to educate the general public about thalassemia. If both objectives are successful, this strategy is expected to result in the increase of patients that come by their own initiative to Genetic Clinic Genneka. Because in the field of health and medicine in Indonesia, they have a code of conduct and rules of the materials that can be advertised, the promotion campaign is form of educational program and awareness program of the thalassemia diseases, not advertising about the genetic clinic.

b) Promotion Strategy Methods

Therefore the promotion strategy methods that will be used to increase awareness are consisting of three different media approach, digital media, mass media, and direct promotion events such as educational programs and seminars. The first approach is through digital media such as company website, online news portal, and online social media. Currently Genetic Clinic Genneka do not have a company website, thus the first step is to create a company website to represent the company services and specialties. This website will also have pages that is dedicated to the information of genetic diseases, especially thalassemia. The second step is creating news article and advertisement about thalassemia diseases at online news portal which directly linked to the thalassemia page at the company website. Online social media accounts will be created to spread information regarding thalassemia diseases and will also be directly linked to the company website. This approach has national and international reach, and categorized as a low cost budget promotion compared to mass media approach.

The second approach is through mass media such as television, newspaper, magazine, and radio. This approach has nationwide reach, and categorized as high cost budget promotion. The content of the promotion is in form of educational program in talk shows, news article advertorial, and public service advertisement about thalassemia in Indonesia. The third approach is direct promotion through events such as educational programs and seminars. This approach has local reach, categorized as medium cost budget promotion compared to the other approaches.

c) Promotion Cost Structure

Promotion cost structure is needed to make the budgeting plan suitable with the company budget. The sources for digital media and mass media rate cards of 2013 are collected from sales and marketing department of national level companies, but since these data has 'off the record' nature, the company names are not revealed in this research. The promotion cost

structure for digital media is shown in Table 4. Meanwhile the promotion cost structure for mass media is shown in Table 5. Lastly, the cost structure for direct promotion is shown in Table 6.

Table 4. Digital Media Cost Structure

Media	Activities	Cost Structure	Comment
Digital Media: National & international reach, low cost structure			
1. Company website	Creating Genetic Clinic Genneka website consisting of their expertise, genetic services provided, and genetic diseases information	IDR 35,000,000	Initial development + 12 months of maintenance
2. Online news portal	- Creating news article advertorial about thalassemia	IDR 10,000,000	Per press release Banner
	- Creating advertisement about thalassemia and directly linked to Genneka's website	IDR 500,000	125x125px/ day at www.detik.com
3. Online social media	Creating account which promote information on thalassemia disease and directly linked to Genneka's website	Free of Charge	The service is free of charge, but needs a person to maintain the account

Table 5 - Mass Media Cost Structure

Media	Activities	Cost Structure	Comment
Mass Media:			
Nationwide reach, high cost			
1. Television	- Cooperate with Indonesian Thalassemia Foundation to create public service advertisement on thalassemia disease	IDR 30,000,000	30 seconds average price for prime time/ advertisement
	- Cooperate with television talk shows to make topic on thalassemia	Free of charge	
2. Newspaper	- Creating news article about thalassemia	IDR 60,000,000	Per article averaged price
	- Creating advertisement about thalassemia	IDR 100,000,000	Averaged half page advertisement in color, national newspaper
3. Magazine	Creating advertorial article about thalassemia	IDR 60,000,000	Per article averaged price
4. Radio	- Creating advertisement insert about thalassemia	IDR 5,500,000	Averaged price / 3 minutes / national network / advertisement
	- Creating talk shows about thalassemia	IDR 30,000,000	Averaged price / 60 minutes / national network / show

Table 6. Direct Promotion Cost Structure

Media	Activities	Cost Structure	Comment
Direct Promotion:			
National reach, medium cost structure			
1. Seminars	Cooperate with universities and high schools around Indonesia to make seminars about thalassemia	IDR 25,000,000	Average expenses
2. Events	Cooperating with Indonesia Thalassemia Foundation to create awareness events such as fun bike thalassemia and thalassemia day marathon	IDR 50,000,000	Average event expenses

d) Genetic Clinic Genneka Budget

After a long discussion with the head of Genetic Clinic Genneka, the budget that will be available for public promotion is set at around IDR 150,000,000 for the year 2013. Thus the business solution for Genneka would be a promotion media approaches that are low cost and have national reach.

3. Business Solution

The business solution selected is promotion strategy through digital media and direct promotion. From the digital media, consisting of company website and online social media. Meanwhile from direct promotion would be a twice a year seminars, and one awareness event. The total budget and media chosen is illustrated in Table 7.

Table 7. Promotion Budget Planning 2013

Media	Unit	Cost per Unit	Sub Total
1. Company website	1	IDR 35,000,000	IDR 35,000,000
2. Online social media	12 mont	Free of Charge	-
Admin Cost	hs	IDR 2,000,000	IDR 24,000,000
3. Seminars	2	IDR 25,000,000	IDR 50,000,000
4. Events	1	IDR 50,000,000	IDR 50,000,000
		Total	IDR 159,000,000

The promotion plan shown above is not the only promotion that will be done in 2013. Mass media approach to creating public awareness will also be promoted, but it is in form of mass media coverage or news reports of the disease, not mentioning the supporting clinic such as Genneka. This approach cannot be included in the scheduling of promotion planning because the timeline is uncertain, even though it is usually free of charge. The specification and scheduling timeline of the solution will be further discussed below.

7) *Alternative Business Solution*

There are alternative business solution for this research, including choosing which promotion media to use and the quantity of it. For example if Genetic Clinic Genneka have a large promotion budget, they could go for the mass media approach or pick all three approach altogether. However, considering the budget that Genetic Clinic Genneka are willing to spend, the best business solution would be the one explained above. But there is possibility of doing other promotion approaches with the support of the government and NGOs.

4. Conclusion and Implementation Plan

Implementation plan for Genetic Clinic Genneka is to set the timeline schedule of the promotion strategy that will take place in 2013 and setting other resources to support the plan. Implementation planning comprised of specification of the promotion media, timeline schedule of the activities, and budget that follow each activities.

C. *Promotion Media Specification*

The promotion media that have been chosen are company website, online social media, seminars, and events. The specifications of each media are further analyzed below.

1) *Company Website*

Genneka will hire IT professionals to develop a company website that is easy to use and full of information. The design should be able to represents Genetic Clinic Genneka culture and values. The website will also have the comprehensive information the services that Genneka provided and detailed information of genetic diseases especially thalassemia. Detailed information of the website specification is listed in Table 8.

Table 8. Genneka's Website Specification

1. OVERVIEW OF WEB SITE REQUIREMENT
<p>Genneka new website will perform the following function:</p> <p style="padding-left: 40px;">"People will find thalassemia information and Indonesian clinical genetic service by searching the web. The site will provide detailed information about thalassemia and Genneka as a genetic clinic that is based in Indonesia and focused on thalassemia"</p>
2. SEARCH ENGINE OPTIMIZATION
<ul style="list-style-type: none"> • The website should be accessible to search engine spiders and be coded with good on-page search engine optimization. • The designer should create link building required to make the site reasonably competitive in the target market
3. LIST OF PAGES
<ul style="list-style-type: none"> • Home Page The home page will give visitors an overview of Genneka and thalassemia. • Thalassemia This page will give detail information about thalassemia. • Blog There is a section that people can give story about thalassemia and the other people can give comment for that story. • About Us Details about Genneka profile, services and personnel. • Contact Us Full contact details including a map. • Link There is link to Genneka's Facebook and Twitter account • Site Map A site map should be provided showing the structure of the site and linking to every page on the site.
4. STYLE AND LAYOUT
<ul style="list-style-type: none"> • Overall Style The site style should incorporate Genneka corporate colors and logo and represent their culture and values • Navigation A common navigation bar should be included on all pages. The navigation bar will include links to the home page, products list, about us, and contact details.
5. ADDITIONAL REQUIREMENTS
<ul style="list-style-type: none"> • Accessibility This site must comply with the standards of

accessibility contained in W3C WAI (World Wide Web Consortium Web Accessibility Initiative) level A Guidelines.

- Valid Code

All code on the site should validate to W3C (World Wide Web Consortium) specifications.

2) *Online Social Media*

Online social media is a powerful tools to create promotion such as awareness program, because nowadays people get their information through word of mouth that are distributed through online social media such as Facebook and Twitter.

Based on Socialbakers.com, a company offering monitoring and tracking tools for analysis of social networks that are used for comparing social media stats and metrics, Facebook is the largest online social media in the world and Indonesia are ranked number four in the world with over fifty million users (Indonesia Facebook Statistics, 2012). The information regarding thalassemia disease can be presented by using a community page in Facebook. This thalassemia community page can also function as information media about thalassemia disease, knowledge sharing, and experience sharing between thalassemia carriers, patients, and general public with interest of finding out about the disease. The community page will also have links to the Genetic Clinic Genneka's website.

According to Alexa.com, a web statistic site that has built an unparalleled database of information about sites, Twitter is the second largest online social media in the world (The Top 500 Sites on The Web, 2012). The use of twitter for Genneka is to communicate to its followers about thalassemia disease information and prevention program. Genneka twitter account will also collaborate with other Indonesian health community accounts to spread the message. The account will have direct links to Genneka's website.

3) *Seminars*

Seminars for general public can be conducted at Genetic Clinic Genneka or other locations such as universities or convention center, depending on whom the clinic cooperation partners for the seminars. Seminars programs vary depending on their audience with the objective of creating awareness and education for the general people about thalassemia disease and prevention program, and knowledge sharing by people with thalassemia disease affecting their families.

4) *Events*

Promotion events are use to spread awareness, because of the budget constraint, in 2013 Genneka will only conduct one event with the collaboration of Indonesian Thalassemia Foundation, on World Thalassemia Day which fall on the eighth of May. This event usually in form of fun bike or fun walks through the heart of Jakarta city.

D. Implementation Timeline

Implementation timeline is scheduled for 2013, with the duration of 12 months. The promotion program will start at the beginning of 2013, consisting of the development of the website for the first three months. The development of website consist of gathering of relevant data, designing, testing, and implementing. Seminars will be scheduled twice in 2013, one at the beginning of the year, and one at the end of the year. Event will be scheduled on the eighth of May. The implementation timeline is shown in Figure 7.

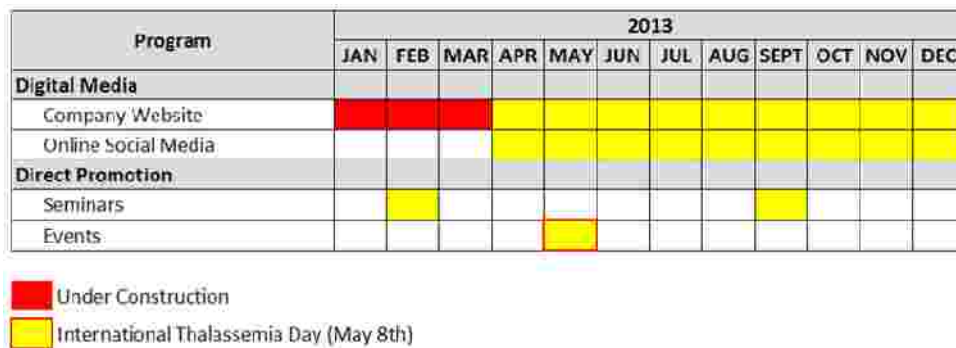


Figure 7 - Implementation Timeline Schedule

E. Budgeting

Table 9 - 2013 Budget for Promotion Campaign

Media	Unit	Cost per Unit	Sub Total
1. Company website	1	IDR 35,000,000	IDR 35,000,000
2. Online social media	12 mont	Free of Charge	-
Admin Cost	hs	IDR 2,000,000	IDR 24,000,000
3. Seminars	2	IDR 25,000,000	IDR 50,000,000
4. Events	1	IDR 50,000,000	IDR 50,000,000
Total			IDR 159,000,000

From the promotion budget shown in Table 9, it can be concluded that the budget implemented will be suitable with Genneka planned budget, which is at IDR 159,000,000. Payment shall be done according to the implementation schedule. Evaluation will be conducted at the end of 2013 to measure the effectiveness of the promotion with the help of website traffic record of Genneka's website. High number of visitors would mean that the promotion that have been done digitally and directly, have been effective.

F. Closing and Recommendation

This research is conducted with an objective of creating awareness program for general public as a marketing communication strategy for Genetic Clinic Genneka. The writer hoped that this research will be useful in creating the awareness program and helping with the development of the prevention program of thalassemia disease not only for Genneka, but could also be useful for the government if someday they included thalassemia in their national program. The writer feel that this study is far from perfect and recommend for further studies to be conducted continuing the awareness program and the development of the prevention program.

References

- Alexa.com, 2012. The Top 500 Sites on the Web. Quoted on 6 December, 2012 from <http://www.alexa.com/topsites/global>
- Badan Pusat Statistik Indonesia, 2012. Statistik Indonesia 2012. Jakarta: Badan Pusat Statistik Indonesia. Quoted on 10 November, 2012 from http://www.bps.go.id/hasil_publicasi/si_2012/index3.php?pub=Statistik%20Indonesia%202012
- Klinik Genetik Genneka, 2012. Laporan Perkembangan Pelayanan Klinik Genetik. Jakarta: Klinik Genetik Genneka
- Ministry of Health, 2011. Strategic Plan of the Ministry of Health from 2010 to 2014. Jakarta: Ministry of Health. Quoted on 12 November, 2012 from http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CDYQFJAA&url=http%3A%2F%2Fkesehatananak.depkes.go.id%2Findex.php%3Foption%3Dcom_phocadownload%26view%3Dcategory%26download%3D21%3Arenstra-revisi-2010-2014%26id%3D1%3Apedoman%26Itemid%3D44&ei=v8nSUIKUE8rmrAfM1oDADA&usg=AFQjCNFaXSIXmaq0IOf7um1qQpRKnGcFzQ&bvm=bv.1355534169,d.bmk&cad=rja
- Socialbakers.com, 2012. Indonesia Facebook Statistics. Quoted on 12 November, 2012 from <http://www.socialbakers.com/facebook-statistics/indonesia>
- Sofro, A.S., 1995. Molecular pathology of α -thalassemia in Indonesia. *Southeast Asian Journal of Tropical Medicine and Public Health*. Quoted on 12 November, 2012 from <http://www.ncbi.nlm.nih.gov/pubmed/8629110>
- Wahidiyat, I., Modell, B., Muslichan, S. & Abdulsalam, M., 1988. *Thalassemia and its problems in Indonesia by the year 2000*. Jakarta: Original Article Series
- Wahidiyat, Pustaka Amalia, 2012. Current Situation of Thalassemia Control Strategies in Indonesia. Presented at 1st Pan Asian Conference on Haemoglobinopathies. Bangkok, Thailand. 8 – 10 February 2012
- Weatherall, D.J. & Clegg, J.B, 1981. *The Thalassemia Syndromes*. Oxford: Blackwell Scientific Publication
- Wheelen, Thomas L, and Hunger, David J 2006. *Strategic Management and Business Policy* 10th edition. New Jersey: Pearson Education.