

PROJECT EDELSTEIN

Group Number: 7-25



Group Members:

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Project Type: Multi-year

Section I: Project Overview

Area of Concern

Every day in Singapore, 6 people are diagnosed with blood-related diseases such as leukaemia. After trying numerous cures, their last resort is a bone marrow transplant, without which many of them would not survive. A bone marrow transplant requires a donor with the same HLA (Human Leukocyte Antigen) profile, with the odds of finding a suitable match a mere 1 in 20,000. As such, they turn to the Bone Marrow Donor Programme (BMDP) to aid them in their last chance at survival. Established in 1993, the BMDP is a non-profit organisation responsible for managing Singapore's only register of donors who are willing to donate their bone marrow to save the lives of patients with blood-related diseases.

Currently, the BMDP only has 100,000 donors in its registry, which is too little to save everyone who needs a donation. The only viable option to realise this vision is to increase the number of donors in the registry, increasing the likelihood of a suitable match being found. The chances are even slimmer for people from minority races who have a smaller pool of matching donors. That is why the BMDP desperately needs more people to sign up as donors, especially from Malay and Indian communities. In order to realise the vision of finding a donor for every patient, the BMDP needs 50,000 more bone marrow donors in the next three years- which we aim to aid in.

Challenges Faced

The Bone Marrow Donor Programme (BMDP) is our chosen beneficiary. Their mission is to build a register of Singapore bone marrow donors and a world-class search process for transplants. However, there are numerous problems on the road to realising this vision, namely:

Awareness:

Many members of the public have common misconceptions about the process of bone marrow donation. With insufficient knowledge on this topic, the spread of such misconceptions has discouraged potential donors to sign up for the registry, hampering the BMDP's efforts. For example, many members of the public believe that the process of retrieving the bone marrow is via drilling into the hip bone, while in fact, a new painless method similar to blood donation has been pushed out.

Donors:

There are only 100,000 donors in the registry currently, less than 0.02% of Singapore's population. Given the chances for each patient finding a suitable match is a mere 1 in 20,000, the BMDP needs donors to maximise each patients' chances at surviving.

Funding:

BMDP needs 50,000 more donors in the next 3 years and would require \$3 million annually. However, BMDP receives no government funding, thus funding is one of the challenges faced by the BMDP.

Underlying Problem

Given that the chances of patients with blood diseases to find a suitable match is slim, due to misconceptions about the donation process and lack of awareness, coupled with a need for funding, how might we present a solution to alleviate the bone marrow crisis in Singapore, raise funds and equip the public with accurate information, such that more people would be willing to become donors?

Section II: Plan Of Action

Date	Action	Objectives
April 2019	<u>Keat Hong CC Health Talk Donor Drive</u> Donor drive booth set up to recruit bone marrow donors	Est. Outreach: 50 Donors recruited: 4
April 2019	<u>Keat Hong CC Blood Donation & Donor Drive</u> Donor drive booth set up to recruit bone marrow donors	Est. Outreach: 500 Donors recruited: 57
June 2019	<u>YFC Social Bazaar</u> Donor drive booth set up to recruit bone marrow donors.	Est. Outreach: 300 Donors recruited: 6
June 2019	<u>Streetsales</u> We recruited 90 volunteers from 14 schools, who sold merchandise pertaining to the BMDP over the course of 20 days.	Est. Outreach: 70,000 Funds Raised: \$13,400
June 2019	<u>Concert Matchstick</u> A public concert intended to raise awareness, funds and donors for our cause, inviting various youth and professional performers.	Est. Outreach: 500 Funds Raised: \$3160 Donors recruited: 66
June 2019	<u>Nee Soon East CC Donor Drive</u> Donor drive booth set up to recruit bone marrow donors	Est. Outreach: 100 Donors recruited: 8
July 2019	<u>HCI College Donor Drive</u> Donor drive booth set up to recruit bone marrow donors	Est. Outreach: 2500 Donors recruited: 251
July 2019	<u>Flashmob</u> Held at Plaza Singapura shopping mall featuring 20 performers from SOTA, with awareness booths and	Est. Outreach: 3000 Funds Raised: \$122 Donors recruited: 42

	donor drives booths.	
July 2019	<u>Keat Hong CC Blood Donation & Donor Drive</u> Donor drive booth set up to recruit bone marrow donors	Est. Outreach: 200 Donors recruited: 27

Section III: Project Outcomes

Accomplishments

Impact on community:

The public was able to better empathise with patients suffering from blood diseases in Singapore as they learn about the rarity of finding a matching donor and are acquainted with the procedures of donating bone marrow. This addresses the common misconceptions people have galvanized more people to pledge their support for our cause.

Community involvement:

Project Edelstein, consisting **5 core members and 130 organising team members** from more than **14 different secondary schools** in Singapore, has stirred the hearts of many youths to volunteer to support for our events and our cause.

Through street sales, donor drives at schools, flashmob, concert, and other events, we reached out to over **77,150 people**, raising their awareness for bone marrow donation, and successfully raising the profile of BMDP to the general public. Through our committed effort, we were able to raise a combined **461 donors**, while also raising more than **\$16,680** in funds for BMDP. With regards to online outreach, our social media accounts have managed to gain a total of **1,141 likes** this year, reaching out to our **1,400 followers**. As such, we have been able to make a significant impression on the public and raised greater awareness for BMDP and its cause.

Section IV: Reflections

Over the course of the project, we faced numerous obstacles:

One of the challenges we faced was the inability to meet with patients with blood-related diseases, who are the people we are ultimately hoping to help. This is to protect the identity of donors and patients. Our beneficiary's liaison, Judie, explained that patients who had recovered shun from interviews, as they are afraid of being stigmatised. Empowering donors and patients remains a central goal of Project Edelstein, which we will strive to work towards.

However, we managed to make a breakthrough, finding a donor who was willing to share his experience. After conducting an interview with him and his mother, we could empathise more with the dilemma of donors. It was eye-opening to understand the perspective of not only a donor but that of parents, whose main concern is the safety of their children. It was heartwarming to hear the parent say that she was "proud of her son". The interview clip edited by us will be used by the beneficiary.

Nevertheless, the beneficiary and numerous people who strive to make a difference in the lives of patients inspired us. We aimed to make a substantial difference and help the beneficiary in any possible way we could, which we managed to do. We realised not to underestimate the power of every individual, giving us more confidence in the execution of the project.

Overall, we felt that our initiatives were largely successful in reaching out to the public and correcting misconceptions in the public, at the same time raising funds and donors for the BMDP. We learnt to take calculated risks, and persevere through with our initiatives, even when some initiatives risked being cancelled. On hindsight, we could have started planning earlier, and embrace innovative and interesting ideas- a goal we will pursue with next year's core team.

Personal Growth (Individual):

Start of project	End of project
Unconfident of introducing our cause to members of the public, lacking awareness of the cause	Not only did I develop empathy for the patients, but we were also able to clearly and concisely encourage members of the public to sympathise with this cause.
Unfamiliar with planning and handling	Developed organisational skills to plan events

large-scale events with numerous volunteers, not able to deal with last-minute setbacks	in detail, effectively managing volunteers to meet the needs of the beneficiary/ event. Developed on-the-spot thinking and problem-solving skills.
Unsure of how to communicate and collaborate with the beneficiary to further the cause	From our service experience, we collaborated with the beneficiary to serve the patients. We learnt how to appreciate the effort that these organisations put in to serve the community, and developed our communication skills.

New insights on Bone Marrow Donation (Community):

Insight	Reasoning
Although we tried our best in advocating the cause to the members of the public, some people brushed us off or did not show sympathy for the cause	Although we may have felt annoyance or discomfort, this led us to realise that rejection is inevitable- what we should focus on is trying the best we can to appeal to the members of the public instead of getting caught up.
Many members of the public lack knowledge and awareness on the Bone Marrow Donor Programme	Majority of the public may lack personal experience with this issue, thus have less awareness. This is a learning point for us- we need to broadcast this message, increasing public awareness, allowing them to sympathise with the cause.

Bibliography

S'pore woman posts public plea for bone marrow donors to save friend with leukaemia. (n.d.). Retrieved March 31, 2018, from <https://mothership.sg/2018/01/spore-woman-posts-public-plea-for-bone-marrow-donors-to-save-dying-friend/>

Kumar, C. (2016, April 20). Wanted: 50,000 more bone marrow donors. Retrieved March 31, 2018, from <http://www.straitstimes.com/singapore/health/wanted-50000-more-bone-marrow-donors>

Boh, S. (2017, September 15). Student's bone marrow saves leukaemia patient. Retrieved March 31, 2018, from <http://www.straitstimes.com/singapore/students-bone-marrow-saves-leukaemia-patient>

H. (2018, August 13). Family of dying Thai model begs for gift of life from man who refuses to donate his stem cells. Retrieved August 15, 2018, from <https://www.straitstimes.com/asia/se-asia/family-of-dying-thai-model-begs-for-gift-of-life-from-man-who-refuses-to-donate-his>

Leukemia. (n.d.). Retrieved from <http://www.ncis.com.sg/cancer-information/types-of-cancer/leukemia.html>

Home. (n.d.). Retrieved August 15, 2018, from <https://www.nccs.com.sg/patientcare/whatisancer/cancerStatistics/Pages/Home.aspx>