Democratize Cell Therapy
Equal Outcomes for All

Five Year Strategic Plan
2019 - 2023

Adopted on May 31, 2018
MISSION
We save lives through cellular therapy.

Dedicated to the many visionaries whose relentless drive over the past 30 years has given hope and life to 86,000 families in their time of greatest need. May we carry forward your example of dedication and excellence.
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Why we do strategic planning

Regardless of size, age or purpose, it’s critical for every organization to continually assess its impact and, even more importantly, its potential to deliver on its mission. At Be The Match, we have a 30-year history of dedication to fighting for better outcomes. And in our case, better outcomes translate to more lives saved.

Be The Match has accomplished extraordinary things, but to ensure we do all we can for our patients in the future, we needed to take stock to identify where we have been, including what has worked well and what has not. This required honesty and a willingness to embrace the truth we discovered.

We embarked upon a strategic planning process designed to improve our situational awareness, drive stakeholder engagement, create organizational clarity, generate ownership for results and advance our mission.

Process

Throughout the strategic planning process, Be The Match was committed to a three-part road map that led toward clarity of purpose and of success. Our true north—the constant internal compass that guides us forward—was to do what was right and necessary for the patients we serve.

Here’s how we began.
Where are we now?

• We extensively assessed ourselves, gained the perspective of external stakeholders, and evaluated the landscape of the transplantation field today.

• To ensure transparency and accuracy, we engaged all areas of the organization by encouraging employees to be involved and share their perspectives.

Where do we want to go?

• Aspiration was critical in this phase of the process. We fought to challenge entrenched assumptions at each juncture.

• Determining what our ideal state looks like involved identifying what was in scope to achieve our objectives and what was outside of our parameters. Clarity remained our guiding principle.

How do we get there?

• This aspect of the process had very few boundaries. Our guideline was that anything is possible. We don’t compromise integrity and we never forget that everything we do is for the patient.

• In planning our path forward, our goal was to refine our ideas, ultimately focusing on those that are the most transformational in pursuit of our mission and vision.

“...If at first the idea is not absurd, then there is no hope for it.”

— Albert Einstein
Stakeholder engagement

With more than 1,800 unique points of engagement, it was critical to ensure both internal and external stakeholders participated in the process, so that we could gain perspectives from a highly diverse audience. The adoption of this broad-brush approach had three distinct benefits:

Data points were collected from multiple sources, ensuring exploration of every option. The integrity of the process demanded this rigor.

A diversity of viewpoints was represented during our stakeholder interactions. It was important to meaningfully consider every perspective. Great ideas can come from the most unexpected places when we push beyond our norms.

Adoption and implementation of a new strategic plan is untenable when it’s prescriptive. By helping to shape the next phase of Be The Match’s future, the stakeholders will not only have a more thorough understanding of the plan, but they’ll also know that their commitment to and involvement in the execution are critical to success.
Over the course of 10 months, we gathered input from employees, Network partners, transplant physicians and coordinators, patients, donors, and members of the Board of Directors. We engaged with stakeholders at multiple venues—at our headquarters, in field offices, and at five major conferences, including Council and Tandem—and through various channels, such as dialogue sessions, surveys, focus groups, team assignments, table top exercises, 1:1 meetings, seven strategic theme brainstorming sessions, a wild Idea Fair, and more. The goal was to generate ideas, gather stakeholder input and provide forums for discussing the fundamental data at the heart of Be The Match.

Why we were formed

A crucial initial step in authoring our future is understanding why we were created in the first place.

Be The Match was created to expand the access of patients to unrelated bone marrow transplants—this is the core of our existence.

Every three minutes, a patient is diagnosed with a life-threatening blood cancer—like leukemia and lymphoma—or other diseases for which a marrow or cord blood transplant from an unrelated donor may be the best, or only, hope of a cure.

The Be The Match Registry is the world’s largest cell registry, listing more than 8.5 million individuals, with access to more than 10 million more through relationships with other registries, and more than 249,000 cord blood units. Hematopoietic cells or cord blood units from Be The Match donors are used for transplants for patients with blood cancers and other diseases. More than 86,000 transplants worldwide have been facilitated by Be The Match since our inception.
History

Our history began with a 10-year-old girl named Laura. In 1979, Laura Graves received the first-ever unrelated donor transplant for leukemia. And it worked.

Laura’s parents, Dr. Robert and Sherry Graves, wanted other families to have the same hope for a cure, so they set out to create a national marrow donor registry. Other patients’ families, transplant physicians and legislators answered the call, bringing together individuals committed to championing every patient in need of a lifesaving transplant.

In 1986, Dr. Graves, in partnership with Paul Laxalt, a U.S. Senator from Nevada, worked to secure $1.2 million from the Naval Medical Research Institute to establish the National Bone Marrow Donor Registry. In addition, with assistance from the University of Minnesota, the first computer program was created to match searching patients with unrelated, volunteer donors.

The following year, the program officially began from an office at the American Red Cross in Saint Paul, Minnesota. Soon thereafter, Diane Walters donated to six-year-old Brooke Ward in our organization’s very first transplant.

The registry continued to grow over the years and in 1994, we helped to facilitate our first peripheral blood stem cell (PBSC) collections for unrelated transplant.

Four years later, our umbilical cord blood program launched, and by the year 2000, we had made transplantation a reality for 10,000 patients.

Over the years, our achievements have continued to have a broad impact on the field of transplantation. Our biorepository of centralized donor and recipient samples not only streamlined the process, but also led to data that researchers worldwide used to improve transplant outcomes. The Center for International Blood and Marrow Transplant Research (CIBMTR) was created in 2004 in partnership with the Medical College of Wisconsin. Its studies have contributed to steady decreases in post-transplant complications and increases in survival rates. Then, in 2006, our haplotype frequency research revolutionized the science of matching.

Be The Match is proud to have successfully expanded unrelated bone marrow transplant access from essentially zero to more than 100 million Americans by 2018.

Today, we are the hub of a global network committed to helping patients receive transplants and enjoy the best possible outcomes. Our strategic plan focuses on getting each patient—regardless of indication, circumstance or profile—the transplant they need, when they need it.
Simply stated, what we do

Be The Match registers potential donors and coordinates the collection of bone marrow and peripheral blood stem cells (PBSC) for transplants. Be The Match Registry lists matched, unrelated donors or cord blood units for patients who need transplants, but who lack suitably matched donors from their families.

Be The Match coordinates transplants through a worldwide network of affiliated organizations—primarily hospitals and blood banks. We collaborate with these organizations to arrange the collection and transfer of donated bone marrow, PBSCs, or previously collected cord blood.

When an adult donor registers with us, his or her HLA and contact information is sent to our biorepository, which stores the sample and uploads the information into our database. We also have more than 249,000 cord blood units, listed by HLA type, in our registry.

On behalf of a patient, transplant coordinators look for donor cells using our proprietary algorithm to search for matching donors or cord blood units. Then, they select the best matches for us to fulfill.

Data on the outcomes of these transplants, and the outcomes of related and autologous transplants, is systematically collected and analyzed to determine optimal donor selection and treatment strategies.

How wonderful it is that nobody need wait a single moment before starting to improve the world.

— Anne Frank
Be The Match by the numbers

Be The Match has facilitated more than 86,000 transplants in our 30-year history, 6,100 of which occurred in 2017.

As the recognized global leader in unrelated marrow transplantation, Be The Match continues to develop services and interactive technologies used by transplant experts around the world to reach more patients.

8.5M potential donors on Be The Match Registry

9,500 formal searches last year

6,100 transplants in 2017

86,000 total transplants since inception

1,200+ full-time employees and contractors

7,000+ volunteers

5 subsidiaries + CIBMTR

$400M annual operating budget

To accomplish great things, we must dream as well as act.

— Anatole France
Our mission—then and now

Early mission
To facilitate successful transplants of hematopoietic cells from volunteer unrelated donors as life-saving therapy for patients of all racial and socioeconomic backgrounds.

Today’s mission
We save lives through cellular therapy.

Agreement with the mission

In January 2018, our Board of Directors and internal stakeholders overwhelmingly confirmed our mission.

More than 100 million Americans have access to a transplant that they otherwise would not have had.
Transplantation today

To determine the impact we want to have and how to achieve it, the first phase of the strategic planning process focused on understanding the transplant landscape, the role Be The Match has in serving the need, and how our resources are being applied. The information gathered during this phase formed the foundation for the strategic plan.

Demand for allogeneic transplants continues to grow

- U.S. population over 60 will grow 37% by 2030
- Formal search requests up 11%
- Initial search results up 23%
- Cord blood transplant down 34%
- Haploidentical transplants filling the gap with double-digit growth
- Be The Match—facilitated transplants have plateaued
Over the past three years, indicators of demand for unrelated allogeneic transplants have increased, as evidenced by:

- An increase in initial search requests of 23 percent
- An increase in formal search requests of 11 percent

Since 2010:

- The total number of related and unrelated allogeneic transplants has also increased 33 percent,
- Cord blood unit transplantation has decreased 34 percent, and
- Haploidentical transplants have been filling the gap with double-digit growth.

However, transplants facilitated by Be The Match have plateaued.

There are three key reasons for this plateau in transplantation:

1. **Existence**
   An acceptable graft does not always **exist**

2. **Deliverability**
   A graft does exist, but we cannot reliably **deliver** it to the transplant center when it’s needed

3. **Obtainability**
   The patient’s path to **obtaining** a transplant is filled with barriers

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“It ain’t what you don’t know that gets you into trouble… It’s what you know for sure that just ain’t so.”

— Mark Twain(ish)
EXISTENCE

The relevant question we asked was, “Is there actually a product (which we’re defining as an 8/8 match on the registry) that exists for the searching patient?”

Far too often, the answer is “no.”
In the United States, 36 percent of the population does not have a single 8/8 donor on the registry.

In addition, while match rates for White Americans are greater than 75 percent, Asian and Hispanic populations within the U.S. each have 8/8 match rates below 50 percent and Black Americans have an 8/8 match rate of 30 percent. And while this disparity presents an enormous challenge, it is amplified when we consider that the country is continuing to become more ethnically diverse.

In 2017, 48 percent of Be The Match donor recruits who were 35 years old or younger brought unique HLA types to the registry. This data indicates that this genetic HLA uniqueness is becoming greater in our younger populations. And once again, those numbers increase when they are segmented by ethnic ancestry.

- 60 percent of newly recruited Asian and Hispanic American potential donors were unique, and
- 78 percent of newly recruited Black American potential donors were unique.

Our ability to provide a match with good confidence drops significantly from 54 percent for patients over the age of 60 to 34 percent for those under the age of 20.
DELIVERABILITY

Even when a match exists, we are often unable to deliver it when the physician needs it.
A number of aspects factor into our ability to deliver, including:

1. **Timeliness**
   Many transplant centers have expressed a preference to have a cleared donor within four weeks of initiating a formal search. Be The Match currently achieves this standard 3.6 percent of the time. In fact, only 29 percent of searching patients have a cleared donor by day 75.

2. **Willingness to donate**
   Half of the people on the registry do not donate when called. Donor availability ranges from 64 percent for White Americans to 28 percent for Black Americans. Low donor availability negatively and exponentially impacts populations with low representation on the registry. In addition, donor availability is less of a factor, but still important, for those with high representation. The result: half of all patients who start a formal search don’t receive an unrelated transplant.

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Donor availability

64%
White Americans

Donor availability

28%
Black Americans
OBTAINABILITY

A patient’s path to obtaining a transplant is replete with obstacles.
Two primary barriers: physicians’ perceptions and cost.

Because a physician directs nearly every aspect of a patient’s care and their medical decisions, a community oncologist’s perception of transplantation has a profound impact on whether cell therapy is considered as an option. Oftentimes, a referring physician’s views of transplant outcomes—survival and quality of life—are negative. Only 29 percent of community hematologists/oncologists believe the AML patients they refer to transplant will have good outcomes.

Even when stated within the context of the disease, i.e., “my patients have had good outcomes from transplant given their disease,” only 31 percent respond favorably. This thinking persists, even though, from 2013-2015, the three-year survival rate was:

- 63 percent for children (under 18 years old) with malignant disease, and
- 53 percent for adults (between 18 and 59 years old) with malignant disease.

Another primary obstacle to obtaining a transplant is cost. The expense of a transplant can range from $200,000 to $900,000, with coverage and reimbursement for transplant varying substantially across private and public payer platforms.

Under Medicare—the payer for approximately 33 percent of adult transplant patients—full coverage extends only to four indications, as well as four additional indications under a clinical trial. Unfortunately, Medicare does not adequately cover costs for identifying the donor, cell procurement and transport, the transplant procedure or the hospital stay.

The result is that unrelated donor transplantation is not available for approximately two-thirds of our population.

The problem is exacerbated in ethnically diverse populations. At 22 percent, Black Americans have the lowest rate of effective graft availability. When transplants occur, Black Americans disproportionately receive a mismatched graft—41 percent of the time, as compared to 14 percent for White Americans.

The latter disparity is important because mismatched transplant survival rates are significantly lower (approximately 10 points) than matched transplant survival rates. Therefore, transplant centers are turning to alternate treatment modalities.

While haploidentical transplants have experienced double-digit growth since 2010, cord blood transplants have decreased 34 percent, and the number of transplant centers performing cord blood transplants has also decreased significantly.

And the need continues to increase: the number of people in the U.S. over the age of 60 is expected to grow by 37 percent between now and 2030, while the median age of patients with AML—the largest indication for transplant—is 61.

We’re faced with challenges—the disparity in outcomes for ethnically diverse populations, the increasingly diverse population of the United States, the difficulty in delivering cells to those who need them, and the growing segment of aging Americans.

When these factors are compounded, we are left with a 200 million person opportunity and responsibility.
Our Vision:
Democratize Cell Therapy

The greatest danger for most of us is not that our aim is too high and we miss it, but that it is too low and we reach it.

— Michelangelo
Our commitment

Regardless of background, socioeconomic status, age, ethnic ancestry, or location, we are committed to creating equal outcomes for all. We are continuing our obligation to serve all patients in need. We will strive to remove the element of luck from the equation. Receiving life-saving cell therapy will not be predicated on how much money a patient has, whom they know or their ethnic background. Everyone will have access to a great cell therapy.

The metrics that will drive our delivery of this vision include:

1. Increased service level,
2. Increased event-free survival,
3. Increased volume, and
4. Elimination of disparity.

Key terms

**Mission**: Why we exist.

**Vision**: The manifestation of our mission successfully executed over a period of time.

**Goals**: Objective metrics that define the vision.

**Strategic themes**: A finite set of principles that guide consistent decision-making throughout the organization, over a relevant period of time, in order to realize the organization’s vision.

**Actions**: Each action is inspired by, and primarily responsive to, one of the strategic themes, which are the specific initiatives we employ to advance toward one or more of our goals. They are added and removed as necessary over the life of the plan. Initial actions described in the plan are intended to provide granularity to the fulfillment of the principles embodied by the strategic themes.
Our strategic themes are the guiding principles, durable over the life of the plan and irrespective of departmental function, which we will employ to achieve our vision.
Key terms

**Democratize**: Of, relating to, or favoring democracy; favoring social equality

**Core patients**: The patients with current indications for unrelated transplant; the patients for whom Be The Match was created

**Customers**: Our patients, providers and donors
INNOVATE for the customer

Our business is our business. It is not a spectator sport. If it is to improve, we must drive the improvements.

We need new solutions, to ensure there are cell therapies with great outcomes available to all patients whom we were created to serve.

Therefore, we will boldly search for ways to improve customer experiences and outcomes.
When we innovate, we will be fearless, nimble, proactive and fast. This approach will guide us in ensuring we are focused on the experiences of all of our customers—patients, providers and donors. By improving each of their experiences, we will be able to impact the outcomes of all.

**Initial Ideas**

**Improve the Cord Blood Experience**

**Premise:** Cord blood has the potential to significantly increase our ability to deliver a graft in a timely fashion, while reducing HLA-created disparity for the patient.

**The Idea:** Create a multidisciplinary team within Be The Match that leverages multiple technology sources to effectively address critical issues that impact the providers’ and patients’ cord blood experiences and increase usage.

**Be The Match BioBank**

**Premise:** The world is becoming a more demanding marketplace, where companies are compared to competitive concepts that exist across industries.

**The Idea:** Pre-collect high-frequency HLA-type bone marrow and PBSC for banking and immediate delivery potential.

"Innovation distinguishes between a leader and a follower."

— Steve Jobs
By generating higher demand for Be The Match products and services, we will grow our infrastructure and provide a superior offering for the patients we were created to serve.

To achieve critical mass, we will increase the usage of our products and services by expanding into underserved or emerging cell therapy markets.
By increasing our infrastructure broadly, with premium offerings, we will become an organization that is better able to serve our core patients. And as we do this, we will also be able to provide better growth opportunities for our employees.

Initial Ideas

Develop and Market a Portfolio of Be The Match Foundation Campaigns

**Premise:** Be The Match has diverse needs that can be funded through increased philanthropic activity.

**The Idea:** Develop specific fundraising opportunities that enable our philanthropic partners to make a significant impact in the areas that most closely align with their priorities.

Create a Universal Regulatory Audit Program for U.S. Apheresis and Collection Centers

**Premise:** Industrial providers of emerging cell therapies have increasingly complex facility audit requirements for participating sites.

**The Idea:** Create a universal audit program that is comprehensive for a portfolio of products and technologies, decreasing site activation time and burden.
SIMPLIFY

everything

In order to grow, we will need to improve clarity, speed and service.

We are going to remove complexity, duplication and points of failure.
In today’s evolving service landscape across all markets, expectations continue to increase from consumers. Likewise, our level of service is compared to other organizations that have exceptional service. When we simplify, we will make the process easier, clearer, and more autonomous.

**Initial Ideas**

**Intervention at Diagnosis**

**Premise:** Patients with high-risk AML identified and referred early have better outcomes, but a substantial number of patients with AML proceed slowly, if at all, to transplant.

**The Idea:** HLA type and match every AML patient at the time of diagnosis and provide tools to identify high-risk patients and to simplify the road from diagnosis to transplantation.

**Be The Match Collection Centers**

**Premise:** Limited capacity at collection centers is inhibiting transplantation. In addition, donating marrow, often the best graft type for patients, frequently requires travel and is perceived to be painful.

**The Idea:** Establish Be The Match collection centers in underserved areas and deliver dedicated donor concierge services including a new “painless” marrow collection technique.
BE THERE
responsively serving

Experiencing first-hand what our customers face will enable a faster, more accurate response to their needs and provide inspiration for continuous innovation.

We will be there with our customers—patients, providers and donors—to directly share in the experience.
We will advocate for our customers; be more responsive to them; be representative of the populations we serve; and be empathetic to their circumstances.

**Initial Ideas**

**On-Site Assistance**

**Premise:** Embedded customer interaction is highly valuable in understanding customer pain points and providing a more responsive experience.

**The Idea:** Create a field-based service organization within Be The Match that works directly with transplant physicians and their coordinator teams.

**Rapidly Optimize the Registry**

**Premise:** Be The Match Registry is not adequately reflective of the U.S. population. This has led to mismatched transplant rates greater than 40 percent in underserved populations.

**The Idea:** Determine the optimal size and composition of the registry and launch a campaign that expedites that level of quality participation.
Expected results

**Double**
our ability to deliver what is ordered, when it’s ordered.

**25% increase**
in event-free survival rate for our core patients.

**50% increase**
in the number of people in the U.S. who receive Be The Match-facilitated cell therapy.

**Double**
treatment volumes in underserved populations with no discernible differences in outcomes.
Organizational alignment

A critical element in any strategy is its translation into reality. The only true measure of success is the results it delivers. And one of the key determinants of successful strategy implementation is organizational alignment. An aligned organization gets things done faster, with less effort, and with better results—and is more agile and responsive to changing business and industry conditions.

Organizational alignment relates to the degree to which the components of a company are arranged to optimally support the intent, objectives and goals of the organization. At Be The Match, this is embodied in our strategic plan. The components that must be aligned include:

- The work being completed (i.e., key projects and work processes);
- The goals, skills and capabilities, as well as the hearts, minds, and behaviors of both the people doing the work and the leaders; and
- The plans, tools, technologies and resources supporting the work being completed.

Organizational alignment is both a process and an outcome. Building and ensuring organizational alignment requires commitment and ongoing activity to continually reinforce the alignment. In addition, these organizational alignment efforts should continue to be assessed on a consistent basis to ensure ongoing adherence.

As Be The Match moves forward toward transformative implementation, it will feel the stress that change brings. Comprehensive strategic planning relieves some of that stress by looking into the future and setting realistic and achievable goals. Organizational alignment relieves the rest of the stress by looking into that same future and ensuring the right capabilities (experience, talent and intelligence) and capacity (sufficient resources to get all of the work done well) exist throughout the company.
Annual operational alignment to plan

Be The Match will produce an annual operating plan each fiscal year that maps out the organization’s yearly objectives with proposed steps on how they will be accomplished. It is intended to be both subordinate and complementary to the implementation of our strategic plan. The operating plan takes into consideration budget and human resource constraints, as well as a risk assessment in relation to the organization’s short-term objectives. It describes both the ongoing aspects of our business and the strategic initiatives we will introduce. The operating plan describes the budget and provides the organization with clear quarterly and annual targets. When used in conjunction with a strategic plan, the operating plan allows for midterm course correction without the need for abandoning or overhauling the strategic plan.

Ongoing evaluation and improvement to the themes

As part of the operating plan, each new initiative will be subjected to annual review, both for strategic and financial integrity. Each strategic initiative must be responsive to at least one of the four strategic themes without inconsistency against any of them. Additionally, each initiative must be designed to materially impact one or more of the four strategic goals in an objective and measurable way. The implementation and operating cost of each plan will be evaluated against the organization’s pre-determined strategic investment criteria to ensure that all initiatives meet expected returns to support the strategic plan. These initiatives will be subject to similar annual review during the development of subsequent operating plans.
Financial considerations

Our financial principles remain unchanged: every dollar spent is in support of our mission.

At Be The Match, we are committed to saving lives through cellular therapy by helping patients achieve the best possible outcomes, not only through democratizing cell therapy, but also by supporting them through one of the most challenging times of their lives. One way this is realized is through an ongoing commitment to financial stability and agility. We achieve this by balancing our spending, revenue and surplus in a way that drives our mission forward, while remaining responsible stewards of our financial resources. This means managing our operating revenue in a way that retains funds for future investments while also being prepared to react to unexpected expenses.
The principles below guide our fiscal philosophy and actions:

• **4-6%**: operating income as a percentage of revenue, net of strategic spending, to support ongoing operations of the business

• **25–35%**: reserve target as a percentage of annual revenue

• **5% or more**: long-term return on cash investments

• **3-year medical CPI**: annual price increases will be equal to, or less than

• **3 years from introduction**: new products and services profitable
Risks

**Risk:** The customers we serve—particularly providers—are unable to see the value of Be The Match intervening at AML diagnosis, Be The Match collection centers or the on-site assistance model

**Mitigation:** Work in partnership with referring physicians to involve them in the process of testing patients at diagnosis, and develop a sales-focused function to build clientele for proprietary collection centers and on-site assistance representatives; ensure that outcomes of these interventions on patients are evaluated and shared

**Risk:** Broad acquisitions, investments or development of new ventures that fall outside the scope of our 2019-2023 strategic plan

**Mitigation:** Align business expansion opportunities with our strategic plan’s vision to ensure they support our verticals and are integrated enterprise-wide

**Risk:** Registry growth continues to encounter roadblocks despite refined targeting of optimized size and composition

**Mitigation:** Employ growth strategies proven to be successful in unrelated industries to the registry optimization
**Risk:** Inadequate third-party insurance and Medicare reimbursement policies and practices, including non-coverage decisions, disproportionately impact underserved patients who already encounter reduced opportunity for life-saving transplants

**Mitigation:** Ensure newly developed philanthropic campaigns and partnerships that are aligned with contributors’ priorities are also supporting our most vulnerable patients

**Risk:** Failure to sufficiently shift focus and align Be The Match resources and activities with strategy

**Mitigation:** Organizational design will be structured to support the customer verticals resulting from the strategic plan’s stated goals

**Risk:** Inadequate execution due to lack of organizational health

**Mitigation:** Leadership commitment to organizational accountability and strategic plan execution coupled with communication best practices that ensure stakeholder understanding and commitment to strategic plan and vision