

# Impact Rating System for Hospitals in Low-Resource Settings

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## ABSTRACT

*Many hospitals exist in low-resource settings around the world that provide critical assistance to communities that need their services the most. Nevertheless, many of these hospitals do not have the financial and human resources to realize their full potential for impact. While many charity rating organizations (e.g., Charity Navigator) exist to help donors find such high-impact hospitals, their websites are typically limited to a small number of organizations that meet specific criteria and do not always provide sufficient transparency to interested donors. Furthermore, limited resources exist to help volunteers find organizations that would benefit from their services the most.*

*The goal of this project is to create an impact rating system open to all legally registered hospitals in low-resource settings. Using the Transformational Impact Rating System (TIRS), donors and volunteers seeking to invest their money and time can find hospitals that will provide the greatest benefit to patients – even if these organizations are too small to be evaluated by the major charity rating sites. Furthermore, hospitals can identify areas in which they are performing well relative to their peers, and work on areas for improvement in order to increase their scores over time. With further testing and additional services, this system has the potential to be expanded to hospitals in low-resource settings around the world – and perhaps to charities in additional industries. Ultimately, we hope that our impact rating system will help connect small non-profit hospitals with appropriate resources to improve the lives of those who need their services most around the world.*

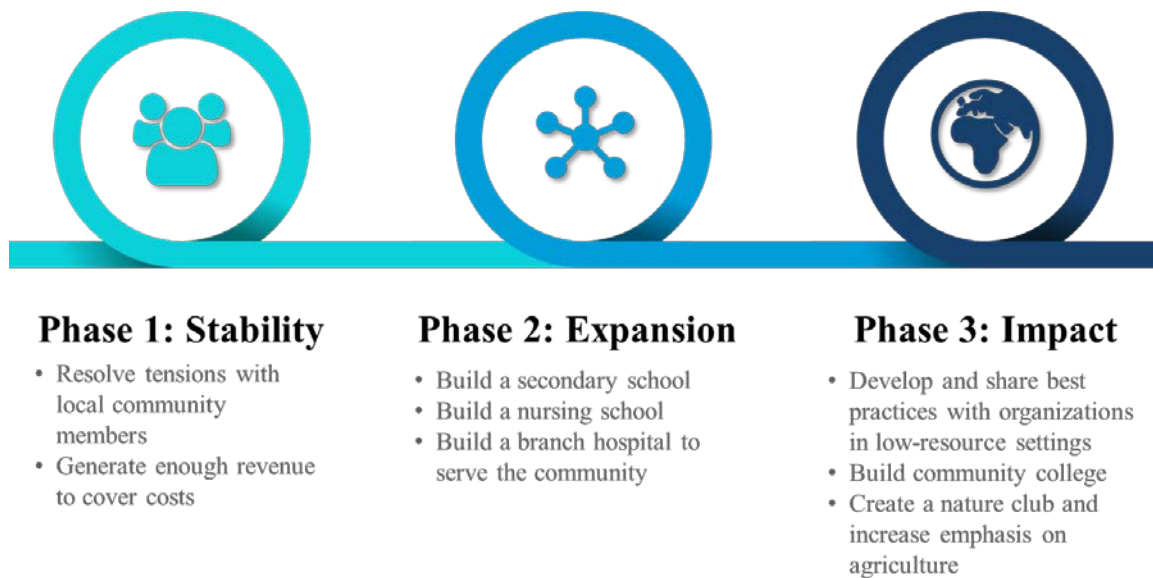
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## PART I: INTRODUCTION

### *Motivation*

The Makunda Christian Leprosy & General Hospital (Makunda Hospital) is a general hospital, school, and agricultural facility located on 350 acres of land in rural, northeast India at the border of Assam, Tripura, and Mizoram. Over the past 27 years, under the leadership of two physicians – Dr. Vijay Anand Ismavel and Dr. Ann Miriam – Makunda has grown from a hospital that lacked funding, running water, and electricity for its facilities to a thriving, multi-faceted organization that provides high quality medical care to the local community at costs that are affordable (1). In the 2018-2019 fiscal year alone, the hospital provided care for 109,509 outpatients, had 14,350 inpatient admissions, performed 3,058 major surgeries, and conducted 5,889 deliveries (2). In the latest phase of its development, Makunda Hospital has shifted its attention to sharing best practices with similar hospitals in low-resource settings, as shown in Figure 1. Sharing best practices in a way that allows hospitals to increase their impact is the primary motivation for this project.



*Figure 1: Makunda Hospital Phases of Impact*

In the neediest parts of the world, many hospitals face basic challenges similar to those faced by Makunda Hospital in its early days. Healthcare investments by government entities are not adequate. Attracting interest from corporate (for profit) entities is challenging and time-consuming. Non-governmental organizations (NGOs), which are motivated by altruistic intentions, can provide high quality healthcare services. However, in the face of growing demand for their services, severe local constraints, and few patients who can pay for services, these fledgling healthcare enterprises often collapse for lack of external support. Local community hospitals may also collapse slowly as funding and volunteer resources dry up. When these hospitals cease to exist, the impact to the local communities they serve can be substantial.

Attracting funding and volunteer resources is critical to the survival of these hospitals. At present, donors commonly provide financial support based on their personal knowledge of people involved with projects, referrals from friends, and other subjective means. Identifying healthcare volunteer opportunities in needy parts of the world is similarly based on word of mouth. Uniquely, Makunda Hospital has established a partnership with the KIT Royal Tropical Institute in the Netherlands to match training to residents who are obtaining their medical degrees in Global Health and Tropical Medicine – still, most residents choose their place of work following training based on internet searches and referrals from their seniors.

The goal of this project is to develop a tool that facilitates the connection between hospitals in low-resource parts of the world with the financial and human resources that are critical to their survival. By establishing a rating system that scores hospitals on common variables related to regional impact potential, financial and operational health, and stakeholder satisfaction, we hope to make it easier for donors and volunteers to identify and support hospitals that meet their interests and provide the most benefit for their time and donations. Additionally, we hope that the transparency provided by the results of the rating system – named the Transformational Impact Rating System (TIRS) – will incentivize hospitals to improve performance on factors important for accessing resources.

### ***Role of the Transformational Impact Rating System (TIRS)***

Many charity rating organizations exist today, including Charity Navigator (3), CharityWatch (4), ImpactMatters (5), GuideStar / Philanthropedia (6), GiveWell (7), Global Giving (8), Classy (9), Universal Giving (10), RateYourNGO (11), The Life You Can Save (12), and Bright Funds (13). We examined the ratings and selection methods used by each of these sites and analyzed their strengths and weaknesses to determine how our system would add the most value, as shown in Figure 2.

Many organizations choose which charities to rate and do not accept requests from charities that ask to be rated. Even organizations that accept charities' requests to be evaluated may limit their evaluation to charities in America that have IRS filings, or they may have strict criteria that the charity must meet in order to be rated. For example, Charity Navigator rates only charities generating at least \$1 million in revenue for two consecutive years. As a result, small but high impact hospitals in needy parts of the world have no presence on these rating websites. In contrast, TIRS is available to any hospital that wishes to be rated, regardless of size, operating metrics, or location. We hope that our platform will offer small organizations the opportunity to share the meaningful impact they are creating and provide donors and volunteers with the chance to participate in such impact.

In terms of the target audience of these rating websites, nearly all (with the exception of Universal Giving) focus on donors and do not address specific factors of interest to volunteers. However, many high impact hospitals in low resource settings could benefit nearly or equally as much from volunteer doctors who can help them serve their communities as from monetary donations. To fill in this gap, our system includes factors that are important to both donors and volunteers, so that volunteers can find hospitals where volunteering can have the greatest impact.

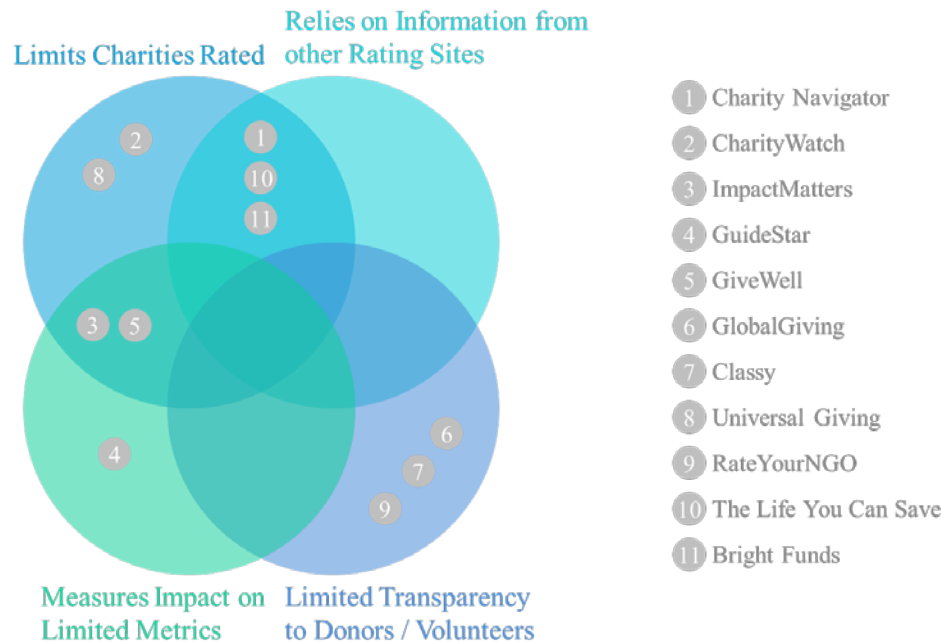


Figure 2: Weaknesses of Existing Charity Rating Organizations

Additionally, existing rating mechanisms evaluate how efficiently a charity uses their funding, how well it has sustained its programs and services over time, and its level of commitment to good governance, best practices, and openness with information. For instance, CharityWatch considers a charity that spends at least 75% of their funds on program expenses and that spends no more than \$25 to raise each \$100 to be highly efficient. ImpactMatters estimates the impact of a nonprofit's program on a single outcome metric that best aligns with its stated mission. Consequently, the ratings represent how well charities currently perform in terms of financial health, operational performance, transparency, and governance. However, they fail to consider the regional impact potential of organizations located in areas where the populations served have particularly serious needs. We believe that, in addition to factors already included in existing rating mechanisms, regional impact factors measure the need of the community and directly measure an organization's potential for impact.

## PART II: METHODOLOGY

We conducted our research through a combination of reviewing academic sources, conducting in-depth interviews, and issuing surveys. Through this research, we developed an impact rating system to score the impact potential of charitable organizations, specifically focusing on hospitals in low-resource areas.

### *Identifying Impact Variables*

We began by conducting background research on the motivations that drive donors and volunteers. Based on our findings, we then looked deeper into variances among different types of donors and volunteers (e.g., large versus small donors, long term versus short term volunteers,

recurring versus single occurrence). We directly identified a handful of potential variables that could measure impact potential from this motivational research.

We then conducted research on particular variables that lead to high impact. Based on this research, we added several potential variables to our list, such as key hospital performance indicators and the cost efficiency of fundraising. We researched which of these key variables appeal to donors and volunteers.

As we identified each potential variable, we recorded a name, description, method by which it might be measured, and audience to which it might be of interest (volunteer and/or donor). We categorized each variable into one of five categories that emerged: regional impact potential, financial health, operational performance, external relations, or volunteer experience. We grouped similar variables within the three largest categories (financial health, operational performance, and volunteer experience) into subcategories.

Once we had reviewed foundational motivators and impact variables, we turned to existing charity rating websites designed to assist donors in making informed donation decisions. Using their publicly available sites, we examined the ratings and selection methods used by Charity Navigator, CharityWatch, ImpactMatters, GuideStar / Philanthropedia, GiveWell, Global Giving, Classy, Universal Giving, RateYourNGO, The Life You Can Save, and Bright Funds. We added many relevant factors measured by these existing sites that had been verified by previous research to our list of potential variables.

In addition to utilizing publicly available materials, we conducted in-depth interviews with several organizations. These organizations included those that manage large donations, financial certification bodies, and organizations that source donors and volunteers. A full list of interviewees can be found in Appendix A, and the interview protocols used with donor and volunteer organizations can be found in Appendices B and C, respectively. From the interviews, additional potential impact variables were identified and added to our comprehensive list.

Finally, we conducted a survey of prior hospital volunteers to determine which of the identified variables were important to them in choosing where to volunteer. In addition, we asked volunteers to provide any other variables they thought we should consider. We added the factors volunteers identified either as variables or as search criteria that donors and volunteers could use to find hospitals that meet their preferences. We used volunteers' ratings of how important each factor was to inform the final weights of the relevant variables. The survey questions and responses can be found in Appendix D.

### ***Selecting Variables***

Following the above process, we identified over 150 potential variables that could be used to measure impact. However, to ease the burden on hospitals, who would have to collect much of the data required, we narrowed the final list of variables down to the most relevant ones. We chose to include variables that had appeared repeatedly in our research (across several existing ratings sites, discussed in multiple interviews, etc.), variables that had been validated by

prior research, variables that donors and volunteers told us they considered important to their decision making, and variables that were expected to contribute to higher levels of impact.

Though some factors may be correlated, we defined each variable to be independent of all other variables. In other words, the score a hospital receives on one variable does not affect the score it receives on any other variable, except to the extent that underlying conditions exist that affect multiple variables. We consolidated several variables into a single measure where possible.

We did not include variables that were likely to have little impact, were too difficult to measure, were based on subjective preferences, or were seen as unimportant by the donors and volunteers in our interviews and surveys. In addition, we excluded from the rating score some variables that could be important to donors and volunteers but did not translate easily into impact potential. We decided to collect these factors (that were important but not scored) from the rated hospitals and display them to potential donors and volunteers for informational purposes. For example, hospitals may provide their religious affiliation. Any religious affiliation would be displayed but would not factor into the hospitals' ratings.

### ***Defining Variable Weights***

We assigned weights to variables from 1 to 10 according to three clusters. Weights 8 – 10 were reserved for regional impact factors, as local factors measuring the need of the community directly measure a hospital's potential for impact. (For example, a hospital that has thus far produced little impact but is located in an area of great need has a higher potential for impact than a hospital that is performing very well but is located in an affluent and healthy community.) Weights 5 – 7 were reserved for variables unrelated to regional factors that were repeatedly discovered in our research – through other ratings sites, interviews, and surveys – and had previously been proven as effective measures through prior research. Weights 1 – 4 were reserved for variables that measure impact potential and appeared less frequently in our research.

For the variables relevant to volunteers, we determined the appropriate weights based on the survey of prior volunteers (see Appendix D). Consistent with the third cluster noted above, variables in the volunteer experience category were weighted from 1 – 3. These variables, while important, relate less directly to the hospital's impact than other factors we weighted as 4. Starting with each variable having a baseline weight of 1, we increased the weight to 3 for the top 25% of factors that volunteers rated as most important (unless the factor had been designated as a search criterion or fell within another cluster outlined above). We increased the weight to 2 for the remaining factors whose mean volunteer rating was above the overall average volunteer rating of 6.95 for all factors (on a scale from 1 to 10, with 10 being most important). For factors with a mean rating below the survey average, we maintained the weight as 1.

The final variables included in the system with their descriptions, categories, and weights are shown in Appendix E.

### ***Defining Variable Rating Levels***

For each variable, we defined levels 1 through 5 against which the hospital's performance is measured. A level of 1 indicates low impact potential, and a level of 5 indicates high impact potential. The level at which the hospital is performing translates directly into the score the hospital receives for each variable.

We defined each level based on published benchmarks where available. Levels for regional impact potential variables with global data available (maternal mortality rate, infant mortality rate, and population density) correspond to the fifth through the eighth deciles. (For example, a hospital with a local maternal mortality rate above the global 80<sup>th</sup> percentile would receive a rating of 5 for that variable). Where benchmarks were not readily available, we defined levels based on published academic research, articles, interviews, or the previous impact assessment with Makunda Hospital (see references 2 – 33). Levels for a given variable may be qualitative or quantitative in nature. Levels that are quantitative in nature are most often defined as ranges of values. Levels were designed to be as objective and unambiguous as possible.

In some cases, variables may only have three levels defined. Variables for which more granular levels are difficult to define only have levels 1, 3, and 5 defined. Variables that indicate higher impact potential but may not be available to all hospitals due to resource constraints only have levels 3 through 5 defined. That is, a hospital cannot be scored a 1 or 2 on these latter variables and thus be negatively impacted by a below-average score on a variable which they may not have access to fulfill.

If the hospital does not have the data available to be scored on a variable, the hospital may select a "No data available" option. Selecting this option results in a score of 0 for that variable. We chose to give these variables a score of 0 rather than excluding them from the score because excluding them could incentivize hospitals to report "No data available" in areas where they may be underperforming.

The final variables included in the system with their levels are shown in Appendix F.

### ***Testing the Rating System***

To test the rating system, we first prepared data collection templates to define specific data elements that we would collect from the hospital, donors, volunteers, staff, patients, the local community, and publicly available sources. With levels defined for each variable, a hospital that inputs its data receives an integer score from 1 to 5 for each individual variable. (Some variables may be measured by multiple data sources. In these cases, the ratings are averaged into one score for the variable.) The scores for each individual variable are then combined into a weighted average overall impact score, as well as scores by category and subcategory.

We entered data for two hypothetical hospitals – one that might be considered high impact and one that might be considered low impact – to determine whether the scores accurately reflected these differences. We adjusted the levels for some variables and removed other variables based on the results of these tests. The final results of the tests were an overall



score of 4.1 for a relatively high impact hospital with room for improvement and an overall score of 2.6 for a relatively low impact hospital with high resources but average performance.

### ***Implementing the Rating System***

To improve the ability of donors and volunteers to find hospitals that have obtained an impact score, we implemented the rating system via a website. The website allows hospitals to enter their data and obtain an impact score. It also allows them to see which variables are non-modifiable (e.g., local maternal mortality rate) and which ones are modifiable that the hospital should maintain or could take action to improve. The website allows donors and volunteers to see the variables that are of interest to them, provide feedback on hospitals they have previously donated to or volunteered at, and see comments from other users.

The rating system will first be implemented with Makunda Hospital as a pilot site. Opportunity exists to continue testing the system with high impact hospitals in India and around the globe. The website can be found at [www.transformationalimpact.org](http://www.transformationalimpact.org). A spreadsheet version of the ratings system available for download and exploration can be found [here](#).

## **PART III: RATING SYSTEM**

### ***Collecting Data***

To obtain a TIRS impact score, data for each variable must first be collected for the hospital, as shown in Figure 3. The hospital provides information for 69 variables that evaluate the hospital's regional impact potential, financial health, operational performance, external relations, and volunteer experience. The hospital may also choose to include descriptive information for their page and several optional search criteria that allow donors and volunteers to find them. Although we recognize that this is a large number of variables for which hospitals to collect information, many variables do not require quantitative calculation. In addition, all data is collected by selecting one of the five levels for each variable, such that understanding the range the data falls within is more important than the precision of the calculation. Both of these functional choices reduce the burden of data collection for hospitals.

In addition to collecting data from the hospital, we collect data from surveys of donors, volunteers, staff, patients, and the local community. Most of the survey data are collected from volunteers: we ask them to rate two variables related to the hospital's commitment to its mission and the credibility of its leadership, six variables related to the logistics of the volunteer opportunity, and thirteen variables related to their satisfaction with their experience. Because this survey is the only source of volunteer satisfaction data, it is particularly important for the hospital's score in the volunteer categories. From the staff, we collect ratings on five variables related to the hospital's commitment to its mission, level of community engagement, culture of continuous improvement, the credibility of its leadership, and the staff's level of satisfaction. We also ask the staff to score three variables related to volunteer opportunities. From donors, patients, and the local community, we only collect ratings on three variables each, focusing on

their satisfaction and the hospital’s performance. In each survey, we also allow respondents to provide additional comments that can be shared with those viewing the hospital’s score.

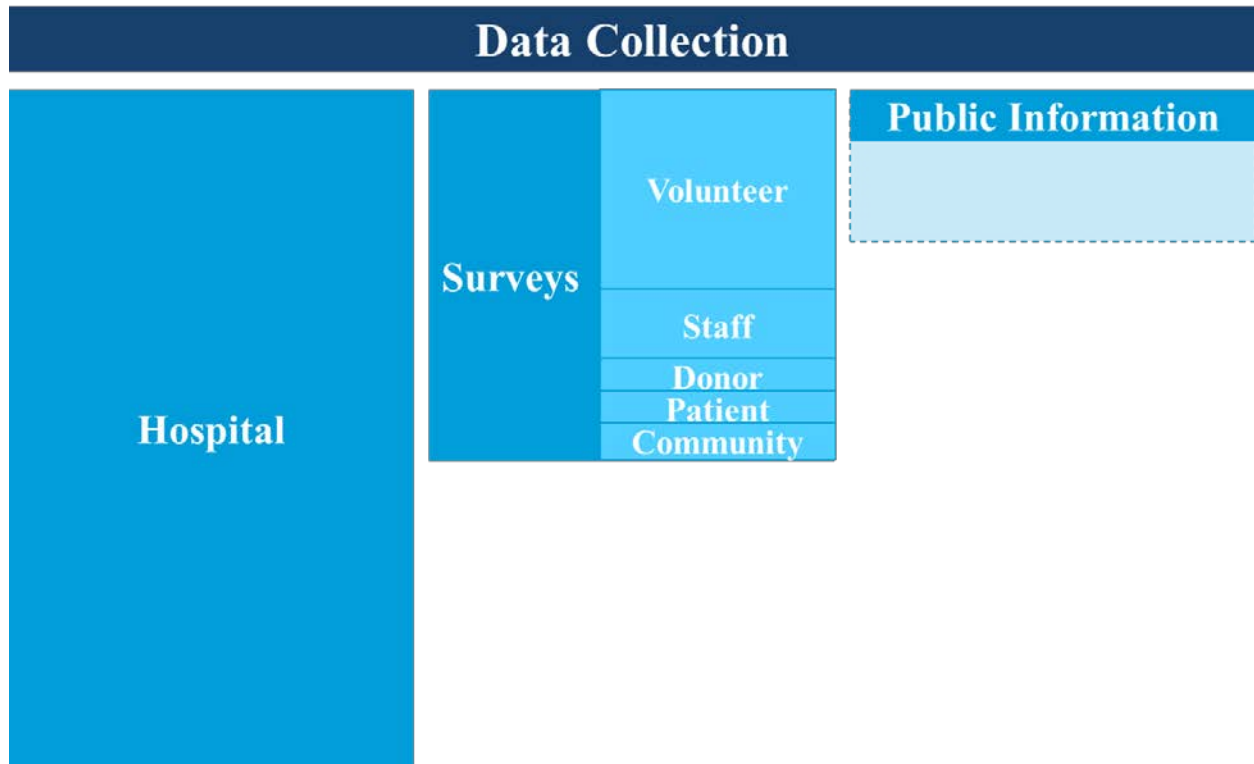


Figure 3: Sources of Data Input for TIRS

Finally, we collect data that is publicly available from the internet to rate some variables. For the first iteration of the ratings system, the only variable that relies solely on data from the internet is whether the organization has previously been rated by another charity rating site. Data from the internet on whether there is evidence of fraud fines, or misuse of funds and whether the organization has received any awards is combined with information provided by donors and the hospital, respectively. While country-level data on maternal mortality rate, infant mortality rate, population density, and crime rates are provided to the hospital for reference, we allow the hospital to select the levels for these local, non-modifiable factors due to lack of availability of granular data within a country. In the future, data for the regional impact factors – as well as several other variables – may be obtained from publicly available information to further reduce the burden on hospitals that wish to obtain an impact score.

### Calculating the Score

Once data has been collected from all available sources, the hospital receives an overall score from 1 to 5, where 5 represents a hospital with high impact potential. This score is simply a weighted average of each variable’s rating (based on the levels and weights discussed in the Methodology and delineated in Appendices E and F). The rating for variables that rely on multiple sources of data is the average of the ratings received from each source. Variables for which no data is available receive a score of zero to encourage future collection of these data.

In addition to the overall score, hospitals receive a score in each of five categories: regional impact potential, financial health, operational performance, external relations, and volunteer experience. Category scores allow hospitals to understand on a broad level in which areas they are performing well and in which areas they could improve. These category scores are simple weighted averages of the ratings of the variables that fall within the category. In other words, specific categories are not given additional weight; the importance of the category was already considered when weighting individual variables.

Regional impact potential represents the hospital's ability to make an impact on the community based on local needs. This category largely consists of factors that the hospital has no control over. Financial health represents the extent to which the hospital uses its funds efficiently, manages its funds properly, and is sustainable. Operational performance is the largest category, spanning factors that measure how efficiently the hospital executes its mission, its level of governance, transparency, the number of patients the hospital serves, and how well it does so. External relations measures how well the hospital collaborates with other parties, such as donors, the community, and other programs. Finally, volunteer experience measures the quality of the experience, logistics, and satisfaction of prior volunteers.

Because financial health, operational performance, and volunteer experience encompass the most factors, each is broken down further into subcategories. Financial health and operational performance are the largest because they include factors measuring sustainability, governance, accountability, and transparency, which repeatedly appeared in our research across all sources. Financial health includes funding sources, financial efficiency, financial capacity, and accountability. Operational performance includes operational efficiency, governance, transparency, organization quality, volume of services, and care quality. Volunteer experience includes volunteer opportunity and volunteer satisfaction. Hospitals receive a score in each subcategory (again, simple weighted averages of the variables included in each) so that they can identify more granular areas in which they can either continue to perform well or improve.

Figure 4 shows a diagram of the scoring hierarchy.

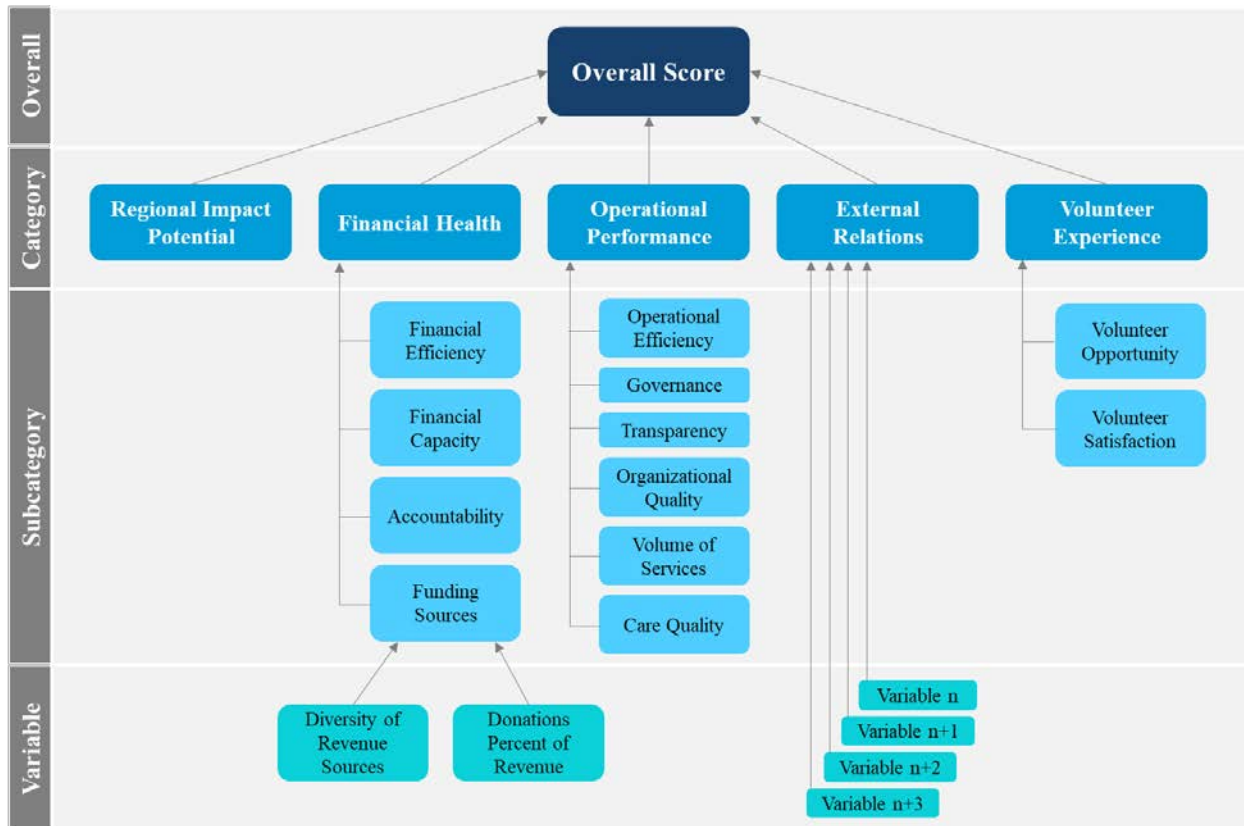


Figure 4: Impact Score Hierarchy

## Using the Score

Donors and volunteers can search for high impact hospitals that match their interests. Users can search based on several factors for which hospitals have provided data (noted at the end of Appendix E), such as the geography in which the hospital is located, any specific causes the hospital supports (e.g., maternal health, leprosy), whether the hospital has a Christian mission, whether the hospital can accept foreign donations, and the ease with which volunteers can obtain visas. Hospitals that meet the user's search criteria will be sorted with those that have the highest overall impact score at the top. Users can select each hospital to view more information, such as category and subcategory scores, as well as any descriptive information the hospital has provided.

Hospitals can view their overall score, category and subcategory scores, as well as ratings for each individual variable. Hospitals can view which factors are modifiable (i.e., can be changed based on the hospital's performance) and which are non-modifiable (i.e., are based on local conditions). By examining the modifiable factors for which they scored the lowest, hospitals can review the criteria for obtaining a higher score and take actions to improve their rating. We recommend that hospitals focus first on the modifiable variables which are weighted most highly, as well as on variables which require little effort to improve. We recommend that hospitals review and update their data at least annually, or sooner if they implement significant changes, so that their score is up to date.

## **PART IV: DISCUSSION**

Considering the strengths and weaknesses of existing ratings organizations, we designed TIRS to add value where we saw a gap in the market. To address the issue that small organizations are usually excluded from existing rating systems, our system will be open to all legally registered hospitals. We do not require that hospitals meet any criteria on revenue, length of operation, or otherwise. To fill in the gap of impact factors relevant to volunteers, we capture information related to volunteer satisfaction and opportunities. Additionally, we rate regional impact factors so that hospitals' potential for impact can be measured along with their existing performance. We create a platform for both donors and volunteers to find opportunities where their contributions would be most impactful.

To encourage adoption of TIRS, we recommend that Makunda Hospital collaborate with sponsors and create a strong communication plan to reach potential donor and volunteer audiences. Because both donors and volunteers currently rely heavily on word of mouth to make their donation and volunteering decisions, effort will be needed to educate potential users on the existence and benefits of a ratings-based system.

Makunda Hospital can start by promoting the website where the rating system is hosted to its existing and prior donors, volunteer doctors, and organizations with which it has connections. By sharing its purpose and potential, Makunda can create advocates who believe in the value of this system, are influential in relevant communities, and are willing to share TIRS in conferences, meetings, or their social media accounts. Other options to adopt and maintain users of the system include: (1) connecting the website to social media accounts or websites of other reputable nonprofit organizations; (2) encouraging repeat website visits by regularly posting or emailing updates about the rating program in an engaging way; and (3) seeking feedback from users and continually improving the user experience.

In the future, third party verification of hospitals' data would improve the credibility of the ratings. Several existing ratings websites perform such verification. Given the resources currently available, the data upon which TIRS is based largely come from hospitals' self-reporting, in addition to data pulled from public sources of information and surveys of donors, volunteers, staff, patients, and the community. Although there is some accuracy risk with self-reported data, we do not want to prohibit hospitals from participating who could not afford an audit by a third party. However, in the next phase of the rating program, we advise Makunda Hospital to allow hospitals to request on-site verification of their data. Hospitals whose information has been verified by a third party would be distinguished from those whose information has not yet been verified.

Another feature that should be considered in the future is the generation of individual impact reports for each rated hospital. A few existing charity ratings websites provide this service today. The impact report would include an overview and standardized sections examining each of the five impact categories: regional impact potential, financial health, operational performance, external relations, and volunteer experience. The report would provide

detailed recommendations on areas the hospital should continue to perform well on and specific actions the hospital could take to improve. Hospitals could post the impact report on their website, share the report with prospective donors and volunteers, or otherwise promote their value by presenting their concrete impacts. We believe small organizations would benefit from this service because many may not have the experience or resources to prepare similar impact reports.

Many variables in the scope of TIRS are translatable or adaptable to other nonprofit or charity verticals. Therefore, it is worth considering expanding the system from India to hospitals across the globe or nonprofit organizations within additional industries. However, before expansion, we recommend testing the existing system with large number of hospitals and refining the system as appropriate. Expansion to additional industries would require collaboration with parties that have hands-on experience in such industries. We recommend conducting additional research, interviews, and surveys to adjust the impact variables, variable weights, and rating levels to best serve the industry or industries in the expanded scope.

## **PART V: CONCLUSION**

In the neediest parts of the world, healthcare investment by government entities is inadequate and interest from private donors and volunteers is insufficient. A big challenge that hospitals in these areas face is limited access to financial and human capital. Many charity rating organizations only rate a limited number of organizations or do not provide sufficient transparency into the ratings they provide. The objective of this project is to provide a platform through which all hospitals in low-resource settings can make their impact potential visible to donors and volunteers looking to make the greatest difference with their money and time.

The rating system we designed, TIRS, combines information on 93 variables across five categories to provide hospitals with an overall impact score (as well as scores by category and subcategory). To obtain a score, information is collected from a variety of sources, including the hospital, publicly available information, and surveys of donors, volunteers, staff, patients, and the community. Donors and volunteers can use these ratings to identify hospitals with high impact potential where their donations and time will make the greatest difference. In addition, hospitals can use detailed information from their scores to continue performing well and to improve in areas that could allow them to access additional resources.

TIRS will first be implemented with Makunda Hospital as a pilot. To encourage adoption of the system after further testing, we recommend that Makunda create a strong communication plan to build upon the current status quo of word-of-mouth information gathering. We also recommend considering additional services such as providing rated hospitals with the opportunity for third-party verification of their data and the ability to receive a personalized impact report. If these efforts prove successful, this system has the potential to expand globally to hospitals in low-resource settings worldwide, and even to charities in additional industries. Ultimately, we hope that TIRS will help connect small non-profit hospitals with appropriate resources to improve the lives of those who need their services most around the world.

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## APPENDIX A: LIST OF INTERVIEWEES

*Table 1: Donor and Volunteer Interviewees*

Interviewee	Role	Organization
<b>Donor Organizations</b>		
Paul Bolte	Executive Vice President	TrustBridge Global Foundation
James Varghese	Chief Operating Officer	India Collaboration
Dr. Sanjay Patra	Chairman	Evangelical Financial Accountability Council (EFAC)
Anand Joshua	Executive Director	Christian Institute of Management
Vish Cornelius	Partner	New Beginnings Christian Fellowship
J. David Singh	CEO/President	Inspire International
Marianne Mars	Secretary/Board Member	Pharus Foundation
<b>Volunteer Organizations</b>		
Caro van Grunsven	Founder	Linking Doctors
Bob Snyder	President	IHS Global
Sam Spatafore	Development Coordinator	IHS Global
Dr. Samuel Siddharth	General Secretary	Evangelical Medical Fellowship of India (EMFI)
Dr. Vinod Shah	Prior CEO	International Christian Medical and Dental Association (ICMDA)

## **APPENDIX B: DONOR INTERVIEW PROTOCOL**

1. Please describe the organization you represent and its role in making donations.
2. What are the primary factors you or donors you work with consider when choosing where to donate? These could be particular causes, motivations, or aspects of the charitable organization.
3. What is the process you use to find an organization to donate to (e.g., word of mouth, research by topic, charity recommendations such as GiveWell, etc.)?
4. What types of communications are most effective in informing your decision to donate (e.g., online sources, mail, in-person events)?
5. What are some factors that might prevent you or donors you work with from donating to an organization, or lead you to choose one organization over another?
6. What factors determine whether you or donors you work with donate to an organization repeatedly versus making a one-time donation?
7. If there were a website that allowed you to search for high impact hospitals in locations where donations would make the greatest difference, what features would you like to see? What aspects would you like to search for hospitals based upon (e.g., location, cause, etc.)?
8. How would an organization's impact rating (e.g., 1 star to 5 stars) influence your decision or that of donors you work with to donate to that organization?
9. Would you or donors you work with be interested in completing a survey about your donation experience on the website that would factor into the hospital's rating?

## **APPENDIX C: VOLUNTEER INTERVIEW PROTOCOL**

1. Please describe the organization you represent and its role in coordinating volunteers.
2. What is your or primary motivator for volunteering, or those of the volunteers you work with?
3. What are the primary factors you or volunteers you work with consider when choosing where to volunteer? These could be particular causes, motivations, or aspects of the organization.
4. What is the process you use to find an organization to volunteer at (e.g., word of mouth, research by topic, volunteer recommendation websites such as VolunteerMatch, etc.)?
5. What types of communications are most effective in informing your decision of where to volunteer (e.g., one-on-one meetings, online sources, mail, in-person events)?
6. What are some factors that might prevent you or volunteers you work with from volunteering at an organization or lead you to choose one organization over another?
7. What factors determine whether you or volunteers you work with volunteer at an organization repeatedly versus serving one time?
8. If there were a website that allowed you to search for high impact hospitals in locations where volunteer efforts would make the greatest difference, what features would you like to see? What aspects would you like to search for hospitals based upon (e.g., location, cause, safety, etc.)?
9. How would an organization's impact rating (e.g., 1 star to 5 stars) influence your decision or that of volunteers you work with to volunteer at that organization?
10. Would you or volunteers you work with be interested in completing a survey about your volunteer experience on the website that would factor into the hospital's rating?

## APPENDIX D: VOLUNTEER SURVEY QUESTIONS AND RESPONSES

After identifying potential impact variables, we wanted to understand how volunteers weigh the importance of specific factors in deciding where to volunteer. To gather volunteer feedback, we designed a survey that asked volunteers to rate the importance of each relevant variable on a scale from 1 (not important at all) to 10 (extremely important). We asked volunteers to rate variables within the volunteer experience category, as well as selected variables in other categories.

The survey included 29 questions and was distributed to volunteers and those who work closely with volunteers. Survey recipients were identified through interviews with organizations that coordinate volunteers and prior volunteers at Makunda Hospital. We received 32 responses. The results are summarized below.

*Table 2: Volunteer Survey Questions and Responses*

Question	Mean Score	Standard Deviation
#1: Values / Philanthropy (volunteers' satisfaction with opportunities to express their values of related to altruistic and humanitarian concerns for others)	8.78	1.92
#2: Understanding / Learning (volunteers' satisfaction with opportunities to learn new things and exercise their knowledge and skills)	8.35	1.38
#3: Career Development (volunteers' satisfaction with career development opportunities provided by the program, such as level of training received, preparation for future employment, development of network or leadership skills)	7.06	2.02
#4: Social / Affiliation (volunteers' satisfaction with the level of personal interaction, ease of making friends, ability to work in a group, and ability to develop trust)	7.61	1.93
#5: Achievement (volunteers' satisfaction with having specific goals to work toward, level of responsibility, and challenges to solve)	7.65	1.60
#6: Influence (volunteers' satisfaction with their ability to impact and influence decisions)	7.43	2.04
#7: Job Training Appropriateness (volunteers' satisfaction with how appropriate training was for the tasks they were asked to complete)	7.37	1.70
#8: Recognition (volunteers' satisfaction with friends' or colleagues' recognition of their work)	6.20	2.12
#9: Supervision (volunteers' satisfaction with the level and quality of supervision they received)	7.13	2.00
#10: Volunteer Recommendation (whether previous volunteers would recommend volunteering at this hospital)	7.67	2.21

Question	Mean Score	Standard Deviation
#11: Expected Volunteer Experience (number of years and type of experience volunteers need to be successful at the hospital)	6.30	1.70
#12: Expected Volunteer Responsibility (volunteers' responsibility in terms of hours and difficulty)	6.80	1.80
#13: Volunteer Salary (financial compensation)	5.03	2.47
#14: Spousal Opportunities (availability of opportunities at or near the hospital for volunteers' spouses)	6.67	2.39
#15: Number of volunteers that previously served the hospital	5.17	2.00
#16: Percentage of volunteers that returned to volunteer at the same hospital	5.77	2.17
#17: Environment / Wildlife (how appealing the natural environment is to potential volunteers)	5.97	2.27
#18: Local Safety	7.35	1.99
#19: Visa Requirement (how difficult it is for volunteers to obtain a visa)	6.65	1.71
#20: Specific volunteer needs the hospital has	7.45	1.43
#21: Specific cause the hospital supports	7.97	2.06
#22: Regional Impact Potential (e.g., patient population and square mileage covered by the hospital, health status and socioeconomic status of patient population)	8.00	1.82
#23: Transparency of the Hospital (e.g., does the organization have a website with information pertinent to donors and volunteers?)	7.23	2.34
#24: Volume of Healthcare Services (e.g., number of outpatient visits, inpatient admissions, major surgeries, child deliveries)	7.42	1.93
#25: Efficiency of Operational Performance (e.g., cost per life saved, average cost per patient)	7.10	2.28
#26: Quality of Operational Performance (e.g., patient mortality rate, patient satisfaction, physician performance, staff quality, quality certifications)	7.07	1.88
#27: Hospital's relations with the local community, staff, and competitors	7.31	2.10
#28: Number of hospital page views on the ratings website (or other interactions such as comments/reviews/recommendations)	4.21	2.04
#29: Are there any other factors that you believe are important for evaluating the volunteer experience at a hospital?	<ul style="list-style-type: none"> <li>• Need/reason for volunteers</li> <li>• Rate of growth of the hospital</li> <li>• Financial transparency</li> <li>• No corruption</li> <li>• Clear aims</li> <li>• Accommodation and food, facilities arranged</li> <li>• Help with arranging visa/certificates</li> <li>• Having a friend at the hospital</li> </ul>	

Question	Mean Score	Standard Deviation
	<ul style="list-style-type: none"> <li>• Feedback on performance</li> <li>• Availability of a team in leadership and a mentor to supervise the volunteers</li> <li>• Communal and religious persecution that some missions face / stance on religious and political issues</li> <li>• Remoteness and difficulty in travel</li> <li>• Safety of women volunteers in some regions</li> </ul>	

## APPENDIX E: VARIABLE DESCRIPTIONS AND WEIGHTS

*Table 3: Rated Variable Descriptions and Weights*

Category	Subcategory	Variable	Description	Weight
Regional Impact Potential	Regional Impact Potential	Socioeconomic Status of Patient Population	Into which percentile of the country's income per capita does the average patient population that the hospital serves fall? The average patient income can be estimated based on all sources of income (including wages, proceeds from sales, etc.). This tool can be used for reference: <a href="https://wid.world/simulator">https://wid.world/simulator</a> .	10
Regional Impact Potential	Regional Impact Potential	Local Population Income Mix	Does a mix of incomes exist in the region such that wealthier patients can be charged more to offset charity care for lower income patients? In other words, what is the standard deviation of the local population income?	6
Regional Impact Potential	Regional Impact Potential	Local Patient Population Density	What is the local population density within serving distance of the hospital (people per square kilometer)?	8
Regional Impact Potential	Regional Impact Potential	Alternative Care Options	How easy is it for the patient population to receive care at another hospital?	9
Regional Impact Potential	Regional Impact Potential	Local Maternal Mortality Rate (MMR)	What is the maternal mortality rate (number of deaths of maternity patients per 100,000 live births annually) in the region where the hospital is located?	10
Regional Impact Potential	Regional Impact Potential	Local Infant Mortality Rate (IMR)	What is the infant mortality rate (number of deaths of infants per 1,000 live births annually) in the region where the hospital is located?	10
Regional Impact Potential	Regional Impact Potential	Additional Services	What services does the organization provide (e.g., hospital, education, agriculture)? Please list each as a way to allow donors and volunteers to search for the organization.	4
Financial Health	Funding Sources	Diversity of Revenue Sources	How many sources of revenue does the hospital have (as a measure of sustainability)?	7
Financial Health	Funding Sources	Donations Percent of Revenue	What percentage of the hospital's annual revenue is provided by donations (as a measure of sustainability)? (To calculate, add the value of all donation sources and divide by the annual revenue.)	7



Category	Subcategory	Variable	Description	Weight
Financial Health	Financial Efficiency	Operating Margin	What percent of annual revenue is the hospital able to retain after costs are paid (as a measure of sustainability)?	6
Financial Health	Financial Efficiency	Program Expense Percentage	What percent of expenses consist of program expenses (e.g., non-administrative and non-capital expenditures)? (To calculate, divide the average program expense by the average total expense, over three most recent fiscal years.)	7
Financial Health	Financial Efficiency	Administrative Expense Percentage	What percent of expenses consist of administrative expenses (e.g., human resources, accounting, overhead)? (To calculate, divide the average administrative expense by the average total expense, over three most recent fiscal years.)	5
Financial Health	Financial Efficiency	Capital Expenditure Percentage	What percent of expenses consist of reinvesting in capital expenditures (e.g., new buildings / equipment)? (To calculate, divide the average capital expenditure by the average total expense, over three most recent fiscal years.)	5
Financial Health	Financial Efficiency	Fundraising Expense Percentage	What percent of expenses consist of fundraising expenses? (To calculate, divide the average fundraising expense by the average total expense, over three most recent fiscal years.)	5
Financial Health	Financial Efficiency	Fundraising Efficiency	How much does it cost the hospital to bring in each \$1 of donations? (To calculate, divide the average fundraising expense by the average total donations, over three most recent fiscal years.)	5
Financial Health	Financial Capacity	Program Expense Growth	By how much have program expenses grown annually over the three most recent fiscal years? (To calculate: $[(\text{Expense in year 3} / \text{Expense in year 1})^{(1/3)} - 1]$ .)	4
Financial Health	Financial Capacity	Liabilities to Assets Ratio	What is the hospital's liabilities to assets ratio (as a measure of sustainability)? (To calculate, divide total liabilities by total assets in the most recent fiscal year.)	1
Financial Health	Financial Capacity	Charity Care Percentage	What percentage of annual revenue is given to patients as charity (free) care?	6

Category	Subcategory	Variable	Description	Weight
Financial Health	Accountability	Budget	Does the hospital prepare a budget and have adequate processes of budgetary controls? Does the hospital prepare a budget variance analysis?	2
Financial Health	Accountability	Auditing	Does the hospital have audited financial statements prepared by an independent accountant with an audit oversight committee?	1
Financial Health	Accountability	Accounting Books	Does the hospital maintain proper books of accounts?	1
Financial Health	Accountability	Bank Accounts	Are the hospital's bank accounts in the name of the hospital, not an individual?	1
Financial Health	Accountability	Safety of Funds	Is there any evidence of lost or misused donation dollars, fines, fraud, or the like?	5
Operational Performance	Operational Efficiency	Cost Per Life Saved	How much does the hospital spend per lives saved annually? (To calculate, divide total program and administrative expenses by the number of lives saved.)	7
Operational Performance	Operational Efficiency	Charity Care Efficiency	How efficiently does the hospital allocate charity care dollars (as a measure of accessibility)? For example, does the hospital use an ability-to-pay pricing approach, write off unexpected complications, and/or assess charity care needs using behavioral methods such as the "shared meals" and "vital assets" tests.	6
Operational Performance	Operational Efficiency	Average Inpatient Cost	What is the average price charged to inpatients (the cost of the stay less any charity care), as a percent above the national average? Average costs can be estimated by selecting your country in the WHO spreadsheet at the following site: <a href="https://www.who.int/choice/country/country_specific/en/">https://www.who.int/choice/country/country_specific/en/</a>	5
Operational Performance	Operational Efficiency	Average Outpatient Cost	What is the average price charged to outpatients (the cost of the visit less any charity care), as a percent above the national average? Average costs can be estimated by selecting your country in the WHO spreadsheet at the following site: <a href="https://www.who.int/choice/country/country_specific/en/">https://www.who.int/choice/country/country_specific/en/</a>	5
Operational Performance	Governance	Formal Governance Structure	Does the hospital have a formal governance structure established?	6

Category	Subcategory	Variable	Description	Weight
Operational Performance	Governance	Commitment to Mission	How committed and dedicated to the mission of the hospital are staff and volunteers?	3
Operational Performance	Governance	Strategic Plan and Implementation	Does the hospital have a strategic plan to improve and expand services? Are planned strategies and interventions implemented properly?	6
Operational Performance	Governance	Key Performance Indicators	Are key performance indicators defined and in place to monitor progress with respect to inputs, activities, outcomes and impacts?	3
Operational Performance	Governance	Alternate Implementation Plans	Are the feasibility and cost-effectiveness of alternate implementation plans discussed?	3
Operational Performance	Governance	Systems Capacity	Do the hospital's systems have sufficient capacity, and are they able to scale?	6
Operational Performance	Governance	Board Independence	Is the hospital's board independent (e.g., board is not comprised of too many staff members)?	2
Operational Performance	Governance	Permanent Board Members	Does the hospital have board members/trustees that are permanent in nature (with no fixed term) or who have served for 10 years or more?	1
Operational Performance	Governance	Board Meetings	Are board meetings held regularly?	1
Operational Performance	Governance	Annual General Meetings	Are annual general meetings held? Are statutory resolutions such as appointment of auditors and election of board members passed during general meetings?	1
Operational Performance	Governance	Board Review	Does the board review itself, systems, processes, and CEO/staff regularly?	1
Operational Performance	Governance	Board Donation Oversight	Does the board have oversight over how donated funds are used?	1
Operational Performance	Governance	Appointed CEO	Does the hospital have an appointed CEO?	1
Operational Performance	Governance	Legal Support	How strong is the hospital's legal support and competency in analyzing a changing regulatory landscape / suggesting appropriate service providers?	2

Category	Subcategory	Variable	Description	Weight
Operational Performance	Governance	Operational Policies	Does the hospital have and follow documented workplace policies (e.g., human resources, travel, finance, conflict of interest, whistleblower, employee use of assets, records retention and destruction)?	1
Operational Performance	Governance	Culture of Continuous Improvement	Does the hospital have a culture of continuous improvement (e.g., staff have agency, quality control systems are in place)?	1
Operational Performance	Transparency	Outcomes Reporting	How well and often does the hospital communicate the loss prevented or gains resulting from donations?	3
Operational Performance	Transparency	Donor Privacy Policy	Does the hospital have a privacy policy that allows donors to request their name and address not be shared with other organizations?	1
Operational Performance	Transparency	Website	Does the hospital have a website with information pertinent to donors and volunteers?	1
Operational Performance	Organization Quality	Appropriate Standards of Care	Does the hospital use efficient care standards to ensure services are both affordable and nearly as effective and safe as more expensive alternatives?	6
Operational Performance	Organization Quality	Equal Services for All Patients	Do all patients receive equal care regardless of their wealth (as a measure of accessibility)?	7
Operational Performance	Organization Quality	Community Engagement	How well does the hospital work with community experts, partners, staff, and patients to build support, plan for the future, and impact the health of their local communities?	6
Operational Performance	Organization Quality	Quality Certifications	Has the hospital received safety and quality certifications?	2
Operational Performance	Organization Quality	Awards Conferred	Has the hospital received awards and recognition from third parties in recognition of the hospital's impact?	4
Operational Performance	Volume	Major Surgeries	How many major surgeries does the hospital provide (per 1000 population served) annually?	5
Operational Performance	Volume	Child Deliveries	How many child deliveries does the hospital provide (per 100 women of childbearing age in the population served) annually?	5

Category	Subcategory	Variable	Description	Weight
Operational Performance	Volume	Outpatient Visits	How many outpatient visits (per 1000 population served) does the hospital provide annually?	6
Operational Performance	Volume	Bed Occupancy	What is the hospital's bed occupancy rate? (To calculate, divide total number of bed-days during the year by (number of beds available * 365 days), then multiply by 100.)	7
Operational Performance	Volume	Weighted Average Patient Volume CAGR	What is the average weighted compound annual growth rate over the past three years of outpatient visits, inpatient admissions, major surgeries, and deliveries?	4
Operational Performance	Care Quality	Hospital Maternal Mortality Rate (MMR)	How many deaths of maternity patients does the hospital experience (per 100,000 live births annually), as compared to the local maternal mortality rate?	4
Operational Performance	Care Quality	Hospital Infant Mortality Rate (IMR)	How many deaths of infants does the hospital experience (per 1,000 live births annually), as compared to the local infant mortality rate?	4
Operational Performance	Care Quality	Patient Mortality Risk	How severe are the conditions of patients seen, as a measure of patient mortality risk?	2
Operational Performance	Care Quality	Patient Readmission Rate	What percent of patients must return to the hospital and be admitted within 30 days of being discharged?	1
Operational Performance	Care Quality	Patient Satisfaction - Service	As a patient, how satisfied are you with the hospital's service?	1
Operational Performance	Care Quality	Patient Satisfaction - Staff	As a patient, how satisfied are you with the hospital's staff?	1
Operational Performance	Care Quality	Patient Satisfaction - Hospital Cleanliness	As a patient, how satisfied are you with how clean the hospital is?	1
Operational Performance	Care Quality	Staff Satisfaction	As a staff member, how happy are you with your experience?	1
Operational Performance	Care Quality	Staff Experience	Does the hospital have staff with work experience of 10 years and above in a particular field?	1
Operational Performance	Care Quality	Staff Meetings	Does the hospital hold regular staff meetings?	1

Category	Subcategory	Variable	Description	Weight
Operational Performance	Care Quality	Staff Turnover	In the past two years, what has been the overall staff turnover rate?	1
External Relations	External Relations	Leadership Credibility	How credible and accomplished is the hospital's leadership?	7
External Relations	External Relations	Donor Satisfaction	As a donor, how satisfied are you with your donation to the hospital?	3
External Relations	External Relations	Charity Rating Organizations	Is the hospital rated by large charity rating organizations? If so, how well is the hospital rated?	1
External Relations	External Relations	Collaboration	Does the hospital have partners that it is collaborating with, and does it plan to add partners to its network?	2
External Relations	External Relations	Exchange Programs	Does the hospital have relationships/exchange programs with other similar organizations or universities?	1
External Relations	External Relations	Respect of Community	How well does the local community respect the hospital?	1
Volunteer Experience	Volunteer Opportunity	Volunteer Responsibility	What is the level of responsibility expected of volunteers, in terms of hours and difficulty?	1
Volunteer Experience	Volunteer Opportunity	Expected Volunteer Experience	How many years and what type of experience do volunteers need to be successful?	1
Volunteer Experience	Volunteer Opportunity	Spousal Job Opportunities	Are nearby opportunities readily available for volunteers' spouses?	1
Volunteer Experience	Volunteer Opportunity	Child Education Opportunities	Is quality education available for volunteers' children?	1
Volunteer Experience	Volunteer Opportunity	Housing Opportunities	How difficult is it for volunteers to find quality housing?	1
Volunteer Experience	Volunteer Opportunity	Local Safety	How safe is the area in which the hospital is located?	2
Volunteer Experience	Volunteer Opportunity	Local Safety Perception	How safe is the area in which the hospital is located?	2
Volunteer Experience	Volunteer Satisfaction	Volunteer Recommendation	As a volunteer, would you recommend volunteering at this hospital?	3
Volunteer Experience	Volunteer Satisfaction	Overall Volunteer Satisfaction	As a volunteer, how satisfied are you with your experience overall?	1
Volunteer Experience	Volunteer Satisfaction	Skills Match	As a volunteer, how satisfied are you with how well your skills matched the needs of the hospital and community?	1

Category	Subcategory	Variable	Description	Weight
Volunteer Experience	Volunteer Satisfaction	Learning Opportunities	As a volunteer, how satisfied are you with the opportunities for new learning experiences, and opportunities to exercise your knowledge, skills, and abilities?	3
Volunteer Experience	Volunteer Satisfaction	Career Development	As a volunteer, how satisfied are you with the level of training received, preparation for future employment, the opportunity to develop leadership skills, network development, and references for future employment?	2
Volunteer Experience	Volunteer Satisfaction	Job Training Appropriateness	As a volunteer, how satisfied are you with how appropriate training was for the tasks you were asked to complete?	2
Volunteer Experience	Volunteer Satisfaction	Community Affiliation	As a volunteer, how satisfied are you with the level of personal interaction, ease of making friends, ability to work in a group, and ability to develop trust?	3
Volunteer Experience	Volunteer Satisfaction	Strategy and Influence	As a volunteer, how satisfied are you with your ability to impact and influence decisions, respond to the needs of people or programs, and understand the overall goals of the hospital?	2
Volunteer Experience	Volunteer Satisfaction	Philanthropic Impact	As a volunteer, how satisfied are you with opportunities to express your values related to altruistic and humanitarian concerns for others and to impact the community?	3
Volunteer Experience	Volunteer Satisfaction	Flexibility	As a volunteer, how satisfied are you with the flexibility of your work schedule?	1
Volunteer Experience	Volunteer Satisfaction	Supervision	As a volunteer, how satisfied are you with the level and quality of supervision and feedback you received?	2
Volunteer Experience	Volunteer Satisfaction	Recognition	As a volunteer, how satisfied are you with opportunities to be recognized for your contributions by friends and colleagues?	1
Volunteer Experience	Volunteer Satisfaction	Achievement	As a volunteer, how satisfied are you with having specific goals to work toward, level of responsibility, and challenges to solve?	3



*Table 4: Hospital Page Description and Search Criteria*

Category	Variable	Description
Page Description	Hospital Name	What is the name of your hospital?
Page Description	Contact	What is a good e-mail address at which your hospital can be contacted?
Page Description	Website URL	If your hospital has a website where donors and volunteers can find additional information, please provide the link to the website.
Page Description	Description	Please provide a brief description of your hospital that you would like to be displayed on your hospital's page.
Page Description	Picture	Please provide a picture of your hospital that you would like to be displayed on your hospital's page.
Page Description	Beneficiary Narrative	If you would like, you may provide a story of an individual whose life your hospital has benefited. Personal stories often help donors and volunteers make a personal connection to a charitable organization.
Page Description	Bed Capacity	Please provide the number of beds your hospital has for the description on the hospital's page.
Page Description	Annual Patients Served	Please provide the number of patients your hospital serves annually for the description on the hospital's page.
Page Description	Donation Needs	Does the hospital have any specific donor needs? If so, please explain, as a way for potential donors to find the hospital. If available, please provide a plan for future funds, including specific uses (e.g., new program or facility), amounts, priority, and alignment to the hospital's strategic plan.
Page Description	Donation Uses	How has the hospital used donations in the past?
Page Description	Volunteer Needs	Does the hospital have any specific volunteer needs? If so, please explain, as a way for potential volunteers to find the hospital. If available, please provide a plan for volunteer work (e.g., specific procedures the volunteer will get to learn or perform, learning objectives).
Page Description	Volunteer Needs	Does the hospital have any specific volunteer needs? If so, please explain, as a way for potential volunteers to find the hospital. If available, please provide a plan for volunteer work (e.g., specific procedures the volunteer will get to learn or perform, learning objectives).
Page Description	Visa Requirement	How difficult is it for volunteers to obtain a visa to work with the hospital? Please explain.
Page Description	Volunteer Salary	Are volunteers able to receive a salary? If so, what is the average salary or a typical range of salaries?
Page Description	Attractions	Are there any features of the hospital's location that you would like to highlight that might attract short-term volunteers, such as music, wildlife photography, nearby tourist attractions, etc.?



Category	Variable	Description
Page Description	Location Access	Please describe the location in which the hospital is located and how difficult it would be for volunteers to travel there.
Search Criteria	Geography	In which country is the hospital located?
Search Criteria	Cause	Does the hospital support any specific causes (e.g., leprosy, cancer, maternal health)? Please list each as a way to allow donors and volunteers to search for the hospital.
Search Criteria	Christian Mission	Does the hospital have a Christian-based mission?
Search Criteria	Ability to Accept Foreign Donations	Is the hospital registered with the appropriate bodies required to receive foreign donations (e.g., FCRA in India)?
Search Criteria	Conditional Donations	Can the hospital accommodate donations that come with conditions tied to them?

## APPENDIX F: VARIABLE LEVELS

*Table 5: Variable Level Descriptions*

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Socioeconomic Status of Patient Population	Local population falls in >80th percentile for country's income per capita	Local population falls in 60th - 80th percentile for country's income per capita	Local population falls in 40th - 60th percentile for country's income per capita	Local population falls in 20th - 40th percentile for country's income per capita	Local population falls in <20th percentile for country's income per capita
Local Population Income Mix	Standard deviation of local population income is <5% of average local population income	Standard deviation of local population income is 5% - 10% of average local population income	Standard deviation of local population income is 10% - 20% of average local population income	Standard deviation of local population income is 20% - 30% of average local population income	Standard deviation of local population income is >30% of average local population income
Local Patient Population Density	>50 people per square kilometer	50 - 100 people per square kilometer	100 - 150 people per square kilometer	150 - 250 people per square kilometer	>250 people per square kilometer
Alternative Care Options	Multiple alternative care options are available within less than a half-hour travel time	Multiple alternative care options are available within less a one-hour travel time	At least one alternative care option is available within a one-hour travel time	Alternative care is not available within a one-hour travel time	Alternative care is not available within a two-hour travel time
Local Maternal Mortality Rate (MMR)	<50	50 - 100	100 - 150	150 - 300	>300
Local Infant Mortality Rate (IMR)	<5	5 - 15	15 - 25	25 - 40	>40

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Additional Services	N/A	N/A	At least 1 additional service is provided, to which at least 2% of the hospital's resources are dedicated. Appropriate services are delivered with high quality.	At least 1 additional service is provided, to which at least 2% of the hospital's resources are dedicated. Appropriate services are delivered with high quality, and the program performs above average on at least one key relevant metric.	At least 2 additional services are provided, to which at least 5% of the hospital's resources are dedicated. Appropriate services are delivered with high quality, and the programs perform above average on at least one key relevant metric.
Diversity of Revenue Sources	Hospital does not have a stable source of revenue	Donations are the hospital's only source of stable revenue	Revenue comes from earnings from a single business activity and may include donations	Revenue comes from a combination of consolidated donations (>40% of donations come from a few key donors) and earnings from multiple business activities	Revenue comes from a combination of many donation sources (>40% of donations do not come from a few key donors) and earnings from multiple business activities
Donations Percent of Revenue	>40%	30% - 40%	20% - 30%	10% - 20%	<10%
Operating Margin	<0%	0 - 2%	2 - 4%	4 - 6%	>6%
Program Expense Percentage	<50%	50% - 60%	60% - 70%	70% - 80%	>80%
Administrative Expense Percentage	>30%	25% - 30%	20% - 25%	15% - 20%	<15%

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Capital Expenditure Percentage	<1%	1 - 2%	2 - 3%	3 - 4%	>4%
Fundraising Expense Percentage	>25%	20 - 25%	15 - 20%	10 - 15%	<10%
Fundraising Efficiency	>\$0.30	\$0.25 - \$0.30	\$0.20 - \$0.25	\$0.10 - \$0.20	<\$0.10
Program Expense Growth	<2%	2 - 4%	4 - 6%	6 - 8%	>8%
Liabilities to Assets Ratio	>100%	50% - 100%	30% - 50%	10% - 30%	<10%
Charity Care Percentage	<1%	1% - 5%	5% - 10%	10% - 15%	>15%
Budget	Hospital sometimes or frequently has a budget prepared.	N/A	Hospital always has budget prepared or prepares budget primarily for donor reporting. Hospital prepares budget variance analysis.	N/A	Hospital prepares budget with adequate details and accuracy at the beginning of each project and budget is reviewed periodically. Hospital prepares budget variance analysis and takes appropriate action.
Auditing	Hospital prepares and audits its own financials	N/A	Hospital's audited financials are prepared by an independent accountant	N/A	Hospital's audited financials are prepared by an independent accountant with an audit oversight committee

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Accounting Books	Hospital maintains books of account in an ad hoc manner or on an as needed basis	N/A	Hospital maintains cash book, bank book, ledger, journals, and other subsidiary ledgers	N/A	Hospital maintains cash book, bank book, ledger, journals, and other subsidiary ledgers and updates them on a daily basis
Bank Accounts	Hospital has no bank account in the name of the hospital	Hospital has bank accounts in the name of the hospital and individuals, and the majority of the funds are in individuals' bank accounts	Hospital has bank accounts in the name of the hospital and individuals, and each type of account is equally used	Hospital has bank accounts in the name of the hospital and individuals, and the majority of the funds are in the hospital's bank account	Hospital only has bank accounts in the name of the hospital
Safety of Funds	There is evidence of serious or multiple counts of fraud, fines, or misuse of funds within the last 3 years and/or donors report serious issues	There is evidence of minor fraud, fines, or misuse of funds within the last 3 years, but donors report no serious issues	There is no evidence of fraud, fines, or misuse of funds within the last 3 years, but donors report some issues	There is no evidence of fraud, fines, or misuse of funds within the last 3 years, but donors report minor issues	There is no evidence of fraud, fines, or misuse of funds within the last 3 years, and donors report no issues
Cost Per Life Saved	>\$6,000	\$4,000 - \$6,000	\$2,000 - \$4,000	\$1,000 - \$2,000	<\$1,000

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Charity Care Efficiency	N/A	N/A	Hospital first decides on a set of services to offer and then retroactively identifies the right price point for those services.	Hospital strives to make healthcare more accessible to the poor on an ad hoc basis.	Hospital has a defined method to evaluate how much patients are able to pay and uses that limit to choose treatment options. Hospital writes off large unexpected costs rather than charging the patient.
Average Inpatient Cost	>20% above national average inpatient cost	10% to 20% above national average inpatient cost	10% above to 10% below national average inpatient cost	10% to 20% below national average inpatient cost	>20% below national average inpatient cost
Average Outpatient Cost	>20% above national average outpatient cost	10% to 20% above national average outpatient cost	10% above to 10% below national average outpatient cost	10% to 20% below national average outpatient cost	>20% below national average outpatient cost
Formal Governance Structure	Hospital has an informal governance structure and does not have a board	N/A	Hospital has a formal organizational structure (chart) in place that is appropriate to the work being carried out and an independent board	N/A	Hospital has a well-defined organizational structure (chart), clear delegation of responsibility and authority, coherent functioning of departments, and an independent board that works on policymaking, oversight, and support

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Commitment to Mission	Staff may not know the hospital's mission	Staff have expectations that conflict with the hospital's mission	Staff usually take actions that align with the hospital's mission, and may compromise in difficult situations	Staff almost always take actions that align with the hospital's mission	Staff almost always take actions that align with the hospital's mission, even when it requires difficult decisions
Strategic Plan and Implementation	Hospital has not yet developed either a long-term or short-term strategic plan	Hospital develops a long-term strategic plan and/or a yearly operational plan	Hospital develops and adheres to a yearly operational plan that identifies organizational goals to be achieved and the resources needed to achieve those goals	Hospital develops and adheres to a long-term strategic plan that identifies organizational goals to be achieved and the resources needed to achieve those goals	Hospital develops and adheres to a long-term strategic plan with a yearly operational plan that identifies organizational goals to be achieved over a specific period of time and the resources needed to achieve those goals
Key Performance Indicators	Hospital has not yet defined measurable key performance indicators.	Hospital has defined key performance indicators.	Hospital has defined measurable key performance indicators to monitor progress with respect to inputs, activities, outcomes, and impacts.	Hospital has clearly defined, measurable key performance indicators to monitor progress with respect to inputs, activities, outcomes, and impacts. Hospital is performing well towards most goals.	Hospital has clearly defined, measurable key performance indicators to monitor progress with respect to inputs, activities, outcomes, and impacts. Hospital is performing excellently towards most goals.

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Alternate Implementation Plans	Hospital infrequently discusses alternative plans to achieve strategic goals	N/A	Hospital frequently discusses alternative plans to achieve strategic goals	N/A	Hospital discusses and evaluates the feasibility and cost effectiveness of alternative plans to achieve strategic goals
Systems Capacity	Hospital does not possess the basic infrastructure, tools, and resources needed to fulfill its activities and is unable expand capacity as needed with sufficient funding	Hospital possesses some of the basic infrastructure, tools, and resources needed to fulfill its activities but may not be able to expand capacity as needed with sufficient funding	Hospital possesses some of the basic infrastructure, tools, and resources needed to fulfill its activities and has the capability to expand capacity as needed with sufficient funding	Hospital possesses the basic infrastructure, tools, and resources needed to fulfill its activities but may not be able to expand capacity as needed with sufficient funding	Hospital possesses the basic infrastructure, tools, and resources needed to fulfill its activities and has the capability to expand capacity as needed with sufficient funding
Board Independence	The board does not have independent board members	Independent board members are not a voting majority and less than 3 in number	Independent board members are not a voting majority but are at least 3 in number	Independent board members are a voting majority and are at least 3 in number	Independent board members are a voting majority and are at least 5 in number
Permanent Board Members	Board members do not have fixed terms	Board members have a fixed term >10 years	Board members have a fixed term >10 years and consistently adhere to it	Board members have a fixed term <10 years	Board members have a fixed term <10 years and consistently adhere to it



Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Board Meetings	Board meetings are not held	Board meetings are held on an ad hoc basis	Board meetings are held on an ad hoc basis, and the hospital records minutes during board meetings	Board meetings are held on an ad hoc basis, and the hospital keeps an official record of events that take place in board meeting minutes that are made accessible for future reference	Board meetings are held on a regular basis, and the hospital keeps an official record of events that take place in board meeting minutes that are made accessible for future reference
Annual General Meetings	The board infrequently holds general meetings or holds them on an ad hoc basis	N/A	The board holds general meetings annually / as per the by-laws	N/A	The board holds general meetings annually / as per the by-laws and resolutions are passed
Board Review	The board infrequently conducts reviews of itself, systems, processes, and CEO/staff	N/A	The board sometimes conducts reviews of itself, systems, processes, and CEO/staff	N/A	The board regularly conducts reviews of itself, systems, processes, and CEO/staff

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Board Donation Oversight	The board does not have access to information about how donated funds are used.	The board is provided with information on how donated funds are used.	The board reviews and approves the budget.	The board reviews and approves the budget, and reviews and monitors how funds are used and whether the uses comply with the hospital's policies and donor restrictions.	The board reviews and approves the budget, and reviews and monitors how funds are used and whether the uses comply with the hospital's policies and donor's restrictions. The board also reviews and compares the budgeted versus actual expenses and income, and discusses major variances.
Appointed CEO	Hospital does not have a CEO	N/A	Hospital has a CEO	N/A	Hospital has a CEO that reports to an independent board and has staff reporting to them
Legal Support	Hospital has no legal support in analyzing changing regulatory landscape	Hospital has legal support, but actionable advice is limited	Hospital has legal support, but actionable advice is difficult to implement	Hospital has legal support that suggests practicable actions	Hospital has legal support that foresees regulatory changes and suggests current and future practicable actions

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Operational Policies	Hospital has not yet created documented operational policies (e.g., human resources, travel, finance, conflict of interest, whistleblower, employee use of assets, records retention and destruction)	N/A	Hospital has documented operational policies (e.g., human resources, travel, finance, conflict of interest, whistleblower, employee use of assets, records retention and destruction)	N/A	Hospital has and follows documented operational policies (e.g., human resources, travel, finance, conflict of interest, whistleblower, employee use of assets, records retention and destruction)
Culture of Continuous Improvement	Staff feedback on making improvements is not appreciated, making staff reluctant to provide feedback	Management seeks continuous improvement from the top down	Some staff provide feedback on making improvements, but the hospital has a low tolerance for failure in trying new ideas	Staff usually provide feedback on improvements, and the hospital is willing to try new ideas and make appropriate corrections	Hospital has created a virtuous cycle of feedback that repeatedly inspires staff to reflect on making improvement, and the hospital is willing to try new ideas and make appropriate corrections

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Outcomes Reporting	Hospital does not communicate outcomes with donors	Hospital communicates outcomes to donors on an ad hoc basis	Hospital communicates outcomes to donors on an ad hoc basis and includes some outcomes	Hospital communicates outcomes to donors regularly (yearly or more frequently) and includes concrete outcomes metrics	Hospital communicates outcomes to donors regularly (yearly or more frequently), includes concrete outcomes metrics and individual stories, and communicates through a variety of channels (website, letters, emails, social media, in person, etc.)
Donor Privacy Policy	Hospital either does not have a written donor privacy policy or the existing policy does not meet the criteria for protecting contributors' personal information.	Hospital has a written opt-out donor privacy policy that can be sent upon request, which enables donors to tell the charity to remove their names and contact information from lists the hospital shares or sells.	Hospital has a written opt-out donor privacy policy published on its website which enables donors to tell the hospital to remove their names and contact information from lists the hospital shares or sells.	Hospital has a written donor privacy policy that can be sent upon request, which states unambiguously that (1) it will not share or sell a donor's information with anyone else, nor send donor mailings on behalf of other organizations or (2) it will only share or sell personal information once the donor has given it specific permission to do so.	Hospital has a written donor privacy policy published on its website, which states unambiguously that (1) it will not share or sell a donor's information with anyone else, nor send donor mailings on behalf of other organizations or (2) it will only share or sell personal information once the donor has given it specific permission to do so.

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Website	Hospital does not yet have a website	Hospital has a website with contact information	Hospital has a website with contact information and lists board members and/or senior staff	Hospital has a website with contact information and audited financial statements	Hospital has a website with contact information that lists board members, senior staff, and audited financial statements
Appropriate Standards of Care	N/A	N/A	Hospital provides best treatments available that may be unaffordable or highly affordable treatments that may be less effective than more expensive treatments	Hospital generally provides best treatments available and sometimes considers affordability of treatments	Hospital uses a set of revised gold standards that emphasizes both affordability and effectiveness when choosing treatments
Equal Services for All Patients	Hospital has a single tier of service aimed at the rich (private patients)	N/A	Hospital has two or more tiers of service	N/A	Hospital has a single tier of service aimed at the poor (general patients)
Community Engagement	Hospital does not provide information to the community on its services.	Hospital does not provide information to the community on its services. Hospital is aware of local community or partner organizations.	Hospital provides community with information on its services. Hospital is aware of local community or partner organizations.	Hospital provides community with information on its services. Staff and board members are encouraged to become active in community and partner organizations.	Hospital actively works in the community to understand and address barriers to community members using its services. Hospital builds community partnerships.

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Quality Certifications	N/A	N/A	Hospital does not yet have any quality or safety certifications	Hospital has at least one quality or safety certification	Hospital has at least one quality certification and at least one safety certification (or multiple certifications of a particular type)
Awards Conferred	N/A	N/A	Hospital has not received awards or recognition from third parties	Hospital has received one award or recognition from a third party	Hospital has received multiple awards or recognitions from third parties, or one highly prestigious award
Major Surgeries	<1	1 - 4	4 - 7	7 - 10	>10
Child Deliveries	<1	1 - 4	4 - 7	7 - 10	>10
Outpatient Visits	<100	100 - 500	500 - 1,000	1,000 - 1,500	>1,500
Bed Occupancy	<60%	60% - 70%	70% - 80%	80% - 90%	>90%
Weighted Average Patient Volume CAGR	<-5%	-5% to -2%	-2% to 2%	2% to 5%	>5%
Hospital Maternal Mortality Rate (MMR)	>30% above local average	10% above to 30% above local average	10% below to 10% above local average	10% below to 30% below local average	>30% below local average
Hospital Infant Mortality Rate (IMR)	>30% above local average	10% above to 30% above local average	10% below to 10% above local average	10% below to 30% below local average	>30% below local average
Patient Mortality Risk	Most patients seen are low-risk patients with routine or non-urgent conditions	N/A	About an equal number of patients are seen with severe, high-risk conditions as those seen with routine, low-risk conditions	N/A	Most patients seen are high-risk patients with severe or life-threatening conditions

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Patient Readmission Rate	>25%	20% - 25%	10% - 20%	5% - 10%	<5%
Patient Satisfaction - Service	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Patient Satisfaction - Staff	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Patient Satisfaction - Hospital Cleanliness	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Staff Satisfaction	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Staff Experience	<10% of staff have experience in a particular field of >10 years	10% - 25% of staff have experience in a particular field of >10 years	25% - 40% of staff have experience in a particular field of >10 years	40% - 50% of staff have experience in a particular field of >10 years	>50% of staff have experience in a particular field of >10 years
Staff Meetings	Staff meetings are held infrequently	N/A	Staff meetings are held when issues arise	N/A	Staff meetings are held regularly (at least once a month) and as needed when issues arise
Staff Turnover	>90%	70% - 90%	30% - 70%	10% - 30%	<10%

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Leadership Credibility	Leadership has low integrity, struggles to build relationships or delegate effectively, does not consider broad implications of work, or is not respected within the charitable community	Leadership acts consistently with stated intentions, values, or beliefs when it is easy to do so	Leadership acts spontaneously and consistently with stated intentions, values, or beliefs despite opposition, and considers near-term performance or impact	Leadership initiates actions based on values or beliefs even though the actions may come with reputational risk, demonstrates the values of the team or hospital publicly, and considers long-term business strategy and performance	Leadership demonstrates high personal integrity even at personal cost, holds people accountable to the hospital's values, considers long-term business strategy and performance, and is well respected within the charitable community
Donor Satisfaction	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Charity Rating Organizations	Hospital has been rated poorly by multiple large charity rating organizations	Hospital has been rated poorly by one large charity rating organization	Hospital has not been rated by any large charity rating organization	Hospital has been rated at least average by at least one large charity rating organization	Hospital has been rated excellent by at least one large charity rating organization
Collaboration	Hospital does not yet have any partners	Hospital does not yet have any partners but is actively looking to expand their network	Hospital has one partner and is actively looking to expand their network	Hospital has meaningful partnerships with at least two other organizations	Hospital has meaningful partnerships with at least two other organizations and is actively looking to expand their network
Exchange Programs	N/A	N/A	Hospital does not have a relationship / exchange program with another organization / university	Hospital has a relationship / exchange program with one other organization / university	Hospital has relationships / exchange programs with more than one other organization / university



Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Respect of Community	Not well respected	Respected a little	Somewhat respected	Respected	Very well respected
Volunteer Responsibility	Volunteers are expected to contribute work that may not be well matched to their skillset for more than 70 hours per week	Volunteers are expected to contribute work that may not be well matched to their skillset for more than 55 hours per week	Volunteers are expected to contribute work that may not be well matched to their skillset for no more than 55 hours per week	Volunteers are expected to contribute work well matched to their skillset for more than 55 hours per week	Volunteers are expected to contribute work well matched to their skillset for no more than 55 hours per week
Expected Volunteer Experience	Hospital does not have specific expectations for the number of years and type of experience volunteers need to be successful	N/A	Hospital has some specific expectations for the number of years and type of experience volunteers need to be successful	N/A	Hospital has clearly defined expectations for the number of years and type of experience volunteers need to be successful
Spousal Job Opportunities	There are rarely opportunities and it is extremely difficult for volunteer spouses to find a job	There are limited opportunities and it is difficult for volunteer spouses to find a job	There are some job opportunities for volunteer spouses, but it takes effort to find a suitable one	There are many job opportunities and some of them are suitable for volunteer spouses	There are many job opportunities and it is easy for volunteer spouses to find a suitable job
Child Education Opportunities	There are no nearby opportunities for volunteers' children to receive adequate education	There are opportunities for volunteers' children to receive education within some traveling distance	There are opportunities for volunteers' children to receive quality education within some traveling distance	There are nearby opportunities for volunteers' children to receive education	There are nearby opportunities for volunteers' children to receive quality education
Housing Opportunities	There are not adequate housing options	There are limited housing options, and they are difficult to find	There are several housing options that are easy to find	There are quality housing options, but they may be difficult to find	There are quality housing options that are easy to find

Variable	Rating: 1	Rating: 2	Rating: 3	Rating: 4	Rating: 5
Local Safety	Crime rate >70	Crime rate 60 - 70	Crime rate 50 - 60	Crime rate 40 - 50	Crime rate <40
Local Safety Perception	Unsafe	Somewhat unsafe	Neither safe nor unsafe	Somewhat safe	Safe
Volunteer Recommendation	Not recommended	Recommended but disclosed red flags	Neutral	Recommended	Highly recommended
Overall Volunteer Satisfaction	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Skills Match	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Learning Opportunities	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Career Development	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Job Training Appropriateness	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Community Affiliation	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Strategy and Influence	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Philanthropic Impact	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Flexibility	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Supervision	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Recognition	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied
Achievement	Very unsatisfied	Somewhat unsatisfied	Neither satisfied nor unsatisfied	Somewhat satisfied	Very satisfied