

MiracleFeet Proposal for GiveWell

Background & Context

MiracleFeet is on a mission to eliminate untreated clubfoot, a major cause of physical disability in low- and middle-income countries (LMICs) affecting 1 in 700 babies worldwide. Clubfoot causes one or both feet to twist inward and upward and, left untreated, makes walking extremely difficult and painful. Because the vast majority of cases occur in otherwise healthy babies, the position of their feet is often the only medical obstacle preventing children with clubfoot from leading fully functional, productive lives. 90% of these children are born in LMICs where there is limited or no access to high-quality care. As a result, nearly 2 million children (who could still be treated) currently live with untreated or improperly treated clubfoot, and 200,000 more babies are born with clubfoot each year. People living with disabilities in LMICs face heightened risk of discrimination, neglect, abuse, and poverty and are also more likely to be excluded from educational and employment opportunities later in life. Mothers are also impacted—often blamed for having a child with a disability, some are banned from their homes or abandoned by their husbands and families, subjecting them and their children to significant hardships.

Fortunately, clubfoot is treatable with the nonsurgical Ponseti method—a simple, highly effective, and low-cost solution that restores full functionality and mobility in 95% of cases. It involves a series of weekly casts to gently reposition the feet and a simple outpatient procedure to release the Achilles tendon, followed by use of a foot abduction brace, worn for 4-5 years while sleeping to prevent relapse. Globally, the Ponseti method is accepted as the gold standard of treatment for clubfoot, and because it is nonsurgical and requires only basic medical supplies, it is inexpensive and well-suited to low-resource settings.

MiracleFeet's approach to addressing the global problem of untreated clubfoot is to strengthen local treatment capacity in LMICs and reduce the barriers to treatment that families typically face. By partnering with local NGOs working in disability and rehabilitation, we build upon each country's existing health infrastructure to create and support a nationwide network of clinics—located in existing district or provincial hospitals—capable of delivering high-quality care. We train providers in the Ponseti method and ensure clinics are equipped with all necessary treatment supplies, including braces. We establish early detection and referral pathways by raising awareness of clubfoot in communities and training frontline health workers (such as nurses and midwives) in clubfoot identification, with the goal of ensuring families access treatment before a child's first birthday (when treatment is easier on the child and optimal results are most likely). Once children are enrolled, our clinic teams educate and follow-up with parents to minimize patient dropout and optimize long-term outcomes. MiracleFeet complements this grassroots approach with "top-down" advocacy efforts with Ministries of Health to mainstream clubfoot care and ensure that high-quality Ponseti will be routinely available to children in the long-term.

MiracleFeet's average cost to provide full treatment (including establishing clinics, training providers, setting up M&E systems, creating referral pathways, working with governments, and treating children) varies widely—from \$169 per child in Bangladesh to \$987 in Gambia. This variance between programs is based on local salary levels and needs, and costs tend to come down as volume increases. Costs also vary

regionally, with Latin America typically being more expensive than Africa and Asia. Early treatment radically changes the trajectory of a child's life, unlocking mobility, independence, access to education, and employment opportunities for the rest of their life. Globally, we estimate that a child who receives treatment will earn an average of \$120,000 in additional lifetime earnings. For the three countries presented in this project proposal, these values are \$148,215 in the Philippines, \$19,240 in Chad, and \$77,665 in Côte d'Ivoire. Based on these estimates, the treatment of 10,991 children during this 4-year grant period would result in a return on investment of over \$1.2 billion (a conservative estimate since it does not include the impact that clubfoot treatment has on other family members or the increased health costs associated with caring for a child with a severe disability).

MiracleFeet has grown into the largest NGO in the world dedicated to the issue of untreated clubfoot. Since it was founded 13 years ago, MiracleFeet has enrolled over 73,000 children in treatment across 30+ countries in Latin America, Africa, and Asia. MiracleFeet stands out from other organizations working in clubfoot for its comprehensive approach aimed at addressing barriers to care at every level, and the development of tools and processes to support low-cost scaling, such as the development of a low-cost brace and sophisticated monitoring and evaluation systems which track impact and quality in real time.

Proposed Project

Overall Objective of Grant: Scale MiracleFeet's program in the Philippines and add new programs in Chad and Côte d'Ivoire to enroll over 10,900 new children in high-quality clubfoot treatment, reach 60% coverage in each country, and achieve an average cost per child of \$400 or less. All activities will take place over four years between July 2023 and June 2027 (spanning MiracleFeet's fiscal year 2024 through fiscal year 2027).

1. Country Overviews and Rationale

Philippines

MiracleFeet launched its clubfoot program in the Philippines in 2014 in partnership with the Philippine NGO Council on Population, Health, and Welfare, Inc. (PNGOC). MiracleFeet currently supports 30 clubfoot clinics across the country and has treated clubfoot for over 3,900 children over the past eight years. The Philippines program has an established local partner with connections to the Ministry of Health, a prominent local medical champion, and highly skilled and experienced Ponseti method trainers. MiracleFeet's regional Program Manager for Asia is also based in the Philippines, giving MiracleFeet greater access to the program and a better sense of the on-the-ground context and challenges.

The health system in the Philippines is more developed than it is in some other countries in which MiracleFeet works, which impacts our program in several ways. There is a more robust health infrastructure which MiracleFeet can leverage to establish clubfoot clinics, including supplies such as plaster, and a good supply of orthopedic surgeons who can be trained to treat clubfoot. This, along with the large volume of children treated in the Philippines every year, results in a very low cost per child: MiracleFeet's average cost to treat clubfoot for a child in the Philippines is currently \$316, and we expect this to be \$229 by the end of the grant period.

The flip side to having a more sophisticated health system is that there is some clubfoot treatment available in the Philippines outside of MiracleFeet's program (obtaining true estimates for the amount of treatment available is something we will investigate during the baseline situational analysis phase of this

project). Wealthy families are able to access surgery for clubfoot (even though surgery was proven years ago to result in chronic complications and worse clinical outcomes than the Ponseti method), and some Ponseti treatment is available at private hospitals, although quality varies widely, and costs can be very high. (As a result, we see many children who started treatment in private hospitals who then end up at MiracleFeet clinics when they do not get good results or find the costs unmanageable.) Other challenges about working in the Philippines include the complicated archipelago landscape of the country, along with the seasonal weather changes and intense rainy season, which can make it more difficult for families to travel to clinics.

Despite these challenges, there is enormous opportunity to scale the Philippines clubfoot program. There are over 3,100 clubfoot births every year in the Philippines, of which MiracleFeet is currently only reaching about 15%. The program was also heavily impacted by the pandemic—more so than many of the other countries in which we work—with the government closing hospitals and imposing lockdowns on the population for many months, resulting in much pent-up demand for clubfoot treatment as babies continued to be born with the condition. With MiracleFeet’s strong local team and track record in the Philippines, we are confident we can scale to reach 60% coverage while maintaining a low cost per child over the next four years.

Chad

MiracleFeet currently does not support a clubfoot program in Chad, so launching a program in Chad through this project will be a new endeavor for us. Expanding into Chad has been a high priority for MiracleFeet for several years. We now have a regional team specifically focused on the Middle East and North Africa region—including a regional Program Manager who lives in Tunisia and is originally from Chad—and are ready to expand into this high-need country. Over 1,000 children are born with clubfoot every year in Chad, and (as far as we know) there is no existing clubfoot treatment available and no other clubfoot NGOs are working there. Because Chad is a very low-income country, the reality of living with a disability such as clubfoot is truly devastating. We expect that most people born with clubfoot in Chad are now living with the disability caused by it—making Chad a strong candidate for exploring the counterfactual and further measuring and understanding MiracleFeet’s impact.

MiracleFeet expects to launch the Chad program by fiscal year 2024. We have already identified a partner with strong connections to the Ministry of Health and strategic relationships with other organizations working in children’s healthcare and disability, which will be helpful for establishing early detection and referral pathways for clubfoot. We estimate that the average cost per child in Chad will be \$507 during the first year of this grant and will steadily decrease to \$376 by Year 4 as we reach 60% coverage.

Côte d’Ivoire

MiracleFeet plans to launch a program in Côte d’Ivoire for similar reasons as Chad. It is a high-priority country for MiracleFeet because, to our knowledge, there is no clubfoot treatment available (Ponseti or surgery) and a clubfoot population of over 1,400 clubfoot births each year. Côte d’Ivoire is also very low-income, but unlike Chad, there is less political instability, making it a slightly more stable country to work in. For all these reasons, Côte d’Ivoire will provide another strong case for exploring the counterfactual and understanding the impact MiracleFeet is having on the lives of children with clubfoot.

We expect this program to be fully operational and begin enrolling children in treatment by the middle of fiscal year 2024. We have a list of 7-10 potential partners we are currently vetting, have already established relationships with some prominent people in the disability sector, and have done some initial investigation into the clubfoot landscape. We estimate that the cost per child in Côte d'Ivoire will be \$410 during the first year of this project and will decrease to \$338 as we increase to 60% coverage.

2. Core Goals, Objectives, and Activities

Key Activities and Timeline

During the rest of MiracleFeet's fiscal year 2023, which ends June 30, 2023, we will prepare for the project by completing our evaluation design and methodology (in collaboration with GiveWell) and recruiting an external evaluation consultant or firm to conduct our baseline and endline situational analyses in each country. Additional next steps as we prepare to launch this project include formalizing our partnership in Chad (which involves signing a grant agreement and developing a Scope of Work) and conducting further due diligence (including identification of potential local partners) in Côte d'Ivoire.

Many activities will take place on an ongoing basis throughout the grant period, driven in part by the findings from the situational analyses to ensure activities are contextually appropriate and will be effective in each country. These include:

- Adding new clubfoot clinics in high-need areas to facilitate scaling
- Raising awareness of clubfoot in communities (through radio/TV ads, social media, websites, flyers, etc.) to drive patient enrollment
- Conducting Ponseti method trainings (including Basic, Advanced, and Refresher trainings) to ensure providers are highly skilled
- Monitoring treatment quality using CAST (MiracleFeet's monitoring and evaluation app) and mentoring providers to improve treatment quality as needed
- Educating parents on the importance of completing treatment to prevent dropout

In addition to these routine activities, key project activities specific to this grant are outlined in the timeline below. Activities will begin at the onset of MiracleFeet's fiscal year 2024, which begins July 1, 2023.

Timeline for Key Project Activities	
Year 1 (FY 2024)	<ul style="list-style-type: none"> - Conduct baseline situational analysis for Chad. We will plan qualitative and quantitative data collection and analysis to analyze gaps in existing knowledge and treatment available (especially for poor and marginalized children). Results will inform details of our program strategy and approaches for the funding period. Pending final evaluation design decisions, activities for this situational analysis are likely to include: <ul style="list-style-type: none"> o Gathering and analyzing existing data (if there is any) on clubfoot incidence, surveillance, provider training and skills, and policies, along with related birth defect or disability information o Conducting and analyzing interviews with key stakeholders, including Ministry of Health officials, physicians, and advocacy groups to understand the status quo for clubfoot treatment (including how many children are treated for clubfoot each year,

	<p>what treatment they receive, if there is any follow-up, what the clinical outcomes are, if clubfoot braces are available, etc.)</p> <ul style="list-style-type: none"> - Conduct baseline situational analysis in Philippines, following a similar process as is outlined above for Chad, but with the primary goals of: <ul style="list-style-type: none"> o Understanding what/how much treatment is available outside of MiracleFeet’s program (as well as its quality) o Establishing a baseline for the impact MiracleFeet will have in the Philippines through this project - Finalize partnership in Côte d’Ivoire (sign grant agreement and formalize Scope of Work) - Identify clubfoot champion in Côte d’Ivoire - Hire in-country personnel in Côte d’Ivoire including a clinic coordinator and clinic assistants - Map the clubfoot landscape in Chad and Côte d’Ivoire to identify priority areas (based on population size and clubfoot incidence rates) and determine where clinics should be located - Send clinics in Chad and Côte d’Ivoire initial shipments of the MiracleFeet brace - Conduct Ponseti method trainings with providers (orthopedic doctors and physiotherapists) at each clinic in Chad and Côte d’Ivoire - Set up clinics in Chad and Côte d’Ivoire for the use of CAST to log patient appointments and treatment quality <ul style="list-style-type: none"> o Purchase cell phones to use CAST o Train providers and clinic staff on how to use CAST and access treatment data - Establish early detection and referral pathways in Chad and Côte d’Ivoire by training frontline health workers on the identification of clubfoot - Hire an additional program coordinator to support expansion into underserved areas of the Philippines - Conduct routine programmatic activities to promote scaling in the Philippines (adding new clinics, training new providers, raising community awareness, enrolling children, monitoring treatment, etc.)
<p>Year 2 (FY 2025)</p>	<ul style="list-style-type: none"> - Conduct baseline situational analysis for Côte d’Ivoire (same process as listed above for Chad) - Conduct routine programmatic activities in all three countries to promote scaling (adding new clinics, training new providers, raising community awareness, enrolling children, monitoring treatment, etc.)
<p>Year 3 (FY 2026)</p>	<ul style="list-style-type: none"> - Conduct routine programmatic activities in all three countries to promote scaling (adding new clinics, training new providers, raising community awareness, enrolling children, monitoring treatment, etc.)
<p>Year 4 (FY 2027)</p>	<ul style="list-style-type: none"> - Conduct routine programmatic activities in all three countries to promote scaling (adding new clinics, training new providers, raising community awareness, enrolling children, monitoring treatment, etc.) - Conduct endline situational analysis in Chad and Côte d’Ivoire (following same process as baseline study)

	<ul style="list-style-type: none"> ○ We expect to have a larger network of relevant stakeholders (including parents) who can testify to changes in treatment (both quality and outcomes) as well as coverage. - Conduct endline situational analysis in the Philippines (following same process as baseline study) <ul style="list-style-type: none"> ○ Compare findings with baseline to understand MiracleFeet’s impact in the Philippines over the grant period ○ Compare findings with those from Chad and Côte d’Ivoire to understand the difference it makes when MiracleFeet invests in a clubfoot program in the long-term. - Conduct 60 Decibels impact evaluation on programs in Philippines, Chad, and Côte d’Ivoire to provide additional external impact data on long-term results of MiracleFeet intervention.
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Targets for Children Treated

Over this four-year project, MiracleFeet will enroll 10,991 children in clubfoot treatment across Philippines, Chad, and Côte d’Ivoire and double annual enrollment in these countries from 1,795 to 3,580. By the end of Year 4, we expect to be reaching 60% of all infants born with clubfoot in each country. A summary of enrollments each year is outlined in the table below, along with a breakdown of the number of infants enrolled versus neglected cases (defined as babies and children older than 1 year old at their first appointment). These projections estimate that, as programs mature and our partners treat the backlog of children who have been living with untreated clubfoot in each country, the number of neglected cases will decrease and the percentage of infants enrolled will increase.

Year	Total Enrollment	Total # Infants	Total # Neglected
Year 1 (FY 2024)	1,795	1,270 (71%)	525
Year 2 (FY 2025)	2,444	1,968 (81%)	476
Year 3 (FY 2026)	3,172	2,943 (93%)	229
Year 4 (FY 2027)	3,580	3,433 (96%)	147

Challenges and Risks

Establishing and scaling clubfoot programs in the Philippines, Chad, and Côte d’Ivoire to reach nearly 11,000 children and 60% coverage in each country will present new challenges, including factors outside of our control. Future COVID resurgences may impact progress by causing governments to deprioritize clubfoot in pursuit of addressing other pressing needs. Our locally based model has proven to be very resilient during the last two years of the pandemic. We also prioritize advocacy and relationship-building with Ministries of Health in each country from the onset, which helps reduce the risk of governments becoming disengaged with our work and shifting funding away from clubfoot to other issues.

Local partnerships are also helpful during periods of political unrest. We have selected new countries in which we believe it will be safe to work, but during periods of instability we will look to our local partners to advise us, prioritizing the safety of the families and the healthcare providers with whom we work. When we enter new countries like Chad and Côte d’Ivoire, we place a great deal of emphasis on vetting potential partners and conducting due diligence to ensure that we form partnerships with strong organizations that will be capable of navigating such challenges if/when they arise.

There is also a concern that, when launching new programs, our partners will struggle with meeting the standards for treatment quality that MiracleFeet has set. To monitor treatment quality and support our

partners in providing safe and effective care, MiracleFeet uses a sophisticated monitoring and evaluation system, known as CAST (discussed more in the section below). CAST gives us visibility to treatment data at the patient, clinic, country, and global levels so that issues can be quickly identified and addressed.

Monitoring and Evaluation (M&E)

In addition to increasing enrollments and geographic reach each year, MiracleFeet is highly focused on the quality of treatment delivered. We invest heavily in the ongoing mentorship of providers, and all partners are trained in the use of MiracleFeet's mobile phone-based patient management and M&E system, known as CAST. Built on Dimagi's Commcare platform, CAST is currently used by providers in 30 LMICs to track enrollments, record treatment data, and manage appointments. Providers enter patient data during in-clinic appointments, and data then flows into a Salesforce database where individual patient records are aggregated into key performance indicators on treatment quality. These are measured against the following globally accepted benchmarks based on standards for best clinical practice:

- At least 75% of children enrolled in treatment are less than one year old
- Each child receives 4-6 casts (the average number of casts needed to achieve a full correction)
- At least 80% of children receive a tenotomy
- Less than 10% of children drop out of the casting stage of treatment
- Less than 20% of children drop out of the bracing stage of treatment

Real-time reports and dashboards are visible by local partners, the MiracleFeet team, and regional program managers, democratizing access to key information and empowering data-driven decision-making. MiracleFeet's regional program managers work with our Technical Team to review performance against targets at the clinic and country levels on a monthly and quarterly basis to identify areas of concern and devise action plans to address issues through additional organizational support, clinical training, community awareness, and/or parent education.

Members of MiracleFeet's Program and Technical teams visit partner clinics at regular intervals throughout the year to supplement the review of the key performance indicators outlined above. Local country coordinators and medical advisors also visit individual clinics regularly. The frequency of these visits is established based on clinic needs and treatment quality. When areas for improvement are identified, the coordinator develops an improvement plan with the clinic which informs future supervision visits.

MiracleFeet has also retained 60 Decibels to conduct external impact evaluations (through caregiver surveys) of our programs in selected countries each year since 2018. These evaluations have confirmed our programs' incredible long-term impact on the lives of children throughout Africa, Asia, and Latin America. We continue to use 60 Decibels to conduct outcome surveys on an annual basis as an additional objective check on quality.

Closing

Over the next four years, with generous support from GiveWell, MiracleFeet will enroll nearly 11,000 children in clubfoot treatment, deliver high-quality care, and validate the impact that MiracleFeet is having on the lives of children born with this common condition. Your support will radically change the lives of children in the Philippines, Chad, and Côte d'Ivoire, leveling the playing field for vulnerable children who would otherwise be left behind. We sincerely thank you for your consideration and hope you will join our mission to eliminate untreated clubfoot globally.