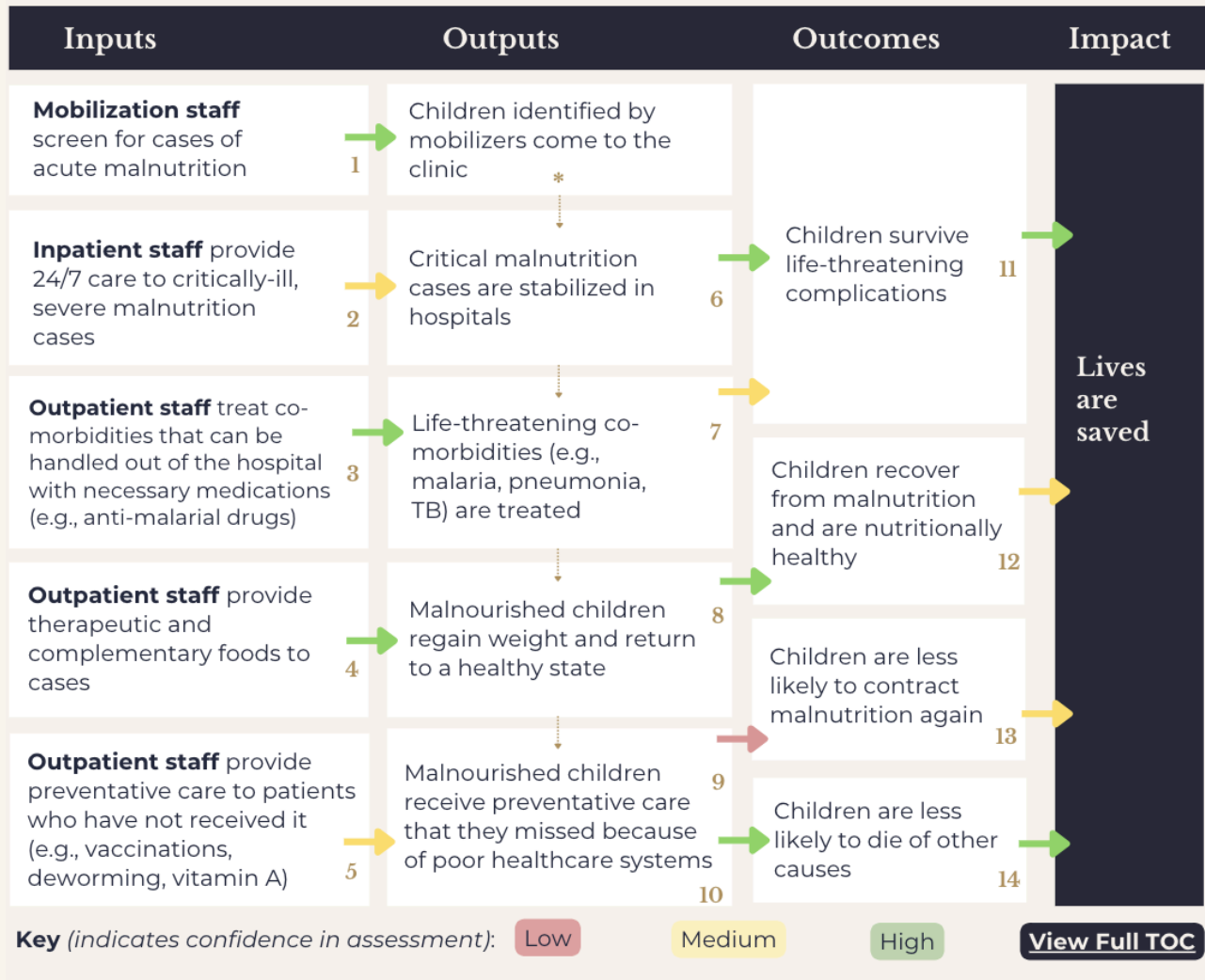


# Taimaka's Theory of Change

## Evidence and Assumptions



#	Assumptions	Evidence
1	<p>There are sufficient numbers of identifiable cases in our catchment areas to saturate the capacity of our clinics. <b>High</b></p> <p>Community mobilizers (CMs) are able to screen correctly, and the tools they use adequately identify the children most in need. <b>High</b></p>	<p>Taimaka mass MUAC screenings in catchment areas, performed quarterly, have indicated case loads exceed the capacity to treat.</p> <p>99% of children referred to our clinics by CMs are confirmed as malnourished by outpatient staff.</p> <p>MUAC is a <a href="#">good predictor</a> of weight-for-height and mortality as a field screening tool.</p>

	Caregivers whose children are identified as malnourished come to clinics at a level that saturates clinic capacity. <b>High</b>	We have more clinic arrivals than we are able to admit, indicating saturation. However, we are uncertain that the <i>sickest</i> patients systematically travel to our clinics.
2	<p>We are able to hire and train sufficiently skilled nurses to stabilize inpatient cases. <b>High</b></p> <p>We are able to sufficiently train and upskill existing government doctors to stabilize inpatient cases. <b>Medium</b></p> <p>Existing government facilities that we partner with have sufficient support infrastructure to handle additional cases (e.g., diagnostic labs). <b>Medium</b></p> <p>Existing government doctors are available during emergencies. <b>Low</b></p> <p>Our inpatient centers consistently have necessary medications and medical commodities in stock. <b>High</b></p>	<p>Taimaka has previously hired 14 nurses and based on the number of applicants, does not anticipate having a shortage of demand. These staff have performed well.</p> <p>Doctors have performed adequately in providing inpatient care, as assessed by Taimaka's inpatient care director. We have had to shut down 1 inpatient facility because of poor doctor performance.</p> <p>Taimaka facilities have treated 1300+ cases and diagnostics and pharmacy services have been consistently available.</p> <p>Doctors have generally been available, but are inconsistent depending on their schedules. In several instances, during strikes, they have been completely unavailable.</p> <p>Our logistics department monitors stocks and they are consistently available.</p>
3	<p>Our outpatient staff are able to correctly identify co-morbidities and provide correct prescriptions. <b>High</b></p> <p>Our outpatient clinics consistently have necessary medications in stock. <b>High</b></p> <p>Caregivers are educated to come in on days that they are not scheduled for if their child has new symptoms or symptoms that worsen. <b>Low</b></p>	<p>Our medical team does routine monitoring of patient records and does supervised clinical practice and finds that they perform well.</p> <p>Our logistics department monitors stocks and they are consistently available.</p> <p>Caregivers frequently delay returning to clinics when their child's symptoms should be seen immediately. We are not confident in the education provided.</p>
4	<p>Outpatient staff are able to calculate the correct dose and provide children with the correct food based on their malnutrition status. <b>High</b></p> <p>Our outpatient clinics consistently have therapeutic foods in stock. <b>High</b></p>	<p>Our medical team does routine monitoring of patient records and does supervised clinical practice and finds that they perform well.</p> <p>Our logistics department monitors stocks and they are consistently available.</p> <p>Our community mobilization team monitors sales of</p>

	<p>We can detect fraud if the food is being diverted by caregivers or staff. <b>Medium</b></p> <p>Caregivers feed therapeutic foods to the correct child vs. feeding them to other children. <b>Low</b></p>	<p>therapeutic foods in local markets and our logistics department monitors disbursement records. Some methods of fraud have been detected and addressed, however, we are not convinced that all fraud is detected.</p> <p>We educate all caregivers that therapeutic food is medicine that must be given to their enrolled child. We know that most children in our program recover, however, we are not confident that 100% of food goes to the enrolled child, which may drive up the amount of food needed per child.</p>
5	<p>Outpatient staff are able to correctly identify when children are missing preventative care. <b>Medium</b></p> <p>Government vaccination providers in our outpatient clinics are available to vaccinate children and have vaccines in stock. <b>Medium</b></p> <p>Our outpatient clinics consistently have vitamin A and albendazole (deworming) in stock. <b>High</b></p>	<p>Our medical team does routine monitoring of patient records and does supervised clinical practice and finds that they perform well for Vitamin A and deworming, but that vaccination identifications are mediocre.</p> <p>Vaccines are generally available, but providers often only work limited hours and days, limiting which patients can receive vaccinations.</p> <p>Our logistics department monitors stocks and they are consistently available.</p>
*	<p>Community mobilizers identifying cases and caregivers arriving at the facility are necessary to supporting the rest of the outcomes detailed here. This does not independently yield any outcomes.</p>	
6	<p>Inpatient staff successfully stabilize cases so that they can be discharged to outpatient care. <b>High</b></p>	<p>94% of children are discharged from inpatient care to outpatient clinics, demonstrating stabilization</p>
7	<p>Outpatient staff successfully manage complications (e.g., co-morbidities like malaria) in the outpatient setting. <b>Medium</b></p>	<p>95% of children in our program recover, demonstrating high rates of successful management. However, we are uncertain that 1) all complications are caught immediately, which could prolong length of stay, and 2) that complications are correctly treated in the outpatient setting rather than being referred to inpatient settings (both false negatives – needing to be referred but aren't – or false positives – referred when they don't need to be)</p>
8	<p>Therapeutic and complementary foods help children regain weight and return their bodies to a healthy state. <b>High</b></p>	<p>95%+ of the children in our program gain enough weight to be healthily discharged for their height.</p> <p>This effect has been validated in <a href="#">external studies</a>, which have found that ready-to-use therapeutic foods yield anthropometric improvements among children.</p>

9	Preventative care like Vitamin A, deworming, and vaccinations reduces the probability of contracting malnutrition again. <b>Low</b>	Data on whether preventative care prevents future cases of malnutrition is largely unavailable (e.g., <a href="#">vitamin A</a> , <a href="#">vaccinations</a> , <a href="#">deworming</a> ), though the intuitive links are strong.
10	Preventative care lowers the chances of mortality from other causes. <b>High</b>	Evidence that these preventative care interventions independently prevent all-cause mortality is well established (e.g., <a href="#">vitamin A</a> , <a href="#">vaccinations</a> , <a href="#">deworming</a> ).
11	Resolving life-threatening clinical complications reduces mortality rates. <b>High</b>	<p>Inpatient care <a href="#">reduces mortality</a> in malnutrition treatment programs generally, though <a href="#">effect size varies</a> based on program quality.</p> <p>We know that 94% of children are discharged from inpatient care to outpatient clinics, demonstrating stabilization, but are uncertain what the counterfactual mortality of these children in our inpatient program would be.</p>
12	Resolving cases of moderate and severe acute malnutrition reduces mortality rates. <b>Medium</b>	Mortality rates absent treatment are approximately <a href="#">5.9%</a> and treatment reduces all-cause mortality by <a href="#">45%</a> , based on an <a href="#">analysis of risk ratios</a> .
13	Reducing the probability of future cases of malnutrition reduces mortality rates by preventing malnutrition. <b>Medium</b>	Preventative care reduces the probability of contracting malnutrition. Several studies have investigated the effect of this preventative care on malnutrition and mortality (e.g., <a href="#">vitamin A</a> , <a href="#">vaccinations</a> , <a href="#">deworming</a> ), but 1) evidence on effect size is lacking, and 2) it is difficult to separate the causal pathways for mortality.
14	Preventative care reduces all-cause mortality. <b>High</b>	Preventative care interventions independently prevent all-cause mortality (e.g., <a href="#">vitamin A</a> , <a href="#">vaccinations</a> , <a href="#">deworming</a> ).