



Strategic Planning in a Student-Run Clinic: Utilizing a Tiered Meeting Model to Evaluate Clinical Needs

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Abstract

The Bridges Collaborative Care Clinic (BCCC) is Oregon's first and only interdisciplinary, student-run clinic that provides free health and social services to underserved populations. The hierarchical leadership structure utilized by the clinic since its inception in 2016 worked effectively in the early stages of development. As the clinic matured, increasing complexity of programs and administrative duties led to lapses in communication and loss of information between teams, resulting in decreased efficiency and impact as measured by clinical output. Student volunteers and the BCCC Board of Directors recognized the need for organizational change and proposed developing a strategic plan. This paper describes the process, outcomes, and limitations faced by BCCC throughout its strategic planning. The Quality Function Deployment (QFD) model was implemented because of its collaborative approach of involving the customers—people who receive the services—in order to shape future initiatives for the organization. In this case, the QFD defines the customers as the participants who are seeking care at the clinic. The outcomes of the strategic planning process are expected to help the clinic function more efficiently and include a prioritized list of participant-defined needs, a list of solutions, and a timeline to guide new projects. By illustrating the implementation of QFD and its potential complications, other student-run clinics that are seeking improvement can replicate or adapt this method to develop their own strategic planning processes.

Background

Introduction to Bridges Collaborative Care Clinic

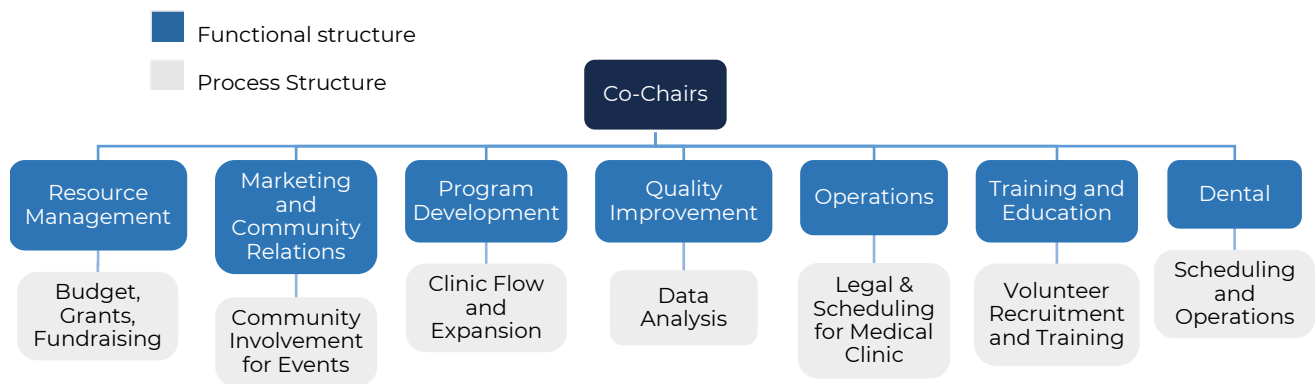
The Bridges Collaborative Care Clinic (BCCC) is Oregon's first interdisciplinary student-run free clinic for underserved communities. The clinic partners with Transition Projects Inc. (TPI), an organization that provides transitional housing for vulnerable populations in Portland. The clinic sees an average of 12 participants per session in clinic space provided by TPI. BCCC is composed primarily of student and faculty volunteers from Oregon Health and Science University (OHSU), Oregon State University, and Portland State University. The clinic is driven administratively by a group of 30 student leads and hosts 12 volunteers on clinic days. These students are an interprofessional group with representation from fields such

as nursing, pharmacy, dental, physician assistant, medical, social work, and public health. The clinic's services are guided by its Board of Directors and two medical directors who are faculty physicians at OHSU.

From 2016-2019, the clinic operated under a distributive leadership model that subsequently developed into the clinic's first Steering Committee, composed of six teams and four co-chairs responsible for their management. The formation of a Steering Committee was a step towards developing early organizational goals, vision, and growth and led to the official opening of the clinic in 2016. Two years later, the clinic officially obtained 501(c)(3) non-profit status. In 2019, BCCC onboarded two medical co-directors.

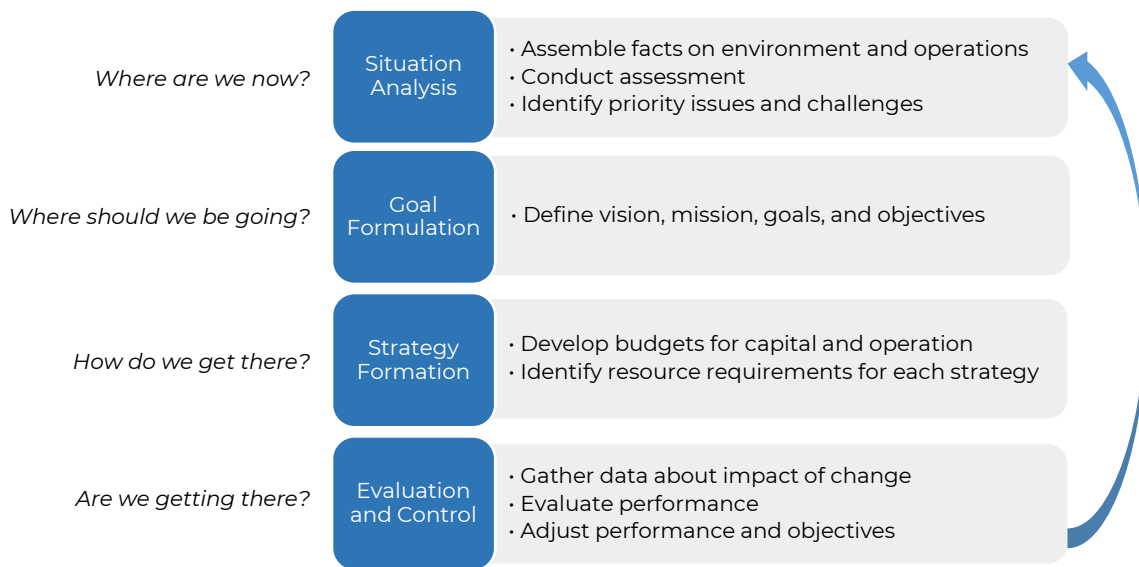
Under this distributive leadership model, some facets of BCCC seemed to be progressing,

Figure 1. The functional structure model of an organization with examples of teams and roles used by BCCC. Adapted from Swayne, et al. (2006)



The disadvantages of the functional structure include fostering “silo thinking,” which narrows specialization, slowing of decision-making, making horizontal communication difficult, making coordination difficult, and limiting the general development of team leaders.

Figure 2. General flow model of the strategic planning process



Adapted from Swayne, et al. (2006). The arrow suggests this process can be ongoing and cyclical.

though the model also exposed major inefficiencies as the organization became more complex. There were disadvantages of the hierarchical leadership structure (Figure 1), such as silo-thinking, fragmented communication, and delayed decision making¹—all of which were becoming increasingly evident in BCCC leadership.

This is especially true for a student clinic in which volunteer turnover is very high. Continuity of information and institutional knowledge was

lost between the teams during transitions because of a lack of communication. Onboarding team members was difficult due to the unfamiliarity and inconsistency of communication flow between the distinct teams. As a result, there was difficulty in scheduling volunteers and preceptors for the clinic, as well as stalled progress for expansion projects such as developing an electronic health record or building referral networks. The backlog of issues continued to grow without

a clear mechanism for development and deployment. BCCC needed a systematic approach for dealing with its growing complexity to continue meeting internal and participant-driven needs.

Introduction to Strategic Planning and Quality Function Deployment

The process of strategic planning is traditionally initiated by a governing body, such as a Board of Directors, and involves the organization of thoughts, problems, and goals in an effort to accomplish a mission.² A basic strategic planning model includes components such as analysis, goal formation, strategy, adjustment, and evaluation (Figure 2).

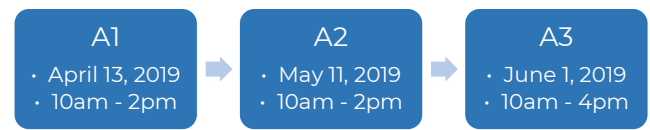
Quality Function Deployment (QFD) is a strategic planning tool that involves incorporating customer needs into the development of a product. This approach utilizes outcomes to develop future goals with continuous monitoring for progress.³ QFD has been used effectively by global corporations such as Toyota and Xerox.⁴ The pillars of QFD, including customer-driven services and goal-oriented management, parallel the mission of BCCC and were therefore chosen to guide its strategic planning process.

By utilizing QFD to collect and analyze the voice of its customers, the clinic ensures that its services would be filling a true need. Certain modifications were necessary throughout the process to scale down the strategies to fit the clinic and its resources. Community advisors with adept experience in strategic planning, nonprofit management, and public health guided the process.

Strategic Planning

The Strategic Planning process adapted by BCCC included three meetings termed A1, A2, and A3, each with a specific purpose (Figure 3). The A1 meeting gathered the voices of QFD-defined customers, those who receive care from community clinics and programs. The A2 meeting was used to propose and evaluate solutions created by QFD-defined suppliers, those who provide services, in context of the needs defined in A1. The A3 meeting consolidated the information from A1 and A2 and shared the outcomes with the Board of Directors. All items received

Figure 3. The timeline for QFD strategic planning

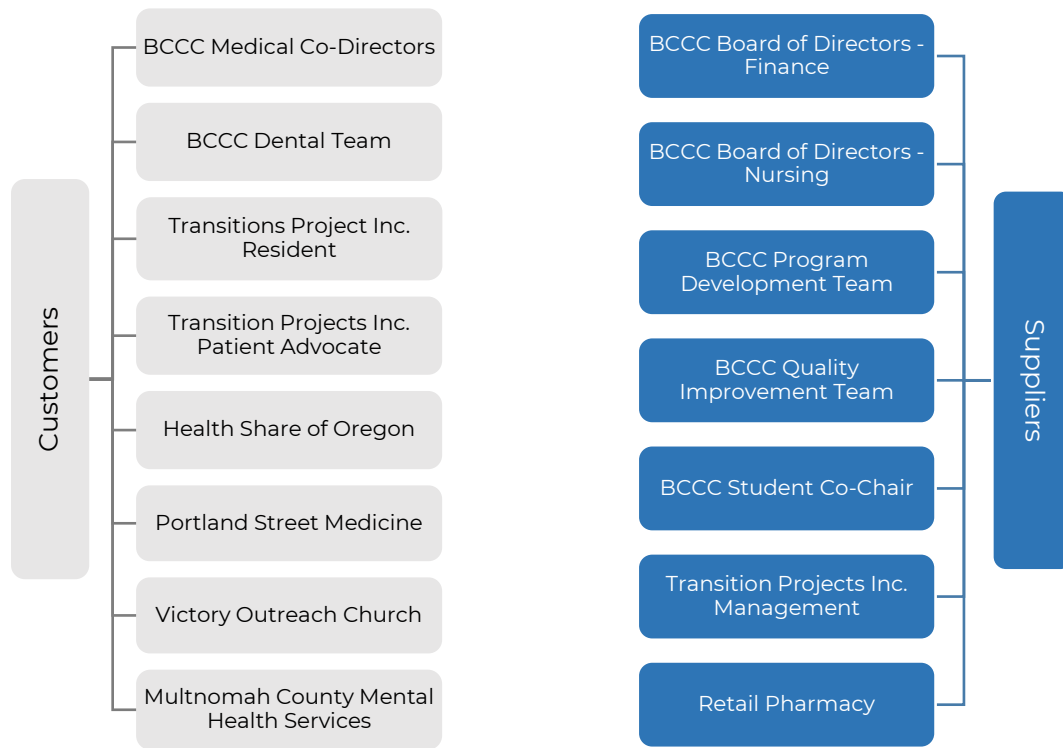


QFD: quality functional deployment

weighted scores. Raw scores of 1-5 were retrieved from participants, with 1 representing the weakest vote for an item and 5 representing the strongest vote for an item. Raw scores were transformed into weighted scores by perceived priority to the customers with consideration of ease of implementation and subjective strength.

Following the QFD directive, the first step involved listening to the needs of the individuals BCCC served. A list of potential stakeholders representing both customers and suppliers was compiled, ranging from local health system CEOs to TPI tenants. Interviews of these individuals were conducted by volunteers on the strategic planning team, with the goal of inviting a select few to subsequent strategic planning meetings. Over a three-month period, 22 people were interviewed, with interviewees representing a breadth of ages, genders, and socioeconomic status, specialty on homelessness, medical care for the underserved, nonprofit management, healthcare education, insurance, pharmacy, and public health. A standardized prompt was used during all interviews which guided further discussion about the clinic: "What is your current knowledge about the services provided by BCCC and where do you hope to see BCCC headed into the future?" The open-ended format of interviews allowed the strategic planning team to accumulate perspectives from all sides of the non-profit healthcare industry. Through these interviews, the team was also able to address gaps in knowledge about the clinic. For example, one interviewee had immense experience working with underserved populations but was unfamiliar with BCCC and its role in the community. In addition to these potential stakeholders, members from some of BCCC's leadership teams were included in the interview process, particularly those directly engaged in the maintenance of existing services and implementation of future projects

Figure 4. Supplier and customer cohort of A1 and A2



The suppliers are a distinct cohort representing the goals and concerns of service delivery and related tasks. The customers are a distinct cohort representing needs and concerns of service consumption. BCCC: Bridges Collaborative Care Clinic.

such as resources management. This added numerous perspectives from individuals familiar with BCCC and its day-to-day operations. After the interviews were complete, a matrix was compiled to organize professional and demographic data. The matrix ensured adequate representation of attendees at subsequent meetings based on professional experience, geographic location, age, and gender. From the 22 interviews, the strategic planning team selected a group of stakeholders for participation in the A1 and A2 meetings. Eight people were selected to represent customers, who were familiar with the needs of the community. Seven people were selected to represent suppliers, who were familiar with resources, management, and strategy (Figure 4).

1. A1 Meeting – This meeting provided an environment for customers to voice concerns and unmet needs they wished to have addressed. They received sticky notes and wrote one concern on each note and placed it onto the wall. The

group categorized these notes into primary and secondary headers, allowing for better visualization of themes. This technique is called building an “Affinity Diagram.”⁵ The customers voted on the significance of the need, using scores of 5, 3, and 1. A predetermined algorithm calculated a score that gave more weight to needs that reflected a disparity between what the customers desired and what the clinic was currently providing.⁶ Higher weighted scores indicate greater discrepancies between services and needs, and therefore can be used to generate a prioritized list of needs.

2. Interim – During the month in between A1 and A2, a solutions team developed plans to address the highest priority needs. The team consolidated the plans and sent the results to the A2 attendees prior to the meeting.
3. A2 Meeting – Suppliers presented solutions to the customers. Customers then

rated how well each solution met the identified need using a pre-constructed matrix to rank the most robust and feasible items.

4. A3 Meeting – The meeting began with a review of the previous meetings and chosen solutions. Attendees identified possible logistical and fiscal obstacles such as grant allocation, supply chain options, and reimbursement for services provided. Tasks were assigned in the context of the responsibility assignment matrix.⁷ The leadership determined a timeline for project deployment with task owners for accountability.

Results

The primary outcomes of the A1-A3 meetings were a prioritized list of needs (Table 1) and a corresponding list of solutions. Several needs tied for the first rank, such as needs for mental health, dental services, addiction services, and opportunities for feedback from customers. For each need, the strategic planning volunteers of the A1-A3 meetings explored potential barriers to implementing the solutions and posed concerns for avoiding duplication of services.

The solutions that emerged from the A2 meeting included expansion projects for clinic services as well as projects centered around internal development (Table 2).

Discussion

Mental health services, behavioral support, addiction services, emergency dental services, expanded hours of operation, and mechanisms to provide feedback were identified as the greatest needs in the A1 meeting. Coordination of care, mental health services, and prescription logistics were the highest-ranked solutions that emerged from the A2 meeting. The results of the strategic planning process highlight pertinent next steps, such as internal restructuring and coordination of care, that will help drive the clinic towards its mission of increasing efficiency in providing services for customer-defined needs. These steps should also reduce the inefficiencies exposed by BCCC's growing clinical needs and administrative com-

plexity, although the true results of this effort will be discerned over time.

Limitations

The high weighted scores for mental health services, dental services, and infrastructure support indicated a lack of these resources at BCCC. It is important to consider the value of assigning quantitative values to qualitative needs—it allows for stratification. The solutions proposed for logistical and coordination issues superseded the solutions for direct mental health services and dental care. Clinic leadership found this surprising as this suggests that solutions most likely to move forward (highest weighted score) would still fail to address important needs discovered during A1. Although the primary objective of creating a prioritized list of needs using the QFD method was successful, many of the leaders expressed concern that the items on this list were incongruent with immediate clinic needs and that the highest-ranked solutions still failed to address important needs. For example, BCCC serves participants in transitional housing, many of whom have increased health needs and limited financial means. Clinic leadership felt there was a lack of representation of these needs in the ranked list produced by the A1 meeting, possibly due to limited TPI tenant participation. Clinics serving populations with similar needs should consider separating the needs identified from the major customer subgroups and targeting solutions for the highest-ranked needs of each group. This could prevent overcrowding of solutions and the subsequent neglect of serious needs. For example, the goal of a communication overhaul to make communications more efficient between teams was never addressed.

An abridged version of the QFD method was implemented to scale the process down to the small-scale operations of BCCC. As an example, the traditional QFD defines customers as participants of the clinic, but BCCC serves three types of customers: participants, students, and supporting faculty who make up the organization. This subtle discrepancy resulted in a skew towards the prioritization of clinical needs instead of also emphasizing internal organizational needs. The stakeholders, who were not privy to the clinic internal structure and operations, were

Table 1. Prioritized list of customer needs resulting from the A1 meeting

Primary Header	Secondary Header	Specific Need	Weighted Score
Services	Mental Health/Addiction	Mental/behavioral support	37.5
Services	Mental Health/Addiction	Faster access to addiction services	37.5
Services	Dental	Emergency dental services	37.5
Services	Infrastructure, Support/Services, Policy Processes	Opportunities for feedback from patients	37.5
Services	Delivery of Services	Provide services multiple days/week	37.5
External Coordination	Delivery of Services	Social and other services	30.0
Education	Resources	Resources to empower/inform patients	22.5

The list of customer needs was determined with affinity diagrams, structured discussion, and scoring system. Higher raw weight corresponds to a greater need.

Table 2. Prioritized list of solutions presented at the A2 meeting

Solution	Needs Addressed	Weighted Score
Coordination of Care: Transportation and Referral Networks	Transportation to/from clinic, set up referral networks for continuity of care or specialty care	63.2
Mental Health Services	Develop mental health services and referral networks	52.5
Logistics: Prescriptions	Identify main pharmacy for BCCC and set up logistics to obtain prescriptions for participants	38.8
Communication Pathways	Establish a standardized protocol for how teams communicate with each other, obtain a platform such as Microsoft 365	38.2
Street Networking	Develop ways to work with the houseless community outside of TPI	31.5
Student Leadership	Reorganize student leadership to foster collaboration and accountability	31.5
Coordination of Services through EHR	Join a coordinated community healthcare coalition for access to more resources, obtain EHR for ease of PHI exchange for referrals	26.9
Participant Needs Evaluation	Develop a participant after-visit survey for feedback	24.6

The list of solutions was generated from volunteer voting and needs-to-solution matching. The strongest solutions were ones that addressed the highest priority needs, sometimes with multiple project suggestions within one solution proposition. BCCC: Bridges Collaborative Care Clinic; TPI: Transition Projects Inc.; EHR: electronic health record; PHI: personal health information.

therefore primarily focused on augmenting clinical services. However, the quality of services offered to the participants is a direct result of the internal structure of the clinic, which consists of the students and faculty. To achieve the overall goal of BCCC to provide healthcare to the underserved, the three customers' needs should be separated and acknowledged with respect to the strategic plan. A clinic looking to adapt this process should consider differentiating the customers into separate groups and acknowledging the unique needs of each group.

During A3, an observation was made that the individual solutions ended up as "super solutions," that championed 1-3 mini-projects. These

arose from direct conversations between providers of services who identified mechanisms to cover the shared themes of different needs more efficiently. An example is the first solution, "Coordination of Care: Transportation and Referral Networks", which included not only developing a standardized way to ensure transportation to and from clinic visits but also involved creating a referral network for care outside of BCCC. It was harder to vote on each solution since they included multiple overlapping goals, and super solutions were thus not necessarily voted higher than singular solutions. When developing a solutions team, a smaller clinic should consider mandating singularity of solutions. This would likely

reduce confusion and elevate clarity of task accountability at the end of the process.

Finally, a major limitation faced by clinic leaders involved the inconsistency of stakeholders who attended A1-A3 meetings. Seven people were substituted in-between meetings, all of whom had similar professional backgrounds as the person they replaced. In an ideal situation, the same cohort would have been present for all three meetings, but this was not possible, as volunteers had other obligations during this longitudinal process. Potential solutions to address the inconsistency of meeting participants may include incentivizing continuity, through financial or other means, hosting shorter meetings, or using virtual platforms to reduce geographic barriers to participation.

The clinic is currently operating under advisement of the strategic plan, with its initial directive being to reorganize student leadership structure. The restructuring of the student leadership occurred first after the QFD sessions were held and involved taking the distributive leadership model and replacing it with a pod leadership style, where each pod would have many “old” team members in one so that there wouldn’t be any barriers to communication. For example, the dental pod would encompass representation from operations, program development, resource management, and its own scheduler, whereas before, each of those members would belong to a separate team. BCCC has also been able to complete other projects, such as developing a participants after-visit evaluation and creating a prescription process for easier access. The other projects are still on the horizon but have an organized timeline for development, as tracked by student leadership and the Board of Directors.

Conclusions

As a newly-formed health clinic, BCCC was presented with an opportunity to employ the practices of QFD strategic planning. The ideology of matching healthcare services directly to customer needs resonated with the mission of the clinic. Therefore, BCCC provided a focused environment where both the suppliers of services and the customers of the clinic could collaborate to form a strategic plan. Employing QFD helped the

clinic identify external-facing priorities, such as expansion projects, but failed to consider internal priorities, such as leadership structure. Nonetheless, this process provided valuable perspective from both the suppliers and customers as they discussed their personal experiences and aspirations for the future of BCCC. The QFD could be a beneficial process for student-run clinics faced with organizational dysfunction. Notably, clinics will need to address the failures of QFD. Clinics should acknowledge the competing needs of the customers (participants, students, and faculty) by implementing strategic planning for each customer separately. Additionally, mandating singular solutions will simplify projects and allow for better progress tracking. In two years, BCCC will reemploy the QFD process by targeting the various customers separately. Hearing perspectives from outside community members with experience in healthcare for the underserved was invaluable and timely for the needs of this clinic. Implementing strategic planning into BCCC enhanced the current operations of the clinic to better serve its customers and enabled it to develop an organized vision for its future.

Disclosures

The authors have no conflicts of interest to disclose.

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