Southcoast Health
Heart Failure Clinic
Business Plan

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Dietetic Interns
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Southcoast Health Heart Failure Clinic

Summary
Approximately 5 million Americans suffer from Congestive Heart Failure (CHF), costing the nation an estimated $37 billion a year. This includes healthcare services, medications, and a loss of productivity and income. According to the Texas Heart Institute, hospitals receive approximately $6,000 in reimbursement per CHF admission from Medicare. Roughly 25% of CHF patients are readmitted within 30 days, shifting the burden of payment from Medicare to the healthcare facility.

By incorporating nutritional services into Southcoast Health Heart Failure Clinic can help minimize CHF readmission rates. Maintaining a healthy diet and lifestyle has been proven to minimize the risks of heart disease. However, many individuals may not know how to implement these changes or may feel overwhelmed with trying. As part of the Hearth Failure Clinic, the Registered Dietitian (RD) will educate and counsel patients on incorporating the necessary diet changes into their current lifestyle.

Mission Statement
To provide the highest quality of patient-centered nutrition care, support, and education while serving the needs of our community.

Goal
• To reduce CHF readmission rates through additive nutrition care

Objective
• To provide nutrition education through individualized nutrition counseling, cooking classes, home visits, and supermarket tours

Target Market
Nutrition services with an RD are offered for those who suffer from CHF. The Southcoast service area includes 33 communities with more than 700,000 people and covering 928.5 square miles.

Location
The Southcoast Heart Failure Clinic has two locations, St Luke’s Hospital in New Bedford, MA and Charlton Memorial Hospital in Fall River, MA.

Market Research: Facts and Statistics
• Heart disease is the second leading cause of death in Massachusetts (23%).
• 49% of Americans have at least one risk factor for heart disease.
• 66 out of 1000 adults 65 years or older are hospitalized for heart failure.
• Majority of CHF patients are over 65 years of age but the proportion 65 or younger increased in 2010 to 29%.
• Minorities traditionally have low participation rates in cardiac rehabilitation programs, but studies suggest within this group uptake of smart phones is high. This group is more likely to use smart phones for health information.
• 38% of Massachusetts residents have been told they have angina or coronary heart disease.
• 92.3% of Massachusetts adult residents (18-64) have health care coverage.
Rates of hospitalization for congestive heart failure by age in the United States for 2010:

<table>
<thead>
<tr>
<th>Age</th>
<th>Rate per 10,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>32.8</td>
</tr>
<tr>
<td>65 and over</td>
<td>177.7</td>
</tr>
<tr>
<td>65-74</td>
<td>85.7</td>
</tr>
<tr>
<td>75-84</td>
<td>214.6</td>
</tr>
<tr>
<td>85 and over</td>
<td>430.7</td>
</tr>
</tbody>
</table>

Hospitals receive slightly more than $6,000 from Medicare for each Heart Failure admission and the average length of stay is approximately 5.8 days.

For Heart Failure patients who are readmitted within 30 days of discharge, Medicare does not reimburse the hospital; thus the cost of burden is shifted to the healthcare facility.

In 2000, the average cost of a Heart Failure readmission was $15,293. However, in 2008, one study reported that the average cost of a Heart Failure admission was $18,086.

According to Share Our Strength, as a result of supermarket tours provided by the Cooking Matters program 58% of graduates intended to compare food labels to make healthy choices.

According to one study, follow up home visits with an RD have a positive effect on the functional and nutritional status of geriatric medical patients after discharge and compliance with dietary intervention was nearly 100%.

**Market Trends**

- The South Coast region is home to the largest Portuguese population in the country. In this region, popular Portuguese foods and meals such as chourico, salted cod and sweet breads are regularly consumed. The South Coast area also has numerous fast food restaurants. There are few areas in the city that allow for physical activity. Buttonwood Park is a popular destination in the summer months. With limited access to safe areas for daily exercise and frequent consumption of convenience foods that are high in fat and sodium are all potential contributing factors for increased risks of heart disease.

- Concerns following patient interviews at the Heart Failure Clinic at St. Luke’s Hospital include the following; poor understanding of how to or lack of access to preparing healthy meals, ease of access and frequency of poor food choices such as fast food, an indifference towards appropriate diet chances, perception of healthy foods being bland, and lack of support network.

- The South Coast region is a socioeconomically depressed area:

<table>
<thead>
<tr>
<th></th>
<th>New Bedford, Mass</th>
<th>Fall River, Mass</th>
<th>Massachusetts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population in 2012</td>
<td>94,929</td>
<td>88,945</td>
<td>6.59 million</td>
</tr>
<tr>
<td>Population below</td>
<td>21.6%</td>
<td>23.2%</td>
<td>11.0%</td>
</tr>
<tr>
<td>poverty line</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean household income</td>
<td>$36,437</td>
<td>$34,437</td>
<td>$66,658</td>
</tr>
</tbody>
</table>

- Rates of CHF:

<table>
<thead>
<tr>
<th>CHF Admission</th>
<th>Massachusetts</th>
<th>U.S.</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>374/100,000</td>
<td>338/100,000</td>
<td>2009</td>
<td></td>
</tr>
</tbody>
</table>
### Southcoast Specific Statistics

- In the 2013 Fiscal Year, there were approximately 1200 discharges for heart failure at Southcoast Hospitals Group.
- In the 2013 Fiscal Year, there were approximately 225 patients seen in the Heart Failure Clinic, accounting for over 750 visits.
- The Heart Failure Clinic is not tracking readmission information on a monthly basis; however, anecdotally, the majority of heart failure re-admission patients come from home or home with services according to the clinic Manager, Robin Ferguson.
- According to Medicare, the Southcoast Health Heart Failure 30-day readmission rate is estimated to be 24.5 – 27.9%.

### Survey of the Team

The current Heart Failure Team was surveyed in January 2014 via an online survey created on SurveyMonkey.com. Please see the attached survey entitled "Heart Failure Survey" for the detailed questionnaire. The survey was distributed to the Heart Failure Clinic Team by the Heart Failure Clinic Manager, Robin Ferguson. Results reflect the opinions of five respondents, including the Manager, Director, and three Nurse Practitioners involved in the Heart Failure Clinic. The survey reflected the following results:

- 100% of respondents agree that RD home visits will be very effective in reducing CHF readmission rates.
- Respondents state that on average, they spend between 5 and 20 minutes discussing nutrition with CHF patients.
- 100% of respondents agree that incorporating an RD into the Heart Failure Clinic will be very effective in reducing HF readmission rates.

### Opportunity

In the 2013 Fiscal Year, approximately 1,200 CHF patients were discharged from Southcoast Health, but only about 225 patients (or approximately 19%) were seen in the Southcoast Heart Failure Clinic. Maintaining health and staying out of the hospital can be a challenge for patients with CHF, especially when it comes to following a therapeutic low sodium diet. It can be especially difficult for patients to follow a low sodium diet when they are homebound, unable to cook for themselves, and rely on high sodium convenience foods for nutrition. Currently, RDs, the “nutrition experts”, are not involved in the outpatient Heart Failure Clinic; rather patients meet with a Registered Dietitian briefly (about 15-20 minutes) when admitted to the hospital. Unfortunately, the brief encounter that CHF patients have with an RD in the hospital does not always meet their individual learning and nutrition education needs. Furthermore, hospitalized CHF patients are often very sick.
and fatigued, and thus they are not in their best state for learning. Many of these patients would benefit from further nutrition counseling with an RD.

Outcomes research do demonstrate that Medical Nutrition Therapy (MNT) provided by an RD is linked to improved clinical outcomes and reduced costs related to physician time, medication, and hospital admissions for people with obesity, diabetes, disorders of lipid metabolism, and other chronic diseases. The Lewin Group documented an 8.6% reduction in hospital utilization and a 16.9% reduction in physician visits associated with MNT for patients with cardiovascular disease. Therefore, it would be beneficial to improving the quality of life of patients and decreasing CHF readmission rates and associated costs to incorporate an RD into the Southcoast Heart Failure Clinic.

**Service Highlights**
- Registered Dietitian initial inpatient visit
- Individual nutrition counseling sessions post discharge.
  - First session within one week after discharge
  - Second session scheduled two weeks after
  - Additional counseling at patient request
- Bi-weekly cooking classes with an RD
- Monthly supermarket tours with an RD
- RD home visits to observe pantry and refrigerator and discuss better food choices
- Appointment reminder with Southcoast logo and complementary salt-free seasoning recipe mailed to patients

**Competition**
Many of the cardiac clinics in the Bristol and Plymouth counties offer cardiac rehabilitation services similar to that of Southcoast. Many of these programs are extensions of Boston hospitals and all of them require a physician’s referral for patients to participate. However, very few of these programs outside of Boston offer nutrition services with an RD as part of their program.

**Massachusetts General Hospital (MGH)**
The Massachusetts General Hospital is one of the first hospitals in the nation to open a cardiac clinic. Corrigan Minehan Heart Center offers a multidisciplinary approach to patient care. A Registered Dietitian teaches a variety of nutrition classes at the center; topics discussed are portion sizes, diabetes, fats and label reading. These classes are very similar to classes offered at Southcoast Health Cardiac Rehabilitation Clinic. However, this clinic does not offer individual outpatient nutrition counseling sessions, nor cooking classes.

**Steward Health Care**
Headquartered in Boston, Steward Health Care System is a community-based accountable care organization reaching out to over 150 communities. Saint Anne’s Hospital, located in Fall River, MA, and Morton Hospital in Taunton, MA are the two Steward locations closest Southcoast Hospitals Group. Although Steward Health Care does have a CHF clinic, however, neither their website nor directly asking staff indicate they offer nutritional services as part of the program.

According to an article published in the Boston Globe in June 2013, Steward Health Care launched a pilot program of preparing and delivering healthy meals to CHF patients, with a goal to reduce CHF readmissions rate. For one month, 55 heart failure patients received three low sodium meals and two snacks at no cost to the patient. This program cost the Steward $66,000 (with part of the cost attributed to hiring an outside caterer). The outcome of this program is yet to be discovered as the Steward’s website makes no mention of any successful outcomes.
Lifespan
Located in Rhode Island, Lifespan is a not-for-profit health care system, founded by Rhode Island Hospital and The Miriam Hospital. It is currently partnered with The Warren Alpert Medical School of Brown University to provide clinical training.

The Cardiovascular Rehabilitation at Lifespan oversees the Center for Cardiac Fitness, which employees nutritionists who provide cooking demonstrations and run supermarket tours. These services are similar to those in the suggested business plan; however, the suggested business plan also offers additional nutrition services, including individual nutrition counseling and home visits.

Marketing Strategy
Marketing efforts for an RD in the Southcoast Heart Failure Clinic will be directed toward building on the current network of partnerships and relationships that currently recruit patients. Because participation in the Heart Failure Clinic requires a physician referral, marketing will not only target CHF patients, but also physicians. This will include several marketing avenues, but not limited to: a re-vamped full-service website, appointment reminders, brochures, press, social media, newsletters, community events (i.e. health fairs), and current affiliations.

Marketing & Advertising
The existing Heart Failure Clinic is designed to function within Southcoast Health. The target audience will be CHF patients in the existing client area served by Southcoast Health.

Advertising
- Brochures
- Social media:
  - Exclusive CHF website
  - Twitter
  - Facebook
- Radio
- Newspaper
- Appointment Reminders
- Newsletters
- Community Events

Hospital advertising:
Partnership with Southcoast Health will require advertising rights for the Heart Failure Clinic and new nutritional services on existing media including but not limited to webpage, social media, and hospital specific community programs.

Logo Specific Branding
Appointment reminders in the form of postcards will adorn a complementary salt-free spice blend recipe on one side, and the Southcoast logo, appointment date, time, and place on the latter side. Appointment reminders are to be received by patients approximately 1 week prior to Heart Failure Clinic appointments.
Financials

<table>
<thead>
<tr>
<th>Product</th>
<th>Number on Hand</th>
<th>Cost/unit</th>
<th>Start-up</th>
<th>Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portable Gas Stove</td>
<td>22</td>
<td>$28</td>
<td>$616</td>
<td>$0</td>
</tr>
<tr>
<td>Butane Cans</td>
<td>29</td>
<td>$27.00</td>
<td>$783</td>
<td>$783</td>
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<tr>
<td>Non-stick Frying Pan</td>
<td>22</td>
<td>$16.49</td>
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<td>$0</td>
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<tr>
<td>Cooking Utensils</td>
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<td>$15</td>
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<tr>
<td>Laptop</td>
<td>2</td>
<td>$398</td>
<td>$796.00</td>
<td>$0</td>
</tr>
<tr>
<td>Room for Cooking Class</td>
<td></td>
<td></td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Supermarket Store Tour</td>
<td></td>
<td></td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Reminders*</td>
<td>100</td>
<td>$34.99</td>
<td>$1,259</td>
<td>$1,259</td>
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<tr>
<td>Food Cost**</td>
<td>22</td>
<td>$5</td>
<td>$2,640</td>
<td>$2,640</td>
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<tr>
<td>Room for RD Counseling</td>
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<td></td>
<td></td>
<td>$0</td>
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<tr>
<td>Paperware</td>
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<td>$29</td>
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<td>$58</td>
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<tr>
<td>Plasticware</td>
<td>3</td>
<td>$4</td>
<td>$72</td>
<td>$72</td>
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<tr>
<td>Gas***</td>
<td>5,200</td>
<td>$0.56</td>
<td>$2,912</td>
<td>$2,912</td>
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<tr>
<td>Miscellaneous</td>
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<td></td>
<td>$500</td>
<td>$500</td>
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<tr>
<td>Rental Tables</td>
<td>4</td>
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<td>$960</td>
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<tr>
<td>Igloo Cooler</td>
<td>2</td>
<td>$45</td>
<td>$90</td>
<td>$0</td>
</tr>
<tr>
<td>Dollie Carts</td>
<td>2</td>
<td>$50</td>
<td>$100</td>
<td>$0</td>
</tr>
<tr>
<td>Storage Containers</td>
<td>2</td>
<td>$50</td>
<td>$100</td>
<td>$0</td>
</tr>
<tr>
<td>Mixing Bowls</td>
<td>44</td>
<td>$4</td>
<td>$176</td>
<td>$0</td>
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<tr>
<td>Nutrition Education Paper</td>
<td>3000</td>
<td>$0.05</td>
<td>$150</td>
<td>$150</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$11,905</strong></td>
<td><strong>$9,334</strong></td>
</tr>
</tbody>
</table>

*Based on 600 patients with 6 appointments per year.
**Based on 24 classes per year.
***Based on 200 miles per week.

<table>
<thead>
<tr>
<th>Staff</th>
<th>Number on Hand</th>
<th>Cost/Hour</th>
<th># hours</th>
<th>Start-up</th>
<th>Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Dietitian</td>
<td>1</td>
<td>$31.25</td>
<td>40</td>
<td>$0</td>
<td>$65,000</td>
</tr>
<tr>
<td>Registered Dietitian</td>
<td>1</td>
<td>$31.25</td>
<td>40</td>
<td>$0</td>
<td>$65,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$130,000</td>
</tr>
</tbody>
</table>

Start-up Costs
Approximately $11,905 is needed for start-up costs. Including start-up costs and the yearly cost to employ two full-time RDs, the current budget will cost Southcoast Health approximately $141,905 in the first year and $139,334 thereafter. Start-up costs will be negotiated, approved, and obtained through the Southcoast Health Board of Directors.

Pricing
**Cooking Classes**
An analysis of the costs for cooking classes in the Eastern Massachusetts area was conducted to establish appropriate pricing for cooking classes for the Heart Failure Clinic. Please see Table 1: "Nearby Cooking Classes Cost Analysis" for detailed pricing information. Cooking classes will take place bi-weekly at both Charlton Memorial Hospital and the Mashpee Center. Given that the Southcoast region is a considerably economically depressed area, it is important to keep the costs of the cooking classes and the food costs relatively low, while still generating enough revenue to break even. Therefore, the cost per cooking class per participant will be approximately $20 (and will include the cost of food). In order to keep a 25% food cost, the price of food purchased for cooking classes should be $5 or less per participant (as noted in the Budget). Please see sample 6-week cooking class series, entitled “Cooking Class Series”.

If there are 24 weeks of cooking classes and there are two classes (at each site) with 10 participants per class (20 participants total per week), the cooking classes will generate $9,600 in revenue per year.

**Supermarket Tours**
In this area, supermarket tours are often provided as free-of-charge services for low-income individuals; however, these services are not necessarily offered with an RD and may not encompass an emphasis on the low sodium diet that CHF patients are advised to follow. Please see Table 2: "Nearby Supermarket Tours" for a breakdown of services and associated fees provided by companies in the area. The cost for each participant in the Supermarket Tour will be $10.

If there are 12 weeks of Supermarket Tours and five patients per site (10 total each week) participate per tour, Supermarket Tours will generate $1,200 in revenue per year.

**Home Visits**
RDs are not reimbursed through Medicare for home visits. However, according to one study, RD home visits were reimbursable to non-Medicare patients at a rate of $60/visit.

If a total of 50 patients wish to have 1 RD home visit per year and 50% of these patients have Medicare, then approximately 50% may be reimbursable; therefore, RD home visits will generate $1,500 in revenue.

**Outpatient Nutrition Counseling**
Many insurance companies provide direct or indirect reimbursement for outpatient nutrition counseling with an RD. Medicare reimburses Medical Nutrition Therapy for Diabetes and Renal Disease only. Additionally, although other insurance companies may provide reimbursement for outpatient nutrition counseling, many will not pay separately for patients who are seen by a physician and an RD in the same day. Note: Reimbursement rates may be different amongst insurance companies and are subject to change.

For the purposes of this business plan, approximately $184 is billed to the insurance company at Southcoast for each 60-minute initial nutrition counseling appointment and $92 is billed for each 30-minute follow-up nutrition counseling appointment. If 225 patients utilize RD outpatient nutrition counseling services and if approximately 50% of these patients have Medicare, then approximately 50% (or 112 patients) do not have Medicare. Of these 112 patients, it is estimated that approximately 15% (or ~17 patients) will visit the RD at the Heart Failure Clinic on a day when they do not also see a physician; one initial patient visit and one follow-up patient visit for each patient will generate a total of $4,692 in revenue.

**In-patient Visits**
There is currently no reimbursement available for in-patient visits with an RD.
Break-Even Point
Total projected sales per fiscal year: $16,992
It is estimated that approximately 8.5 years from the implementation of this program Southcoast Health will break even with regard to cost.

Justifying the Cost
If 1,200 CHF patients were discharged from Southcoast Health in the 2013 Fiscal Year, and 24.5% of them were readmitted within 30 days, then approximately 294 CHF patients were readmitted during the 2013 Fiscal Year. Using the average cost of a CHF admission of $18,086, this would cost Southcoast Hospitals Group $5,317,284 for the 2013 Fiscal Year; for Medicare patients this is not reimbursable.

Although it would cost Southcoast Health approximately $130,000 to incorporate an RD with the suggested nutritional services into the Heart Failure Clinic according to the described plan, the cost is much less than the cost of readmitting CHF patients within 30 days of discharge. According to one study, a Heart Failure Clinic with nutritional services provided by an RD decreased CHF admissions by 30%. If re-admissions were decreased by 30% (or 88 patients), this business plan actually has the potential to save Southcoast Health approximately $1,591,568 per year.

Inventory & Supplies
All inventories were selected to meet the primary goal of reducing CHF readmission rates through additive nutritional care. Cooking classes meet the educational need for learning how to prepare low sodium meals. Cooking class supplies and ingredients were selected for cost effectiveness, low maintenance, safety, and durability of products. Supermarket tours will teach patients how to compare foods and choose lower sodium ingredients. Laptops meet the technology needs of the RD to complete job responsibilities and make home visits.

Cooking Class Materials:
- Portable Gas Stove: This product was selected for its ability to tightly regulate cooking temperature with a self-contained butane fuel source. This stove requires no electricity.
- Butane Cans: The fuel source for gas stoves. Butane fuel is low cost, safe for indoor use, easy interchangeable bottles and will cook approximately three meals per bottle.
- Non-stick Frying Pan- These non stick pans are moderately priced and commercial grade.
- Cooking Utensils
- Food for cooking class: Menu will reflect budget friendly, DASH diet compliant meals with an emphasis on salt-free seasoning and proper food handling techniques for a lay audience.
- Plasticware & Paperware- Using low-cost, disposable plasticware minimizes cleaning and transport labor to dishroom.
- Table Rentals- Depending on the room reserved for the cooking classes, renting tables from facilities may be required.
- Igloo Cooler- To maintain food safety, a cooler is needed to minimize food spoilage.
- Dollie Carts- To help with transporting of the storage containers to and from class.
- Storage Containers- For storage of equipment on non class days. These can be stacked and left in the RD office.
- Mixing Bowels

Office Equipment & Supplies:
- Laptop- The RD will use a laptop for making appointments, reviewing patient charts, home visits, documentation, and planning menus.
- Appointment Reminder Cards: In an effort to promote heart health, all appointment cards will adorn a salt-free spice blend recipe printed on one side and the Southcoast logo with appointment information on the latter side. The spice blend recipe may be used in cooking classes.
Supermarket Tours:
- Educational paper handouts will be provided to effectively complete low sodium diet education.

**Personnel & Staffing**
In addition to the current Heart Failure Clinic Team, the Heart Failure Clinic will employ two Registered Dietitians: one who will work at Charlton Memorial Hospital and who will work at St. Luke’s Hospital.

The Registered Dietitian will play a key role in nutritionally managing patients in the Heart Failure Clinic and work as a contributive member of the interdisciplinary team. In combination with the existing Heart Failure Clinic staff, the Registered Dietitian will also be responsible for recruiting patients to the Heart Failure Clinic. The Registered Dietitian will be responsible for educating heart failure patients during hospitalization at his/her respective site and will also be responsible for providing outpatient nutrition counseling and home visits. The Registered Dietitian will be responsible for planning, organizing, implementing supermarket tours and cooking classes.

**Existing Heart Failure Clinic Staff**
There are currently 2 Nurse Practitioners at each Heart Failure Clinic site and an RN who also helps at each of these sites. The clinic is open Monday through Friday 8AM - 4PM. Nurse Practitioners meet with both in-patients and also those scheduled as outpatients.

**SWOT**

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Top 100 nationally ranked hospital for cardiac services by Healthgrades(^\text{®})</td>
<td>- Perception of larger city, such as Boston and Providence, offering better services</td>
</tr>
<tr>
<td>- Servicing Southeastern region of Massachusetts</td>
<td>- Affordability</td>
</tr>
<tr>
<td>- Focused on patients with recent incident</td>
<td>- Timeliness of establishing a rapport with physicians</td>
</tr>
<tr>
<td>- Provides two easily assessable locations</td>
<td>- Website</td>
</tr>
<tr>
<td>- Respectful of and tailoring to individual needs</td>
<td>- Securing space for cooking classes, maintenance and storage of kitchen equipment, food and utensils</td>
</tr>
<tr>
<td>- Only rehabilitation facility to offer dietetic services in the Southeastern region</td>
<td>- Literacy level</td>
</tr>
<tr>
<td>- Ability to address other health concerns of patients as well</td>
<td>- Language barriers</td>
</tr>
<tr>
<td>- Family support and participation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- ~1300 admissions in South Coast area</td>
<td>- No shows from weather, forgotten appointments, indifference to change</td>
</tr>
<tr>
<td>- Establishing a rapport with physicians</td>
<td>- Food handling practices at cooking classes</td>
</tr>
<tr>
<td>- Reaching out via social media</td>
<td>- Lack of social support of patients</td>
</tr>
<tr>
<td>- Expansion to neighboring cities</td>
<td>- Economic disadvantages</td>
</tr>
<tr>
<td>- Technological advances such as smart phones and wearables</td>
<td>- Lack of referrals</td>
</tr>
</tbody>
</table>
Heart Failure Survey

Please answer the following 10-question survey about incorporating a designated Registered Dietitian into the Heart Failure Program as a means of reducing the Southcoast Health Heart Failure Patient readmission rates.

1. What is your role in the Southcoast Heart Failure Program?

2. On average, how much time do you spend discussing nutrition with heart failure patients in the outpatient setting?
   A. less than 5 minutes
   B. 5 - 10 minutes
   C. 15 - 20 minutes
   D. 25 - 30 minutes
   E. greater than 30 minutes

3. On a scale of 1 to 5, how effective in reducing readmission rates do you feel it would be for a Registered Dietitian to visit Heart Failure patients in their homes?

4. On a scale of 1 to 5, how effective do you feel an online discussion board monitored and maintained by a Registered Dietitian would be to Heart Failure patients?

5. On a scale of 1 to 5, how effective do you feel having a Telehealth service help reduce readmission Heart Failure rates?

6. Would a webpage ran by an RD for healthy recipes, cooking videos, tips, shopping guide and a monthly newsletter benefit Heart Failure patients?

7. In your opinion, would video conferencing be beneficial to Heart Failure patients?

8. What suggestions do you have for incorporating a designated Registered Dietitian into the Southcoast Heart Failure Program?

9. On a scale of 1 to 5, how effective do you think that incorporating a designated Registered Dietitian into the Southcoast Heart Failure Program will be in reducing readmission rates?

10. How comfortable do you feel giving nutritional advice to Heart Failure patients?
Table 1: Nearby Cooking Class Cost Analysis

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
<th>Cost</th>
<th>Cost per hour</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Life Kitchen</td>
<td>Norwell, MA</td>
<td>$40 per 2 hours</td>
<td>$20/hr</td>
<td><a href="http://www.goodlifekitchen.com/">http://www.goodlifekitchen.com/</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$50 per 3 hours</td>
<td>$17/hr</td>
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<tr>
<td>Helen’s Kitchen</td>
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<td>$80 per 3 hours</td>
<td>$27/hr</td>
<td><a href="http://www.helenrennie.com/kitchen/classes.php">http://www.helenrennie.com/kitchen/classes.php</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$100 per 3 hours</td>
<td>$33/hr</td>
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</tr>
<tr>
<td>Create a Cook</td>
<td>Newton, MA</td>
<td>$80 per 3 hours</td>
<td>$27/hr</td>
<td><a href="http://www.createacook.com/">http://www.createacook.com/</a></td>
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<tr>
<td>Culinary Underground</td>
<td>Southboro, MA</td>
<td>$35 per 1.5 hour class</td>
<td>$23/hr</td>
<td><a href="http://culinaryunderground.com/class-calendar/">http://culinaryunderground.com/class-calendar/</a></td>
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<tr>
<td></td>
<td></td>
<td>$75 for 2.5 hour class</td>
<td>$30/hr</td>
<td></td>
</tr>
<tr>
<td>Johnson &amp; Wales University</td>
<td>Providence, RI</td>
<td>$85 per 4 hour class</td>
<td>$21/hr</td>
<td><a href="http://www.jwu.edu/providence/chefschoice/">http://www.jwu.edu/providence/chefschoice/</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$125 for 4 hour class</td>
<td>$31/hr</td>
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</tr>
</tbody>
</table>

Table 2: Nearby Supermarket Tours

<table>
<thead>
<tr>
<th>Companies</th>
<th>Location</th>
<th>Cost</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compass Nutrition</td>
<td>Groveland, MA</td>
<td>$50 per person for 1 hour tour</td>
<td><a href="http://compassnutritionma.com/services/supermarket-tour/">http://compassnutritionma.com/services/supermarket-tour/</a></td>
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<tr>
<td>Compass Nutrition</td>
<td>Variable</td>
<td>Free</td>
<td>cookingmatters.org/</td>
</tr>
</tbody>
</table>
Cooking Class Series

Our classes will focus on delicious and easy to prepare low sodium meals. Classes will include cooking demonstrations, tastings, hands-on cooking, and discussions on nutritional benefits of featured ingredients and how to make recipes healthier. Below are descriptions and menu ideas for each class.

How to Boil Water:
This introductory class will cover the basics of cooking. We will go over knife handling skills and learn how to make healthy adjustments of your favorite meals. By the end of the class you will able to take on Iron Chef. **Menu includes:** Balsamic marinated chicken with skillet vegetables and oatmeal chocolate chip cookies

Meatless Mondays:
Going meatless one or even two times a week will have a huge impact on your overall health. We will focus on the health benefits of a plant based diet, which will help lower risk of heart disease, improve weight and is lower in fat and calories. **Menu includes:** Veggie burgers, quinoa stuffed peppers, and veggie lasagna

Hold the Salt:
We will discuss the health benefits of a low salt diet. During the class, we will use both fresh and dried herbs in a variety of dishes. **Menu includes:** Sichuan chicken with peanuts and rice and sautéed bananas for dessert

Comfort Foods Favorites:
Keep your family tradition alive and healthy this year. In this class, we will discuss how to make some classic comfort foods without the guilt. **Menu includes:** Kale soup, spaghetti with turkey meatballs and fruited rice pudding

Fresh Catch of the Day:
Take advantage of the fresh fish South Coast has to offer. Fish is low in saturated fats, high in protein, vitamins and minerals that can help lower blood pressure and decrease the risk of heart disease and stroke. We will discuss how to purchase fresh fish and the best methods of cooking. **Menu includes:** Oven fried fish and chips, poached cod with mango salsa and saucy gingered shrimp with zucchini & red peppers

Fats and Oils:
Fats are needed to help daily function but not all fats are created equal. Too much fat can increase the risk of heart disease, diabetes and obesity. In this class we will go over the fats and which are the heart healthiest. **Menu includes:** Hummus, nut crusted pork with oven roasted vegetables and yogurt banana cake

Filling up on Fiber:
Did you know there are two types of fiber? Soluble and insoluble. A diet high in fiber helps lower cholesterol and blood sugar levels. In class we will discuss how to incorporate more fiber in the diet and what are the best sources. **Menu includes:** Easy morning oatmeal with fruit, lentil salad with walnuts and feta cheese, and cranberry orange muffins
References


Beck, Anne, and Stine Kjaer. "Follow-up home visits with registered dietitians have a positive effect on the functional and nutritional status of geriatric medical patients after discharge: a randomized controlled trial." Journal of Clinical Rehabilitation. 27.6 (2012). <http://cre.sagepub.com/content/early/2012/12/20/0269215512469384.abstract>.


**Cooking Series Equipment Pricing References**


http://www.amazon.com/Kidde-FA110-Purpose-Extinguisher-1A10BC/dp/B00002ND64/ref=sr_1_1?ie=UTF8&qid=1394838130&sr=1-1&keywords=fire+extinguisher. accessed 3/14/2014


http://www.amazon.com/Farberware-Classic-17-Piece-Tool-Gadget/dp/B005D6G8OI/ref=pd_sim_k_2?ie=UTF8&refRID=0JFKJ7TM0WMVT34TVG3V. accessed 3/14/2014