

THE USE OF ADDITIONAL REVENUE STREAMS TO EXPAND CASE-MIX IN
OUTPATIENT PHYSICAL THERAPY

THESIS

Presented to the Graduate Council of
Texas State University-San Marcos
in Partial Fulfillment
of the Requirements

for the Degree

Master of HEALTHCARE ADMINISTRATION

by

Martijn van Oort, B.E.S.S

San Marcos, TX
December, 2011

THE USE OF ADDITIONAL REVENUE STREAMS TO EXPAND CASE-MIX IN
OUTPATIENT PHYSICAL THERAPY

Committee Members Approved:

Richard Nauert, Chair

Cristian Lieneck

Tinker Murray

Approved:

J. Michael Willoughby
Dean of the Graduate College

COPYRIGHT

by

Martijn van Oort

2011

FAIR USE AND AUTHOR'S PERMISSION STATEMENT

Fair Use

This work is protected by the Copyright Laws of the United States (Public Law 94-553, section 107). Consistent with fair use as defined in the Copyright Laws, brief quotations from this material are allowed with proper acknowledgment. Use of this material for financial gain without the author's express written permission is not allowed.

Duplication Permission

As the copyright holder of this work I, Martijn van Oort, authorize duplication of this work, in whole or in part, for educational or scholarly purposes only.

ACKNOWLEDGEMENTS

Acknowledgements and thanks are first and foremost due to my committee chair Dr. Richard Nauert, along with committee members Dr. Tinker Murray and Dr. Cristian Lieneck. What started as an idea was transformed into a final product through their guidance, patience, and support. Also due thanks are my parents Gijs and Kay van Oort who never wavered in their support as well as friends Dave Adams, Cameron Freberg, and Teresa Smith. Thank you all for your commitment in helping me through this long, rewarding process.

This manuscript was submitted in November 10, 2011.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	v
LIST OF TABLES.....	ix
LIST OF FIGURES.....	x
ABSTRACT.....	xi
CHAPTER	
1. INTRODUCTION AND BACKGROUND INFORMATION.....	1
Significance of the Study.....	2
Key Terms.....	2
Problem Statement.....	4
Hypothesis.....	4
Scope and Limitations.....	4
Assumptions.....	6
2. LITERATURE REVIEW.....	8
Introduction	8
Physical Therapy and Outpatient Services.....	8
Case-Mix in Physical Therapy.....	9
Current and Future Issues Affecting Revenues in Physical Therapy.....	10
Medicare Reimbursement.....	10
A Larger Medicare Population for the Future	12
Declining Medicare Reimbursement Rates.....	13
The Potential for Value-Based Purchasing System.....	16
Additional Revenue Streams.....	16
Workers' Compensation Testing.....	17
<i>Components of the FCE</i>	18
<i>Work Hardening/Conditioning</i>	19
Post-Offer Employment Testing (POET).....	20
<i>Associated Costs of POET</i>	20
Drug Testing Services.....	21
<i>Associated Costs of Drug Testing</i>	22
Maintenance Programs.....	22
<i>Associated Costs of Maintenance Programs</i>	23
Impact on Personnel.....	23

Conclusions.....	24
3. METHODS OF ANALYSIS AND INTERPRETATIONS.....	25
Introduction.....	25
Assumptions and Universal Figures Used in the Methodology.....	26
Methodological Procedure.....	29
Identification of Total Costs.....	29
Potential Benefits.....	30
Break-Even Analysis.....	32
<i>Break-Even Analysis Calculation</i>	32
Impact on Traditional Patient-Based Revenues.....	32
New Service Line Three Year Pro Forma.....	33
New Service Line Five-Year Projection.....	34
Total Revenue-Expense Three Year Pro Forma.....	34
Questionnaire for Physical Therapists.....	35
Nature of the Data.....	36
4. RESULTS.....	37
Introduction.....	37
Results of the Break-Even Analysis and	
New Service Line Three Year Pro Forma.....	37
Workers' Compensation testing-Functional Capacity Evaluation.....	37
Post-Offer Employment Testing.....	39
Drug Testing.....	40
Maintenance Programs.....	41
Results of the New Service Line Five-Year Projection.....	42
Results of the Total Revenue-Expense Pro Forma.....	43
5. DISCUSSION.....	44
Impact of Functional Capacity Evaluations.....	44
Impact of Post-Offer Employment Testing.....	45
Impact of Drug Testing.....	45
Impact of Maintenance Programs.....	46
Overall Financial Impacts of Additional Revenue Streams.....	46
Considerations for Future Research.....	47
Conclusions.....	48
APPENDIX A: QUESTIONNAIRE FOR FUTURE RESEARCH.....	49
APPENDIX B: BREAK-EVEN ANALYSIS.....	50
APPENDIX C: NEW SERVICE LINE THREE YEAR PRO FORMA.....	54

APPENDIX D: TOTAL REVENUE-EXPENSE PRO FORMA.....	59
APPENDIX E: ASSOCIATED GRAPHS.....	63
REFERENCES.....	64

LIST OF TABLES

Table	Page
1. Fixed Costs Incurred Through New Program Implementation.....	30
2. Variable Costs Incurred Through New Program Implementation.....	30
3. Revenue Sources for Additional Service Lines.....	33
4. List of Expense Percentages.....	35
5. New Service Line Five Year Projection.....	41

LIST OF FIGURES

Figure	Page
1. Distribution of Medicare Reimbursement per Outpatient Setting.....	12
2. Break-Even Analysis Chart-Functional Capacity Evaluations.....	38
3. Break-Even Analysis Chart-Post-Offer Employment Testing.....	39
4. Break-Even Analysis Chart-Drug Testing.....	40

ABSTRACT

THE USE OF ADDITIONAL REVENUE STREAMS TO EXPAND CASE-MIX IN OUTPATIENT PHYSICAL THERAPY

by

Martijn van Oort, B.E.S.S.

Texas State University-San Marcos

December, 2011

SUPERVISING PROFESSOR: RICHARD NAUERT

A financial forecast methodology was developed to explore the effectiveness of implementing additional revenue streams in outpatient physical therapy. Revenue streams in physical therapy are projected to decline in the future. In order to maintain sustainability, physical therapists will need to investigate additional revenue streams, or service lines. The purpose of this study was to explore options to replace projected lost revenue with new service lines that may have the potential to exceed the projected revenue losses. The additional revenue streams evaluated in this study were Workers'

Compensation testing, post-offer employment testing, drug testing, and maintenance programs. Financial models were created to show the potential effectiveness of implementing each of these new programs. The models included: 1) a monthly pro forma strictly focusing on the impact of the revenue streams of interest in the study, 2) a long term financial plan for five years after project implementation, and 3) a summary pro forma to project potential impact of the additional revenue streams on total outpatient physical therapy clinic operation. Finally, a questionnaire was developed to assist physical therapists with an in-house evaluation of their clinics to determine if adding the additional revenues streams would be a viable option for their practice.

The results of this study suggest that a conservative implementation of the additional revenue streams can be beneficial to outpatient facilities. Potential benefits, substantiated by the financial models indicate that clinics can increase cash revenue and expand their case-mix. The addition of new service lines also can have a substantial impact on overall clinic revenue and income.

CHAPTER 1

Introduction and Background Information

Health care providers are under siege as future trends project declining reimbursements yet rising costs (ACP, 2011). Although demand for medical services will increase due to an aging population, medical providers will be required to seek additional revenue streams in order to maintain profitability.

There are many foreseeable changes to the health care landscape that will impact health care organizations including physical therapy (PT) clinics. Specific healthcare challenges include sustainability with regards to revenues, variable reimbursement rates, legislative actions to control future health care costs, and increased Medicare patient volumes with reduced reimbursement levels. As a result, PTs must counter these industry changes with either increased volumes of patients, higher reimbursement rates, and/or additional service lines in order to maintain sustainability as a free-standing PT organization.

Providers will need to develop additional income sources to help meet financial needs and to promote the growth of the organization (Tu & Ginsburg, 2006). However, health care does not always model itself after normal business archetypes and therefore opportunities to develop additional revenue streams or new service lines are often ignored. Presently there is a national consensus on whether Medicare can remain viable. Even though legislative action has prevented massive decreases in reimbursement rates, Medicare reimbursements to providers are not matching the inflation rate. In addition,

the largest portion of the American population is aging and quickly becoming Medicare eligible, which most likely will cause a sharp increase in Medicare beneficiaries. The American Medical Association predicts that Medicare may face a 40% decrease in Medicare reimbursements by 2016, and practice costs will raise nearly 20% by 2016 (AMA, 2008).

Significance of the Study

For PT clinics, health care reimbursement pressure may mean that practitioners will experience higher patient volumes and lower profit margins. Therefore, a sensible immediate strategy for PT providers would be to strive to become more efficient and to think non-traditionally with regards to cutting costs and/or seeking out additional revenue streams, or new service lines (Mayo, 2011).

Potential service lines that are not main stream for most PT clinics include: Workers' Compensation testing, post-offer employment testing (POET), drug testing, and maintenance programs offering fitness memberships to past patients (maintenance programs). These additional service lines may augment future financial security and sustainability for PT's by increasing clinic net operating income. If properly marketed, each new service line may help to offset decreases in third party reimbursements while maintaining a steady client base, expanded case-mix, and as a result, a positive cash flow.

Key terms

Additional Revenue streams (New Service Lines): New, creative, and innovative means of creating potential programs and generating clinic income.

Case-mix: The mix of patients seen in a health care facility based on demographics, diagnosis, and services rendered.

Drug testing: The testing of individuals for banned or illegal substances.

Functional capacity evaluations (FCE): "...a systemic method of measuring an individual's ability to perform meaningful tasks on a safe and dependable basis (Matheson, 2003)."

Maintenance programs: The practice of offering exercise memberships to past or current patients in order for them to continue exercise routines in safe and monitored conditions.

Post-offer employment testing (POET): A preventative tool used for the screening of employees in order to determine their functionality for a particular work or job (Scott, 2002).

Pro Forma: A financial projection prepared in order to consider the effects of a particular activity. It is typically a projection based on assumptions and covers a set period of time.

Workers' Compensation: An employer paid and state mandated insurance for workers.

Work Conditioning: A program focused on physical conditioning and addresses strength, endurance, motor control, flexibility, and cardiopulmonary abilities (Lechner, 1994).

Work Hardening: "...an individualized, work-oriented activity process that involves a client in simulated or actual work tasks (Commision on Practice. AOTA, 1986)." Tasks are structured in order to increase worker strength, stamina, endurance, and psychological and emotional abilities (Commision on Practice. AOTA, 1986).

Problem Statement

Due to the uncertainty of the U.S. health care industry with regard to access, costs, and reimbursements, the financial sustainability of current PT outpatient practices is questionable. Numerous factors in health care are pointing to decreasing revenues and profits for PT practices. Consequently therapists will need to find additional revenue streams (new service lines) to remain profitable.

Hypothesis

It is hypothesized that additional revenue streams including Workers' Compensation testing, POET, drug testing, and maintenance programs will provide outpatient PT clinics significant financial benefits to counter changes in decreasing revenues in outpatient PT.

Scope and Limitations

The scope of this study targeted financial projections and cost-effectiveness of PT outpatient revenues related to the addition of new service lines. The research was limited to four different categories (Workers' Compensation testing, POET, drug testing, and maintenance memberships) of alternative or additional revenue streams for PT clinics. Alternative revenue streams and service lines are by no means limited to those chosen for this study.

Medicare reimbursements account for about 22% of PT revenues (McAfee, 2010). Moreover, the Medicare fee-scale influences the American health care system as private reimbursement sources (private insurance, and self pay) typically change in concert with Medicare changes ((Hariri, Bozic, Lavernia, Prestipino, & Rubash, 2007)). Therefore, the literature review for the study focused on Medicare fee schedules and factors that are

predicted to impact the preeminent reimbursement schedule for provider services.

According to the *Journal of Bone & Joint Surgery*, a 2003 survey of 33 health plans serving around 30 million members, identified that the plans with the largest enrollment were directly influenced by Medicare's resource based relative value system (Hariri et al., 2007).

Workers' Compensation was established by the United States federal government but is administered and sometimes altered via state law. There are many local and regional factors involved in Medicare spending which create reimbursement rate differences amongst regions. Service use is a means of adjusting Medicare spending in order to remove differing payment rates and health status between regions (MEDPAC, 2009). Since Austin, Texas was the regional focus area for this study, the Texas Workers' Compensation rates were used for this study in order to maintain regional data integrity with the Medicare figures.

The three-year pro forma models used in the study were generalized and based on traditional staffing models in outpatient physical therapy (Adams, 2011). The number of clients projected for each new service line was designed conservatively based upon attainable expansion versus allotted marketing expenses. Costs and revenues in the new Service Line Three Year Pro Forma were limited to those directly associated with each additional service line. Costs for existing gym and evaluation equipment were not factored into the financial projections as these expenses were already included as funded capital in traditional PT and considered "sunk costs."

Assumptions

Several assumptions were made for this investigation which centered on PT clinic financial capabilities and available resources. These assumptions were based on an extensive review of the literature, investigator interviews, and regional market research.

Marketing costs were figured into cost analyses with the assumption that if completed successfully, there would be increased numbers of clients for the newly implemented programs. This is a significant assumption and marketing analysis of service areas, varying by region, are beyond the extent of this study. It was also assumed that companies providing training and material for functional capacity evaluations (FCEs) would adhere to the standards set forth by the Occupational Safety and Hazard Administration (OSHA, 2011). For example, OSHA has set guidelines for lifting techniques, or ergonomics, in their OSHA Technical Manual (Occupational Safety and Health Administration, 2011). They also publish several job specific manuals for lifting and working techniques and recommend that FCE's should be performed by trained and certified physical therapists (OSHA, 2011). While training and certification costs are accounted for in this study, it is assumed PTs adhere by these guidelines in order to provide quality care and treatment.

It was assumed that outpatient physical therapy clinics have appropriate equipment and space to offer new service lines such as Workers' Compensation testing and POET. PT clinics generally include a treadmill, treatment tables, stationary bikes, hand weights, elastic tubing/bands, physioballs, pulleys, wands, medicine balls, stackable steps, and even exercise prescription software (Novasic, 2010). Consequently, most of the new programs require little to no start-up capital and equipment outside of existing

resources, while Workers' Compensation testing requires some new equipment. Most equipment of this nature already exists in PT and was not considered when calculating new equipment costs in this investigation.

CHAPTER 2

Literature Review

Introduction

Future health care reimbursements in the U.S. are forecasted to decrease. As a result, providers of outpatient PT will need to cut costs and develop creative methods to expand revenue generation. Two primary challenges exist for PT clinics with regard to payer reimbursement. Medicare cannot continue present reimbursement rates in the future and remain solvent (Hariri et al., 2007). The Medicare system has already outspent budgeted expenditures each year for almost a decade. Second, the baby boomer generation is has entered Medicare eligibility and will start to demand rehabilitative services such as outpatient therapy. As a result, PTs will be receiving less money per patient while at the same time seeing more Medicare patients. This chapter reviews the pertinent literature relevant to the changing reimbursement climate for outpatient PT and examines four possible additional revenue streams that may offset future predicted declines in reimbursement levels.

Physical Therapy and Outpatient Services

According to the Centers for Medicare and Medicaid Services (CMS) PT includes, “testing, measurement, assessment and treatment of the function, or dysfunction, of the neuromuscular, musculoskeletal, cardiovascular and respiratory system, and establishment of a maintenance therapy program for an individual whose restoration potential has been reached” (Centers for Medicare and Medicaid Services,

2009, p. 4). The goal of PTs is to rehabilitate patients back to full functional ability. Physical therapists can use a number of techniques in order to accomplish this goal including, but not limited to: cryotherapy modalities such as electrical stimulation, ultrasound, mechanical traction, and iontophoresis, manual techniques such as deep tissue massage, myofascial release, passive range of motion, manual stretching, and joint mobilizations, stretching, and aquatic therapy (Adams, 2011).

Physical therapy treatments are usually considered conservative and are minimally invasive. They require patience, time, and input from the patient in order for success to occur. In some circumstances physical therapy may even be the low cost solution to surgery and preferred by patients. Physical therapy is provided in two different settings: outpatient and inpatient. While both inpatient and outpatient settings rely heavily on Medicare reimbursements, they are recognized under different parts of the Medicare program. Also known as ambulatory care, outpatient services do not require an overnight stay in a health care delivery setting or institution such as a hospital. There are many different types of outpatient providers offering a wide array of outpatient services; PT represents a large percentage of Medicare Part B reimbursements.

Case-Mix in Physical Therapy

The Centers for Medicare and Medicaid Services defines a case-mix as different groups based on acuity or need for service (CMS, 2011). Case-mix also may refer to the different payer sources for a health care organization. Physical therapists generally receive reimbursement for the services they provide from three major financial sources: those that are federally insured, privately insured, or those who are self-insured. In order to increase income in the future, PTs will need to expand their case-mix to include non-

traditional cash opportunities to sustain cash flows. Additional revenue streams such as Workers' Compensation, POET, drug testing, and maintenance programs may provide PT's with options to acquire more cash based services. Ancillary services can help to increase the number of clients who are paying on a cash basis, rather than insurance billings and are a vital step in countering decreasing revenues (AHC Media, LLC, 2011). The addition of new product lines, as long as proper discounts from suppliers and adequate revenue goals are set, can also expand the case mix in the necessary fashion (AHC Media, LLC, 2011).

Current and Future Issues Affecting Revenues in Physical Therapy

Medicare reimbursement.

The Centers for Medicare and Medicaid Services defines a rehabilitation organization as one which provides an, "integrated multidisciplinary program designed to upgrade the physical function of handicapped, disabled individuals by bringing together as a team specialized rehabilitation personnel" (CMS, 2004, p. 1802). At a minimum, a rehabilitation agency must provide PT, occupational therapy, or speech pathology services, and a rehabilitation program which, in addition to outpatient PT and outpatient occupational therapy services, includes social or vocational adjustment services (Centers for Medicare and Medicaid Services, 2004). In 1989, the Omnibus Consolidated Reconciliation Act created a fee schedule that would become the basis of provider payments in America (Hariri, Bozic, Lavernia, Prestipino, & Rubash, 2007). Instead of basing payment rates from provider charges, the Health Care Financing Administration developed a resource based relative values system (RBRVS). The goal of the RBRVS is to create a relative value unit (RVU) for each current procedural terminology code, or

CPT code for each service provided. CPT code is common billing terminology which links procedures to specific numeric indicators related to procedures. Each indicator refers to a specific treatment performed by a health care provider. For example, the CPT code 97001 refers to an initial evaluation of a patient by a physical therapist. The RVU's assigned to these CPT codes are non-monetary units of measure indicating the relative resources required to perform the specific task.

Medicare fee-schedules show reimbursement rates for Medicare's allowable treatments. Each diagnosis determined acceptable for PT by Medicare has a certain set of allowable procedural (CPT) codes to accompany it. Each code is assigned three different types of RVU values, "1) an RVU value for provider work, 2) an RVU value for practice expense, 3) an RVU value for professional liability insurance (i.e. malpractice (Hariri, et al., 2007, p. 2538)". Medicare reimbursements combine provider work, practice expenses, and malpractice insurance fees. These procedural codes are identifiers for different treatments performed by the therapist. The therapist submits these codes along with the proper diagnosis to Medicare and is reimbursed for the services provided. This is known as a fee for service system.

A fee schedule is a complete listing of fees used by Medicare to pay doctors or other providers/suppliers. These fees reflect the effort and time required for each service and also the individual complexities of each service (Shatto & Clemens, 2010). This comprehensive listing of fee allowables is used to reimburse providers and/or other providers on a fee-for-service basis. Medicare monitors spending by using the Sustainable Growth Rate (SGR) system, and the goal of the SGR system is to match

medical expenditures with rate of overall economic growth. Therefore, when spending on provider services exceeds the economic growth rate, cuts in spending are proposed.

Medicare has been a primary reimbursement source for outpatient PT reimbursements through to the Medicare Part B Fee Schedule. The graph below illustrates the distribution of Medicare funds to different outpatient settings. The primary recipients of Medicare reimbursements are outpatient hospitals, private physical therapy practices, and outpatient rehabilitation facilities (Ciolek & Hwang, 2008).

Distribution of Medicare Reimbursement per Outpatient Setting

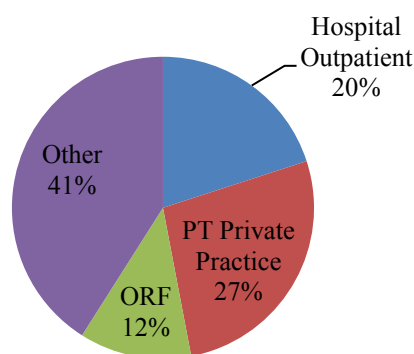


Figure 1. Distribution of Medicare Reimbursement per Outpatient Setting

Note: from Ciolek and Hwang 2008.

With a growing number of eligible Medicare beneficiaries in the United States PTs will face the following decision in the future: will practitioners continue to see Medicare patients at a lower reimbursement rate, or decide to forego Medicare patients and cater to the privately insured? Either of these scenarios may challenge economic stability for outpatient PTs.

A larger Medicare population for the future.

Between 2010 and 2030, nearly 80 million Americans will become Medicare eligible (Wilensky, 2003). These newly eligible persons will be primarily made up of the

baby boomer generation. As people continue to grow older and live longer the need for extended health care will increase. PTs will have a larger numbers of individuals to service in the future. The American Hospital Association (AHA) reported that the number of baby boomers will double the numbers of those currently aged 65 and older, and they will have significantly more chronic conditions that will need to be treated. The AHA also predicts that one out of every three boomers (over 21 million in number) will be considered obese, one of every four boomers will be living with diabetes, and nearly one out of every two boomers will be living with arthritis (American Hospital Association, 2007). The boomers will also directly impact outpatient PTs by requiring eight times more knee replacements than performed today (American Hospital Association, First Consulting Group, 2007). This is a prime example of the potential volume of clients that outpatient PT will face in the future. While an increasing volume of patients may be viewed as a positive for physical therapists, this volume increase will consist of patients whose care will be reimbursed at a potentially decreasing rate (Medicare). Reimbursements may decrease to a point where the cost to provide service exceeds the amount of revenue received.

Declining Medicare reimbursement rates.

It has been predicted that Medicare payment rates for PT services will be reduced by nearly 30% over the next three years (Shatto & Clemens, 2010). The Patient Protection and Affordable Care Act also requires reduction in payment rates in the near future (Foster, 2010). Although Medicare reimbursement rates have survived recent suggested cuts (MMA, 2007), future Medicare expenditures will most likely be lower than the recent status quo. Unfortunately, provider-related spending has been exceeding

the SGR spending levels by significant amounts since 2001 (Shatto & Clemens, 2010). Reductions have been scheduled every year from 2001-2011, including a proposed 2010 reimbursement decrease of 23%, but thus far legislative overrides have prevented them from taking place (Shatto & Clemens, 2010).

Under current methods, Medicare reimbursements would eventually be relatively lower than Medicaid payments by 2019 and would be only about one-third of the relative current private health insurer's prices (Shatto & Clemens, 2010). Under these conditions, all Medicare beneficiaries would see tremendous problems accessing standard care (Shatto & Clemens, 2010). Considering that a large portion of the U.S. population will soon be dependent on Medicare eligible beneficiaries, Medicare providers will have difficulty handling the costs of the increased patient volume. In his testimony to the U.S. House of Representatives, Congressional Budget Office (CBO) Director Donald Marron suggested that while there is current evidence to suggest providers are willing to ramp up the volume and intensity of services, some providers will decide not to see Medicare patients in the future (CBO, 2006).

While congressional actions have prevented major cuts in Medicare reimbursements in the last decade, providers have seen a decrease in their annual income. Provider related spending has been greater than the SGR since 2001, and reimbursements have been maintained at considerably lower levels than that of economic inflation (Hariri et al., 2007). For example, providers have seen a 7% decrease in net income from 1995 to 2003 (Tu & Ginsburg, 2006).

In March 2010, Congress passed the Patient Protection and Affordable Care Act. This act currently ensures a commitment of \$940 billion over the next 10 years and will

expand coverage to nearly 32 million uninsured Americans. However, these new costs will be offset by both increases in taxes and a major decrease in Medicare spending (United Health Care, 2010). According to the United Health Care report the act includes a creation of new insurance market places, which would increase access to coverage and form state-based exchanges. It would also reform large parts of the insurance field, make fundamental changes to Medicare, as well as close the “donut hole”, expand the Medicaid Program, reform fraud and abuse law, health information technology, and add prevention and wellness initiatives.

Legislative initiatives have yet to make any significant changes to cope with the predicted sustained growth of patients covered and the increasing cost requirements. While it appears that legislators and their constituents at the national and state levels are voicing the need to fix Medicare reimbursement issues (like modifying SGR codes, inaccurate referrals, etc.), the lack of political will for action has only delayed changes to date.

A possibility remains that Medicare may eventually collapse due to increasing financial burden and the growing Medicare eligible population. Most analysts agree that without coverage or reimbursement cuts to Medicare, the program cannot continue. The Patient Protection and Affordable Care Act of 2010 was promoted as one way to help reduce overall health costs and increase coverage to the U.S. citizen but, implementation of the legislation has invoked worry from many providers. Practitioners see the new requirements as a way of forcing them to see more patients, at a lower cost.

The potential for a Value Based purchasing system.

One of the focal points of suggested Medicare reform has been the introduction of value-based reimbursements. The goal would be to move providers away from getting paid per service and rather reward quality performance and outcomes. This was known as a pay for performance system, or P4P, and is now termed a Value Based purchasing system. This type of payment plan focuses on quality rather than volume and intensity of services (Hariri et al., 2007). Providers and physical therapists alike would be incentivized for achieving, “standard, recognized, and attainable measures”. For physical therapists and providers alike the implications of pay-for-performance are not without new patient care challenges such as, the need to work with higher volumes of patients while providing high quality care. While there is potential for P4P to be a more efficient source of outpatient income compared to Medicare fee-for-service, it has not been tested or implemented widely.

Additional Revenue Streams

Revenue streams are the income a business receives from its operational activities. The terms new, or additional revenue streams are now being used to mean new, creative, and innovative means of creating potential programs and generating income. In PT, additional revenue streams often mean offering programs which do not require third party payer involvement and are distinct from usual therapy practices. These may include programs offered to previous patients, individuals in the community, businesses, or even local government agencies. There are numerous potential business opportunities available to practitioners in creating additional revenue streams. The opportunities to develop new and additional revenue streams for many PTs will probably

be related to their comfort levels and willingness to embrace change. Change can lead to the development of fresh and innovative ideas, but it is not without risk. The cloudy nature of the future of health care may motivate PTs and other health professionals to create new revenue streams to supplement daily business functions.

The four different types of additional revenue streams reviewed for this study include: Workers' Compensation testing, post-offer employment testing, drug testing, and maintenance programs. This study will review the cost effectiveness of implementing these four different types of programs different in outpatient therapy settings.

Workers' Compensation testing.

Workers' Compensation testing requires an outpatient facility to provide a plethora of services. A PT may evaluate a client filing for Workers' Compensation and then bill Workers' Compensation for time spent. The main service provided is called a FCE. Other services PTs may provide in relation to Workers' Compensation are work hardening and work conditioning programs. Much like the post-offer work test, the FCE provides employers with critical information needed to make decisions about an employee's ability to either start a new position or return to work from an injury. Workers' Compensation or FCEs generally require more time and attentions from the PT and trained personnel. They are much more specific and require larger amounts of data than basic work testing. King, Tuckwell, & Barrett (1998) reported that FCEs be used in litigation cases as the basis of determining levels of disability (ref). Employer based insurance companies often rely on FCEs to determine the amounts of time and money spent on benefactor claims (King et al., 1998).

King, et al (1998, p. 856-857) stated that there are several types of FCEs:

The differences in FCEs revolve around the way they assess cooperation and sincerity of effort and safety, determination of end points for stopping clients during performance of manual material-handling tests, use of isometric testing, training processes, degree of work simulation, ability to alter the test design, generic versus job-specific testing, expense of equipment, use of algorithms for scoring, methods of projecting endurance to an 8-hour workday, degree of standardization, evidence of reliability and validity, and so on.

The type of FCE selected for patient evaluation should be dependent upon several factors such as the cost to administer each test, technical support, and the validity of each FCE (King et al., 1998).

Components of the FCE.

An FCE includes the following components: an accurate physical demands analysis of a specific job or occupational tasks, clear and acceptable criteria for employment, a physical screen, and also standardized and objective assessments. For the data-gathering phase, the test administrator collects a client's medical, social, and vocational history (King et al., 1998). Often, historical information is gathered through an interview process prior to the physical portion of the test (King et al., 1998).

The next phase in the FCE is the physical examination. Functional capacity evaluations often include the physical examination in order to identify conditions or disorders which are contraindications for the test about to be performed (King et al., 1998). If contraindications exist patients are either monitored closely during the exam or the exam is halted.

Next, physiological measurements such as muscular endurance and cardiovascular endurance are recorded. These measurements help determine the client's physical abilities in relation to the work he or she does. There are several different approaches used for physiological measurements including the Isernhagen and the Blankenship models (King et al., 1998). Both of these models help test administrators determine appropriate cardiovascular testing and weight lifting levels. Finally, the functional performance portion of the evaluation is administered to the client. Most FCE's take into consideration the physical demands of the client's work through specifications provided by the Department of Transportation (DOT) (King et al., 1998). The DOT lists both the physical requirements of the job and the physical capacity a worker must have in order to perform job tasks (King et al., 1998). After the FCE of the job candidate, a report is created that contains the health care professional's recommendations regarding the candidate's abilities and is sent to the employer. The outpatient facility can also provide feedback about each client's perception of his or her own current physical abilities.

Work hardening/conditioning.

Work hardening and conditioning programs address and minimize the economic and human costs with regards to work-related injuries (Lechner, 1994). These programs generally involve a client simulating his/her work activities in a controlled, rehabilitative setting. In PT, the therapist administering the program will monitor the client and look for any improvements in his or her productivity and work related stamina (Lechner, 1994). Work conditioning programs are often defined as, "a program with an emphasis on physical conditioning that addresses the issues of strength, endurance, flexibility,

motor control, and cardiopulmonary function” (Lechner, 1994). Work hardening programs typically focus on utilizing both real and simulated work activities specific to what the client’s job is and last eight hours a day, five days a week for eight weeks (Lechner, 1994).

Post-offer employment testing (POET).

According to Liz Scott the purpose of POET is to, “determine if the applicant has the physical capabilities to perform the essential functions of the job.” Scott goes on to state, “the goal is to prevent needless injury and associated costs” (Scott, 2002, p. 2). By issuing these tests, an employer can limit needless medical costs incurred from easily avoidable employee accidents. Post-offer testing occurs once a prospective employee has been interviewed and hired by an organization. Only then does the organization have the ability to screen the new employee for disabilities that would affect his or her ability to perform the new position. Each candidate’s abilities are matched to the general abilities of the job requirements of the proposed position (Carson, 2011).

Associated costs for POET.

Post-offer employment testing has several associated fixed costs along with minimal supply costs. These costs are listed in Chapter 3, Table 1. Equipment for POET would include standard physical therapy evaluation equipment, which includes dynamometers, a force gauge to document push/pull values (Adams, 2011), and goniometers. NIOSH boxes, steps, a metronome, and materials used to simulate job specific tasks will also be used (Carson, 2011).

Drug-testing services.

Drug-testing is the screening for illegal substances prior to the beginning of employment. Like post-offer testing, drug testing occurs after the candidate has been hired by the organization. According to the American Management Association, as cited in a 2007 US Department of Health and Human Services Study, 62% of workplaces had some sort of drug testing program in place in 2004 (U.S. Dept of Health and Human Resources, 2007). The employer primarily pays for these tests, but this is not always the case. Individuals may also receive drug screens for personal reasons and privately pay for them. There is no limit to the numbers of individuals who can, or cannot receive a drug screen. Generally, drug tests are administered by a company for the following reasons: 1) pre-employment, 2) reasonable suspicion, 3) post-accident, 4) post-treatment, and 5) at random. The Substance Abuse and Mental Health Services Administration requires that most organizations performing drug screens to test for five basic substances: that include marijuana, cocaine, amphetamines, opiates, and phencyclidine (U.S. Dept of Health and Human Resources, 2007). Other tests may be ordered to screen for other substances such as barbiturates, methadone, hydrocodone, alcohol, benzodiazepines, methaqualone, and propoxyphene (US Dept of Health and Human Resources, 2007). Health care facilities often offer drug screening simply to market their services to businesses in the surrounding community because they feel that the more businesses they can partner with, the more business they will receive. Usually drug-testing services do not normally require scheduled appointments in the outpatient facility because drug screens can be done on a walk-in basis.

Associated costs for drug-testing.

Implementing a drug-testing program will require a PT facility to consider several fixed and variable costs. Specific cost figures for drug testing can be found in Appendix B. Fixed costs include licensing and certification costs, equipment costs, and some initial marketing costs. Variable costs include supplies and employee hourly pay rates. The supplies include cups to contain the sample, bags for packaging the sample, and test strips.

Maintenance programs.

Maintenance programs can be a valuable financial resource for outpatient PT programs because for an affordable monthly fee, patients can receive extended care after insurance coverage has been exhausted. These programs are popular with elderly patients as maintenance programs have fees as low cost gym memberships (usually less than the cost of a single day of therapy). Maintenance programs can provide opportunities for patients to continue therapeutic exercise, except there is no direct treatment from the therapists. Patients typically are allowed to visit facilities on their own time and choose the length of their work out. Maintenance programs should not interfere with the licensed professional's normal patient load and can often be monitored by lower level employees. A therapist can offer advice and any other employees may provide assistance and monitoring as well. Maintenance plans can help both the provider and the benefactor in many different ways. First of all, it allows the provider to monitor patients and improve outcomes without crowding the outpatient facility with too many Medicare patients. It also allows the provider to dedicate more time to other patients in the clinic. The patient also benefits by having the ability to continue to exercise without depleting

all his or her Medicare benefits. Finally, maintenance programs help providers build relationships with the community by providing a place for people to come and work out who do not necessarily feel comfortable in a public or commercial gym.

Associated costs for maintenance programs.

There are very few additional costs associated with the implementation of maintenance programs. Most equipment required for these programs is already found in the physical therapy facility and are considered sunk costs, and primarily represent existing exercise and rehabilitation equipment. PTs do not need to spend time with maintenance clients therefore PT salary costs are not considered in associated costs.

Impact on personnel.

If implemented, the additional revenue stream programs reviewed for the study should have little impact on a PT's time spent with his or her patients. The proposed programs Workers' Compensation, POET, drug testing, and maintenance for this study require minimal input from licensed professionals such as PTs, and much of the suggested programming with each can be administered by employees that are not health care professionals, such as PT aides.

For example, the implication of a drug testing program requires no input from a licensed physical therapist, if the PT's facility employs at least one PT Aide. The aide would just require some basic training and would then be able to perform most all drug screens required. Post-offer employment testing could be handled by other employees such as PT assistants and aides for the majority of the time. Any portion of POET requiring a PT would usually take 15 minutes, and could even be performed by other licensed professionals such as athletic trainers and certified exercise physiologists.

Workers' Compensation testing requires more time and effort from PTs, but still generally ranges from 30 minutes to an hour in time, and is billable via the 97750 Medicare CPT code (Trailblazer Health Enterprises, LLC., 2011). If an outpatient PT facility employs the proper personnel, additional revenue streams can be implemented with minimal impact on PTs.

Conclusions

Declining fee-for-service reimbursements coupled with proposed new reimbursement models threaten PTs incomes. However, therapists may be able to control future decreases in income by implementing additional revenue streams. The following chapter describes the methodology for the proposed study and evaluates the potential of adding additional revenues streams for outpatient PT, this intervention can reduce administrative costs and increase cash-based revenues offsetting future declining reimbursement rates.

CHAPTER 3

Methods of Analysis and Interpretations

Introduction

This chapter provides an in-depth review of the financial forecast methodology described in the introduction section of the study. The identification of data sources, methodologies, and the descriptions of calculations are discussed and explained in the following sections.

The financial forecast analyses for the study included the evaluation of potential benefits of implementing additional revenue streams; furthermore, break-even analyses were performed for several implementation strategies. The analysis included eight major steps:

- 1) Identify all of the potential fixed and variable costs that will be incurred.
- 2) Identify all of the potential benefits including potential revenues.
- 3) Perform a break-even analysis in order to determine the amount of implementation needed for success at each type of clinic.
- 4) Determine the amount of revenue lost from a decrease in traditional PT services.
- 5) Create a cost-benefit analysis in the form of a monthly pro forma presenting data on a month to month basis for a total of three years.

- 6) Create a five year plan with the first three years using the data from the pro forma and the final two years using a respective 5% and 3% increase in client growth.
- 7) Create a separate pro forma reflecting the impact of additional revenue streams on a traditional PT revenues and expenses,
- 8) Create a questionnaire for physical therapists to answer in order to create customized pro forma.

The projections were based on the implementation of four new service lines selected for this study, which were Workers' Compensation (FCE), POET, drug testing, and a maintenance programs. It was assumed that each program started with a minimal amount of clients and slowly increased growth at a moderate rate as determined by the researcher through interviews and market research. Staffing included a PT, a PT assistant, and a PT aide. For each service line added and analyzed, each of the three full time equivalents (FTEs) categories were factored into consideration. Personnel costs served as a variable in the analysis with the models designed to optimize salary costs while meeting standards for care. For example, POET exams require a portion of the physical examination (around 10-15 minutes) to be performed by a licensed PT. Then the PTA and the PT Tech can then perform the rest of the evaluation.

Assumptions and universal figures used in the Methodology

The original break-even analysis for the study used both high and low-end projections. The estimates represent values that the researcher obtained through market research and interviews. The pro forma models use only the high-end expense estimates

determined in the break-even analysis in order to provide the most conservative financial data.

To be consistent, marketing, salaries, and utilities were estimated at constant rates throughout the analyses. Each implemented program was allotted \$1,000 for marketing in the first year. This marketing cost was increased by 50% every additional year. For instance, with the exception of the maintenance option (memberships are generally gained through patients who have concluded traditional treatment) option, marketing costs were increased by 50% by the investigator for each of the following years.

All salary expenses were gathered from the Bureau of Labor Statistics. Salary figures were used to calculate both training costs (included in the fixed costs) and the unit salary cost per new service line (represents a variable cost). Due to the increase in marketing costs each year, a respective and conservative clientele growth was forecasted for each implementation for each of the three years. Salary expectations included a 10% yearly increase based on the revenue gain in the New Service Line Three Year Pro Forma located in Appendix C.

Functional capacity evaluations and POET requires clinic space to be implemented. Costs for both of these implementations were calculated based on a 12 foot by 10 foot area, or 120 square feet of space. This space was allotted at an estimated overhead rate ranging from \$.88-\$1.75 per square foot based on City of Austin, TX rates (City of Austin Utilities, 2010). The range in estimates allowed for high and low end estimates to be used. Projections covered the utility costs associated with the floor space used. As equipment can be mutually shared between both FCEs and POET, the

associated costs of the equipment were split between the two programs. However, the force gauge costs used for FCE testing were accounted for.

Client numbers for FCEs were increased by one every four weeks to provide conservative estimates of client volume. Equipment costs were decreased from Year 1 by 75% due to the initial purchase accounting for any required equipment. Additionally, chargeable hours were determined to be the hours a PT would spend with the actual FCE candidate. The 3.5 hours appropriated to chargeable time was determined using Medicare reimbursement guidelines. Chapter 134 of the Texas Administrative Code reports the FCE can be billed as a physical performance test as described by the Medicare fee schedule (Texas Department of Insurance, Division of Workers' Compensation, 2011). Therefore, both an interview with a practice manager and the Medicare fee schedule identified the charge amount for a FCE for this study. The hours which were not able to be charged represented the average time spent to complete necessary paper work and filings/submissions. Based on interviews and researcher experience, this time was determined to be approximately thirty minutes or .5 hours (Adams, 2011). Licensing costs associated with FCEs ranged greatly during market research and interviews. Companies were reluctant to reveal prices for these costs. Therefore, the original break-even analysis used two generalized estimates of \$1000 and \$500 to provide high and low end estimates. These estimates were based on industry sources and are listed in appendix A along with the results of the break-even analysis.

Projections used for POET in the break-even analysis were obtained via interview and market research. Equipment costs used for POET equaled those used for FCE (with

the exception of the force gauge). Charges were conservatively assigned consistent with market rates. The break-even analysis for POET can be found in Appendix A.

The projections used in the break-even analysis were obtained by both market research and interviews with industry workers. Charges were estimated at a conservative rate as advised via interviews. Drug testing was the only implementation to have supply costs, which were accounted for and included cups, packaging, test strips, and other relevant supplies.

A break-even analysis on maintenance programs was not conducted because there were no associated fixed or variable costs. Equipment used for maintenance is considered a sunk cost as it would already be accounted for in clinic start-up costs. Maintenance memberships produce a small but steady revenue stream in a clinic. The \$30 per month charge in the Appendix C pro forma reflected market research. Market research indicated that average gym memberships were approximately \$40-\$60.

Methodological Procedure

Identification of total costs.

The first step of the study method included the identification of all costs associated with the new service lines. This involved calculating both the total fixed-costs (Table 1) and the total variable costs (Table 2) for each implementation. The fixed costs represent the necessary costs needed to implement the program including the training, personnel, hardware and software, and certification and licensing costs. The variable costs are costs that fluctuate per unit of new program and include salary and supply costs.

Table 1. Fixed Costs incurred through new program implementation	
Licensing/Certification	Each program may require certain licensing and certification fees in order to implement the program. <i>Costs were obtained via interviews with companies related to the proposed programs along with some conservative estimates based on market norms.</i>
Equipment	Equipment may need to be purchased, i.e. weights and boxes for FCE's and post-offer employment testing. <i>Can be determined by company interview and by determining average cost of required equipment for each proposed program.</i>
Training	Some new personnel, whether additional PT/PTA or non-licensed professionals, may need to be trained in order to provide efficient staff for program. Training expenses were <i>determined by assigning salary cost to general amount of time to train personnel.</i>
Marketing	Each program will require some sort of marketing in order to provide customers. Each additional program was allotted \$1000 a year with a 50% increase each additional year.
Note: PT is physical therapist and PTA is PT assistant	

Table 2. Variable Costs incurred through new program implementation	
Employee Salaries	Employee salaries will need to be accounted for relative to the amount of time spent administering the new program to a client. Implementing new programs may also require additional PT/PTA's in order to sustain both patient loads and new programs. NOTE: The Total Revenue-Expense Pro Forma will include administrative personnel. <i>Used current average salary figures for physical therapists, PT assistants, and PT technicians.</i>
Supplies	In some cases, supplies will be used for each client. For example, during a drug test, a cup, lid, or pH stick may be used. <i>Supply costs were estimates based on current national figures.</i>

Potential benefits.

The next step involved the analysis of the potential benefits that adding each service line would provide. The revenues were predicted based on specific charges associated with each implemented program. The income created by each revenue stream

was determined by collecting data, which included Workers' Compensation reimbursement rates, charges per service unit, and monthly fees. For example, WorkSteps, Inc. credentials and trains PTs in POETs. Even though WorkSteps allows enrolled providers to set his or her own prices, they suggest a base price that they believe providers should charge (Carson, 2011). The suggested base charge was used to determine the unit charge of POET. This study will also look at average prices for Drug testing and maintenance fees. Client volumes fluctuated each month as determined by the researcher. Therefore, this research will show the benefits of implementing each additional revenue source at different customer volume. The revenues generated by each new service line are indicated in Table 3.

Table 3. Revenue Sources	
Functional Capacity Evaluations	Texas Workers' Compensation reimburses Functional Capacity Evaluations at \$37.93 per 15 minutes. <i>This was obtained through an interview with David Adams, manager Physical Therapy and Rehab Concepts (Adams, 2011).</i>
Post-Offer Employment Testing	Post-Offer Employment Testing charges depend on the particular test being performed and can come with a wide variance of charges. One of the larger developers of POET tests in the United States is WorkSteps, LLC, whose average suggested charge per test is \$150. This research decided a conservative number based on the WorkSteps figure is appropriate. POET tests were reimbursed at \$130 per test (Adams, 2011)(Carson, 2011).
Drug-Screening	While determining national averages for drug screens is difficult, a conservative figure of \$11 per test was obtained through interview (Adams, 2011).
Maintenance Fees	Maintenance fees can vary from outpatient facility to outpatient facility due to patient load, staffing, and amount of equipment. Considering gym memberships can range anywhere from \$30-\$70, this study stayed on the low end and chose \$30 per maintenance member.

Break-even analysis.

Once the costs and benefits of each implemented program were obtained a break-even analysis was performed. This analysis helps determine the volume of implementation required for benefits to be greater than the break-even threshold. The break-even analysis includes the total costs and the average charges per unit. The Break-even analysis for each implementation is indicated in Appendix B as indicated by the yellow highlights in the New Service Line Three Pro Forma located in Appendix C. Because this study assumed no associated costs for maintenance memberships, a break-even analysis was not performed for this service line. Licensing, marketing, and overhead costs were assigned both high-end and low-end projections because they were based on estimates. These estimates were obtained through market research (overhead expenses) and interviews (licensing and marketing) (Adams, 2011) (Carson, 2011).

Break-even analysis calculation.

Total Fixed costs

=Licensing/Certification costs + new equipment costs + training costs + marketing costs

Variable costs per unit

PT/employee salary costs + supply costs (for example cups in drug testing)

Breakeven quantity =
$$\frac{\text{Total Fixed Costs}}{\text{Charge-Variable Cost per unit}}$$

Impact on traditional patient-based revenues.

With the addition of any new revenue generators there may be a reduction in time that can be time spent with patients, creating workload conflicts. Therefore, traditional

patient revenues potentially lost due to the implementation of new service lines were evaluated and accounted for.

It was assumed a therapist can see a patient every forty-five minutes and receive a net reimbursement of \$100 per patient (Adams, 2011). This reimbursement per patient was multiplied by the number of patient appointments lost due to the PT spending time performing new services. The value is calculated by multiplying the required amount of treatment time each new program needs by the amount of new clients, then dividing that figure by the average treatment time for one traditional patient (which is about 45 minutes or .75 hours). The value is then multiplied by \$100 to determine the amount of traditional patient care revenue lost per month. The calculated value will be included with the new service line 5-year projection and the total revenue expense 3 year pro forma.

New Service Line Three Year Pro Forma.

The next methodological step included the creation of a financial projection in the form of a three year pro forma. The New Service Line Three Year Pro Forma projects the future financial data associated with each of the new service lines. It is based on the projections and assumptions determined by the researcher and excluded any extraordinary business activities that might occur in the three year time period.

Years were broken down into individual monthly reporting units concluding with a yearly-accumulated total. Projected costs and revenues fluctuated appropriately from year to year given allotted increases in marketing costs and clientele. Each month has separate sections indicating number of clients, fixed costs (licensing, equipment, training, marketing, and overhead), and variable costs (salaries and supplies). Calculations for

specific financial figures are presented in Appendix C and titled Description of Calculations.

New Service Line Five-Year Projection.

After the New Service Line 3-year pro forma's was completed, a five-year projection was created. The first three years are reflect the same figures included in the pro forma with the fourth and fifth years showing a perspective 5% versus 3% increase in clients from the previous year. The categories included total clients, total costs, gross revenue, gross profit, lost revenue from traditional patient care, and net revenue from the additional revenue streams.

Total Revenue-Expense Three Year Pro Forma.

An additional pro forma was created that projects the total PT clinic expenses and revenues over a three year time period. The second pro forma shows the total projected net income for the entirety of PT clinic operations. The pro forma projects revenue from both traditional patient care and the additional service lines that have been implemented. Monthly gross patient revenues (line item 1 in Appendix D) were projected at \$32,000 a month and assume roughly one patient every thirty minutes being treated by at least one physical therapist, PT assistant, or PT tech. Revenue deductions, salaries, and new equipment expenses were all subtracted from the gross revenues along with budgeted percentages for traditional clinic operations and are listed in Table 4. Any additional service line revenue and expense data was appropriately linked to the pro forma in Appendix C. For example, traditional patient care revenues were listed as gross revenues and decreased each month in correlation to the volume of the new service lines.

Therefore out of the year one first month gross revenues projected at \$32,000, \$367 was subtracted in order to reflect decreasing patient care due to new services.

Once all expenses and revenues were accounted for, Net Income was calculated. The pro forma also used slightly different salary models that included an administrative FTE in order to project total clinic salary costs. Salary data for the previously defined personnel (PT, PT Tech, PT assistant was based on New Service Three Year Pro Forma (Appendix C). Further calculations and their definitions are presented in Appendix D and listed as Description of Calculations.

Table 4. List of Expense Percentages

Expense Line Item	percent of Net Revenue
Dues, Seminars	0.30%
Auto	0.10%
Patient Supplies	1.25%
Office Supplies	1.50%
Utilities	0.50%
Telephone	1.00%
Travel	0.40%
Equip. Rental	0.40%
Marketing	1.00%
Repairs&Maint.	0.60%
Taxes&Licenses	0.25%
Legal,Acct,etc.	0.10%
Insurance	0.40%
Rent	7.50%
Bad Debt	2.50%
Depre/Amort.	2.00%

Questionnaire for physical therapists.

To provide an opportunity for the generalization of this research to PT practitioners, a questionnaire was developed to help identify specific financial forecasts for outpatient facilities. The list of questions was based on the financial resources a PT has such as current staff size and type, patient load, and revenues per patient among other

factors. The questions were designed to gather information on the desired programs an outpatient facility is willing to implement. When this material is gathered, an accurate projection of expenses and revenues can be displayed in a customized version of the New Service Line Pro Forma, the New Service Line Five Year Projections, and the Total Revenue-Expense Pro Forma. The questionnaire also provides a next step for evaluating the hypothesis of this study. As noted in the discussion Chapter 5, it will be important for future researchers to evaluate the real world effectiveness of the addition of specific service line implementations into PT. The questionnaire is located in Appendix A.

Nature of the Data

Quantitative data based upon the investigator's literature review, interviews with PT professionals, and market research were used to estimate all financial projections for the study. Data were collected and reflective of financial amounts (in Dollars) representing both projected expenses and revenues and client volume related to new service lines. The methodologies proposed in this chapter were used to study and evaluate the financial impact of adding additional revenue streams at different amounts of client volume. Estimated patient volume was varied in order to meet values that exceeded the breakeven threshold for each program.

CHAPTER 4

Results

Introduction

The Results Section of this study provides analyses based on the financial forecast discussed in Chapter 3. The financial models in the study were calculated based on data collected from a variety of sources including interviews, market research, and conservative business estimates produced by the investigator.

Each of the financial forecasts for the additional service lines studied for PT program implementation indicated positive projections for increased revenues. The individual financial outcomes of each implementation are displayed in relationship to the new service line totals in the form of a percentage, illustrated in Appendix E. The financial estimates for each implementation were also measured for year to year growth and indicated in Appendix C. The financial estimates and calculations were based on study assumptions and allowed the researcher to assign percentage values to show annual growth for each service line. The percentage values are then used throughout the remainder of the results section to describe each additional revenue stream.

Results of the Break-Even Analysis and New Service Line Three Year Pro Forma

Workers' Compensation testing-functional capacity evaluation.

The implementation of FCEs suggested a quick return-on-investment and break-even quantity as noted in Appendix B. The high-end analysis required administering

14.76 FCEs in order to break even while the low-end analysis required 8.72. Considering each test requires attention from a therapist for about an hour and a half, these totals can potentially be accomplished in no more than a couple of months.

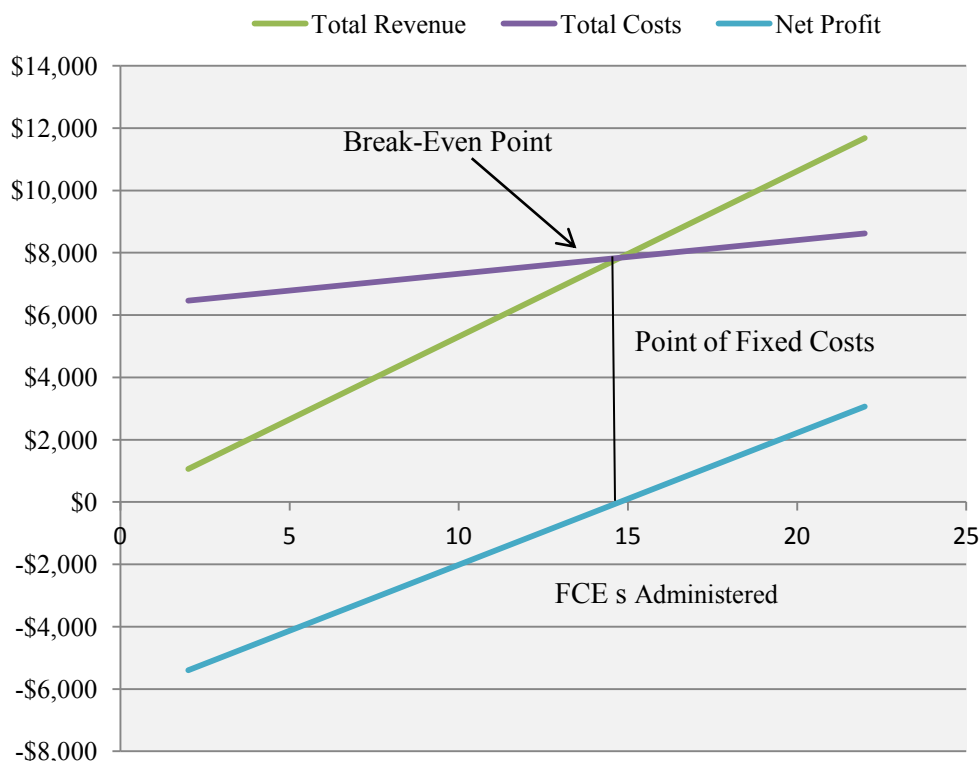


Figure 2. Break-Even Analysis Chart-Functional Capacity Evaluations

The chart in Figure 2 indicates the break-even point associated with FCE implementation projections. The figure illustrates costs, indicated by the y axis, and new service line unit tests indicated in the x axis. Net profits are shown in blue and indicate the point in which Total Revenue exceeds Total Costs.

As shown in Appendix C, first year revenue for FCE testing was \$12,744 with \$6,244 in fixed costs and \$2,588 in variable costs. It was projected that in Year 2 there would be an overall increase of ten clients, and Year 3 would reflect no increase due to patient capacity limitations. Revenues increased 35% in Year 2 due to increased client volume, and fixed costs decreased by 8% coupled with a 50% increase in variable costs.

The projected number of clients in Year 3 was the same as Year 2 with no increase in revenue or variable costs. Year 3 projections indicated an increase of 18% in fixed cost subsequent to projected new equipment expenditures.

Post-offer employment testing.

The break-even analysis for POET, in Appendix B, showed a high-end break-even point of 45.67 tests and a low-end break even of 22.97 tests. The average patient loss was .33 patients.

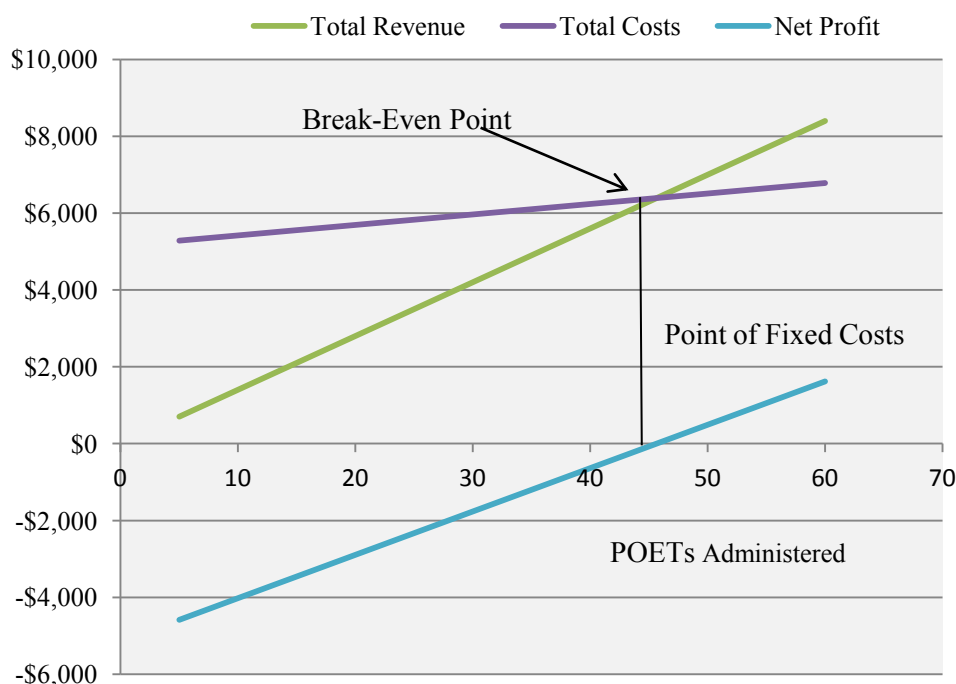


Figure 3. Break-Even Analysis Chart-Post-Offer Employment Testing

The chart in Figure 3 indicates the break-even point associated with POET implementation projections. The figure illustrates costs, indicated by the y axis, and new service line unit tests indicated in the x axis. Net profits are shown in blue and indicate the point in which Total Revenue exceeds Total Costs.

The values used in the pro forma in Appendix C were assigned based on interviews and conservative estimates. Post-offer employment testing was allocated a

100% increase in clients and a 50% increase in clients in years 2 and 3 respectively. Post-offer employment was estimated to have matching 100% and 50% revenue and variable costs increases in Years 2 and 3 as well. Information gained from interviews suggested that these figures were attainable given proper marketing, and this was accounted for. Equipment costs for POET decreased by 75% in Year 2 following the Year 1 initial equipment purchase. Fixed costs for POET had a slight increase 6% in Year 2 along with a more dramatic increase of 18% in Year 3.

Drug testing.

The break-even analysis for drug testing, which is located in Appendix B, yielded a high-end break-even point of 499 tests per year and a low-end result of 150 tests per year. Fixed costs were estimated at the high-end values (as determined by the break-even analysis) and were used in the pro forma. The projected implementation of a drug testing program did not impact patient care because drug tests can be solely performed by non-therapist positions such as PT Aides.

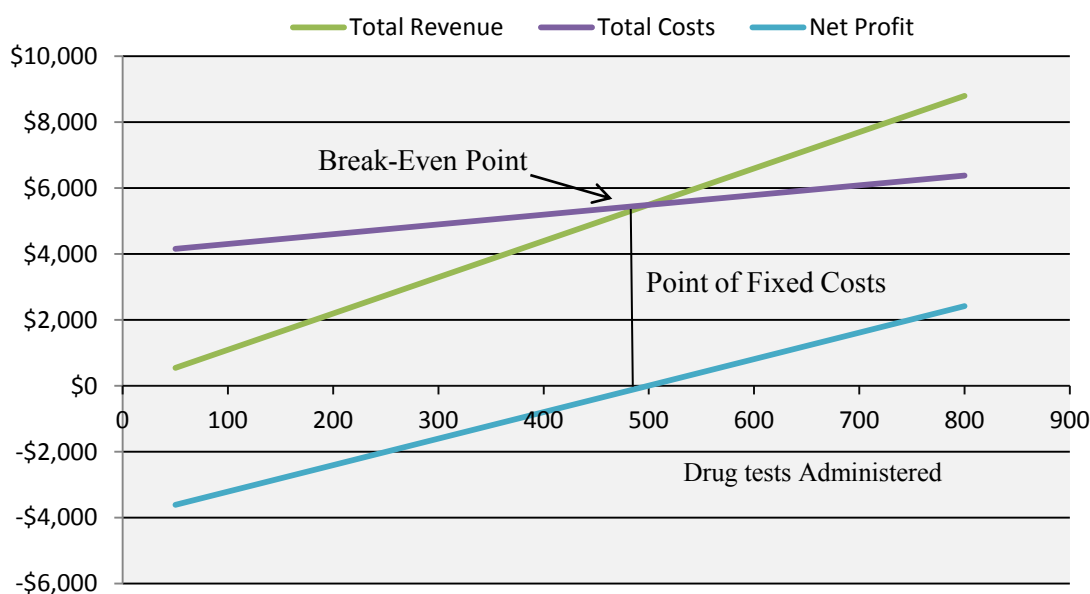


Figure 4. Break Even Analysis Chart- Drug Testing

The chart in Figure 4 indicates the break-even point associated with drug testing implementation projections. The figure illustrates costs, indicated by the y axis, and new service line unit tests indicated in the x axis. Net profits are shown in blue and indicate the point in which Total Revenue exceeds Total Costs.

The large increases in drug test clients shown in Appendix C were projected based on interviews and the fact that drug tests can be performed in relatively short time. The initial licensing cost of \$3,000 decreased after Year 1 to only a \$500 in Years 2 and 3. Due to the client boost following Year 1, Year 2 and 3 revenue increases were 168% and 42% respectively. Fixed costs decreased by 50% in Year 2 due to payment of a yearly license fee, instead of the initial implementation cost. Variable costs increased significantly in Year 2 due to the fact that the increased client base caused higher salary costs.

Maintenance programs.

As indicated in Appendix C, clients estimates increased after year one by about 100% followed by an increase of 20% by year three. Revenues were projected for subsequent increases of 100% and 20% following year one.

Results of the New Service Line Five Year Projection

Table 5. New Service Line Five Year Projection					
	Year 1	Year 2	Year 3	Year 4 (5%growth)	Year 5 (3% growth)
Total Clients	522	1212	1746	1,833	1,888
Gross Revenue	\$37,734	\$69,165	\$94,095	\$98,800	\$101,764
Net Costs	\$23,042	\$27,732	\$36,098	\$37,903	\$39,040
Gross Profit	\$14,693	\$41,433	\$57,997	\$60,897	\$62,724
Lost Revenue from Decreased Patient Load	\$9,800	\$17,200	\$22,200	\$23,310	\$24,009
Net Revenue	\$4,893	\$24,233	\$35,797	\$37,587	\$38,714

The five year projection reflected the three year totals calculated in the pro forma, along with a fourth and fifth year calculated at respective 5% and 3% increases. Each year of the New Service Line Five Year Projection reflects net revenue earned by the new service lines. The Year 1 projected net revenue of \$4,893 increased by just under \$20,000 by the end of Year 2. Years 3-5 projections showed minor increases in net revenue which concluded in approximately \$38,715 by year five. The year one and year two results reflected the biggest financial differences followed by less change in the following years.

The proposed total implementation of the four new service lines suggested substantial revenue gains. As indicated in Appendix E, adding FCEs yielded the fewest total clients. Client volume was calculated to increase in maintenance programs and was followed by POET and drug testing. Post-offer employment testing accounted for the largest portion of revenues that continued to grow each year. Functional capacity testing had the second largest revenue stream and was followed by drug testing and maintenance. By the third year, FCE revenues tapered as compared to slow, but steady revenue growth for drug testing revenues. Functional capacity testing reflect the highest estimated costs in year one and were closely followed by POET at 40% and 38% respectively. Post-offer employment testing costs rose significantly higher from year one to year two, and also increased in year three. Gross profit contributions were highest for POET. Functional capacity testing showed the second best gross profit but again, leveled out by year three at 11% Drug testing initially incurred a loss and accounted for -10% in year one gross profit. By year three however, drug testing had risen to account for just over 10% of gross profit.

Results of the Total Revenue-Expense Pro Forma

The projections analyzed in the Total Revenue-Expense Three Year Pro Forma are located in Appendix D and showed positive net income for each of the three years. Although traditional patient care revenues had dropped nearly \$3,000 a month by year three, net income increased each of the three years. Year 1 net income for clinic operations was calculated to be \$7,653 and increased to \$27,231 by Year 2, and then \$38,206 by the end of Year 3. Due to net revenues increasing each of the three years, budget percentage allocations were estimated to increase accordingly. This meant the net revenue percentage budget guidelines, line items 18-35 in Appendix D, increased in proportion to the net revenues.

CHAPTER 5

Discussion

The discussion will detail the financial forecast from the previous section and investigate the impact of each of the additional service lines. Considerations for future research will also be discussed.

The results of financial projections performed in this study showed significant potential to increased PT revenues. This potential was realized in the net income line of the Total Revenue-Expense Pro Forma. The estimates in the Total Revenue-Expense Three Year Pro Forma showed substantial gains in net income for PT clinics. This indicates that implementing additional service lines may prove a useful tool for PT's to counter potential decreasing health care reimbursements. The models created in this study may ultimately become a positive resource for projecting implementation costs and financial impacts for future PT's.

Impact of Functional Capacity Evaluations

Functional capacity testing was estimated to be a useful revenue generator, especially in the first two years. Because FCE's take up valuable PT time it was difficult to justify continued increases in client volume beyond year two. Therefore, once an implemented as a new service line FCE testing can provide physical therapists steady revenues early years. The risk in FCE testing is that reimbursements are provided through the state's Workers' Compensation department. These rates can fluctuate from year to year, which would alter reimbursements. FCE testing also requires the most PT time, which was estimated to have a greater impact on patient care than any of the other

programs. This was another reason FCE client volume was not increased beyond the second year.

Impact of Post-Offer Employment Testing

Post-offer employment testing showed strong revenues with minimal to moderate costs. POET showed the largest year-to-year amount of revenue over the 3-year projection. Even with equipment up-keep costs estimated at elevated levels, work testing still accounted for the largest percentage of revenues. This program appears to have a strong upside that a start-up PT clinic may find beneficial. POET has a relatively low start-up cost and minimal equipment costs after year one. The work testing has the potential of earning the clinic nearly \$10,000 alone at the end of Year 1.

Impact of Drug Testing

Drug testing resulted in another positive revenue stream for PT over the three and five year projections. However, market research and interviews showed drug testing initial costs to be very high. Break-even analysis showed these costs being re-cooped by mid second year. These initial costs included equipment and licensing costs that lead to a net loss in drug testing revenues. Drug testing actually accounted for an estimated -8% of revenues in Year 1 and then increased to account for 12% and 13% of revenues in Years 2 and 3. Drug testing is an activity that allows non-clinical employees to be associated with a revenues source, such as PT techs. The common drug test is a very quick test and requires little employee work to perform. Because of this, drug testing is the only additional revenue stream not projected to plateau by the end of Year 3. The larger the outpatient facility is, the greater the ability to perform high numbers of drug tests. Information gathered from interviews estimated some PT clinics may be performing

anywhere from 15 to 30 drug tests in a single day if they are properly staffed. In conclusion, drug testing may be a more beneficial program to implement for larger facilities that employ more PT techs.

Impact of Maintenance Programs

This research found maintenance programs to be one of the simplest and least expensive routes to additional revenue. Maintenance programs also proved to be an effective tool that can be used by PT facilities in order to increase available cash assets as dues are generally paid by check or cash on a monthly basis. Maintenance memberships allow for simple implementation because fixed costs have already been sunk into exercise and rehabilitation equipment. Maintenance memberships were steady and were projected to earn the clinic several thousand dollars a year in additional revenue. Through interviews and research (Adams, 2011), maintenance memberships are typically allocated to Medicare populations looking to expand treatment without depleting their yearly capped Medicare benefits. This means maintenance memberships could potentially help alleviate the potential problem of increased Medicare patient volumes addressed in the Literature Review. This would mean PT's would have the option to transition patients from traditional therapy to maintenance in order to promote increased patient turn-over.

Overall Financial Impacts of Additional Revenue Streams

The total revenue-expense pro forma showed positive results for the additional service lines. Even with revenues from traditional patient care decreasing yearly the new service lines yielded net incomes of \$7,653, \$27,231, and \$38,367 respectively. This data shows the financial sustainability of implementing the additional revenue streams for physical therapists. Future years may provide even more increases in net income through

continued use of the additional service lines. These results could provide an interesting perspective for physical therapists for future sustainability. If traditional PT reimbursements decline substantially as some have predicted, physical therapists may focus even more on additional service lines. These additional service lines could potentially be the main source of revenues for PT.

Considerations for Future Research

A critical next-step in this research would be to construct an implementation platform for the questionnaire. Potential platforms may involve building a web-based program in which a physical therapist (or clinical manager) could access and input his or her relevant data into the site. The site would then be able to create data tables similar to the ones presented in this research. The user would then use this material in order to make informed business decisions regarding their practice. Facility outcomes could then be measured to determine the effectiveness of the pro forma and five-year plans.

Future research should continue to look for improved financial data to yield even more specific results. Since this research was exploratory most figures were conservative estimates based on interviews and market research and attention should be given to the volume estimates provided, as pro forma figures shown are not achievable without ample volumes. As revenues decrease for physical therapists, additional revenue streams will be paramount. Because of this there will hopefully be increased transparency in new program costs and revenues. Continued research should expand on revenue streams in PT. Some ideas include, but are not limited to, new patient-care product lines, consulting, and various other ways outpatient PT facilities can expand their case-mix. This study chose to focus on four implementations but there are certainly more ways to

improve revenue available. Data such as salaries were national averages and were not increased from year to year in the Total Revenue-Expense Three Year Pro Forma. Future models may want to adjust for specific salaries and account for yearly increases.

Conclusions

If revenues decrease for PTs in the future, the importance of the implementation of additional revenue streams will increase. Improving the ability to more accurately forecast future PT costs and revenues may stimulate new potential revenue streams in PT. The methodology selected and used in this study indicated that large increases in facility revenue could potentially be generated by properly implementing additional service lines. At a time when PT net income is predicted to decline, new service lines may provide an important key to PT sustainability. Implementing additional service lines may counter lost traditional patient care reimbursement revenues. Study projections were performed under the assumption that it was important to quantify how new programs could impact traditional patient care via reducing traditional patient care revenues through personnel reassignment. However, newly implemented revenue streams may not have as detrimental an impact on patient care as this study projected. Physical therapists may find time to work on FCE exams and POET throughout the day with minimal impact on patient volume. This would prevent potential lost patient care revenues each year. Similarly, a larger PT clinic with the ability to implement several different new revenue programs would likely have increased numbers of employees which could potentially ease a new service line's impact on traditional patient care.

APPENDIX A: QUESTIONNAIRE FOR FUTURE RESEARCH

Facility Questions

1. What is the current staffing level of the clinic?
 - a. How many licensed physical therapists?
 - b. How many licensed physical therapy assistants?
 - c. How many physical therapy aides?
 - d. Other staff members?
2. Which staff members will be working on the new implementations?
3. What is the approximate salary of each position?
 - a. Physical Therapist
 - b. Physical Therapy Assistant
 - c. PT Aide
 - d. Other
4. How many patients a day does the outpatient facility average?

Additional Revenue Implementation Questions

1. What amount of start-up capital is the outpatient facility willing to spend?
2. How much space does the outpatient facility have for potential Workers' Compensation and post-offer employment testing?
3. How much money is the outpatient facility willing to spend on marketing?
4. Are there particular implementations the outpatient facility is more interested in?

APPENDIX B: BREAK-EVEN ANALYSIS

Description of Calculations

Line Item	Break-Even Analysis Equation Factor	Description
1	Average Length of Test in Hours	The amount of time required to administer one unit of new service line. Time units are estimates based on interviews.
2	Chargeable Hours	The amount of time that clients can be charged for administered services. Obtained via interviews
3	Non-chargeable Hours	Because tests such as FCE's and POET require documentation, this was estimated to be the time required for PT's to document new service line test findings. Estimates obtained via interviews.
4	Charge	This is the total charge per new service line test. Calculated by multiplying the new service line rate by the chargeable hours.
5	Rate	The chargeable rate of the new service line. Can be represented by units of time (hours) or by a flat fee. Located in Table 3.
6	Fixed Costs	The total associated fix costs for each new service line. Located in Table 1.
7	High End	High end estimate for fixed costs. Used to calculate high-end break-even analysis.
8	Low End	Low end estimate for fixed costs. Used to calculate low end break-even analysis.
9	Licensing Expenses	The licensing expense for each new service line. Identified in Table 1.
10	High End	High end estimate for licensing expense. Used to calculate high-end break-even analysis.
11	Low End	Low end estimate for licensing expenses. Used to calculate low end break-even analysis.
12	Marketing Expenses	The fixed amount allotted for marketing expenses. Identified in Table 1 and discussed in the methodology.
13	High End	High end estimate for marketing expense. Used to calculate high-end break-even analysis.
14	Low End	Low end estimate for marketing expenses. Used to calculate low end break-even analysis.
15	Additional Equipment Required	The equipment required for implementation of each new service line. Equipment requirements and cost estimates were obtained via interviews and market research.
16	Training Expense	The fixed costs associated with training the new employees to administer new service lines. FCE training date based on market research. Training expense estimates for POET and drug testing were
17	Overhead Expense	The overhead expense covers utility and rent expenses. Identified in Table 1.
18	High End	High end estimate for overhead expenses. Used to calculate high end break-even analysis.
19	Low End	Low end estimate for overhead expenses. Used to calculate low end break-even analysis.
20	Variable Costs	The variable costs represent any salary or supply costs associated with each new service line. Identified in Table 2.
21	High End Break Even Quantity	Results of break-even calculation based on high end estimates.
22	Low End Break Even Quantity	Results of break-even calculation based on low end estimates.
23	Total Patients Lost	The total traditional PT patient appointments lost due to new service lines. Discussed in the methodology.
24	Average Patient Treatment Time	Average traditional PT visit time in hours. Obtained via research and identified in Literature Review.
25	PT Time Spend with New Service Line	The estimated amount of time each new service line requires PT attention.

Functional Capacity Evaluations

Worker's Compensation Testing-Functional Capacity Evaluation						
	Break-Even Analysis Equation Factor	Multiplier	Total Value	Calc. Rate	Ind. Rate	
1	Avg. Length of Test in hours		4			
2	Chargeable Hours			3.5		
3	Non-chargeable Hours			0.5		
4	Charge of FCE		\$531.02			
5	FCE Rate			\$151.72	\$37.93	per .25 hrs
6	Fixed Costs					
7	High End		\$6,244.92			
8	Low End		\$3,692.12			
9	Licensing/Certification					
10	High End			\$1,000.00		
11	Low End			\$500.00		
12	Marketing Cost					
13	High End			\$1,000.00		
14	Low End			\$200.00		
15	Additional Equipment Required			\$1,630.00		
	NIOSH standard lifting boxes				\$450.00	
	Force gauge				\$1,000.00	
	Sled				\$50.00	
	Steps				\$120.00	
	Metronome				\$10.00	
16	Training					
	PTA 4 Hours			\$94.92	\$23.73	per hr
17	Overhead					
18	High End	120 sq ft		\$2,520.00	\$1.75	per sq ft
19	Low End	120 sq ft		\$1,267.20	\$0.88	per sq ft
20	Variable Costs					
	Salaries	Hrs Spent	\$107.83			
	1 PT	1.5		\$36.64	\$36.64	per hr
	1 PTA	2.5		\$71.19	23.73	per hr
	Calculation for Break-Even Analysis					
	Break Even Quantity=Total Fixed Costs/(Charge-Total Variable Costs)					
21	High End Break Even Quantity		14.76	FCE's Administered		
22	Low End Break Even Quantity		8.72	FCE's Administered		
23	Total Patients Lost		2			
24	Avg. patient treatment time in hrs		0.75			
25	PT time spent with FCE in hrs		1.5			

Post-Offer Employment Testing

Post-Offer Employment Testing-PT , PTA, and PT Tech						
Break-Even Analysis Equation Factor	Multiplier	Total Value	Calc. Rate	Individual Rate	Units	
1 Avg. Length of Test in hours		1.5				
2 Chargeable Hours			1.5			
3 Non-chargeable Hours			0			
4 Avg. Charge		\$140.00				
5 POET Charge			\$140.00	per test		
6 Fixed Costs						
7 High End		\$5,150.00				
8 Low End		\$2,590.00				
9 Licensing/Certification						
10 High End			\$1,000.00			
11 Low End			\$500.00			
12 Marketing Cost						
13 High End			\$1,000.00			
14 Low End			\$200.00			
15 Additional Equipment Required			\$630.00			
NIOSH standard lifting boxes				\$450.00		
Sled				\$50.00		
Steps				\$120.00		
Metronome				\$10.00		
16 Training			\$143.48			
Physical Therapy Assistant	4 hrs		\$94.92	\$23.73	per hr	
Physical Therapy Tech	4 hrs		\$48.56	\$12.14	per hr	
17 Overhead						
18 High End	120 sq ft		\$2,520.00	\$1.75	per sq ft	
19 Low End	120 sq ft		\$1,260.00	\$0.88	per sq ft	
20 Variable Costs						
FTE Salaries	Hrs Spent	\$27.23				
Physical Therapist	0.25		\$9.16	\$36.64	per hr	
Physical Therapy Assistant	0.25		\$5.93	23.73	per hr	
PT Tech	1		12.14	12.14	per hr	
Calculation for Break-Even Analysis						
Break Even Quantity=Total Fixed Costs/(Charge-Total Variable Costs)						
21 High End Break Even Quantity	45.67	Tests Administered				
22 Low End Break Even Quantity	22.97	Tests Administered				
23 Patient Loss Factor	0.33	per test				
24 Avg. patient treatment time in hrs	0.75					
25 PT time spent with POET test in hrs	0.25					

Drug Testing

Drug-Testing-PT Tech						
	Break-Even Analysis Eq	Multiplier	Total Value	Calc. Rate	Individual Rate	Unit
1	Avg. Length of Test in hours		0.25			
2	Chargeable Hours			0.25		
3	Non-chargeable Hours			0		
4	Avg. Charge		\$11.00			
5	Drug test			\$25.00		per test
6	Fixed Costs					
7	High End		\$4,012.14			
8	Low End		\$1,212.14			
9	Licensing/Certification					
10	High End			\$3,000.00		
11	Low End			\$1,000.00		
12	Marketing Cost					
13	High End			\$1,000.00		
14	Low End			\$200.00		
16	Training	Hrs Spent		\$12.14		
	PT Tech	1			\$12.14	per hr
20	Variable Costs		\$2.96			
	Supplies			\$1.75		
	Cups				0.75	
	Bags				0.75	
	Misc. Supplies				0.25	
	FTE Salaries	Hrs Spent		\$1.21		
	PT Tech	0.1		1.214	12.14	per hr
	Break Even Quantity=Total Fixed Costs/(Charge-Total Variable Costs)					
	Calculation for Break-Even Analysis					
	Break Even Quantity=Total Fixed Costs/(Charge-Total Variable Costs)					
21	High End Break Even Quantit		499.27	Tests Administered		
22	Low End Break Even Quantit		150.84	Tests Administered		

APPENDIX C: NEW SERVICE LINE THREE YEAR PRO FORMA

Overall New Service Line Pro Forma Results

New Service Line Three Year Pro Forma Results (in Dollars)			
FCE	Year 1	Year 2	Year 3
Clients	24	36 (35%)	36 (0%)
Revenue	12,744	17,205(35%)	17,205(0%)
Fixed Costs	6,244	5,772(-8%)	6,804(18%)
Variable Costs	2,588	3882(50%)	3882(0%)
POET	Year 1	Year 2	Year 3
Clients	150	300 (100%)	450 (50%)
Revenue	20,250	40,500 (100%)	60,750 (50%)
Fixed Costs	5,292	5,586 (6%)	6,606 (18%)
Variable Costs	4,085	8,169 (100%)	12,254 (50%)
DRUG TESTING	Year 1	Year 2	Year 3
Clients	300	780 (168%)	1140 (42%)
Revenue	3,300	8,850 (168%)	12,540 (42%)
Fixed Costs	4,008	2,012 (-50%)	2,168 (7%)
Variable Costs	825	2,590 (213%)	3,785 (46%)
MAINTENANCE	Year 1	Year 2	Year 3
Clients	48	98 (104%)	120 (22%)
Revenue	1,440	2940 (104%)	3600 (22%)
Fixed Costs	0	0	0
Variable Costs	0	0	0

Description of Calculations

Line Item		Calculation	Reference Appendix
1,13,25,36	New Service Line	The new service line being implemented	
2,14,26,37	Clients	The estimated monthly volume of clients per new service line. Client volumes are indicated in the methodology.	
3,15,27,38	Revenue	Based on charge from line item 4 on the corresponding new service line break-even analysis.	B
4,16,28,39	Fixed Costs	Identified in Table 1. Represent total monthly new service line fixed costs.	
5,17,29	Licensing	Identified in Table 1. Represent Line Item 10 from the corresponding break even analysis divided by 12 months.	B
6,18,30	Marketing	Identified in Table 1. Represent Line Item 13 from the corresponding break even analysis divided by 12 months. Marketing Expenses are increased by 50% each additional year.	B
7,19	Equipment	Identified in Table 1. Represent Line Item 15 from the corresponding break even analysis divided by 12 months.	B
8,20,31	Training	Identified in Table 1. Represent Line Item 16 from the corresponding break even analysis divided by 12 months.	B
9,21	Overhead	Identified in Table 1. Represent Line Item 18 from the corresponding break even analysis divided by 12 months.	B
10,22,32,40	Variable Cost	Identified in Table 2. Represent total variable costs per test. Calculations are based on Line Item 20 from the corresponding break-even analysis multiplied by the number of corresponding new service line clients, line items 2,14,26, and 37.	
23	Salaries	Calculated using data from Break-Even Analysis multiplied by each employees time spent on individual service line test	B
42	Total Clients	Total monthly clients for all new service lines. Calculated from summation of line items 2, 14, 26, and 37.	
43	Total Revenue	Total monthly revenues for all new service lines. Calculated via the summation of line items 3, 15, 27, and 38.	
44	Total Fixed Costs	Total monthly fixed costs for all new service lines. Calculated via the summation of line items 4,16, 28, and 39.	
45	Total Variable Costs	Total monthly variable costs for all new service lines. Calculated via the summation of line items 10,22, 32, and 40.	
47	Patients Lost	Average treatment time multiplied by patients lost. Calculated by dividing line item 49 by line item 48.	
48	Avg. Pt TX time (Hrs)	Average treatment time for one patient. Line item 24 from break-even analysis.	
49	ARP* time spent (Hrs)	Time the PT spends on additional service lines. Calculated by multiplying the total monthly sum of PT variable salary costs indicated in the corresponding break-even analysis by the corresponding number of tests performed located by line items 2,14.	
50	Patient Rev Lost	Amount of traditional patient care revenues lost due to PT involvement in new service lines. Calculated by multiplying line item 47 by the estimated \$100 per traditional patient discussed in the methodology.	

Year One Results

Month	1	2	3	4	5	6	7	8	9	10	11	12	Yr1 Total
1 FCE													
2 Clients	1	1	1	1	2	2	2	2	3	3	3	3	24
3 Revenue	\$531	\$531	\$531	\$531	\$1,062	\$1,062	\$1,062	\$1,062	\$1,593	\$1,593	\$1,593	\$1,593	\$12,744
4 Fixed Costs	\$520	\$520	\$520	\$520	\$520	\$520	\$520	\$520	\$520	\$520	\$520	\$520	\$6,244
5 Licensing	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$996
6 Marketing	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$1,000
7 Equipment	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$136	\$1,632
8 Training	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$96
9 Overhead	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$2,520
10 Variable Cost	\$108	\$108	\$108	\$108	\$216	\$216	\$216	\$216	\$323	\$323	\$323	\$323	\$2,588
11 Salaries	\$108	\$108	\$108	\$108	\$216	\$216	\$216	\$216	\$323	\$323	\$323	\$323	\$2,588
12													
13 POET													
14 Clients	5	5	5	10	10	10	15	15	15	20	20	20	150
15 Revenue	\$675	\$675	\$675	\$1,350	\$1,350	\$1,350	\$2,025	\$2,025	\$2,025	\$2,700	\$2,700	\$2,700	\$20,250
16 Fixed Costs	\$441	\$441	\$441	\$441	\$441	\$441	\$441	\$441	\$441	\$441	\$441	\$441	\$5,292
17 Licensing	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$996
18 Marketing	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$996
19 Equipment	\$53	\$53	\$53	\$53	\$53	\$53	\$53	\$53	\$53	\$53	\$53	\$53	\$636
20 Training	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$144
21 Overhead	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$210	\$2,520
22 Variable Cost	\$136	\$136	\$136	\$272	\$272	\$272	\$408	\$408	\$408	\$545	\$545	\$545	\$4,085
23 Salaries	\$136	\$136	\$136	\$272	\$272	\$272	\$408	\$408	\$408	\$545	\$545	\$545	\$4,085
24													
25 Drug Testing													
26 Clients	10	10	10	20	20	20	30	30	30	40	40	40	300
27 Revenue	\$110	\$110	\$110	\$220	\$220	\$220	\$330	\$330	\$330	\$440	\$440	\$440	\$3,300
28 Fixed Costs	\$334	\$334	\$334	\$334	\$334	\$334	\$334	\$334	\$334	\$334	\$334	\$334	\$4,008
29 Licensing	\$250	\$250	\$250	\$250	\$250	\$250	\$250	\$250	\$250	\$250	\$250	\$250	\$3,000
30 Marketing	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$996
31 Training	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$12
32 Variable Cost	\$28	\$28	\$28	\$55	\$55	\$55	\$83	\$83	\$83	\$110	\$110	\$110	\$825
33 Salaries	\$10	\$10	\$10	\$20	\$20	\$20	\$30	\$30	\$30	\$40	\$40	\$40	\$300
34 Supplies	\$18	\$18	\$18	\$35	\$35	\$35	\$53	\$53	\$53	\$70	\$70	\$70	\$525
35													
36 Maintenance													
37 Clients	2	2	2	2	4	4	4	4	6	6	6	6	48
38 Revenue	\$60	\$60	\$60	\$60	\$120	\$120	\$120	\$120	\$180	\$180	\$180	\$180	\$1,440
39 Fixed Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
40 Variable Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41													
42 Total Clients	18	18	18	33	36	36	51	51	54	69	69	69	522
43 Total Revenue	\$1,376	\$1,376	\$1,376	\$2,161	\$2,752	\$2,752	\$3,537	\$3,537	\$4,128	\$4,913	\$4,913	\$4,913	\$37,734
44 Total Fixed Costs	\$1,296	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$15,545
45 Total Variable Costs	\$271	\$271	\$271	\$435	\$543	\$543	\$707	\$707	\$814	\$978	\$978	\$978	\$7,497
46													
47 Patients Lost	4	4	4	5	7	7	9	9	11	13	13	13	98
48 Avg. Pt TX time (Hrs)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
49 ASL* time spent (Hrs)	2.75	2.75	2.75	4.00	5.50	5.50	6.75	6.75	8.25	9.50	9.50	9.50	73.50
50 Patient Rev Lost	\$367	\$367	\$367	\$533	\$733	\$733	\$900	\$900	\$1,100	\$1,267	\$1,267	\$1,267	\$9,800
* Additional Service Line													

**Yellow boxes indicate break even points.*

Year Two Results

Month	1	2	3	4	5	6	7	8	9	10	11	12	Yr2 Total
1 FCE													
2 Clients	3	3	3	3	3	3	3	3	3	3	3	3	36
3 Revenue	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$17,205
4 Fixed Costs	\$481	\$481	\$481	\$481	\$481	\$481	\$481	\$481	\$481	\$481	\$481	\$481	\$5,772
5 Licensing	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$996
6 Marketing	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$1,500
7 Equipment	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$408
8 Training	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$96
9 Overhead	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$2,772
10 Variable Cost	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$3,882
11 Salaries	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$3,882
12													
13 POET													
14 Clients	20	20	20	20	25	25	25	25	30	30	30	30	300
15 Revenue	\$2,700	\$2,700	\$2,700	\$2,700	\$3,375	\$3,375	\$3,375	\$3,375	\$4,050	\$4,050	\$4,050	\$4,050	\$40,500
16 Fixed Costs	\$465	\$466	\$466	\$466	\$466	\$466	\$466	\$466	\$466	\$466	\$466	\$466	\$5,586
17 Licensing	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$996
18 Marketing	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$1,500
19 Equipment	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$162
20 Training	\$13	\$13	\$13	\$13	\$13	\$13	\$13	\$13	\$13	\$13	\$13	\$13	\$156
21 Overhead	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$2,772
22 Variable Cost	\$545	\$545	\$545	\$545	\$681	\$681	\$681	\$681	\$817	\$817	\$817	\$817	\$8,169
23 Salaries	\$545	\$545	\$545	\$545	\$681	\$681	\$681	\$681	\$817	\$817	\$817	\$817	\$8,169
24													
25 Drug Testing													
26 Clients	50	50	50	60	60	60	70	70	70	80	80	80	780
27 Revenue	\$550	\$550	\$550	\$660	\$660	\$660	\$770	\$770	\$770	\$880	\$880	\$880	\$8,580
28 Fixed Costs	\$168	\$168	\$168	\$168	\$168	\$168	\$168	\$168	\$168	\$168	\$168	\$168	\$2,012
29 Licensing	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$500
30 Marketing	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$125	\$1,500
31 Training	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$12
32 Variable Cost	\$166	\$166	\$166	\$199	\$199	\$199	\$232	\$232	\$232	\$266	\$266	\$266	\$2,590
33 Salaries	\$50	\$50	\$50	\$60	\$60	\$60	\$70	\$70	\$70	\$80	\$80	\$80	\$780
34 Supplies	\$88	\$88	\$88	\$105	\$105	\$105	\$123	\$123	\$123	\$140	\$140	\$140	\$1,365
35													
36 Maintenance													
37 Clients	6	6	6	6	8	8	8	8	10	10	10	10	96
38 Revenue	\$180	\$180	\$180	\$180	\$240	\$240	\$240	\$240	\$300	\$300	\$300	\$300	\$2,880
39 Fixed Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
40 Variable Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41													
42 Total Clients	79	79	79	89	96	96	106	106	113	123	123	123	1,212
43 Total Revenue	\$4,864	\$4,864	\$4,864	\$4,974	\$5,709	\$5,709	\$5,819	\$5,819	\$6,554	\$6,664	\$6,664	\$6,664	\$69,165
44 Total Fixed Costs	\$1,114	\$1,114	\$1,114	\$1,114	\$836	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$13,092
45 Total Variable Costs	\$1,034	\$1,034	\$1,034	\$1,067	\$1,203	\$1,203	\$1,237	\$1,237	\$1,373	\$1,406	\$1,406	\$1,406	\$14,640
46													
47 Patients Lost	13	13	13	13	14	14	14	14	16	16	16	16	172
48 Avg. Pt TX time (Hrs)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
49 ASL * time spent (Hrs)	9.50	9.50	9.50	9.50	10.75	10.75	10.75	10.75	12.00	12.00	12.00	12.00	129.00
50 Patient Rev Lost	\$1,267	\$1,267	\$1,267	\$1,267	\$1,433	\$1,433	\$1,433	\$1,433	\$1,600	\$1,600	\$1,600	\$1,600	\$17,200
* Additional Service Line													

**Yellow boxes indicate break even points.*

Year Three Results

	Month	1	2	3	4	5	6	7	8	9	10	11	12	Yr3 Total
1	FCE													
2	Clients	3	3	3	3	3	3	3	3	3	3	3	3	36
3	Revenue	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$1,434	\$17,205
4	Fixed Costs	\$567	\$567	\$567	\$567	\$567	\$567	\$567	\$567	\$567	\$567	\$567	\$567	\$6,804
5	Licensing	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$996
6	Marketing	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$2,256
7	Equipment	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$408
8	Training	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$96
9	Overhead	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$3,048
10	Variable Cost	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$3,882
11	Salaries	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$323	\$3,882
12														
13	POET													
14	Clients	30	30	30	35	35	35	40	40	40	45	45	45	450
15	Revenue	\$4,050	\$4,050	\$4,050	\$4,725	\$4,725	\$4,725	\$5,400	\$5,400	\$5,400	\$6,075	\$6,075	\$6,075	\$60,750
16	Fixed Costs	\$550	\$551	\$551	\$551	\$551	\$551	\$551	\$551	\$551	\$551	\$551	\$551	\$6,606
17	Licensing	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$83	\$996
18	Marketing	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$2,256
19	Equipment	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$162
20	Training	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$144
21	Overhead	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$254	\$3,048
22	Variable Cost	\$817	\$817	\$817	\$953	\$953	\$953	\$1,089	\$1,089	\$1,089	\$1,225	\$1,225	\$1,225	\$12,254
23	Salaries	\$817	\$817	\$817	\$953	\$953	\$953	\$1,089	\$1,089	\$1,089	\$1,225	\$1,225	\$1,225	\$12,254
24														
25	Drug Testing													
26	Clients	80	80	80	90	90	90	100	100	100	110	110	110	1140
27	Revenue	\$880	\$880	\$880	\$990	\$990	\$990	\$1,100	\$1,100	\$1,100	\$1,210	\$1,210	\$1,210	\$12,540
28	Fixed Costs	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$231	\$2,768
29	Licensing	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$500
30	Marketing	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$188	\$2,256
31	Training	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$12
32	Variable Cost	\$266	\$266	\$266	\$299	\$299	\$299	\$332	\$332	\$332	\$365	\$365	\$365	\$3,785
33	Salaries	\$80	\$80	\$80	\$90	\$90	\$90	\$100	\$100	\$100	\$110	\$110	\$110	\$1,140
34	Supplies	\$140	\$140	\$140	\$158	\$158	\$158	\$175	\$175	\$175	\$193	\$193	\$193	\$1,995
35														
36	Maintenance													
37	Clients	10	10	10	10	10	10	10	10	10	10	10	10	120
38	Revenue	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$3,600
39	Fixed Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
40	Variable Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
41														
42	Total Clients	123	123	123	138	138	138	153	153	153	168	168	168	1,746
43	Total Revenue	\$6,664	\$6,664	\$6,664	\$7,449	\$7,449	\$7,449	\$8,234	\$8,234	\$8,234	\$9,019	\$9,019	\$9,019	\$94,095
44	Total Fixed Costs	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$16,178
45	Total Variable Costs	\$1,406	\$1,406	\$1,406	\$1,575	\$1,575	\$1,575	\$1,745	\$1,745	\$1,745	\$1,914	\$1,914	\$1,914	\$19,920
46														
47	Patients Lost	16	16	16	18	18	18	19	19	19	21	21	21	222
48	Avg. Pt TX time (Hrs)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
49	ASL* time spent (Hrs)	12.00	12.00	12.00	13.25	13.25	13.25	14.50	14.50	14.50	15.75	15.75	15.75	166.50
50	Patient Rev Lost	\$1,600	\$1,600	\$1,600	\$1,767	\$1,767	\$1,767	\$1,933	\$1,933	\$1,933	\$2,100	\$2,100	\$2,100	\$22,200
	* Additional Service Line													

APPENDIX D: TOTAL REVENUE-EXPENSE THREE YEAR PRO FORMA

Description of Calculations

		Line Item	Calculation	Referral Appendix
1		Gross Revenue(Traditional PT)	Traditional PT revenue is estimated at \$32,000 a month based assumptions gathered from market research and interviews. In order to account for new service lines, each corresponding months Patient Revenue Lost calculation is subtracted by the initial \$32,000. Calculation equals \$32,000 minus line item 50 from New Service Line Three Year Pro Forma.	C
2		Revenue From Additional Service Lines	Total monthly revenue of new service lines. Line item 43 from New Service Line Three Year Pro Forma.	C
3		Revenue Deductions	Managed care considerations, discounts, etc.	
4		Net Revenue	Total amount of revenue remaining once revenue deductions are subtracted out. Line items 1 plus 2, minus line item 3.	
7-9		Salaries	Identified in Table 1. Calculated by first multiplying the per hour rate of each employee, used in calculation for break-even analysis line item 16, by 2080 hours (general estimate for work hours in a year). This number is then divided by 12 (representing months in a year).	
10		Benefits	Estimated benefit expenses provided to employees. Benefit expenses are estimates based on interviews and market research.	
11		Salaries Total	Summation of monthly salary costs and benefits. Line items 7-9 plus 10.	
17		Expense Line Item	Line Items 18-34 are percentages of net revenue, line item 4. Study percentages are projections and are identified in the methodology. These percentages fluctuate monthly based on the net revenue.	
35		Total Budget Expense	Summation of all percentages indicated by line items 18-34.	
37		Additional Service Line Expenses	Represents monthly new service line fixed costs and are identified in line Item 44 in New Service Line Pro Forma.	C
38		Net Income	The income the PT clinic receives after all expenses are accounted for. Line item 4 minus the summation of line items 7-9, 10, 35, and 37.	

Year 1 Results

1	Gross Revenue(Traditional PT)	Month												12 Year 1 Total
		1	2	3	4	5	6	7	8	9	10	11	12	
2	Revenue From Additional Service Lines	\$1,376	\$1,376	\$1,376	\$2,161	\$2,752	\$2,752	\$3,537	\$3,537	\$4,128	\$4,913	\$4,913	\$4,913	\$374,199
3	Revenue Deductions	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$37,734
4	Net Revenue	\$27,009	\$27,009	\$27,009	\$27,628	\$28,019	\$28,019	\$28,637	\$28,637	\$29,028	\$29,646	\$29,646	\$29,646	\$72,000
5														\$339,933
6	Salaries													
7	PT	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$75,600
8	PT A	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$48,000
9	PT Tech	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$24,000
10	Admin	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$60,000
11	Subtotal Salaries	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$207,600
12	Benefits	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$41,520
13	Salaries Total	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$249,120
14														
15		% net revenue												
16		Budget												
17	Expense Line Item	Guideline												
18	Dues, Seminars	\$81	\$81	\$81	\$83	\$84	\$84	\$86	\$86	\$87	\$89	\$89	\$89	\$1,020
19	Auto	\$27	\$27	\$27	\$28	\$28	\$28	\$29	\$29	\$29	\$30	\$30	\$30	\$340
20	Patient Supplies	\$338	\$338	\$338	\$345	\$350	\$350	\$358	\$358	\$363	\$371	\$371	\$371	\$4,249
21	Office Supplies	\$405	\$405	\$405	\$414	\$420	\$420	\$430	\$430	\$435	\$445	\$445	\$445	\$5,099
22	Utilities	\$135	\$135	\$135	\$138	\$140	\$140	\$143	\$143	\$145	\$148	\$148	\$148	\$1,700
23	Telephone	\$270	\$270	\$270	\$276	\$280	\$280	\$286	\$286	\$290	\$296	\$296	\$296	\$3,399
24	Travel	\$108	\$108	\$108	\$111	\$112	\$112	\$115	\$115	\$116	\$119	\$119	\$119	\$1,360
25	Equip. Rental	\$108	\$135	\$135	\$138	\$140	\$140	\$143	\$143	\$145	\$148	\$148	\$148	\$1,673
26	Marketing	\$270	\$270	\$270	\$276	\$280	\$280	\$286	\$286	\$290	\$296	\$296	\$296	\$3,399
27	Repairs&Maint.	\$162	\$162	\$162	\$166	\$168	\$168	\$172	\$172	\$174	\$178	\$178	\$178	\$2,040
28	Taxes&Licenses	\$68	\$68	\$68	\$69	\$70	\$70	\$72	\$72	\$73	\$74	\$74	\$74	\$850
29	Legal, Acct, etc.	\$27	\$27	\$27	\$28	\$28	\$28	\$29	\$29	\$29	\$30	\$30	\$30	\$340
30	Insurance	\$108	\$108	\$108	\$111	\$112	\$112	\$115	\$115	\$116	\$119	\$119	\$119	\$1,360
31		\$0												
32	Rent	\$2,026	\$2,026	\$2,026	\$2,072	\$2,101	\$2,101	\$2,148	\$2,148	\$2,177	\$2,223	\$2,223	\$2,223	\$25,495
33	Bad Debt	\$675	\$675	\$675	\$691	\$700	\$700	\$716	\$716	\$726	\$741	\$741	\$741	\$8,498
34	Depre/Amort.	\$540	\$540	\$540	\$553	\$560	\$560	\$573	\$573	\$581	\$593	\$593	\$593	\$6,799
35	Total Budget Expense	\$5,348	\$5,375	\$5,375	\$5,498	\$5,576	\$5,576	\$5,699	\$5,699	\$5,777	\$5,900	\$5,900	\$5,900	\$67,620
36														
37	Additional Service Line Expenses	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$1,295	\$15,340
38	Net Income	-\$394	-\$421	-\$421	\$75	\$388	\$388	\$883	\$883	\$1,196	\$1,691	\$1,691	\$1,691	\$7,653

Year 2 Results

	Month												Year2 Total
	1	2	3	4	5	6	7	8	9	10	11	12	
1 Gross Revenue(Traditional PT)	\$30,733	\$30,733	\$30,733	\$30,733	\$30,567	\$30,567	\$30,567	\$30,567	\$30,400	\$30,400	\$30,400	\$30,400	\$366,800
2 Revenue From Additional Service Lines	\$4,864	\$4,864	\$4,864	\$4,974	\$5,709	\$5,709	\$5,819	\$5,819	\$6,554	\$6,664	\$6,664	\$6,664	\$69,168
3 Revenue Deductions	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$72,000
4 Net Revenue	\$29,597	\$29,597	\$29,597	\$29,707	\$30,276	\$30,276	\$30,386	\$30,386	\$30,954	\$31,064	\$31,064	\$31,064	\$363,968
5													
6 Salaries													
7 PT	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$75,600
8 PT A	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$48,000
9 PT Tech	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$24,000
10 Admin	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$60,000
11 Subtotal Salaries	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$207,600
12 Benefits	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$41,520
13 Salaries Total	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$249,120
14													
15 % net revenue													
16 Budget													
17 Expense Line Item	Guideline												
18 Dues, Seminars	\$89	\$89	\$89	\$89	\$91	\$91	\$91	\$91	\$93	\$93	\$93	\$93	\$1,092
19 Auto	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$31	\$31	\$31	\$31	\$364
20 Patient Supplies	\$370	\$370	\$370	\$371	\$378	\$378	\$380	\$380	\$387	\$388	\$388	\$388	\$4,550
21 Office Supplies	\$444	\$444	\$444	\$446	\$454	\$454	\$456	\$456	\$464	\$466	\$466	\$466	\$5,460
22 Utilities	\$148	\$148	\$148	\$149	\$151	\$151	\$152	\$152	\$155	\$155	\$155	\$155	\$1,820
23 Telephone	\$296	\$296	\$296	\$297	\$303	\$303	\$304	\$304	\$310	\$311	\$311	\$311	\$3,640
24 Travel	\$118	\$118	\$118	\$119	\$121	\$121	\$122	\$122	\$124	\$124	\$124	\$124	\$1,456
25 Equip. Rental	\$148	\$148	\$148	\$149	\$151	\$151	\$152	\$152	\$155	\$155	\$155	\$155	\$1,820
26 Marketing	\$444	\$444	\$444	\$446	\$454	\$454	\$456	\$456	\$464	\$466	\$466	\$466	\$5,460
27 Repairs&Maint.	\$178	\$178	\$178	\$178	\$182	\$182	\$182	\$182	\$186	\$186	\$186	\$186	\$2,184
28 Taxes&Licenses	\$74	\$74	\$74	\$74	\$76	\$76	\$76	\$76	\$77	\$78	\$78	\$78	\$910
29 Legal Acct. etc.	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$31	\$31	\$31	\$31	\$364
30 Insurance	\$118	\$118	\$118	\$119	\$121	\$121	\$122	\$122	\$124	\$124	\$124	\$124	\$1,456
31													
32 Rent	\$2,220	\$2,220	\$2,220	\$2,228	\$2,271	\$2,271	\$2,279	\$2,279	\$2,322	\$2,330	\$2,330	\$2,330	\$27,298
33 Bad Debt	\$740	\$740	\$740	\$743	\$757	\$757	\$760	\$760	\$774	\$777	\$777	\$777	\$9,099
34 Depre&Amort.	\$592	\$592	\$592	\$594	\$606	\$606	\$608	\$608	\$619	\$621	\$621	\$621	\$7,279
35 Total Budget Expense	\$6,038	\$6,038	\$6,038	\$6,060	\$6,176	\$6,176	\$6,199	\$6,199	\$6,315	\$6,337	\$6,337	\$6,337	\$74,249
36													
37 Additional Service Line Expenses	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$1,114	\$13,368
38 Net Income	\$1,685	\$1,685	\$1,685	\$1,773	\$2,226	\$2,226	\$2,313	\$2,313	\$2,765	\$2,853	\$2,853	\$2,853	\$27,231

Year 3 Results

		Month												12 Year3 Total
		1	2	3	4	5	6	7	8	9	10	11	12	
1	Gross Revenue (Traditional PT)	\$30,400	\$30,400	\$30,400	\$30,233	\$30,233	\$30,233	\$30,067	\$30,067	\$30,067	\$29,900	\$29,900	\$29,900	\$361,800
2	Revenue From Additional Service Lines	\$6,664	\$6,664	\$6,664	\$7,449	\$7,449	\$7,449	\$8,234	\$8,234	\$8,234	\$9,019	\$9,019	\$9,019	\$94,098
3	Revenue Deductions	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$72,000
4	Net Revenue	\$31,064	\$31,064	\$31,064	\$31,682	\$31,682	\$31,682	\$32,301	\$32,301	\$32,301	\$32,919	\$32,919	\$32,919	\$383,898
5														
6	Salaries													
7	PT	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$6,300	\$75,600
8	PT A	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$48,000
9	PT Tech	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$24,000
10	Admin	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$60,000
11	Subtotal Salaries	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$17,300	\$207,600
12	Benefits	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$3,460	\$41,520
13	Salaries Total	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$20,760	\$249,120
14														
15	% net revenue													
16	Budget													
17	Expense Line Item	Guideline												
18	Dues, Seminars	0.30%	\$93	\$93	\$93	\$95	\$95	\$97	\$97	\$97	\$99	\$99	\$99	\$1,152
19	Auto	0.10%	\$31	\$31	\$31	\$32	\$32	\$32	\$32	\$32	\$33	\$33	\$33	\$384
20	Patient Supplies	1.25%	\$388	\$388	\$388	\$396	\$396	\$404	\$404	\$404	\$411	\$411	\$411	\$4,799
21	Office Supplies	1.50%	\$466	\$466	\$466	\$475	\$475	\$485	\$485	\$485	\$494	\$494	\$494	\$5,758
22	Utilities	0.50%	\$155	\$155	\$155	\$158	\$158	\$162	\$162	\$162	\$165	\$165	\$165	\$1,919
23	Telephone	1.00%	\$311	\$311	\$311	\$317	\$317	\$323	\$323	\$323	\$329	\$329	\$329	\$3,839
24	Travel	0.40%	\$124	\$124	\$124	\$127	\$127	\$129	\$129	\$129	\$132	\$132	\$132	\$1,536
25	Equip. Rental	0.40%	\$155	\$155	\$155	\$158	\$158	\$162	\$162	\$162	\$165	\$165	\$165	\$1,919
26	Marketing	1.00%	\$621	\$621	\$621	\$634	\$634	\$646	\$646	\$646	\$658	\$658	\$658	\$7,678
27	Repairs&Maint.	0.60%	\$186	\$186	\$186	\$190	\$190	\$194	\$194	\$194	\$198	\$198	\$198	\$2,303
28	Taxes&Licenses	0.25%	\$78	\$78	\$78	\$79	\$79	\$81	\$81	\$81	\$82	\$82	\$82	\$960
29	Legal Acct, etc.	0.10%	\$31	\$31	\$31	\$32	\$32	\$32	\$32	\$32	\$33	\$33	\$33	\$384
30	Insurance	0.40%	\$124	\$124	\$124	\$127	\$127	\$129	\$129	\$129	\$132	\$132	\$132	\$1,536
31														
32	Rent	7.50%	\$2,330	\$2,330	\$2,330	\$2,376	\$2,376	\$2,423	\$2,423	\$2,423	\$2,469	\$2,469	\$2,469	\$28,792
33	Bad Debt	2.50%	\$777	\$777	\$777	\$792	\$792	\$808	\$808	\$808	\$823	\$823	\$823	\$9,597
34	Depre&Amort.	2.00%	\$621	\$621	\$621	\$634	\$634	\$646	\$646	\$646	\$658	\$658	\$658	\$7,678
35	Total Budget Expense		\$6,492	\$6,492	\$6,492	\$6,622	\$6,622	\$6,751	\$6,751	\$6,751	\$6,880	\$6,880	\$6,880	\$80,235
36														
37	Additional Service Line Expenses		\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$1,348	\$16,176
38	Net Income		\$2,464	\$2,464	\$2,464	\$2,952	\$2,952	\$3,442	\$3,442	\$3,442	\$3,931	\$3,931	\$3,931	\$38,367

APPENDIX E: ASSOCIATED GRAPHS

Respective Percentages of New Service Line Totals

	Y1 Clients	Y2 Clients	Y3 Clients
Total	522	1212	1746
FCE	4.60%	2.97%	2.06%
POET	28.74%	24.75%	25.77%
Drug Screens	57.47%	64.36%	65.29%
Maintenance	9.20%	7.92%	6.87%

	Y1 REV	Y2 REV	Y3 REV
Total	\$37,734	\$69,165	\$94,095
FCE	33.77%	24.88%	18.28%
POET	53.66%	58.56%	64.56%
Drug Screens	8.75%	12.41%	13.33%
Maintenance	3.82%	4.16%	3.83%

	Y1 Costs	Y2 Costs	Y3 Costs
Total	\$23,042	\$27,732	\$36,098
FCE	38.33%	34.81%	29.60%
POET	40.69%	49.60%	52.24%
Drug Screens	20.98%	16.59%	18.15%
Maintenance	0.00%	0.00%	0.00%

	Y1 GP	Y2 GP	Y3 GP
Total	\$14,693	\$41,433	\$57,997
FCE	26.63%	18.23%	11.24%
POET	74.01%	64.55%	72.23%
Drug Screens	-10.44%	9.60%	10.32%
Maintenance	9.80%	6.95%	6.21%

REFERENCES

- Adams, D. (2011, January 23). Implementing Programs in Physical Therapy. (M. van Oort, Interviewer)
- American College of Physicians (2011, January 27). Health Care Coverage, Capacity and Cost: What Does the Future Hold? A report from America's internists on the state of America's health care. *American College of Physicians*. Retrieved May 13, 2011 from http://www.acponline.org/advocacy/events/state_of_healthcare/snhcbrief2011.pdf
- American Hospital Association, First Consulting Group. (2007). *When I'm 64*. AMA, FCG.
- American Medical Association. (2008, September 10). Future bleak for seniors, baby boomers: Medicare to cut payments as boomers enter the program. *American Medical Association*. Retrieved August 3, 2011, from: www.ama-assn.org/ama1/pub/upload/mm/399/nac_costs.pdf
- American Speech-Language-Hearing Association. (March, 22 2011). Medicare Outpatient Therapy Caps. Washington, D.C., United States of America.
- Bureau of Labor Statistics. (2011, March 11). Overview of BLS wage data by area and occupation. *BLS Information*. Retrieved April 2, 2011 from, <http://www.bls.gov/bls/blswage.htm>
- Carson, S. (2011, June 29). Introduction to Worksteps, LLC. (M. van Oort, Interviewer)
- Centers for Medicare and Medicaid Services. (2009, September 25). Chapter 12- Comprehensive Outpatient and Rehabilitation Facility (CORF) Coverage. *Medicare Benefit Policy Manual*. Retrieved May 3, 2011, from <http://www.cms.gov/manuals/Downloads/bp102c12.pdf>
- Centers for Medicare and Medicaid Services. (2011, January 19). Definition and uses of health insurance prospective payment codes (HIPPS Codes). *CMS Division of Institutional Claims Processing*. Retrieved May 11, 2011, from <https://www.cms.gov/ProspMedicareFeeSvcPmtGen/downloads/hippsusesv4.pdf>
- Centers for Medicare and Medicaid Services. (2004, December 1). Paper Based Manuals. *Centers for Medicare and Medicaid Services*. Retrieved February 15, 2011, from http://www.cms.gov/manuals/downloads/P152_18.zip

- Ciolek, D., & Hwang, W. (2008). *Outpatient therapy alternative payment study task order: CY 2006 outpatient therapy services utilization report*. Computer Sciences Corporation (Prepared for the Center for Medicare and Medicaid Services). Baltimore, MD.
- City of Austin Utilities. (2010, October 15). *2010-2011 Fee Schedule PDF*. *City of Austin Utilities*. Retrieved March 20, 2011, from <http://www.austinenergy.com/about/percent20us/rates/feeSchedule.pdf>
- Commision on Practice. American Occupational Therapy Association. (1986). Work hardening guidelines. *American Journal of Occupational Therapy* , 40, 841-843.
- Congressional Budget Office (2006). *Medicare's physician payment rates and the sustainable growth rate*. Washington, D.C. July, 26.
- Hariri, S., Bozic, K. J., Lavernia, C., Prestipino, A., & Rubash, H. E. (2007). Medicare provider reimbursement: past, present, and future. *Journal of Bone and Joint Surgery*, 2536-2546.
- King, P. M., Tuckwell, N., & Barrett, T. E. (1998). A critical review of functional capacity evaluations. *Journal of Physical Therapy*, 78 (8), 852-866.
- Lechner, D. E. (1994). Work hardening and work conditioning interventions: Do they affCEt disability? *Journal of Physical Therapy*, 74 (5), 471-493.
- Mayo, Mark. (2011). While waiting for healthcare reform, managers cut costs, boost revenue. *Journal of Same-Day Surgery*, 35 (1), 1-12.
- Matheson, L. (2003). The functional capacity evaluation. In G. Anderson, S. Demeter, & G. Smith, *Disability Evaluation* (2 ed.). Chicago: Mosby Yearbook.
- McAfee, Larry. (2010, March 1). Update on Medicare reimbursement for physical therapy services. *American Physical Therapy, Inc*. Retrieved May 15, 2011 from [http://corporate.usph.com/press/pdf/Medicare%20Update%20Final%2003012010.p](http://corporate.usph.com/press/pdf/Medicare%20Update%20Final%2003012010.pdf)df
- MEDPAC. (2009). *Report to the congress: Measuring regional variation in service use*. Washington, DC: Medicare7uim
- Payment Advisory Commission.
- Milgate, S., & Cheng, S. B. (2006). Pay for performance: the MedPAC perspective. *Health Affairs*, 25 2,. 413-419.
- Novasic, C. (2010, April 11). PT Classroom-basic equipment for starting a physical therapy practice. *CYBERPT*. Retrieved February 22, 2011 from <http://www.cyberpt.com/physicaltherapyequipment.asp>

- Occupational Safety and Health Administration. (2011). Back Disorders and Injuries. *OSHA Technical Manual*. Retrieved April 5, 2011 from http://www.osha.gov/dts/osta/otm/otm_vii/otm_vii_1.html
- OSHA. (n.d.). Publications. *Occupational Safety and Health Administration We Can Help*. Retrieved 2011 5-April from <http://www.osha.gov/pls/publications/publication.AthruZ?pType=Industry>
- Scott, L. R. (2002). Post Offer Screening. *AAOHN Journal* , 50 (12), 559-563.
- Shatto, J. D., & Clemens, M. K. (2010). *Projected Medicare Expenditures under an Illustrative Scenario with Alternative Payment Updates to Medicare Providers*. Baltimore: Centers for Medicare & Medicaid Services.
- Small Business Solver. (2009-23-August). *Choosing Revenue Streams*. Retrieved 2011-14-April from smallbusinesssolver.com: <https://www.smallbusinesssolver.com/ChoosingRevenueStreams.pdf>
- Texas Department of Insurance, Division of Workers' Compensation. (2011). *28 Texas Administrative Code: Chapter 134*. Austin: Texas Department of Insurance.
- Trailblazer Health Enterprises, LLC. (2011). Medicare Fee Schedules. *Trailblazer Health Enterprises*. Retrieved 2011 31-March from <http://www.trailblazerhealth.com/Tools/Feepercent20Schedule/MedicareFeeSchedule.aspx>
- Tu, H. T., & Ginsburg, P. B. (2006). Losing ground: provider income, 1995-2003. *Center for Studying Health System Change: Results from the community tracking study* .
- U.S. Dept. of Health and Human Services. (2009, November 24). About Health Reform. *Healthreform.gov*. Retrieved November 24, 2009, from <http://www.healthreform.gov/about/index.html>
- United Health Care. (2010, April 1). The Patient Protection and Affordable Care Act of 2010 an overview of the new healthcare law enacted March, 2010. *Health Care Law*. Retrieved February 21, 2011, from <http://www.unitedhealthgroup.com/hrm/Health-Care-Law.pdf>
- US Dept of Health and Human Resources. (2007, June 6). Drug testing facts and statistics. *Substance Abuse and Mental Health Services Administration* Retrieved February 21, 2011, from http://www.drugfreeworkplace.gov/WPWorkit/pdf/drug_testing_facts_and_stat_fs.pdf

VITA

Martijn van Oort grew up in Boerne, TX which is a suburb of San Antonio. He graduated from Texas State University in the spring of 2008 with a Bachelors Degree in Exercise and Sports Science. He worked for several years at a physical therapy clinic in San Marcos, TX and was inspired to enroll in the Master of Health Administration program at Texas State University-San Marcos. Martijn is currently working with a health information exchange organization in Austin, TX.

Permanent Email: martijn.vanoort@hotmail.com

This thesis was typed by Martijn van Oort.