eHOSPITALISTS: IMPLEMENTING A NEW FRONTIER

Business Plan Submission

Amanda Trask, MBA, MHA, FACHE, SFHM, FACMPE

July 30, 3019

This paper is being submitted in partial fulfilment of the requirement of the Fellowship in the American College of Medical Practice Executives.

PR	DJECT SUMMARY	3
EX	ECUTIVE SUMMARY	4
	he Company	
	lission Statement	
\mathbf{M}	larket Opportunity	4
\mathbf{M}	lanagement and Key Personnel	5
С	ompetitors	5
Т	he Business' Competitive Advantages	5
F	inancial Information	6
ТН	E ORGANIZATIONAL PLAN	7
1.	Summary Description of the Business	7
а.	Mission	7
b.	Business Model	7
С.	SWOT Analysis	
d.	85	
е.	Strategic Relationships	
<i>f</i> .	Key Stakeholders/Key Decision-Makers	
2.	Services	
3.	Administrative Plan	
4.	Operational Plan	
5.	Regulatory, Accreditation, and Other Included External Governing Bodies	. 13
MA	RKETING PLAN	14
MA 1.	RKETING PLAN	
		. 14
1.	Overview and Goals of the Marketing Strategy Market Analysis	. 14 . 15
1. 2.	Overview and Goals of the Marketing Strategy Market Analysis Target Market and Audience	. 14 . 15 .15
1. 2. <i>a</i> .	Overview and Goals of the Marketing Strategy Market Analysis Target Market and Audience Competition Market Trends	. 14 . 15 . 15 . 15 . 15
1. 2. <i>a.</i> <i>b.</i>	Overview and Goals of the Marketing Strategy Market Analysis Target Market and Audience Competition Market Trends	. 14 . 15 . 15 . 15 . 15
1. 2. <i>a.</i> <i>b.</i> <i>c.</i>	Overview and Goals of the Marketing Strategy Market Analysis Target Market and Audience Competition Market Trends Market Research Marketing Strategy	. 14 .15 .15 .15 .15 .15
1. 2. <i>a.</i> <i>b.</i> <i>c.</i> <i>d.</i>	Overview and Goals of the Marketing Strategy Market Analysis Target Market and Audience Competition Market Trends Market Research Marketing Strategy Budget Allocations	. 14 .15 .15 .15 .15 .15 .15 .16
1. 2. <i>a.</i> <i>b.</i> <i>c.</i> <i>d.</i> 3.	Overview and Goals of the Marketing Strategy Market Analysis Target Market and Audience Competition Market Trends Market Research Marketing Strategy	. 14 .15 .15 .15 .15 .15 .15 .16
1. 2. <i>a.</i> <i>b.</i> <i>c.</i> <i>d.</i> 3. <i>a.</i> 4.	Overview and Goals of the Marketing Strategy Market Analysis Target Market and Audience Competition Market Trends Market Research Marketing Strategy Budget Allocations	. 14 . 15 . 15 . 15 . 15 . 15 . 15 . 16 . 16
1. 2. <i>a.</i> <i>b.</i> <i>c.</i> <i>d.</i> 3. <i>a.</i> 4.	Overview and Goals of the Marketing Strategy	. 14 . 15 . 15 . 15 . 16 . 16 . 16 . 16
1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	Overview and Goals of the Marketing Strategy Market Analysis	. 14 . 15 . 15 . 15 . 15 . 16 . 16 . 16 . 16 . 17 . 17
1. 2. <i>a.</i> <i>b.</i> <i>c.</i> <i>d.</i> 3. <i>a.</i> 4. FIN 1.	Overview and Goals of the Marketing Strategy Market Analysis Target Market and Audience Competition Market Trends Market Research Marketing Strategy Budget Allocations Implementation of Marketing Strategy Summary of Financial Needs	. 14 . 15 . 15 . 15 . 15 . 16 . 16 . 16 . 16 . 17 . 17 . 19
1. 2. <i>a.</i> <i>b.</i> <i>c.</i> <i>d.</i> 3. <i>a.</i> 4. FIN 1. 2.	Overview and Goals of the Marketing Strategy Market Analysis	. 14 . 15 . 15 . 15 . 16 . 16 . 16 . 17 . 17 . 19 . 20 . 20
1. 2. a. b. c. d. 3. a. 4. FIN 1. 2. 3.	Overview and Goals of the Marketing Strategy Market Analysis	. 14 . 15 . 15 . 15 . 16 . 16 . 16 . 17 . 17 . 19 . 20 . 20
1. 2. a. b. c. d. 3. a. 4. FIN 1. 2. 3. 4. 5.	Overview and Goals of the Marketing Strategy Market Analysis	. 14 . 15 . 15 . 15 . 16 . 16 . 16 . 17 . 19 . 20 . 20
1. 2. a. b. c. d. 3. a. 4. FIN 1. 2. 3. 4. 5.	Overview and Goals of the Marketing Strategy Market Analysis	. 14 . 15 . 15 . 15 . 16 . 16 . 16 . 17 . 19 . 20 . 20
1. 2. b. c. d. 3. a. 4. FIN 1. 2. 3. 4. 5. INN 1.	Overview and Goals of the Marketing Strategy Market Analysis	. 14 . 15 . 15 . 15 . 16 . 16 . 17 . 17 . 19 . 20 . 20 . 20 . 20
1. 2. b. c. d. 3. a. 4. FIN 1. 2. 3. 4. 5. INN 1.	Overview and Goals of the Marketing Strategy Market Analysis	. 14 . 15 . 15 . 15 . 16 . 16 . 16 . 16 . 16 . 17 . 19 . 20 . 20 . 20 . 22 . 22

Table of Contents

PROJECT SUMMARY

There is an outpacing of demand for hospitalists. Hospitalists are typically internal medicine or family practice trained physicians who provide care to hospitalized patients, patients who anticipate a hospitalization or patients immediately discharged from a hospital. The patients may be inpatient, observation or outpatients. Hospitalists provide care in hospitals of all sizes, from critical access hospitals to large tertiary hospitals. Most hospitals request the presence and availability of hospitalists 24 hours a day, 7 days a week. The demand for hospitalists continues to increase, even as the acute care patient demand has leveled-off. This is partially because many specialists request the daily or intermittent service of hospitalists to care for subspecialty patients who have multiple co-morbidities.

The continued demand for hospitalist services has placed a stress on many hospital systems to find hospitalists. In order to meet this demand, hospitalist groups have begun exploring the offering of hospitalist services with appropriate technological support. Telemedicine is not a new frontier, however *eHospitalist* is a newer frontier for hospital medicine.

eHospitalist is a virtual hospitalist program offered through visual and audio technologies to diagnose and treat hospitalized patients from a remote location. This business plan will focus on establishing and implementing eHospitalist services within a health system's employed hospitalist group to achieve operational efficiency, enhancing access to care and improving overall quality provided by a hospitalist practice. The first phase of the eHospitalist program will be to serve a rural hospitalist service.

EXECUTIVE SUMMARY

The Company

Our organization¹ has an opportunity, through establishing and implementing a hospitalist telemedicine service in our employed hospitalist medical group model, to provide needed hospitalist services in our wholly owned facilities as well as surrounding community, rural and critical access facilities. Our company currently owns hospitals across many states and has a large rural hospital network that is associated with tertiary care hospitals.

As defined by the Society of Hospital Medicine, hospitalists are physicians who specialize in the general medical care of hospitalized patients. The number of hospitalists in the United States has grown to nearly 55,000ⁱ, a greater than 500% growth since just 2003. To address the growing demand for hospitalist services, a new service called *eHospitalists* is being formed. This service will be positioned to provide hospitalist services within an existing employed hospitalist group across any geography within the United States. eHospitalists will be an integral component of the long-term success of a hospitalist group practice.

The business need, opportunities, proposed solutions, timelines, expected savings and enhanced quality of care to be realized by doing this are described in detail within this business case.

Mission Statement

The mission of eHospitalists will be to bring hospitalist services wherever needed to promote continuity of care, improve quality outcomes, assure positive patient and provider experience, and optimize the investment for hospitalist services.

Market Opportunity

In 1996, the specialty of hospitalist, or hospital medicine, was first coined. Hospitalist is now the fastest growing specialty in all of medicine and is larger than any other internal medicine subspecialty.¹ This growth and demand for hospitalist services means that hospitalist practice must consider integrating new ways of delivering hospitalist services. Thus, the creation of eHospitalists.

eHospitalist services can create new economic and patient care efficiencies for a hospitalist practice. The economic efficiency is found by deploying hospitalist providers in a more efficient manner across a larger patient population, thus assuring the best possible utilization of hospitalists. The patient care efficiencies are a result of improving access to hospitalists and bringing the expertise of hospitalists together with appropriate technological support.

eHospitalists can also bring much needed services to our rural communities, in a more effective and efficient manner. This will be discussed further in the following business proposal.

The objective of this proposal is to build a virtual hospitalist model and develop a pilot project. Project deliverables are:

- To involve hospitalists in telemedicine
- Assess impact to operations
- Complete a financial impact assessment

¹ The name of the organization has been omitted and referred to in generic form for purposes of submission.

- Outline workflow
- Outline project training needs and communication plan
- Define job description for the physician telehospitalist

Management and Key Personnel

- Leadership brings executive sponsorship, enhanced communication of the program, and ability to build a consensus around a "go-forward" strategy. Key personnel include:
 - o Health System, hospital and medical group operational and financial leaders
 - o Health System and hospital Chief Medical Officers
 - o Health System and hospital Chief Nursing Officers
- **Hospitalists** bring the ability to design, implement, and staff the program. Key personnel include:
 - o Hospitalist physicians
 - Hospitalist Advanced Practice Providers: nurse practitioners and physician assistants
- **Clinicians** bring the bedside connection at the receiving, or originating, facility. Key personnel include:
 - Bedside nurses and other care givers
- **Technology** team members bring the ability to install and support the resources for the virtual visit for all. Key personnel include:
 - Information technology team members
- Administrative Support brings the support necessary to manage the revenue cycle for eHospitalists. Key personnel include:
 - o Medical group billers

Competitors

Competitors in this space are telehosptialist vendors who have incorporated hospitalist services into their business model. These are not typically owned by a health system, rather they are owned by an individual or corporation. The strength of these vendors is that they have significant experience in this industry and would not need to build their services. The primary weaknesses of these vendors are that they typically must create a reasonable profit margin that might entail a higher cost to hospitals and that they do not have existing relationships with the health system or medical staff.

The Business' Competitive Advantages

This business would be an integrated part of a health system employing hospitalists who are well established in the medical staff culture with strong professional relationships and would be embedded into the communities in which these hospitalists live and work. This is a strong advantage to achieve acceptance of the service.

Further, by being developed within a health system, the eHospitalist service can be built to solve for specific needs and quickly modified to solve the challenges at hands. By encapsulating the cost savings of the program and not using a for-profit approach, the health system can also maximize the operational cost savings.

Financial Information

Reliable and strongly supported Information technology will be key to ensuring the eHospitalist virtual visits are successful. Staffing will be provided within an employed hospitalist group. This may be done with existing or new staff.

Funding is expected to be justified based upon a cost savings methodology. Since this will be funded from within the health system, the ability to create solvency through a health system eHospitalist venture should be plausible.

The financial document, details of the income statement projections for the first three years, the return on investment and capital requirements are explained in detail beginning on page 17.

THE ORGANIZATIONAL PLAN

1. Summary Description of the Business

a. Mission

Our vision is to reach more healthcare consumers when and where they need us. This can be accomplished by delivering a premier, self-sustaining, and well-functioning eHospitalist service. The intention is to address the shortage of hospitalists by exploring virtual hospitalist model options and developing a pilot project for local implementation.

The process of delivering care via telemedicine should mirror the process of delivering care in person as closely as possible.

b. Business Model

The creation of this Hospitalist Telemedicine service, a virtual hospitalist program also referred to as eHospitalist services offered by telehospitalists, will solve for current gaps in service. These gaps include: limited access to care/hospitalists; patients seeking care at other hospitals; and, unnecessary transfer of patients to our hospitals due to lack of onsite providers to assess the situation locally. The solution created is anticipated to result in greater efficiencies, improving communications, coordination, and support in an integrated approach to hospitalist care.

Addressing Limited Access to Care and Hospitalists

There is a shortage of available hospitalists to provide 24/7 coverage, particularly at our smaller and rural hospitals overnight. This causes unnecessary delays in service. Current studies indicate approximately 20% of hospital admissions occur after 7pmⁱⁱ, for small rural facilities investing in a full-time night coverage physician can be cost prohibitive. With the implementation of eHospitalist services, overnight coverage can be provided, and daytime coverage as needed, by hospitalists in a more efficient and effective manner.

Reducing Unnecessary Transfer of Hospitalized Patients

Unnecessary transfer of patients to our tertiary facilities from other hospitals often occurs. This is partially due to the unavailability of hospitalists or lack of qualified hospitalist services. This leads to dissatisfaction for patients who must be transferred to larger facilities outside of their home communities. Patients value high-quality care and desire to access this care in their communities.

Another problem that could be solved with the addition of telehospitalists in the reduction of high costs of care resulting from transfer processes, transportation, and duplicate services and evaluations by clinical staff. Recent trends point to successful telemedicine practice in neurology, psychiatry, and intensive care services. Some studies show up to a 30% reduction of inappropriate transfersⁱⁱⁱ with telemedicine. Studies also demonstrate a reduction in length of stay and lower cost of care with telemedicine services.

c. SWOT Analysis

Strengths

- **Telehealth Experience**: The organization has experience in other areas of telehealth, such as eICU, telepsychiatry and telepharmacy. This eHospitalist program may be built upon the knowledge gained from telehealth experience in other specialties.
- **Strong Internal Demand**: There is strong internal demand to start this service. Due to desire to provide better service and address hospitalist staffing gaps, hospital

leaders and hospitalist practice leaders are asking for a new and innovative way to solve today's problems. The appetite for a new solution and change is present.

Weaknesses

- **Complexity of Technology:** Is the organization capable of supporting technology to deliver services, including initial implementation and continuing technical support services? Will staff have adequate initial and ongoing training once technology is implemented?
- Lack of Experience in eHospitalist Services: Our organization does not have current experience in eHospitalist services, and this could prove to be a weakness that should be mitigated by learning from others who have already created this service.

Opportunities

- **Cost of service:** This measure will be used to determine which option; build, buy or partner is appropriate for CHI. Not only should financial costs be assessed, however, a look at quality, performance and satisfaction should also be assessed.
- **Capitalization:** Funding for service will need to be secured after total cost evaluation for program occurs.

Threats

- **Reimbursement:** Currently these services are not reimbursed by payers, except for Medicare in select rural markets. Continued and vigilant review of legislation should be monitored for upcoming changes.
- Adoption/Acceptance: Will leadership support the initiative? Does supply and demand balance? Will consumers see value in the service? Will providers support the service with resources and referrals? All these questions should be considered, and risks mitigated prior to offering the service.

d. Strategy

This plan outlines a hospitalist telemedicine program, the intention allows for a consistent core structure and allowing for local flexibility in order to meet market needs. Rollout of the virtual hospitalist services is proposed as a pilot program, beginning with 1-2 trial markets. Rollout can be achieved in waves or simultaneously in pilot markets, with early adopters and those with high interest in services going first, and other locations following behind depending upon market demand and availability of resources. The early adopter locations will become mentors and leads to the other markets.

Three (3) distinct options for implementation exist: build an eHospitalist program, purchase the eHospitalist services from a vendor, or partner with an outside entity to co-create the program. The plan is to build the eHospitalist program.

The eHospitalist service will improve access to hospitalist services to rural areas, provide hospitalist services more efficiently and improve outcome measures. The areas to measure for return on investment and improved performance are:

- Decreased use of locum tenens hospitalist physicians
- Increased retention of patients at the remote sites
- Measurement of transfer rate out of receiving hospital; transfer rate should be lower
- Increased productivity of the hospitalist program
- Reduced overall staffing cost of the hospitalist program

- Increased patient satisfaction of patients receiving care at the remote hospital
- Reduced hospitalist provider-reported burnout
- Increased hospitalist provider retention and satisfaction
- Reduced hospital acquired conditions by providing high-quality and timely care at the receiving hospital with remove hospitalist physicians
- Reduced mortality rate by providing hospitalist care timely and reducing the transfer of patients
- Reduced rapid responses by providing timely hospitalist care and having a hospitalist physician available promptly
- Improved process efficiencies from the patient care and hospitalist viewpoint

e. Strategic Relationships

It will be important to create strategic relationships with referring physicians and local primary care physicians whose patients are admitted to the hospitalist service. Additionally, strategic relationships with a technology platform vendor will be needed. The plan is to leverage existing technology relationships for already implemented, non-hospitalist telemedicine services. This will allow us create cost efficiencies and share IT support and maintenance resources.

f. Key Stakeholders/Key Decision-Makers

As telehealth services are considered, there are many key stakeholders who are involved and/or impacted. The following is a description of these impact points:

The key decision makers in this process will be:

- Medical Group Leaders: Leaders of the hospitalist medical group would be required to approve this program.
- Hospitalists: The group who will be deploying this model must be included in the planning process and will be instrumental in supporting the launch of the program. Not all hospitalists must be fully involved in providing eHospitalist services, and there must be enough hospitalists willing to participate for this to be successful. The physicians providing this service will be required to develop the skill of providing patient assessment and care via video conference and remote technology, which are likely a new skillset to be developed.
- Receiving Hospital: The remote site, the hospital where the patients are receiving eHospitalist services, must be fully onboard with moving forward with this service.
- Providing Hospital: The host or originating site, the hospital where the telehospitalist resides, must also desire to support the remote site with telehospitalist services.

Key stakeholders for planning and implementation are as follows:

- Referring Providers: It will be key to involve referring primary care physicians and specialists in the communication plan and rollout. Ensuring they understand how the service will be provided and that it will provide an equal or higher level of care will be key to gaining buy-in.
- Telehealth Services (TS): There is an internal team with expertise that already exists in telemedicine who can be used to advise the pilot sites about technology and logistics.
- Information Technology (IT): The internal IT team will be needed to ensure the wireless and wired connections are enough and to advise on the selection of the technology used to support the eHospitalist platform.

- Business Operations: Business Operations would be asked to measure financial savings in FTE's, including potential savings from reducing use of locums at originating hospitals, along with financial impact of extra FTE's to staff the regional sites and other costs.
- Financial Leaders: Based upon the feedback from Business Operations, the initial financial support needed, and the ongoing support needed to operate the eHospitalist program, the financial team will need to design the initial and ongoing budgetary needs. The originating site will need to evaluate the initial and ongoing financial support needed. The remote site will need to provide sufficient financial support for the telehospitalist and his/her needs.

Other impacted groups:

- Clinical Teams: Nurses and other clinicians must be fully involved in the successful deployment of eHospitalist services. Without involvement of these key stakeholders who are involved in direct patient care, the eHospitalist service may not become a reality.
- Post-Acute Care Providers: This service may also be a benefit to post-acute care providers allowing hospitalists to follow their patients in the post-acute environment.

One of the most important key stakeholders are **patients**. Patients will be asked to participate in what will initially be an unfamiliar way of interacting with hospitalists. In return, patients receive care in familiar surroundings and with family and friends nearby.

2. Services

According to 2010 Census Bureau, a fifth of Americans live in rural areas where primary care physicians are scarce. A viable option to ameliorate the night time coverage, to provide additional assistance during high census and provide a continuum of care between smaller hospitals and tertiary referral centers is to use telemedicine for hospitalist services. eHospitalist services are hospitalist services provided to patients in the hospital or post-acute setting through the use of telemedicine technology. It allows the physician or provider to examine, diagnosis and treat the patient virtually. This as a unique offering within an existing hospitalist group.

A telehospitalist is a hospitalist who uses technology to diagnose and treat patients from a remote location. This service is provided by synchronous (live) or asynchronous (recorded) video. The plan is to offer this service via synchronous video. It could also include remote patient monitoring.

An eHospitalist service directly addresses our Core Strategic Objectives for in People, Quality, Stewardship, and Growth:

People: By allowing our patients who live in rural communities to remain in their communities for care, this assures better care for people where they live and work. For our hospitalist workforce, this program allows hospitalists to be more efficient and available for patients.

Quality: This eHospitalist service will allow us to deliver high value cost effective care through the use of technology.

Stewardship: The eHospitalist service will allow us to provide more efficient hospitalist staffing services and reduce the cost of patient care by avoiding unnecessary patient transfers and improved quality of care.

Growth: The addition of an eHospitalist program will promote the goal of using new models to deliver healthcare and attract new patients to their community hospitals.

3. Administrative Plan



Key Roles

Based on the organization chart, the key roles are described below:

- > Medical Group President leadership approval and sponsorship for the program
- Hospital President at both the originating and remote site, the hospital president must be fully supportive and create an environment of support for this new support with his/her team.
- Chief Medical Officer this key physician leader for the health system, remote hospital and originating hospital serves as the key leader to convene the medical staff support for this new service.
- Hospitalist Group Medical Director serves as a key leader in developing and implanting the program in the practice. This role should be responsible for creating a coordinated hospitalist service to include:
 - o Hiring a telehospitalist medical director
 - o Coordinating with the chief medical officer and hospital president,
 - o Involving nursing and information technology in the design, implementation
 - o Ongoing monitoring of the program's success

- Telehospitalist Medical Director This physician serves as the physician leader and is primarily responsible for providing telehealth services, training other physicians to provide telehealth, orienting and training remote site advanced practitioners and nurses to the telehealth process, remaining current on telehealth policy and hospitalist billing practice, and meeting with referring physicians to identify and solve for any barriers to implementation and ongoing success.
- Nursing It will be critically important that the chief nurse, nursing director responsible for inpatient services and the bedside nurses are involved from the beginning. The bedside nurse will have responsibility for gaining patient buy-in to the eHospitalist service, movement of the computer telemedicine cart, and communicating directly with the telehospitalist daily. Case management and other clinical care team members are also considered in this cohort.

Additional roles required, medical professional fee biller, information technology support, and data analytics. A good program will also provide effective training and support at the sending and receiving sites. A successful program will have coordination between sites as well as champions who support the program at both sites.

4. Operational Plan

The following are the recommend steps to initiate an eHospitalist program.



Roadmap

The following actions occur during the above outlined steps:

Interview key stakeholders and experts to determine need, readiness and interest.

Identify obstacles

Size opportunity Define recommended approach

Identify location for pilot

Review other eHospitalist practices

Outline our approach to eHospitalist: Hospitalists interaction, how the patients interact how referring providers interact.

Ensure sustainability:

Engage key stakeholders and ensure relationship between telehospitalist and originating site

Review policies and procedures

Procure appropriate equipment

Ensure ongoing training and orientation

Determine appropriate workload

Communication with key stakeholders, executives, providers

Organize awareness program

Monitor reimbursement opportunities-bill for professional services Measure and monitor metrics

5. Regulatory, Accreditation, and Other Included External Governing Bodies

Physicians providing telemedicine must be licensed in the state where the patient is located. Thus, for any site that would be an interstate program, the telemedicine medical director and any other physicians providing remote services must hold licenses in the remote site. They would also hold licenses in the remote site if they were providing any local direct patient care. If the telephysician's entire workload is remote, they may only hold a license in the remote site's state.

From a billing perspective, since a predominate of hospitalist patients are Medicare, the hospitalist practice medical group must fully understand the Medicare professional fee reimbursement requirements for telemedicine. [see **Attachment X**]. Each hospitalist medical group must also verify if Medicaid provides professional fee reimbursement. Some states provide private insurance professional fee reimbursement parity.²

From a medical malpractice perspective, the medical group must ensure that the telehospitalist is covered across the various geographies and states where the eHospitalist service is offered.

² The Federation of State Medical Boards provides a current summary of telemedicine policies by state: <u>http://www.fsmb.org/siteassets/advocacy/key-issues/telemedicine_policies_by_state.pdf</u>

MARKETING PLAN

1. Overview and Goals of the Marketing Strategy

eHospitalist services drive the experience of care by delivering the care when and where the consumer chooses. As the capabilities are developed, it will be important to create a successful brand to continue to attract new patients and inform current patients.

Our marketing strategy and message will be centered around a team of experienced hospitalists caring for you in your community. The marketing strategy is a communication plan since most of the marketing will be in person-to-person communication.

The messages of the communication plan will include:

- Improved access to care: By bringing telemedicine to the originating site, there will be improved access to care and physician of a larger geographic area.
- Improved patient satisfaction: Since care will be given onsite close to patient's home, there will be more satisfaction and compliance of the patient with the local support of family and friends.
- Decreased unnecessary transfers: Since a hospitalist will be available through telemedicine to provide care onsite, there will be an anticipated decrease in transfer rate to tertiary care centers. This was shown recently in a study of tele-neurology², where up to a 30% reduction of inappropriate transfers occurred.
- Expedited appropriate transfers: Necessary transfers to a tertiary care center will be smoother since the telehospitalist will be able to admit the patient directly to himself or to one of his on-call partners.
- Decrease transfers to non-affiliated hospitals: Since an affiliated telehospitalists will arrange the transfers there will be decrease in non-affiliated transfers and decrease loss of referrals.
- Improved coverage: As has been mentioned above about 20% of the hospital admissions occur during 7pm to 7amⁱⁱ Hospitalists are not always available to see these patients in a timely manner in originating hospitals. With the advent of telemedicine there will be better coverage of these off hours and weekends and patients admitted during these times will get appropriate care sooner.

2. Market Analysis

- a. Target Market and Audience
 - Patients receiving care in the originating site.
 - The community of the originating site.
 - Referring primary care physicians.
 - Emergency room physicians in the originating site.
 - Specialty physicians.
 - Community hospitalists at the originating site.
- b. Competition
 - Primary competitors are telemedicine companies who also provide eHospitalist services. Strengths of these companies include prior experience, a team focused only on telemedicine services, and time to market. Weaknesses include high cost due to need to create achieve margin, lack of existing relationships with the local medical community, and multiple competing clients which may lead to reduced one-on-one focus for the originating site.

c. Market Trends

- The telemedicine industry is expected to experience double digit growth in the coming years. There are new technologies being developed and companies forming to offer the service. There are also consulting companies forming to offer advisory services for organizations wishing to build the service. Consumers are becoming more aware of telehealth services, which is helpful in implementing a new program. There is also an American Telemedicine Association, which is focused on advancing telehealth and has membership of over 400 organizations.³
- d. Market Research
 - Methods of researching the telemedicine industry included researching opinions of hospitalist experts, telemedicine experts, the Society of Hospital Medicine, the American Telemedicine Association, and published reports on eHospitalist services. Also reviewed were the requirements of operating an eHospitalist program, their associated operational demands and financial considerations.

³ <u>https://www.americantelemed.org/about-us/</u>

3. Marketing Strategy

a. Budget Allocations

The following describes the targeted marketing campaign:

Target Audience	Item	Budget
Patients	Online targeted advertising	\$2,500
	Brochures: Design & Printing for use onsite	\$1,000
Medical Staff Physicians	Education at Medical Staff Meetings	Staff Time
	One-on-one Meetings	Staff Time
Originating Site Staff	Education at staff meetings	Staff Time
	Flyers at nursing stations	\$50
Internal Hospitalists	Education at staff meetings	Staff Time
	One-on-one Meetings	Staff Time

4. Implementation of Marketing Strategy

Most of the marketing strategy involves the hospitalist medical director and telehospitalist medical director conducing presentations and meeting one-on-one with key stakeholders.

Medical Staff Physicians: This group includes the originating site referring primary care physicians, specialty physicians, emergency room physicians, and advanced practice clinicians (nurse practitioners and/or physician assistants; "APPs") working with the hospitalist team. In the early stages, the chief medical officer will be asked to engage physicians for support of the program. The hospitalist medical director and telehospitalist medical director will be scheduled to meet with the various groups and one-on-one where necessary to explain and launch the new program.

Originating Site Staff: Initially, the hospital president and chief nursing officer at the originating site will be involved to determine which hospital staff and what audience needs to be involved in the implementation and post-implementation planning. From there, the hospitalist and telehospitalist medical directors will engage the originating site staff in the communication plan.

Originating Site Hospitalist Advanced Practice Providers: It is planned to have the originating APPs for at least the day time. Since these APPs will have face-to-face interactions with patients, it will be critically important for the hospitalist and telehospitalist medical directors to ensure the APPs have and are using information to inform the patients about this new service. APPs will be provided with patient-centered handouts and brochures.

Patients: It will be critically important that the medical staff and originating site staff encountering the patients prior to the telehospitalist visit properly and proactively explain the eHospitalist service. Patients will receive handouts and brochures to learn more about the service in a positive manner.

FINANCIAL DOCUMENTS

1. Summary of Financial Needs

- **Revenue**: From a revenue and funding source vantage point, there are several considerations:
- ➢ Grants for Telemedicine: There are federal and private industry grants that may be available, particularly related to rural healthcare. For the pilot site, these would be thoroughly investigated during the assessment phase and implementation design.
- Operational Funding: As previously mentioned, medical professional fees would be anticipated from Medicare, Medicaid and private payers. While these are not expected to fully fund the program, the program is justified due to the staffing efficiencies gained with this program.
- > Payer Analysis:
 - **Medicare reimbursement:** Currently, the Department of Health and Human Services will reimburse providers^{iv} for telehealth services provided to Medicare beneficiaries if the originating site is in:
 - A rural Health Professional Shortage Area (HPSA) in a rural census tract; or
 - A county outside an MSA.

The provider must use interactive audio and video technology for real-time communication between the originating and distant site. The proper series of CPT codes must be used.

The requirements for CAH Method II billing may be used. Adhere to frequency requirements.

- **Medicaid reimbursement:** Many state Medicaid programs will reimburse for telehealth visits. Each state's rules for telehealth reimbursement vary.^v
- **Commercial reimbursement:** Commercial reimbursement is highly variable. Many states have parity laws for telemedicine insurance coverage. ^v
- Based on the state of the pilot site, it will be paramount to develop a complete understanding of the Medicaid and commercial reimbursement opportunities. The financial analysis is based on average reimbursement rates.

At each site implementing the eHospitalist service, a complete analysis of the reimbursement for telehealth services in that geographic area will be performed.

Expenses: There are several key financial elements to consider: planning and design time, equipment needed for both the originating site and the remote site, initial and ongoing training of all team members involved in the telemedicine, ongoing staffing of the service and the ongoing non-staff operational expenses of the program. The following table summarizes the costs to consider:

Category	Remote Site	Originating Site
Plan & Design	Hospitalist Time Program Management	Clinical and Operational Leadership Time
Equipment	\$5,000 one time <i>Remote Workstation</i>	\$15,000 one time <i>Telemedicine cart & equipment with</i> <i>video transmission capabilities</i>
Telehospitalist Training	2 weeks at originating site	1-2-week trial with nursing and APPs
Ongoing Staffing	Telehospitalist Time	Staff time to Connect Equipment
Ongoing Operational Expense	IT Maintenance	IT Maintenance

During the assessment and implementation phase, additional refinements may be identified.

Capital Requirements: The capital requirements are limited to information technology equipment. Those requirements for the remote site and originating sites are listed in the above table.

Funding Sources: The source of capital funding would come from the general capital allocation fund from the remote site. The operational funds would be provided by the net savings gained by the remote site as explained in the following section.

2. Financial Assessment: Pro Forma, Three-Year Income Projection, and Break-Even Analysis

The information presented below is inclusive of the financial analysis. The service is part of an existing health system and not a standalone entity. The goal of the remote site is to cover its costs, but there is not expected to be a profit on this service, since the telehosptialist service is provided for and within a single health system.

Initial Capital Costs	
Workstations	\$ 20,000
Staff Time	Cost absorbed by current operations

The following financial statement is based on the experience of the remote site (the telehospitalist practice):

Proforma

The following in all-inclusive of the three-year income projection, profit and loss statement and breakeven analysis. Given the structure of this program, the development of these financial components is combined.

Category	Year 1	Year 2	Year 3
Revenue			
Net Patient Services Revenue	\$ 84,892	\$ 86,590	\$ 88,321
Non-Patient Revenue	\$ 114,055	\$ 118,137	\$ 122,358
Total Revenue	\$ 198,947	\$ 204,727	\$ 210,679
Expenses			
Physician Salaries & Benefits	\$ 178,155	\$ 183,500	\$ 189,005
Billing Services	\$ 6,791	\$ 6,927	\$ 7,066
Telehealth IT Maintenance Fee	\$ 10,000	\$ 10,300	\$ 10,609
Depreciation	\$ 4,000	\$ 4,000	\$ 4,000
Total Expenses	\$ 98,946	\$ 204,727	\$ 210,679
Net Income	\$0	\$0	\$ 0

Revenue Assumptions

Payor Mix Based on Originating Site History

 80% Medicare, Medicaid, Self-Pay and 20% Managed Care based on the state of the anticipated pilot remote site.

Net Revenue Based on a Weighted Average

Volume Assumed at 2 Admissions per night

• Prior to midnight and no billable revenue for cross cover patient care Non-patient revenue is funded by the originating site

FTE Assumptions

1.0 Physician FTE = 168, 12-hour shifts

Salaries & Benefits include coverage for PTO, malpractice, dues & licensure, and FICA, and health benefits

25% of 2.17 Physician FTEs required for 7p-7a, 365 coverage for rural originating site 3% annual inflation costs

The following financial statement is based on the experience of the originating site:

Costs Avoided	Year 1	Year 2	Year 3
Expenses			
2.0 FTE Hospitalist Nocturnists	\$ 712,620	\$ 733,999	\$ 756,019
Payments to Remote Site	\$ 114,055	\$ 118,137	\$ 122,358
Net Savings for Originating Site	\$ 598,565	\$ 615,861	\$ 633,661

3. Cash Flow

This program is designed to ensure the cash balance at the end of each of operations of the eHospitalist program is \$0 net profit. Since the strategy of this program is cost mitigation for the originating site, the positive cash flow from the view point of the originating site occurs year one.

4. Balance Sheet

The balance sheet expresses the experience of the eHospitalist group.

Summary Balance Sheet	End Year 1
Accounts Receivable	\$ 9,303
Internal Transfer	\$ 9,505
Total Assets	\$ 18,808
Dermell A control	¢ 14.949
Payroll Accrual	\$ 14,848
Remaining Maintenance Contract	\$ 43,091
Remaining Depreciation	\$ 16,000
Total Liabilities	\$ 73,938
Total Assets & Liabilities	(\$ 55,130)
	10
Days in AR	40
Days Transfer Lag	30

5. Financial Statement Analysis

Since this is a new program, there is not a retrospective financial statement analysis. The information contained in previous sections provides an explanation and analysis of assumptions.

INNOVATIVE ELEMENTS AND EXPECTED BUSINESS OUTCOMES

1. Why and how does this innovative idea positively impact the health of your population and community?

Hospital medicine is no longer a new movement, but a critical team of providers who care for the sickest of the sick in acute and post-acute environment. As a result of rapid and sustained growth, and the desire of hospitals to have 24/7 hospitalist coverage, recruitment of talented hospitalists, regardless of the size of the hospital, has become more challenging. Our desired state is a well-functioning eHospitalist service, which services wholly owned hospitalist groups, hospitals and other potential hospitals located within a geographic area. As previously discussed in detail, this eHospitalist services improves access to care in a more efficient manner to rural hospitals. The impact for our communities is being able to provide services locally, improve patient care outcomes and ensure patients are connected closely to community-based care.

2. What challenges did you encounter during this process and what have you learned?

Gaining key stakeholder buy-in will be the most crucial point and may pose a challenge. Change from the status quo may not be readily accepted and, for some, the idea of providing hospitalist services remotely is inconceivable. I've learned that it is important to start key stakeholder conversations early in the process of idea exploration. This way, the key stakeholders can learn alongside the hospitalists in creating this program.

Additionally, it is key to be realistic in setting expectations. In order to do this, it is best to understand the view points and unintended bias of all key stakeholders through asking questions and listening to answers, versus just telling the key stakeholders why this is a good program and expecting them to buy-in immediately.

3. Next steps to put project in action.

The next steps are to understand and address the view points of the key stakeholders and gain executive buy-in to begin the implementation phase of the project. There are situations where hospitalist staffing coverage has been less than idea. Thus, the next steps include identifying a pilot site that is ready and willing to try a new way of providing hospitalist coverage.

References

ⁱ Wachter, R. and Goldman, L.. Zero to 50,000 – the 20th Anniversary of the Hospitalist. N Engl J Med 2016; 375:1009-1011. DOI: 10.1056/NEJMp1607958. Accessed 7/8/2019: <u>https://catalyst.nejm.org/zero-50000-20th-anniversary-hospitalist/</u>

ⁱⁱ Sanders, RB; Simpson Kn et al: New Hospital telemedicine services: Potential Market for a nighttime telehospitalist service; TELEMEDICINE and e-Health; Mary and Libert. Inc., volume 20, 2014; pp 1-7 ⁱⁱⁱ Wright, Tim: Telemedicine quickly connects the patient with the right specialist to improve outcomes, lower costs; <u>http://healthcare-executive insight.advanceweb.com/Editorial/Content/PrintFriendly.aspx</u> (last accessed March 1, 2015)

^{iv} Department of Health and Human Services Telehealth Services. <u>https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnproducts/downloads/telehealthsrvcsfctsht.pdf</u> (last accessed July 2, 2019)

^v Center for Connected Health Policy. <u>https://www.cchpca.org/sites/default/files/2018-09/50%20State%20Factsheet%20Spring%202018%20FINAL.pdf</u> (last accessed July 2, 2019)
^{vi} American Telemedicine Association State Policy Resource Center.

http://legacy.americantelemed.org/main/policy-page/state-policy-resource-center#.VbKBG7NVikp (last accessed July 2, 2019)