

As you begin....

The experiences of other telehealth programs contain some of the most valuable and important information you can have. This document contains the lessons learned and best practices identified by hundreds of telehealth programs implemented over the past decade. Their experiences provide us with a compass for implementing programs in the most straightforward and cost effective way. These best practices were mined from evaluation reports of telehealth program developments funded by The California Telehealth and eHealth Center (CTEC). These best practices were then reviewed by a national panel of experts, who both validated and added to this compendium. The members of the review panel and interview participants are listed at the end of this document. This compendium is organized by the steps identified in the CTEC Telehealth Program Developer.

During Needs Assessment and Environmental Analysis

● Best Practice: Assess and confirm your organizations readiness for telehealth

It can be costly, time consuming and challenging to start telehealth program even though it may sound easy. Organizations that perform a formal assessment of readiness have the advantage of identifying potential problems and addressing them early. They also gain a lot of support for the project by engaging people early.

- Be sure the proposed program matches the organization's mission/vision.
- Buying equipment is not the first step.
- You need the proper authority and support to successfully move forward.
- Knowing and reporting the strengths, weaknesses, opportunities and threats (SWOT) of your organization will help build the case for your program.
- Bringing major department heads into the process early allows for easier development and acceptance of the program.
- Identify appropriate leadership team members and bring the team together early.

● Best Practice: Perform A Needs Analysis

- A needs analysis will help your organization to identify key unmet needs and will help you devise effective strategies and approaches to meet them. It will give you a clear understanding of the nature and scope of the unmet need, provide a sound foundation for planning, help you clarify objectives and shared expectations, improve coordination of services and resources and provide supporting structure for your program evaluation.
- Determine the needs you wish to meet and how you are going to meet them. Invite clinical staff to identify service needs at both patient and provider sites.
- Ensure the needs analysis is data driven.
- Recognize that the needs analysis is inseparable from the program model and the business case. It lies at the heart of sound telehealth program planning.

During Definition of Services, Program Model and Technology Model

Have a clear understanding of the types of services you wish to deliver and the best and most appropriate telehealth program model for your particular organization. Identify which services you will target, which geographical regions you will serve and what form of telehealth you will implement.

● **Best Practice: Develop preliminary goals and objects for service delivery**

Measurable goals and objectives will assist in selecting equipment, developing staffing, evaluating performance, creating cost estimates.....in every facet of program design and development.

- Prioritize your service options.
- Be mindful of the size and scale of the program you are creating. Stay focused on the success of your initial few sites. Start small to help guarantee success.

● **Best Practice: Select the delivery model that best suits your service goals and objectives**

Understand the various forms of telehealth currently in use and ensure your choice is suited to the particular specialty services you plan to provide.

- Familiarize yourself with the different types of telehealth and select the right type for your particular practice. A 'hybrid' system, containing elements of each, can prove highly effective, particularly in the delivery of multi-disciplinary care.
- Create high quality, structured and layered training, and plan to provide it on an ongoing basis, at both host and remote sites.
- Keep your model in line with your organization's vision, mission and strategic plan.

● **Best Practice: Plan to incorporate Health Information Technology (HIT)**

The implementation of electronic medical records and other HIT is taking place at a rapid rate. Telehealth systems should be designed and structured to support health information exchange.

- If your organization is not currently deploying HIT methods and practices, it soon will be expected to at some level. Be mindful of this.
- There are always serious network security and privacy issues and concerns related to HIT, so it is imperative your technical leadership and legal counsel are involved in this planning from the outset.
- Substantial seed funding opportunities are increasingly available to support HIT deployment and integration, often focused on the establishment of high speed (T1 and above) network infrastructure. This same network can form the backbone of your telehealth program.

● **Best Practice: Grow your champions**

Many consider clinical and administrative champions to lead and sustain the development of your telehealth program vision as the most important factor for success. Champions must be true agents of change within your organization and in positions to garner top level organization attention to obtain financial, technical, personnel and other resources. They must be inspirational figures, who play a key role in creating a professional and nurturing environment in which additional champions will be encouraged and develop.

- Find champions who will enable you to achieve the level of change in attitudes and practice upon which a successful telehealth program depends.
- Ensure your champions are true agents of change, with the vision and passion to bring it about and instill it in others.
- Find equivalent champions at all participating network sites.

- Recognize that your champions are the primary advocates of your program, and that their success depends upon the full support and dedication of the entire team and the wider organization. Help them succeed.

● **Best Practice: Know your geographic area**

It is important to understand the nature and norms of the locations you will be working with remotely. Service expectations can be quite different in different regions, as can medical services purchasing power, reimbursement options and access to other non-telehealth caregivers.

- Go visit! There is simply no substitute for taking the time to visit your remote sites, meet your colleagues, and learn firsthand about their lives, patients, local opportunities, challenges and concerns.
- Keep communication between sites direct, clear and simple to avoid basic misunderstandings or clinical errors.
- Be aware that there may be important business and legal considerations to take into account when providing medical services over distance. This is especially true if a telehealth network is being planned that aims to provide service across state lines, or on a national basis.
- Know the 'political geography' of any region in which you wish to provide services. Understand the activities and interests of local providers, organizations and other local stakeholders. Their support of your program, and willingness to collaborate with you, may prove to be a deciding factor in creating a successful telehealth outreach program.

During Business Model Development

Cost benefits risks and opportunities need to be identified analyzed and consolidated into a comprehensive business case report as part of program development efforts.

● **Best Practice: Perform a market analysis and write a business case report**

The business case for initial and ongoing resource investment needs to be developed, reviewed and approved. A market analysis to determine market demand for proposed services will assist in assuring sustainability.

- Be sure you are clear about the effective demand for the services you are considering. There can be great need for a particular specialty service in an area, but not necessarily the purchasing power to obtain it.
- View grants as only short term seed funding. Actively seek long term sustainability from the outset. Grants may be sought to support required program expansion.
- Focus beyond the 'here and now'. Incorporate growth into the business case report.

● **Identify and develop your revenue opportunities and fiscal estimates**

Reimbursement is one of the most challenging areas in implementing sustainable telehealth programs. In the long run, programs require reliable and adequate revenue and reimbursement for clinical services. Programs need to look for opportunities to contract with payers, insurance companies and others to offer cost effective services.

- A sustainable program may require multiple revenue streams, e.g. hand in hand clinical and educational (CME) services. Ensure your program has a good patient payer mix.
- Learn from other telehealth practitioners about their reimbursement strategies and challenges. Understand general existing reimbursement methods and practices at host and remote sites. Base your program design on what already exists.
- Focus on delivery of services that are known to be sufficiently and reliably reimbursed.
- Rural health clinics and FQHCs have multiple revenue models available, and thorough research needs to be undertaken to identify most appropriate for a particular service type.

During Development of Detailed Implementation Plan

● Create a detailed programmatic and technical implementation plan

The most successful telehealth programs come as a result of careful and detailed planning and the deployment of well considered, integrated and streamlined technologies.

- Make sure your plan includes detailed information on timelines, deliverables and milestones, and detailed information on technical requirements and potential challenges.
- Submit your plan for review by senior leadership and key stakeholders and invite feedback, comments and open discussion.
- View your plan as a dynamic and living resource, which should be updated periodically as your program grows and programmatic circumstances change.
- Recognize that unforeseen circumstances and factors may influence your initial or ongoing planning. Be flexible in your approach, and able to make quick and effective adjustments to operational schedules and programmatic elements as necessary.

● Best Practice: Get the equipment right

Select the right equipment for your telehealth application and delivery mode. Video equipment, communication systems, medical devices and software applications are critical equipment components. Obtain good information and advice and learn as much as you can about functionality, features and interoperability. Keep in mind that the best equipment for your program might not necessarily be the most expensive.

- Clearly identify appropriate specifications for your devices, applications and all technical systems.
- Identify trustworthy and knowledgeable sources to guide you in your equipment choices and to provide ongoing support. Do equipment comparison to identify the best equipment for your program.
- Be mindful that technology advances quickly, and systems and applications will need upgrading and warranty renewals. There can be substantial costs involved. Be sure to budget.
- Test, test, test your equipment and connectivity before announcing or advertising your program.

● Best Practice: Plan for the seamless integration of telehealth into your operation

Telehealth activities should be designed to complement your standard practices and working methods, not complicate or interrupt them. Telehealth should be integrated alongside your face to face clinical activities. Telehealth examination rooms (both patient and provider sites) should be located in close proximity to the clinical staff.

- Plan a workflow analysis to reveal how your program fits in with standard clinical practice. Discuss necessary changes with stakeholders.
- Think of the telehealth technology as just another tool for the delivery of normal services, with the only difference being that the patient isn't in the room.
- Keep it simple.

● Best Practice: Know the Law

There are a wide range of legal and regulatory issues and requirements that must be understood and complied with when developing a telehealth program. Regulations and laws change frequently. Ensure your organization's legal counsel is fully informed of your plans well in advance of implementation to allow time for complete legal reviews.

- Identify the current policies and regulations and determine the impact they may have on your program. Critical legal and regulatory areas to consider include licensure, credentialing, HIPAA and medication prescription.
- Consult with your legal counsel to consider any impacts on your organization and to ensure that you are aware of any new changes in laws and regulations.
- Realize that telehealth law is a rapidly changing area of law. Be sure your legal counsel stays closely in touch with your program expansion and development activities and plans.

● **Best Practice: Plan for the availability of strong IT support at all participating locations**

Having ready access to trained and knowledgeable IT personnel and network support staff is critical to the effective running of your program. During consults or any clinical interaction taking place via the telehealth system, trained and efficient technical staff must be on hand to troubleshoot and make technical adjustments as necessary. Both equipment and network expertise is essential and staff must have appropriate authorizations to make network changes as needed. It is vital that an IT champion is identified and that the IT department is involved to provide authorization and approval of technical plans and strategies.

- Identify an IT champion.
- Focus on introducing IT personnel at all sites to each other. The better they know one another, the smoother your technical troubleshooting will be.
- Ensure IT personnel are fully versed in your technologies, and are authorized to work directly with network systems and settings at an organizational level.
- Familiarize all IT staff in your and your partner organizations (either working directly with your program or not) with all the systems, applications and network needs. There can be wider IT system dependencies and knock-on effects of telehealth operations that may not be apparent to you or your team until it's too late.

● **Best Practice: Plan to appoint a dedicated telehealth program manager**

No telehealth program will succeed without a dedicated, trained and efficient manager working in sync with your champions. This individual will help conceptualize and put into place all key operational and clinical elements of your program and will lay the foundation upon which all future development will be based.

- Appoint this individual at the very beginning of your program planning to help you design it.
- Scale this position to the size and scope of your program.
- View this individual as the eyes and ears of your clinical and administrative champions. This individual should be directly responsible for all programmatic elements and the design of performance monitoring and evaluation strategies.

● **Best Practice: Plan for system redundancy for all critical system applications and network**

Building redundancy (back up) into your telehealth architecture is a critical part of your program design. Knowing there is back up for critical technical systems and networks will go a long way in instilling confidence in your clinical staff as they undertake their telehealth activities.

- Technology can be fickle. Realizing this in advance and planning appropriate back-up for all your mission-critical systems and applications is vital. Don't wait for your network to go down, without back-up, mid-consult.
- Don't forget to budget for this redundancy, and include it in your business case analysis and plans.
- If costs for redundancy are prohibitive, ensure process redundancies are well planned to cover any technical failures.

● **Best Practice: Plan for the development of protocols policies and procedures**

Clinical and service protocols should be adapted to the telehealth environment yet, as much as possible, retain content of non-telehealth protocols.

- Create protocols that are as close as possible to non-telehealth protocols. This will instill far greater comfort and confidence in your caregivers who will not feel they are doing something strange and unusual, and way out of line with their traditional practices.
- Follow standard, recognizable protocols which will lead to consistent clinical results that will be vital for your evaluations and program monitoring.

During Development of Performance Monitoring Plan

Build systems into your program to measure and analyze program performance. In the planning stage, determine assessment methods and evaluation and strategies, and build a plan to create routine regular performance monitoring. Consider the need for formal evaluation of clinical services and operational or cost impacts.

● Best Practice: Establish both short and long term performance goals

It is easy to focus only on the short term when initially implementing your telehealth program. This can be a mistake, as you must recognize that implementing fundamental practice change, as you are doing, take time and does not happen overnight. Be sure to establish longer term goals as well, that consider clinical, business and financial outcomes several years into the future and movement towards programmatic self sustainability.

- Long range strategic planning for a telehealth program should be carried out on an ongoing basis and should include the program's governing board.
- Plan to begin collecting vital program data from the very beginning of your program implementation.
- Determine and communicate your measures of success.
- Things take time. Be realistic in your setting of goals.

● Develop an evaluation and monitoring plan

Clearly determine, before you begin your implementation, how you will go about evaluating your program and monitoring its performance. Considering what you should monitor, how frequently and by what methods, are critical questions to answer. Evaluation and monitoring should be shared and agreed with your network partners.

- Monitor and evaluate all key elements of the program on a regular and ongoing basis.
- Include a range of topics in your plan, including service usage, patient and provider comfort level with particular technologies, devices and applications and cost savings analysis.
- Be sure to monitor and track ancillary or related services benefiting from your telehealth program activities, e.g. lab and blood tests performed at local clinics, staff and nursing employment etc.

● Best Practice: Develop a Quality Improvement process

A clearly stated quality improvement process is important to any telehealth program. It will assist you in identifying improvements, reacting to changes in circumstances, and assessing unexpected performance.

- Document improvement structure and clarify all improvement activities in your QI process.
- Create a written document.
- Develop and share your QI process before implementing the program.

During Program Implementation

● Best Practice: Apply principles of successful telehealth room design

● Best Practice: Create a convenient and effective environment reminiscent of a traditional care environment

The designated telehealth room should be user friendly, well equipped with reliable and appropriate technology, be comfortable for patients and apply basic principles of room design for videoconferencing applications.

- Follow basic and standard rules for the design of your telehealth room. When designing your telehealth room space pay close attention to location, size, equipment, furniture placement, lighting acoustics and wall color.
- Plan carefully and discuss your design ideas with program colleagues and IT personnel.
- Remember to budget for necessary design/remodeling.
- Make sure that any licensing requirements are known and implemented.

● **Best Practice: Get the people right**

Any program stands and falls by the people implementing it. In the case of telehealth, appointing and or hiring the right staff at both the patient and the provider sites and clearly defining their roles and responsibilities, is crucial. Whenever possible, dedicated staff should be hired, who fully understand the program's outreach goals and ambitions. The provision of effective ongoing training and personnel development is immeasurably important. Realize that further telehealth champions can be grown from your staff to lead further growth and the development. Actively nurture them.

- Identify a coordinator to oversee all daily operational activities of the program – scheduling, billing, technical operations etc. Ideally, this individual should be employed full-time on your program.
- Make sure all staff are technically savvy, knowledgeable about telehealth systems and applications, and are flexible and open to new clinical methods and approaches.
- Create an environment in which staff at both sites can work well together to create a seamless, comfortable, and reassuring clinical atmosphere for the patients.
- Share existent resources, hire additional dedicated personnel, or find staff through outsourcing activities for your program.
- Develop and implement a formal, comprehensive and standardized training regimen for all staff. Training must be ongoing and increase in scope and scale as your telehealth program expands.
- Nurture further telehealth 'champions', from all levels of your staff.

● **Best Practice: Provide easy to use administrative tools**

It makes good sense to simplify tools and processes for scheduling, billing, program measurement and documentation.

- Keep administrative systems and methods simple! Medical administration is often complex enough without the added challenge of operating over distance and in unfamiliar administrative environments.
- Ensure administrative staff is well trained and conversant in telehealth methods and practices.
- Carefully document all administrative processes and protocols.

● **Best Practice: Communicate regularly with your remote partners**

The clinicians, nursing staff, presenter, schedulers and other staff at the site remote from you (whether you are a provider or a patient site) are the other half of your program. Ensure that both ends of the telehealth link are satisfied with the program's management, administration, billing systems, IT support, problem resolution, coordination, and quality improvement.

- Consider bringing participating site personnel together quarterly or annually to discuss the program, air grievances and discuss and implement any changes necessary. This will enhance relationships and build support.
- Keep your communication channels open.
- Learn and move the program forward together.

During Program Monitoring

● **Best Practice: Implement your Quality Improvement Process**

After assessing the initial performance of your program, taking into account service utilization, provider and patient satisfaction and other key factors, you should begin to implement the quality improvement process you developed during the planning process.

- Evaluate the strengths and weaknesses of your program on a regular basis.
- Implement new ideas, adjustments and solutions in an organized fashion.
- Ensuring constant quality improvement must be a part of regular operations.

● **Best Practice: Report regularly**

Regularly monitoring your programs performance to identify trends and areas for improvement will allow the program to continuously improve and will provide the data necessary to determine if your program is achieving its objectives and to measure the programs impact in your organization and the community.

- General service utilization reports and quality of service measurements are of primary importance.
- Evaluate your telehealth systems and applications in a clinically appropriate and user friendly manner.
- Undertake ongoing analysis of financial performance. This will form the basis of your business strategy as you move towards self sustainability. Financial analysis should include evaluation of cost and benefits, coding issues, reimbursement, account receivables and network utilization.

● **Best Practice: Present your outcomes and experiences**

In the ever expanding and increasingly mainstream field of telehealth, there is tremendous interest from around the country in program experiences and lessons learned. There are numerous opportunities to publish or present your finding and share these experiences with new and long established developers of telehealth program and the wider community. We learn not by teaching. Share what you have learned!

- Present your outcomes and program developments in a public forum (published or by meeting presentation) at least once per year.
- Involve members of your telehealth team in these positive communication activities. This will help secure buy-in from your staff, and increase passion for the program.
- Join forums for networking purposes, and the sharing of experiences and lessons learned.
- Share outcomes and successes with non telehealth stakeholders and interested parties, the local communities in which you work, and others.

And last but not least.....



Thanks and Acknowledgements

CTEC would like to thank the following people and groups that were interviewed or participated in the National Best Practices Panel. Your assistance is most appreciated. Christine Martin, Executive Director, CTEC

Daniel Plotkin, researcher and facilitator
Irene Alvarez, California Telemedicine & eHealth Center
Frank Anderson, Open Door Health Centers
Doris Barta, Northwest Regional Telehealth Resource Center
Greg Billings, Center for Telemedicine & eHealth Law
Carolyn Carter, Anthem Blue Cross
Kathy Chorba, Center for Connected Health Policy
Jorge Cuadros, OD, PhD, University of California, Berkeley
Marc Goldyne, MD, PhD, University of California, San Francisco
Zoi Hills, Great Plains Telehealth Resource Center
Tom Keys, Northeast Telehealth Resource Center
Elizabeth Krupinski, Southwest Telehealth Resource Center
Dan Kurywchak, Telemedicine.com
Jim Marcin, MD, University of California, Davis
Christine Martin, California Telemedicine & eHealth Center
Shelley Palumbo, MS, CCC-SLP, University of California Davis
Ezequiel Sandoval, Infinite Consulting
Santee Saverien, The Centennial Group
Javeed Siddiqui, MD, MPH, University of California, Davis
Garret Spargo, National Telehealth Technology Resource Center
David Smith, Midwest Alliance for Telehealth and Technology Resources
Stuart Speedie, Great Plains Telehealth Resource Center
Tana Troke, University of California San Diego
Randall Wetzel, MD, Childrens Hospital Los Angeles
Joyce White, Oroville Hospital

For Further Information Contact:

CTEC

info@cteconline.org

877.590.8144