



STEPS TO BUILD

A TELEGENETICS PROGRAM

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THE NYMAC REGIONAL GENETICS NETWORK

The NYMAC Regional Genetics Network (RGN) is one of seven RGNs in the country funded by the Health Resources and Services Administration (HRSA), aimed at ensuring that families have access to quality care and appropriate genetics expertise, and is composed of eight states and the District of Columbia (DC, DE, NJ, NY, PA, VA & WV). More information about NYMAC and the other RGNs can be found here: <https://nccrcg.org/rdns/>

TERMS OF USE

To assist with our federal reporting requirements, we request that the use and distribution of this planning guide, the accompanying checklist, and the associated templates and resources, be limited to providers or programs who are utilizing the guide in collaboration with, and providing usage data to, their Regional Genetics Network.

Please direct any questions about the guide, appropriate use, data collection, or access, to:
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INTRODUCTION TO TELEHEALTH AND TELEGENETICS

HRSA defines telehealth as the: “...use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration” (U.S. Department of Health and Human Services, 2015). While most of the literature specific to telehealth in genetics (telegenetics) includes only genetics services provided by a genetics provider to a patient via live videoconferencing, considerably broader definitions of telehealth exist, including approaches such as the asynchronous transfer of recorded health information and images (termed “store-and-forward”), virtual consultations between providers, and the tracking of patient symptoms and signs from another location (termed “remote patient monitoring”), among others. The physical locations of the patient site (“originating site”) and genetics provider site (“distant site”), vary, and may include numerous types of medical facilities, community health centers, schools, patient homes, and other locations. A number of federal, state, and private insurance telehealth policies may influence program choices such as the provider type, service location, and chosen technology. Notably, clinical interactions via telephone, email, and facsimile are often, but not always, excluded from telehealth definitions and policy.

As the demand for clinical genetic services continues to expand, many patients lack necessary access to genetics providers due to a variety of challenges facing the genetics workforce and patient financial barriers, among others. Existing research demonstrates that the use of telegenetics can reduce barriers and improve patient access to genetic services with high levels of patient satisfaction and outcomes similar to face-to-face consultations. Due to its potential to increase patient access, the expansion of telehealth has become a priority for many private and public organizations, including HRSA and the Regional Genetics Networks, including NYMAC.

PURPOSE OF THIS GUIDE

This guide aims to outline a stepwise process to develop a telegenetics program in any type of facility from initial interest in telegenetics to full implementation and evaluation of the program. It also references extensive templates and resources to assist in the process. Although a stepwise framework is provided, the planning process should be customized to the needs of each organization, its telehealth objectives, and the way the organization makes decisions. If you have already begun your program planning process, you may have completed some of these tasks, but we encourage you to read through all of the steps to help insure a comprehensive plan.

This guide draws heavily from the following resources, with the 7-Step framework taken from the California TRC Guide.

- *California TRC Program Developer Guide* : <http://www.caltrc.org/wp-content/uploads/2014/12/Complete-Program-Developer-Kit-2014.pdf>
- *Heartlands Telemedicine Manual for Clinical Genetic Services*: <http://www.heartlandcollaborative.org/files/2014/07/HEARTLAND-TELEMEDICINE-MANUAL.pdf>

The guide was developed in collaboration with the Mid-Atlantic Telehealth Resource Center and the New England Telehealth Resource Center.

- <http://www.matrc.org/>
- <http://netrc.org/>

We welcome your feedback on using this guide to support your telegenetics program.

OVERVIEW

As described in the California TRC Program Developer Guide, this guide lays out seven tasks in three phases, as shown below:

1) Phase 1: Assess and Define

- a) TASK 1: Assess Patient Service Needs & Provider Environment
- b) TASK 2: Define the Program Model
- c) TASK 3: Develop the Financial Model and a Business Case Report

2) Phase 2: Develop and Plan

- a) Task 4: Plan Program and Technology
- b) Task 5: Develop Performance Monitoring, Evaluation, and Quality Improvement Plan

3) Phase 3: Implement and Monitor/Improve

- a) Task 6: Implement the Telehealth Program
- b) Task 7: Monitor & Improve Program

Your Process May Not Be Linear

Please note that although the process is presented as distinct steps, program developers often find that the tasks and phases may overlap with each other to some extent, and work done in a later task may prompt modification of a previously developed task. It is also possible that certain pieces of the process may not apply to your particular program.

Make Use of Referenced Resources

This guide references external resources to support many of the tasks in the process, and we encourage you to review and utilize these documents to assist in your planning process. Online access to the password-protected website that contains these resources will be available through your collaborating Regional Genetics Network.

Track Your Progress

The NYMAC RGN also has an online program implementation checklist that allows you to track and score your progress through the program planning process over time. Please contact your collaborating RGN or nymactegenetics@gmail.com for more information on accessing and utilizing the online checklist.

PHASE 1: ASSESS AND DEFINE (Tasks 1-3: Needs, Model, and Financials)

The first phase will outline the needs that could be addressed using telegenetics. Based on those identified needs, a preliminary program model will be created. With the model in mind, thought is given to the market for telegenetics, the financial model and fiscal impact of the program, and a summary business report or charter is created to summarize the telegenetics proposal.

TASK 1: Assess Patient Service Needs & Provider Environment

The desire to build a telegenetics program often arises from the perception that there are unmet needs that a telehealth program could address. The first step in the planning process is to assess what your community needs, and how telegenetics could be useful in meeting those needs within the context of your organization's suitability for telegenetics. Assembling a group of stakeholders to take part in the needs assessment process can be very helpful.

- 1) **Assess Patient Service needs:** explain what healthcare services are not currently accessible to your patients using DATA!
 - a) What is the GAP: define the need using data such as the referral base, distance travelled, % pts without transportation, patient barriers to care, catchment area, use of outreach clinics, average wait times for in-demand specialties/services, etc.
 - b) Engage with staff at the originating site(s) to understand their needs.
 - c) Use patient stories to illustrate needs.
 - d) Describe expected utilization and uptake of telehealth.
- 2) **List top reasons and anticipated outcomes** for developing a telehealth program, based upon your needs assessment results.
- 3) **Identify and prioritize activities** suited for telehealth: which specialties, which types of appointments, which indications work well according to literature and experience of existing programs? Will interdisciplinary clinics be considered?
- 4) **Perform an Organizational Self-Assessment/Readiness** to describe the provider environment, including:
 - a) Alignment of telehealth with organizational mission/values/strategic plan (VERY important!!!).
 - b) Stakeholder assessment: who is the CHAMPION at BOTH ends, who are other key stakeholders, who else supports the idea, bring leadership into the process early on (VERY important!!!).
 - i) 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.
 - c) SWOT analysis for your institution and Telegenetics (strengths, opportunities, weaknesses, threats).
 - d) Identify usable telehealth resources in your:
 - i) Institution: Does your institution have any telemedicine programs? Reach out to them first.
 - ii) State: Is there a state telehealth program or initiative?
 - iii) Region: Identify regional resources such as the Regional Genetics Networks
 - iv) Other: Note federal, private, or other telehealth resources that can inform your program

- e) Staffing assessment for originating and distant sites: what personnel resources do you have that can be utilized for TG? (GC, Geneticist, Dietician, nurses, other medical staff, IT, Telehealth office, billing/coding department, telemedicine coordinator, office manager, receptionist, scheduling). Would additional staff be needed for this program?
- f) Economic assessment: What is the current financial status of the genetic services being provided, what is the current funding stream? What categories of additional costs, savings, funding, business agreements/relationships are possible with TG? Would any costs be eliminated, e.g. outreach clinics. Would new revenue be generated? Further detail will be developed in the business plan.
- g) Technology assessment: What is the current status of the IT network, equipment, ongoing tech support, telehealth office, connectivity of the rooms to be used, need for peripherals, location of equipment? Understand technology at each originating site.
- h) Operational Assessment: What is the regulatory environment, laws, policies, licensure, credentialing, malpractice, that need to be considered?
- i) Originating Site Identification and Assessment and Relationship Building: Find a willing partner such as a hospital, private office, county health office, federally funded health center, clinic, school etc. (Note that services can also sometimes be delivered to patients in their homes, which would alter which of the following steps would apply).
 - i) Identify their **champion** and decision makers.
 - ii) Each originating site needs to be addressed individually.
 - iii) Take the time to build a relationship. It is important to understand the nature and norms of the locations you will be working with remotely.
 - iv) Be aware of the technology needs and physical space available at the originating site.
 - v) Understand what staff at the originating site could be available to assist the patient and/or carry out administrative functions such as scheduling, registration, data entry, etc.
 - vi) Go visit! There is no substitute for taking the time to build relationships: visit your remote sites, meet your colleagues, and learn firsthand about their lives, patients, local opportunities, challenges and concerns.
 - vii) Ask originating site providers about their perceived benefits, drawbacks, and challenges of telehealth, and find out what types of services they desire.
 - viii) Be aware that there may be important business and legal considerations to take into account when providing medical services over a 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.
 - ix) 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.

5) **Identify the assumptions and constraints** for implementing a telehealth program.

6) **Determine that there is willingness** and desire to support telehealth and to pay for the fulfillment of the need: do you have buy-in from your administration and your clinical team?

CHECK YOUR PROGRESS ON TASK 1

- You conducted a needs assessment, and know what healthcare services are not currently available to your patients, and have enumerated the top reasons for using telehealth to meet these needs
- You have identified and prioritized specific activities well suited for telehealth.
- You have performed an organizational readiness assessment (incl. mission alignment, technology, staffing, economics, operations, etc.).

- You have identified the assumptions and constraints for implementing a telehealth program.
- You have identified CHAMPIONS at all sites, built relationships, and determined that there is willingness to support the program.

TOOLS FOR TASK 1

(see Telegenetics Program Planning Website for Access to the Tools)

Telegenetics Bibliographies

- NETRC Resource Library (Under “Specialties” select “Genetics”)
- NETRC Webliography of Online Telegenetics Resources
- A systematic review of telemedicine in genetics services (Hilgart et al., 2012)
- NYMAC Telegenetics Literature Bibliography (1/1/2018)

Background Info on Telehealth and Telegenetics:

- Webinar: Intro to Telegenetics (University of MD)
- NYMAC Telegenetics Literature Bibliography (1/1/2018)
- TRC video: Attributes of Successful Telemedicine Programs
- TRC video: What is telemedicine
- TRC video: Sneak Peek: Live Telemedicine Visit
- NETRC Factsheet: Telehealth 101: The Basics
- TRC Factsheet: Overview of Key Issues in Specialty Consultation
- SCTRC Webinar: Telehealth 101- The Easy Basics of Telehealth and Telemedicine

Needs Assessment Tools:

- CALTRC kit: Needs Assessment Areas to Consider and Data Sources (page 35)
- CALTRC kit: Guide to Performing a Formal Needs Assessment (page 40)
- CALTRC kit: Needs Assessment Worksheet (page 50)
- TRC video: How to Conduct a Telemedicine Needs Assessment

Organizational Readiness Tools:

- CTEC organizational readiness guide: Assessing Organizational Readiness, Is Your Organization Ready For Telemedicine?
- TRC Video: Is Your Organization Ready to Start a Program?
- Lecture Slides: Your Telehealth Business Plan (abbreviated), highlighting strategic alignment with the organization (Christian Milaster)

TASK 2: Define the Program Model

This step outlines the detailed types of clinical services that your telegenetics program will provide and the associated program model and technology that will best allow delivery of those services at a workable cost. Consideration is given to how the telegenetics program can fit into the overall organization's model.

- 1) **Develop program goals and objectives:** Create measurable goals and objectives based on your decisions about service needs. Things take time. Be realistic in your setting of goals. For some guidance on writing "SMART objectives," see: <https://www.cdc.gov/cancer/dcpc/pdf/dp17-1701-smart-objectives.pdf>
- 2) **Develop a PRELIMINARY program description:** The program proposal describes the type of service that will be provided. Be sure to answer WHO, WHAT, WHEN, WHERE, WHY, HOW, and BY WHOM. View your plan as a dynamic and living resource, which should be updated periodically as your program grows and programmatic circumstances change. Keep your program in line with your organization's vision, mission and strategic plan. Include things such as:
 - a) **WHAT?** Describe the proposed telehealth services.
 - i) Consider whether the program will include physical examinations. If so, note the associated technical equipment and originating site staff needs to allow for proper remote examinations. The staff at the originating site may need to assist with vital signs, peripheral device utilization, and other support as requested by the distant site provider. Some programs begin with follow-up or counseling-only patients, and then move on to physical exams later. Patients who need physical exams should be informed when a telemedicine appointment is made that they may have to be seen in-person if deemed necessary by the distant site provider.
 - ii) If interdisciplinary clinics will be used, describe the specialties included in the program and the rationale for this choice.
 - b) **WHY?** Describe the rationale for your telehealth services (including patient needs). Note alternatives considered and reasons for the proposed solution.
 - c) **WHO?** Describe the patient populations to be served, and the rationale.
 - d) **WHEN?** Provide an estimated timeline of when the program will start, and how frequent clinics will be.
 - e) **WHERE?**
 - i) Describe the location of all originating and distant sites, and the rationale for those selections.
 - (1) Outline the interest from all sites, and the relationships that have been established that support your program plan.
 - ii) Describe the rooms to be used: if possible, telehealth examination rooms (both patient and provider sites) should be located in close proximity to the clinical staff.
 - iii) Identify any additional facility-related resources needed and where will they be located.
 - f) **HOW?**
 - iv) Outline very general technology approach (e.g., live interactive vs. store and forward)
 - v) Note how telehealth would be incorporated into existing service delivery.
 - vi) Describe the workflow of the TG clinic to reveal how your program fits in with standard clinical practice. 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.
 - vii) Describe preliminary plans for program funding.

viii) Describe preliminary costs estimates associated with supporting the programs high-level requirements.

g) BY WHOM?

- i) Identify any clinical and non-clinical staff needed at all sites and where will they be located. If interdisciplinary clinics are planned, note the additional staff that would be included.
- ii) Identify who is in a leadership position in the organization(s), who else will be members of your telehealth team and their roles and responsibilities.
- iii) Identify a telehealth program manager: 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.

3) **Develop a *PRELIMINARY* telehealth delivery model:** There are a large variety of ways to provide telehealth. Define available telehealth models and select the most appropriate model for your documented needs and program description, outlined above. You don't have to select a specific technology vendor yet.

- a) Identify trustworthy and knowledgeable sources to guide you in the selection of a telehealth solution including program model, hardware, software, etc., and to provide ongoing support. You don't have to select your vendor yet, you'll do that in a later step.
- b) Detail the telemedicine delivery model proposed for providing the service; (e.g. live interactive with a telemedicine system on a clinician's desktop or mobile telemedicine cart, or tablet app, or store and forward, or remote patient monitoring, etc).
 - i) Outline high-level requirements of the telehealth system you will need, including requirements for interoperability with other systems, EMR integration, HIPAA compliance, mobility, multiple users, ease of use, available peripheral devices, use with home monitoring or home telehealth, etc.
 - ii) Describe available IT support at all sites.
 - iii) Describe why of the choices of models, you have selected the one most appropriate for your program.
 - iv) Describe why the model fits the patient's needs.
 - v) Provide preliminary cost estimates for technology components of the proposed program.
- c) Plan for high quality, structured and layered training, and plan to provide it on an ongoing basis, at both originating and distant sites. Inquire about training opportunities from your Regional Genetic Network or the Telehealth Resource Centers.
- d) Involve your technical leaderships and legal counsel from the outset, there are always serious network security and privacy issues and concerns related to HIT.
- e) The telehealth delivery model documents your research and recommended decisions. It can be a standalone report, can be incorporated into the preliminary service and program description or may be part of a Program Charter.

4) **Develop a preliminary implementation approach:** Consider the best approach for implementation. Examples include a small pilot with limited service provision followed by expansion, or a limited number of sites initially, or one type of telehealth (e.g. live interactive) followed by another application (e.g. provider education). Many programs find small steps useful, while others find larger implementations successful. Decisions are often based on available resources, risk tolerance of the organization, time available, and the opinions of champions and decision-makers.

CHECK YOUR PROGRESS ON TASK 2

- You have outlined measurable program goals and objectives based on identified service needs.
- WHO: You know which patients you are targeting.
- WHAT/WHY: You know which services will be offered to meet the identified patient needs.
- WHEN: You have determined your program's general implementation approach (i.e., phased, pilot) and a general timeline.
- WHERE: You have identified your originating and distant sites, built strong relationships with champions at each site, and noted any additional facility-related resources needed.
- HOW: You have identified a general technology approach (e.g. live video vs store and forward).
- HOW: You have identified constraints based on your organization (e.g., federally qualified/community health center rules)
- HOW: You have a general understanding of potential funding sources (e.g., billing, grants, contracts, etc.).
- BY WHOM: You have determined who will provide the clinical genetics services and where they are located
- BY WHOM: You have identified other staff needed (e.g., program manager/clinic coordinator), and where will they be located.
- BY WHOM: You have defined a general workflow for the program.
- Preliminary Telehealth Delivery Model: You know the general technological features & functions that are needed to deliver the services within your organization.
- Preliminary Telehealth Delivery Model: Of the choices of telehealth delivery methods (e.g., mobile cart vs desktop system), you have selected the one most appropriate for your goals.
- You have identified legal, legislative or regulatory constraints that your organization needs to consider when developing your program.

TOOLS FOR TASK 2

(see Telegenetics Program Planning Website for Access to the Tools)

- *CDC: How to Write SMART Objectives*
- *Lecture Slides: Your Telehealth Business Plan (abbreviated), highlighting strategic alignment with the organization (Christian Milaster)*
- *CALTRC video: Telemedicine Technology Overview*
- *Case Studies of Telehealth Programs in NY (Univ. of Albany - Center for Health Workforce Studies)*
- *NYMAC/TRC Factsheet: Sample Models of Telehealth Service Delivery*
- *UNM Project Echo description: About Echo*
- *UNM Project ECHO one-page flyer*
- *UNM Project ECHO Infographic*
- *CCHP Infographic: What is eConsult?*
- *TRC Infographic for consumers about virtual healthcare*
- *MATRC Remote Patient Monitoring Toolkit: what are the roles and responsibilities*

TASK 3: Develop the Financial Model and a Business Case Report

This step examines the demand, market, costs, benefits, risks, and overall fiscal impact associated with the proposed telegenetics program. (Note that a financial model that demonstrates long-term program sustainability can be a challenge, but that many organizations value the program benefits related to access to care even when the program may not fiscally benefit the organization). The information from the needs assessment and program model is then combined with the financial model to create a Business Case Report, Charter, or other summary document about the proposed program which can be shared with stakeholders to secure commitment to proceed with planning the program.

1) Develop a Financial Model, Including:

- a) Evaluation of the financial risks and constraints. Consider both originating and distant sites.
- b) Description of the market and demand for the service, and the expected uptake.
- c) Description of the financial objectives of the program (e.g., increase profit, break even, reduce costs, increase market share) Even when financial objectives aren't the primary goals of your program, they are still important to define and consider, and will aid in securing future support and funding. Clearly state short and long-term financial goals and how you will measure them. Be sure these goals are shared by stakeholders. A focus on long-term sustainability of the program can be important to success.
- d) Description all available **revenue sources** (e.g., patient insurance billing, grants, direct patient billing, inter-institutional contracts, program fees, extramural funding and grants, support from the organization, originating site revenue, other revenue).
 - i) Explore and understand your options for insurance reimbursement, describe the payor mix and quantify the reimbursement expectations for your organization.
 - (1) Know the policies of your patients' payors with regard to telemedicine. Notably, Medicare, Medicaid, and private payors may all have differing policies and restrictions to be aware of, including eligible site types, locations, providers, services, billing codes, technologies, etc. See the reimbursement resources below for more information.
 - (2) In some cases, a bill may be generated by the distant site provider for services in a similar manner to in-person care. Depending on the payor, certain billing codes are applicable and may utilize a modifier code or POS code. (**Some payors allow a bill from a healthcare provider at the originating site who may have assisted in examination or presentation of the patient, and some payors also allow a facility fee to be charged by the originating site. Such revenue may be listed as originating site revenue, which may or may not impact your institution's financial analysis.)
 - (3) Use existing resources from TRC and ATA to understand telehealth billing policies.
 - (4) Learn from other telehealth practitioners about their reimbursement strategies and challenges.
 - (5) Understand general existing reimbursement methods and practices at distant and originating sites. Base your program design on what already exists.
 - (6) Focus on delivery of services that are known to be sufficiently and reliably reimbursed.
 - (7) Rural health clinics and FQHCs have multiple revenue models available and thorough research needs to be undertaken to identify that which is most appropriate for a particular service type.
 - ii) Describe and quantify any inter-institutional contracts between the distant and originating site as a form of revenue.
 - iii) Describe and quantify any direct patient billing revenue.

- iv) Describe and quantify other clinical revenue such as income generated as a result of telehealth referrals (e.g., lab referrals)
 - v) Describe and quantify any revenue expected from program or user fees to be charged to patients or providers who use the system for healthcare or education.
 - vi) Explore and quantify and federal, state, local, commercial, or other grant funding.
 - (1) 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.
 - (2) Also consider funding for telecommunications needs in rural areas from USAC: <https://usac.org/rhc/telecommunications/default.aspx>
 - (3) See the resources below for more information on grant funding sources such as HRSA, The Maternal Child Health Bureau, The Office for the Advancement of Telehealth, the FCC, and others.
 - vii) Describe and quantify any other extramural funding from outside organizations.
 - viii) Describe and quantify any funding from your own home organization.
 - ix) Describe and quantify revenue expected at the originating site and outline how this could impact the financial analysis for the distant site, if at all. Include expected downstream revenue, as well as expected third-party billing from a healthcare provider at the originating site who may have assisted in examination or presentation of the patient, as well as any facility fees/originating site fees.
 - x) Describe and quantify any other expected revenue.
- e) Outline **cost and expense** estimates. Consider both originating and distant sites and delineate which sites pays for what. You may be able to negotiate with the originating sites to divide some expenses as telehealth will be bringing benefits to their institution and patients. Also include:
- i) Technology costs. Consider both originating and distant sites and delineate which sites pays for what.
 - (1) Develop estimated technology costs based on the type of telehealth solution you desire, you do not need to select the vendor yet, that will be done later. Your Regional Telehealth Resource Center or the National Telehealth Technology Assessment Resource Center may be of assistance in estimating costs.
 - (a) Be sure to consider both start-up and maintenance costs.
 - (b) Consider costs for hardware, software, connectivity, devices, subscription and maintenance fees, etc.
 - (2) Don't forget to budget for technical system redundancy (back up), 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.
 - (3) If other telemedicine programs exist at the distant or originating site, technology and the technology costs may be able to be shared among programs.
 - ii) Staffing costs (clinical, admin, billing, technology, legal). Consider salary and benefit information. Consider both originating and distant sites and delineate which sites pays for what.
 - iii) Operational and supplies costs. Consider both originating and distant sites and delineate which sites pays for what.
 - iv) Facility costs such as other equipment, physical space, or renovation costs. Consider both originating and distant sites and delineate which sites pays for what.
 - (1) Remember to budget for necessary telehealth room design/remodeling.
 - v) Description of how the program will be promoted/marketed, and associated costs of this. Consider both originating and distant sites and delineate which sites pays for what.

- vi) Facilities and Administrative (F&A) costs, also known as indirect or overhead. Many grants have these costs as part of the grant allocation. Consider both originating and distant sites and delineate what is relevant to each.
 - vii) Telehealth Training costs. Consider both originating and distant site staff that will need training, and delineate which sites pays for what.
 - viii) Education Costs if using telehealth for educational purposes (e.g., CME fees). Consider both originating and distant sites and delineate which sites pays for what.
 - ix) Travel Costs associated with the program (e.g., travel between distant and originating sites for meetings, attending national meetings, etc.). Consider both originating and distant sites and delineate which sites pays for what.
 - x) Other anticipated expenses. Consider both originating and distant sites and delineate which sites pays for what.
- f) Describe and quantify approximate expected cost reductions (e.g., providers who no longer travel to remote clinics, fewer missed appointments). Consider both originating and distant sites and delineate which site benefits from which reductions.
- (1) You may also wish to consider and/or gather data on reductions in patient expenses, including reductions in Medicaid transportation needed
- g) Outline projections beyond the 'here and now'. Incorporate growth into the financial model.
 - h) Calculate the Break-Even Point (when revenue equals expenditures) (see resources below)
 - i) Calculate a Return on Investment (ROI) to measure investment profitability for the telemedicine program: this is a complex task, use a template or example from another telehealth program (see examples below).
 - j) Describe the projected fiscal impact of the program on the organizations.

2) Develop a Business Report, Charter, or Other Summary, Including:

- a) Description of the patient service needs and provider environment, including how the proposed program aligns with the organization's existing mission/strategic plans (using the work from Task One).
- b) Description of the goals and objectives (using the work from Task Two).
- c) Description of the preliminary program model (using the work from Task Two).
- d) Description of the financial model, including the elements listed above

3) Present Your Report to Stakeholders

- a) Invite feedback.
- b) Obtain organizational and financial commitments to develop, implement, and sustain your program.

CHECK YOUR PROGRESS ON TASK 3

- You have described the market, demand, and expected uptake of the service.
- You have identified all funding sources (e.g. billing, contracts, grants, USAC funding, etc.).
- You have identified the payer mix and any regulations or constraints based on the payer rules.
- Expected fiscal impact of the program: You have determined approximate start up and operating costs for your telehealth program.

- Expected fiscal impact of the program: You know the expected cost reductions (e.g., providers who no longer travel to remote clinics), and expected new revenue.
- You have projected the growth of the program and estimated the return on investment (ROI).
- You have developed a Business Case Report, Charter, or other summary document which describes the patient service needs and provider environment, including how the proposed program aligns with the organization's existing mission/strategic plans (using work from Task One), describes your goals and objectives and your preliminary program model (using work from Task Two), and summarizes the financial model, including the element above.
- You have shared your report with stakeholders and obtained organizational and financial commitments to develop, implement, and sustain your telehealth program.

TOOLS FOR TASK 3

(see Telegenetics Program Planning Website for Access to the Tools)

Resources on Third Party Reimbursement and State Telehealth Policy:

- For information about DE, DC, VA, WV, PA, MD, and NJ state reimbursement policy: contact your telehealth resource center (MATRC) for the most up-to-date information on state policy.
- For information about NY and NJ state reimbursement policy: contact your telehealth resource (NETRC) center for the most up-to-date information on state policy.
- CCHP database of state telehealth laws and reimbursement policies
- Medicare Telehealth Payment Eligibility Analyzer (Plug in the address of the site where the patient is located to see if it is in an eligible area for Medicare reimbursement)
- CCHP Factsheet: Telehealth Reimbursement (2018)

Other Resources for Financial and Business Planning

- NYMAC Factsheet: Telehealth Funding Models
- Article: A Survey of Business Models from Selected Prominent U.S. Telehealth Centers
- Presentation (abbreviated): Successful Telehealth Business Models by Elizabeth Krupinski, 2017
- Subsidiary Healthcare slide on Telehealth Financial Areas
- TRC Factsheet: Telehealth Grant Funding Opportunities
- NETRC Factsheet: Federal Telehealth Funding Opportunities
- AHRQ Technical Brief: Telehealth: Mapping the Evidence for Patient Outcomes From Systematic Reviews (Useful for Business Analysis Process)
- ATA Break-Even Financial Simulation Tool
- ATA Business Plan Financial Section: includes breakeven and ROI calculations
- ATA Sample Telehealth Budget Worksheet
- Subsidiary Healthcare Telehealth Financial Plan Worksheet
- CALTRC kit: Creating a Program Charter (page 61)
- CALTRC kit: Telehealth Program Charter Example (page 67)
- CALTRC kit: Sample Kickoff Meeting Agenda (page 71)
- NETRC Webliography of Online Telehealth Business Planning Resources

PHASE 2: DEVELOP AND PLAN (Tasks 4, 5: Plan Program and Plan Evaluation)

This phase defines and plans in detail for all the work that is needed to build the telegenetics program. The goal of this phase is to create very specific and detailed workplans which will be implemented in a later phase.

Task 4: Plan the Program Implementation and Plan the Technology:

Task Four produces technical, clinical, operational, and staffing task lists that will be used for the program's implementation (Step Six). Together, these task lists will create an overall program Implementation Plan that includes assigned tasks and schedules for implementing the program.

1) Detailed Program Implementation Plan:

- a) CLINICAL PLAN
 - i) Provide a detailed description of the clinical services to be offered.
 - ii) Describe if any interdisciplinary clinics are planned and the rationale.
 - iii) Describe any clinical protocols, clinical documents, templates, referral guidelines, etc that will be needed, and identify which will still need to be developed (you can often use the same documents as the face-to-face practice).
 - iv) Describe the clinical staff that will be needed, at each site, and what their roles will be, define which staff, if any, need to be hired or reassigned.
 - v) Describe any training that will be needed for the clinical staff. Inquire about training opportunities from your Regional Genetic Network or the Telehealth Resource Centers.
 - vi) Create a clinical task list: list each task needed to implement the clinical plan above, a person assigned to each task, and detailed information on timelines, deliverables and milestones.

- b) OPERATIONAL/ADMINISTRATIVE PLAN: Needed policies and procedures may be created by existing staff, attorneys, the clinical team, or others, but the final products should undergo a legal review before use.
 - i) Policies and procedures may be different for each originating site.
 - ii) Describe all originating and distant sites, and how site coordination/communication will be conducted.
 - iii) Describe what operational policies and procedures plans will need to be developed, including polices for scheduling, referrals, patient registration, consent, signatures, specimen collection, etc.
 - (1) Ideally, a telemedicine services coordinator could oversee most of the above procedures, and can be quite instrumental to program success. If funding is not available for a coordinator, other staff at the originating site will need to assist with these processes.
 - (2) Ideally, telemedicine appointments can be scheduled into the distant site provider's regular clinic schedule
 - iv) Consider whether you need to develop and sign a memorandum of understanding between the distant and originating sites.
 - v) Outline what tasks are needed to prepare for the financial operations (see business plan), including insurance billing, patient billing, grants, contracts with originating sites, etc.
 - vi) Outline legal issues that will need attention/action: Identify the current policies and regulations and determine the impact they may have on your program. 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. Critical legal and regulatory areas to consider include:

- (1) Malpractice issues and malpractice insurance coverage: contact your insurance carrier and legal dept
- (2) Licensure: distant site provider must be licensed at in the state where the originating site is
- (3) Credentialing/Privileging: many originating sites require this for each distant site provider
- (4) HIPAA compliance: equipment, software, and connections must be encrypted and the interaction must maintain the same security and confidentiality as in-person care
- (5) Medication prescription
- (6) Stark and Federal anti-kickback regulations

- vii) Describe the marketing and communication plan to promote services, including patient education materials, and what tasks are needed to prepare for promotion and launching of the program
- viii) Create a operational/admin task list: list each task needed to implement the operational/admin plan above, a person assigned to each task, and detailed information on timelines, deliverables and milestones.

c) **STAFFING PLAN:**

- i) Describe who in a leadership position in the organization will be part of your program.
- ii) Describe the needed non-clinical staff for your telehealth team and their roles and responsibilities. Define which staff will need to be hired or re-assigned. Integrate telehealth specific functions into job descriptions/job duties to ensure formal adoption and evaluation of those functions.
 - (1) If possible, identify a telehealth clinic coordinator to oversee all daily operational activities of the telehealth program scheduling, billing, technical operations etc. Ideally, this individual should be employed full-time on your program, and can be a key to success.
- iii) Describe the plan for non-clinical staff training: type of training and who to be trained.
- iv) Create a staffing task list: list each task needed to implement the staffing plan above, a person assigned to each task, and detailed information on timelines, deliverables and milestones.

- d) Submit your clinical/operational/staffing plans for review by senior leadership and key stakeholders, and invite feedback, comments and open discussion.

2) **Detailed Technology Plan:** Define your technology choices in detail

a) **Vendor Selection Process**

- i) Understand the network infrastructure and existing telehealth infrastructure at all distant and originating sites
- ii) Determine if any peripheral devices are necessary for the program
- iii) If interdisciplinary clinics are planned, identify any unique technology needs to suit that model.
- iv) Identify trustworthy and knowledgeable sources to guide you in your equipment choices, and to provide ongoing support.
- v) Be clear about your program model and use case. Specify interoperability and scalability requirements, workflow, and necessary features of the needed technology based on your program model.
- vi) Do extensive equipment comparison to identify the best equipment for your program, 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.

- vii) Use the vendor selection tools listed below for assistance.
- b) Provide a detailed list of the chosen technology products, services, and vendors.
- i) Detail the attributes, challenges, and technical requirements of the chosen hardware, software, and telehealth equipment (i.e., bandwidth, product standards, and product features).
 - ii) Describe existing organizational resources that can be used to meet specified requirements (e.g., existing network, hardware, equipment). Identify the types of approvals or authorizations required to assign existing resources to the telehealth services.
 - iii) Describe your plan for system redundancy: Technology can fail. Realizing this in advance and planning appropriate back-up for all your mission-critical systems and applications is vital. 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.
 - iv) Consider important elements that can impact the patient experience with telehealth (e.g., lighting, sound, image quality, background, graphics, branding, scripting, presentation).
 - v) 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. Budget for any needed room renovations.
 - vi) Outline projected one-time and continuing costs. 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. Know the organization's procurement policies and procedures and purchasing power.
 - vii) Outline all necessary service level and support agreements (e.g. Business Associate Agreements).
- c) Describe your IT team, and who needs to be hired or reassigned. Have a strong IT group at both sites and 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.
- d) Create a list of all tasks necessary to implement and operate all technology components of the telemedicine program. Make sure your plan includes a task list, a person assigned to each task, and detailed information on timelines, deliverables and milestones:
- i) All items that need to be purchased
 - ii) All items that need to be reassigned or borrowed from within the institution
 - iii) All contracts and service agreements needed
 - iv) Steps for room set-up
 - v) IT hiring or reassignment
 - vi) IT network authorizations
 - vii) IT team meetings
 - viii) Any training needed for IT team
 - ix) Any needed technology policies and procedures documents that need to be developed
 - x) Any needed technology "how-to" manuals that need to be developed for the staff
 - xi) Plan to test, test, test your equipment and connectivity before announcing or advertising your program.

- e) Submit your technology plan for review by senior leadership and key stakeholders, and invite feedback, comments and open discussion.

CHECK YOUR PROGRESS ON TASK 4

- You have developed an overall implementation plan for managing the work involved in establishing a telehealth program.
- You have identified who in a leadership position in the organization will be involved in your program and what their role will be.
- You have outlined legal issues to be considered (e.g., licensure, malpractice, HIPAA), and have a plan to consult legal counsel.
- You have identified members of your telehealth team and their roles and responsibilities (incl. clinic coordinator and IT staff).
- Telehealth team: You have identified the type of training needed and who needs to be trained
- You have developed clinical and administrative policies and procedures and a detailed workflow for operation of the program.
- You have determined how telehealth will be integrated into clinic operations.
- You have determined how appointments will be scheduled.
- You have developed clinical referral guidelines and determined how referrals will be made.
- You have defined your originating and distant sites, have suitable spaces for telehealth at both, and a plan for any needed renovations.
- You have detailed necessary steps to implement the targeted funding sources.
- You have developed a communication/marketing strategy to promote your telehealth services.
- You have involved your IT team or other knowledgeable support to compare telehealth technology choices and select the best fit.
- Technology: You have detailed attributes of needed hardware/software (i.e., bandwidth, product features, interoperability, scalability).
- Technology: You have defined the necessary service level and support agreements (e.g.: business associate agreement) for your technology.
- Technology: You have identified the existing organizational technology resources that can be used (e.g., existing network, hardware, equipment) and understand the types of authorizations required to assign existing resources to your program.
- Technology: You have outlined any new technology needs and associated costs, and know the organization's procurement procedures.
- Technology: You have a technology and IT implementation plan.

TOOLS FOR TASK 4

(see Telegenetics Program Planning Website for Access to the Tools)

Plan the Program: Staffing Planning Tools (clinical and non-clinical)

- NYMAC Sample Telehealth Planning Tasklists
- Lecture Slides: Your Telehealth Business Plan (abbreviated), slide 29 highlighting parts of the organization involved in telehealth (Christian Milaster)
- CALTRC kit: Staffing a Telehealth Program Guide: Skills and Knowledge Matrix and Sample Staff Duty Statements (page 161)
- TRC Sample Telemedicine Job Descriptions (scroll down to job descriptions)
- CALTRC Sample Telemedicine Job Descriptions
- TRC Overview excerpt: Sample Job Descriptions for Clinical Coordinator and Remote Site Coordinator (Page 13-16)
- TRC video: Defining Roles and Responsibilities: Patient Site Staff
- TRC video: Defining Roles and Responsibilities: Remote Site Staff
- TRC Overview excerpt: Sample Staff Telepresenter Competency Skills List for Video Conferencing from the Patient Site (Page 18-19)

Plan the Program: Clinical Planning Tools

- **See staffing tools section for assistance with needed clinical staffing
- TRC Overview excerpt: Sample provider site process (Page 17)
- TRC Overview excerpt: Sample Telemedicine Policy for Physical Exam (Page 10-12)
- NETRC Factsheet: Tips for Professional Videoconferencing
- AAP: Sample telehealth workflows
- Sample telehealth clinic scheduling workflow
- UVA Detailed Telemedicine Consult Process for Distant Site
- UVA Detailed Consult Process for Originating Site
- UVA General Telemedicine Consult Process

Plan the Program: Operational and Administrative Planning Tools

- NYMAC Sample Telehealth Planning Tasklists
- CALTRC Sample telemedicine workflow
- CALTRC Sample referral request form
- CALTRC Sample telemedicine consent form
- CALTRC Sample telemedicine consent form in Spanish
- TRC Overview excerpt: Sample telehealth consent form (Page 20-21)
- SCTRC video: Telehealth Consult checklist
- AAP: Sample telemedicine protocol: swimlane workflows
- Sample Memorandum of Agreement between two healthcare facilities for Telehealth Services

- SCTRC marketing video: Building program awareness video
- TRC webinar: Telehealth Marketing - the Path to Patients, Profits and PR
- NETRC Factsheet: Tips for Professional Videoconferencing

Plan the Program: Operational and Administrative Planning Tools: Legal and Regulatory Issues

- NYMAC Sample Telehealth Planning Tasklists
- TRC factsheet: HIPAA and Telehealth
- CCHP Factsheet: Telehealth Policy Barriers
- Webinar: Technical and Administrative Considerations for Telegenetics (University of MD)
- CALTRC Sample privileging and credentialing agreement
- Sample Business Associate Agreement (BAA) between “covered entity” and “business associate”
- Sample Business Associate Agreement (BAA) for ophthalmology practice

Plan the Program: Technology and Spaces Planning Tools

- NYMAC Sample Telehealth Planning Tasklists
- NYMAC Factsheet: Technology in Telegenetics
- MATRC Technology Vendor Selection Toolkit
- NYMAC webinar on telehealth technology
- Webinar: Technical and Administrative Issues in Telegenetics (University of MD)
- National Telehealth Technology Assessment Resource Center (TTAC): many toolkits available, including mHealth, Apps, Peripheral Devices, Videoconferencing, etc. (click on “Toolkits” tab)
- NYMAC Sample Telegenetics Technology Plan
- CALTRC video: Telemedicine Room Planning, Design and Set-Up
- NETRC Factsheet: Tips for Professional Videoconferencing
- TRC Factsheet: Telehealth Technologies and Preparing to Select a Vendor
- Sample Business Associate’s Agreement (BAA) between a telehealth technology company and a physician practice
- Sample Business Associate’s Agreement (BAA) between Totier technology and a covered entity (such as a medical institution)
- Report on elements to consider in the Patient Telemedicine Experience (Andrew Fields Associates)
- Executive summary on elements to consider in the Patient Telemedicine Experience (Andrew Fields Associates)
- Sample multisite telehealth technology inventory
- NYS Statewide Telemedicine Utilization and Interest Survey
- MA Statewide Telemedicine Utilization and Interest Survey
- AZ Statewide Telemedicine Utilization and Interest Survey
- TRC webinar: Telehealth Marketing - the Path to Patients, Profits and PR
- ATA Guide: Let There Be Light: A Quick Guide to Telemedicine Lighting

Task 5: Develop Performance Monitoring, Program Evaluation, and Quality Improvement Plan:

When planned ahead of time, and built into your general workflow and clinic operations, data collection can be relatively easy and straightforward. Collecting and sharing data about your program will be important to garnering institutional support, further funding, and planning for expansion. Think about the data that was used to demonstrate the need for your program when considering what data to collect about the program's performance so that you can demonstrate change.

- 1) Performance monitoring: Detail approaches to measure, track, and achieve, your targets for telehealth volume and utilization, and various other desired performance indicators. 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.
 - a) If the performance objectives are not being met, describe a process of identifying and implementing the necessary changes.
 - b) Specify how data will be collected, stored, and analyzed, and what the timeline and schedule is for monitoring.

- 2) Program Evaluation:
 - a) Describe how you will measure success in achieving your project goals, objectives and outcomes. Explore existing resources on program evaluation and outcomes for telehealth and telegenetics.
 - i) A large body of literature already demonstrates high patient satisfaction with telehealth, but if your practice routinely utilizes patient satisfaction surveys, your program may wish to follow suit.
 - ii) Define and utilize other outcome measures to demonstrate the impact of the program.
 - b) Define how you will know what impact telehealth has made in your organization.
 - c) Specify how data will be collected, stored, and analyzed, and what the timeline and schedule is for evaluation.

- 3) Quality Improvement: Define how program improvements will be defined, planned, implemented, tested, and managed.
 - a) Many organizations have formal quality improvement processes that are used to identify and implement improvements. If one is not available, a quality improvement process should be identified and documented.
 - b) Specify how data will be collected, stored, and analyzed, and what the timeline and schedule is for QI.

CHECK YOUR PROGRESS ON TASK 5

- You have defined data collection methods for obtaining the needed data for performance monitoring, evaluation and QI.
- Performance monitoring: You have developed an approach to measure, track, and achieve your targets for telehealth volume and utilization, and other desired performance measures.
- If the performance objectives are not being met, you have developed a process of identifying and implementing changes.
- Program Evaluation: You have developed a plan to measure success in achieving your project goals and objectives.
- Program Evaluation: You have determined how you will know what impact telehealth has made in your organization.

- ☐ Quality Improvement: You have determined how program improvements will be defined, planned, implemented, tested, and managed.

TOOLS FOR TASK 5

(see Telegenetics Program Planning Website for Access to the Tools)

- NQF: Creating a Framework to Support Measure Development for Telehealth
- Slides: Evaluation and Assessment in Telehealth (Elizabeth Krupinski, 2017)
- CALTRC kit: Performance indicators and data elements matrix (p89-102)
- American Academy of Pediatrics Guidance: Quality Improvement and Evaluation in Telemedicine
- AHRQ technical brief: Telehealth: Mapping the Evidence for Patient Outcomes From Systematic Reviews
- NYS Statewide Telemedicine Utilization and Interest Survey
- MA Statewide Telemedicine Utilization and Interest Survey
- AZ Statewide Telemedicine Utilization and Interest Survey
- TRC webinar: Telehealth Marketing - the Path to Patients, Profits and PR
- Article: "Real-World" Practical Evaluation Strategies: A Review of Telehealth Evaluation
- Rural Telehealth Research Center: School-Based Telehealth Network Grant Program Measures: Results and Recommendations
- Presentation: Assessing Quality in Telehealth Initiatives (panel session at 2017 MATRC Summit)
- NETRC Bibliography of Research on Patient Satisfaction, Preferences, and Usability Regarding Telehealth
- TRC Sample Telehealth Satisfaction Surveys
- VA patient satisfaction survey with video telehealth for veterans
- NIRHC Patient satisfaction with Video telehealth for mental health
- UCDHS Telemedicine Clinical Consultation Patient Satisfaction Survey
- Hawaii Health Systems Corporation Telemedicine Patient satisfaction survey
- UC Davis Sample Patient Telehealth Satisfaction Survey
- AHRQ Sample Patient Telehealth Satisfaction Surveys
- Telehealth Satisfaction Survey: Patients Satisfaction with store-and-forward
- UCDHS Referring provider telehealth satisfaction survey
- Miami Children's Hospital referring provider telehealth satisfaction survey
- Children's Mercy Consulting specialist provider telehealth satisfaction survey
- SWTRC Telemedicine Program Satisfaction Survey: Consulting Specialist Provider
- Univ of VT Trauma Telehealth Evaluation form for referring provider--combines other outcomes data with satisfaction questions
- Univ of VT Trauma Telemedicine Evaluation form for telehealth consulting specialist—combines data with satisfaction
- Vermont Children's Hospital Evaluation form for pediatric telehealth consulting provider: combines outcomes data with satisfaction
- NSM CCAC Quality Improvement Plan for Telehealth

PHASE 3: IMPLEMENT AND MONITOR (Tasks 6, 7: Implement and Monitor)

Given the plans developed in Phase 2, Phase 3 focuses on implementing the program. The structured plans should allow the process to be organized, scheduled, and efficient. The team can use the plans to closely monitor the implementation process.

Task 6: Implement the Telehealth Program:

Step Six is when all the tasks needed to build the telehealth program are completed. The work from the previous phase should have defined, scheduled, and assigned each task. Project management skills are needed, and the work may be managed by a project manager or another lead person who monitors the execution of each task using a detailed work plan. Stakeholders should be kept up to date on progress and challenges encountered.

- 1) Create a detailed overall work plan (based on your various task lists developed in TASK 4) to record and track progress on all tasks and to highlight dependencies between tasks. Have a lead person responsible for monitoring the schedule and ensuring the completion and coordination of many different tasks required to implement the program.
- 2) Have a plan to note and amend any work plan tasks that need revision.
- 3) Have a plan to identify and mitigate any risks identified during the process.
- 4) Execute the clinical tasks from the implementation plan.
 - a) 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.
 - b) Follow standard, recognizable protocols which will lead to consistent clinical results that will be vital for your evaluations and program monitoring.
- 5) Execute the operational/administrative tasks from the implementation plan.
 - a) Have clear and simple and documented administrative processes for billing, scheduling, etc.
- 6) Execute the staffing tasks from the implementation plan.
 - a) Make sure all staff are technically savvy, knowledgeable about telehealth systems and applications, and are flexible and open to new clinical methods and approaches.
 - b) 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.
 - c) Develop and implement a formal, comprehensive and standardized training regimen for all staff. Training must be ongoing and designed to increase in scope and scale as your telehealth program expands.
 - d) Nurture further telehealth 'champions', from all levels of your staff.
- 7) Execute the business plan, and any needed financial contracts and agreements.
- 8) Execute the technology implementation plan.
 - a) 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.

- 9) Insure that **ALL** aspects of the telemedicine program are tested (to the extent feasible) to ensure that the program is ready to begin delivering the targeted services using the envisioned program model.
- 10) When the work plan shows readiness, launch the program. Follow your plan for marketing: advertising, promoting, and launching the service.
- 11) Report on the implementation.
 - a) Have a communication plan to keep stakeholders updated on status, managing risks and resolving issues encountered during the implementation.

CHECK YOUR PROGRESS ON TASK 6

- You have a detailed work plan to record and track progress on implementation tasks and to highlight dependencies between tasks.
- You have a lead person responsible for monitoring the schedule, determining if deliverables are being met, and ensuring the completion and coordination of the many different tasks required to implement the program.
- You are identifying risks and mitigating when necessary.
- You have determined how needed program modifications are identified and managed.
- You have executed the clinical tasks from the implementation plan.
- You have executed the operational/administrative tasks from the implementation plan.
- You have executed the staffing tasks from the implementation plan.
- You have executed the financial model, and any needed financial contracts and agreements.
- You have executed the technology implementation plan.
- You have TESTED ALL aspects of the telemedicine program (to the extent feasible) to ensure that the program is ready.
- You have launched the program when the work plan showed readiness.
- You have executed your plan for marketing: advertising, promoting, and launching.
- You have communicated with stakeholders and reported on the implementation.

TOOLS FOR TASK 6

(see Telegenetics Program Planning Website for Access to the Tools)

- NYMAC Sample Telehealth Planning Tasklists
- SCTRC video: Telehealth Consult Checklist
- SCTRC video: Building Program Awareness
- SCTRC video: Telehealth Etiquette
- TRC Infographic for consumers about virtual healthcare
- NETRC Factsheet: Tips for Professional Videoconferencing
- TexLa TRC Telemedicine Readiness Assessment Form
- MidWest Regional Genetics Network: Intro to Telemedicine Videos for Patients and Families

Task 7: Monitor & Improve the Program:

Step Seven involves tracking and evaluation of the telehealth program to assess if the expected clinical and financial outcomes are being realized, as well as efforts to plan and make program improvements. These processes should be continually repeated, as described in the monitoring plan, and will be an ongoing part of clinic operations.

- 1) Communicate with the staff: 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.
- 2) Performance Monitoring and Reporting: Follow your performance monitoring plan. Collect necessary data and perform data analysis to determine whether the outcome was different from what was expected.
 - a) Plan to begin collecting vital program data from the very beginning of your program implementation.
 - b) Determine and communicate your measures of success.
 - c) The results and interpretation of the data analyses should be incorporated in a report and/ or presentation format. Reports should be reviewed by the TG program team.
- 3) Program Evaluation: Follow your evaluation plan. Collect data to assess whether the program is meeting objectives.
 - a) Documentation is a critical step in the evaluation process. Collecting data and maintaining "improvement logs" will allow a program to track project deliverables and identify areas for potential improvement.
- 4) Identify challenges and problems, and outline program changes that could improve operation or outcomes.
- 5) Quality Improvement: Follow your QI plan.
 - a) Based on the analysis of the data, program enhancements and modifications may need to be made. The telemedicine program will need to determine how they plan to implement and evaluate the changes.
 - b) Implement improvements and changes to the program and monitor their impact.
- 6) Repeat these processes at intervals outlined in the monitoring plan.
- 7) Share your experiences.
 - a) Present your outcomes and program developments in a public forum (published or by meeting presentation) at least once per year.
 - b) 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.
 - c) Join forums for networking purposes, and the sharing of experiences and lessons learned.
 - d) Share outcomes and successes with non-telehealth stakeholders and interested parties, the local communities in which you work, etc.

CHECK YOUR PROGRESS ON TASK 7

- You are communicating with the staff about their experiences.
- You are following your performance monitoring plan.

- You are following your program evaluation plan.
- You are identifying challenges and problems, and outlining program changes that could improve operation.
- You are following your Quality Improvement plan.
- You have shared your telegenetics experiences internally and externally.

TOOLS FOR TASK 7

(see Telegenetics Program Planning Website for Access to the Tools)

- NQF: Creating a Framework to Support Measure Development for Telehealth
- Slides: Evaluation and Assessment in Telehealth (Elizabeth Krupinski, 2017)
- CALTRC kit: Performance indicators and data elements matrix (p89-102)
- American Academy of Pediatrics Guidance: Quality Improvement and Evaluation in Telemedicine
- AHRQ technical brief: Telehealth: Mapping the Evidence for Patient Outcomes From Systematic Reviews
- NYS Statewide Telemedicine Utilization and Interest Survey
- MA Statewide Telemedicine Utilization and Interest Survey
- AZ Statewide Telemedicine Utilization and Interest Survey
- TRC webinar: Telehealth Marketing - the Path to Patients, Profits and PR
- Article: "Real-World" Practical Evaluation Strategies: A Review of Telehealth Evaluation
- Rural Telehealth Research Center: School-Based Telehealth Network Grant Program Measures: Results and Recommendations
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- Univ of VT Trauma Telemedicine Evaluation form for telehealth consulting specialist—combines data with satisfaction
- Vermont Children's Hospital Evaluation form for pediatric telehealth consulting provider: combines outcomes data with satisfaction
- NSM CCAC Quality Improvement Plan for Telehealth

GENERAL TELEHEALTH RESOURCES:

- Telehealth Resource Centers: <https://www.telehealthresourcecenter.org/>
 - Mid-Atlantic Telehealth Resource Center: <http://www.matrc.org/>
 - New-England Telehealth Resource Center: <http://netrc.org/>
 - National Telehealth Policy Resource Center (Center for Connected Health Policy): <http://www.cchpca.org/>
 - National Telehealth Technology Assessment Resource Center: <http://www.telehealthtechnology.org/>
- American Telemedicine Association: <http://www.americantelemed.org/home>
- Center for Telehealth & E-Health Law: <http://www.ctel.org/>
- Maternal Child Health Bureau: <http://mchb.hrsa.gov>
- Federal Office of Rural Health Policy: <https://www.hrsa.gov/rural-health/index.html>
 - Office for the Advancement of Telehealth: <https://www.hrsa.gov/rural-health/telehealth/index.html>
- Medicaid/Medicare: www.cms.hhs.gov
- Federal Communications Commission: <https://www.fcc.gov/general/telehealth-telemedicine-and-telecare-whats-what>

Thank you for your interest in telegenetics program planning. We hope you will utilize this guide, in combination with our program planning checklist, to support your planning process. We encourage you to explore the tools that are referenced within this document, as well as the general telehealth references listed above. We welcome your questions, and are available to help support your program planning.

NYMAC
REGIONAL GENETICS NETWORK



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Website: <https://www.wadsworth.org/programs/newborn/nymac>

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