



**Telehealth Optimization Initiative
Summary of Focus Group
Methodology and Responses**



*A Collaborative Policy Development Initiative
of the California Telemedicine and eHealth Center*

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Telehealth Optimization Initiative Summary of Focus Group Methodology and Responses

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Forward

In 2008, the California Telemedicine & eHealth Center (CTEC) began a year long initiative to consider the impact that reimbursement and other factors have on the full deployment of telemedicine and telehealth in California. This effort, funded by the Blue Shield of California Foundation, included a collaborative policy development with major telemedicine stakeholder groups from healthcare, government, and industry. This report, *Summary of Focus Group Methodology and Responses*, was one of the foundational documents developed to assist the Collaborative in their discussions and deliberations.

The focus group research provided broad views and opinions of telehealth experts and interested organizations about needs, concerns, and barriers to telemedicine expansion in California. The Focus Group project was managed by Wayne Shimizu of Shimizu & Associates.

CTEC would like to thank Mr. Shimizu for his efforts. We are certain that the information in this report will prove useful to many other organizations considering the expansion and optimization the use of telemedicine.

Christine Martin
Executive Director
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Telemedicine Optimization Initiative

Summary of Focus Group Methodology and Responses

To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science. - Albert Einstein

Introduction

Access to affordable healthcare continually ranks as one of the most pressing public policy issues. Telemedicine and telehealth services greatly increase options for addressing adequate access to healthcare needs, especially for those residing in rural and underserved areas. Over the past decade, California has become known as a leader in the deployment of telemedicine and telehealth services. California was one of the first states to allow Medicaid reimbursement for telemedicine services. Major medical centers are now using telehealth technologies in a variety of ways to benefit its residents. Policy makers and industry leaders agree telemedicine has the potential to lower costs and increase access in many areas of healthcare.

Despite the recognized benefits of telemedicine, California has not experienced the anticipated growth and expansion of telemedicine programs. To further promote the deployment of telemedicine in the state, the California Telemedicine & eHealth Center (CTEC) convened key stakeholders to collaboratively develop policy recommendations for the optimal deployment of telemedicine and telehealth.

The desired outcome is a policy report that incorporates all research, findings, and alternatives, as well as development of a policy brief that outlines findings and recommendations targeted for an audience of policy makers.

Focus Group Project

To better inform the Collaborative's deliberations, the project team convened stakeholder focus groups, interviews, and surveys to:

- Identify and prioritize the issues, challenges, and opportunities in telehealth reimbursement.
- Gather information about other telemedicine initiatives.
- Collect suggestions on ways to improve telehealth and telemedicine policies.
- This report describes the project background, the data collection process, and a summary of the responses from telemedicine stakeholders.

The report information combined with a research literature review, and a national scan of telemedicine reimbursement policies will inform the policy development process.

The collection of responses represents a multi-dimensional view of the California telemedicine environment. It is clear that telemedicine providers have a different view than payers, and telemedicine vendors have a different perspective than philanthropic foundations. By understanding more about these different perspectives, the Collaborative hopes to develop policies that have concurrence across stakeholder groups. Because groups and individuals were asked a standard set of questions, the responses from different stakeholders and stakeholder groups can be placed side by side to see similarities and differences.

Methodology

In July 2008, over 130 representative telemedicine stakeholders were invited to participate in CTEC's collaborative data collection process. Of those, 90 individuals representing five stakeholder types (telemedicine providers, potential providers, vendor and suppliers, payers, and consultants/government/other) participated in the flexible data collection process. A standard set of questions, listed in full in Appendix 1, developed by the Collaborative members was used to enhance consistency of the data. To supplement the data collected in meetings and interviews, a Web-based survey was used to collect information from stakeholders not able to participate in a meeting or interview. Special attention was given to stakeholder attendance to ensure all major telehealth sectors were represented in the process.

The study was conducted from July 29, 2008 to August 25, 2008. Group sessions were held in southern and northern California, interviews were held in-person and via conference calls, and data was collected via the Internet survey. The group meetings and interviews, were administered by a CTEC representative (Irene Alvarez), a Sacramento State Center for Collaborative Policy (CCP) representative (Charlotte Chorneau), and the meeting/interview facilitator (Wayne Shimizu). The CTEC representative provided context and scope, the CCP representative documented participant responses and asked clarifying questions, and the facilitator led the questioning process.

The data collection process followed a traditional method that began with defining the need for collecting data, identifying data needed, and developing the process by which the data would be collected. The Telehealth Optimization Initiative Collaborative created a set of questions that were

used to solicit participant responses about telemedicine in California. Questions were designed to collect information about funding issues, challenges, opportunities, and policy recommendations. The process was designed to collect data that represents the views of all the stakeholder groups and perspectives of people within the groups. The importance of collecting data that creates an objective picture of the California telemedicine community is that the process can align stakeholders and provide a sufficient context for gaining agreement on policy actions. Alignment of the telemedicine community is a critical component for moving the telemedicine policies forward.

Stakeholder Groups

Stakeholders were divided into five types as described below:

Telemedicine Providers: The telemedicine provider group was made up of people who currently provide or offer telemedicine services in California. Although most participants are from California, one provider participant is based in another state. Participants included representatives from the University of California, rural clinics, hospital systems, individual hospitals, community clinics and health centers, regional health networks, and federally qualified health centers.

Potential Providers: Potential providers included representatives of school health associations, clinics, health centers, hospitals, hospital associations, nurse practitioners, university-based programs, and home health agencies who are interested in using telemedicine technology to deliver services. Not all participants in this group are advocates of telehealth, but as a group, were inquisitive and generous with responses to the standard set of questions.

Vendors: Vendor participants included organizations that provide remote monitoring equipment and videoconferencing equipment. These participants are knowledgeable about telemedicine and clear about how their products fit into the telehealth market. Vendors expressed strong opinions about telemedicine policies.

Payers: Payer representatives were from a health plan association, a major health plan, and county government medical services. For the purpose of this study, payer is defined as a person representing an organization or entity responsible for making payments or reimbursement for telemedicine services. The payer group included foundations since they play a significant role in funding telemedicine program development. Foundations are a legal categorization of nonprofit organizations that may have charitable purposes. This type of nonprofit

organization may either donate funds and support to other organizations, or provide the sole source of funding for their own charitable activities.

Government/consultants/other: Government/consultants/other is the last stakeholder group. Participants in this group include healthcare consultants, representatives from government agencies, colleges, clinics, and healthcare consortia.

A full list of participants is included in Appendix 3.

Participants by Stakeholder Group

Existing telemedicine providers	43
Potential telemedicine providers	27
Vendors	6
Payers	6
Government/consultant/other	8
Total	90

Participants by Data Collection Method*

Group meetings	33
Interviews	11
Web survey	54
Total	98

**Some participants participated in more than one data collection method*

Data Collection

Data was collected in focus groups and group meetings, and using an Internet based survey instrument.

Focus groups and group meetings were moderated discussions of set questions previously developed by the Collaborative. These meetings were useful for gathering information from several respondents at one time, to capture perspectives from a cross section of the provider and potential provider communities. Group sessions encouraged participants to speak and interact in a more spontaneous, less evaluator-directed way. They were, however, more difficult to facilitate because of the number of participants and the need to facilitate equal contributions for all participants. While the group meetings were sometimes titled focus groups, participants (providers and potential providers) self selected which meeting they attended based on a small menu of times and locations. Meetings typically included five to 11 participants and staff from CTEC, CCP, and the meeting facilitator. Providers and potential providers were not commingled in the meetings.

Clear meeting agendas, guidelines and the set of questions to be asked were provided to participants prior to the meeting. Included in the agenda was narrative describing the meeting purpose and meeting outcomes to be achieved. Facilitator involvement was generally to:

- Help the group stay focused on the agenda and questions.
- Monitor unproductive or extraneous discussion and ensure that all participants have an opportunity to speak.
- Ensure equal participation.
- Provide opportunities to speak by creating ground rules and encourage everyone to speak.

Participant responses and notes were documented by the CCP representative. Some responses were also captured on flip charts.

For the purpose of this study, interviews are defined as one-on-one or small group (two to three people) conversations between the data collector and respondent(s). An interview was used to find out, in an in-depth way, what respondents thought, believed, or experienced. Individual interviews produced more in-depth responses because the interviewer was able to probe for elaboration and explanation with follow-up questions. Most of the interviews were conducted on the telephone.

An Internet survey tool was also used to collect information from invitees unable to participate in the group meetings or interviews.

The different data collection modes produced themes that threaded through the stakeholder groups and also produced a variety of nuances to the common themes. For example, there were several references to creating a strategy for developing and promoting the new telemedicine policies. Suggestions ranged from identifying specific state agencies and individuals to using data and sustainable business models to persuade policy makers of the value and cost-effectiveness of telemedicine.

All input methods utilized the same set of basic questions (see Appendix 1). Supplemental questions were added to target areas of concern for the different stakeholder sectors.

The larger group meetings were productive and provided the most discussion of issues, and while equal participation was a goal, some participants contributed more than others. When issues generated longer discussions, it was necessary for the facilitator to move or terminate the issue discussion and to eliminate some of the questions. Compared to the larger group meetings, the small group

interviews resulted in useful comparisons of perspectives and discussion that was generally more focused than in the larger group meetings. The small group meetings flowed well and participants willingly shared in the discussions. The individual interviews (telephone and face to face) were efficient and provided the participant an opportunity to thoroughly articulate their responses and comments. The limitation of individual interviews is that there were no peers present to discuss issues and share perspectives. Data collected in the Web survey tended to be less detailed than other modes but more than half of the total participants provided information in the Web survey.

Limitations

This study was designed to meet the specific requirements of the Collaborative. As such, the methods were not as strictly structured and the specific questions posed did not include internal validation.

Study participants were representative stakeholders. Approximately 69% of original invitees participated. While this is a respectable response rate no attempt was made to weight the percentage responses by sector or to assess participation relative to the full stakeholder population.

As is the case with all studies of this type, the responses represent participant attitudes at a specific point in time. Changing conditions could result in highly variable results should the study be replicated.

To mitigate for some limitations, conclusions are presented in the aggregate, indicating general trends and themes, rather than as a percentile of responses with confidence intervals. Given the Collaborative itself is a representative stakeholder group; these limitations should not impact the utility of the information in their deliberations.

Results

Following is a general overview of results followed by a more specific summary of responses. This is not an analysis of the data, but is a simple list of highlighted responses sorted by stakeholder group. The collected information is intended to feed the policy development process by providing a starting point, based on multiple stakeholder perspectives, for the exploration of telemedicine reimbursement and payment strategies. By better understanding how the different telemedicine stakeholder groups view telemedicine in California, it becomes possible to align the California telemedicine community behind the policies to be developed. Another potential outcome is that false assumptions, that can impact policy development, are identified as a result of better understanding different stakeholder

perspectives. Finally, the data can help not only the CTEC policy development effort, but can serve other telemedicine work in California and across the country.

The terms *information* and *data* are used interchangeably and are defined as a collection of organized responses from California telemedicine stakeholders based on their experience, observation, and research.

The gathered information reveals similarities as well as differences in policy recommendations across stakeholder groups. The prevalent response from stakeholders is that reimbursement for telemedicine services is not sufficient to cover costs and encourage medical specialists to utilize technology to reach underserved patients. Common themes include creating sufficient funding for telemedicine services and developing sustainable and cost-effective telemedicine business models, finding ways to attract medical specialists, and incorporating telemedicine technology into the mainstream delivery of healthcare.

In addition to the common themes, numerous participant insights may supplement and enhance policy development. One group suggested creating a list of agencies that need to be engaged as part of the policy development process, and building relationships with appropriate policy making individuals and organizations (including the Governor's Office, state agencies, and other funders). Another insight was that payers' motivation to reimburse telemedicine providers increases as the cost-effectiveness, quality of service, and access to care can be convincingly demonstrated and documented.

Specifically, all stakeholder groups felt that telemedicine was very important to providing access to care for many populations. Even though most stakeholders stated that telemedicine was important to accessing healthcare, depending on the size and mission of their organization, the priority of telemedicine within the organization varied from very important to not important. Challenges in fully utilizing telemedicine include, lack of funding and reimbursement, incorporating telemedicine into the normal operational work process, providing incentives to attract needed specialists, increasing California's understanding of the value of telemedicine, creating cost-effective and sustainable delivery models, and aligning laws and policies related to telemedicine. Most felt that payment incentives were insufficient.

However, there appears to be two sides to the question of developing specialized payment structures for telemedicine. Some felt that service delivery should be funded regardless of the method

of delivery. Others felt that special structures or codes are needed to quantify the cost and benefit of delivery of services via telemedicine. Many participants said that funding for initial telemedicine program development should come from multiple private and public sources. Most believe that funding for program development should be based on a sustainable and cost-effective model that delivers quality care and increases access to care. Recommendations offered by participants include creating a specific strategy for moving the proposed policies forward, talking with decision makers and organizations, and focusing on reimbursement and funding and removing the barriers to money.

The next section presents the comments categorized by type for each of the stakeholder groups. The information is categorized as follows:

I. Creating Sufficient Funding for Telemedicine

Reimbursement Policy Challenges and Recommendations

Creating Adequate Payment Structures for Telemedicine

Incentives for Telemedicine

II. Developing Sustainable and Cost-effective Telemedicine Business Models

Sustainable Business Models and Pilot Programs

Initial Project Funding and Capitol Investment

III. Incorporating Telemedicine into Mainstream Delivery Models

Gaining Medical Acceptance

Education, Marketing, and Creating Consumer Demand

Finding Ways to Attract Medical Specialists

Incorporating Telemedicine Technology and Infrastructure

Incorporations into Everyday Business

Best Practices and Delivery Care Models

Focus Group and Interview Responses

I. Creating Sufficient Funding for Telemedicine

Reimbursement Policy Challenges and Recommendations

Existing Providers

Current rules are not standardized

1. Develop more comprehensive reimbursement for telemedicine services.
2. Need for federal policy framework to settle the issue of whether telemedicine consultations are fully reimbursable.
3. Clarification and enforcement of current telemedicine reimbursement laws is needed in order to move the industry forward.
4. Identification of current policy limitations is needed to move telemedicine reimbursement forward.
5. Normalized procedure for consistency in payment by adding E&M and consultation codes.
6. There are differences in what the payers do and do not reimburse for in terms of telemedicine.
7. Direct attention toward how payers are interpreting current regulations. The people in the middle of the bureaucracy are interpreting rules differently than the decision makers at the top.
8. The three primary regulators need to take a single look at their regulations and statutes that are adverse to implementation on the ground level, while recognizing their need to protect public costs. Determine if there is some room in those statutes that could make them more telemedicine friendly.

Inadequate reimbursement and current policy limitations

9. Current reimbursement policy does not cover the cost of the specialist providing care.
10. Currently telemedicine offers insufficient reimbursement to attract providers to participate.
11. Getting reimbursement for level of service provided is a challenge with current policy.

12. In terms of reimbursement, it is the payment structure that incentivizes the use of new technology if it is proven to be clinically effective.
13. Reimbursement should be systematic rather than piecemeal or specialty by specialty.
14. A new reimbursement model is needed for today's environment to address today's reimbursement rates, telemedicine processes, and philosophy.
15. Payers need to reimburse for services to sustain the infrastructure.
16. Many providers have invested over \$100,000 to purchase equipment and will never see reimbursement at levels that will cover these costs.
17. If telemedicine solutions truly provide an acceptable form of delivery then payment should be universal.
18. The reimbursement rate must include overhead costs to offset the administrative component.
19. Invest dollars in reasonable reimbursement rates through advocacy and reimbursement policies.
20. If telemedicine service is sustainable and care is equivalent to live in-person, then it is the same and should be reimbursed at the same level.

Specialty services and reimbursement

21. Reimbursement policy should be expanded to include all medical professions such as, Physical Therapy and other important adjunct therapies.

Government program concerns

22. There is a lack of authority in statute for public programs.
23. Federally Qualified Health Centers (FQHC) "four walls policy" places additional requirements on telemedicine billing.
24. FQHC definition of service needs to include telemedicine.

25. While existing law appears to recognize these encounters as legitimate FQHC/RHC visits, there is no room for doubt on these types of issues.
26. Insufficient telemedicine reimbursement rates for Medi-Cal and Medicare.
27. Barriers in California programs hinder the delivery of telemedicine services such as; Department of Mental Health, California Department of Corrections, Workers Compensation, Rural Hospitals, Employment Development Department.
28. Employment Development Department (EDD) does not allow telemedicine for their disability exams, which would be economically viable especially for people with disabilities in rural areas.
29. The current specialty care providers are receiving unbalanced payer mix heavy in Medi-Cal patients. Those rates are so low that it is almost impossible to do business on a strictly government program model.
30. Update Medi-Cal policies to adequately reimburse for telemedicine services. While California's reimbursement policy for telemedicine services is fairly generous compared to other states, Medi-Cal policy could be improved. Medi-Cal does not reimburse for ancillary, but essential, services related to the telemedicine visit, such as setting up the equipment, coordinating and scheduling the visit, and telecommunications.
31. It is still difficult for an independent specialist to bill Medi-Cal for telemedicine services such as store and forward. Telemedicine takes longer, especially if the facility is new, and the reimbursement is the same.
32. Medi-Cal limits reimbursement to only cases with a significant barrier for service. There are significant barriers to service that are in urban areas.
33. Medicare will not reimburse unless the patient is in a rural area and they define a rural area.

Private payer policy

34. Need for private insurance expansion of coverage of telemedicine services.
35. How are administrators at the insurance level going to authorize payment for a telemedicine visit when some doctors do not understand telemedicine?

Recommendations for moving reimbursement forward

36. Policy needs to include payment to the specialists and payment to the spoke site providing patients.
37. Pay for services regardless of delivery method as long as service is appropriately documented (based on policy or criteria for documentation).
38. Mandate not only in terms of Medicare and Medicaid but all private insurances, otherwise it is like piecemeal.
39. Reimburse more for the extra effort. The preparation time needs to be compensated. A lot of work is put into a TM consultation. In order for both sites to be reimbursed for the visit a provider needs to be present on both sides of the consultation. The amount of time spent on getting all the necessary information, forms and consents faxed to the consulting site is extensive. The time spent to coordinate the two sites and patient's availability is equally challenging.

Potential Providers

Current rules are not standardized

40. There needs to be a standardization of reimbursement policy across the board.
41. Alignment of telemedicine policies is critical.

Inadequate reimbursement

42. Inadequate reimbursement to provider and specialists for telemedicine services.
43. Medi-cal reimbursement in CA is lowest (#50) in the country.
44. Increase reimbursement because it will save dollars in the long term.
45. There needs to be the ability to subsidize providers who provide telemedicine services.

Government program concerns

46. Reimbursement policy is not adequate for delivering services in underserved areas with the preponderance of Medicare/ Medi-cal patients.
47. Reimbursement at the state level for clinics is not acceptable.

48. Lack of authority in public programs.

Laws and regulations

49. California law prohibits billing for a mental health appointment and a psychiatric service in a FQHC for the same person, in the same day, at the same facility.

Government/consultant/other

Current rules are not standardized

- 50. There is a lack of understanding about current options for telemedicine billing.
- 51. Payment systems are not in communication with one another.

Inadequate reimbursement

- 52. Lack of payment for telemedicine visits. Separate payer policy needs to change to include full payment for all parties involved in providing a telemedicine encounter.
- 53. If the specialist has a private practice they have staff to pay, they cannot afford to do a consultation with a remote patient for 30 dollars, when they usually receive \$500 for delivering that service.
- 54. Reimbursement rates are lower than rates for face to face.
- 55. Payment for telemedicine services needs to be made for both the sending and receiving practitioner, and need to cover the connectivity charges.
- 56. Facility rates need to be reimbursed at an appropriate level.
- 57. To move telemedicine forward reimbursement needs to be adequate, especially for specialists. Telemedicine needs to be reimbursed at higher rates.

Payer policy

58. Academic institutions have been paying their physicians based on state and federal funding; they need privately insured telemedicine patients to be sustainable.

Government programs

59. Most of the clients that doctors see are either Medi-Cal, Medicare, or uninsured making telemedicine reimbursement more challenging.

60. CDHCS should take the initiative to clarify and improve telehealth billing policies for FQHCs and RHCs.

61. One of the benefits of being in a FQHC is that physicians get paid a little bit more to promote these centers and keep them open. One of the problems is that if the FQHC refers a patient to a specialist outside of their four walls, that rate increase does not apply to the visit. Instead the visit is reimbursed at the 30 dollar rate. Right now they are not extending the FQHC benefits outside the four walls of the facilities to a specialist which needs to happen in order to move telemedicine forward.

Current policy regulations

- 62. In HRSA funded primary care clinics, the notion of not being able to see a patient twice in one day, for example a stroke patient who is also a diabetic may need to see both a PCP and neurologist in the same day which is not refundable currently.
- 63. Philanthropies should pressure California, HHS and CDHCS to remove these long-standing policy ambiguities, and improve policy development regarding FQHCs and RHCs.

Payers/Foundations

Inadequate reimbursement

- 64. Most payment rates do not cover the bottom line cost of doing business.
- 65. The biggest policy issue is around reimbursement and bringing it up to be equivalent to at least face to face.
- 66. Presenting sites should be paid a site fee similar to the facility fee hospitals receive.
- 67. Current barrier prohibits applying for the rate increase until the technology is installed in the facility.
- 68. Regulations that specifically address telemedicine should be enabling and not disabling.
- 69. Reimbursement level is below that of face-to-face visits which poses a challenge in terms of adoption. Reimbursement should be equivalent.

Government programs

70. The Medicare, CMSP and Medi-Cal managed care programs must pay specialists an adequate fee.
71. There is push back in the Medi-Cal program on the FQHC side to continue to increase FQHC payments to incorporate technology.
72. The idea of increasing overall FQHC visit rate to incorporate electronic medical records or telehealth technologies is certainly an avenue that providers can explore.
73. There is clearly an access problem within the Medi-Cal program and for uninsured patients; the payer for the uninsured is always a question because clinics are cross subsidizing their uninsured with Medi-Cal.
74. Regulated subsidized entities (UC specialists and FQHC/RHCs) are not supported in the mainstream Medi-cal infrastructure.
75. Within government payers there is willingness to pay for telemedicine, yet programs end up stalled due to the CA budget deficit.

Vendors

Inadequate reimbursement

76. Physicians are not interested in telemedicine without an immediate pathway to payment.

Misaligned incentives for payment

77. The people paying for the visit are not the same people being paid for inpatient bed stays.

Government payers

78. The problem with Medicaid is that there are 50 different programs and Medi-Cal is only one of them.
79. Patients cannot be in a metropolitan area and there has to be a physician shortage in the area to be reimbursed by Medi-Cal.
80. About 70 % of (a particular company's) technology is implemented in an urban setting so traditional telemedicine reimbursement would never apply. Traditional Medicare reimbursement policy would not apply to their users, because the originating place needs to be designated as rural. There is a huge opportunity to impact care in a non-rural area.

Creating Adequate Payment Structures for Telemedicine

Existing Providers

Separate telemedicine should include payment structures

1. Reimburse more for telemedicine services since it is more expensive up front.
2. If the whole system is not fixed, then yes specialized structures may be needed. (e.g., Blue Cross payments based on what it costs, facilities and fees for equipment).
3. There is a need for a special payment structure because there are additional fees associated with telemedicine programs. Even though it may result in savings down the road.
4. Telemedicine needs to have a special payment structure when the services are different. It is a bad idea to have different rate codes than for face-to-face visits.
5. The cost per patient for a telemedicine encounter should include not only the visit itself, but also the cost of equipment, line charges, and a telemedicine coordinator, each of which to the cost of each telemedicine visit.
6. Facilities cannot be expected to lose money on telemedicine services. With cutbacks in Medicare and Medi-Cal there is no cushion to absorb costs of new program implementation.
7. Structure should include distinction between inpatient and outpatient in terms of payment policy.
8. Having separate payment structures will enable research: there needs to be some way to track the modifiers and identify this as a telemedicine. Data and research will identify the true usage rates of telemedicine.

No distinction should be made in payment structures

9. Payment structures should not consider the manner in which the care is delivered. There should be no distinction.
10. If the billing method is specialized, and if it adds another level of complexity to the clinic's billing method, then it will simply be overwhelming and not used.

Coding and modifiers for telemedicine

11. Coding enforcement needs to hold physicians and hospitals equally accountable given the current hierarchical culture.
12. There are methodologies in the hospital arena such as facility fees, Medicare and conductivity fees that a modifier, as an interim step, could act as a means of recognizing the additional costs without having additional codes.

Payment should include infrastructure fees

13. Money must help to make up for the inefficiencies and cost of equipment and lines.
14. Payment structures should not exclude clinically proven telehealth applications.

Potential Providers

No distinction should be made in payment structures

15. Payment structure should not consider the manner of delivery; both ends of the service need to be reimbursed.

Coding and modifiers for telemedicine

16. Examine current applications that are "accepted" that require new codes.

Payment should include infrastructure fees

17. Originating sites are in the red on a monthly basis, coming up with the money to start a telemedicine program is challenging.
18. Adding \$500 - \$700 a month for telemedicine can be a deal breaker for small clinics.

Government/consultants/other

Special payment structures should be considered

19. There already are certain “special” payment structures, such as charges for connectivity, site fees, and things of that nature.
20. Special payment approaches should be included to support expansion of telemedicine services.
21. The next steps need to be to test the reimbursement policies. Submitted claims that force the “system” to process and challenge the written policies vs. the adjudication systems.

Manner of delivery should not be considered in payment structure

22. Manner of delivery should not matter in considering payment.

Telemedicine billed at higher rate

23. Specialists consulting with a patient from a rural area should be paid at a higher rate. Physicians should be paid more for seeing someone from a rural or underserved area.

Payers/Foundations

Special payment structures for telemedicine

24. The payment structures need to stay the same until the entire system changes.
25. Normalizing the payment structure would be optimum, meaning having recognizable procedure codes, because that is what insurance companies spend billions billing out to interim companies in order to pay claims.

Manner of delivery should not be considered

26. The method of delivery should be irrelevant as long as the quality of the services is maintained.
27. Building in changes to the system is complicated and telemedicine should be paid in the same manner as any other delivery of care.
28. There should not be a set of new laws around telemedicine payment.

Vendors

Payment should include infrastructure fees

29. There should be facility fees, transmission fees, and the physician should be paid as they would normally be paid.

Separate payment structures

30. Face-to-face is always preferred; payment structures should be put in place so that the differentiation is encouraged.

Manner should not be considered

31. There should be no distinction in the way telemedicine is reimbursed because in the future people will not refer to telemedicine as anything different or out of the ordinary.

Incentives for Telemedicine

Existing Providers

Business incentives

1. The cost of technology required to do telemedicine has dropped and will continue to drop.
2. With adequate reimbursement, telemedicine will make it easier for physicians to do business.
3. Physician education vs. system education. Use of telemedicine to replace “temp” or travel burdens on physicians.
4. Programs and providers that provide or want to provide care via telemedicine need incentives to cover the additional costs of setting up programs (e.g., equipment, broadband, etc...) and running programs (coordination, broadband costs, etc.). Payers should invest in these costs as there are potential savings to payers down the road.
5. Telemedicine offers strong business incentives that people can utilize even with the current reimbursement structure for example, physicians delivering telemedicine care and consultations without concern of payment because when surgery is needed the patient will go to that doctor now that they have a relationship. Through utilizing this care model the surgeon brings in an \$800,000 dollar surgery to their hospital.
6. Telemedicine drives down that price of business and facilitates the expansion of business.

Payment incentives

7. Those benefiting from telemedicine are not the ones paying. It does not necessarily provide funds for private-not-for-profit agencies. There is a lack of support by major agencies indirectly benefiting from telemedicine/telehealth services (HSA/DDS)
8. The payment incentives are not adequate to recruit doctors and to fully pay for the remote sites.
9. The healthcare system is broken and the incentives are too scattered. Incentives are not spread over the whole system and are often not rewarded back to the area that made the savings possible.

10. There are areas of the state that are absent from philanthropies, and California is not going to equalize access to care, because it does not make financial sense.

Care incentives

11. There should be an incentive that makes telemedicine more promising for physicians to practice this way because telemedicine saves transport money and improves other inefficiencies associated with face-to-face care and visits.
12. The technology allows care to be provided in a different way that can create a more efficient system.

Potential Providers

Improving incentive recommendations

13. Telemedicine needs reimbursement to be reasonable so that specialists have an incentive to participate in government medical program reimbursement.
14. Student loan repayment programs for specialists could be an incentive for becoming a telemedicine specialist provider. One of the reasons that these specialists cannot afford to see these patients is because they owe \$300 thousand in student loans. There should be a program where for so many hours spent seeing underserved patients (not for privately insured patients) via telemedicine they should have a certain amount of their student loan paid off. A comparable program to “Teach for America”.
15. An assessment should be made of current physician incentive models.
16. Tax incentives should be in place for the clinic that purchases the equipment.

Government/consultants/other

Payment incentives

17. If the provider is associated with a FQHC, then the payment incentive is there.
18. There should be tax incentives for the clinic that purchase the equipment.

Payers/Foundations

Business incentives

19. Develop referral programs outside of normal provider network, which are able to deliver care when needed because they are going to be the transport hub when needed.

Vendors

Business incentives

20. Allow telemedicine to be used as a way to fill hospital beds. Community hospitals can never set up the system on their own, because they do not have the specialists. There is certain threshold of beds needed to make this cost-effective. They need to be networked in with a current eICU center.
21. A better way to go about it would be to set the incentives and then entrepreneurs will jump in and start doing their own thing. It will explode once the incentives are there. The incentives should be around reimbursement and there could be incentives around particular outcomes that you could achieve and the typical grant funding is not helpful in the long run.
22. Establish financial reason for physicians to be involved in the telemedicine.

Care incentives

23. Look at what the benefit is on the far end for the patient.
24. Telemedicine helps to reduce the length of a hospital stay for patients.

II. Developing Sustainable and Cost Effective Telemedicine Business Models

Sustainable Business Models and Pilot Programs

Existing Providers

Cost-effective data, evidence, and transparency

1. There needs to be clear broad-based and well-publicized evidence of the cost-effectiveness and the quality of care achieved through telemedicine.
2. Buy-in from all sectors of state government and communities to build on that evidence to deploy telemedicine widely.
3. Data on outcomes of telemedicine services and programs need to be known and publicized.
4. Well publicize ROI models.
5. Publize hidden benefits and costs of doing telemedicine publicized.
6. The reality is that the people in CA that crunch the numbers care about budgets; they care about the bottom line.
7. There is a lack of clear evidence of telemedicine's cost-effectiveness, while improving health care.
8. There needs to be a framework to ensure that rural clinic allocated funds stay in that area and work to develop that model to ensure how to use this and to boost their revenue and boost the number of patients that they see and make themselves more sustainable.

Planning and incorporation of strategic goals

9. Having a well thought out plan is critical to sustaining a telemedicine program.
10. Patients who utilize telemedicine the most are the ones with poor or no insurance.
11. Current unattainable goals for new programs are being set.
12. A challenge is that there is a narrow application of telemedicine in terms of normal practice.
13. Align telehealth with the organization strategic goals and initiatives.

14. Telemedicine programs should be tied to the organizations, and not the expert physicians, to create suitability.
15. Models need to be developed that take advantage of the technology and provide care more efficiently with primary care physicians.
16. Layering technology on top of a broken system is not going to work.
17. All plans should include some element of risk assessment and mitigation.
18. Advocate for policies, rules, regulations and laws (regarding reimbursement) that allow providers to implement programs that can be sustained from income generated by those programs.
19. Continued funding for training and retention of site coordinators should be accounted for.

Demonstration projects and pilot studies

20. Piloting an innovative approach to funding and incorporating technologies in with the current flow of the dollars that come into the state, maybe through a Medicare waiver.
21. Having pilot projects demonstrating return on payer investment would be hugely beneficial.
22. Partnering with providers and other stakeholders to identify and test restructured payment systems to fully account for telehealth applications.
23. Specialists out doing this in the real world are faced with questions that need answers. These pilot programs can help people understand the questions and develop policy to answer them.

Rural site issues

24. Finding developed remote sites to partner with is a challenge.

Potential Providers

Cost-effective data, evidence, and transparency

25. The lack of knowledge of the application and the costs and how to finance that cost is a major challenge in optimizing telemedicine.

Demonstration programs and pilot studies

26. An agency should make the decision as to whether or not it is better from a business standpoint to send the nurses door to door or to have them monitor remotely. It becomes a business model.
27. Philanthropy should demonstrate cost-effectiveness

Government/consultant/other

Cost-effective data, evidence, and transparency

28. Lack of sustainable business models on how to incorporate telemedicine into the regular operations of the practices.
29. Lack of sustainable business model and too much dependence on grants.
30. Cost-effective strategies to enable gaining revenue and seeing profits come in from this because most programs are not profitable for 2-3 years.
31. Piloting and presenting the results to payers is a persuasive way to approach health plans for their support.

Planning and incorporation of strategic goals

32. Align with strategic vision of the administrators at the top level.
33. Identify gaps in specific services, gaps in access or quality or areas that are extraordinarily expensive where using remote medicine could improve. Then look for ways to promote pilots, this technology could really help out.

Payers/Foundations

Cost-effective data, evidence, and transparency

34. Need for cost analysis.
35. Payers are not in the venture capital business and need demonstration of demonstrable merit.

36. Data gaps are a big challenge is that a lot of the areas (specialty access for example), is that working in an environment where good data is not available for which to build a good business case.

37. Lack of metrics.

38. Demonstrate the value whether it is access improvement or lowering costs.

39. Need for gathering information to ensure both qualitative and quantitative data.

Planning and incorporation of strategic goals

40. Telemedicine is part of the cost of doing business and should be included in a business plan.

41. Sustainability and thoughtfulness are imperative to creating a sustainable business model.

42. There are many projects that will not sustain without a grant and payers are trying not to support projects that are not sustained due to lack of up front work being done to figure out how to incorporate it into on-going practice.

What health plans are looking for in new delivery care models

43. The highest point of priority in a health plan is a trifecta where if a new program has specific application which allows for the improvement of access to care, improvement in quality of care, and lowering of cost of the care.

44. People are agnostic about the technology, but what they really care about in the purchasing community or the payers is the specific procedure where people are able to gain better access, better quality, and lower cost (note: outreach and demonstration of value, the trifecta).

45. There is a solid business case for why Blue Cross makes payments, they want the rural counties and those networks, and they get enough business by being in those counties to profitably pay incentive fees for telemedicine providers.

46. The goal for these projects is to make some upfront investment and capital that the safety net providers are not prepared or able to make. Over the course of the project, payers are helping to bring resources to help providers create a sustainability model. Going into telemedicine there has to be a hypothesis on what that model might be. They have to be willing to make the organizational and staffing changes and the budget and process changes to sustain this.
47. Meet the strategic goals for investment on the part of the payer. Payer foundations do almost all strategic and responsive grant making. Almost all grant funding is made with a strategic goal in place.
48. Meet payer objectives, and measurable goals in each of those objectives.
49. Commercial plans are looking for a demonstration of some kind of return or value.

Demonstration programs and pilot studies

50. Early money in programs should be spent on demonstration studies to show the quality and the cost.
51. Payers never make an investment where there is not a sustainability plan. Payers may be doing a pilot where the sustainability piece has not been figured out yet, or they may be doing a project where our investment is for equipment that they do not expect a return on but payers do expect that the clinic to be able to operate the program on its own over time.
52. Patients are getting access to care where they normally do not have access, there are added costs as a result of this and then the ability to demonstrate saving costs down the road is a longitudinal process because there had not been a lot of evaluating done.
53. Telemedicine should be marketed to health plans by pilots that demonstrate telemedicine does a better job at lowering costs.
54. One way that telemedicine might be able to be lodged to a higher stature would be to have demonstration and pilot projects to show the value and effectiveness to health plans so that they would be in a better position to put that in their health plan.
55. Communities need to determine potential advantages telemedicine offers. Where the needs are that telemedicine can fill, the gaps that telemedicine can fill. Need to pick and focus their efforts.

Vendors

Planning and incorporation of strategic goals

56. Telemedicine needs to be included in provider's operating costs just like IT budgets. When it is not built into an organization's strategic plan and the seed money runs out, everything gets pushed into the corner.
57. Telemedicine needs business case justification to get healthcare organizations to want to utilize telemedicine.
58. Work telemedicine into the strategic goals of the organization.

Initial project funding

59. Financial return on investment for the physician and the person who purchases the equipment is absolutely critical.
60. Telemedicine helps in reducing the length of a hospital stay.
61. Using telemedicine can reduce the number of inpatients and bed-stays which is actually bad for the hospital.
62. Telemedicine can aide in retaining physicians because they are able to consult with other specialists at remote sites for guidance and input when approached with a complex case.
63. Traditional telemedicine has been a largely academic endeavor that has been grant supported around what the possibilities are but not around how the business model works.

Initial Project Funding and Capitol Investment

Existing Providers

Grant funding support

1. The problem with grant funded programs is that when the grant runs out, the program can not support itself. Telemedicine is not a money maker and when the money runs out the equipment is shoved into the corner.
2. Large institutions are not willing to start something based on grant funding.
3. Grant funding given to UCs can be used to support the private-public partnerships. Need to think outside of the box in terms of grant funding.
4. Programs need longitudinal money to sustain themselves. Many programs still need the grant to build up infrastructure. That is all the grant is, support for program start up.
5. Provide ongoing cost reimbursement and not just grant money for one-time equipment purchasing.
6. Grant partnerships are necessary between both urban & rural regions.
7. Business justification is rarely involved grant based programs.

Government funding

8. There should be potential statewide incentives either financial or grants support, that relieve some of the costs of implementing, expanding or sustaining current programs, facilitating new programs or piggy backing on programs that are already there, and have the state fund it.
9. Move money around: Department of Corrections is saving minimally \$5 million a year by using telemedicine. Use the money saved by the Department of Corrections to build new medical facilities and expand telemedicine.
10. The federal government can take some of the wasted dollars given away to Iraq for reconstruction (that can never be accounted for) and develop our own infrastructure to take care of our own poor and needy.

Absorbing the cost

11. Telemedicine is a more expensive way to provide care in some cases and the rural sites have to absorb those costs.

Partnerships

12. Recommend for public-private partnership, angel investors and getting this in the planning process.
13. Combination of private and public dollars to develop demonstrations so foundations will buy into telemedicine. There is a role for private foundations to help demonstrate in the short term, but in the long run it should be the healthcare payers.
14. Community partnerships that focus on critical needs is a good way to start up funding for telemedicine programs.
15. Funding pools to pay for telemedicine development.
16. Small hospital and local business partnerships, community leaders may be willing to support new specialty programs (such as the chamber of commerce, or the county commissioners).
17. Various sources of funding to build constituent groups.
18. Pursue joint ventures such as housing, hospitals, nursing homes
19. More public and private partnerships to support initial finances for equipment.
20. Partnerships need involvement of business, community, insurance, and lobbyists.
21. Clinics in the area should pull resources to seek and attract specialist together.

Private investors

22. In terms of profits that can be gained by selling this technology, it is not just in the public sector, but the private sector as well. Leveraging the thread of involvement that has already begun, the separate efforts must come together.
23. There are affiliated things, like router providers, like Cisco who will benefit as well. There has been transportation funding programs for organizations that promote telecommuting. There is a real incentive and focus right now on getting cars off the road.
24. Green healthcare is another area to pay attention to.

Provider self support

25. Funding and support needs to come directly from the organizations, institutions, and providers who are providing these services.

Potential Providers

Grant funding support

26. Grants are ideal for start up funding.
27. Lack of capital for investment for start up programs is the challenge in telemedicine.
28. Federal or State grants should provide funding for start up programs.

Partnerships

29. There should be a monthly fee for telemedicine. Develop a program that allows providers to subscribe (for a monthly fee) to a service that would connect them with service providers that handle the equipment and the connection. This would allow for a smaller initial investment.
30. Public and private payers of health care should partner in program investment.
31. Funding should come from a public and private partnerships,

Private investors

32. Equipment vendors need to help with the funding since they will benefit in the long run.
33. Private payers should fund start up programs.
34. Telecommunications providers will benefit and should contribute.
35. Sustainability of this should come from a public and private partnership, and angel investors should be looked into, then it can move to the payers.

Government/consultants/other

Grant funding support

36. Project funding should be grant funded and supported by federal infrastructure investments.

Partnerships

37. A mixed method should be instituted for initial program funding such as a mixture of grants, reimbursement, and sustainable business modeling for the long term.
38. There should be matching funds between spoke and hub sites.

Providers should fund programs themselves

39. There should be pay as you go programs to advance the development of telemedicine.
40. The ideal would be that a clinic could afford to implement a program on their own without outside aide. This way they would be sure to sustain the program and make it an organizational goal.
41. Ownership should be on the side of the clinic so that they have the skin in the game.

Payers/Foundations

Providers should fund programs themselves

42. Early intervention can save money down the road.
43. Even if all the foundations contributed, this would not cover the cost.
44. Clinics, which are skittish about making investments in the first place, typically do not have the financial structure or source of funds for making the major capital expansion to pay for the technology.
45. Foundation dollars can do a lot of great things such as raising awareness, supporting education and advocacy of issues, and program development. As far as being able to pay for this in the long run, foundations dollars will not be able to provide that. It is a never ending amount of money that would need to be poured into it and healthcare access is only one part of what foundations try and do.

Government funding

46. Take a policy approach to gain government dollars
47. Getting government funding will create a lot more momentum.

Grant funding support

48. Start up grants are good for trying something out and one of the challenges is after you pull this together, down the road there is an expectation that the public sector will pick it up, but that does not happen.

Partnerships

49. Funding should come from multiple sources. Eventually public and private partnership, the state should provide money as well as foundations to coordinate the effort to move telemedicine along state wide.

Vendors

Grant funding support

50. The traditional answer here would be to provide some kind of grant funding to get programs off the ground or to provide infrastructure for rural telephonic systems. The bottom line is that not all those are sustainable programs.

III. Incorporating Telemedicine into Mainstream Delivery Models

Gaining Medical Acceptance

Existing Providers

Provider and patient buy-in

1. Establishment of patient/client relationship is difficult without personal contact.
2. Lack of real commitment to the case by the telehealth provider.
3. Establishing a shifting paradigm, and new fundamental way of doing medicine for the whole industry.
4. Cultural change needed in medicine and communities is required for adoption of these new technologies.
5. Barriers associated with implementing new process are significant.
6. Telemedicine requires changing the way providers conduct their everyday business, and people resist change.
7. Organizational changes. Practice incorporating new processes and a new way of delivering the services, if the provider is not doing this frequently or in high volumes, it will be difficult for people to change the everyday way of conducting business.
8. Gaining patient acceptance is difficult.
9. There is a poor understanding of what it takes to successfully operate telemedicine.
10. There should be a way to get physicians to refer patients and get people to use the service.
11. Establishment of relationships between specialists and primary care sites.
12. Misconception by many healthcare providers that they are already providing good care, so no change is needed.
13. The older generation of care providers does not understand or embrace computerized technology.
14. It takes 17 years on average for research to translate to change in care.

15. Healthcare is an industry, and we are not leaders at adopting IT. We are living in an environment that does not like it, and when you couple it with reimbursement. These are hard programs to install and run.
16. Changing the culture will take a long time. Opening markets, various entrepreneurs will solve most of the other problems. If the old doctors don't want to it, we can say that's fine, but we need to change the outlook and that will take time.
17. There is insufficient participation of key players to promote telemedicine to influential and participating sites.
18. There needs to be a cultural change in medicine.

Telemedicine perceived as competition

19. Community physicians cannot be threatened, they have to feel comfortable by this and they cannot feel that you are going to take their business away. Help them understand that telemedicine can help offset the excess of patient needs so that these providers can focus on the patients that they already have.
20. Providers in the community should not look at telemedicine as something to take away their business, but as a way to build a strong network.

Payer buy-in

21. There needs to be full acceptance of telemedicine as an alternative to face-to-face.
22. Insurance companies must recognize that "real time" telemedicine consults are to be treated just as traditional office visits. There has been difficulty in obtaining authorization for telemedicine consults.

Telemedicine as a trend

23. The current misconception is that telemedicine is a hobby; people are saying "this is great, but can you do this on the side until telemedicine becomes a specialty?"
24. This field is not going to change until telemedicine is established as a specialty.

Potential Providers

Provider and patient buy-in

25. Telemedicine is a good tool but should not replace hands-on in-person care.
26. The lack of enthusiasm within specialty communities and the resistance of emergency medicine personnel need to be overcome.
27. The comfort level with technology for both patients and providers needs to be established.
28. Promoting regular use of telemedicine to establish expertise with the medium and develop confidence about the role telemedicine can play to meet local patient needs.
29. Business practice changes in medical offices to reinforce the role of telemedicine.
30. Incorporating telemedicine into the provider's everyday process for delivering medical care.
31. Narrow perspective regarding what telemedicine can be used for.
32. Employer involvement with "healthcare" advocates, who utilize and support telemedicine as part of the employee care structure.
33. Telemedicine eliminates the personal touch. Communicating with the patient by video, results in missed queues.

Government/consultants/other

Provider and patient buy-in

34. Telemedicine is so effective that not as many nurses will be needed. This will cause a real concern and push back.

Payers/Foundations

Provider and patient buy-in

35. Changing the delivery system and adoption among the provider community will be an obstacle.
36. Changing patient standards of care is difficult to achieve.

37. Payers have been slow to embrace and normalize telemedicine as a service delivery model for member care.
38. Need for physician community endorsement.
39. Changing the delivery system and adoption among the provider community.

Vendors

Changing paradigm of care

40. Customers and physicians perceive having to change processes and procedures as a burden.
41. Most hospitals do not think about the fact that if a physician were at the bedside more often it would reduce the amount of time they are in the hospital.
42. Teach the customers that telemedicine is a new way to think about delivery of care; they will see the value in exploring a new technology.
43. Typical hospitals have limited interests in telemedicine programs.

Education, Marketing, and Creating Consumer Demand

Existing Providers

More information needed

1. Need for additional knowledge and consensus on best or acceptable practice (e.g., who needs to be in the room with patient and under what conditions).
2. Lack of understanding of what telemedicine is and means.
3. Create more education and community awareness.

Marketing and outreach

4. Advertising is needed to sell telemedicine. Marketing to show benefit of telemedicine, the cost savings, and how it provides more timely access to care. Targeted to elderly population.
5. Give telemedicine a higher profile at the hospitals and clinics.
6. Promote telemedicine as an economic issue of keeping not only patients in the community but also health care dollars.

Engagement and collaboration

7. Network between local health care providers and the schools for the purposes of collaborating on health careers development, telemedicine, tele-education and healthy lifestyles outreach.
8. Create collaborative networks and pull resources to drive demand. Look at how providers can partner with other entities of interests. Rural community clinics have multiple competitors and they have the same shortages. If all the sites were connected they could pull together their resources to invest in equipment.
9. Utilizing telemedicine for support groups and community meetings.
10. Conduct formal community needs assessment to develop community need for telemedicine services. This is a way to achieve community empowerment.

Promotion of benefits of telemedicine

11. Telemedicine is preventative medicine.
12. Studies have shown that telemedicine helps to keep dollars in the local community by keeping healthcare local.

13. Telemedicine makes specialists available to patients who would otherwise not have access.
14. From a patient care standpoint, it provides badly needed access to health care.
15. In rural counties it is pivotal and the answer to infrastructure.
16. Telemedicine provides considerable access, and economic development. Telemedicine makes it possible to have a specialist come into the community without having to travel. Physicians can live anywhere in the state and provide care via telemedicine.
17. The work has saved lives of gravely ill children, and some of them have sparked the attention of the UC Regents and the Governor's Office.
18. Telemedicine provides access to lower income families that would have never been able to get this type of care without us.
19. Telemedicine continues to provide alternatives to many.
20. It has decreased the number of psychiatric emergencies.
21. Telemedicine has allowed hospitals to take care of more complex patients in their own hospital.
22. Telemedicine provides support for stabilization of patients that needed to be transferred.
23. Obtain telehealth support for LVN to RN education programs in communities.
24. Telemedicine has dramatically improved care delivery on the contracts that we serve.
25. Attending nurses now have access to advice on the best way provide care in an emergency situations.
26. Pediatric physicians and the patients that are taking ADD medication have caused serious situations that have evolved in schools and the psychologist were recommended to talk to someone.
27. Telemedicine enables flexibility in medical systems such as email and talk.
28. Telemedicine prevents the misuse of medication.

29. Telemedicine creates a better relationship between remote and local specialists.
30. Telemedicine provides communities with an opportunity for some patients to see a specialist they could no otherwise travel to see due to high cost of travel these days.
31. Telemedicine prevents families from having to travel and that makes a difference to those families especially in the wake of health difficulties.
32. Harness those transportation costs in not having to bring inmates from the prison to an outside facility.
33. Public safety benefits in terms of remote care for inmates.
34. There are global warming implications: carbon foot print reduction from telemedicine.
35. For prisons, telemedicine increases public safety, provides more timely access to care, and saves the taxpayers money because correctional officers do not have to transport prisoners.
36. Utilizing telemedicine will save taxpayer dollars.

Potential Providers

Education

37. Expanding the knowledge base on the part of providers and consumers.
38. Convinced of the benefits, savings, and efficient delivery.
39. Making telemedicine a priority.
40. Open house idea to better inform public on how telemedicine can leverage expertise in healthcare. Visit a local telemedicine program.

Marketing and outreach

41. Capitalize on the “heart tug,” and leverage or capitalize on the savings generated from telemedicine.
42. Reach out to environmental groups that may be interested in providing funding based on the positive effect telemedicine has on the environment.
43. Share the real stories and document the outcomes made possible in the lives of telemedicine recipients. Show how lives

are made better, and how people are able to cope due to telemedicine. Use burden of disease research to help measure the quality of keeping people out of hospitals.

44. In many ways this is like a marketing campaign. Keep it in simple terms. Do not add to the confusion. Get the doctors and health care professionals on board, and spread the word with the broader community.

Engagement and collaboration

45. Bring education stakeholders into the conversation to figure out how to leverage the resources of that system, (e.g., High Speed Network, California Teachers Association, California School Boards Association, etc).
46. Identify key agencies that ‘control’ funding and provide/lack support in the use of telemedicine services.
47. Create a link between county health care and school districts via telemedicine. Create a strong dialogue within the community and get more people involved. Integration of communities, schools, and county health has worked very well in the past for generating interest. Schools can help involve parents and grandparents.
48. Get stakeholders to coordinate at an entirely new level to gain the advantage of FCC and Prop 1D.

Promotion of benefits of telemedicine

49. Increases productivity. A telemedicine nurse may be able to monitor 20 patients rather than travel to see only five.
50. Promote the increased productivity of someone who is using remote technology vs. someone going door to door and has downtime in between and so on.
51. Improves access to care. Promote this benefit to state agencies and programs devoted to disabilities and things resulting from the lack of access to quality healthcare and begin pushing insurance companies to stop charging more to be preventative.

Government/consultants/other

Education

52. Lack of patient awareness of the potential of telemedicine, which makes creating demand impossible.

Marketing and outreach

53. CTEC may want to publish an article in the Wall Street Journal, Forbes or Wired magazines to educate stakeholders and angel investors.
54. Use a “pull” marketing approach and celebrate accomplishments and milestones.
55. Keep the technology aspects muted and the service aspects magnified.

Promotion of benefits of telemedicine

56. Telemedicine saves lives.
57. Telemedicine has the potential to do amazing things in emergency situation.
58. Telemedicine has the potential to generate a higher quality to life.
59. Telemedicine provides the day to day comfort of knowing that it is ok to live in secluded areas and not have to worry about getting access to health care.
60. Telemedicine is extremely important to the elderly populations because they can stay where they want to be even as they age and their medical demands grow.
61. Telemedicine allows people to have more freedom in their living situations.

Payers/Foundations

Education

62. People should be educated and made aware that this is a possible mode of getting healthcare. If it is not accessible to them because they cannot pay for it themselves or their insurance does not cover it, there should be advocacy groups and policy groups to help raise attention for this and get legislation passed and redirect funding toward telemedicine. Consumers will use this.
63. The average consumer does not know the possibilities of telemedicine are available.
64. Educate providers to make them more willing to engage in utilizing the technology and getting people to learn it and trust it.
65. In some community’s, awareness of the possibilities of a telemedicine visit are low. The technological advances should be mentioned.

Marketing and outreach

66. Sell the value and benefit of telemedicine technology.
67. There is a need for telemedicine marketing to overcome the significant barrier of people being reluctant to change.
68. There is a lack of the necessary resources needed to market the product.
69. The challenge in marketing is thinking about the incredible value of telemedicine technologies, particularly in a primary care setting, while also thinking about what comes along with that, such as:
 - The additional work.
 - The necessity of really thinking carefully about incorporating these technologies into workflow.
70. There is a need to focus on the organizational perspective: how you keep staff members trained to handle the new tasks, and if necessary, how you re-allocate time amongst the staff.

Create consumer demand for telemedicine

71. There is a need to create a public and community demand for telemedicine.
72. Spread the word and get other people engaged and willing to speak to others about the value they have derived from something.

Vendors

Education

73. One of the important things is education. Small clinics want to keep their clinicians and their practice going, they have to send people away for CME services which take away from their business. If they could use telemedicine to conduct CME it would drive the use of telemedicine by creating efficiency.
74. The more knowledge the customer has and the more information that the patient and the patient’s family have about the services
75. Educate to overcome misconceptions. The infrastructure allows providers to carry out day to day business it just so happens we are providing this remotely.

Finding Ways to Attract Medical Specialists

Existing Providers

Lack of specialists

1. There is a lack of availability of specialists willing to engage in telemedicine.
2. In telepsychiatry the reimbursement is not an issue instead it is inability to find specialists.
3. There are not enough specialists that are able to see low income patients.
4. Lack of specialist availability and willingness to consult.
5. Lack of availability of physicians willing to consult for Medicare/Medi-Cal patients.
6. Access to specialists via walk-in and virtual delivery.
7. Small rural hospital that cannot get the attention of service providers that provide telemedicine services, which comes back to business and reimbursement model.
8. Low income patients having the insurance required to see a specialist.

Lack of support staff

9. Availability of healthcare providers to support telemedicine services.
10. Medical staff (RN, PA, NP) shortage in general in the medical system.

Specialists are oversubscribed

11. Prioritizing oversubscribed specialty caseload.
12. Medi-Cal and patient load of specialists (oversubscribed).

Rural barriers

13. Inability of rural locations to coordinate needs to general volume which would assist in attracting providers.
14. The availability of specialists with telemedicine equipment needs to be addressed.
15. Set up mechanisms to enable the sharing of resources between communities, and provide access to other areas and the specialties that they have.

Coordination

16. There needs to be a program that matches providers (consultants) with patient needs and services.
17. Coordinate specialist scheduling.
18. CTEC should be the hub to coordinate.

Look to non-traditional specialist providers

19. Potential untapped populations of specialists who are retired, on maternity leave, or are stay at home mothers.
20. Finding specialists who are comfortable working (equipment delivery).
21. Need for an hourly rate. Because there are lot of doctors that prefer flexible hours (shorter work days) or physicians that work part-time from home.
22. Untapped specialist populations: biggest barrier is remote locations and it is not even rural based we are offering to do things in ER rooms as well and provide psychiatric consults.

Promote benefits to attract specialists

23. Telemedicine providers can cover 10 clinics using telemedicine rather than sending a temp out there. It is unclear that people have built all the models and tap into physician time that is not available in face to face.

Potential Providers

Lack of specialists

24. Insufficient number of available telemedicine providers.
25. Finding providers willing to be utilized at times convenient to clients.

Specialists are oversubscribed

26. Overenrolled providers do not have the capacity to provide anymore care.
27. Telemedicine is a way to get care to people in remote areas, if the care is not available to provide them, whether they can get to it or not, that's the underlying problem.

28. Over subscribed specialists, caseload is too big there is no incentive for providers to take on more.

Rural barriers

29. In remote areas there are shortages of provider's. Telemedicine can create a mechanism for care, but it cannot create the care.

Coordination

30. Develop a way to connect into information regarding specialist availability, location, schedules, and contacts.

Consultants/Other

Lack of specialists

31. There are difficulties in finding specialist who are:
- Willing to provide care to low income patients (i.e. Medi-Cal patients).
 - Willing to embrace the technology.
 - Available for consultation.
32. There is an inability to access physicians outside of our state lines.
33. There is a shortage of specialists regardless of telemedicine so it depends on who is available to provide these services, if there is no incentive for them to do this why would they if they already have preexisting caseloads.

Payers/Foundations

Lack of specialists

34. Providers available to provide consultations to scale so that providers in medical offices can easily call on services.
35. Create initial expertise in the medical office.

Incorporating Telemedicine Technology and Infrastructure

Existing Providers

Technology funding

1. Maintenance system funding needs to be kept in mind.
2. The smaller communities need help funding and sustaining their infrastructure, their network and their access. Both in rural and urban areas, a lot of these urban facilities do not have adequate infrastructure in place.
3. Funding mechanism for the clerical, supportive services, education, follow up that wrap-around the clinical encounter.

Technology uses

4. There is a lack of equipment and network infrastructure to start telemedicine programs.
5. There is a lack of secure access between different medical institutions.
6. There is a lack of robust networks to connect in a secure fashion between institutions that have thought of themselves as competitors.
7. Telemedicine technology does give providers access to reach out to people from wherever they are.
8. State of California emergency response uses video communication in fire response.

Technology support and operationalizing

9. There are challenges associated with hospital IT departments: financial side, process side and the selling side.
10. Most doctors today are not entrepreneurial, physicians just want to walk in sit down and do their job and get their check.

Technology reliability

11. Reliability of equipment is a huge issue in the medical industry.
12. Technology needs to be user friendly and increase efficiency of end user.
13. Make the technology easier to use. We need to integrate the technology into the workflow of physicians more easily, make things easier for the physician.

Connectivity issues associated with telemedicine infrastructure

14. AT&T and other landline service providers have a certain responsibility for some level of communication out there but that level is saturated and it would take millions of dollars to take it to the next step. They would not get their money back.
15. There are challenges based off the public internet.
16. There is no capacity to implement a high-speed bandwidth connection, no financial incentives to do so since we are the only customer.
17. There are broadband limitations and access limitations for rural areas.
18. High speed connectivity between hospital, clinics and doctors.
19. Last mile connectivity issues can be the most expensive.
20. There is a lack of standardized equipment and means of delivery (e.g., internet, t-1 lines, etc).
21. Connection and infrastructure is difficult to obtain.
22. Any communication provider needs to have a business model that can provide the communication to the location.
23. Government has mandated that there is bandwidth in schools, however there are no video capabilities.
24. No cell phone coverage out there because cellular service companies say that they won't make their money back by putting service out there. There are not enough customers.
25. Telecommunication service providers need a business model/incentives/reason to provide services and infrastructure and bandwidth (sufficient for telemedicine) to rural and underserved areas.
26. Even in urban areas technology and bandwidth availability is unclear.
27. Placing the necessary equipment so that people in rural areas can connect and establish broadband capacity.

Technology uses and support

28. The difference between conducting a consultation using Skype versus a video conferencing unit.
29. Software applications need to use a common language and have better interface capabilities.
30. Critical mass of patients when you are small and rural it is difficult to fill up an hour or two with enough patients.
31. Incorporation of technology. The physician needs to be able to just walk into a telemedicine session with everything ready for them.
32. Clinics have out-of-date technology and until that is fully established this is challenging
33. There are technical difficulties and equipment upgrades.
34. Rapidly changing technology - what is purchased one day may be out of date when implemented.
35. Lack of IT expertise at many rural and underserved locations using telemedicine.
36. Not enough personnel to assist with project expansion; lack of funds for extra staff.
37. Commitment from the sites to incorporate it and foster a successful coordinator.
38. Clinics do not run well without a trained and dedicated telemedicine coordinator.
39. Preparation for the consult may be labor intensive for the site coordinator.
40. The equipment does not fix the whole system. Providers will still have a staff shortage and will have to find solutions to work more efficiently with telemedicine. Telemedicine is not the fix all.
41. Recruit employees and physicians that are technologically friendly.
42. Staff sharing between providers within a community, sharing at a distance.
43. Centralized scheduling of doctors, specialists (when, where, a dispatch service).
44. Keeping that knowledge within the organization rather than that champion, separate from the technology.

Potential Providers

Funding for technology and infrastructure

45. Financing IT equipment, support and staff training.
46. Lack of funding to develop the infrastructure and support the technology providers.
47. There should be a utility tax, like the TUI for telephone service for persons with disabilities. The infrastructure is something that all Californians should support.
48. Angel investors to help support the technology. Look at Apple and Yahoo because they have funding programs in place.
49. The lack of funding for the coordinator position, and its not the clinician, it is the person that makes the clinician able to get in the room, and that piece the education support is under funded.

Technology uses and support

50. The evolution of telemedicine is evolving so rapidly that it may look totally different in the future.
51. Dual use of the technology for schools and clinical functions, identify the ways that the schools can use the technology for educational purposes.
52. Incorporate telemedicine training on technology into medical school curriculum.

Recommendations

53. Multiple uses of telecommunication capacity for telehealth, school and education.
54. Interface and leverage existing systems to create some economies of scale and leveraging existing networks.
55. Leverage benefits of the technology that help create more efficient business. There are other ways that employers can use the technology, the employer can spend less time at work.

Staffing and personnel

56. A funding mechanism for the clerical support, the educational follow up, and services that wrap around the clinic encounter.
57. The time required by primary care clinicians to use telemedicine is considerably more than if the patient went to the specialist's office.

Consultants/Other

Funding for technology and infrastructure

- 58. Need for financing to sustain infrastructure and maintenance of service.
- 59. Fear that the community clinic system, even if they get the computers and hardware they cannot sustain the maintenance.

Connectivity issues associated with telemedicine infrastructure

- 60. The prohibiting connectivity and equipment expenses.
- 61. The connectivity and equipment hook up expenses can be prohibiting.

Recommendations

- 62. Interoperability with electronic medical records.
- 63. Need for a faster adoption of digital technologies by physicians, and hospitals.

Payers/Foundations

Funding for technology and infrastructure

- 64. Maintenance programs for the equipment.
- 65. Foundations would not necessarily be the ones to support technology.

Technology uses and support

- 66. Need for up-to-date equipment.
- 67. Until providers have electronic health records technology will not be fully utilized.
- 68. Electronic solution into a paper environment and difficult to optimize.
- 69. Hard to demonstrate that this saves money until it is a more technology enabled environment.
- 70. Telemedicine creates a need for scheduling on two ends.
- 71. Need to identify individual technical assistants to assist providers and provide peer technical assistance personnel to train providers on best practices and get them past the initial humps.

- 72. Train new staff to address regular turnover of office personnel; and apply the telemedicine function (i.e. the technical/connectivity aspect) of office staff so that medical practitioners can focus solely on delivering medical care through the medium.

Vendors

Technology uses and support

- 73. Barriers that are associated with implementing a new technological process are significant.
- 74. Integrate the technology into the workflow of physicians more easily.
- 75. Multiple uses for technology make things easier for the physician.
- 76. Program development, including medical talent embracing technology, provisioning time and effort.
- 77. There are medical devices out there like surgical robots that do not require additional staff.
- 78. Providers are able to buy equipment but they are not able to staff it in the traditional way with IT and nurses.
- 79. Vendor services are going to reduce the costs for these communities to have access to specialties. Vendors have support services so that the provider does not have to hire technical support to implement this technology and support staff to take care of the logistics.

Connectivity issues associated with telemedicine infrastructure

- 80. Connect the opportunities that are presented through telemedicine technology to financial benefits and show them comprehensively and aggressively.

Technology reliability

- 81. It is impossible to start a program with any technology that is not 98+% reliable and effective because it will lose the support of the physicians and they will never use it.
- 82. User friendly nature of the more traditional things on the market (lack of autonomy).
- 83. Lack of reliability of equipment.

Incorporations into Everyday Business

Existing Providers

Medical system challenges

1. Medical systems are intertwined including the clinical, operational, and technical components.
2. Providing care to those not proficient in English because California law states that a translator must be present.

Liability concerns

3. Malpractice insurance carriers do not understand or cover telemedicine.
4. Responsibility should be spread out. Sharing of failure/mistakes in medicine, needs to be shared in and between communities.
5. Liability issues of sharing patients in general would apply to telemedicine, rules that prohibit more than one provider providing care to the same patient.

Credentialed and licensing

6. The credentialing process needs to be streamlined into one application. Currently it is a monster job for the physician and it is not worth it to the doctor because there are so many costs associated with this.
7. Not enough California licensed clinicians and difficulty in getting a CA license.
8. Streamline credentialing and state boundaries licensures.
9. There is a barrier associated with practicing in multiple hospitals. There are the sub providers within the big payer organizations like Blue Cross. Each sub provider has a different set of credentialing processes that causes a hassle in having different to this multiple times.
10. California licensing has been a significant barrier. Privileging for every agency slows down implementation.
11. Credentialing and licensing should be streamlined. Blue Cross and other health plans need to get past that hurdle.
12. Credential and privileging is a big issue. It takes months to obtain credentials in additional hospitals.

13. In terms of the primary responsibility and obligation for diagnosing and exposure comes down to privileges. This is an issue with a provider doing telemedicine with a patient that is not in their hospital. Provisional privileges or conditional privileges in some case do not seem insurmountable but are certainly something that needs to be addressed.

Potential Providers

Medical system challenges

14. How telehealth encounters are documented, where the medical record lives, and how visit has to be integrated into systems of care.
15. Make telemedicine a priority within organizations.

Liability concerns

16. Lack of case studies and precedent to determine liability solutions.
17. Telehealth does theoretically allow for 24 hour patient monitoring, yet that has the potential to expand liability.
18. Waive the liability of person selling the equipment.
19. There are questions of who would be responsible if something were to go wrong.
20. A school secretary would be liable even though the RN is on the other end.
21. Many specialists are concerned about the liability of practicing this way. Insurers should have a policy for telemedicine liability which would be great for making sure providers are covered to practice this way.

Government/consultants/other

Medical system challenges

22. Providers have to be careful that they have a certain number of face to face visits for their own financial liability, because telemedicine is not a money maker up front.

Credentialed and licensing

23. State licensing restrictions are an issue in optimizing telemedicine. It is doubtful that they could ever be removed but we might start off with agreements with bordering states and that would significantly open up the liability.

Payers/Foundations

Medical system challenges

24. It is a matter of finding the really good ideas and the good applications that could improve care and then being able to rapidly disseminate those good ideas across communities of care.
25. Think about how providers will introduce this technology and how it will impact workflow.
26. Regulations that specifically address telemedicine should be enabling not disabling.
27. There are issues around scope and service and limitations about what a medical professional can do and or needs to do, have the potential to inhibit this technology.
28. Surprised that the retinal scan folks are able to have an unlicensed person administering the exam. If it is safe and effective than that is great but that has a scope of service caution written all over it and there needs to be someone (and this is the role of government) to make sure that it is important to modify the scope of service or keep it in place and say no we need a medical profession to protect consumers and patients. These new applications will raise those issues.

Vendors

Credentialed and licensing

29. Credential and privileging is a big issue because providers with credentials and privileges in one hospital can walk to another hospital down the street and will have to go through the whole process again.
30. Licensing isn't that big of an issue. If people are really worried about this issue, providers should simply pay the \$600 and get a license in another state for a year.
31. Need standardization of credential and privileging to better enable telemedicine.

Best Practices and Delivery Care Models

Existing Providers

Programs and efforts to look to

1. American Telemedicine Association (ATA) is currently developing a white paper to show the business benefits of telehealth which are beyond the normal things considered like reducing travel, and access to care.
2. Look to examples of successful programs:
 - The VA system as an example of a closed system which has successfully been delivering telehealth.
 - Tele-psychology standpoint; incentives and the business modeling component is in place.
 - CA Corrections has 160k inmates. When you look at the costs and the security risks we have some environments that are ripe and prime for telehealth applications. We need to make it easy to use, one of the other barriers is not just about the video competent but it's about how do we transfer medical records electronically so no matter where they are located they can provide clinical advocacy and streamline the process.
 - University of Texas, they are totally electronic in everything that they do. But then you look at a telehealth networks in Canada and they are doing about 60k consultations and they have no electronic health record. This is going to create efficiency, streamline everything, providers are going to feel more confident, it is going to make things a whole lot easier.
 - Disaster planning is very relevant because there are systems and networks for disaster preparedness and response that could be funded through the appropriate funds and those systems could be connected through major centers and smaller hospitals and it makes sense to have those systems being used all the time on a routine basis so that they are ready to be used when there is a true disaster.

- Telemedicine is business as usual. There are facilities where they have implemented telemedicine into their daily routine of their practitioners. The facility has 6 clinic patient rooms and one was telemedicine unit room as in 1 out of 6 was a telemedicine consultation. The practitioners make their regular rounds and 1 out of 6 is a remote patient.

Systems to be implemented

3. There should be a system that allows for the quick adoption to all specialties.
4. Improved evaluation of both physical and emotional needs in children must be followed by adequate intervention - which may involve specialty care best provided via telemedicine.
5. Increase allowable time accepted for intervention (now typically a 60 min session).
6. Connecting rural sites to medical center with everything that they provide does not work very well, going and finding what rural patterns are and connecting those individual offices rather than a large institution works every well. The markets may be in the urban areas where you are doing work already.

Potential Providers

7. Look to emergency planning nexus, they are concerned with bandwidth and pipelines needed to deliver service during a disaster.

Government/consultants/other

Systems to be implemented/Recommendations for moving forward

8. Expanding telemedicine to include more consultations in terms of prevention like in nutrition and diabetes education.
9. Process - Develop no fail methods for coordinating patient visit, expelling no shows, high quality video equipment i.e. real time.

Payers/Foundations

Systems to be implemented/Recommendations for moving forward

10. Identify gaps in specific kinds of services, where there is a gap in access or quality or where it is extraordinarily expensive that can be improved by using remote medicine and then look for ways to promote pilots and where this technology can help.
11. Establish a pipe between a remote set of doctors that are some place and an underserved community is great, but is not sufficient. Identify the specific services that will run through that pipe.
12. Telemedicine should be proposed to health plans as an alternative delivery model for care.

Programs and efforts to look to

13. Programs which move surgeries from outpatient settings into credential and accredited office settings and they have demonstrated that they can do a better job and cheaper and they are now piloting that with various health plans so that the plans can be convinced that this makes sense with their population.

Vendors

Programs and efforts to look to

14. There are great studies within the store-and-forward and image sharing, and in some cases diabetes, are showing cost savings across the board.
15. There are programs that allow a child going through chemotherapy to virtually return to their classroom through videoconferencing. Not as much for education but more for peer to peer interaction, and there is an education on both sides, it isn't just so that that child can interact with their peers it is so that the other children learn that this is still the same child. And it helps motivate the child in knowing that when the treatment is over that child is going right back to school, back to their normal life.

APPENDIX 1 – Standardized Questions

The following questions were asked during the focus group meetings, interviews, and in the Web-based survey. There were occasions when a question was not asked during a interview or meeting because the pertinent discussion addressed the essence of the question or time did not allow for asking all the questions. When a question was not asked, participants were asked to answer the remaining questions in the Web survey.

1. How important do you (and your organization) believe telemedicine is in assuring access to care to a variety of populations?
2. Is telemedicine one of your organizations top priorities or major initiatives – Do you believe telemedicine can play a major role in achieving strategic initiatives? Why or why not?
3. What other factors are important to you (i.e. training, providing services from existing office, and providing services from home)?
4. What do you perceive as the major challenges in fully utilizing telehealth? What is the one thing you believe is most important to fully utilizing telehealth?
5. Why do you think that telemedicine has not become more prominent (in California) over the past decade?
6. Do you think that current payment policy provides necessary incentives for full use of telehealth? Why or why not?
7. Should telemedicine require special payment structures or should payment structures not consider the manner of service delivery?
8. How do you think initial program development should be funded?
9. What are some ways that communities can move toward fully optimizing telehealth?
10. What are some recommendations for the state, local government, and philanthropies to better support telemedicine?
11. Does your program use telemedicine to its optimal potential? If yes, what factors contributed. If not, what factors contributed? (Provider)
12. How has telemedicine brought value to the patients you serve? (Provider)
13. How has telemedicine brought value to your clinic or practice? (Provider)
14. How have hospital based programs dealt with hospital privileges and liability issues? (Provider)
15. How has offering health care services via telemedicine affected your local community? (Potential provider)
16. Do you know how to go about becoming a telemedicine provider? (Potential provider)
17. Do you have concerns that patient flow or clinical operations may be impacted negatively should you implement telemedicine? (Potential provider)
18. Have you considered starting or participating in a telemedicine program or becoming a telemedicine provider? Why or why not? (Potential provider)
19. Have payment issues kept you from moving forward with plans to provide telemedicine services? Why or why not? (Potential provider)
20. What are the new technologies coming down the pike that will improve health? What will be the barriers to fully deploying these technologies? (Vendor)
21. Do you or have you considered restructuring your reimbursement system to invest in telehealth costs upfront with the anticipation of saving after implementation? (Payer/foundation)

APPENDIX 2 – Data Collection Schedule

- Existing providers focus group - July 29th
- Existing providers focus group - July 31st
- Potential provider interview - July 31st
- Potential provider focus group (morning) - August 1st
- Potential provider focus group (afternoon) - August 1st
- Payer interview- August 7th
- Payer interview - August 7th
- Vendor small group interview - August 7th
- Vendor interview - August 12th
- Telemedicine Optimization Initiative Collaborative group meeting - August 13th
- Vendor interview - August 19th
- Payer (Foundation) interview – August 21st
- Provider small group interview - August 28th
- Payer (Foundation) interview- August 29th
- Provider small group inter view - August 29th
- All stakeholder groups Web survey August 4th –August 25th

APPENDIX 3 - Data Collection Participants

EXISTING PROVIDERS

Frank Anderson

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Appendix 4 – Telehealth Optimization Initiative Collaborative Members

The California Telemedicine and eHealth Center would like to acknowledge the participation of the many telehealth experts involved in this effort, and thank them for their commitment and support of this collaborative initiative.

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California Telemedicine and eHealth Center Telehealth Optimization Initiative

Companion Publications

The following publications were developed as part of the Telehealth Optimization Initiative and are available from the California Telemedicine and eHealth Center. These reports provide more detail on topics covered in the Major Findings and Recommendations Report. The full report and companion publication are available from CTEC at www.CTECOnline.org

**Optimizing Telehealth in California:
An Agenda for Today and Tomorrow
Full Report of Major Findings and Recommendations
January 2009**

**If You Bill It, They Will Come.
A Literature Review on Clinical Outcomes,
Cost-Effectiveness, and Reimbursement for Telemedicine
January 2009**

**Telehealth Optimization
Summary of Focus Group Methodology and Responses
January 2009**

**National Telemedicine Reimbursement Scan
April 2009**

The California Telemedicine and eHealth Center is a leading source of expertise and comprehensive knowledge on the development and operation of telemedicine and telehealth programs. CTEC has received national recognition as one of six federally designated Telehealth Resource Centers around the country.



California's
Leading Resource on
Telemedicine & Telehealth