HEALTH CENTER

Sierra Vista Regional Health Center

Response to the Unconnected Healthcare Providers Health Information Exchange Grant Program

Total Requested Amount $50,000

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Prepared by Richard Turner

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Executive Sponsor

Bruce Norton, Chief Financial Officer

Providing Service Excellence in Health Care Delivery

1. **Project Description and Partner Relationship/Collaborative Structure**

Sierra Vista Regional Health Center (SVRHC) is a non-profit regional medical center serving mainly Cochise and Santa Cruz counties. The health center is a secondary provider of healthcare services, hosting a medical staff of over 70 primary care, specialists and sub-specialists. SVRHC offers a broad array of services including a cardiac catheterization laboratory, imaging services, intensive care unit, a full emergency service department, and the only obstetrical services in the entire county. The hospital is a teaching facility and has a residency program in Internal Medicine and Family Medicine. SVRHC is a hub and a higher level care facility for the surrounding areas receiving patient transfers from physicians throughout the county and Southeastern Medical Center in Douglas and then transferring more critical care patients to hospitals in Tucson.

SVRHC is located in the city of Sierra Vista, population over 40,000 which is in Cochise County in the southeastern portion of Arizona. SVRHC also serves portions of Santa Cruz County and has clinic locations in Douglas, Tombstone and Sonoita, Arizona. Sierra Vista Regional Health Center is developing a more defined community physician strategy which includes adding employed physician practices. Currently, the employed practices represent seven physicians practicing in primary care and medical specialties and additional physician practices are in negotiations at this time. SVRHC's regional service area shares over 90 miles of its border with Mexico, which has a high volume of illegal immigrants crossing the border and occasionally needing patient care. Sierra Vista also is home for Fort Huachuca U.S. Army Intelligence Center, and SVRHC services the Army personnel and families after the Fort's clinic closes. Countywide, Medicare recipients are 13.6%, Medicaid [AHCCCS in Arizona] enrollment is 20.4%, and children without dental coverage are 23%. The county is classified as a Primary Care Health Professional Shortage Area [PC-HPSA] and a Medically Underserved Area [MUA]. The annual write off amount for charity care in 2011 was $1,431,000.

Currently the main clinical information technology in the hospital is Cerner's Millennium application suite with over 50 integrated sub applications and an interface engine eGate that supports over 100 internal and external interfaces. The rural clinics and employed physician practices have disparate Electronic Medical Records including eMDs, Athena, SOAPWare and NextGen. SVRHC is also implementing a Cerner based solution to allow the electronic exchange of discrete laboratory and radiology data to local providers. The Cerner solution known as "HealtheHub" is formatted to allow the electronic transmittal of discrete laboratory and radiology reports directly to the providers' electronic health record. The HealtheHub solution is designed to work with all major brands of ambulatory practice software. SVRHC currently is installing this solution, with one provider in the final stages of implementation and five additional practices in various stages of preparation for their implementation. Future functionality will allow the provider to enter orders into their respective electronic health record and have the order populate the hospital electronic medical record. The third initiative of HIE functionality that SVRHC plans to use is the Direct Exchange secure email for providers. SVRHC plans to use Direct to send information to and from employed and independent physicians, but Direct will also be used to exchange information between physicians.

HIE is a key initiative to SVRHC, as outlined in their IT strategic plan created in 2010. SVRHC realizes that the ability to have timely, longitudinal information across strategic health provider partners results in greater accuracy of records; fewer errors, redundancies, and time wasted by healthcare professionals; greater sharing of health resources and use of economies of scale; standardized billing procedures; better information security as faxes, papers, films, couriers are eliminated; ability to create registries and aggregate data for the county; and

improved patient transfers and referrals. In some medical situations, time is of the essence. In diagnosing high risk pregnancies, cancers, cardiac or renal disease, a few weeks delay is life threatening. Even in everyday admits and outpatient encounters, results are needed in the primary care offices quickly for follow up care. Emergency Room discharge summaries are important transition of care documents for SVRHC, they send to other hospitals, primary care physicians, specialists and Ft. Huachuca Army Clinic every day by fax or paper copy. To this end, SVRHC has planned to perform a physician integration strategy analysis that will help shape their longer term HIE plans and integrate their current three pronged approach at data exchange. This integration plan will focus on the joint ownership and commitment from the unaffiliated organizations including physician offices to sharing laboratory and radiology results and transitions of care documents longer term. Currently SVRHC sees approximately 5000 inpatients annually and anticipates that they will be sharing about 12,000 laboratory and 3000 radiology results with physicians in the community annually.

The Unconnected Providers Health Care Health Information Exchange Grant Program will assist SVRHC with its HIE goals in multiple ways. First, the physician integration plan can be expanded to be primarily a HIE strategy focused on the physician linkages and also to include other hospital transitions of care. This plan needs to take into consideration SVRHC's current forays into health information exchange but consolidate them all together in a combined, documented, achievable strategy that meets specific measureable goals for the physician community. The first step of this plan is to interview the physicians in the community to uncover the types of information that the physicians want to receive / send to the hospital and to inventory their electronic medical record systems. At the same time the targeted physicians will be set up on Direct Exchange accounts that the hospital has secured for that purpose. This information will allow SVRHC to plan more strategically what types of information to target sending and receiving and to also target the top EMR vendor interfaces. This targeted approach will bring more value to the efforts of HIE and will be more cost effective for all parties. The prioritized value statement of identifying the exact information to share and when that will be accomplished will increase the ownership and commitment on the physicians part to adopting the HIE strategies offered by SVRHC. The physician integration plan will also identify workflow issues with using the Direct Exchange accounts and will develop training and process changes to increase the widespread use of this secure email approach.

SVRHC is just beginning its HIE evaluation and adoption and the anticipated longer term next steps from the physician integration strategy will be to continue supporting the HealtheHub initiative by connecting to physician offices with the current laboratory and radiology results or to integrate the currently implemented offices to be able to enter orders to the hospital. The decision of which direction to expand the initial HealtheHub implementation will be determined through the planning process described above. In order to facilitate the adoption of the HealtheHub technology and assist providers with the costs, SVRHC has agreed to pay all Cerner associated costs as well as up to $20,000 for the physician vendor interface costs and up to $5,000 for the yearly licensing costs to the physicians. These costs have already been incurred by SVRHC for the 6 physician offices that are in process of implementation of HealtheHub, however one additional interface is projected in the grant funding that will be determined and implemented during the grant timeframe.

The second anticipated decision to come out of the planning process is to choose the most advantageous vendor interface that will facilitate the most physicians' exchange. SVRHC believes the best choice is NextGen but the analysis of the stage of automation of the key physicians in the community is imperative to making the best choice. The third anticipated action from the physician integration plan is the use and expansion of the Direct Exchange concept.

SVRHC has just acquired the Direct Exchange secure email accounts for their physician community. Analysis needs to be done to determine which physicians should use the Direct Exchange option of data exchange versus the more automated HealtheHub option. This three pronged approach is projected to help all the community's physicians in the exchange of the most crucial information back and forth with the hospital at the cost and technology capacity that each office can handle. SVRHC is committed to the HIE initiative by introducing technology and encouraging all members of the medical staff to participate in this project in whatever way they determine adds value to their practice. SVRHC prides itself in providing timely and accurate clinical information to the providers to assist them in providing the quality care their combined patients have come to expect from the healthcare community.

Sierra Vista Regional Health Center will act as the fiscal agent for this project and Richard Turner; Manager of Applications will serve as the project lead (see attached resume Appendix A). Mr. Turner's time will be used to insure compliance to the grant requirements, maintaining momentum of the project timeline, insuring equitable treatment of the physician partners, clear communication of status to SVRHC executive and operational teams, and complete and thorough implementation of the technical components including security. Mr. Turner will be responsible for any site visit requirements of the grant program as well as monthly project status and budget / expense monitoring. Mr. Turner currently has been working as a project manager for both the hospital implementations as well as the HealtheHub implementations. At completion of the grant timeframe a successful project will include a physician integration plan that outlines the status of providers' HIE capabilities and readiness in Sierra Vista and what value those providers achieve and perceive to achieve in accomplishing HIE. The plan will include details of types of data to exchange in priority and with whom to exchange that data and the workflow in support of the exchange. The plan will also identify next steps that will be started within the grant timeframe, including the top interface to add to the HealtheHub initiative and when to implement that interface, the decision on implementing more interfaces prior to increasing functionality of ordering in the HealtheHub project, and the rollout milestones associated with the Direct Exchange initiative. The project team associated with HIE at SVRHC involves multiple layers. First the executive decision making team is Margaret Hepburn CEO, Bruce Norton CFO and Rebecca McCalmont CNO. The Physician integration team will consist of Bruce Norton CFO, Richard Turner Project Manager, Richard Buchnowski Director Physician Practices, Paula Dunn and John Hoyt InTech Health Ventures. The HealtheHub team consists of Richard Turner Project Manager, Eva Delaney IT Programmer/Analyst, Jodi Barsha, Laboratory analyst, Mark Grabowska Director Laboratory and Radiology departments.

2. Project Work Plan

ID	Task Name	Duration	Start	Finish	Gantt
1	**HIE Physician Integration Planning**	**55 days**	**Tue 1/1/13**	**Mon 3/18/13**	
2	Identify startegic partner physicians and hospitals	7 days	Tue 1/1/13	Wed 1/9/13	Executive Team
3	Define requirements from partners including data elements and use cases	20 days	Thu 1/10/13	Wed 2/6/13	InTech Health Ventures,Identified Physicians
4	Define measurable value for SVRHC and partipants	10 days	Wed 2/6/13	Tue 2/19/13	InTech Health Ventures,Identified Physicians
5	Merge current HIE implementations into overall strategy	15 days	Wed 2/20/13	Tue 3/12/13	Physician Integration Team
6	Determine hardware / software issues	5 days	Mon 3/4/13	Fri 3/8/13	Physician Integration Team
7	Define implementation stages with milestone metrics	5 days	Mon 3/11/13	Fri 3/15/13	Physician Integration Team
8	Presentation to Senior Management	1 day	Mon 3/18/13	Mon 3/18/13	Executive Team
9					
10	**Phase 1 - Direct Exchange Rollout**	**48 days**	**Thu 1/10/13**	**Mon 3/18/13**	
11	Purchase Direct Exchange account	5 days	Thu 1/10/13	Wed 1/16/13	Richard Turner
12	Implement / expand particpants	20 days	Mon 1/21/13	Fri 2/15/13	InTech Health Ventures,Richard Turner
13	Improve workflow issues	20 days	Mon 2/11/13	Fri 3/8/13	InTech Health Ventures,Richard Turner
14	Review implemented participants value metrics	5 days	Mon 3/11/13	Fri 3/15/13	Richard Turner
15	Presentation to Senior Management	1 day	Mon 3/18/13	Mon 3/18/13	Executive Team

Task	External Milestone ◆	Manual Summary Rollup
Split	Inactive Task	Manual Summary
Milestone ◆	Inactive Milestone ◇	Start-only
Summary	Inactive Summary	Finish-only
Project Summary	Manual Task	Deadline ↓
External Tasks	Duration-only	Progress

Project: Sierra Vista HIE Grant
Date: Tue 11/13/12

ID	Task Name	Duration	Start	Finish		1st Quarter				2nd Quarter			3rd Quarter	
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
16														
17	**Phase 2 - HealtheHub Expansion**	**70 days**	**Mon 3/25/13**	**Fri 6/28/13**										
18	Determine expansion option, orders or additional interface	5 days	Mon 3/25/13	Fri 3/29/13						**Executive Team,Richard Turner**				
19	Implement chosen interface	30 days	Fri 3/29/13	Thu 5/9/13						**HealtheHub Team**				
20	Implement / expand particpants	35 days	Mon 5/13/13	Fri 6/28/13							**HealtheHub Team**			
21	Improve workflow issues	21 days	Fri 5/31/13	Fri 6/28/13							**InTech Health Ven**			
22	Review implemented participants value metrics	5 days	Mon 6/24/13	Fri 6/28/13							**HealtheHub Team**			
23	Presentation to Senior Management	1 day	Tue 6/25/13	Tue 6/25/13							**Executive Team**			
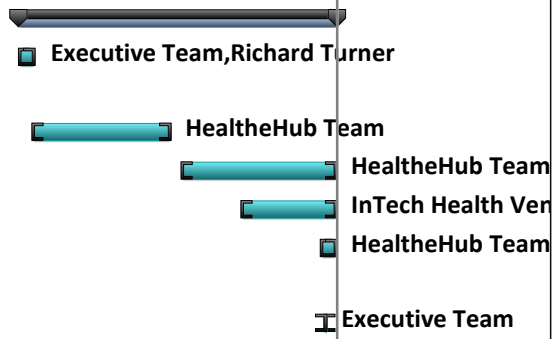
Task	▬▬▬▬	External Milestone	◆	Manual Summary Rollup	▬▬▬▬
Split	....	Inactive Task		Manual Summary	▬▬▬▬
Milestone	◆	Inactive Milestone	◇	Start-only	⊏
Summary	▬▬▬	Inactive Summary		Finish-only	⊐
Project Summary	▬▬▬	Manual Task	▬▬▬	Deadline	⬇
External Tasks	▭▭▭	Duration-only		Progress	▬▬▬

Project: Sierra Vista HIE Grant
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The HIE Strategy status will be communicated weekly to the Executive Team and major milestone decisions are anticipated on completion of the Physician Integration plan which coincides with the Direct Exchange Rollout and then again at the end of the grant timeframe focusing on the HealtheHub expansion. Deliverables of the project plan are:

1. Physician integration plan which includes strategically identified providers that are committed to participating in HIE with SVRHC, their EHR status, HIE readiness, Direct Exchange adoption status, prioritized exchange use cases, prioritized exchange interfaces needed, the providers' measurable value statements and hardware needs. The plan will also identify alternatives and stages of implementation for the providers
2. Direct Exchange Rollout will be a phased training and implementation of the exchange email accounts to key providers. The rollout will also include workflow reengineering to identify problems in exchanging information, suggest process changes and monitor stages of corrections or implementations of process changes.
3. HealtheHub Expansion will include determining the best value alternative to go forward with HealtheHub whether that be adding more physicians to the lab and radiology results with selected interfaces key interfaces or whether that be adding the functionality of ordering interfaces for the existing implemented physicians

3. Line Item Budget

Task Name	Matching funds	Grant Funds	Category
Overall Grant Management • Project management of planning and implementation	$24,329		Salary / Fringe
HIE Strategic Planning • Physician Integration Plan		$25,000	Consultants
• Workflow reengineering		$5,000	Consultants
Phase 1 - • NextGen or other determined interface		$15,000	Software
• Direct Exchange expansion	$712	$5,000	Software
Total	$25,041	$50,000	

Budget Narrative

Salary and Fringe Benefits
SVRHC is planning on using an existing project manager to lead the HIE planning and implementation efforts whose primary responsibilities would be to manage workflow issues, handle technical problems and facilitate the expansion of HIE with providers. This FTE will also be responsible for all communication both internal and external in associated with the HIE projects and will complete budget, expense and status reporting in compliance to grant requirements. The FTE salary rate is 44.08/hour with a 20% benefit fringe, and estimated hours for this project are projected at 20/week based on current allocation of projects. This total amount is estimated at $24,329. This line item would be covered by SVRHC as their matching funds. Time allocation of this FTE to the project will be documented. Resume is attached in Appendix A.

Consultants/Contracted Services

InTech Health Ventures would assist SVRHC with the HIE strategy, planning and implementation. InTech is a Direct Technical Assistance Provider for the Arizona Regional Extension Center and has been working with Sierra Vista Regional Health Center for over 6 years assisting with IT Strategic Planning, interim CIO management, project management of technical projects, and EHR evaluation. InTech's principles Paula Dunn and John Hoyt each have over 20 years' experience in hospital IT management, physician clinic EHR software and operational management and strategic planning. The HIE strategic plan/physician integration plan will be facilitated by InTech Health Ventures with the involvement of SVRHC, the employed and independent physicians. The plan will include a requirements definition and use cases for HIE, measurable value to participants, prioritization of participants and their key information requirements, an implementation plan and options to achieve the deliverables. InTech Health Ventures will also work with SVRHC to assess and correct workflow processes associated with the HIE expansion, whether that be with the Direct Exchange rollout or the HealtheHub expansion. InTech was chosen to work on this project based on our past experiences with their work and the interaction they have already had with our systems and physician community. The physician integration plan is estimated at 125 hours at $200/hour and the workflow reengineering is estimated at 25 hours at $200/hour. The consultant fee would be paid through Grant funds.

Software

HealtheHub expansion NextGen interface – this interface is an estimate of integrating the major physician EMR vender in the community. During our planning process we will determine which vendor is the most value added vendor to interface with and will engage that vendor in direct connectivity. This interface will be paid for with grant funds and the estimate is based on previous discussions with this vendor.

Direct Exchange expansion - This line item outlines prepayment of Inpriva's annual license and support fees for 28 Direct Exchange accounts for two years. The first year of license and support fees was free to SVRHC by signing up through the Arizona Regional Extension Center. This software line item will allow SVRHC to maintain and expand the Direct Exchange concept with other providers and hospitals in Southern Arizona, and cover additional costs after the initial fee trial. This cost will be covered by grant funds up to $5000 and the remainder will be covered by matching funds.

Matching Funds requirement

The matching funds requirement is covered with the salary of the Project Manager, who is a current a SVRHC employee. The salary figure is an estimate amount for the amount of time spent in the six month grant period.

SVRHC will also cover the Direct Exchange costs over the grant fund amount of $5,000. This is estimated to be $712 dollars.

4. **Appendix A**

Richard Turner RRT
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Email: Richard.Turner@svrhc.org

PROFESSIONAL DEVELOPMENT:

2009 – Present: Clinical Applications and Project Manager Sierra Vista Regional Health Center

- Project management for the hospital Cerner clinical information system and ancillary clinical systems
- Coordinate team of 4 system specialists in daily operations of clinical information systems
- Plan and manage all system upgrades
- Coordinate physicians remote access to clinical data
- Managed Meaningful Use Initiative
- Manage connectivity project between hospital CIS and community healthcare providers

2007 – 2009:   Cardiopulmonary Services and Cerner Implementation Manager Sierra Vista Regional Health Center

- Project management for the Cerner hospital clinical information system implementation
- Managed Cardiopulmonary services department.

2004-2009:   Manager Cardiopulmonary Services Sierra Vista Regional Health Center

- Managed Cardiopulmonary Service department
- Provided in and out patient respiratory services
- Assisted with opening and managing a sleep center for the hospital
- Kept abreast of new and changing techniques and concepts

1994-2004   Respiratory Therapist Sierra Vista Regional Health Center
- Provide routine and specialized respiratory care therapy
- Provided quality control and supervision for the Arterial Blood Gas laboratory

EDUCATION:

1994:   AAS-Respiratory Therapy
                 Pima Medical Institute

1994:   Registered Respiratory Therapist
                  National Board of Respiratory Care