Introduction

The Specialty Care Initiative (SCI) supported community coalitions to develop and implement strategies to address specialty care demand and access in their communities. SCI was jointly funded by the California HealthCare Foundation (CHCF) and Kaiser Permanente’s Northern and Southern California Regions’ Community Benefit Programs. In 2008, after one year of planning support, 24 coalitions were granted additional funds to implement strategies that increase access to priority specialty areas. Major activities fell within four strategy clusters:

- Embedding guidelines into the referral process,
- Building/expanding specialty care networks,
- Increasing primary care provider (PCP) capacity/Scope of practice, and
- Integrating care coordination.

The Center for Community Health and Evaluation in Seattle, Washington conducted the statewide evaluation of SCI, including case studies of the four strategy clusters to highlight areas of progress and lessons learned.

Overview of the Case Study

Activities within the Embedding Guidelines into the Referral Process (Embedding Guidelines) cluster aimed to better manage demand for specialty care appointments by ensuring more appropriate referrals. Specific strategies included:

- Implementing referral protocols, referral guidelines and clinical decision support protocols and
- Integrating these into new or existing referral systems (often electronic referral (eReferral) systems).

This case study focuses on the work of two coalitions working to improve the referral process, in part by embedding guidelines:

- Humboldt County IRIS Steering Committee (Humboldt)—Humboldt implemented IRIS (Internet Referral Information System) to facilitate all of the specialty care referrals in Humboldt County, a rural, decentralized health care system.
- San Francisco Specialty Care Steering Committee (San Francisco)—San Francisco refined the use of its eReferral system to facilitate communication and improve the quality of referrals in the San Francisco safety net—an urban, centralized health care system.
Both coalitions’ work demonstrates progress and illustrates lessons learned across SCI statewide with regard to improving referral processes. This case study highlights factors contributing to Humboldt and San Francisco’s success, describes challenges they encountered, and offers considerations for improving referral processes in different health care systems.

Efforts in this strategy cluster are closely related to activities implemented as part of the other strategy cluster areas, those interested in understanding the breadth of approaches to address specialty care access for the safety net population are encouraged to review all four case studies.

**Background and context – Humboldt County**

*The Safety Net System in Humboldt County*

Humboldt County is a large, isolated county in Northern California with about 130,000 residents. There are three large communities spread out across 30 miles along the coast—Fortuna, Eureka and Arcata. Eureka is the largest and includes the majority of providers and medical infrastructure. The system for primary and specialty care is decentralized; most physicians have private practices. Access for the safety net varies by community and specialist.

**IRIS Steering Committee**

The steering committee identified IRIS, the eReferral system used in Cook County, Illinois, as a community-wide solution to improve health information exchange for all specialty referrals in the county. IRIS is a HIPAA-compliant, web-based, electronic referral system that tracks and stores referral information. Specialty providers are able to build “rules” for referral into the system including clinical conditions appropriate for referral and required documentation. Rules must be satisfied to transmit a referral. The planning, development and implementation of IRIS was coordinated by the Humboldt-Del Norte Independent Practice Association (IPA).

*History of the Steering Committee*

The steering committee came together for the purpose of SCI, but consisted of individuals typically active in community health-related efforts in the region. Members were primarily administrators and management from primary care and specialty clinics, local hospitals and other health-related organizations. The committee was most active during planning and development; it provided oversight and high level feedback throughout implementation.

*“The committee approach] is how we do everything, including having patient input. We don’t do it any other way. When you’re providing regional health care, you can’t do it in a silo environment; we have to have a multi-stakeholder environment.”*
Implementing IRIS
Humboldt was successful in implementing IRIS in the county. Numbers of referrals continued to increase each month. In the last quarter of participation in SCI (April – June 2011), an average of 692 referrals were submitted through IRIS each month. Nearly half (307) were radiology referrals. The following are lessons learned from Humboldt’s efforts implementing IRIS that may be useful for other communities doing similar work.

- Select a good product/vendor that provides a solution to an identified need and offers flexibility to design a system that will work across health system. Inefficient referral practices affected everyone in Humboldt County, so it was not difficult to generate interest and buy-in for the project. IRIS was designed to operate in a centralized referral environment; however, Humboldt was able to customize IRIS for a decentralized environment in a way that fit both the needs of the individual providers and the health community as a whole. This level of customization also built support among clinics for IRIS as a solution to improve referral information exchange.

- Pilot the system. Humboldt initially implemented IRIS in a smaller geographic area to test the system and process, which allowed them to monitor both sides of the referral process without too much volume and make adaptations to address problems before rolling it out to all providers.

- Dedicate an effective, full-time project manager to the effort. The project manager coordinating the roll out of IRIS had a diverse skill set and personable approach that benefitted the process.
  - Clinical background. Her training as a physician’s assistant helped her interact with physicians as peers and use a common language.
  - Sales approach. The manager approached meetings as a marketing or sales opportunity. She employed a pharmaceutical detailing model and provided snacks as incentives to consider IRIS.
  - Pro-active. She drafted potential rules for clinics to review and adapt according to their needs, which expedited the process.

- Changing current practice is a central component of community-level efforts to improve health information exchange. Implementation of IRIS required clinics to change existing practices and workflow. IRIS added a new system that was initially perceived as duplicative and burdensome among some clinic staff. However, in most clinics, as staff learned to use IRIS they found it user-friendly and noticed that the benefits of processing referrals through IRIS far outweighed any additional efforts to learn a new system or modify their workflow.
Build consensus on appropriate referral rules. While a challenging process to negotiate, the IPA engaged specialists by initially letting them define the guidelines for referral into their practice. Once IRIS was operational, the IPA collected feedback from primary care clinics about rules/guidelines that were difficult to follow or confusing. The IPA and specialists then negotiated the adaptations needed to make the rules more user-friendly.

Design to achieve a “critical mass,” the point at which your system cannot fail. Humboldt did this by leveraging existing IPA efforts and relationships. They engaged specialists by allowing them to define their own rules and identified early adopters to build momentum around the effort.

Background and context – San Francisco

The Safety Net System in San Francisco
San Francisco is a geographically small, urban area with a population of less than a million people. It has a centralized safety net system; all specialty referrals come into one public hospital—San Francisco General Hospital (SFGH). About 95% of the safety net population receives primary care services at one of three entities:

- SFGH campus primary care clinics (campus clinics). Owned and operated by the San Francisco Department of Public Health but staffed by University of California San Francisco (UCSF) faculty and resident physicians. These clinics use SFGH’s electronic health record (EHR) and eReferral.
- COPC (community-oriented primary care) clinics. Owned and operated by the San Francisco Department of Public Health, COPC clinics have easy access to SFGH’s EHR and eReferral.
- Consortium clinics. A network of independent, nonprofit clinic organizations serving the safety net. They are not integrated with SFGH and have universal albeit more restricted access to EHR and eReferral (via VPN).
**Background & Existing Resources**

SFGH had previously invested in an eReferral system to support the management of referrals into the SFGH/UCSF system. Prior to this initiative, eReferral had been successful at improving communication between PCPs and specialists internally, but the COPC and Consortium clinics experienced greater difficulty accessing the system. To build on eReferral, SFGH began to offer CME (continuing medical education) sessions, where specialists would talk to PCPs about appropriate referrals and provide suggestions for improving the quality of referrals.

With this grant, San Francisco’s efforts focused on expanding and enhancing the use of eReferral to improve communication, consultation and referral patterns across the safety net system in San Francisco. The grant provided resources to physically bring physicians from SFGH specialty clinics, SFGH primary care clinics, COPC clinics and Consortium clinics together to discuss the referral process and opportunities for improvement suitable for all stakeholders. The conversations initially acknowledged that “we’re all taking care of the same patients” and moved to discussions about how to best facilitate their care.
San Francisco Specialty Care Steering Committee

San Francisco’s efforts were led by a steering committee that included high-level clinician leadership from the various sectors of the safety net. They convened three workgroups based on priority specialty areas; each workgroup—at a minimum—consisted of a representative from each of the three types of primary care clinics and a specialist. The workgroups were tasked with identifying issues with access to the targeted specialty area as well as developing and implementing solutions (described at right). This work focused on leveraging eReferral to ensure that referrals made to specialists were appropriate and developing strategies to avoid unnecessary referrals when patients could be better managed in primary care.

San Francisco credited the workgroup model for their ability to make systemic changes in the referral process that benefited all organizations in the health system. They attributed the success of the model to several factors:

- Leadership involvement and participation of key decision makers from all four sectors
- Clinician engagement from both specialty and primary care
- Selection of collaborative, effective, task-oriented, systems thinkers
- Structured so that members are partners in the effort rather than simply providing oversight
- Representatives paid for their time to ensure ongoing engagement
- Created a formal forum for identifying and developing future leaders in the health system

Workgroup Accomplishments

Gastroenterology (GI)/Liver: Implemented a colonoscopy class to prepare patients for the procedure as a group rather than scheduling individual appointments for a specialty visit. Expanded direct colonoscopy by changing the screening modality to reduce unnecessary referrals.

Endocrinology: Added a diabetes web portal in eReferral that includes both clinician and patient education resources. Coordinated a one-day CME event to raise awareness and generate dialog about the new tools.

Pulmonary: Translated chronic obstructive pulmonary disease (COPD) guidelines into Chinese. Developed and received funding to implement a primary care clinic-based spirometry network to improve access to diagnostic testing for COPD.

Other eReferral improvements: The eReferral team developed a rating tool embedded in eReferral to gather feedback on the quality of physicians’ experience with system.

“There’s a lot of value in the [workgroup] model. The most important benefit is the dialogue between primary care sector and sub specialty sector. There was quite a bit of dialogue about not just patient care, but we were also able get along and accomplish something together. That was a huge win. We don’t usually have the opportunity to do that. The structure allowed a platform for us to interact in that way.”

“Even if you have an administrative structure, I think most change is driven by physicians. To make change that sticks, you need heavy clinician involvement.”
**Lessons from the work to date**

While there were differences between the approaches used in San Francisco and Humboldt Counties, cross-cutting lessons were identified and highlighted by both projects and other SCI grantees engaged in referral system improvements.

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<td><strong>Build on existing relationships and infrastructure.</strong></td>
<td>Communication and trust are the first steps in figuring out solutions to specialty care access and all SCI grantees benefited from a history of collaboration among key stakeholders. In Humboldt, the IPA was well known and trusted in the community; IRIS implementation complemented and built on other IPA initiatives. San Francisco already had working relationships and formal agreements among the key stakeholders and an established system for referral and communication (eReferral).</td>
<td>&quot;The eReferral system increased access and communication originally...through SCI we are enhancing and refining that access. It’s allowed us to shed light on the rationale and thinking of the specialty clinics. I appreciate that very much; it’s very helpful.” - San Francisco</td>
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<td><strong>Identify how the local safety net operates and then develop the tools and infrastructure to support current practice.</strong></td>
<td>Electronic referral systems and EHRs are just tools to facilitate information exchange and patient care. To make changes in the referral process, it is essential to first look at how the health system works as a whole and determine what changes would be needed. Once that is determined, appropriate tools can be identified to meet those needs. Both San Francisco and Humboldt created the tools and infrastructure needed to support the referral process in their local health systems.</td>
<td>&quot;It’s a challenge being able to get individual practice attention around a community project...I’m convinced that for health information technology to be successful it has to be a community project or it has to be put together on a practice by practice, personal relationship by personal relationship. The idea that you can buy an EHR and get better patient care is naïve. It’s just a system.” - Humboldt</td>
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<td><strong>Establish formal opportunities for stakeholders to engage in face-to-face dialog about guidelines and the referral process.</strong></td>
<td>Throughout SCI, enhanced communications and relationship building between the various organizations in a health system led to increased understanding of the realities and challenges on both sides of the referral and opportunities to develop and share solutions. In San Francisco, this was achieved through its workgroups. In Humboldt, they convened quarterly IRIS user group meetings.</td>
<td>“The workgroups were a formal way to get primary care and specialty care to sit down and figure out what we need to do. Rather than specialists handing down guidelines and PCPs searching, begging and borrowing specialty care. It should be all of them sitting down to figure out the essential services and the resources available.” - San Francisco</td>
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| Employ a strategic approach to engaging appropriate stakeholders.            | SCI grantees were able to make more progress when they were strategic in identifying and engaging stakeholders at different points during implementation. To make the changes needed in their system, San Francisco determined that they needed to have a high level of clinician engagement (both primary and specialty care providers). To facilitate that, they provided stipends for physicians’ time to participate in the workgroups. When rolling out IRIS, Humboldt initially focused on engaging clinic managers since they were the people that managed the referral process in their clinics and understood the benefits; they relied on the clinic managers to build support within their clinics. Regardless of the approach, it is important to have buy-in from primary and specialty care providers to make these systems successful. | “We were intentional from the beginning. Most eReferral reviewers are top notch, so we already had the chance to work with them. It is the same attributes between a good reviewer and a good work group member. And we wanted representation from different sectors. That was strategic. Bringing people on and the selection of specialties was 99% strategic as opposed to luck and begging. It was a blessing for us to be that strategic.”  
- San Francisco                                                                 |
| Address issues of privacy and malpractice early in their health information technology effort. | To move forward with new health information technology, coalitions must resolve any outstanding issues about protecting personal health information and determining duty of care (i.e., who’s responsible for the patient if there is an adverse event). This is important to assure participating providers that the tools comply with legal requirements and that they will be appropriately protected in any adverse event. In Humboldt, concerns about compliance delayed some providers’ implementation of IRIS. | “We are burdened by all of these compliance issues, which are built to ensure the safety of patients. But those same things prevent you from changing the system for the better—fear of malpractice, for example, prevents doctors from seeing some patients.”  
- Humboldt                                                                                                                   |
| Perform ongoing data collection to monitor and assess referral activity, identify problems and provide additional training and support. | Once implemented, these systems need to be monitored and updated or they quickly become obsolete. Both the IPA and SFGH had the capacity to collect and analyze detailed referral data. These data were used to identify problems in the system as well as problems at specific sites. The results were shared with appropriate stakeholders and inform the direction of their efforts. | “If you want to do [health information] services, you have to do monitoring and retraining. It’s going to be part of the task. When a practice isn’t using a system like it should be, it’s broken at that office. It happens quietly and quickly. To keep the system moving on a regular basis, it requires monitoring.”  
- Humboldt                                                                                                                   |
Results

Physicians and staff working on both projects highlighted several areas of impact on patient care based on their observations and experiences.

Formalized relationships. Both San Francisco and Humboldt report increased collaboration, communication and understanding between primary and specialty care practices/systems.

“I think this grant was really fortuitous because it built on what we were doing with eReferral and allowed us to bring our collaborations to the next level. As important as any of the specific projects that we were engaged in was the strengthening of the network of the safety net providers. Traditionally, there’s been a bit of a division between the three groups [SFGH, the Department of Public Health, and the consortia clinics]. We had a very disparate network. eReferral started to connect them, but through this initiative we brought people together in-person to work on certain projects. That has been extremely helpful."

- San Francisco

“I think the user group meetings help with [care coordination]. You get to meet the people on the other side of the referral. I think it’s huge...you get to know people, understand who you are working with, and then people tend to be more helpful. There is a lot of turnover in these positions. But IRIS has really helped bring us all together to talk.”

- Humboldt

Improved referral coordination. Both sites reported that increased communication between specialists and PCPs has improved referral coordination. For both coalitions, implementation and improvement of these systems have increased the efficiency and transparency of the referral process.

“Our area is very rural and lacking an abundance of specialty care doctors. With IRIS—knowing where we can send patients, who is taking what insurance, follow up and appointments that are scheduled—it all makes it so much easier. I can sit down and in 15 seconds get the information I need typed out and sent to me...It’s just wonderful.”

- Humboldt

“If you think of co-management broadly in terms of having clarity about what is needed beforehand [then this project has had an impact]. We are not just sharing patients, but getting PCPs important information ahead of time so we can ensure quality care for patients.”

- San Francisco
More appropriate referrals to specialty care & improved demand management for specialty care services. Through improvements in their referral process, San Francisco reported more appropriate triaging of GI patients for specialty services. In Humboldt, specialty clinics perceived referrals submitted through IRIS to be more appropriate than sent manually.

“The referrals are more appropriate. With IRIS providers are more apt to try things because of the questions asked in the rules. We can see the different things that they tried, and it looks like they are trying more before referring.”

- Humboldt

Increased access to timely specialty care. Through its monitoring of the IRIS, the IPA noted a decline in wait time among some specialty clinics, which was caused by ensuring that the referral was processed more efficiently.

“A couple practices that on a good day could get a referral complete in 2 weeks, now we’ve got it down to 4-5 days.”

- Humboldt
Sustainability and next steps

To date, about 85% of specialty and 65% of primary care practices in Humboldt County have implemented IRIS. They have also added ancillary and community services to make IRIS a “one stop shop.” IRIS administration, monitoring, training and technical support are now core business functions of the IPA. The IPA secured additional funding to work on IRIS integration with electronic health record systems.

San Francisco’s efforts have been integrated into eReferral and SFGH’s current work on specialty care access and are sustainable. Through their workgroups, they have applied for and been awarded additional funding that builds on their SCI work.

Both Humboldt and San Francisco’s efforts focused on utilizing and maximizing an electronic system to improve the referral system and information exchange between specialty and primary care. However, their work illustrates that an improved referral process is not achieved simply by implementing a new system. Electronic referral systems are merely tools for connecting people. As such, there are ongoing considerations for maintaining, spreading and replicating these approaches.

- **Initial implementation of electronic referral systems is expensive and requires ongoing maintenance and support.** Developing and implementing an eReferral system throughout a community is quite expensive. Although promising as a community-based solution to information exchange once operational, there needs to be a mechanism for providing ongoing monitoring and maintenance. In both of these case studies, one organization has agreed to take ownership of the system.

- **Efforts to improve appropriateness of referral are challenged by the current reimbursement structure.** Since specialists are paid per visit, there are no financial incentives to engage in consultation and creation of guidelines and rules that would make a referral unnecessary. In San Francisco, the specialist reviewers provided consultation to PCPs through eReferral that often resulted in the PCP managing the condition effectively; in these cases, specialty care needs were met without a visit to the specialist. Currently, there is no reimbursement mechanism for the time a specialist spends consulting. In Humboldt, IRIS is designed for all referrals, not just safety net referrals. Some specialists were resistant to making their guidelines too specific because of concerns that their referral volume would go down, impacting their revenues. There is a need to establish mechanisms for incentivizing improvements in efficiency and quality of care regardless of a physical visit.

- **Generating and sustaining clinician involvement can be challenging.** To create meaningful change in the referral process, it is important to have active engagement of primary care and specialty physicians; yet, it is difficult to secure provider time to devote to system improvements. San Francisco provided financial incentives for physicians to participate (as part of their grant). Humboldt relied on the clinic managers to engage their physicians in IRIS. Many SCI coalitions engaged physicians by either offering incentives (financial or CMEs) or participating in existing meetings/events (e.g., monthly provider meetings).
Efforts to improve the referral process require changes in workflow. As discussed earlier, all referral system improvements require changes to clinic workflow. It is important to identify the current workflow, where changes need to occur, and provide the appropriate training and support to make the modifications necessary. Change is always difficult, and is particularly challenging in the current environment where clinics are preparing for changes associated with national health care reform. Clinic staff may be overwhelmed with the amount of change occurring within the clinic, thus additional workflow modifications being considered should be discussed with affected clinic staff to confirm feasibility.

Users of the referral system and guidelines are an important consideration. Most referral guidelines require a minimum level of clinical expertise to understand, but reimbursement and workflow challenges often prevent physicians from utilizing the referral system. As a result, referral coordinators are often the primary users of guidelines. This inconsistency—between intended and actual user—creates inefficiencies in the referral system. It is important to identify the user of the guidelines and design the system to work for them.

While a large initial investment, referral process and system improvements generally do not require a lot of financial investment to sustain. Both San Francisco and Humboldt are confident in their ability to sustain the systems and improvements made through their SCI funding. They also acknowledge the benefits of improving communication and formalizing partnerships, which position them to take on additional improvements to their local health systems. As practices become more data-driven, through Meaningful Use and other national health care reform requirements, the demand for these types of systems is anticipated to grow. However, the challenges associated with how these systems interface with the different EHRs being implemented across their respective counties will likely become more prominent.

For more information about other work that was conducted as part of the Embedding Guidelines into the Referral Process cluster or SCI as a whole, please see the full initiative evaluation report from October 2011.