NOVEMBER 2018

GROWING A DIVERSE HEALTH WORKFORCE:
LESSONS LEARNED AND INSIGHTS FROM INVESTMENTS IN HEALTH CAREER PATHWAYS

THE CALIFORNIA ENDOWMENT
Acknowledgements

This report was prepared by the UCSF Healthforce Center, Engage R+D, and Harder+Company Community Research with funding from The California Endowment. We would like to thank The Endowment’s Learning and Evaluation Department, specifically Lori Nascimento and Nicole Pritchard for their invaluable feedback and guidance.

Formerly called the Center for the Health Professions, Healthforce Center at UCSF has conducted research about the health care workforce in California and across the United States for 25 years. Its studies assist providers and policymakers in addressing critical health care challenges with rigorous analysis and actionable, unbiased data.

Engage R+D partners with foundations, nonprofits, and public agencies to help design, implement, measure, and improve their work. The firm’s founding was inspired by the belief that creating social change requires bringing together meaningful data, community voice, and field insights in creative ways to inform strategy and drive results. We also exchange ideas and share insights with the broader field, so that together we can create a healthier and more equitable future. www.engagerd.com | Twitter: @engagerd

Harder+Company Community Research works with public- and social-sector organizations across the United States to learn about their impact and sharpen their strategies to advance social change. Since 1986, our data-driven, culturally-responsive approach has helped hundreds of organizations contribute to positive social impact for vulnerable communities. Learn more at www.harderco.com. Follow us on Twitter: @harderco.
Contents

Acknowledgements................................................................................................................................. ii
Executive Summary ....................................................................................................................................... 2
Introduction .................................................................................................................................................. 5
  Evaluation Questions .................................................................................................................................. 8
Building Infrastructure ................................................................................................................................. 9
Engaging and Retaining Diverse Youth ....................................................................................................... 15
Supporting Youth to Enter Health Professions ......................................................................................... 17
Future Considerations ............................................................................................................................... 22
  Sustainability ............................................................................................................................................. 22
  Lessons Learned ........................................................................................................................................ 22
Appendix ...................................................................................................................................................... 25

Growing a Diverse Health Workforce
Executive Summary

The California Endowment launched 21st Century Pathways to Health Careers in 2013 to expand the capacity of the state’s health systems following the passage of the Affordable Care Act. The career pathway strategy focused on developing programs and systems that prepare youth for careers in health care and sought to engage K-12 students, entry-level health workers, and youth of color training for health careers in underserved communities. These efforts were designed to increase access to high-quality, cost-effective care for a growing number of insured Californians. Varying combinations of these strategies were implemented across the 14 Building Healthy Communities (BHC) sites. Key findings from the evaluation are summarized below.

What are the necessary elements for building the infrastructure to maintain a stable and sustainable health career pathway system?

A strong health career pathway system aligns the work of employers, educators, and community stakeholders who are invested in preparing youth for health careers. Grantees highlighted several key elements that are needed to build a stable, sustainable health career pathway system infrastructure.

Getting to know the system:
- Assess the labor market and target population needs to triangulate a strategy. Effective strategies respond to both employer- and community-driven priorities.
- In underserved communities, acknowledge that inequity and structural racism present added barriers for under-represented youth to achieve their potential.

Coalescing system partners:
- Seek out the expertise of employers and other system partners to validate and prioritize needs.
- Identify and hire a highly-skilled facilitator to help partners find common goals and form a coalition.
- Develop an identity statement and shared goals that are firmly rooted in employer and community needs.
- Establish credibility with hospital leaders to encourage meaningful partnerships.

Creating system alignment:
- Establish communities of practice to prioritize issues, learn together, problem solve, and foster cooperation.
- Demonstrate value offering short- and long-term solutions to challenges faced by health care employers.
- Hire a dedicated support staff to convene regular meetings and follow up with partners.
- Establish dual enrollment opportunities to create a more efficient pathway.

What were some of the successful strategies for engaging and retaining diverse and under-represented youth?

While grantees are engaging diverse populations in their pathway programs, many are struggling specifically with recruiting and retaining boys of color. One grantee attributed this gap to the “stigma attached to young men being nurses or working in the health care facility as someone other than a doctor”; while another pointed to competing priorities, such as boys wanting to participate in sports instead of a health career program. Others shared that they did not actively or intentionally recruit boys of color.
Growing a Diverse Health Workforce

Strategies for engaging under-represented youth:

- Track youth demographics to better understand who is participating in the pathway program. Demographic data can be used to assess if the program is reaching the intended target population and direct future outreach efforts.

- Programs with higher levels of under-represented youth participation incorporated hands-on experiences and experiential learning alongside classroom instruction. Adjusting the instructional style and offering different types of learning experiences in response to student needs were effective approaches for engaging diverse youth.

- Hire relatable staff and engage mentors of color who are from the community. Staff and mentors who have successfully pursued higher education and worked in health provide a relatable model for under-represented students.

To what degree are The California Endowment supported health career pathway programs supporting youth to enter health professions in BHC sites?

A well-designed pathway program prepares youth for the rigors of training for and entering a health profession. Pathway programs supported by The Endowment provided academic training, psychosocial support, college and career readiness, and health career exposure to middle school, high school, and college-aged youth. While program design varied across sites, grantees described five promising approaches for retaining youth and helping to propel them through the health career pathway.

1. **Design:** Assess the needs of the target population and tailor the design to meet their needs. Not all students that enter the pathway are top performers. Many are experiencing stress and trauma. Attending to students holistically and designing programs that address different academic levels and psychosocial needs create a more inclusive pathway and, ultimately, the potential for a more diverse workforce.

2. **Demystify:** Ensure students have a clear understanding of the educational and career trajectory for health careers. A health foundation or career exploration class can help to ensure that students have a clear understanding of the breadth of health career options and what is required to enter the health career they are interested in. Knowing the pathway can also increase motivation for students to complete it.

3. **Align:** Make sure secondary and post-secondary coursework match up with employer needs. Cultivating partnerships between secondary, post-secondary, and industry stakeholders to develop coursework can ensure that youth have the academic and technical proficiency needed to enter a health career.

4. **Prepare:** Provide professional development during the pathway program and through internships. Professional development training provides students with the soft skills necessary to successfully navigate and thrive in a work setting. These skills include understanding workplace culture, norms, and interpersonal dynamics.

5. **Experience:** Work-based learning opportunities are essential for students to understand health careers and professional behavior. In communities where internships are scarcer, Y-Plan1 provides an alternate way for students to learn core competencies and gain exposure to health, as well as social-determinants, policy, and civic engagement.

---

1 [http://y-plan.berkeley.edu/](http://y-plan.berkeley.edu/)
What are grantees doing to sustain their pathways?

While many promising practices emerged from The Endowment’s investment in health career pathways, pathway system progression and sustainability remain ongoing needs. Some sites have received Career Technical Education (CTE) funding, grants from other foundations, or established partnerships with school districts and health care service providers to institutionalize pathway positions.

What are the key lessons learned from this investment?

In addition to the need for strategies for sustainability, several key lessons emerged from The Endowment’s investments.

• **Networks are a critical building block to help catalyze a coalition.** Seeking to form a coalition in a community where neither a formal nor informal network of cross-sector pathway partners exists can present a significant barrier to progress.

• **Network weavers are a vital part of the system.** Intentionally and skillfully connecting the dots among partners appears to be a core driver of network and coalition development. Network weavers include consultants who were brought in to facilitate the development of an identity statement and shared goals or dedicated staff at a coordinating coalition.

• **Pathway system development needs a long runway.** Assessing the needs of the system, establishing a network, forming a coalition, and finding consensus around goals and priorities are the first steps of a system change effort. While many sites are still assessing the needs of their system or building a network, the work that can lead to significant youth outcomes is just beginning to take off in the few communities with more mature pathways.

• **Multiple strategies are needed for student engagement.** Some BHC sites had difficulty engaging school districts. These sites learned that, in many of those instances, school districts did not want to partner so they developed other strategies for reaching students such as working with youth-serving non-profits.
In the years following the passage of the Affordable Care Act, millions of previously uninsured Californians gained health care coverage and began using health services at unprecedented rates. While some health systems were equipped to accommodate the influx of new health care consumers, many regions contended with existing health care professional shortages. Recognizing that there would be a growing need for culturally and linguistically competent health care professionals for the newly insured, particularly in underserved regions of California, The California Endowment launched 21st Century Pathways to Health Careers in 2013. The goals were to increase the capacity of health systems in underserved communities to provide high-quality, cost-effective care and support those same communities in efforts to “grow their own” health care professionals and create a more diverse health workforce. The 21st Century Pathways to Health Careers strategic framework included (1) creating health career pathways for youth of color in underserved communities, (2) improving the skills and capacity of frontline health workers already working in high need communities, and (3) attracting trained health care professionals to work in underserved areas (Exhibit 1).

Exhibit 1. 21st Century Pathways to Health Careers Framework

This evaluation report focuses on investments in health career pathways within the 14 underserved California communities that comprise The California Endowment’s Building Healthy Communities (BHC) Initiative. These communities include Boyle Heights, City Heights, Del Norte and Tribal Lands, Eastern Coachella Valley, East Oakland, Fresno, Kern, Long Beach, Merced, Richmond, Sacramento, Salinas, Santa Ana, and South Los Angeles. Each of these communities has large populations of color, higher rates of poverty, and fewer educational and employment opportunities. These sites are also predominantly located in regions of California that are designated as a Medically Underserved Area/Population and/or Health Professional Shortage Area.

Given the differing contexts and capacities at each BHC site, the Endowment partnered with Jeff Oxendine to conduct a baseline assessment of existing health pathway programs and systems prior to commissioning the evaluation. The assessment included an inventory of pathway programs that provide academic support to youth in grades 7-16; an analysis of health pathway systems and potential secondary, post-secondary, and industry partners at each site; and the identification of potential or existing health workforce coalitions or intermediaries to coordinate the development of
a regional pathway system (see Appendix for key findings and definitions). This assessment provided important guidance to Program Managers at each BHC site to tailor their grantmaking based on the strengths and needs of their communities and the extent to which there was existing infrastructure to support health career pathway programming. Since each BHC site was starting from a different place, there was considerable variation across sites in the types of investments made by Program Managers. While many sites focused on supporting existing programs, several invested in the development of new pathway programs. Other sites concurrently invested in both pathway programs and the development of their pathway system, which could include funding intermediaries or coalitions to support collaboration across sectors or aligning programming between secondary and post-secondary institutions. An overview of the types of grants that were implemented across the 14 BHC sites and examples of grantees is included in Exhibit 2. Please note that Exhibit 2 is not an exhaustive list of grants for each BHC site.

**Exhibit 2. Building Healthy Communities Health Career Pathways Investments**

<table>
<thead>
<tr>
<th>Existing Program</th>
<th>New Program</th>
<th>System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boyle Heights</td>
<td></td>
<td></td>
<td>Several organizations (Partnership for LA Schools, Inner City Struggle, Health Corp, LA Trust, and Violence Intervention Program) received funding to support an existing health career academy at Roosevelt High School.</td>
</tr>
<tr>
<td>City Heights</td>
<td></td>
<td></td>
<td>Rady Children’s Hospital continued to implement the FACES for the Future health career pathway program at Hoover High School and extended the program to Crawford High School. African Coalition Workforce received funding to support the development of a partnership that provided career support and opportunities to youth in grades 7-14.</td>
</tr>
<tr>
<td>Del Norte and Tribal Lands</td>
<td></td>
<td></td>
<td>California Center for Rural Policy and Humboldt State University supported the coordination and implementation of the Health Careers Pathway project and stepped in and took over as the project backbone when Rural Human Services underwent a major organizational change and had to leave the project. The project has developed strong employer/education partnerships, with health career exposure and work-based learning opportunities for youth. Curriculum has been developed for afterschool programs for grades 1-5, and a “Medical Mysteries” curriculum was developed for middle school.</td>
</tr>
<tr>
<td>Eastern Coachella</td>
<td></td>
<td></td>
<td>Coachella Valley Economic Partnership expanded a regional mental health career pathway and launched a regional, aligned effort to produce a top quality mental health workforce from within its own student population. Reach Out received funding to develop the Inland Coalition for Health Professions.</td>
</tr>
<tr>
<td>East Oakland</td>
<td></td>
<td></td>
<td>Alameda County Health Pathway Partnership expanded its existing pathway programs and continued to serve as a convener through the Health Pathway Advisory Council.</td>
</tr>
<tr>
<td>East Salinas</td>
<td></td>
<td></td>
<td>Hartnell College and Salinas Union High School District supported the Salinas Valley Health Professions Pathway Partnership Program, a collaborative of key stakeholders representing K-12, higher education, alternative education, Workforce Investment Board, and employers committed to increasing and sustaining the number of “locally grown” and “locally prepared” health workforce to supply the regional demand.</td>
</tr>
<tr>
<td>Fresno</td>
<td></td>
<td></td>
<td>UCSF Fresno Latino Center for Medical Education’s (LaCMER) Health Careers Opportunity Program (HCOP) provided academic and social supports and helped students develop their advocacy skills. LaCMER staff and HCOP students participated in the Health Career Pipeline Central Table collaboration that is being established by the Hospital Council of Central California.</td>
</tr>
<tr>
<td>Existing Program</td>
<td>New Program</td>
<td>System</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------</td>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Kern</strong></td>
<td><img src="https://example.com/new_icon.png" alt="New Program" /></td>
<td><img src="https://example.com/system_icon.png" alt="System" /></td>
<td>Kern Community College District leads a consortium of education partners—Kern High School District, Delano Joint Union HSD, McFarland Unified School District—and health industry employers to develop and implement a sustainable health career pathways program in Kern County that aligns high school and community college curriculum with industry needs. The pathways program also includes work-based learning opportunities, internships and on-site group experiences for the purposes of “growing our own” health professionals and practitioners for addressing the dearth of health care providers in the county and region.</td>
</tr>
<tr>
<td><strong>Long Beach</strong></td>
<td><img src="https://example.com/new_icon.png" alt="New Program" /></td>
<td><img src="https://example.com/system_icon.png" alt="System" /></td>
<td>Long Beach Mayor's Fund for Education hired an Executive Director to provide outreach and coordination of businesses and employers in the health care industry and support alignment of employer needs with K-12 and post-secondary institutions. Long Beach City College received funding to strengthen alignment between high schools and college. Health Career Connection was funded to provide internships for college students and recent graduates.</td>
</tr>
<tr>
<td><strong>Merced</strong></td>
<td><img src="https://example.com/new_icon.png" alt="New Program" /></td>
<td><img src="https://example.com/system_icon.png" alt="System" /></td>
<td>UCSF Fresno Latino Center for Medical Education (LaCMER) received funding to support the development of a health pathways coordinating coalition in Merced County. Delhi Unified School District and Le Grand Union High School District expanded their respective medical academies. New programs were established at UC Merced, CSU Stanislaus, and LeGrand Elementary School District.</td>
</tr>
<tr>
<td><strong>Richmond</strong></td>
<td><img src="https://example.com/new_icon.png" alt="New Program" /></td>
<td><img src="https://example.com/system_icon.png" alt="System" /></td>
<td>Funded RDP Consulting to convene cross-sector partners, facilitate meetings, and design an identity statement to form a sub-regional health career pathway collaborative called West County Health Pathway Partnership. The Center for Cities+Schools received funding to implement Youth–Plan, Learn, Act, Now (Y-Plan) at WCCUSD career academies, a program that provides civic engagement-centered, work-based learning opportunities to youth.</td>
</tr>
<tr>
<td><strong>Sacramento</strong></td>
<td><img src="https://example.com/new_icon.png" alt="New Program" /></td>
<td><img src="https://example.com/system_icon.png" alt="System" /></td>
<td>Sacramento City Unified School District (SCUSD) received funding to strengthen health-related career pathways at two schools: Hiram Johnson High School's Health and Medical Sciences Academy (HMS) and Health Professions High School (HPHS). Part of this grant included sub-contracts to (1) UC Berkeley’s CCASN to help create a Community of Practice between SCUSD and the local community college system, and (2) UC Berkeley’s Center for Cities and Schools to implement Y-Plan. Public Health Institute also received funding to establish a FACES program between HPHS and a local hospital.</td>
</tr>
<tr>
<td><strong>Santa Ana</strong></td>
<td><img src="https://example.com/new_icon.png" alt="New Program" /></td>
<td><img src="https://example.com/system_icon.png" alt="System" /></td>
<td>Santa Ana College received funding to serve as a facilitator and convener with the Santa Ana Unified School District (SAUSD) and to participate in the Orange County Careers Pathways Partnership (OCCPP), the regional pathway initiative. OC Stem facilitated new employer engagement strategies for high school health care pathways by convening key hospitals and health industries in Orange County.</td>
</tr>
<tr>
<td><strong>South Los Angeles</strong></td>
<td><img src="https://example.com/new_icon.png" alt="New Program" /></td>
<td><img src="https://example.com/system_icon.png" alt="System" /></td>
<td>The Center for Powerful Public Schools was funded to identify mental health professional competencies, develop the pathway capstone course, expand internship partnerships, as well as providing social-emotional growth-based programs for youth. The Center established a collaboration at the Community Health Advocates School (CHAS) to ensure common outcomes and alignment of the academic and social-emotional supports provided by EduCare Foundation and LA Trust.</td>
</tr>
</tbody>
</table>
Evaluation Questions

The Endowment partnered with the UCSF Healthforce Center, Engage R+D, and Harder+Company Community Research (the evaluation team) to document lessons learned and evaluate outcomes from the health career pathways investments at each BHC site. In partnership with The Endowment’s Learning and Evaluation Department, the evaluation team identified the four evaluation questions included in Exhibit 3. Each chapter of this report is structured around these questions with findings related to sustainability included in the future considerations chapter.

Exhibit 3. Evaluation Questions

1. What are the necessary elements for **building infrastructure** to maintain a stable and sustainable health career pathway system?
2. What were some of the successful strategies for **engaging and retaining diverse and under-represented youth**?
3. To what degree are TCE-supported health career pathway programs **supporting youth to enter health professions** in BHC sites?
4. What are grantees doing to **sustain** their pathways?

To explore these evaluation questions, the evaluation team reviewed work plans and grantee reports from each of the 14 BHC sites, then conducted interviews with stakeholders closest to the work. This included interviews with the technical assistance providers at Jobs for the Future (JFF), BHC Program Managers, and grantees and partners from each BHC site.

These interviews were followed by site visits at 6 BHC sites (City Heights, East Oakland, Fresno, Richmond, Sacramento, and South Los Angeles) to dive deeper into promising programs, practices, and models.
A strong health career pathway system aligns the work of employers, educators, and community stakeholders who are invested in preparing youth for health careers. The infrastructure for health career pathway systems varied widely across BHC sites, and this variation in readiness affected the rate of progress toward establishing a sustainable health career pathway system. In a few BHC sites, most notably East Salinas and East Oakland, backbone organizations had already been established; and employers, educators, and community stakeholders were already working with one another to develop pathway systems. Other BHC sites, such as Fresno and City Heights, had well-established, school-based career pathway programs that were partnering successfully with employers. In other BHC sites, individual schools and community-based organizations operated health career pathway programs but did not have strong ties with one another or with employers.

The level of engagement of TCE program managers was a critical variable for moving the development of health career pathway systems forward. The degree of progress correlated with the extent to which program managers had expertise in the health workforce and viewed health career pathway systems as integral to their efforts to improve health in their BHC sites. Program managers with expertise in the health workforce drew upon their knowledge to develop relationships with key stakeholders that were critical to developing strong pathway programs and systems. Grantees highlighted several other key building blocks that are needed to construct a stable, sustainable health career pathway system infrastructure.

Getting to Know the System

To operate effective health career pathway programs, leaders need to understand the health needs of the local community, the local health sector labor market, local educational institutions, and barriers that under-represented youth encounter which prevent them from achieving their potential.

Assess the Labor Market and Target Population Needs. Grantees in several BHC sites collected and analyzed quantitative and qualitative information about local health care labor markets to improve their understanding of local employers’ needs. Grantees in Del Norte and Tribal Lands (DNATL) provide good examples of health care workforce programs that coordinate with local health care employers and conduct periodic labor assessments to ensure that they are preparing the types of health care providers that local employers need. DNATL grantees sunset their training programs after three years and only extends them if an assessment of the labor market demonstrates demand for additional providers. This assessment of demand is especially important in DNATL because it is a rural area with a small population. If the numbers of persons trained in health care occupations are not calibrated carefully, educational institutions may inadvertently saturate the local labor market.

In East Salinas, the Salinas Valley Health Professions Pathway Partnership (SVHPPP) also conducts labor market analysis to make decisions about what training programs to offer. SVHPPP initially focused on preparing students for careers as respiratory care practitioners based on labor market data. Since then, SVHPPP has collaborated with the local Workforce Investment Board and Healthcare Advisory Roundtable to update its labor market analysis and develop a five-year strategic plan aligned with regional education and economic goals.
Grantees also assessed the needs of the communities they served. Several grantees noted that there is a distinction between employer-driven and youth-driven strategies. As one grantee observed, “What are we doing to meet the priority employer needs?’ is much different than, ‘How do we help an at-risk youth who is 16 years old get into a health career?’”.

**Acknowledge Inequity and Structural Racism.** Although the local control funding formula for public schools in California has enhanced the ability of school districts to target resources to meet students’ needs, there is still room for improvement. The poorest and neediest children in the state are taught in schools that have inadequate facilities, dated curriculum, and insufficiently trained teachers. Several grantees emphasized the importance of acknowledging the lack of equity and the challenges associated with structural racism and other institutional barriers.

There are also structural inequities in the allocation of resources to support health career pathways. Grantees in East Oakland noted that the Oakland school district has health career pathway academies, but they are not located in communities with high populations of under-represented youth. The schools with the greatest needs tend to have less infrastructure to support pathway programming.

Inequity is exacerbated in some of the more rural and conservative regions of the state, such as the Central Valley. In these areas, the workforce priorities of agricultural interests often prevail. These priorities create a low skill, largely Latino workforce that is dependent on agriculture and associated industries for jobs and which is not prepared for better-paying jobs in health care or other industries.

**Coalescing System Partners**

Health career pathways systems devoted substantial effort to coalescing system partners around common goals and interests so that they could work together effectively. Four strategies emerged as promising practices for bringing partners together.

**Consult with Employers to Understand what Skills and Competencies are Needed.** Several grantees proactively sought out the expertise of employers and other community partners regarding local labor market conditions and the community’s needs. Examples include the grantees in DNATL, which worked closely with the local health care community to ensure that their programs are training the types of health care workers that employers need and to cultivate them as internship hosts. The California Center for Rural Policy conducted a series of 30 interviews with key stakeholders soon after the health career pathways initiative was launched. After the interviews were completed, a convening was held to review the insights gained from the interviews and to develop prototypes for solutions to the challenges identified in the interviews. One of the primary issues identified was the need for more nurses in DNATL. Efforts are underway to develop a sustainable LVN to RN bridge at the community college level, as well as bringing an RN to BSN bridge.

“Equity is probably one of the most difficult issues for us, because we all talk about it, but we don’t know exactly what to do about it. We need to have [students] excel which means putting a lot of effort into increasing science and math levels. We have a 60-70% flunk rate for sciences and for math in the elementary schools. It’s across the spectrum, but certainly for people of color it’s a higher rate at 75%.”

- Pathway Collaboration Leader

“We identified at least 10 occupations where there was growth potential, and then tried to match where the courses were being provided. When we met with the employers they further identified their priorities. Later that summer we met with community college partners because they wanted to create a strategic plan using the employer feedback to prioritize their investments.”

- Pathway Consultant
OC STEM, a Santa Ana grantee, is another example of a grantee that has thoughtfully engaged the expertise of the employer community. In order to build credibility and understand the needs of their employer partners, OC STEM conducted a series of stakeholder interviews with local health care employers to understand the labor market needs and other challenges that they face. They then shared these results with their employer partners to build rapport and trust. This approach created greater engagement by the employers and they began to share their expertise.

**Identify and Use a Highly Skilled Facilitator.** Grantees indicated that having a highly skilled facilitator is important to help partners find common goals and form a network. Examples of effective facilitators include external consultants and well-connected leaders from the local health care system. Richmond is an example of a site that has used a facilitator effectively. The Richmond program manager engaged the services of an experienced facilitator to lead the development of a backbone organization because she realized she had too many competing demands to lead the effort. The facilitator designed a process for engagement, which included identifying and recruiting key stakeholders to participate in West Contra Costa Health Pathway Partnership, the backbone organization. She also worked with the stakeholders to develop an identity statement that described their overall purpose and goals of the backbone organization. Having established the backbone organization, the consultant then successfully transferred the operation of the group to the East Bay Health Workforce Partnership.

In addition to having strong facilitation skills, effective facilitators had strong relationships with key stakeholders in the local community. As one grantee who served as a facilitator noted, “I'm pretty well connected in the community because I've just been around doing this for years. I can reach out and bring all these people together.”

### Case Example: Bringing in Outside Expertise to Facilitate Collaboration

In Richmond, grantees hired a consulting company, RDP Consulting Services, to help develop their health career pathway collaborative. Led by RDP Consulting’s Dr. Rogéair Purnell-Mack, the group started by gathering major health providers to better understand their employment needs. In contrast with other coalitions that are driven by educators or community organizations, this effort focused on understanding employer needs and how they could develop local talent to fill health care positions. Workgroups within the backbone are focused on internships, mentoring, and other opportunities for employers to engage with students and build a health career pathway.

As the group coalesced, they created an identity statement, which defined their collective goals and established a shared vision for the group. Their next step was to consider options for institutionalizing their collaboration. To create a stronger and more sustainable collaborative, the group decided to incorporate under an existing group called the East Bay Health Workforce Partnership (EBHWP). The new partnership provided much-needed capacity to coordinate the work of health care employers, educators, and community leaders towards building health care opportunities. Now that they are developed, the group is in the process of recruiting additional providers to fund their efforts.

**Develop Shared Goals and an Identity Statement.** Several grantees emphasized the value of developing shared goals that are firmly grounded in employer and community needs to create clarity of purpose and a shared identity. One grantee stated that forging a shared identity is important because “every [partner] wants to help students, but they all have their own agendas.” As noted previously, Richmond developed a formal identity statement that included shared goals with the facilitation of a skilled external consultant. Having shared goals has given the partners a roadmap for identifying and implementing programming aligned with their shared priorities.

One of the grantees in East Oakland, the Alameda County Health Pathway Program, also intentionally sought to build shared goals among its partners. Early on, the organization’s director used mini-grants to encourage collaboration among members and persuaded partners that they would be stronger by joining forces instead of competing. These efforts have been successful. Programs that serve middle school students now routinely partner with programs that serve high school students, which facilitates smooth transitions for students and increases the likelihood that they will continue to participate in a pathway program. Grantees in South Los Angeles accomplished something similar but in a more informal fashion. These grantees were able to organize themselves to identify and work towards a common goal.
Case Example: Uniting around a Common Goal

In a small conference room at Augustin Hawkins High School in South Los Angeles, a group of educators, non-profit professionals, and school administrators meet, brought together by their commitment to a common goal. It was not by chance that these individuals, who represent the Los Angeles Unified School District, EduCare Foundation, LA Trust for Children’s Health, and the Center for Powerful Public Schools, came together. A concerted effort, led by one of the partners in the room, catalyzed the formation of this group. The group understood from the start that even though everyone was willing to participate, they needed someone to take ownership over convening the group. Once the Center for Powerful Public schools stepped into the role, there was no longer a “lack of clarity or indecisiveness” about who would take the lead, which allowed the group to begin their work.

The group began their work with an honest acknowledgment that partners might have fears about working together and then a collective agreement to honor each partner and make sure every member of the group received credit for their contributions. Their next move was a practical one. The group decided to compile a shared inventory of each organization’s scope of work using an online project management tool. This tool allowed the partners to align their common deliverables and outcomes and see areas of overlap. This step was critical for grounding the group as it “put everyone on the same page about what everyone was working on” and also helped them to avoid duplication of services. It also helped lead the group to their common goal of creating high-quality internship opportunities for all students.

Setting up group norms, having mutual accountability, and the fact that “everybody was very transparent about what they were able and willing to do” were essential for building trust among the partners and finding their common goal. In addition to setting up a strong process internally for working together, the group also benefitted from having strong communication and buy-in from the school administration. As one partner reflected, “It was evident from the beginning that the principal was going to support this. The school clearly communicated their priorities and we were able to respond. The priorities might be very different, but having the principal's support opens the space to generate more ideas.”

Establish Credibility with Local Health Care Employers. BHC sites in which an established workforce intermediary was among the grantees were often more successful in partnering with health care employers, because they already understood how to connect with health care employers. In BHC sites in which a backbone organization was not in existence prior to the awarding of the health career pathways grants, grantees found that establishing credibility with hospitals and other employers was a crucial first step towards engaging them as partners. A leader of one emerging backbone organization describes their experience as follows: “Initially we thought that we could call meetings and just by having the hospital CEOs we would be able to gain access to their sites for our internships. We learned that we needed to establish credibility first. We did that by conducting market research so that we could better understand their challenges. Our willingness to understand [the industry] developed valuable trust and rapport that has helped with program development. We also realized that what we really needed was a CEO-designated contact who had the power to commit the organization and not the CEO herself. This made decision making occur much more quickly.”

Creating System Alignment

In an aligned system, high school curriculum and work-based learning prepare students to successfully meet the rigors of a post-secondary education and future career in a health field. In many BHC sites, one of the biggest challenges that grantees faced was aligning multiple organizations in their communities that are involved with health career pathways. Organizations often had their own priorities and were not always interested in collaborating with one another because they viewed other organizations as competitors.
Growing a Diverse Health Workforce

“I believe the accountability comes into play because these communities of practice are not huge. There’s 10 people involved in making something happen and you’re an integral part of that just because it’s so small, that if you don’t pull your end of the bargain, it’s going to fall apart.”
- High School Principal

Offer Short- and Long-term Solutions to Challenges. Several grantees focused on identifying and addressing challenges that employers face in the short or long term. To learn more about the needs and challenges health employers face, one grantee conducted an employer survey. Through their data gathering, they discovered that employers needed more information about the job titles typically given to people who serve as medical assistants, health coaches, and promotoras; the typical skills of persons in these positions; and typical levels of compensation. In response to the survey, the grantee quickly developed a profile of jobs, titles, skills, and compensation that it shared with employers offering a rapid solution to their problem. Further discussions with employers led them to express interest in supporting a joint training effort aimed at increasing the number of medical assistants in the community and providing better training so that they could reduce the amount of additional on-the-job training needed to prepare medical assistants to work in their organizations.

Another grantee, the UCSF Fresno Latino Center for Medical Education and Research (LaCMER), has focused on meeting the needs of the K-12 educational institutions with which it partners. Originally funded entirely by grants, over time LaCMER has garnered financial support from K-12 partners for key elements of its Doctors Academy program, including student research projects and trips to colleges. This support has enabled LaCMER to focus on identifying employers that are willing to take student interns and managing relationships with employers. K-12 partners could not do this on their own, because they do not have strong connections with employers and face many competing demands. This division of labor has enabled the Doctors Academy to secure internships that provide students with work-based learning experiences that augment the curriculum taught by partner schools.

Hire Dedicated Support Staff. Several grantees mentioned that backbone organizations need to have dedicated staff who can convene meetings, follow up with partners, and take other actions to implement health career pathway systems. The Alameda County Health Pathway Program in the East Oakland BHC has been the most successful at making grant-funded staff positions permanent. To date, this organization has been able to secure funding for a Program Manager, Program Coordinator, and Data Consultant. The backbone organization in the East Salinas BHC, the Salinas Valley Health Professions Pathway Partnership, used TCE funds to hire a full-time pathway manager to consistently engage, coordinate, and convene pathway partners and aimed to secure funding to make the position permanent.

Building Coalitions or Communities of Practice. In several BHC sites, grantees formed coalitions, leveraged an existing coalition or established a community of practice to address shared goals. In Merced, grantees built upon an existing countywide coalition to make connections across pathways regionally, improve coordination, and raise the profile of their work. Grantees in South Sacramento established a community of practice amongst K-12 and community college partners. These meetings, which were facilitated by a grantee, helped the stakeholders establish consensus about what structural reforms they needed to make in each of their respective educational institutions to better serve students who are interested in health careers. One grantee who participated in this community of practice observed that the small size of communities of practice can help achieve change by keeping partners accountable.

“You need high level support, because we are realizing that this [is] about being willing to meet with the CEOs on a regular basis and constantly be out talking to these employers, seeing what the lay of the land is, understanding priorities, bringing people together, and understanding their concerns. We underestimated what was required to do that. We need that part to make it happen.”
- Pathway Consultant
Establish Dual Enrollment Opportunities to Create a More Efficient and Sustainable Pathway. Dual enrollment allows high school students to enroll in community college courses and receive college credit for completion of the course. The benefits of dual enrollment for students pursuing a health career include exposing them to college-level training earlier in the pathway, giving them a sense of what to expect when they enter college, and providing them with a career exploration class for long-term planning. Kern is an example of a BHC site that is using this strategy to build the infrastructure for a sustainable pathways program that isn’t boutique in nature, rather it is one that addresses structural institutional barriers for real systemic change as a way to make sure high school students are ready for their coursework once they enter community college. One Kern grantee noted that even though they are still in the process of putting together their health career pathway program, they have achieved preliminary success as “the number of high school students getting college credit has increased significantly.” Bakersfield College experienced substantial growth in high school special admit students for both standard sections, as well as dual enrollment. Between 2013-2014 and 2016-2017, standard section admissions increased 144.3%, and dual enrollment spiked, increasing more than 2,568.7%, which has been contributed to pathway programs. The additional benefit of dual enrollment is that it ultimately reduces the number of courses students need to take to graduate from community college, allowing students to save time and money in reaching their health career goals.
Grantees from all BHC sites serve diverse low-income communities and engage youth from racial and ethnic groups that are under-represented in the health professions. While many health academies attract large numbers of female students of color, many experience challenges in recruiting and retaining boys of color. One grantee attributed this gap to the “stigma attached to young men being nurses or working in the health care facility as someone other than a doctor.” Another pointed to competing priorities, such as boys wanting to participate in sports instead of a health career program. Others candidly shared that they did not actively or intentionally recruit boys of color. As one grantee stated, “We have 95 percent female students. We don’t really do a ton of recruitment because we get so many students applying to be in our program that we can’t take everyone.” Interviewees described six strategies they use to engage under-represented youth, several of which focused specifically on engaging boys.

**Track the Demographic Characteristics of Participants.** Health career pathway systems and programs can use demographic data to assess whether health career pathway programs are reaching the intended target population and to direct future outreach efforts. The Alameda County Health Pathway Program in East Oakland has succeeded in leveraging its data because its leaders persuaded partners that establishing a shared data system was critical to the long-term sustainability of their programs. As noted previously, this backbone organization also has a dedicated data analyst on staff. This staff member has provided technical assistance to multiple partners. She also spearheaded an effort to create a common intake form, which reduces the need for students to fill out multiple intake forms when they apply to different programs. Using a common intake form also standardizes data collection, which facilitates analysis of data across programs.

**Incorporate Hands-on Experiences and Experiential Learning.** Programs with higher levels of participation among under-represented youth incorporated hands-on experiences and experiential learning alongside classroom instruction. Adjusting the instructional style and offering different types of learning experiences in response to student needs was an effective approach to engaging diverse youth. As one grantee noted, “All three of those programs changed the didactics. Sitting in a classroom and having workshops was not appealing to some of our boys so they changed it to more hands-on health career exposure and clinical instruction.”

**Hire Relatable Staff and Engage Mentors of Color.** Several grantees hired persons of color from the community as pathway program staff. Having staff who have successfully pursued higher education and have worked in a health career provides relatable models for youth, many of whom have not previously met anyone in a health care career who looks like them. An example of the value of hiring people and engaging mentors of color is the EMS Corps in East Oakland. The background of the director of the EMS Corps is critical to that program’s success. His experiences with the justice system gave him credibility with the young men the program serve.

“Three of our programs were successful in doubling their numbers and getting to 50% [boys of color]. All three of those programs hired men of color to be on their staff, who were relatable to the young men.”  
-Pathway Program Grantee

**Exposure to Health Careers that may be of Greater Interest to Boys.** In several BHC sites, grantees have established programs to expose youth to health careers that may be of greater interest to boys and young men. Grantees in East Oakland and Richmond have developed an Emergency Medical Services (EMS) Corps program that prepares young adults ages 18-26 years to work as emergency medical technicians. This program appeals to young men, many of whom previously had not experienced much success with the educational system or have been involved with the justice system. EMS Corps also offers paid internships, which are especially critical to attract males, and intensive psycho-social supports.
Incorporate Other Activities that Appeal to Boys. Several grantees have incorporated activities that appeal to boys that do not focus on preparation for health care careers. For example, in the South Los Angeles BHC, the program coordinator uses sports as a way of engaging youth at his high school. Due to budget cuts, the school had closed the gym after school. The program coordinator used his funding to reopen the gym after school, which attracted students, particularly boys. Opening the gym also created a space to interact with students in an environment where they felt safe and encourage them to participate in the health career pathway program.

Promote Strong Connections among Students and between Students and Teachers. Several health career pathway programs focused on promoting strong connections between students in pathway programs and between students and teachers. High schools in Sacramento and Caruthers (Fresno BHC) fostered a school culture where students supported each other. They also encouraged teachers and students to form strong connections. Caruthers High School Doctors Academy achieved this by having teachers follow a cohort of students throughout each high school year. The teachers became better acquainted with the students and were better able to identify students who were experiencing academic or socio-emotional challenges and provide support.

Case Example: Effectively Engaging Under-Represented Youth
Alameda County’s EMS Corps works to increase the number of under-represented emergency medical technicians in Oakland through a highly selective, rigorous academy. Their approach has successfully engaged black and brown young men (ages 18-26) who have not previously experienced educational success or who have been involved with the justice system.

Comprehensive supports for students are key to EMS Corps’ success. The program offers an interlocking system of youth development, mentorship, and job training to assist trainees at every step. Trainees also earn a paid stipend for their participation. These psychological and social supports boost student success, with over 90% furthering their education, becoming interns, or finding careers in the emergency medical field following participation in the program. Director Mike Gibson, who himself has experienced the justice system, holds his trainees to a high standard while ensuring that they have the supports they need to succeed.

While the stigma associated with young men who have been in the justice system is still a barrier, Mr. Gibson works hard to provide trainees with opportunities. When his first cohort had difficulty gaining employment, he partnered with county officials who worked with local hospitals and leveraged county financial contracts to encourage hiring graduates. EMS Corps has been featured in news programs, such as the PBS News Hour, showcasing its work to increase the number of people of color working in emergency services.4

---

4 PBS NewsHour. Training young men to change their lives by saving others. September 25, 2014.
Supporting Youth to Enter Health Professions

Many of the youth who live in BHC sites are from low-income families and attend underfunded public schools that struggle to meet their educational needs. A well-designed pathway program prepares these youth for the rigors of preparing to enter a health profession and encompasses academic training, psychosocial support, college and career readiness, and health career exposure. While program design varied across sites, grantees described five promising approaches for retaining youth and helping navigate the health career pathway. It is important to note that for many programs, a long-term student tracking system is still needed to fully assess and better understand the impact of these strategies on pathway program alumni.

“Assess Needs within the Target Population and Design Programming to Meet their Needs.” Interviewees emphasized the importance of assessing the needs of the target population and designing health career pathway programs to meet these needs. Not all students that enter health career pathway programs are top performers. Many are experiencing stress and trauma and need support from adults they trust. Attending to students’ needs holistically and designing programs that address students who are at different academic levels and have different psychosocial needs creates a more inclusive pathway and, ultimately, the potential for a more diverse workforce. The principal of a high school in Merced observed that addressing students’ psycho-social needs is critical to the successful implementation of pathway programs for students in disadvantaged communities. When he arrived at the high school, he implemented a restorative justice program to help students manage their emotions better and reduce problematic behaviors. Improving student behavior gave the principal more time to develop the high school’s health pathway program and reach out to employers.

The FACES programs in Sacramento and San Diego both offer strong examples of the impact of psycho-social supports on a student’s ability to remain on a health career pathway. The program coordinators established relationships with students, so they are often able to anticipate when a student is struggling and implement proactive interventions. Some high schools, such as Health Professions High School in Sacramento, have a counselor or a social worker on site to help students cope with crises.

Some programs incorporate stress management into their curriculum. In South Los Angeles, the Center for Powerful Public Schools implemented a summer bridge program for incoming 9th-grade students that focuses on how stress impacts health and learning. In this program, students are provided with tools to manage their psychosocial well-being, as well as academic support. This organization has also developed a peer mentoring program to help students manage stress. At Health Professions High School in Sacramento, students in 10th, 11th, and 12th grades learn how to develop Wellness Recovery Action Plans that they can use when they feel anxious or unsafe.

“The curriculum [for the pathway program before 9th grade] is about understanding how stress impacts health and learning. The students develop plans for themselves to help them out when things get stressful, identify the triggers, and understand what they can do about it, to support their learning.”

-Pathway Program Grantee
Richmond Public Health Solutions is an example of a program that targets students who are “diamonds in the rough.” These students are often not high achievers but have demonstrated a commitment to the program’s goals. Students complete internships with public health organizations in Richmond. The program’s leaders report that the experiences these students have during their internships are often transformative. Their confidence has increased and their willingness to explore post-secondary education has risen significantly.

In another case, a health career pathway program’s focus on top performing students fostered a culture of high expectations that benefit all students in a school. The principal of Caruthers High School indicated that he fought hard to bring the Doctors Academy program to his school because he was losing many of his high performing students to neighboring school districts. The Doctor’s Academy has helped the principal to keep these high performing students and increase the aspirations of all students. Many students who are not part of the Doctors Academy are taking advantage of services that the program offers to all students, such as the opportunity to visit colleges and learn about financial aid. Although these students may not pursue careers in health care, completing post-secondary education in any field is likely to increase their earnings, which will benefit their families and communities.

Demystify the Educational and Career Trajectory in Health Care Occupations. Many students who participate in health career pathway programs are from families that are not aware of the educational requirements and career trajectories in the health professions. Several programs provided opportunities for students to learn about the breadth of health career options and educational requirements for the health career in which they are interested.

Through the efforts of the health pathway work, Del Norte High School now offers a CTE health career exploration class, as well as a science-based health pathway option. Students learn about basic anatomy, treatment of disease, and different types of health careers. Students are also taught how to perform cardiopulmonary resuscitation (CPR).

Reach Out, an Eastern Coachella Valley grantee, holds an annual conference for high school students who participate in health career pathway programs. The goal of the annual conference is to expose students to a wide range of health careers. Reach Out typically holds the conferences at a university campus to reinforce their motivation to complete high school and attend college. Holding conferences at a university is especially valuable because many of them have never visited a college or university before. In Merced, local universities established mentorship programs for high school students interested in health careers and provided academic counseling to incoming college freshmen to prepare them for the rigors of the coursework in their chosen health major.

Align Secondary and Post-secondary Curriculum with Employer Needs. Many grantees focused on cultivating partnerships among secondary education, post-secondary education, and industry stakeholders to develop coursework that provides youth with the academic and technical competencies that local employers need. One grantee described her school’s efforts to align curriculum with employers’ needs as follows: “The most successful [strategy] so far I would say has been working with the teachers to develop curriculum for the courses that are articulated with post-secondary education and industry partners, which then allows students to experience rigorous learning so they’re ready for post-secondary programs in the health field, and they’re also informed of industry practice... It’s really working with the teachers. All 10th grade teachers will get together this summer for three days to align their curriculum assessment, and have it vetted by industry and post-secondary [educational institutions].”

“To motivate high school students we offer high school freshman a semester long career exploration course where they say [what career they want] then they are handed a sheet of paper that says, if you want to do that, here’s the courses you’d have to take in high school, here’s where you’ll need to be when you finish high school, and here’s the courses you’ll need to take in college. That increases their motivation to actually go into a community college and finish getting a certificate or a degree.”

- Pathway System Grantee
Richmond is another example of where schools are working to align curriculum with employers’ needs. One of the grantees in Richmond is working with the school district to identify competencies needed for health careers that will be taught in the classroom and through internships and to align coursework with what students are learning from their internships. In South Los Angeles, the Center for Powerful Public Schools is working with teachers and internship providers to identify competencies needed for health careers and using that information to develop a capstone that aligns coursework with internships experiences. The Fresno Unified School District has used input from employers to make broader changes in curriculum. When the school district’s College and Career Readiness Director contacted employers about securing substantive internship opportunities for students, she heard complaints about students’ lack of preparation in mathematics. This information led the school district to change its mathematics curriculum to improve students’ preparation in this subject.

Prepare Students to Engage Professionally in Work Settings. Several grantees emphasized the importance of providing students with interpersonal and soft skills development training during the pathway program prior to participating in internships. This type of training provides students with the soft skills necessary to successfully navigate and thrive in a work setting, such as understanding workplace culture, norms, and interpersonal dynamics. Examples of programs that emphasize the development of soft skills include the FACES programs in San Diego and Sacramento. Students often role-play how to interact with adults to practice shaking hands, making eye contact, and other behaviors. In addition, they learn about the importance of punctuality and dressing appropriately. One interviewee provided a detailed description of her program’s efforts to teach soft skills. “The interns attend four professional development workshops throughout the ten weeks of the full-time internship program... The big learning experience for them was how to be in the workforce. Part of our orientation is about what to expect [at work], how to have a resiliency through the workday, how to give yourself a break, and how to understand the culture of the workforce. We do this in our application process, too, because we don’t want somebody who is kind of a free spirit kind of person, going into a very corporate partner. That is something that is critical for employers. It’s a good skillset that you don’t learn in college on everything from stamina to taking direction to how you present yourself within meetings. Then we also have a two-day workshop on life and career planning that focuses on who you are as a person in a profession, and who other people are. Part of it is understanding your supervisor and understanding who you are, then understanding who the group is.”

Provide Opportunities for Work-Based Learning or Health-Related Civic Engagement. Work-based learning opportunities with local employers are essential for students to understand health careers and professional behavior. The Doctors Academy in Fresno and the FACES program in San Diego are examples of programs that offer students experiences in health care settings. The San Diego FACES program, which primarily offers internships at Rady Children’s Hospital, offers students a breadth of experience, from shadowing nurses in the Neo-natal Intensive Care Unit to working with the head of the hospital supply chain to provide critical medical supplies to every department in the hospital. The Fresno Doctors Academy program places students with committed health professionals who practice in a wide range of settings. One physician, who practices in a small town south of Fresno, requires his high school interns to show up to work when his residents showed up—at 7 a.m.—so that they can fully experience the work day of a physician.

Health career pathway programs face several major obstacles to developing internship programs, including the requirements of the Health Insurance Portability and Accountability Act and immunization requirements. Some employers refuse to offer internships to students under age 18. Lack of transportation is also a major barrier because many students do not have cars and live in communities that are not

“Y-Planning certainly has an impact on health and health-related services, and not in the traditional medical sense. We were able to find partners where the students could actually partner, despite not being 18. They had a real impact in their plans, one of the biggest being they felt that one of the bus stops nearest to their high school was unsafe. They contacted our area’s transit system, and within two hours the head of [the transit system] had responded to a student. That bus stop was changed based off their recommendations.”

-Work-Based Learning Coordinator
well-served by public transportation. Pathway programs have the most difficulty securing internships for students who are undocumented or have criminal records because some employers are reluctant to offer internships to these students.

In communities where internships are more difficult to obtain, other experiential learning programs, such as Y-Plan, provide an alternate way for students to learn about the health care system, as well as social determinants of health, policymaking, and civic engagement. Students at Health Professions High School in Sacramento are drawn to its Y-Plan program because it gives them an example of a different means for addressing health needs that appeal to students who are not interested in becoming physicians, nurses, or other clinicians. The program also has a strong advocacy component that includes making presentations to local officials. As one teacher put it, students learn “that government isn’t something that happens to you, but it is something that they can affect.”

Richmond’s Public Health Solutions program is another example of a program that has a focus on public health and public policy. The program has very enthusiastic support; the only complaint of organizations that host interns is that they would like the internships to last longer. This support is especially impressive because Public Health Solutions focuses on preparing young people who are not top performers academically and need significant psychosocial support.

**Case Example: Merging Civic Engagement and Work-Based Learning**

At Hiram Johnson Health Professions High School in Sacramento, the Y-PLAN (Youth-Plan, Learn, Act, Now!) program teaches students about the wide and varied health field. Along with traditional medical science courses, the school uses the Y-PLAN to expose students to public health. “It’s not just ‘doctor,’ ‘lawyer,’ and ‘vet’”, shared one student. “It goes more in depth and there’s a lot more variety.” In the year-long course, students investigate the social determinants of health, such as physical fitness, housing, and even climate change. In 2018, Hiram Johnson students partnered with the Sacramento Housing and Redevelopment Authority to provide recommendations for engaging residents living in affordable housing. Students also developed their advocacy skills, making presentations before commissions and the city council. Through the program, students learned about the public health career path. As one teacher put it, students discovered that this is another way to care about health.
Case Exemplar: A Comprehensive Model for Preparing Youth for Health Careers

The FACES for the Future program in City Heights is an exemplar among the health career pathway programs supported by The California Endowment. The FACES for the Future model was originally founded in Oakland, California, in 2000 by Dr. Tomás Magaña to address the connection between the lack of diversity in health professions and worsening health disparities in diverse communities. City Heights replicated the model in 2009 at Hoover High School then expanded to Crawford High School in 2014 with funding from The Endowment. Under the skilled and intentional leadership of Cheri Fiddler, the recently-retired Director of the Center for Healthier Communities at Rady Children’s Hospital, FACES has grown into a highly recognized program that is more than the sum of its parts. Like all FACES for the Future programs, City Heights offers health career training, work-based learning, academic and psychosocial supports, and youth leadership development. While each of these components contributes to preparing students for a career in health, the way in which students are supported by genuinely caring staff and preceptors and incrementally exposed to new skills and knowledge produces just the right conditions for students to learn, grow, and discover their passions.

On site at the high schools, program coordinators work tirelessly to engage students, support them through the program, coordinate internship placements, facilitate personal and professional skills workshops, and provide mentorship. At the various community organizations that provide placements and at Rady Children’s Hospital, the preceptors play an integral role in introducing students to the ins and outs of professional settings and provide critical guidance on how to behave in the workplace. Preceptors often go above and beyond to create meaningful and impactful experiences for students, tailoring each student’s experience based on their interests. For example, several Rady Children’s Hospital preceptors described how they introduce students to the health professionals in their desired careers to better ground them in what the career entails. In one instance, a student was invigorated after talking to a pharmacist and learning more about the career path. However, in another situation, a student interested in neurosurgery learned that a neurosurgeon’s “life is at the hospital” and that choosing that career path means choosing a lifestyle.

The City Heights FACES program offers students a rigorous training program that combines health career preparation with soft skill development and professional development. Students complete coursework and training in school well before they have their first work-based learning experiences at local organizations, including health care placements at Planned Parenthood and La Maestra Community Health Centers, as well as community placements at City Heights Community Development Corp., Crawford Community Connections, and African Coalition Workforce. The culminating work-based learning experience takes place senior year when students participate in an internship at Rady Children’s Hospital. As one preceptor explained, the preparation in advance of their internship placement is evident as the students meet are “professional, engaged, happy, and they ask really good questions.”

Over the years, the FACES for the Future program at Rady Children’s Hospital has steadily expanded, evolved, and improved by prioritizing student needs, gathering data from students and preceptors on their experiences with the program, and earnestly learning from missteps. For example, one minor, yet very significant change they made to the program was to provide more training in soft skills and professionalism. After observing that students were often intimidated by their hospital placements, one of the coordinators developed a series of workshops for students to learn and practice soft skills. Program coordinators would also equip students by asking them to prepare questions in advance for their hospital preceptor and, for students who are still struggling to engage at their placement, working one-on-one with students to address issues.

Ultimately, the program makes a lasting impact, not only on the students who are involved, but also the preceptors, which helps to feed the sustainability of the program. Preceptors shared that hearing where the students come from, learning about their life experiences, and consistently having positive experiences with the students keeps them engaged in the program year after year ensuring ongoing placements. In their eyes, the impact goes both ways.
Future Considerations

Sustainability

Several grantees are pursuing promising opportunities to maintain funding for their pathway programs and systems; yet for many, long-term sustainability remains a challenge. One of the most promising strategies grantees and Program Managers described for long-term sustainability was to work with both schools and health care providers to institutionalize pathway program staff positions. The success of a pathway often hinges on the dedicated staff working with students within schools and health care organizations. Demonstrating how indispensable these positions are worked in East Oakland and has resulted in permanent administrative and management positions at a local health care services agency. Another related sustainability model that grantees in Sacramento are working towards is making sure that each career pathway has a credentialed Career Technical Education (CTE) teacher. Employing CTE credentialed teachers will allow the school district to leverage California Department of Education funding to sustain teaching positions in the pathway.

Two emerging funding sources for health career pathways are Community Benefit funding, which is required of all nonprofit hospitals under federal and state law, and the Local Control Funding Formula (LCFF). One partner in East Oakland is currently receiving funding through Kaiser Permanente Community Benefit for a regional health career pathway collaboration and suggested that one avenue for sustainability could be to develop a strategy to appeal to Community Benefit at nonprofit hospitals that have an interest in developing pathways. Another partner in Sacramento described an experience with LCFF stating, “We have worked with schools and district staff with the Local Control Funding Formula and we have a dollar amount allotted to our department to continue to support and sustain pathway from year to year.” Merced is also leveraging LCFF by building support for the development of their health career pathway into their Local Control Accountability Plan.

Case Example: Creating Sustainability in Fresno

The UCSF Fresno Latino Center has encouraged local organizations to take ownership of their health career programs, creating a more integrated and sustainable career pathway. At Caruthers High School in rural Fresno County, Principal Mark Fowler saw the Doctors Academy as central to promoting academic excellence and achievement at his school. He used school funds to support parts of the program, including passing a local bond measure to relieve some of the school’s other financial obligations. The school now funds academic support (including college trips) and the costs associated with the junior year research project. This has allowed students to complete their internships during the school year with transportation and additional support and give them access to an onsite academic counselor tailored to their needs. The support from the school also freed up the Latino Center to focus on other much-needed services that the school couldn’t provide itself, such as identifying and managing relationships with internship employers. By taking ownership of the program, the school was better able to meet student needs and ensure that the program will remain in place past the end of the grant.

Lessons Learned

Networks Play a Critical Role in Coalition Formation. In a few BHC sites, one of the grantees was already serving as a backbone organization at the time grants were awarded and continued to play this role in the pathway system. Grantees in some other BHC sites leveraged informal networks of partners. However, in some BHC sites, there were no formal or informal networks of partners. Forming a coalition to develop a pathway system in these communities was difficult because the key stakeholders were not accustomed to working with one another.
The Alameda County Health Pathway Partnership is an example of a mature network that has been very intentional about creating systems and structures to support its members and foster connections among them. During the Alameda Partnership’s early years, the Director awarded mini-grants that rewarded collaboration among health career pathway programs. As grantees began to work with one another and develop trust, they began to understand that they were stronger if they worked together. Grantees reported that they prioritize Alameda Partnership meetings because they provide a forum in which they receive support from like-minded colleagues. As mentioned previously, the Alameda Partnership also has a data analyst who has worked on building a common IT system and standardized intake system among the members which reduce the paperwork students need to complete and facilitates data analysis.

The FACES program in City Heights BHC (San Diego) provides an example of a very strong informal network. While there is no dedicated backbone organization in City Heights, the leaders of the FACES program at Rady Children’s Hospital have created an impressive informal network due in large part to the director’s leadership, persistence, and ability to cultivate and maintain a highly effective network.

Merced provides an example of a BHC where individual partners were deeply engaged in health career pathway work but where a backbone organization had not existed prior to the awarding of their TCE grant. During the grant period, the UCSF Fresno Latino Center for Medical Education and Research organized a coalition of key stakeholders in Merced as a precursor to identifying a backbone organization. The Central Valley Health Network was designated as the backbone organization for the area and has hired a work-based learning coordinator and begun to convene coalition members and work with them to develop a sustainable health career pathway system.

**Network Weavers are Needed to Catalyze Connections among Partners.** Intentionally and skillfully connecting the dots among partners appears to be a core driver of network and coalition development. Network weavers include consultants hired to facilitate the development of a coalition or dedicated staff at a coordinating coalition. The most successful network weavers were individuals located in the local community who understood the social, political, and economic contexts in which health career pathways programs and systems operated and could connect pathway programs with employers and other organizations in the community.

As noted previously, the TCE Program Manager for Richmond hired a consultant who helped create and facilitate the local backbone organization. As they evolved and matured, the Alameda County Health Pathway Partnership and the Salinas Valley Health Professions Pathway Partnership hired a program manager/COORDINATOR who organizes meetings and works with partners to implement programming and secured funding to make the position permanent. In South Los Angeles, staff from grantees that had previously worked together on other projects formed their own network to coordinate their work on health career pathways.

In BHC sites in which there were neither individuals nor organizations focused on connecting partners, grantees tended to work in siloes on their own deliverables and missed opportunities to collaborate with one another to advance health career pathway systems.

**Developing Systems Requires a Long Runway.** A number of interviewees noted that extensive lead time is needed to develop and sustain health career pathway systems. In some BHC sites with more mature pathways, grantees have already increased the number of youth who are exposed to health careers and prepared to pursue post-secondary education in health care fields. In other BHC sites, grantees are still in the process of assessing the needs of the local health system, establishing a network, and reaching consensus around goals and priorities. Such BHC sites would benefit from long-term investments of resources that would help them solidify the partnerships needed to develop robust pathway systems. As one grantee stated, “If we’re going to make a commitment, then make a commitment for the long term. Don’t make a short-term commitment, because then all you’re doing is making people panic about the work and try to get easy wins at the expense of achieving long-term goals.”

In some BHC sites, program managers considered the health career pathways grants as one-time investments with a fixed end date. Given the need for a long runway to develop and sustain health career pathways, it is not surprising that short-term funding has not been sufficient for grantees in some BHC sites to develop and sustain health career
pathway systems. BHC sites in which the program manager viewed health career pathways as integral to improving the health of the community and had previously funded health career pathway initiatives have made the greatest progress to institutionalizing sustainable pathway systems.

**Multiple Strategies are Needed to Engage Students.** Turnover in leadership in schools and school districts has made it difficult for some grantees to maintain relationships with school district leaders. For example, in the East Coachella BHC, the Superintendent of the Coachella Unified School District resigned in December of 2016. His replacement has been less enthusiastic about health career pathway programs. Similarly, grantees in Santa Ana reported that changes in leadership in the local school district and the local community colleges have been major barriers to building momentum. In some BHC sites, grantees had difficulty engaging school districts because they did not want to partner. For example, school district officials in Eastern Coachella and Long Beach withdrew as active partners in health career pathway programs, while independently offering their own career pathway programs separate from BHC. To address this challenge, local TCE program managers developed partnerships with youth-serving non-profits.

Some school districts were also unable to adopt policies that make it easier to implement health career pathway systems. The Sacramento Unified School District’s ban on block scheduling is an example of a district policy that is a significant barrier to implementing health career pathway programs. This policy severely hinders Health Professions High School’s efforts to offer work-based learning opportunities for students. Under a regular schedule, there is simply not enough time for students to get to their internships sites and then get back to school. The high school adopted Y-Plan as an alternative means of providing students with experiential learning experiences. While valuable, Y-Plan does not provide exposure to the work life of health professionals that students gain through internship programs in health settings.

**Need for Sustained State Funding for Workforce Intermediaries.** Obtaining stable funding is one of the major challenges that health career pathway programs face. Stable funding for workforce intermediary organizations is especially critical due to the considerable effort required to recruit employers that are willing to sponsor internships and prepare students for internships. School districts have difficulty providing stable, long-term funding for workforce intermediaries due to competing priorities, turnover in leadership, and the cyclical nature of school funding. A dedicated, state-level source of funding may be needed to ensure that workforce intermediaries have sufficient, stable resources to sustain internship programs which are critical for teaching students about health careers and workplace culture. Germany has a strong internship program that is a partnership between the government, employers, and schools, which could serve as a model for California.
Appendix A: BHC Health Career Pathway Assessment

In 2014, Jeff Oxendine conducted a health career pathway assessment at each of the BHC sites. Findings from his assessment were released in his 2015 report, *BHC Health Career Pathway Assessment: Summary of Findings and Recommendations*. Key definitions and a snapshot of the health career pathway classification are included below.

**Key Definitions**

**Pathway System.** A coordinated, interconnected set of organizations aligned to provide youth with support to succeed academically and enter health careers and meet area health employer demand for a well-prepared workforce in emerging priority professions. Offers linked sequential and continuous support across all educational levels and towards a range of health careers.

**Pathway Program.** Provides youth in grades K-16, recent graduates or “opportunity youth” with academic preparation and support; psychosocial support; college and career readiness; health career exposure and experience; work-based learning/internships; parental engagement; mentorship; and advocacy and leadership development. Programs are ideally informed by the pathway system coalition goals and driven by youth outcomes. Programs are typically implemented by an intermediary with dedicated staff and systems to plan, manage, and support a health career pathway.

**Coordinating Coalition.** A formal coalition of employer, education, and community stakeholders focused on coordinating actions to (1) support local youth to achieve educational and health career goals; (2) meet area health workforce and diversity needs; (3) support and align individual health pathway programs; (4) strengthen employer and education linkages; (5) efficiently utilize resources and promote best practices; and (6) build the vision, plan, and network for a health pathway system.

**Coordinating Intermediary.** An entity with dedicated staff and systems to plan, manage, and support a health career pathway program or system. This entity has sufficient capacity, expertise, and credibility to convene, develop shared vision and metrics, execute plans, strengthen linkages, secure funding, and achieve measurable results.

**BHC Health Career Pathway Systems Classification Stages**

1. **Low Readiness for Pathway Development**
   - Boyle Heights
   - Del Norte
   - Kern
   - Merced
   - Richmond
   - Sacramento
   - Santa Ana
   - South Los Angeles

2. **Pathway Interest and Potential**

3. **Strong Programs & Leaders to Anchor Pathway Development**
   - City Heights
   - East Oakland
   - Fresno
   - Long Beach

4. **Maturing Multi-Level Programs & Systems, Increasing Coordination**
   - East Salinas
   - Coachella Valley Region

5. **Comprehensive & Sustainable Pathway Systems**
Appendix B: Health Workforce Theory of Change

**Career Pathways**
- **Engage**
  - Design, expand and implement health pathway program curriculum and academic supportive services that adequately prepare youth for health careers.
- **Advocate**
  - Advocate for policies and practices that improve student readiness and promote entry into health careers.
- **Coordinate**
  - Support the establishment of strategic partnerships.
- **Align**
  - Develop health career pathway collaborations and coordinating bodies or anchor orgs to establish linkages between secondary education, college, and industry.

**Resources**
- **Leverage**
  - Provide financial support for family medicine residency and family nurse practitioner/physician assistant programs.

**Ladders**
- **Build Capacity**
  - Train residents to take on new and expanded roles as frontline health workers within new models of health care delivery emerging through ACA implementation.

### Strategies
- Replicable, trauma-informed health pathway program model
- Expanded academic supports
- Youth enter and complete pathway programs
- Youth apply for and enter community college, college, or vocational school for a health career
- Alignment of high school and college curriculum to foster student readiness
- Increased number of paid training opportunities for youth pursuing health careers
- Formal partnership agreements (e.g., MOU, articulation or affiliation agreement)
- Improved communication and coordination across K-12, community colleges, and universities
- Increase capacity to establish partnerships
- Policies and practices that reinforce a more integrated and aligned delivery system
- Strong coordination among member organizations
- Systematic data collection and sharing
- HFFE funding for loan repayment and scholarships for aspiring health professionals in underserved areas
- Programs admit underrepresented youth and economically disadvantaged students
- Students gain clinical experience
- OSHF funding for training primary care professionals and Community Health Workers (CHW)
- Institutional commitments to fund CHW training and jobs
- Replicable CHW apprenticeship model
- Residents are trained as CHWs and in-home supportive service workers

### Indicators

**Population Outcomes**
- A more representative, economically sustained health workforce
- Better health care in underserved areas of California

**Systems, Policy and Practice Change**
- Systems, policies, and practices that support more opportunities for under-represented youth to pursue health careers and work with underserved populations
- Well-designed and resourced pathway programs

**NORTH STAR GOAL: PREVENTION**
Californians have access to a health system that prioritizes prevention and coverage for all