



## **EMPLOYER-DEFINED VALUE:**

*Improving the Connection Between Health Care Employers  
and Schools to Increase Work-Based Learning Opportunities  
for High School Students*

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# EXECUTIVE SUMMARY



We are pleased to present the research results of the **Work-Based Learning Project** to the California Hospital Association and the James Irvine

Foundation. This Executive Summary offers a brief description of the project, followed by an overview of the study purpose, key findings of barriers preventing partnerships, and strategic directions for improving workforce collaborations between the health care industry and schools to prepare high school students for career opportunities in the health care industry.

This project examines two major issues with which California is currently struggling. The first issue is that millions of students from secondary schools are not adequately prepared with high-level sets of skills in the health care industry, both in academic instruction and technical training, to be successful in college and in a challenging and demanding 21st century labor market (Carnevale, Smith, & Strohl, 2013; Hyslop & Imperatore, 2013; Symonds, Schwartz, & Ferguson, 2011). Particularly, the health care industry does not have a workforce pipeline to address the current and future labor force shortages. The second issue is that the health care industry does not have a reliable pipeline of health care workers in place to meet an increased demand for a diverse and culturally and linguistically competent workforce. Failure to prepare an adequately trained health care workforce would result in serious consequences, putting at risk access to care, poor quality of care, and lack of patient safety (Carnevale et al., 2013).

Our overall aim of the current study was to discover the risk factors that would prevent hospitals and other health care agencies (e.g., nonprofit and public clinics, and community-based agencies) from collaborating with schools to provide high school students with meaningful work-based learning experiences. We also attempted to identify workforce-building strategies from key health care industry informants: (1) to make a strong business case and increase their partnerships, and (2) to shape high school students' college and career readiness experiences through curriculum and real life on-the-job training opportunities.

Work-based learning (also known as work-place learning) can be best described as a type of experiential learning that, when combining the classroom instruction with real-life work experiences, gives value and relevance to students' lives and their effective learning to be ready for college and career. A strong collaboration with a health care industry partner works to balance a student's education by combining the classroom instruction and fieldwork practicum for real-life work experiences (Loera et al., 2013). Work-based learning is a critical component of health career academies and essential for motivating students to pursue a career in health care (Gysbers, 2013). Work-based learning can occur in two major formats. Basic low in-depth type learning is defined as the acquisition of occupational knowledge and the most basic level. The learning experiences come from job shadowing, field trips, simulated workplace, guest speakers' lectures, and mentors' guidance. Experiential high in-depth type learning means the application of knowledge and skills to real-life scenarios and tasks that may be paid or non-paid. Its examples include internships, work or clinical experience, and student apprenticeship. Teacher externships are also described as "high in-depth" work-based experiences.

**Research Question 1: What are the risk factors preventing hospitals and other health care agencies from collaborating with schools?**

## FINDINGS ON BARRIERS

### **Key Finding 1: Financial burdens and disengagement from health care executives**

One factor preventing collaboration is *Financial burdens*; (a) It was a big issue that there was no funding structure to support these partnerships and provide work-based learning. (b) Another type of burden that executives mentioned was staff time. One direct-service staff member indicated that

# EXECUTIVE SUMMARY

when students at the work site are not motivated and untrained, it takes more time for staff to train them. The other factor is *disengagement from health care executives*; the lack of engagement from the top health care executive emerged as a critical component to effective partnerships and work-based learning programs. This finding emphasizes the importance of leadership involvement in which the direction and vision are addressed, and the partnership and committed resources are provided. The disengagement evoked a sense of loss. One respondent shared her strong feelings about the health care industry and schools not working together: “We all stand to lose a diverse workforce pool of bilingual and bicultural individuals to other industry sectors that are already tapping into our workforce pool.”

## Key Finding 2: Long-term investment and commitment to create trusting partnerships

The challenges of creating effective partnerships as long-term investments emerged as an overarching concern. The first theme was *industry* and school partnerships. It was challenging for industry to find creative and cost-effective ways to establish effective partnerships with schools to engage students in real-life job experiences, because it was time consuming and the return on investment was perceived as not worth the effort. This finding speaks to the ongoing gaps in hospital-school partnerships. It was plausible that this partnership gap was due to the labor laws and other liability issues (e.g., privacy and confidentiality issues) that make it difficult for hospitals and schools to work together, as Darche, Nayar, and Braco (2009) pointed out. The second theme was *investing in a long-term purpose*. It is important to understand that establishing trusting partnerships takes time, effort, and commitment from the interested stakeholders. Partners must be in it for the long haul.

## Key Finding 3: Misalignment between education/training and the health care industry

The other challenge was aligning education and training with the health care industry. Here, the lack of *industry-focused curriculum* emerged as a barrier.

*The misalignment between educational curriculum/training and the health care industry led to inadequate training of students.*

The majority of the executive informants suggested the need to integrate more industry-driven competencies into the health career pathway program curriculum. The education and classroom instruction that students are receiving to prepare them for employment at a health care organization is not in line with the health care industry expectations. That is, the health care industry and pathway

teachers are not working together to ensure that the curriculum and the delivery of lesson plans are relevant and current to the competencies required to be successful in the health care industry. Several informants expressed concern over financial and staff time constraints, as well as not being able to dedicate time to work with teachers to develop new curriculum. The misalignment between educational curriculum/training and the health care industry led to *inadequate training* of students. Health care industry employers that do not have a partnership with schools and do not offer high school students work-based learning experiences tend to view high school students as less productive and less predictable because of their lack of adequate training. That is, students without the proper training were not seen as an investment for health care employers. Several key informants emphasized the importance for students to be properly trained and prepared to work with real patients prior to an internship.

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**Research Question 2: What specific value points lead to a successful proposition for the hospital and other health care employers to see work-based learning as a priority to the agency?**

## **FINDINGS ON STRATEGIES FROM EMPLOYER'S VALUE POINT**

### **Strategic direction 1: Focus on building students' capacity to benefit hospital or other health care agencies through collaboration and increased engagement**

Convene health care executives and students, who completed a work-based learning program, to interact and allow students to communicate to health care executives the value of their experiences, and how they benefited personally and professionally. At the core of this strategy is having students act as the key messengers on reasons why work-based learning is meaningful. By doing this, both the educators and health care executives will see this collaboration as an investment and not as a financial burden. An outcome from this strategic direction will be that funding will be redirected to support teacher and industry collaborations.

### **Strategic direction 2: Recognize students as a long-term workforce investment with life experiences that can help hospitals and other health care agencies become more cost effective and increase funding opportunities**

Convey to health care executives that failing to partner with and invest in schools becomes a missed opportunity to benefit from potential workers with diverse backgrounds. For example, students who are bilingual and bicultural and mirror the composition of the community that the hospitals and other health

care agencies are serving can be a worthwhile investment. Emphasize that the demand for this diverse workforce will increase, making it harder for the health care industry to compete with other industries and attract qualified cultural and language-proficient individuals to meet the needs of diverse communities.

### **Strategic direction 3: Improve workforce education and training**

Become a best practice model for replication and scale-up throughout the California state and other states in the United States. An effective health care and school collaborative is vital to the youth's prosperity and the industry's future workforce. An evidence-based program and practice is the result of schools with a supportive administration whose career academy curriculum is not only aligned with college- and career-readiness standards, but also with the workforce needs of health care employers.

### **Strategic direction 4: Increase community engagement and benefits to the community**

The value of social networking in community engagement must be unique to that community. Hospital and other health care employers must go beyond the "one-size-fits-all" approach and embrace the cultural differences that are unique to that community. Students' life experiences and stories, combined with their interests in health care careers, can bridge the engagement gap between the health care industry and communities. Community engagement and community participation is an important aspect for the health care industry in understanding the community composition and its health issues in order to increase access to care and wellness.



# INTRODUCTION: WORK-BASED LEARNING IN HEALTH CARE

## OVERVIEW

With the implementation of the Affordable Care Act (ACA) to provide affordable, accessible, and accountable health care, calls for a culturally competent system of care that focuses on the prevention and health promotion of un/underserved and inappropriately served populations. This major workforce challenge creates a need for thousands of new culturally and linguistically competent health care professionals with the capacity to deliver appropriate care services and treatment. Although the nation's population becomes more racially and ethnically diverse, the health care workforce composition does not resemble the communities it serves. For example, California's population is the most diverse in the United States, with 39% being Latino, 38.4% white, 13.1% Asian, 5.7% African American, 2.8% two or more races, and less than 1% Native American and Native Hawaiian/Pacific Islander (California Governor's 2015-16 Budget Summary, pp.139-141). According to the Office of Statewide Health Planning and Development (2008), the workforce disparities for the Latino and African American health care workforce remains a concern. Latinos make up 5.7% of nurses, 5.2% of physicians, and 7.6% of psychiatrists in California. Likewise, African Americans make up 4.5% of nurses, and 3.2% of physicians in California. A recent Robert Wood Johnson Foundation (2011) study found that 80% of physicians are not confident in their capability to address their patients' social needs, which impedes their ability to provide quality care. This key finding underscores the notion that the effectiveness of a progressive health care industry depends on human capital. As states like California continue to become more diverse, Andrulis and his colleagues (2010) emphasize that the success of the ACA will be determined by the health care system increasing the number of health care providers with the capacity to deliver culturally and linguistically appropriate and competent care. In other words, the health care system needs to recognize the life experiences and preferred languages of underserved populations. Compounding the existing shortages is

the aging health care workforce. As the health care workforce is aging and retiring, the supply for health care workers lags behind the demand, resulting in a severe shortage of health professionals. According to Carnevale, Smith, Gulish, and Beach (2012), the shortage of health care workers is projected to be significant by 2025. It is well-documented that the health care industry is facing a serious workforce challenge, calling for the industry to play a more active role in helping to prepare high school students for a 21st century workforce.

In the same way, career technical education (CTE) emerged as a major educational reform to ensure that young people are not only college-ready, but also career-ready to enter the health care workforce. As the call to expand career technical education and training became more prevalent in the first two decades of the 21st century, CTE legislation (i.e., Perkins, Vocational and Technical Education Act of 1984) called for an increase in college and career readiness initiatives for at-risk students (Stone & Lewis, 2012). This reform has expanded career technical training opportunities for high school students and improved the alignment between the health care industry and CTE health care-related curricula (Alfeld, Charner, Johnson, & Watts, 2013). It is important for the health care industry and schools to work together to provide solutions to three major problems: (1) improving student engagement to reduce the dropout rate and complete schooling, (2) educating and training students to be ready for college and career, and (3) increasing the number of diverse students pursuing careers in health care to address the workforce shortages serving un/underserved communities.

The education and health care systems in California are grappling with two hard realities. The first is that millions of students from secondary schools are not adequately prepared with high-level sets of health care skills, both in academic instruction and technical training, to be successful in college and in a challenging and demanding 21st century labor market (Carnevale, Smith, & Strohl, 2013;



# LITERATURE REVIEW: WORK-BASED LEARNING AND ITS VALUE TO EMPLOYERS

## WORK-BASED LEARNING

Work-based learning is a type of experiential learning that when combining the classroom instruction with real-life work experiences, gives value and relevance to student's life and their learning for college and career readiness (Loera et al., 2013). Work-based learning is a critical component of health career academies and essential for motivating students to pursue a career in health care. According to Gysbers (2013), career-ready students possess the following workplace behaviors: (1) social competence, (2) diversity skills, (3) positive work habits, (4) relationship skills, (5) personality and emotional stability, and (6) entrepreneurial skills. Students develop these work etiquettes through exposure and active participation in real-world contexts, in which students are given opportunities to respond to critical life situations and make decisions under the guidance of a professional (Brundiers, Wiek, & Redman, 2010; Gysbers & Lapan, 2009). These opportunities to engage with purpose and direction help students develop employability skills for on-the-job success (Gysbers, Stanley, Kosteck-Bunch, Magnuson, & Starr, 2011; Van de Heijde & Van de Heijden, 2006). Work-based learning can occur in two major formats: (1) basic low in-depth learning, and (2) experiential high in-depth learning.

### Basic Low In-Depth Work-Based Learning Experiences

Basic low in-depth work-based learning refers to the acquisition of occupational knowledge at the most basic level. Anderson and Krathwohl (2001) make the distinction between the types of knowledge that can serve as a framework for understanding basic career exploratory knowledge. First, factual knowledge refers to the most basic level of career awareness in which students acquire general knowledge about health care careers, including skills needed in the health care industry and basic medical terminology. Second, procedural knowledge refers to knowing how to do something, but not necessarily putting it into practice or performing a task. At this level,

students are beyond simply reciting a collection of facts; students are able to describe a sequence of steps or procedures when applying the knowledge. For example, students are able to describe how to take vital signs and then have the ability to apply that knowledge to use a full-body mannequin simulator. Finally, metacognitive knowledge refers to self-knowledge, or the type of knowledge that allows one to self-reflect on their career interests. While students are making meaningful uses of career exploration activities (e.g., guest speakers, mentors, job shadowing, etc.), they are also using strategic thinking and reasoning to improve their critical thinking skills. Examples of basic low in-depth learning includes:

#### *Guest speakers*

These are health care professionals who come to the schools on a periodic basis, or during job or career fairs, to talk with students about the educational and employment requirements of the health care industry. Although guest speakers are easier to organize, their sole purpose is to increase students' career awareness as opposed to a more substantive real-life learning experience (Darche, Nayar, & Braco, 2009). This career exploration activity is better suited for elementary and middle or junior high schools.

#### *Mentors*

Along the same lines as guest speakers, mentors are health care professionals that meet with a small cohort of students on a regular basis to develop and implement an educational and career plan. Mentoring can occur at the workplace or on the school campus. As DuBois, Holloway, Valentine, and Cooper (2002) and others more recently (Taylor & Watt-Malcolm, 2007; Alfred, Charner, Johnson, & Watts, 2013) pointed out, mentoring young people not only has a significant impact on their personal, academic, and career development, but also students are able to provide services at low cost to the industry.

# LITERATURE REVIEW: WORK-BASED LEARNING AND ITS VALUE TO EMPLOYERS

## ***Job shadowing***

This method of work-based learning is designed to provide students with an opportunity to discover and explore the health care field under the guidance of a professional, as well as to acquire occupational knowledge about the working environment.

Although valuable in getting students exposure, job shadowing does not engage in hands-on practices that help to reinforce technical education or training (Alfred, Charner, Johnson, & Watts, 2013; Darche, Nayar, & Braco, 2009).

## ***Field trips***

Field trips have been viewed as active learning experiences that reinforce the knowledge acquired in the classroom. For example, field trips to job sites are critical to CTE programs because they expose students to real-world workplace contexts and allow them to explore career options (Green & Joseph, 2011). Field trips to colleges and universities are also essential to students' college readiness (Saunders & Chrisman, 2011). Teaching during field trips and incorporating these real-world experiences in the classroom also give teachers the opportunity to know their students' interests and career aspirations, and to understand how they see the outside world. When students are given the opportunity to share their reflections about their field trip experiences, teachers can assess students' meaningful connections and transfer of knowledge from the classroom into the real world. Understanding the student world-views using both field trips and work-based learning also helps teachers connect classroom instruction (Coughlin, 2010) to enhance metacognitive thinking (e.g., critical thinking and problem solving).

## ***Simulated workplace experiences***

This immersion-type of practice replicates aspects of the real-world health care context in a fully interactive approach, which is mostly used to develop and shape students' knowledge, skills, and attitudes (Lateef, 2010). Often performed in a controlled environment (e.g., classroom), simulated-based learning allows students to practice on a

full-body mannequin simulator to demonstrate knowledge, and their fulfillment of academic and CTE industry standards. Simulations are an alternative to an "on-the-job" training when labor laws and other liability logistics make it difficult for students and health care professionals to work together (Darche, Nayar, & Braco, 2009).

## **Experiential High In-Depth Work-Based Learning Experiences**

Experiential high in-depth work-based learning experiences are directly linked to classroom instruction that involves students' application of knowledge and skills to real-life scenarios and tasks (Loera et al., 2013). Also, these work-based learning experiences can be paid or non-paid. Pulakos, Arad, Donovan, and Plamondon (2000) point out that the development of employability skills can only be attained if students are provided with meaningful learning experiences and given frequent opportunities to practice and increase their capabilities. This idea of integrating school curricula with real-life work experiences has long been argued by John Dewey (reference). The "finest product of an education," he contends, comes to fruition when the school curricula is integrated with the working world. Gaining experience in their field of interest and having the opportunity to apply skills learned in the classroom in a real-world setting can increase students' employability skills, as they will have had practice performing job-relevant tasks in an applied environment. Findings from previous research indicate that possessing employability skills, such as problem solving, critical thinking, and the ability to collaborate with others, is critical to student success in transitioning to the workforce (Gysbers, 2013; Martin, 2008). Experiential high in-depth work-based learning enhances and expands upon classroom knowledge through applied learning in which students build knowledge, acquire experiences, and build confidence in their ability to perform tasks specific to that occupation (Loera et al., 2013). Examples include:

# LITERATURE REVIEW: WORK-BASED LEARNING AND ITS VALUE TO EMPLOYERS

## ***Internships***

Internships are designed to position students in real-world settings where they can care for patients under the supervision of an experienced staff (Lateef, 2010). Prior to an internship, students enroll in a semester-long course in which students learn specific skills, job requirements, and guidelines to be successful in their internship. Lapan, Gysbers, and Sun (1997); Stern, Finkelstein, Stone, Latting, and Dornsife (1995) and, more recently, Welsh, Appana, Anerson, and Zieroid (2014), recognized internships that combine the classroom with job training as a school dropout intervention that increases students' college and career readiness. Also, internships have been found to be effective when they occur during the school year and are a part of a course for credit, requiring the work experience to be monitored by a worksite mentor and teacher of the course (Stern et al., 1995). For example, once students are placed at their internship, they may attend class once a week and work four afternoons for three to four hours per day. Paid internships provide students with income that is crucial for many low-income students who must work to help support their families.

## ***Work or clinical experience***

Also known as "on-the-job-training," work or clinical experience is intended to prepare students for employment by linking classroom instruction with real hands-on practices. These experiences place students in various health care settings with the guidance of a work-site mentor or supervisor. The experiences vary from performing basic patient care to observing and treating patients. Students enhance the classroom lessons of the curriculum by bringing their experiences back to the classroom to share with their instructor and peers. Similar to internships, work or clinical experiences can be paid or non-paid. Scheduling these work or clinical experiences between hospitals and schools can be time-consuming in order to ensure that students are adequately supervised by a professional staff person as students go through their department clinical rotations or clinical environments (Bradley, Pennbridge, & Le, 2003).

## ***Student apprenticeships***

Student apprenticeships are technically focused career preparation activities designed to prepare students for a postsecondary health care-related program, and may lead to a more advanced apprenticeship that may or may not include financial compensation (Stone & Lewis, 2012). Researchers have found that students who participate in apprenticeships are more likely to complete high school and go on to postsecondary education (Bishop & Mane, 2004; Halpern, 2006). Apprenticeships involve a strong collaboration between the school and the health care industry, leading to more extensive workplace exposure. Student apprenticeships also complement and enhance classroom instruction. Other authors (e.g., Alfred, Charner, Johnson, & Watts, 2013; Cleary & Van Noy, 2014) agreed that providing apprenticeships along with other forms of work-based learning activities gives students the opportunity to develop skills relevant in the labor market. However, student apprenticeships are hard to sustain, due to the lack of employer's participation and lack of resources (Lewis & Stone, 2011; Stone & Lewis, 2012).

## ***Teacher externships***

Teacher externships or immersion programs can be a critical component, especially for health career academies. The collaboration between the health care industry and schools is vital to teachers who are responsible for students' level of proficiency in demonstrating application of industry-recognized standards (Stephens, 2014). Worksite teacher externships give teachers the opportunity to engage in conversations with health care professionals, and perform specific tasks that are relevant to their curriculum. Researchers (e.g., Alfeld et al., 2014; Sleeter, 2007) suggest that teachers that engage in externships in a real-world industry context outside of the classroom is essential in developing industry-based strategies to help prepare students for future employment. During these conversations and hands-on practice, teachers are able to acquire knowledge about the variety of skills or competencies necessary to the industry workforce. Teacher externships can help teachers build industry relationships, while at the same time acquiring from the health care industry the most current information and training to share with students (Lynn, Hales, & Wiener, 2007).

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While there are some successful teacher externship programs that offer time for teachers to collaborate with industry partners, many are viewed negatively and as ineffective (Lindstrom & Speck, 2004). Teachers view time as a barrier, because the time they spend on most externship activities seem to focus mainly on the agency's rules and regulations, and rarely on aligning industry-recognized standards with academic curriculum. As a result, too many teachers do not feel they receive adequate training (Loera et al., 2013). Greater efforts must go into building teachers' knowledge, skills, and capacity through proper use of their time, and linking education and training to current industry standards and student success in school and careers. However, work-based learning does have major limitations that the employer perceives as a financial burden. For example, the time invested in the development of the student (Halpern, 2006) requires the commitment of an employer in releasing a qualified professional to support and train a young person (Symonds, Schwartz, & Ferguson, 2011). Employers participate in work-based learning programs for high school students to train future employees and to practice social responsibility by investing in education, whereas, costs to employers include wages (if the student is paid) and time for mentors to work with students (Symonds, Schwartz, & Ferguson, 2011).

## EVALUATING WORK-BASED LEARNING

Kirkpatrick's (1996) four-level evaluation system is an effective and straightforward method to assess the effectiveness of work-based learning training on applying knowledge to real-life situations. Kirkpatrick suggests evaluating four levels of impact when a study examines closing the classroom and industry knowledge gap (see Exhibit 1). What is distinctive about the Kirkpatrick evaluation system is that it goes beyond the usual evaluation questions about students' reactions, and/or the extent of their learning and motivation. It asks if students are doing anything new in their lives or education as a result of their job trainings, and what they are doing now makes a positive impact on the achievement of their long-term educational and career goals.

Another evaluation tool that is described in more details in another report is the employer self-assessment tool designed to determine the employer's level of readiness to engage in partnership with a school. Specifically, this tool helps the employer identify existing gaps that may prevent them from starting and advancing to a collaborative. Finally, this tool also helps the employer to plan and implement a work-based learning program that is best suited for their partnership and involved stakeholders.

**Exhibit 1. Kirkpatrick's Four-Level Evaluation System for Work-Based Learning**

Level	Learning Objectives
Level 1: Reactions to work-based learning	Assess students' immediate reaction to their worksite (e.g., Did you like worksite and value the training it'll provide to you?)
Level 2: Learning of work-based learning	Assess the extent to which students have improved in job knowledge and skills, and capability (e.g., Are you more knowledgeable about the job? What about the worksite most motivates you? Are you more comfortable with your skill set related to that job?)
Level 3: Knowledge transfer from work based learning	Assess the transfer of knowledge that has occurred in students' behavior as a result of the worksite experiences (e.g., Are you doing what you learned? Is what you learned at the worksite helping you achieving your school and life goals? In what way?)
Level 4: Results from work-based learning	Assess students' educational and career plans, and their school grades and attendance to measure success (e.g., Is the new on-the-job knowledge, experience, and confidence improving your schooling and other aspects of your life? In what way?)

# LITERATURE REVIEW: WORK-BASED LEARNING AND ITS VALUE TO EMPLOYERS

## THE VALUE FOR HOSPITAL EMPLOYERS

What is the value for hospitals and other health care agencies to engage high schools in partnership to develop a workforce pipeline? This question is the focus of this investigation. That is, hospitals must take into consideration the amount of time and resources required to recruit schools, and start planning and implementing a career path for students in health care. Some examples include: (1) working with minors and dealing with liability, confidentiality, and security of health care information; (2) releasing staff to train students; and (3) dealing with school policies and procedures. These risk factors are among the most commonly shared by hospitals associated with their limitations in collaborating with schools. However, there are also benefits to collaborative efforts.

### The Value Proposition: The Perceived Benefits

Hospitals and other health care agencies must believe that workforce investment depends on strong partnerships with the secondary and postsecondary educational sectors. It is important for hospitals and the health care industry, in general, to start creating their own workforce. Below are two major examples of potential benefits of schools and hospitals/other health care agencies' partnerships for workforce preparation:

#### *Shaping a workforce pipeline*

Investing in building a workforce pipeline will give hospitals a competitive advantage over other industry sectors that are competing for the same high school and postsecondary graduates. This investment will allow hospitals to train and shape future employees, equipping them with the adequate set of skills to appropriately address the needs of racially and ethnically diverse populations. The impact or return on investment will be reducing staff turnover and vacancy rates, and cutting cost in recruiting, orienting, and training new staff (Jones

& Gates, 2007; Wilson & Holm, 2012). In other words, making improvements in staff preparation and retention, and creating a high-work-performance culture will also improve overall staff morale and motivation to work harder, even when facing new challenges. To achieve this, hospitals must build partnerships with schools and not miss the opportunity to recruit and shape a diverse workforce (Wilson-Stronks, Lee, Cordero, & Galvez, 2008). Missing this opportunity leaves the door open to other non-health care industry sectors to recruit and diversify their workforce. Workforce diversity is what hospitals stand to lose.

#### *Building community engagement*

Building a well-trained hospital workforce will require a long-term investment and well-coordinated strategies that will involve policy makers, educators, health care leaders, and the community that the hospital serves. Hospitals are in a good position to engage their local communities and build long-term relationships that can help to alleviate the stigma and mistrust that currently exists among communities that have been historically underserved (Sullivan, 2004; Zuckerman, 2013). The aim here is to benefit the underserved population by increasing hospitals' presence within the communities, and improving and promoting health literacy and wellness. One strategy to achieve this is to provide youth with work-based opportunities as the first step. These opportunities will connect hospitals with families, allowing them to build trusting relationships, and increasing awareness of services and health literacy resources.

The purpose of the study was to identify potential barriers that prevent health care employers from collaborating with schools to increase students' work-based learning experiences. Additionally, its purpose was to generate a set of strategic directions for health care employers to help shape students' career interests in the health care field.

# RESEARCH METHODOLOGY

## OVERVIEW

For the past year, the California Hospital Association and James Irvine Foundation have been working closely with a taskforce composed of health care professionals, educators, administrators, and researchers on a work-based learning project. Interactions among these individuals included in-person meetings, conference call meetings, and ongoing conversations with other interested parties (e.g., policy makers). During these meetings and conversations, a research strategy emerged focusing on capturing the value of hospital and other health care employers on partnerships, and providing work-based learning experiences to students. Using this strategy, we conducted structured phone interviews with the health care industry leadership and management personnel, as recommended by the taskforce.

## Participants

A total of 21 key informants (14 females and seven males) from California (i.e., Imperial County, Kern County, Los Angeles County, Riverside County, San Joaquin County, Sacramento County) were interviewed, and their partnership with a high school ranged from three to 21 years. Of the 21 respondents, 18 were white, one African American, and two were Latino. Also, 12 were health care staff, and nine were health care executives. Two of the 21 key informants were CEOs of a health care agency, and they are now serving in a policymaking role. Information on race and ethnicity of the respondents was not provided.

## Procedure

Respondents were contacted via email, using addresses that the school leader coordinator and other health care staff provided, and a 35-minute phone interview for each participant was scheduled. We ensured that the participants were informed of the study's intent and purpose and confidentiality. All participants were presented with enough information to make an informed decision about their participation in the study. All participants gave a verbal consent to participate and for the interview to be recorded for accuracy.

The information used to create this report was collected via 21 phone interviews with health care staff and executives that occurred between November 2014 and March 2015. The interviews were audio recorded. These phone interviews provided a perspective unique to each agency and organization on investing or not investing in the work experiences of secondary and postsecondary students; more specifically, inquiring information about their perceived value and/or burden in providing these experiences. In synthesizing the data for this study, we also referred to additional data collected earlier from direct service health care-related staff.

## Measure

The interview protocol included questions about the employer's partnerships with schools and their perspectives on student work-based learning. All participants were asked open-ended questions during the interviews that evoked detailed narratives. Exhibit 2 shows the interview protocol that covers all aspects of work-based learning and partnerships to guide the phone interviews: (1) background and partnership history, (2) work-based or work-place learning, (3) workforce, education, and training resources, and (4) employer and agency value. To develop the interview protocol, we started with a thorough literature review. To ensure content validation, we conducted expert reviews and focus groups with a cohort of health care providers, and members from the CHA and James Irvine Foundation Work-Based Learning Taskforce (see Appendix 1).

## Data analysis

The phone interviews and subsequent analyses provided context for information about the benefits and risks for the involvement of hospitals and agencies in providing work-based learning opportunities to students. The interviews were transcribed for data analysis. All respondents' names were excluded from the transcripts to ensure confidentiality. The interviews were coded using qualitative data analysis software (i.e., ATLAS.ti). The coding helped us engage in content analysis to identify reoccurring themes and make sense of



# RESEARCH METHODOLOGY

the data. Conformability and trustworthiness were ensured through triangulation (i.e., examination from multiple perspectives and data points). Three experts in qualitative analyses were involved in examining the data. During the content analyses, we looked for themes that could be used to address the following questions: (1) What are the risk factors

preventing hospitals and other health care agencies from collaborating with schools and implementing a work-based learning program to build a labor force to address current and future workforce shortages in health care? (2) What specific value points lead to a successful proposition for the hospital employer to see work-based learning as a priority to the agency?

## Exhibit 2. Health Care Staff and Executive Phone Interview Protocol

Thank you for taking the time to talk with me today and also allowing me to record the interview. I am interested in learning more about the activities that you and your [name of agency] participated in both this year and last year with the [name of school]. This phone interview will last about 35 minutes. Your comments will be kept anonymous.

### Background and Partnership History

1. What is your position at [agency]?
2. How long have you been with [agency]?
3. How did you get involved with the [school]?
4. How long have you been involved with the [school]?

### Work-Based or Work-Place Learning

5. What is your role with the school's team/pathway program?
6. What do the [school] students do at your agency/organization?
  - What are the most meaningful activities? Why are they meaningful for students?
  - Would you define your partnership with the [school] teaching team as strong or weak?
  - What industry competencies are essential for students to have to be employable in your agency?

### Workforce, Education, and Training Resources

7. What resources is your agency currently investing in the [school] to increase students' preparation for the health care industry?
  - How well is the [school] teaching team utilizing these resources?
  - What have been the barriers for your agency in recruiting high school graduates?
  - What are the barriers to training and employing [school] students?

### Employer and Agency Value

8. How are the industry and education systems connected? Why is this partnership critical to meet the needs of the diverse communities?
9. As a leader in your agency collaborating (or wanting to partner) with a school, what is it that drives you to work with schools and students?
  - What is in it for you personally and professionally?
  - What is in it for the agency and industry?
  - What is the perceived value for doing this?
  - What would make you want to do more of this?
10. What are the risk factors for your agency in providing to students work-based learning opportunities?
  - What risk or burden do they present to you and your staff?
  - What factors may prevent you and your agency from working with schools and students?
  - What would make agencies do more with schools and students?
11. What would you say is the return on investment (ROI) for your agency, working with students?

## FINDINGS ON BARRIERS

### Findings on Barriers: What are the risks preventing hospitals and other health care agencies from collaborating with schools?

This section highlights three overarching themes and six subthemes, and connects them with a few selected quotes from key informants. These themes represent challenges associated with engagement and sustainment of partnerships and students' work-based learning experiences that benefit the hospital or health care agency, students, and schools.

#### KEY FINDING 1: THE FINANCIAL BURDEN AND DISENGAGEMENT OF LEADERSHIP

**Theme 1: Financial burden.** The majority of the participants described a financial burden of providing work-based learning experiences to students as being salient to their decision for not collaborating with schools. One executive emphasized, "There is no financial gain for [us]; we don't get money or grants for working with schools and students." Another executive said, "Without funding, it is nearly impossible to achieve a strong partnership . . . adequate funding is important." For most hospitals and other health care agencies without a strong financial structure that can support schools and students with the necessary resources to ensure work experiences are meaningful and beneficial to the organization, their partnership with schools is simply not a priority. However, there are "hospitals that are not capitalizing on their investment, they invest time and resources, but are not cashing in, and that's why it looks like a loss to them," said one nurse supervisor.

Another type of burden that executives mentioned was staff time to recruit, supervise, train, and motivate students. One direct service staff member indicated that unmotivated and untrained students at the work site require more time for staff to train them. An executive added, "Time is an issue for someone in my position, when it comes to training unprepared and unmotivated students." This is an important finding, because it illustrates the disconnection between the

health care industry's standards and schools' ability to prepare and motivate students for a job. This finding is also in accordance with Symonds and colleagues' findings (2011) that the development of the student requires the time and commitment of qualified staff personnel to properly train students. Staff release time is another major burden to a hospital and health care agency. "Ensure that your students are trained for hire and highly motivated to work in this industry," expressed another health care executive.

**Theme 2: Disengagement from health care executives.** Effective leadership engagement from the hospital or health care executives emerged as a critical component to: (1) increasing and strengthening community partnerships with schools, and (2) ensuring positive influences of the work-based learning environment for students. However, several project directors highlighted the lack of engagement from their top leaders (i.e., chief executive officers). One key informant described her frustration with the lack of CEO involvement as "having a gym membership and never going to the gym; you are going to cancel the membership because you don't know the value of going . . . you don't know the value that you get if you used it." Another informant stated, "The CEO never realizes or hears the value of these students being there [hospital] . . . it never gets to their ears." "As an industry, we stand to lose a diverse workforce pool of bilingual and bicultural individuals to other industry sectors if we fail to act on these potential partnerships" added one more informant. This finding is consistent with the work of Alfeld and colleagues (2013), emphasizing that leadership sets the direction and vision that guides the partnership and commits the resources needed to ensure that the partnership stays strong and that students' work experiences are positive.

*"As an industry, we stand to lose a diverse workforce pool of bilingual and bicultural individuals to other industry sectors if we fail to act on these potential partnerships"*

# FINDINGS ON BARRIERS

## KEY FINDING 2: THE CHALLENGE OF CREATING EFFECTIVE PARTNERSHIPS AS LONG-TERM INVESTMENTS

**Theme 3: Industry and school partnerships.** It is a challenge to find a school with the adequate resources including staff to establish effective and long-term partnerships with schools to engage students in real-life job experiences. When asked why the partnership between the health care industry and education system is critical, this statement from a former health care CEO highlights this partnership gap, “The problem is the education system runs pretty much with its own rudders . . . it steers where it wants to go, not necessarily where industry wants to go, regardless of the industry . . . one of the reasons that industry often does not collaborate with the education system is . . . industry generally don’t understand the system, because everybody in the decision-making level . . . are probably at least 30 years removed from their last encounter with the education system, so their concept of the system tends to be out of date.” A nurse supervisor added that executives “at the top don’t know that there are career health pathways in high schools . . . that are medical-based . . . [and] they are blown away by the concept.” This finding speaks to the ongoing gaps in hospital-school partnerships. It is plausible that this partnership gap is due to the labor laws and other liability issues that have and continue to make it difficult for hospitals and schools to work together, as Darche, Nayar, and Braco, (2009) pointed out.

The cost of not creating partnerships can be even more significant, as articulated by this health care administrator, “The cost of students dropping out [of school] is a cost to the entire community . . . we all feel it. We need to have a unified message on the impact using the voice of the industry . . . as an

industry, we need to engage in the community [and partner with schools].” This speaks to the social and economical impact of the larger community (Mahmud, & Parkhurst, 2007).

### **Theme 4: Investing in a long-term purpose.**

Establishing trusting partnerships takes time, effort, and commitment from the interested stakeholders. When asked about the return on investment, the most common response given was long-term investment. “It is taking the long-term

view versus a short-term view of what can be done this year for the next year . . . to build a future, may take 10 years,” said one executive, expanding on the idea that most health care and school partnerships fail because they don’t give it time to develop and work together to resolve new challenges. The impact of not investing long term, according

to this executive, is not having “a better pipeline for young professionals . . . [and] when the supply diminishes, running out of people to provide the services.” Another key informant believes that the absence of measurable data that shows the benefits to the organization as a result of hiring students

is a result of not having a long-term investment and commitment to the partnership.

This finding is consistent with Sullivan (2004) and Zuckerman (2013) in that the health care industry is in a good position to generate partnerships to increase community engagement, but also recognize that it must be a long-term investment.

Establishing trusting partnerships takes time, effort, and commitment from the interested stakeholders.

“It is taking the long-term view versus a short-term view of what can be done this year for the next year . . . to build a future, may take 10 years”

## FINDINGS ON BARRIERS

### KEY FINDING 3: THE CHALLENGE OF ALIGNING EDUCATION AND TRAINING WITH THE HEALTH CARE INDUSTRY

**Theme 5: Industry-focused curriculum.** Increasing industry involvement in incorporating industry-related competencies into classroom instruction was viewed as a critical barrier. The majority of the executive informants suggested the need to integrate more industry-driven competencies into the health career pathway program curriculum. When asked if the key informants were invited to assist with curriculum development or alignment, they replied that their involvement was very limited or that they never requested to participate. Several informants expressed concern over staff time constraints and not being able to dedicate time to work with teachers to develop new curriculum. This finding with respect to industry's limitations in releasing staff time to work with teachers on curriculum development and integrating it with health care industry standards is consistent with the findings of Symonds, Schwartz, and Ferguson (2011). Teachers, highlighting time to participate in teacher externships to acquire industry knowledge and integrating it into their classroom instruction also shared this concern. Studies on teacher networking have shown that time is a barrier that often prevents teachers from collaborating or engaging in externships (Loera et al., 2013). Students are not receiving industry-focused curriculum, and they are not getting enough exposure to the health care industry, which impacts their career choices.

The key informants also discussed strategies to reduce the staff time burden. One CEO described offering teachers faculty immersions consisting of a series of roundtable discussions with various staff members from his agency. The goal the CEO described was for staff to "provide their experiences and effective practices when helping people . . . giving teachers strategies and techniques that work." For example, demonstrating empathy and

active listening when treating a patient. Another key informant suggested, "finding the right group of teachers willing to tweak their curriculum and putting kids on the path to a career in health care."

**Theme 6: Inadequate training.** Health care industry employers that do not have a partnership with schools and do not offer high school students work-based learning experiences tend to view high school students as less productive and less predictable because of their lack of adequate training. Students without the proper training were not seen as an investment for health care employers. Several key informants emphasized the importance for students to be properly trained and prepared to work with real patients prior to an internship. One key informant said, "Students do not have sufficient exposure to the various roles that our [hospital] staff have and the work that they do." Another key informant expressed concern over the lack of counseling that students receive about career options and understanding the employment requirements to work at a hospital. Researchers (Lewis & Stone, 2011; Stone & Lewis, 2012) contend that the reason for this lack of proper training is the result of the lack of hospital employer's participation in providing students work-based learning opportunities.

*"Students do not have sufficient exposure to the various roles that our [hospital] staff have and the work that they do"*

# FINDINGS ON STRATEGIES

## Findings on Strategies: What specific value points lead to a successful proposition for the hospital and other health care employer to see work-based learning as a priority to the agency?

### MAKING THE CASE: VALUE POINTS FOR HEALTH CARE EMPLOYERS

The following recommended actions represent key messages to: (1) address the perceived barriers that prevent hospitals and other health care agencies from participating and forming partnerships with secondary and postsecondary schools; and (2) motivate hospital and other health care employers to invest in school partnerships and provide work-based learning experiences to young people. The following directions are listed in the parallel with the barriers.

#### Value Points for a Successful Proposition

##### ***Strategic direction 1: Focus on building students' capacity to benefit hospital or other health care agencies through collaboration and increased engagement***

- 1.1 Increase the financial support from foundations (i.e., James Irvine Foundation and other foundations) to get behind this effort and make it more interesting for the industry. Foundations should collaborate with the health care industry to advance the thinking around building a quality workforce; the industry must start growing its own workforce.
- 1.2 Convene health care executives and students, who completed a work-based learning program, to interact and allow students to communicate to health care executives the value of their experiences and how they benefited personally and professionally. At the core of this strategy is having students act as the key messengers on reasons why work-based learning is meaningful.
- 1.3 Connect student experiences and their cost-effective contribution to the expansion of the health care agency's workforce, and exemplify the many ways hospital and/or health care staff benefit from students' work. For example, students who are able to provide general patient services, such as translating and interpreting for patients in their language, or are able to perform basic clerical duties that enhance the efficiency of the hospital personnel. At the heart of this strategy is a strong work-based learning program and evaluation design to measure its cost-effectiveness and its path to employment in the health care industry.

##### ***Strategic direction 2: Recognize students as workforce assets with life experiences that can help hospital and other health care agency become more cost effective and increase funding opportunities***

- 2.1 Convey to health care executives that they stand to lose a diverse workforce pool of bilingual and bicultural individuals to other industry sectors. Emphasize that the demand for this diverse workforce will increase, making it harder for the health care industry to compete and attract qualified cultural and language proficient individuals to meet the needs of diverse communities.
- 2.2 Capitalize on the investment already made on training young people by coordinating with various academic levels, and supporting health career pathway activities that lead to certification programs and advanced degrees. Recognize that it is a long-term investment with the outcome being a well-trained, cost-effective, and homegrown employee.
- 2.3 Following the implementation of 2.1 and 2.2, establish a program evaluation plan with specific indicators measuring the successes of the program that eventually leads to a workforce model for other hospitals and health care

## FINDINGS ON STRATEGIES

agencies to replicate. This model will also lead to funding to sustain and replicate it.

### ***Strategic direction 3: Improve workforce education and training***

- 3.1 Collaborate with a school to develop a curriculum model that integrates the most current health care industry standards with the academic core standards to develop innovative curricula for other hospitals and health care agencies in the state. There is value to the health care industry in providing staff to work alongside teachers and guide them during the curriculum development and alignment process.
- 3.2 Organize and offer teacher externships or industry immersion-type programs in which teachers can visit and engage in patient-care practices under the guidance of an industry mentor. This is a critical component in the alignment of industry-focused competencies and academic core standards. Teachers that were once nurses and are now teaching have not kept up to date on the current health care trends, and they are training the industry's workforce. This is an opportunity for hospitals and other health care agencies to lead in these training and retraining efforts.
- 3.3 With the successful implementation of 3.1 and 3.2, become a best practice model for replication throughout the state and other states in the United States. An effective health care and school collaborative is vital to the prosperity of today's youths – the industry's future workforce. An evidence-based program and practice is the result of schools with a supportive administration in which their career academy curriculum is not only aligned with career-readiness standards, but also with the workforce needs of health care employers. See Appendix 2 for two case studies that continue to be successful in providing high school students

with a curriculum that combines academic and industry content with an emphasis on educational and employability skills.

### ***Strategic direction 4: Increase the engagement and benefits of the community***

- 4.1 The hospitals and other health care agencies need to recognize the value of building capacity and collaborating with schools as a way of reaching communities that typically have a distrust of hospital services. The strategy is to collaborate and work with schools that are supported by community members. Build human capital by expanding the participation of students from diverse backgrounds and exposing them to careers in health care that will eventually lead to a healthy community.
- 4.2 The value of social networking in community engagement must be unique and meaningful to that community. Hospital and other health care employers must go beyond the "one-size-fits-all" approach and embrace the cultural differences that are unique to that community. Students' life experiences and stories, combined with their interests in healthcare careers, can bridge the engagement gap between the health care industry and communities.
- 4.3 Engage students who are very knowledgeable with social media, and build on their hidden strengths in using social media and other forms of technology. This is a huge asset and critical in helping hospitals and other health care agencies develop a social networking framework to better understand the health needs of the community and increase the wellness of the community.

# IMPLICATIONS, STRENGTHS AND LIMITATIONS, AND FUTURE RESEARCH

This study examined risk factors preventing hospitals and other health care agencies from building school partnerships. It also identified workforce capacity-building strategies from health care industry key informants. This section presents implications, strengths, limitations and future study directions.

## Implications

### **Policy implications**

The results from this study suggest implications for policy. First, the findings suggest the need for health care and school partnerships that engage in long-term program development. That is, increasing health care and school partnerships now to sustain a workforce pipeline for the next 10 to 15 years. This finding implies that successful partnerships, such as the best practices in Appendix 2 invested time, human resources and funding for 10 to 20 years to support and sustain a strong partnership. This finding also implies that the CHA and the James Irvine Foundation should collaborate with existing organizations and programs that have a track record working with schools to increase the health care workforce. These organizations and programs include:

- » **The California Health Workforce Alliance (CHWA)** to examine ways to strengthen and establish new health care and school partnerships throughout California. The CHWA's mission to "educate and develop more than one million new and upcoming health care professional" in California is in line with the purpose and findings of this study. From a policy perspective and in accordance with the Affordable Care Act, building capacity through alliances with existing resources is critical to maximize workforce efforts and ensure an effective pipeline exists to supplement and replace the aging and retiring health care workforce.
- » **The California Health Science Capacity Building Project (HSCBP)** who for the past ten years has developed a blueprint for building a team of academic educators, career technical educators, and health care industry partners. The HSCBP has conducted a comprehensive program evaluation of over 30 funded

schools that also examined partnerships with the health care industry sector. To make systemic changes, the California Hospital Association and James Irvine Foundation in partnership with other foundations need to work with policy makers to advocate for legislation that lead to consistent funding of existing and new health care industry and school partnerships. Also, funding for research and program evaluation to measure the effectiveness of these partnerships and their impact on California's health care workforce diversity and shortages.

- » Other CTE-related organizations are **FACES for the Future Coalition, Health and Science Pipeline Initiative (HASPI)**, and **HOSA: Future Health Professionals**. These organizations are featured in a recent report by CHA (2013) entitled, *Health Facility Work-Based Learning Program Guide: Health Employer/K-12 Partnerships*. This report also serves as an informational toolkit for health care organizations interested in exploring a partnership with K-12 schools and/or starting a work-based learning program (see [www.calhospital.org](http://www.calhospital.org) for more information).

Most health care and school partnerships fail because they don't invest in time and funds to develop a partnership. At a policy level, this finding also implies that a systematic and innovative approach should be created and tested to develop an effective partnership program between schools and health care organizations. Implementing a new approach requires funds. Producing desirable outcomes requires time. When time and funds are limited, cost-effectiveness analysis (CEA) can be a precedent to prioritize the most important outcomes to be achieved. Program components to be implemented should be determined in accordance to the prioritized outcomes. To develop and implement a pipeline and conduct a rigorous program evaluation, more government, foundation and hospital funding should be available for program developers, researchers, and program evaluators as well as schools and health care industry.

### **Practice implications**

This study also has implications for practice. To establish a reliable pipeline of health care workers,

# IMPLICATIONS, STRENGTHS AND LIMITATIONS, AND FUTURE RESEARCH

the study findings imply a need for qualified program developers who can implement an effective program with leadership, knowledge and skills in the health care field and education. The partnership between the health care industry and schools is a critical program component to establish a pipeline of health care workers. The development of partnership between the health care industry and schools as well as education and training can be a challenging task for them to do it alone without program developers who understand both sides' experiences, challenges and expectations. This important task demands program developers who can develop, implement, test and modify such program to establish an effective pipeline. The developers can be catalysts that make partnerships between the health care industry and schools happen with desirable outcomes. The study implies that the current health care industry and schools may get benefits from program developers who are able to establish an education and training intervention, train students and produce well-qualified health care workers who are ready for college and career in the health care field.

Findings also imply that teacher professional development is an important component of program implementation. One CEO described offering teachers faculty immersions consisting of a series of roundtable discussions with various staff members from his agency. In addition, studies on teacher networking have shown that time is a barrier that often prevents teachers from collaborating or engaging in externships (Loera et al., 2013). To generate evidence of an effective program, teacher professional development opportunities should be considered. If teachers don't have time to participate in professional development, on-site coaching could be tested for its effectiveness.

Students should be provided adequate training prior to their work-based learning activities in hospitals and health care agencies. For instance, according to key informants, students can provide general patient services, such as translating and interpreting for patients in their language, or are able to perform basic clerical duties that enhance the efficiency of the hospital personnel. Before students work at hospitals, they need to be adequately trained and equipped with soft skills (e.g., listening, critical thinking,

being empathetic when translating and interpreting), and hard skills (e.g., following protocol when handling medical records, using medical equipment). If students are not well prepared to perform work-based learning tasks, hospitals and other health care agencies will not see the value in student workers.

One key informant pointed out that students lacked sufficient exposure to the various roles that hospital staff experienced and the work that they did. Pulakos, Arad, Donovan, and Plamondon (2000) point out that the development of employability skills can only be attained if students are provided with meaningful learning experiences and given frequent opportunities to practice and increase their capabilities. Project based learning and performance assessment as well as experiential learning can be considered to train students, and to measure and understand if students are properly learning and prepared for workforce in health care industry.

## **Research implications**

The program development should be combined with rigorous program evaluation so that a program intervention can be examined to determine if it has a significant impact on observed outcomes (impact outcome evaluation) and if the program components are implemented as they have been planned and well modified for program improvement (fidelity of implementation evaluation). To develop a successful work-based learning program with strong health care workforce outcomes, will require a long-term investment. A partnership development and pipeline-building program need to go with an impact and implementation program evaluation. A longitudinal research design that examines the impact of work-based learning components on high school students' career-readiness in health care industry is essential. The findings from the current study suggest that concrete evidence showing the benefits to hospitals and health care agencies before, during and after they collaborate with schools be provided. Both formative and summative program evaluation can provide ongoing evidence to hospitals and health care agencies. Finally, building a well-developed logic model should be a component for rigorous program evaluation.



# IMPLICATIONS, STRENGTHS AND LIMITATIONS, AND FUTURE RESEARCH

A key informant discussed the absence of measurable data to show the benefits to the hospital and community when offering work placements to students. Not investing and committing to a school partnership long-term was viewed as an obstacle for health care key informants. This implies the need to measure both short-term and long-term partnership investments and examine specific partnership and work-based learning indicators related to the career-readiness of high school students. This will help to identify best practices that can be replicated statewide.

## Strengths and Limitations

The strengths of the current study are rooted in its research design including a comprehensive interview protocol that covered all aspects of work-based learning and value of partnerships: (1) background and partnership history, (2) work-based or work-place learning, (3) workforce, education, and training resources, and (4) employer and agency value. The research design and interview protocol allowed us to identify and examine specific risk factors that prevent hospitals and other health care agencies from collaborating with schools. The data acquired also helped us identify strategic directions for a successful proposition for the health care executives to recognize the benefits of work-based learning and partnerships to their organization and the community.

However, at least two limitations that emerged from this study should be noted. First, the current study did not collect data examining barriers that prevent schools from building partnerships with the health care industry. The data was collected from participants in the health care industry only. Limitations of triangulated data might miss findings on schools' barriers that would prevent them from building a partnership with hospitals and other health care agencies. Secondly, the sample of participants was not diverse or a representative of the population of California. Recruitment of health care informants with diverse racial and ethnical backgrounds could have been done better. A sample of diverse participants might have provided different perspectives and experiences with regard to barriers that prevented un/underserved students from having work-based learning opportunities at hospitals and health care agencies.

## Future Research

Both the limitations and findings of this study also suggest several areas for future research. First, because this study only involved health care executives and staff, future research should include teachers, administrators and students as key informants for a more comprehensive examination from triangulated views. There can be barriers that should be identified and overcome when schools aim to build partnerships with hospitals and other health care agencies for workforce development. Second, future research should also examine the motivation in students choosing careers in the health care field. Knowing this can help strengthen the school and health care industry partnerships by helping schools deliver classroom instruction in ways that are consistent to what students will be demonstrating at a hospital and health care environment. Third, work with a researcher to develop a valid and reliable quantitative work-based learning instrument that: (1) compliments the interview protocol used for this study, (2) measures the health care employer's organizational readiness to implement a work-based learning partnership with a school, (3) evaluates the impact of the work-based learning experience on students career-readiness, and (4) assesses the value and benefits to a health care organization in offering high school student work placements. Finally, future research should further explore the ways that components of a strong collaborative between hospitals, health care organizations, schools, teachers, students and their families, and communities influence the career aspirations of students and meet the workforce needs of the health care industry and communities that have been historically underserved.

In sum, a future study can propose to develop a work-based learning program that combines impact outcome and fidelity of implementation evaluation components. If there is a well-developed program with rigorous evaluation evidence as a development study, a further study could be the validation of the program. If not, evidence based program development is recommended. The impact and implementation evaluation can be done with a comprehensive approach involving teacher professional development, student training, and program development levels. For school districts, schools, hospitals, and other health care agencies interested in exploring the next steps to starting a partnership, please see Appendix 3.

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# APPENDIX 1

## CHA AND JAMES IRVINE FOUNDATION WORK-BASED LEARNING PROJECT TASKFORCE

Name	Title	Organization
Carol Allbaugh	Director, Inland Coalition	Reach Out
Cindy Beck	Education Programs Consultant	California Department of Education
Susan Benz	Manager, Career Readiness Linked Learning Office	Oakland Unified School District
Kristen Birtwhistle	Medical Group Administrator	Kaiser Medical Group, Stockton Health Academy
Brooke Briggance	Program Manager	Public Health Institute, FACES Program
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Michele Coughlin	Administrative Assistant	California Hospital Association
Peggy Hilden	HealthCare Education Management Director	Kaiser Permanente
Tanja Hester	Senior Vice President	GMMB
Tamra Kaplan	Chief Operating Officer	Long Beach Memorial Medical Center
Heather Kenward	Workforce Development	John Muir Health
Sonia Lira	Coordinator, Industry & College Connections	Health and Science Pipeline Initiative (HASPI)
Gustavo Loera	Research Consultant	Independent
Laura Long	Director, National Workforce Planning and Development	Kaiser Permanente
Cathy Martin	Vice President, Workforce	California Hospital Association
Will Mellman	Vice President and Internship Director	Health Sciences High and Middle College
Ellese Mello	Educator	Hamilton Unified School District/HASPI
Traci Miller	Principal	Health Careers Academy High School
Andrea Perry	Workforce Specialist	Cedars-Sinai
Trisha Ramirez	KP Launch, Internship Program	Kaiser Permanente
Natalie Ray	Program Director	Health and Science Pipeline Initiative (HASPI)
Leah Rosengaus	Regional Director, Health Care Talent Innovations	COPE Health Solutions
Julie Sinai	Director	North/East Bay Pathways Consortium
Anette Smith-Dohring	Workforce Development Program Designer	Sutter Health, Sacramento-Sierra Region
Melinda Stephenson	Leadership Development Program Designer	Impact Leadership
Sheila Thornton	Vice President, Workforce Excellence	Coachella Valley Economic Partnership
Tara Westman	Program Associate	The California Endowment
Michael Williamson	Consultant	Career Ladders Project
Donna Wyatt	Manager, CTE Curriculum and Instruction	Linked Learning Office

## APPENDIX 2

### CASE STUDIES

CASE STUDY 1: CEDARS-SINAI MEDICAL CENTER AND FAIRFAX HIGH SCHOOL	
<b>Background</b>	<p>Cedars-Sinai, a nonprofit hospital recognized the value of creating its own workforce 20-plus years ago. In the early 1990s, Cedars-Sinai in partnership with Fairfax High School established the Health Academy to attract students in work-based learning experiences and help them pursue a career in the health care industry. The Cedars-Fairfax partnership's approach to developing a pipeline to health care careers consists of three key strategies. First, the partnership offers students a health academy course with a curriculum developed by the Fairfax high school interdisciplinary team with the guidance of the Cedars-Sinai staff. Second, students from Fairfax High School are paired with a mentor from Cedars-Sinai that provides students with the necessary guidance to build students' capacity both in knowledge and skills to be successful at their work-site placement. And finally, students are given real-life work assignments with the incentive of a paycheck. Students are paid for their work and contribution to serving and treating patients.</p>
<b>Motivation</b>	<p>Cedars-Sinai's motivation for collaborating with Fairfax High School was to ensure a well-trained workforce pipeline for current and future needs of Cedars-Sinai's workforce. For over two decades, Cedars-Sinai remained and continues to be committed and motivated to channel youth into its pipeline while at the same time strengthening a school culture that shares Cedars-Sinai's values toward professional preparedness.</p>
<b>Work-Based Learning Activities</b>	<p>The Health Academy's work-based learning component was built into the school curriculum in which students gained knowledge and skills through classroom instruction and then put the knowledge and skills into to real-life practice at a health care setting under the direct supervision of a professional health care worker.</p>
<b>Impact</b>	<p>Since opening its doors in 1993, the Cedars-Fairfax partnership has reached more than 450 students through the Health Academy. Of the 450 students, 99% graduated from Fairfax High School, 94% pursued four-year and advanced degrees, and 70% enrolled in a health care-related college and career track. The Health Academy with the support of Cedars-Sinai as its industry partner was very influential in inspiring students to pursue higher education (77%), pursue a health care worker position at a health care agency (80%), and pursue employment at Cedars-Sinai (93%). It is important to report that 61% of those who graduated from the Health Academy at Fairfax High School started their health care careers and/or are still employed at Cedars-Sinai. It is also worth mentioning that 32% of the Academy graduates worked or are working in another health care facility.</p> <p>Not only has the Health Academy functioned as a drop-out prevention program for students, it has also shown to be effective in helping Cedars-Sinai increase its employee retention rates and decrease its recruitment and training costs.</p>

## APPENDIX 2

### CASE STUDY 2: MENTAL HEALTH AMERICA OF LOS ANGELES

<p><b>Background</b></p>	<p>Mental Health America of Los Angeles (MHALA), a private nonprofit organization, formed a 10-year partnership with the Los Angeles Unified School District (LAUSD) to open a Human Services Academy model at two different high schools. The Human Services Academy model was organized around five key components: (1) behavioral health curriculum; (2) career technical education course focusing on behavioral health recovery approaches; (3) college and career readiness activities exposing students to educational and employment requirements to the behavioral health field; (4) student and family support services; and (5) work-based learning experiences in various behavioral health settings. The first Human Services Academy was opened in 1998 at Narbonne High School, and the second one in 2000 at Huntington Park High School. MHALA's main goal was to develop a workforce pipeline and curriculum at various academic levels that would prepare young people to pursue careers in the helping professions.</p>
<p><b>Motivation</b></p>	<p>MHALA's goal for partnering with schools at different levels was to develop a pipeline model to increase the number of bicultural and bilingual staff who enter the behavioral health workforce and improve the recovery-based service delivery skills of new and existing workers.</p>
<p><b>Work-Based Learning Activities</b></p>	<p>The MHALA-LAUSD partnership offered 11th grade students with paid part-time placements at nonprofit or public human services agencies. Students were provided with hands-on experience and the guidance of a work-site mentor. It provided MHALA and fellow agencies the reliable assistance of student workers for their services to children, people with disabilities, and older adults.</p>
<p><b>Impact</b></p>	<p>During a five-year evaluation of 217 students that graduated from the Human Services Academy at Huntington Park High School, 98% graduated from the Academy and 88% enrolled in a postsecondary program of study.</p> <p>The impact to the behavioral health industry was in work-based learning. Out of 217 students who completed their work-based learning hours from 2000 to 2005, a total of 31,479 hours of free services were contributed to a number of behavioral health agencies. Even more important was the equivalent of the 31,479 hours to 16.4 full-time staff.</p> <p>Another impact to the educational and industry sectors was MHALA's work with Cerritos College in developing the Mental Health Worker Certificate Program. This is an 18-unit, six-course certificate program that has helped high school students from the two human services academies transition into college life since 2006. From the Human Services Academy model, a post-bachelor's Mental Health Rehabilitation Certificate also emerged. This 50-day concentrated program, a partnership with a California State University, is designed to teach new front-line staff and individuals who have B.A. degrees in other subjects but are interested in behavioral health work.</p>

## APPENDIX 3

### NEXT STEPS

#### For School Districts and Schools

**STEP 1: Provide administrative support and structure.** Administrative support has long been considered of critical importance in improving classroom instruction, teaching, and assessment sufficiently for teachers and students to achieve in a career academy. Partnerships that remain strong over time usually result from sound leadership and commitment from school district administrators and school principals. District administrators and school principals invested and committed in developing a partnership with a health care organization, tend to allocate resources, such as teachers, space on campus, equipment, and other pertinent items to ensure the effectiveness of the partnership and the program. These collaborative interactions contribute to the effectiveness of a program of study that helps students navigate the transitions from middle school to high school to college to employment.

**STEP 2: Develop interdisciplinary (pathway) teams.** Assembling a team of educators to develop a program of study that will provide students with a seamless transition path from school to the workforce is key to recruiting a health care industry partner. Working as an interdisciplinary team allows both educators and industry partners to align academic standards with health care industry standards. Interdisciplinary teams' activities also frequently include structured shared planning time for educators and health care industry to engage in conversations about curriculum and work-based opportunities. Establishing a professional community on a high school campus encourages ongoing collaboration between educators and health care industry.

**STEP 3: Assess teachers' motivation to incorporate health care competencies into their curriculum.** Educators who are willing to increase their knowledge of current health care career competencies and implement ways to incorporate this knowledge into their curricula thereby contribute to the success of a partnership with the health care industry. Teacher's engagement with the health care industry in turn

increases students' learning and motivation toward a career in health care. Research has shown that students' learning and motivation increases when classroom instruction is related to students' interests and jobs. This study argues that knowledge and skill in the form of work-based learning does lead to meaningful learning and value-added motivation and career aspirations in students.

**STEP 4: Provide adequate professional development opportunities for teachers to collaborate with a health care industry partner.**

The social and collaborative aspects of professional development offer important means by which educators can acquire new knowledge and skills. In this case, professional development involves sharing ideas and gaining insight into perspectives held by health care professionals. Moreover, integration of health care topics into academic courses that enhance workforce education and training and lead to employment in health care settings will be attractive to the industry. Collegiality and professionalism in teams leads to high levels of partnership that can be linked to two key outcomes for educators: first, educators gain a stronger network of colleagues in the health care industry to develop new teaching approaches. A second outcome is educators are able to identify creative teaching methods that incorporate work-based learning opportunities for students.

**STEP 5: Establish community and industry partnerships.** Strong partnerships with educational, industry and community-based institutions are crucial to the success and sustainability of work-based learning programs. Of particular benefit are partnerships with health care organizations that: (1) offer schools additional resources to strengthen students' career-ready capabilities; (2) help teachers stay current with educational and employability requirements that students will need to succeed after high school; (3) have staff members who are knowledgeable about health care related topics to help teachers align curriculum with industry; and (4) offer students real-life work-based learning experiences and information about postsecondary CTE certification options.

## APPENDIX 3

### **For Hospital and Other Health Care Employers**

For health care employers to decide the risk and benefits of partnering with a high school is a decision that has many implications and should be well thought out. The following are key next steps that health care employers can do to start a partnerships with a high school.

**STEP 1: Engage in a conversation with staff.** This conversation should involve the CEO, director of human resources, and other pertinent staff. The conversation should address the following questions: (1) What is it that we do that high school students can do? (2) For whom is it that students will do that we do? (3) What are the risks that may prevent us from forming a partnership with a high school? (4) Can we commit to a short-term or long-term partnership?

### **STEP 2: Complete an employer self-assessment.**

Following the conversation in STEP 1, complete an employer self-assessment. One Instrument that can help an organization assess their readiness to start a partnership with a high school can be found in the California Hospital Association's 2015 Roadmap for creating a Health Care Work-Based Learning Program report.

### **STEP 3: Identify potential schools interested in a partnership.**

Following the completion of the employer self-assessment generating favorable partnership readiness results, identify three to five schools around the health care organization's service area and gather data that describes the school's profile and demographics. For example: (1) size of student population, (2) racial and ethnic breakdown of student and teacher population, (3) amount of experience and number of years of the administration and teaching staff at the schools, (4) amount of experience in operating a career academy, (5) number of existing programs on campus that might compete for resources and staff time, (6) history of students' and teachers' involvement in community service, (7) history of operating successful programs, (8) history of school district's support and funding for career academies, (9) quality of commitment to the project by the school district, principal and teaching staff, and (10) able to organize an advisory committee made up of community, industry, and academic leaders to meet on a regular basis and provide direction to the career academy.


### **STEP 4: Conduct interviews with school principals and other academic stakeholders.**

Schedule interviews with the school's administrators, teachers, students, and other pertinent staff to discuss the nine factors described in STEP 3. Also, do a site visit to get a feel for the school environment and culture. During the interview and tour of the campus, pay close attention to the following key partnership components. First, examine the relationships and communication between students and teachers, and amongst teachers and administrators. This is a critical factor when selecting a school to partner with. A school that conveys a strong organizational structure where administrators and teaching staff communicate consistently, everyone involved participates in decision-making, and students trust their teachers and administrators, then that school is a potential candidate for partnership. Second, determine if the teachers will be given the support and resources (e.g., modern facilities, technology, and equipment) that they will need to support the education and training of students prior to their work-based learning assignments. This is important so that the industry does not spend time and money training or retraining students. Third, curriculum flexibility that will allow the teaching staff to make modifications to their curriculum so that it is aligned to the workforce needs of the health care industry. The industry staff will not develop new curriculum, but will provide guidance on topics and subjects that are relevant to the health care industry. Finally, commitment from the school district, principal, and lead coordinator in keeping the interdisciplinary team together for the long haul. This type of commitment, not only strengthens the industry partners' decision to establish a partnership, it also assures the industry partner program sustainability and flow of student workers.

### **STEP 5: Set expectations, define goals, and establish accountability guidelines.**

Following the completion of STEP 4 and selection of a school to collaborate with, establishing partnership expectations and goals are important to the transparency process. Equally important is ensuring the school leaderships hold people accountable when expectations and goals are not met. Accountability is an important component in strong partnerships.





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