

Building Leadership, Capacity, and Power to Advance Health Equity and Justice through Community-Engaged Research in the Midwest

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Highlights

- This paper describes the development and evolution of the Health Equity Advancement Lab (HEAL).
- HEAL emphasizes transformative learning opportunities for students, faculty and community partners.
- HEAL is guided by community-based participatory research principles & critical consciousness theory
- HEAL creates a support network to promote health equity research in diverse communities.
- We describe one HEAL-affiliated CBPR study that exemplifies transformative learning experiences.

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Abstract The Health Equity Advancement Lab (HEAL) at the University of Iowa College of Public Health began in 2012 to support students, researchers, and community members interested in tackling persistent health inequities through a community-based participatory research (CBPR) approach. Using concepts from critical consciousness theory, we developed an approach to building students', faculty members', and community partners' capacity to engage in CBPR to promote health equity that involved immersion in developing CBPR projects. Our paper describes the evolution of HEAL as a facilitating structure that provides a support network and engages diverse stakeholders in critical reflection as they participate in research to advance health equity, and resulting political efficacy and social action. We describe one HEAL-affiliated research project that employs a CBPR approach

and has a strong focus on providing transformative learning experiences for students, faculty, and community members. We highlight challenges, successes, and lessons learned in the application of critical consciousness as a framework that engages diverse academic and community partners seeking to promote health equity. We argue that critical consciousness is a relevant theoretical framework to promote transformative learning among students, faculty, and community partners to promote health equity research in diverse communities.

Keywords Capacity building · Community-engaged research · Critical consciousness · Health equity · Social justice

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Introduction

Social and economic inequities continue to produce widening, persistent, and burdensome health inequities. To address these inequities, we must engage in activities that disrupt systems to produce and support long-term change (Commission on Social Determinants of Health, 2008; Marmot, Friel, Bell, Houweling, & Taylor, 2008; Olshansky et al., 2011). Critical consciousness (CC) has been defined and conceptualized in various ways, but core components include critical reflection, political efficacy, and social action (Freire, 1970; Jemal, 2017; Watts, Diemer, & Voigt, 2011),

which are necessary elements required for systems to change. CC builds capacity to transform systems (Jemal, 2017) and responds to calls for transformative education for health professionals (Frenk et al., 2010). This approach both promotes and values critical self-reflection by health professionals and communities. An emphasis on CC has the potential to enhance public health research, teaching, and practice.

Enhancing the focus in public health education on CC to advance health equity is challenging and complex as it requires the engagement of many diverse stakeholders, developing robust training opportunities, and shifting power dynamics in education through a participatory approach (Smith & Jemal, 2015). It also requires prioritizing dimensions of community capacity such as participation, leadership, social networks, and power (Goodman et al., 1998) to build the foundation for interdisciplinary, partnered work that incorporates systems thinking and a historical perspective (Frenk et al., 2010; Frerichs, Lich, Dave, & Corbie-Smith, 2016; Wallerstein & Duran, 2017). Community-based participatory research (CBPR) provides an approach to accomplishing this. CBPR emphasizes the importance of co-learning, community-developed research perspectives, shared decision making, and local capacity building to understand problems from a socioecological and systems perspective (Frerichs et al., 2016; Israel, Schulz, Parker, & Becker, 1998; Wallerstein & Duran, 2006). Equitable partnerships are essential to promote health equity through CBPR (Ward et al., 2018), yet there are limited training programs that develop the capacity of students, faculty, and community members to build equitable CBPR partnerships (Coombe et al., 2018). Applying a CC framework and CBPR principles fosters innovative teaching and transformative learning among students, faculty, and community partners and has the potential to support the development of equitable partnerships needed to promote health equity (Israel, Eng, Schulz, & Parker, 2013; Israel et al., 2018; Reinschmidt, Maez, Iuliano, & Nigon, 2018). We operationalized the CC framework and CBPR principles through a dynamic facilitating structure for collaboration, learning, and development—the Health Equity Advancement Lab (HEAL) that evolved through the development of several CBPR projects and increasing student and faculty interest and engagement.

Background, History, and Mission

HEAL at the University of Iowa College of Public Health was created in 2012 to provide a network and structure that supports evolving CBPR projects designed to promote health equity in diverse communities. Founded with a goal of promoting CC and developing a network of support for researchers, students, and community partners,

HEAL provides the space and infrastructure to engage in transformative learning opportunities through CBPR projects that emphasize critical reflection, political efficacy, and social action (see Fig. 1). HEAL originated with the aim of providing a support structure for engaging in health equity research in institutions and communities with a limited history of engaging in CBPR, with an emphasis on communities in the state of Iowa and surrounding areas that experience inequities (Bucklin, 2018). Since its founding, HEAL has evolved to include a more intentional focus on robust student and faculty training opportunities in addition to community capacity building through a monthly journal club for students, faculty, and staff; an annual research conference (the Science of Health Equity Summit); the development of a HEAL-affiliated global health equity course in partnership with three other universities in Canada, Ecuador, and Lebanon; and specific practicum and training opportunities on HEAL-affiliated research projects.

Promoting CC through capacity building and training opportunities and growing our support networks has been instrumental in the evolution of HEAL. Because commitment and work beyond the scope of a single research study or research team are necessary in order to disrupt systems to produce the political, structural, and environmental changes needed to promote health equity, HEAL establishes a network of diverse CBPR partnerships with shared goals and aspirations. HEAL enhances political efficacy as confidence to change social conditions that perpetuate health inequities grows among members and promotes social action through its emphasis on CBPR. This paper describes HEAL's approach by highlighting one of our affiliated research projects, *Despierta a Tu Salud*, in which critical reflection, political efficacy, and action-oriented research were prioritized to address issues of social injustice.

Case Study: *Despierta a Tu Salud*

Latinas experience some of the highest incidence and mortality rates for cervical cancer among US women (American Cancer Society, 2016; Haile et al., 2012; Mann, Foley, Tanner, Sun, & Rhodes, 2015; National Cancer Institute, 2009, 2010). Promoting human papillomavirus (HPV) vaccination is an approach, congruent with primary prevention (Arrossi et al., 2017; World Health Organization, 2014), that could reduce the incidence of cervical cancer. Beyond national statistics on incidence and mortality, the very real cervical cancer mortality observed by leaders of the Latinx community in West Liberty, Iowa, the state's first rural, majority Latinx town (Schaper, 2011), prompted the development of *Despierta a tu Salud*.

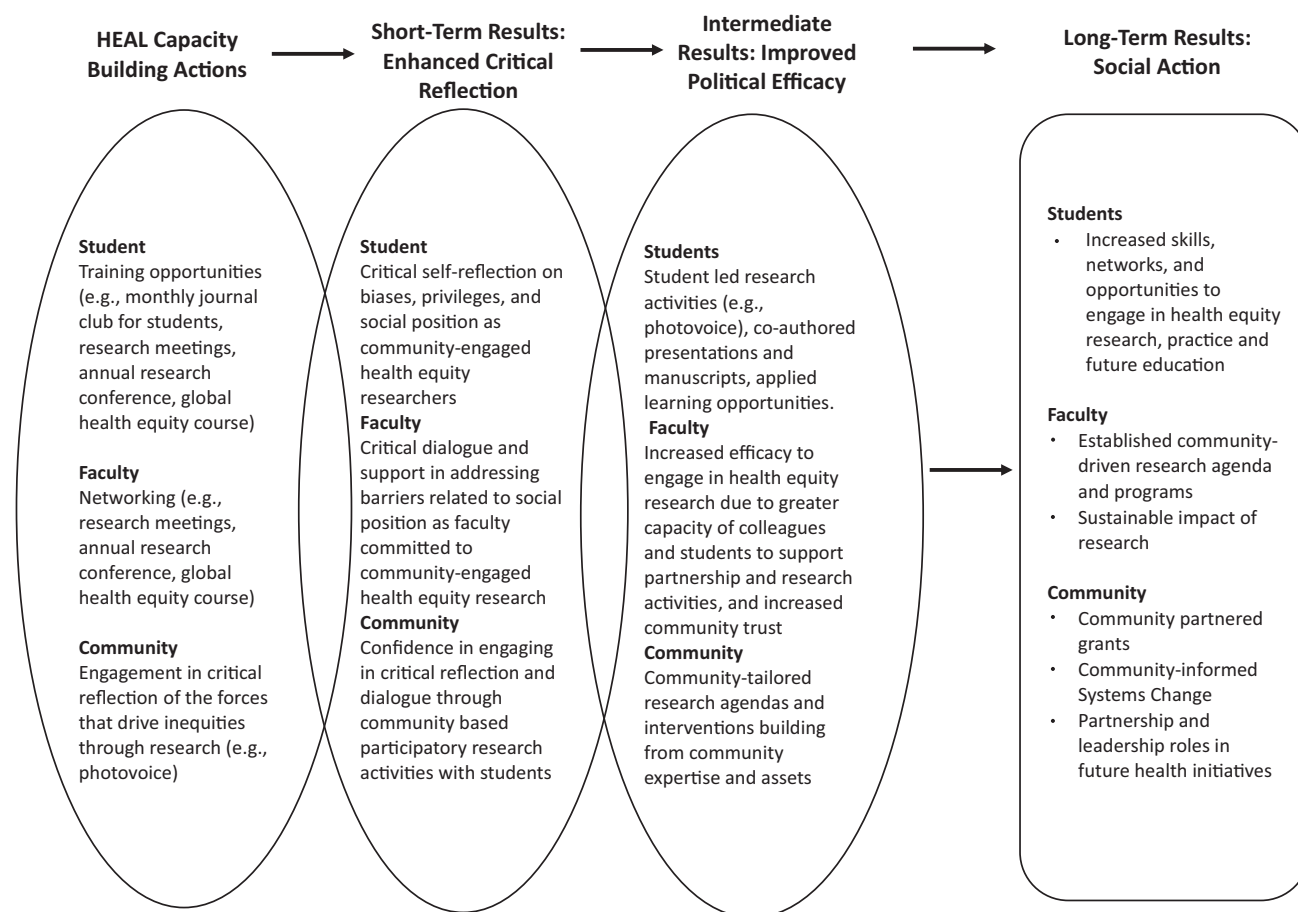


Fig. 1 HEAL logic model

Much of the research that focuses on Latinx individuals' health is concentrated in urban areas of long-time Latinx enclaves (e.g., Chicago, New York, California, and Texas) and not in smaller majority Latinx towns such as West Liberty, Iowa. In addition, less is known about the experiences of rural, new Latinx communities, known as new destination or new settlement areas (Allegro & Wood, 2013). The intersection of two health disparity dimensions—being a small, rural community and a new Latinx destination location—presents a need for localized community development approaches to address health inequities in these communities. CBPR approaches can address this need by valuing local knowledge and expertise and prioritizing community-developed research perspectives and social action. We will now describe the steps in our process of building students', faculty members', and community partners' capacity to engage in CBPR to promote health equity through *Despierta a tu Salud*. These steps, grounded in CC theory, included gaining entry and promoting critical reflection to identify community concerns; enhancing political efficacy through coalition building; and social action to promote health

equity through increasing HPV access for the Latinx community. We will also describe transformative learning opportunities, particularly for students, and lessons learned.

Gaining Entry in a Community

Engaging community as equitable partners in research requires building trusting relationships with community stakeholders. We began building relationships within the Latinx community in West Liberty by identifying key stakeholders to interview in order to explore key community health priorities and potential partner organizations to address these health priorities. These interviews took place in familiar and comfortable places in the community such as coffee shops, churches, homes, and locally owned restaurants. The informal interviews were intended to be conversational and casual, covering a broad array of topics based on what the stakeholder wanted to discuss. We did not use an interview guide or meeting agenda, and the interviews were led by a HEAL faculty member. As the conversation progressed, we looked for

opportunities to discuss health priorities in the community and gather information on other potential stakeholders and influential community organizations. We interviewed over 20 community stakeholders from a variety of community sectors, including the superintendent of the school district, local religious leaders, informal Latinx church leaders, small local business owners, representatives from local community organizations, and local Latinx community leaders. After each interview, we noted new community contacts; we stopped interviewing when we reached saturation in both the potential future interviewees named and the health priorities identified. As a result of these informal interviews, we were able to focus our efforts on engaging a network of community members, allowing us to start building relationships and trust between the research team and the community. This network of community members became our pool of potential participants for the next phase of the project. Findings from the interviews confirmed cancer as a priority health issue in the community. Worker health and the cultural and social separation of Latinx and White residents were two additional prominent themes discussed by stakeholders.

This phase of conducting informal interviews and building a network of relationships with stakeholders and organizations took nine months and included heavy student involvement. Through HEAL meetings and individual mentoring, undergraduate and master-level students were trained in conducting stakeholder interviews, attended and took notes during the interviews, scheduled new interviews, acted as translators and interpreters, and participated in the debriefing process.

Gathering Data and Prioritizing Community Concerns

In order to narrow cancer-related health priorities and develop a deeper understanding of cancer in the community, we implemented a photovoice project (Carlson, Engebretson, & Chamberlain, 2006; Wang & Burris, 1997) to explore community members' perceptions and beliefs about cancer in the community, while continuing to build trusting relationships. The photovoice method promotes CC for both community members and researchers that can result in actionable steps to promote community change (Carlson et al., 2006; Wang & Burris, 1997). In addition, as the focus of the photovoice sessions is driven by community members, it provides an opportunity for the research team to practice sharing power over research goals with community partners. We partnered with the local Catholic church and the residing priest to organize and implement the photovoice project.

The photovoice project included an orientation session, three photovoice sessions, and a community meeting to present the findings locally. A range of 5–8 community

members attended each of the photovoice sessions. Participants were all adults, identified as Latinx community members, were foreign-born (from Mexico and Guatemala), lived in West Liberty, and were well-known members of the local Catholic church. The participants were majority female, with two men who attended regularly. Photovoice participants were recruited through flyers at the church, announcements during the Spanish language mass, and recommendations of the parish priest. Each photovoice session included a facilitated process to promote dialogue and build a new shared understanding of community concerns and identify specific action steps (see Baquero et al. (2014) for an in-depth description of the VENCER/SHOWED process used to conduct photovoice sessions). Each of the photovoice sessions was guided by a photo assignment chosen by participants, which included prompting questions such as: (a) Why and what causes cancer? (b) How can we overcome the fear of what the doctor tells us or of the diagnosis? (c) What resources do we have/don't have in the community to prevent cancer? The photovoice sessions were conducted in Spanish and transcribed to English by trained student bilingual transcribers. The transcript of each session was then coded by a team of research assistants and two lead investigators. Coding and interpretation were conducted using a conventional content analysis approach (Hsieh & Shannon, 2005); open coding occurred first to develop several codes that were collapsed into broader categories and then into themes.

Themes and Findings from the Photovoice Sessions

Five themes emerged from the photovoice project: (a) quality and quantity of health communication, (b) worry about occupational cancer-causing exposures, (c) role of social support, (d) barriers to a healthy diet, and (e) the role of cultural traditions.

The participants discussed various types of health-related communication and media, describing some information that is accurate and some that is misinformation. Deciphering misinformation from accurate information was complicated by the amount and variety of communication channels, literacy demand of the information, and conflicting messages. For example, one participant expressed uncertainty about a potential cancer risk: "And the laptops are said to cause a little more to girls because they use them on their legs and computer radiation can cause that... that's what I heard, and I'm not sure." Participants also described health communication challenges they experienced interacting with healthcare providers:

And again they make one [test] more painful than had already been and they delayed it almost 3 hours - they

put me in the waiting room almost 3 hours for the doctor to come out and the doctor told me that it was nothing. But those 3 hours that I was waiting.

Central to the second theme is concern that participants shared for community members that are self-employed or working for small companies in various types of labor (e.g., house repairs, painting, and construction) and do not have resources to understand potential exposure to work-related carcinogens. The photovoice participants, specifically when talking about their partners' jobs, were also concerned that machismo might motivate men to ignore safety precautions.

In jobs because it is very easy... the paint. You make it easy, 'or do it fast.' I tell him, 'No, use gloves, use your face mask.' He actually said, 'Then I'm dying.' I told him, 'The problem is that he does not die, the problem is that he will die slowly.' He will have a bad life.

Theme three focused on the role of social support. Specifically, participants described concerns around the lack of instrumental support to access health care. Transportation and limited clinic hours were two of the biggest challenges participants described in accessing health care.

The clinic sends us to Iowa City [approximately 15 miles away, no public transportation to get there] to check us. And if you do not have transportation or several people... the truth is that I am not talking about myself, and perhaps some have it [transportation] and others don't.

As participants discussed unreliable access to health care, they also proposed solutions such as strengthening informal community ties to advocate for improved social services and maintaining and strengthening instrumental support networks.

Participants discussed several barriers to maintaining a healthy diet including access, convenience, and limited information regarding healthy foods. Participants described that available and affordable food is often unhealthy. One participant provided the example of instant noodles, stating that "... Sometimes my daughter tells me, 'I am going to cook this, I'm going to cook another... oh no Maruchan is easier'." Participants also discussed the difficulty in translating traditional recipes with foods accessible to them locally. Similar to participant descriptions shared under the first theme of health communication and misinformation, participants recognized that the food accessible to them may be less healthy, but they were unsure how to make that determination.

The final theme focused on the role of culture, tradition, and how experiences in home countries influenced health in the United States. Participants described that preventive health care is different in the United States and Mexico. For example, one participant shared that in their home country, one only goes to the doctor when they are in too much pain to work or perform domestic chores. "Then in Mexico, the customs are like this... we go to the doctor when we see a problem, 'Oh, this hurts.' Not until I can't stand it." Photovoice participants discussed their children as a potential intervention point. As their children grow up in the United States and learn about health and nutrition, they may influence their parents' diet and health behavior choices. For immigrant families, in particular, this may be exceptionally important, as one of the main drivers of immigration to the United States is the well-being of future generations.

Sharing Photovoice Findings with the Community

HEAL student and faculty members, the priest, community partners, and the photovoice participants hosted a community forum to share the findings with their neighbors and friends as well as to promote critical reflection with the community and generate motivation for action. This forum was held at the Catholic church's community room. More than 50 community members and their children attended. One of the photovoice participants, a local caterer, provided food, and a local dance group was paid to perform a traditional Mexican dance set. Through the process of critical reflection and dialogue during the forum, cervical cancer was identified as the top cancer-related concern. In addition, forum participants identified several barriers related to cervical cancer prevention including: (a) community members not getting useful and/or consistent health information resulting in inadequate reproductive health knowledge, and (b) limited health education pertaining to cancer causes, screening, and treatment availability.

HEAL students were involved in each step of the photovoice project. Two HEAL students were trained to facilitate photovoice sessions and record notes. Students translated, transcribed, and aided in the qualitative coding of the sessions. Several students were engaged as presenters, translators, and note-takers during the planning and implementation of the community forum. As requested by the community, students worked in groups with community partners to develop community health education presentations about colorectal, prostate, breast, and cervical cancers, which were also presented at the community forum.

La Coalición de West Liberty Coalition

As we began our next steps, we looked to aspects of CC and CBPR as a guide to develop a project that would

have strong participation by local civic organizations and public health agencies while leveraging community strengths to promote collaborative action on issues that surfaced in the photovoice project and community forum. At the community forum, Latinx community members identified cervical cancer as their number one priority. In consultation with our Latinx stakeholders, we chose to organize and advocate for easier access to HPV vaccines to address the prevention of cervical cancer. At first, we collaborated with local Latina-owned beauty salons for stylists to be trained as community health workers, a strategy informed by local Latinx community resources and previous studies that used it effectively with African American women in other health promotion collaboratives (Linnan & Ferguson, 2007; Solomon et al., 2004). However, that strategy proved to be unsuccessful. The only two Latina salon owners in town, serving a population of <1500 adult Latinx residents, were interested but overengaged with other community responsibilities. We also discovered that other Latinx community members, who could potentially take on the community health worker role, were similarly overtaxed, and therefore, this strategy was not pursued further. Thus, we needed to develop a different strategy to address cervical cancer prevention in the community.

As we were planning the next steps, our work with the Latinx community and emphasis on developing political efficacy had been noticed by other community organizations in the area. Members of a local Rotary club approached us to discuss strategies to better integrate Latinx and White communities in West Liberty. These discussions led to the formation of La Coalición de West Liberty Coalition (CWLC). It is important to note that the redundancy of the name was intentional. In discussions with Latinx community members, they noted that Latinx individuals in the community perceive English titles and names as standing for “Whites only.” Thus, we developed a bilingual, bicultural name to communicate that CWLC was for the whole community. The initial CWLC meeting was attended by representatives from two county public health agencies, the school district, local labor organizations, members of the local Rotary club, and a number of researchers from the University of Iowa (College of Public Health and Department of Religious Studies), including and initially organized by our HEAL team. Over four years, the group met monthly, hosting events meant to promote community collaboration and more equitable participation by all community members. During this time, the group submitted two community grant proposals that were funded and presented at a statewide public health conference, receiving widespread attention as a possible blueprint to integrate community organizations in other small, rural towns with growing Latinx populations

(Hansen, Gilbert, Daniel-Ulloa, Moreno, & Martinez, 2017). While this group was not formed explicitly to address health priorities identified in our formative work (i.e., stakeholder interviews and photovoice), it became an important group as we shifted our strategy to HPV vaccine promotion to prevent cervical cancer.

HPV Vaccine Promotion

As a member of the CWLC, HEAL was focused on developing a local partnership to increase HPV vaccine access in West Liberty. In keeping with the guiding principles of CBPR, we used our community ties through the CWLC to develop a community–clinic linkage that would exist in the community, sustain itself beyond the project, and honor community input. Community–clinic linkages were being explored by multiple sectors as a way to deliver HPV vaccination services in various communities (Brandt et al., 2019). We developed a set of linkages in a nontraditional partnership that involved people at individual and organizational levels from university, religious, education, and nonprofits groups, to develop a protocol to deliver free HPV vaccination and health education in a community setting that would function beyond the life of the project.

We further developed our political efficacy as our partnerships increased. We established a partnership with The University of Iowa (UI) Mobile Clinic, which had an already established partnership with the West Liberty School District to deliver care to uninsured and underinsured community members. We then began to address several key structural issues that had to be addressed before implementing the HPV vaccination project. First, although the clinic could provide the necessary staff and the school district could provide the space, getting doses of the HPV vaccine proved difficult. Budget and protocol constraints as well as logistical constraints eliminated mobile clinic supplies as a sustainable source for the vaccine. Although the HPV vaccine could be accessed free of charge to low-income patients, we needed to develop legal and clinical protocols for providing education, screening, and giving the vaccine, which were normally provided at public health offices or clinics. As word of CWLC grew, so did our credibility in the community, which opened a number of channels and avenues to potential partners including Johnson County Public Health (JCPH), the neighboring county, and home of UI. JCPH was able to provide the vaccine under a state vaccine program. They also had protocols in place for the legal and logistical issues involved in providing the vaccine safely and in accordance with the law. Using this supply to deliver the vaccine provided proof of concept for a sustainable supply for the clinic.

To enhance our vaccine promotion plans, we conducted over 70 intercept interviews with Latinx community members, where we explored Latinx's knowledge, attitudes, and beliefs about HPV, Gardasil, and accessibility to the vaccine. These interviews were done at several community sites including cultural fairs, tiendas, restaurants, churches, salons, and the The University of Iowa Mobile Clinic. The sample was mostly female (67%) and over 40 years old. Nearly two-thirds of the sample were born in Mexico. Most households interviewed included a vaccine-eligible male (61%) or female (57%). Results of the intercept surveys indicated that girls were more likely to be vaccinated, parents of males were less likely to be familiar with HPV or the vaccine, and younger parents were more likely to be familiar with HPV and the vaccine. The interviews provided two key findings as we continued to plan for vaccine promotion and access: (a) parents reported that they would be more likely to access vaccination at a local health clinic or The University of Iowa (UI) Mobile Clinic over a pharmacy, and (b) parents ranked knowing the doctor or nurse and having them administer the vaccine were more important than the timing (i.e., weekend clinic) or the cost.

HEAL Student Involvement

HEAL students made significant and important contributions throughout the *Despierta a tu Salud* project—from interviewing early key informants, to facilitating photovoice, and developing the mobile clinic capacity to deliver vaccines and health education. Indeed, partially based on her experience with HEAL, one of our students was selected as the The University of Iowa Mobile Clinic coordinator. Additionally, it was particularly important that many of the HEAL students that were conducting interviews and delivering health education were members of the West Liberty community. Students attended CWLC meetings, implemented participant recruitment, conducted interviews, helped develop and implement health education materials, and worked with nurses and mobile clinic staff to accommodate the vaccine project. In fact, we found that within the Latinx community, in a time between the Postville immigration raid (Novak, Geronimus, & Martinez-Cardoso, 2017), the election of Donald Trump, and the Mount Pleasant immigration raid (Gabriel, 2018), it would be impossible to engage with the Latinx community if we had not included students that were members of the West Liberty Latinx community. Their participation gave us and our project credibility and demonstrated our commitment to their young people. We have kept in contact with students that participated in HEAL as part of *Despierta a tu Salud*. These students described their experiences being a part of HEAL as pivotal in developing their passions for

community-engaged research, public health, and advocacy. For many, this initial participation in the research process helped develop critical reflection skills to understand and act on health inequities, increased feelings of political efficacy, and gave them confidence in their abilities to be scientists and/or advocates to promote social action. Student immersion in CBPR and direct experience with the process of critical reflection, developing political efficacy, and implementing social action resulted in transformative learning. Several HEAL students have reported that these experiences led them to consider careers in research, public health, and/or community advocacy that they would not have considered otherwise.

Discussion and Lessons Learned

Guided by CBPR principles and CC theory, HEAL strives to provide a facilitating structure and transformative learning opportunities for students, faculty, and community partners, and a supportive network to engage in health equity research and practice. We believe this approach is vital to sustainable, long-term change for health equity. Working together across populations, HEAL has facilitated engagement and collaboration opportunities that build on diverse CBPR projects and focused on health inequities in specific communities, to build a network that supports critical reflection, political efficacy, and social action in the form of policy, systems, and environmental change. The case study highlighted in this paper illustrates the core principles prioritized in HEAL and how they translate into transformative learning opportunities that promote critical reflection, developing leadership and social networks to build political efficacy, and social action. In the process, there have been several challenges and lessons learned (see Table 1).

Lesson 1: Need for Capacity Building and Infrastructure Funding

The need for dedicated funding to support innovative training and transformative learning opportunities as well as infrastructure for network support has been a consistent challenge. HEAL was developed by committed faculty of color who sought to support each other and build the capacity of students and community partners to engage in health equity research and practice. Commitment to this mission drove the development of HEAL, and small grants and university departmental support have sustained HEAL's growth thus far; however, to continue to grow to meet the increasing demand, additional funding sources are needed. The interest and eagerness among faculty, students, and community partners to develop CC to better

Table 1 Lessons learned

Lesson learned	Description
Lesson 1: Capacity building and infrastructure funding are critical to build and sustain transformative learning opportunities and maintain a supportive network focused on health equity research and practice.	A consistent challenge for HEAL was securing dedicated funding to support transformative learning opportunities and build infrastructure for network support. The growing demand and requests for training and educational opportunities were difficult to meet without sufficient protected time among HEAL faculty.
Lesson 2: Attention to the importance of representation and historical issues is critical in the development, implementation, and sustainability of CBPR projects and transformative learning opportunities.	For HEAL-affiliated CBPR projects, issues of historical mistrust and disproportionately high representation of those traditionally in power (i.e., White community members and professional stakeholders) were critical to address. This also became an issue to address among HEAL faculty and students as HEAL grew in size. Finally, changing membership among academic and community partners impacted the direction and focus of collaborative research agendas and was important to monitor and consistently address.
Lesson 3: Managing competing demands related to promotion while continuing to facilitate transformative learning experiences for students, faculty, and community partners is difficult and requires institutional support and formal recognition for HEAL activities.	While investing in initiatives like HEAL is invaluable for health equity research and practice and enhances student learning experiences, formal recognition and value by promotion and tenure committees are needed to support faculty as they negotiate competing demands and responsibilities.

understand how social injustice impacts health and engage in action-oriented research that promotes health equity has been exciting; however, the growing demand of responding to requests for further training and education opportunities is difficult to meet without protected time among HEAL faculty.

The challenge of funding extends to the type of local, action-oriented research HEAL supports. For example, the work with *Despierta a tu Salud* was difficult to fund using statewide or national grant sources. As a new destination, rural Latinx enclave, there was a lack of large data sources to establish the need for vaccine uptake, and national research suggested the Latinx youth were more likely to be vaccinated. Therefore, while HPV vaccination was the community-identified priority, external funding for this priority was limited. Despite the limitation of funding, the investment in this project offered benefits to a variety of entities in and outside of the university. Many of the students involved were later hired as research assistants by other faculty at the university, and CWLC was approached by other researchers who wanted to engage Latinx residents in other research. The investment was worthwhile to several stakeholders, but it came at the cost of HEAL faculty members' unfunded time and depleted energy.

Lesson 2: Importance of Representation and Historical Context

HEAL-affiliated CBPR projects have encountered challenges in continuing to provide opportunities for critical reflection, developing political efficacy, and promoting social action. Changing membership that modifies the

direction and focus of collaborative agendas, issues of historical mistrust, and over-representation from those traditionally in power (e.g., White community members and professional stakeholders) have all been issues we have to consistently navigate. For example, CWLC has always included more White members than Latinx which motivated the name to be in Spanish and English. In the words of a community member, "If the name is in English then it is for the Anglos, if in Spanish then for the Hispanos."

HEAL has served as a safe space for students of color at a historically and predominantly White university to be seen and learn from peers and faculty that look like them, have similar backgrounds and experiences, and welcome their lived experience and expertise in research. For White students, HEAL has provided an opportunity to practice cultural humility and critical self-reflection, to challenge their implicit biases, and to examine their privilege and how it impacts research. As HEAL has grown in student membership, the ratio of White students to students of color has shifted which has elevated concerns that HEAL may feel like less of a "home" for students of color. It has been important for us to explicitly acknowledge this and create an open space for dialogue and reflection on these issues surrounding representation.

Lesson 3: Managing Competing Demands

HEAL strives to advance health equity and social justice through a facilitating structure and support network for CBPR and transformative learning opportunities that emphasize CC. Our commitment is to build capacity and offer support to increase the critical mass of professional and community members ready to engage in efforts that

disrupt systems and promote long-term change. In our efforts to build capacity and provide transformative education opportunities, it has become evident that our own capacity is limited due to funding, time, and competing responsibilities and demands. Further, the founders struggled to navigate multiple expectations, obstacles, and challenges associated with being faculty of color focused on health inequities (e.g., Hoppe et al., 2019). No doubt this is why we originally founded HEAL, and the support for us as faculty to engage in critical reflection around these issues and build our political efficacy to address persistent institutional challenges has resulted in multiple levels of social action in our projects and our institutions. That said, it has required time and resources at times at the expense of other metrics of research productivity (e.g., publications). This is a challenging dilemma for faculty as the transformative learning, network of support, and social action results from investing in HEAL are invaluable to health equity research; however, the capacity building actions and short-term and intermediate results may not be valued in the same way by promotion and tenure committees.

Conclusion

HEAL serves as a facilitating infrastructure and network of support for researchers, students, and community partners by prioritizing dimensions of CC through capacity building and transformative learning opportunities. The emphasis on critical reflection, political efficacy, and social action beyond a single research project has been invaluable as we aim to disrupt systems that perpetuate health inequities. However, these benefits have also come with costs including funding, resources, time, research productivity recognized by academic institutions, and emotional energy expended navigating representation and historical issues. We hope others can learn from the experience of HEAL and our lessons learned as they strive to build their own support network and develop transformative learning opportunities for students, faculty, and community partners.

References

- Allegro, L., & Wood, A. G. (2013). *Latin American migrations to the U.S. heartland: Changing social landscapes in Middle America*. Springfield, IL: University of Illinois Press.
- American Cancer Society (2016, Nov 7). Cancer Facts & Figures for Hispanics and Latinos. Retrieved from: <https://www.cancer.org/research/cancer-facts-statistics/hispanics-latinos-facts-figures.html> [last accessed July 30, 2019].
- Arrossi, S., Temin, S., Garland, S., Eckert, L. O., Bhatla, N., Castellsagué, X., ... & de Sanjosé, S. (2017). Primary prevention of cervical cancer: American Society of Clinical Oncology resource-stratified guideline. *Journal of Global Oncology*, 3, 611–634.
- Baquero, B., Goldman, S. N., Siman, F., Muqueeth, S., Eng, G., & Rhodes, S. (2014). Mi Cuerpo, Nuestra Responsabilidad: Using photovoice to describe the assets and barriers to sexual and reproductive health among Latinos. *Journal of Health Disparities Research and Practice*, 7, 65–83.
- Brandt, H. M., Vanderpool, R. C., Curry, S. J., Farris, P., Daniel-Ulloa, J., Seegmiller, L., ... & Zubizarreta, M. (2019). A multi-site case study of community-clinical linkages for promoting HPV vaccination. *Human Vaccines & Immunotherapeutics*, 15, 1599–1606.
- Bucklin, B. (2018, Feb 9). About HEAL. Available from: <https://www.public-health.uiowa.edu/about-heal/> [last accessed April 22, 2020].
- Carlson, E. D., Engebretson, J., & Chamberlain, R. M. (2006). Photovoice as a social process of critical consciousness. *Qualitative Health Research*, 16, 836–852.
- Commission on Social Determinants of Health (2008). Closing the gap in a generation: Health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva. World Health Organization. Available from: http://apps.who.int/iris/bitstream/handle/10665/43943/9789241563703_eng.pdf;jsessionid=63507D7DD2908AE4E2B418F3E92670C2?sequence=1 [last accessed July 30, 2019].
- Coombe, C. M., Schulz, A. J., Guluma, L., Allen, A. J., Gray, C., Brakefield-Caldwell, W., ... & Israel, B. A. (2018). Enhancing capacity of community-academic partnerships to achieve health equity: Results from the CBPR Partnership Academy. *Health Promotion Practice*, 10, 8830.
- Freire, P. (1970). *Pedagogy of the oppressed*. New York: Continuum.
- Frenk, J., Chen, L., Bhutta, Z. A., Cohen, J., Crisp, N., Evans, T., ... & Zurayk, H. (2010). Health professionals for a new century: Transforming education to strengthen health systems in an interdependent world. *The Lancet Commissions*, 376, 1923–1958.
- Frerichs, L., Lich, K., Dave, G., & Corbie-Smith, G. (2016). Integrating systems science and community-based participatory research to achieve health equity. *American Journal of Public Health*, 106, 215–222.
- Gabriel, T. (2018, July 3). An ICE raid leaves an Iowa town divided along faith lines. *The New York Times*. last accessed April 22 2020
- Goodman, R. M., Speers, M. A., McLeroy, K., Fawcett, S., Kegler, M., Parker, E., ... & Wallerstein, N. (1998). Identifying and defining the dimensions of community capacity to provide a basis for measurement. *Health Education and Behavior*, 25, 258–278.
- Haile, R. W., John, E. M., Levine, A. J., Cortessis, V. K., Unger, J. B., Gonzales, M., ... & Boffetta, P. (2012). A review of cancer in U.S. Hispanic populations. *Cancer Prevention Research (Philadelphia, Pa.)*, 5, 150–163.
- Hansen, S., Gilbert, P. A., Daniel-Ulloa, J., Moreno, E., & Martinez, D. (2017). A community-academic partnership to improve social cohesion and health: The mission and activities of the West Liberty Coalition/ Coalición de West Liberty. Presented 11 April 2017. Iowa Governor's Conference for Public Health. Des Moines, Iowa.
- Hoppe, T. A., Litovitz, A., Willis, K. A., Meseroll, R. A., Perkins, M. J., Hutchins, I., ... & Santangelo, G. M. (2019). Topic choice contributes to the lower rate of NIH awards to African-American/black scientists. *Science Advances*, 19, 1–12.
- Hsieh, H., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15, 1277–1288.
- Israel, B. A., Eng, E., Schulz, A. J., & Parker, E. A. (2013). *Introduction to methods for CBPR for health* (2nd edn). San Francisco: John Wiley & Sons.

- Israel, B. A., Schultz, A. J., Parker, E. A., Becker, A. B., Allen III, A. J., Guzman, R., Lichtenstein, R. (2018). Critical issues in developing and following CBPR principles. In N. Wallerstein, B. Duran, J. G. Oetzel, & M. Minkler (Eds.), *Community-based participatory research for health: Advancing social and health equity* (3rd edn, pp. 31–44). San Francisco: Jossey-Bass.
- Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (1998). Review of community-based research: Assessing partnership approaches to improve public health. *Annual Review of Public Health, 19*, 173–202.
- Jemal, A. (2017). Critical consciousness: A critique and critical analysis of the literature. *The Urban Review, 49*, 602–626. <https://doi.org/10.1007/s11256-017-0411-3>
- Linnan, L. A., & Ferguson, Y. O. (2007). Beauty salons: A promising health promotion setting for reaching and promoting health among African American women. *Health Education and Behavior, 34*, 517–530.
- Mann, L., Foley, K. L., Tanner, A. E., Sun, C. J., & Rhodes, S. D. (2015). Increasing cervical cancer screening among US Hispanics/Latinas: A qualitative systematic review. *Journal of Cancer Education: the Official Journal of the American Association for Cancer Education, 30*, 374–387.
- Marmot, M., Friel, S., Bell, R., Houweling, T. A., & Taylor, S. (2008). Closing the gap in a generation: Health equity through action on social determinants of health. *The Lancet, 372*, 1661–1669.
- National Cancer Institute (2009). *Surveillance epidemiology and end results (SEER) research data*. Bethesda, MD: National Institute of Health. Available from: www.seer.cancer.gov [last accessed July 30, 2019].
- National Cancer Institute (2010). *Surveillance, epidemiology and end results (SEER) program SEER*-stat database*. Bethesda, MD: National Institute of Health. Available from: www.seer.cancer.gov [last accessed July 30, 2019].
- Novak, N. L., Geronimus, A. T., & Martinez-Cardoso, A. M. (2017). Change in birth outcomes among infants born to Latina mothers after a major immigration raid. *International Journal of Epidemiology, 46*, 839–849.
- Olshansky, S. J., Antonucci, T., Berkman, L., Binstock, R. H., Boersch-Supan, A., Cacioppo, J., . . . & Rowe, J. (2011). Differences in life expectancy due to race and educational differences are widening, and many may not catch up. *Health Affairs, 31*, 1803–1813.
- Reinschmidt, K. M., Maez, P., Iuliano, J. E., & Nigon, B. M. (2018). Using active learning strategies linked to CBPR principles in a semester-long class project to teach qualitative research methods in public health. *Pedagogy in Health Promotion: the Scholarship of Teaching and Learning, 5*, 36–44.
- Schaper, D. (2011, October 10). A look at Iowa's first majority Hispanic town. NPR. Available from: <https://www.npr.org/2011/10/10/141150607/west-liberty-is-iowas-first-majority-hispanic-town> [last accessed October 15, 2019].
- Smith, V. C., & Jemal, A. (2015). Addressing the health of formerly imprisoned persons in a distressed neighborhood through a community collaborative board. *Program Planning and Evaluation, 16*, 733–744.
- Solomon, F., Linnan, L. A., Wasilewski, Y., Lee, A. M., Katz, M. L., & Yang, J. (2004). Observational study in ten beauty salons: Results informing development of the North Carolina BEAUTY and health project. *Health Education and Behavior, 31*, 790–807.
- Wallerstein, N. B., & Duran, B. (2006). Using community-based participatory research to address health disparities. *Health Promotion Practice, 7*, 312–323.
- Wallerstein, N., & Duran, B. (2017). Theoretical, historical, and practice roots of CBPR. In N. Wallerstein, B. Duran, J. G. Oetzel, & M. Minkler (Eds.), *Community-based participatory research for health: Advancing social and health equity* (3rd edn, pp. 17–27). San Francisco: John Wiley and Sons.
- Wang, C., & Burris, M. A. (1997). Photovoice: concept, methodology, and use for participatory needs assessment. *Health Education and Behavior, 24*, 369–387.
- Ward, M., Schulz, A. J., Israel, B. A., Rice, K., Martenies, S. E., & Markarian, E. (2018). A conceptual framework for evaluating health equity promotion within community-based participatory research partnerships. *Evaluation and Program Planning, 70*, 25–34.
- Watts, R. J., Diemer, M. A., & Voight, A. M. (2011). Critical consciousness: Current status and future directions. *New Directions for Child and Adolescent Development, 134*, 43–57. <https://doi.org/10.1002/cd.310>
- World Health Organization (2014). Human papillomavirus vaccines: WHO position paper, October 2014= Vaccins contre le papillomavirus humain: note de synthèse de l'OMS, octobre 2014. *Weekly Epidemiological Record = Relevé Épidémiologique Hebdomadaire, 89*, 465–491.