

Laramie County Community College

Case Study Report

Consortium for Healthcare Education Online

Education and Employment Research Center

Released January 2015



Renée Edwards
Audrey Mattoon
Heather McKay

Education and Employment Research Center
School of Management and Labor Relations
Rutgers, The State University of New Jersey
Janice H. Levin Building
94 Rockafeller Road
Piscataway, NJ 08854

smlr.rutgers.edu/eerc

RUTGERS

School of Management
and Labor Relations

Laramie County Community College
Case Study Report
Consortium for Healthcare Education Online

Renée Edwards
Audrey Mattoon
Heather McKay

Education and Employment Research Center
School of Management and Labor Relations
Rutgers, the State University of New Jersey
Janice H. Levin Building
94 Rockefeller Road
Piscataway, NJ 08854

December 2014

This workforce solution was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including information on linked sites and including, but not limited to, accuracy of the information or its completeness, timelines, usefulness, adequacy, continued availability, or ownership.



Consortium for Healthcare Education Online project material by CHEO Project TAACCCT Round 2 is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/) "This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership."

ABOUT RUTGERS SCHOOL OF MANAGEMENT AND LABOR RELATIONS

Rutgers' School of Management and Labor Relations (SMLR) is the leading source of expertise on the world of work, building effective and sustainable organizations, and the changing employment relationship. The school is comprised of two departments—one focused on all aspects of strategic human resource management and the other dedicated to the social science specialties related to labor studies and employment relations. In addition, SMLR provides many continuing education and certificate programs taught by world-class researchers and expert practitioners.

SMLR was originally established by an act of the New Jersey legislature in 1947 as the Institute of Management and Labor Relations (IMLR). Like its counterparts that were created in the other large industrial states at the same time, the Institute was chartered to promote new forms of labor-management cooperation following the industrial unrest at the end of World War II. It officially became a school at the flagship campus of the State University of New Jersey in New Brunswick/Piscataway in 1994. For more information, visit smlr.rutgers.edu.

ABOUT THE EDUCATION AND EMPLOYMENT RESEARCH CENTER

Rutgers' Education and Employment Research Center (EERC) is housed within the School of Management and Labor Relations. EERC conducts research and evaluations on education and workforce development programs and policies. EERC research expertise includes community colleges, state and federal workforce developmental systems, skills development, college completion, and innovative and technology-based programs.

INTRODUCTION

The Consortium for Healthcare Education Online (CHEO) is a United States Department of Labor (USDOL) Trade Adjustment Assistance Community College and Career Training (TAACCCT) funded grant project intended to develop new or redesigned online and hybrid courses leading to credentials in health care fields in high demand across the West and Midwest. CHEO is an interstate consortium consisting of eight colleges across Colorado, Wyoming, South Dakota, Montana, and Alaska. The consortium includes Pueblo Community College (PCC), Otero Junior College (OJC), Red Rocks Community College (RRCC), Laramie County Community College (LCCC), Lake Area Technical College (LATI), Great Falls College Montana State University (GFC MSU), Flathead Valley Community College (FVCC), and Kodiak College (KoC).

Each of the eight colleges is required to integrate the following components into its program/course design/redesign: 1) open education resources (OER), 2) use of the North American Network of Science Labs Online (NANSLO), 3) a CHEO-funded career coach, and 4) use of the CHEO Health Career Hub.

Open education resources (OER) are teaching tools and resources that are licensed for free, public use. They include teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge.

Under the CHEO grant, consortium colleges are encouraged to use OER resources in the creation/redesign of their online or hybrid courses. Consortium colleges are also required to create or redesign their courses/programs so that they can be packaged and licensed OER for use by other educators and institutions. The CHEO colleges will package, license, and post their course material during the course of the grant. OER materials will be uploaded to a skills commons repository under MERLOT. The MERLOT skills commons repository consists of discipline-specific learning materials, learning exercises, and web pages, designed to enhance the teaching experience.

The North American Network of Science Labs Online (NANSLO) is a remotely operated robotic lab designed to innovate the distance lab experience for students through a web-based portal. CHEO partners will collaborate to develop lab exercises to be used in health- and science-related courses. Faculty in the designed/redesigned CHEO programs will incorporate the developed labs into courses, using one of the three NANSLO nodes. Nodes are equipped laboratories that remotely run the specified labs for consortium colleges. Three total nodes exist, one newly created under the CHEO grant at GFC MSU. The other two nodes are located at North Island College in Vancouver, British Columbia, and RRCC in Denver, Colorado.

The NANSLO science lab network is managed by the Colorado Community College System (CCCS). For the purposes of the CHEO grant, the Western Interstate Commission on Higher Education (WICHE) in Boulder, Colorado serves as the public's primary resource for information about NANSLO. WICHE coordinates communication among the network's lab partners and coordinates the faculty discipline panels that plan and develop individual science experiments for the nodes.

WICHE additionally serves as CHEO's professional development coordinator, scheduling webinars and workshops for instructional designers, faculty and career coaches through three years of the grant. Specifically, in the first year of the grant, WICHE was responsible for one face-to-face workshop that included instructional designers and faculty members, a separate face-to-face workshop for career coaches, and four webinars (two for faculty and two for coaches). In the second year of the grant, WICHE was responsible for a face-to-face workshop for faculty and one for coaches, as well as six webinars (three for faculty and three for coaches). In the third year of the grant, WICHE is responsible for one face-to-face workshop for faculty and one for coaches, in addition to six webinars (three for faculty and three for coaches). If subsequent support during any grant-funded year is deemed necessary, the PCC CHEO administration team is responsible. For example, based upon project needs relative to employer engagement and job placement, a second face-to-face workshop was provided for coaches in year three. The PCC CHEO team also provides organization and facilitation of annual face-to-face meetings for project leads. Additionally, 10 trainings for the CHEO Health Career Hub are the responsibility of College in Colorado. Hub trainings began in year two and extend into year three.

Each college in the consortium is required to employ a career coach to collaborate with employer partners, local workforce centers, community and nonprofit organizations, and students to ensure student access to CHEO resources. Within each of these areas of collaboration, coaches work according to their institution's needs to build CHEO programs, recruit and retain students for CHEO programs, and assist students in multiple ways as each institution designates. Coaches also track their interactions with students to report outcomes based on a model of "intensive advising," assisting students throughout their education with multiple interactions and points of intervention to ensure student success and, ultimately, employment.

The CHEO Health Career Hub is a sophisticated regional and web-based portal that promotes and supports those pursuing a career in health care fields with a wide variety of high-impact interactive tools and services. PCC, the lead applicant and fiscal agent for the CHEO grant, has worked with College in Colorado hub development and Kuder, a company that designs online career planning systems, to create the CHEO hub. The hub is to be used as a case management tool by coaches and as an interactive career management tool for students in CHEO programs across all eight consortium colleges.

This report is one of eight created to highlight each individual college's contributions to the CHEO project to date. The purpose of this case study is to provide a summary of LCCC's activities, successes, and challenges to date and to identify the best practices, innovative strategies, and unique contributions of the college to the CHEO project to date. This case study begins with an overview of its methodology and data sources and then moves on to the contextual frame—demographic and socioeconomic background information about LCCC, its student population, and its service region. These sections are followed by a) a summary of the goals of LCCC's CHEO program, b) a discussion of the baseline targets and subsequent changes relative to the CHEO project, c) the identification of LCCC's emerging best practices, innovative strategies and unique contributions to CHEO, and d) a summary of successes and challenges to date along with next steps.

METHODOLOGY/DATA SOURCES

This report examines the development and implementation of the first two years of the CHEO grant at LCCC, including experiences of the project team members and participating staff, faculty, and students. As such, this report uses qualitative data and analysis. Subsequent EERC evaluation reports will include outcome measures and report on quantitative data collection and analysis.

The qualitative methodology for this report includes content analysis of consortium goals and activities to date, relevant proposals, and project- and college-specific statements of work, quarterly reports, career coach tracking spreadsheets (also called "stitched-in reports"), strategic plan information and materials, and websites developed by individual colleges. EERC team members have also conducted phone and in-person interviews with the CHEO coordinator, grant administrators, senior WICHE administrators, college project leads, NANSLO Discipline Panel participants, and faculty and career coaches. EERC team members have also been participant-observers at many project workshops including those for faculty, project leads, instructional designers, and career coaches. Finally, members of the EERC team have "observed" conference calls with project leads and career coaches and joined in webinars.

Most interviews were taped and transcribed; non-taped interviews involved extensive note taking. These transcriptions and notes as well as the documents cited above have been coded through the use of NVivo qualitative data management software and analyzed by EERC team members to represent each college's individual story relative to the CHEO project.

As noted above, while quantitative analysis will be presented in subsequent reports, this summary is meant for contextual purposes only and will only utilize data from qualitative analysis. For this reason, grant targets relative to each college, student counts, course counts, NANSLO lab counts, industry- and workforce-related targets, and other quantitative objectives will not be discussed as part of this report.

COLLEGE DESCRIPTION AND OVERVIEW OF THE STUDENT POPULATION

Established in 1968, Laramie County Community College (LCCC) offers a wide range of academic, career, technical, and community education programs across two campuses and two outreach centers. LCCC's main campus is located in Cheyenne, the capitol of Wyoming, and is a residential campus about 50 miles from the University of Wyoming in Laramie. LCCC's second campus is a commuter campus also located in Laramie. The college also has two outreach centers, located in Pine Bluffs and near the F.E. Warren Air Force Base, respectively.¹

Because of its non-central geographic location in the southeastern corner of Wyoming, the primary campus in Cheyenne is physically closer to certain counties in northeastern Colorado and southwestern Nebraska than to many counties in Wyoming. Additionally, LCCC's second campus and several outreach centers are located in rural areas with relatively small populations. Given its location and rural service area, LCCC has developed and prides itself on its online and hybrid program offerings.² For example, the outreach program at the F.E. Warren Air Force Base is designed to allow students to complete basic education courses at an accelerated rate, as well as participate in online courses and programs to satisfy their educational needs during deployment or periods of relocation.³ In addition, because Wyoming is a WICHE state, students from anywhere in other WICHE states can attend LCCC and pay 150% of the in-state tuition as part of WICHE's tuition reciprocity agreement. For Colorado students specifically, it is less expensive for students to attend LCCC than it is for them to attend school in their own state. Moreover, because students can take the CHEO program fully online, it is expected to be popular among Colorado students. LCCC hopes to market its CHEO program nationally in the future.

During the 2011-2012 academic year, LCCC offered 76 associate's degree programs and 25 certificate career programs to 2,088 full-time and 2,919 part-time students,⁴ awarding 682 degrees and certificates.⁵ The majority of LCCC's students were female (59 percent). Thirty-seven percent of all students (N=743) were 25 years or older, and LCCC's minority student population was approximately 19 percent (N=951).⁶

¹ Laramie County Community College website. *About Us: Laramie County Community College*. Retrieved July 11, 2014, from <http://lccc.wy.edu/about>

² <http://lccc.wy.edu/academics/online>

³ Laramie County Community College. *About Us: Base*. Retrieved July 12, 2014, from <http://lccc.wy.edu/about/base>

⁴ <http://www.usnews.com/education/community-colleges/laramie-county-community-college-CC04559>

⁵ Laramie County Community College website. *About Us: Laramie County Community College*. Retrieved July 11, 2014, from <http://lccc.wy.edu/about>

⁶ <http://www.usnews.com/education/community-colleges/laramie-county-community-college-CC04559>

LCCC'S CHEO GOALS

In Wyoming, the two sectors with the greatest expected job growth are education and healthcare services.⁷ Jobs in healthcare services are projected to grow 22 percent nationally between 2012 and 2022, “much faster than the average job growth” in the country.⁸ As part of the expansion of the healthcare sector to respond to the needs of an aging population and the increasing use of electronic medical records by providers and insurance companies, there is a growing need for health information technicians (HITs). In 2012, the median income nationally for HITs was \$34,160 per year. In 2013, HITs in Wyoming averaged \$36,710 in income, and those in Cheyenne made \$38,320 on average. This is the context in which LCCC developed its interest in establishing a program for HITs.

HITs work with electronic medical records, whose storage in an electronic environment facilitates the exchange of medical information both within and across health facilities.⁹ HITs organize and manage health information data. They ensure its quality, accuracy, accessibility, and security in both paper and electronic systems. They use various classification systems to code and categorize patient information for insurance reimbursement purposes, for databases and registries, and to maintain patients’ medical and treatment histories.¹⁰ Healthcare information technology management (HITM) programs, such as the one developed at LCCC, offer a unique opportunity for students attracted to entry-level jobs in the healthcare field who also have an interest in technology and computer literacy. Graduates of HITM programs can pursue work in a variety of healthcare organizations building and maintaining medical data such as electronic health record (EHR) information.

Initially, prior to CHEO, LCCC created a non-credit classroom-based HITM program with Climb Wyoming, a Poverty to Self-Sufficiency program for low-income single mothers in conjunction with a regional consortium.¹¹ The non-credit program began under the Workforce Development division of the college and worked in tandem with the local workforce center. Portions of the program were customized for certain workforce groups and programs. The program has been incredibly rewarding for staff and faculty at LCCC and has helped changed the lives of many women by teaching them skills that they can use to join the workforce. The non-credit HITM program still exists at the college, and its success has been a springboard for the development of the CHEO HITM program on the credit side of the college. For nearly seven years, the college has discussed creating a credit-bearing HITM program to mirror the success

⁷ Wyoming Department of Workforce Services, Research and Planning (2014). *Wyoming Workforce Annual Report: 2014*. Retrieved July 21, 2014, from the Wyoming Labor Market Information website: <http://doe.state.wy.us/lmi/annual-report/2014-Annual-Report.pdf>, p. 7.

⁸ Bureau of Labor Statistics. Retrieved July 23, 2014, from <http://www.bls.gov/ooh/healthcare/medical-records-and-health-information-technicians.htm>

⁹ <http://www.hhs.gov/ocr/privacy/hipaa/understanding/special/healthit/>

¹⁰ <http://www.bls.gov/ooh/healthcare/medical-records-and-health-information-technicians.htm>

¹¹ Climb Wyoming Program. Retrieved July 24, 2014, from <http://www.climbwyoming.org/the-climb-program/>

of the non-credit program. However, CHEO LCCC lacked the resources and technology to create an online for-credit HITM program.

CHEO funding enabled LCCC to develop not only a for-credit HITM program but also one that is online. The online HITM program enables students to earn their credential remotely. The establishment of an online program recognized the needs of Wyoming's rural population as well as those in contiguous states. It also saw the opportunities that such a program would provide to active military member and their spouses who might start the program while in Wyoming but complete it where they were redeployed.

With three total levels (or "tiers") planned for the program, students will have the option of stacking credentials or completing the entire program for an associate of applied sciences (AAS) degree. LCCC's students can choose to receive a credit certificate in medical office essentials by completing the first tier (one semester) or continue into the second tier of the program, which results in a Certified Coding Associate certification (two additional semesters). LCCC is developing a third tier of the program, an AAS degree that builds on management skills and knowledge from the first two tiers. While all of the first tier and part of the second tier have been funded through CHEO, the entire third tier is planned to be developed beyond the scope of the CHEO project.

In addition to the goal of developing the for-credit HITM program, LCCC is greatly focused on student retention and creating a quality online experience. Unlike the other colleges in the consortium, LCCC employed career coaches prior to the grant period. The college saw CHEO as an opportunity to expand its career coach process, develop it further, and increase student access to technology and intensive advising, thereby developing higher student retention.

CHEO PROGRAMS AND PROCESSES

Development and Implementation

As mentioned, the CHEO HITM program was created based on the non-credit program already in existence at LCCC, but it was completely redesigned to be a 100% online, for-credit program with stackable credentials. The non-credit program is still being offered at LCCC, but it is a closed cohort program and not open to the college's general population.

The online version created for CHEO was able to incorporate courses already at the college, including medical terminology and human body systems. These were already online courses and did not need to be redesigned. The majority of the courses, however, were completely redesigned from the traditional HITM courses to be fully remote. The redesign of the courses was undertaken jointly by faculty, the CHEO project lead, and a contract company using the American Health Information Management Association (AHIMA) and the American Academy of Professional Coders (AAPC) accreditation guidelines.

Recruitment and Enrollment

The first tier of the program, in which students can receive a credit certificate in medical office essentials, was complete and students were enrolled in the fall of 2013. The second tier, through which students can receive their Medical Claims Associate certificate, was offered in the spring of 2014 for the first time. While students taking the first tier could technically have graduated with a terminal certificate at the close of fall 2013, every student continued into the second tier for the Medical Claims Associate certificate.¹² After completing the second tier, students are eligible to sit for the American Health Information Management Association's (AHIMA) certification. The third tier of the program, which leads to the associate's degree, will be rolled out each semester as courses are developed, and the higher-level AAS-specific courses are planned to be launched in the spring of 2015. Students entering the HITM program in the fall of 2013 were aware that the program was planning to add the AAS courses and entered the program intending to complete all three levels for their AAS degree.

To date, LCCC has focused a limited amount of effort on student outreach and recruitment. They have wanted to get their "feet on the ground first" and get the program fully online and running smoothly before enrollments increased too fast. As the project lead stated, "If a large campaign had been realized, the rollout of the new program would have been overwhelming, and [the] quality of the program would have been substandard." To date, program advertising has occurred but has been focused on the local area. Billboards were used for advertising in the Cheyenne area, online and postal mailers were used in the local area, advertising and marketing has been done targeting local medical clinics, and more recently, advertising has been done in a nursing periodical. Presentations have been made as part of the quarterly recruitment presentations for potential future allied health students and for the Wyoming Area Health Education Center (AHEC). LCCC has also utilized the CHEO video created by the CHEO grant management team. Some members of the Advisory Committee have recommended potential students for the program as well.

According to LCCC's CHEO career coach, the student population in the HITM program seems to be primarily people returning to school to get a second certificate, those looking to switch jobs within the healthcare industry (an example is a certified nursing assistant who wanted to change jobs), or those who were already working in some capacity as healthcare administrators but were looking for additional training. Student age in the program ranged from traditional (18-24 years) to non-traditional (25+ years). For the most part, the career coach feels that she deals with a "professional" group of students who may need some guidance relative to changing jobs, but some have already built and honed their soft skills. Some students in the program have never worked in a professional career and might require more assistance than their counterparts.

¹²With the exception of those who quit the program completely, three at the time that the case study was written.

Despite being a leader in online education, LCCC has encountered challenges in putting the HITM program fully online: processes and systems at the school were not originally set up to be compatible with the online format of the program and thus have been challenging to structure. Registration, attending orientation, academic advising, purchasing books, receiving counseling, seeing a career coach, and applying for graduation were all elements originally set up to be done in a traditional, face-to-face format. Because of this, processes for online students have been cumbersome to transform. For example, application documents can be sent in a digital format, but students have to print, sign, scan, and email to return them. Students can attend orientation in an online format, but online students have no need to learn about services available on campus, and there is no orientation specifically meant for online students or their needs. As the project lead commented, “The campus [had been] taking the face to face version of things and putting it online.”

While this has been the case in the past, LCCC has an interest in improving its systems for online students in the future. For example, the application process is currently undergoing an overhaul to make it more “online-friendly,” and an online-specific orientation is being developed that will educate online students about the options available to them specifically. Changes are being made, but the process is challenging. The CHEO project lead summed up the difficulty surrounding the transition:

We are making progress in this area but it is a mindset that we are changing, which means it takes time. Once the mindset changes, then the processes have to change. We continue to have these conversations across campus, and the message is being absorbed and heard. We will continue to work on this area and collaborate to make it happen.

Enrollments for the HITM program continue to grow, but rollout of the program to a fully online process—from application to graduation—is an ongoing process. Discussions continue, and new tools are being utilized and tested to try to better meet the needs of students in a completely online manner. One example of these changes is the use of an online program called Interview Stream, a video application meant for video screening, interviewing, and fully remote real-time face-to-face communication. This tool will be implemented for students to practice their interview skills at their own pace.

Another example is the adoption of an Electronic Health Records (EHR) subscription to provide the students with hands-on activities for medical office and healthcare facilities. The activities involved with this subscription will span the program and coincide with the content that they are learning in each tier providing, students with another learning tool that can be accessed remotely.

NANSLO

As mentioned previously, the North American Network of Science Labs Online (NANSLO) is a network of three science labs that serve the CHEO consortium and CCCS. LCCC utilizes the Denver, Colorado node housed at Red Rocks Community College (RRCC).

Reception

The CHEO grant was not the first introduction to NANSLO for faculty and staff at LCCC. The college was involved in a previous NANSLO-focused grant, the Next Generation Learning Challenges (NGLC) grant project that expanded the capacity and reach of NANSLO labs. During that grant, the adoption and use of NANSLO at LCCC were challenged. Faculty expressed concerns about the capacity of the labs and technology and were apprehensive regarding the ability to use online labs in science-based courses.

CHEO grant faculty and staff at LCCC vary in their perceptions of and interest in NANSLO. After the completion of the NGLC grant period, even with the expansion and growth of NANSLO, HITM faculty remained reticent to embrace the concept early in the CHEO project and have continued to feel that there is not a fit for NANSLO in the HITM program. However, science faculty on the campus have begun to express interest in NANSLO and excitement about using it in their classrooms.

Use to Date

The variance in opinions about and value of NANSLO at LCCC seems to be divided by subject matter. While HITM faculty feel that NANSLO does not fit well with their subject material, science faculty at LCCC have expressed some positivity and excitement about the labs. Science faculty generally feel that the labs fit well with the type of curriculum taught in biology and chemistry courses, while HITM faculty are teaching healthcare elements such as patient confidentiality, medical coding, and office reception. There is far less of a correlation between these learning objectives and NANSLO labs.

Several LCCC science faculty members attended the faculty workshop in Boulder, Colorado in May 2014 and learned more about how they could potentially integrate the labs into their curriculum. One science faculty member is currently using three NANSLO labs in her hybrid biology course, and several other science faculty members are now planning to use NANSLO labs in their courses over the next two semesters; one course will include six NANSLO labs. Another course is planned for rollout in either the fall of 2015 or the spring of 2016 and will include a NANSLO lab at that time. One faculty member really likes the idea of the remote microscope because “a lot of microscopes are controlled through that manner—remotely through a computer.” She feels that it is “a valuable skill, and it’s still learning how to use a microscope.” She plans to integrate it into one of her courses in the summer of 2015 after she

finishes updating the curriculum for the course, and she believes that it “has tremendous potential and capabilities for distance learning.”

Another faculty member notes that having the ability to do science online opens up the opportunity for some students that they would not normally have:

I like the idea of reaching out to a wider audience that can't take advantage of what we have to offer here because most of our student body is fairly limited as far as travel distance. We have big distances and small populations and cost. We live in a state where there're a lot of people that don't have a lot of money, and trying to serve them ... online can be an option.

Future Plans

To date, HITM faculty members have not used NANSLO labs, although one LCCC science faculty member is currently using it, and more plan to use it in the future, as mentioned above. One LCCC staff member stated that, although faculty members have been “turning around” and getting excited about the fact that science coursework can be taught effectively online, the technology of NANSLO still has some issues. Scheduling the labs is often difficult, and glitches/technology problems really “kill it for faculty that are skeptical.”

Another consideration for LCCC is how practical it will be to take NANSLO to the scale that it will eventually need. While students can work in groups of up to five, the labs are time consuming and can take a couple of hours to complete. As one faculty member notes, once her class expands to a larger size, she is worried that there will not be enough time for the whole class to complete the lab:

Right now, I have nine students. So what if I expand to three sections of 25 each, and they all have to get in in this four-day window to do this lab, and we're doing it week after week after week?

Putting 500 students, the number that the LCCC administration hopes to scale the program to, into NANSLO labs across the region would take an incredible amount of planning, preparation, and time. There are major concerns among faculty and administration at LCCC regarding the capacity of NANSLO to accommodate so many students at the college, let alone all the other colleges that the node would be trying to serve.

There are also concerns about the affordability of the labs to students. With the costs of tuition and associated fees, textbook costs, and test proctoring fees, students already have a hefty financial investment without additional lab fees. One faculty member said that, even if labs were just \$25 each, if she teaches five labs in a semester, her students would be paying nearly \$800 for one class once all the associated fees were paid, and that would make the course unaffordable for students.

For the most part, faculty can see the benefits of NANSLO but note that there are still issues to resolve in its use. With the many advancements in NANSLO since the NGLC grant and the initial “kinks” worked out, as well as the adoption and excitement surrounding the labs among other faculty members, LCCC’s administrators hope that the faculty will continue to see the benefits moving forward.

OPEN EDUCATION RESOURCES

As discussed above, open education resources are teaching tools, lessons, interactive activities, recorded lectures, or any other teaching element that can be shared openly without copyright or licensing. As part of the requirements for the CHEO grant, the colleges are to integrate as many open educational resources as possible into their courses, as well as design/redesign their courses in such a way that the pieces can be shared as open education resources. LCCC is participating fully in producing its courses and material in an open education resources (OER) format. The college contracted with an instructional design group to help them redesign/design their courses to meet OER requirements, although the partnership did not meet all of the college's expectations. They thought that they would receive assistance with instructional technology, but the consultants focused more on curriculum design. The consultants helped them map out the courses and develop modules and learning objectives, but CHEO staff were hoping that the consultants would give them suggestions for delivery methods and better ways to present the content. Although the process was challenging, the team effort of the faculty, program directors, and LCCC’s instructional designer helped the process.

LCCC’s redesigned courses will all be ready to transfer to the OER repository as soon as it is online and ready; the current consortium deadline is March 2015.

CAREER COACH

Background

LCCC’s CHEO career coach has a background in social work, has been involved in several civic engagement programs, and has played a supporting role in medical facilities and programs, including Wyoming Department of Health programs. She was hired in February of 2013 as a part-time career coach for the HITM program students. She sees her career coach role at LCCC as “social work for higher education” and has enjoyed helping students with career decisions, career moves, and other aspects of their education and career goals.

Role

As of the spring of 2014, the career coach’s work largely focused on the “front end” of the student enrollment process, working with applicants to gauge a student’s fit with the program and to provide financial aid and course-related guidance. Since the college had not advertised

the program widely at the time of the first interview (March 2014), the career coach was spending some time informing the students about the program and introducing them to its courses, certificates, and career possibilities. Since that time, the career coach has expanded her role to include helping students with assistance that they may need outside their coursework, find tutoring with their coursework, and prepare their soft skills for future employment.

It is important to note the transition taking place at LCCC relative to student location and the integration of more online-focused services for students. Since LCCC has not yet advertised the program broadly, most of the students attending the program are local and actually physically located on or near campus. This has been changing, however, as outreach and marketing are expanded, and the location of the student population is expected to shift considerably from local to remote during subsequent semesters. At the time of the first interview, LCCC's career coach was focused on moving assessment programs such as Work Keys to online formats and setting up systems for remote students to take their assessment tests in other locations as a result of the shift. She also noted that the small-town community feel that has previously accompanied the student-coach relationship would shift as well. She continues to take cues from other career coaches to create and expand her online presence and believes that the shift will be a positive one.

LCCC does not have a formal early alert system, but the college does plan to integrate one and has continued to progress with those plans. Faculty training is taking place, and the early alert system will be implemented for the HITM students as well. Currently, the faculty and the career coach work together to follow students' progress and watch for early warnings of a student falling behind or struggling in courses. Given the small size of the program staff, this has worked well to date, and for the most part, students are in constant contact with the career coach and faculty.

LCCC's career coach feels that the integration of the multiple career coaches at LCCC and the ability to take career coaching online and build the intensive advising relationship across a virtual interface is a real opportunity to help LCCC grow and increase student retention. The LCCC team has created a community based on helping and encouraging their students, and they are excited to take their small-town model and apply it so that students—regardless of their physical location—can be part of that experience.

LCCC's career coach also partially plays the role of data collector for the CHEO grant. Since LCCC's IR department is extremely small, she assists with data collection for the federal reporting and evaluation for the grant.

INDUSTRY/EMPLOYER/WFC INVOLVEMENT

Given the small size of Cheyenne, relationships among employers, workforce development offices, and the college have historically been fairly strong, and they have continued to be strong in relation to the HITM program. While the first tier of the program does not have a

clinical or internship requirement, the second tier does—a Professional Practice Experience (PPE) clinical. There was some discussion and concern early in the project about how the PPE would take place in the context of an entirely online and remote student population.

The college involved industry representatives in the problem-solving process by sitting on an advisory committee. After thorough research, LCCC decided on a Web-based electronic health record subscription software program (as mentioned previously) called NEEHR Perfect. The software offers activities associated with all three tiers of the HITM program and is fully aligned with the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) accreditation standards. Students will use the software program to fulfill the PPE clinical component in a fully online manner. The software allows students to interact with electronic patient records in a simulated manner so they will gain experience with records management to prepare for employment. Future plans for the software include the adoption of more complex simulations that will involve the student “interacting” with patients in a simulated waiting room all the way through their procedures and discharge. LCCC is determined to give online students the same type of education and training that they could receive in a face-to-face environment.

Outreach and marketing to industry/employer partners about the HITM program has occurred with local clinics, the local hospital, and other medically focused local businesses with the help of the advisory committee and faculty. HITM faculty members have developed relationships with employers and plan to work closely with them to place students once they near graduation.

LCCC’s local workforce center is fully engaged with LCCC and the career coach. Close personal connections in the community have helped build and cement relationships between the college and workforce center, as well as other community organizations. The workforce center and career coach have a bi-directional relationship in terms of referrals. Although the workforce center does refer clients to the HITM program, one member of the LCCC CHEO staff feels that the program is not the first choice for workforce center case managers simply because there are other certificates that are less expensive and take less time to complete. In other words, in many cases, the workforce center is putting clients into programs that put them back into the workforce as quickly as possible using less federal money, regardless of career trajectory.

PROFESSIONAL DEVELOPMENT

LCCC’s CHEO project lead and career coach both regularly attend the CHEO grant professional development sessions offered by WICHE and the grant management team. While, in the early stages of the grant, the project leads participated in monthly “roundtable” calls, these were replaced by a Basecamp site for project leads to post any questions they may have for grant management or to discuss issues with each other. The career coach also regularly attends “coffee talk” sessions with other career coaches and finds them helpful for opening conversations and sharing information between coaches. In addition, the career coach has

particularly found the WICHE webinars and presentations by other career coaches somewhat helpful:

I've appreciated those [webinars] because, as someone coming into this brand new a year ago, there's a lot of learning to do, and I think some of the information that they've given us has been good. And some of these career coach meetings have also made me feel really good because not all of us have had a background in workforce or career coaching before.

LCCC'S INNOVATIVE STRATEGIES

Career Coaching

LCCC has modeled its student retention goal on a system of "intensive advising" and student assistance. Even prior to the CHEO grant's requirement that a career coach be hired to aid students in their progress through the program, LCCC already employed and trained several career coaches. The college was able to use the CHEO program to expand their career-coaching base and increase the number of students that career coaches are able to serve.

LCCC participates in a training program for career coaches through the National Career Development Association (NCDA). The Wyoming Department of Workforce Services and the Wyoming Department of Education recently partnered to offer the training to educational institutions throughout the state. LCCC was able to use the funded program to train its CHEO career coach, a process that is generally quite costly. The training process involves an intensive 120-hour, eight-week online academic course through a Wyoming community college, followed by a two-day face-to-face training with NCDA facilitators prior to certification. LCCC has taken full advantage of the training and has used it as a way to invest further in student retention efforts by certifying its CHEO career coach.

LCCC normally employs approximately seven career coaches, both full- and part-time. One of LCCC's primary focuses through the CHEO grant was to expand and enhance its career coach program and to increase student retention through it. The college is using career coaches and the NCDA career coach training as part of an institutionalized comprehensive advising model for the entire college. LCCC is heavily invested in the intensive advising model, and its career coaches play an important role in this.

Career coaches at the college serve different purposes within the college, and for the most part, their roles do not overlap. However, they are able to step in and assist each other if needed. The CHEO career coach noted that it is often the case that they will share duties or discuss options for students in a collaborative manner.

EERC has done extensive research on the role and function of career coaches relative to the TAACCCT grants. In a report released in January 2014, EERC summarizes various studies

expounding on the benefits of intensive advising—“proactive, action-oriented interactions with students.”¹³ Research has found that having a career focus integrated with advising increases student academic motivation. Intensive advising is “systematic and directive” and involves “assisting and supporting student success, including identification of nonacademic issues and facilitation of referrals for needed services or resources.”^{14,15}

Intensive advising helps students feel “connected” to the college and invest in their own academic career. One finding of the report centers on this concept: “one goal of intensive advising is to provide the student with a sense that he or she has been ‘embraced by the college’ and that faculty and staff are there to help him or her be successful.”¹⁶ This is directly related to the likelihood that the student will reach out for help or resources in a time of need: “The more the student has a ‘sense of inclusion or belonging on campus’ or identifies as a member of the college community, the more he or she will make use of available services as part of his or her college experience and the greater his or her potential for academic success”.

Career coaches or their equivalent have been required by the Department of Labor for all rounds of the TAACCT grants, although LCCC is the only college to have an institutionalized career coach process in place prior to the grant. LCCC has fully embraced the concept of intentional advising as a method of increasing student retention and continues to increase its capacity to offer this service to students. Since some colleges have struggled with the integration of the career coach and the positions sustainability after the grant period, LCCC serves as a positive model for the integration and sustainability of career coaches and intensive advising.

Online Education

LCCC has employed multiple innovative strategies aimed at better integrating its program—and the mindset of the school—to a fully online format. As discussed throughout this report, the college has integrated many software tools, online applications, assessments, and data management programs to better reach, assist, educate, graduate, and help find employment for their online students.

LCCC’s goal is to move more programs online at the college to reach a broader student population and to serve the state in ways they have not before. They are reinventing the HITM program so students are better aligned for success. Part of this has included working closely with industry partners and local and state-level workforce development to be sure that their

¹³ “TAACCT Career Coaches: Findings and Observations.” A report by the Education and Employment Research Center, Rutgers University, January 2014, p. 10. Report available at <http://smlr.rutgers.edu/eerc/coetc>.

¹⁴ Earl, Walter R. (1987). “Intrusive Advising for Freshmen.” *Academic Advising News*, 9.3, as cited in “TAACCT Career Coaches: Findings and Observations,” p. 11.

¹⁵ Bean, John P. and Metzner, Barbara S. (1985). “Intrusive Advising as Discussed in the First-year Academic Advising: The Effect on Freshman Attrition.” *American Education Research Journal*, 26(3), 422-442, as cited in “TAACCT Career Coaches: Findings and Observations”, p. 11.

¹⁶ “TAACCT Career Coaches: Findings and Observations”, p. 13.

online education directly matches workforce opportunities in Wyoming. LCCC fosters a close relationship with the Wyoming Hospital Association and local healthcare entities. The Hospital Association is very concerned about federal changes to the medical coding process with respect to re-training existing coders and training new coders according to the new legislation. LCCC is monitoring the situation and will be ready to make the necessary changes to the program once the changes are made at the federal level.

The HITM program was designed with workforce in mind; students can earn their first credential and then work in the industry while continuing their education online. The online nature of the program allows for flexibility so students can earn further credentials and their associate's degrees while working.

SUMMARY OF CHALLENGES

The career coach voiced some concern over how to “do” career coaching well in a 100% remote capacity. Since most students have been right there on campus despite the online nature of the program, moving to a fully online student interface may be difficult. Determining the method of contact that works the best, keeping ahead of any changes, and not falling behind are all issues that she feels she will need to work through.

While at least one college in the consortium was able to create a similar HITM program fully online and career coaching in a fully remote capacity has not been a problem, LCCC started its program in a “pilot” capacity by offering it to students already on campus and then expanding. While this has helped the college “work out kinks” before growing immensely, it has also created a situation in which things were started with the “crutch” of campus infrastructure. Application, orientation, assessments, and other processes that were already in place now have to be re-aligned to work in an online capacity. Part of this process has been changing the “mindset” of the college—thinking through systems from an “online” perspective. LCCC has been working through these challenges by having conversations with other colleges in the consortia and reaching out to workforce centers, employers, and industry representatives.

Taking the online program to scale has been time consuming for LCCC because developing the curriculum takes time, and courses continue to need “tweaks” after they run once. CHEO staff at the college are deeply considering student outcomes to ensure that the courses are meeting the desired objectives. The college is using the Desire2Learn platform to collect data on students: how often students log in, areas where students may get “hung up” in navigating the course, student performance and participation, etc. A concerted effort is going into making sure that the courses are meeting performance standards; however, figuring out the means of data collection has been time consuming.

LCCC has also been challenged with the data collection needs and reporting for the CHEO grant. Figuring out the best way to pull data, doing it in a timely manner, and ensuring that dual-enrollment students are not included in the data have been challenging. CHEO grant

management and Rutgers have been working through data collection needs with LCCC and will continue to do so as the grant progresses.

SUMMARY OF ACHIEVEMENTS

LCCC's career coach and the college as a whole were already using a career planning system developed by Kuder, the same company that the CHEO consortium worked with to develop the CHEO Health Career Hub. LCCC is the only college in the consortium that was using a similar product prior to the grant period. Currently, LCCC students use the system as part of their application process. LCCC is excited to be able to integrate the process that they already use with the CHEO Health Career Hub. Once the CHEO Hub is ready for use, LCCC plans to embed the Health Career Hub in their CHEO program and have students return to it throughout their time in the program.

Keeping tabs on the college's progress and involving all CHEO staff in understanding the progress of the program in terms of CHEO targets and goals has also been beneficial to LCCC. It has reinforced the "teamwork" aspect of the process and allowed all CHEO staff at the college to be involved in and knowledgeable about every aspect of the grant, from the process of online conversion to data collection. LCCC sees this as a great achievement and something that has enabled the entire team's involvement in LCCC's CHEO success.

Increasing the excitement around NANSLO has been an important element of the CHEO project at LCCC and a gradual success. Being able to integrate the technology successfully and share it with students is something that the CHEO staff looks forward to and a success that they feel will benefit the students, the HITM program, and the college as a whole.

The progress made in creating an online version of the HITM program and moving it fully online has been a huge achievement for LCCC. Overcoming hurdles through the CHEO process as a team has been a testament to the way in which the college emphasizes working together for student success. As the career coach states, it has been all about teamwork and overcoming challenges together:

How well we as a team here in LCCC ... the people that are involved in the CHEO aspect of HITM, how well we work together ... to me, it's a great success because it shows that we can—when these things come up, we can tackle them. We can figure them out!

LCCC continues to shape its CHEO program and processes after this model of teamwork and looks forward to future achievements and success.

NEXT STEPS

LCCC continues to “work out the kinks” in its courses, monitoring data and making adjustments between semesters. At the end of this semester, the CHEO team will sit down face to face to discuss what did and did not work and look at student performance outcomes and student participation. They will make any needed adjustments before the courses run again. They are still working on the final stages of improving the second-year portions of the curriculum.

Taking the program to scale will involve marketing and outreach to students, which the college is planning in the near future. Currently, the college is focusing on transforming the infrastructure of the school to be more “online friendly.” Until it has fully integrated the online student orientation, application process, and testing procedures, the staff does not want to implement large-scale recruiting. LCCC administrators envision the program growing quite large; they can see it being able to support 500 or more students at a time. Taking it to this scale will involve considerable teamwork and marketing. The college is planning to begin advertising in the fall of 2015.

The college is planning for the federal-level changes to the medical coding book from ICD-9 to ICD-10, which will affect Wyoming significantly. The changes will mean re-training for incumbent workers, and it will also result in retirements for some who do not want to go through training. LCCC will adjust their courses once the federal regulations are changed.

LCCC is currently working with the University of Wyoming to create an articulation agreement so students can transfer and continue their education at the four-year university. If students stay in the state to continue their education, they are more likely to stay in the state for employment. LCCC is greatly focused on its local and state-level workforce and continues to foster a close relationship with the healthcare industry to place students in Wyoming jobs.