Creating Access to Rural Education in Health Care Professions

Final Report on the Implementation and Impact of HealthCARE Montana

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Executive Summary

HealthCARE Montana (HCMT) was a consortium of colleges, health care employers, and institutional partners that assisted, educated, and placed workers in the health care industry throughout Montana. HCMT provided educational pathways that gave students faster entry into the health care workforce. These efforts were intended to increase the number of students entering those pathways so that employers could easily find and hire qualified health care workers. HCMT addressed shortages in nursing and other health care professions by creating efficient educational pathways so that students could enter and exit programs quickly and gain employment. HCMT was funded by the Trade Adjustment Assistance Community College and Career Training (TAACCCT) program, a grant from the U.S. Department of Labor that provided funds to community colleges to develop and improve career and training programs.

HCMT accomplished its key grant objectives. The consortium developed three **revised nursing pathways**: Practical Nursing (PN) program; Associate of Science in Nursing (ASN) program; and a Bachelor of Science in Nursing (BSN) completion program. The PN and BSN completion programs were also offered through distance delivery, creating the ability for colleges to alleviate the nursing shortage in rural areas. Students could complete the courses online and complete clinicals either on campus or with nurse preceptors. The PN and ASN programs were approved by institutions responsible for approving new academic curricula and nursing programs. Colleges implementing these new nursing pathways began implementation. The **allied health core curriculum** design team also agreed on the core competencies in academic foundations, core health care, and math, with continued input from employers and college faculty. Implementation of the core competencies will allow students to build on their skills and training as well as decrease barriers in transferring between health care programs. **Apprenticeships** were rapidly developed. HCMT has instituted over 200 apprenticeships in over 50 health fields. The staff has traveled across the state identifying employers while also identifying financial resources and didactic instruction to support these apprenticeships, and more employers are eager to establish apprenticeships in their region in additional program areas. To support **Certified Nursing Assistants (CNAs)**, HCMT developed two specialty courses (Restorative Care and Dementia Care[1]) based upon employer feedback on the most pressing needs for the position. HCMT introduced **LEAD** (Learn, Engage, Adapt, Do) in response to employer concerns about the need for their employees to receive targeted soft skills training. LEAD is a broad, in-house

[1] Due to be completed September 30, 2018.

skills development program that focused on getting employees to get along and work together more effectively. HCMT **worked to sustain these changes** by (1) creating a sustainability document, (2) working with the Office of the Commissioner of Higher Education to create a Montana University System council to determine how to implement the statewide strategic plan, through the Montana Area Health Education Centers and the HCMT Advisory Council, and (3) integrating HCMT strategies within the Montana Healthcare Workforce Statewide Strategic Plan,[2] developed by the HCMT Workforce Advisory Committee with support from the Montana Office of Rural Health/Area Health Education Center.

HCMT implemented three practices that were key to helping it meet its goals. First, HCMT introduced multiple staff roles that supported college and statewide implementation. **Health care transformation specialists** were college-based liaisons who supported individual colleges. The five **workforce coordinators,** which are regional positions, built employer relationships, identified employer needs, and supported job placement. Likewise, the four **career coaches** recruited and placed students into grant programs and connected students in need to supports and resources. The four **apprenticeship specialists** worked with employers and often colleges to develop apprenticeship programs. In addition to having distinct roles, the HCMT project team had staff work together in regional teams to respond to targeted needs in their regions. As teams, statewide staff made significant contributions to the development of specific college programs and apprenticeship programs.

Second, HCMT engaged in a continuous improvement practice, ultimately using over 25 feedback surveys to collect data to inform and improve its work. The collection of data informed the work of HCMT in multiple ways, such as identifying apprenticeship opportunities, creating the LEAD training, and developing CNA specialty courses.

Third, HCMT spent considerable resources reaching out to and building relationships with employers. As noted, HCMT created staff roles designed to build these relationships. In addition, much of the feedback collected in the project was from employers, and employers played key roles on HCMT committees developing programs.

During the time period of the grant, HCMT served 3,121 nursing students and 5,256 allied health students in the 10 non-tribal colleges, and 240 nursing students, 249 allied health students, and 40 other students served in Tribal Colleges. Six hundred ninety-eight students earned a nursing degree and 835 students earned an allied health certificate or degree during

[2] See https://static1.squarespace.com/static/552c3de1e4b09afa1a56a757/t/58fe4aebe6f2e1e1f7d67b3f/1493060350335/Strategic+Plan+2017.pdf.

the time period of this grant. One hundred forty-nine tribal college students also completed their program during the time period of this grant.

The majority of students were female (88% of nursing students and 80% of allied health student) and White (82% of nursing students and 81% of allied health students). Most of the students at Trial Colleges were female (83.7%) and American Indian or Alaska Native/Tribal (71.7%). The mean age of nursing students was 28.9 years, with 43.4% in the 18-25 age group and 34.8% in the 31 and older age group. The mean age of all allied health students was 28.2 years, with 51.5% in the 18-25 age group and 30.4% in the 31 and older age group. The mean age of all Tribal College students was 32.9 years, and about 50% of the students were age 31 or older.

More than half the students were from rural communities, including 54% of the nursing students and 57.7% of the allied health students were from rural areas.

About 3.5% of all nursing students, 5.5% of allied health students, and Almost 4% of the Tribal College students were veterans.

HealthCARE Montana 2018 Final Report

HealthCARE Montana (HCMT) was a consortium of colleges, health care employers, and institutional partners that assisted, educated, and placed workers in the health care industry throughout Montana. HCMT provided educational pathways that gave students faster entry into the health care workforce. These efforts were intended to increase the number of students entering those pathways so that employers could easily find and hire qualified workers. HCMT addressed shortages in nursing and other health care professions by creating efficient educational pathways so that students could enter and exit programs quickly and gain employment. HCMT was funded by the Trade Adjustment Assistance Community College and Career Training (TAACCCT) program, a grant from the U.S. Department of Labor that provided funds to community colleges to develop and improve career and training programs. Led by Missoula College, the consortium consisted of 15 colleges:

- Bitterroot College University of Montana
- Blackfeet Community College
- Chief Dull Knife College
- City College at Montana State University Billings
- Flathead Valley Community College
- Gallatin College–Montana State University
- Great Falls College–Montana State University
- Helena College University of Montana
- Highlands College of Montana Tech
- Miles Community College
- Missoula College University of Montana
- Montana State University–Northern
- Salish Kootenai College
- Stone Child College
- University of Montana Western

Consortium partners worked together to transform the delivery of health care education programs across the state of Montana. Partners included the Montana Department of Labor and Industry, the Office of the Commissioner of Higher Education, the Montana Area Health Education Centers, the Montana Board of Nursing, and industry stakeholders. The four main objectives included the following:

- Create statewide **health care pathways** characterized by stacked and latticed credentials and contextualized curricula
- Systemically address Montana's **nursing** shortages and provide accelerated pathways to completion of nursing programs and bridges to a Bachelor of Science in Nursing (BSN) for adult learners.

- Increase **success for students** by providing services that better prepare adult learners for success in the curriculum; accelerate credential completion; coach students in pathway navigation; and provide access to distance education.
- **Engage the health care industry, education, workforce programs** and other stakeholders in statewide health care workforce transformation and strategic planning; curriculum development; on-the-job training and apprenticeship opportunities; rapid response cycle regional planning; and data-driven approaches for demand-driven workforce development and education strategies.

This report is divided into four sections. Section 1 documents the HCMT program and staffing structure. Section 2 documents and summarizes the implementation of the HCMT initiative with a focus on the (1) new nursing pathways, (2) allied health core competencies, (3) apprenticeships, and (4) Certified Nursing Assistants. Section 3 describes supports implemented by HCMT that were key in helping HCMT meet its objectives. Section 4 focuses on the outcomes of students who were impacted by the project.

Methods

Implementation data

Data for this report were collected in multiple ways. Throughout the course of the project, RTI International conducted the following:

- Interviews annually with HCMT project management staff (project director, nursing curriculum director, core curriculum director, distance delivery director, the statewide assistant registrar, and the apprenticeship director)
- Focus groups annually with statewide staff
- Surveys administered to statewide staff in years 1 and 2
- Surveys administered to Practical Nursing (PN) and Associate of Science in Nursing (ASN) students in spring 2017 and spring 2018 (This report presented data from the spring 2018 administration for the survey. Please see Appendix A for response rates.)
- Surveys administered to apprentices who completed or left the program (2017–2018, $n = 6$)
- Surveys administered to employers sponsoring apprentice (2017–2018, $n = 13$)
- Interviews conducted with employers who supported apprentices (2017–2018, $n = 8$)
- Interviews with employers implementing LEAD (2017–2018, $n = 5$)
- Interviews with employers implementing specialty courses (2017–2018, $n = 5$)

- Program documentation, including curriculum proposals, job descriptions, meeting minutes, apprenticeship materials, organizational charts, project updates, and marketing materials
- Observation of committee meetings through virtual attendance, beginning in July 2015

Student outcomes data

Nursing programs

There were three datasets that contained course, student, and degree information for HCMT. The course dataset included information on almost 270,000 courses that 32,192 students took across 15 college campuses and 10 academic terms from spring 2015 to spring 2018. Duplicate courses were removed, and the course dataset was subset to 33 prerequisite nursing courses (Table 1), 57 nursing program courses (Table 2), and 10 HCMT nontribal colleges. Students who took courses in the former and updated PN, ASN, and BSN programs were identified by course number (Table 2). The 10 academic terms were labeled as old (spring 2015–summer 2016) or new (fall 2016–spring 2018). The student dataset contained demographic and academic data, including declared majors and credits completed, for 32,443 students. The degree dataset contained information on 5,935 students who earned degrees or certificates. These three datasets were sorted and merged into one combined dataset by a unique ID number.

Table 1. HealthCARE Montana Nursing Prerequisite Course Numbers

BIOH104	CHMY121	PSYX100
BIOH105	CHMY121IN	PSYX100IS
BIOH201	CHMY121N	PSYX100S
BIOH201N	CHMY122	PSYX230
BIOH202	M120	SOCI101
BIOH202N	M120T	SOCI101IS
BIOH211	M121	SOCI101S
BIOH211N	M121E	WRIT101
BIOH212	M121Q	WRIT101S
BIOH212N	NUTR221	WRIT101W
BIOM250		
BIOM250N		
BIOM251		

Table 2. HealthCARE Montana Nursing Courses for PN, ASN, and BSN Programs

	Updated PN	Former PN	Updated ASN	Former ASN	Updated BSN	Former BSN
NRSG100		X		X		
NRSG130	X	X		X		
NRSG131	X					
NRSG135	X	X		X		
NRSG136	X					
NRSG138		X		X		
NRSG140	X	X		X		
NRSG141	X					
NRSG142	X	X		X		
NRSG143	X					
NRSG144		X		X		
NRSG148	X	X		X		
NRSG149	X					
NRSG152	X					
NRSG153	X					
NRSG230			X			
NRSG231			X			
NRSG232			X			
NRSG233			X			
NRSG234			X			
NRSG235			X			
NRSG236			X			
NRSG237			X			
NRSG244			X			
NRSG245			X			
NRSG246			X			
NRSG247			X			
NRSG250				X		
NRSG252				X		
NRSG254			X	X		
NRSG255			X			
NRSG256			X	X		
NRSG259			X			
NRSG260			X			
NRSG261			X			
NRSG262				X		
NRSG265				X		
NRSG266			X	X		
NRSG267			X			
NRSG301					X	
NRSG302					X	
NRSG306						X
NRSG309						X
NRSG311						X
NRSG320					X	
NRSG322					X	
NRSG325					X	X
NRSG326					X	
NRSG344					X	X
NRSG356						X

Table 2. HealthCARE Montana Nursing Courses for PN, ASN, and BSN Programs—Continued

	Updated PN	Former PN	Updated ASN	Former ASN	Updated BSN	Former BSN
NRSG361					X	
NRSG404						X
NRSG410						X
NRSG420						X
NRSG424					X	
NRSG485						X
NRSG485W						X

X = courses used to identify particular nursing programs.
NOTE: ASN = Associate of Science in Nursing; BSN = Bachelor of Science in Nursing; PN = Practical Nursing.

Students who declared nursing as a major were identified using three major Classification of Instructional Programs (CIP) codes (513801, 513901, 511105) from the student dataset. Nursing students who earned a degree or certificate were identified using three major CIP codes (513801, 513901, 51.3901) from the degree dataset. For final data analysis, nursing students were defined as those students who (1) took former or updated PN, ASN, or BSN courses, (2) declared nursing as their major in the student dataset, or (3) declared nursing as their major in the degree dataset.

Allied health programs

The same three datasets were used to identify allied health students. The course dataset was subset to 10 HCMT nontribal colleges and 256 allied health courses (Table 3), and duplicate courses were removed. The course, student, and degree datasets were sorted and merged into one combined dataset by a unique ID number. Students who declared allied health as a major were identified using 21 major CIP codes (Table 4) from the student dataset. Allied health students who earned a degree or certificate were identified using 29 major CIP codes (Table 4) from the degree dataset. For final data analysis, allied health students were defined as those students who (1) took at least one allied health course, (2) declared allied health as their major in the student dataset, or (3) declared allied health as their major in the degree dataset. All data analyses were conducted using SAS 9.3.

Table 3. HealthCARE Montana Allied Health Course Numbers

AH117	AHPT205	AHXR150	ECP 204
AH120	AHPT206	AHXR151	ECP 205
AH140	AHPT210	AHXR160	ECP 206
AH155	AHPT213	AHXR161	ECP 207
AH230	AHPT215	AHXR195	ECP 208
AHMA191	AHPT218	AHXR195A	ECP 209
AHMA201	AHPT220	AHXR195B	ECP 210
AHMA202	AHRC101	AHXR195C	ECP 211
AHMA203	AHRC129	AHXR210	ECP 212
AHMA204	AHRC130	AHXR211	ECP 215
AHMA205	AHRC131	AHXR221	ECP 216
AHMA206	AHRC133	AHXR222	ECP 220
AHMA220	AHRC140	AHXR225	ECP 221

Table 3. HealthCARE Montana Allied Health Course Numbers—Continued

AHMA250	AHRC150	AHXR240	ECP 222
AHMA260	AHRC152	AHXR250	ECP 230
AHMA262	AHRC155	AHXR260	ECP 231
AHMA280	AHRC170	AHXR270	ECP 232
AHMA291	AHRC171	AHXR291	ECP 233
AHMA298	AHRC180	AHXR295	ECP 234
AHMA298A	AHRC231	AHXR295A	ECP 235
AHMA298B	AHRC232	AHXR295B	ECP 236
AHMA299	AHRC235	CAS 140	ECP 237
AHMS100	AHRC240	CAS 140X	ECP 238
AHMS103	AHRC241	CAS 242	ECP 239
AHMS105	AHRC243	CAS 248	ECP 241
AHMS106	AHRC245	CAS 250	ECP 242
AHMS108	AHRC246	CAS 252	ECP 243
AHMS109	AHRC250	CAS 254	ECP 245
AHMS118	AHRC251	DENT101	ECP 246
AHMS127	AHRC252	DENT102	ECP 250
AHMS142	AHRC254	DENT110	ECP 251
AHMS144	AHRC255	DENT115	ECP 291
AHMS156	AHRC264	DENT116	ECP 295
AHMS157	AHRC270	DENT118	HIT 101
AHMS158	AHRC273	DENT120	HIT 230
AHMS160	AHRC274	DENT121	HIT 260
AHMS162	AHRC275	DENT122	HIT 265
AHMS164	AHRC280	DENT123	HLTH0001
AHMS175	AHRC292	DENT124	HLTH0107
AHMS191	AHST101	DENT125	HLTH0110
AHMS194	AHST115	DENT130	HLTH0201
AHMS201	AHST116	DENT140	HLTH0209
AHMS208	AHST154	DENT145	HLTH202
AHMS210	AHST200	DENT150	HLTH293
AHMS212	AHST201	DENT151	HTH 101
AHMS213	AHST202	DENT160	HTH 120
AHMS216	AHST203	DENT165	HTH 140
AHMS220	AHST207	DENT232	HTH 150
AHMS227	AHST215	DENT235	HTH 180
AHMS240	AHST216	DENT237	HTH 298
AHMS245	AHST250	DENT240	MLS 103
AHMS250	AHST251	DENT250	MLS 104
AHMS252	AHST255	DENT252	MLS 105
AHMS270E	AHST298	DENT263	PHAR100
AHMS280	AHXR100	DENT280	PHAR101
AHMS288	AHXR101	DENT281	PHAR102
AHMS298	AHXR108	ECP 100	PHAR104
AHMS298A	AHXR110	ECP 130	PHAR110N
AHMS298B	AHXR111	ECP 131	PHAR112
AHMS299	AHXR115	ECP 191	PHAR120
AHPT101	AHXR116	ECP 200	PHAR121
AHPT105	AHXR121	ECP 201	PHAR198
AHPT192	AHXR140	ECP 202	PHAR198A
AHPT201	AHXR141	ECP 203	PHAR198B

Table 4. HealthCARE Montana Allied Health Major Classification of Instructional Programs (CIP) Codes

Allied health student major CIP codes	Allied health degree major CIP codes
510000	51.0705
510601	51.0707
510602	51.0713
510706	51.0801
510707	51.0805
510708	51.0806
510710	51.0904
510712	51.0909
510713	51.0911
510714	510601
510716	510602
510799	510706
510801	510707
510805	510708
510806	510710
510904	510712
510908	510713
510909	510714
510911	510716
511009	510799
512706	510801
	510805
	510806
	510904
	510908
	510909
	510911
	511009
	512706

Section 1: Program Structure

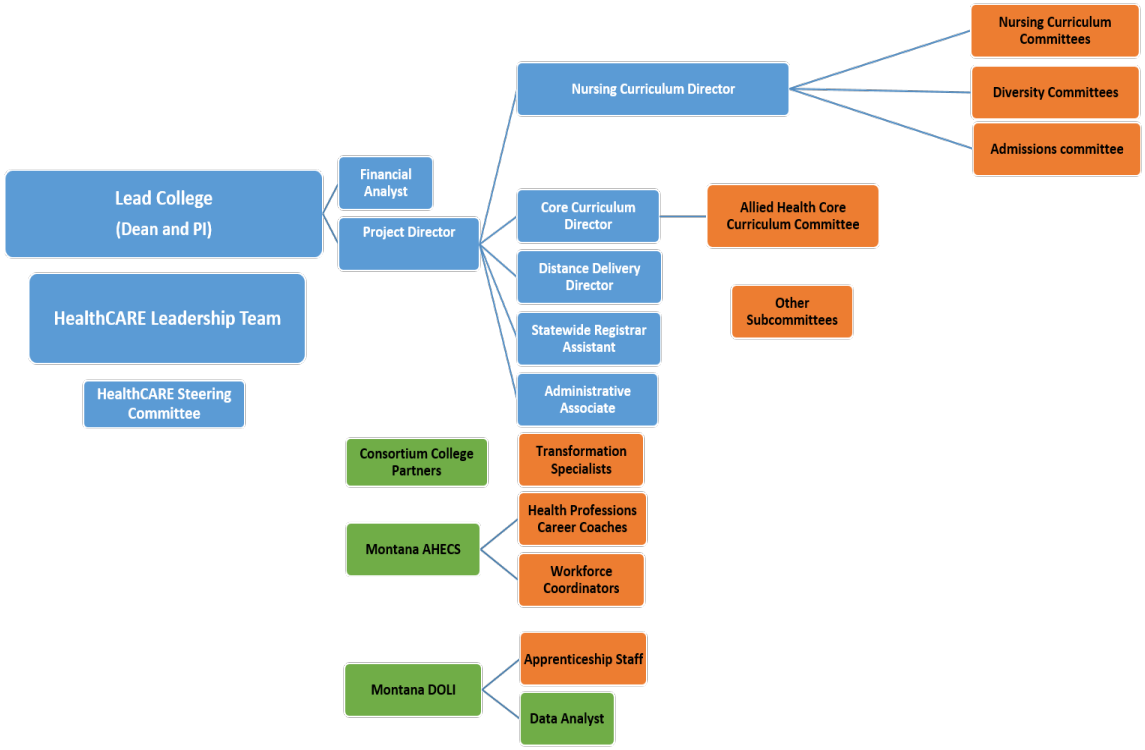
Chapter 1: Project Organization and Structure

The HealthCARE Montana (HCMT) project included numerous staff and several committees charged with developing and implementing HCMT's strategies. A core set of staff was hired especially for this project to lead a team of grant-specific staff and committees. Project leaders built a strong consortium with structures for ongoing communication, and staff and committees felt supported to engage in their project activities. This section describes the organizational structure of HCMT, including leadership roles and how the leadership oversaw and facilitated grant activities. The section elaborates on the roles and responsibilities of the numerous grant-specific staff and committees charged with implementing strategies, specifically the staff hired to support students and the committees in charge of developing curriculum.

Project leadership, management structure, and responsibilities

Leadership devised three structures to manage HCMT's overall activities. The roles of these different leadership structures included facilitating the day-to-day grant activities and providing overall stewardship of the grant activities. These leadership structures and staff are in blue boxes in Figure 1. Staff and committees that were also main implementers of the grant but did not manage the grant are in orange boxes. Staff and committee roles and responsibilities are described later in this chapter. Consortium partners are in green boxes.

Figure 1. HealthCARE Montana Organization



- **Project management team.** The project management team consisted of the dean at Missoula College, a principal investigator (PI), a project director specifically hired to direct the grant, and a fiscal analyst. The project director and the fiscal analyst reported directly to the dean and the PI. The project director oversaw staff hired specifically for this grant: nursing curriculum director, core curriculum director, distance delivery director, and the statewide assistant registrar. All four of these positions were supported by an administrative associate. The project director and the grant staff made up the backbone of HCMT, facilitating the day-to-day grant activities and supporting other staff and committees.

  Role/responsibilities. Overall, the project management team was responsible for: (1) defining and disseminating the strategy, goals/objectives, and activities/tasks for the project; (2) planning for its day-to-day operations and implementing the project; (3) measuring and reporting targeted outcomes related to the project/grant; and (4) continually improving the quality of the project. Project staff members had their specific areas of responsibility. The nursing curriculum director facilitated and managed the ad hoc committees in charge of developing the nursing curriculum. The core curriculum director facilitated and managed the ad hoc committee created

to develop the allied health core curriculum. The distance delivery director was in charge of supporting the development of online health care programs. The registrar was the liaison between the project, state team, and the college registrars and developed the student and employer databases.

- **HCMT leadership team**. The leadership team had six representatives, including the dean, the PI, the deputy commissioner of higher education, a representative from the Montana Department of Labor and Industry, a representative from Montana Area Health Education Center (MT AHEC), and the project director.

  Role/responsibilities. The health care leadership team was responsible for the oversight of the project/grant, providing advisory services and support to the project management team and recommending improvements to the project.

- **HCMT steering committee**. In addition to the project director and the leadership team, the steering committee had 10 representatives: five from colleges (Helena College, Highlands College, Salish Kootenai College, Flathead Valley Community College, and City College), three from health care organizations (Community Medical Center, Beartooth Billings Clinic, and The Goodman Group), one from the Board of Nursing, and one from RevUp Montana.

  Role/responsibilities. The health care steering committee was responsible for facilitating the project's vision and goals, guiding the project's scope and budget, championing project improvements, coordinating and communicating with other related projects/grants and stakeholders, and recommending resolutions to obstacles with the project management team.

Project staff and committees

In addition to grant leadership and backbone staff, various other staff and committees were also considered main implementers of the grant. These positions and committees are in orange boxes in Figure 1. These positions include 28 new staff, nine committees, and multiple subcommittees, as necessary.

New staff positions included 15 health care transformation specialists/grant coordinators at each college, 10 new staff members assigned to provide services to students, 5 health professions career coaches, 5 workforce coordinators, and an apprenticeship staff that includes 3 apprenticeship specialists and 1 apprenticeship director.

Table 5 shows the various committees and their meeting schedule.

Table 5. Committee Meeting Structure and Schedule

Committee/staff	Meeting schedule
Leadership committee	Weekly
Steering committee	Bimonthly
Statewide staff	Weekly
Nursing curriculum – full committee	Monthly
PN nursing curriculum subcommittee	Weekly (if needed) or biweekly
ASN nursing curriculum subcommittee	Weekly (if needed) or biweekly
RN-BSN nursing curriculum subcommittee	Weekly (if needed) or biweekly
Diversity committee	Quarterly
Native American diversity subcommittee	Biweekly
Nontraditional/first-generation diversity subcommittee	Biweekly
Veterans diversity subcommittee	Biweekly
Admissions committee	As needed
Allied health core curriculum committee	Every month
Backbone staff	Weekly or as needed
Ad hoc committees, including:	
Clinical committee	
Systems committee	
Process and transferability committee	
Outcomes committee	
Faculty development committee	
Allied health committee	

NOTE: ASN = Associate of Science in Nursing; BSN = Bachelor of Science in Nursing; PN = Practical Nursing; RN = Registered Nursing.

Statewide staff

One main strategy to meet the goal of fulfilling labor shortages in nursing was providing effective student support services to students in health care education programs. Project leadership created four new roles (health care transformation specialists, health professions career coaches, workforce coordinators, and apprenticeship specialists), called statewide staff, that were charged with supporting the recruitment, retention, and job placement of students who entered the various health care grant programs. Staff in each of these roles felt supported by the weekly project meetings, the role-alike meetings (in which persons in the same role discussed their work), and regional meetings (in which a workforce coordinator, career coach, and health care transformation specialist discussed their roles, their overlaps and differences, and how best to coordinate the work with one another).

Statewide staff responsibilities

Table 6 further describes the roles and responsibilities of statewide staff.

Table 6. Descriptions, Roles, and Responsibilities of HealthCARE Montana (HCMT) Statewide Staff

Health care transformation specialist (HTS)	Workforce coordinator (WFC)	Health professions career coach (CC)	Apprenticeship supervisor and coordinator
One HTS per college	One WFC per one to two regions	One CC per one to four colleges depending on regions	One staff member per regional area
Part time to full time	Full time	Full time	Full time
Hold other positions (dean, program director, and faculty)	Do not hold other positions	Do not hold other positions	Do not hold other positions
Housed at the college	Housed at regional Montana Area Health Education Centers (MT AHECs)	Housed at regional MT AHECs but spend time at college site	Housed at the Montana Department of Labor and Industry
HTSs, CCs, and WFCs meet weekly as a group (apprenticeship staff join when they can). Staff also meet in role-alike meetings and with their regional counterparts weekly and/or as needed.			
Staff explained their role as managing grant logistics as well as coordinating the change process at their school. Major tasks/ responsibilities: • Attend and present at various college meetings • Communicate grant programs and propose changes to faculty/deans and others • Present fiscal reports to administration • Communicate with faculty • Present to classes and in various meetings about grant/enrolling students • Conduct student intake • Engage with other support services on campus • Assess needs with faculty • Recruit/work with students • Perform other HCMT project roles and participate in committees	Staff explained their role as connecting and developing partnerships with employers. Ninety percent of time is spent interacting with employers. Major tasks/responsibilities: • Most coordinators visit employers every day. The number of visits range depending on distance. The number of interactions with specific employers also ranges by employer interest or engagement. • Interact with students. • Perform other HCMT project roles and participate in committees	Staff explained their role as recruiting and placing students into grant programs and connecting supports and resources to students in need. Major tasks/responsibilities: • Recruit and place students into programs using tools, such as Montana Career Information System • Conduct student intake • Enroll students in EdReady • Provide information and help students find resources as needed, such as financial aid and conducting study skills workshops. • Connect with employers and/or other resources in the community through visits with WFCs. • Perform other HCMT project roles and participate in committees	Staff explained their role as developing apprenticeships with employers. Major tasks/responsibilities: • Assess employer needs • Set up apprenticeships • Evaluate potential apprentices • Outline apprenticeship competencies • Assist employers with recruiting apprentices • Place apprentices in positions • Monitor compliance of apprenticeship contracts • Coordinate with Job Services and outside organizations

Supports that enable fulfillment of staff roles

Most staff cited the following reasons why they believed they were supported by HCMT to effectively perform their responsibilities:

- ***Collaborative working relationships.*** Some staff members expressed that support from their colleagues across the state has enabled them to deal with issues as they arise. Existing communication structures established through grant rollout (including weekly meetings) were effective for new staff and led to collaborative working relationships across and within the various new roles. In addition to regular communication structures, some staff work in proximity to one another. Some staff members report that they collaborated on outreach efforts and shared resources or opportunities available in their region or colleges with each other.
- ***Responsiveness of backbone staff.*** The staff also mentioned that backbone staff were responsive to its needs, providing training and resources when issues arose. Staff received training on EdReady, Family Educational Rights and Privacy Act (FERPA), Montana Career Information System (MCIS), and other policies and procedures used to support students.
- ***Training and communication.*** The project management team was responsible for coordinating and providing the onboarding/orientation program for all staff. The weekly meetings for support staff and the communication plan that the project management team devised worked well for the staff. The workforce coordinators were also supported by the MT AHEC directors and were in specific offices where they interfaced routinely with their directors.

Section 2: Program Implementation

Chapter 1: Nursing Programs

A key goal of HealthCARE Montana (HCMT) was to provide educational pathways that give students faster entry into the health care workforce and increase the number of students entering those pathways so that employers have an easier time finding and hiring qualified health care workers.

In Appendix C we provide summaries of implementation and accomplishments at each college as well as a review of student participation and outcomes.

Status

The consortium developed three new pathways that reduced time to completion: a three-semester Practical Nursing (PN) program; a five-semester Associate of Science in Nursing (ASN) program; and a three-semester Bachelor of Science in Nursing (BSN) completion program (Table 7). The proposed pathways also reduced the number of semesters and credit hours for student completion. The ASN program required only five semesters (as opposed to six), and the BSN completion program required only three semesters (as opposed to four) after students complete the ASN program. This allowed students to complete the BSN in 4 years, as opposed to 5 years. Further, the committee developed a three-semester stand-alone PN program, which includes one semester of prerequisites. This PN pathway program dropped two stand-alone content courses and integrated and/or modified course content, such as math, gerontology, and leadership to make it appropriate for PN students. Programs are proposed to be stackable. PN students could enter an ASN program in their third semester and ASNs could complete a BSN in three semesters. The BSN completion curriculum was online.

Table 7. Nursing Pathways Changes

	Old pathways	New pathways
PN	51-credit, four-semester program	A separate 45-credit, three-semester certificate program
ASN	72-credit, six-semester program	Changing from a 1+1 PN-to-ASN program to a separate 71-credit, five-semester ASN program
BSN	Four-semester completion program after ASN. BSN students were required to obtain an LPN license before completing the program.	Changes made in the ASN program will reduce time for the BSN degree. ASN 71-credit program plus a 49-credit, three-semester bachelor's degree completion program = 120 credits for a bachelor's degree

NOTE: ASN = Associate of Science in Nursing; BSN = Bachelor of Science in Nursing; LPN = Licensed Practical Nursing; PN = Practical Nursing.

All but five of the HCMT consortium colleges implemented one or more of the newly revised nursing programs (Table 8). HCMT created the new standalone PN program to train students who wanted to become practical nurses in three semesters to fill employers' needs for licensed practical nurses (LPNs) at their health care facilities. Prior to this creation, there was no separate PN program. Instead, students would receive the PN degree while completing the ASN program. The PN program was implemented at a total of five consortium colleges during the grant period. HCMT colleges offered these programs through face-to-face instruction and/or through a combination of face-to-face and online instruction, called distance hybrid.

HCMT changed the previous ASN program from a 1+1 program (PN to ASN) to a separate 71-credit, five-semester ASN program. The revised ASN program was implemented at eight colleges: Blackfeet Community College, City College, Flathead Valley Community College, Great Falls College, Helena College, Miles Community College, Missoula College and Montana State University–Northern. Students from Miles Community College took some of the classes through distance delivery.

HCMT created the three-semester BSN completion program that allowed students to complete the BSN in 4 years, as opposed to 5 years. Prior to HCMT, the BSN completion program lasted four semesters, and the ASN program lasted six semesters. With the abbreviated ASN program (five semesters) and the time reduction of the BSN completion program to three semesters, students could complete their BSN in 4 years (i.e., eight semesters). Two colleges, Montana State University–Northern and Montana State University–Billings, implemented the new BSN completion program through distance delivery. This allowed students to complete a BSN while continuing to work as a RN in their local communities.

Table 8. Nursing Program Implementation

College	Programs implemented	Program type
Blackfeet Community College	PN: 2016–2017 ASN	Face-to-face (PN and ASN)
City College	PN: 2016–2017, 2017–2018 ASN: 2017–2018	Distance hybrid (PN) Face-to-face (ASN)
Flathead Valley Community College	PN: 2017–2018	Face-to-face (PN & ASN)
Great Falls College	PN: 2017–2018 ASN: 2016–2017, 2017–2018	Face-to-face (PN & ASN) Distance hybrid (PN)
Helena College	PN: 2017–2018 ASN: 2017–2018	Face-to-face (PN and ASN)
Miles Community College	ASN: 2016–2017, 2017–2018	Distance delivery (ASN)
Missoula College	ASN: 2016–2017, 2017–2018	Face-to-face (ASN)
Montana State University–Billings[1]	BSN: 2017–2018	Distance delivery (BSN)
Montana State University–Northern	ASN: 2017–2018 BSN: 2017–2018	Face-to-face (ASN) Distance delivery (BSN)

[1] Although not a HealthCARE Montana Consortia college, Montana State University–Billings adopted the BSN program curriculum.
NOTE: ASN = Associate of Science in Nursing; BSN = Bachelor of Science in Nursing; PN = Practical Nursing.

HCMT also revised the math prerequisites needed for entrance into the nursing programs. In August 2016, HCMT staff met with all campus allied health care faculty for input on common prerequisites and core curriculum courses and identified existing lattices, which led to the creation of two math courses. With the nursing faculty, the design team also decided on two different math classes that would address the math skills needed for both nursing students and allied health students. They developed a class suited to the PN students (Math 120) and another for the applied sciences and associate degree programs (Math 140). In April 2017, Math 140 was approved as a general education course and a prerequisite for the ASN program by the Common Course Numbering Committee. Two college directors suggested that these two classes cover the needs of most campuses and that the PN-level class will apply to the allied health students, even though it would be geared towards nursing.

The consortium received approval from the Montana Board of Regents, Montana Board of Nursing, Accreditation Commission for Education in Nursing, Northwest Commission on Colleges and Universities, and U.S. Department of Education, when necessary, for these revised nursing programs (Table 9).

Table 9. Nursing Curriculum Approval Status

	PN program	ASN program	BSN program
Montana Board of Regents	Approved: Level II	Not required – no substantive changes	Approved
Montana Board of Nursing	Approved	Approved	Not applicable
Accreditation Commission for Education in Nursing (ACEN)	Not applicable in Montana	Approved for four ACEN programs (Helena College, Miles City Community College, Missoula College, and Montana State University–Northern)	Not Required
Northwest Commission on Colleges and Universities	Approved for four colleges (City College, Flathead Valley Community College, Great Falls College, and Helena College)	Not required	Not required
U.S. Department of Education	Approved	Not required	Not required

NOTE: ASN = Associate of Science in Nursing; BSN = Bachelor of Science in Nursing; PN = Practical Nursing.

Student perceptions of the revised programs

This section provides an overview of implementation and documents how the created programs met HCMT's intended goals (See Appendix A for student surveys).

- Students' reported that their reasons for enrolling in each program were that the program met their professional needs for quicker pathways to employment, especially in rural areas. However, the creation of a new PN program may not be meeting employers' long-term needs for LPNs.
- Although PN and ASN students could complete the prerequisites in one semester, most opted not to follow the program path to accommodate personal needs.
- PN and ASN students received adequate support from the staff at the colleges, but EdReady and SmarThinking were not part of the services offered to students.
- All students considered BSN instructors effective and that the content met their learning needs.
- The distance program offered students in rural areas opportunities to complete their education.

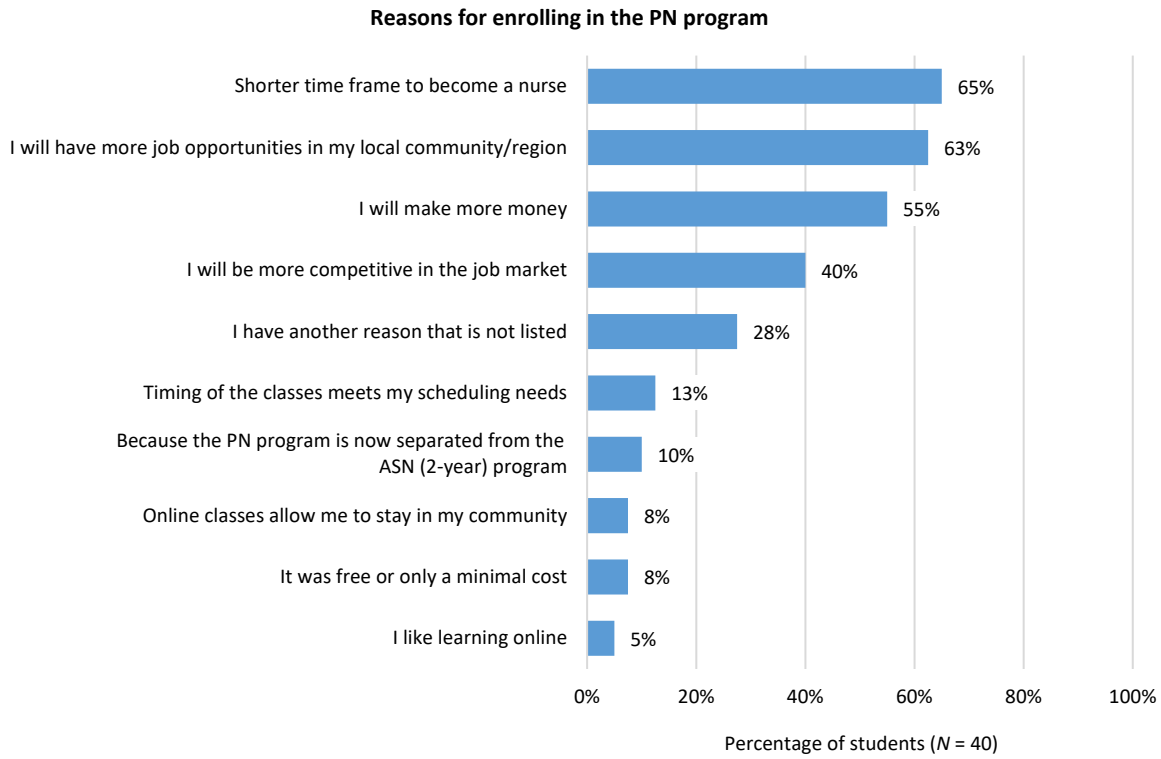
Nursing programs meeting students' needs for quicker pathways to employment

PN program

Across the four colleges implementing the PN program in 2017–2018, over half of PN students chose "shorter time to become a nurse" (65%) and "I will have more job

opportunities in my region" (63%) as reasons for enrolling in the PN program (Figure 2). This suggests that the new PN program is meeting HCMT's goal to provide students quicker pathways to employment.

Figure 2. Student reasons for enrolling in PN program



NOTE: ASN = Associate of Science in Nursing; PN = Practical Nursing.

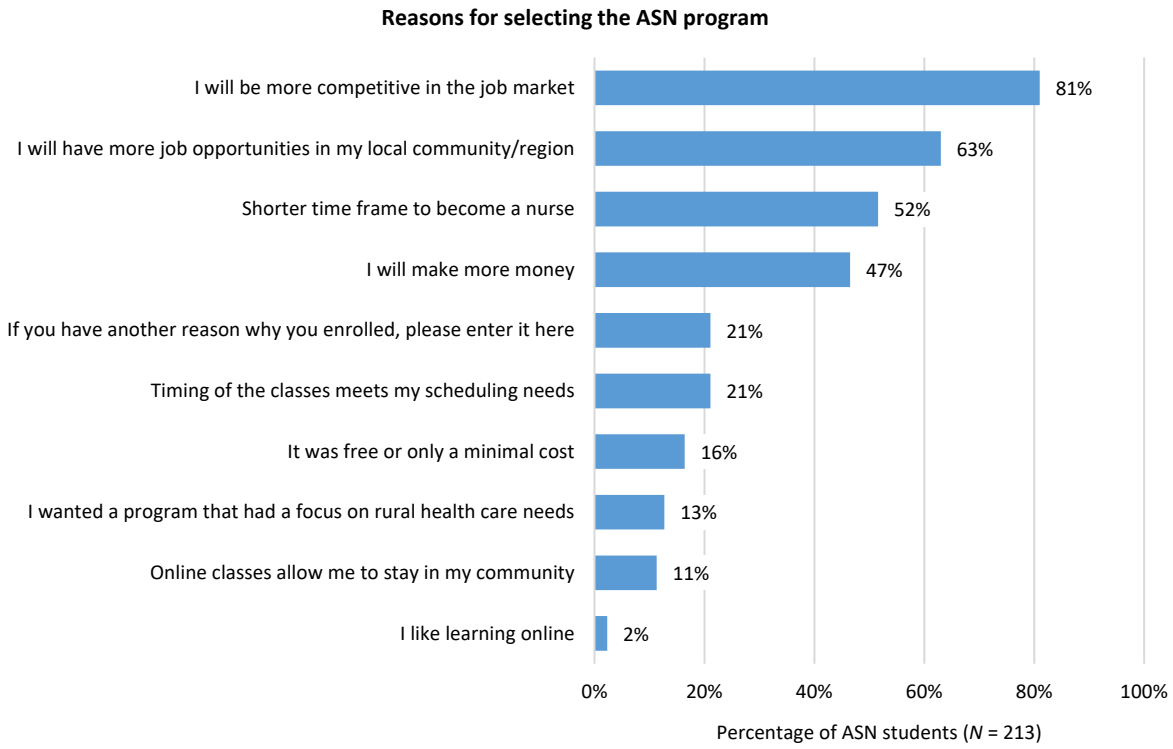
Although students surveyed in 2017–2018 at the four colleges implementing the PN program reported that the quicker pathway to become a nurse was one of the main reasons for enrolling in the program, eight of the 11 students who selected "other" reported that they chose the PN program because they were not accepted for the ASN program. These students also reported that they aimed to reapply to the ASN program later. Program instructors who were interviewed in spring 2017 mentioned similar feedback. This suggests that although a new PN program has been created to meet employers' needs for LPNs, students who graduate may not fill those LPN needs but instead aim to become RNs.

ASN program

Across all eight colleges, over two-thirds of ASN students chose "I will be more competitive in the job market" (81%) and "I will have more job opportunities in my region" (63%) as reasons for enrolling in the ASN program (Figure 3). This suggests that the new ASN

program is meeting HCMT's goal to increase the population's employment opportunities, especially in rural areas. Only 52% of students chose "shorter time frame to become a nurse" as a reason for choosing the ASN program.

Figure 3. Student reasons for enrolling in ASN program

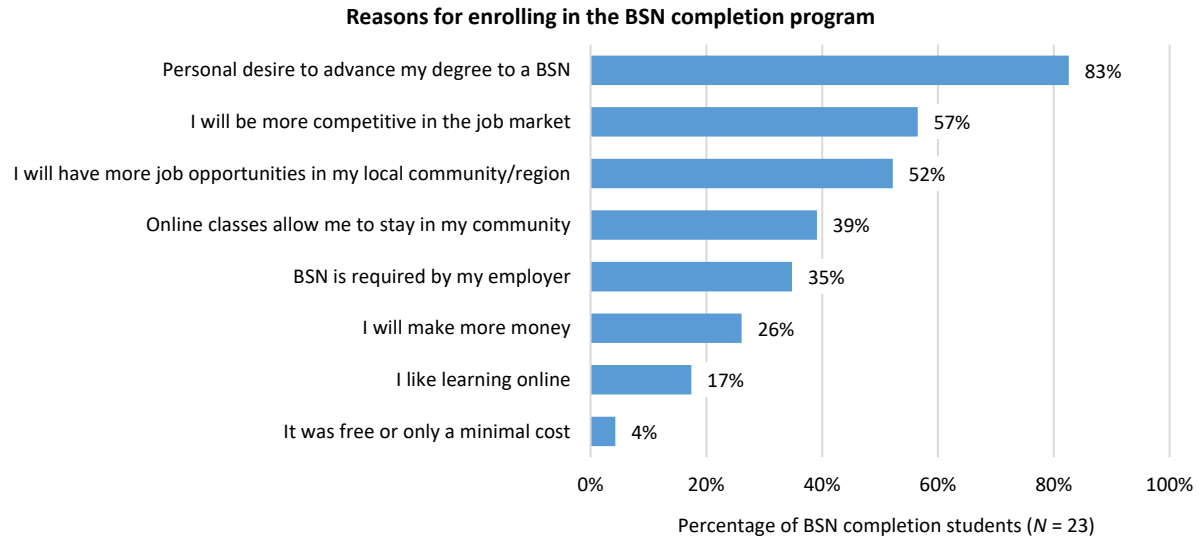


NOTE: ASN = Associate of Science in Nursing.

BSN completion program

Across both colleges, over three quarters (83%) of all BSN students chose "personal desire to advance my degree to a BSN" as a reason for enrolling in the BSN program (Figure 4). Only 35% of the students indicated that their employers' requirement of a BSN influenced their reasons for enrolling. This suggests that personal motivation drove students to seek the BSN completion program. Over 50% of students selected increased job opportunities, especially in their region, as also contributing to their reasons for completing the BSN program. This suggests that the new BSN completion program is meeting HCMT's goal to increase the population's employment opportunities, especially in rural areas.

Figure 4. Student reasons for enrolling in BSN program



NOTE: BSN = Bachelor of Science in Nursing.

Further, the distance BSN completion program gave students the flexibility to continue to work in their community while completing the program. Twenty-two of the 23 students enrolled in the BSN completion program reported that they were working while in the BSN program. In open-ended responses, students elaborated on how the program fit their needs. Students from both programs mentioned that they appreciated the flexibility of the online program because it allowed them to schedule it into their existing lives. Two students wrote that they were able to work full time and take care of their family while completing the program online. For example, one student wrote, "I have a full-time job and five busy children. I have to be able to fit school in where I can and online learning allows that!" Other students wrote specifically about their ability to stay in their community. One student explained, "The ability to continue to work and stay in my remote town while getting an education is very important." Three students wrote how the short time frame was helpful: "Having the availability of nursing classes during summer session. This is the reason why I chose [the college]. In this way, I can get my BSN accomplished within a reasonable amount of time, without overloading myself with classes."

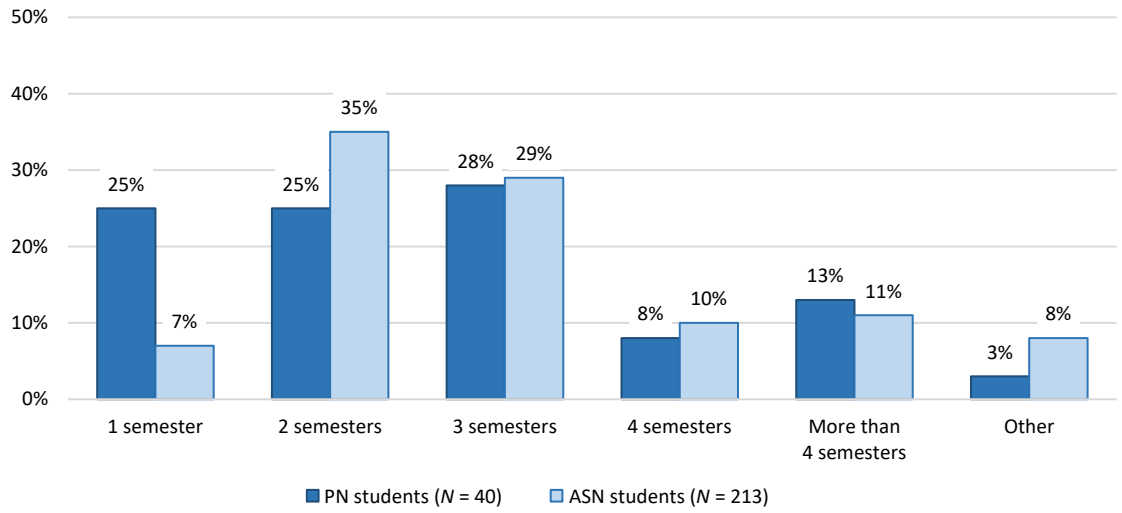
Prerequisite preparation

Although PN and ASN students can complete the prerequisites in one semester, most opted not to follow the program path to accommodate personal needs. Only a quarter of the PN students reported that they completed the PN prerequisites in one semester (Figure 5). The other 75% of the students completed the prerequisites in a longer period but due to personal reasons. Working part or full time while in school or taking prerequisites for the ASN were the main two explanations given by students when asked to explain why they took the

reported amount of time to complete the prerequisites. Other students had unique circumstances that explain why they did not follow the one-semester completion plan, such as completing the courses in high school, completing prerequisites for another degree, or completing prerequisites for programs in different states.

Similarly, only 7% of ASN students reported completing the prerequisites in one semester (Figure 5). Students mainly took two semesters (35%) or three semesters (39%). In their open-ended responses, ASN students mentioned that they needed to attend school part time to work or take care of family. Other students mentioned that they completed prerequisites for a different program or at another college for reasons why they took longer than one semester. A few mentioned that they planned to complete a BSN degree in the future, so they took more time to complete the prerequisites.

Figure 5. PN and ASN Students' Length of Time to Complete Prerequisites



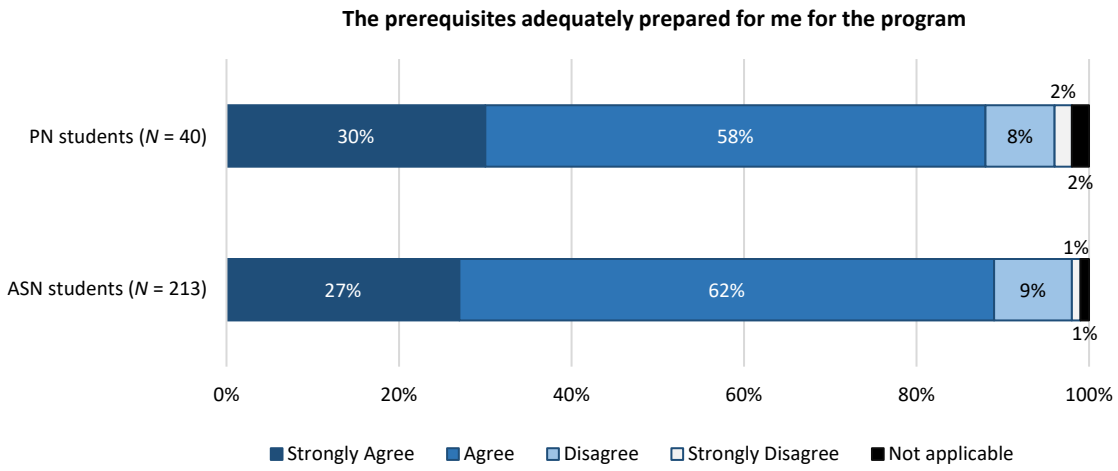
NOTE: ASN = Associate of Science in Nursing; PN = Practical Nursing.

Most PN students (88%) and ASN students (89%) indicated that the prerequisites they took prepared them adequately for their nursing programs (Figure 6). Some ASN students suggested that prerequisites should increase for their program.

- Three students suggested that Anatomy and Physiology 2 should be completed before entering the nursing program. One student explained, "[It was] very overwhelming to have this tough class along with lab along with the nurses classes especially right out the gate upon being accepted." Another student mentioned that the prerequisites could be geared toward health care fields.

- Two students mentioned that they think that microbiology should be a prerequisite before entering the program to help them be better prepared.
- Two students suggested that they should complete pathophysiology before pharmacology. One of these students explained, "Learning how the diseases work in the body makes understanding symptomology much easier and can [help one] understand how medications work better in the body."

Figure 6. The Extent to Which Students Thought Prerequisites Prepared Them for the Program

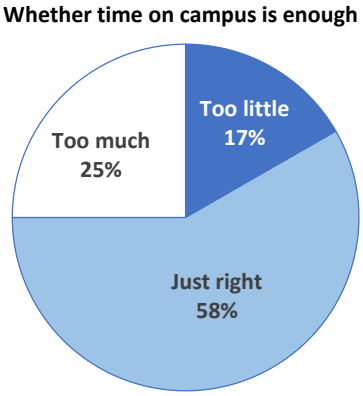


NOTE: ASN = Associate of Science in Nursing; PN = Practical Nursing.

PN distance program implementation

The PN distance program was implemented at both City College and Great Falls College in 2017–2018. Student and instructor feedback in the first year of implementation indicated a few challenges. Students sought more time on campus, and both instructors and students mentioned issues with technology. Instructors from both colleges reported addressing these challenges. In the second year of implementation at City College, over half of the students thought that the time spent on campus was adequate (Figure 7). Students took their classes online but completed their labs in person one week a month. One student explained, "One campus week per month gives us the opportunity to learn hands-on skills, establish relationships with the instructor and interact and bond with fellow students. Less would feel as though I am left hanging without real confirmation that I am on the right track with practical skills, more would be a hardship because I do not live in Billings."

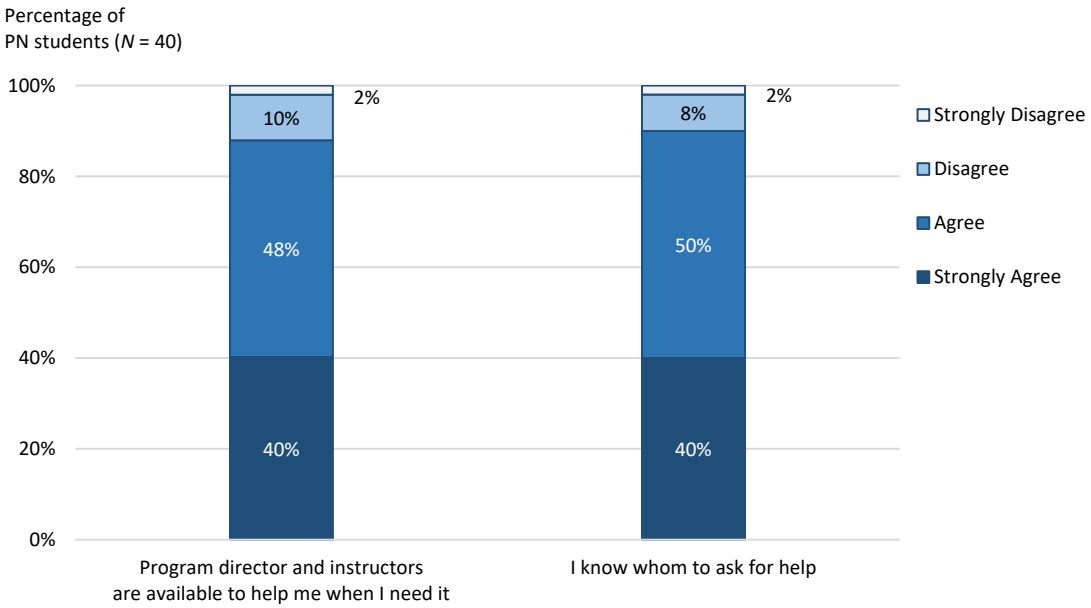
Figure 7. Students Perceptions of Whether They Spent Enough Time on Campus



ASN and PN supports for students

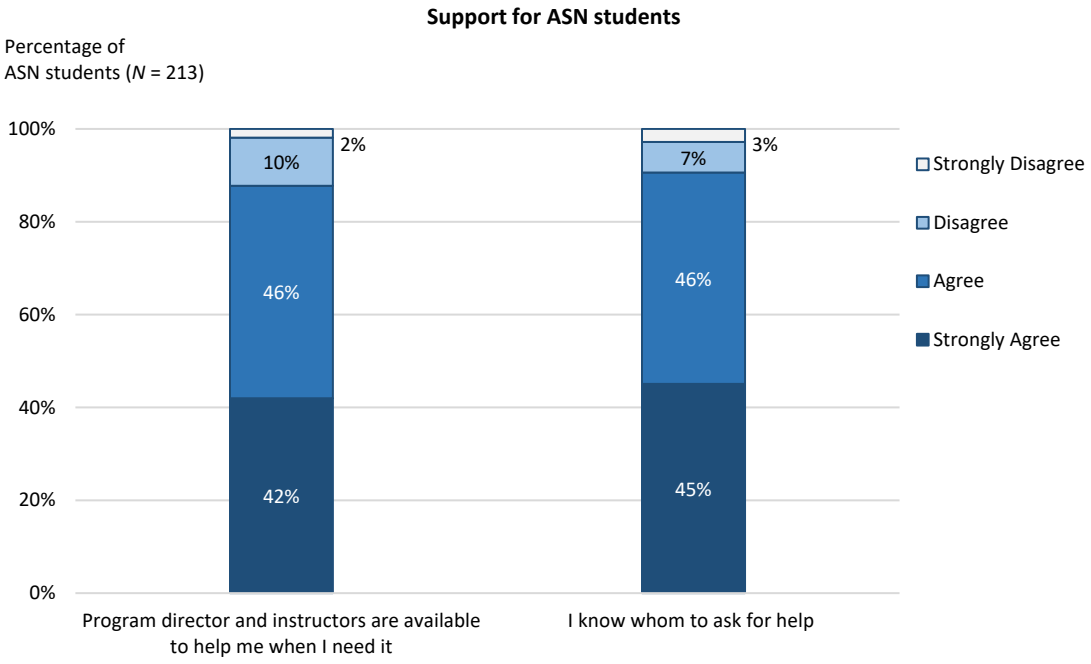
Students received adequate support from the staff at the colleges. But EdReady and SmarThinking were not part of the services offered to students. Both PN (Figure 8) and ASN students (Figure 9) reported that the supports provided to them by the nursing staff was adequate and that they knew who to go for help. Very few PN and ASN students were offered either EdReady, SmarThinking, or both services (Figure 10). Only a few of the ASN students reported using these services (Figure 11). None of the PN students reported using these services.

Figure 8. PN Students Report on Whether They Received Adequate Support



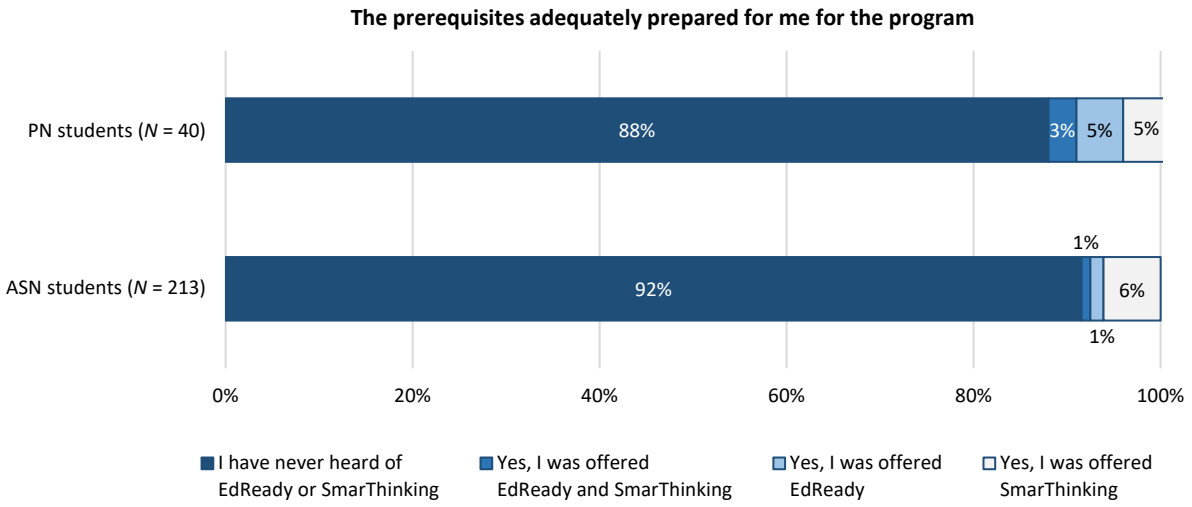
NOTE: PN = Practical Nursing.

Figure 9. ASN Students Report on Whether They Received Adequate Support



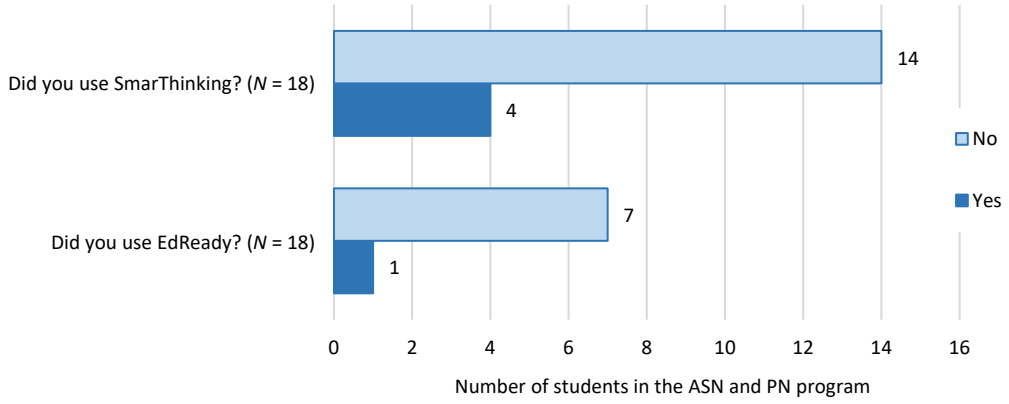
NOTE: ASN = Associate of Science in Nursing.

Figure 10. Student Reports on Whether the Prerequisites Adequately Prepared Them for the Program



NOTE: ASN = Associate of Science in Nursing; PN = Practical Nursing.

Figure 11. Student Reports on Their Use EdReady or SmarThinking



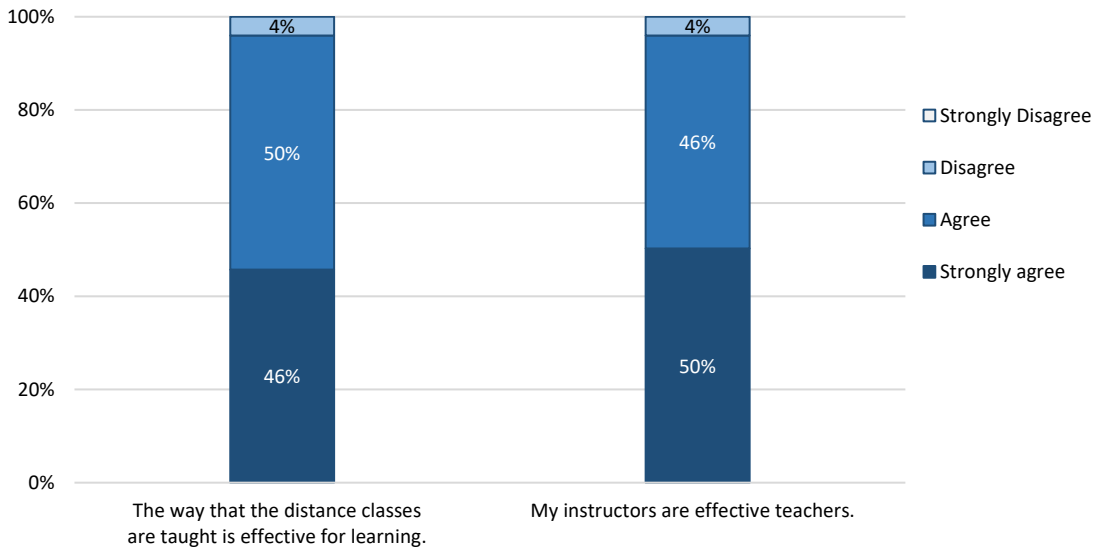
NOTE: ASN = Associate of Science in Nursing; PN = Practical Nursing.

BSN completion program support

Almost all BSN completion program students who took the survey thought online instruction was effective (Figure 12). Specifically, 96% of students agreed or strongly agreed with the statement "My instructors are effective teachers" and "The way that the distance classes are taught are effective for learning." In open-ended feedback, multiple students explained that the instructors helped them succeed. One student wrote, "You can tell the instructors are there to help us learn. They are very organized and have put great effort into the classes they are teaching." Three students also mentioned aspects of the teaching format that resonated with them, such as, "I liked the online work and weekly discussions on

various subjects." Finally, three students mentioned that they appreciated the content of the classes, such as how classes were patient-focused and pertinent to rural communities.

Figure 12. Student Reports on Effective Teaching



NOTE: BSN = Bachelor of Science in Nursing.

Chapter 2: Allied Health

In addition to the creation of shortened nursing pathways, another main strategy of HCMT is to develop a core set of competencies (Appendix B) shared by all allied health professions, such as radiology technician, medical assistant, medical billing and coding staff. This allows students to build on their training. It also decreases barriers in transferring between health care programs.

Status

To develop these competencies, HCMT created two committees that met biweekly in September 2015. Thirty-five volunteers signed up to participate in the allied health core curriculum design team. The allied health core curriculum design team separated into two subcommittees, the academic foundation competencies and the core health care competencies, to decide on the different set of core competencies that all allied health students should have before entering any allied health field. During this process, program directors and faculty from all fifteen campuses (approximately 50 people) had opportunities to provide feedback on the competencies over email. The full design team finalized, voted on, and approved the health care core competencies in April 2016. These competencies are not field-specific, but rather are broad competencies required of anyone entering an allied health field. The full agreed-upon list of competencies is displayed in Table 10.

Table 10. Health Care Core Competencies

	Academic foundation competencies subcommittee	Core health care competencies subcommittee
Subcommittee focus	This subcommittee focused on identifying the essential academic competencies prerequisites for all allied health students.	This subcommittee focused on identifying the essential professional competencies required for all allied health students.
Competencies	• Sciences – human anatomy and physiology • Mathematics with health care application • Medical terminology • Written communication • Computer literacy	• Oral communication • Health worker behavior and attitudes • Health care delivery systems • Legal and ethical practices and responsibilities • Safe practice (personal, patient, environmental, and emergencies)

In January 2017, the college leadership approved the allied health model, and HCMT formed two committees to plan for implementation, the leadership advisory committee and Montana allied health curriculum and career ladder committee. The foundations and core competency subcommittees were also meeting in spring 2017 to begin to develop the implementation plans for the prerequisites and core competencies. The foundations subcommittee determined the common set of prerequisites for allied health programs. The core curriculum

subcommittee examined the five competency areas and determined the competencies will be delivered in online modules.

Potential implementation challenges

The committee renamed the allied health competencies the career essentials for health sciences. The career essentials are five modules that faculty groups felt should be baseline for students entering an allied health program. The five modules are oral communication, behavior and attitudes, health care delivery systems, legal and ethical practices, and safe practice.

The committee established learning outcomes for all the career essentials and determined requirements, sequence, and evaluation. It asked students to begin with the health care delivery module. There is an introductory piece that grounds every module and an evaluation component built into the module activities.

The modules have been reviewed, revised, and are now being implemented.

Impact on rural communities

Spring 2016 members of the academic foundations and core competencies subcommittees suggested that implementing these new competencies would facilitate ease of students transferring to programs in different colleges because it builds consistency across campuses. Students would also gain competencies that would apply to multiple health fields, not just one. Directors also related that the math classes would be contextualized and applied to their particular field so that students are trained in the math that they need, as opposed to taking classes that do not apply.

In addition to working toward grant goals, HCMT has increased the number of allied health programs in the state. Two colleges have created and implemented a new phlebotomy program at their college after identifying employer needs.

Employer and faculty feedback included in the core competency process

Approximately 15 employers served as members of the committee, and members suggested that employers provided useful feedback during the committee meetings, such as their desire to have increased employee math skills related to health care applications. To further solicit employer feedback on the work completed so far, the allied health design team hosted a statewide summit in April 2016 and September 2016. HCMT facilitated two employer webinars: one to inform employers about the work and provide a forum for to ask questions and a second to share with employers where HCMT resources would be stored after the

grant ended and in which employers shared with each other what they had done through their partnership with HCMT.

Both the project management team and program directors from colleges in allied health fields indicated that even though the employers served on the committee, participation was not consistent and not all employers were represented. The health care project management staff purposefully recruited smaller employers from rural areas, especially from frontier Eastern Montana, so that the competency decisions reflected their needs. While smaller employers from rural areas participated, many members reported that the larger employers or hospitals from major cities did not regularly participate in the ongoing curriculum meetings. However, college directors reported that they solicit employer feedback through other means, either through college advisory boards or other communication efforts such as the HCMT Allied Health Summits.

Use of continuous improvement practices

HCMT continues to solicit employer feedback through the rapid response process to inform program development and implementation. This has included the following rapid response surveys:

1. Practical and Associate Degree Nursing Needs, July 2015, $N = 12$
2. A Multifaceted Look at Computer Skills, Critical Thinking, Nursing Workforce Background and Experience, Regional Hybrid PN Program, and Clinical Rotations, August 2015, $N = 7$
3. Working in a Rural Setting, October 2015, $N = 15$
4. Hiring Prerelease, November 2015, $N = 15$
5. Recruitment Fatigue, November 2015, $N = 13$
6. LPN Leadership Assessment, January 2016, $N = 20$
7. Mentoring Newly Licensed Nurses, January 2016, $N = 29$
8. Health Care Leadership Exploration, January 2016, $N = 16$
9. Clinical Site Development, February 2016, $N = 29$
10. Certified Nursing Assistant Apprenticeship, February 2016, $N = 24$
11. Youth Skills Health Professions Interest, June 2016, $N = 34$
12. Emerging Health Professions, October 2016, $N = 17$
13. Behavioral Health Aide Needs Assessment, December 2016, $N = 43$
14. Care coordination Needs Assessment, February 2017, $N = 24$
15. Community Health Worker Needs Assessment, March 2017, $N = 26$
16. Nursing Workforce Status v1, August 2017, $N = 25$
17. Nursing Workforce Status v2, October 2017, $N = 35$

Chapter 3: Apprenticeship Program

Before the advent of HCMT, apprenticeship programs did not exist for health care occupations in Montana. Previously, the only apprenticeship programs that existed were in trade industries such as electric, plumbing, and construction. HCMT staff saw apprenticeship programs as a strategy for reducing health care workforce shortages, particularly in rural communities, and for allowing individuals to advance their education and careers while maintaining employment. In addition, employers could train, hire, and retain individuals already committed to the communities they lived in and planned to continue serving upon completion of their apprenticeship.

The creation of apprenticeships in health care and other fields is also a key strategy for the state of Montana.[3] In fact, the Montana Registered Apprenticeship team was selected in 2017 for the Governor's Award for Excellence in Performance and received extensive media coverage for these innovations. This award is given to outstanding state employees and teams who, through exceptional achievements and innovative ideas, improve the quality and productivity of state government programs.

Identifying employers

HCMT conducted a statewide employer Needs Assessment survey in 2015 in which employers identified several workplace shortages. After this needs assessment, workforce coordinators began educating employers about apprenticeships and garnering their support to develop programs to alleviate the workforce shortages with the greatest needs (i.e., Certified Nursing Assistant [CNA], PN). Employers were initially skeptical about health care apprenticeships because they had never been done before in Montana and were unfamiliar to employers. To defuse their fears and generate a shared understanding of apprenticeships, workforce coordinators and apprenticeship specialists met face-to-face with employers to discuss apprenticeships such as going over the terms, explaining what to expect, and talking through the trade schedules. Staff reported that meeting face-to-face was more effective than connecting over the phone. As a result, many employers understand the benefits of having health care apprentices and are reaching out to HCMT staff directly to inquire about developing programs.

Apprenticeship staff mainly identify employers that are interested in developing apprenticeships. They do not identify individual apprentices to be placed in apprenticeships. However, if individuals are interested in becoming apprentices, apprenticeship staff will provide those individuals with potential employer contacts.

[3] See, for example, https://news.mt.gov/governor-bullock-highlights-apprenticeship-partnership-to-train-more-montanans-for-good-paying-jobs.

HCMT apprenticeship staff

Grant funds were used to hire staff to administer the health care apprenticeship program, including one supervisor and three specialists. The initiative was led by the health care program supervisor. This role is housed within the Montana Department of Labor & Industry (MT DLI) and under the direction of the state director. The health care program supervisor supervised and coordinated the health care program specialists. The three program specialists were known colloquially as apprenticeship specialists or field representatives and were responsible for coordinating the apprenticeship programs within designated regions of the state. There was one apprenticeship specialist for the Western region, North/South Central region, and the Northeast/East region. Initially, three staff members were hired: two apprenticeship specialists and one supervisor. A year and a half into the grant, funds were redistributed to hire a third apprenticeship specialist because the process of developing apprenticeship programs and meeting with employers to explain how they work took a lot longer than originally expected and apprenticeship staff needed more support. According to staff, hiring an additional staff person has helped considerably with the distribution of work.

Only one of the apprenticeship staff had any prior knowledge or experience with apprenticeship programs, although all but one have backgrounds in health care. As such, staff had to learn while on the job. There was no "one size fits all" standardized model for health care apprenticeship programs. Each health care occupation had its own set of federal requirements, such as licensing requirements, education/accreditation standards, on-the-job training requirements (i.e., hours and competencies), and curriculum options. Thus, staff members had to familiarize themselves with over two dozen health care occupations, as part of developing new apprenticeship programs and determining if they are viable options for Montana employers.

MT DLI leadership support

At the beginning of the project, the previous state director of apprenticeship was resistant to the idea of apprenticeships in the health care industry. While the rest of the MT DLI leadership was supportive, this individual did not make adequate resources available at the state and federal levels. When he retired, MT DLI leadership continued its support of health care apprenticeships and made full resources available, such as a contact at the federal level. The director of industry-driven workforce development partnerships, acting as interim director, noted that leadership is invested in the success of the apprenticeship programs and has given him the support to address obstacles and continue moving forward. Staff noted that the biggest difference between Montana and some other states was that the Montana apprenticeship staff had a very high level of support. Ultimately, MT DLI hired an HCMT

apprenticeship specialist after the grant ended to continue working on health care apprenticeships.

Program development and implementation

Apprenticeship programs

HCMT developed and offered the following apprenticeship programs:

- Certified Nurse Aide (CNA) – Basic
- Specialty training for CNAs:
  - Dementia Care
  - Restorative Care
  - Advanced CNA
- Medication Aide II
- Computed Tomography Technologist
- Surgical Technologist
- Administrator (assisted living)
- Administrator (long-term care)
- Pharmacy Technician
- Medical Claims
- Medical Scribe
- Practical Nurse
- Pre-Coder
- Hospital Coder
- Medical Assistant
- Medical Coder/Biller
- Phlebotomy
- Community Health Worker
- Behavioral Health

As of June 2018, HCMT created 202 apprenticeships in 20 occupations (Table 7) with 53 employer sponsors (Table 11).

Table 11. Number of Apprentices by Occupation

Occupations	Number
Basic Certified Nursing Assistant (CNA)	60
Advanced CNA	1
Dementia CNA	8
Restorative CNA	
Surgical Technologist	1
Computed Tomography Technologist	1
Medication Aide II	32
Administrator (Assisted Living)	3
Administrator (Long-Term Care)	1
Pharmacy Technician	2
Medical Claims	2
Medical Scribe	5
Practical Nurse	2
Pre-Coder	1
Hospital Coder	4
Medical Assistant	4
Medical Coder/Biller	21
Phlebotomy	1
Community Health Worker	2
Behavioral Health	5
Total	202

Table 12 shows the 53 employer sponsors that registered HCMT apprenticeship programs, listing employer locations, types of programs offered, and number of apprentices registered in the programs.

Table 12. Employers Sponsors, Their Apprenticeship Programs, and Number of Apprentices

Employer sponsors	Number of apprentices
Basic Certified Nursing Assistant (CNA)	
Mountain View Home Care, *Ronan, MT*	1
Spring Creek Inn Memory Care Community, *Bozeman, MT*	2
Sapphire Lutheran Homes, *Hamilton, MT*	3
Awe Kualawaache, *Crow Agency, MT*	4
Department of Human Resources Development / Confederated Salish & Kootenai Tribes, *Pablo, MT*	4
Livingston Health and Rehabilitation, *Livingston, MT*	5
Aaniiih Nakoda College, *Harlem, MT*	6
Faith Lutheran Home, *Wolf Point, MT*	15
Montana Health Network, *Miles City, MT*	20

Employer sponsors	Number of apprentices
Total	60
Advanced CNA	
Good Samaritan Society - Mountain View Manor, *Eureka, MT*	1
Total	1
Dementia CNA	
Good Samaritan Society - Mountain View Manor, *Eureka, MT*	1
West Park Village, *Billings, MT*	7
Total	8
Restorative CNA	
Benefis Teton Senior Services, *Choteau, MT*	1
Prairie Community Hospital, *Terry, MT*	1
Kalispell Regional Medical Center, *Kalispell, MT*	1
The Living Centre, *Stevensville, MT*	1
Heritage Place Healthcare Community, *Kalispell, MT*	2
Liberty Medical Center, *Chester, MT*	2
Hi-Line Retirement, *Malta, MT*	2
Tobacco Root Mountains Care Center, *Sheridan, MT*	2
Madison Valley Manor, *Ennis, MT*	2
Discovery Care Center, *Hamilton, MT*	2
Good Samaritan Society – Mountain View Manor, *Eureka, MT*	3
Awe Kualawaache, *Crow Agency, MT*	4
Montana Health Network, *Miles City, MT*	9
Faith Lutheran Home, *Wolf Point, MT*	12
Total	44
Practical Nursing	
Faith Lutheran Home, *Wolf Point, MT*	1
Community Health Partners, *Livingston, MT*	1
Total	2
Surgical Technology	
Surgical Arts Centre, *Missoula, MT*	1
Total	1
Computed Tomography Technologist	
Clark Fork Valley Hospital, *Plains, MT*	1
Total	1
Medication Aide II	
Libby Care Center, *Libby, MT*	2
Heritage Place Healthcare Community, *Kalispell, MT*	5
Awe Kualawaache, *Crow Agency, MT*	9
Montana Health Network, *Miles City, MT*	16
Total	32

Employer sponsors	Number of apprentices
Administrator (Assisted Living)	
Shepherd's Way Assisted Living, *Lewistown, MT*	1
The Pines Assisted Living, *St. Ignatius, MT*	2
Total	3
Administrator (Long-Term Care)	
Faith Lutheran Home, *Wolf Point, MT*	1
Total	1
Pharmacy Technician	
Bighorn Valley Health Center, *Hardin, MT*	1
Bigfork Drug, *Bigfork, MT*	1
Total	2
Medical Claims	
Allegiance Benefit Plan Management, *Missoula, MT*	2
Total	2
Medical Scribe	
Great Falls Clinic, *Great Falls, MT*	5
Total	5
Pre-Coder	
North Valley Hospital, *Whitefish, MT*	1
Total	1
Hospital Coder	
Glendive Medical Center, *Glendive, MT*	1
Total	1
Medical Assistant	
Liberty Medical Center, *Chester, MT*	1
Sweet Medical Center, *Chinook, MT*	3
Total	4
Medical Coder/Biller	
First Choice Home Health, *Bozeman, MT*	1
Northern Winds Recovery Center, *Browning, MT*	1
Wheatland Memorial Hospital, *Harlowton, MT*	2
Missouri River Medical Center, *Fort Benton, MT*	2
Glendive Medical Center, *Glendive, MT*	4
Bullhook Community Health Center, *Havre, MT*	4
Livingston Healthcare, *Livingston, MT*	7
Total	21
Phlebotomy	
Central Montana Medical Center, *Lewistown, MT*	1
Total	1
Community Health Worker	
Liberty Place, *Whitehall, MT*	2

Employer sponsors	Number of apprentices
Total	2
Behavioral Health	
Northern Winds Recovery Center, *Browning, MT*	1
Liberty Place, *Whitehall, MT*	4
Total	5

Curriculum, competencies, accreditation

The HCMT apprenticeship staff did extensive research to develop each new apprenticeship program based on employer interests and needs. The staff first determined whether the apprenticeship program had to meet any federal or state board licensure/certification requirements or educational requirements. If so, they outlined the requirements for each occupation. Next, the apprenticeship specialists determined the most appropriate curriculum to use, whether college based, in house/on-the-job training, or conducted by an external entity, and identified where and how it was offered.

Table 13 provides a list of apprenticeship programs and the source of the curriculum used. Nine of the 20 apprenticeship programs used curriculum from colleges or other training sources. While not always the case, some apprenticeship programs (e.g., pre-coder) required apprentices to complete some of their education before beginning the on-the-job training component, called "front loaded" curriculum. Other apprenticeship programs provided the curriculum in a distance format (via online education through a vendor/third party) or at the employer site which apprentices enrolled in at the same time as their on-the-job training. Some apprenticeship programs (e.g., Restorative CNA) also used the online curriculum that was developed by the HCMT grant. HCMT placed all the curriculum developed on Skills Commons[4].

Table 13. Curricula Sources for Apprenticeship Programs

Curriculum Source	Number of Apprentices
Basic CNA Apprenticeship Program	
Employer	2
Salish Kootenai College	4
Miles Community College	4
Partnership with Hospital	5
Aaniiih Nakoda College	6
Unknown	39
Total Basic CNA Apprentices	60

[4] https://www.skillscommons.org//handle/taaccct/15216

Curriculum Source	Number of Apprentices
Advanced CNA Apprenticeship Program	
Employer	1
Total Advanced CNA Apprentices	1
Dementia CNA Apprenticeship Program	
Employer	1
Third Party (Specialty Organization)	7
Total Dementia CNA Apprentices	8
Restorative CNA Apprenticeship Program	
US Carriers	2
Employer	3
HCMT	11
Unknown	28
Total Restorative CNA Apprentices	44
PN Apprenticeship Program	
City College	1
Unknown	1
Total PN CNA Apprentices	2
Surgical Technology Apprenticeship Program	
Missoula College	1
Total Surgical Tech Apprentices	1
Computed Tomography Technologist Apprenticeship Program	
Missoula College	1
Total CT Tech Apprentices	1
Medication Aide Apprenticeship Program	
On-Line Education (Vendor)	16
Unknown	16
Total Medication Tech Apprentices	32
Administrator (Assisted Living) Apprenticeship Program	
Employer	1
On-Line Education (Vendor)	2
Total Administrator (Assisted Living) Apprentices	3
Administrator (Long-Term Care) Apprenticeship Program	
Employer	1
Total Administrator (LTC) Apprentices	1
Pharmacy Technician Apprenticeship Program	
Missoula College	1
Employer	1
Total Pharmacy Tech Apprentices	2
Medical Claims Apprenticeship Program	
Missoula College	2
Total Medical Claims Apprentices	2
Medical Scribe Apprenticeship Program	
Great Falls College	5
Total Medical Scribe Apprentices	5

Curriculum Source	Number of Apprentices
Pre-Coder Apprenticeship Program	
Flathead Valley Community College	1
Total Pre-coder Apprentices	1
Hospital Coder	
Unknown	1
AHIMA	3
Total Hospital Coder Apprentices	4
Medical Assistant	
Unknown	4
Total Medical Assistant Apprentices	4
Medical Coder/Biller	
AHIMA	4
Unknown	17
Total Medical Coder/Biller Apprentices	21
Phlebotomy	
Miles College	1
Total Phlebotomy Apprentices	1
Community Health Worker (CHW)	
Unknown	2
Total CHW Apprentices	2
Behavioral Health	
Unknown	5
Total Behavioral Health Apprentices	5

At the request of workforce coordinators, HCMT apprenticeship staff created documents to explain the development of an apprenticeship program. The staff reviewed each component of the different apprenticeship programs to pull out key information tailored to employers. These documents were compiled into packets based on the occupation of interest detailing the program, the time frame to complete the program, its on-the-job training requirements, its curriculum and mandatory didactic or clinical hours, and its competencies.

Apprenticeship staff also developed handouts and other resources to help explain and guide employers through the apprenticeship processes. These resources were compiled in what staff call the "Apprenticeship Toolkit." Some examples of the information provided in the Toolkit include (1) employer's responsibilities; (2) apprentice's responsibilities; (3) MT DLI responsibilities; and (4) outcomes an apprentice can expect to receive on completion (such as certifications, credentials, experience, employment, and/or other types of employment agreements). HCMT placed the Toolkit on Skills Commons[5].

[5] https://www.skillscommons.org//handle/taaccct/15216

Colleges' role in developing apprenticeships

Apprenticeship staff worked with colleges to discuss the use of college curriculum for apprenticeship didactic training and to adapt current academic programs for use in apprenticeship programs. The apprenticeship staff reported different points of contact depending on the college-related activity. For the development of new apprenticeships, faculty members might have a program they wanted to turn into an apprenticeship, or a student might voice the desire to participate in an apprenticeship, so the apprenticeship specialist was brought in. One of the apprenticeship specialists shared that the Surgical Technology apprenticeship program developed because a student discussed with the health care transformation specialist her interest in pursuing surgical technology but also needing to secure a job upon graduation. To develop appropriate didactic curriculum, apprenticeship staff commonly engaged colleges in a conversation about putting existing curriculum in a distance format. When a new program was being developed and curriculum did not already exist, apprenticeship staff and colleges worked together to create a curriculum that was tailored to employer needs. There are nine apprenticeship programs for which college curriculum is available. When possible, college faculty or department heads participated in employer meetings with apprenticeship staff to discuss the education and curriculum available.

Ongoing engagement with employers

Once employers decided to register for an apprenticeship program, apprenticeship staff spent a lot of time helping them through the registration process. After that, apprenticeship specialists reported checking in with employers quarterly. Apprenticeship staff approached their work as "employer driven" and had to be very receptive and reactive to employer feedback.

Supporting apprentices

At the beginning of the grant, apprenticeship staff thought that once an apprenticeship had been established at a place of employment, the employer would be fully responsible for supporting the apprentices. In the trade apprenticeships, employers typically provided apprentices with support. However, a year into the grant, apprenticeship staff received feedback that employers wanted them take on supervisory responsibilities over apprentices, such as conducting check-ins with apprentices and addressing concerns apprentices did not feel comfortable discussing with their employers. Apprenticeship staff later checked in with apprentices much more frequently than the previous practice of once a year. The apprenticeship specialist conducted the check-ins, sometimes in combination with the HCMT career coaches and/or workforce coordinators.

Apprentice feedback

Six apprentices completed a survey upon completing their apprenticeship (Table 14). Overall, they rated their experience positively agree (10 of the 11 questions were rated between 3.8 and 4.5 on a 5-point scale, with 4 signifying "agree"). The highest ratings, both 4.5, were for the statement *"My coursework was relevant and applicable to my occupation"* and *"The skills and knowledge gained in my apprenticeship have helped me progress in my career."* The lowest rated response, at 3.23 was for the statement "*I was aware of who I should contact outside of my organization with questions regarding my apprenticeship."* As stated above, in the beginning of the program apprenticeship staff thought that employers would be fully responsible for supporting the apprentices but stepped in to support students when asked by employers. These surveys were conducted with the first cohorts of apprentices who had less support.

Table 14. Apprentice Perceptions of the Apprenticeship Program

Survey statement	Average score
I understood the terms of apprenticeship upon signing registration paperwork.	3.8
I was aware of who I should contact outside of my organization with questions regarding my apprenticeship.	3.3
I had a designated mentor to assist me with my apprenticeship within my organization.	3.8
I registered in my course(s) within 4 weeks or appropriate time frame after signing my apprenticeship registration paperwork.	3.8
I had access and support to all the materials and resources needed for my courses and training.	4
My coursework was relevant and applicable to my occupation.	4.5
The skills and knowledge gained in my apprenticeship have helped me progress in my career.	4.5
The time required to complete coursework was appropriate for my occupation.	4.2
My mentor integrated lessons from my coursework into my on-the-job training.	4.2
I had/have opportunities to demonstrate skills I have gained.	4.2
The skills checklist helped to track my hours and attain required skills, if applicable.	3.7
	Percent yes
Were you working at this facility before beginning your apprenticeship?	67
If you weren't at this same facility, were you working in the health care industry before beginning your apprenticeship?	0

NOTE: Strongly Agree = 5, Agree = 4, Neutral = 3, Disagree = 2, Strongly Disagree = 1

Employer feedback

Thirteen employers completed a survey on their experience with the apprentices, and eight spoke with RTI about their experiences (Table 15). Employers were supportive of the program, with more than 80% agreeing that the apprenticeship program was worthwhile and 90% agreeing that the program fit their workforce needs. Every employer was satisfied with the level of support they received from HCMT.

Table 15. Employer Perceptions of the Apprenticeship Program

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Value of apprenticeship					
The apprenticeship program fit our priority workforce needs. (*N* = 10)	40%	50%	10%	0%	0%
The apprenticeship program was a worthwhile endeavor. (*N* = 10)	60%	20%	20%	0%	0%
Clarity of support to implement apprenticeship					
The apprenticeship registration and enrollment process was clear and prompt. (*N* = 10)	50%	50%	0%	0%	0%
I received an apprenticeship sponsor certificate, copies of apprenticeship standards, and apprenticeship agreements. (*N* = 7)	71%	29%	0%	0%	0%
I understand the relationship between my facility and Montana Department of Labor & Industry (MT DLI) as the state's apprenticeship registration agency. (*N* = 10)	30%	50%	10%	10%	0%
I was satisfied with the level of support I received from MT DLI and HealthCARE Montana. (*N* = 10)	80%	20%	0%	0%	0%

In interviews, 10 employers reported that they believed the program was a success because it helped them develop their staff. Administrators shared some challenges, including that finding time to participate was difficult, both for the employer and student (three responses); not enough financial resources (two responses); and recruiting staff to participate or buy in was a challenge (one response each). Although not a focus of the interview, it appeared that the mentors who were drawn to the program had some experience in and/or affinity for education and teaching. This affinity/experience may have made them more likely early adopters of the program, and it may also indicate that they needed less support from HCMT when working with the apprentice. It might be useful, as MT DLI expands the program, to capture information on employers' experience. Employers with less experience may need a different message to increase interest in having an apprentice and/or would need more support in training one.

Impact on rural communities

Because employers in rural communities do not have a pipeline of graduates, HCMT targeted implementation of apprenticeships in rural areas. All but three of the apprenticeship programs were in rural areas. Apprenticeship programs did not appeal to the larger communities in the same manner because they have a pipeline of graduates from 2- and 4-year colleges every year and every semester. Employers in rural communities do not have this same pipeline so apprenticeship programs are a method of developing a workforce that already has ties to the community and plans to stay.

Continuous improvement activities

Apprenticeship staff systematically tracked apprenticeship participants. Staff collected and tracked data on apprentices, such as demographic data relevant to the grant and veterans, first-generation college student, Native Americans, displaced workers, enrollment per health care program, and graduation rate data. Staff also collected data on employers, such as success rates per health care occupations, employment rates, retention, promotions, and increase in salaries. The apprenticeship specialist and workforce coordinators tracked and reported data in a tracking spreadsheet, and all information was reported to grant management and MT DLI. The apprenticeship specialist stated that the DLI moved to a new system, the Registered Apprenticeship Partner Information Database System (RAPIDS) to collect and consolidate and report all the data/information for the apprenticeship programs. This way all the consortium partners involved in the programs and the grant could access and use one integrated database and system to communicate and report information.

HCMT staff developed evaluation surveys for apprentices (including those who cancelled or left the program) and employer mentors and administrators. These surveys helped assess satisfaction, and/or whether certain programs needed to be redesigned/restructured or needed additional support. Surveys were completed by six apprentices and 13 employer administrators/mentors. Eight of the employers participated in more in-depth interviews.

Additional sources of data collected to evaluate the apprenticeship programs included the Needs Assessment survey, which helped inform state workforce needs, and rapid response surveys given to employers to continue to receive feedback on different topics. In February 2017, workforce coordinators reached out to employer contacts to gather feedback on the HCMT grant progress and asked for suggestions for the end of the grant. The feedback was helpful in deciding future directions. Workforce coordinators also learned which employers wanted to learn more about apprenticeship programs and, more generally, health care programs generally that HCMT offers. To better inform employers about the grant, HCMT leadership conducted a webinar in which staff explained each part of the grant in depth for employers. The workforce coordinator reported that there were over 50 attendees.

Sustainability

The original plan to support apprenticeships after the grant ended was to cross-train the apprenticeship staff in the U.S. Department of Labor. The staff focused on creating apprenticeships in the trades (e.g., plumbing) and so needed professional development to support health care apprenticeships. However, it became clear that health care apprenticeships are very different because there are so many occupations in health care, each with a different set of requirements, so flexibility in the creation was required. U.S.

Department of Labor and HCMT staff realized that it was too difficult to cross-train the current U.S. Department of Labor apprenticeship staff. Instead, they decided to have one full-time HCMT apprenticeship staff person.

Chapter 4: LEAD (Learn, Engage, Adapt, Do) and CNA Specialty Courses

LEAD: Fostering self-awareness for workplace success program

Background

During the Needs Assessment conducted in 2015 with employers throughout the state to address workforce needs and challenges, HCMT staff received feedback from employers about the need for their employees to receive targeted soft skills training. In response, HCMT staff developed a set of success skills modules, which are short videos that provided CNA-specific soft skills training. When the HCMT team introduced the modules to employers, they responded by requesting an in-house training that was not a video and did not focus solely on CNAs. This led the HCMT team to develop LEAD which was a much more advanced, broad, in-house skills development that focused on getting employees to get along and work together more effectively.

The LEAD program was designed to help employees gain awareness of their thoughts and actions and how their behavior impacts others, with the overall goal of creating a positive and productive work environment. LEAD was a free, four-module training program based on employer reports that communication, professionalism, leadership, and conflict resolution are often soft skills deficit areas among their entry-level employees. The program was designed to be delivered in staff huddles or meetings through 10-minute daily discussion cards on these topics, and Champions were employees within the facilities who led the huddles. Interested facilities requested a visit from HCMT workforce coordinators to begin the training for Champions, which was required before a facility could begin the LEAD training.

Facilities wanting to participate in LEAD had to complete a pretraining before starting. The length of the pretraining was at the discretion of the facility. According to HCMT staff, it could take between 4 months and 1 year based on how the modules were spread out. The structure was described by HCMT staff to be relaxed and without a specific time frame for completion.

Status of LEAD program

The program was piloted in November 2016 at a long-term care facility in Stevensville, Montana. The pilot was evaluated and reported to be very successful. Administrators and staff indicated improved staff communication and interactions resulting from the experience. As of April 2017, the HCMT team had distributed 40 copies and were in the process of printing 50 more. Management staff reported that the workforce coordinators hand-

delivered copies throughout the state. Higher-than-anticipated employer interest created some challenges for the initial implementation. Originally, implementation of the program required workforce coordinators to meet individually with sites to initiate the Champion training and to explain the evaluation component. There were only four workforce coordinators available to work with all interested employers, which made start-up slower than desired. As a result, HCMT developed training videos that were disseminated with the curriculum. These videos will remain in use after the grant ends and so support the sustainability of these efforts.

An unexpected development for LEAD is that it became a part of the Medicare Rural Hospital Flexibility (Flex) Program in Montana. This program allowed states with rural hospitals to establish a Flex Program and apply for federal funding to assist with the creation of rural health networks, promote regionalization of rural health services, and improve access to hospitals and other services for rural residents.[6] According to the quarterly reports, LEAD will be used as the quality improvement project for these critical access hospitals to improve their Centers for Medicare & Medicaid Services survey scores. Using LEAD for the Flex Program expanded its exclusive use in long-term care facilities (which employ large numbers of CNAs) to its use in critical access hospitals.

Employer perceptions

The five employers who were implementing LEAD that RTI spoke with were extremely positive. They thought that LEAD was very useful in helping empower their teams and getting their teams together for team building. They thought the discussion cards were well designed and that the 5–10-minute discussions were generally a good length.

Employers believed that teams worked better together because of the program, and that professional communication was much improved. Most thought that the activities made people aware of issues and helped people think about their actions. One employer described it as a tool to have an important conversation even though most places do not have the conversation. Staff members were more solution based, were better teammates, and relied on each other more. Some employers believed that there were still some conflicts with patients. Two employers noted that staff turnover was down since the use of LEAD but were not sure if LEAD was a contributor to lower turnover. The only negative feedback from employers was that the discussion cards were a little repetitive.

Impact on rural communities

Due to the incorporation of LEAD into the Flex program, critical access hospitals received training and support around soft skills development to further improve patient satisfaction. HCMT staff reported that the individual responsible for conducting a yearly quality

[6] See https://www.ruralcenter.org/tasc/flex.

insurance report of the Flex program thought LEAD would be a great program to implement in critical access hospitals because staff cohesiveness would translate into greater patient satisfaction.

Use of continuous improvement practices

As part of the Flex program, facilities completed a pre- and postsurvey about topics related to Medicare standards for patient satisfaction. HCMT will have access to these surveys. Further, HCMT developed short program evaluation surveys to be administered at the end of LEAD implementation: one survey will go to employers and the other two to employees/participants to request their feedback and perception of changes that may have occurred as a result of LEAD implementation.

CNA specialty courses

Background

The CNA specialty courses were highlighted as an employer need during the Needs Assessment conducted by the workforce coordinators at the beginning of the grant in 2015. Specifically, one of the workforce coordinators reported hearing from employers at rural facilities that there is not only a great need for CNAs but that they wanted to be able to create a career path for CNAs to advance since it is an entry-level role. In response to the expressed needs of employers, HCMT staff developed CNA Specialty Courses in Restorative Care and Dementia (due to be completed September 30, 2018). According to the workforce coordinators, the CNA specialty courses provided facilities with the ability to advance the skill sets of the CNAs they employed, which helps bolster retention because the staff feels more valued and receives a small pay increase.

Status

Restorative Care was 8 modules and 80 hours long. According to course developers, the Dementia course was 7 modules and 70 hours long. Both classes filled needs that were in great demand across the state. HCMT staff reported substantial interest in the Dementia specialty because Medicare is adding a Dementia Care CNA requirement to qualify for certain reimbursements. Most students participating in the specialty courses were already part of a CNA apprenticeship. The CNA specialties were a form of continuing education geared towards CNAs who are already employed. Workforce coordinators noted that everyone initially was really interested but that it required a lot of follow-up on their end to nudge employers and get them started.

Curriculum development

Each specialty course was developed to be delivered as a hybrid program in which the content was delivered online; the clinicals would mostly take place in-house at the apprentice's facility site.

The online course curricula were designed to be 6–8 modules depending on the subject, and they ranged from 60–80 hours in total. The curricula were self-paced, but an instructor was available if needed. HCMT also created an instructor's guide to accompany the courses. Each curriculum was a combination of knowledge and skills assessment and activities.

The course curricula were provided to employers at no cost which made it extremely valuable and a great fit for apprenticeships, as one of the apprenticeship specialists noted that cost is a main factor when selecting a curriculum to use. One of the apprenticeship specialists reported that the no-cost curriculum of the specialty courses was a huge added benefit to the apprenticeship program because it eliminated the barrier of added costs for the employers. The specialty courses garnered so much interest in apprenticeships that more apprentices signed up in the Restorative Care occupation than any of the others. HCMT placed all the curricula developed on Skills Commons[7].

Recruitment strategies

Workforce coordinators and apprenticeship specialists discussed the specialty course training with employers as important apprenticeship program opportunities. They began with critical access hospitals and long-term care facilities. One employer noted that she would never have followed through on the program if it were just in an email. She needed the face-to-face communication.

Employer perceptions

The five employers RTI spoke with thought the courses were extremely helpful and noted ways in which the employees were better prepared. One employer mentioned that the courses were difficult to get through because of time and/or intensity and thought that they were at a higher level than needed. However, other employers thought the level was just right.

Three employers noted it was important that staff get certification. One noted that there are not a lot of opportunities for CNAs to get a credential. Another employer, who liked the credential, describe the process of getting one to be cumbersome.

[7] https://www.skillscommons.org//handle/taaccct/15216

Impact on rural communities

Much of the CNA workforce shortage occurs in facilities in rural areas because fewer people move to those communities and individuals who currently live there have limited educational options. One of the workforce coordinators and two of the employers reported the need for employers to "grow their own." In other words, employers need a way to further develop their current employees, and the CNA specialty courses are a way for employers to do this. Individuals already working as a CNA can continue to work and make money while advancing their skills through a self-guided online curriculum that is provided to employers at no cost. The implementation of the specialty courses within apprenticeship programs serves this same purpose.

Use of continuous improvement practices

HCMT developed separate module evaluations for students and instructors. The instructor module evaluation included questions to determine how well the curriculum worked and about any changes instructors observed. Additionally, instructors were responsible for tracking how many students register, how many finish, and how many continue in a role related to the specialty. The student course evaluation solicited feedback on students' experience in the course with the instructor and the extent to which they think the course improved their knowledge and skills.

Chapter 5: Summary of Implementation Activities

Table 16 shows a summary of the larger impacts of HCMT. Table 17 shows which programs colleges are implementing.

Table 16. Partial List of Impact of HealthCARE Montana

Focus area	Impact
PN	• Five programs • Reduced prerequisites: 100% • Programs adopted new curriculum: 100% • Programs with distance learning component: 40%
ASN	• Eight programs • Reduced prerequisites: 100% • Programs adopted new curriculum: 100% • Programs with distance learning component: 13%
BSN	• Four programs • Reduced prerequisites: 100% • Programs adopted new curriculum: 100% • Programs with distance learning component: 100%
Apprenticeships	• Number of apprenticeship programs developed: 21 • Employer sponsors: 53 • Number of apprentices: 202
CNA and LEAD (Learn, Engage, Adapt, Do)	• Number of specialty courses developed (Restorative Care, Dementia): 2 • LEAD program developed
Preceptor and clinical resource registered nurse trained	• Number of in-person trainings: 1 • Number trained: 20 • Open online training platform
Certificate programs	• Number of new programs: the 4 new programs (Pharmacy Technology, Phlebotomy, Health Promotion, and Surgical Technology) and 2 improved programs (CNA, Phlebotomy) developed through regional teams
Enhanced distance learning capability	• Great Falls College purchased an all-in-one lecture capture program • All relevant faculty trained in distance education pedagogy

NOTE: ASN = Associate of Science in Nursing; BSN = Bachelor of Science in Nursing; CNA = Certified Nursing Assistant; PN = Practical Nursing.

Table 17. Program Implementation, by College

College	Program			
	PN	ASN	RN-BSN Completion	New or revised programs
Blackfeet Community College	Fall 16	Fall 16		
Chief Dull Knife College				Licensed Addiction Counselor
City College	Fall 16	Fall 16		Revived CNA Pharmacy Technician Sonography Certificate
Flathead Valley Community College	Fall 17	Fall 17		Medical Lab Technician Patient Relations Apprenticeship
Gallatin College				Surgical Technology Program
Great Falls College	Fall 16	Fall 16		Medical Scribe Apprenticeship
Helena College	Spring 18	Spring 17		Clinical Resource Registered Nurse/Preceptor Training
Highlands College			Spring 18	Behavioral Health Technician Certificate
Miles City College		Fall 16		Certified Nursing Assistant Apprenticeship Phlebotomy Apprenticeship Medical Lab Technician Apprenticeship
Missoula College/Bitterroot College		Fall 16		Restructured Phlebotomy program, Certified Medical Assistant, Dental Assistant (Bitterroot College) Pharmacy Technician Program Partnership with City College Surgical Technology Apprenticeship Medical Claims Specialist Apprenticeship (Missoula College) Computed Tomography Technologist Apprenticeship
Montana State University–Billings[1]			Fall 17	
Montana State University–Northern		Fall 17	Spring 17	Phlebotomy Program
Salish Kootenai College			Admits quarterly	Health Promotion Program Certified Nursing Assistant apprenticeship set up with Department of Human Resources Development / Confederated Salish & Kootenai Tribe Emergency Medical Technician Program Phlebotomy Program Medical Assistant Program
Stone Child College				Emergency Medical Technician and Certified Medical Coder Apprenticeships; Rural Health Endorsement/Certificate
University of Montana Western				Phlebotomy Program Pharmacy Technician Program Physical Therapy Aide Medication Aide
South Central region				Fundamentals of Behavioral Health Certificate (industry-recognized credential)

[1] Although not a formal member of the consortium, Billings has adopted the BSN Completion curriculum and so is included here.
NTOE: ASN = Associate of Science in Nursing; BSN = Bachelor of Science in Nursing; PN = Practical Nursing; RN = Registered Nurse.

Section 3: Implementation Supports

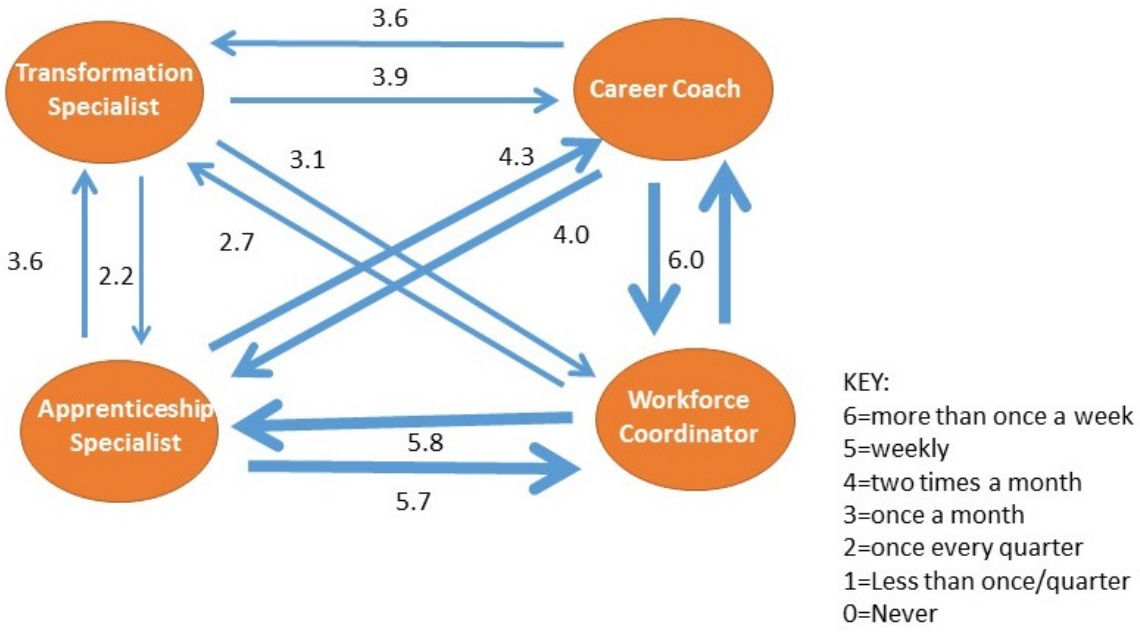
Chapter 1: Statewide Staff

The development of multiple new positions, with distinct responsibilities and which required collaboration to be successful, was a key challenge in the first year of HealthCARE Montana (HCMT). In fall 2016, RTI International conducted a survey examining how statewide staff work together to implement the goals of HCMT. RTI noted two key challenges: (1) staff members in identical positions do not implement roles uniformly and (2) staff members were not working collaboratively at the necessary level to integrate services. Based upon this feedback, the HCMT management team asked the statewide staff to work together to develop college or regional projects. It had regional teams write proposals for additional projects that would help meet and enhance HCMT's goals and provided funding for those proposals which met the highest need and had the most potential for impact.

Statewide staff collaboration

In the fall 2016 data collection, RTI surveyed statewide staff members to assess their level of collaboration and their main work responsibilities. As seen in Figure 13, career coaches, workforce coordinators, and apprenticeship specialists all spoke with one another (at least two times per month) more often than they communicated with the college-based health care transformation specialist (more typically once a month). Career coaches and workforce coordinators often travelled together to meet with employers, and each often met with the apprenticeship specialist to discuss employer needs and their readiness for developing or placing an apprentice. The health care transformation specialist was focused more on college-specific activities.

Figure 13. Communication Between Statewide Staff Roles



Apprenticeship staff discussed the challenge of getting employers to fully understand what a health care apprenticeship program could be and the benefit it would have for them. At the beginning of the grant, apprenticeship staff relied on the workforce coordinators to relay apprenticeship information. However, apprenticeships programs are complicated to understand and sometimes hard for workforce coordinators to grasp all the components as well. Apprenticeship staff reported the need for three to four meetings before employers started to feel comfortable in their understanding. Apprenticeship staff noted meeting face-to-face with employers was helpful. While it did require a lot of time and effort, it was a necessary step.

Statewide staff members thought that they were somewhat effective as a regional team of health care transformation specialists, workforce coordinators, career coaches, and apprenticeship specialists in meeting HCMT objectives (Table 18).

Table 18. Statewide Staff Ratings on Their Effectiveness as a Team

Role	Average rating
Apprenticeship specialist	2.0
Career coach	1.7
Health care transformation specialist	2.2
Workforce coordinator	2.5
AVERAGE	2.15

NOTE: Scale: 1 = a little effective; 2 = somewhat effective; 3 = very effective.

Regional teams

To harness the power of the combined roles of the statewide staff members, the HCMT project management team asked them to work together to develop college or regional projects.

After this initial start to team projects, in March 2017, additional funds were made available to consortium colleges to expand distance learning and apprenticeship programs. HCMT instituted a request for proposals process, and eight colleges submitted a total of 13 proposals. Twelve projects were funded and began implementation in the next quarter and throughout the summer. Two colleges received funding for three projects, and one for two projects (Table 19). One college was not funded. Colleges needed to demonstrate that their program was in a high-demand occupation, which involved reaching out to local employers, describing how their proposed project would address expanding health care distance delivery, and describing how the project would be sustained. Each team was required to include the health care transformation specialist, regional workforce coordinator, career coach, and apprenticeship specialist. The team from the South Central region included three health care transformation specialists, and one career coach, workforce coordinator, and apprenticeship specialist.

Table 19. List of Regional Projects and Teams

College/team	Regional project
Bitterroot College	Improve Certified Nursing Assistant (CNA) program, restructure Phlebotomy program
Blackfeet Community College	Add a stand-alone Practical Nursing program
City College	CNA lab designed; summer CNA class; December CNA class
Flathead Valley Community College	Patient relations apprenticeship
Gallatin College	Surgical Technology program
Great Falls College	Medical Scribe apprenticeship
Missoula College	Pharmacy Technology program partnership with City College; Surgical Technology apprenticeship; Allegiance Medical Claims Specialist apprenticeship
Montana State University–Northern	Developed Phlebotomy program
Salish Kootenai College	CNA and Phlebotomy courses developed and offered; Health Promotion program developed and offered; CNA apprenticeship set up with Department of Human Resources Development / Confederated Salish & Kootenai Tribes
South Central region	Behavioral Health Technician apprenticeship
Stone Child College	Develop apprenticeships (Emergency Medical Technician, Certified Medical Coder, Rural Health Endorsement/Certificate)

Regional projects led to or supported the development of

- nine apprenticeship programs (Patient Relations, Surgical Technology, Medical Claims Specialist, Certified Nursing Assistant [CNA], Behavioral Health Technician, Fundamentals of Behavioral Health, Emergency Medical Technician, Certified Medical Coder, Rural Health Endorsement/Certificate, and Medical Scribe);
- five new programs (Practical Nursing, Pharmacy Technology, Phlebotomy, Health Promotion, and Surgical Technology) and two improved programs (CNA and Phlebotomy); and
- more than five courses, including online courses.

Based upon three initial focus groups covering two projects, statewide staff members believed that they would not have been able to implement these projects and develop these new programs and opportunities without HCMT providing resources and requiring them to create projects through collaboration. Further, they believed that they would not have been able to do so without working together and bringing their unique responsibilities to the projects.

Chapter 2: Continuous Improvement Practices

From the beginning, HCMT collected information, especially from employers, as a key component of the project. HCMT used an extensive number of feedback surveys to collect data to inform and improve work (Table 20). These data collection activities are in addition to the evaluation conducted by the third-party evaluator for the project.

Data collection helped to inform the work in numerous ways. The initial Employer Landscape survey (summer 2015) helped HCMT understand trends, challenges, and necessary soft and technical skills that employers needed across a variety of health care settings (critical access hospital, long-term care, clinics (community health centers and others), prospective payment system hospitals, and other (Veteran Affairs, Indian Health Service, assisted living, home health, emergency medical services, correctional institutions). In addition, HCMT administered 16 additional rapid response surveys in the 2 years since the initial Employer Landscape survey. These surveys collected employer feedback on clinical sites, nursing programs, and apprenticeship interest, among other topics.

The collection of data informed the work of HCMT in multiple ways:

- Apprenticeships: surveys allowed HCMT to find out which employers wanted to hear more information about the programs offered.
- CNA: specialty courses were designed in response to employer requests to prepare staff to meet patient and resident needs. In addition to increased quality of care, the specialty training can help health care facilities professionalize their workforce and improve employee retention.

Table 20. List of Surveys Conducted by HealthCARE Montana (HCMT)

Survey name/type	Audience	Completed surveys	Date
Initial landscape assessment of health care employers	Employers	103	Summer 2015
Health care transformation specialists communications survey (for the marketing committee to improve communication processes)			May 2016
Pharmacies and dental offices were assessed to determine interest in apprenticeships			Winter 2017
Convened 35 HCMT employers, faculty, and industry representatives to review and provide input and feedback on the allied health core curriculum model and competencies			July 29, 2016
Preceptor training evaluation	Preceptors		April 2017
Apprenticeship satisfaction	Apprentices		Current
Apprenticeship satisfaction, employer perspectives	Employers		Current
Certified Nursing Assistant (CNA) training feedback	CNAs		Current
Rapid response memos			
Rapid response clinical site summary	Employers	29	
Practical Nurse (PN) and Associate of Science in Nursing needs and comments	Employers	7	July 2015
A multifaceted look at computer skills, critical thinking, nursing workforce background and experience, regional hybrid PN program/clinical rotations	Employers	7	August 2015
New health care professions	Employers	18	October 2015
What it means to work in a rural setting	Employers	15	October 2015
Employing CNAs from a prerelease center	Employers	12	November 2015
Provider recruitment fatigue	Employers	14	November 2015
Health care employee leadership assessment	Employers	16	January 2016
License practical nurse leadership assessment	Employers	20	January 2016
Clinical site development	Employers	29	February 2016
Youth skills rapid response summary	Employers	34	June 2016
Engaged employer evaluation of HCMT	Employers	39	September 2016
Emerging health professions	Employers	17	October 2016
Behavioral health aide needs assessment	Employers	43	December 2016
Abbreviated Practical Nursing program interest	Employers	43	2016
CNA apprenticeship program interest	Employers	24	2016
Care coordination needs assessment	Employers	24	February 2017
Community health workers summary	Employers	31	March 2017
Nursing workforce status v1	Employers	25	August 2017
Nursing workforce status v2	Employers	35	October 2017
Deep dive memos			
Clinical sites	Employers	33	
CNA/prerelease	Employers		November 2015
Provider recruitment	Employers		November 2015

Chapter 3: Employer Engagement

A key strategy for HCMT has been developing relationships with health care employers to share their employment needs with the involved educators. Employers have been engaged through

- participation in data collection feedback (as described in section 3, chapter 1);
- participation in HCMT committees (Table 21), including having an employer cochair the nursing curriculum committee, the first time that an employer has cochaired a curriculum committee in the state;
- communication with HCMT staff (workforce coordinators, apprenticeship specialists); and
- other engagement activities (Table 22).

Table 21. Employer Participation in HealthCARE Montana Committees

Committee	Participating employers
Core curriculum design team	Approximately 45 members, including 11 employers representing hospitals and care facilities
Regional HealthCARE Montana workforce advisory councils	Approximately 33 employers
Steering committee	Eight employers
Nursing curriculum committees	Five employers, including four on a Practical Nursing subcommittee, and one each on the Associate of Science in Nursing and Bachelor of Science in Nursing subcommittees
Admissions committee	One employer

The regional workforce coordinator position, located in each Montana Area Health Education Center (MT AHEC) region, used several methods to gather employer response on workforce topics and to provide feedback to the curriculum committees who are shaping new curricula that will better meet health care employment needs. Workforce coordinators facilitated discussions between education and health care employers to create and sustain cooperative relationships to develop projects and training programs and identify strategies to create a rapid response to the constantly changing health care workforce needs (Table 18). In addition, data collection from employers is a key practice in helping to develop relationships.

Table 22. Partial List of Employer Formal Engagement Activities Conducted by HealthCARE Montana (HCMT)

Activity	Strand	Date
Invited rural employers to plan training for nurses to become preceptors and clinical resource registered nurses so they can be effective clinical instructors, and increase clinical sites for distance students	Nursing	03/2017
Convened 75 HCMT employers, faculty, directors, and industry representatives to identify design team membership, agree on relevant terminology, identify broad issues to address, discuss appropriate model, and set timelines and deliverables	All	11/2015
Convened 35 HCMT employers, faculty, and industry representatives to review and provide input and feedback on the allied health core curriculum model and competencies	Allied health	07/2016
Employers identified to participate on design team	Allied health	11/2015
Employers provided input into stacking credentials	Allied health	08/2016
Based on employer input, developed online "Success Skills" modules for Certified Nursing Assistants (CNA) and for employers to use as in-service training for employees	CNA	05/2016
Thirty-three employers serve on regional HCMT workforce advisory councils, along with representatives from academia, job service, health care associations, and legislators	All	05/2016

At the start of this project, HCMT's resources were spent on developing relationships with employers and gathering feedback on their needs. In such a large rural state, developing these relationships is key as employers are spread over such a wide area. Based upon this feedback, HCMT developed numerous programs, such as apprenticeship opportunities, that meet employer needs, particularly rural employers. A key learning from HCMT has been to not only create college-based programs but also develop apprenticeships and online trainings to increase its staff's skills and help employers train their own staff.

Chapter 4: Sustainability Activities

HCMT developed a sustainability document. As part of the project's sustainability work, the Office of the Commissioner of Higher Education created a Montana University System council to determine how to implement the statewide strategic plan, likely through the MT AHEC and the HCMT workforce advisory council. The council is charged with studying and reviewing problems in the health care arena and investigating ways to reduce costs in services and health care delivery systems, while promoting access and affordability. The council is composed of two senators and two representatives, appointed by the president of the senate and the speaker of the house, respectively, as well as six members appointed by the governor.

In addition, the Montana Healthcare Workforce Statewide Strategic Plan,[8] developed by the HCMT workforce advisory committee with support from the Montana Office of Rural Health/MT AHEC, reflects the work of dozens of organizations and individuals who provided leadership on health care workforce issues in Montana. It includes multiple key HCMT strategies, including

- initiating clinical rotations tracking to inventory existing clinical education and coordinate new clinical training opportunities in rural and underserved settings;
- developing formal health information technology apprenticeships between employer and employee (who would be the student), in collaboration with the MT DLI;
- supporting development of apprenticeship opportunities for pharmacy technicians;
- the hiring of an HCMT apprenticeship specialist by the Montana Department of Labor & Industry to continue to develop and support health care apprenticeships full time; and
- sharing of all curriculum developed in the project through Skills Commons[9].

[8] See https://static1.squarespace.com/static/552c3de1e4b09afa1a56a757/t/58fe4aebe6f2e1e1f7d67b3f/1493060350335/Strategic+Plan+2017.pdf.

[9] https://www.skillscommons.org//handle/taaccct/15216

Section 4: Outcomes Analysis

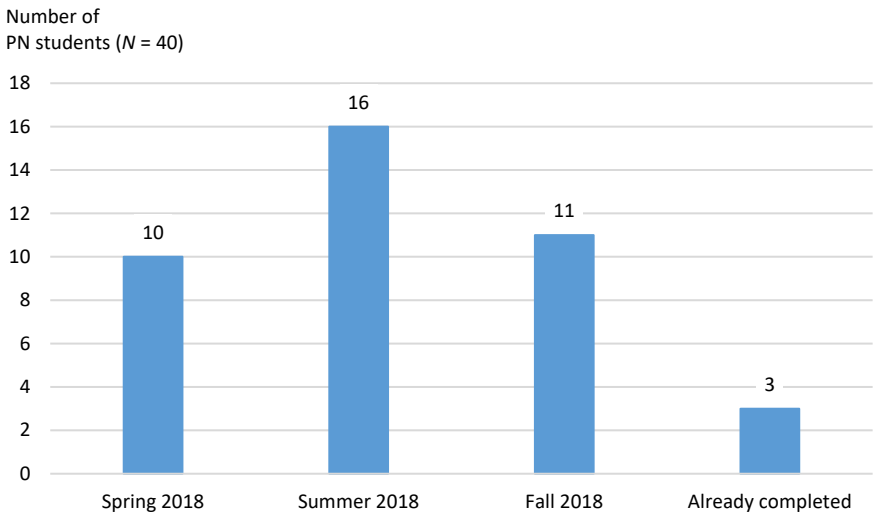
Chapter 1: Employment Outcomes

A key research objective was to determine if students impacted by HealthCARE Montana (HCMT) showed increased wages upon graduation of the program. RTI International was unable to access employment data from the Montana Department of Labor & Industry because it would not be available until 9 months from graduation. Instead, on exit surveys of students in spring 2018, RTI asked apprentices and Practical Nursing (PN), Associate of Science in Nursing (ASN), and Bachelor of Science in Nursing (BSN) students if they had secured employment after graduation and if that employment paid them a higher wage than the position they were in before starting the program.

PN employment outcomes

Three students who had taken the survey had already completed the program in spring 2018 when the survey was administered, and 37 additional students expected to complete the PN program in 2018 (Figure 14).

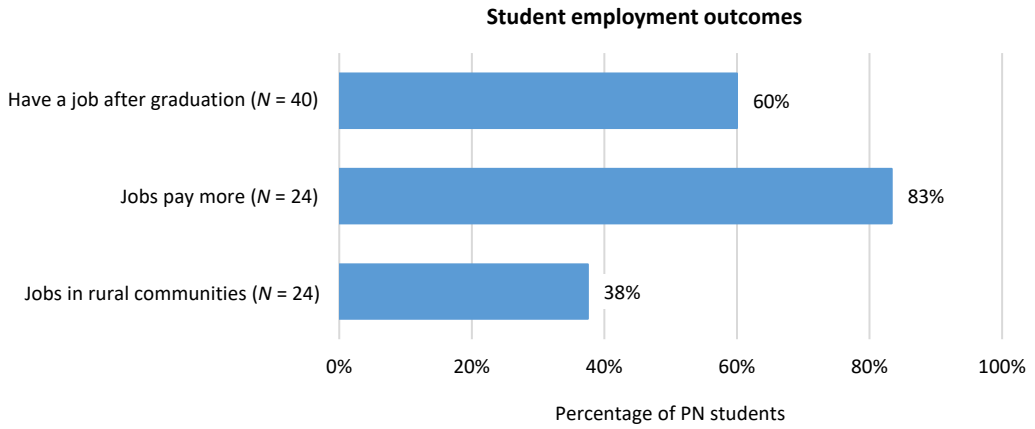
Figure 14. Students Will Complete the PN Program in 2018



NOTE: PN = Practical Nursing.

Sixty percent (24) of the 40 students who expected to complete the program by spring 2018 had jobs lined up after they graduated. Of those 24 students with jobs, 83% of them reported that their jobs will pay more than previous positions, and 38% noted that their positions were in rural communities (Figure 15).

Figure 15. PN Students' Employment Outcomes

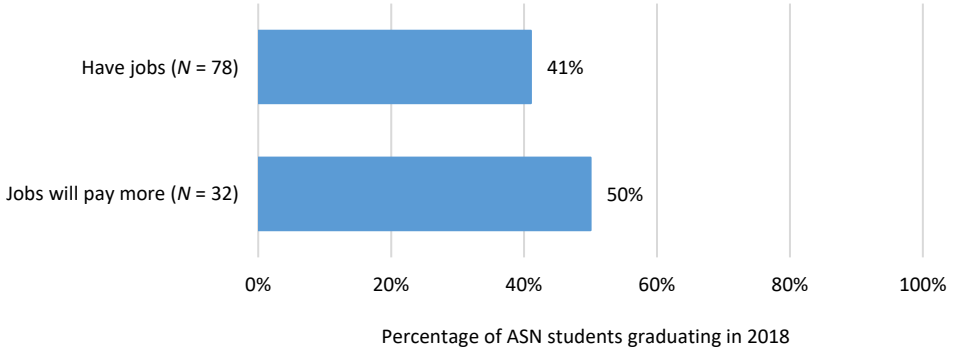


NOTE: PN = Practical Nursing.

ASN employment outcomes

Almost half of the 78 ASN students graduating in 2018 reported that they secured positions after graduation. Fifty percent of those students (n = 32) reported that their new positions will pay more than their previous positions (Figure 16).

Figure 16. Students Who Already Secured Jobs After They Graduate in 2018

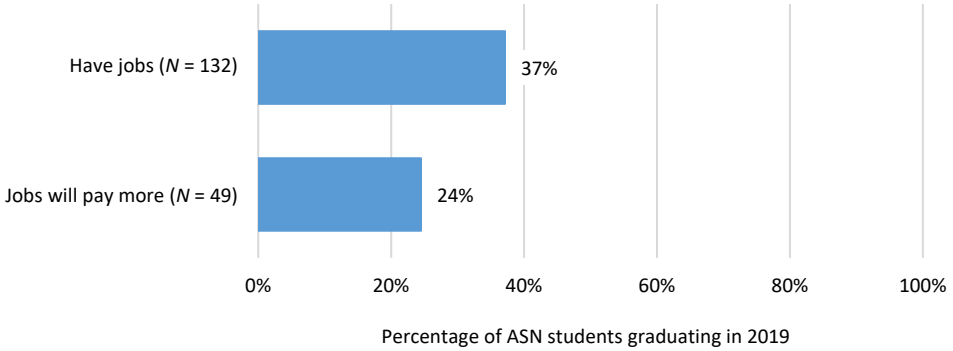


NOTE: ASN = Associate of Science in Nursing.

Only 37% of the 132 ASN students expected to graduate in 2019 reported that they had jobs lined up after graduation, which makes sense considering many just started the program. Of

those 49 students who said they had positions lined up, 24% said that their positions will pay more than positions they had prior to starting the ASN program (Figure 17).

Figure 17. Students Who Already Secured Jobs After They Graduate in 2019



NOTE: ASN = Associate of Science in Nursing.

Apprenticeship employment outcomes

Six apprentices completed a postapprenticeship survey and all reported that their wages would be higher after completion of the apprenticeship program (Table 23). Note that when employers and employees engaged in an apprenticeship, they signed an agreement which provided increased wages for apprentices who completed the apprenticeship, so the wage increase is built directly into the program.

Table 23. Percent of Apprentices Who Received a Higher Wage After Completion of the Apprenticeship

Apprenticeship wages	Percent yes
Were your wages higher after you completed your apprenticeship program compared with what you earned in your previous position OR before you started the apprenticeship?	100

Chapter 2: Student Outcomes

The 10 HCMT nontribal consortium colleges offered the PN, ASN, and BSN nursing programs, as well as 17 allied health programs in Certified Nursing Assistant (CNA), Respiratory Care, Phlebotomy Technician, Radiologic/Ultrasound Technician, Pharmacy Technician, Emergency Medical Technician (paramedic), Medical Assisting, Dental Assisting/Hygiene, Surgical Technology, Behavioral Health Aide/Technician, Medical Coding and Billing, Medical Administrative Assistant, Health Care Informatics/Technology, Health Care Office Management, Medical Lab Technician, Physical Therapy, and Allied Health.

Nursing programs at nontribal consortium colleges

Table 24 shows information for nursing program students at each of the colleges offering such programs, and Table 25 shows information aggregated across all the colleges. A total of 2,968 students declared nursing as their major, and there was a total of 3,121 nursing students, which includes students who declared nursing as their major, took nursing courses, or earned a nursing degree or certificate. City College and Missoula College (including Bitterroot College) had nearly 700 nursing students during the project period. Most of the nursing students were female (88.2%) and White (82%). The mean age was 28.9 years (range: 16–71 years), with 43.4% in the 18–25 age group and 34.8% in the 31 and older age group. Except for Flathead Valley Community College and Helena College, most of the nursing students were in the 18–25 age group. About 54% of the students were from rural areas, with a range from 48.1% to 58.2%. Great Falls College had the highest percentage (11.3%) of American Indian and Alaska Native/tribal students, and Flathead Valley had the lowest percentage (1.3%). Overall, 6.5% of all nursing students were American Indian or Alaska Native/tribal. About 3.5% of all students were veterans, with Great Falls College and Helena College having veteran percentages above 7%. The mean number of credits earned by all nursing students was 61.5 (range: 0–314).

Among the 698 students who earned a nursing degree during the period of this grant, 87.4% were female and 88.1% were White. Montana State University–Northern awarded the most nursing degrees (160) during the HCMT project, with City College, Missoula College (including Bitterroot College), and Helena College awarding more than 100 nursing degrees. The mean age was 31 (range: 19–69), with 31.9% of the students in the 18–25 age group and 42.1% in the 31 and older age group. For all seven colleges, most of the nursing degree earners were in the 31 and older age group. More than 55% of the nursing degree earners were from rural areas, and 3.6% were American Indian or Alaska Native/tribal. Great Falls College had the highest percentage of rural degree earners (73.3%) as well as the highest percentage of American Indian or Alaska Native/tribal earners (10%). Helena College had

the highest percentage (7.1%) of veterans, with an overall 3% of veterans for all seven colleges. The mean number of credits earned by these nursing students at the completion of their program was 107.8 (range: 3–281).

Table 24. HealthCARE Montana Colleges Offering Nursing Programs

	Miles Community College (*n*)	Miles Community College (%/range)	Flathead Community College Valley (*n*)	Flathead Valley Community College (%/range)	City College (*n*)	City College (%/range)	Great Falls College (*n*)	Great Falls College (%/range)	Montana State University—Northern (*n*)	Montana State University—Northern (%/range)	Missoula College (includes Bitterroot College) (*n*)	Missoula College (includes Bitterroot College) (%/range)	Helena College (*n*)	Helena College (%/range)
Declared nursing major	116		232		788		543		430		691		168	
Updated ASN program	62		34		84		56		43		87		43	
Updated PN program	0		19		30		27		4		2		9	
Former ASN program	4		41		61		35		60		62		79	
Former PN program	0		28		6		16		7		9		20	
Former PN/ASN program	0		15		53		34		43		46		43	
Updated BSN program	0		0		0		0		31		4		0	
Former BSN program	0		0		0		0		84		0		0	
Nursing students	***121***	**	***347***	**	***792***	**	***550***	**	***433***	**	***696***	**	***182***	**
Female	110	90.9%	298	86.9%	727	91.8%	495	90.0%	384	88.7%	585	84.1%	151	83.0%
Male	11	9.1%	45	13.1%	65	8.2%	55	10.0%	49	11.3%	111	15.9%	31	17.0%
Age 15–17	0	0.0%	0	0.0%	2	0.3%	0	0.0%	0	0.0%	1	0.1%	0	0.0%
Age 18–25	44	36.4%	120	34.6%	370	46.7%	246	44.7%	203	46.9%	322	46.3%	51	28.0%
Age 26–30	39	32.2%	77	22.2%	170	21.5%	120	21.8%	79	18.2%	147	21.1%	44	24.2%
Age 31 and older	38	31.4%	150	43.2%	250	31.6%	184	33.5%	151	34.9%	226	32.5%	87	47.8%
American Indian or Alaska Native/Tribal	4	3.3%	5	1.4%	59	7.4%	62	11.3%	35	8.1%	31	4.5%	7	3.8%
Asian	0	0.0%	6	1.7%	4	0.5%	3	0.5%	3	0.7%	4	0.6%	0	0.0%
Black or African American	2	1.7%	2	0.6%	15	1.9%	14	2.5%	2	0.5%	4	0.6%	0	0.0%
Hispanic	5	4.1%	4	1.2%	42	5.3%	40	7.3%	23	5.3%	33	4.7%	5	2.7%
Multiracial	4	3.3%	0	0.0%	11	1.4%	5	0.9%	7	1.6%	8	1.1%	1	0.5%
Native Hawaiian or other	1	0.8%	0	0.0%	0	0.0%	0	0.0%	1	0.2%	0	0.0%	0	0.0%
No response/other unknown/ nonresident alien	0	0.0%	32	9.2%	9	1.1%	10	1.8%	5	1.2%	43	6.2%	12	6.6%
White	105	86.8%	298	85.9%	652	82.3%	416	75.6%	357	82.4%	573	82.3%	157	86.3%
Rural	69	57.0%	167	48.1%	439	55.4%	314	57.1%	210	48.5%	374	53.7%	106	58.2%
Veteran	0	0.0%	17	4.9%	10	1.3%	43	7.8%	2	0.5%	25	3.6%	13	7.1%
Mean age	29.0	19-59	30.7	18-62	28.3	16-71	28.5	18-65	28.9	18-60	28.3	16-65	31.3	18-69
Mean total credits	79.5	28-157	9.1	3--18	53.4	0-243.5	49.6	0-180	92	0-314	78.1	0-281	85.7	3--170

Table 24. HealthCARE Montana Colleges Offering Nursing Programs—Continued

	Miles Community College (*n*)	Miles Community College (%/range)	Flathead Community College Valley (*n*)	Flathead Valley Community College (%/range)	City College (*n*)	City College (%/range)	Great Falls College (*n*)	Great Falls College (%/range)	Montana State University—Northern (*n*)	Montana State University—Northern (%/range)	Missoula College (includes Bitterroot College) (*n*)	Missoula College (includes Bitterroot College) (%/range)	Helena College (*n*)	Helena College (%/range)
Awarded nursing degree	***78***	**	***55***	**	***119***	**	***60***	**	***160***	**	***114***	**	***112***	**
Updated nursing program	20	25.6%	13	23.6%	3	2.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Former nursing program	58	74.4%	42	76.4%	116	97.5%	60	100.0%	160	100.0%	114	100.0%	112	100.0%
Female	73	93.6%	46	83.6%	109	91.6%	57	95.0%	140	87.5%	94	82.5%	91	81.3%
Male	5	6.4%	9	16.4%	10	8.4%	3	5.0%	20	12.5%	20	17.5%	21	18.8%
Age 15–17	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Age 18–25	27	34.6%	11	20.0%	41	34.5%	22	36.7%	52	32.5%	37	32.5%	33	29.5%
Age 26–30	23	29.5%	10	18.2%	32	26.9%	15	25.0%	45	28.1%	28	24.6%	28	25.0%
Age 31 and older	28	35.9%	34	61.8%	46	38.7%	23	38.3%	63	39.4%	49	43.0%	51	45.5%
American Indian or Alaska Native	2	2.6%	0	0.0%	3	2.5%	6	10.0%	5	3.1%	4	3.5%	5	4.5%
Asian	0	0.0%	2	3.6%	1	0.8%	1	1.7%	1	0.6%	1	0.9%	0	0.0%
Black or African American	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Hispanic	3	3.8%	0	0.0%	6	5.0%	6	10.0%	2	1.3%	3	2.6%	3	2.7%
Multiracial	3	3.8%	0	0.0%	1	0.8%	0	0.0%	2	1.3%	0	0.0%	0	0.0%
Native Hawaiian or other	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
No response/other unknown	0	0.0%	5	9.1%	2	1.7%	1	1.7%	2	1.3%	4	3.5%	9	8.0%
White	70	89.7%	48	87.3%	106	89.1%	46	76.7%	148	92.5%	102	89.5%	95	84.8%
Rural	45	57.7%	30	54.5%	74	62.2%	44	73.3%	70	43.8%	63	55.3%	61	54.5%
Veteran	0	0.0%	3	5.5%	1	0.8%	2	3.3%	2	1.3%	5	4.4%	8	7.1%
Mean age	30.1	20-59	35.7	21-62	29.6	19-51	30.5	20-65	31	20-60	30.5	19-60	31.4	20-69
Mean total credits	87.5	72-157	11.0	3--18	108	15-241.5	102	53-180	140.6	58-276	137.4	60-281	95.8	8-170

Table 25. HealthCARE Montana (HCMT) Nursing Programs, Aggregated

	All 10 HCMT colleges (*n*)	All 10 HCMT colleges (%/range)
Declared nursing major	2968	
Updated ASN program	409	
Updated PN program	91	
Former ASN program	342	
Former PN program	86	
Former PN/ASN program	234	
Updated BSN program	35	
Former BSN program	84	
Nursing students	***3121***	*** ** ***
Female	2750	88.2%
Male	367	11.8%
Age 15–17	3	0.1%
Age 18–25	1356	43.4%
Age 26–30	676	21.7%
Age 31 and older	1086	34.8%
American Indian or Alaska Native/tribal	203	6.5%
Asian	20	0.6%
Black or African American	39	1.2%
Hispanic	152	4.9%
Multiracial	36	1.2%
Native Hawaiian or other	2	0.1%
No response/other unknown/nonresident alien	111	3.6%
White	2558	82.0%
Rural	1679	53.8%
Veteran	110	3.5%
Mean age	28.9	16-71
Mean total credits	61.5	0-314
Awarded nursing degree	***698***	*** ** ***
Updated nursing Program	36	
Former nursing Program	662	
Female	610	87.4%
Male	88	12.6%
Age 15–17	0	0.0%
Age 18–25	223	31.9%
Age 26–30	181	25.9%
Age 31 and older	294	42.1%
American Indian or Alaska Native/tribal	25	3.6%
Asian	6	0.9%
Black or African American	0	0.0%
Hispanic	23	3.3%
Multiracial	6	0.9%
Native Hawaiian or other	0	0.0%
No response/other unknown	23	3.3%
White	615	88.1%
Rural	387	55.4%
Veteran	21	3.0%
Mean age	31.0	19-69
Mean total credits	107.8	3—281

Allied Health programs at nontribal consortium colleges

Table 26 shows information for allied health program students at each of the colleges offering such programs, and Table 27 shows information aggregated across all the colleges. A total of 4,575 students took allied health courses, 3,085 declared an allied health program as a major, and 835 earned an allied health degree or certificate during the period of this grant. Overall, there were 5,256 allied health students, most of whom were female (80.2%) and White (81.4%). Great Falls College and Missoula College (including Bitterroot College) had the highest number of allied health students. The mean age of all allied health students was 28.2 (range: 16–71), with 51.5% in the 18–25 age group and 30.4% in the 31 and older age group. For all nine allied health colleges, most of the students were in the 18–25 age group. More than half (57.7%) of the allied health students were from rural areas, with a range from 50.2% to 62.8%. Overall, 6.7% were American Indian or Alaska Native/tribal. Helena College had the highest percentage of American Indian or Alaska Native/tribal students, followed closely by Great Falls College and Montana State University–Northern. About 5.5% of allied health students were veterans, with the most veterans being served at Great Falls College (8.3%) and Helena College (8.7%). The mean number of credits earned by these students was 44.7 (range: 0–277.3).

Among the 835 students who earned an allied health certificate or degree during the period of this grant, 84.4% of them were female and 85.4% were White. Great Falls College awarded the most (308) allied health degrees and certificates among the nine HCMT colleges. The mean age was 30.8 (range: 18–62), with 40.7% in the 18–25 age group and 39.2% in the 31 and older age group. On average, almost 60% of the degree/certificate earners were from rural areas, with the highest percentage (72.3%) being from Missoula College (including Bitterroot College). Overall, 5% of the allied health degree/certificate earners were American Indian or Alaska Native/tribal, and Helena College had the highest percentage of American Indian or Alaska Native/tribal students (16.7%). Almost 5% were veterans, with Flathead Valley Community College serving the highest percentage of veterans (8.4%). The mean number of credits earned by these students at the completion of their program was 77.9 (range: 1–256).

Table 26. HealthCARE Montana 10 Allied Health Programs, by College

	Miles Community College (*n*)	Miles Community College (%/range)	Flathead Valley Community College (*n*)	Flathead Valley Community College (%/range)	City College (*n*)	City College (%/range)	Great Falls College (*n*)	Great Falls College (%/range)	Montana State University–Northern (*n*)	Montana State University–Northern (%/range)	Missoula College (includes Bitterroot College) (*n*)	Missoula College (includes Bitterroot College) (%/range)	Helena College (*n*)	Helena College (%/range)	Gallatin College (*n*)	Gallatin College (%/range)	Highlands College (*n*)	Highlands College (%/range)	University of Montana Western (*n*)	University of Montana Western (%/range)
Allied health courses	128		752		561		1323		72		1055		167		172		345		0	
Declared allied health major	214		207		533		1035		0		708		22		128		238		0	
Allied health degree	5		131		77		308		2		173		18		56		65		0	
Allied health students	***267***	**	***801***	**	***761***	**	***1482***	**	***72***	**	***1154***	**	***173***	**	***177***	**	***369***	**	***0***	**
Female	235	88.0%	568	71.6%	607	79.8%	1216	82.1%	41	56.9%	924	80.1%	149	86.1%	157	88.7%	311	84.3%		
Male	32	12.0%	225	28.4%	154	20.2%	266	17.9%	31	43.1%	230	19.9%	24	13.9%	20	11.3%	58	15.7%		
Age 15–17	3	1.1%	7	0.9%	0	0.0%	1	0.1%	0	0.0%	5	0.4%	0	0.0%	1	0.6%	0	0.0%		
Age 18–25	149	55.8%	366	45.7%	463	60.8%	643	43.4%	51	70.8%	615	53.3%	85	49.1%	106	59.9%	229	62.1%		
Age 26–30	51	19.1%	135	16.9%	121	15.9%	316	21.3%	9	12.5%	200	17.3%	25	14.5%	21	11.9%	56	15.2%		
Age 31 and older	64	24.0%	293	36.6%	177	23.3%	522	35.2%	12	16.7%	334	28.9%	63	36.4%	49	27.7%	84	22.8%		
American Indian or Alaska Native/ tribal	13	4.9%	25	3.1%	58	7.6%	138	9.3%	7	9.7%	74	6.4%	18	10.4%	11	6.2%	9	2.4%		
Asian	0	0.0%	8	1.0%	4	0.5%	9	0.6%	0	0.0%	18	1.6%	1	0.6%	1	0.6%	5	1.4%		
Black or African American	5	1.9%	8	1.0%	13	1.7%	31	2.1%	3	4.2%	15	1.3%	2	1.2%	3	1.7%	1	0.3%		
Hispanic	15	5.6%	10	1.2%	41	5.4%	75	5.1%	6	8.3%	49	4.2%	4	2.3%	7	4.0%	6	1.6%		
Multiracial	1	0.4%	0	0.0%	5	0.7%	20	1.3%	3	4.2%	15	1.3%	0	0.0%	2	1.1%	0	0.0%		
Native Hawaiian or other	5	1.9%	2	0.2%	1	0.1%	2	0.1%	1	1.4%	3	0.3%	0	0.0%	0	0.0%	0	0.0%		
No response/other unknown/ nonresident alien	3	1.1%	89	11.1%	10	1.3%	23	1.6%	2	2.8%	58	5.0%	14	8.1%	3	1.7%	21	5.7%		
White	225	84.3%	659	82.3%	629	82.7%	1184	79.9%	50	69.4%	922	79.9%	134	77.5%	150	84.7%	327	88.6%		
Rural	134	50.2%	417	52.1%	474	62.3%	833	56.2%	40	55.6%	707	61.3%	102	59.0%	92	52.0%	232	62.9%		
Veteran	0	0.0%	56	7.0%	27	3.5%	123	8.3%	0	0.0%	48	4.2%	15	8.7%	7	4.0%	15	4.1%		
Mean age	26.6	16-59	30.1	16-65	26.4	18-71	29.4	17-67	24.8	18-54	27.7	16-63	28.3	18-54	28.3	17-61	26.9	18-64		
Mean total credits	31.9	0-117	9.5	1--24	44.1	0-237.3	49.8	0-256	59.6	0-161	62	0-277.3	46.2	0-169	54.8	0-200	49.1	0-200		

Table 26. HealthCARE Montana 10 Allied Health Programs, by College—Continued

	Miles Community College (*n*)	Miles Community College (%/range)	Flathead Valley Community College (*n*)	Flathead Valley Community College (%/range)	City College (*n*)	City College (%/range)	Great Falls College (*n*)	Great Falls College (%/range)	Montana State University–Northern (*n*)	Montana State University–Northern (%/range)	Missoula College (includes Bitterroot College) (*n*)	Missoula College (includes Bitterroot College) (%/range)	Helena College (*n*)	Helena College (%/range)	Gallatin College (*n*)	Gallatin College (%/range)	Highlands College (*n*)	Highlands College (%/range)	University of Montana Western (*n*)	University of Montana Western (%/range)
Awarded allied degree	5	**	131	**	77	**	308	**	2	**	173	**	18	**	56	**	65	**	0	**
Female	5	100.0%	97	75.8%	60	77.9%	269	87.3%	0	0.0%	145	83.8%	15	83.3%	54	96.4%	57	87.7%		
Male	0	0.0%	31	24.2%	17	22.1%	39	12.7%	2	100.0%	28	16.2%	3	16.7%	2	3.6%	8	12.3%		
Age 15–17	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%		
Age 18–25	1	20.0%	46	35.1%	36	46.8%	106	34.4%	0	0.0%	87	50.3%	6	33.3%	25	44.6%	33	50.8%		
Age 26–30	2	40.0%	24	18.3%	15	19.5%	71	23.1%	1	50.0%	29	16.8%	5	27.8%	9	16.1%	12	18.5%		
Age 31 and older	2	40.0%	61	46.6%	26	33.8%	131	42.5%	1	50.0%	57	32.9%	7	38.9%	22	39.3%	20	30.8%		
American Indian or Alaska Native/ Tribal	0	0.0%	0	0.0%	6	7.8%	18	5.8%	0	0.0%	9	5.2%	3	16.7%	5	8.9%	1	1.5%		
Asian	0	0.0%	3	2.3%	0	0.0%	2	0.6%	0	0.0%	3	1.7%	0	0.0%	0	0.0%	1	1.5%		
Black or African American	0	0.0%	1	0.8%	0	0.0%	4	1.3%	0	0.0%	2	1.2%	0	0.0%	0	0.0%	0	0.0%		
Hispanic	0	0.0%	2	1.5%	2	2.6%	13	4.2%	1	50.0%	3	1.7%	1	5.6%	2	3.6%	0	0.0%		
Multiracial	0	0.0%	0	0.0%	0	0.0%	3	1.0%	0	0.0%	1	0.6%	0	0.0%	1	1.8%	0	0.0%		
Native Hawaiian or other	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%		
No response/other unknown	1	20.0%	15	11.5%	2	2.6%	4	1.3%	0	0.0%	9	5.2%	1	5.6%	1	1.8%	2	3.1%		
White	4	80.0%	110	84.0%	67	87.0%	264	85.7%	1	50.0%	146	84.4%	13	72.2%	47	83.9%	61	93.8%		
Rural	3	60.0%	64	48.9%	42	54.5%	184	59.7%	1	50.0%	125	72.3%	10	55.6%	31	55.4%	30	46.2%		
Veteran	0	0.0%	11	8.4%	0	0.0%	19	6.2%	0	0.0%	7	4.0%	1	5.6%	1	1.8%	0	0.0%		
Mean age	33.4	22-57	32.1	18-58	29.1	21-62	31.9	19-59	29.5	26-33	28.7	19-59	30.3	20-48	31.3	19-61	29.9	19-59		
Mean total credits	35.0	29-43	11.0	1--20	94.3	3-237.3	86.1	6-256	95.5	49-142	107.7	7--253	65.6	11--100	69.3	29-200	88.3	7-200		

Table 27. HealthCARE Montana (HCMT) Colleges Allied Health Programs

	All 10 HCMT colleges (*n*)	All 10 HCMT colleges (%/range)
Allied health courses	4575	
Declared allied health major	3085	
Allied health degree	835	
Allied health students	***5256***	*** ** ***
Female	4208	80.2%
Male	1040	19.8%
Age 15–17	17	0.3%
Age 18–25	2707	51.5%
Age 26–30	934	17.8%
Age 31 and older	1598	30.4%
American Indian or Alaska Native	353	6.7%
Asian	46	0.9%
Black or African American	81	1.5%
Hispanic	213	4.1%
Multiracial	46	0.9%
Native Hawaiian or other	14	0.3%
No response/other unknown/nonresident alien	223	4.2%
White	4280	81.4%
Rural	3031	57.7%
Veteran	291	5.5%
Mean age	28.2	16-71
Mean total credits	44.7	0-277.3
Awarded allied degree	***835***	*** ** ***
Female	702	84.4%
Male	130	15.6%
Age 15–17	0	0.0%
Age 18–25	340	40.7%
Age 26–30	168	20.1%
Age 31 and older	327	39.2%
American Indian or Alaska Native	42	5.0%
Asian	9	1.1%
Black or African American	7	0.8%
Hispanic	24	2.9%
Multiracial	5	0.6%
Native Hawaiian or other	0	0.0%
No response/other unknown	35	4.2%
White	713	85.4%
Rural	490	58.7%
Veteran	39	4.7%
Mean age	30.8	18-62
Mean total credits	77.9	1-256

Tribal consortium colleges

The four HCMT tribal college datasets contained information on 529 students with enrollment dates ranging from fall 2001 to spring 2018. Most of the students were female (83.7%) and American Indian or Alaska Native/tribal (71.7%). The mean age of all students was 32.9 (range: 18–74), and about 50% of the students were age 31 or older. Almost 4% of the students were veterans. There were 240 students (45.4%) in nursing programs, 249 students (47.1%) in allied health programs, and 40 students (7.6%) in other programs. The overall mean number of credits completed was 48.4 (range: 0–234 credits). A total of 149 students (28.2%) completed their program, and among these completers, only 22.8% indicated that they planned to pursue further education. Table 28 shows information for students at each of the colleges as well as aggregated across all the colleges.

Table 28. HealthCARE Montana Tribal Data

	Blackfeet Community College (*n*)	Blackfeet Community College (%/range)	Chief Dull Knife College (*n*)	Chief Dull Knife College (%/range)	Salish Kootenai College (*n*)	Salish Kootenai College (%/range)	Stone Child College (*n*)	Stone Child College (%/range)	All four tribal colleges (*n*)	All four tribal colleges (%/range)
Total students	**94**	**	**29**	**	**264**	**	**142**	**	**529**	**
Female	83	**88.3%**	17	**58.6%**	224	**84.8%**	118	**83.7%**	442	**83.7%**
Male	11	**11.7%**	12	**41.4%**	40	**15.2%**	23	**16.3%**	86	**16.3%**
Mean Age	**34.6**	**20-64**	**40.5**	**18-68**	**30.6**	**18-63**	**34.9**	**18--74**	**33**	**19--74**
Age 18–25	14	**15.2%**	8	**27.6%**	95	**36.0%**	41	**28.9%**	158	**30.0%**
Age 26–30	23	**25.0%**	1	**3.4%**	53	**20.1%**	27	**19.0%**	104	**19.7%**
Age 31 and older	55	**59.8%**	20	**69.0%**	116	**43.9%**	74	**52.1%**	265	**50.3%**
American Indian or Alaska Native (1)	80	**86.0%**	26	**89.7%**	137	**52.3%**	134	**94.4%**	377	**71.7%**
Asian (2)	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Black or African American (3)	0	0.0%	0	0.0%	3	1.1%	0	0.0%	3	0.6%
Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Multiracial (6)	0	0.0%	0	0.0%	14	5.3%	4	2.8%	18	3.4%
Native Hawaiian or other (4)	0	0.0%	0	0.0%	2	0.8%	0	0.0%	2	0.4%
No response/other unknown/nonresident alien	0	0.0%	0	0.0%	0	0.0%	1	0.7%	1	0.2%
White (5)	13	14.0%	3	10.3%	106	**40.5%**	3	2.1%	125	23.8%
Veteran	0	0.0%	0	0.0%	14	**5.3%**	6	**4.2%**	20	**3.8%**
Program: Nursing	66	70.2%	20	69.0%	163	61.7%	11	7.7%	240	45.4%
Program: Allied Health	28	29.8%	0	0.0%	101	38.3%	100	70.4%	249	47.1%
Program: Other	0	0.0%	9	31.0%	0	0.0%	31	21.8%	40	7.6%
Completed program: Yes	43	45.7%	1	3.4%	54	20.5%	51	35.9%	149	28.2%
Completed program: No	51	54.3%	28	96.6%	210	79.5%	91	64.1%	380	71.8%
Mean credits completed	91.8	7--234	13.1	3--28	48.3	0-180	25.4	2--149	48.4	0-234
Pursue further education: Yes	7	16.3%	0	0.0%	14	25.9%	13	25.5%	34	22.8%
Pursue further education: No	36	83.7%	1	100.0%	40	74.1%	38	74.5%	115	77.2%
Enrollment data from	Fall 2013		Spring 2016		Fall 2002		**Fall 2001**		Fall 2001	
Enrollment data to	**Spring 2018**		Summer 2017		Fall 2017		Fall 2017		Spring 2018	

Chapter 3: Rural Impact

Programs are serving rural students

About 54% of the 2,968 nursing students at nontribal colleges were from rural areas, with a range from 48.1% to 58.2% at each college. More than half (57.7%) of the 4,575 allied health students at nontribal colleges were from rural areas, with a range from 50.2% to 62.8% at each college.

Distance format program is meeting rural students' needs

Two colleges implemented the PN program through distance delivery. In the 2016–2017 school years, both Great Falls College and City College implemented the program using distance delivery. During that year, five students indicated that they lived at least 100 miles from campus (Table 29). Three of the five distance rural students expressed that one of the reasons they chose the online program was because it allowed them to stay in their community. One student elaborated, "[I liked] the distance online part and doing my clinical near my home. It made it much easier to accomplish." Another student mentioned the ability to work in the rural community as a positive aspect of the PN program: "I like that the program offers quality nursing education while being able to reach students in rural communities whose communities are in need of trained nurses."

Table 29. Number of Rural PN Students in 2016–2017

College	Number of students		
	Distance rural	Distance not rural	Face-to-face
Great Falls	4	0	12
City College	1	7	0
Total	5	7	18

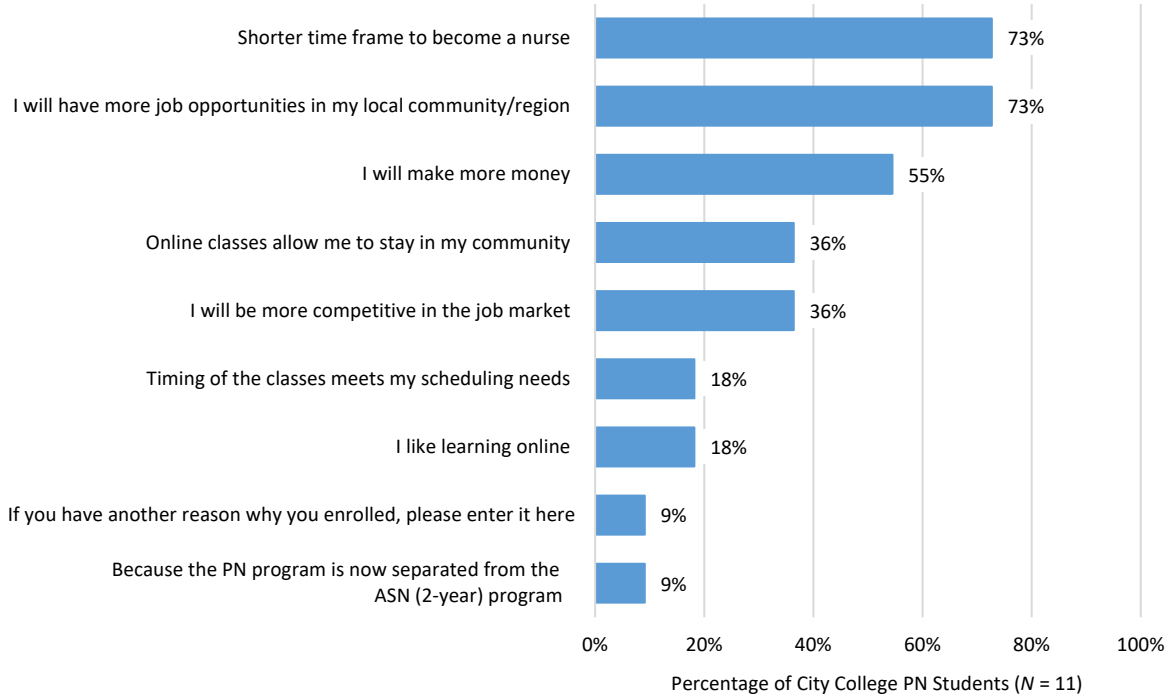
NOTE: PN = Practical Nursing.

In 2017–2018, only City College implemented the PN program using distance delivery. Fifty-five percent (N = 11) of those students enrolled in the distance program lived more than 100 miles from the community where their program was located. Three of these students lived 200 miles from the City College campus.

Thirty-six percent of students selected "online classes allow me to stay in my community" as one reason for choosing the PN program (Figure 18). In responses to open-ended survey questions, four students from City College mentioned that they appreciated the online format. One student explained, "I am beyond grateful that I am able to do my school work online. I have a small place in the middle of nowhere and would not be able to move to the

city for the duration of a semester. This way of learning is a little more difficult for me, but I appreciate that this option is available."

Figure 18. City College Students' Reasons for Selecting the Distance PN Program



NOTE: ASN = Associate of Science in Nursing; PN = Practical Nursing.

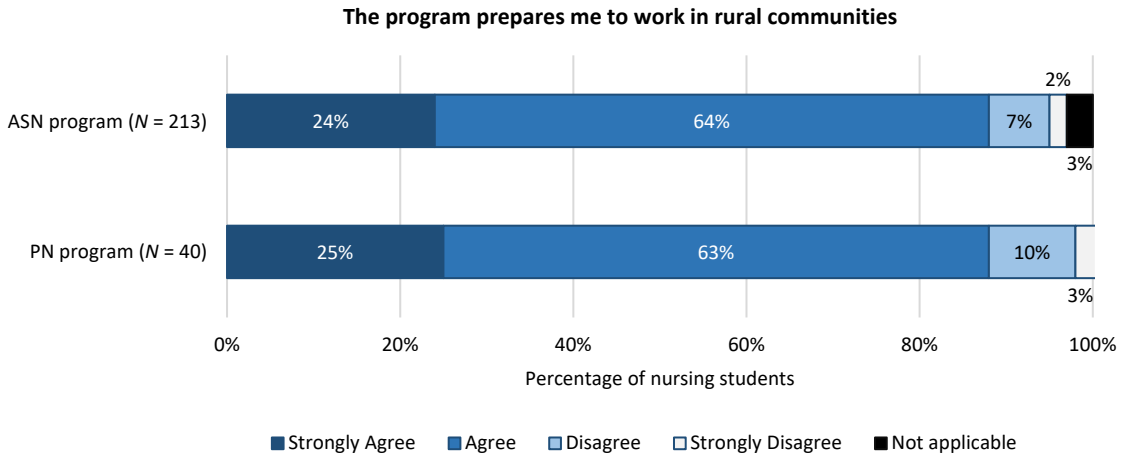
Students at Miles Community College have the option to complete the ASN program using distance delivery. Forty-five percent of Miles Community College students chose the ASN program because it was online and they could stay in their communities. When asked which aspects of the program they liked, eight Miles Community College students also mentioned the online component. One student noted, "I like that they offer distance learning for those outside of the area."

The nursing programs prepare students to work in rural communities

In the spring 2018 student survey, PN, ASN, BSN, and apprentices were asked if they had felt prepared to work in rural communities.

Most students in the PN (88%) and ASN (88%) programs reported they felt that the program prepared them to work in rural communities (Figure 19).

Figure 19. Preparation for Rural Communities



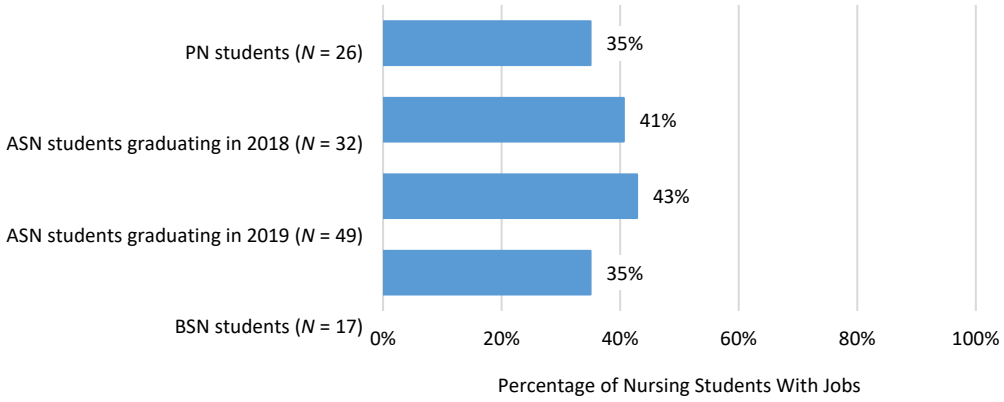
NOTE: ASN = Associate of Science in Nursing; PN = Practical Nursing.

Many nursing programs plan to work in rural communities

In the spring 2018 student survey, PN, ASN, and BSN were asked if they planned to work in rural communities.

About 40% of students who reported they had jobs lined up after graduation indicated that their nursing positions will be in rural communities (Figure 20). This includes 35% of PN students, 41% of ASN students graduating in 2018, 43% of ASN students graduating in 2019, and 35% pf BSN students. These data suggest that HCMT nursing programs are contributing to growing the nursing workforce in rural areas, especially rural employers' Licensed Practical Nurse needs.

Figure 20. Percentage of Students With Jobs in Rural Communities



NOTE: ASN = Associate of Science in Nursing; BSN = Bachelor of Science in Nursing; PN = Practical Nursing.

Appendix A: Student Surveys

Spring 2018 Practical Nursing and Associate of Science in Nursing Survey

Members of the evaluation team administered an online survey to Practical Nursing, Associate of Science in Nursing, and Bachelor of Science in Nursing students. RTI International and HealthCARE Montana (HCMT) jointly developed a series of questions that asked about students' experiences in the program. The purpose of the survey was to collect student feedback to inform program improvement. The online survey was administered to students from March 2018 to May 2018. Tables A-1 and A-2 show PN, ASN, and BSN student response rates.

Table A-1. PN and ASN Survey Response Rates

College	PN total surveys completed	PN response rates	ASN total surveys completed	ASN response rates
Blackfeet Community College	N/A	N/A	10	100%
City College	10	71%	31	71%
Flathead Valley Community College	13	100%	21	71%
Great Falls College	9	(64% combined with ASN)	36	(64% combined with PN)
Helena College	8	100%	20	42%
Miles Community College	N/A	N/A	29	69%
Missoula College	N/A	N/A	47	75%
Montana State University–Northern	N/A	N/A	19	47%
Total	**40**		**213**	

NOTE: ASN = Associate of Science in Nursing; PN = Practical Nursing.

Table A-2. BSN survey response rates

College	BSN total surveys completed	BSN response rates
Montana State University–Billings	14	70%
Montana State University–Northern	9	34%
Total	**23**	

NOTE: BSN = Bachelor of Science in Nursing.

Spring 2018 Apprenticeship Survey

HCMT staff developed evaluation surveys for apprentices (including those who cancelled or left the program) and employer mentors and administrators. These surveys helped assess satisfaction and/or whether certain programs need to be redesigned/restructured or need additional support.

Of the 33 apprentices, RTI was unable to contact 13 because their phone numbers were either wrong or the voicemail was full so no message could be left. RTI left voicemail messages for the remaining apprentices (or emails to those whose numbers did not work). Surveys were completed by six apprentices and 13 employer administrators/mentors. Eight of the employers also participated in more in-depth interviews.

Appendix B: Core Health Care Competencies

Core Academic Foundation Competencies

Written Communication

1. Use writing as a means of engaging in critical inquiry by exploring ideas, challenging assumptions, and reflecting on and applying the writing process.
2. Organize ideas logically to accurately convey meaning.
3. Use proper syntax, grammar, punctuation, and spelling.
4. Construct and effectively use professional documents with appropriate vocabulary and formats, e.g., letters, memos, e-mails, resumes, etc.
5. Use several unique sources to gather information applicable to the student's program of study.
6. Give and receive constructive feedback on writing.

Mathematics with Healthcare Applications

1. Perform basic math operations (addition, subtraction, multiplication, and division).
2. Demonstrate the use of 24-hour clock/military time.
3. Use the fundamental units of the metric system (SI), household (English) units, and the apothecary system (including volume, height, weight/mass, and temperature) in making measurements and doing calculations.
4. Perform operations using averages, ratios, decimals, fractions, and percentages.
5. Interpret diagrams, graphs, charts, and tables.
6. Interpret data reported as range, standard deviation, and percentiles.
7. Use dimensional analysis to convert units of measurement and solve problems.
8. Solve basic algebraic equations.
9. Use technology to perform calculations.

Sciences - Human Anatomy and Physiology

1. Identify levels of organization and interrelationships within the human body (chemical, cellular, tissue, organs, systems, and organism).
2. Identify body planes, directional terms, cavities, and quadrants.
    a. Body planes (sagittal, mid-sagittal, coronal/frontal, transverse/horizontal)
    b. Directional terms (superior, inferior, anterior/ventral, posterior/dorsal, medial, lateral, proximal, distal, superficial, and deep)
    c. Cavities (dorsal, cranial, spinal, thoracic, abdominal, and pelvic)

   d. Quadrants (upper right, lower right, upper left, and lower left)

3. Describe the basic human anatomy and normal physiology of the human body:
   a. Skeletal (bone anatomy, axial and appendicular skeletal bones, functions of bones, ligaments, types of joints)
   b. Muscular (microscopic anatomy of muscle tissue, types of muscle, locations of skeletal muscles, functions of muscles, tendons, directional movements)
   c. Integumentary (layers, structures and functions of skin)
   d. Cardiovascular (components of blood, structures and functions of blood components, structures and functions of the cardiovascular system, conduction system of the heart, cardiac cycle)
   e. Lymphatic (structures and functions of lymphatic system, movement of lymph fluid)
   f. Respiratory (structures and functions of respiratory system, physiology of respiration)
   g. Nervous (structures and functions of nervous tissue and system, organization of nervous system)
   h. Special senses (structures and functions of eye, ear, nose and tongue; identify senses for sight, hearing, smell, taste, touch)
   i. Endocrine (endocrine versus exocrine, structures and functions of endocrine system, hormones, regulation of hormones)
   j. Digestive (structures and functions of gastrointestinal tract, chemical and mechanical digestion, structures and functions of accessory organs)
   k. Urinary (structures and functions of urinary system, gross and microscopic anatomy, process of urine formation, urine composition, homeostatic balance)
   l. Reproductive (structures and functions of male and female reproductive systems, formation of gametes, hormone production and effects, menstrual cycle, and conception)
4. Recognize the symptoms and etiologies of common diseases.

Medical Terminology

1. Identify, pronounce, spell, define, correctly combine, and use word elements (roots, prefixes, suffixes and combining forms). Includes:
   a. Body systems
   b. Anatomy and Physiology
   c. Pathology
   d. Surgical Procedures
   e. Diagnostic procedures
2. Interpret medical abbreviations to communicate information.
   a. Common abbreviations and acronyms
   b. Joint Commission official "Do Not Use List"
3. Identify various body directional and body "landmark" terms.
4. Use available resources (medical dictionary, online references, text CDROM) to seek and verify information.

Computer Literacy

1. Identify basic software and hardware components of a computer system.
2. Perform basic functions of constructing and responding to emails.
3. Demonstrate basic computer troubleshooting procedures such as, restart, check power supply, refresh browser, and check settings.
4. Demonstrate the use of file organization and information storage.
5. Demonstrate basic skills in word processing, spreadsheet, and database applications.
6. Open, edit, change, and manage documents in a variety of formats (Word, PDF, Excel, etc.).
7. Access and use the school's learning management system such as D2L and Blackboard – including drop boxes, discussion boards, online quizzing and/or testing.
8. Perform online literature/research search and how to recognize legitimate, research and science-based websites.

Core Health Care Competencies

Oral Communication

1. Communicate in the workplace using appropriate and congruent verbal and nonverbal skills.
2. Demonstrate appropriate professional communication, such as positive attitude, manners, etiquette, and skills to manage conflict.
3. Demonstrate use of diverse methods of communication when verbal and nonverbal barriers are present.
4. Listen actively in a variety of situations and speak effectively about their ideas.
5. Tailor communication, including presentations, to the level and experience of the audience.
6. Use oral communication as a means to engage in critical inquiry by exploring ideas, challenging assumptions, and reflecting on and applying the oral communications process.

Health Worker Behavior and Attitudes

1. Describe professional standards as they apply to hygiene, dress, language, civility, and confidentiality.
2. Identify professional traits, attitudes, and behaviors desirable as a member of the career ready health care team including being engaged and showing initiative (being loyal) and discretion; being punctual, prompt, and prepared; providing competent care within scope of practice; being responsible, dependable, and accountable; being self-motivated, enthusiastic, and having a positive attitude; being flexible and tactful; and, willing to learn and accept criticism.
3. Demonstrate empathetic patient-centered care that shows respect for diversity and results in excellent customer service, quality care, and patient satisfaction.
4. Demonstrate interpersonal skills of understanding, empathy, and behavioral flexibility needed to interact effectively with diverse people in a variety of work situations.
5. Describe the characteristics and responsibilities of interdisciplinary teamwork, team member roles, diversity, and managing team conflict.

6. Demonstrate proper communication etiquette when using various mediums, such as office phone, cellphone, texting, social media, face-to-face, and computer.
7. Recognize health and wellness behaviors in self and others.

Healthcare Delivery Systems

1. Compare different types of health care delivery systems such as non-profit, profit, rural, and urban.
2. Describe the roles of consumers within the health care system including self-advocacy, patient adherence, and patient provider relationship.
3. Explain the effect of emerging issues on health care delivery systems.
4. Identify how various government regulations, health care economics, and payment methodologies affect health care delivery.
5. Identify the key health industry career clusters such as diagnostic, therapeutic and complementary health occupations.

Legal and Ethical Practices and Responsibilities

1. Demonstrate knowledge of legal responsibilities and implications of criminal and civil law on the Federal, state and local levels.
2. Explain the legal standards for professional practice and patient protection in various settings.
3. Identify legal and regulatory requirements of health records and the use of personal health information.
4. Describe the principles of accurate and timely documentation and the importance of how to correct errors.
5. Explain inappropriate uses of information and the consequences of failing to comply with legal and reporting standards.
6. Explain how care delivery practices maintain patient's rights and responsibilities within health care settings.
7. Differentiate between ethical and legal issues and implications impacting health care.
8. Discuss differing religious, cultural, and moral values in health care.

Safe Practice (Personal, Patient, Environmental, and Emergencies)

1. Explain the principles of infection control including chain of infection, modes of transmission, microorganisms, classifications, and spread and growth of microorganisms.
2. Demonstrate knowledge of safety procedures and standards as prescribed by Federal (e.g., OSHA and CDC), state, and local requirements.
3. Describe principles of body mechanics and ergonomics.
4. Recognize safety risk factors and hazards in the work environment and identify an appropriate response.
5. Identify principles of basic emergency plan needed to respond to disasters and emergencies in the health care setting.

Appendix C: Summary of College by College Activities

This appendix presents a summary of each colleges' accomplishments based on participation in HealthCARE Montana.

Bitterroot College University of Montana

Program Summary	
List of all the new/revised programs	
• Restructured Phlebotomy program • Certified Nursing Assistant (CNA) program Enhancements • Certified Medical Assistant Program • Dental Assistant program	
Nursing Program: ASN	
New or revised program	Bitterroot college has aligned the prerequisites they offer for easy transference to the Missoula College ASN degree program.
Start date	Fall 2016
Number of cohorts who have completed the program	N/A
Nursing content delivery	N/A
Pre-requisites content delivery	Face-to-face
Additional Curricular Changes: Math	
New math classes offered	The curriculum committee is working to make everything consistent by offering Math 140 for everyone. However, Bitterroot cannot offer this class until they receive permission from the University of Montana.
Additional Programs: Restructured Phlebotomy Program	
New or revised program	The program was restructured to become more robust. The program went from 8 hours to a 100 hour program and leads to an industry recognized credential. This program developed based on employer needs. The Medical Assistant program has required coursework in phlebotomy so the program may not continue as a stand-alone option.
Start date	Fall 2016
Number of current/past students	Forty-three students have participated in this program across 3 cohorts.
Additional Programs: CNA Enhancements	
New or revised program	CNA enhancements took place in October 2015 and January 16. The enhancements included additional clinical hours, an increase in shorter didactic class meetings, a new clinical facility partner, new program director, inclusion of high school age students, addition of program scholarships, and new procedures for student record keeping and archiving.

Start date	October 2015/January 2016 – changes made it two phases
Number of current/past students	Eighty-six students
Additional Programs: Certified Medical Assistant Program	
New or revised program	The program developed because outreach to employers determined the need for people with these skills.
Start date	October 2017
Number of current/past students	Twenty-five students
Additional Programs: Dental Assistant	
New or revised program	The Dental Assistant program is new.
Start date	March 2018
Number of current/past students	Eight students
Student Supports	
Extra support provided to students to increase access	Scholarship opportunities were identified specifically for health careers. For example, at one point for CNAs, a local foundation provided scholarships. Half of the first phlebotomy cohort was supported by a local foundation because the foundations realized that Bitterroot needed a little support to get the program going. Bitterroot also worked to ensure programs were GI Bill eligible.
Grant resources spent on recruiting non-traditional students	Grant resources were spent on banners promoting the College's health care programs; these banners were placed in the local human resource council facility (employment office, career pathways office, and ABLE office) and in the local community clinic in an effort to reach non-traditional age students. Additionally, the Healthcare Transformation Specialist spent time reaching out to local Health & Human Services partners (via emails, electronic & paper flyers, face-to-face visits, and team meetings) to let them know of the College's health care programs.
Adequate advisement of program requirements	Bitterroot has determined the transfer requirements for different colleges in the state and informs students of these pathways.
Use of EdReady	EdReady Math was used by 40+ students (not all necessarily health care students)
Use of Smarthinking	Smarthinking was widely promoted and all health students were signed up.
Statewide staff collaboration	Statewide staff worked together to establish a uniform nursing curriculum, establish health care apprenticeship options, and establish a soft skills online career essentials training. Statewide staff also worked together in supporting current students by sharing student issues with one another and working together on solutions to these issues. In general, these collaborative meetings created a statewide cohort of individuals who are now comfortable reaching out to each other for assistance, guidance, and advice on health care-related training/program/student issues.
Distance Learning Enhancements	
Infrastructure upgrades	N/A
Staff training	N/A

Employer Relationships	
New or enhanced	Bitterroot shared that there are not a lot of employers in their community but they were able to deepen existing relationships especially with the local hospital. Under the grant, Bitterroot reached out to a lot of smaller employers and surveyed all dentist offices in the area. They were also able to partner with a facility to do clinicals for the Certified Nurse Assistant program. Bitterroot put itself on the map as a local partner working to meet employer needs. Bitterroot acknowledged that the local employers were very receptive to the partnership and that it made a difference to meet with employers in person.
Impact	
Rural access	Bitterroot College is in a small rural area of Montana without much access to supports and resources. Under HealthCARE Montana, Bitterroot College worked to expand its program offerings, align prerequisites with other institutions in the state, and reach out to smaller employers in the area to determine health care workforce needs. Bitterroot college restructured its phlebotomy program to make it more robust, enhanced its Certified Nursing Assistant program, and developed new certified medical assistant and dental assistant programs.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	Bitterroot College built lasting relationships with employers that were eager to work with the college to hire within the community. Bitterroot noted that face-to-face communication was key and they will work to continue deepening these relationships. Bitterroot also secured several important placements in new facilities for students to complete their clinicals locally.
Programs	The restructured phlebotomy program may not continue as a stand-alone program since certain courses are already built into the medical assistant program but otherwise the programs will continue. Bitterroot discussed having more work to do to align their prerequisite curriculum with other college program requirements. They noted that this is a challenge given their position under Missoula college and the Montana State University system.
Highlighted Accomplishment	
Bitterroot College is addressing the CNA shortage in Ravalli County through community partnerships Bitterroot College took action after learning of the challenges that health care facilities faced filling CNA positions. The minimum age for the CNA program was altered to allow high school students to take the college course. The Ravalli County high schools took advantage of this opportunity and made it possible for students to complete their clinicals during the school day. As a result, recent CNA courses have been filled and include local high school students. Additionally, upon completion of the program students have been offered positions at the local facilities.[10]	
Summary of Student Outcome Data	
Data included in Missoula College summary.	

[10] Slightly modified HealthCARE Montana April 2016 Newsletter.

Blackfeet Community College

Program Summary	
List of the new/revised programs	
• Practical Nurse (PN) Program • Associate of Science in Nursing (ASN) Program • Certified Nursing Assistant (CNA) Enhancements	
Nursing Program: PN	
New or revised program	The PN program was revised to align with statewide curriculum changes. The first cohort began spring 2017 and finished in fall 2017, including the summer session.
Start date	The prerequisite initiative began in fall 2016 and the program itself began spring 2017.
Number of cohorts who have completed the program	One cohort completed in Fall 2017. The program is not being offered during the 2017-2018 school year.
Nursing content delivery	Blackfeet Community College (BCC) did not have the capability to offer the courses through distance delivery. Courses were held in-person.
Pre-requisites content delivery	N/A
Nursing Program: ASN	
New or revised program	The ASN program was revised to align with statewide curriculum changes.
Start date	The program began in fall 2015 but did not have all of the new pre-requisite classes in place until fall 2016. The career coach noted that because they are a tribal school, they have some flexibility around which pre-requisites were accepted.
Number of cohorts who have completed the program	One cohort completed the program in spring 2017. Another cohort was admitted and began in fall 2016. This cohort will finish in spring 2018. A third cohort started fall 2017 & will finish spring 2019.
Content delivery	Pathophysiology, Mental Health Concepts, and Pediatrics have been taught online as needed, utilizing a distance instructor located in Pennsylvania (who has worked summers on the Blackfeet Reservation through the Global Volunteers group: https://globalvolunteers.org/usa-montana/), though the main format is that students listen to the lectures in real-time.
Content delivery for pre-requisites	N/A
Additional Curricular Changes: Math	
New math classes offered	Neither class is currently offered. BCC will begin offering Math 140 in fall 2018. They are working on the feasibility to offer this class.
Additional Programs: CNA Enhancements	
New or revised program	BCC added the CNA enhancements to incorporate the restorative aid endorsement.
Start date	October 2017. Went for 7 weeks, 20 hours a week. Next CNA Class starts March 19, 2018 – same format.
Number of current/past students	6 students have completed the program.
Student Supports	
Extra support provided to students to increase access	Yes, the health care transformation specialist (HTS) and career coach provided additional support to students as needed, including finding financial assistance.
Grant resources spent on recruiting non-traditional students	Yes

Adequate advisement of program requirements	Yes
Use of EdReady	EdReady is offered through the math department and is not specific to nursing students. The career coach noted that students should have the necessary math foundation once they get to the nursing program. Since EdReady is used more generally by the math department, it is unclear how many students used the service.
Use of Smarthinking	Smarthinking is offered by BCC and has been used by approximately 12 students. When first implemented, the program director was very supportive of the program but had a hard time getting students to utilize it. The program director made it a requirement for students to use the service but there is a new program director who has not made it as much of a priority.
Statewide staff collaboration	The career coach described their role as that of an additional resource. The career coach made themselves available wherever they could help students get their needs met, such as supporting program directors and faculty or students themselves to help with FAFSA or provide moral support.
Distance Learning Enhancements	
Infrastructure upgrades	N/A
Staff training	A new Healthcare Studies building is currently being built on campus and online learning is potentially included in future plans but has not yet been implemented. The career coach has noted that HealthCARE Montana has encouraged the college to consider it as distance learning could be an opportunity to partner with other Tribal colleges.
Employer Relationships	
New or enhanced	The career coach noted that BCC is in a very rural area so they know the majority of employers but that there were some additional opportunities that presented themselves, although mostly unrelated to the grant. The career coach used the opportunity provided by the grant to do a deeper dive with the employers they had existing relationships with and move beyond immediate needs to think about future needs, apprenticeship programs, or additional health care programs.
Impact	
Rural access	BCC was able to increase clinical opportunities for students with rural partners. The initial program director expanded the scope of opportunities from strictly traditional hospitals to work with other facilities such as school districts, child care programs, hospice care, Head Start & Tribal Health programs.
College specific	BCC sent their clinical instructors to a simulation conference using grant funds which helped to overcome limitations in terms of their locations to complete clinicals. Additionally, BCC was able to forge a new relationship with a regional hospital and use the hospital for a clinical rotation that was closer to the school.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	While somewhat dependent on personnel, BCC does think that cross-college relationships will continue. Additionally, most employer relationships were already in place but the new relationship with a large regional hospital will continue as a resource for students to do a clinical rotation.
Programs	These programs should continue through Blackfeet Community College's sustainability funding. The community recognizes the importance of local nursing education and is very supportive of the program.

Highlighted Accomplishment – Student Success Story

Nicholas Bradford, an EMT-Advanced at Glacier County EMS, contacted Karen Conger-Nowakowski, the North Central Career Coach, and inquired about the possibility of challenging the Licensed Practical Nurse (LPN) NCLEX Exam. Nicholas Bradford was hoping to determine whether his prior military and civilian medical experience ws enough to let him take the Licensed Practical Nurse Exam without completing additional coursework. Although it was determined that individuals cannot challenge the exam without completing all required coursework, he was found to be a good candidate to receive academic credit through a Prior Learning Assessment review by Dr. Julie Lindsay, Director of Nursing at BCC.

Dr. Lindsay met with Nicholas to assess his skill level. She went over his transcripts, reviewed his military and civilian medical background, as well as his current position as an EMT-Advanced. They used the simulation lab so he could demonstrate basic nursing skills and she gave him numerous scenarios to walk through and explain. Dr. Lindsay then contacted several military nurses to discuss the training and coursework he had taken thus far. After contacting his nursing and education references, Dr. Lindsay determined he could be placed in the second year of the Associate of Science in Nursing (ASN) program at BCC.[11]

*Individuals cannot "challenge" the Practical Nurse Licensure Exam since all required coursework must be successfully completed in order to be eligible to take the exam. Nicholas was asking for clarification about this requirement and was informed "challenging" the NCLEX (National Council Licensure Examination) is not allowed for either PN (Practical Nurse) or RN (Registered Nurse) Licensure without completing the required coursework.

He did receive some RN coursework credit through Prior Learning Assessment from his military Medic courses, training & experience and his EMT-Advanced coursework, training & experience.

Summary of Student Outcome Data

The Blackfeet College dataset contained information on 94 students with enrollment dates ranging from Fall 2013 to Spring 2018. Most of the students were female (88.3%) and American Indian or Alaska Native/Tribal (86.0%). The mean age of all students was 34.6 years (range 20-64 years), and almost 60% of the students were age 31 or older. There were 66 (70.2%) students in nursing programs, and 28 (29.8%) students in allied health programs. The overall mean number of credits completed was 91.8, with a range of 7-234 credits. A total of 43 students (45.7%) completed their program, and among these completers, only 16.3% indicated that they plan to pursue further education.

[11] Modified slightly from HealthCARE Montana July 2016 Newsletter.

Chief Dull Knife College

Program Summary
List of the new/revised programs
• Licensed Addiction Counselor
Summary of Student Outcome Data
The Chief Dull Knife College dataset contained information on 29 students with enrollment dates ranging from Spring 2016 to Summer 2017. More than half of the students were female (58.6%) and American Indian or Alaska Native/Tribal (89.7%). The mean age of all students was 40.5 years (range 18-68 years), and almost 70% of the students were age 31 or older. There were 20 students in allied health programs (69.0%), and 9 students in general studies programs. The overall mean number of credits completed was 13.1, with a range of 3-28 credits. Only one student completed their program, and this student decided not to pursue further education.

City College – MSU Billings

Program Summary	
List of the new/revised programs	
• Practical Nurse (PN) program • Associate of Science in Nursing (ASN) Program • Registered Nurse-Bachelor of Science in Nursing (RN-BSN) Completion program • Pharmacy Technician • Sonography Certificate • Certified Nursing Assistant (CNA) Enhancements	
Nursing Program: PN	
New or revised program	The PN program was revised to align with statewide curriculum changes. During the first year of implementation, program staff found that student's expectations and lack of understanding around the rigor of a nursing course was challenging. As a result, City College was clearer with the second cohort about program rigor and specific required hours. Additionally, the students in the first cohort asked for more lab time so the program increased lab time from 8 to 15 days. The college provides dorm space for out of town students at a cheaper rate than hotels when there are rooms available.
Start date	Spring 2017
Number of cohorts who have completed the program	One cohort has completed the program.
Nursing content delivery	Distance delivery: The education component is offered via distance delivery but the labs are done on campus.
Pre-requisites content delivery	Distance delivery
Nursing Program: ASN	
New or revised program	The ASN program became a 5 semester program. This did not involve a lot of change at City College other than a change in course names and some content that was shifted between courses. City College was able to train some faculty but believed that faculty were ready to handle these changes.
Start date	Fall 2016
Number of cohorts who have completed the program	The first cohort completed in spring 2018.
Content delivery	The courses are not offered through distance delivery.
Content delivery for pre-requisites	The courses are offered via hybrid delivery. Some of the courses are made available through distance delivery, however, classes with a lab component are only offered in-person.
Nursing Program: RN-BSN Completion	
New or revised program	The RN-BSN program was new.
Start date	Fall 2017
Number of cohorts who have completed the program	The first cohort has not yet completed the program.
Content delivery	All courses are offered online with the exception of two clinical courses.
Additional Curricular Changes: Math	
New math classes offered	Both Math 120 and Math 140 are offered.

Additional Programs: Pharmacy Technician	
New or revised program	The Pharmacy Technician program is a course sharing partnership with Missoula College. City College began discussing the workforce need of a Pharmacy Technician credential program 2.5 years before the grant but did not have the resources to build the program. Through HealthCARE MT, City College was able to setup a course sharing partnership with Missoula College: Missoula College instructors teach the classes and City College is responsible for teaching the lab component. City College used grant funds for the lab equipment and to hire an instructor.
Start date	Fall 2017
Number of current/past students	Six students began fall 2017 and were retained through the spring. During the second semester students are in their internships and will graduate in spring 2018.
Additional Programs: Sonography Certificate	
New or revised program	The Sonography Certificate program developed from conversations between the college Radiology Technician Director and two local hospitals who expressed a need for sonographers. The hospitals had been using travelers to cover these positions because there was a shortage of local residents with this expertise. Faculty in the Radiology Technician department were involved in creating the curriculum. The grant helped pay for some professional development as well as the time to create the curriculum. The program is a 1 year, 30 credit hour program. The college is now also working on a 2-year Associate Degree program in Sonography as well.
Start date	Fall 2018
Number of current/past students	N/A
Additional Programs: CNA Enhancements	
New or revised program	City College designed and paid for a CNA lab, including the equipment and the instructor, with grant funds. The equipment included 2 beds and 2 geriatric mannequins. City College began recruiting for the program but now have employers contacting them to save seats for their employees to take the class (which the employers pay for). City College also holds 'meet and greets' with employers and a job fair where employers can meet the CNA students informally.
Number of current/past students	Sixty-nine students will have completed the CNA course during the HealthCARE MT grant period of performance ending March 31, 2018.
Apprenticeship Programs	
College Role	Coordination with Director of Nursing and MT Apprenticeship Office
Sustainability Plan	City College will continue its partnerships, course sharing curriculum development, and professional development. City College has a strong apprenticeship office and relationship with the HealthCARE MT apprenticeship specialist who will continue in the same position at the MT Department of Labor.
Basic CNA	
Number of apprentices	15
Employers	St. Johns Lutheran Ministries – Billings
Curriculum delivery	Face-to-face
Date Started	April 2016
CNA Restorative	
Number of apprentices	12
Employers	St. Johns Lutheran Ministries – Billings

Curriculum delivery	Provided online through HealthCARE Montana developed curriculum.
Date Started	April 2016
Administration (Long-Term Care)	
Number of apprentices	1
Employers	St. Johns Lutheran Ministries – Billings
Curriculum delivery	N/A
Date Started	April 2016
PN	
Number of apprentices	1
Employers	Faith Lutheran Home – Wolf Point
Curriculum delivery	Provided by City College
Date Started	April 2016
Paramedic	
Number of apprentices	1
Employers	Miles City Fire Department
Curriculum delivery	Hybrid
Date Started	September 2016
Student Supports	
Extra support provided to students to increase access	Yes
Grant resources spent on recruiting non-traditional students	Yes
Adequate advisement of program requirements	Yes
Use of EdReady	EdReady was available used by approximately 20-30 students.
Use of Smarthinking	Smarthinking was offered to students but not used by many of them.
Statewide staff collaboration	Career coaches were involved with initial outreach to students and proved to be effective. Once potential students contacted City College's student services, they were provided resources and guidance around available programs.
Distance Learning Enhancements	
Infrastructure upgrades	N/A
Staff training	Eleven staff were trained and an instructional designer was hired to assist faculty with online teaching.
Employer Relationships	
New or enhanced	City College both created new relationships with employers and enhanced their existing relationships with employers. They engaged employers through their advisory board, their program advisory committees, and through the Billings Work Consortium. City College learned more about the challenges faced by critical care access hospitals, the need for sonographers, and the challenges employers have finding and retaining a skilled workforce.

Impact	
Rural access	City College significantly expanded their health career pathways to meet health care workforce needs. They improved their capacity to serve nursing students by completing a nursing pathway from CNA-PN-ASN-BSN. Before the grant, City College could only provide CNA programs during the summer when the nursing lab was not in use. The development of a CNA Lab and the ability to purchase the required equipment and hire an instructor allowed City College to more adequately serve CNA students. Additionally, the PN program was put in distance format which expanded the reach of students the program could serve. City College further accommodates PN students by providing dorm lodging at an affordable rate. The Pharmacy Technician and Sonography certificate programs developed directly out of conversations with employers who discussed these skills as a critical workforce need. The Pharmacy Technician program is the only one in the state offered entirely in a distance format and is a collaboration between Missoula College and City College. The Sonography program will help ease local hospital reliance on traveling staff for this position. The development of several apprenticeship programs is another major health career pathway that City College has created under HealthCARE MT. City College also adapted their PN program into a distance delivery format which allowed more students to participate in the program. This included using Skype and Webex for the lecture and to communicate with students.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	They will continue, i.e. MOUs are being made with rural facilities that will continue to be used in the future for the PN program.
Programs	The programs will continue after the grant comes to an end.
Highlighted Accomplishment	
Debora Renata Ribeiro is enrolled at City College in Billings taking prerequisites for the distance Practical Nurse program. When career coach Emily Lindquist first met her, Debora was working as a Certified Nurse Assistant (CNA) at a long-term care facility in South Central Montana. A single mother of two, Debora never thought her dream of becoming a nurse could be a reality. After their first meeting, Emily went right to work on the application process to get Debora enrolled at City College. Next, with Emily's help, Debora worked with Job Service and was found eligible for funding that paid her full tuition, books, Internet connection, and provided her the funds to purchase a laptop. Since all of the PN prerequisites are online, Debora is able to continue working as a CNA. Emily says, “her drive and work ethic is truly inspiring.”[12]	

[12] HealthCARE Montana February 2017 Newsletter.

Summary of Student Outcome Data

City College offers the HCMT PN and ASN nursing programs, as well as allied health programs in certified nursing assistant (CAN), radiologic technology, EMT/EMR, dental assisting/hygiene, surgical technology, medical coding and billing, and medical administrative assistant. A total of 788 students declared nursing as their major, and there was a total of 792 nursing students, including students who declared nursing as their major, or took nursing courses, or earned a nursing degree or certificate. Most of the nursing students were female (91.8%) and White (82.3%). The mean age was 28.3 years (range 16-71 years), with 46.7% in the 18-25 age group and 31.6% in the 31 and older age group. More than 50% of the students were from rural areas, 7.4% were American Indian or Alaska Native/Tribal, and 1.3% were veterans. The mean number of credits earned by these nursing students was 53.4 (range 0-243.5).

Among the 119 students who earned a nursing degree, 91.6% were female and 89.1% were White. The mean age was 29.6 years (range 19-51 years), with around 34.5% of the students in the 18-25 age group and the 31 and 38.7% in the 31 and older age group. Almost one-third (62.2%) of the nursing degree earners were from rural areas, 2.5% were American Indian or Alaska Native/Tribal, and 0.8% were veterans. The mean number of credits earned by these students at the completion of their program was 108 (range 15-241.5).

A total of 561 students took allied health courses, 533 declared an allied health program as a major, and 77 students earned an allied health degree or certificate. Overall, there were 761 allied health students, and most of the students were female (79.8%) and White (82.7%). The mean age of all allied health students was 26.4 years (range 18-71 years), with 60.8% in the 18-25 age group and 23.3% in the 31 and older age group. Almost two-thirds (62.3%) of the allied health students were from rural areas, 7.6% were American Indian or Alaska Native/Tribal, and 3.5% were veterans. The mean number of credits earned by these students was 44.1 (range 0-237.3).

Among the 77 students who earned an allied health certificate or degree, 77.9% of them were female and 87% were White. The mean age was 29.1 years (range 21-62 years), with 46.8% in the 18-25 age group and 33.8% in the 31 and older age group. More than half (54.5%) of the degree/certificate earners were from rural areas, and 7.8% were American Indian or Alaska Native/Tribal. The mean number of credits earned by these students at the completion of their program was 94.3 (range 3-237.3).

Flathead Valley Community College

Program Summary	
List of all the new/revised programs	
• Certificate of Applied Science Practical Nurse (PN) program • Associate of Science Registered Nurse (ASN) program • Medical Lab Technician Certificate program • Pre-Coder Apprenticeship Program • Patient Relations Program	
Nursing Program: PN	
New or revised program	The PN program was revised to reflect the statewide curriculum changes. The PN program was modified from an Associate Degree to a 3 semester Certificate of Applied Science program.
Start date	Spring 2017
Number of cohorts who have completed the program	One cohort has completed the program and the 2nd cohort has begun. The first cohort began with 8 students, 7 of which graduated. The current cohort has 13 students-8 on Kalispell Campus and 5 on the Lincoln County Campus. The second cohort will graduate in August 2018
Nursing content delivery	Courses are offered through distance delivery which includes classes that are synchronous over Interactive TV or hybrid.
Pre-requisites content delivery	Many of the prerequisites are offered either completely online or via hybrid delivery.
Nursing Program: ASN	
New or revised program	The ASN program was revised to reflect the statewide curriculum changes. It is now 5 semester Associate of Science Registered Nurse program. It was built to articulate directly to a BSN program.
Start date	Fall 2017
Number of cohorts who have completed the program	Two cohorts of students are currently working through the ASN. The first started with 15 students and 14 are continuing. They will complete the program in August 2018. This group is made up of LPN graduates from the previous curriculum who wished to continue to the ASN RN. The second is the first to start the revised curriculum from the beginning and will complete the program in Spring 2019. The program accepted 12 students in Kalispell and 2 students on the Lincoln County Campus, 14 are currently enrolled.
Content delivery	Courses are offered synchronously over Interactive TV to Lincoln Co. Campus. FVCC has a nursing instructor in Libby who coordinates clinical experiences and teaches lab classes. Many classes do have an online component.
Content delivery for pre-requisites	Many of the prerequisites are offered either completely online or via hybrid delivery.
Additional Curricular Changes: Math	
New math classes offered	Both Math 120 and Math 140 are offered. FVCC used grant funds to enhance Math 120. Math 140 is being piloted and will start in full in fall 2018. A Math 94 faculty member wrote a book to supplement Math 140. In spring 2018 the face to face class will begin piloting the online format in order to determine any final tweaks to be made.

Additional Programs: Medical Lab Technician Program	
New or revised program	The Medical Lab Technician program is a new 4 semester Associate in Applied Science program. FVCC began offering the Intro to Medical Lab Technician course prerequisite in fall 2017 in anticipation of required core classes that will begin in fall 2018. This program was developed in response to employer needs. Employers voiced their challenge that there were not enough technicians for this work and they were forced to pay higher rates to scientists. Employers wanted a program that prepared students to prepare and analyze bio samples, operate highly advanced equipment, and communicate test results with physicians and other health care providers.
Start date	Fall 2018
Number of current/past students	College staff anticipate 5 people starting in the fall.
Apprenticeship Programs	
College Role	FVCC faculty worked with the WFC to visit facilities so that they could tailor the programs to make sure students graduated ready to enter the workforce. The FVCC faculty also transferred all of the face-to-face content to an online format FVCC has MOUs with sites (to do the didactic) and the facilities work with the DLI to setup the apprenticeship program.
Sustainability plan	FVCC is supporting ongoing outreach and thinking about how to develop other apprenticeship programs. They strongly believe that faculty must be involved in meeting with employers to determine the employer's specific needs. The pre-coder apprenticeship program will hopefully serve as a model and help grow more apprenticeships.
Pre-Coder	
Number of apprentices	1
Employers	North Valley Hospital
Curriculum delivery	Online
Date Started	May 2017
Patient Relations	
Number of apprentices	1
Employers	North Valley Hospital
Curriculum delivery	Online
Date Started	Fall 2017
Student Supports	
Extra support provided to students to increase access	The advising center at FVCC provided adequate support to students.
Grant resources spent on recruiting non-traditional students	Eighty percent of students are non-traditional. FVCC provides rapid responses with TAA and has fixed glitches in the FVCC website as well as created a health care landing page that has made it easier to search FVCC programs. They are currently discussing the development of a veteran's pathway.
Adequate advisement of program requirements	FVCC hired an Academic Advisor specifically to work with students in health related programs. She is there to redirect students if they do not get into a program or talk with them about any difficulty they are having with Anatomy and Physiology in addition to tracking students who do not get in, in order to help them understand all of their options.
Use of EdReady	EdReady has been fully incorporated into the math program.

Use of Smarthinking	The Health Sciences Academic Advisor offered Smarthinking but it is not clear whether anyone used it. FVCC has their own tutoring system which they believe made Smartthinking less popular.
Statewide staff collaboration	The WFC and Career Coach did not provide additional student support. FVCC's advising system requires all students to meet with an FVCC advisor which outside support does not bypass. The WFC position was significant, however, in working with faculty to get the pre-coder apprenticeship program developed. It was very beneficial to have the WFC out talking to facilities about the new program.
Distance Learning Enhancements	
Infrastructure upgrades	FVCC upgraded its infrastructure and used USDA Distance Learning and Telemedicine grant funds for their off-campus location in Libby.
Staff training	Faculty have to go through 2 semester long courses to learn how to best design and teach online courses.
Employer Relationships	
New or enhanced	With the opening of the Practical Nurse program in Libby, FVCC opened up new clinical opportunities. FVCC learned how rural employer needs differ from facilities in urban centers. FVCC found that working collaboratively with partner Health Care employers led to the creation of programs which met identified needs in key areas of health care and the community.
Impact	
Rural access	FVCC is supporting access to health care in rural Montana in several ways. Establishing new programs and offering the pre-requisites online improves access to students who find it difficult to physically attend classes on the Kalispell campus. This has also facilitated the development of relationships with new facilities which helps ensure the sustainability of the programs. FVCC is focusing on building the technician level of the workforce through its medical lab technician program which helps the local community hire trained medical care at appropriate reasonable costs. Additionally, FVCC has had a positive experience with developing the curriculum for an apprenticeship program and will use it as a model to continue to build other apprenticeship opportunities.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	FVCC will continue its relationships with new and existing facilities which in turn support the continuation of the new programs developed. Collegial communication between FVCC campuses has increased as more courses become available through distance delivery technology. The statewide curriculum teams contributed to and demonstrated how colleges could be more collaborative. FVCC anticipates the continuation of cross-college communication. For example, the statewide Nursing Directors plan to continue web based meetings bi-monthly to share curriculum suggestions and to support each other in the ongoing implementation of the new nursing programs.
Programs	The nursing programs are now aligned with the statewide curriculum. The new medical lab technician program will begin in the fall and the experience of developing an apprenticeship program will lead to conversations about how to build more of them.

Highlighted Accomplishment

To minimize the amount of time hospital staff had to devote to training new employees in revenue cycle positions, North Valley Hospital (NVH) partnered with FVCC and the Montana Registered Apprenticeship program to create a medical coding apprenticeship. "An apprenticeship is truly a win for all parties involved," says Brenda Rudolph. Rudolph, professor of Office Technology/Business/Allied Health at FVCC, worked closely with Tesa Topley, HIM director at NVH, and Valerie Piet and Brittney Keller with the Montana Registered Apprenticeship program to design and implement a tailor-made apprenticeship model that fit their specific training needs. Apprentices complete the medical coding program at FVCC for their related instruction and receive on-the-job training from an experienced mentor at North Valley Hospital. Flathead Valley Community College placed their first medical coding apprentice at NVH in May 2017.

"An apprenticeship gives students the necessary experience that can't be simulated in the classroom, and the length of the apprenticeship is better than the internship for the facility because the student has more responsibility, more time to learn, and the facility gets more for their training dollar," Rudolph says.

With this apprenticeship model, participants complete all FVCC coursework prior to starting the on-the-job training portion of the program. By front loading the curriculum, the apprentice has a strong foundation of knowledge on their first day of work. This minimizes the amount of time the facility has to spend on basic training, so they can focus on specific on-the-job skills not taught in the classroom.

"The apprenticeship program has been a positive experience for NVH as a facility and our apprentice as an employee. Our apprentice came from FVCC groomed and energized to move forward with more education and skills training," Topley said. "We have been able to utilize this person in a variety of roles within our Revenue Cycle and we continue to look at other opportunities where NVH can promote growth with the apprentice program."[13]

Summary of Student Outcome Data

Flathead Valley Community College offers the HCMT PN and ASN nursing programs, as well as allied health programs in certified nursing assistant (CNA), phlebotomy tech, radiologic technology, pharmacy tech, EMT/EMR, medical assisting, dental assisting/hygiene, surgical technology, medical coding and billing, health care informatics, health care office management, medical lab technician, and physical therapy. A total of 232 students declared nursing as their major, and there was a total of 347 nursing students, including students who declared nursing as their major, or took nursing courses, or earned a nursing degree or certificate. Most of the nursing students were female (86.9%) and White (85.9%). The mean age was 30.7 years (range 18-62 years), with 34.6% in the 18-25 age group and 43.2% in the 31 and older age group. Almost 50% of the students were from rural areas, 1.4% were American Indian or Alaska Native/Tribal, and 4.9% were veterans. The mean number of credits earned by these nursing students was 9.1 (range 3-18).

Among the 55 students who earned a nursing degree, 93.6% were female and 89.7% were White. The mean age was 30.1 years (range 20-59 years), with around 35% of the students in both the 18-25 and the 31 and older age groups. More than half (54.5%) of the nursing degree earners were from rural areas, and 5.5% were veterans. The mean number of credits earned by these students at the completion of their program was 11 (range 3-18).

A total of 752 students took allied health courses, 207 declared an allied health program as a major, and 131 students earned an allied health degree or certificate. Overall, there were 801 allied health students, and most of the students were female (71.6%) and White (82.3%). The mean age of all allied health students was 30.1 years (range 16-65 years), with 45.7% in the 18-25 age group and 36.6% in the 31 and older age group. More than half (52.1%) of the allied health students were from rural areas, 3.1% were American Indian or Alaska Native/Tribal, and 7% were veterans. The mean number of credits earned by these students was 9.5 (range 1-24).

Among the 131 students who earned an allied health certificate or degree, 75.8% of them were female and 84% were White. The mean age was 32.1 years (range 18-58 years), with 35.1% in the 18-25 age group and 46.6% in the 31 and older age group. Almost half (48.9%) of the degree/certificate earners were from rural areas, and 8.4% were veterans. The mean number of credits earned by these students at the completion of their program was 11 (range 1-20).

[13] HealthCARE Montana September 2017 Newsletter.

Gallatin College

Program Summary	
List of all the new/revised programs	
• Surgical Technology program	
Surgical Technology Program	
New or revised program	The Surgical Technology program developed from communication with other local colleges to determine where there may be a need. This program is a collaboration between Great Falls College and Gallatin. Distance students can video into the face-to-face courses and take additional non-lab courses online. Employee buy-in was a challenge but a local hospital did agree to provide students with hands-on experience. Grant money was used to hire an employee at the hospital as a preceptor.
Start date	Spring 2018
Number of current/past students	One student is currently enrolled.
Student Supports	
Extra support provided to students to increase access	
Grant resources spent on recruiting non-traditional students	
Adequate advisement of program requirements	The procedures did not change but the grant provided additional points of contact and increased knowledge of statewide program requirements. If the advisors at Gallatin do not know the answer to advising questions, they contacted the career coach who reached out to students directly and worked with them one-on-one.
Use of EdReady	EdReady was used for one of the math classes. The program did not reflect the same math being taught in the course and served more as a baseline for students.
Use of Smarthinking	Smarthinking was offered to students but not used. Students expressed wanting face-to-face support.
Statewide staff collaboration	The health care transformation specialist, career coach, and workforce coordinator worked together to support students. Students come to the health care transformation specialist for education options and career plans. The health care transformation specialist would then connect students with the career coach. The workforce coordinator had information about employer needs in other nearby areas and worked with the health care transformation specialist to communicate that to students.
Distance Learning Enhancements	
Infrastructure upgrades	No infrastructure upgrades have been made yet but are being looked into by college staff. Once there is a full class of surgical tech students, there will be more of a need to upgrade the infrastructure.
Staff training	There has not been any staff training for distance learning.
Employer Relationships	
New or enhanced	Gallatin has both developed new relationships and enhanced current relationships. The college discovered how much more of a need home health care is in Bozeman and was able to demonstrate how medical assistants can be hired to supplement Certified Nurse Assistants and Dental Assistant positions in local dentist offices. Employers provided feedback that many are inundated with students completing their clinicals and cannot take on more students which is an ongoing challenge for Gallatin.

Impact	
Rural access	Gallatin has increased the number of classes offered in a distance format over the last 3 years. Two of the classes for the Medical Assistant program are now offered online. Additionally, the new surgical technology program is designed to be accessible in a distance format.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	Gallatin will continue working with employers and other colleges to determine needs and find additional ways to support.
Programs	Gallatin plans to expand the surgical technology program and focus on technology infrastructure upgrades in order to support a full class.

Highlighted Accomplishment

The Surgical Technology program at Gallatin College is a collaboration between Great Falls College and Gallatin. The two colleges engaged other local institutions in a conversation about where there was a programmatic need. They then designed the program to be accessible to distance students who can participate in classes via video and take additional non-lab courses online. The college demonstrated how a surgical technologist would be beneficial to employers and was able to use grant funds to secure a preceptor at the hospital to mentor students.

Summary of Student Outcome Data

Gallatin College does not offer any nursing programs, but it does offer two allied health programs in medical assisting and medical coding and billing. A total of 172 students took allied health courses, 128 declared an allied health program as a major, and 56 students earned an allied health degree or certificate. Overall, there were 177 allied health students, and most of the students were female (88.7%) and White (84.7%). The mean age of all allied health students was 28.3 years (range 17-61 years), and almost 60% of the students were age 18-25 years. More than half (51.7%) of the allied health students were from rural areas, 6.2% were American Indian or Alaska Native/Tribal, and 4.0% were veterans. The mean number of credits earned by these students was 54.8 (range 0-200).

Among the 56 students who earned an allied health certificate or degree, 96.4% were female and 83.9% were White. The mean age was 31.3 years (range 19-61 years), with 44.6% in the 18-25 age group and 39.3% in the 31 and older age group. More than half (55.4%) of the degree/certificate earners were from rural areas, 8.9% were American Indian or Alaska Native/Tribal, and 1.8% were veterans. The mean number of credits earned by these students at the completion of their program was 69.3 (range 29-200).

Great Falls College – Montana State University

Program Summary	
List of the new/revised programs	
• Practical Nurse (PN) program • Associate of Science in Nursing (ASN) program • Medical Scribe Apprenticeship program	
Nursing Program: PN	
New or revised program	The PN program was revised to reflect the statewide curriculum changes.
Start date	Spring 2017
Number of cohorts who have completed the program	One cohort has completed the program.
Nursing content delivery	The PN program is offered either as a hybrid or face-to-face class depending on student preference and needs.
Pre-requisites content delivery	Prerequisites are mostly available online although there is at least one class that was not offered in a distant format.
Nursing Program: ASN	
New or revised program	The ASN program was revised to reflect the statewide curriculum changes.
Start date	Fall 2016
Number of cohorts who have completed the program	Two cohorts have started but none have completed.
Content delivery	Face-to-face
Content delivery for pre-requisites	Prerequisites are mostly available online although there was at least one class that was not offered in a distant format.
Additional Curricular Changes: Math	
New math classes offered	Both Math 120 and Math 140 are offered.
Apprenticeship Programs	
Medical Scribe	
Number of apprentices	4
Employer(s)	Great Falls Clinic
Curriculum delivery	Provided by Great Falls College – MSU (GFC MSU)
Date Started	April 2017
College Role	Great Falls Clinic reached out to the college because they needed medical scribes and were interested in finding out if GFC MSU could help them. They were initially interested in enrolling employees who were already medical assistants, PNs, or Certified Nursing Assistant (CNA). A program director at GFC MSU took the medical scribe exam to investigate what information was covered in that exam. The workforce coordinator suggested this would be a good opportunity for an apprenticeship so the GFC MSU faculty created an 8 hour program for exam training. Based on the courses the prospective apprentices had already taken, the curriculum varied based on what additional information apprentices required.
Sustainability plan	Sustainability largely depends on the interest of other facilities in training medical scribes. The college already has the information needed if employers express interest. One of the apprenticeship specialists notified employers about the opportunity and there was some interest expressed but no new partnerships have yet been established.

Student Supports	
Extra support provided to students to increase access	The health care transformation specialist used her background in advising nursing students to meet with prospective students to advise them on best fit programs before students officially registered.
Grant resources spent on recruiting non-traditional students	The career coach was responsible for doing a lot of the recruitment of non-traditional students with assistance from the health care transformation specialist. Before the grant there was only one enrollment specialist which limited the number of events a college representative could attend. GFC MSU used grant resources to have the health care transformation specialist attend specific events for recruitment.
Adequate advisement of program requirements	Yes. Before the grant, prospective students often were confused about the best suited program given their previous coursework. During the grant, the health care transformation specialist met with prospective students to advise them on program requirements prior to enrollment.
Use of EdReady	EdREady was not integrated into courses at GFC MSU. Instead, It was used as a preparation tool for students who want to prepare for specific courses or retake their math placement exam.
Use of Smarthinking	The health care transformation specialist would enroll each student who came to her for advising. However, she did not know how many students actually used Smarthinking. The health care transformation specialist did hear positive feedback from a few students who did use of the program.
Statewide staff collaboration	The career coach focused more on recruitment and less on student support. The career coach provided a warm handoff of a prospective student to the health care transformation specialist. The workforce coordinator was involved overall but primarily through establishing relationships with different facilities to determine interest in programs offered at the college. If there were, the health care transformation specialist would be present to provide them with program information.
Distance Learning Enhancements	
Infrastructure upgrades	Laptops, cameras, microphones, and carts to store equipment were purchased to keep at the satellite sites so that hybrid PN students could WebEx into their courses.
Staff training	Faculty received training from the IT department on how to connect, record, and save lectures to put in the Learning Management System. Computers and additional equipment were purchased to create a computer station that would connect via WebEx and be linked to distance students at their facility.
Employer Relationships	
New or enhanced	GFC MSU both established new relationships and enhanced existing relationships with employers through HealthCARE MT. GFC MSU already had a relationship with the nursing director at Great Falls Clinic who reached out to them about the medical scribe apprenticeship. The workforce coordinator facilitated new relationships by making connections with facilities interested in the distance PN program and then setting up information sessions at facilities for interested employees to introduce the program.
Impact	
Rural access	GFC MSU was one of three campuses to provide a distance PN program. It is expected to have a lasting impact by providing facilities nurses that they would not have had if it were not for the distance option. GFC MSU can now offer health care programs to those who were not able to relocate but wanted to complete a program. Additionally, GFC MSU made other prerequisites available online. The college also emphasized recruiting students from rural facilities in the area. GFC MSU established a campus presence at these facilities to communicate that they would work with prospective students to meet their current needs.

Sustainability	
Relationships (Employers, statewide staff, cross-college)	Through HCMT, relationships were built with other campuses in order to partner around offering specific programs or courses such as the Surgical Technician program. As long as the need continues, GFC MSU is willing to maintain these relationships to determine if providing the course(s) or program are feasible. The Nursing Program Director wants to maintain relationships with employers who are interested in their employees becoming LPNs. He has taken the time to travel and maintain communication with these employers, although the amount of travel may lessen or diminish after loss of travel funds from the grant.
Programs	The PN and ASN programs will continue but the sustainability of the Medical Scribe apprenticeship program is less clear as it is dependent on employer interest.

Highlighted Accomplishment

Community Health Partners' West Yellowstone Medical Clinic had been unable to hire a nurse for the past three years and during the summer peak season the clinic has had to hire an out of state nurse to meet the community's need. The new Distance Practical Nurse (PN) Program offered through Great Falls College has provided the clinic the opportunity to increase their local nursing workforce. One of the Clinic employees was accepted into the distance program, graduating in December 2017. The employee completed a majority of the PN program online. After licensure, this provided a full-time nurse, which increased the efficiency of patient care at the clinic. "The real benefit is to the community of West Yellowstone in having a local nurse, who knows the culture," said Hannah Pulaski, Community Health Partners nursing director.[14]

Summary of Student Outcome Data

Great Falls College offers the HCMT PN and ASN nursing programs, as well as allied health programs in respiratory care, EMT/EMR, medical assisting, dental assisting/hygiene, surgical technology, medical coding and billing, health care technology, and physical therapy. A total of 543 students declared nursing as their major, and there was a total of 550 nursing students, including students who declared nursing as their major, or took nursing courses, or earned a nursing degree or certificate. Most of the nursing students were female (90%) and White (75.6%). The mean age was 28.5 years (range 18-65 years), with 44.7% in the 18-25 age group and 33.5% in the 31 and older age group. More than 50% of the students were from rural areas, 11.3% were American Indian or Alaska Native/Tribal, and 7.8% were veterans. The mean number of credits earned by these nursing students was 49.6 (range 0-180).

Among the 60 students who earned a nursing degree, 95% were female and 76.7% were White. The mean age was 30.5 years (range 20-65 years), with 36.7% of the students in the 18-25 age group and 38.3% in the 31 and older age group. Almost three-quarters (73.3%) of the nursing degree earners were from rural areas, 10% were American Indian or Alaska Native/Tribal, and 3.3% were veterans. The mean number of credits earned by these students at the completion of their program was 102 (range 53-180).

A total of 1,323 students took allied health courses, 1,035 declared an allied health program as a major, and 308 students earned an allied health degree or certificate. Overall, there were 1,482 allied health students, and most of the students were female (82.1%) and White (79.9%). The mean age of all allied health students was 29.4 years (range 17-67 years), with 43.4% in the 18-25 age group and 35.2% in the 31 and older age group. More than half (56.2%) of the allied health students were from rural areas, 9.3% were American Indian or Alaska Native/Tribal, and 8.3% were veterans. The mean number of credits earned by these students was 49.8 (range 0-256).

Among the 308 students who earned an allied health certificate or degree, 87.3% of them were female and 85.7% were White. The mean age was 31.9 years (range 19-59 years), with 34.4% in the 18-25 age group and 42.5% in the 31 and older age group. More than half (59.7%) of the degree/certificate earners were from rural areas, 5.8% were American Indian or Alaska Native/Tribal, and 6.2% were veterans. The mean number of credits earned by these students at the completion of their program was 86.1 (range 6-256).

[14] HealthCARE Montana February 2017 Newsletter.

Helena College – University of Montana

Program Summary	
List of all the new/revised programs • PN program • ASN program • CRRN/Preceptor program	
Nursing Program: PN	
New or revised program	The PN program was revised to align with statewide curriculum changes.
Start date	Spring 2018
Number of cohorts who have completed the program	
Nursing content delivery	Face to face
Pre-requisites content delivery	Some of the prerequisites are offered as hybrid courses. They are not advertised as online courses but instead consist of face-to-face classes with online components.
Nursing Program: ASN	
New or revised program	The ASN program was revised to align with statewide curriculum changes. Helena is still in the process of transitioning all students to the new curriculum.
Start date	Spring 2017
Number of cohorts who have completed the program	One cohort has transitioned to the new curriculum. There are three cohorts still in process with the previous curriculum. The cohort using the new curriculum has not yet completed the program.
Content delivery	Some of the courses are offered as hybrid courses. They are not advertised as such but instead consist of face-to-face classes with some online components.
Content delivery for pre-requisites	Some of the prerequisites are offered as hybrid courses. They are not advertised as online courses but instead consist of face-to-face classes with online components.
Additional Curricular Changes: Math	
New math classes offered	Helena College offers Math 120 in both an in-person and online format.
Additional Programs: CRRN/Preceptor Program	
New or revised program	Helena College received additional funding to create a CRRN/Preceptor program through the adult education department. Students who complete this non-credit, online course receive a completion certificate. Helena College noted that there was a need for a certification or additional coursework in this topic for practicing registered nurses.
Start date	November 2017
Number of current/past students	Approximately 60 students have enrolled and 20-30 students have completed the program.
Student Supports	
Extra support provided to students to increase access	The college provided more scholarships and support to students during the financial aid application process. One of the local hospitals has a scholarship specifically for nursing students which was added to the college's list of resources provided to students.
Grant resources spent on recruiting non-traditional students	Most of the nursing students at Helena College are non-traditional students. Much of this population is older and often interested in beginning a second career. The regional career coach recruited and supported students enrolled at Helena college.
Adequate advisement of program requirements	Helena College has a pre-nursing program during which some advising occurs. Otherwise, Helena has clear prerequisites and does not believe much advising is needed.

Use of EdReady	Helena College began using EdReady during RevUp, the Cohort 3 TAACCCT grant. The college found the program more useful as a tutoring tool than a testing tool. Instructors and advisors preferred other programs to EdReady so it was not widely used.
Use of Smarthinking	Smarthinking is available and has been advertised through the advising department. However, exact numbers are hard to determine and are lower than the college would like. Approximately less than half of students use the program.
Statewide staff collaboration	Helena College played an active role in the South Central Regional Team.
Distance Learning Enhancements	
Infrastructure upgrades	Helena College is one of approximately 3 institutions using One Button Studio light board technology. It is a tool that students use extensively. Additionally, the college purchased some smaller electronic supplies in order to implement more simulations in classes. The college expressed a big push for increasing the use of simulations and the implementation of hybrid learning.
Staff training	The e-learning department and health care transformation specialist have trained staff to use One Button Studio. Staff have also participated in train-the-trainer sessions in Boise State for conducting simulations.
Employer Relationships	
New or enhanced	Helena College had already established relationships with local facilities prior to the grant and continued communication with these employers throughout the grant.
Impact	
Rural access	Helena College serves a very rural area and its' nursing students are largely non-traditional. The CRRN/Preceptor program specifically prepares RNs to support rural students in a clinical setting which serves to support the local community and its workforce needs. Additionally, Helena College improved its online course offerings and capability to offer asynchronous classes and to conduct simulations.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	Helena College will continue deepening its relationship with local employers. Helena College expressed some concern about the cross-college relationships continuing at the same level after the resources supplied by the grant end.
Programs	The nursing programs and CRRN/Preceptor certificate will continue after the grant.

Highlighted Accomplishment (take from HCMT newsletter)

As Montana's distance Practical Nursing programs are growing with students from rural and frontier communities, there is also a need for practicing RNs within these communities to become clinical instructors for the students. In April 2017, HealthCARE Montana offered free Preceptor/ Clinical Resources Registered Nurse training to RNs interested in providing clinical instruction to Practical Nursing students in their communities. Twenty-four RNs participated, and there continues to be additional requests for the training. As a result, HealthCARE Montana teamed with Helena College to develop an online Preceptor/ CRRN training program that started fall 2017.

The program is a fully online, self-paced, eight module training created by the Helena College nursing faculty and is offered through their Continuing Education Department. A Certificate of Completion will be awarded and continuing education units are provided.[15]

[15] Slightly modified from HealthCARE Montana August 2017 Newsletter.

Summary of Student Outcome Data

Helena College offers the HCMT PN and ASN nursing programs, as well as allied health programs in medical assisting and medical administrative assistant. A total of 168 students declared nursing as their major, and there was a total of 182 nursing students, including students who declared nursing as their major, or took nursing courses, or earned a nursing degree or certificate. Most of the nursing students were female (83%) and White (86.3%). The mean age was 31.3 years (range 18-69 years), with 28% in the 18-25 age group and 47.8% in the 31 and older age group. More than 50% of the students were from rural areas, 3.8% were American Indian or Alaska Native/Tribal, and 7.1% were veterans. The mean number of credits earned by these nursing students was 85.7 (range 3-170).

Among the 112 students who earned a nursing degree, 81.3% were female and 84.8% were White. The mean age was 31.4 years (range 20-69 years), with 29.5% of the students in the 18-25 age group and 45.5% in the 31 and older age group. More than 50% of the nursing degree earners were from rural areas, 4.5% were American Indian or Alaska Native/Tribal, and 7.1% were veterans. The mean number of credits earned by these students at the completion of their program was 95.8 (range 8-170).

A total of 167 students took allied health courses, 22 declared an allied health program as a major, and 18 students earned an allied health degree or certificate. Overall, there were 173 allied health students, and most of the students were female (86.1%) and White (77.5%). The mean age of all allied health students was 28.3 years (range 18-54 years), with 49.1% in the 18-25 age group and 36.4% in the 31 and older age group. Almost two-thirds (59%) of the allied health students were from rural areas, 10.4% were American Indian or Alaska Native/Tribal, and 8.7% were veterans. The mean number of credits earned by these students was 46.2 (range 0-169).

Among the 18 students who earned an allied health certificate or degree, 83.3% of them were female and 72.2% were White. The mean age was 30.3 years (range 20-48 years), with 33.3% in the 18-25 age group and 38.9% in the 31 and older age group. More than half (55.6%) of the degree/certificate earners were from rural areas, 16.7% were American Indian or Alaska Native/Tribal, and 5.6% were veterans. The mean number of credits earned by these students at the completion of their program was 65.6 (range 11-100).

Highlands College – Montana Tech

Program Summary	
List of all the new/revised programs	
• RN-BSN Completion program • Behavioral Health Technician Certificate program	
Nursing Program: RN-BSN Completion	
New or revised program	The RN-BSN Completion program was implemented to align with statewide curriculum changes.
Start date	Fall 2018
Number of cohorts who have completed the program	The first cohort is in progress so no cohorts have yet completed the program.
Nursing content delivery	Distance delivery
Pre-requisites content delivery	N/A
Additional Curricular Changes: Math	
New math classes offered	Highlands College does not offer Math 120 or 140 but does offer Math for Health Careers 116.
Additional Programs: Behavioral Health Technician Certificate	
New or revised program	This is a new certificate program which developed out of conversations with employers and other colleges around local workforce needs.
Start date	Fall 2018
Number of current/past students	N/A
Student Supports	
Extra support provided to students to increase access	With the change in student demographics came a more tailored support process. The Educational Opportunities Center helped adults looking for a second career or unemployed adults looking for a job. Student Support Services supported first generation students and the health care transformation specialists supported prospective students and along with career coaches advised current students about financial aid and program fit.
Grant resources spent on recruiting non-traditional students	In addition to the focus on first generation and adult learners, Highlands College also sponsored dinners to recruit veterans and mapped Department of Defense school credits so veterans could receive college credits for equivalent classes already taken.
Adequate advisement of program requirements	In addition to built-in college advising, the Healthcare Transformation Specialist and career coach were involved with advising students on programs that best fit their career goals.
Use of EdReady	EdReady is part of the curriculum for all remedial math courses.
Use of Smarthinking	Smarthinking is made available to students but was not used by many. The students noted that they prefer a tutor who they could meet in-person.
Statewide staff collaboration	The health care transformation specialist and career coach took active roles in the advisement and support of students. The career coach specifically was described by the health care transformation specialist as invaluable to the recruitment of students, advisement at all points of the program, and follow-up support. When the career coach was unavailable, the HTS would introduce students to college advising services to support their needs.

Distance Learning Enhancements	
Infrastructure upgrades	Highlands did not upgrade its distance learning infrastructure during the grant.
Staff training	Staff have received some training around distance learning including the faculty responsible for teaching the distance curriculum for the RN-BSN Completion program.
Employer Relationships	
New or enhanced	Highlands College developed new relationships with local employers and enhanced the relationships it already possessed. Specifically, Highlands developed relationships with state hospitals to create Behavioral Health Certificates and determine nursing needs. . Highlands College stressed the importance of regularly contacting employers to determine their needs and to educate the student about these needs.
Impact	
Rural access	Highlands College has increased its health career pathway by instituting an on-line RN-BSN completion program as well as a new behavioral health certificate.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	Highlands College will continue to consult with local employers in the area to determine workforce needs.
Programs	The RN-BSN program and the Behavioral Health Certificate program will be continued.
Highlighted Accomplishment	
The RN-BSN Completion program allows Associate of Nursing degree students to complete their Bachelor of Nursing degree online which allows students to further their education while remaining in their own communities and continue to work while they complete the program. The program is currently designed to take two years to complete but will transition into a one-year completion program. This program is one of just a few in the state that provide the RN-BSN program completely online.	
Summary of Student Outcome Data	
Highlands College does not offer any nursing programs, but it does offer allied health programs in certified nursing assistant (CAN), radiologic technology, medical assisting, and behavioral health technician. A total of 345 students took allied health courses, 238 declared an allied health program as a major, and 65 students earned an allied health degree or certificate. Overall, there were 369 allied health students, and most of the students were female (84.3%) and White (88.6%). The mean age of all allied health students was 26.9 years (range 18-64 years), and more than 60% of the students were age 18-25 years. Almost two-thirds (62.9%) of the allied health students were from rural areas, 2.4% were American Indian or Alaska Native/Tribal, and 4.1% were veterans. The mean number of credits earned by these students was 49.1 (range 0-200). Among the 65 students who earned an allied health certificate or degree, 87.7% were female and 93.8% were White. The mean age was 29.9 years (range 19-59 years), with 50.8% in the 18-25 age group and 30.8% in the 31 and older age group. Almost half (46.2%) of the degree/certificate earners were from rural areas, and 1.5% were American Indian or Alaska Native/Tribal. The mean number of credits earned by these students at the completion of their program was 88.3 (range 7-200).	

Miles City College

Program Summary	
List of all the new/revised programs	
• Associate of Science in Nursing (ASN) program • Certified Nursing Assistant (CNA) Apprenticeship program • Phlebotomy Apprenticeship program • Medical Lab Technician Apprenticeship program	
Nursing Program: PN/ASN/RN-BSN	
New or revised program	The ASN program was revised to reflect statewide curricular changes.
Start date	Fall 2016
Number of cohorts who have completed the program	The first cohort will complete the program in Spring 2018.
Nursing content delivery	Classes are made available in both in-person and distance delivery formats. Distance students are connected via interactive television.
Pre-requisites content delivery	Classes are made available in both in-person and distance delivery formats.
Additional Curricular Changes: Math	
New math classes offered	MCC began offering Math 140 in fall 2018. All students applying to a nursing program for fall 2019 will be required to take Math 140.
Apprenticeship Programs	
College Role	MCC received special project funding through the HCMT grant to offer their phlebotomy and medical lab technician programs as apprenticeship programs. The college works to connect students with employers before referring both to the apprenticeship staff.
Sustainability plan	Although employers have expressed interest in the phlebotomy and medical lab technician programs, the hospitals housing the apprentices have indicated that this is not a priority for them given their limited resources. These apprenticeship programs will no longer be sustained.
CNA	
Number of apprentices	4
Employers	Mountain View Home Care and Sapphire Lutheran Homes
Curriculum delivery	Online. The MCC CNA students who took advantage of the apprenticeships live in the western half of the state, 400-500 miles away from MCC. The students completed the online courses and their on-the-job training at facilities within their hometown.
Date Started	Spring 2017
Phlebotomy	
Number of apprentices	1
Employers	Prairie County Hospital, Terry, MT
Curriculum delivery	On-the-job training for Point of Care Testing takes place in-person at the hospital. The course is intended for individuals who do not want to continue on to the Medical Lab Technician course. Instead, this individual, would be able to do lab simple testing, such as glucometer testing at the patient's bed side.
Date Started	May 1, 2017
Medical Lab Technician	
Number of apprentices	3

Employers	Barrett Hospital, Dillon, MT
Curriculum delivery	Hybrid: Online theory and face-to-face lab.
Date Started	May 1, 2017. The didactic training for a Medical Lab Technician takes approximately 2 years to complete so apprentices will not begin their on-the-job training until fall 2018 after the grant ends.
Student Supports	
Extra support provided to students to increase access	MCC already has programs in place at the college for supporting students.
Grant resources spent on recruiting non-traditional students	No
Adequate advisement of program requirements	Yes
Use of EdReady	EdReady was available to students but it is unknown how many students made use of the program. MCC has an in-house math tutor for students in the nursing programs.
Use of Smarthinking	Smarthinking was available to students and advertised throughout campus although not many students made use of the program.
Statewide staff collaboration	The relationship between statewide staff was collaborative and supportive. Members of the statewide staff worked well together to support changes at the college.
Distance Learning Enhancements	
Infrastructure upgrades	MCC made upgrades to its distance learning infrastructure prior to the grant.
Staff training	Nursing staff received training on the learning management systems, SurePath, and Respondus. SurePath is a tool for nursing faculty to enhance student learning and Respondus is a required tool that prevents students from cheating.
Employer Relationships	
New or enhanced	MCC had strong relationships with local facilities prior to the grant. They engaged employers through advisory meetings and outreach. However, MCC learned more about employer needs through state outreach.
Impact	
Rural access	MCC enhanced its health career pathways in several ways. The college improved its ability to serve its distance nursing students by upgrading its learning management systems and equipment. MCC also secured an additional clinical partner site which expands the number of students who can take classes and complete their degrees while staying in their community. Further, MCC conducted outreach in rural Montana communities to encourage enrollment in their Phlebotomy and Medical Lab Technician programs.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	MCC will continue its relationships with local employers to determine workforce needs.
Programs	The ASN program will continue in its revised form based on statewide curriculum changes.

Highlighted Accomplishment

Miles Community College (MCC) recently applied for and was awarded special project funding through the HealthCARE Montana grant. This additional funding will create an apprenticeship option in the Phlebotomy program.

Students wishing to become certified Phlebotomists now have two options. Option 1 is two semesters long and results in a certificate through Miles Community College. It involves one semester of prerequisite classes, followed by one semester of courses that include Phlebotomy Fundamentals, Phlebotomy Lab and Phlebotomy Internship.

Option 2 is created as an apprenticeship model and involves the same coursework as option 1, which is followed by 6 months of on-the-job training in a medical lab working as a Phlebotomist. The on-the-job training period provides the apprentice with additional mentoring, skill development, and training specific to the employer's work environment. Upon successful completion of the apprenticeship, the student will receive a federally recognized credential.

For both options, all lectures are through an online format and the internship can either be conducted at the student's local medical lab or at a MCC clinical site. Both options prepare students to take the American Society of Clinical Pathology certification exam. Students can continue their education in the Medical Laboratory Technician (MLT) program at MCC. All courses for the MLT program are conducted online, with some travel to Miles required for lab and competency check-off. If the student has experience in a medical lab as a Phlebotomist or Medical Lab Aid, some of that experiential time may be counted towards their Internship.[16]

Summary of Student Outcome Data

Miles Community College offers the HCMT ASN nursing program, as well as allied health programs in certified nursing assistant (CNA), phlebotomy tech, radiologic technology, allied health, and medical lab technician. A total of 116 students declared nursing as their major, and there was a total of 121 nursing students, including students who declared nursing as their major, or took nursing courses, or earned a nursing degree or certificate. Most of the nursing students were female (90.9%) and White (86.8%). The mean age was 29 years (range 19-59 years), and about one-third of the nursing students were in each of the three age groups: age 18-25, age 26-30, and age 31 and older. About 57% of the students were from rural areas, and 3.3% were American Indian or Alaska Native/Tribal. The mean number of credits earned by these nursing students was 79.5 (range 28-157).

Among the 78 students who earned a nursing degree, 93.6% were female and 89.7% were White. The mean age was 30.1 years (range 20-59 years), with around 35% of the students in both the 18-25 age group and the 31 and older age group. More than half (57.7%) of the nursing degree earners were from rural areas, and 2.6% were American Indian or Alaska Native/Tribal. The mean number of credits earned by these students at the completion of their program was 87.5 (range 72-157).

A total of 128 students took allied health courses, 214 declared an allied health program as a major, and 5 students earned an allied health degree or certificate. Overall, there were 267 allied health students, and most of the students were female (88%) and White (84.3%). The mean age of all allied health students was 26.6 years (range 16-59 years), and almost 60% of the students were age 18-25 years. Half (50.2%) of the allied health students were from rural areas, and 4.9% were American Indian or Alaska Native/Tribal. The mean number of credits earned by these students was 31.9 (range 0-117).

Among the 5 students who earned an allied health certificate or degree, all of them were female and 80% were White. The mean age was 33.4 years (range 22-57 years), and 60% of the degree/certificate earners were from rural areas. The mean number of credits earned by these students at the completion of their program was 35 (range 29-43).

[16] HealthCARE Montana June 2017 Newsletter.

Missoula College – University of Montana

Program Summary	
List of all the new/revised programs	
• Associate of Science in Nursing (ASN) program • Pharmacy Technician Partnership program • Surgical Technician Apprenticeship program • Pharmacy Technician Apprenticeship program • Medical Claims Apprenticeship program • Computed Tomography Apprenticeship program	
Nursing Program: ASN	
New or revised program	The ASN program was revised to align to statewide curricular changes.
Start date	Fall 2016
Number of cohorts who have completed the program	The first cohort will complete in May 2018.
Nursing content delivery	Three of the 8 required classes are offered in a distance format.
Pre-requisites content delivery	Distance delivery: the prerequisite classes are offered online only.
Additional Curricular Changes: Math	
New math classes offered	Math 120 and Math 140 are not currently being offered but the college is working on developing these courses and will begin offering them fall 2018.
Additional Programs: Pharmacy Technician Program Partnership	
New or revised program	Missoula College had a face-to-face pharmacy technician program, the only licensed program in the state, but shifted it to an online format so that students enrolled at City College could also access the program. Employers in Billings were interested in a licensed pharmacy technician program because an accredited license is now required to practice in Montana. City College then connected with Missoula College to create a partnership for expanding the program.
Start date	End of 2016/Beginning of 2017
Number of current/past students	Fall 2016/Spring 2017: 5 students Fall 2017/Spring 2018: 8 students in Missoula and 7 students in Billings
Apprenticeship Programs	
College Role	Missoula College already had most of the curriculum in place and saw a good fit for creating apprenticeship programs. HealthCARE Montana (HCMT) staff began reached out to faculty and program directors and provided employer contacts for potential apprenticeship sites. Sometimes employers had an employee in mind for the apprenticeship and in other cases, the student reached out to the health care transformation specialist about their interest.
Sustainability plan	Missoula's health care transformation specialist is remaining at the college as an apprenticeship liaison for at least another year and a half. His job will be to notify faculty of the apprentices in their classes and to develop and expand apprenticeship programs, including but not restricted to the health care field.
Surgical Technician	
Number of apprentices	1
Employers	Surgical Arts Centre
Curriculum delivery	The program in Missoula was in-person but there were two satellite sites in Billings and Butte who received the curriculum online. The current apprentice is in Missoula and completing the curriculum in-person.

Date Started	May 2017
Pharmacy Technician	
Number of apprentices	1 – This apprentice has since cancelled their apprenticeship.
Employers	Bighorn Valley Health Center
Curriculum delivery	Online
Date Started	August 2016
Medical Claims	
Number of apprentices	2
Employers	Allegiance Benefit Plan Management
Curriculum delivery	Hybrid
Date Started	December 2016
Computed Tomography (CT) Tech	
Number of apprentices	1
Employers	Clark Fork Valley Hospital
Curriculum delivery	Online
Date Started	March 2016
Student Supports	
Extra support provided to students to increase access	The career coach provided support to students in applying for aid and working with the financial aid department.
Grant resources spent on recruiting non-traditional students	Outreach focused specifically on different populations of non-traditional students. The health care transformation specialist attended several recruiting events for veterans to provide an overview of available programs.
Adequate advisement of program requirements	The health care transformation specialist provided advising support to students about allied health and additional programs available throughout the state.
Use of EdReady	EdReady was advertised by flyers by the director of the learning center, and to the health care transformation specialist advisees. However, EdReady was similar to a program that faculty provided in-person and may have impacted the number of students making use of the program. There are currently 23 students enrolled through HCMT.
Use of Smarthinking	Smarthinking was made available to students and is currently being used by 2 students through HCMT. HCMT staff noted that the program was not easy for students to find on their own.
Statewide staff collaboration	Statewide staff worked on different aspects of building health-related pathways. The career coach and health care transformation worked together to support student advising and the workforce coordinator played a huge role in building relationships with employers.
Distance Learning Enhancements	
Infrastructure upgrades	Missoula College did not upgrade its infrastructure because it already had the infrastructure in place.
Staff training	Staff receive training for distance learning but not through HCMT.

Employer Relationships	
New or enhanced	HCMT staff noted that the grant helped provide an open dialogue and pathway from higher education to employers. Missoula College shared that the high turnover of employees in the health care industry is a challenge for maintaining relationships. During the grant, the workforce coordinator was instrumental in reaching out and rebuilding these relationships with employers. One of the messages from employers was that they would like to see more employees with soft skills training. Another challenge for employers is recruitment and retention which the apprenticeship programs support.
Impact	
Rural access	Missoula College expanded its health career pathways in several ways. The college engaged in targeted recruitment of veterans, Native Americans, and first-generation students. Partnering with City College for the licensed pharmacy technician program opened the program to students in another area of Montana who could not leave their community to participate in the program in-person. Additionally, the college worked with employers to expand their apprenticeship programs which aided with recruitment and retention of local employees.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	Missoula College will continue reaching out and engaging local employers around workforce needs.
Programs	The apprenticeship liaison and pre-nursing advisor is remaining post-grant to continue developing and expanding the apprenticeship programs. The pharmacy technician partnership is at risk of being discontinued due to University of Montana budget cuts.

Highlighted Accomplishment

Leaders at Allegiance Benefit Plan Management in Missoula have partnered with Missoula College to create an innovative apprenticeship program to recruit workers. The goal of the apprenticeship is to generate interest and be able to staff Allegiance's customer service and claims departments with skilled employees.

It is what Margaret McManus, vice president and chief administrative officer of Allegiance, calls a "holistic approach" to attracting and retaining good workers. Applicants combine classroom work with paid on-the-job training that includes actual, needed job duties for the employer. Apprentices are eligible for full benefits subject to the same brief waiting periods of other employees which adds over 50 percent value to their total compensation. When they're done with school, graduates qualify for a higher wage.

Allegiance contacted Missoula College and the Montana Department of Labor & Industry to see if there was support for an apprenticeship program that could train customer service representatives and claims workers.

Allegiance will hire students and allow them two paid hours of study time on-site per day. All classes except anatomy can be taken online.[17]

[17] Modified slightly from HealthCARE Montana November 2016 Newsletter

Summary of Student Outcome Data

Missoula College (includes Bitterroot College) offers the HCMT ASN nursing program, as well as allied health programs in respiratory care, radiologic technology, pharmacy tech, medical assisting, surgical technology, medical coding and billing, and medical administrative assistant. A total of 691 students declared nursing as their major, and there was a total of 696 nursing students, including students who declared nursing as their major, or took nursing courses, or earned a nursing degree or certificate. Most of the nursing students were female (84.1%) and White (82.3%). The mean age was 28.3 years (range 16-65 years), with 46.3% in the 18-25 age group and 32.5% in the 31 and older age group. More than 50% of the students were from rural areas, 4.5% were American Indian or Alaska Native/Tribal, and 3.6% were veterans. The mean number of credits earned by these nursing students was 78.1 (range 0-281).

Among the 114 students who earned a nursing degree, 82.5% were female and 89.5% were White. The mean age was 30.5 years (range 19-60 years), with 32.5% of the students in the 18-25 age group and 43% in the 31 and older age group. More than 50% of the nursing degree earners were from rural areas, 3.5% were American Indian or Alaska Native/Tribal, and 4.4% were veterans. The mean number of credits earned by these students at the completion of their program was 137.4 (range 60-281).

A total of 1,055 students took allied health courses, 708 declared an allied health program as a major, and 173 students earned an allied health degree or certificate. Overall, there were 1,154 allied health students, and most of the students were female (80.1%) and White (79.9%). The mean age of all allied health students was 27.7 years (range 16-63 years), with 53.3% in the 18-25 age group and 28.9% in the 31 and older age group. Almost two-thirds (61.3%) of the allied health students were from rural areas, 6.4% were American Indian or Alaska Native/Tribal, and 4.2% were veterans. The mean number of credits earned by these students was 62 (range 0-277.3).

Among the 173 students who earned an allied health certificate or degree, 83.8% of them were female and 84.4% were White. The mean age was 28.7 years (range 19-59 years), with 50.3% in the 18-25 age group and 32.9% in the 31 and older age group. Almost three-quarters (72.3%) of the degree/certificate earners were from rural areas, 5.2% were American Indian or Alaska Native/Tribal, and 4% were veterans. The mean number of credits earned by these students at the completion of their program was 107.7 (range 7-253).

MSU – Billings

Program Summary	
List of the new/revised programs	
• RN-BSN completion	
Nursing Program: RN-BSN Completion	
New or revised program	The RN-BSN program was new.
Start date	Fall 2017
Number of cohorts who have completed the program	The first cohort has not yet completed the program.
Content delivery	All courses are offered online with the exception of two clinical courses.

Northern – Montana State University

Program Summary	
List of the new/revised programs	
• Associate of Science in Nursing (ASN) program • Registered Nurse-Bachelor of Science in Nursing (RN-BSN) Completion program • Phlebotomy program	
Nursing Program: ASN	
New or revised program	The ASN program was revised to reflect statewide curricular changes.
Start date	Fall 2017
Number of cohorts who have completed the program	One cohort of the old curriculum has completed the program.
Nursing content delivery	Nursing courses are only offered in-person.
Pre-requisites content delivery	Distance delivery
Nursing Program: RN-BSN Completion	
New or revised program	The RN-BSN Completion was revised to reflect statewide curricular changes.
Start date	Spring 2017
Number of cohorts who have completed the program	Three cohorts of the old curriculum have completed the program.
Content delivery	Distance delivery
Content delivery for pre-requisites	N/A
Additional Curricular Changes: Math	
New math classes offered	MSU Northern does not offer Math 120 or Math 140. They have a faculty member who is interested in teaching Math 140 so they are currently looking into integrating the course.
Additional Programs: Phlebotomy	
New or revised program	Northern developed a phlebotomy program that would prepare students to pass the national certification exam. The program is two semesters. The first semester is offered as a hybrid delivery with labs done in-person on the weekend and the didactic taken online, while the second semester includes clinicals and lab work with an instructor. The college expressed interest in turning the program into an apprenticeship program but did not find employers who were interested. The health care transformation specialist noted that this may be a result of facilities providing phlebotomy training in-house.
Start date	Fall 2016
Number of current/past students	Four students have completed and nine are currently enrolled.
Student Supports	
Extra support provided to students to increase access	Career coaches were not actively involved in providing support to students at Northern. The college provided this support to its students.
Grant resources spent on recruiting non-traditional students	The health care transformation specialist provided some assistance with recruitment but most of the recruitment was done without grant funds.
Adequate advisement of program requirements	Advising services at the college were sufficient in making sure students were made aware of program requirements.
Use of EdReady	EdReady was made available to students but not used.

Use of Smarthinking	Smarthinking was made available to students but not used.
Statewide staff collaboration	There was not much collaboration among statewide staff. The health care transformation specialist was largely responsible for employer engagement and relationship building.
Distance Learning Enhancements	
Infrastructure upgrades	MSU Northern did not need to upgrade its infrastructure for distance learning. All of their online courses were available before the grant.
Staff training	Faculty receive training for distance learning through the college.
Employer Relationships	
New or enhanced	MSU Northern conducted an informal needs assessment with local employers to determine the ways the college could address employer needs. More specifically, MSU Northern developed new relationships with local emergency medical providers. Additionally, the college enhanced its relationships with facilities providing clinicals for its nursing students and expanded its network of employers to those who were interested in supporting the phlebotomy program.
Impact	
Rural access	MSU Northern is situated in a rural area with a majority of small rural employers. The phlebotomy program in particular was designed to be mostly online and provides local employers with the opportunity to cross-train employees already employed by these facilities. MSU Northern noted that these smaller facilities are not often approached and provided with the opportunity to give direction on what would most benefit them. MSU Northern closed this gap by asking employers to join an advisory board where they would be given the space to directly provide their input.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	MSU Northern will continue to reach out to and engage employers to address local workforce needs.
Programs	The college plans to continue offering the nursing programs with the revised curriculum, however, it is unclear whether the phlebotomy program will be sustained after this semester.
Highlighted Accomplishment	
In addition to aligning its nursing programs with the statewide curriculum, MSU Northern developed a new phlebotomy program with distance student and rural employer needs in mind. The college intentionally put as much of the content online as possible and worked with the scheduling department to ensure that the in-person lab component would take place on the weekends. Additionally, MSU Northern took special care to arrange for students to complete the clinical portion in facilities in their hometown so that they could remain in their community while furthering their education.	

Summary of Student Outcome Data

MSU Northern offers the HCMT ASN and BSN nursing programs, as well as allied health courses related to phlebotomy, health and wellness, etiology of disease, and health professions. A total of 430 students declared nursing as their major, and there was a total of 433 nursing students, including students who declared nursing as their major, or took nursing courses, or earned a nursing degree or certificate. Most of the nursing students were female (88.7%) and White (82.4%). The mean age was 28.9 years (range 18-60 years), with 46.9% in the 18-25 age group and 34.9% in the 31 and older age group. Almost 50% of the students were from rural areas, 8.1% were American Indian or Alaska Native/Tribal, and 0.5% were veterans. The mean number of credits earned by these nursing students was 92 (range 0-314).

Among the 160 students who earned a nursing degree, 87.5% were female and 92.5% were White. The mean age was 31 years (range 20-60 years), with 32.5% of the students in the 18-25 age group and 39.4% in the 31 and older age group. Almost half (43.8%) of the nursing degree earners were from rural areas, 3.1% were American Indian or Alaska Native/Tribal, and 1.3% were veterans. The mean number of credits earned by these students at the completion of their program was 140.6 (range 58-276).

A total of 72 students took allied health courses, and 2 students earned an allied health degree or certificate. Overall, there were 72 allied health students, and most of the students were female (56.9%) and White (69.4%). The mean age of all allied health students was 24.8 years (range 18-54 years), with 70.8% in the 18-25 age group. More than half (55.6%) of the allied health students were from rural areas, and 9.7% were American Indian or Alaska Native/Tribal. The mean number of credits earned by these students was 59.6 (range 0-161).

Both of the students who earned an allied health certificate or degree were male and over the age of 25. The mean age was 29.5 years (range 26-33 years), and the mean number of credits earned by these students at the completion of their program was 95.5 (range 49-142).

Salish Kootenai College

Program Summary	
List of the new/revised programs	
• Health Promotion Practices program • Emergency Medical Technician (EMT) • Phlebotomy • Certified Nursing Assistant (CNA) • Medical Assistant (AAS) • Basic CNA Apprenticeship program	
Nursing Program: ASN	
New or revised program	Salish Kootenai College (SKC) did not revise its ASN program to reflect statewide curricular changes because it had recently re-designed its curriculum to fit accreditation standards.
Nursing Program: RN-BSN Completion	
New or revised program	SKC did not revise its RN-BSN program to reflect statewide curricular changes because it had recently re-designed its curriculum to fit accreditation standards.
Additional Curricular Changes: Math	
New math classes offered	SKC does not currently offer Math 120 or Math 140. Instead, they offer Math 103 and Allied Health 110.
Additional Programs: Health Promotion Practices	
New or revised program	New program
Start date	January 2018
Number of current/past students	3
Additional Programs: EMT	
New or revised program	New program
Start date	September 2016
Number of current/past students	22
Additional Programs: Phlebotomy	
New or revised program	New program
Start date	March 2018
Number of current/past students	N/A
Additional Programs: CNA Enhancements	
New or revised program	New program
Start date	Summer 2017
Number of current/past students	18
Additional Programs: Medical Assistant	
New or revised program	New program
Start date	September 2015
Number of current/past students	18

Apprenticeship Programs	
Basic CNA	
Number of apprentices	4
Employers	Department of Human Resources Development / Confederated Salish & Kootenai Tribes (DHRD CSKT)
Curriculum delivery	SKC: In-person
Date Started	July 2017
College Role	The health care transformation specialist (HTS) coordinated the collaborative effort between the college and other stakeholders to develop the CNA apprenticeship program. The college is providing the didactic training.
Sustainability plan	The college is prepared to continue offering the CNA didactic training to apprentices once a year and work with the employer to recruit and provide the on-the-job-training at the facility. The college will look to the Montana Department of Labor for support and guidance.
Student Supports	
Extra support provided to students to increase access	The Financial Aid Office and Student Support Services at SKC support students throughout the entire college process. The departments are familiar with common funding sources and know how to help students secure funding. The HTS provided an overview for students and referred them to the Financial Aid Office.
Grant resources spent on recruiting non-traditional students	SKC focuses almost entirely on recruiting non-traditional students. The college caters to minority, socioeconomically disadvantaged, first generation, unemployed, and adult students.
Adequate advisement of program requirements	The HTS at SKC was also the pre-nursing advisor and well positioned to advise new and prospective students about different programs and career pathways available at the college as well as the course requirements for each pathway. Additional departments on campus also provided advising resources for students.
Use of EdReady	EdReady is widely used by students at SKC to prepare for the placement test. The faculty members utilize this resource to provide additional support in lower level math courses.
Use of Smarthinking	Smarthinking provided a useful supplement to the limited availability of writing, A & P, and nursing tutors on campus. As of January 2018, there were 23 current users.
Statewide staff collaboration	The HTS was already embedded in the college's processes and most involved with the grant. The career coach was less involved because the college already provides a lot of supports and advising resources to its students.
Distance Learning Enhancements	
Infrastructure upgrades	SKC upgraded its infrastructure to better support its distance learning capabilities in several ways. They (1) switched learning management systems, (2) increased the campus internet speeds, (3) updated the computers in two computer labs, and (4) installed Smartboards in classrooms that include cameras for higher quality relay of live lectures.
Staff training	The new learning management system provides training and support for both administration and instructors. Americorps volunteers were also hired to provide technology training and support to college staff. Approximately 80 staff members have received some sort of technology training related to distance learning.

Employer Relationships	
New or enhanced	SKC developed new relationships and enhanced existing relationships with employers during the grant to identify and support local workforce needs. The college held workforce needs assessment meetings which were described as very informational and important to challenging assumptions that the college had about workforce needs. One of the new relationships resulted in a partnership for CNA placements and drove the creation of the CNA course.
Impact	
Rural access	SKC has supported access to health career pathways by creating health care programs that serve workforce needs by providing an alternative to nursing programs. Students who do not get into nursing or find it to be too rigorous have several additional options for furthering their education and pursuing careers in the health care industry. Previously, students did not have these same options and would often have to transfer schools or pursue careers outside of health care.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	SKC is invested in continuing relationships that help them better support their students and address local workforce needs.
Programs	SKC will continue offering its new programs.

Highlighted Accomplishment

Fall 2016 marks Salish Kootenai College's first time offering of the Emergency Medical Technician (EMT) course, part of an Emergency Services Certificate of Completion (ESCC) Program. The second cohort of dedicated EMT students is currently completing the classroom preparation and getting ready for externship placement. The second cohort of CNA students enrolled in the course in January 2018 and is currently completing the didactic component of the studies as well. Finally, the new AA in Health Promotion Practices Program was launched in January 2018, enrolling three students in its first course.

The college and HCMT collaborated to establish a state-of-the-art practice lab for the newly formed Allied Health Department that houses the ESCC as well as the Medical Assisting Program, established in 2015. Thanks to the support from the HCMT grant, the lab is now home to Resusci Anne, a high-tech simulator that provides students an excellent tool for developing critically important CPR skills. The anatomically realistic simulator uses a computer interface to provide students and instructors real-time feedback about compression rate and depth, appropriate ventilation volume, correct hand position, and other performance indicators.[18]

Summary of Student Outcome Data

The Salish Kootenai College dataset contained information on 264 students with enrollment dates ranging from Fall 2002 to Fall 2017. Most of the students were female (84.8%). Most of the students were either American Indian or Alaska Native/Tribal (52.3%) or White (40.5%). The mean age of all students was 30.6 years (range 18-63 years), and almost 44% of the students were age 31 or older. More than 5% of the students were veterans. There were 163 (61.7%) students in nursing programs, and 101 (38.3%) students in allied health programs. The overall mean number of credits completed was 48.3, with a range of 0-180 credits. A total of 54 students (20.5%) completed their program, and among these completers, only 25.9% indicated that they plan to pursue further education.

[18] Updated slightly from HealthCARE Montana November 2016 Newsletter.

Stone Child College

Program Summary	
List of all the new/revised programs	
• Rural Health Endorsement program • Emergency Medical Technician Apprenticeship program • Certified Medical Coder Apprenticeship program	
Additional Programs: Rural Health Endorsement/Certificate	
New or revised program	The Rural Health Endorsement program consists of three Biskanewin Ishkode classes that were added to the Rural Health Certificate Program and stand-alone as an endorsement program. The program was developed to provide students with an overview of the intergenerational effects of trauma on Native communities and traditional and western approaches to healing.
Start date	10/01/2016
Number of current/past students	Twenty-three students have completed the endorsement.
Apprenticeship Programs	
College Role	There is a tribal apprenticeship coordinator responsible for managing the apprenticeship programs at Stone Child College. The certified medical coder apprenticeship program retained more students than the emergency medical technician program. Apprentices in the certified medical coder program found using Moodle as the communication tool to be challenging, which led to several students cancelling their apprenticeship. However, the certified medical coder apprenticeship program retained more students than the emergency medical technician apprenticeship.
Sustainability plan	The apprenticeship coordinator is working with employers to determine need as well as looking into developing additional apprenticeship programs.
Emergency Medical Technician	
Number of apprentices	Two apprentices completed the apprenticeship program but for unknown reasons are no longer working at the clinic. .
Employers	Rock Boy Clinic
Curriculum delivery	Stone Child College: In-person
Date Started	April 2016
Certified Medical Coder	
Number of apprentices	Twenty-one enrolled in the didactic training,, students started the course, BIOH18001, Title Instructor, ICD - 10 Coding Apprenticeship. eight students completed the didactic, 5 received Apprenticeship placements at Rocky Boy Clinic, and two still work in the Medical Coding Department. Mainly due to technological challenges with Moodle, only 8 completed the program.
Employers	Rock Boy Clinic
Curriculum delivery	Online
Date Started	01/16/2017
Student Supports	
Extra support provided to students to increase access	The health care transformation specialist and career coach did not provide additional support with applying for financial aid because students already receive support from campus departments.

Grant resources spent on recruiting non-traditional students	The process for recruiting students for the historical trauma training was different because the courses were geared towards professionals such as SCC teachers at the local high schools.
Adequate advisement of program requirements	The HTS works to help students' meet their career goals when advising them on which programs would be the best fit.
Use of EdReady	The health care transformation specialist was unaware of any students using EdReady.
Use of Smarthinking	Smarthinking was advertised to students but students were intimidated by the level of technology required to use it and preferred attending in-person tutoring sessions.
Statewide staff collaboration	There was not much collaboration among statewide staff. The career coach did not work with students on campus. The HTS did not have much contact with other statewide staff after taking over from the previous HTS in October 2017.
Distance Learning Enhancements	
Infrastructure upgrades	N/A
Staff training	The health care transformation specialist is not aware of any formal staff training.
Employer Relationships	
New or enhanced	SCC did not communicate with new employers that they did not have a previous relationship with but did connect with new points of contacts at facilities where they had existing relationships. The HTS noted the importance of providing employers the opportunity to express their needs. Employers expressed a lot of needs that the college was not aware of but does have some of the resources to help address.
Impact	
Rural access	SCC has expanded its health career pathways by establishing apprenticeship programs to accompany its Emergency Medical Technician and Certified Medical Coder programs. Additionally, SCC created a Rural Health Endorsement program, which provides deeper insight into the lasting impacts of a traumatic historical past on a community and its members. This program is created with local working professionals in mind, so that they can better serve their community's needs. SCC worked with participants to increase program accessibility by allowing prospective participants to enroll for the program on-site.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	SCC will continue to enhance its relationships with local employers by maintaining an open dialogue with different contacts within the facilities.
Programs	The Rural Health Endorsement program will continue and the apprenticeship director is working to sustain the current apprenticeship programs and determine additional opportunities.

Highlighted Accomplishment

The Chippewa Cree Tribe's Stone Child College Behavioral Health Workforce Education and Training project recently implemented a Rural Health Endorsement Certificate curriculum developed specifically to address historical trauma. The curriculum focus is on confronting the past, understanding the influence of a traumatic past, releasing this painful past, and transforming the past into a healing experience. According to the Chippewa Cree cultural perspective, health encompasses mind, body and spirit. For this reason all community service providers in health care and education were encouraged to take part in Biskanewin Ishkode (Chippewa), IS-KO-TEW KAH-MAH-CH O-PI-KI-K (Cree) "Fire that is beginning to grow" Rural Health Certificate Program.

Twenty-four participants recently completed the Rural Health Endorsement Certificate, which included employees from the Chippewa Cree Tribe Temporary Assistance to Needy Families project, Rocky Boy and Box Elder schools, Rocky Boy Head Start and Early Head Start, Chippewa Cree Tribe Child Support Program, White Sky Hope Center, Stone Child College and Chippewa Cree Tribe Office of Victim Services. Participants now have an understanding of both the background and impact that a traumatic historical past has on the community members. They also have a deeper understanding of their clients and students. This knowledge will help them create deeper relationships with the community and begin to realize that disease is part of the "soul wound" of the past. The understanding of the psychological, physiological and spiritual implications of a traumatic past helps forge a healing paradigm that will address the whole person within a community setting.[19]

Summary of Student Outcome Data

The Stone Child College dataset contained information on 142 students with enrollment dates ranging from Fall 2001 to Fall 2017. Most of the students were female (83.7%) and American Indian or Alaska Native/Tribal (94.4%). The mean age of all students was 34.5 years (range 1-74 years), and more than 50% of the students were age 31 or older. More than 4% of the students were veterans. There were 11 students in nursing programs, 100 students in allied health programs, and 31 students in other programs. The overall mean number of credits completed was 25.4, with a range of 2-149 credits. A total of 51 students (35.9%) completed their program, and among these completers, only 25.5% indicated that they plan to pursue further education.

[19] HealthCARE Montana October 2017 Newsletter.

The University of Montana – Western

Program Summary	
List of all the new/revised programs	
• Pre-Health Nursing Track • Continuing Education Certificates (Phlebotomy, Physical Therapy, Pharmacy Technician) • Additional health courses added (medical terminology; nutrition)	
Pre-Health Nursing Track	
New or revised program	Western does not have any nursing programs but has created a pre-health nursing track so that students can complete all of their prerequisites to apply to one of the other state nursing programs. Western created agreements with other colleges so that students completing the pre-health nursing track can transfer their credits. This involves advising students and coordinating with other colleges to determine the requirements for the application process. Two new courses were required to complete this track: a medical terminology course and a nutrition course. Western created the curriculum for the new classes and already had faculty with the right expertise that were able to teach the courses. Western used grant funds to pay the instructors.
Start date	The new classes started Fall 2017. The rest of the track only required aligning what they already offered to the prerequisites of other nursing programs in the state.
Number of cohorts completing the program	The pre-nursing track is a 4 semester, 2-year long program. The first cohort will complete in Spring 2018. These students will not move into a nursing program until Fall 2018.
Number of current/past students	In Fall 2017, there were 25 students enrolled in the nutrition course and 25 enrolled in the medical terminology course. The number of students in the pre-health track is not known. The health care transformation specialist (HTS) was only able to count the students who had spoken to her about the program and whom she registered. The HTS advised approximately 30 students on the pre-health track.
Certificate Program: Phlebotomy	
New or revised program	Western began offering certificate programs for phlebotomy through the Continuing Education office. The classes are offered in the evening to accommodate work schedules and range from 50 to 70 hours. The programs were created based on conversations with local employers and other community members who provided feedback about their workforce needs and other colleges who already offer these programs.
Start date	Fall 2016
Number of cohorts completing the program	Two cohorts have completed the program.
Number of current/past students	Twenty-six students have completed the program.
Certificate Program: Pharmacy Technician	
: New or revised program	Western began offering certificate programs for Pharmacy Technician through the Continuing Education office. The classes are offered in the evening to accommodate work schedules and range from 50 to 70 hours. The programs were created based on conversations with local employers and other community members who provided feedback about their workforce needs and other colleges who already offer these programs.
Start date	Fall 2017
Number of cohorts completing the program	One cohort has completed the program.
Number of current/past students	Seven students enrolled in Fall 2017.

Certificate Program: Physical Therapy Aide	
New or revised program	Western began offering certificate programs for Physical Therapy Aide through the Continuing Education office. The classes are offered in the evening to accommodate work schedules and range from 50 to 70 hours. The programs were created based on conversations with local employers and other community members who provided feedback about their workforce needs and other colleges who already offer these programs.
Start date	Physical Therapy Aide will begin at the end of February 2018.
Number of cohorts completing the program	Physical Therapy certificate program has not yet started.
Number of current/past students	Western estimates 7-10 students will enroll in the program.
Certificate Program: Medication Aide	
New or revised program	Western will be adding a Medication Aide certificate program through the Continuing Education office. The classes are offered in the evening to accommodate work schedules and range from 50 to 70 hours. The programs were created based on conversations with local employers and other community members who provided feedback about their workforce needs and other colleges who already offer these programs.
Start date	Medication Aide is still in the development stage.
Number of cohorts completing the program	Medication Aide certificate program has not yet started.
Number of current/past students	N/A
Student Supports	
Extra support provided to students to increase access	N/A
Grant resources spent on recruiting non-traditional students	Western has focused on recruiting non-traditional students into the pre-health track. They have done so by reaching out to the TRIO department and building a relationship with local job services as well as Western's rural job coordinator to target non-traditional students.
Adequate advisement of program requirements	Advising was a key activity of Western HealthCARE MT work. Western focused on aligning classes to form a pre-health nursing track and then educating current/prospective students and faculty/staff about the program.
Use of EdReady	EdReady is made available through the learning center on campus and is used daily. The health care transformation specialist noted that 25 percent of the eligible HealthCARE MT students use EdReady.
Use of Smarthinking	Western discontinued Smarthinking because student services had other programs they used instead.
Statewide staff collaboration	The HTS noted that they had minimal contact with the career coach for their region. There was some turnover within that position and also the HTS mainly coordinated with the colleges own advisors on campus. The HTS did the advising and responded to career related inquiries. However, the HTS described her relationship with other HTSs as collaborative and positive. Often, the weekly Wednesday meetings of statewide staff would spark interesting conversations that would be continued along less formal lines of communication.
Distance Learning Enhancements	
Infrastructure upgrades	Western did not use grant funds to upgrade their infrastructure to enhance its distance learning capacity.

Staff training	Most of the prerequisites that were offered online were already in place so they did not need to train staff.
Employer Relationships	
New or enhanced	The HTS shared that the relationships with health care employers were all new since she came onboard in 2015. The HTS took the lead creating those relationships but did also work in partnership with the regions Workforce Coordinator (WFC). The HTS felt confident that these new relationships would continue. The HTS is still working with the WFC to continue fostering new relationships with new employers.
Impact	
Rural access	By developing a pre-health care track, Western can now support local students in starting their health care career plan. Students do not have to leave the area to go to a bigger school to get access to health career pathways.
Sustainability	
Relationships (Employers, statewide staff, cross-college)	The HTS will remain in a similar capacity and will continue to educate staff and advise students about opportunities at Western as well as communicate with employers to determine workforce needs. The HTS did express some concern about continued communication across colleges after the grant ends if there is not a staff member at other colleges who assumes the duties of the HTS.
Programs	The articulation agreements for the pre-health track will remain in place with the other colleges. Additionally, the new certificate programs will be offered through the Continuing Education department.
Highlighted Accomplishment	
Western became more equipped to serve the community's workforce needs by building institutional capacity to support students to further their health care education. Western created two new classes in nutrition and medical terminology to expand the nursing prerequisites offered at the college. With the addition of these new classes, Western clearly outlined a pre-health nursing track that would transfer to other college nursing programs in the state. Western increased its advising to students and its outreach to the community about how Western could now support them in starting their health care career plan. Students do not have to leave the area to go to a bigger school to get access to health career pathways. Further, Western created several certificate programs they offered at night so that students could work as they continued their education. In the process, Western created an impressive network of support through building new relationships with employers and other colleges to determine workforce needs which they expect will continue long after the grant ends.	
Summary of Student Outcome Data	
The University of Montana Western does not offer any nursing or allied health programs, but students are able to take nursing and allied health prerequisite courses.	