

# **Building Tomorrow's Healthcare Workforce**

## **Boise School District Final Grant Report**

### **April/May 2020**

#### **Introduction**

The Workforce Development Council Outreach Grant funding supported a year-long environment of student and community engagement for Boise School District health profession students. Hundreds of students and countless community members participated in activities and events that promoted career insight/readiness, leadership, and “eye-opening” experiences, all leading to a better informed, better prepared future workforce. Thanks to this funding, students, staff, community leaders, and health professionals have altered and enhanced their perspectives on each other, current and future professionals, and current and future career pathways.

Although COVID-19 cut school year activities short, students were fortunate to participate in all but one grant activity (ISU Pocatello trip). These activities included the amazing experiences listed below:

1. Visits to Saint Alphonsus
2. BSU Health Sciences Day
3. High School Recruiting Visits to Dennis Technical Education Center (DTEC) Health Professions programs
4. ISU Meridian and Treasure Valley Anatomy & Physiology Labs (TVAPL)

Following is a summary of each grant activity along with quantitative and qualitative survey results. Additionally, Appendix A contains overall project outcomes while Appendices B and C provide supplemental information and resources.

#### **Grant Activities and Survey Results**

1. Student visits to Saint Alphonsus (200 total students)

The month of October was exciting as four different student groups visited a variety of Saint Alphonsus programs during four tours. At the beginning of each session, students had the opportunity to meet HR recruiters who reviewed the need for health professionals as well as benefits within a variety of health-related career paths. Students also engaged in Q & A with hospital staff and signed up for job shadow opportunities in the spring (due to COVID-19 these opportunities were cancelled). Tours consisted of four or five rotations put together to expose students to the magnitude and inner workings of a hospital while protecting patient privacy (no small

task) and presenting many health-related career options. Groups were led by practicing nurses and other hospital staff. Students and staff were able to explore areas including OT/PT, Maternity, Technology, NICU, Dietetics, OR, labs, supply chain, Life Flight Command Center, Sim Lab, and social work. These experiences opened students' eyes to the monumental task of day-to-day hospital operations and patient care. Additionally, during each tour, at least one patient on a gurney passed by (some in critical condition), lending even more reality to their experience.

Because Saint Alphonsus stepped out on a limb to allow high school students into their facility and we were all trying this for the first time, we gained great insight into future planning and partnerships. First, we relearned what we already knew- scheduling is always a challenge. However, between hospital staff schedules, exams, homecoming, parent conferences, etc... we only lost our November date and still managed to hold four sessions!

This grant allowed us to open doors and build relationships to continue with this valuable work into the future. As one example, Saint Alphonsus OT/PT staff has already been to DTEC classrooms to provide specific instruction on patient lifts for students. Job shadowing is another significant result. Teachers have been working toward this possibility for years, but existing organizational challenges for both the School District as well as hospitals created challenges that impeded progress. Although students were not able to participate this spring due to COVID-19, just getting that door open, implementing the logistical processes, and having students complete all steps to qualify is a testament to the partnerships and opportunities this grant made happen.

#### Survey Results

Even as we were working out first-time kinks in schedules and presentations, 82% of the students rated their overall experience at Saint Alphonsus as a 4 or 5 (out of a 5 point Likert Scale), with 14% neutral, and only 4% at 1 or 2. 72% of the students indicated the experience helped solidify their health professions career path (our main goal for the Saint Alphonsus partnership) while 17% were neutral and 11% were mostly unaffected. When asked about post graduation plans after the Saint Alphonsus experience, 86% indicated they planned to enter a health professions field either directly (17%) or by enrolling in a health professions college program (69%) while 12% were unsure and 2% have no plans to enter a healthcare field.

Qualitatively, the majority of the students indicated they would have liked more time at Saint Alphonsus overall and more time at stations during the rotations. Students also suggested more interaction/discussion with medical staff even if they could not visit the specific department. Some indicated their interest in seeing the overall hospital operations while others wanted only medical interaction. Overall, it was a successful beginning and both the District and Saint Alphonsus gained a great deal of insight for future planning.

## 2. BSU Health Sciences Day (130 total students)

The Boise State Health Sciences department went above and beyond to provide a full day of health professions student experiences. Students were able to rotate through tours of Kinesiology, Respiratory Care, Radiologic Sciences, and Community & Environmental Sciences in small groups. They enjoyed engaging in hands-on activities and having conversations with faculty. For example, students were able to perform ultrasounds on BSU students and learn about the zero-gravity treadmill in the Kinesiology performance lab. They also examined x-rays and learned how to do tracheotomies on manicans (and more). While the rotating groups were shuttled around campus, the other students were at the Student Union working in small groups with BSU faculty. Students participated in three activities including a Game of Thrones quote/personal experiences exercise, developing a personal mission statement, and brainstorming post-high school needs/plans. They also learned more about programs and careers from several speakers including a practicing ER doctor and the department head of Community & Environmental Health. The day wrapped up with Game of Thrones t-shirts for the students (provided by BSU).

### Survey Results

Boise State did not play as large of a role in helping solidify health profession career plans as Saint Alphonsus. 40% of students indicated a 4 or 5 while 33% were neutral and 27% selected 1 or 2. These data make sense as Saint Alphonsus is more associated with “careers” and Boise State provides pathways to those careers. However, the hands-on program experiences, welcoming staff, and variety of accessible programs for varied GPA levels pushed numbers of students likely to choose a health professions career to 92% at 4 or 5, 5% neutral, and 3% indicating 1 or 2. 77% of the students felt the day expanded their thinking about health profession careers while 15% were neutral and 8% were not significantly impacted.

Like Saint Alphonsus, students again indicated they would have liked more time during program rotations. They were really excited about the hands-on experiences and their interaction with medical equipment and college students. Their suggestions included more engagement/movement during the formal presentations at the Student Union. Students were also interested in participating in campus life by touring different facilities like dorms, the rec center, and classrooms. Overall they loved the day and found it valuable whether or not they were planning on attending BSU specifically.

The Boise State faculty and staff who participated were extremely positive and are already talking about planning and improvements for next year.

### 3. High School Recruiting Visits to Dennis Technical Education Center (DTEC) (340 total students)

This grant has also provided funding to begin something that the high schools and DTEC have been wanting for a long time- bringing Health Occ I, Medical Terminology, and Sports Med students from all District high schools to explore DTEC programs. Visiting students were provided with lunch and a brief meeting with the DTEC principal. They then rotated through sessions on Dental Assisting, EMT/EMR, CNA, medical school (ICOM), WWAMI, ISU, and Ada County and Saint Alphonsus recruiters. Dental Assisting, EMT/EMR, and CNA provided hands-on sessions with DTEC instructors. Current DTEC students also helped lead presentations and demonstrations in a variety of areas (i.e. Hoyer lift, backboarding, bacterial stain, etc...). These leadership opportunities and student-to-student interactions were invaluable in providing program insight through peer perspective.

Visiting students also had the opportunity to learn about medical school from ICOM and WWAMI students as well as the Pharmacy program at ISU. Because word spread and more students/staff wanted to attend as this event progressed, we also added a fifth rotation for Capital and Timberline to make group sizes more manageable. These students were also able to meet with recruiters from Saint Alphonsus and Ada County to learn about resume writing, interviewing, and qualities employers look for in prospective employees.

#### Survey Results

87% of the students visiting from the four traditional high schools felt the overall visit to DTEC was excellent or near excellent, with 13% neutral, and 0% negative. One of the central goals for the visits was to solidify students' interest in continuing with health professions courses, ultimately increasing the number of students in DTEC programs. 81% of students indicated that the experience had helped solidify their plans while 14% were neutral and 5% were not impacted. The program enrollment impact of these numbers are detailed in the overall project outcomes in Appendix A.

Qualitatively, students enjoyed the hands-on experiences at DTEC and would have loved even more. They found the staff to be friendly and appreciated having students lead sessions and demonstrations. They were not as enthusiastic about the sessions with guest presenters. Those sessions were the least interactive and garnered the most "boring" comments. They enjoyed being in the classrooms but suggested more direct connections with future careers and college programs. One student even had the insight to ask, "What type of student is successful at DTEC?"

#### 4. Idaho State University Meridian and Treasure Valley Anatomy & Physiology Labs (TVAPL) (100 total students)

DTEC students were able to participate in gross anatomy labs at TVAPL- a privilege typically reserved for graduate-level college students. After a great deal of negotiating and planning, they opened up two lab sessions for a total of 120 students (fewer attended due to conflicting clinical dates).

Students participated in 90 minute lab sessions, rotating through four body system stations led by lab technicians. Technicians provided instruction and guidance through continuous engagement with students on the following topics:

##### Station 1: Cardiovascular system

- Pericardium,
- Heart chambers, valves, inflow & outflow pathways,
- Coronary circulation

##### Station 2: Respiratory system

- Upper airways (nasal cavity, nasopharynx, oropharynx, larynx, trachea)
- Lower airways (bronchial pathways & alveoli, lungs & pleura), thoracic diaphragm, intercostal muscles

##### Station 3: Nervous system

- Central nervous system (brain & spinal cord, meninges)
- Peripheral nervous system (cranial nerves, spinal nerves)

##### Station 4: Musculoskeletal system including joints

- Axial & appendicular skeleton
- Skeletal, smooth, & cardiac muscles
- Structural & functional joint types

Many of the students were nervous, but they all handled it well. One student had to leave and two had to sit down, but no one fainted (which was amazing). It was a highlight of their entire year.

While half of the students were in the lab, the other half was learning about health professions programs, prerequisites, and financial aid. Students were also able to engage with a student panel consisting of representatives from multiple ISU programs. Again, student-to-student interaction was so appreciated by students as they connect on a different level, asking more questions and even sharing contact information for follow up opportunities.

## Survey Results

Our grant application deemed the ISU TVAPL gross anatomy lab as the grant “cornerstone project” and that is exactly how it turned out. It proved to be an outstanding event for pulling together coursework, Saint Alphonsus visits, and BSU Day into a very “real” experience. 94% of the students indicated it was an excellent experience, a great way to spend the day, and an experience they would recommend for future students. To describe their experience, 56% selected “fantastic,” 37% chose “eye-opening,” and 5% marked “uncomfortable.”

For the ISU program portion of their day, 78% of the students felt the sessions were useful and that they learned about diverse programs while 19% were neutral and 3% indicated little impact.

A consistent thread through all the grant activity surveys was the request for more time, and this was no different. Students indicated they would like more time in the labs and at each station. They also provided helpful suggestions like spending more time in the virtual lab and learning how to manipulate that cadaver table. Additionally, they asked about touring the facility and learning about other programs and prerequisites. From an observational standpoint, they were also proud of their ability to participate in the labs and it made them feel like they could truly accomplish their medical goals.

## Lessons Learned

As with any newly implemented plans, lessons are learned along the way. We were no exception. As mentioned previously, scheduling is always challenging. Between hospital medical staff, school events, student schedules, clinical requirements, illnesses, etc... we planned to create the best possible scenarios for the largest number of students. Invariably, we hit snags but everyone worked together to iron things out as best as possible. Ideally, 15-20% additional students could be wait-listed for activities. We did try that once, but found that students lost interest if they did not get a slot in the beginning. There is still potential with that strategy however, and our messaging to students could be improved.

Staff also learned about balancing schedules, student time out of class, and connections to the curriculum. They have great insights for planning next year and are working to calendar events in a way that is more spread out and less concentrated in the fall.

Perhaps the most valuable lesson learned is one of expectations. Because students and staff had not participated in these experiences, they were uncertain of what to expect. Staff did not know the best way to prepare students and help set their expectations. Fortunately, most were willing adventurers and understood the fluidity of adjusting new experiences to better meet desired outcomes. Participating in an event, even if it is just one time, provides a more focused lens into future planning and student

preparation. This insight combined with survey data will serve us well as we continue to plan and expand into the future.

### **Conclusions**

This grant was a truly beneficial experience for our staff and students. The richness and depth each activity added to the curriculum is priceless in overall value and impact on our future health professional workforce. These students were able to experience settings, participate in activities, and immerse themselves in topics in ways that previous classes never did. Their eyes were literally opened- and it came during high school, not in college prerequisite classes. Although some students will still adjust their ultimate field of study, these experiences provided detailed insight that helped them broaden their scope of choices, understand the steps needed to access those choices, and narrow their desired career paths.

Thank you again to the Workforce Development Council for providing this wonderful opportunity for students.

## Appendix A

### Project Outcome Results

Outcome #1: Strengthening the commitment of Year 1 Health Occ students and DTEC students to enter a healthcare field after graduation.

#### Results:

Year 1 Students- In varying degrees, 81% of Year 1 Health Occ students indicated their experiences at DTEC helped solidify their interest in entering a healthcare field. On a 10 point Likert Scale, 14% selected 7, 23% chose 8, 15% selected 9, and 28% marked 10.

DTEC students- After 2019-2020 grant activities, 81% of DTEC students overall are more committed to entering health-related careers with almost half marking 5s. When broken down by grade level, 85% of Juniors solidified their plans while 83% of Seniors are even more committed to entering healthcare fields\*.

Outcome #2: Increase the percentage of Year 1 Health Occ students entering programs at DTEC from 30% to 40%.

#### Results:

As of Spring 2020, Year 1 students enrolling in DTEC programs increased to 38%, short of our 40% goal but still a significant increase.

Overall enrollment in each program also increased by the following percentages:

- CNA- 15%
- EMT/EMR- 38%
- Dental- 38%

Outcome #3: At least 50% of graduating DTEC health professions students will enter a postsecondary health professions program and/or the healthcare field directly.

#### Results:

Overall, 86% of students marked they would enter a health profession career path- 72% of the students will enter a health professions college program while 14% will enter a health career directly after high school. When examining Senior responses, 74% will enter college health professions pathways while 17% will enter health fields immediately\*.

\*Due to the COVID-19 pandemic, electronic surveys were used to gather final data sets. 37% of the total student population responded which provides solid statistical samples. Of the respondents, 62% were Juniors and 38% Seniors.



## **Appendix B**

Final Grant Video- coming August or September (as soon as I can access equipment)

[YouTube Grant Video](#) (Semester 1)

## **Appendix C**

[Grant Implementation Handbook](#)