Medical schools that actively engage the community around them are able to respond more effectively to the health-related needs of that community. Furthermore, involvement in the community fosters partnerships that result in sharing and maximizing resources and helps children develop healthy behaviors while promoting healthy families. These partnerships also directly benefit the medical schools; community involvement directly predicts the degree to which academic institutions engage community members in their studies, something that most faculty agree enhances the relevance of their clinical research.

The University of Colorado School of Medicine has made many such efforts since establishing a new campus in Aurora, CO in 2007. Programs such as the creation of a sports club for elementary school students, health fairs, community gardens, and farmers’ markets have been initiated, often with medical students and faculty serving as leaders on the projects. Unfortunately, a firm bridge between community and campus remains elusive, and many challenges to community engagement remain.

This issue may be partly due to the fact that the amount of cultural diversity seen on campus is not reflective of that seen in the surrounding Aurora community. For instance, 24% of the faculty at the Colorado campus are non-white, with 20% of the doctoral professional degrees in the past 10 years awarded to non-white persons. This is in contrast to the 40% non-white population in Aurora, most of whom live in the area surrounding the campus. Indeed, only 17% of students enrolled in Aurora public schools are white. Additionally, while 16% of Aurora's population lives in poverty (higher than the state and national averages), the percent of people living in poverty surrounding the campus is even higher. Greater than 90% of students attending the five nearest elementary schools reside in a household with an income within the 185% Federal Poverty Level. Socioeconomic barriers to health coverage and health access are prevalent in Aurora, making outreach through University Hospital and other campus clinics difficult.

Here we present an interprofessional effort, led by medical students, to establish a campus presence at the neighborhood elementary school. With the support of the Anschutz Student Senate Committee, Office of Diversity, and Paris Elementary School, we developed a pilot educational program: The Creative Writing and Reading Partnership Program, for underprivileged elementary students in the Aurora community as part of the ongoing community outreach efforts of our campus. This program targeted reading
and writing, as many of the students are Spanish-speaking only, or have limited English-speaking abilities.

Creation of Pilot Outreach Program

The Creative Writing and Reading Partnership Program was held on six Saturdays for one hour each between January and April 2013. It allowed over ninety interested elementary students from grades K-5 to practice their writing and reading, in some cases learning English during the process. This program was implemented by a collaborative effort between teachers, authors, principals, librarians, and commercial booksellers in order to create a successful curriculum. The funding required was provided by the President’s Fund for the Support of Student Diversity Programming, which is intended for student programs, events, and travel that enhance ethnic, cultural, and gender diversity among University of Colorado students. We submitted a grant proposal that included items such as the purpose of the program, outcome measurements and plans to share these results, estimated costs, and benefits to the Anschutz Medical Campus students. Additionally, Barnes & Noble, Inc. donated 25% discounts and tax-exempt status for books used by the program.

Program Participants

The program targeted students that suffer a great deal of socioeconomic adversity; 93.6% of Paris Elementary students qualify for free or reduced lunch, a cut off that represents families living within 185% of the Federal Poverty Level. Additionally, 77.2% of students qualify as English language learners, with 3.4% of Spanish-speaking students considered fluent in English. The majority of the students are Hispanic (82.9%), while 9.1% are African-American, and 3% are white.

Of the 91 children who signed up, 74 participated in the reading sessions, and 32 in the writing sessions. 15 children participated in both programs. To better assess their needs, we attempted to survey the parents about their children’s current abilities and confidence in their reading and writing abilities, interactions with others, and use of the English language. We also planned to survey the parents at the end of the program to evaluate its successes and failures. Unfortunately, only three of those initial surveys were returned.

Our goals for the elementary students were to improve their academic skills of writing and reading in English while maintaining a fun, nurturing environment that would foster their love of learning. To this end, we selected books known for their popularity among children, which the students were able to keep at the close of the program, and used online teaching resources to supplement their comprehension through question contests and puzzles. The students were separated into groups by grade; the kindergartners and first graders read picture books, while the second through fifth grade students read chapter books. Four different chapter books were selected based on expected reading level for each grade; these were the books read throughout the program.

The creative writing program originally consisted of third through fifth graders due to their expected independent writing ability, although second graders also attended throughout the program. Each session began with a group discussion on a specific topic for creative writing, such as “plot,” “conflict,” and “description.” The students were then split into groups to discuss the topics and write their own stories and autobiographies. At the end of the program, we compiled books of these written works, as well as some photographs, and gave a copy to each child. These booklets were so popular with the children that Paris Elementary students who did
not participate in our program requested their own copies. For both sessions, one volunteer was paired, on average, with four or five students.

Volunteers were exposed in turn to a diverse group of children in the Aurora community, allowing them to practice their mentorship and leadership in a multicultural setting while instilling diversity into the institutional consciousness. They were recruited using listservs to all Anschutz Medical Campus students, representatives from Student Senate advertising to their individual classes, posting in school Facebook pages, and word-of-mouth. The only requirement was that the volunteers needed to be affiliated with the University of Colorado (for insurance purposes). The volunteers mainly included medical students, dental students, pharmacy students, staff, graduate students, nursing students, and physical therapy students. The majority of participants came to only one session, although a handful attended multiple sessions. The lack of recurring participants was expected, considering that many students had demanding schedules.

**Program Assessment and Outcomes**

All volunteers were formally surveyed before and after each session using Google Survey; they were informally asked about their general experience at the end of each session to help improve future sessions. Twenty-nine volunteers responded to the pre-surveys, and twenty volunteers responded to the post-surveys. At the first reading session, the attention spans of the students were shorter than anticipated, and this led most volunteers to suggest a reduction in session time in order to allow for more actual reading. To remedy this obstacle, we used online teaching resources to create word searches, crossword puzzles, and contests related to the content of the books in an effort to spark the children’s engagement, as well as to help with reading retention. During the next session, we noted a marked improvement in enjoyment for the volunteers with comments such as, “Outstanding program! I will be a returning volunteer.” We also observed that the students seemed to be more engaged as they participated; they smiled more often and did not ask for bathroom breaks. At the end of the hour, we had trouble convincing the students to leave; they said they were having too much fun. This year, we have been told that the Paris students are already asking when the reading program will start again so that they can get their free books.

Our other major roadblock was the variable reading levels. Some students could read proficiently; others had trouble reading simple picture books, and some could not read any English. Originally, we chose two books for the four grades, but we soon learned that we needed to accommodate greater variability in reading levels, so we added two more books to the curriculum. We also found that it was more effective to organize the groups based on reading ability rather than grade. For the group that consisted solely of Spanish speakers, we bought picture books that translated words and paragraphs from English to Spanish. We had at least one volunteer who was fluent in Spanish during all reading sessions and two out of three writing sessions. For this last session without a fluent Spanish speaker, we paired a volunteer who knew a moderate amount of Spanish with a student who was proficient in both Spanish and English; this helped the students in the group who could only speak Spanish.

The program assessment demonstrated high satisfaction among the volunteers. The majority of volunteers agreed or strongly agreed (95%; 19/20) that the program benefited the students, gave them the opportunity to practice mentorship and leadership, and increased their experience in working with diverse students. The majority of volunteers also agreed or strongly agreed (85%; 17/20) that the program gave them
the opportunity to increase the Anschutz Medical Campus institutional awareness of diversity in the neighboring community, compared to 59% (17/29) in the pre-survey who agreed or strongly agreed that they had previous opportunities to bring diversity to the institutional consciousness.

**Future Directions**

In the future, we will target increased enrollment of Non-English proficient students, who were underrepresented in our program. We suspect that there may be cultural differences that affect attraction to the program, and even adjustment of the flyers and permission slips sent home may improve recruitment. This year, our contact at Paris Elementary is individually calling the parents of children whom she thinks need the most help. Collaboration with faculty who specialize in culturally effective medicine and teaching can also help us develop a more culturally-directed curriculum, as well as teaching methods to better help the students connect to the novels. We will also attempt to find a more effective way to survey parents and students for their perspective on the successes and failures of the program, which will help us to improve the program for future participants. We will increase advertising in order to include more staff, faculty, and students from all campuses at the University of Colorado; we will especially focus on recruiting those with foreign language skills. This will hopefully increase our ability to expand our presence at a largely Spanish-speaking school, and perhaps it will eventually allow for expansion to other schools as well. Lastly, we are writing to publishing companies requesting book donations and have received thirty books. These will serve as prizes for our puzzles and contests; this will allow us to give the children more free books and motivate them to do their best.

In summary, we were successfully able to implement a sustainable and reproducible academic program for a diverse group of underprivileged children whom benefited from the additional support and opportunities to improve their English. This was done as part of an ongoing community outreach effort for the Anschutz Medical Campus. The volunteers benefited from the opportunity to interact with their surrounding community, and they will hopefully be able to apply these interactions to their patients who come from this community.

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**REFERENCES**


