Nursing workforce diversity: Promising educational practices

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ARTICLE INFO

ABSTRACT

Background: Nursing workforce diversity is a national priority for providing culturally competent care and contributing to improved health equity. While nurses from underrepresented populations are increasing in the nursing workforce, the distribution of nurses in the United States is still not representative of the population.
Purpose: The purpose of this paper is to describe the current state of workforce diversity in Western states and identify promising practices from programs located in Arizona, California, Colorado, and Oregon that are focused on improving nursing workforce diversity.
Methods: Four innovative programs to address nursing workforce diversity are presented. Each project has unique situations and approaches to improving admission, retention, and graduation of students underrepresented in nursing. Similar approaches each project used include holistic admission review, academic and student support, financial support, and mentoring.
Conclusions: These projects contribute to knowledge development related to improving nursing workforce diversity for other colleges, universities, and states to consider. Improving nursing workforce diversity is a priority issue that could lead, through collective impact, to resolving health inequities nationally.

Introduction

There has been a national focus on improving nursing workforce diversity as a key strategy to resolve health inequities and to further advance our profession as one that contributes to social justice, is nondiscriminatory, and reflective of the communities we serve. The Institute of Medicine (now Academy of Medicine) (2010) report *Future of Nursing: Leading Change, Advancing Health* developed several recommendations for changes in nursing education, practice, and research, one of which was to make workforce diversity a priority. While minority nurses are increasing in the nursing workforce, the distribution of nurses in the United States (U.S.) is still not representative of the population. The Western states have the largest representation of Hispanic and American Indian nurses and although progress has been made towards increasing workforce diversity, theses states continue to have the largest gaps in Hispanic nurse representation in the workforce (Xue & Brewer, 2014). Young, Bakewell-Sachs, and Sarna's (2017) assessment of the current state of education, practice and research in the

Western states also recommended prioritizing policy efforts to improve workforce diversity that could lead to improved health equity in our Western states. The National Advisory Council for Nursing Education and Practice (2013) recommended dissemination of best practices to improve nursing workforce diversity. The purpose of this paper is to describe the current state of workforce diversity in Western states and identify promising practices from four innovative programs located in Arizona, California, Colorado, and Oregon that are focused on improving nursing workforce diversity. All four programs have been funded through the Health Resources Services Administration (HRSA) Nursing Workforce Diversity (NWD) grant structure from 2017 to 2021.

Current state of nursing workforce diversity

There are state and national sources of nursing workforce data that can provide information on the diversity of the current workforce. Zangaro, Streeter, and Li (2018) evaluated trends from the American Communities Survey of minority (race and ethnicity other than non-

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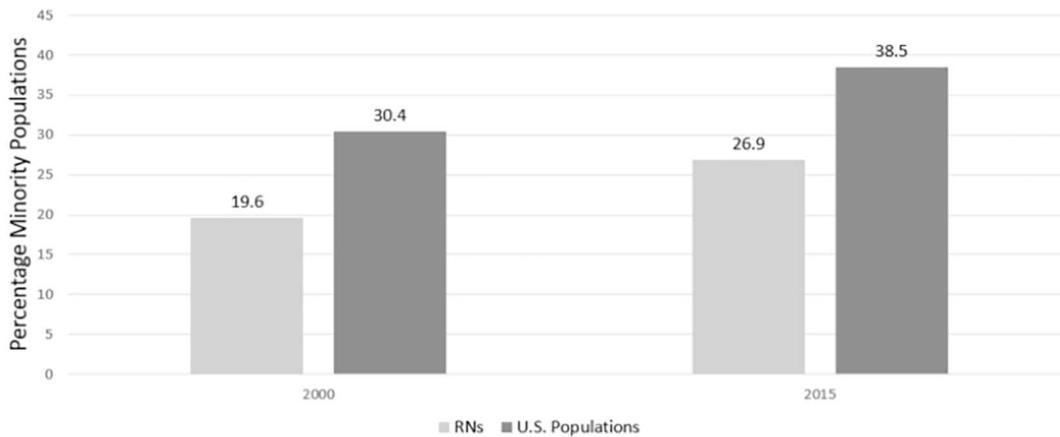
Fig. 1. HRSA health workforce data 2000 and 2015: registered nurse (RN) and population percentage minority populations (Zangaro et al., 2018).

Hispanic white) nursing demographics in comparison to the U.S. population from 2000 to 2015. Although growth in the minority registered nurse (RN) workforce has lagged in comparison to U.S. minority population, the proportion of growth for the minority RN workforce rose 38% over these 15 years from 19.6% to 26.9% compared to a 27% proportion of growth for U.S. minority populations from 30.4% to 38.5% (see Fig. 1).

However, growth slowed between 2015 and 2017. The National Nursing Workforce Survey is a biennial nursing workforce survey by the National Council of State Boards of Nursing and The National Forum of State Nursing Workforce Centers and is based on a sample of active nursing licensees (Smiley et al., 2018). Comparisons across racial/ethnic groups demonstrate that from 2015 to 2017 the RN workforce has seen little to modest change (Fig. 2).

Additional data sources identify demographic trends related to new graduates entering the workforce. The American Association of Colleges of Nursing (2018) provides annual diversity data for nursing graduates by baccalaureate (BSN) and graduate degree and Fig. 3 demonstrates growth in both BSN and graduate minority diversity in the decade from 2008 through 2017.

The Campaign for Action (2019) monitors progress of the Academy of Medicine recommendations and provides dashboard data comparing the racial and ethnic composition of the general population with pre-licensure nursing graduates from 2011 and 2017. Data are available for all states and evaluating your state data dashboard can be particularly useful to focus diversity efforts to achieve parity with the state population. Table 1 provides the data comparison for Arizona, California, Colorado and Oregon, the four western states that comprise the focus of this paper.

Description of projects

The four projects illustrated in this paper each represent a unique approach to improving workforce diversity. The programs have similar features including financial support for diverse nursing students, academic and student support, mentoring, and a focus on implementing holistic review admission processes as supported by the National Advisory Council for Nursing Education and Practice (2013). Each program consulted with a healthcare professional organization to facilitate implementation of holistic review, a crucial strategy to increasing nursing workforce diversity. Holistic admission review includes assessing the applicant's experiences and attributes in addition to academic metrics to identify applicants' potential contribution to the profession of nursing (Wros & Noone, 2018). Each program was at a different point on the continuum of implementing a holistic review process and consulted with the American Association of Colleges of Nursing (2019) or the National League for Nursing (2017) to further their journey. Since diverse nursing students may be impacted by social determinants of education (SDE) or additional barriers related to admission, retention and progression (Graham, Phillips, Newman, & Atz, 2016), each program developed promising practices to support student recruitment, admission, retention and success (Gates, 2018). Each program, in addition, developed a sustainability plan to transition best practices developed into the fabric of the organization after the grant period ended.

Each of these programs exist in a public university or nursing organization within an increasingly diverse state and evolved out of the institution's commitment to diversity, health equity, and public accountability. Active support and commitment to diversity initiatives,
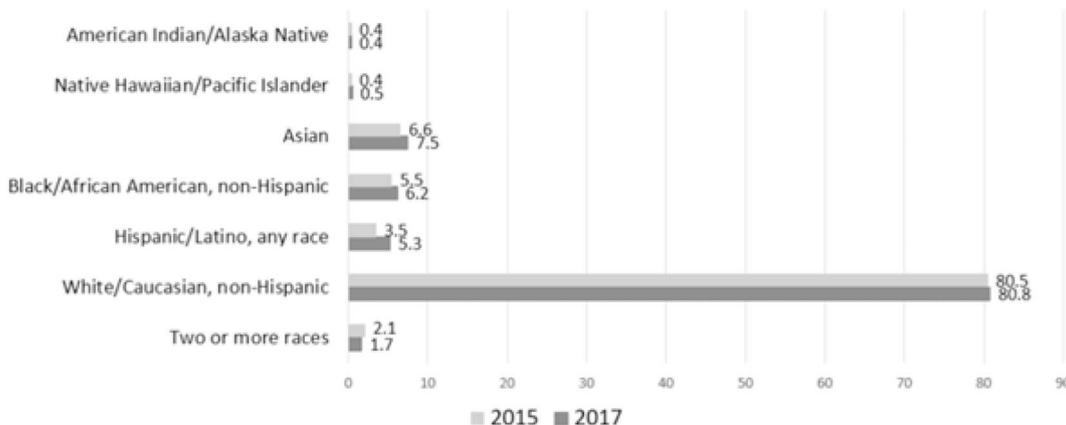

Fig. 2. Racial and ethnic distribution of RN workforce 2015 and 2017* (Smiley et al., 2018).
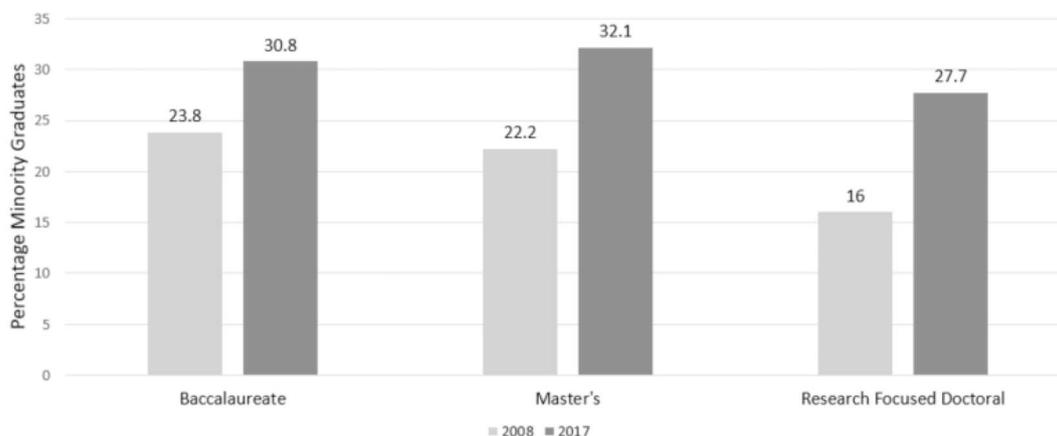*Data cells do not add up to 100% because of missing responses. Weighted sample calculations were used.

Fig. 3. Percentage minority graduates from generic baccalaureate, master's and research focused doctoral programs 2008 and 2017 (AACN, 2018).

such as these projects, include having institutional commitment and academic nurse leader championing. Ongoing faculty development, student/faculty dialogue and disseminating successful outcomes are key to maintaining buy-in.

The first project, the *Arizona Nursing Inclusive Excellence* (ANIE) program reduces barriers to undergraduate and graduate education for underrepresented students in the dominant cultures in Arizona: American Indian, Hispanic, rural, and border residents through an academic enrichment program that includes summer intensives, a writing skills improvement program, faculty and peer mentoring, and a student self-care and resiliency program. The second project, *Enrichment Markers of Better Relationships, Academics, & Cultural Enhancement* (EMBRACE) describes a program for undergraduate and graduate students who reflect the underserved communities in which

graduates practice in California and describes the promising practice of a nurse coach who makes rounds to classes to provide support for students and structured seminars on time management and study skills. The third project presents a collaborative of a state nursing workforce center and six rural and urban associate degree (ADN) and BSN programs in Colorado and focuses on the promising practice of a mentoring institute to prepare nursing mentors for nursing students from these 6 schools of nursing. The fourth project, *Advancing Health Equity through Student Empowerment & Professional Success* (HealthE STEPS), presents promising practices to implement a multi-campus undergraduate initiative to improve workforce diversity and discusses mentorship, career planning, case management and deployment of holistic admission strategies through partner schools throughout Oregon.

Table 1

Comparison of registered nurses (RN) graduates from 2011 and 2017 in comparison to state population in Arizona, California, Colorado and Oregon.

	Arizona				California			
	2011		2017		2011		2017	
	Nursing school graduates	General population	Nursing school graduates	General population	Nursing school graduates	General population	Nursing school graduates	General population
White	62.9%	57.5%	57.8%	54.9%	37.2%	39.8%	35.4%	37.2%
Hispanic	12.2%	29.9%	22.4%	31.4%	18.0%	38.0%	24.3%	39.1%
Asian	4.0%	2.8%	4.7%	3.5%	26.1%	13.2%	25.4%	14.5%
American Indian or Alaskan Native	1.5%	4.0%	1.6%	4.0%	0.7%	0.4%	0.5%	0.4%
Black or African American	3.3%	3.8%	4.6%	4.3%	1.4%	2.5%	3.9%	2.7%
Native Hawaiian or other Pacific Islander	0.2%	0.2%	0.7%	0.2%	0.9%	0.4%	1.2%	0.4%
Two or more races	0.9%	1.8%	3.5%	2.0%	4.7%	5.8%	4.5%	5.6%

	Colorado				Oregon			
	2011		2017		2011		2017	
	Nursing school graduates	General population	Nursing school graduates	General population	Nursing school graduates	General population	Nursing school graduates	General population
White	73.6%	69.8%	73.1%	68.3%	76.7%	78.2%	71.9%	75.8%
Hispanic	9.8%	20.8%	12.0%	21.5%	4.2%	12.0%	8.3%	13.1%
Asian	3.1%	2.8%	3.8%	3.2%	5.2%	3.8%	6.0%	4.5%
American Indian or Alaskan Native	2.6%	3.8%	2.7%	4.0%	1.4%	1.1%	0.6%	1.1%
Black or African American	1.0%	0.6%	0.6%	0.6%	0.6%	1.7%	1.3%	1.9%
Native Hawaiian or other Pacific Islander	0.2%	0.1%	0.2%	0.1%	0.5%	0.3%	0.4%	0.4%
Two or more races	0.4%	2.0%	2.4%	2.3%	1.8%	2.8%	6.7%	3.2%

Table 2

2015 Arizona state population, RN, and UACON demographics comparison (Tabor et al., 2015; The U.S. Census Bureau, 2015).

Race	State population	Arizona RNs	UACON
Hispanic	30.7%	6.2%	10.2%
American Indian/Alaska Native	5.3%	1.1%	0.7%
Black/African American	4.8%	2.4%	4.7%
Native Hawaiian/Pacific Islander	0.3%	< 0.1%	0.1%
Asian	3.4%	4.8%	5.7%
2 or more races	3.4%	0.1%	0.2%

Arizona Nursing Inclusive Excellence (ANIE)

State nursing workforce diversity statistics

In 2015, multiple factors converged to create a critical need for the University of Arizona's College of Nursing (UACON) program to address a growing shortage of nurses from backgrounds consistent with the dominant racial, ethnic, geographical, and cultural populations of Arizona. State demographics indicated that while Arizona's Hispanic population comprised 30.7% of the state's population in 2015 and American Indians comprise 5.3% of the population (Tabor et al., 2015), the Arizona's nursing workforce did not equally represent those socio-demographic characteristics.

Program description

The UACON's 2015 total student population further complicated these trends, graduating a significantly disproportionate number of nurses from Arizona's dominant cultures across all programs (Table 2). In addition, students from underrepresented minorities (URM) struggled to complete UACON's programs with a much lower retention rate than students from other backgrounds (28–44% vs 90%).

Given these sobering statistics and the UACON's land-grant mission to improve health equity and the overall health of Arizona's population, the strategic plan/call to action by the university and academic health sciences center to improve diversity and inclusion across the health disciplines, the faculty and administrative team clearly recognized the to address the retention and graduation rates of students representative of the state's dominant cultures but underrepresented in nursing – Hispanic, American Indian, rural, and border populations – by reducing the socioeconomic, academic, and environmental barriers to nursing education. While program-specific barriers were identified for each of UACON's programs (pre-licensure, RN-MS, DNP, and PhD), the lack of shared social identity and the experience of being able to see yourself within others in your social/student group (Adams & Bell, 2016) was identified consistently by student and alumni surveys across all graduate and undergraduate programs, providing the foundation for the Arizona Nursing Inclusive Excellence (ANIE) program's support structures and processes.

ANIE provides funding support for 49 students annually. Four cohorts of students were created – Voyagers (pre-nursing undergraduates, n = 15/year), Vanguards (BSN, n = 24/year), RN-Career Advancement and Transition (CAT) Scholars (AD/BS to MS program, n = 6/year), and Pinnacle Scholars (DNP and PhD, n = 4 year) – each with their own set of academic enrichment programming. These cohort groups provide a place where students "fit in" with nursing students who come from similar backgrounds, receive social/emotional support from peers, and have role models from advanced program cohorts. Through these shared experiences, students report an emerging confidence, strength, and commitment. Funding supports scholarships, tutoring, the summer intensive workshops and coaches.

Each student cohort receives academic enrichment programming that includes intensive writing support offered by a PhD-prepared Academic Writing Coach. A developmental and strengths-based

Table 3

ANIE academic enrichment programming elements.

Social determinant of education	Interventions (program code)
Educational opportunity	High school summer programs (Vo)
	Peer mentoring (Vo, Va, C, P)
	STEM tutoring (Vo)
	Writing skills development (Vo, Va, C, P)
	Summer intensive (Vo, Va, C, P)
	Mock interview prep (Vo)
	Pass through admissions (Vo)
	Concept mapping and critical thinking (C)
	Conceptual analysis and synthesis (P)
Economic stability	Scholarships (Vo, Va, C, P)
	Exam preparation (Va, P)
	Financial literacy/debt management workshops (Vo, Va, C, P)
	Food pantry (Vo, Va)
	Emergency loans (Vo, Va, C, P)
Socioeconomic opportunity	Professional role development (Vo, Va, C, P)
	Role advancement and transition mentoring (C, P)
	Professional/alumni mentoring (Vo, Va, C, P)
	Career counseling (Va, C, P)
	Lifeskill development (Vo, Va, C, P)
	Intrusive advising (Vo, Va, P)
	Leadership skills development (Va)
Social inclusion	Unconscious bias training for students, faculty and staff
	Faculty development to improve inclusivity
	Biweekly meetings and cohort development (Vo)
	Monthly meetings and cohort development (Va, C, P)
	Campus culture survey
	Participation in on-campus student and faculty organizations (Vo, Va, faculty)
	Consultation with internal and external partners
Health equity	Summer intensive clinical experiences in medically underserved communities (Va)
	Cultural immersion experiences (Va)
	Clinical placements in medically underserved communities (P)

Key: Vo = Voyager Program, Va = Vanguard Program, C = RN CAT Program, P = Pinnacle Program.

approach is used to address writing competencies that progressively scaffold writing outcomes. BSN students advance from grammar/formatting basics (freshman year) through idea formation/generation (sophomore year) to literature analysis (junior year), to synthesis (senior year) in a set of ongoing workshops and small group and individual mentoring sessions. Strategies for graduate students are more individually tailored, moving students gradually through a set of exercises that are designed to transition their focus from patient care documentation to scientific and expository writing. Finally, the writing coach works with faculty to (a) clarify writing competencies/expectations across all of our programs, (b) create scoring rubrics that focus on substance rather than format, (c) standardize feedback methods that reinforce writing excellence, and (d) identify writing risk assessment methods that will improve early intervention strategies across all students.

Additional academic enrichment opportunities are outlined in Table 3. Faculty/staff teams provide ongoing mentoring to improve life skill development, student/academic success skills, role development/clarification, and professional skill development. An Academic Success Coach, a psychiatric/mental health nurse practitioner, works with students to reduce stress and improve wellbeing through regular sessions that build self-care skills to improve resilience.

All cohorts are required to attend a Summer Intensive Experience, which prepares students to meet the challenges of the upcoming year of coursework and consolidate the teaching/learning of the previous academic year. The Voyager and Vanguard cohorts participate in an 8-

week, 40 h/week Summer Intensive each year of their undergraduate education. This experience allows time and attention to build competencies in STEM content areas and improve writing skills. Students also expand clinical competencies, critical reasoning and clinical decision-making skills through sets of coordinated and integrated activities that are designed to increase confidence, speed, and precision necessary to be successful. During their first summer, students build math and science skills, basic critical thinking and reasoning, and interpersonal verbal and written communication skills and interacting with faculty mentors, professional staff, and patients and families. During year 2, advanced communication skills are introduced that include coaching/teaching and motivational interviewing. Students practice these skills in simulation as well as in clinical settings. Students prepare to move into their BSN coursework by learning basic patient care skills, beginning clinical reasoning, math for meds, and pathophysiology reviews. During year 3, students prepare for their advanced/high acuity coursework using a weekly, progressive patient simulation exercise that focuses on team communication, interprofessional role development, and advanced clinical decision-making. Students also build primary care skills by working in tribal community settings. CAT and Pinnacle Summer Intensives (one summer weekend) advance scientific/professional writing skills, prepare for career transition, and develop leadership potential. The Pinnacle summer intensive also engages doctoral students in a reflective exercise that explores the purpose/meaning of their own educational journey and the decision to pursue a doctoral degree that they use as a basis of self-care throughout the duration of the program.

A key component of the undergraduate ANIE program is the pass-through/guaranteed admissions process for the Voyager pre-nursing students for all students successfully completing the two years of preparatory work. Pass-through admission for the duration of the four-year grant period allowed the faculty/administrative teams to not only pilot holistic admissions criteria but to develop, refine, and then tailor our academic enrichment programs to ultimately improve workforce diversity.

Outcomes and sustainability

To date, pass-through admission for has been offered to 100% of the Voyager students with all students continuing to move successfully through the BSN program. Our first "complete" cohort of Voyager students (n = 5) continue to excel in their coursework and is set to graduate with their BSNs in May 2020. Current retention in ANIE is 97.6% with a graduation rate of 98.8% in the first two years of the grant. To date, our BSN program graduates have a 93% first-time NCLEX pass rate and DNP graduates have a 100% APRN certification rate consistent with UACON norms.

Sustainability planning include systematically infusing intrusive advising across the entry programs, stepped up advising/monitoring in graduate programs, and ongoing support of a student success center in the Office of Student and Community Engagement that builds in successful programming strategies. In addition, identifying donors to sustain the scholarship programs and developing a tuition model for summer intensive that would be eligible for scholarship/loan federal aid for selected students are additional sustainability strategies currently underway.

California: Enrichment Markers of Better Relationships, Academic, and Cultural Enhancement (EMBRACE)

State nursing workforce diversity statistics

California is a diverse state with a majority minority population as seen in Table 1. Forty-eight percent of employed RNs in California are of minority background, with a race or ethnicity other than non-Hispanic white (California Health Care Foundation, 2017). However, there

is a sizable underrepresentation of Hispanic nurses in the workforce at 7% of the RN workforce in 2017 as compared to 39.1% of the California general population.

Program description

California State University, Fullerton School of Nursing (CSUF-SON) is located in Southern California (CA) and has approximately 1100 students enrolled in multiple undergraduate and graduate programs, including a prelicensure BSN, a BSN completion program for nurses with an Associate's Degree (ADN-BSN), four master's programs and a DNP program (through the Southern CA CSU DNP Consortium). The CSUF-SON students are diverse in ethnicity and background and many are first generation college students and URM. The diversity of CSUF-SON nursing students mirrored the findings of the California graduating RN population seen in Table 1 with an underrepresentation of Hispanic students in comparison to the state population. CSUF-SON students are affected by SDE from surrounding poverty-stricken, educationally disadvantaged communities that may influence persistence to graduation (Fiebig, Braid, Ross, Tom, & Prinzo, 2010), especially in the ADN-BSN group. There are multiple demands of nursing education, including clinical rotations, rigorous coursework, in addition to the personal demands that contribute to student stress, anxiety, and life balance issues (Barbosa et al., 2013). Intrinsic factors such as self-efficacy, resilience, and emotional intelligence foster psychological well-being along with the external factors of support from family, friends, and faculty (Khallad & Jabr, 2016; Schaub, Luck, & Dossey, 2012). Students without family or peer support are at higher risk and may present with increased stress and decreased coping behaviors (Khallad & Jabr, 2016). The overarching goals of the EMBRACE project are to prepare a more culturally competent professional nursing workforce to care for the diverse populations in our local communities and to foster recruitment and retention of URM students. Evidence-based strategies based on these concepts, adaptations of successful models that support practicing nurses, and Tinto's theory of student retention (Tinto, 2012) were utilized for this project (see Table 4). In Tinto's theory, successful elements for student retention include providing consistent student expectations and feedback so students know what to do to succeed, academic and social student support, and involvement with peers and faculty to enhance a sense of belonging. Funding supports scholarships, an academic support team including an academic coach and writing tutors, psychosocial support through the nurse coach and diversity support team, and educational symposia on cultural competency. In the first two years of the grant, 116 nursing students have received financial support.

Strategies to facilitate development of cultural competency include enhancing students' awareness of vulnerable populations and cultural

Table 4
EMBRACE promising practices and interventions for each social determinant of education.

Social determinant of education	Interventions
Social inclusion	Mentoring for students
	Nurse coach
	Career coach
	Diversity support team
	Cultural learning activities in the curriculum
	Cultural training for faculty and staff – Diversity and Inclusion Symposium
	Participation in leadership opportunities
Educational opportunity	Learning support (Academic coach)
	Writing tutors
	Holistic admissions
	Consultation with external partners
Socioeconomic opportunity	Scholarships
	Nurse coach resource referral

humility. Examples of learning activities include participation in an annual SON Poverty Simulation event, interprofessional education (IPE), and community engagement (e.g. clinics in the park, health fairs, rural clinical placements, and working in the University's Center for Healthy Neighborhoods located in a low socioeconomic neighborhood). Cultural competency training for faculty and staff was also initiated to better support students. A Diversity and Inclusion symposium was offered for students, faculty and alumni after year one of the grant with 180 attendees.

Holistic admission processes have been developed and are being implemented this current academic cycle. In addition to the strategies of holistic admissions and financial support, strategies to enhance recruitment and retention of URM students included academic resources, psychological resources and leadership opportunities. Academic resources consist of an Academic Coach, a Writing specialist, and a Career Coach, which provide support for study skills, time management, writing, and career planning. A partnership with Osher Lifelong Learning yielded volunteer writing tutors and a Career Coach for the SON. Psychosocial resources include a Nurse Coach, the Diversity Support Team, and peer mentors. Persistence to leadership opportunities in CSUF-SON were encouraged, such as shared governance, involvement in the Nursing Student Association (NSA) and Sigma Theta Tau.

One of the most promising and popular resources is the Nurse Coach. The coach, a doctorally prepared faculty member with a background in mental health and wellness, uses a holistic approach of incorporating the student's experience while providing support. The Nurse Coach role was selected as a strategy and although information regarding the use of this role in academia was limited, nurse coach support in health care organizations has been found effective in mediating stress and anxiety among nurses through use of various strategies, such as mindfulness (Barbosa et al., 2013; Dossey, 2015; Schaub et al., 2012). The Nurse Coach "rounds" daily to check in with students on campus in addition to meeting with student referrals that occur through faculty or self-referral. Meetings occur individually or in small groups and the Nurse Coach is also accessible to online learners via Zoom meetings. A variety of strategies are employed to assist students to achieve life balance, including mindfulness, meditation, exercise, nutrition, and sleep hygiene (Barbosa et al., 2013). The coach also assists students to navigate university and community resources to address food insecurity, financial concerns, and family situations; refers to counseling; and provides consultation with faculty related to high-risk students.

Outcomes and sustainability

In the two years since project inception, over five hundred students have participated in one or more of the EMBRACE resources. The nurse coach has had over 200 student encounters since implementing this role. Student resource satisfaction survey results from 2018 revealed 4.8/5 (Likert Scale) satisfaction with nurse coach support. The EMBRACE project has afforded an innovative role of nurse coach to help students find ways to cope with the stressors inherent to the nursing school experience. Persistence to graduation in the undergraduate program since grant award for pre-licensure students is 90% and for the RN-BSN (the largest program with 725 students) is 85% with a decrease in attrition from 32% to 15%.

In regards to sustainability of the strategies that have been implemented thus far, the EMBRACE team along with the SON leadership is collaborating with the university's Human Resources, Diversity and Inclusion division to assist the SON to provide ongoing diversity support and annual educational symposia. The SON is also communicating with the college/university leadership on how the nurse coach role can be continued through service units as part of faculty assignment. Recommendations will be made and brought to the faculty prior to the end of this academic year (Year 3 of the grant) along with supportive

data so these essential academic (academic coach, writing specialist and tutors) and psychosocial student resources (nurse coach, diversity support), as well as the holistic admissions processes can be maintained without interruption.

Colorado Center for Nursing Excellence: a statewide six institution nursing student diversity collaborative

State nursing workforce statistics

According to the most recent US Census data (U.S. Census Bureau, 2018), Colorado's population is 31.4% ethnically and racially diverse with the largest diverse population being Hispanic at 21.3%. The Colorado State Demography Office (2018) forecasted that by 2050, 48% of its population will be ethnically and racially diverse. Colorado's current diverse nursing workforce falls short of these statistics with approximately 6% of the nursing workforce being Hispanic (Colorado Center for Nursing Excellence, 2017). This demonstrates a clear gap that needs to be addressed. Table 1 demonstrates a growth in Colorado minority nurse graduates from 2011 through 2017, although a gap in Hispanic new nurse graduates to population persists.

Program description

Recognizing the need to take action, the Colorado Center for Nursing Excellence (Center) used a statewide approach to address the diversity nursing workforce shortage. The Center partnered with six nursing programs/schools across the state, three BSN and three (ADN) programs from both rural and urban areas, reaching across a 250-mile span. Two schools are private and four are public, all varying in size. Two schools are designated as Hispanic Serving Institutions. Participation from schools was garnered fairly easily once stakeholders realized the project aligned with their institutional mission and goal to increase their overall diversity enrollment.

Similar to other projects described, the Center's NWD project has multiple components to ensure the success of diverse nursing students. The project addresses SDE, including mentoring, academic success program for students, resource navigation, cultural competence training and holistic admissions (see Table 5). Funding supports student stipends for educational expenses, resource navigation and services for SDE, emergency funds for SDE not covered by resource partners, student tutoring, holistic admissions training and cultural competence assessment and training. A total of 40 undergraduate students are enrolled annually (120 students to date). The first component of this project is a robust mentoring program that addresses both mentor and student needs. Clinical nurses of all specialty areas and various cultural

Table 5
Colorado Center for Nursing Excellence: promising practices and interventions for each social determinant of education.

Social determinant of education	Interventions
Social inclusion	Mentoring for students
	Coaching for mentors
	Peer student networking group
	Intercultural competency assessment
	Intercultural competency training
	Consultation with external partners
Educational opportunity	Academic Success Course
	Individual academic tutoring
	Holistic admissions
	Consultation with external partners
Socioeconomic opportunity	Monthly stipends
	Emergency funds
	Financial counseling
	Resource navigation
	Consultation with non-profit social service organizations

backgrounds are trained to be effective mentors in an intensive two-day workshop followed by eight sessions of group coaching over eight months. Coaching promotes the development of a peer support network to help address any challenges mentors may face with their students and allows mentors to celebrate successes together. Coaching keeps mentors engaged and motivated as they build student mentoring relationships and it reinforces skills learned. Mentors work with students for a total of one year. One-third of trained mentors return year after year for consecutive mentoring assignments.

In addition to mentoring, student academic and non-academic needs are addressed using other resources. First, a one-day Academic Success Course is required of all enrolled. The curriculum was developed based on needs identified by partner schools. During this course, students learn about the project's purpose and expectations, the value of the mentoring program, and receive multiple tips for success. Students build a peer networking group, encourage one another and share resources throughout the year. Students participate in a designated social media platform with 71% of the students actively engaged, building friendships and support systems lasting after the completion of the program. Second, individual academic tutoring is available to all students and the need for tutoring is assessed by their mentors. The Center coordinates appropriate tutors to address academic challenges. Third, students receive monthly stipend funds to help with educational expenses. Lastly, the center partners with two non-profit organizations, WorkLife Partnership and Catholic Charities of Pueblo, who provide resource navigation related to SDE. The resource navigator works one-on-one with students to assess their non-academic needs, identify barriers, provide access to community resources, financial coaching and other services based on student needs with a goal of increasing student retention rates. Examples of services provided include: 1) financial counseling, 2) child care, 3) food pantry, 4) housing search, 5) supportive services, 6) clothes/supplies, 7) rental assistance, 8) transportation assistance, 9) utility resources, 10) legal assistance/referrals, 11) employment services, 12) lifeline phone assistance, 13) Supplemental Nutrition Assistance Program (SNAP), and 14) cooking classes.

Another component of the Center's project is to educate partner schools about holistic admissions. Schools are encouraged to review and revise admissions processes from a holistic approach to increase diversity enrollment. Activities to support this change include annual educational workshops, biannual webinars, and regular coaching with deans, directors, and other admissions stakeholders. Partner schools are in various stages of this change and all are successfully implementing holistic admissions.

The final component to the Colorado project focuses on intercultural competence training. Annual training workshops have been conducted by the Spring Institute for Intercultural Learning to heighten awareness and learning around cultural concepts such as implicit bias, privilege, and health equity to assist educational institutions develop culturally sensitive and inclusive environments. Additionally, the Center provides intercultural competence development for nursing faculty through a series of assessments and coaching using the Intercultural Development Inventory (IDI®) assessment tools (IDI, 2019).

Outcomes and sustainability

All components of the Colorado NWD project work synergistically to ensure student success and institutional change with a goal of improving the nursing workforce diversity gap. Attrition rate since inception of this grant is 9%. One-third of the attrition rate was related to illness, death in the family or challenges with SDE. Two-thirds were simply attributed to academic challenges. Although 9% attrition is higher than hoped, many students have commented that grant services contribute their success to this program. To date, a total of 27 students have received resource navigator services for SDE. Ninety-five percent of students reported a significant decrease in stress that allowed them to focus on school. Of those who have graduated, there has been a 100%

NCLEX-RN pass rate (91% response rate).

Each nursing program has created sustainability with holistic admissions implementation and are currently working on sustainable action plans to build culturally inclusive educational environments. The Center has trained over 120 mentors who can continue mentoring.

Oregon: Advancing Health Equity through Student Empowerment and Professional Success (HealthE STEPS)

State nursing workforce diversity statistics

Oregon is experiencing a gap in nursing workforce diversity where almost 12% of the population is Hispanic compared to 3.4% of RNs (Oregon Center for Nursing, 2017). Improving nursing workforce diversity requires schools of nursing to expand their efforts to enroll, retain, and graduate nurses from underrepresented populations.

Program description

Oregon Health & Science University School of Nursing is the only statewide public BSN nursing program with five campuses throughout the state. The HealthE STEPS (Advancing Health Equity through Student Empowerment and Professional Success) 2.0 Statewide program is grounded in an evidence-based model and employs best practices to addressing the SDE which prevent disadvantaged students from entering and graduating from nursing programs. The HealthE STEPS model focuses on the determinants of educational opportunity, economic stability, socioeconomic opportunity, social inclusion, and health equity. The initial HealthE STEPS program was based on an effective nursing diversity program where a comprehensive approach was utilized to attract and support students to thrive in a nursing education program (Wros & May, 2013) and was successfully launched on two of the five campuses in 2013–2016 (Noone, Wros, Najjar, Cortez, & Magdaleno, 2016). HealthE STEPS 2.0 implemented the project in 2017 on all campuses. The most promising practices identified in this model include bilingual staff called diversity coordinators, case management with individualized academic coaching, and the scholarship outreach program. The funding model includes salary support for diversity and faculty coordinators on each campus, student scholarships and stipend support for NCLEX and graduate certification materials, and financial support for student, faculty, and staff training on topics related to diversity, including unconscious bias training and consultations on holistic admission review. HealthE STEPS 2.0 utilized these best practices with a focus on improving financial, academic, and social support for retention of disadvantaged students. This was done by using various strategies and interventions to addressing the five SDE and barriers to students' success (Table 6). HealthE STEPS has enrolled 38–40 undergraduate scholars each year across the five campuses and a total of 12 graduate students (4 in 2018.and 8 in 2019) since the HealthE STEPS 2.0 was launched in 2017. However, many of the interventions developed, such as Mock Interviews and workshops on nursing application, financial literacy, and scholarship applications, benefit all students.

Interventions developed and implemented to maximize retention and promote economic stability and socioeconomic opportunity included case management and mentorship. Diversity coordinators with the help of faculty coordinators case manage students to provide early intervention and referral to academic support services. The mentorship program utilizes an evidence-based model in which each student is assigned a mentor. Students meet with their mentor on a monthly basis. The mentors support students in academic socialization and career planning. Other strategies to help with career planning include the Transitions to Practice and Graduate School Exploration Workshops. The prelicensure Transitions to Practice workshop occurs before graduation and is designed to address the socialization factors influencing new graduate nurses' understanding of and preparation for the real world of nursing while the Graduate School Exploration Workshop was

Table 6
HealthE STEPS 2.0 promising practices and interventions for each social determinant of education.

Social determinant of education	Interventions
Educational opportunity	Pre-college career exploration activities
	Recruitment fliers and videos
	Nursing application site workshops
	Mock interviews and interview guide
	Holistic admissions
	Writing support
	Test-taking strategies workshops
	Peer tutoring
	Consultation with internal and external partners
Economic stability	Scholarships
	Stipends for exam preparation
	Scholarships application workshops
	Financial literacy and debt management workshops
	Case management
Socioeconomic opportunity	Mentoring
	Career planning
	Professional development opportunities
	Graduate school exploration workshops and webinars
	Pre-licensure transition to Practice workshops
Social Inclusion	Unconscious bias training for students, faculty and staff
	Campus culture survey
	Consultation with internal and external partners
Health equity	Multicultural curriculum and faculty development
	Clinical placements in medically underserved communities
	Tracking employment in medically underserved communities
	Consultation with internal and external partners

developed to introduce URM nursing students to graduate school opportunities. Students meet with graduate program directors and URM graduate students to explore different advance practice and doctoral career options. Students choosing to continue on to graduate school are mentored through the application process by faculty coordinators and program staff. The Graduate School Exploration Workshop had 12 underrepresented students from all campuses in attendance in June of 2018 and 19 in June of 2019.

Other best practices employed by the HealthE STEPS 2.0 program to address the social determinants of Social Inclusion and Health Equity include unconscious bias training and multicultural curriculum development. Our program collaborated with the University's Center for Diversity and Inclusion (CDI) to implement unconscious bias training for faculty and staff. The role of the Inclusion Ambassador is to help ensure that diversity, inclusion, and equity are a part of the work culture in all work groups, units, or departments. Additional collaboration with the CDI included cohosting trainings for all faculty and staff at the School of Nursing on incorporating concepts of a multicultural curriculum in teaching activities, microaggressions, and strategies on fostering an equitable environment for all students.

Another strategy employed to address the social determinant of Health Equity was to increase the number of students working in medically underserved communities (MUCs). This was done by expanding the number of MUC clinical partners and increasing clinical placements in those sites.

Outcomes and sustainability plans

Data collected since implementation of the program has shown improvement in several different areas for the SON, university campus sites, and scholars. Outcomes noted across the School of Nursing have demonstrated an increase in URM student enrollment in the BS prelicensure programs from 12% in 2011 to 22% in 2019 with first–year retention rates in the years 2015–2019 of 97–100% for URM students across all pre-licensure programs and graduation rates over 95% for our traditional BSN URM students and 100% for our accelerated students. The number of Hispanic students graduated annually from all pre-licensure programs on the five campuses increased from 38 in 2011 to 106 graduates in 2018.

Employment data from the undergraduate class of 2018 shows 82% of the graduates from the pre-licensure program working in MUCs, 13% are in graduate programs and 5% are working in non-MUCs. All HealthE Steps scholars who graduated in 2018 are employed and working in MUCs in the state of Oregon.

Sustainability of this program includes transitioning many of the interventions identified and developed into the structure of the SON. For example, nursing application workshops, mock interviews, and holistic admissions are in place to support nursing applicants. Workshops for financial debt management, writing support, and scholarship application are all embedded into the support provided to nursing students as they enter the program. Multicultural curriculum changes, unconscious bias trainings and clinical placements in MUCs are being integrated into the curriculum. Plans include transitioning the financial support for the diversity and faculty coordinator role into SON budget after the grant period ends.

Summary

The exemplars described in this paper contribute to knowledge development related to improving nursing workforce diversity for other colleges, universities, and states to consider. Each project adapted evidence-based best practices to its own unique situation to address social and academic barriers to higher education for diverse student populations. These exemplars provide a roadmap for other schools of nursing to consider as they develop programs to address shared and unique challenges facing students. While the literature provides several strategies that these programs adopted, including financial support and academic tutoring, several novel approaches were developed including writing support, mentoring, coaching and preparation for role transition. Alumni and professional associations provided support in some programs as did upper-class/cross-cohort peers from within the diversity initiatives. Faculty development related to diversity and inclusion initiatives was also a key strategy.

In conclusion, recommended best practices include:

- Monitor national, state and school nursing workforce diversity data.
- Support middle and high school career exploration activities for youth underrepresented in nursing.
- Explore resources available through nursing education professional organizations to support holistic admissions and diversity and inclusion efforts (American Association of Colleges of Nursing, 2019; National League for Nursing, 2017).
- Use early assessment and intervention advising and approaches.
- Provide academic and non-academic student support resources for success.
- Provide diversity and inclusivity training to faculty and staff training.
- Provide faculty development that enhances a health equity, multicultural framework.

Increasing nursing workforce diversity is a social responsibility needed to address health inequities. Although progress has been made in diversifying the workforce, nursing education is not keeping up with the demands of a diverse population. Building on the Academy of Medicine's recommendations, these four programs developed and implemented strategies to increase admission, retention and graduation

rates of URM students. Further work is needed in evaluation and research to develop guidelines for widespread implementation of diversity efforts. Nurses and nurse leaders must create a culture and climate where diversity efforts are easily embraced and adopted.

Acknowledgement

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