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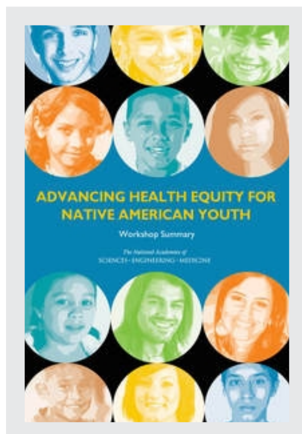

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ADVANCING HEALTH EQUITY FOR NATIVE AMERICAN YOUTH

Workshop Summary

Karen M. Anderson and Steve Olson, *Rapporteurs*

Roundtable on the Promotion of Health Equity
and the Elimination of Health Disparities

Board on Population Health and Public Health Practice

Health and Medicine Division

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Reviewers

This workshop summary has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise. The purpose of this independent review is to provide candid and critical comments that will assist the institution in making its published workshop summary as sound as possible and to ensure that the workshop summary meets institutional standards for objectivity, evidence, and responsiveness to the study charge. The review comments and draft manuscript remain confidential to protect the integrity of the process. We wish to thank the following individuals for their review of this workshop summary:

Rebecca Brune, Methodist Health Ministries
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Kendall M. Campbell, Florida State University
Olivia Roanhorse, Notah Begay Foundation

Although the reviewers listed above have provided many constructive comments and suggestions, they did not see the final draft of the workshop summary before its release. The review of this workshop summary was overseen by **Carmen Green,** University of Michigan. She was responsible for making certain that an independent examination of this workshop summary was carried out in accordance with institutional procedures and that all review comments were carefully considered. Responsibility for the final content of this workshop summary rests entirely with the rapporteurs and the institution.

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1

Introduction and Themes of the Workshop[1]

More than 2 million Americans below age 24 self-identify as being of American Indian or Alaska Native descent (Center for Native American Youth, n.d.). Many of the serious behavioral, emotional, and physical health concerns facing young people today are especially prevalent with Native youth (e.g., depression, violence, and substance abuse). Adolescent Native Americans have death rates two to five times the rate of whites in the same age group because of higher levels of suicide and a variety of risky behaviors (e.g., drug and alcohol use, inconsistent school attendance). Violence, including intentional injuries, homicide, and suicide, accounts for three-quarters of deaths for Native American youth ages 12 to 20. Suicide is the second leading cause of death—and 2.5 times the national rate—for Native youth ages 15 to 24.

Arrayed against these health problems are vital cultural strengths on which Native Americans can draw. At a workshop held in 2012 by the Roundtable on the Promotion of Health Equity and the Elimination of Health Disparities of the National Academies of Sciences, Engineering, and Medicine, presenters described many of these strengths, including community traditions and beliefs, social support networks, close-knit families, and individual resilience (IOM, 2013). As roundtable member Jack Lewin of

[1] The planning committee's role was limited to planning the workshop, and the workshop summary has been prepared by the workshop rapporteurs as a factual summary of what occurred at the workshop. Statements, recommendations, and opinions expressed are those of individual presenters and participants, and are not necessarily endorsed or verified by the National Academies of Sciences, Engineering, and Medicine, and they should not be construed as reflecting any group consensus.

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Lewin and Associates said at that workshop, Native Americans have much to offer in the refashioning of health care because Native cultural traditions could guide health care reforms.

On May 6, 2014, the roundtable held a follow-up workshop titled Advancing Health Equity for Native American Youth. The overall goal of the roundtable is to convene leaders from academia, health care, government, industry, professional organizations, communities, and other sectors to discuss issues related to (1) the visibility of racial and ethnic disparities in health and health care as a national problem, (2) the development of programs and strategies by and for Native and Indigenous communities to reduce disparities and build resilience, and (3) the emergence of supporting Native expertise and leadership. The workshop on health equity for Native American youth, which was held in Albuquerque, New Mexico (see Box 1-1), addressed issues central to the roundtable's charge.

"We know there are problems" among Native American youth, said Antonia Villarruel, co-chair of the roundtable and associate dean for research and global affairs at the University of Michigan School of Nursing,[2] in her opening remarks at the workshop. "We also know that there are exciting initiatives and solutions that are being done in communities. We want to hear about those. We want to identify promising approaches that support the health and development of Native American youth."

"We know there are problems. We also know that there are exciting initiatives and solutions that are being done in communities. We want to hear about those." —Antonia Villarruel, University of Michigan[3]

KEY POINTS

Although her remarks occurred at the end of the day, Mildred Thompson, co-chair of the roundtable and senior director at PolicyLink, identified several major concepts that arose consistently across the day.[4] First, she pointed to the importance of *factors that contribute to resilience*, including family, support networks, feeling valued, and having mentors. Recognition and promotion of these factors can help advance health equity for Native American youth, she said.

Thompson also emphasized *the difference between healing and treat-*

[2] Now at the University of Pennsylvania.

[3] Now at the University of Pennsylvania.

[4] These concepts should not be seen as conclusions, although they provide an overview of the major issues that were discussed.

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BOX 1-1
A Snapshot of New Mexico

During her presentation at the workshop, Valerie Romero-Leggott, vice chancellor for diversity at the University of New Mexico (UNM) Health Sciences Center, provided a brief review of the geography and demography of New Mexico, where the workshop was held. New Mexico is a large state, measuring 370 miles north to south and 342 miles east to west. It is also largely rural, with only nine cities having populations greater than 30,000.

Out of a total population of about 2 million, 46 percent of the people in the state are Hispanic, 9 percent are Native American, and 2 percent are African American, making New Mexico one of four majority-minority states in the nation. It is 43rd out of the 50 states in income and 49th out of the 50 states in numbers of uninsured. The state has 24 tribal communities, ranging from the Mescalero Apache Indian Reservation in the south-central part of the state to the pueblos in the state's north-central region to the Navajo Indian Reservation in the northwest corner of the state.

Of its 33 counties, 17 are frontier counties, meaning that they have less than six people per square mile and are more than 60 miles away from the nearest health care facility. In addition, 32 of its 33 counties are health professional shortage areas, not only for physicians but for health professionals of all kinds.

During his opening remarks at the workshop, Gabriel Sanchez, executive director of the Robert Wood Johnson Foundation Center for Health Policy at UNM, also pointed to the advantages of holding the workshop in New Mexico, which has a vibrant Native American history and present-day Native community. Demographically, the Native American population is by far the youngest of any group in New Mexico, Sanchez observed. The median age of the Native American community is 29, which means that half of the state's Native American population is under age 30. By comparison, the median age of non-Hispanic whites in New Mexico is 48. That statistic "speaks for itself in terms of why it is critical to look at [Native American] youth and engage youth directly in discussions of health disparities and health equity," Sanchez said.

ment. Western culture typically emphasizes treatment, but healing is a very different approach.

She acknowledged *the need for rigor and accountability in interventions*. "We want our students to do well," she said. "We don't want to have them skip through things. We want them to be strong in their capacities."

Finally, she cited *the importance of the land* to Native peoples. Traditional interventions often neglect this complex influence on Native American culture and health, she said, yet it cannot be forgotten.

Bearing these themes in mind, Thompson asked, what will make a difference? "What is going to be different about how we approach our work?

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What is going to be different about how we view people? What kind of strategies will be a part of our thinking that we hadn't thought of before? How can we keep this work going in ways that make a difference?"

"We want our students to do well. We don't want to have them skip through things. We want them to be strong in their capacities." —Mildred Thompson, PolicyLink

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ORGANIZATION OF THE REPORT

A highlight of the workshop was a series of presentations by Native American high school and college students in the Albuquerque area. These presentations, which centered on the perspectives and experiences of young Native Americans, and how individual youth faced and overcame challenges within their lives and communities, are shared in Chapter 2 of this workshop summary. Of particular interest is the fact that nearly all students mentioned their grandparent(s) in their comments. Chapter 3 summarizes the workshop's keynote address by Teresa LaFromboise, professor in the Graduate School of Education at Stanford University, who provided an overview of the protective factors and environments that contribute to resilience among Native American youth.

Chapter 4 looks specifically at health issues prevalent in Native American youth, including substance abuse and mental health problems. Chapter 5 addresses the intersection between educational disparities and health disparities and features the role of targeted educational interventions in Native American youth to reduce health disparities and educational disparities in Native Americans in particular. Finally, Chapter 6 summarizes the remarks of two presenters who were asked to reflect on the main messages they heard during the workshop.

"I would be remiss if I didn't say my late grandmother didn't have a profound impact on me. I have to give her a lot of credit for raising me and bringing me up, teaching me my language, and really establishing a foundation." —Lia Abeita-Sanchez, University of New Mexico

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2

Voices of Native Youth

During the first session of the workshop, a panel of six high school and college Native American students took time away from studying for spring final exams to share their critical expertise and wisdom on the issues facing Native American youth and their ideas about positive change. As did many of the other presenters, they spoke not only about the challenges facing Native youth, but about the strengths on which they draw to overcome those challenges. As the moderator of the panel, roundtable member Melissa Simon, said, "There is no better way to elevate and champion the voices of Native youth than to hear their perspectives directly from them."

Students speaking at the workshop are listed below. Their perceptions are discussed in Box 2-1:

- Micah Clark, a graduate student at the University of New Mexico (UNM) Health Sciences Center and a project coordinator at the center's Institute for Indigenous Knowledge and Development
- Mary Lou Gutierrez, a student at Newcomb High School in Newcomb, New Mexico
- Lia Abeita-Sanchez, a UNM student and research assistant at the Robert Wood Johnson Foundation Center for Native American Health Policy at UNM
- Daniel Albert, a student at the Native American Community Academy in Albuquerque
- Kyle Smith, a UNM student and project coordinator at the Institute for Indigenous Knowledge and Development
- Elgin Watchman, a student at Newcomb High School

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"There is no better way to elevate and champion the voices of Native youth than to hear their perspectives directly from them."
—Melissa Simon, Northwestern University Feinberg School of Medicine

BOX 2-1
Perceptions of Native American Students

Melissa Simon, the moderator of the workshop's youth panel, also collected responses to a list of questions from 61 local high school students, and at the workshop she briefly described some themes that emerged from the survey. Remarkably, nearly all of the students reported that they believed others' perceptions of Native American youth are negative. As Simon interpreted the results, "People think we are low-lifes. We can't do anything. We are always on the reservation, res-kids, lazy, dumb, stupid, brown, dirty, weird, inadequate, reckless, obese, drunk, unhealthy, uneducated, trouble makers, misfits, with the occasional diamond in the rough." Only a handful of students thought that Native American youth were perceived in the same way as other youth. "I found that really remarkable and powerful at the same time," said Simon.

However, when they were asked about how they would like others to perceive Native American youth, the survey respondents revealed the strengths on which young Native Americans can build. As Simon summarized the responses, "We are unique in our own ways. We are helpful, creative, smart, amazing, and special. We are strong with positive minds, determined, potential, and active. We have Native pride, and we take our culture seriously. We are passionate and beautiful. We are mature, responsible, bright, creative, and inspiring. We are healthy. We are also funny and loud. We are leaders of the next generation."

Some of the key issues identified by survey respondents were peer pressure, alcohol abuse, drugs, obesity and diabetes, teen pregnancy and parenting, dropping out of school, lack of access to healthful food, too much unhealthful food available, too many fast food restaurants, the loss of Native languages, and too much time spent on social media.

In response to the question of what health and well-being mean to them, they replied: "It is a commitment. Community is very important to me and my health. It supports me. It means everything to me, my family, and our community." In that regard, health is broader than just physical well-being, Simon noted. It extends to heritage, language, and community solidarity.

Finally, when asked what they would like to tell health care leaders at the Institute of Medicine, the students were equally provocative. They wanted to tell others about their culture and way of life. They wanted to introduce others to ways of being healthy that are relevant to them and to their communities. They wanted others to listen, inspire, and offer stories, examples, and goals. They wanted health requirements in schools, activities, and workouts; healthier foods; and less junk food. They wanted to keep their cultures strong and alive. They wanted others to lead by example and take an active role in making things better.

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EDUCATION AND HEALTH

Micah Clark pointed to the influence of education. It provides students with a wider range of career choices, whereas people who drop out face challenges that can affect their health and access to resources. Better paying jobs can provide insurance, information, and benefits such as access to wellness and workout centers. "You have a lot more options available to you," she said.

In addition, being a student at UNM has taught her that "health isn't something physical. It is everywhere around us. It is our physical, our spiritual, our mental, and our emotional" well-being, she noted. Her education has taught her to make better decisions and healthier choices, she said. It also has functioned as a protective factor by helping her balance work and school so that she is not so stressed.

Finally, Clark said that being healthy has given her a longer term perspective. "I want to do those things that are going to help generations to come," she said. "I have a responsibility to help my people and go back and return to my community this sense of reciprocity of what they have given me. Because of my community, I am here and able to go to school. They have supported and encouraged me. That is my motivation to stay in school and to become as equipped as I can, so that I can return home and return what they have given to me."

> *"I want to do those things that are going to help generations to come." —Micah Clark*

REACHING OUT TO OTHERS

Mary Lou Gutierrez said that health means being "happy with yourself and confident that you can help other people feel confident about themselves." Students can help others who have a drug problem, are overweight, or are having problems in school, she said. Being healthy means being able to offer such help to others in a community.

Because of the problems Gutierrez herself overcame earlier in life, she reaches out to other students who are having problems. "I am like a counselor to them. I help them with their problems. I tell them that it is not fun to be in that position. It isn't a nice feeling," she said. She tries to help them appreciate what they have. Contributing to such an outlook "affects the whole social community and their families," she concluded.

> *"I am like a counselor to them. I help them with their problems." —Mary Lou Gutierrez*

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HEALTH AND THE COMMUNITY

Lia Abeita-Sanchez built on the theme of the relationship between the community and health. Health is a product of place and environment, she said, which come together in community. "Community has been the greatest teacher in my entire life. It has made me who I am and transformed me and set me on a path that I want to maintain, not only for myself but for those who have yet to come," she explained.

The best way to determine the health of a community is to look at its children, Abeita-Sanchez said. "If I am the reflection of health," she said, "is my reflection your reflection?" Today, Native American communities have high rates of childhood obesity and diabetes. "If our children aren't healthy, how can we expect our culture and language and our traditions to be healthy?" she asked.

Communities also help define how people think about health, she said. Pueblo communities, for example, have two competing understandings of health. One is the Western model, which is largely focused on disease, health maintenance, and the doctor–patient relationship. As Abeita-Sanchez put it, "If you are healthy, you are not sick." The other understanding encompasses more than just the conventional meaning of the word "health." The Pueblo word for health does not mean just being sound physically, she said. It is about "being sound mentally and spiritually. It is about being well." This concept includes aspects such as being grateful for one's family and friends. It includes not just access to resources, but happiness.

Abeita-Sanchez added that the most common way to handle a health problem is programmatic, adding that "if an adolescent goes through a rough patch, what do we do? We send them to behavioral health." In this way, the responsibility of caring for someone is shifted from the community to someone else, usually oriented to a Western model of health. Such programs can be beneficial, of course, but is that approach necessarily going to help a person in need? "Maybe not," she said. "We are here to take care of each other."

The challenge is striking a balance between these two understandings of health. "How do we address and reincorporate our understanding of what it means to be healthy in the face of diabetes, in the face of heart disease, and in the face of cancer?" she asked. Communities are responsible for teaching their children what it means to be a member of that community. They therefore need to teach children what it means to be healthy. "If we just think about the negative and we see it only as disease, we are never going to move past that," she said. "Being healthy isn't just about not feeling sick."

Since the Snyder Act of 1921 established the legislative authority for the Indian Health Service (IHS), Native American communities have gone

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from having some of the best health outcomes of U.S. populations to some of the worst, Abeita-Sanchez observed. Better policies can help, as can more money, but the real power comes from individuals and communities. “If we have the ability to survive for this long, how can we let ourselves in just a short period of time struggle?” she asked.

People need to make a commitment to be healthy in this broader sense, she said. “If what we say is most important in our communities is the health and well-being of our language, culture, and traditions, if I am not translating my physical health into those things that we say are the most important things in our community, it doesn’t really matter,” she said. “Maybe it is just as simple as, ‘I am going to say thank you more.’ That is healthy. That is creating a positive environment.” Small things can make a big difference, she said. “It is talking to someone where you see a need. It is telling a friend, ‘Come with me.’”

A few years before the workshop, Abeita-Sanchez recounted, she was “fed up with higher education.” After 2 years as an undergraduate at Stanford University, she had come back home thinking, “I didn’t need higher education. Forget it. I didn’t care.” But people in her home town asked her why she was so upset with college. “I had to leave to realize what I was doing and to refocus and reenergize,” she said. “Community plays a huge role in that. We all hear the cliché of, ‘Go get an education, come back, and help your people.’ For those of us who really take that to heart, we know that it is not an easy journey.” Her family and people in her community helped her through this period. “Those are the people who have challenged me and have tested me and who have made [me] constantly have to justify going against the current. It is all of those people who have come before me who have affected how I have gone through this path of higher education,” she added.

“We are all children of our community, regardless of our age,” Abeita-Sanchez concluded. “It is not just an elder thing. It is not just a youth thing. It is an everybody thing. . . . Hear all sides. Ask the elders what they want to see from youth. Ask the youth what they want to see from their elders. We all have equal responsibility to take care of one another regardless of age. Don’t let the words be hollow. Give them heart and give them meaning. That in and of itself will probably be the biggest vehicle to seeing change take place.”

“Community has been the greatest teacher in my entire life. It has made me who I am.” —Lia Abeita-Sanchez

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GARDENING AS THE PATH TO WELLNESS

Daniel Albert talked about the garden planted at his high school as part of a wellness initiative. "Doing this project helped me understand a lot about health itself," he said. It brought students together who come from many different places. It taught them how to incorporate traditional practices and healing into wellness. It brought something colorful and living into a landscape that was formerly dominated by concrete. And it not only taught them that wellness has spiritual, intellectual, and social dimensions, but that it is "a lot of fun," he added.

Albert's school also tries to take an active role in the community. This role may take the form of simply collecting food and distributing it to parents in need. Nevertheless, said Albert, helping each other helps everyone.

"Helping each other helps everyone." —Daniel Albert

EXERCISE, HEALTH, AND COMMITMENT

Kyle Smith emphasized the importance of being organized and disciplined in staying healthy. Students can have erratic schedules given their classes, work, travel, and group projects, he said, adding that "maintaining my sanity, keeping calm, keeping organized, and also keeping motivated, those are very difficult."

A particular challenge for Smith has been establishing a routine for physical activity and healthy eating. He has worked hard to develop a regular exercise schedule. "When you establish that schedule, you feel like you have got to do it. Right now, I am on a fixed schedule. I have learned the ins and outs of organization," he said. With the support of his family "always pushing me and telling me to do my best and always being there as my foundation," he has been biking, running, swimming, and hiking. The result, he says, has been "a clear mind, a clear conscience, and also the ability to work in a lot of different projects around the community."

Smith said that he exercises not only for himself, but for the people around him. He recalled interviewing a community leader who said how important it is to demonstrate the behavior that you desire of others. "That is something I take very deeply," he said. "When I am running, I am running for my family, I am running for my elders, I am running for community, I am running for those who are not capable and who cannot run." Running for others brings a different dimension to physical activity, he said. "It is not about looking great or who can get the fastest time. It is about being an influence on your community."

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> *"When I am running, I am running for my family, I am running for my elders, I am running for community, I am running for those who are not capable and who cannot run." —Kyle Smith*

INFORMATION AND SUPPORT

For Elgin Watchman, health means simply "being happy with yourself and people around you." Students who have problems, such as alcohol or drug problems, need health-based information on what those substances are doing to them and support from others. Watchman himself was headed down the wrong path until his uncle returned from Afghanistan. "He inspired me to eat healthier and to exercise more," he said.

Watchman also pointed to the amount of bullying that goes on in his school, adding that "whenever I see a kid walking around that looks like an outsider to other groups of kids, I try to ask that kid to go do something with me." In physical education, he might ask a student who looks intimidated to go for a short run. "If you want to have a healthy life, you have to start now. Maybe 20 years down the road, you will remember what I told you," he explained.

> *"If you want to have a healthy life, you have to start now." —Elgin Watchman*

THE INFLUENCE OF SOCIAL MEDIA

During the discussion period, several students mentioned the potential of social media to both improve and detract from health. Abeita-Sanchez described a campaign in which Native Americans representing every language family in New Mexico were videotaped saying the same slogan, explaining that "it was great. We were all standing out there in the wind with our sign and yelling into the microphone and laughing. . . . Can we do more of those?" Such activities require coordination and can be hit or miss, she acknowledged. But such campaigns, if well thought out and well designed, can engage young people and motivate change.

The use of social media can depend on access, she reminded the group. When she has just one bar of reception, getting on Facebook can kill the battery of her phone. Clark agreed with the observation about access. Her community just had its first cell tower erected. "I used to have to commute just to do homework if I went home and needed to do homework. I would call up my cousin and ask to use a computer or wi-fi," she explained. Internet access is a good thing, but is not always guaranteed, said Clark.

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Several students also called attention to the potential of social media to waste time. Being on social media can sometimes "defeat the purpose because I am supposed to be doing something rather than be on Facebook or Instagram," said Smith. But social media also can be motivating by seeing how other people overcame their problems. Such stories "are inspiring to me and make me want to become a better person and keep my health on track," Smith said.

THE ROLE OF GRANDMOTHERS

In response to a question about the person to whom each student would give the most credit for inspiring their educational pursuits, many of the students mentioned their grandmothers. "Immediately, my grandma popped into my head," said Clark. "She always reminded us she only made it through eighth grade. She wanted us to keep going to school and to go to school for her and make up for her not being able to attend school. She had responsibilities at home, sheep herding and taking care of her family. My grandma is my inspiration for being in school and encouraging me to keep at it," she explained.

Smith also gave credit to his grandmother, saying that "she was the one I did everything with. My parents were always workaholics. They still are. I admire them for that because it helped me become a student and it helps me achieve education. . . . But the backbone of that was my grandmother. She taught me a lot about culture. She taught me a lot about planting. I didn't understand the things she was saying and how it would translate to current times. She would always give indigenous knowledge. What didn't make sense then is all coming together now. I am starting to use that in my everyday life. I am becoming more proud to speak my language. For Navajo, I have only had a vocabulary of 20 words, but 20 is turning into 40 and 40 is turning into 60. I have a lot to thank my grandmother for, for teaching me those cultural things when my parents were working to make a better life for me."

Abeita-Sanchez said, "I would be remiss if I didn't say my late grandmother didn't have a profound impact on me. I have to give her a lot of credit for raising me and bringing me up, teaching me my language, and establishing a foundation. It is people like her that have really driven me down this path. Those are also the people who gave me some of my earliest memories. In fact, one of my earliest memories was at the elementary school. We had the elderly center next door. They took us over there to hang out with the elders one day. I remember this vividly. One of the elders pulled me aside. It was an older gentleman. He said, 'We are all proud of you, each and every one of you. Always remember when you leave here and

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you step outside your door, you not only represent you and your family, but everyone else in our community and everyone else that came before you.'"

THE EFFECTS OF MONEY

When asked about the influence of money on health, Albert said that "money has impacted my life a lot. My mom is just barely paying the bills. . . . She makes those choices of what is good and what is not based on the cost, and sticks to a budget." Money affects everyone somehow, he said. When he was named a Gates Scholar, it took a great load off his mother.

Money can improve health—for example, at a store where the potato chips are cheaper than an apple, said Abeita-Sanchez. But money is not the only determinant of health. Having a healthy attitude and learning how to maintain good health can be the most important resources. "We can all learn from each other," she said.

Other students said that money was simply a distraction. Some live without electricity and running water, said Gutierrez, like her grandparents, sticking to traditional ways of life. Others, herself included, spend money extravagantly on clothes. Money is "just an object," she said. It can become "an addiction to spend money on stuff that you don't really need." People should use money for what they need and not what they want, she said.

THE WISDOM OF YOUTH

Native youth are moved by internal and external factors toward educational and health equity. Their own strength is evident and is creating new paths each day as they affect entire communities. Many workshop participants, both in their presentations and in their conversations during breaks, expressed their gratitude and respect for the courage, integrity, and optimism demonstrated by the students who spoke at the workshop. As roundtable member Ned Calonge said, "Your sharing today has been meaningful to all of us in the room. . . . The older I get, the more often I am humbled by the wisdom of youth."

"The older I get, the more often I am humbled by the wisdom of youth." —Ned Calonge, The Colorado Trust

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3

Contributors to Resilience

Native American psychologists have identified a Native American "resilience narrative" that emphasizes the ability to not only be effective, but to thrive despite adversity, said Teresa LaFromboise, professor in the Graduate School of Education at Stanford University, in her keynote speech at the workshop. For example, Emmy Werner (1992), in her longitudinal studies of Native Hawaiian children, was one of the first psychologists to identify people who were doing well despite growing up under harsh circumstances.

Such resilience is often attributed to protective factors that counteract stresses, providing a kind of scaffolding that helps individuals over the life course. Though initially seen as a trait inherent in individuals, resilience is actually more of a process, LaFromboise said (Masten, 2001). Seen in this light, every person has the potential to be resilient if the right mechanisms are in place and if interactions with the environment are supportive.

The medicine wheel, with its emphasis on body, mind, spirit, and context, makes the same point, LaFromboise observed. Thus, something as simple as the kitchen table can be a supportive context during a family dinner, as can stories meant to both entertain and instruct. A similar point was made by a Lakota elder, James Clairmont, quoted in Graham (2001):

> The closest translation of "resilience" is a sacred word that means "resistance" . . . resisting bad thoughts, bad behaviors. We accept what life gives us, good and bad, as gifts from the Creator. We try to get through hard times, stressful times, with a good heart. The gift [of adversity] is the lesson we learn from overcoming it.

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According to a social ecological model, risk and protective factors move through individual, interpersonal, community, and societal levels. For example, one of LaFromboise's Ph.D. students has done a dissertation on community resilience among the Citizen Potawatomi in Oklahoma. This is "an area of exciting work," LaFromboise said.

PROTECTIVE FACTORS IN NURTURING ENVIRONMENTS

Among the specific protective factors that can be identified as contributing to resilience are individual, family, community, peer, and school attributes. Among the attributes of individuals, social competence—the ability to draw out reactions in others—is a protective factor, according to research in suicide prevention. Aspects of social competence include flexibility—being able to adapt to a crisis and not being overwhelmed by it—empathy and caring for others, communication skills, and a sense of humor. As an example, Indian humor is "a wonderful coping mechanism," said LaFromboise.

Autonomy is another individual attribute that can be protective. Autonomy, which includes self-awareness, resistance, and detachment, provides a sense of personal power and identity. For example, the ability to be detached gives children who are in troubled families a way to stay out of the fray. "They know how to still be a family member, engaged in what is going on, but stay away from trouble when it occurs," she explained.

Cultural identity is a well-researched individual attribute that contributes to resilience, LaFromboise continued. According to research done with the Yup'ik people in Alaska, children who identify with a traditional way of life experience greater happiness, tend to be more spiritual, less frequently use drugs and alcohol, and have lower rates of suicide (Wolsko et al., 2007). The sense of belonging and commitment to a culture is "a very protective factor against many of the issues that children face," LaFromboise said. Similarly, the level of engagement with traditional culture among the Pueblos, Apache, and Navajos has been correlated with lower death rates in New Mexico, and more traditional tribal groups tend to have lower death rates.

Another example of cultural continuity[1] is the work with drum groups being done in Los Angeles by Daniel Dickerson at the University of California, Los Angeles, said LaFromboise (Dickerson et al., 2014). This provides an opportunity to get boys involved in cultural activities, whereas these activities usually involve more girls. The use of men as leaders and the provision of college credit for cultural activities are other ways to get boys

[1] Cultural continuity is defined as beliefs, practices, and traditions that are passed from generation to generation.

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involved, she noted, adding that the objective is "to try to find creative ways to make [such activities] meaningful."

Problem solving—the ability to plan and find solutions to life's challenges—is another individual attribute that is protective. Problem solving involves resourcefulness, critical thinking, and what LaFromboise called "critical consciousness"—the ability to realize that another person is discriminating against an individual and the ability of that individual to act in his or her defense.

Family attributes are critical to resilience, yet more is known about individual and community factors than about family attributes. Families are protective of their own, LaFromboise said. They are not necessarily interested in being studied. Yet it is important to know more about supportive parenting, given its influence on resilience. Quality relationships and care, respect, and compassion are critically important. Children "come from the spirit world," said LaFromboise, adding that "they are precious. They are spiritual."

The care of a single adult—whether a parent, grandparent, guardian, or teacher—can help children overcome hardship. LaFromboise reminded the group that one-fourth of all Native children are being parented by grandparents. "That is wonderful, but it is also hard for the grandparents. Still, it says a lot about how important the sense of family is. . . . Also, grandparents are giving a lot of information about culture and values, [which] helps with the continuation of cultural beliefs," she explained.

Peers are another major influence, especially with early adolescents. A sense of connectedness can overcome serious problems. For example, peer norms are a critical influence on substance abuse. "Knowing what peers are doing, rather than what they are rumored to be doing, can be effective in regulating one's behavior," she said. It also can be pivotal in suicide prevention. "Often children will talk to their friends," LaFromboise observed. "They certainly won't go to an IHS health clinic and reveal that they are suicidal or having suicidal ideation."

In terms of education, schools can be sanctuaries for Native children, LaFromboise noted. For some youth, for example, school is the only place they can get a meal and feel safe. However, schools also can be sites of bullying, which can make a school a threatening place. Schools can help instill empathy in children, if time can be found for such preventative activities. Schools also can engage in a dialogue with students to help set policies and develop activities. Furthermore, schools can help transmit Native culture and languages, especially when culture and language are not being transmitted through communities and families. They can also showcase student talent and host cultural awareness events. As more Native teachers and administrators serve in schools, said LaFromboise, children will believe they are learning more and getting more opportunities.

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Finally, communities have attributes that can build resilience. They are places that instill a basic sense of beliefs, values, and norms. They offer learning, social resources, recreational activities, economic resources, and many other opportunities. Communities can emphasize self-reliance and sovereignty. For example, they may invest the proceeds from economic activities into land rather than into individual per-capita payments, thereby fostering self-reliance and an emancipation spirit.

PROTECTIVE FACTORS AND SUICIDE

These protective factors can have an influence across the life span, with some more powerful in particular developmental phases. LaFromboise particularly called attention to parenting skills, which are often associated with first-time parents. But parenting requires support throughout the development of a child. For example, a parent liaison in schools can simultaneously understand what is going on in a school and be available to parents. Such individuals can check up on families on an annual basis and provide more extensive support or therapy if needed, including parenting skills training.

LaFromboise works in the area of suicide prevention, seeking to counter the substantially elevated rates of suicide among Native Americans. According to the Centers for Disease Control and Prevention, factors that contribute to higher rates of suicide among Native youth include

- Behavioral health problems (e.g., anxiety, substance abuse, and depression)
- Underuse of mental health services
- High poverty
- Poor educational outcomes
- Substandard housing
- Disease (e.g., diabetes; overweight and obesity)

To these, LaFromboise added factors such as acculturation stress, historical trauma, community violence, family disruption, and interpersonal problems.

In one study, depression and substance abuse—which LaFromboise called "the deadly duo"—predicted more than half of the variation in suicidal ideation, with smaller contributions from age, gender, and socioeconomic status. "The real heart of it is in the way that parents talk to their children and the kind of violence that they experience through bullying at school," she said, adding that "that really makes the biggest difference in [suicide] prediction."

Today, studies focused on risk factors are easier to have funded than

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studies of enculturation,[2] LaFromboise noted. But some of the new thinking among Native scholars is pointing to the importance of the latter. "Why is it that a woman at some point in time, at 35, decides that she is going to stop drinking with no treatment? Why is it that a community can totally turn it around if they choose to?" she asked. Enculturation is a critical link in such changes, said LaFromboise, and this link needs to be studied.

Interventions based on resilience factors, such as the development of better coping and problem-solving skills, can reduce the influence of some risk factors. For example, a community-driven suicide prevention program undertaken by invitation from the Pueblo of Zuni got good results in terms of reduced hopelessness, greater confidence, ability to manage anger, better peer suicide intervention skills, and better peer problem-solving skills (LaFromboise and Howard-Pitney, 1995). A similar comprehensive suicide prevention effort in the Southwest reduced suicide attempts from 40 in 1988 to 4 in 2002. An independent evaluation of a 30-session intervention in high schools found reduced hopelessness and suicidal risk and an increased sense of public collective esteem. "This is again a very exciting finding," said LaFromboise.

Emphasizing the opportunities to make lives better rather than the challenges people face can inspire such programs, LaFromboise concluded. "People are much more excited about the theme of resilience than they are about trauma, hardship, and adversity."

"People are much more excited about the theme of resilience than they are about trauma, hardship, and adversity." —Teresa LaFromboise, Stanford University

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[2] Enculturation is the process through which a person learns a traditional culture and assimilates its beliefs, values, and practices.

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4

Health and Well-Being

Discussions of Native American health tend to homogenize Native populations, said Francisco Garcia, chief executive officer and chief medical officer of the Pima County Health Department and a member of the roundtable. "We tend to think all Indians are the same in the same way we think all Hispanics or all African Americans are the same," he said.

In fact, Native Americans are an extremely heterogeneous population. The state of Arizona alone has 22 federally recognized tribes, Garcia noted. This heterogeneity is an advantage rather than a disadvantage in discussing Native American health because it enables "interesting and creative solutions" in addressing health and wellness issues in indigenous populations, he said.

These solutions are desperately needed, Garcia asserted. Across Native American groups, the leading causes of mortality are unintentional injury, homicide, and suicide. "What is killing Native youth today, and the sources of the greatest mortality for Native youth, are all preventable causes of disease," he added.

The opportunities are in thinking creatively and engaging with communities to solve problems, said Garcia. Discussions of health disparities are often oriented around deficits. For example, the members of certain populations are seen as too fat, unhealthy, or just not good enough. This conversation needs to be turned on its head, said Garcia, adding that "we need to understand that we have true sources of resilience, true sources of strength, which we can draw upon and learn from each other."

Though some risk factors are elevated in Native communities, these communities also have some very positive stories to tell. In some tribal com-

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munities, the consumption of fruits and vegetables is higher than for white non-Hispanic populations. In general, physical activity among American Indian men is greater than among white non-Hispanic men. Tobacco use during pregnancy is exceptionally low among Native women in the southwestern United States. Though alcohol in Indian Country is a major issue that threatens the viability of these communities, the rate of binge drinking is lower than among non-Hispanic whites. "It is important to understand these strengths," said Garcia, "because it allows us to do creative things." For example, working from a position of strength rather than a deficit model points to many opportunities for policy enhancements, such as reducing automobile accidents, that would yield quick wins in terms of mortality and morbidity.

In the session Garcia moderated, three health care providers described their work on physical and mental health interventions among Native American youth. An important aspect of these interventions is that they build on Native cultures, thereby gaining both relevance and resonance.

"What is killing Native youth today, and the sources of the greatest mortality for Native youth, are all preventable causes of disease." —Francisco Garcia, Pima County Health Department

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CULTURALLY BASED INTERVENTIONS FOR THE PREVENTION OF SUBSTANCE USE AND ABUSE AMONG NATIVE AMERICAN YOUTH

Guided by a group of elders from the Kituwah Cherokee tribe, John Lowe, Wymer Distinguished Professor of Nursing at Florida Atlantic University, has been working on the prevention of substance use and abuse among Native American youth. When he asked the elders of his tribe what questions he should pose to young people, they pointed to three:

- Who are you?
- Where are you?
- Where are you going?

Unless young people have a solid cultural identity, they will have trouble answering these questions, Lowe said. In turn, they will be more susceptible to substance abuse, which is a major problem for Native American communities. Compared with the national average for adolescents ages 12 to 17, American Indian or Alaska Native adolescents had higher rates of past-month cigarette use (16.8 versus 10.2 percent), marijuana use (13.8 versus 6.9 percent), and nonmedical use of prescription drugs (6.1 versus

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3.3 percent), according to data from the National Survey on Drug Use and Health. These higher rates of substance use among American Indian or Alaska Native adolescents are found among males, among females, and across age groups. In particular, drug use is substantially higher among 10- to 12-year-old Native American youth than in the population at large. By age 11, American Indian youth are more likely, compared with all other racial and ethnic groups, to have initiated substance use and to be on the path to lifelong substance abuse, said Lowe.

Substance use is not a single problem, Lowe continued. It is correlated with historical trauma, forced removals, boarding schools, destabilization of families, economic disadvantages, and other social, psychological, and economic stressors. As prevention researcher Fred Beauvais (1998, p. 256) has written, "Many Indians believe that the loss of their culture is the primary cause of many of their existing social problems, especially those associated with alcohol."

Early in his doctoral work, Lowe did 5 years of ethnographic study, which resulted in what he called the Cherokee Self-Reliance model. In this model, the self is not individualistic, said Lowe, adding that "self, for us as Cherokee Kituwah people, is everything that we are connected to by the creator." Though the term self-reliance may sound Western, it is really about interdependence. This model has been generalized into a Native Self-Reliance Framework. A circular model for cultural tailoring (which features interconnections among self, tribe, relationships, and time) has emerged that provides guidance when tailoring the Talking Circle intervention for use with various tribes.

In applying this model to substance abuse, Lowe and his colleagues and students developed what they called the Talking Circle Intervention. It is a 10-week counseling session conducted in the traditional talking circle format. It has been used both with older adolescents and with fifth and sixth graders. A comparison of the intervention, with the DARE (Drug Abuse Resistance Education) or Be a Winner[1] programs serving as the control groups, demonstrated a substantial increase in self-reliance scores after intervention and, especially, 3 months later, while self-reliance decreased among the control groups. Substance use decreased among those taking part in the Talking Circle Intervention, with, again, a greater effect 3 months after intervention. By comparison, the control group showed the opposite effect. "We have been sharing this and getting interpretation from my elders. What they say is it takes time when you are circular thinkers[2]

[1] DARE and Be a Winner are drug education programs that are delivered in the school setting by law enforcement officers.

[2] Circular thinking as opposed to traditional Western linear thinking.

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and you internalize what you have learned. Once it is there, you are going to see it increase," Lowe explained.

In the earlier studies that tested the Talking Circle intervention, stress levels were reported to be down immediately after the intervention, but rose nearly to the baseline level 3 months later. According to Lowe, this observation prompted a closer look at historical and intergenerational trauma experienced by program participants.

Lowe and his colleagues have received another grant of nearly $3 million to test the Talking Circle Intervention for the prevention of substance use among Native American youth ages 10 to 12. This grant will make it possible to test combinations of in-person implementations and virtual implementations of the talking circle concept, with sessions facilitated by an elder who is a substance abuse counselor. The intervention also will train other members of tribes who can implement the program in the future. In addition, Lowe has been working in Australia to tailor the talking circle approach to the Aboriginal practice of "yarning,"[3] and his graduate students are interested in tailoring talking circles for obesity prevention.

"Self, for us as Cherokee Kituwah people, is everything that we are connected to by the creator." —John Lowe, Florida Atlantic University

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THE JOYS AND CHALLENGES OF HELPING NATIVE YOUTH TELL THEIR STORIES ABOUT HEALTH AND WELLNESS

"Native folks like to tell stories," said Susie John, a pediatrician at the Northern Navajo Medical Center Teen Life Program in Shiprock, New Mexico. "That is how they do their teachings. Legends are passed on. I was happy to see the kids this morning. Many times I work with kids, and a lot of times they want to tell us their story in their own words. That is as you saw this morning. It was good to hear," she said.

Behind every statistic are individuals, families, and stories, John reminded the group. For example, statistics about alcohol and drug use reflect the aggregate experiences of many individuals, each of whom deserves respect. "One thing that the kids keep telling us is they want us to listen to them," said John. "You heard that this morning. They want us to listen to them and treat them with respect and compassion. Also, they want us to treat ourselves with respect and compassion. They want us to hear them, and they also want us to hear ourselves."

[3] Yarning is a term used by Aboriginal peoples in Australia to describe an Indigenous style of conversation and storytelling.

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As Garcia noted, Native American youth are very diverse. They are urban and rural, have different sexual orientations, and have different educational and health care needs. Some are traditional and may be more comfortable speaking Navajo than English. "You can't make assumptions," said John.

John also pointed out that healing systems are different. People coming to a hospital expect a particular kind of system. But "there are healing methods that have been there for eons, for thousands of years, and people still use that," she added.

As a pediatrician, John often finds herself serving as a confidant or surrogate family member. She is someone who can listen who also knows about health and wellness. With adolescents, she often uses motivational interviewing, which is something that the elders talk about as well. For example, through an initiative called Project Trust, behavioral health providers interview adolescents to help work through historical traumas and other issues that arise in Native American communities.

Children and adolescents do not necessarily seek out health care, which requires that John be a community worker. "With school-based health services, we go to them," she explained. She talks with people about both their problems and their successes. Many reservations have strength-based prevention efforts, which need to be continued, said John. Working in the community provides young people with role models and helps prevent the siloing of efforts. Young people say "it is good to see all of these people with Ph.D.s or different degrees coming from somewhere else, talking to us, and encouraging us," she said.

Adolescents often say they want to come back after getting an education and work with their communities, John observed. Yet once they get an education, they may not have the skills that are needed in their communities. "I told the kids it is okay, get educated," said John. "Stay where you are and work for us in the university setting in Denver, Colorado, or Washington, DC. That is okay. You can work from there on our behalf."

"Native folks like to tell stories. That is how they do their teachings." —Susie John, Northern Navajo Medical Center Teen Life Program

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BY AGE 7: DEVELOPING OUR NEXT SEVEN GENERATIONS

By the age of 7, children need to acquire four essential skills, said Gayle Dine'Chacon, director of the Center for Native American Health at the UNM School of Medicine.

The first is reading. Reading is "what got me where I am," said

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Chacon. Her father worked at the Bureau of Indian Affairs cleaning boarding schools, and he brought home old books from the schools when new ones arrived. “I read and read and read, because we didn’t have TV, and we didn’t go to the movies,” she said. Only 56 percent of the people in Navajo Nation have a high school diploma by age 25, compared with 75 percent of the U.S. population. Only 5 percent have a bachelor’s degree by age 25, compared with more than 20 percent of the general population. More and better reading could make a critical difference in these numbers, said Chacon, adding that “reading by age 7 is what our children need.”

The second thing they need is music. Music uses the other half of the brain, and “the full potential of a human person is using both sides of their brain,” she explained. Understanding music and learning a musical instrument, whether a piano, violin, guitar, drum, or the human voice, teaches children how to express themselves in a way that transcends words.

The third thing they need is a second or even third language. Native American children need to understand and be proficient in their Native language, said Chacon. Aspects of Native culture and spirituality cannot be expressed in English. They have deeper meanings based on thousands of years of history. Native American culture is also conveyed through an oral tradition. “I am a grandma,” said Chacon. “Being a grandma encompasses everything I do as a professor, as a woman, as a teacher, all of those things, because I have a chance to impart what I know to the next generation. My grandson is the seventh generation of my great-great-grandmother, who was at Fort Sumner. Fort Sumner, for those of you who don’t know, is in our genes. It is in our blood. It is in our memories. We will never forget. . . . We were forced from our home to Fort Sumner and lived there, people say, to die. But we didn’t. We are here. We survived. We are survivors. We are resilient. We need our language in order to carry that through.”

The fourth thing children need is a sense of who they are and where they are going. When Chacon speaks to Native American groups, she tells them she is from Chinle. “As Indian people, I ask where you are from. That is part of our introduction. . . . It is our identity,” she said.

Chacon closed with a story about how the seed to attend medical school was planted in her. When she was 5, she was reading one of the books her father brought home from the boarding school. On the first page were “two people who had clothes on,” she said. “You turn the page and they are naked. The next page they have no skin. You just see the muscles. On the next page, you see their blood vessels and nerves. On the next page you see their organs. On the last page there was a skeleton. I was 5 years old. I was scared and crying. I didn’t know.” Her father told her it was an anatomy book that doctors use to understand the body. “Someday you are going to be a doctor,” he told her. “I was 5. You don’t know what that means. Just as you plant a seed, you don’t see it. You don’t know where it

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goes. You hope there is enough fertile ground, enough opportunity, enough water, and enough sunlight," she said.

All children face challenges, yet they have the capacity to overcome those challenges, said Chacon, adding, "I am so inspired every day when I get to talk with our students and meet with our students. They motivate me. They inspire me. Those are the next generations. . . . We have 27 graduate Native students in our medical school, which I am so proud of, and we will graduate 2 next week."

"I am so inspired every day when I get to talk with our students and meet with our students. They motivate me. They inspire me. Those are the next generations." —Gayle Dine'Chacon, UNM School of Medicine

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LEARNING A LANGUAGE

During the discussion period, the presenters focused largely on the topic of learning a Native American language. As Chacon said, children have many ways to learn a language, including language classes, immersion schools, and even a Rosetta Stone program for Navajo. But for children to embrace a language, they need to value it. That value comes from its connection to culture, said Chacon. "For us, it encompasses who we are, the whole culture, the tradition, the ceremony, the being healthy. You cannot understand some of the ways that we live. When we talk about food being sacred and our bodies being sacred, that is something that we need to translate to people who have diabetes and obesity," she said. Although learning a language at 50 is difficult, children can absorb a new language much more easily.

John pointed out that "using a few words of the language works." For example, when people hear terms of endearment, "they come closer to you. They know what that means," she added.

Lowe noted that the use of a Native American language connects children to an identity. He told the story of a young man, just 19, who had a terminal illness. His proudest moment, he told Lowe, was being able to identify with his tribe in his Native language. "It was truly a gift to us," Lowe said.

Finally, Garcia noted that many of the words in Native languages are unique and do not have a literal translation, adding that "they have an emotive quality that attaches us to those words and carries very special and important messages."

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5

Addressing Health Disparities Through Education

Education is related to the success of young people in a variety of ways, noted roundtable member Jeffrey Henderson, president and chief executive officer of the Black Hills Center for American Indian Health and moderator of the panel on education at the workshop. In particular, education can generate resilience, he said, and resilience in turn can drive educational attainment.

Three speakers at the workshop examined aspects of the relationship between education and health equity. Most of the interventions they described are designed to increase the representation of Native Americans in the health care and health research workforce, but experience with those interventions has produced lessons that can be applied much more broadly.

VALUING TRADITIONS AND NEW PATHWAYS

The UNM Health Sciences Center (UNMHSC) has established the vision that, working with community partners, it will help New Mexico "make more progress in health and health equity than any other state by 2020." To help achieve this vision, it has established a wide variety of programs to engage, enroll, and encourage students in its health profession schools (see Table 5-1). Even if these students end up going into a different field, the interventions can benefit them, said Valerie Romero-Leggott, vice chancellor for diversity and professor of family and community medicine at UNMHSC. "If they continue their education, then we have been successful in the programs that we provide," she explained.

Diversity is the key to helping the center achieve that vision, said

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TABLE 5-1 University of New Mexico (UNM) Programs Targeting Native American Youth

Program Title	Program Session Duration	Number of Participants as of May 2014[a]	Academic Range/Group	Discipline and Topics Covered
Dream Makers Health Careers Club	Twice monthly, after school during academic year	80	Middle school	Medical/health profession-focused, hands-on activities
Dream Makers Plus Health Careers Club	Academic-year workshops	80	High school	Journal/writing on health issues, financial aid, and college prep
Health Careers Academy	6-week summer program	N/A	High school (freshman, sophomore, junior)	Overall academic performance improvement, test preparation, exposure to health care professions
Undergraduate Health Sciences Enrichment Program	6-week program	25	College freshmen (incoming)	Academic enrichment, exposure, and details about programs and services offered by universities; hands-on experiences through shadowing of health care professionals

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Mental and Behavioral Health Academy	Every Saturday for 15 weeks	15	N/A	Test preparation, academic enrichment, and rural clinical immersion experiences in mental and behavioral health sciences
MCAT+/DAT+/PCAT+	6-week summer program	5	Postgraduate	Preparatory courses and preadmissions workshops/seminars to help strengthen medical, pharmacy, and dental school applications
Pathways to Pharmacy	N/A	N/A	College graduates	Improve academic qualifications of graduates selected by UNM College of Pharmacy admissions committee; facilitate entry into the college
Premedical Enrichment	N/A	N/A	N/A	Help educationally disadvantaged students in their long-term professional success, achievement of a doctoral degree

NOTE: DAT = Dental Admissions Test for dental school; MCAT = Medical College Admissions Test; PCAT = Pharmacy College Admission Test.
[a] Numbers are estimates based on text.

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Romero-Leggott. The United States is rapidly becoming a more diverse nation, where non-white racial and ethnic groups will constitute a majority of the U.S. population. In addition, health care workforce diversity is a strategy for eliminating health disparities and a key to excellence in health care for the nation, said Romero-Leggott. Diversity helps prepare effective health care providers for work in multicultural environments. "It is about improving access to health care for vulnerable populations. It is about cultural humility. It is about being prepared for this multicultural environment that we live in," she added.

HOPE, ENRICHMENT, AND LEARNING

Preparing a diverse health care workforce requires "growing our own," said Romero-Leggott. One of the approaches the Health Sciences Center has taken to do this, with support from the state and federal governments, is known as the Hope, Enrichment, and Learning Transform Health in New Mexico, or HEALTH NM, program.[1] The program consists of a wide variety of initiatives ranging from middle school through high school and college to graduate education in the health professions, providing a pipeline that students can follow from one level to the next.

The Dream Makers Health Careers Club, which has about 80 participants, is an afterschool program for middle school students to stimulate interest in the medical and health professions. Twice per month, hands-on activities are led by community and UNM Health Sciences Center professionals to provide students with positive role models that they can emulate.

The Dream Makers Plus Health Careers Club is an academic-year program for high school students and also involves about 80 participants. It includes in-depth workshops from many health disciplines, journaling on health issues, parent meetings on financial aid and the college application process, and a precollege entrance exam workshop.

The Health Careers Academy is a 6-week, nonresidential summer program for high school freshmen, sophomores, and juniors that is designed to raise entrance exam and academic performance and provide exposure to and information about various health care professions. Originally based in Albuquerque, the program, which serves about 35 students, has recently been expanded to other communities in New Mexico.

The Undergraduate Health Sciences Enrichment Program is a 6-week residential program for about 25 incoming college freshmen, regardless of where they will go to college. It offers academic enrichment and an extended introduction to the programs and services offered by universities.

[1] The number of students/participants in the HEALTH NM programs has continued to expand, as partnerships increase in rural communities throughout the state.

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Shadowing of health care professionals provides the students with clinical exposure.

The Mental and Behavioral Health Academy is a new program that provides opportunities to about 15 students who are interested in mental and behavioral health careers. The program meets every Saturday for 15 weeks. It is a hybrid program that includes standardized test preparation, academic enrichment, and rural clinical immersion experiences.

The MCAT+/DAT+/PCAT+ is a 6-week summer program designed to strengthen about 25 students' applications to medical, pharmacy, and dental schools by providing preparatory courses and preadmissions workshops and seminars.

The New Mexico Clinical Education program is a 6-week summer immersion program for about five preprofessional students. It provides clinical and community experiences by placing students in primary care settings throughout rural and tribal New Mexico.

The UNM-New Mexico State University (NMSU) Cooperative Pharmacy program is a 7- to 8-year program for students to complete prepharmacy coursework at NMSU and be admitted to the UNM College of Pharmacy. About 10 participants are involved in pharmacy practice experiences and preparatory courses for the PCAT.

The final two programs are postbaccalaureate/prematriculation programs. The Pathways to Pharmacy program is for college graduates selected by the UNM College of Pharmacy admissions committee to improve their academic qualifications and facilitate their entry into the college. The Premedical Enrichment program participants are selected by the UNM School of Medicine admissions committee. The program is designed to help educationally disadvantaged students in their long-term professional success toward the achievement of the medical degree.

HEALTH NM rests on four fundamental pillars, said Romero-Leggott: identity formation, service learning, cultural competency and humility, and reciprocal information corridors. For example, in this last category, the initiative recognizes that it needs to provide information to families and communities and also get information from them about their needs and how to meet those needs. With the exception of the Dream Makers programs, all of these programs offer stipends so that students will not have to take jobs.

Of course, not every student makes it through every step of the pipeline, Romero-Leggott said. But mentoring and role modeling make a big difference in retention, as does maintaining a strong network among participants, role models, and advisors.

Romero-Leggott also mentioned several other initiatives involving Native American youth in New Mexico. The Native Health Initiative conducts workshops on health careers, conducts a mentoring/shadowing pro-

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gram, and offers internships on health issues for the state. The Center for Native American Health has an Indians into Medicine grant designed to have Native Americans go into those careers. The Institute for Indigenous Knowledge and Development does work on public health, community participatory research, and the self-determination of indigenous knowledge for students and communities. Furthermore, the Four Corners Alliance works with the Association of American Indian Physicians to hold annual preadmissions workshops.

As an example of these programs' success, Romero-Leggott cited Erika Garcia, a physician from Clovis, New Mexico, who was in three of the pipeline programs. Now she is working in Portales, New Mexico, near her hometown of Clovis. As Garcia described her experiences, "The biggest impact that I immediately felt in my community is that I am filling a cultural void with Spanish speaking-individuals, especially females." Recently, Garcia took on one of the clinical education students, bringing the story full circle. Said Romero-Leggott, "This is one of several stories that we have of how these pipelines work and how they really do have people returning to serve in their communities."

THE COMBINED B.A./M.D. DEGREE PROGRAM

Romero-Leggott also described the Combined B.A./M.D. Degree program at UNM. The program is built on the idea that the health care providers most likely to serve rural areas are from rural areas themselves, are members of underrepresented groups, were trained in rural or underserved areas, or graduated from primary care training programs. With the overall goal of improving the health and well-being of New Mexicans, the program admits a diverse class of 28 New Mexico high school seniors who are committed to practicing in the state in the communities of greatest need, thereby increasing the medical school class from 75 to more than 100.

The program provides an array of curriculum and support services, including specialized academic advising, scholarship and financial aid, peer and faculty clinician mentors, living and learning communities, tutoring and supplemental instruction, and MCAT preparatory courses. The students also participate in summer service-learning experiences in rural communities that are medically underserved.

Eight years into the program, students have come from across New Mexico. Two-thirds are rural students, about half are female, and two-thirds are minority students. Thirty-one of the students identify as American Indians, representing 14 percent of the total. Many of the students have gone on to win scholarships, awards, and other recognition.

Romero-Leggott closed by pointing to a few areas in which the program could improve, including encouraging students to participate in Advanced

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Placement and dual-credit courses, ensuring school districts give access to these courses, standardized testing support, greater awareness of summer enrichment programs, scholarships and funding for qualified applicants, and greater connectedness to identity, culture, and tribal communities. She also quoted one of the students in the program, Jaron Kee, who also spoke at the workshop:

> These experiences have proved beneficial since entering college. Not only has the knowledge I gained from these programs made a difference in my studies, but the study skills and work ethic that was instilled in me has done just as much, if not more. Also being exposed to the rigor and competitive nature of students outside of my high school has encouraged me to academically push myself.

The Combined B.A./M.D. Degree program "is serving New Mexico one physician at a time," said Romero-Leggott.

"If they continue their education, then we have been successful in the programs that we provide." —Valerie Romero-Leggott, UNM Health Sciences Center

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SHEEP, CEREMONY, AND TEXTBOOKS: A NATIVE UNDERGRADUATE'S TESTIMONY

In his presentation at the workshop, Jaron Kee, who is a third-year student in the Combined B.A./M.D. Degree program, said he grew up in the small town of Crystal, perched in the mountains of western New Mexico. He attended and graduated from St. Michael Indian School, and at UNM, he is pursuing degrees in biology and chemistry with a minor in health, medicine, and human values.

Up until middle school, Kee spent his summers herding sheep and attending ceremonies with his grandparents, and he said that his family remains very traditional and still keeps about 200 head of sheep and 100 head of cattle. But his family is also very pro-education. They sent him to a variety of summer academic enrichment opportunities, including the Cushing Academy in Ashburnham, Massachusetts, and the Arizona State University Math–Science Honors Program in Tempe. "I grew up with the mentality that education is something important and something that all Native students should be part of because it is for the betterment of our people," he said.

He also has become involved with health issues and experiences on the reservation. He has shadowed at a local clinic of the IHS, where he

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gained experience with pediatrics and family medicine and observed several operations.

Transitioning to college was difficult at times, Kee said. He got a C on his first chemistry test, which he described as "devastating." He felt disconnected from his community and underprepared for college. His response was to create a new family through the B.A./M.D. Degree program. He began to study with the other people in the program and raised his grades. He then became a tutor for calculus, chemistry, and biology, which he continues to do as a junior, and he became involved with the Center for Academic Program Support on campus.

As his confidence grew, he applied to the Native Health Initiative and became a leader in the program. One activity of the initiative is known as the Healers of Tomorrow program, which he oversaw. He then applied to and was accepted at a research program at the National Institutes of Health, where he conducted research on human motor control.

The summer before his junior year, he did a practicum in his hometown, which he described as a "gratifying experience and one of the reasons why I think what I have chosen in my life is something important. . . . Seeing a lot of the health disparities and diseases that continue to plague the Navajo people is a bit startling." He also has done summer programs with the Association of American Indian Physicians.

Kee closed with three observations. First, continued involvement with his community has allowed him to remain committed to his education. Second, his traditional upbringing has had a tremendous influence on his life. Third, having a network of support has been the most important aspect of his life. He also quoted the words of his grandfather, James D. Kee, Jr.: "Anyone has the ability to create for themselves a good life from their hands and thoughts—now go do it!"

"I grew up with the mentality that education is something important and something that all Native students should be part of because it is for the betterment of our people." —Jaron Kee

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TRIBAL SCIENCE: ENSURING THE EVOLUTION AND PRACTICE OF INDIGENOUS SCIENTISTS AND RESEARCHERS IN THE 21ST CENTURY AND BEYOND

Jerry Elliott—or J. C. High Eagle—was a flight mission operations engineer at the National Aeronautics and Space Administration's Mission Control Center who was responsible for designing the trajectory around the moon that brought men back from the darkness of space. He was awarded the Presidential Medal of Freedom, the highest civilian honor bestowed by

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the U.S. government. Yet his path to success began one afternoon on the plains of Oklahoma during an intense experience with his grandfather. "I urge all of you to think very critically and very openly about what children share with you," said Jacqueline Bolman, director of the Indian Natural Resource, Science, and Engineering Program (INRSEP) and the Center for Academic Excellence in STEM (science, technology, engineering, and mathematics) at Humboldt State University. "Those moments of sharing constitute what I will call blowing on the coals of who they are and literally setting them free to create their own destiny," she said.

Native Americans represent only 1.2 percent of the nation's population, but they own or are entrusted with 10 percent of the land in North America. On those lands are 20 percent of all of North America's natural resources and 27 percent of U.S. fresh and clean water. This land represents not only "the health of our environment, but the health of our future children," said Bolman.

As Gregory Cajete (2000, p. 186) has written:

> Native people expressed a relationship to the natural world that could only be described as "ensoulment." The ensoulment of nature is one of the most ancient foundations of human psychology. This projection of the human sense of the soul with its archetypes has been called the "participation mystique," which for Native people represented the deepest level of psychological involvement with their land and which provided a kind of map of the soul. The psychology and spiritual qualities of Indigenous people's behavior reflected in symbolism were thoroughly "in-formed" by the depth and power of their participation mystique with the Earth as a living soul. It was from this orientation that Indian people developed "responsibilities" to the land and all living things, similar to those that they had to each other. In the Native mind, spirit and matter were not separate; they were one and the same.

Cajete also wrote that human development is predicated on interaction with the soil, the air, the climate, the plants, and the animals of the places in which we live. In this way, tribal or Native science is based on what he called a "creative participatory process." The initial insights, immersion, creativity, and reflection of tribal science do not differ from the process of Western scientific inquiry. However, Native science is imbued with spirituality, while Western science is founded on the separation of the two. Tribal science also builds on direct experience with natural phenomena and building on the accumulated knowledge of others through such means as oral histories and stories. "Stories are a very intricate means of moving highly detailed quantitative and qualitative information through thousands of years," said Bolman.

Tribal science is laden with associated "values," while the scientific

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community prides itself on data that are "value" free. It includes an "ethic" of reciprocal respect and obligation between humans and the nonhuman world. Nature is the subject, not the object. In this way, tribal science offers not only biological insights, but a framework for health and environmental problem solving that incorporates human values.

The future of tribal science and traditional ecological knowledge (TEK) ultimately is related to the entrenchment of tribal rights, Bolman said. Tribal knowledge cannot be separated meaningfully from the people who hold it. To protect tribal science and TEK, the people themselves and their way of life must be protected. That means that Native students, once they enter higher education, should not be transformed. "They certainly don't come to those public universities or private universities as empty containers," said Bolman. "They are full of experience and knowledge. They are there to transform those tribal colleges and those universities."

Bolman has been directly involved, through a number of programs, with the use of tribal sciences to teach students. For example, she described working in the Black Hills to study the role of keystone species in reforestation. "Here, I began to see that renewal or restoring of the relationship between our children and land. Where I had tried to forcefully put chemistry and calculus into them, I found by helping them understand who they were and then showing them the relevancy of why they need to know this and when they are going to use it, I set them free to learn in their own way," she explained.

In a program called Opportunities for Enhancing Diversity in the Geosciences, Bolman took students to the seven sacred sites in the Black Hills, many of which the students had never seen, and used remote sensing to connect them with the traditional concepts of earth, wind, fire, and water. In partnerships with elders and other Lakotas, she helped students understand their relationship to those sites; the oral histories associated with them; how earth, wind, fire, and water had created these sacred sites and changed them; and how those primal elements were expressed in them. The students hiked with the elders to show "that Lakotas were strong people not only physically but mentally, emotionally, and spiritually, as a way to help our children reconnect," Bolman said.

In intergenerational camps at the center of the Black Hills, the students drank water rather than soda and returned to their traditional foods like dried buffalo, dried nuts, and berries. Bolman noted that "the students began to see, after a week or two, their bodies began to change. They began to feel more well and more physically active. That was expressed in their understandings with each other."

One of the students involved in these programs, who lives on the Pine Ridge Indian Reservation, was graduating from high school just 3 weeks after the workshop and had been accepted to Dartmouth, Harvard, Stan-

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ford, and Berkeley. She also had presented her research at the International Science and Engineering Fair. "I talk a lot about leadership with our students," Bolman said. "It is about self-determination, and about being self-determined, not only as a tribe but as a person."

Intergenerational experiences are critical in tribal science, according to Bolman. The greatest gift one can give is that of experience, education, and understanding. The truth is forged through millennia of participation with the natural world and the other members of a community. "We have the expertise. We have the education. We have the knowledge to assume our own stewardship, to take care of ourselves in a way that is culturally appropriate for us. . . . It is about forging those relationships between those of us whose lives are half over and those whose lives are just really truly beginning," she said.

Research is also a large part of tribal science. Every year Bolman's students participate in research experiences from the tip of Alaska to the tip of South America, working with Indigenous and tribal people. She noted that "the goal is to ensure that the next generation of tribal and non-tribal scientists and researchers is more diverse, more highly educated, more experienced, and more leadership oriented by the time they complete our programs."

"We must be responsive to our responsibility to that seventh generation," Bolman concluded. All tribal nations need to develop a culturally appropriate means to protect, sustain, and restore traditional ancestral lands. They need to push for equitable representation on national and international forums addressing the underrepresentation of tribal science and earth system science professionals. The planners of programs need to consult with students, she said, adding that "children have a capacity well beyond what a majority of people believe that they have. We need to set forth to build what they say they need." Finally, said Bolman, all nations should recognize the value of tribal and indigenous science perspectives.

"Stories are a very intricate means of moving highly detailed quantitative and qualitative information through thousands of years." —Jacqueline Bolman, Humboldt State University

AMERICAN INDIANS AND THE HEALTH PROFESSIONS: A GROWING CRISIS

Sam Deloria, director of the American Indian Graduate Center, Inc., in Albuquerque, New Mexico, took exception to the idea that Native American students should be expected to return to the places where they grew up. "Why are we the only ones who have to go back?" he asked. When

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he first came to the American Indian Graduate Center, he fought a battle over requirements that Native American students pay back their scholarship money unless they took particular jobs. "I fought that—risked the program—but won it. It was an important battle for me," he said.

The American Indian Graduate Center is a scholarship program (primarily for graduate students) that also sees itself as an advocate for students. Its mission statement is to build strong Indian communities, and "I am all for that," said Deloria. But he also pointed to the complications inherent in that mission. For example, 70 percent of the federally recognized tribes have 1,000 people or fewer, adding that "if we are going to construct our education programs around each one of these kids taking their degree back to their home community, think about how you are going to manage that." A Native American student fascinated by medieval French literature could not pursue such a degree and hope to use it in a small community. "I grew up thinking that education was an end in itself. So why are we the only community in the country that has to justify education on the ground that our kids are going to go back and implement some government program?" Deloria asked.

Native American students today are citizens of the world, just like other young people. They have been watching television since they were infants. "I am not at all against nurturing programs," he said. "I run one. What I am against, what I want to caution people about, is to think about the ways in which you are projecting or you may be projecting onto these young people expectations of their behavior," Deloria explained.

Native American students also have many of the same insecurities as other students. When high school students go to college, they all have to get used to the idea that they are not necessarily the smartest person in the room. "Virtually every negative feeling you are going to have, every other kid in your class feels the same way. Don't think it is just because you are an Indian," he said. But they would not be there if they could not succeed, Deloria added. "These kids have got to be tough. [For law students] In 3 years . . . somebody's life is going to be in your hands, so we are not going to coddle you. You are going to work, and they work, and 95 percent of them finish law school," he noted.

One of the greatest failings of current programs, Deloria said, is their lack of coordination. The IHS, Bureau of Indian Affairs, and Bureau of Indian Education all have a major presence on Indian reservations, but they do not talk with each other, he said. These programs encounter many of the same problems, such as substance abuse among the populations they serve, and they miss opportunities to make progress against these problems because of poor communication. In 1971, Deloria helped form a commission in the federal government to improve coordination between what was then the Department of Health, Education, and Welfare and the Bureau of Indian Affairs on issues such as health services in Bureau of Indian Affairs

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schools. However, the initiative "sank to the bottom of the Potomac before I got home, because nobody is forcing them to do that," he said, adding that federal agencies need enforceable measures to communicate with each other.

For those students who do return to their communities, a major problem is matching trained people with the opportunities that exist. For example, Native communities need school teachers and Head Start teachers, but many positions go unfilled. Changes in certification could make it easier to fill these positions, which is also the case in many health fields. "If we are going to meet the challenges of the Affordable Care Act, and if we are going to keep some semblance of medical care in Indian communities, we are going to have to face this, because there are not enough people," Deloria explained. Expecting all Native American students to return home to become primary care physicians instead of becoming heart surgeons is unrealistic, Deloria said. Also, because many Native Americans want to return to their communities, they are in schools of public health rather than medicine because they can more quickly return to the community with an M.P.H. degree.

Deloria also called attention to the lack of good advisement systems for students. They may have unrealistic expectations about where they are going to go to college or what they are going to do. They may pick a school they want to attend, even though it is absolutely the wrong place for them. "They are not getting the right kind of advice," he said.

Institutions also need to talk with each other. Deloria helped run a program that increased the number of Indian lawyers from 25 to more than 5,000, yet people in similar programs never asked him how he did it. The technology exists now to put all institutions in touch with each other. "There should not be an elementary or high school in this country that is so remote that it is out of touch with the best resources that are possible," he said.

Finally, Deloria expressed his concern about what he called the "intellectual scholasticism" of Indian affairs. Two or three reigning theories and political groups hold sway, but these theories have not undergone a robust examination. "You start by stating those theories as conclusions, and you work your way back to find data. That is a disservice to the professions, that is a disservice to the idea of scholarship, and it is a disservice to Indian communities," he concluded.

"There should not be an elementary or high school in this country that is so remote that it is out of touch with the best resources that are possible." —Sam Deloria, American Indian Graduate Center

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SCHOLARSHIP REQUIREMENTS

A topic that arose during the discussion session was whether students should be required to pay back a scholarship through a particular form of service. Deloria pointed out that he was not, in his remarks, objecting to all such requirements. "It is a bargain that they can take or not take," he said. But if all financial aid were structured that way, it would be a problem, he added.

Romero-Leggott observed that the Combined B.A./M.D. Degree program does require that students serve in underserved communities, but students know that and have signed a letter agreeing to those terms. "It is a great opportunity for some students who would otherwise be in huge amounts of debt," she added.

The presenters also talked about how to make pipeline programs sustainable after the initial rounds of financing have dried up. Romero-Leggott said that sustainability of the pipeline programs comes from engaging the community and enlisting their support, adding that "we negotiate and we work with them from the beginning."

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Concluding Comments

In the final session of the workshop, two presenters reflected on the main messages that they heard over the course of the day.

KEY TAKEAWAYS

Victor Medrano, division director of the Division of Program Development and Operations in the Office of Adolescent Health (OAH), Office of the Assistant Secretary of Health, U.S. Department of Health and Human Services (HHS), began by pointing to the importance of community. Community is at the heart of change, he said, yet the concept of community can be interpreted very broadly. “There are different avenues in terms of looking at the community, not just one way,” he explained. Resiliency was a second key takeaway for Medrano. He noted that it is critical to look at the positive and protective factors at work for these youth.

Medrano also drew attention to what he called “evidence-based and evidence-informed programs.” The department periodically evaluates promising programs to add to the evidence base.

Of particular importance for a program is addressing sustainability. He explained that over the years “we have gone into communities, developed programs, provided funding, and we leave, and the program ends.” All programs, he added, need to learn about ways to be sustainable over the long term, he said. His office has developed a sustainability framework, with an accompanying assessment tool and resource guide. Training has been provided to all OAH grantees on how to develop a sustainability plan in their communities.

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OFFICE OF ADOLESCENT HEALTH

Medrano works for OAH, which was established in 2010 with the broad mandate to coordinate all adolescent health issues across HHS. The programs his office oversees are the Teen Pregnancy Prevention Program and the Pregnancy Assistance Fund (PAF).

The former program is currently evaluating interventions to add to the list of evidence-based programs. Once interventions have been rigorously evaluated, and have met the evidence-based standards, they can be added to the list of evidence-based programs and used more broadly.

The PAF program has made including fathers and families as well as mothers a priority. "We added the word 'fathers' so that our grantees who were funded would address the issues facing young fathers and . . . retain them in their programs," he added. Programs or curricula designed to engage young fathers are "very limited," said Medrano, as are programs for Native American youth. "We need to develop more programs that are culturally relevant and appropriate for Native American youth," he said.

Another program directed toward fathers and men is the recent White House initiative known as My Brother's Keeper. The program is designed to address some of the gaps that exist between the needs of boys and young men and the programs available for them. They lack educational attainment, resources, and job opportunities. The initiative is designed to bring together the federal government, philanthropies, and community partnerships to address the issue. It is organized around early learning, college and career readiness, opportunities for working with young men who are in the criminal justice system, and ladders to jobs and support networks, with a multitude of strategies under each of these four pillars.

Participation in the workshop provided a way to inform and guide these programs, Medrano concluded. He indicated that he would use the information shared during the workshop with other federal partners. He also said that the dialogue fostered by the workshop needs to be continued. "We need to move from dialogue to action to outcomes," he noted.

"We need to move from dialogue to action to outcomes."
—Victor Medrano, U.S. Department of Health and Human Services

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SOURCES OF EVIDENCE

In a response to Medrano's comments, Nina Wallerstein, professor in the Department of Family and Community Medicine at UNM, supported the idea of making systemic changes in policies to support specific interventions. However, she expressed some concern about limiting research to

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the search for evidence-based interventions that can be easily translated or scaled up. As a community-based participatory researcher, she said she is very interested in changing how prevention science and translational science are addressed. But evidence can take many forms in different communities, varying even among Pueblo, Apache, and Navajo communities. For example, forms of communication can differ among these communities, and research cannot use an evidence-based protocol that is simply picked off the shelf. Randomized controlled trials are not the only source of evidence, she said.

Her research team uses the phrase “cultural centering,” with adaptation occurring in every community. This builds in ownership and sustainability. “How can we build those institutional systems that can own something themselves?” she asked. Academic evidence and cultural beliefs have to be bridged to create and find interventions and policies that work effectively.

A CULTURE OF HEALTH

Finally, Catherine Malone from the Human Capital Diversity project of the Robert Wood Johnson Foundation observed that many of the issues discussed at the workshop are in accord with the foundation’s vision for a culture of health. Foundations are not just funders, but collaborators in social change, she said. The Robert Wood Johnson Foundation’s vision is to advance a national culture of health in which people value being well, physically and mentally, and staying well. All sectors can collaborate to achieve this vision, including sectors that are not traditional partners, such as businesses, other nonprofit organizations, and educational institutions.

Many factors other than health care influence the health of Native American youth, including the environment, income, safety, housing, and employment, she said. Culture, connectedness, and communications across communities and families can direct these factors toward better health for all. For example, youth have the power to influence their own health and the health of the future by building the demand for physical and mental wellness. “All of these factors are coming together,” she said.

Addressing the many health disparities that plague the nation requires honoring and reflecting the nation’s diversity, Malone observed. “The problems that health and health care face today can’t be solved without a diversity of perspectives. That is where the solutions are,” she said.

Native American communities are closely aligned with this culture of health, Malone emphasized. These communities have developed a variety of ways to strengthen this culture. Now, help is needed to multiply and distribute such efforts. “How can we get the information out there so that a program developed in one area will be widespread across the board?” she concluded.

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"The problems that health and health care face today can't be solved without a diversity of perspectives."—Catherine Malone, Robert Wood Johnson Foundation

"Anyone has the ability to create for themselves a good life from their hands and thoughts—now, go do it."—Jaron Kee, quoting his grandfather

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Appendix A

Workshop Agenda

ADVANCING HEALTH EQUITY FOR NATIVE AMERICAN YOUTH

May 6, 2014

Hotel Albuquerque
Alvarado Salon, Room D
800 Rio Grande Boulevard, NW
Albuquerque, NM

8:30 – 8:45 **Welcome, Blessing, and Overview**

Antonia M. Villarruel, Ph.D.[1]
Roundtable Co-Chair
Associate Dean for Research and Global Affairs
University of Michigan School of Nursing

Gabriel R. Sanchez, Ph.D.
Executive Director, Robert Wood Johnson Foundation
Center for Health Policy
University of New Mexico

Blessing

8:45 – 9:45 **Keynote Speaker**
Moderator: Antonia M. Villarruel, Ph.D.
Roundtable Co-Chair

The Power of Protection: American Indian/Alaska Native Youth Resilience
Teresa LaFromboise, Ph.D.
Professor, Graduate School of Education
Stanford University

[1] Now at the University of Pennsylvania.

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9:45 – 11:15 **Panel #1: Youth Voices**

Moderator: Melissa Simon, M.D., M.P.H.
George H. Gardner Professor of Clinical Gynecology
Northwestern University Feinberg School of Medicine

Lia Abeita-Sanchez
University of New Mexico

Iris Sisneros
Native American Community Academy

Mary Lou Gutierrez
Newcomb High School

Shyann Lee
Newcomb High School

Micah Clark
University of New Mexico Health Sciences Center

Kyle Smith
University of New Mexico

11:15 **Break**

11:30 – 1:00 **Panel #2: Health and Mental Health**
Moderator: Francisco Garcia, M.D., M.P.H.
Director, Pima County Health Department
Tucson, AZ

Culturally Based Interventions for the Prevention of Substance Use/Abuse Among Native American Youth Who Are Preteens/Early Adolescents
John Lowe, Ph.D.
Wymer Distinguished Professor of Nursing
Florida Atlantic University

The Joys and Challenges of Helping Native Youth Tell Their Stories About Health and Wellness
Susie John, M.D., M.P.H.
Pediatrician, Northern Navajo Medical Center Teen Life Program
Shiprock, NM

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By Age 7 . . . The Development of Our Next Seven Generations
Gayle Dine'Chacon, M.D.
Director, Center for Native American Health
School of Medicine
University of New Mexico

1:00 – 2:00 **Lunch**

2:00 – 3:45 **Panel #3: Education**
Moderator: Jeffrey Henderson, M.D., M.P.H.
President and CEO, Black Hills Center for American Indian Health

American Indians and the Health Professions: A Growing Crisis
Sam Deloria
Director
American Indian Graduate Center, Inc.
Albuquerque, NM

Tribal Science: Ensuring the Evolution and Practice of Indigenous
Scientists and Researchers in the 21st Century and Beyond
Jacqueline Bolman, Ph.D.
Director, Center of STEM (Science, Technology, Engineering, Mathematics) Excellence
Humboldt State University

Valuing Traditions and New Pathways
Valerie Romero-Leggott, M.D.
Vice Chancellor for Diversity
University of New Mexico Health Sciences Center
Executive Director, School of Medicine Combined B.A./M.D. Degree Program

3:45 – 4:00 **Break**

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4:00 – 4:45 **Concluding Reflections**

Victor Medrano
Division Director, Division of Program Development and Operations
Office of Adolescent Health, Office of the Assistant Secretary for Health
U.S. Department of Health and Human Services

Cathy Malone, M.B.A.
Robert Wood Johnson Foundation

Mildred Thompson, M.S.W.
Roundtable Co-Chair
Director, Center for Health Equity and Place
PolicyLink

4:45 **Workshop Adjourns**

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Appendix B

Speaker Biographies

WORKSHOP: ADVANCING HEALTH EQUITY FOR NATIVE AMERICAN YOUTH MAY 6, 2014

SPEAKER AND MODERATOR BIOGRAPHIES

Lia Abeita-Sanchez is from Isleta Pueblo, New Mexico. As a political science major at UNM, she is committed to strengthening and maintaining the vitality of traditional Pueblo knowledge and cultural resources as a means of policy and political decision making. Most recently, Ms. Abeita-Sanchez was awarded a Udall Scholarship in the area of tribal public policy. She is a Fellow of the Leadership Institute at Santa Fe Indian School-Summer Policy Academy and Woodrow Wilson School of Public and International Affairs, and a recent youth delegate to the United Nations Permanent Forum on Indigenous Issues. Previously, she served as a research associate for a Pueblo youth language study researching Pueblo youth attitudes toward native languages and language preservation. Currently, she is a research assistant at the Robert Wood Johnson Foundation Center for Native American Health Policy at the University of New Mexico and consultant to the Leadership Institute at the Santa Fe Indian School.

Jacquelyn Bolman, Ph.D. (Lakota), is a native of the Great Plains and Black Hills of South Dakota. She earned her bachelor's, master's, and doctoral degrees with a focus on Geosciences and Tribal Science at the University of South Dakota. Her university experiences changed the way in which she participated in the world, especially the natural world, strengthening her commitment to ensuring all people have access to and equity in higher education. Since earning her doctorate in 1997, she has served as dean at Presentation College, providing leadership for undergraduates earning Allied

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Health Sciences degrees. She served as director of Scientific Knowledge for Indian Learning and Leadership (SKILL) and Multicultural Affairs at the South Dakota School of Mines and Technology. She was chosen as the first female to serve the South Dakota Space Grant Consortium as manager of special projects. She provided leadership to "NativeConnections," a multistate effort funded by the National Aeronautics and Space Administration to assist tribes and communities in the Northern Great Plains and Rocky Mountain Region in developing expertise in geospatial sciences with an emphasis on remote sensing of tribal lands. She also served as director of the Indian Natural Resource Science and Engineering Program (INRSEP) at Humboldt State University (HSU). INRSEP, the only program of its kind in California, is an academic and research program designed specifically to ensure that American Indian, Alaska Native, and Native Hawaiian students are successful in securing degrees in natural resources and STEM disciplines. In 2013 she was chosen to serve HSU as the director of the newly created Center of STEM Excellence. In each capacity, she has worked with K-12 and university students to develop and integrate programming that promotes original research dedicated to the ideals of culture and returning to others the gift she received of astute mentoring.

Gayle Diné Chacon, M.D. (Navajo), is originally from Chinle, Arizona. She is the Surgeon General for the Navajo Nation, Board Certified in Family Medicine, an associate professor in the Department of Family and Community Medicine at the UNM School of Medicine, director of the Center for Native American Health (CNAH), and associate vice president for Native American Health at the UNM Health Sciences Center. She is the director of CNAH and continues to develop the center to meet the health priority needs of New Mexico's 22 tribes and urban Indian populations. Her interests include providing services, whether clinical, education, research, or policy focused, to American Indians and specifically the Navajo Nation (NN). Currently, her role as NN Surgeon General is to provide medical oversight and direction as the NN creates a public health system. Other interests include the recruitment and retention of American Indian students into health professions and providing medical direction and clinical services to the incarcerated youth population.

Philip S. (Sam) Deloria (Standing Rock Sioux) is director of the American Indian Graduate Center, Inc. (AIGC), where he is responsible for management, operations, development, the Scholars programs, fundraising, and educational policy. AIGC is a national 501(c)(3) nonprofit organization headquartered in Albuquerque, New Mexico, providing educational assistance to American Indian and Alaska Native graduate and undergraduate students throughout the country. Mr. Deloria attended both undergradu-

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ate and law school at Yale University and previously served, for more than 35 years, as director of the American Indian Law Center, Inc. Under Mr. Deloria's leadership, the American Indian Law Center performed groundbreaking work in the analysis of federal Indian policy, including helping to define the role of tribes in the federal system. The Law Center has also taken the lead in strengthening tribal government institutions. Mr. Deloria remains active as one of the premier analysts of Indian policy in the nation. He was also a founder of the Commission on State–Tribal Relations in 1976, and founder and first Secretary-General of the World Council of Indigenous Peoples.

Susie John, M.D., M.P.H. (Navajo), is a pediatrician with the Northern Navajo Medical Center Teen Life Program in Shiprock, New Mexico. She received her M.D. from the UNM School of Medicine, completed her pediatric residency training with the Phoenix Children's Hospitals Affiliated Pediatric Program, and received her M.P.H. from the University of California, Berkeley. Immediately after postgraduate training, she was in private practice for a number of years in Gallup, New Mexico. In the past 27 years with the IHS, she has worked as the Crownpoint Hospital Director of Community & Preventive Health, the chief executive officer of the Tuba City Medical Center, and in past 11 years as a medical officer in adolescent health with the Northern Navajo Medical Center Teen Life Center. Dr. John has served on numerous boards, committees, and local and national task forces advocating for youth, including serving as president of the Board of Directors for the New Mexico Assembly on School Based Health Care. Dr. John believes effective health care is more than the state-of-the-art technology and the latest medications. It is also culturally competent care that is flexible to the changing needs of a population and development of leadership capability for all involved. Her work has included supporting more opportunities for the youth, women, and children.

Teresa LaFromboise, Ph.D. (Miami), professor of development and psychological sciences in the Graduate School of Education at Stanford University, is a descendant of the Miami tribe. She is also an affiliated faculty member in Native American Studies in the School of Humanities and Sciences and an affiliated faculty member in the Child Health Research Institute within the School of Medicine at Stanford University. She specializes in research on stress-related problems of youth and cultural issues in the implementation of evidence-based practices with diverse populations. Dr. LaFromboise is a recognized contributor to American Indian/Alaska Native mental health initiatives. She has published more than 100 articles and chapters in that area. She has authored a number of prevention intervention manuals, including *Assertion Training with American Indians*, *Circles of Women: Skills Train-*

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ing for American Indian Professionalization, and *Zuni Life Skills Development*. Her awards for the *American Indian Life Skills (AILS) Development Curriculum* include recognition from HHS as a Substance Abuse and Mental Health Services Administration (SAMHSA) Program of Excellence, the Carter Center for Public Policy at Emory University as an Intervention Ready for Prime Time, and the First Nations Behavioral Health Association as One of Ten Best Practices. AILS is also listed in SAMHSA's National Registry of Evidence-Based Programs and Practices and the Office of Juvenile Justice and Delinquency Prevention inventory of effective programs. Dr. LaFromboise is a Fellow of the American Psychological Association and the Association for Psychological Science. She is past president of two organizations: the Society for the Psychological Study of Culture, Ethnicity, and Race, and the Society of Indian Psychologists. She currently teaches courses in Cultural Psychology, Racial and Ethnic Identity Development, and Psychology and American Indian Mental Health.

John Lowe, Ph.D. (Cherokee), is a Cherokee Native American tribal member and 1 of only 17 doctoral-prepared Native American nurses in the United States. He is currently the Wymer Distinguished Professor of Nursing at the Florida Atlantic University Christine E. Lynn College of Nursing, Boca Raton, Florida. He earned his Ph.D. in Nursing from the University of Miami and is a Fellow in the American Academy of Nursing. He actively serves in elected, appointed, advisory, and consultant positions such as the American Colleges of Nursing for Cultural Competencies in Graduate Nursing, the American Nurses Foundation, the Florida Nurses Association, the Florida Nurses Foundation, the National Alaskan Native American Indian Nurses Association, HHS, the National Institutes of Health (NIH), and the United Keetoowah Band of Cherokees Tribal Health and Education Department. Dr. Lowe has represented Native American and Indigenous nurses in many national and international forums and with political leaders. He has been awarded several federally funded research grants to support his program of research. Dr. Lowe developed the Cherokee and Native Self-Reliance Models, which are being used in several intervention research projects that use the traditional Talking Circle format to reduce substance abuse, HIV/AIDS, obesity, and diabetes risks among Indigenous youth. Dr. Lowe has received numerous awards, such as the researcher of the year award at the professor rank, Florida Nurses Association Cultural Diversity Award, Great 100 Centennial Research Award, Nursing Educator of the Year Award, and Lifetime Achievement in Education and Research Award. He has published several articles and books that report the findings of his research. Dr. Lowe also co-authored the first Native American Nursing Conceptual Framework, which is being used to guide nursing curricula.

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Catherine Malone, M.B.A., is a program associate at the Robert Wood Johnson Foundation (RWJF) who is working to address health disparities and advance diversity and inclusion. Ms. Malone serves as program officer for New Connections: Increasing Diversity of RWJF Programming, a program supporting diverse scholars from historically underrepresented and disadvantaged communities through research grants, methodological training, and leadership and professional development. She also serves as program officer for Project L/Earn, an internship program designed to increase the number of health researchers from groups that have been traditionally underrepresented in health-related graduate programs. Ms. Malone has been a member of the Foundation's Diversity Committee since 2009 and has led the Human Capital Diversity Project, an effort to broaden program outreach to applicants with diverse perspectives. Prior to joining the foundation, Ms. Malone served as a health care professional and director in the long-term care, assisted living, and hospital-based transitional care settings, focusing on therapeutic recreation interventions for older adults. She led therapeutic recreation program development, volunteer services, and community integration programs. Ms. Malone received a B.A. in Psychology and Sociology, with a certificate in Criminology, from Rutgers University and an M.B.A. from Georgian Court University in Lakewood, New Jersey. She is a member of Delta Mu Delta and Sigma Beta Delta International Honor Societies for Business. Ms. Malone is working toward the completion of her Doctorate in Business Administration at Argosy University.

Victor Medrano currently serves as the division director for the Division of Program Development and Operations in the Office of Adolescent Health (OAH). Prior to this appointment, Medrano served as the acting division director and project officer at OAH, providing oversight and direction to teen pregnancy prevention programs and pregnancy assistance fund grantees. In addition, he worked to strengthen existing partnerships that focus on adolescent health issues. Previously, he spent 12 years at the Centers for Disease Control and Prevention (CDC). He served as a project officer and team lead in the Division of Adolescent and School Health. He served as the partnership team lead for CDC's highly successful Youth Media Campaign (the VERB Campaign). He also served as a project officer in the Office on Smoking and Health (OSH), providing leadership and direction to state health departments and nongovernmental agencies, and was lead for OSH's National Networks Initiative, which provided funding to African American, Hispanic/Latino, Native American, and Asian/Pacific Islander organizations in meeting the needs of these communities in addressing tobacco use prevention. Prior to his federal services, Mr. Medrano spent 10 years at the New Mexico Department of Health as field director manager, working on the American Stop Smoking Intervention Study funded by the National

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Cancer Institute. Before his work in public health, Mr. Medrano taught for 10 years at the middle and high school levels.

Valerie Romero-Leggott, M.D., received her B.A. from Harvard University and her M.D. from the UNM School of Medicine. She has been a primary care provider for many years on the forefront of treating populations burdened by socioeconomic and racial and ethnic disparities. Presently, Dr. Romero-Leggott is vice chancellor for diversity at the UNM Health Sciences Center, associate dean for diversity in the School of Medicine, and professor in the Department of Family and Community Medicine. She also serves as the executive director of the School of Medicine Combined B.A./M.D. Degree program, a unique program to promote the recruitment of a diverse group of graduating New Mexico high school seniors interested in New Mexico health care and in practicing medicine in areas of greatest need in the state. She is immediate past president of the Hispanic Serving Health Professions Schools. Dr. Romero-Leggott has extensive experience in teaching cultural competence, developing educational pipelines for disadvantaged youth, and working with minority women in medicine and the health sciences. She has been awarded grants totaling more than $3.7 million to enhance the workforce diversity from middle school through the professional degree for underrepresented and disadvantaged youth into the health professions, and she remains a strong advocate for STEM work. One of her major duties is to provide multiple forums for discussing issues concerning underrepresented and disadvantaged populations. She has led in the work to develop and teach cultural competence to students, residents, and faculty in the medical school and other health professions and disciplines in order to better address health disparities and has provided statewide leadership in cultural competence working with legislators and the New Mexico Department of Higher Education. Dr. Romero-Leggott is co-principal investigator on the Urban Universities for Health collaborative grant initiative, a national demonstration program aiming to expand and enhance a culturally sensitive, diverse, and prepared health workforce to improve health and health equity in urban communities. She has forged important bridges among the health sciences, New Mexico community groups, and national entities. She believes that understanding diversity and cultural issues are integral parts of achieving better health outcomes for our communities and our nation.

Kyle Smith is a student at UNM, where he is dual major in Community Health Education and Dietetics. He is also the project coordinator at the Institute for Indigenous Knowledge and Development at the UNM's Health Science Center. With his passion to address health disparities in Native American populations, Mr. Smith is conducting research in diverse child-

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hood experiences in relation to health outcomes. Smith completed a study in 2012 titled Adverse Childhood Experiences: Impact Upon Intimate Partner Violence, Depression and Suicide Attempt Among Adults in a Sample of Southwest Tribes, which was presented at the 2013 Council of the State and Territorial Epidemiologists Conference, the 2013 American Public Health Association Conference, and the 2014 New Mexico Public Health Association Conference. He is currently writing up this research for publication. Mr. Smith plans to attend graduate school where he will study community and public health.

Mildred Thompson is the senior director and director of the PolicyLink Center for Health Equity and Place, leads the organization's health team, with work focusing on healthy food access, improving the built environment, and the systemic integration of health equity. A significant component of her work involves exploring community factors that impact health and identifying effective solutions. Prior to joining PolicyLink, she was director of community health services for Alameda County's (California) Public Health Department; director of Healthy Start; and director of the San Antonio Neighborhood Health Center. Ms. Thompson has degrees in nursing, psychology, and social work. She has taught at Mills College and San Francisco State University, and also worked as an organizational development consultant. Ms. Thompson is a frequent speaker on topics related to health equity and serves on several boards and commissions, including The Zellerbach Family Foundation, and she is co-chair of the National Academies of Sciences, Engineering, and Medicine's Roundtable on the Promotion of Health Equity and the Elimination of Health Disparities.

Antonia Villarruel, Ph.D., R.N., FAAN, has an extensive background in health promotion and health disparities research and practice. Her research focuses on the development and testing of interventions to reduce HIV sexual risk among Mexican and Latino youth. Utilizing a community participatory approach, Dr. Villarruel has been the Principle Investigator and Co-Investigator of several NIH- and CDC-funded studies. She developed an effective evidence-based intervention to reduce sexual risk behavior among Latino youth titled ¡Cuídate! (or Protect Yourself!). This program will be disseminated nationally by the CDC as part of its Diffusion of Evidence Based Interventions program. In accordance with her own research and practice interests, Dr. Villarruel's areas of teaching expertise include health promotion and risk reduction theories, interventions, and practice; health disparities research; and research with children and adolescents. A major goal for her in teaching is to understand the evidence base for nursing practice. Because of her strong commitment to building and developing the current and future generations of nurse researchers,

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she works to integrate students at all levels in research and scholarship, thus providing a mechanism to bridge the research practice. In mentoring students and faculty in their research pursuits, what she values most is a commitment to learning and to improving health through nursing.

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Appendix C

Resources[1]

American Indian Graduate Center
  http://www.aigcs.org
Combined B.A./M.D. Degree program
  http://som.unm.edu/education/bamd
Dream Makers Health Careers Club
  http://cec.unm.edu/project_detail.php?project=3197
Dream Makers Plus Health Careers Club
  http://hsc.unm.edu/programs/diversity/students/student-pipeline-programs/high-school.html
Healers of Tomorrow
  http://www.lovingservice.us/nhi-nmaz
Health Careers Academy
  http://hsc.unm.edu/programs/diversity/students/student-pipeline-programs/high-school.html
MCAT+/DAT+/PCAT+
  http://hsc.unm.edu/programs/diversity/students/student-pipeline-programs/undergraduate.html
Mental and Behavioral Health Academy
  http://its.nmhu.edu/announcementsPIX/%5C/004903.pdf
Premedical Enrichment Program (PrEP)
  http://som.unm.edu/education/md/prep.html
Undergraduate Health Sciences Enrichment Program
  http://e-read.org/2014/05/undergraduate-health-sciences-enrichment-program-unm

[1] All URLs provided were last accessed on May 20, 2016.

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