UNIVERSITY OF ARIZONA

MEL & ENID ZUCKERMAN COLLEGE OF

PUBLIC HEALTH

2021 ANNUAL REPORT



WE WON'T GIVE UP





Greetings Friends,

What a year it has been! We began 2021 with so much hope that the vaccines would bring the end of the COVID-19 pandemic, but as we have learned, we have not yet defeated the virus. Public health is a complicated struggle, and this pandemic is the great public health challenge of our time.

First, I want to thank all of our faculty, staff, and students for their continuing determination in the fight against COVID. We have been working for months now, often far beyond our normal responsibilities, giving our energy and hours to teach, to do research, and to fight the pandemic at the same time. We have shown that we are resilient, and we will not give up. I am so grateful to all of you for the work that you do, and the compassion that you bring to our communities.

While this year continued to challenge all of us, our college also showed what we can accomplish with our public health knowledge and expertise. We provided tens of thousands of vaccine doses across Arizona. We delivered services and support to communities in need. We launched new degree programs and certificate programs, along with expanded research and initiatives. We grew our global partnerships and started new international programs.

In so many ways, we were able to show the power of public health in action.

We were also, at last, able to gather in person outdoors this November for our 2021 Homecoming Celebration and Alumni and Leadership Awards Ceremony. It meant so much for all of us to reconnect with our alumni and supporters face-to-face, and to hear the inspiring stories of our award winners. The event filled us with new hope and determination to pursue our public health mission – not simply to end this pandemic, but also to forge a more just and equitable world for all.

I thank everyone in our MEZCOPH family for all their support this year. Together, we have achieved so much! I hope you will enjoy some of the stories we share in this annual report, and please go to the website to read and learn more about our research and programs, and what our faculty, students, and staff have accomplished.

I wish you all a safe, happy, and healthy new year ahead!





INSIDE



2021 ANNUAL REPORT

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LAND ACKNOWLEDGMENT STATEMENT

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples.

Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui.

Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.



The Mel and Enid Zuckerman College of Public Health has held continuous accreditation from the Council on Education for Public Health (CEPH) since 2003 and is accredited through December 31, 2027.



ON THE COVER

Members of the Alliance for Vaccine Literacy group started by Purnima Madhivanan, PhD, MBBS, MPH (center arms crossed). (From left) Students Wesley Chiu, Himanashi Kapoor, Dametreea Carr McCuin, Dr. Madhivanan, Maiya Block, MPH, and Riley Sena.



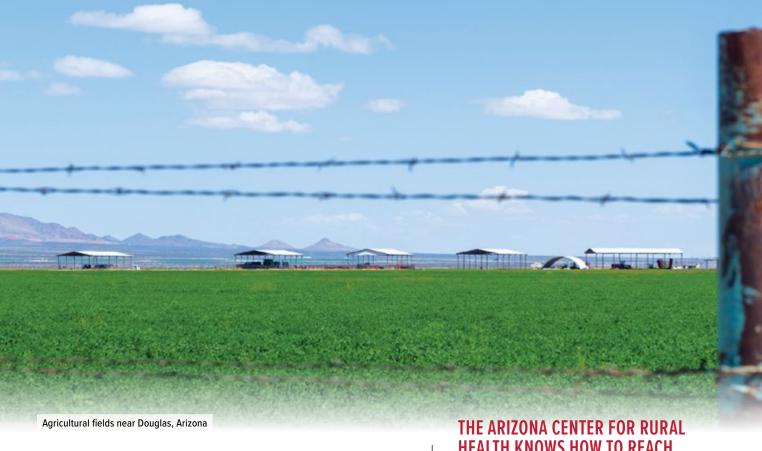
All of us in the college are dedicated to supporting underserved communities, in Arizona and beyond, and that has never been more important than it is now during a pandemic that will reshape the world.

OUR MOBILE HEALTH UNITS BRING VACCINES TO THE PEOPLE WHO NEED THEM

The college's **Mobile Health Units (MHU)** program has been delivering health screening services and information to underserved communities since 2016. So when COVID hit, they were ready, and were a trusted source of support for many people, especially in Spanish-language communities where they had worked before. First, the MHU teams answered questions, provided fact-based information, and connected people to services during the

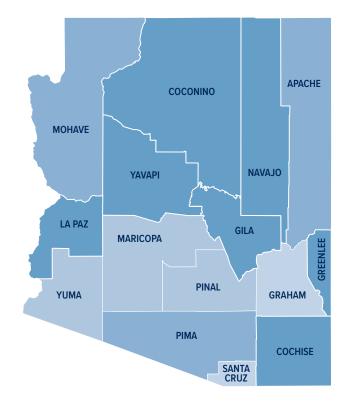
early months of the pandemic. Then, once the vaccines became available, they brought the vaccines to the communities that needed them, communities that otherwise did not have access.

With the MOVE-UP (Mobile Outreach and Vaccination Education for Underserved Populations) program, the MHUs have teamed up with rural counties, the Arizona Center for Rural Health, and the U.S.-Mexico Border Health Commission to deliver vaccines to a range of underserved groups, from farm workers to packing plant employees to border residents. To date, they have delivered more than 48,000 vaccine doses, and counting!



Mobile Outreach Vaccination & Education for Underserved Populations (MOVE-UP)

TOTAL VACCINE DOSES ADMINISTERED IN ARIZONA More than 48,000 and counting



HEALTH KNOWS HOW TO REACH RURAL COMMUNITIES

How do we reach rural and underserved communities in Arizona during COVID? Many of these populations don't have the access to healthcare services and vaccines that are easily available to those in urban regions. To reach these communities, the Arizona Center for Rural Health (AzCRH) - part of the Zuckerman College of Public Health - turned to the network of service providers and community health workers that they developed over years of patient work, and they successfully applied for COVID grants that fund extra services.

This year the AzCRH received an \$8 million COVID-19 Disparities grant from the CDC in partnership with Arizona Department of Health Services, and a \$4.4 million continuing grant for the state's Office of Rural Health program, funded by the federal U.S. Health Resources and Services Administration (HRSA). In addition, the AzCRH has worked closely with the MEZCOPH Mobile Health Units and the MHU's MOVE-UP program (Mobile Outreach Vaccination and Education for Underserved Populations) to deliver vaccines to rural and hard-to-reach communities.

LEADERSHIP AND VOLUNTEERS FROM THE COLLEGE DELIVERED HUNDREDS OF THOUSANDS OF VACCINE DOSES AT THE UARIZONA POD

After two big COVID surges in Arizona during the year 2020, the approval of the COVID vaccines in early 2021 was a very welcome development. Yet there was still the challenge of vaccine distribution, and that is where our public health expertise played a key role.

One of our own faculty, Dr. Mona Arora, had been helping the University of Arizona to plan for the emergency delivery of health services, and in coordination with the UArizona COVID-19 Response Task force (led by our own Dr. Richard Carmona), **Dr. Arora was one**

of the leaders who rapidly established the UArizona Vaccine Point of Distribution (POD), first in collaboration with Pima County, then as the first State of Arizona POD in Southern Arizona.

Hundreds of MEZCOPH students, staff, and faculty volunteered at the UArizona POD to help deliver vaccines. Over a span of 6 months, the UArizona POD dispensed more that 240,000 vaccine doses to members of our Southern Arizona community! Pima county has now reached a 70% vaccination rate among adults.

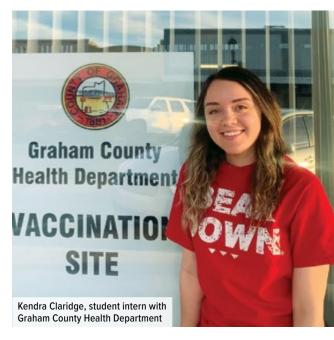




PUBLIC HEALTH STUDENTS STEP UP TO FIGHT COVID AT THE UNIVERSITY AND AROUND ARIZONA

In the struggle to stop COVID and support our communities here at the university and across the state, many of our students took action. They helped community members sign up for vaccine appointments, worked on vaccine promotion, and distributed free masks to schools.

For the university, our SAFER team (Student Aid for Field Epidemiology Response), continued to do contact tracing to map the spread of the virus, and they do the same for Pima County and other Arizona counties in need. Other students worked directly with county health departments around Arizona through the coordination of the college's Academic Health Department, and they provided much needed COVID response support for those county health departments that were often short-staffed. The work they did benefited the whole state at the same time that it provided excellent on-the-job training for our students.



WE FIGHT COVID WITH DATA

Our faculty and students not only fight COVID with programs and vaccines, but also with research that gives us vital answers about the virus and the disease, answers that help the whole world.

WEEKLY ARIZONA COVID DATA REPORT HELPS LEADERSHIP FIGHT THE VIRUS

As COVID spread across the nation and in Arizona in early 2020, Dr. Joe Gerald realized there were many different data modeling methods being used to track the spread of the virus, each of them giving a slightly different picture. He set out to analyze and evaluate the Arizona data and the modeling methods.

From the outset, Joe reached out to public health and academic colleagues around the state to help gather and evaluate the data, and formed a team of experts. This effort turned into **Dr. Gerald's weekly report on Arizona COVID data**, a report that quickly became a key resource and guide for local and state leaders, and also earned Joe national recognition for his expertise.





OUR EXPANDING AZ HEROES RESEARCH STUDY CONTINUES TO DELIVER VALUABLE INSIGHTS INTO THE VIRUS AND THE EFFECTIVENESS OF VACCINES

When COVID hit, the whole world needed more data on the virus, and Dr. Jeff Burgess went into action. In close collaboration with his public health colleagues, he launched the **AZ HEROES research study**, funded for \$7.7 million by the CDC in 2020, to investigate COVID spread and severity among first responders and essential workers. In 2021, the study expanded to collect data on the vaccines and to also include college students and diverse frontline workers. **With \$15 million in new funding from the CDC**, the AZ HEROES study has expanded again to include adolescents and kids as young as 4 months old so we can better understand vaccine effectiveness among this younger age group.

Again and again, the AZ HEROES study has provided vital insights into COVID questions such as **viral**



<u>risk for specific occupations</u> and the <u>effectiveness of the vaccines</u>. Many of the analyses from AZ HEROES data have been published by the CDC. <u>Another key paper</u>, published by the New England Journal of Medicine, showed that the vaccines were not only highly effective at preventing infection, but also significantly reduced the severity of the disease when breakthrough infections did occur, a finding that underscored the importance of vaccination with scientific data.



TO ANSWER QUESTIONS ABOUT RISK-FACTORS AND LONG-COVID FREQUENCY AND SYMPTOMS, THE COVHORT RESEARCH STUDY RECRUITED ARIZONANS TO HELP

In the spring of 2020, our epidemiologist **Dr. Kristen Pogreba-Brown** realized that the world needed more answers to COVID questions. What makes people more susceptible to severe infection? What are the most common symptoms and how long do they last? In collaboration with other public health faculty and students, Dr. Pogreba-Brown launched the **CoVHORT longitudinal research study** on COVID and started recruiting.

Focused on Arizona residents, the CoVHORT study now includes more than 7,000 participants, and it has gathered crucial data on COVID susceptibility and symptoms, **including Long-COVID!** Numerous research papers have already been published from this important data, and grants are being submitted to build on the research. This is data that helps to guide both prevention and treatment – our research is making a difference in people's lives!









WE COLLABORATE GLOBALLY

At the Zuckerman College of Public Health, we always knew that public health is both a local and a global challenge, and that our individual health is linked to the health of everyone on the planet and the environment. Now the pandemic has reminded the whole world that we are all connected, and we must work together in the fight to prevent and stop disease. This year our Global Health Institute made several big steps forward.

PUBLIC HEALTH "YOUNG GLOBAL LEADERS" PROGRAM INSPIRES HIGH SCHOOL STUDENTS

The Young Global Leaders Program for recent high school graduates and rising 11th and 12th grade students launched this June 2021. The week-long program, delivered by the college's Global Health Institute, introduced students to global perspectives in public health, and inspired them to understand how public health impacts and benefits communities around the world.

Having experienced the COVID pandemic, students were especially engaged in understanding global health challenges and strategies. The curriculum included lectures with COPH faculty, staff, and alumni that emphasized the multidisciplinary nature of public health. To apply what they learned, students completed a teambased project on vaccine awareness.

PUBLIC HEALTH STUDENTS ADVANCE GLOBAL HEALTH RESEARCH THROUGH NIH FELLOWSHIP PROGRAM

The *Global Health Equity Scholars* (GHES) fellowship program, a year-long research training program funded by the National Institutes of Health Fogarty International Center, sends a new cohort of students to conduct research in low-and-middle-income countries around the world every year.

In 2021, six students connected to the Zuckerman College of Public Health were <u>awarded fellowships to pursue global health research</u>. All of us in the college congratulate them and celebrate their passion to improve health equity around the globe! Many GHES alumni have gone on to become world leaders in Global Health.





COLLEGE CELEBRATES FIRST GRADUATES FROM DUAL DEGREE PROGRAM AT UARIZONA MICROCAMPUS IN UNITED ARAB EMIRATES

The college recently celebrated the **first graduates of the Dual** Degree MPH program offered jointly by MEZCOPH and Gulf Medical University in Ajman, United Arab Emirates. The dual degree program enables students to complete a U.S.-accredited degree entirely in the United Arab Emirates. Students complete coursework divided between both institutions, and earn two degrees at once: an MPH in Public Health Practice from the University of Arizona and an MPH in Public Health Practice from Gulf Medical University. In October, a cohort of 9 new students began the dual degree!

COLLEGE HOSTS US/MEXICO BINATIONAL **HEALTH LEADERSHIP SUMMIT TO PROMOTE** CROSS BORDER HEALTH COLLABORATION

Guided by the leadership of Cecilia Rosales, MD, MS, Associate Dean for Phoenix Programs, the college hosted the US/Mexico Binational Health Leadership Summit in October at the college's Phoenix Campus on the UArizona's Phoenix Biomedical Campus.

The Summit brought together more than 150 participants, including leadership from both countries and the University of Arizona, among them UArizona President Robert C. Robbins, Mexican Ambassador to the United States Esteban Moctezuma Barragán, and the Secretaries of Health from all the Mexican border states. Across the many meetings and panel discussions that took place as part of the Summit event, participants advanced plans for existing and future collaboration on binational and border health issues.

THE COLLEGE LEADS IN 'ONE HEALTH' EDUCATION AND RESEARCH TO UNDERSTAND HUMAN HEALTH IN THE CONTEXT OF ENVIRONMENTAL AND ANIMAL HEALTH

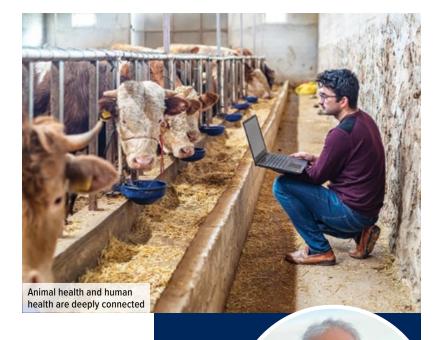
The more we understand about human health, the more we see that it is deeply intertwined with the health of animals and the environment. This new field of research, called One Health, recognizes that the health of all living things is woven together as one. One Health research looks at human health in the context of these deep connections between people and the natural world.

The college now offers new undergraduate, MPH, and doctoral degree programs that focus on One Heath. We also **lead the way in**

<u>One Health research</u> that investigates human health in the context of these connections, a perspective that is especially important as climate change and industrial contaminants alter our world and impact vulnerable communities.

Many of our faculty work on research that relates to One Health, and this year we hired a new faculty member, **Frank von Hippel**, who specializes in One Health research and leads our new One Health Research Initiative.





Spotlight FRANK VON HIPPEL, PhD

This year the college recruited Frank von Hippel, PhD, to head up its new One Health Research Initiative. Frank leads international research projects that explore the nexus of ecotoxicology, mechanisms of toxicity, and health disparities. To engage impacted communities with the research and the outcomes, Frank employs a Community Based Participatory Research approach that brings community members into the process from start to finish.

Frank's research has been widely covered in the press. He wrote the book *The Chemical Age* about the harm caused by pesticides on ecosystems and human health, and he is also the creator and host of the Science History Podcast.



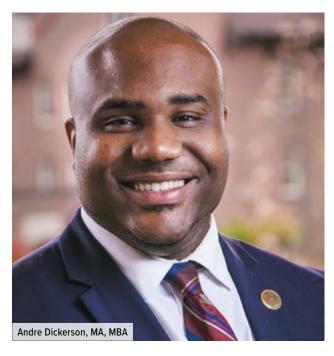
WE TRAIN THE NEXT GENERATION

We want our students to be the public health leaders of tomorrow. The education and support we provide reflects that vision, from our new degree and certificate programs to our new leadership for student services.

COLLEGE WELCOMES NEW LEADERSHIP FOR STUDENT SERVICES

The college is very pleased to welcome **Andre Dickerson**, MA, MBA, the new Assistant Dean of Student Services and Alumni Affairs, who will lead the Office of Student Services and Alumni Affairs (OSSAA) for the college. Dickerson brings considerable experience building on progressively responsible leadership positions in higher education, student affairs, social and health sciences, enrollment management, and community engagement over the past 10 years, most of that time with Central Washington University in Ellensburg, Washington. Andre brings a fresh vision and energy to his new role, and we are all excited to be working with him.

Even as we welcome Andre, we also say a sad **farewell** to our beloved Chris Tisch who led OSSAA for many



years and has now retired from the college after 30 years of service! Former colleagues and many former students came together at a retirement event for Chris in October, and they shared funny and affecting memories. Chris touched so many lives and helped so many students achieve their dreams. Thank you Chris for all you gave to the college and public health!



FELINA CORDOVA-MARKS DrPH '18, MPH '09

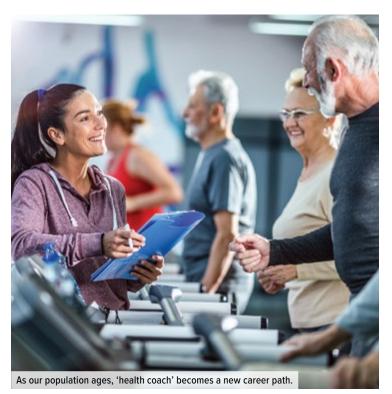
One of our new faculty members, Dr. Felina Cordova-Marks (a member of the Hopi Tribe) worked on the team that developed the Graduate Certificate in Indigenous Health and teaches courses that are part of the curriculum. Dr. Cordova-Marks received both her MPH and DrPH from the Zuckerman College of Public Health, so she is a double alumna!

For more than twelve years Felina has shown impressive leadership in Native American health research. Last year she was given the 2020 Woman of the Year award by the Tucson Hispanic Chamber of Commerce.



OUR PHOENIX CAMPUS CONTINUES TO EXPAND PROGRAMS, INCLUDING THE NEW GRADUATE CERTIFICATE IN INDIGENOUS HEALTH

The new **Graduate Certificate in Indigenous Health**, offered by our Phoenix Campus, was developed by our team of Native American faculty, all public health experts who work with Indigenous populations locally and globally. An online program designed for working professionals, the Certificate focuses on the health and wellbeing of Indigenous Peoples with an emphasis on Indigenous models of public health practice that are rooted in culture, language, identity, place and community history.



COLLEGE LAUNCHES NEW BA IN WELLNESS DEGREE TO PREPARE STUDENTS FOR THE HEALTH AND WELLNESS WORKFORCE

In response to the growing demand for workers in the health and wellness sector, the college created a new degree, **the BA in Wellness and Health Promotion Practice**, that was recently approved by the Arizona Board of Regents. The new BA degree will be offered both in-person and online, and the college began accepting applications from undergraduate students for the fall 2021 semester.

With an emphasis on health promotion practice, students in the BA program have the opportunity to implement the knowledge and skills they learn in the classroom and apply them in a real-world setting. This applied education approach prepares graduates to work in the field as soon as they have earned their degree. The BA in Wellness trains students for roles such as health educator, health coach, and community health director.

WE LEAD CHANGE, WE STAY CONNECTED

Our alumni make change happen. They push for health equity and social justice across the country and around the world. We work to keep them connected to our MEZCOPH community, to build a network of



HOMECOMING CELEBRATION BRINGS US TOGETHER AGAIN

It had been a long time since we'd been able to gather in person due to the pandemic, and we were excited to reconnect with so many of our alumni, faculty, students, staff and supporters who joined our Homecoming event on November 4 (MEZCOPH Homecoming Celebration 2021: Honoring our Public Health Alumni and Community Leaders).

All the stories of our award winners were truly inspiring, and showed the power of public health in action. We were so pleased that the Zuckerman family was able to attend, along with so many of our Community Advisory Board members, and many other supporters. We thank you all for being there, for supporting the college, and for the vital work you do to improve public health in diverse communities, here in Arizona and around the world!









CONGRATULATIONS TO OUR 2021 ALUMNI AND LEADERSHIP AWARD WINNERS!

So many of our alumni, faculty, staff and supporters have given their time and expertise to provide services to communities in need locally, nationally, and globally during this time of COVID-19. Our annual awards highlight what they accomplished, their dedication to public health, and their exceptional service.

















OUR ALUMNI BRING SKILLS AND EXPERTISE POWERED BY COMPASSION. AND PROBLEMS GET SOLVED

Our students come from diverse communities, from here in the United States and from many other nations. We prepare them to be change-makers in the world, to fight for health equity, to steer for social justice. After they graduate, they use those skills to make things happen - they advocate with data, they collaborate to build healthier communities no matter what obstacles they face. We are so proud of them!



After showing exceptional resilience on her degree path, our new graduate Dr. Tara Chico-Jarillo was recently appointed as the new Excecutive Director of the Tohono O'odham Nation Department of Health and Human Services. Congratulations Dr. Chico-Jarillo!



Our many supporters provide the funding that enables scholarships for students in need, and programs that reach diverse communities. We are so grateful for our MEZCOPH family and all they do to advance health equity in Arizona and beyond. Discover giving opportunities!

ZUCKERMAN CHALLENGE SPARKS DONATIONS TO RAISE MORE THAN \$4M FOR STUDENTS AND COMMUNITY PROGRAMS

Our supporters made it happen! We have raised the funds to meet and exceed the \$2 million Zuckerman Challenge matching grant, and that means the Challenge has inspired more than \$4 million total in gifts for student scholarships and community programs. These funds make a big difference for our students and our diverse communities so that we can continue to make our world a healthier place. We send our heartfelt thanks to the Zuckerman Family and everyone who helped!

COMMUNITY ADVISORY BOARD WELCOMES NEW MEMBERS

Our Community Advisory Board, a fundamental source of guidance and support, has enabled the college to grow substantially over the past 20 years. Our Board members generously volunteer their time and expertise to support the college in so many ways and connect us to our amazing Southern Arizona community. We are very pleased to welcome two new members to the Board, Kate Breck Calhoun and Christine Bracamonte Wiggs, MPH '02, MS '10, PhD '16.







MEL & ENID ZUCKERMAN

The College would not be here today without the vision and generosity of the Zuckerman family. Mel and Enid Zuckerman gave a transformative contribution, a gift that launched the College of Public Health at the University of Arizona in the year 2000, a gift that has touched the lives of millions of Arizonans, and improved the health and wellness of so many communities in Southern Arizona and beyond. Thank you Mel and Enid!



OUR SUPPORTERS CHANGE LIVES

All of our partners, from individuals to organizations, play a vital role in our mission: to educate the next generation of public health leaders who will bring healthcare services to diverse communities, so that everyone is able to live healthier, happier lives – equally.

OUR PARTNERS MAKE THE DIFFERENCE

AZ Complete Health stands with us to support our Mobile Health Unit program that provides critical health services to underserved communities, making a life-changing difference for many Arizonans.

Blue Cross Blue Shield of Arizona stands with us to support students through scholarships and promote community health programs that benefit all Arizonans. Many of our graduates work for Blue Cross Blue Shield of Arizona!





Chicanos Por La Causa stands with us to support our students and programs, helping us educate public health professionals who will improve health equity in our Hispanic/Latinx communities by providing accessible health care and promoting social justice.

The Pasqua Yaqui Tribe provides scholarship support to Native American students who have demonstrated a commitment to service in their Arizona communities and social awareness of Native American culture.

OUR FAMILY OF SUPPORTERS NURTURES NEW LEADERS

Among our supporters, we want to especially thank those that established scholarships to help students complete their studies.

Dr. Richard Carmona

The U.S. Surgeon General Richard Carmona Distinguished Public Health Preparedness Scholarship is given annually to a graduate student pursuing their degree with a focus on emergency preparedness.

Evan and Louise Kligman

The Kligman One Health Scholars Award supports graduate students in the Global Health Institute



J.J. Vosila

The J.J. Vosila Scholarship is given annually to a full time graduate student majoring in Biostatistics.

Tony and Joan Vuturo

The Anthony and Joan Vuturo Scholarship is given annually to a graduate student who demonstrates a commitment to public health service and leadership.



Charlotte and Buddy Mullis

The Charlotte and Buddy Mullis Native American Scholarship is given annually to a Native American student who demonstrates a commitment to service in our Indigenous Arizona communities and a social awareness of Native American culture.

Andrew W. Nichols

The Andrew W. Nichols Initiative Scholarship is given annually to a student with a focus on policy, advocacy or innovative services designed to promote rural or border health.

Joel Valdez

The Joel Valdez Scholarship is given annually to a graduate student who shows a commitment to public health, public service, and leadership.





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The Zuckerman
College of Public
Health strives
for diversity,
inclusion, and
equity for our
students, and in
everything we do.

OUR STUDENTS



922
Undergradutate
Students



MPH Students 51% Online



131
MS, PhD, DrPH
Students

OUR ALUMNI



4,584

alumni live, work, and make a difference on:

6 continents

34

50