

Building a 21st Century Health Care Workforce in a Diverse Rural State: A Funder's Perspective & Evaluation Framework for Innovation & Impact of Health Career Pipeline Programs

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Introduction

In 2007 Con Alma Health Foundation was awarded a *Partners Investing in Nursing's Future* (PIN) grant to invest in nursing workforce solutions in New Mexico. *Partners Investing in Nursing's Future* is a collaborative national program of the Robert Wood Johnson Foundation and the Northwest Health Foundation to stimulate innovative program funding by local and regional charitable foundations who invest in tailored solutions to nursing workforce problems in their communities and states.

PIN funds seek to “support the capacity, involvement and leadership of local foundations to advance nursing workforce solutions” by “creating meaningful and sustainable change” in the US nursing workforce by addressing one or more nursing issues: Racial/Ethnic Diversity, Educational Infrastructure & Faculty Development, Public Health, Long-term Care, and Mid-level Management.

Con Alma Health Foundation's PIN grant enabled the development of programs throughout NM which addressed all five of these nursing issues and accomplished its goal for serving as a catalyst for Con Alma Health Foundation to invest in nursing. As a direct result of the PIN grant, Con Alma Health Foundation (a Category A Foundation with no prior funding of nursing) has invested in nursing pipelines and other health career initiatives - including Nursing, Medicine, Pharmacy and Community Health Workers - throughout New Mexico.

As the state's only health foundation, CAHF was in a unique position in 2008 to have granted over \$300,000 to ten programs who, in calendar year 2009, addressed New Mexico's health care workforce challenges through action, innovation, education, partnership and research in the above mentioned PIN issue areas that will pay-off for years to come as New Mexico builds a 21st century health care workforce to meet our unique and growing community health needs.

This report offers an evaluation framework for Health Care Workforce (HCW) pipeline programs and considers these ten funded HCW programs against the backdrop of extreme challenges in health care funding and delivery in a rural state, and escalating health care workforce shortages amidst growing population health equity needs in New Mexico.

Health Care Workforce Challenges in NM

A crucial yet often overlooked topic in current health reform debates is the limited number of health care workforce professionals. Couple these shortages in many health care fields with the cultural disparities between a shrinking, aging and largely white monolingual professional health care workforce and a younger, racially or ethnically diverse patient/consumer base and you have an idea of the scope of challenges facing a rural, diverse and economically impoverished state like New Mexico even as health care costs and needs escalate (Blackwell, 2008; Cacari-Stone, 2006).

New Mexico faces federally-designated Health Professional Shortages Areas (HPSAs) throughout much of the state, including in urban areas, in primary care, dental care and mental health care (Kaiser Family Foundation State Health Facts, 2008). All but one of New Mexico's counties are labeled an HPSA in Primary Care (NM DOH *Comprehensive Strategic Health Plan*, 2008).

In the border regions of Southern NM the situation is at crisis levels (Cacari-Stone, 2006), with some counties having no practicing dentists or doctors (NM HPC, GADS Report, 2008). In this environment, cross-disciplinary collaboration among health care professionals for coordinated patient care is difficult (Coleman, 2003), and this presents alarming population health challenges for rural communities (Ricketts, 2003). Indeed, New Mexico experiences severe and structural health inequities in addition to workforce issues, including those in: uninsurance rates, health disparities in chronic and infectious disease, obesity, violence & injury, suicide, maternal & child health and risky behaviors (NM DOH, *Racial & Ethnic Health Disparities Report Card*, 2009).

Nurses account for the largest number of total health care professionals, and the well-documented nursing shortage across the US and in NM (Buerhaus, 2008) is a good indicator of the systemic need for health career pipeline programs that encourage younger and racially/ethnically diverse students to consider a health career. Improvements are seen in the quality of and access to health care when the racial/ethnic disparity between the health care workforce and that of the patient population is reduced, as racial and ethnic minority health providers are more likely than their white counterparts to practice in rural or their indigenous communities (Boyle, 2008; Cacari-Stone, 2006), and are more likely to speak languages other than English (Betancourt et al, 2003).

Nursing faculty shortages have been identified as a key bottleneck contributor to the nursing shortage as they limit class size, graduation rates and contribute to long waiting-lists for many publicly funded nursing degree programs (Boyle, 2008).

NM is experiencing such a dangerous shortage of health care workers that the State Department of Health is promoting comprehensive goals and objectives for all societal stakeholders –from federal, state & tribal governments down to families and small businesses. (see Table 1, in Appendix)

“Pipeline” programs have emerged as viable pathways to health careers for high-school and pre-professional college students, especially among racial and ethnic minority students in an attempt to diversify the health care workforce professional pool. Pipeline programs are among those funded by CAHF and analyzed in this evaluation.

Best Practices for Health Career Pipeline Programs in NM

Recruitment and retention of rural health care providers remains challenging, and so it is with pre-professionals – and especially in New Mexico where the majority of our state lives rurally, but 60% of the health care workforce practices in our urban areas. Among health care practitioners, a number of factors may lead to rural practice: a rural background, preference for smaller sized communities, loan forgiveness and rural training programs appear to support retention and recruitment (Daniels et al, 2007).

A growing research base has identified some promising health career pipeline programs for minority youth and young adult pre-professionals, and many of these principles and concepts are at-work today in New Mexico, especially at the University of New Mexico, our state’s flagship medical center and health careers training university.

Sustainable, committed partnerships among and across educational institutions at all levels is critical to the success of any health career pipeline program (Patterson & Carline, 2006), and trust-building between diverse educational, community and business groups is essential (Erwin et al, 2004).

But clear evidence is beginning to emerge for tangible health care workforce pipeline products and principles, and one of them is to have a narrow focus instead of “lofty” goals (Cleveland, 2006). Additionally, this study of university medical and public health school’s pipeline programs nationwide stresses the importance of focused partnership outcomes, frequent and structured communications between universities and K-12 schools, and top educational administrator buy-in and leadership from the project’s beginning.

Finally, health care pipeline program researchers remind us that documenting program impact “is critical for attracting more resources to increase minority access to health careers: sponsoring organizations should dedicate funds for assessment of the partnership's functioning and for rigorous evaluation of interventions” (Patterson & Carline, 2006).

But what do successful health career pipeline programs look like in New Mexico? Who would they target? What do they do?

Regional Impact of CAHF’s Workforce Development Funding

Most of the health care workforce funding and impact went to rural parts of New Mexico, including Pueblo, Navajo and Apache tribal areas. But even urban area in Central New Mexico experience health care workforce shortages; as a result, Con Alma Health Foundation directed approximately 30% of all HCW funds to Albuquerque and Central NM as a programmatic stimulus for Community Health Worker (CHW) and Nursing development.

Promising Health Care Workforce Development in NM

Developing a culturally representational and competent health care workforce is important to New Mexicans and supported by health care research for positive population health outcomes in access and quality of care (Betancourt et al, 2003).

With this targeted funding, ten pipeline programs in NM have developed or advanced health career workforce development programs in mostly rural parts of the state to identify and train 186 pre-professionals from high schools, colleges, universities and community organizations in nursing, medicine, pharmacy and as Community Health Workers, Infant Mental Health Workers and Home Health Care volunteers. Another 1,027 high school students were exposed to health career pipeline programs via these programs. Over 70 practicing health professionals were trained in cross-disciplinary collaborations, and over 150 patients with chronic disease or in the end of life were directly served with this funding in 2009.

Table 2 lists the funded programs along with their specific health care focus, region and partnerships.

Program	Health Workforce Focus	# direct program recipients	Institutional partnerships	PIN Issue area & Regional Impact
Coming Home Connection, Training Youth & Young Adults for Volunteer Home Health Care	Home-Health Care Youth Volunteers	74 Trained Volunteers; 50 Home Health Patients served	CHRISTUS/St. Vincent Hosp., Santa fe Rotary Club	Long-term Care; Public Health; Northern NM: Placement of 20 in-home volunteers for home-bound or end-of-life care
CCHA, Promotoras: Community Health Planners & Navigators for the Underserved	Train CHW's	20 Certified CHW graduates	Bernalillo County, UNM Hospital, CNM, NM Conference of Churches, Casa de Salud	Racial/Ethnic Diversity; Educational Infrastructure & Faculty Development; Public Health; Central NM & Bernalillo County: established career pipeline for CHW's
Dreamtree Project, YouthUp Program for Youth and Workforce Development	Youth exposure to Nursing and other health fields	16 at-risk youth; 7 trained youth are exploring CNA studies; 15 youth newly accessed healthcare services via program	NM & US Department of Labor, area health professionals	Racial/Ethnic Diversity; Northern NM - Taos area

Las Cumbres Community Services, Early Childhood Mental Health Training Institute	Infant Mental Health specialized training for CHW's & mental health professionals	31 trainees at Lay-level thru PhD level	NMCHWA, NM FIT, NM IMHA, Eastern NM Univ., World Infant Mental Health Assoc.	Educational Infrastructure & Faculty Development; Public Health; Trainees from 10 counties: North, Central & South NM
Center for Nursing Excellence, NM Nursing Council	Nursing Council & Community Actions Teams	25-30 RN's on State Council; 15 RN's on LC RN CAT; 10 RN's on Taos CAT; (3 rd CAT in Carlsbad in the works)	Hospitals statewide	Educational Infrastructure & Faculty Development ; Mid-level Management ; Statewide Nursing Council established; 2 Nursing Community Action Teams est. in Las Cruces & Taos; statewide preceptor site coordination tool
NM Community Health Worker Assn., CHW Certification Project	CHW's	Future CHW trainees in NM; model for other states	CHW Advisory Council, UNM Project ECHO, NM DOH, APHA, Diabetes Advisory Council	Racial/Ethnic Diversity; Educational Infrastructure & Faculty Development; Public Health ; Statewide impact: establishing CHW curriculum for NM
NM Highlands University Ben Lujan Institute, Family Medicine Residency Collaborative Training With Community Health Workers	Collaborative training of MD's & CHW's	40 chronic disease patients in Northern NM; 3-6 MD's 3-6 CHW's	Christus/St. Vincents Hospital, Santa Clara Pueblo, Pojoaque Pueblos Las Clinicas del Norte	Racial/Ethnic Diversity; Educational Infrastructure & Faculty Development; Public Health; Northern NM cross-collaborative innovation
NM State University, Grants Pathway to Nursing Careers	Nursing pipeline from high-school to Nursing program; CNA's created	5 CNA high-school students; 950 rec'd "Intro to Nursing" program; 8 BSN enrollees	Cibola General Hospital, Cibola County School District, Indian Health Services	Racial/Ethnic Diversity; Educational Infrastructure & Faculty Development;

				100% of BSN Mentors to local high-school CNA students are expected to remain rural practitioners
St. Vincent Hospital Foundation, Healthcare Exploration Program	Exposure to all health careers	12 high school students (out of 77 applicants)	Capital High School, Santa Fe Community College, UNM College of Nursing, UNM Office of Diversity	Racial/Ethnic Diversity; Northern NM high schools; 4 grads have applied to UNM's health career pipeline program or Nursing School
UNM School of Pharmacy, UNM/NMSU Cooperative Pharmacy Program Summer Experience	Pharmacy pipeline from high-school to Pharmacy School; Pharm Techs created	14 Pre-Pharmacy students who became Pharmacy Techs; 5 Pharmacist preceptors	UNM, NMSU, Ben Archer Health Clinic, Memorial Medical Center, Family Pharmacy, Walgreen's Pharmacy, Walmart Pharmacy	Educational Infrastructure & Faculty Development; Southern NM high schools partner with 2 state universities & Pharmacy school to return service to Southern NM
Totals	<p><u>Health Care Focus</u></p> <p>MD/DO's – 1 pgm Nursing -3 pgms Pharmacy – 1 pgm CHW's – 4 pgms Infant Mental Health -1 pgm Home Health Care – 1 pgm All health careers – 1 pgm</p> <p><i>Some programs train more than one type of Health Worker.</i></p>	<p><u>Program Impact on Health Workers</u></p> <p>Pre-professional Trainees – 186 Additional Pre-professional Youth Exposed to Health Careers - 1027 Health Professional Trainees – 66+ (not including NMCHWA members) Patients Directly Served – 105</p>	<p><u>Partnership Impact</u></p> <p>Cities, counties, state, tribal & federal government partnerships; All major universities & hospitals statewide; three pharmacies; many high schools, non-profit services & advocacy orgs.</p>	<p><u>Regional Impact</u></p> <p>Statewide impact, mostly in Northern, Central and Southeastern NM</p>

NM Innovations for health career pipelines

Coming Home Connection – Home Health care Volunteer Training

<http://www.cominghomeconnection.org/>

The only training program in the state for home-health care volunteers is Sante Fe's *Coming Home Connection* (CHC). Founded in 2007 by Glenys Carl, a dynamic community leader and home-health care consumer, CHC has trained 74 Santa fe high school and community college students to provide hands-on, in-home care at no cost to persons with health challenges or whom are near the end of life. CAHF's funding has enabled the placement of 20 of those volunteers in homes throughout Santa fe and Rio Arriba counties – all interacting with medical professionals and delivering competent volunteer care that is emotionally, spiritually and culturally attuned to the unique needs of the individual, most of whom have lived on low incomes.

Community Coalition for Healthcare Access – Promotoras: Community Health Planners & Navigators for the Underserved

<http://newmexicoindependent.com/35420/unm-care-doesnt-seem-to-care-much-for-the-undocumented>

20 *Promotoras* were certified at Central NM Community College with financial aid and stipends, 1 Coalition program administrator was hired, a regional Summit on Immigrant Health is being co-planned and a publicly financed health access program in Bernalillo County is being monitored thanks to CAHF's Multi-year funding. It's another busy year for this active grassroots Coalition, and the 100% graduation & retention rate of the newly minted *Promotoras* will bring new life to this important CHW partnership model in Central New Mexico.

The DreamTree Project – YouthUp Program for Youth and Workforce Development

<http://www.dreamtreeproject.org/indexalt.html>

16 at-risk or homeless youth in Taos, NM, participated in a health careers curriculum which exposed them to various professional pathways in nursing, emergency healthcare, massage therapy and other health careers. Most of the youth were in-need of medical, dental and behavioral health services, which they were able to access thanks to the program's intensive case management for these pipeline participants. Due in part to affordability, several youth are exploring a Certified Nursing Assistant (CNA) career path in the near future.

Las Cumbres Community Services – Early Childhood Mental Health Training Institute

<http://www.lascumbres-nm.org/institute.php>

31 infant and early childhood Mental Health Trainees receive mentorship and clinical/technical state-of-the-art training for two-years in this innovative program designed to build skills from national and regional experts and apply it to local needs. These included 19 Trainees at Masters level, 6 at Bachelors level, 1 PhD, and 5 Community Health Workers (less than 4 years of college). Trainees represent 24

agencies throughout the state, spread across 10 counties: Bernalillo, Dona Ana, Los Alamos, McKinley, Rio Arriba, San Juan, Cibola, Socorro, Santa Fe, and Taos counties. Final Trainee selection criteria included geographical diversity and number of people served in rural, under-represented populations. Training activities included 11 community workshops, six overnight learning retreats/seminars, regular assigned readings and reflection activities on current topical literature and other group learning methods. Local experts and national consultants in the field of infant and early childhood mental health were retained to serve as faculty and one-on-one Mentors in the Institute.

Center for Nursing Excellence – *The NM Nursing Council*

<http://www.nmnursingexcellence.org/index.cfm>

The *NM Nursing Council* was created by the NM Center for Nursing Excellence with CAHF funding to act strategically - and in partnership with local communities and institutions – to address NM’s nursing shortage via research, education and practice-based interventions to understand and attack the problem systematically. Two *Nursing Community Action Teams* were formed, a survey was completed to identify nursing pipeline programs and best practices, and a centralized web-based clinical placement system was implemented.

The Council’s work reveals central themes and the scope of need for continued development of nursing pipelines in New Mexico. Nursing clinical preceptor & faculty development, retention and fair compensation were frequently found as consistent needs throughout the state, especially in areas that serve vulnerable populations.

NM Community Health Worker Association - *CHW Certification Project* - <http://www.nmchwa.com/>

Training Competencies for Community Health Workers were developed in New Mexico via CHW-led processes in: two statewide focus groups, a 2009 CHW Action Plan, a comprehensive literature review and meeting with the Cabinet Secretary of the NM Department of Health and other public health leaders. The resulting training curriculum will address the diverse needs of NM growing CHW workforce.

NM Highlands University - Ben Lujan Leadership & Public Policy Institute’s Family Medicine Residency Collaborative Training With Community Health Workers <http://www.bli.nmhu.edu/>

CAHF funding enabled 40 new chronic disease patients in Northern NM were served by 3-6 Family Practice Residents in partnership with Community Health Workers to deliver culturally relevant primary care and disease management in innovate ways using mobile phone technology to decrease gaps in health care delivery in tribal & rural communities.

Program Director, Dr. Miguel Tirado, sums up the conundrum New Mexico faces in reconciling the need for health care workforce development and its stable funding , “There’s not a lot of operations funding for piloting new [health care workforce pipeline]programs, yet public funding is often hinged upon these pilot programs.”

New Mexico State University Foundation - Grants Pathways to Nursing Careers

<http://www.grants.nmsu.edu/pub/beacon/NMSUGrantsPresidentBeaconColumnMay09.pdf>

Five local high school students from the Grants/Acoma-Laguna Pueblo area of New Mexico have completed the NMSU/Grants dual nursing career pipeline CAN (Certified Nurse Assistant) program in its first year, and over 950 area high school students have been introduced to the NMSU BSN nursing degree program that is flourishing in their local community, thanks to distance learning technologies, BSN student mentors and CAHF funding.

Dr. Felicia Casados, NMSU/Grants President, plans to double these numbers thanks in large part to the structure of her program's CAHF funding. "It takes three years to build a program and five years to institutionalize it. I applaud Con Alma for their multi-year focus...they are relatively small, but one-time grants don't enable you to build a program."

It's paying off: 100% of the program's BSN student grads are working in the region, a rural and tribal community West of Albuquerque with a severe health care workforce shortage.

St. Vincent Hospital Foundation – Healthcare Exploration Program

<http://www.stvin.org/foundation/?id=7442>

A paid educational experience for 12 Santa Fe high school students to explore health careers in a hospital setting has produced several successful high-school to pre-professional health care University student pipeline success stories. Over 50 applicants to the program were turned away in order to focus on exposing all students to the myriad of health care career choices. Lasting partnerships between Santa Fe's largest hospital and high schools and community colleges in Northern NM are the basis of this model's success.

UNM School of Pharmacy – UNM/NMSU Cooperative Pharmacy Program Summer Experience

<http://hsc.unm.edu/Pharmacy/UNMNMSUcoop.shtml>

14 Southern NM high-school students were enrolled in this unique Cooperative Program, funded initially by the State Legislature, to complete their prerequisite courses at NMSU and their pharmacy education at UNM, in order to impact the pharmacist shortage in southern New Mexico where the number of pharmacists is one-half the national and New Mexico average. CAHF funding enabled a Summer Program in which students complete a one month experience with a practicing pharmacist in Southern NM to participate in community health projects such as immunizations and health screenings.

Health Career Pipeline “Best Practices” In Action in New Mexico

An analysis of our funded health care pipeline Best Practices is found in Table 3, below.

Our funded programs operationalize key components of successful health careers pipeline programs and demonstrate the urgency of establishing local innovations to bolster New Mexico's diverse strengths amidst our greatest health care structural needs.

Four categories of health career pipeline Best Practices were identified among our funded programs:

- *Pre-professional Trainee Curriculum Development*
- *Professional Competency Development*
- *Mentorship or Preceptorship Development*
- *Cross-Disciplinary Collaboration*

The three funded programs who institutionalize all four of these concepts are programs that develop Community Health Workers. This is not surprising given New Mexico’s need for lay health care workers and the growing body of evidence that shows CHW’s to be a culturally relevant and promising intervention for health care access and quality improvements in underserved communities (Swider, 2002).

HEALTH CAREER PIPELINE Best Practices				
Program Name	Pre-professional Trainee Curriculum Development	Professional Competency Development	Mentorship or Preceptorship Development	Cross-Disciplinary Collaboration
Coming Home Connection				
CCHA				
DreamTree Youth Up				
Las Cumbres Community Services				
CNE – NM Nursing Council				
NM CHW Assn.				
NMHU Ben Lujan Institute				
NMSU Nursing Pathway				
St. Vincent Hospital Foundation				
UNM/NMSU Pharm. Cooperative				

Multi-year Grants

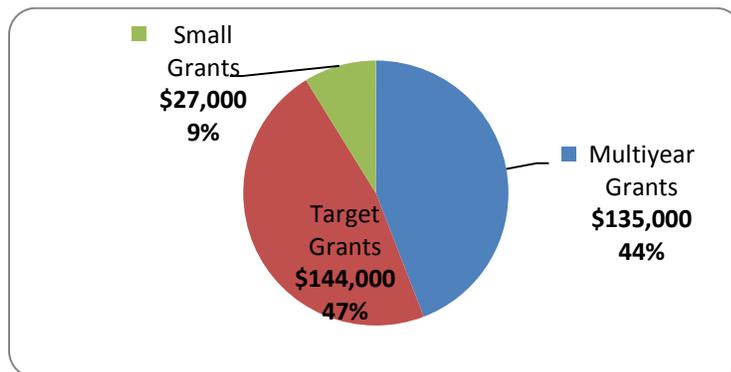
In total, CAHF granted over \$300,000 to fund ten programs to address New Mexico’s health care workforce challenges through action, innovation, education and research in the calendar year, 2009, mostly in targeted and multi-year grants to encourage sustainability. **Table 4**

Table 4 – CAHF’s Health Care Workforce Development Grant Funding

Funded Organization	Multi-year grants (2009-11)	Target Grants (One-time \$\$)	Small Grants (One-time \$\$)
<i>Coming Home Connection</i>			\$9,000
<i>Community Coalition for Healthcare Access</i>	\$45,000		
<i>Dreamtree Project</i>			\$9,000
<i>Las Cumbres</i>		\$36,000	
<i>NM Center for Nursing Excellence</i>		\$45,000	
<i>NM Community Health Worker Assn.</i>			\$9,000
<i>NM Highlands Ben Lujan Institute of Public Policy</i>	\$45,000		
<i>NMSU Foundation Pathway to Nursing Careers</i>	\$45,000		
<i>St. Vincent Hospital Foundation</i>		\$18,000	
<i>UNM College of Pharmacy</i>		\$45,000	
Yearly Total	\$135,000	\$144,000	\$27,000

The scope of this funding is seen in the developing partnerships between funded programs and our statewide major universities, hospital systems, governmental agencies, community colleges and private and non-profit organizations from disciplines as broad as medicine to community health volunteers. As most of our program managers pointed out in one-on-one interviews, CAHF funding provided the spark to start or initially grow the project and collect baseline data, and sustainable funding streams from public and large private sources will be required to ensure pipeline interventions in New Mexico’s future.

The majority of program funding is in Target Grants, one-time funding for organizational capacity-building and organizational development. These grants represent nearly 50% of Con Alma’s overall healthcare workforce development funding. 3-year multiyear grants were the next largest funding stream of these grants, totaling \$135,000, which was over 40% of the Foundation’s healthcare workforce development funding in 2008. Small grants of an average of \$9,000 made up the remainder of this workforce-specific funding, and these grants went to three programs representing less than 10% of this total funding. See Graph 1, below.



Major Findings

Our evaluation and analysis of ten funded health care workforce programs suggests some findings and “best practices” that we hope will contribute to the growing research data bank for addressing HCW shortages in rural states:

1. *Over \$300,000 was granted to ten Health Care Workforce programs, including Nursing workforce development programs, throughout New Mexico. All PIN Issue areas (Racial/Ethnic Diversity, Educational Infrastructure & Faculty Development, Public Health, Long-term Care, and Mid-level Management) were addressed in these ten funded programs;*
2. *Approximately one-third of the HCW funding was directed to urban areas in Central NM via significant impact from three funded programs: Community Coalition for Healthcare Access, NM Community Health Worker Association, and the Center for Nursing Excellence; and two-thirds, or the remainder of program funding to seven programs, went to rural NM’s HCW shortage needs. This directional preference for funding programs in rural parts of the state may provide a structural counterweight to the disproportionate (albeit insufficient) concentration of healthcare professionals practicing in urban areas of the state when the majority of the state’s population lives in rural areas;*
3. *Four categories of health career pipeline Best Practices were identified among our funded programs: Pre-professional Trainee Curriculum Development, Professional Competency Development, Mentorship or Preceptorship Development, and Cross-Disciplinary Collaboration;*
4. *Community Health Worker development programs were the only funded programs to address all four Best Practices pipeline categories. These programs appear to maximize the impact and function of health care workforce development funding especially when designed across the spectrum of pre-professional outreach to professional cross-training alongside medicine or nursing providers;*
5. *Nearly every funded program expressed the need for sustainable funding in order to continue these successful pilot HCW pipeline programs. Program managers described their improved readiness, thanks to this funding and the programmatic data it generated, to apply for larger public and private grants in order to make these pipelines permanent, but they are concerned about the seemingly small supply of these sustainable funding streams despite the high need for them.*

Summary - Building a Healthier Tomorrow: Health Care Work Force Challenges Remain in NM

New Mexico is a proud “majority minority” state with lasting and diverse indigenous cultures, traditions, languages and family networks that have seen our communities through easy and hard times for centuries. Our \$300,000 in ten funded programs for health care workforce development across the state – inspired by the national PIN grant and the growing nursing shortage - are just the beginning of a sustainable statewide structural intervention to fill the healthcare gaps in our communities in comprehensive, quality-based and culturally coherent ways.

As New Mexico grows, and our health needs change and grow, so, too, must our health care delivery systems and workforce change if we are to remain healthy and well-served. But that is not happening fast enough – in New Mexico or in many other states in 2010. We hope this evaluation points us toward some answers for growing a high-quality and culturally diverse health care professional field throughout the state.

The current health reform debate is exposing health system challenges throughout the country in the areas of equity, quality and cost. These are challenges that New Mexico has confronted and survived for a long time: unequal access to health care, disparities or gaps in health care costs and quality, and a shortage of funding and of all levels of health care professionals including doctors, nurses, dentists, mental/behavior health professionals, especially at the primary and preventive end of the services spectrum, and felt hardest in the rural parts of our state. But as the cracks in our health care system continue to grow, and as our health care workforce continues to age, health care delivery in NM – a largely rural state with much cultural and demographic diversity, and strong traditions of family and community-centered care - is stretched very thin, leaving our richest cultural treasures – our communities – more vulnerable than ever.

NM is not alone in facing these challenges, yet we do feel them enormously. The innovative health career pipeline solutions our state has developed are uniquely tailored to our needs for a high-quality and integrated health care system that supports New Mexico's long traditions of health and resilience in the face of social changes, but they will make a sustainable impact only with public and private support and dedicated leadership at all levels. This report is a baseline snapshot of our local innovations to address our health care shortage and to build a system that reflects NM's proud heritage and cultures for a high-quality, lasting and re-defined, responsive health care system.

Dr. John Pieper, Dean of UNM's School of Pharmacy, sums up his pipeline program's impact on future Pharmacists in Southern New Mexico in this way, *"This funding has been transformative because it has allowed students to plan their education much earlier and in a very systematic way."*

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Appendix

<p>Table 1 - NM’s Health Policy Commission has identified two goals and related objectives for stakeholder implementation to improve NM’s health care workforce</p>		
	<p>Goal 1: Increase the Health Professional Workforce Through Improved Recruitment and Retention Strategies.</p>	<p>Goal 2: Strengthen New Mexico’s Health Professional Education System Including Capacity, Infrastructure, Quality and Appropriateness.</p>
<p>State Government Should:</p>	<ul style="list-style-type: none"> • Continue to standardize and streamline health professional licensing processes in New Mexico, including reciprocity where appropriate. • Consider strategies to improve health care provider compensation rates in New Mexico to remain competitive with rising compensation rates in surrounding states. • Expand health professional education and training programs in the state’s universities and colleges to produce an increased “home grown,” in-state health workforce. • Continue to develop incentives to recruit and retain health professionals in all areas of the state. • Develop real time data systems to track the vacancy status of health professionals and create data sharing agreements between the tribes, Indian Health Service, and the Veteran’s Administration to produce a more complete assessment for use in workforce planning. • Expand programming available through telehealth networks to increase access to health services in rural areas of the state and support the use of electronic medical records. 	<ul style="list-style-type: none"> • Leverage state funding with available federal and foundation grant funding to provide additional incentives for faculty recruitment and retention in health professional education programs within the state. • Create additional career path initiatives through collaborative efforts among the Public Education Department, Higher Education Department, school boards and boards of regents to address current and future health workforce needs. • Provide incentives to educational systems to bring health professional education programs to rural areas of the state.
<p>Tribal Governments Should:</p>	<ul style="list-style-type: none"> • Increase strategies to recruit tribal members and encourage them to return to their home communities after completing their health professional education programs. • Create support networks for Native Americans seeking higher education in a health profession (i.e., tutoring in math and science and pre-courses for professional licensing exams). • Expand opportunities for youth to learn about careers in the health field (i.e., collaborate with Indian Health Service or tribally managed health care providers to develop summer or vocational internships, mentorship programs, and career fairs). 	<ul style="list-style-type: none"> • Develop working relationships with institutions of higher education to increase the number of Native Americans admitted to health care professions and encourage more culturally appropriate education of health professionals.
<p>Local Governments/Communities Should:</p>	<ul style="list-style-type: none"> • Develop countywide health profiles and needs assessments to identify requirements to support local and statewide health professional recruitment and retention initiatives. • Identify strategies to support the development of the local technology infrastructure to improve the delivery of health services and increase the opportunities for use of telehealth by health care professionals. • Consider local tax incentives to community businesses, organizations and health care providers who collaborate to recruit health providers to the community. 	<ul style="list-style-type: none"> • Provide financial and other forms of community-based support to local health care organizations that are willing to host health professional residency and training programs • Identify students within local schools that are good candidates for careers in the health care professions and facilitate their academic progress to meet requirements for entry into higher education health professional education programs.

	<ul style="list-style-type: none"> • Support family-focused incentives, such as good and affordable housing, to highlight the community's investment in, and appreciation of, quality health care providers and the many organizations and health care providers who collaborate to recruit and retain health providers to the community benefits they bring. 	
Educational Systems Should:	<ul style="list-style-type: none"> • Implement admissions policies in health professional education and training programs that improve the recruitment of students who remain in New Mexico. • Support additional pilot projects at academic centers to assist students and health care providers with telehealth and telemedicine support. • Enhance programs that collaborate with state health professional associations and recruiting agencies to assist graduating students in finding health career opportunities in local communities. • Provide technical assistance to New Mexico's underserved communities with health professional recruitment and retention strategies. 	<ul style="list-style-type: none"> • Expand on model programs that train students in the health professions in the state's underserved communities – a long-term, comprehensive health professional pipeline model. • Utilize telehealth capacity of higher education institutions to provide distance learning programs to train health professionals in rural and underserved areas of the state. • Enhance strategies to produce and/or recruit qualified faculty for the health professional education programs in the state's institutions of higher education. • Increase the development and implementation of culturally competent curricula for use in higher education health education programs.
Health Care Providers/Organizations Should:	<ul style="list-style-type: none"> • Collaborate with other organizations and health care providers to pool resources to help improve recruitment and retention of health providers in the community. • Continue incentive programs to attract all health care professionals. • Develop strategies to recruit and employ the services of retired licensed health care professionals in the local health care delivery system. 	<ul style="list-style-type: none"> • Volunteer to provide residency opportunities and incentives. • Participate in school boards and collegiate education committees to provide expertise to enhance health education programs.
Businesses/Worksites Should:	<ul style="list-style-type: none"> • Sponsor community health workforce events and mentoring programs to create the linkages between students and health professions. • Provide discounts for health professionals in chain-retail stores similar to senior citizens' discounts. • Collaborate with local Chambers of Commerce and civic organizations to engage local businesses in providing business management solutions for local health care providers. • Identify local community and business resources to fund health professional scholarships for local students. 	<ul style="list-style-type: none"> • Identify local businesses and other funding sources to sponsor health profession scholarships for local students. • Collaborate with local and/or regional medical facilities to provide supplemental funding for health professional residencies (e.g. medical residency rotations).
Families/Individuals Should:	<ul style="list-style-type: none"> • Provide support and mentoring for students to assist in their educational development toward becoming health care professionals. • Encourage family and community members to pursue health careers. 	<ul style="list-style-type: none"> • Advocate with local and state elected officials to expand enrollment and improve education programs that support the development of health professionals.

NM Health Policy Commission (2008) State of New Mexico 2008 Comprehensive Strategic Health Plan. Santa Fe, NM