



Public Health Program at Diné College

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Roots of Public Health at Diné College

- 1978 – 2000 Faculty-led Student-engaged Research in Relevant Health Topics
- Partnerships of Faculty, Students with Tribal Programs, Navajo communities, and other Educational & Research Organizations
- 2000 – 2018 Resulted in:
 - *Summer Research Enhancement Program (2000 to present)*
 - *Course Offerings*
 - *Certificate & AS Degree Programs*
 - *Workforce Development*
 - *Additional Research and Student Development Projects*
- 2016 – 2018 Development of BS Degree in Public Health



Establishing Research Programs

1994 – 1998: Understanding Barriers to Diabetes Management

- Conducted ethnographic interviews with 26 Diné with diabetes
- Identified **family support** as an important factor
- Surveyed 163 Diné with diabetes and reviewed their medical records
- Assessed relationship of family support to diabetes outcome measures (improvements in triglyceride, glycosylated hemoglobin, or cholesterol)

1998: Nutrition Research Projects funded by USDA

- Availability & Affordability of Health Foods in Navajo Nation Stores
- Health Status of Navajo Head Start Students
- Gardening Surveys and Interventions

1999 – 2006: Making A Difference in Living with Diabetes: Views from Patients and Families

- Identify types of support being used by Navajo families with a diabetic member and issues being faced.
- Investigate how family perceptions, family explanatory models of NIDDM and family support dynamics impact the management of diabetes.
- Assess how traditional Navajo philosophical concepts are used by families in their interactions regarding diabetes management.

Partnership with Mayo Clinic Cancer Center

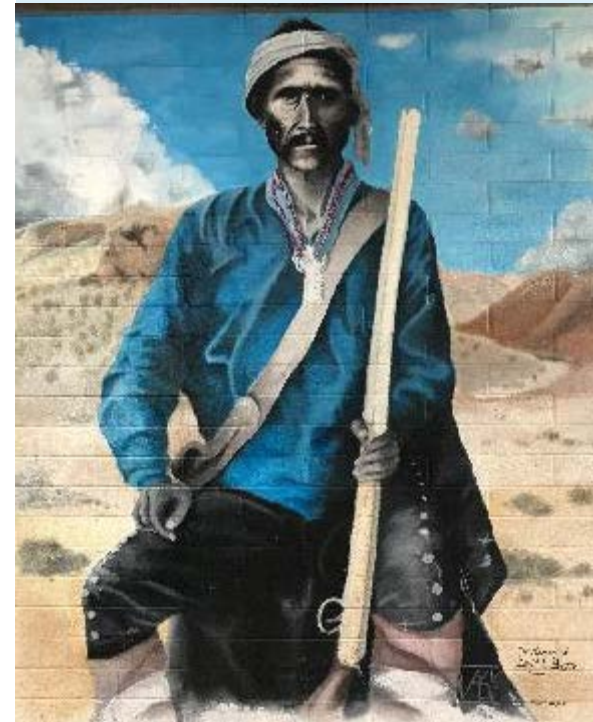


- Three year partnership for faculty and student enhancement in cancer research (2007 – 2010)
 - 3 faculty research experiences
 - 10 student research experiences
 - Cancer-track in Summer Research
- Three year (2013 – 2016) R21 research project to:
 - develop and pilot (clinical trial) a family-based cancer literacy intervention to promote mammography screening among Navajo women

Community-Based Behavioral Health Research and Education at Diné College – 2014 – 2016 AIHEC NARCH Funding

■ Participate in the TCU Behavioral Health Research Network with specific aims to:

- 1) coordinate a behavioral health needs assessment of students at Diné College
- 2) Implement a Positive Community Norms (PCN) approach (developed by the Montana Institute) with a survey to gather data about positive, protective factors of students, and use that data to inform a health promotion campaign to foster more of the positive behaviors.



Partnerships and Enhancement Projects

- **National Diabetes Prevention Center, CDC, 1999 – 2005**
 - Diné College Scope of Work to create a research training program for American Indian students: Summer Research Enhancement Program
- **Cooperative Agreement with ATSDR, 1999 - 2004 (Agency for Toxic Substances & Disease Registry)**
 - Survey of environmental health professionals serving the Navajo Nation to inventory: Staff training needs, Priority research areas, Educational programs needed
 - Develop two new courses in environmental health
- **Navajo NARCH, NIH & IHS, 2000 – 2003**
 - Partnership of Navajo Nation Department of Health with Diné College and University of Arizona College of Public Health
 - Funded Navajo Ethno-Medical Encyclopedia Project
 - Continued planning for Diné College to develop Public Health Program for workforce development for Navajo Nation
- **NIH-funded RISE Projects 1999 – 2010 Student Support**



Foundational Concepts for Program Development

The Diné Educational Philosophy (DEP) and its incorporation into the Associate of Science Degree Program in Public Health at Diné College

Edward R. Garrison PhD, MPH

Journal of Interprofessional Care

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- These materials describe some of the core philosophical concepts, both in Navajo and in English, some of the complex symbolism associated with these core concepts, and some of the applications to daily living that derive from these core concepts.
- The purpose for the use of these materials in the curriculum is to ensure that students, who are almost all Navajo, will be prepared for providing Public Health educational and intervention services that are well suited to the cultural environment of the Navajo People.

Available for download at https://warriorweb.dinecollege.edu/ICS/Faculty__Staff/Mark_Bauer/

“Public Health” as a discipline developed in a “western” (European / Anglo-American) cultural context wherein problems were to be identified and measured, then solutions were to be devised so that the problems could be attacked – as in the “war on cancer” or “war on poverty” or “war on drugs” that have been part of the American political landscape in recent decades. In contrast to this approach, Diné College proposes to present a philosophy of Public Health that derives from traditional Navajo teachings, which are reflected in the “Dine Educational Philosophy” developed at Diné College. The key concepts and values in this educational philosophy are sequential and can be expressed with the following words:

- | | | |
|--------------------|---------------|-----------------------------|
| <i>nitsáhákees</i> | – thinking | (associated with the East) |
| <i>nahat’á</i> | – planning | (associated with the South) |
| <i>iiná</i> | – living | (associated with the West) |
| <i>sii hasin</i> | – fulfillment | (associated with the North) |



In general, the **East Direction** focuses on the beginning of life - pregnancy, birth and infancy - as well as the establishment of values that guide a person through their life's journey.

This comprehensive model comes back around to the **North Direction**, representing elders, hope for the future and how teachings and learnings are passed on to the next generation. How we relate to our environment is also included in the North Direction.

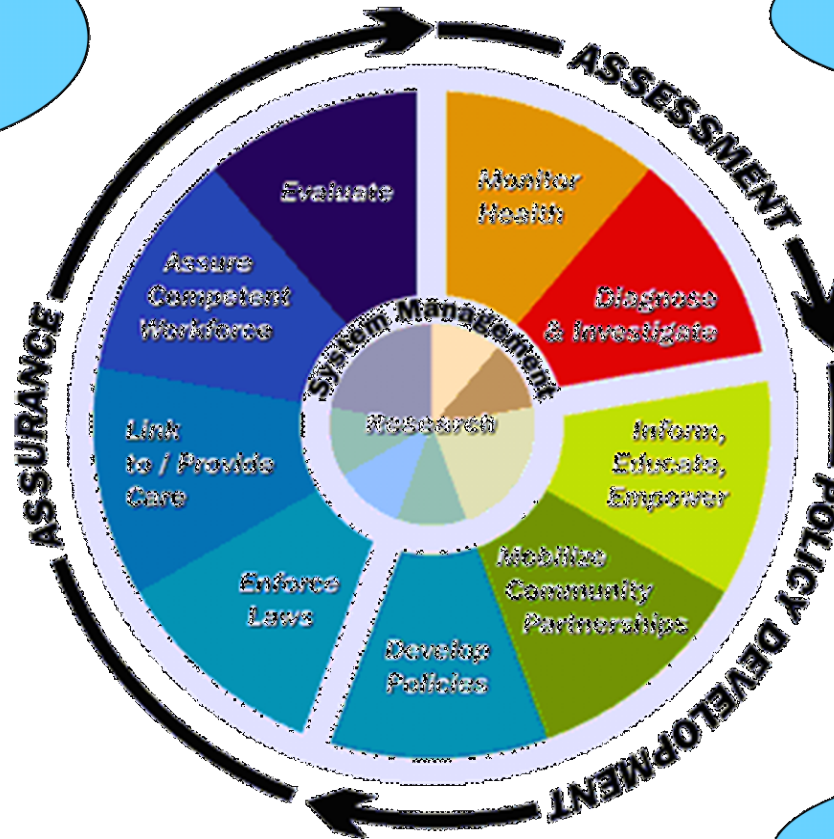


The **South Direction** represents the development of physical abilities and health and the process of planning.

The **West Direction** represents life (lína), the development of social competence and the importance of relationships (K'é).

Iná
Siihasin

Nitsáhákees



Nahat'á

Initial Structural Goals of the Diné College Public Health Degree Program, 2004

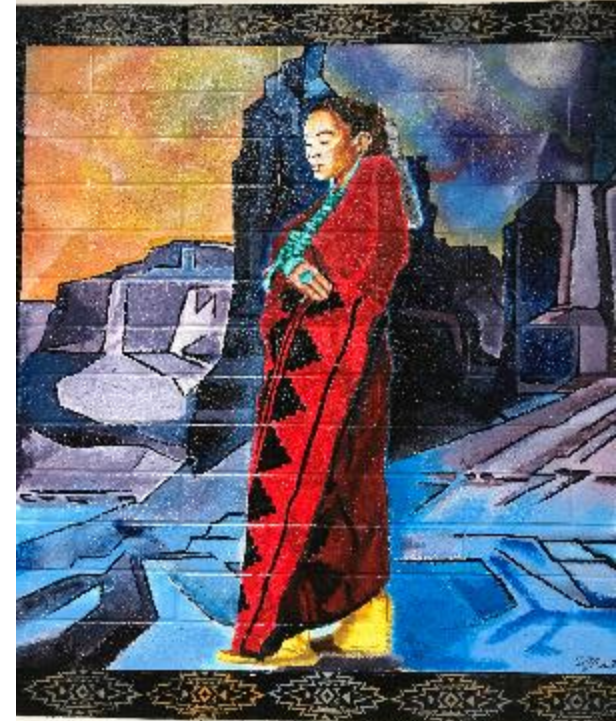
- Provide an A.S. degree that articulates with and transfers into existing Bachelor's degree programs at regional state universities, *but also*, for those who do not or cannot transfer to a university or do not complete the A.S. degree
- Fulfill the educational requirements for immediate employment in Navajo Nation public health agencies such as Community Health Representatives (CHRs) which the Navajo Nation administers under federal contracts.
- Provide a “Certificate in Public Health” documenting completion of major component(s) of the sequence, for those who are not able to complete the full 2-year program.

See Public Health Brochure, and PUH 270-280 as central sequence

Navajo Nation Partnership

CHR/Outreach Program, Navajo Nation Division of Health:

- More than 160 tribal employees, including supervisors, office support staff and Community Health Representatives.
- “Outreach” includes the Navajo Nation’s HIV/AIDS, STD and TB Prevention Programs.
- Most CHRs have had extensive “workshop” experience in training sessions and conferences, and have earned a substantial number of workshop certificates.
- However, these do not
 - a. provide academic (college) credit which can help them advance in their careers
 - b. satisfy the most demanding federal requirements to document workforce development.

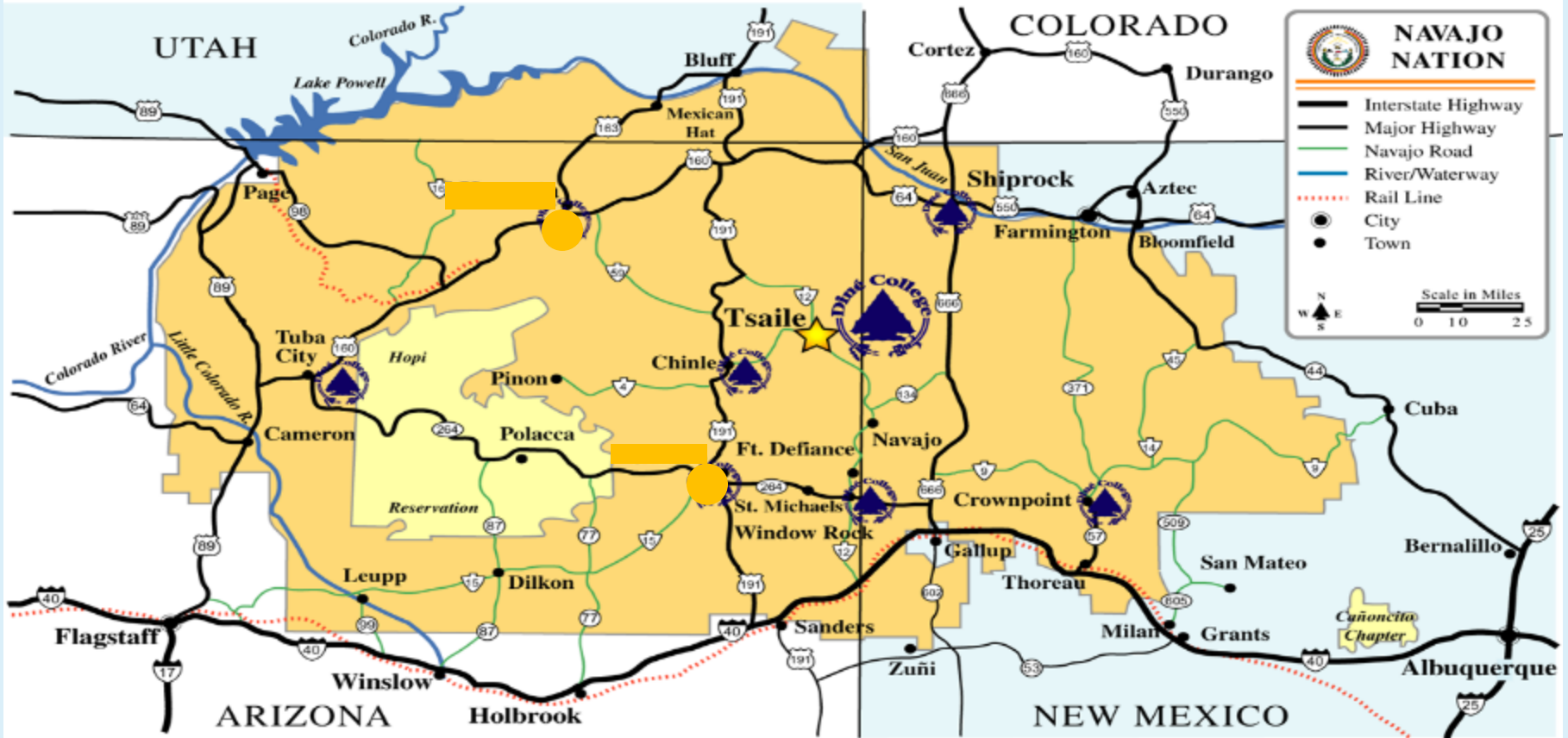


CHR Program Partnership : MOU

MOU between Diné College and CHR/Outreach Program, signed August 2004, provides:

- Administrative directive for all program employees to enroll in Diné College's Public Health program
- “Release Time” to attend class during working hrs.
- Encouragement to take other “liberal arts” courses
- Diné College to provide timely course offerings
- Diné College to support its interactive television Distance Education services for the CHR students

DINÉ COLLEGE MULTI-SITE SYSTEM



**"The Navajo Nation
is Our Campus"
Established in 1968**



Diné College Locations:

- | | |
|--------------------------|-----------------|
| Tsaile, AZ (Main Campus) | Window Rock, AZ |
| Tuba City, AZ | |
| Chinle, AZ | |
| Crownpoint, NM | Shiprock, NM |

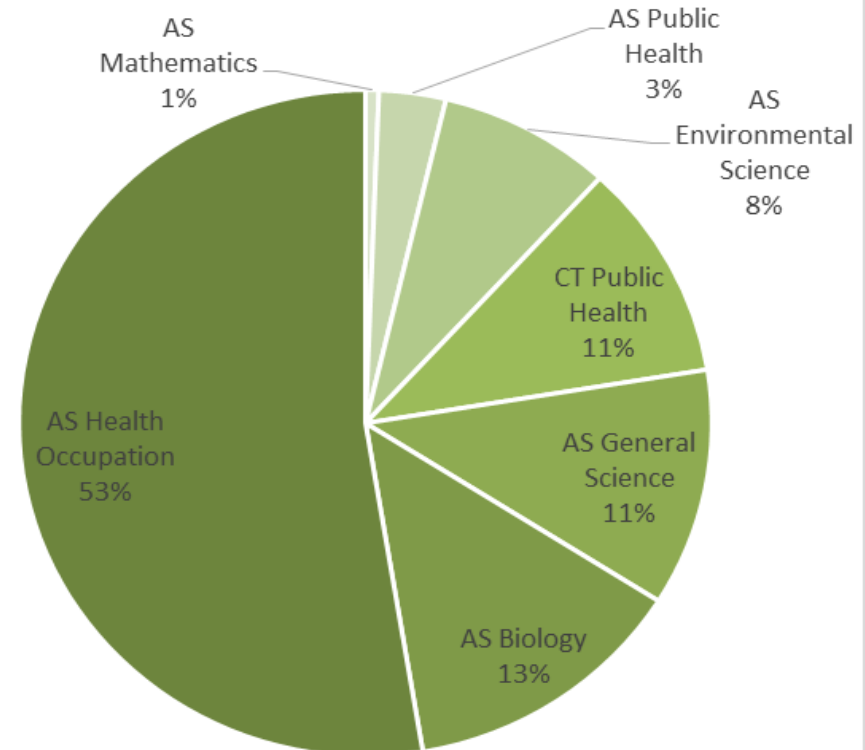
Public Health Graduates Diné College 2007-2015

N=44



Major	TOTAL
AS Mathematics	2
AS Public Health	10
AS Environmental Science	26
CT Public Health	34
AS General Science	37
AS Biology	43
AS Health Occupation	169
Grand Total	321

SP2007 - SP2015 Stem Graduates by Majors

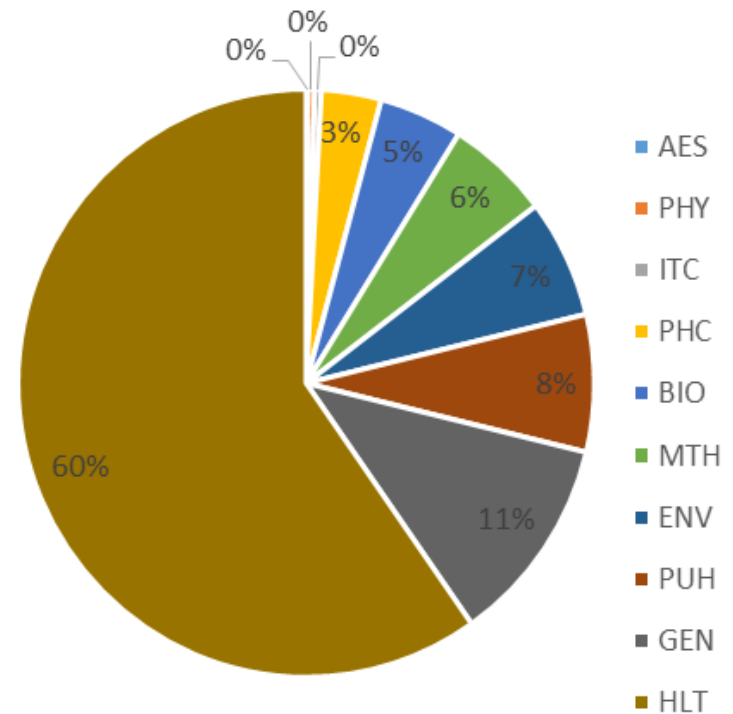


Public Health Majors Enrolled Diné College 2013-2015

N=142

Major	Number of Students
AES	2
PHY	7
ITC	7
PHC	63
BIO	88
MTH	109
ENV	123
PUH	142
GEN	216
HLT	1123
Grand Total	1880

Overall 2013-2015 STEM Enrollment by Majors



Summer Research Enhancement Program in Public Health & Health Research – Culturally-based

- **Nitsáhákees**
 - *Learning concepts in the classroom*
- **Nahat'á**
 - *Group work and project*
- **liná**
 - *Practicum in the community*
- **Siihasin**
 - *Final presentation*



Nitsáhákees
(Thinking)



Siihasin
(Final synthesis
of knowledge)

Nahat'á
(Planning)

liná
(Living-implementing)

Teaching & Fostering Resilience in a Research Enhancement Program for American Indians

M Bauer, H Dreifuss, B Hosley,
J Ehiri, N Teufel-Shone, P Sanderson

Center for American Indian Resilience (CAIR)

Diné College Educational Component



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Photo: CAIR and partners at the 2014 International Indigenous Research Development Conference in Auckland, New Zealand

"You have to really know who you are and not compare yourself to others"
-Anonymous Elder

Resilience Elements in Summer Program

Students

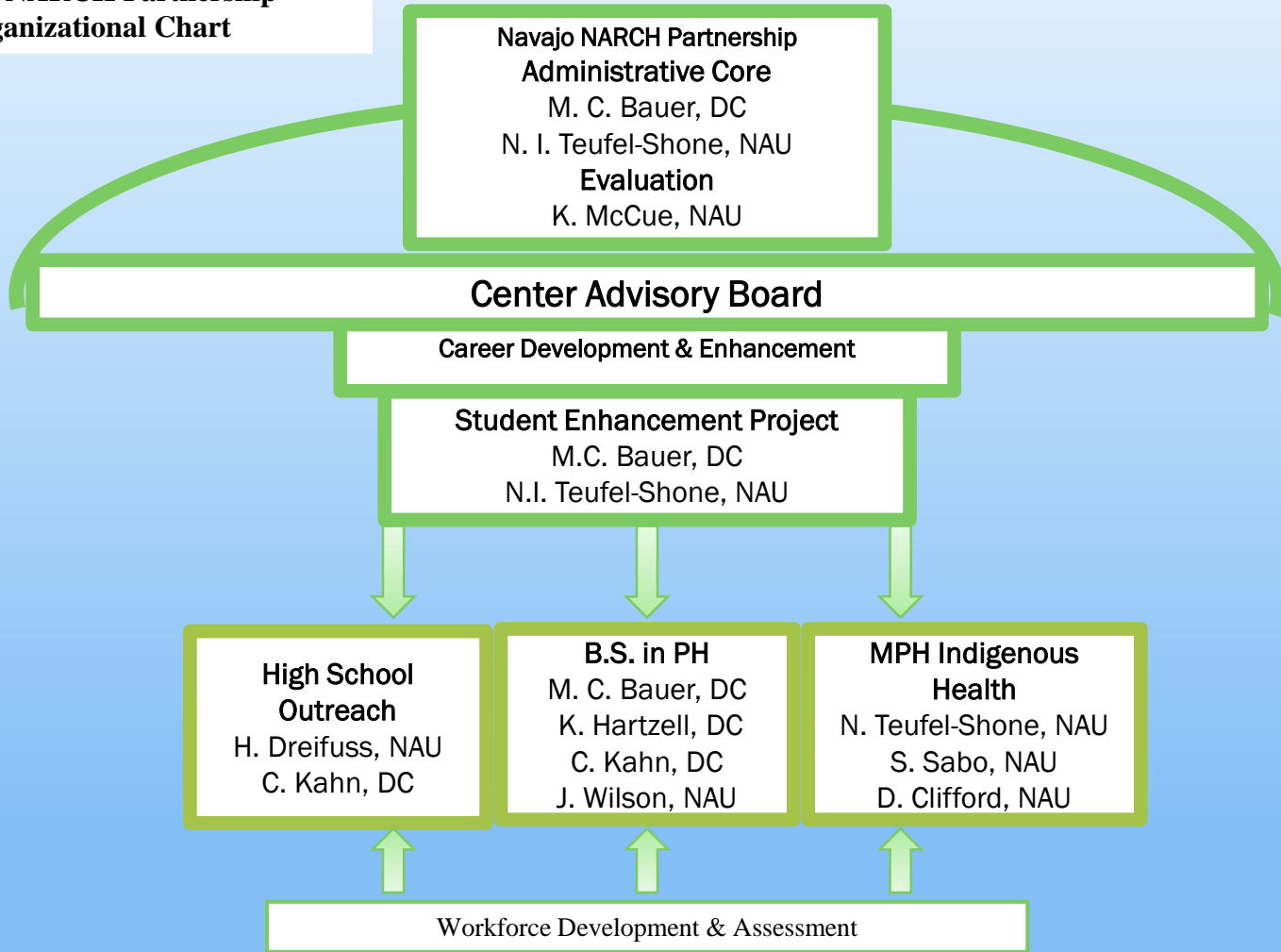
- Identity – within culture, within community
- Support – from peers, family, community, faculty/staff
- Self-confidence, self-efficacy – from succeeding in mastering difficult material, meeting expectations of mentor, community, faculty, peers



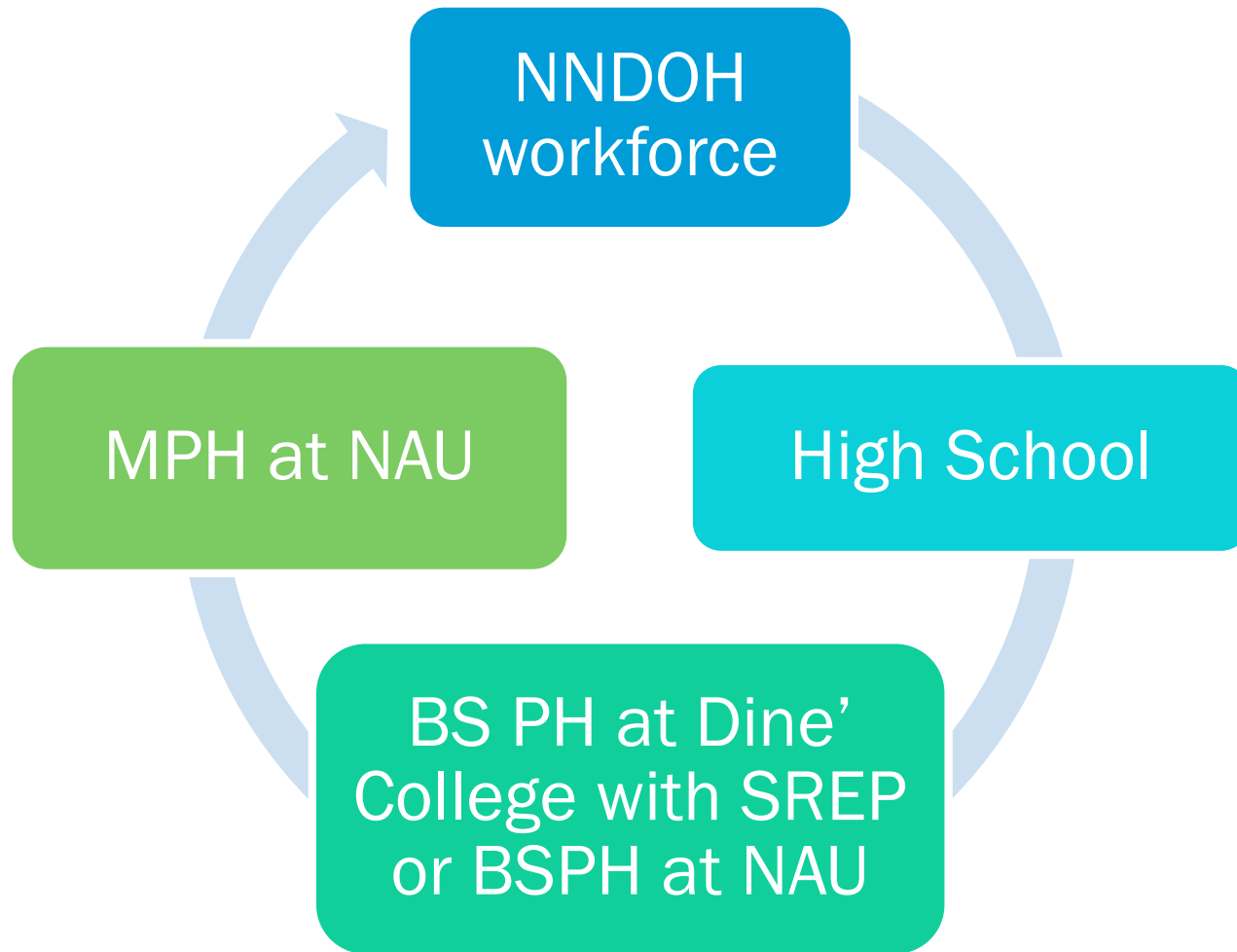
Community

- Connectedness – student contact with community through work in community health care setting
- Student contributions – bringing their skills and education to bear on community issues
- Interactions among student, community health staff, college/university faculty nurture evidence-based approaches

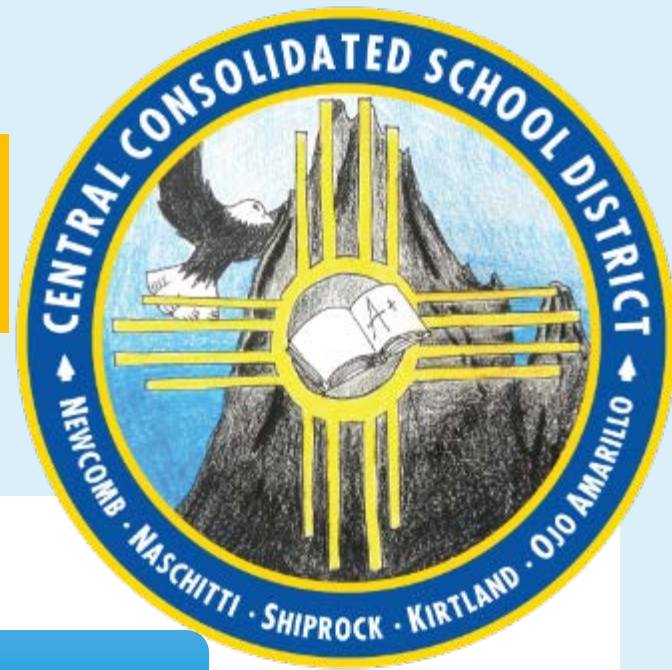
**Navajo NARCH Partnership
Organizational Chart**



Educational Pathway to strengthen Public Health Capacity



High School Pathway to Health Professions



Summer Pilot program (9th-10th grade)

Dual Credit (11th-12th grade)

Mentoring program with NNDOH and IHS

Timeline of BS Degree in Public Health

- 2013: Program Review recommends moving to four-year degree
- 2015: Title III Proposal, Funding for faculty positions in PH, Psych
- 2016: Faculty Hire, for Fall 2016
- AY 2016-17
 - *Kathryn Hartzell researches university curricula, CEPH and AFT Competencies*
 - *Preliminary Four-Year Curriculum Designed*
 - *New Courses Developed*
 - *Curriculum Committee, Dean, Provost Approvals*
 - *Board of Regents Resolution Supporting the New Curriculum*
 - *Application to the Higher Learning Consortium for approval of new BS Degree*
 - *HLC Site visit*
 - *Degree Approved in October 2017*

Steps of Implementation

- College Catalog
- Establish CIP Code 51.2201, and Occupation Code
- Convene Meeting of Registrar, Advising, Admissions, Financial Aid to:
 - *Determine admissions process, criteria*
 - *Training, process for academic advising*
 - *Issues in Financial Aid*
- Creation of Advising Handbook
- Contacting/negotiating with Navajo Nation Scholarship Office



Program Status

- Approximately 50 students declared PH BS major in fall 2018 (in addition to those in AS major)
- Existing public health courses see about 50% - 100% increase in enrollment
- Flyers for Fall 2018, Spring 2019 courses



Issues to Address:

■ What is needed to establish an academic program?

- *Academic partners*
- *Funding*
- *Workforce need*
- *Interested Students*
- *Faculty*



■ Design of Curriculum

- *How important to articulate for transferability? Or to prepare students for graduate school? To address workforce needs?*
- *Who to design for? Workforce? Existing students majoring in public health? In health occupations?*
- *Links to high school students through dual credit?*

Current Funding Support

- *NIH-funded Navajo NARCH Partnership (NAU & DC)*
- *NIH-funded Center for American Indian Resilience (NAU, UA, & DC)*
- *NIH-funded Clinical & Translational Research Institute at the University of Colorado, Denver*
- *US Department of Education-funded Title III Grant*

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