

Development of Indigenous Knowledges in Public Health: Epistemic Diversity as an Essential Component of Health Equity

Indian Health Service
11th Annual Advances in Indian Health Conference
Albuquerque New Mexico May 6, 2011

Bonnie Duran DrPH

Director, Center for Indigenous Health Research
Indigenous Wellness Research Institute www.iwri.org
Associate Professor, Department of Health Services
School of Public Health, University of Washington



My Context



Indigenous Wellness Research Institute



Issues at Hand

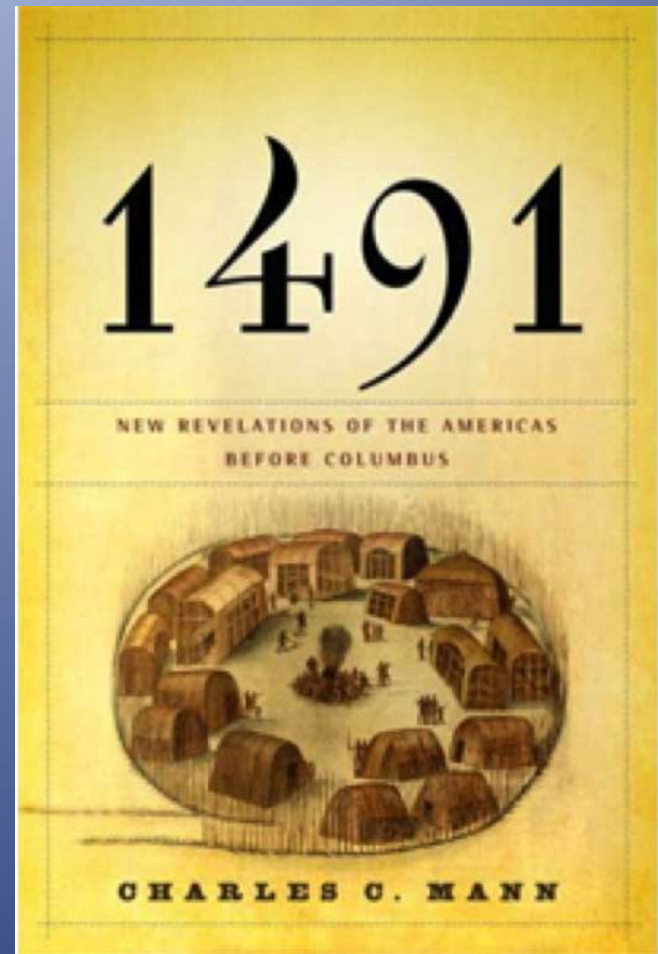
- Has western knowledge production contributed to health inequities?
- Is there a power/knowledge episteme of public health that replicates colonial relationships?
- Can Indigenous communities, other communities of color, public health advocates and allies use partnership opportunities and *research spaces* for indigenous knowledge development?

Presentation Objectives

- New *western* scholarship about pre-colonized America's
- Define Modernity/Coloniality Episteme
- Examples of colonizing research
- Decolonizing research and practice: CBPR and the space for indigenous knowledge development

Emerging western scholarship about pre-contact America

- In 1491 there were more people living in the Americas than in Europe.
- Indigenous people in the Americas transformed their land so completely that Europeans arrived in a hemisphere already massively "*landscaped*" by human beings.



Emerging western scholarship about Indigenous knowledges

- Pre-Columbian Indians in Mexico developed corn by a breeding process so sophisticated that a “Science” author described it as “man’s first, and perhaps the greatest, feat of genetic engineering.”

PERSPECTIVES
AGRICULTURE

Prehistoric GM Corn

Nina V. Fedoroff

Corn (maize) is arguably man’s first, and perhaps his greatest, feat of genetic engineering. Its huge ears—each packed with firmly attached kernels filled with starch, protein, and oil—make it a food staple. Contemporary corn, unlike its wild grassy ancestor teosinte, can’t survive without people because it can’t disperse its own seeds. The origins of maize have long intrigued geneticists, but only recently have new molecular methods enabled evolutionary sleuths to pinpoint its origins and identify the genetic modifications (GMs) that enabled the radical transformation of teosinte into contemporary maize. On page 1206 of this issue, Jaenicke-Deaprés, Doebley, and their colleagues (1) provide the latest chapter in this detective story and suggest that prehistoric people were quick to adopt GM corn.

Teosinte and corn (*Zea mays*) don’t look much alike, but they are interfertile. Teosinte-corn hybrids arise in the wild but look so different from either parent that they were originally classified as a different species (*Zea cobiza*). In the 1920s, Beadle examined chromosomes in teosinte-corn hybrids and concluded that the two plants belonged to the same species, and even shared the same chromosomal order of genes. That should have resolved the question of corn’s origins, but it didn’t.

In 1938, the eminent maize geneticist Mangelson proposed that maize evolved from an extinct South American maize species and that teosinte originated from a cross between another grass, *Tripsacum*, and maize (2). Although cumbersome, this hypothesis was widely accepted, and Mangelson and Beadle sparred publicly for years. Upon retirement, Beadle organized an expedition to Mexico to look for more wild maize relatives, returning with seeds that proved invaluable to the next generation of molecular archaeologists. The *Tripsacum* hy-

its female flowers (ears) are produced by secondary branches growing off the main branches. Modern corn has one main stalk with a tassel at the top. Its lateral branches are short and bear its large ears. Much of the difference is attributable to the *tbt1* gene, originally identified in a teosinte-like maize mutant. Mutations generally abrogate gene function, indicating that the maize allele acts by suppressing lateral shoot development, converting grassy teosinte into slim, single-stalked modern corn and male into female reproductive structures (7).

Knowing that this cluster of traits is controlled by just two genes makes it less surprising that genetic differences in these genes could render teosinte a much better food plant. Yet however useful to people, a *tgal* mutation would have been detrimental to teosinte, making it more vulnerable to destruction in the digestive tract of the consumer and so less able to disperse its seeds. Thus, the only way this mutation could have persisted is if our ancestors propagated the seeds themselves. This implies that people were not only harvesting—and likely grinding and cooking—teosinte seeds before these mutations came along, but also were selecting for favorable features such as kernel quality and cob size. In turn, this suggests a “bottleneck” in corn evolution: Several useful GMs were brought together in a single plant and then the seeds from this plant were propagated, giving rise to all contemporary maize varieties. Such a prediction can be tested by calculating the number of generations and individuals it would take to account for the molecular variability present in contemporary maize. The results of such a test suggest a bottleneck for maize domestication of just 10 generations and a founding population of only 20 individuals (8). Did this happen once or many times? Because genetic differences arise at a fairly constant rate, this question can be answered by constructing family trees using similar sequences from different varieties of teosinte and contemporary maize. The results are unequivocal: All contemporary maize varieties belong to a single family, pointing to a single domestication event.

Knowing how quickly differences arise,



Primitive popcorn. Teosinte (left) and primitive maize (right). Primitive maize was “reconstructed” by crossing teosinte with Argentinian corn.

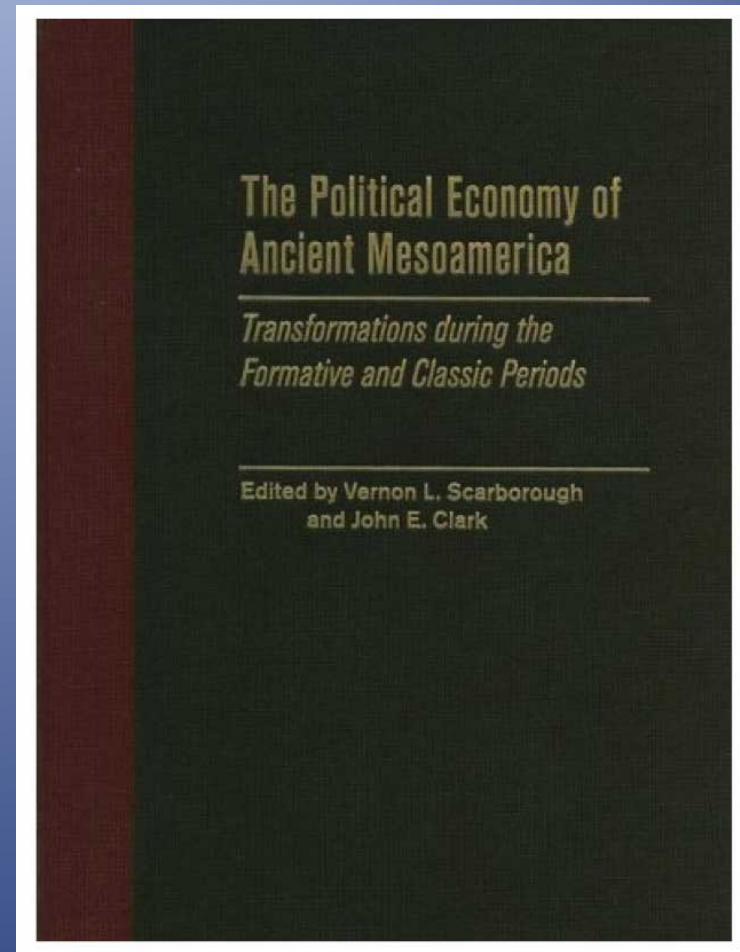
a few mutations changed teosinte into maize (4). Analyzing backcrossed maize-teosinte hybrids with molecular probes, Doebley’s group came to a startlingly similar conclusion: The differences between maize and teosinte could be traced to just five genomic regions (5). In two of these regions, the differences were attributable to alternative alleles of just one gene: *teosinte glume architecture* (*tga1*) and *teosinte branched* (*tbt1*), which affect kernel structure and plant architecture.

The *tgal* gene controls glume hardness, size, and curvature (6). Teosinte kernels are surrounded by a stone-like fruitcase, assuring their unscathed passage through an animal’s digestive tract, which is required for seed dispersal. But the plant’s reproductive success is the consumer’s nutritional failure. Not surprisingly, one of the major differences between maize and teosinte kernels lies in the structures (cupule and outer glume) enclosing the kernel. Maize kernels don’t develop a fruitcase because the glume is thinner and

AGRICULTURE Prehistoric GM Corn Nina V. Fedoroff
Science 14 November 2003: 302 (5648), 1158-1159.
[DOI:10.1126/science.1092042]

Emerging western scholarship about Indigenous knowledges

- Tenochtitlan, the Aztec capital had a far greater population than any contemporary European city, and unlike any capital in Europe at that time, had
 - *running water*
 - *beautiful botanical gardens*
 - *immaculately clean streets*



“We all have been taught what the human species gained by the European invasion of the Americas. Now we have to consider what we, all of us, lost.”

Alfred W. Crosby, author of *Ecological Imperialism* and *The Columbian Exchange*, Professor Emeritus of Geography, American Studies and History, University of Texas

A Western Modernity/ Coloniality Episteme

- *Genealogy*: 17th Century No. Europe Reformation thought, Enlightenment, French Revolution crystallized in 18th Century into “Modernity/Coloniality” and consolidated within the Industrial Revolution and motivated, in part, by colonization
- *Philosophically*, emergence of the notion of “Man” as the foundation for all knowledge & order, separate from the natural and the divine ***teleological action***
- *Culturally*, Lifeworld is subsumed by forms of expert knowledge linked to capital and state administrative apparatuses (Foucault's disciplines)
- *Sociologically*, rise of nation-state institution, knowledges for material reproduction

Indigenous and Subalterns studies scholars in the America's,
India, the Atlantic, Poststructuralists, Critical theorists.

Characteristics of Coloniality/Modernity Episteme

1. Modern Western reason is **emancipatory**, *BUT* modernity's "*underside*," namely,
 - a) the imputation of the superiority of European civilization,
 - b) assumption that Europe's development must be followed unilaterally by every other culture
2. Western knowledge worldview - human development is a master narrative requiring the congruence of other cultures.
3. The West determines fitness for world citizenship is based on Western knowledge that decides the criteria for what is reasonable and what is not reasonable.
4. Globalization: all world cultures and societies are reduced to being a manifestation of European history and culture.

Foundations of Epistemes*

Coloniality-Modernity

- Starts in Greece and Rome
- Rooted in rhetoric of salvation and progress
- By necessity creates condemnatory logic, savage, primitive, marginalized

Post-Coloniality

- Starts in Greece and Rome
- Privileges “newness” in the archaeology/chronological history of European ideals
- Subjectivities created in language and history

Indigenous Episteme

- Starts with a critique of the limits of Eurocentric knowledge hegemony of “science” as truth: Provincialism as Universalism
- Epistemic disobedience as a set of projects that focus on the common effects of the experience of colonialism
- Shifts the geographies of reason
- Language and concepts as only one vehicle to understand and express “reality”

Foucault's Episteme as power

- ..defines episteme historically as the strategic *apparatus* which authorizes
 - separating out from among all the statements which are possible
 - those that will be acceptable in a field of “*scientificity*” and
 - which it is possible to say are true or false or “*meaningless*” * or meaningful...

Michel Foucault, *Power/Knowledge* (1980, p.197)

*My addition - borrowed from Sami Scholar Rauna Kuokkanen

Assumptions of Western Episteme

- Western values and culture are universal and the pinnacle of social evolution;
- Science is neutral;
- Subjectivity is universal and transparent;
- Resistance is ignorance;
- Learning is uni-linear

When Science Became Western

Historiographical Reflections

By *Marwa Elshakry**

ABSTRACT

While thinking about the notion of the “global” in the history of the history of science, this essay examines a related but equally basic concept: the idea of “Western science.” Tracing its rise in the nineteenth century, it shows how it developed as much outside the Western world as within it. Ironically, while the idea itself was crucial for the disciplinary formation of the history of science, the global history behind this story has not been much attended to. Drawing on examples from nineteenth-century Egypt and China, the essay begins by looking at how international vectors of knowledge production (viz., missionaries and technocrats) created new global histories of science through the construction of novel genealogies and through a process of conceptual syncretism. Turning next to the work of early professional historians of science, it shows how Arabic and Chinese knowledge traditions were similarly reinterpreted in light of the modern sciences, now viewed as part of a diachronic and universalist teleology ending in “Western science.” It concludes by arguing that examining the global emergence of the idea of Western science in this way highlights key questions pertaining to the relation of the history of science to knowledge traditions across the world and the continuing search for global histories of science.

THE CONTINGENCY OF THE TERM “SCIENCE”—shaped by different eras, geographies, and epistemological traditions—means that it is not always clear what historians of science are or even should be studying. This is a point that medievalists and early modernists have long debated, and it has lent the discipline methodological depth by historicizing the very subject of its inquiry and by suggesting, in particular, what is modern about modern science.¹ Yet some contingencies have mattered more than others. Imagine a map of the world as represented by the profession: it would be a largely Anglo-American and Eurasian one, with a severely truncated southern hemisphere and the Atlantic world predominating in the northern one.

Ironically, this wasn’t the picture of the world that the discipline began with: indeed,

* Department of History, Columbia University, 611 Fayerweather Hall, New York, New York 10027.

¹ For the best example see Peter Dear, “What Is the History of Science the History Of? Early Modern Roots of the Ideology of Modern Science,” *Isis*, 2005, 96:390–406.

Isis, 2010, 101:98–109

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0021-1753/2010/10001-0005\$10.00

Western Knowledge Construction and Examples of Epistemic Power

Colonial
Research
Practice:
Examples of
Knowledge/
Power Nexus



Indigenist Critique of Western Episteme's

Research

Controlled

~~History is written~~

by people in power

Apparatus of Colonization

- Colonization -
 - Geographical incursion
 - Ideological “stories” about race & skin color
 - Socio-cultural dislocation
 - External political control
 - Provision of low-level social services
- Governance of “frontier” by ‘central’ authority
- Main governance institutions:
 - Church
 - Medicine/Public Health
 - Education/Research
 - Business/Industry
- Both similar and different from larger global imperial projects

“Colonial Narratives ” as Federal Indian Policy

- Assimilation and Allotment 1870-s - early 1900s
 - 1880’s Growth of BIA boarding schools
 - 1883 Some Traditional Medicine Outlawed
 - 1887 Allotment Act abolishes group title to Native land



Shelton, B. L. (2004). *Legal and Historical Roots of Health Care for American Indian and Alaska Native in the United States*. Menlo Park & Washington DC: The Henry J. Kaiser Family Foundation.

“Medical” Rationale for Assimilationist Boarding Schools

OBSTETRIC PROCEDURES AMONG THE ABORIGINES OF NORTH AMERICA.—Dr. Eli McClellan, Assistant Surgeon U. S. A.,

“Promiscuous sexual intercourse among the unmarried of the Apache Indians is common. They are polygamists. The women are unclean and debased. The Navajoes, a branch of the Apache tribe, live in the rudest huts and lead a drunken, worthless life. The women are debased and prostituted to the vilest purposes. Syphilitic diseases abound. Polygamy

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McClellan, E. (1873). *Obstetric Procedures among the Aborigines of North America. Clinic of the Month*, 99-106.

Rhetoric of salvation and progress

Concerning American Indian Womanhood.—An Ethno-
logical Study. *Am. Gyn. Ped.* 5, 330-341,

1891-92

BY WM. THORNTON PARKER, M.D. (MUNICH),

BEVERLY, MASS.

Fellow of the Massachusetts Medical Society, and of the Boston Gynecological Society, late Acting Assistant Surgeon U. S. Army, formerly Surgeon in the U. S. Indian Service, etc.

DR. HENRY T. BYFORD, in a paper read before the Chicago Gynecological Society; February 20, 1885, quotes Professor Gross as asking, "Why did not the Almighty create, simultaneously with woman, a competent gynecologist to meet the inevitable evils?" Dr. Byford adds that "it seems indeed like a reproach upon Him, the crowning work of whose intelligence was the creation of woman, that she should be the most poorly prepared of all beings for the reproduction of her kind.

- "it seems ..a reproach upon Him...that she should be the most poorly prepared ..for the reproduction of her kind..."

Parker, T. (1891). Concerning American Indian Womanhood-An Ethnological Study. *American Gynecology and Pediatrics*, 5, 330-341.

Medicine and Disciplinary Power

SOME SACRED OBJECTS OF THE NAVAJO RITES.

BY WASHINGTON MATTHEWS, SURGEON, U. S. ARMY.

SOME one has said that a first-class museum would consist of a series of satisfactory labels with specimens attached. This saying might be rendered: "The label is more important than the specimen." When I have finished reading this paper, you may admit that this is true in the case of the little museum which I have here to show: a basket, a fascicle of plant fibres, a few rudely painted sticks, some beads and feathers put together as if by children in their meaningless play, form the total of the collection. You would scarcely pick these trifles up if you saw them lying in the gutter, yet when I have told all I have to tell about them, I trust they may seem of greater importance, and that some among you would be as glad to possess them as I am. I might have

- The basket drum
- The drum stick
- The Plumed wands
- Kethawns
- Sacrificial Cigarettes

Matthews, W. (1893). Some Sacred Objects of the Navajo Tribe. *Archives of the International Folklore Association* 1, 227-254.

Subjugating Knowledge's

July, 1922

THE MODERN HOSPITAL

41

SUPLANTING THE MEDICINE MAN*

BY ARTHUR E. MIDDLETON, CHIEF OF CONSTRUCTION SECTION, INDIAN BUREAU, INTERIOR DEPARTMENT, WASHINGTON, D. C.

NOT so long ago that the period and conditions are reminiscent or unfamiliar to those individuals who have aided and are still aiding in the moral, spiritual and physical advancement and perpetuation of the Red Man, the fight against disease was waged under the most trying disadvantages.

Then the Indian had just begun reluctantly and doubtfully to yield to the influences of civilization and, though accepting some of its customs, still clung with tenacious hold to the ideas and habits formed in the early history of the race and regarded with mingled skepticism and fear

eral exceptions, in the vast region extending from the Mississippi River to the Pacific Ocean and from the Gulf of Mexico to the Canadian border. The exception referred to are the hospitals located at Carlisle, Pa., Cherokee, N. C., Mount Pleasant, Mich., Hayward, Keshena and Oneida, Wis.†

The school hospitals are designed solely for the treatment of children and the typical plan usually provides two separate wards for the sexes with screened and glazed porches adjunct thereto, convalescent ward, operating, waiting, nurses', dining, bath and toilet rooms and kitchen. At some



Surveillance and normalizing judgment work together to form “discipline” *BIOPOWER*

Are the Indians Dying Out?*

FREDERICK L. HOFFMAN, LL. D., F. A. P. H. A.

Consulting Statistician, Prudential Insurance Company, Newark, N. J.

THIS important question of vital concern to our strictly native population was first raised in an essay entitled “Preliminary Observations Relating to Indian Civilization and Education,” published by the Bureau of Education as a contribution to the Philadelphia Exposition of 1876. The author of the report was S. N. Clark, who gave an interesting account of Indian population statistics, estimating for the year 1876 a total Indian population of 291,882. The estimate of the Indian Office in the census of 1870 was 313,371.

While the report in question contains much valuable information, it fails to deal with the fundamental question of defining an Indian for census purposes. Obviously to ignore the large amount of race intermixture which has taken place since the settlement of the country, and which constantly tends to merge persons of Indian blood or part Indian descent into the white race, fails to take cognizance of a situation which at all times has complicated efforts to determine the question whether the true Indian is dying out. The true Indian in this

- The greatest, most precise, productive, and comprehensive system of control of human beings will be built on the smallest and most precise of bases.

THE NAVAHO POPULATION PROBLEM

By FREDERICK L. HOFFMAN

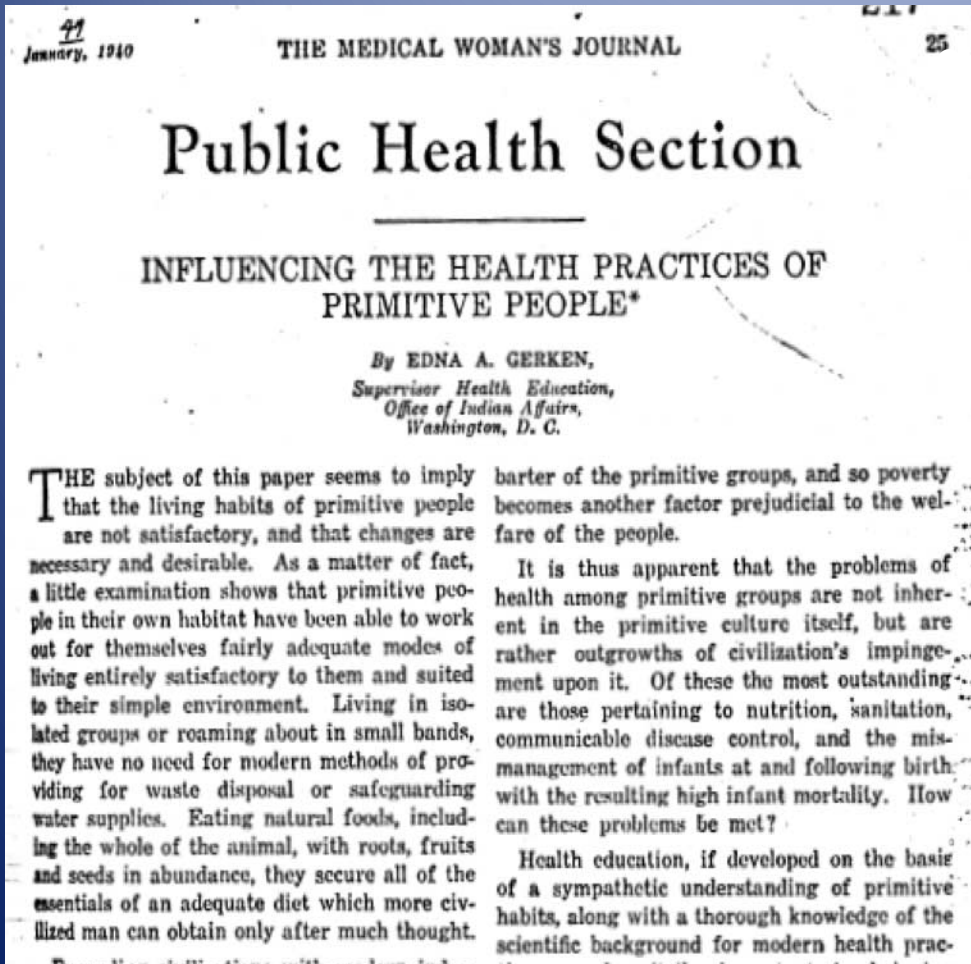
OF all North American Indian tribes, the Navaho is one of the outstanding examples deserving of much more consideration than has heretofore been given to this group of interesting and numerically well represented people. The Navaho, happily, has preserved most of his original characteristics, and while probably considered civilized in the crude sense of the word, yet lives much as of old, except that a decidedly war-like tribe has become thoroughly peaceful and exceptionally law-abiding.

- “...determine question of whether true Indian is dying out’.

Hoffman, F. (1928). The Navajo Population Problem. *Proceedings of the twenty-third International Congress of Americanists* 23, 620-633.

Hoffman, F. (1930). Are the Indians Dying Out? *American Journal of Public Health*, 20, 609-614.

Application of Colonial Episteme



Health research served as a “roadmap” for colonizers who utilized IHS to overcome difficulties of transportation and communication in more remote, previously inaccessible locations

I Couldn't Have Gotten Along Without Sam

The success of our public health program among the Navajos could not have been achieved without the help of Sam—chaffeur, assistant, and interpreter of the language, tribal customs, and ethics

By Ida E. Bahl

Without Sam

perience, had a fairly good educational background, had been in the Marine Corps in the South Pacific during World War II, and was a mem-



- Knowledge, race and social position
 - Interpreter, health educator, health systems navigator, medicine person...
 - ...driver

Nursing outlook,
June 1961

Legacy of Colonial Episteme

- specific colonial structure of power produced the
- Specific social discriminations which later were codified as
 - ‘racial’,
 - ‘ethnic’,
 - ‘anthropological’
 - or ‘national’,
- These intersubjective constructions were even assumed to be
 - ‘objective’,
 - ‘scientific’

Science and the Sacred

“The intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift.”

-Albert Einstein

Decolonizing Research

- DR is a purposeful approach to “transforming the institution of research, the deep underlying structures and taken-for-granted ways of organizing, conducting, and disseminating research knowledge”
- DR enables indigenous communities to theorize their own lives connecting with past and future generations



Indigenous Knowledges

- Indigenous knowledge (IK) as ancient, communal, holistic, spiritual and systematic knowledge about every aspect of human existence
- Local communities through accumulated IK gained from generation to generation, knew:
 - Social order through culture-based sanctions and rewards for appropriate behavior
 - Longevity through Indigenous Public Health
 - Healthy physical environments through stewardship,
 - Etc, etc, etc...

Indigenous Episteme

- “*Logic of the gift*” as one foundational epistemic convention grounded in valuing
- *Gifting* functions as a system of social relations, forming alliances, solidarity
- *Gifting* extends to giving and receiving in the natural and spiritual realms
- Reconstructing indigenous Epistemes offers alternative paradigm for *everyone*, not just Natives..

guardian.co.uk

Bolivia enshrines natural world's rights with equal status for Mother Earth

Law of Mother Earth expected to prompt radical new conservation and social measures in South American nation

John Vidal in La Paz
guardian.co.uk, Sunday 10 April 2011 18.17 BST

[A larger](#) | [smaller](#)

Bolivia is set to pass the world's first laws granting all nature equal rights to humans. The Law of Mother Earth, now agreed by politicians and grassroots social groups, redefines the country's rich mineral deposits as "blessings" and is expected to lead to radical new conservation and social measures to reduce pollution and control industry.

The country, which has been pilloried by the US and Britain in the UN climate talks for demanding steep carbon emission cuts, will establish 11 new rights for nature. They include: the right to life and to exist; the right to continue vital cycles and processes free from human alteration; the right to pure water and clean air; the right to balance; the right not to be polluted; and the right to not have cellular structure modified or genetically altered.

Controversially, it will also enshrine the right of nature "to not be affected by mega-infrastructure and development projects that affect the balance of ecosystems and the local inhabitant communities".

"It makes world history. Earth is the mother of all", said Vice-President Alvaro García Linera. "It establishes a new relationship between man and nature, the harmony of which must be preserved as a guarantee of its regeneration."

The law, which is part of a complete restructuring of the Bolivian legal system following a change of constitution in 2009, has been heavily influenced by a resurgent

Evidence Based Public Health vs..

- Evidence based Interventions may be a form of forced acculturation
- Indigenous health promotion and treatment is often effective “cultural revitalization”



Indigenist Local Theory of Etiology

- Cumulative vulnerability that colonization has on the physical manifestation of health among indigenous peoples. ; i.e.,
 - epidemic diseases,
 - forced removal,
 - warfare,
 - starvation
 - western cultural hegemony
 - Indigenous cultural genocide

How You Can Change Your Genes

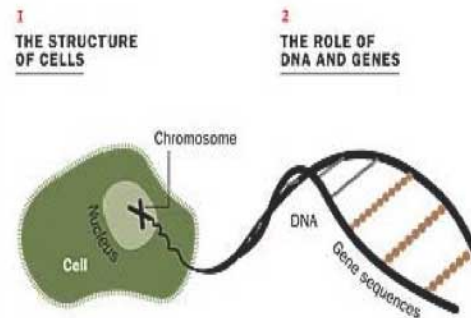
Dr. Lars Olov Bygren's research helps explain how a father's diet might affect certain traits he passes to his son

Story | All Best and Worst Lists

The Structure of Cells

NEXT

1 of 5 | [View All](#)



The human body has trillions of cells, each one with a nucleus, its command center. In each nucleus, DNA is tightly coiled around proteins called histones that work as support structures for genes

The Role of DNA and Genes

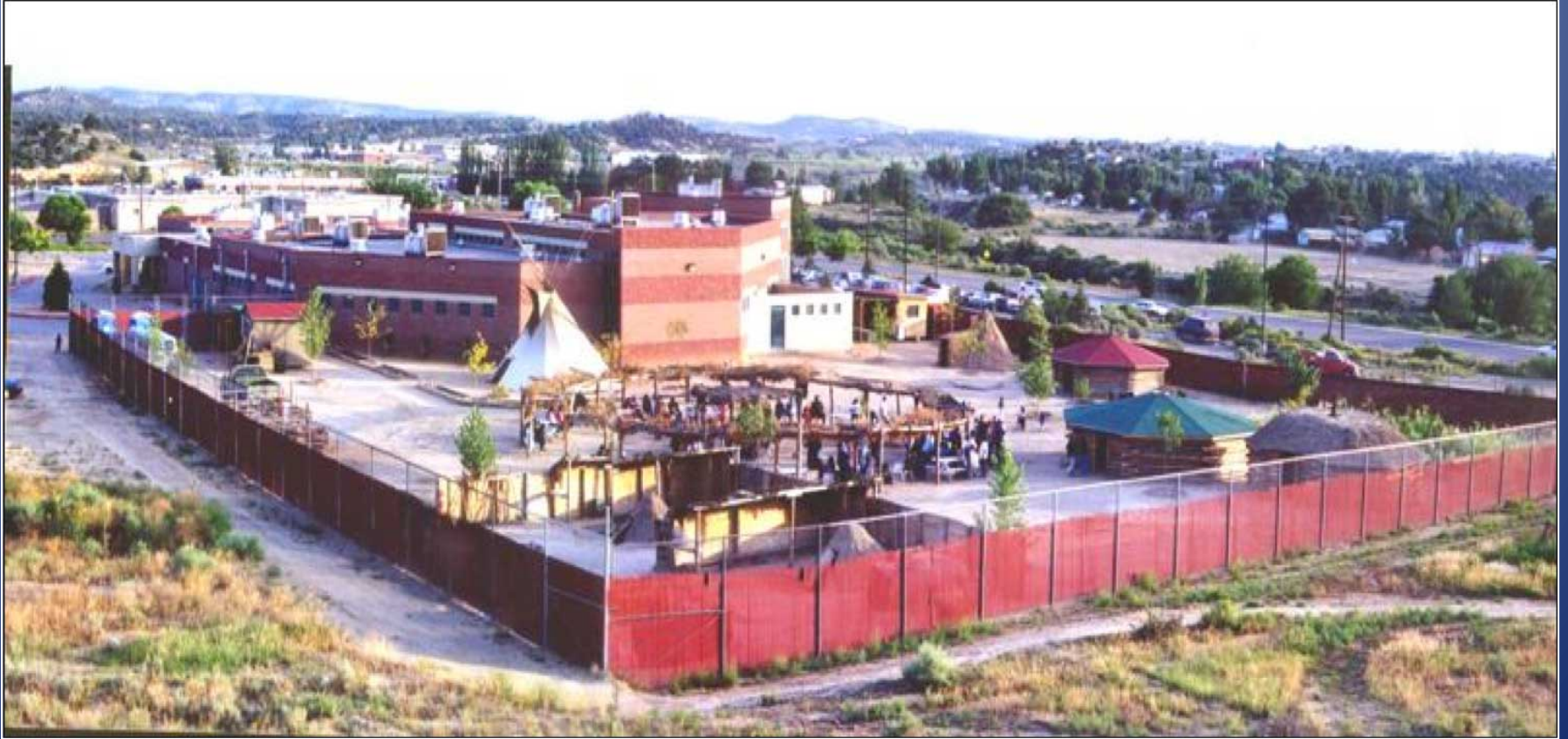
Genes contain the codes for cells to produce the various proteins that organisms need to function. Humans have approximately 25,000 genes. Darwin and his followers taught us that it takes many generations to rewrite this

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INDIGENOUS AND HYBRID APPROACHES



Base Interventions on Culture

- Story telling
- Sweat Lodge
- Talking circle
- Vision quest
- Wiping of tears
- Drumming
- Smudging
- Traditional Healers
- Herbal remedies
- Traditional activities



Center for Indigenous Health Research - IWRI

- Decolonizing research and training
- Partnerships with T/U/I
- Indigenous Knowledge reclamation and production
- Harness resources of UW and partners towards mission
- Partners – MOU with
 - American Indian Higher Education Consortium
 - Northwest Indian College
 - National Congress of American Indian Policy Research Center
 - National Indian Health Board
 - Affiliated Tribes of Northwest Indians

Genealogy of Partnerships

- Navajo Nation
- NM Pueblo's
- AAIHB
- NRG UW
- NWIC
- AIHEC
- 30 TCU



Research for Change:
Cross-Site Multicultural
Community-Based
Participatory Research

Funding NIDA, OBSSR, NCRR, IHS

NCMHD Funded – Evolution of National CBPR Team

UNM Team



UNM & UW Team



NCAI Policy Research Center

The NCAI Policy Research Center is a tribally-driven think tank that supports Native communities in shaping their own future by gathering credible data, building tribal research capacity, providing research support, and convening forums addressing critical policy questions.

As sovereign nations, tribes have a role in the research that is conducted in their communities and in regulating research which occurs on their land and with their citizens.

- Joe Garcia,
Former President, NCAI



Tribally-Driven Research

NCAI Policy Research Center

- Established in 2003 as a national tribal policy research center that would focus solely on issues facing tribal communities
- Forum for forward-thinking, deliberate, proactive Indian policy discussions and the development of policy scenarios

PRC Values

- Research in service to community
- Direct implications for communities and improving their well-being
- Community-driven agenda and all aspects of the work
- Honor community and cultural contributions to the work
- Partnership with communities and other organizations
- Respect tribal sovereignty and ownership of data
- Indigenous knowledge is as valid as academic knowledge
- Research should build community capacity

New CBPR Advisory Board



Native American Research Centers for Health

- Partnership between Indian Health Service & NIH
- 3 Goals-
 - Reduce mistrust
 - train “Expert Indians”, pipeline program
 - conduct rigorous health disparities research
- Tribal organization must be lead and maintain 30% of funds

Research for Improved Health: A National Study of Community-Academic Partnerships

- Describe the variability of CBPR across dimensions in the model to identify differences and commonalities across partnerships
- Describe and assess the impact of governance on CBPR processes and outcomes across AI/AN and other communities of color.

Research for Improved Health: A National Study of Community-Academic Partnerships

3. Examine the associations among group dynamic processes and three major CBPR outcomes:

- culturally-responsive and centered interventions;
- strengthened research infrastructure and other community capacities; and
- new health-enhancing policies and practices, under varying conditions and contexts.

4. Identify and disseminate best and promising practices, assessment tools, and future research needs

On Models

Models are “an idealized representation of reality that highlights some aspects and ignores others.”*



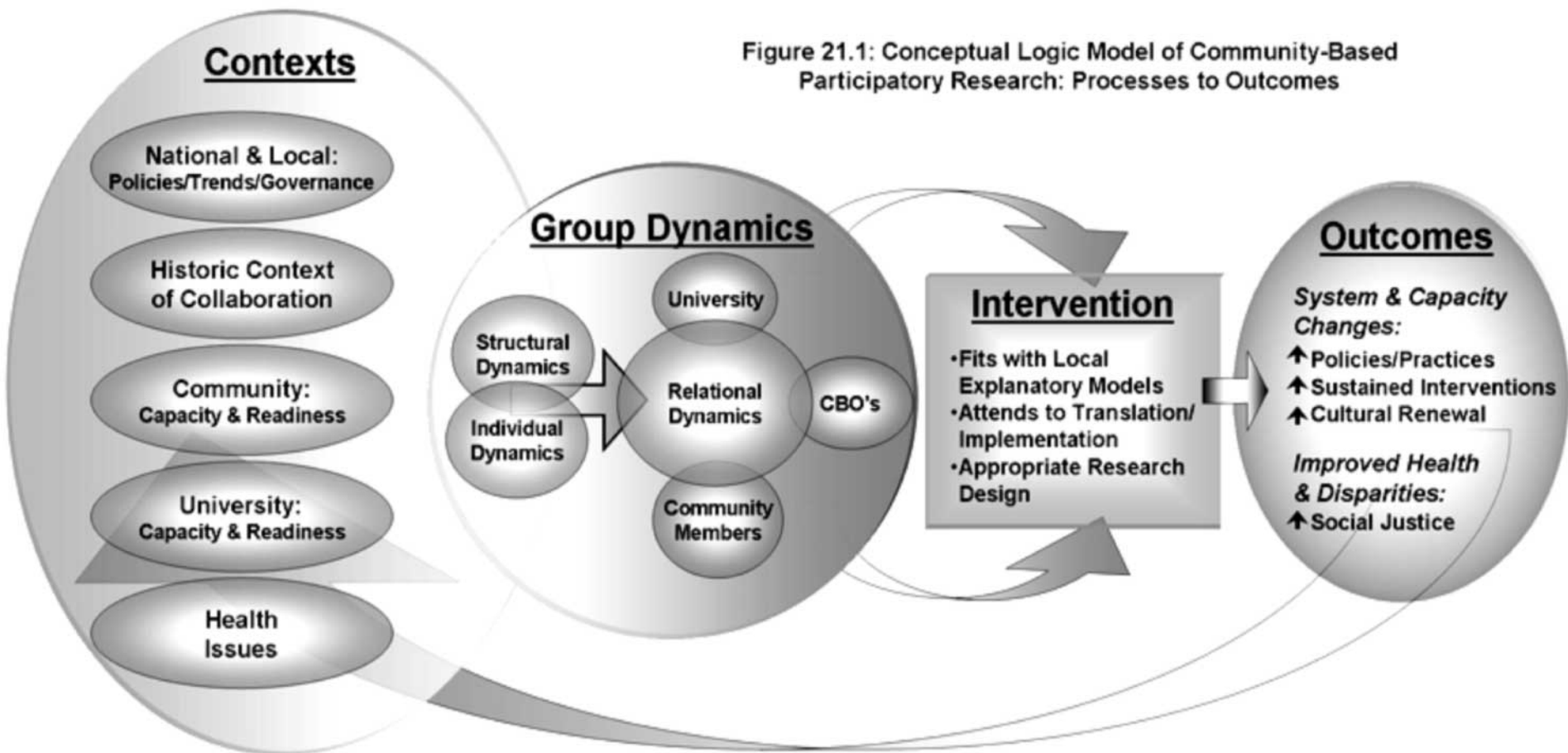
“Models of course are never true, but fortunately it is only necessary that they be useful”**



* Pearl, J. (2000). *Causality: Models, reasoning, and inference*. Cambridge, England: Cambridge University Press.

** Box, G. E. P. (1979). Some problems of statistics and everyday life. *Journal of the American Statistical Association*, 74, 1–4

Figure 21.1: Conceptual Logic Model of Community-Based Participatory Research: Processes to Outcomes



	Group Dynamics			CBPR System & Capacity Changes:
Contexts: <ul style="list-style-type: none"> •National/Local Policies & Trends in Political Governance •Historical Context of Collaboration •Community: Capacity & Readiness •University: Capacity & Readiness •Perceived Severity of Health Issues 	Structural Dynamics: <ul style="list-style-type: none"> • Diversity • Complexity • Formal Agreements • Real Power/Resource Sharing • Alignment with CBPR Principles • Length of Time in Partnership 	Relational Dynamics: <ul style="list-style-type: none"> • Dialogue/Mutual Learning • Leadership/Stewardship • Influence/Power Dynamics • Flexibility • Self & Collective Reflection • Participatory Decision Making & Negotiation • Integration of Local Beliefs to Group Process 	Intervention: <ul style="list-style-type: none"> • Intervention adapted within local culture • Intervention informed by local institutions • Research design reflects partnership input • More likely to be sustained 	<ul style="list-style-type: none"> • Cultural Revitalization & Renewal • Empowerment: Community & University Reflection • Change in Power Relations • Change in Practices & Policies • Culturally-Based & Sustainable Interventions
	Individual Dynamics: <ul style="list-style-type: none"> • Cultural Identities & Values • Cultural Humility • Individual Beliefs • Community Reputation of PI 	Health Outcomes: <ul style="list-style-type: none"> • Overcoming Disparities 		

CBPR Very Preliminary Sample Characteristics

- 369+ Federally funded active in 2010
 - Include NARCH
 - Include PRC
 - N= 427
- Ethnicity
 - AIAN 32
 - API 15
 - AA 72
 - Latino 97
 - White 7
 - Multicultural 48
 - None of the above 107
- **Vulnerable** population
 - $n = 126$ Children/Youth
 - $n = 61$ Low-Income
 - $n = 14$ People w/ Disability
 - $n = 27$ Elderly
 - $n = 53$ Rural
 - $n = 45$ Migrant / Immigrant
 - $n = 56$ Families
 - $n = 3$ LGBTQ / MSM

Tribal Colleges and University Alcohol and Drug Problems and Solutions Study

NIDA 5R01DA029001-02

Funding period: 2009 – 2013

Partner: American Indian Higher Education Consortium- 31 Tribal Colleges and Universities

UW Team





Northwest Indian College Center for Health Applying for Community-Based Participatory Research in the Pacific Northwest



Northwest Indian College Center for Health (NWCCH): development of a community-based participatory research (CBPR) partnership
 Karyl S. Jefferson (Lummi), NWCCH; Don Vesper, NWWIHB; Rosalina D. James (Lummi), UW; Nadine Bill (Upper Skagit), NWCCH; Robbie L. Paul (Nez Perce), WSU; Bonnie M. Duran (Opelousas/Coushatta), UW;
 Teresa A. Evans-Campbell (Snohomish), UW; Lisa Rey Thomas (Tlingit), UW; Dennis M. Donovan, UW; Janet R. Katz, WSU; Cheryl Crazy Bull (Sicangu Lakota), NWCCH; Marilyn Scott (Upper Skagit), NWWIHB;
 Cynthia Pearson, UW; Colleen Berg, NWCCH; Sandy Ludgate (Kiowa), NWCCH; The NWCCH/NARCH Team; *William L. Freeman, NWCCH.

Partnership Members

NWCCH - Northwest Indian College
 NWWIHB - Northwest Washington Indian Health Board
 UW - University of Washington
 WSU - Washington State University

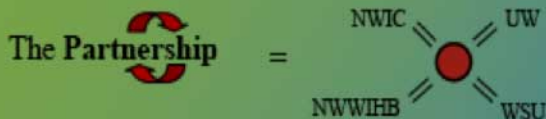


Northwest Indian College Lummi (main campus) Extended campus sites: Muckleshoot Port Gamble Nez Perce Tulalip Swinomish	Northwest Washington Indian Health Board Represented Tribes: Lummi Swinomish Nooksack Upper Skagit Skagit	University of Washington Indigenous Wellness Research Institute (IWRI) Alcohol and Drug Abuse Institute (ADAI)
Washington State University College of Nursing		

Northwest Indian College

- Accredited tribal college – candidate for 4-year degree granting accreditation
- Only accredited regional Tribal college
- Providing educational services in over 45 tribal communities in the Pacific Northwest
- Over 750 FTE students – 80% Native student body
- Over 100 different tribes represented in our student body

www.nwic.edu

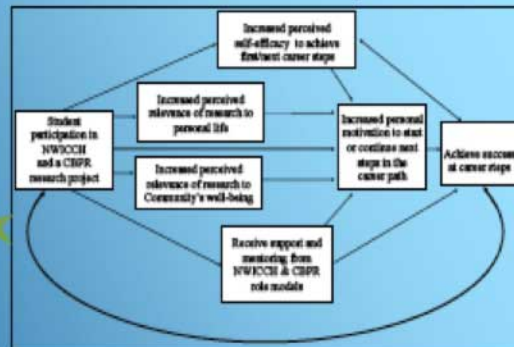


Developing NWCCH's Partnership

- September 2007 - UW, WSU and NWCCH researchers discussed applying for NARCH-V.
- October 2007 - NWCCH's President established NWCCH, with preparation of the NARCH application by full CBPR methods as its first activity & with a tribal-based Partnership for health research.
- November 2007 - NWCCH invited NWWIHB to be its tribal-based health partner. Nine Native UW and WSU researchers expressed interest in being university-based partners. The two tribal-based partners proposed eleven research topics to address tribal and college health disparities.
- January 2008 - Each Native researcher chose which topic to address, wrote a 3-page proposal, and presented it to the tribal Partnership in a day-long retreat.
- February and March 2008 - The tribal Partnership suggested tribal or college oriented revisions to each proposal, reviewed the second versions, prioritized them per tribal and college needs, and chose the five highest-priority projects for the NARCH application.
- March 2008 - The Partnership agreed on the structure of the CBPR Partnership with the institutional partners participating in the Executive Committee and the Community and Scientific External Advisory Council.
- April 2008 - The Partnership refined NWCCH's Conceptual Model, Goals, and Specific Aims.
- May 2008 - The Partnership approved the project & submitted the NARCH-V application.

Conclusions: The NARCH application was funded with Scientific Reviews indicating a "very strong" CBPR approach as a major strength.

Conceptual Model for Impact on Students' Career Development



Partnership's Goals

- Conduct high-quality community-based participatory research (CBPR) projects that address the health needs and research priorities of the tribal partners;
- Operationalize key collaborative partnerships that increase both the local, and national visibility of all partners;
- Develop American Indian and Alaska Native students and faculty to be health professionals and researchers who can compete for NIH research, with these CBPR projects and their research teams being positive role models and providing mentoring and learning experiences; and
- Reduce health disparities created by these CBPR projects that rely on and enhance the strengths and resiliencies of Native people and tribes.

Partnership's Specific Aims

- Complete successful CBPR projects with the four NWCCH partners focused on expanding visibility and health to scientific substance and clinical abuse disparities in teens, women before, during and after pregnancy, tribal college students, and the wider population;
- Build capacity of all four partners to do productive CBPR;
- Increase the number of Northwest American Indian and Alaska Native (NIAAN) people in the early career pipeline for health professional and research tracks, with the CBPR projects providing first hand research experiences for students and junior faculty, and NWCCH investigators serving as role models and mentors; and
- Develop funded interventions to reduce health disparities in priority areas based on the results of the tribal NWCCH projects.

Projects

Growing Our Own Native American Student and Faculty (GO-NASF). GO-NASF is the student and faculty development project. PI: Rose James (Lummi), UW; Co-PI: Nadine Bill (Upper Skagit), NWCCH; PI: Teresa Evans-Campbell (Snohomish), UW; subproject: PI: Robbie Paul (Nez Perce), WSU; subproject.

Tribal Colleges & Universities: Alcohol & Problems & Solutions. This research will determine the extent of problem drinking and existing programs at targeted TCUs. PI: Bonnie Duran (Opelousas/Coushatta), UW.

Caring for Our Generations: Supporting Native Mothers & Families. This research will determine knowledge, attitudes, beliefs, behaviors, and experiences (KABEBE) about women's health before, during, and after pregnancy. PI: Teresa Evans Campbell (Snohomish), UW.

Pathways to Sobriety: Pacific Northwest Oral Life Histories. This research will determine common themes, strengths, and resiliencies in the life histories of AIAN individuals who have never had problems with substance or alcohol abuse or have successfully recovered from problems. PI: Lisa Rey Thomas (Tlingit), UW.

NWCCH also has an Administrative Core that supports all four projects. PI: Karyl Jefferson (Lummi).



On behalf of the entire NWCCH team: This project received support from the Northwest Indian College Center for Health, Northwest Indian College, and from the Native American Research Centers for Health (NARCH) & Indian Health Service, and National Institute of General Medical Sciences-National Institutes of Health (R01NS032951), PI: Karyl S. Jefferson; and from the National Institute on Drug Abuse-National Institutes of Health (DA020900, DA020901, and DA020902), PI: Teresa A. Evans-Campbell, Bonnie M. Duran, and Lisa Rey Thomas, respectively. The views, findings, and conclusions do not necessarily represent the views of NIH, NIA, NIDA, IHS, UW, WSU, or NWCCH.

Study AIMS

1. Establish partnership and board (CBPR)
2. Compile and summarize literature
3. Key Stakeholders survey-needs and capacity
4. ***Qualitative review of culture-centered and evidence based interventions***
5. Develop effective outreach and screening procedures

In the Practice World

Decolonizing Strategies: Potential Approaches to Support Epistemic Diversity

Adapted from:

Overview of Multicultural and Culturally Competent Program Evaluation Issues, Challenges, and Opportunities

The California Endowment
Rodney Hopson, Ph.D.

Reflect on your Social Location

1. The social location of the student/researcher matters (intersectionality)

- Gender
- Race
- Class
- Ethnicity
- Education
- Privilege/target
- Sexual orientation
- Etc... What else?



Hankivsky, O., & Cormier, R. (2009). *Intersectionality: Moving Women's Health Research and Policy Forward*. Vancouver: Women's Health Research Network.

This publication is also available online at www.whrn.ca.

Social Change is a Goal

2. Research plays a role in furthering social change and social justice

- Ability and duty to recognize asymmetric power relations and to
- challenge systems and mechanisms of inequity and injustice
- in hope of dismantling oppression

Theoretical approaches: Indigenist, Queer, critical, feminist, cultural humility, anti-racist, postcolonial, etc... What else?

Reflect on Ethnocentrism and Cultural Humility

3. Avoiding ethnocentrism means embracing multiple cultural perspectives

- shift between diverse perspectives
- Recognizes ethnocentric standards and ideas
- HOW?
 - Employ a team who can “translate” research from multiple cultural contexts

Valuing is culturally embedded

4. Culture is central to the research process

- worldview, values and norms impact the uses of, reactions to, and legitimacy of, any research
- multicultural validity - defining social problems
- norms will play out in the context of research instruments and protocols.

Decolonize and Indigenize

5. Culturally and ethnically diverse communities have contributions to make in redefining the research field

- standards, guidelines, methods and paradigms of the research field need to be rethought, and underserved and marginalized culturally diverse groups have an important role to play in this process

A Role of Academic Researchers

- The role of the intellectual, according to Deleuze, is not to awake consciousness but to weaken the power of hegemonic discourse and to create the space for competing discourses to be formulated and dispersed.

Roles of Ally Researchers in 2009

From this position, then...if you make it your task not only to learn what's going on there through language, through specific programs of study...through historical critique of your position as the investigating person. When you take the position of not doing your homework, I will not criticize because of the accident of my birth, the historical accident, that is a pernicious position.

Gayatri Spivak.
Postcolonial critic



May all beings be happy.