



Community Health Needs Assessment Survey Results for American Indian Residents of the Greater F-M Area:

A Step Toward the Development of Culturally Appropriate
Health Care

Presentation for MPH 773: Cultural Competence in Indian Health
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■ Fargo Native American Commission

■ Greater Fargo-Moorhead Community Health Needs Assessment Collaborative

■ Thank you to community members who took the time to complete the survey!





Assessing community health needs

- Greater F-M Community Health Needs Assessment Collaborative (GFMCHNAC)
 - Formed in response to 2010 Health Care Reform mandate to non-profit hospitals
 - Designed a survey to assess opinions and concerns about a broad array of community issues
- Look systematically at health of the community⁹
 - Ensure services are provided effectively/efficiently
 - Identify health inequalities, unequal access to services
 - Prioritize resources

Survey Tool

- Designed by members of the GFMCHNAC
- Assess opinions and concerns about a broad array of community issues (88 Qs across 12 topics)
- **Statements about the community (19 Qs)**
 - the people, services & resources, quality of life
- **General community concerns (36 Qs)**
 - transportation, environment, children & youth, aging population, safety, economic issues
- **Health-related community concerns (33 Qs)**
 - access to health care, physical & mental health, substance use & abuse

General Concerns about Your Community

Using a 1 to 5 scale, with one being "not at all" and 5 being "a great deal," please tell us the level of concern you have about your community in each of the following areas: ECONOMIC ISSUES, TRANSPORTATION, ENVIRONMENT, CHILDREN AND YOUTH, THE AGING POPULATION, and SAFETY.

Considering your community, what is your level of concern with...

Level of concern
(1=not at all; 5= a great deal)

Q5. ECONOMIC ISSUES

- a. Availability of affordable housing
- b. Availability of employment opportunities
- c. Wage levels
- d. Poverty
- e. Homelessness
- f. Cost of living
- g. Economic disparities between higher and lower classes
- h. Hunger

Not at All ← A Great Deal

1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

1 to 5 scales, larger value → greater concern



Prior data collection efforts by GFMCHNAC

- Community leaders (N=58) – May 2012
 - Not generalizable but key insights from: mayor, city commissioners, nonprofit directors, leaders in health field
- Generalizable community survey (N=236) – April 2012
 - 1,500 mail surveys; ~15% response; 95% confidence level with error rate of +/- 6%
 - Only 2 American Indians in generalizable survey, none among the community leaders
- Overall priorities chosen by GFMCHNAC:
 - ❖ *Mental Health*
 - ❖ *Obesity*
 - ❖ *Aging Issues*

Making the Case for Community-Specific Data:

- ND ranked “#1” by both Gallop & Healthways for the highest “well-being scores” across the US.
- Rankings were based on 6 measures:
 - a) Access to basic needs
 - b) Healthy behavior
 - c) Work environment
 - d) Physical health
 - e) Emotional health
 - f) Life evaluation & optimism

(Dakota Nurse, v 12, 2, Spring 2014; p. 15)

The Stark Reality for North Dakota's Indian People: Cradle to grave inequities

NATIVE AMERICANS

- Approximately 42,000 (6.4% of state population, 2.1% of F-M Metro Area¹)
- Median household income: \$25,255 (49.7% below 200% FPL)
- Unemployment: 14%
- High rates of disability at every age
- The lowest high school graduation rate in the country
- Infant mortality rate 13.5
- Life expectancy 54.7 years

NON-NATIVE POPULATION

- Approximately 672,000
- Median household income: \$48,670
- Unemployment: 3%
- Low disability rates
- Among the highest high school graduation rates in the country
- Infant mortality rate 7.5 (US)
- Life expectancy 75.7 years

The Stark Reality for North Dakota's Indian People: Cradle to grave inequities

- On average, AI in ND die 20 years younger than whites:²
 - Average age at death = 57.4 years vs. 77.4 years from 2007-2012
- Disparities cross a broad spectrum of issues³
 - infant mortality, substance use, injuries, chronic disease (diabetes)
- AI are challenged to access health services, and to find culturally appropriate health care when they do⁴
 - Providers trained in patients' culture, culturally-specific healthcare setting, images used, readability of materials



Critical need to address health disparities for urban Indians → special survey effort

- Need urban Indians to be included in larger community process
- Spearheaded by Urban Indian Health & Wellness Center of F-M and supported by Fargo Native American Commission



American Indian survey

- The goal is to:
 - Demonstrate the unique needs of American Indian residents
 - Inform policy-making
 - Improve access
 - Promote culturally appropriate, trauma-informed health care
- Utilized community-based participatory research principles



What is CBPR?

"... a *truly collaborative approach to research* that *equitably involves all partners* in the research process and recognizes the unique strengths that each brings. CBPR begins with a research topic of importance to the community and has the *aim of combining knowledge with action* and achieving social change *to improve health outcomes and eliminate health disparities.*"

Source: Kellogg Health Scholars Program. [cited 2012 November 13]. Retrieved from:
<http://www.kellogghealthscholars.org/about/community.cfm>

Research principles for community engagement

- Recognizes community as a unit of identity
- Builds on strengths and resources
- Facilitates partnership in all phases of research
- Promotes shared learning to solve social inequalities
- Addresses health from positive and ecological perspectives
- Disseminates findings and knowledge to all partners
- Involves long-term commitment by all partners

Source: Adapted from Israel, BA, Schulz, AJ, Parker, EA, Becker, AB, Allen, AJ, and Guzman, JR. "Critical Issues in developing and following CBPR principles," Community-Based Participatory Research in Health, Minkler and Wallerstein (eds), Jossey Bass, 2000.



American Indian survey

- Used same survey tool
 - Compare among 3 survey groups
 - Add voice to on-going conversation
 - Assess over time
- Convenience sampling (e.g., community events, Native American Center)
 - 97 surveys completed (summer 2012)



Analysis

- “Cleaned” the data
- Missing Data
 - Respondents who did not respond to 75% or more of the survey were removed from the dataset (N=8)
 - Final N=387: 232 for the generalizable community survey, 58 for community leaders survey, and 97 for the urban Indian survey
- Created composite indices (i.e., “factors”) of Qs for the 12 topic areas
 - Reliability (Cronbach’s alpha) was excellent for all of the factors, across all three survey groups (.7+) → scores for individual Qs within each of the 12 factors were combined/averaged to create an index
 - Handling of missing data (included if answered at least 67% of Qs for that index)
- Looked at average responses to questions and indices
 - “Among respondents to the American Indian survey effort, the average level of concern for that issue was X”
- Looked at how individual concerns (and indices) ranked relative to one another
- Examined significant differences among concerns by survey group
- Multivariate Analysis of Variance (MANOVA)
 - Examine whether there are significant differences among concerns by survey group
 - Used listwise deletion for respondents missing data (SPSS)

Distinct Experiences

■ American Indian survey respondents (N=97):

- Mostly American Indian
- Younger (53% under 45; very few 65+)
- Lower education levels (42% some HS or HS grad)
- Even split for gender
- ~Half work/volunteer outside home
- Low homeownership (19%)
- Lower incomes (46% < \$20k)
- More who are parenting a child 18 or younger (42%)

■ Generalizable community survey respondents (N=232):

- Mostly white
- *22% under 45 (*skews older*)
- *Half with at least a 4-year degree (*skews high*)
- *More females
- $\frac{3}{4}$ work/volunteer outside home
- *High homeownership level (*skews high*)
- *Middle to upper-middle income (*skews high*)
- Fewer who are parenting a child 18 or younger (25%)

■ Community leader survey respondents (N=58):

- Mostly white
- 27% under 45; few younger or older
- Very highly educated
- More females
- (~100% work/volunteer outside home)
- Nearly universal homeownership
- Upper-middle to high income
- Fewer who are parenting a child 18 or younger (35%)

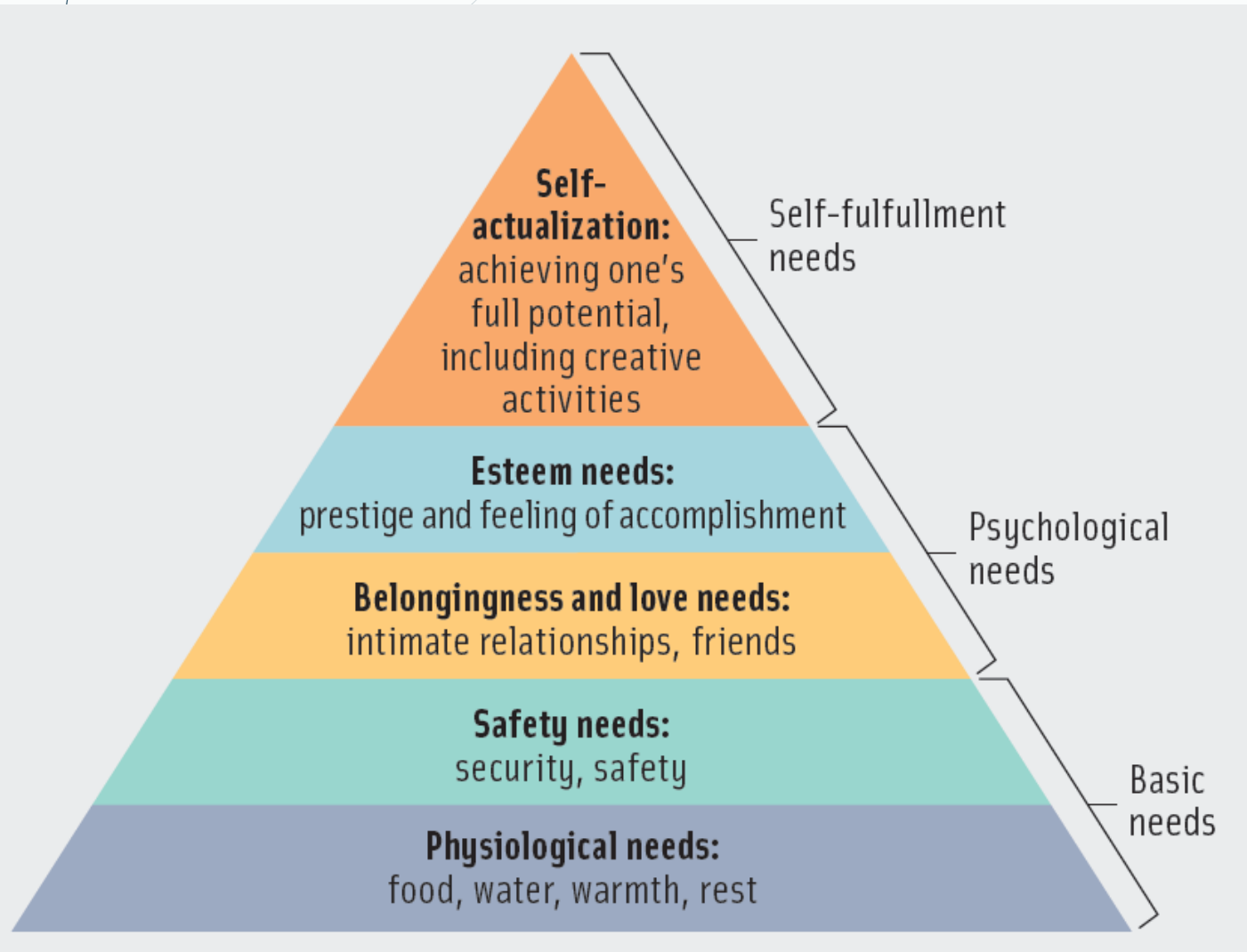
**Differs from overall community*



Health disparities in broad context

- Inter-generational impacts of historical trauma
- Adverse Childhood Experiences (ACEs)⁵
 - Abuse, neglect, household dysfunction as a child → increased risk for health problems as an adult
- Need for trauma-informed care⁶
- Social determinants of health⁷
 - Economic stability, education, social & community context, health & health care, neighborhood & built environment

Context for prioritizing “community needs”



► Maslow's Hierarchy of Needs⁸













- First 4 are “deficit” needs
- Expect different priorities based on where person is at in the pyramid
- Doesn't mean other needs aren't important

Top Individual Areas of Concern for American Indian Residents

Factor	Community Concern	American Indian survey	
		Rank* (of 88)	Mean** (1 to 5)
<i>physical & mental health</i>	Stress	1	4.06
<i>physical & mental health</i>	Depression	2	4.03
<i>substance use & abuse</i>	Alcohol use and abuse	2	4.03
<i>economic issues</i>	Homelessness	4	3.97
<i>access to health care</i>	Cost of health care	5	3.94
<i>substance use & abuse</i>	Smoking and tobacco use	6	3.90
<i>physical & mental health</i>	Poor nutrition/eating habits	7	3.86
<i>safety</i>	Domestic violence	8	3.79
<i>physical & mental health</i>	Chronic disease	8	3.79
<i>access to health care</i>	Cost of health insurance	10	3.78
<i>physical & mental health</i>	Inactivity, lack of exercise	10	3.78

*Ranking is of all 88 questions, where 1 is greatest concern, across all of the 12 factors in the survey. **Mean reflects average level of concern among respondents for that question, on a scale from 1 to 5 where 1=no concern at all and 5=a great deal of concern (so a higher average indicates greater concern).

Top 11 Ranked Community Concerns Among All 88 for American Indian Respondents

Factor	Community Concern	American Indian survey		Generalizable community survey		Community leaders survey	
		Rank* (of 88)	Mean** (1 to 5)	Rank* (of 88)	Mean** (1 to 5)	Rank* (of 88)	Mean** (1 to 5)
physical & mental health	Stress	1	4.06	 11	3.66	 12	4.09
physical & mental health	Depression	2	4.03	 15	3.54	 9	4.16
substance use & abuse	Alcohol use and abuse	2	4.03	 19	3.52	 11	4.12
economic issues	Homelessness	4	3.97	 52	3.01	 36	3.64
access to health care	Cost of health care	5	3.94	2	4.25	2	4.48
substance use & abuse	Smoking and tobacco use	6	3.90	 23	3.46	 19	3.98
physical & mental health	Poor nutrition/eating habits	7	3.86	13	3.59	5	4.28
safety	Domestic violence	8	3.79	 23	3.46	 21	3.97
physical & mental health	Chronic disease	8	3.79	9	3.70	7	4.24
access to health care	Cost of health insurance	10	3.78	1	4.33	1	4.57
physical & mental health	Inactivity, lack of exercise	10	3.78	14	3.58	5	4.28

*Ranking is of all 88 questions, where 1 is greatest concern, across all of the 12 factors in the survey. **Mean reflects average level of concern among respondents for that question, on a scale from 1 to 5 where 1=no concern at all and 5=a great deal of concern (so a higher average indicates greater concern).

Comparative Rankings of Top Individual Areas of Concern for American Indian Residents

- Stress
 - Ranked 11th / 12th
- Depression
 - Ranked 15th / 9th
- Alcohol use, abuse
 - Ranked 19th / 11th
- Homelessness
 - Ranked 52nd / 36th
- Smoking/tobacco use
 - Ranked 23rd / 19th
- Domestic violence
 - Ranked 23rd / 21st

Top 11 Ranked Community Concerns Among All 88 for Each Survey Group

Rank* (of 88)	American Indian survey		Generalizable community survey		Community leaders survey	
	Community Concern	Mean** (1 to 5)	Community Concern	Mean** (1 to 5)	Community Concern	Mean** (1 to 5)
1	Stress	4.06	Cost of health insurance	4.33	Cost of health insurance	4.57
2	Depression	4.03	Cost of health care	4.25	Cost of health care	4.48
3	Alcohol use and abuse	4.03	Cost of prescription drugs	4.07	Obesity	4.36
4	Homelessness	3.97	Adequacy of health insurance	3.96	Cost of prescription drugs	4.34
5	Cost of health care	3.94	Access to health insurance coverage	3.78	Poor nutrition/eating habits	4.28
6	Smoking and tobacco use	3.90	Availability, cost of dental, vision insurance	3.76	Inactivity, lack of exercise	4.28
7	Poor nutrition/eating habits	3.86	Availability, cost of dental, vision care	3.76	Adequacy of health insurance	4.24
8	Domestic violence	3.79	Cancer	3.76	Chronic disease	4.24
9	Chronic disease	3.79	Chronic disease	3.70	Access to health insurance coverage	4.16
10	Cost of health insurance	3.78	Obesity	3.69	Depression	4.16
11	Inactivity, lack of exercise	3.78	Stress	3.66	Alcohol use and abuse	4.12

*Ranking is of all 88 questions, where 1 is greatest concern, across all of the 12 factors in the survey. **Mean reflects average level of concern among respondents for that question, on a scale from 1 to 5 where 1=no concern at all and 5=a great deal of concern (so a higher average indicates greater concern).

Top Individual Areas of Concern for the Other 2 Survey Groups

- *Generalizable community* focused strongly on cost/ access to health care
- *Community leaders* focused on cost/ access to health care AND obesity, poor nutrition, lack of exercise

Comparisons of Estimated Marginal Means Among Factors

Factor	Estimated marginal means, compared to American Indian Survey Respondents*			
	Generalizable community survey		Community leaders survey	
	Mean Diff.	SE	Mean Diff.	SE
Substance use and abuse**	.656#	.259	-.235	.342
Physical and mental health**	.546#	.206	-.604#	.273
Economic issues**	.785#	.187	.288	.247
Safety	.490#	.237	.164	.313
Children and youth**	.666#	.218	-.261	.287
Access to health care**	.424#	.200	-.557#	.264
The aging population	.131	.244	-.518	.323
Transportation	.242	.179	.069	.236
Environment**	.843#	.254	1.258#	.335
The people**	.550#	.173	1.032#	.229
Quality of life**	1.181#	.151	1.281#	.199
Services and resources**	1.101#	.169	.995#	.224

*Multivariate Analysis of Variance omnibus test shows differences between survey groups are significant: Pillai's Trace=.381, F(24,646)=6.334, p=.000, Partial Eta Squared=.191.

**Univariate tests show that the mean differences for the individual survey question are significant at p<.05.

#Comparing two groups only, there are significant differences between estimated marginal means at p<.05.

Comparative Index Rankings:

#1: SUBSTANCE USE & ABUSE
generalizable 2nd / leaders 2nd

#2: PHYSICAL & MENTAL HEALTH
1st / 1st

#3: ECONOMIC ISSUES
6th / 6th

#4: SAFETY
4th / 7th

#5: CHILDREN & YOUTH
8th / 5th

Significant Differences on Average Indices' Scores

Compared to generalizable community:

- AI have MORE concern
 - Substance use and abuse
 - Physical and mental health
 - Economic issues
 - Children and youth
 - Access to health care
 - Environment
 - People, quality of life, and services and resources

Compared to community leaders:

- AI have MORE concern
 - Environment
 - People, quality of life, services and resources
- AI have LOWER LEVELS of concern
 - Physical and mental health
 - Access to health care

General PATTERN in responses:

- **Community leaders** answered across the board with higher values than the other two groups (more likely to give 4 or 5)
- **Generalizable community** survey respondents answered across the board with lower values than the other two groups (less likely to give 4 or 5)

Survey Group:	Substance use and abuse	Physical and mental health
American Indian	3.85 (1)	3.73 (2)
Generalizable community	3.47 (2)	3.49 (1)
Community leaders	3.97 (2)	4.04 (1)



Comparisons of Estimated Marginal Means for Questions Relating to SAFETY

Question relating to SAFETY	Estimated marginal means, compared to American Indian Survey Respondents*			
	Generalizable community survey		Community leaders survey	
	Mean Diff.	SE	Mean Diff.	SE
Child abuse and neglect	.182	.141	-.169	.190
Elder abuse**	.351#	.142	.180	.191
Domestic violence**	.334#	.136	-.178	.183
Presence and influence of drug dealers in the community	.059	.140	.080	.189
Property crimes	.084	.134	.409#	.180
Violent crimes**	.578#	.144	.614#	.194

Note: Higher means indicate “concern” (i.e., less agreement with the statement).

*Multivariate Analysis of Variance omnibus test shows differences between survey groups are significant: Wilks’ Lambda=.813, F(12,688)=6.270, p=.000, Partial Eta Squared=.099.

**Univariate tests show that the mean differences for the individual survey question are significant at p<.05.

#Comparing two groups only, there are significant differences between estimated marginal means at p<.05.

Significant Differences on Qs within Safety

Compared to generalizable community:

- AI have MORE concern
 - Elder abuse
 - Domestic violence
 - Violent crimes

Compared to community leaders:

- AI have MORE concern
 - Violent crimes

Comparisons of Estimated Marginal Means for Questions Relating to THE PEOPLE

Question relating to THE PEOPLE	Estimated marginal means, compared to American Indian Survey Respondents*			
	Generalizable community survey		Community leaders survey	
	Mean Diff.	SE	Mean Diff.	SE
People are friendly, helpful, and supportive**	.504 [#]	.100	.630 [#]	.134
There is a sense of community/feeling connected to people who live here**	.380 [#]	.115	.734 [#]	.153
People who live here are aware of/engaged in social, civic, or political issues**	.286 [#]	.113	.298 [#]	.150
The community is socially and culturally diverse	.159	.133	.049	.177
There is an engaged government**	.632 [#]	.119	1.075 [#]	.159
There is tolerance, inclusion, and open-mindedness	.104	.121	.261	.161
There is a sense that you can make a difference**	-.176	.122	.331 [#]	.163

Note: Higher means indicate “concern” (i.e., less agreement with the statement).

*Multivariate Analysis of Variance omnibus test shows differences between survey groups are significant: Pillai’s Trace=.283, $F(14,686)=8.067$, $p=.000$, Partial Eta Squared=.141.

**Univariate tests show that the mean differences for the individual survey question are significant at $p<.05$.

[#]Comparing two groups only, there are significant differences between estimated marginal means at $p<.05$.

Significant Differences on Qs related to the People

Compared to generalizable community and community leaders:

- AI have MORE concern
 - Supportiveness
 - Sense of community
 - Civic engagement
 - Engaged government

Comparisons of Estimated Marginal Means for Selected Questions Relating to ACCESS TO HEALTH CARE

Question relating to ACCESS TO HEALTH CARE	Estimated marginal means, compared to American Indian Survey Respondents*			
	Generalizable community survey		Community leaders survey	
	Mean Diff.	SE	Mean Diff.	SE
Availability of doctors, nurses, and/or specialists	.324 [#]	.153	.072	.202
Availability of bilingual providers and/or translators**	.796 [#]	.155	.073	.204
Distance to health care services**	1.110 [#]	.159	.834 [#]	.210
Availability of/access to transportation**	.830 [#]	.163	.186	.215
Providers not taking new patients**	.699 [#]	.164	.217	.216
Time it takes to get an appointment**	.425 [#]	.158	.020	.208
Availability of non-traditional hours**	.534 [#]	.149	.108	.196
Patient confidentiality**	.651 [#]	.178	.767 [#]	.235
Use of ER services for primary health care**	.393 [#]	.156	-.170	.206
Availability of mental health services and providers**	.529 [#]	.152	-.511 [#]	.201
Coordination of care**	.469 [#]	.146	-.494 [#]	.193

Note: Higher means indicate “concern” (i.e., less agreement with the statement).

*Multivariate Analysis of Variance omnibus test shows differences between survey groups are significant: Pillai’s

Trace=.323, F(22,648)=5.682, p=.000, Partial Eta Squared=.162.

**Univariate tests show that the mean differences for the individual survey question are significant at p<.05.

[#]Comparing two groups only, there are significant differences between estimated marginal means at p<.05.

Significant Differences on Selected Qs related to Access to Health Care

Compared to generalizable community:

- AI have MORE concern
 - All of these access issues!

Compared to community leaders:

- AI have MORE concern
 - Distance to health care services
 - Patient confidentiality
- AI have LOWER LEVELS of concern
 - Availability of mental health services and providers
 - Coordination of care



For Urban Indians in the Fargo-Moorhead Metro Area

Different experiences/reality than the “mainstream” community

- Reflected in attitudes about “the people”
- Differences in safety concerns (elder abuse, domestic violence, violent crimes*)

Differences in which concerns ranked highest

- Top concerns: stress, depression, alcohol use/abuse, homelessness

Significantly greater concern regarding key access to care issues*

- Language, distance/transportation, getting in to see a provider (taking new patients, time to get an appt., non-traditional hours)

*Significantly greater concern compared to community leaders' results as well



Next Steps

- Share results with the community
 - Compile a public report
 - Will be available on the Collaborative's page on the ND Compass website
- Additional research
 - Focus groups about how to address these disparities
 - Repeat survey in 2015 (may revise Qs)

*Search online for "ND Compass Health Collaborative" or go directly to:
<http://www.ndcompass.org/health/greater-fm-community-health-collaborative.php>*



Addressing Health Disparities

- Survey results offer a wealth of information to help inform decision-making
- Different concerns are on urban Indian's "radar," real concerns about access
 - Work with stakeholders to ensure that we create culturally appropriate services in the F-M area
 - MPH American Indian Public Health specialization
 - American Indian Public Health Resource Center

KEY PREMISES

POINT 1

The Community has the Expertise

POINT 2

The Indigenous Worldview Matters!

POINT 3

Our Cultures Hold Our Medicine

POINT 4

Care Must Be Community-specific

POINT 5

The Community is Dynamic

POINT 6

Cultural Humility & Respect is Intrinsic



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