Partnership with Native American Communities on Health Information Technology

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Outline

- Structural health disparities and digital divide
- Landscape of health technology efforts in Native American communities
- Opportunities for research and development
Structural health disparities and digital divide

- 3.7 M American Indian/Alaska Native people
- Indian Health Service serves 2.2 M
- Life expectancy 4.2 years less
- All cause mortality 1.2 times higher
Structural health disparities and digital divide

• **Home Internet**
  – 96% for richest to 25% for poorest

• **Home Broadband**
  – 69% of Asian Americans to 30% of Native Americans

• **Different Uses for Broadband Users**
  – Rich and dynamic content
  – News
  – Job Seeking
  – Blogging

• **School Access**
  – 37% more students per Internet-connected computer for high-minority schools

Warschauer 2010
Landscape of health technology efforts in Native American communities

• Gates Foundation Native American Access to Technology Program
• Broadband Technology Opportunity Program
• Public and Tribal Libraries Provide Critical Access
• National Library of Medicine Native American Outreach

Landscape of health technology efforts in Native American communities

- Adult and High School Online Learners
- Indian Health Service Telemedicine
- MyPreventiveCare PHR
- Mobile Health for Youth and STDs

Opportunities

- Culturally-grounded evidence
- Culturally-grounded technology enablement
Opportunities

Culturally-grounded evidence
Health Research Agenda 2007

- Addiction
- Diabetes
- Healthcare Funding
- Workforce
- Other Issues

Tribal Research Curriculum
Youth with Mobile Technology as Drivers of Community Health Improvement: Enhancing Tribal Health and Food Security in the Klamath Basin
Preliminary Results of Youth-Led Health and Food Assessment

N = 212
56% female, 34% aged 13-18, 4% 65 or older,

Confidence in making healthy food choices is different among those who are and are not physically active.

150 physically active, 51 not physically active
\[ M = 1.16, \text{ 95\% CI } [0.32, 1.99], t(70) = 2.75, p = .01 \]
Opportunities

Culturally-grounded technology enablement

• Culturally Informed Design Framework
  – Technology platform
  – Functionality
  – Content
  – User interface
  – Understanding of user culture

• Additional Participatory Design Elements
  – Context
  – Data
  – Analytics
  – Decisions
  – Implications
Opportunities

Culturally-grounded technology enablement

- **User-centered**
  - From the technologist perspective
- **User-empowered**
  - From the user perspective
- **Participatory Research & Design**

- **Patient-centered**
  - From the healthcare system perspective
- **Person-empowered**
  - From the person perspective
- **Participatory Health & Shared Decision-making**
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UC Davis: Victoria Ngo
REFERENCES

http://www.ihs.gov/newsroom/factsheets/disparities/


