The
American Indian
and
Alaska Native Programs,
Public Psychiatry,
TeleHealth/Education
Facility

Facility Program Plan
Executive Summary

University of Colorado
Health Sciences Center

March 31, 1998
Program Plan for the American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

SUMMARY

Consistent with the mission of the University of Colorado Health Sciences Center (UCHSC) to educate health care professionals, advance knowledge through research in the health sciences and deliver health care and community service, the UCHSC proposes to construct a new facility for the American Indian and Alaska Native Programs, Programs for Public Psychiatry, and the UCHSC TeleHealth/TeleEducation Program Office.

As proposed in this program plan, this new facility will include approximately 50,000 gross square feet of space to accommodate the relocation and program expansion requirements of the Division of American Indian and Alaska Native Programs, Programs for Public Psychiatry, and the UCHSC TeleHealth/TeleEducation Program Office.

The Division of American Indian and Alaska Native Programs, a unit within the Department of Psychiatry at the University of Colorado Health Sciences, is comprised of six centers, each national in scope, that cover the developmental life span in terms of research, training, continuing education, technical assistance, and information dissemination specific to the health of this special population. These programs include: 1) the National Center for American Indian and Alaska Native Mental Health Research; 2) the National Program Office of the Healthy Nations Initiative; 3) the Native Elder Health Care Resource Center; 4) the Circles of Care Evaluation Technical Assistance Center; 5) the Native Elder Research Center, a Resource Center for Minority Aging Research; and, 6) the new Center for Native American TeleHealth and TeleEducation. The total personnel budget exceeds $2.8 million annually and support a staff of 111; 41 of whom are located in 10,700 square feet of space located in the University North Pavilion facility at the UCHSC campus and another 70 in field offices across Arizona, New Mexico, South Dakota, Oklahoma, Washington, and Alaska. The Division presently administers over $30 million in grants and contracts, involving partnerships with 28 tribes, 6 urban community-based organizations, and 5 Alaska Native regional corporations, distributed across 12 states.
The mission of the Division of American Indian and Alaska Native Programs is to promote the health and well-being of American Indians and Alaska Natives, of all ages, by pursuing research, training, continuing education, technical assistance, and information dissemination within a biopsychosocial framework that recognizes the unique cultural contexts of this special population. Each of the six centers pursues a program of activities consistent with this mission, but specific in emphasis.

The acquisition of new program space is necessary for the program development and program expansion requirements of the Division of American Indian and Alaska Native Programs.

The Programs for Public Psychiatry (PPP) unit is comprised of a series of public/academic collaborations in public psychiatry and psychology, which are funded by municipal as well as state agencies and the UCHSC Department of Psychiatry. The programs share the tripartite mission of: 1) enhancing Colorado’s public psychiatric and psychological work-force; 2) providing education to legal, health, and mental health professionals, students, families, consumer groups, and the public about mental health issues, and 3) conducting and coordinating research in public psychiatry and psychology.

The Programs for Public Psychiatry unit is one of the largest and fastest-growing division-level program units of the Department of Psychiatry. Its faculty are active and widely recognized for their work at regional, national, and international levels. The Programs for Public Psychiatry has established a number of collaborations with municipal and state agencies, including the Colorado Department of Human Services, the Colorado Department of Corrections and others. These include: a) Consultative Mental Health Services to Persons with Developmental Disabilities; b) Forensic Psychiatry Program; c) Program in Public Psychology; d) Collaborative Program with the Colorado Division of Youth Services; e) the Community Psychiatry Program, and f) The Colorado Mental Health Institutes at Pueblo and Fort Logan. The Programs for Public Psychiatry currently employs 56 clinical faculty, 4 administrative faculty, and 28 doctoral and post-doctoral trainees located at six site locations throughout Colorado. At this time, 15 faculty and staff members are housed in approximately 1,610 assignable square feet of program space located in the Colorado Psychiatric
Hospital facility at the UCHSC campus. Program grants and contracts exceed $9 million annually and continue to grow at a rapid pace.

The telehealth/teleeducation program at the University of Colorado Health Sciences Center was established in 1995 with the goal of providing the highest quality medical consultations, education and research opportunities to communities and health care providers throughout the state. The UCHSC seeks to provide access to primary care, education, and research to rural, underserved populations through health education outreach utilizing technology in established networks such as the Colorado Area Health Education Centers (AHECs). Additionally, UCHSC currently offers distance learning, training programs, and extended studies via the AHECs in nursing programs; community educational training programs; community educational programs; library resources services; dentistry advanced clinical training programs; graduate course work in nursing, pharmaceutical sciences, physical therapy and public health; geriatric health care programs; and other continuing medical education. The UCHSC/University Hospital is currently linked electronically to the four CU campuses, the Family Medicine Residency Program at St. Mary’s Hospital in Grand Junction, the Southwest Health Systems, Inc., in Cortez, the Mount San Rafael Hospital in Trinidad, the Veterans Affairs Hospital satellite clinic in Colorado Springs, the Four Corners Hematology Oncology Practice in Durango, and to the statewide network for delivery of programming to many rural communities. Opportunities being pursued include the delivery of obstetrical/gynecological ultrasound interpretations, delivery of video-conference telemedicine clinical consultations, neonatal echocardiogram consultations, and a pilot project in telemedicine for the Colorado Department of Corrections using the Limon Correctional Facilities. Additional efforts to expand this program to other rural communities are continuously and actively pursued.

During 1996, the UCHSC/UH TeleHealth/TeleEducation Program Office was developed with the primary purpose of coordinating and providing the necessary support services for the numerous campus telehealth and teleeducation program activities. The primary goal for the office is to work with other state entities to develop a network to provide consultative medical services and education - including degree granting, continuing and community education - to the state and region. The Office
serves as a focal point for the program and work with both the ‘users’ and ‘suppliers’ to assure the success of the telehealth and teleeducation program. The Office is charged with the coordination for all new programs and with the facilitation of program development and program evaluation. The telehealth/teleeducation program will improve access to health care and education for the citizens of the State and serves as another mechanism for the UCHSC to fulfill its mission.

The TeleHealth/Teleeducation Program Office is currently supported by three staff members housed in 560 square feet of space located in the Research Bridge facility at the UCHSC campus. Additional staff and facility resources are provided by the Offices of Educational Support Services and Information Systems to support the technical needs - design, engineering, and technical implementation - for the telehealth and teleeducation projects for both on-campus and remote sites. However, in order to meet the increasing campus demand for telehealth/teleeducation program services at both the Ninth and Colorado Boulevard and Fitzsimons campus sites, additional program space is needed.

This program plan involves the construction of a 50,000 gross square foot (34,000 assignable square feet) facility at the Fitzsimons campus site to house the Division of American Indian and Alaska Native Programs, Programs for Public Psychiatry, and the TeleHealth/TeleEducation Program Office and Resource Center. Of this total space, approximately 14,920 assignable square feet (asf) will be office space for the Division of American Indian and Alaska Native Programs, the Programs for Public Psychiatry, and TeleHealth/TeleEducation Program Office and Resource Center; 7,300 asf is programmed as studio and media production space necessary to support the telehealth and teleeducation program requirements of the three programs; the remaining 11,780 asf of space is program support space consisting of records, publications, and equipment storage, conference room space, and miscellaneous staff support space.

The total project budget is estimated to be $10,364,039. This includes $1,537,483 in planning and professional service costs; $6,780,981 in sitework, utilities, and construction; $1,006,043 in telecommunications, equipment and furnishings; and $1,039,532 for project contingency and miscellaneous requirements. The source of
funds for this project will be federal grant and or research revolving fund debt funds and gift finds.

Project design is tentatively planned to commence during December 1999, site development and construction in February 2001 and project completion by May 2002.
The American Indian and Alaska Native Programs, Programs for Public Psychiatry, and TeleHealth/Education Facility Program Space Affinity

**American Indian and Alaska Native Programs**

- Conference Rooms: 1,370 sf (12)
- Library/Program Workroom: 500 sf (1)
- Copy/Flat Area: 120 sf (2)
- Records and File Storage: 1,000 sf (2)

Total program space: 15,238 assignable square feet

**TeleHealth/TeleEducation Program Office and Resource Center**

- Library: 410 sf
- Reception: 410 sf
- Conference Rooms: 910 sf (2)
- Multimedia Production Laboratory: 800 sf (1)
- CD Production Room: 900 sf (1)
- Equipment Storage: 500 sf

Total program space: 11,015 assignable square feet

**Public Psychiatry Program**

- Reception: 400 sf
- Conference Room: 960 sf (1)
- Copy/Flat Area: 120 sf (3)

Total program space: 7,725 assignable square feet
American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility Space Allocation Requirements

### American Indian and Alaska Native Programs

#### Office Space

<table>
<thead>
<tr>
<th>Position</th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Program Staff Office Requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director</td>
<td>1</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Faculty</td>
<td>18</td>
<td>180</td>
<td>3,240</td>
</tr>
<tr>
<td>Research Staff</td>
<td>19</td>
<td>150</td>
<td>2,850</td>
</tr>
<tr>
<td>Publications Specialist</td>
<td>1</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Administrative Assistant</td>
<td>1</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Accounting Technologist</td>
<td>1</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Visiting Faculty/Intern Offices</td>
<td>4</td>
<td>180</td>
<td>720</td>
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</table>

#### New Program Staff Office Requirements (Center for Native American TeleHealth)

<table>
<thead>
<tr>
<th>Position</th>
<th>Quantity</th>
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<th>Total Space</th>
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<tbody>
<tr>
<td>Associate Director</td>
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<tr>
<td>Program Specialist</td>
<td>1</td>
<td>180</td>
<td>180</td>
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#### Office Service

<table>
<thead>
<tr>
<th>Position</th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
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</thead>
<tbody>
<tr>
<td>Total Office Space (ASF)</td>
<td>47</td>
<td></td>
<td>8,290</td>
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<tr>
<td>Total Office Space (GSF)</td>
<td></td>
<td></td>
<td>12,191</td>
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Assumes 68% building efficiency

### Native American TeleHealth Studio and Media Production Space

<table>
<thead>
<tr>
<th>Position</th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
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</thead>
<tbody>
<tr>
<td>Demonstration Training Room</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Studio</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Multimedia Production Laboratory</td>
<td>1</td>
<td>800</td>
<td>800</td>
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</tbody>
</table>

Total TeleHealth Studio and Production Space (ASF) 1,600
Total TeleHealth Studio and Production Space (GSF) 2,383

### Program Support Space

<table>
<thead>
<tr>
<th>Position</th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Library Archives/Research Workroom</td>
<td>1</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Staff Lounge</td>
<td>1</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Conference Room</td>
<td>1</td>
<td>840</td>
<td>840</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>330</td>
<td>330</td>
</tr>
<tr>
<td>Copy/Fax Areas</td>
<td>2</td>
<td>60</td>
<td>120</td>
</tr>
<tr>
<td>File Server/Server Room</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Project Records/File Storage</td>
<td>2</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>Publications Storage</td>
<td>2</td>
<td>375</td>
<td>750</td>
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<tr>
<td>Toilet</td>
<td>4</td>
<td>100</td>
<td>400</td>
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</tbody>
</table>

Total Program Support Space (ASF) 5,340
Total Program Support Space (GSF) 7,853

Assumes 68% building efficiency

### Total Space Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Total Space (ASF)</th>
<th>Total Space (GSF)</th>
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<tbody>
<tr>
<td>Assignable Square Feet</td>
<td>15,230</td>
<td>22,597</td>
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Assumes 68% building efficiency
American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility
Space Allocation Requirements

**Public Psychiatry Programs**

<table>
<thead>
<tr>
<th>Office Space</th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Program Staff Office Requirements</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director</td>
<td>1</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Clinical Faculty</td>
<td>5</td>
<td>180</td>
<td>900</td>
</tr>
<tr>
<td>Support Staff</td>
<td>2</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>Forensic Fellows</td>
<td>2</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>Postdoctorate Fellows</td>
<td>5</td>
<td>150</td>
<td>750</td>
</tr>
<tr>
<td><strong>New Program Staff Office Requirements</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Faculty</td>
<td>5</td>
<td>180</td>
<td>900</td>
</tr>
<tr>
<td>Visiting Clinical Faculty</td>
<td>4</td>
<td>180</td>
<td>720</td>
</tr>
<tr>
<td>Office Service</td>
<td></td>
<td></td>
<td>325</td>
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<tr>
<td><strong>Total Office Space (ASF)</strong></td>
<td>20</td>
<td></td>
<td>4,275</td>
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<tr>
<td><strong>Total Office Space (GSF)</strong></td>
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<td>6,434</td>
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Assumes 68% building efficiency

**Program Support Space**

<table>
<thead>
<tr>
<th>Program Support Space</th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Conference Room</td>
<td>1</td>
<td>960</td>
<td>960</td>
</tr>
<tr>
<td>Copy/Fax Areas</td>
<td>2</td>
<td>60</td>
<td>120</td>
</tr>
<tr>
<td>Program Records/File Storage</td>
<td>2</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>Library Archives/Workroom</td>
<td>1</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Toilet</td>
<td>4</td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td><strong>Total Program Support Space (ASF)</strong></td>
<td></td>
<td></td>
<td>3,380</td>
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<tr>
<td><strong>Total Program Support Space (GSF)</strong></td>
<td></td>
<td></td>
<td>4,971</td>
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</tbody>
</table>

Assumes 68% building efficiency

| Total Space Requirements - Assignable Square Foot (ASF) | 7,735 |
| Total Space Requirements - Gross Square Foot (GSF)     | 13,404 |
American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility Space Allocation Requirements

**TeleHealth/TeleEducation Program Office and Resource Center**

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Office Space</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current: Program Staff Office Requirements:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Directors</td>
<td>2</td>
<td>180</td>
<td>360</td>
</tr>
<tr>
<td>Program Support Staff</td>
<td>1</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td><strong>New Program Staff Office Requirements</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>4</td>
<td>180</td>
<td>720</td>
</tr>
<tr>
<td>Program Support Staff</td>
<td>5</td>
<td>150</td>
<td>750</td>
</tr>
<tr>
<td>Office Service</td>
<td></td>
<td></td>
<td>275</td>
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<tr>
<td><strong>Total Office Space (ASF)</strong></td>
<td>12</td>
<td></td>
<td>2,255</td>
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<tr>
<td><strong>Total Office Space (GSF)</strong></td>
<td></td>
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<td>3,316</td>
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Assumes 68% building efficiency

**TeleHealth Studio and Media Production Space**

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration Training Rooms</td>
<td>2</td>
<td>800</td>
<td>1,600</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Studios</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>400</td>
<td>800</td>
</tr>
<tr>
<td>Multimedia Production Laboratories</td>
<td>1</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>CD-Production Room</td>
<td>1</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>Digital Archive/Server Room</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td><strong>Total TeleHealth Studio and Media Production Space (ASF)</strong></td>
<td></td>
<td></td>
<td>5,700</td>
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<tr>
<td><strong>Total TeleHealth Studio and Media Production Space (GSF)</strong></td>
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<td>6,382</td>
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Assumes 68% building efficiency

**Program Support Space**

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
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<tbody>
<tr>
<td>Conference Rooms</td>
<td>2</td>
<td>480</td>
<td>960</td>
</tr>
<tr>
<td>Reception Area</td>
<td>1</td>
<td>400</td>
<td>400</td>
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<tr>
<td>Preparation Rooms</td>
<td>4</td>
<td>200</td>
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<tr>
<td>Equipment Storage</td>
<td>1</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Toilet Rooms</td>
<td>4</td>
<td>100</td>
<td>400</td>
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<tr>
<td><strong>Total Program Support Space (ASF)</strong></td>
<td></td>
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<td>3,060</td>
</tr>
<tr>
<td><strong>Total Program Support Space (GSF)</strong></td>
<td></td>
<td></td>
<td>4,500</td>
</tr>
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</table>

Assumes 68% building efficiency

**Total Space Requirements - Assignable Square Feet (ASF)** | 11,815
**Total Space Requirements - Gross Square Feet (GSF)** | 16,159

Assumes 68% building efficiency

**Total Facility Space Requirements - Assignable Square Feet (ASF)** | 34,000
**Total Facility Space Requirements - Gross Square Feet (GSF)** | 50,000
## American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility
### Estimated Capital Project Cost

<table>
<thead>
<tr>
<th></th>
<th>American Indian and Alaska Native Programs</th>
<th>Programs for Public Psychiatry</th>
<th>TeleHealth/Education Program</th>
<th>Total Facility Project</th>
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<tbody>
<tr>
<td>A. Land Acquisition</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>B. Professional Services</td>
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<td></td>
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<tr>
<td>(1) Master or Program Planning</td>
<td></td>
<td></td>
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<tr>
<td>(2) Arch/Eng (R&amp;D)</td>
<td>$199,980</td>
<td>$264,749</td>
<td>376,044</td>
<td>1,100,772</td>
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<tr>
<td>(3) Arch/Eng (Other)</td>
<td>$9,358</td>
<td>$4,728</td>
<td>6,715</td>
<td>20,728</td>
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<td>(4) Construction Management</td>
<td>$139,280</td>
<td>$70,915</td>
<td>$100,726</td>
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<tr>
<td>(5) Code Review</td>
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<td></td>
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<td>(6) Site Information and Tests</td>
<td>$20,186</td>
<td>$10,278</td>
<td>14,598</td>
<td>45,061</td>
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<tr>
<td>(7) Other</td>
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<tr>
<td>(8) Total Professional Services</td>
<td>$609,731</td>
<td>$350,670</td>
<td>$498,863</td>
<td>$1,557,463</td>
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<tr>
<td>C. Construction</td>
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</tr>
<tr>
<td>(1) Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) New</td>
<td>29,044 gsf $122 per gsf 2,465,368</td>
<td>11,404 gsf $122 per gsf 1,149,288</td>
<td>7,816 gsf $122 per gsf 953,552</td>
<td>39,364 gsf $122 per gsf 4,790,208</td>
</tr>
<tr>
<td>(b) Retain</td>
<td>2,254 gsf $125 per gsf 264,870</td>
<td>8,382 gsf $125 per gsf 1,099,210</td>
<td>10,716 gsf $125 per gsf 1,664,080</td>
<td></td>
</tr>
<tr>
<td>Total New</td>
<td>21,298 gsf $125 per gsf 2,810,238</td>
<td>11,404 gsf $122 per gsf 1,391,288</td>
<td>16,198 gsf $129 per gsf 2,253,726</td>
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<td>FT (Federal)</td>
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<tr>
<td>Total</td>
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<td>$2,192,709</td>
<td>$3,724,379</td>
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* Total funding will include both cash and federal funds yet to be determined.
The
American Indian and
Alaska Native Programs,
Public Psychiatry,
TeleHealth/Education
Facility

Facility Program Plan

March 31, 1998
Program Plan for the
American Indian and Alaska Native Programs,
Programs for Public Psychiatry, and TeleHealth Facility

March 27, 1998

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Program Plan for the American Indian and Alaska Native Programs, Programs for Public Psychiatry, and TeleHealth/Education Facility

1. Introduction

Consistent with the mission of the University of Colorado Health Sciences Center (UCHSC) to educate health care professionals, advance knowledge through research in the health sciences and deliver health care and community service, the UCHSC proposes to construct a new facility for the American Indian and Alaska Native Programs, Programs for Public Psychiatry, and the UCHSC TeleHealth/TeleEducation Program Office.

As proposed in this program plan, this new facility will include approximately 50,000 gross square feet of space to accommodate the relocation and program expansion requirements of the Division of American Indian and Alaska Native Programs, Programs for Public Psychiatry, and the UCHSC TeleHealth/TeleEducation Program Office.

The Division of American Indian and Alaska Native Programs, a unit within the Department of Psychiatry at the University of Colorado Health Sciences, is comprised of six centers, each national in scope, that cover the developmental life span in terms of research, training, continuing education, technical assistance, and information dissemination specific to the health of this special population. These programs include: 1) the National Center for American Indian and Alaska Native Mental Health Research; 2) the National Program Office of the Healthy Nations Initiative; 3) the Native Elder Health Care Resource Center; 4) the Circles of Care Evaluation Technical Assistance Center; 5) the Native Elder Research Center, a Resource Center for Minority Aging Research; and, 6) the new Center for Native American TeleHealth and TeleEducation. The total personnel budget exceeds $2.8 million annually and supports a staff of 111; 41 of whom are located in 10,700 square feet of space located in the University North Pavilion facility at the UCHSC campus and another 70 in field offices across Arizona, New Mexico, South Dakota, Oklahoma, Washington, and Alaska. The Division presently administers over $30 million in grants and contracts, involving partnerships with 28 tribes, 6 urban community-based organizations, and 5 Alaska Native regional corporations, distributed across 12 states.
The mission of the Division of American Indian and Alaska Native Programs is to promote the health and well-being of American Indians and Alaska Natives, of all ages, by pursuing research, training, continuing education, technical assistance, and information dissemination within a biopsychosocial framework that recognizes the unique cultural contexts of this special population. Each of the six centers pursues a program of activities consistent with this mission, but specific in emphasis.

The acquisition of new program space is necessary for the program development and program expansion requirements of the Division of American Indian and Alaska Native Programs.

The Programs for Public Psychiatry (PPP) unit is comprised of a series of public/academic collaborations in public psychiatry and psychology, which are funded by municipal as well as state agencies and the UCHSC Department of Psychiatry. The programs share the tripartite mission of: 1) enhancing Colorado's public psychiatric and psychological work-force; 2) providing education to legal, health, and mental health professionals, students, families, consumer groups, and the public about mental health issues, and 3) conducting and coordinating research in public psychiatry and psychology.

The Programs for Public Psychiatry unit is one of the largest and fastest-growing division-level program units of the Department of Psychiatry. Its faculty are active and widely recognized for their work at regional, national, and international levels. The Programs for Public Psychiatry has established a number of collaborations with municipal and state agencies, including the Colorado Department of Human Services, the Colorado Department of Corrections and others. These include: a) Consultative Mental Health Services to Persons with Developmental Disabilities; b) Forensic Psychiatry Program; c) Program in Public Psychology; d) Collaborative Program with the Colorado Division of Youth Services; e) the Community Psychiatry Program, and f) The Colorado Mental Health Institutes at Pueblo and Fort Logan. The Programs for Public Psychiatry currently employs 56 clinical faculty, 4 administrative faculty, and 28 doctoral and post-doctoral trainees located at six site locations throughout Colorado. At this time, 15 faculty and staff members are housed in approximately 1,610 assignable square feet of program space located in the Colorado Psychiatric
Hospital facility at the UCHSC campus. Program grants and contracts exceed $9 million annually and continue to grow at a rapid pace.

The telehealth/teleeducation program at the University of Colorado Health Sciences Center was established in 1995 with the goal of providing the highest quality medical consultations, education and research opportunities to communities and health care providers throughout the state. The UCHSC seeks to provide access to primary care, education, and research to rural, underserved populations through health education outreach utilizing technology in established networks such as the Colorado Area Health Education Centers (AHECs). Additionally, UCHSC currently offers distance learning, training programs, and extended studies via the AHECs in nursing programs; community educational training programs; community educational programs; library resources services; dentistry advanced clinical training programs; graduate course work in nursing, pharmaceutical sciences, physical therapy and public health; geriatric health care programs; and other continuing medical education. The UCHSC/University Hospital is currently linked electronically to the four CU campuses, the Family Medicine Residency Program at St. Mary's Hospital in Grand Junction, the Southwest Health Systems, Inc., in Cortez, the Mount San Rafael Hospital in Trinidad, the Veterans Affairs Hospital satellite clinic in Colorado Springs, the Four Corners Hematology Oncology Practice in Durango, and to the statewide network for delivery of programming to many rural communities. Opportunities being pursued include the delivery of obstetrical/gynecological ultrasound interpretations, delivery of video-conference telemedicine clinical consultations, neonatal echocardiogram consultations, and a pilot project in telemedicine for the Colorado Department of Corrections using the Limon Correctional Facilities. Additional efforts to expand this program to other rural communities are continuously and actively pursued.

During 1996, the UCHSC/UH TeleHealth/TeleEducation Program Office was developed with the primary purpose of coordinating and providing the necessary support services for the numerous campus telehealth and teleeducation program activities. The primary goal for the office is to work with other state entities to develop a network to provide consultative medical services and education - including degree granting, continuing and community education - to the state and region. The Office
serves as a focal point for the program and work with both the ‘users’ and ‘suppliers’ to assure the success of the telehealth and teleeducation program. The Office is charged with the coordination for all new programs and with the facilitation of program development and program evaluation. The telehealth/teleeducation program will improve access to health care and education for the citizens of the State and serves as another mechanism for the UCHSC to fulfill its mission.

The TeleHealth/TeleEducation Program Office is currently supported by three staff members housed in 560 square feet of space located in the Research Bridge facility at the UCHSC campus. Additional staff and facility resources are provided by the Offices of Educational Support Services and Information Systems to support the technical needs - design, engineering, and technical implementation - for the telehealth and teleeducation projects for both on-campus and remote sites. However, in order to meet the increasing campus demand for telehealth/teleeducation program services at both the Ninth and Colorado Boulevard and Fitzsimons campus sites, additional program space is needed.

This program plan involves the construction of a 50,000 gross square foot (34,000 assignable square feet) facility at the Fitzsimons campus site to house the Division of American Indian and Alaska Native Programs, Programs for Public Psychiatry, and the TeleHealth/TeleEducation Program Office and Resource Center. Of this total space, approximately 14,920 assignable square feet (asf) will be office space for both the Division of American Indian and Alaska Native Programs, the Programs for Public Psychiatry, and TeleHealth/TeleEducation Program Office and Resource Center; 7,300 asf is programmed as studio and media production space necessary to support the telehealth and teleeducation program requirements of all three programs; the remaining 11,780 asf of space is program support space consisting of records, publications, and equipment storage, conference room space, and miscellaneous staff support space.

The total project budget is estimated to be $10,364,039. This includes $1,537,483 in planning and professional service costs; $6,780,981 in sitework, utilities, and construction; $1,006,043 in telecommunications, equipment and furnishings; and $1,039,532 for project contingency and miscellaneous requirements. The source of
funds for this project will be federal grants and/or research revolving fund debt funds and gift funds.

Project design is tentatively planned to commence during July 1998, site development and construction in June 1999 and project completion by June 2000.

II. Program Plan Purpose

The primary purpose of this facility program plan is to seek appropriate approvals from the University of Colorado Board of Regents and the Colorado Commission on Higher Education (CCHE) to:

Permit the University of Colorado Health Sciences to proceed with the planning, design, and construction of a 50,000 gross square foot facility at the Fitzsimons site to house the Division of American Indian and Alaska Native Programs, Programs for Public Psychiatry, and the UCHSC/UH TeleHealth/TeleEducation Program Office and Resource Center. The total project budget will be $10,364,039. Project funding sources will include federal grants and/or research revolving fund debt and gift funds.

This program plan involves the construction of a 50,000 gross square foot (34,000 assignable square feet) facility at the Fitzsimons campus site to house the Division of American Indian and Alaska Native Programs, Programs for Public Psychiatry, and the TeleHealth/TeleEducation Program Office and Resource Center.

A total of 15,230 assignable square feet (asf) of space is being requested for use by the Division of American Indian and Alaska Native Program. Included in this total is approximately 8,290 asf of office space necessary to support the projected staffing requirements of 47 faculty and staff members; 1,600 asf of studio and multimedia program production space to be used by the new Center for Native American TeleHealth and TeleEducation; and 5,340 asf of program support space which includes storage space for the numerous Division’s research and health care publications and research project records, conference rooms, copy and fax support space and staff lounge/workroom space.
A total of 7,755 assignable square feet (asf) of space is being requested for use by the Programs for Public Psychiatry. Included in this total is approximately 4,375 asf of office space necessary to house the program faculty and staff located at the Colorado Psychiatric Hospital facility and 3,380 asf of program support space to include conference room, staff workroom, copy and fax support space, and program record and storage space.

In order to meet the increasing campus demand for telehealth/teleeducation program services, a total of 11,015 assignable square feet (asf) of program space is requested in this program plan for the relocation and expansion of the TeleHealth/TeleEducation Program Office and Resource Center. Included in this total is approximately 2,255 asf of office space necessary to support the projected staff requirement of six faculty and six administrative support staff members; 5,700 asf of studio, multimedia production and demonstration/training rooms; and 3,600 asf of various program support space.

III. Related Institutional Planning Policies

This program plan is consistent with the institutional master plan and current and future educational, patient care research and community service missions of the University of Colorado Health Sciences Center.

Specific UCHSC institutional planning and policy development which relate to the assumptions addressed in this program plan for construction of the new facility at Fitzsimons include:


The application for the public conveyance of 186 acres of land and properties at the U.S. Army Garrison, Fitzsimons was approved by the Board of Regents and submitted in August 1997 to the U.S. Department of Education. The conveyance application was approved by the U.S. Department of Education on September 29, 1997.

This Fitzsimons acquisition, land utilization study involving the development of a 200 acre Health Sciences Center campus at Fitzsimons was approved by the University of Colorado Board of Regents on November 14, 1996. The plan was submitted to CCHE for review during November 1996 and to the Fitzsimons Redevelopment Authority for incorporation into its community Fitzsimons Reuse and Development Plan.

IV. Programmatic Information

A. Programs to be Accommodated

This facility program plan involves the construction of a new facility located at the Fitzsimons campus site to include approximately 50,000 gross square feet of space necessary for the relocation and expansion of the Division of American Indian and Alaska Native Programs, relocation and expansion for the Programs for Public Psychiatry, and expansion of the UCHSC TeleHealth/TeleEducation Program Office. A program overview of these programs is provided.

1. The Division of American Indian and Alaska Native Programs

The Division of American Indian and Alaska Native Programs is a unit of the Department of Psychiatry of the School of Medicine at the University of Colorado Health Sciences. The Division is currently comprised of six centers, each national in scope, that cover the developmental life span in terms of research, training, continuing education, technical assistance, and information dissemination specific to the health of this special population. The programs include: 1) the National Center for American Indian and Alaska Native Mental Health Research; 2) the National Program Office of the Healthy Nations Initiative; 3) the Native Elder Health Care Resource Center; 4) the Circles of Care Evaluation Technical Assistance Center; 5) the Native Elder Research Center, a Resource Center for
Minority Aging Research; and, 6) the new Center for Native American TeleHealth and TeleEducation.

The mission of the Division of American Indian and Alaska Native Programs is to promote the health and well-being of American Indians and Alaska Natives, of all ages, by pursuing research, training, continuing education, technical assistance, and information dissemination within a biopsychosocial framework that recognizes the unique cultural contexts of this special population. Each of the five national centers pursues a program of activities consistent with this mission, but specific in emphasis.

The division presently administers over $30 million in grants and contracts, involving partnerships with 28 tribes, 6 urban community-based organizations, and 5 Alaska Native regional corporations, distributed across 12 states. Funding derives from private (e.g., The Robert Wood Johnson Foundation, Annie E. Casey Foundation), tribal (e.g., Cherokee Nation of Oklahoma, Navajo Nation, Cheyenne River Sioux Tribe), state (e.g., State of New Mexico), federal (Indian Health Service, National Institutes of Health, Bureau of Indian Affairs) sources. A summary of major funded grants and contracts for the Division is provided in Appendix A-1.

The Division currently employs 111 faculty and staff members, 41 of whom are housed in 10,700 square feet of space located in the University North Pavilion facility located at the UCHSC campus. Many of the major social, behavioral, and health science disciplines are represented among the present core and affiliated faculty: psychiatry (child/adolescent, adult), nursing, medicine (internal, geriatric), social work, epidemiology, biostatistics, nutrition, health education, exercise physiology, and public health. Thirty-six other scientists (Research Associates) located at 17 other institutions, participate in the division's activities. The Division has strong collaborative relationships with state (Departments of Health in Colorado, New Mexico, Arizona, South Dakota, and Alaska) and federal service agencies (Indian Health Service, Bureau of Indian Affairs, Department of Veterans Affairs), as well as advocacy groups (National Indian Council on Aging, Western Interstate Consortium of Higher Education, National Alliance for the
Mentally Ill, National Association for Native American Children of Alcoholics).

Presented in Table I is a summary of program utilization by center/program area for the 1997 year.

a. National Center for American Indian and Alaska Native Mental Health Research (NCAIANMHR)

The NCAIANMHR was established July 1986 with funding from the National Institute of Mental Health (NIMH). In its 12th year of support, the NCAIANMHR conducts research on the assessment, epidemiology, treatment, and prevention of alcohol, drug, and mental disorders among Indian and Native people. The National Center is widely recognized as the country’s most authoritative source in this area. Its staff and products are highly sought after for patient consultation, continuing education, program development, and policy formulation. The NCAIANMHR has four major program functions: research; research training; information dissemination, and technical assistance.

The research component formulates, designs, conducts, and reports studies within four areas of inquiry. These areas of inquiry cut across the developmental life span and include: a) determining and improving the performance characteristics of self-report measures of serious psychological dysfunction and structured diagnostic interviews for assessing alcohol, drug, and mental (ADM) disorders; b) establishing the prevalence and incidence of ADM disorders, as well as related risk factors, through descriptive and experimental epidemiological investigations; c) developing and evaluating methods for detecting and managing ADM disorders presented in a spectrum of human service settings (e.g., primary care clinics, schools, detention facilities, social service programs), and d) examining the effectiveness of interventions for preventing ADM disorders and promoting well-being.
TABLE I

American Indian and Alaska Native Programs and TeleHealth Facility Program Plan

Program Utilization and Relevance Summary by Audience Group

Division of American Indian and Alaska Native Program Activities

January 1, 1997 through December 31, 1997

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<th>Health Care Providers</th>
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<td>++++</td>
<td>++</td>
<td>++++</td>
<td>++</td>
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+=degree of relevance of program activities to audience
(#) = number of audience representatives contacted
*Established 10/01/97
**Established 07/01/98 and participation figures are not yet available.
The resulting program of research currently involves 32 different Indian and Native communities and entails a funding portfolio in excess of $18 million, which derives from tribal, private, state, and federal (NIMH, NIAAA, NIDA, IHS, DVA) sources. An overview of its major research studies is provided in Appendix A-2.

The NCAIANMHR's central office in Denver has a large, interdisciplinary faculty that includes psychiatry (child/adolescent; adult), psychology (clinical, social, community, and counseling), anthropology (medical), sociology, social work, psychiatric epidemiology, biostatistics, and public health.

Six field offices, located in Indian communities and staffed by local tribal members, support the field-based research and provide immediate, ongoing linkage to participating tribes. Lastly, the NCAIANMHR maintains an extensive collaborative network of 30 Research Associates, whose involvement is established through formal institutional agreements with 17 universities and agencies. Half of the NCAIANMHR's faculty and staff are themselves American Indian: the largest single, programmatic concentration of such professionals in the nation.

The training component offers unique educational opportunities for undergraduates, predoctoral and medical students, residents, post-doctoral trainees, and senior scholars. The NCAIANMHR cosponsors, with the UCHSC's NIAAA-funded Alcohol Research Center, a Summer Alcohol Research Institute that provides a 10 week program of research training designed for 6-8 American Indian and Alaska Native junior and senior undergraduates. Each trainee is assigned to a senior faculty member who serves as the primary mentor, and supervises a structured research experience that introduces the student to the fundamentals of scientific inquiry in basic as well as clinical fields. The NCAIANMHR regularly accepts two medical students each summer (between the first and second years) for placement in one of its active studies, thus expanding their exposure to health-related concerns in culturally different populations. The
NCAIANMHR also sponsors the country's only American Indian Clinical Psychology Internship Program, which provides full support to one trainee each year to participate in a specialized clinical training experience that capitalizes on field placements in urban and rural/reservation programs serving Indian people. One resident in psychiatry typically seeks placement at the NCAIANMHR for 6-12 month electives during the senior year.

These placements emphasize the interaction between clinical and research endeavors, and prepare residents to bring the latter more fully to bear on the former, with special emphasis on cross-cultural issues. The NCAIANMHR's approach to training postdoctoral and senior scholars is less formalized, in a programmatic sense, reflecting the diversity of experience and needs that these individuals bring to this level of education. Supported by individual fellowships (i.e., NRSA awards, APA postdoctoral fellowship, and career development grants), junior faculty often require basic training in research skills (i.e., design, instrumentation, survey or interview methods, and analytic methods) and immersion in ongoing studies that operationalize these competencies, as acquired. The NCAIANMHR regularly supervises several trainees at this level. Specific research placements are tailored to their particular substantive interests. Lastly, senior scholars, usually, 10 or more years postdoctorate, participate in the NCAIANMHR's Scholar-in-Residence Program. This program offers up to six months of office use, secretarial support, computer resources, and access to specialized bibliographic materials to senior scholars committed to collaborating on projects (i.e., research studies, journal articles, books, curriculum development) of mutual interest to the National Center and the individual in question.

The information dissemination component is comprised of two activities: an extensive bibliography of NCAIANMHR staff publications on Indian and Native mental health and a professionally refereed journal, American Indian and Alaska Native Mental Health Research. American Indian and Alaska Native Mental Health Research, published three times annually by
the University Press of Colorado, offers a forum for empirical work on the cause, assessment, epidemiology, treatment, and prevention of ADM disorders and related phenomena among American Indians and Alaska Natives. The journal has a large audience that includes health planners, policy-makers, service providers, and scientists.

The technical assistance component involves the identification of and referral to individuals, programs, and agencies that represent sources of expertise with respect to mental health research, service, and education specific to Indian and Native communities.

b. Healthy Nations Initiative (HNI)

The HNI was launched August 1991 under the auspices of the Robert Wood Johnson Foundation. The National Program Office of the Healthy Nations Initiative, which provides day-to-day administration, is located in the Division of American Indian and Alaska Native Programs at the University of Colorado Health Sciences Center. The goal of the initiative is to demonstrate that tribes and communities can, over time, achieve substantial reductions in the demand for - and consequently the use of - alcohol and other harmful substances, including tobacco and illegal drugs. The initiative provides grants to support the development of community-wide efforts to combat substance abuse that integrate public awareness campaigns, prevention programs, and services for treatment, aftercare, and support. Particular emphasis is on prevention and early intervention with respect to the use of alcohol, illegal drugs and tobacco among youth. Incorporation of traditional cultural values is a key component of the Healthy Nations Initiative.

This $15 million two-phase, seven year program which began in December, 1993, includes a series of technical assistance activities that promises a large scale transfer of important knowledge and intervention experiences to this special population. The National Program Office functions include fiscal/programmatic oversight, technical assistance, information dissemi-
nation, and evaluation which are designed to support the Healthy Nations Initiative grantees. The grantees include 14 American Indian and Alaska Native communities ranging geographically from Alaska to North Carolina, from California to upper Michigan.

The grantee communities include the following: Central Council of Tlingit & Haida Indian Tribes of Alaska; the Cherokee Nation of Oklahoma; the Cheyenne River Sioux Tribe, Cheyenne River Reservation (South Dakota); Circle of Strength Native American Healthy Nations Initiative (California); Confederated Salish & Kootenai Flathead Reservation (Montana); Confederated Tribes of the Colville Reservation (Washington); Confederated Tribes of the Warm Springs Reservation (Oregon); Eastern Band of Cherokee Indians of North Carolina; Minneapolis American Indian Center; Northwest New Mexico; Norton Sound Health Corporation (Alaska); Seattle Indian Health Board; United Indian Health Services (California); White Mountain Apache Tribe Fort Apache Reservation (Arizona).

Local strategies emphasize public awareness and education, early identification and referral, enhancing in- and outpatient treatment options, and prevention. These activities proceed in concert with a visioning process, subsequent community mobilization, and active linkage across formal as well as informal sectors of each community. The National Program Office/Healthy Nations Initiative and community relationships are defined in terms of formal grants, and provide for direct access to and ongoing relationships with the highest levels of local governance. A series of highly visible and proactive programs have emerged that demonstrate successful approaches to integrating culture and these intervention technologies.

c. Native Elder Health Care Resource Center (NEHCRC)

In February 1, 1994, technical assistance, training, and educational resources became available upon award of $1.2 million from the Adminis-
ration on Aging which established the Native Elder Health Care Resource Center (NEHCRC) - one of two new National Resource Centers for Older American Indians, Alaska Native Natives, and Native Hawaiians- as a sister program of the NCAIANMHR within the Department of Psychiatry. The program's primary objective is to increase the cultural competence of human service providers in meeting the health care needs of older American Indians, Alaska Natives, and Native Hawaiians. Consequently, the NEHCRC is deeply engaged in the development and dissemination of continuing education modules that address the major diseases/disorders (diabetes, cancer, depression, alcohol dependence) which plague Native elders. These materials have been tailored to physicians, nurses, pharmacists, social workers, psychologists nutritionists, physical rehabilitation, and occupational therapists, as well as ancillary health personnel. There are four crosscutting themes to the Center's research efforts: ascertaining health status and conditions, improving practice standards, increasing access to care, and mobilizing community resources. Diverse organizational assets are integrated to create a thematically consistent, population-specific, and multicomponent program led by experienced, prominent Native faculty.

Telecommunications and print media are employed to increase awareness of and access to program activities, NEHCRC faculty, information resources, and fellow participants. The NEHCRC employs the internet to offer immediate, extensive information about aging problems in American Indian and Alaska Native communities, about professional and organizational consultation resources, and about relevant social, behavioral, and health science publications.

d. Native Elder Research Center (NERC)

The NERC, one of five Resource Centers for Minority Aging Research sponsored by the National Institute on Aging and the National Institute for Nursing Research, was funded October 1997. It is charged with: a) increasing the number of doctoral level (MD and PhD) Native Investigators capable of conducting high quality studies that suggest ways to reduce
the differential in health status and access to needed care that characterizes older Indian and Native people; and, b) facilitating the involvement of Indian and Native communities in research of this nature. The NERC has developed an intensive two-year mentorship program that draws upon a widely dispersed faculty (31 core and affiliated faculty residing in 10 states) to provide instructional guidance and serve as professional role models.

The social, behavioral, and health science literatures converge in conclusions as to the health status of older American Indian and Alaska Natives and their access to care. Native elders are at greater risk of numerous acute as well as chronic illnesses, and are much slower to seek available care. Despite recognizing these circumstances, few inroads have been made in altering the individual, family, community, and system-related factors that contribute to them. Barriers to advancement in this area include the lack of relevant, immediately applicable research, the paucity of well-trained Native Investigators engaged in translating such research into terms that can be readily consumed by their communities of origin, and the general resistance of American Indian and Alaska Native communities to research that fails to incorporate their priorities, members, and local systems of care in meaningful ways. The Native Elder Research Center was developed to address these barriers.

The specific aims of the NERC program are to:

1. Provide the administrative structure necessary to direct and coordinate a culturally relevant, research effort;

2. Augment the existing partnerships with American Indian and Alaska Native communities that ensure continuous access to and involvement of elders, their families, and local systems of care in the aging research process;

3. Capitalize on an extensive network of collaborative links to identify, recruit, and sustain a cadre of American Indian and Alaska Native investigators willing to commit themselves to developing their potential as scientists specializing in aging research;
4. Implement a carefully crafted set of mechanisms to equip American Indian and Alaska Native investigators for successful research careers at the interface of aging, health and culture;

5. Enlarge an existing group of investigators to include even more diverse disciplinary expertise of an exceptionally qualified nature that can address a broad range of high priority questions relating to the aging of Native elders; and,

6. Promote a program of research that holds considerable promise for reducing the differentials in health status and access which now plague this special population.

A summary of relevant research activity of the Native Elder Research Center is provided in Appendix A-3.

e. Circles of Care Evaluation Technical Assistance Center (CoCETAC)

The Circles of Care Evaluation Technical Assistance Center was funded in October 1997 by the Branch of Children, Adolescents, and Family, within the Center for Mental Health Services at the Substance Abuse and Mental Health Services Administration. The CoCETAC is designed to assist 8 American Indian and Alaska Native grantees in: a) describing the existing system of services that has emerged to meet the needs of their Seriously Emotionally Disturbed (SED) children; b) targeting new, but limited program monies intended to enhance the coordination and continuity of care provided by these systems, and c) assessing the impacts of such investments on consumers, families, and participating agencies.

The Circles of Care, an American Indian and Alaska Native child and adolescent mental health initiative, is a cooperative activity between the Center for Mental Health Services and the Indian Health Service. An agreement was made and entered into by the Substance Abuse and Mental Health Services Administration, Center for Mental Health Services and the Public Health Service, Indian Health Service to support this initiative. The
Circles of Care initiative awards resources competitively through the grant authority of the Center of Mental Health Services to American Indian and Alaska Native communities for a child, adolescent and family mental health system development and enhancement program which addresses the needs of seriously emotionally disturbed children and youth.

2. Programs for Public Psychiatry

The Programs for Public Psychiatry (PPP) is comprised of a series of public/academic collaborations in public psychiatry and psychology, which are funded by municipal as well as state agencies and the UCHSC Department of Psychiatry. The programs share the tripartite mission of: 1) enhancing Colorado's public psychiatric and psychological work-force; 2) providing education to legal, health, and mental health professionals, students, families, consumer groups, and the public about mental health issues, and 3) conducting and coordinating research in public psychiatry and psychology.

The Programs for Public Psychiatry is one of the largest and fastest-growing division-level programs of the Department of Psychiatry. Its faculty are active and widely recognized for their work at regional, national, and international levels. The PPP has established a number of collaborations with municipal and state agencies, including the Colorado Department of Human Services, the Colorado Department of Corrections and others. These include: a) Consultative Mental Health Services to Persons with Developmental Disabilities; b) Forensic Psychiatry Program; c) Program in Public Psychology; d) Collaborative Program with the Colorado Division of Youth Services; e) the Community Psychiatry Program, and f) The Colorado Mental Health Institutes at Pueblo and Fort Logan. The PPP currently employs 56 clinical faculty, 4 administrative faculty, and 28 doctoral and post-doctoral trainees. At this time, 15 faculty and staff members are housed in approximately 1,610 assignable square feet of program space located in the Colorado Psychiatric Hospital facility at the UCHSC campus. Its grants and contracts exceed $9 million annually and continue to grow at a rapid pace.

Presented in Table II is a summary of utilization by program area for the 1997 year, which totaled nearly 10,000 patient contacts across the State of Colorado.
TABLE II
American Indian and Alaska Native Programs,
Public Psychiatry, and TeleHealth/Education Facility Program Plan

Program Outreach for Public Psychiatry

<table>
<thead>
<tr>
<th>Agency</th>
<th>Clinical Faculty FTE</th>
<th>Admin Faculty FTE</th>
<th>Visits/Patient Contact #s (per year)</th>
<th>Trainee FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Colorado Dept. of Human Services- Community Mental Health Institutes:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at Pueblo (inpatient/outpatient)</td>
<td>26.00</td>
<td>0.80</td>
<td>3,600</td>
<td>1.00</td>
</tr>
<tr>
<td>at Fort Logan (inpatient/outpatient)</td>
<td>13.00</td>
<td>0.50</td>
<td>2,100</td>
<td>2.00</td>
</tr>
<tr>
<td>Evaluation Services</td>
<td></td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developmental Disabilities:</td>
<td>2.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at Grand Junction Regional Center (outpatient)</td>
<td>0.10</td>
<td></td>
<td>170</td>
<td></td>
</tr>
<tr>
<td>at Pueblo Regional Center (Outpatient)</td>
<td>0.10</td>
<td></td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>State of Colorado Dept of Corrections (inpatients)</td>
<td>4.50</td>
<td>0.20</td>
<td>120</td>
<td>2.00</td>
</tr>
<tr>
<td>State of Colorado Div. of Youth Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lookout Mountain Correctional Inst. (inpatients)</td>
<td>10.00</td>
<td>0.80</td>
<td>50</td>
<td>1.00</td>
</tr>
<tr>
<td>WICHE</td>
<td></td>
<td>1.00</td>
<td></td>
<td>1.00</td>
</tr>
<tr>
<td>Mental Health Centers:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health Corporation of Denver</td>
<td>0.20</td>
<td></td>
<td>400</td>
<td>3.00</td>
</tr>
<tr>
<td>Denver Options</td>
<td>0.20</td>
<td></td>
<td>190</td>
<td></td>
</tr>
<tr>
<td>Adams County</td>
<td></td>
<td>400</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Aurora</td>
<td>0.50</td>
<td></td>
<td>1,350</td>
<td>1.00</td>
</tr>
<tr>
<td>East Colorado Development (Sterling)</td>
<td>0.05</td>
<td></td>
<td>200</td>
<td>1.00</td>
</tr>
<tr>
<td>Asian Pacific</td>
<td></td>
<td>200</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Boulder</td>
<td></td>
<td>200</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>Eagle Lodge</td>
<td></td>
<td></td>
<td>100</td>
<td>1.00</td>
</tr>
<tr>
<td>San Luis Valley (Alamosa)</td>
<td></td>
<td>200</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>North Range (Greeley)</td>
<td></td>
<td>100</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Jefferson Center</td>
<td></td>
<td>100</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Midwestern (Montrose)</td>
<td></td>
<td>100</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>West Central (Salida)</td>
<td></td>
<td>100</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>NASHPD</td>
<td></td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>National Center</td>
<td></td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>56.65</td>
<td>3.79</td>
<td>9,780</td>
<td>28.00</td>
</tr>
</tbody>
</table>
a. Consultative Mental Health Services to Persons with Developmental Disabilities (DD/MH)

The Developmental Disabilities and Mental Health (DD/MH) Program, a collaborative effort with the Developmental Disabilities Division of the Colorado Department of Human Services, specializes in the diagnosis, treatment, training, and research concerning persons with developmental disabilities and mental health needs. This program has gained national recognition for its direct service, research, and consultation in Colorado, other states, and several other countries. This program expanded its scope in 1994 with the addition of a child psychiatrist. In 1995 it recruited yet another full-time faculty member expert in working with persons with developmental disabilities and mental health needs. In Colorado the program provides traveling Behavioral Pharmacology Clinics. Other activities include consultations to mental health institutions, regional centers, mental health centers, multi-service agencies, and support to many of the Community Center Boards.

b. Forensic Psychiatry Program

The Forensic Psychiatry Program also continues to grow in the scope of its activities in research, education, and service to Colorado and the nation. Funding for this program derives largely from the Colorado Department of Corrections and the Colorado Mental Health Institute at Pueblo under the Colorado Department of Human Services. In 1994, the Forensic Psychiatry Fellowship became one of a handful of accredited forensic psychiatry fellowships in the United States. The fellowship program presently trains two full-time forensic psychiatry fellows each year. In addition, it provides elective experiences in forensic psychiatry to medical students, psychiatric residents, and fellows in child psychiatry. The forensic program employs a number of faculty as Senior Instructors who work in forensic programs for the Colorado Department of Corrections and the Colorado Mental Health Institute at Pueblo. In 1996 a forensic
clinic was instituted within the Colorado Psychiatric Hospital. In addition to the fellowship, this program coordinates the Department of Psychiatry course in forensic psychiatry for psychiatric residents, and assists in the forensic mental health training of Public Psychology Postdoctoral Fellows.

c. Program in Public Psychology

Over 2 million persons with serious and persistent mental illnesses live in the community. There are serious and persistent technological gaps and a lack of personnel specifically trained to provide care, design and implement policies, and programs, develop curriculum, and conduct meaningful research for such populations. Currently, almost all psychologists in the public sector have received their training on the job by "the seat of the pants" and few psychologists have ever been exposed to career paths and options. Given the state-of-the-art, which is known, but often not focused and implemented, there is a clear need for more systematic and collaborative training along these lines. Therefore, the Division of Clinical Psychology in the Department of Psychiatry at the University of Colorado School of Medicine developed postdoctoral fellowships as part of its Program for Public Psychology. This endeavor is directly congruent with the mission and goals of the NIMH Public Academic Liaison Initiative and is offered to new graduates and mid-career fellows. The Public Psychology Postdoctoral Fellowship is the first of its type in the United States. Training up to six selected postdoctoral students each year, this program is funded by the National Association of State Mental Health Program Directors (NASMHPD), the Western Interstate Commission on Higher Education (WICHE), the Colorado Department of Corrections, and the Mental Health Corporation of Denver (MHCD).

d. Collaborative Program with the Colorado Division of Youth Services

This program started in 1994 with support by the Division of Youth Services (DYS). Based on early successes, DYS obtained special funding
from the Colorado Legislature in 1995 to begin a more extensive
collaboration with the Programs for Public Psychiatry of the Department
of Psychiatry. This rapidly growing program provides a number of special
services to severely mentally ill youth under the jurisdiction of the
Colorado Division of Youth Services. It is directed by a child psychiatrist
who previously held a number of posts with the U.S. Indian Health
Service, and who served as an NIMH fellow. Program staff include nurses,
social workers, psychologists, as well as psychiatrists. Presently, the
program is funded at $1.2 million annually and supports a staff of 10
mental health professional.

e. Community Psychiatry

One of the first elements to be developed in the Programs for Public
Psychiatry, the resident rotation in public psychiatry places individuals in
a yearlong, one day per week rotation for senior psychiatric residents.
Sites for the rotation include many of the community mental health centers
in the Denver/Boulder area, as well as a number of specialty clinics such
as the Asian-Pacific Center and the Stout Street Clinic of community
psychiatrists and medical directors of community mental health centers
who have been recent graduates of this program. In addition to regular
urban sites, the community rotation has sponsored rotations in mental
health centers in rural areas of Colorado, most recently Canon City, and
currently Montrose, Colorado.

f. Colorado Mental Health Institutes at Pueblo and Fort Logan

Another mainstay of the Program for Public Psychiatry, the relationship
with the Colorado Mental Health Institutes continues to be strong and
lively. Most of the psychiatrists working at the two Institutes are hired as
Senior Instructors by the University, and perform a variety of roles such as
medical student education, research, and other collaborative functions. In
addition PPP faculty actively liaison with the Institutes in research
collaboration and mentoring, providing educational activities, and
coordinating medical education programs (CMHIP). In conjunction with this relationship, faculty members of the PPP provide a variety of additional services to administrative and citizen-participation activities of the Colorado Department of Human Services, such as the State Mental Advisory Committee, the Colorado Mental Health Steering Committee, the Colorado Mental Health Law Committee, several committees on children in mental health.

g. Other Educational Activities

In addition to the programs described above, the PPP presents, coordinates, or participates in many of the regular courses offered by the Department of Psychiatry. Courses in which there is major PPP participation include psychiatric resident courses in forensic psychiatry, transcultural psychiatry, the PGY III psychotherapy course, phenomenology, neuropsychiatry, psychiatric interviewing, and others.

Collaborating Agencies and Sites

The Programs for Public Psychiatry, through their collaboration with municipal and state agencies, crisscross the State of Colorado, reaching into its most remote rural as well as inner city areas.

The Colorado Mental Health Institute of Pueblo (CMHIP) is one of Colorado’s two public psychiatric hospitals. The Mental Health Institute at Pueblo is fully accredited by JCAHO and has been widely recognized over the years by the American Psychiatric Association, the National Alliance for the Mentally Ill, and others for its high-quality psychiatric care. CMHIP provides inpatient treatment through four divisions for the general adult population, children and adolescents, geriatric patients, and patients at the Institute for Forensic Psychiatry. The hospital also operates a specialized substance abuse treatment program for those dually-diagnosed with both psychiatric and substance abuse disorders, and maintains its own medical and surgical unit.
The Clinical Services Division of the Department of Corrections (DOC) is responsible for all medical and mental health services provided to inmates in this system. All major facilities incorporate local mental health offices which are staffed by psychologists and social workers. Psychiatric consultation is available. Inpatient psychiatric treatment is available through the DOC Infirmary located at the Colorado Territorial Correctional Facility at Canon City and the Denver Receiving and Diagnostic Center (DRDC). Longer term or more intensive inpatient treatment is available through the Colorado Mental Health Institute at Pueblo. Outpatient services emphasize group treatment modalities, both because of their clinical effectiveness with this population, and because of the economy of resources. Psychoeducational programs are offered utilizing a cognitive behavioral approach. An intensive sex offender treatment program is offered in some facilities. Limited individual psychotherapy is provided, based on resource availability. Drug and alcohol education/treatment services are also available throughout the system. A 24-hour emergency response is available in all major facilities. Qualified staff utilize crisis intervention techniques to manage psychiatric emergencies, and emergency hospitalization is available.

Mental Health Corporation of Denver (MHCD) is the community mental health center for persons residing in the City and County of Denver. As a private, not-for-profit corporation, MHCD is the sole contracting entity in the city with the Colorado Division of Mental Health and replaced four separate mental health centers on July 1, 1989. MHCD was one of nine cities nationally to receive a grant from the Robert Wood Johnson Foundation to study how mental health systems can be consolidated and streamlined. Over 16 treatment and residential locations are dispersed in all areas of the city. MHCD employs over 350 clinicians to serve its clients. Mental health professionals provide comprehensive services via a team approach. The director and deputy director of the Corporation are psychologists. MHCD provides a full range of clinical programs, for all ages, including crisis intervention, case management, vocational training, and residential programs. People also receive services
through contracts with Asian Pacific Center for Human Development, Servicios de La Raza and Bayaud Industries. MHCD serves approximately 10,000 people. The State of Colorado provides reimbursement for selected services for persons with specific diagnosis. MHCD accepts private insurance and bills services on a sliding fee scale.

The Colorado Division of Mental Health has been responsible for publicly funded mental health programs in the state of Colorado since 1961. The Division currently contracts with 20 community mental health centers and clinics throughout the state of Colorado for the provision of state funded mental health services. The Division also funds services provided at the two state psychiatric hospitals: the Colorado Mental Health Institute at Pueblo and the Colorado Mental Health Institute at Fort Logan in Denver. The Division provides regulatory oversight for these facilities and for private facilities providing services to individuals being treated under the state involuntary commitment legislation. Total budget for the division exceeds $120 million. Contract services in the community mental health centers and clinics include a wide range of services including inpatient, residential, emergency services, vocational services, case management, medication management, assessment and treatment. Community mental health centers offer services on an ability to pay bases for those clients eligible for state support. At the beginning of fiscal year 1989, DMH began to target state and federal funds to persons determined to be most in need of mental health services. This decision resulted from the recognition that sufficient funds were not available to meet all mental health needs of Colorado citizens. Currently, the Division targets adults who are chronically mentally ill and adults who have a major mental illness. Individuals are considered chronically mentally ill if they have a history of mental illness (previous intensive treatment) and as a result of their disability, are unable to care for themselves.

The Western Interstate Commission for Higher Education (WICHE) is located in Boulder (27 miles from Denver). The Western Regional Education Compact, an interstate agreement among western states,
established the Commission in 1953. WICHE's mission is to promote the interstate sharing of resources in higher education. Those resources may be programs, facilities, expertise, information, or finances. WICHE works to accomplish its mission through cooperation and collaboration among the western states and their institutions of higher education. The Mental Health Program is one of the major elements of WICHE. It involves the following activities: 1) initiates, facilitates, and coordinates communication and collaboration among mental health educators, researchers, practitioners, and administrators both among and within states; 2) assists state mental health systems to identify, prioritize and address issues of common concern; 3) provides its constituents with information on innovations in mental health management and practice along with technical assistance on the implementation of system change, and 4) serves as a fact-finding agency carrying out or coordinating data-based decision support projects and system research.

3. **TeleHealth/TeleEducation Program**

The TeleHealth/TeleEducation program at the University of Colorado Health Sciences Center was established in 1995 with the goal of providing the highest quality medical consultations, education and research opportunities to communities and health care providers throughout the state. The UCHSC seeks to provide access to primary care, education, and research to rural, underserved populations through educational outreach utilizing technology in established networks such as the Colorado Area Health Education Centers (AHECs). Additionally, UCHSC currently offers distance learning, training programs, and extended studies via the AHECs in nursing programs; community educational training programs; community educational programs; library resources services; dentistry advanced clinical training programs; graduate course work in nursing, pharmaceutical sciences, physical therapy and public health; geriatric health care programs; and other continuing medical education. The UCHSC/University Hospital is currently linked electronically to the four CU campuses, the Family Medicine Residency Program at St. Mary's Hospital in Grand Junction, the
Southwest Health Systems, Inc., in Cortez, the Mount San Rafael Hospital in Trinidad, the Veterans Affairs Hospital satellite clinic in Colorado Springs, the Four Corners Hematology Oncology Practice in Durango, and to the statewide network for delivery of programming to many rural communities. Opportunities being pursued include the delivery of obstetrical/gynecological ultrasound interpretations, delivery of video-conference gynecological clinical consultations, neonatal echocardiogram consultations, and a pilot project in telemedicine for the Colorado Department of Corrections using the Limon Correctional Facilities. Additional efforts to expand this program to other rural communities are continuously and actively pursued.

The specific goals of the UCHSC TeleHealth/TeleEducation program include:

A. Improve access to health care for patients who are geographically or socio-economically isolated.

B. Enhance the quality, continuity and affordability of health care.

C. Increase security and financial stability of rural hospitals.

D. Find access for patients to obtain medical consultations of the highest quality in their own community as well as the educational experience associated with such consults.

E. Avoid unnecessary travel to secondary or tertiary care centers and maintain current community based patient/physician relationships and educational program access.

F. Enhance continuing health professions’ education and support for rural based physicians and other health care providers; and remove the frequent obstacles of professional isolation.

G. Provide support for the socioeconomic fabric of rural communities by ensuring the integrity of the health care system and effectively utilize the State’s resources by creating integrated statewide networks for health sciences information and education for the state’s citizens.

H. Enhance the educational, patient care, and health services research components of the University of Colorado Health Sciences Center.
a. Overview of Current Programs and Activities in TeleHealth and TeleEducation

A summary of current telehealth/teleeducation program utilization by program area is provided in Table III. An overview of the current major program activity related to telehealth/teleeducation is provided below.

Grand Junction

The UCHSC, and the St. Mary's Family Medicine Residency Program, have teamed up to create a network to enhance rural patient care and health services providing access to the latest health care technology, continuing education, research and administrative computing services. This project was designed to support telemedicine and distance education applications, allowing physicians at the St. Mary's Family Practice to conduct medical consultations with physicians and specialists at the Health Sciences Center. This connection is also utilized for transmission of continuing medical education programs and access to several database computer services, including internet, the world wide web, biomedical databases, library services and Colorado Medical Rounds via the UCHSC Campus Network. Additionally, the St. Mary's Family Medicine Residency Program has been connected via T-I to Cortez's Southwest Memorial Hospital.

VAH/Colorado Springs Clinic

Clinicians at the VAH Clinic in Colorado Springs have teamed up with the Health Sciences Center to conduct psychiatric consultations. Installation of a T-I circuit from the University of Colorado Springs Campus to the VAH clinic provides the means of transmission. Clinical consultations commenced on August 22, 1996. The program remained active until September 30, 1997, when the Veteran's Administration realigned the service regions for the Veterans Administration Medical Center. A total of 340 consultations were completed. This program provided a very successful testbed for the regular delivery of telepsychiatry. The initial consultations have been well received by patients and professional staff and the program was felt to be a clinically sound and cost effective modality for psychiatric patients at a distance.

High Plain Rural Health Network

The UCHSC has developed a collaborative relationship with the High Plains Rural Health Network to access and respond to requests for medical consultations and/or continuing education programs in rural areas of Colorado where no current network connection exist. Medical consulta-
**TABLE III**
American Indian and Alaska Native Programs, Programs for Public Psychiatry, and TeleHealth/Education Facility Program Plan
Estimation of Program Service Utilization by Audience Group
TeleHealth/TeleEducation Programs - UCHSC/UH

February 1998

<table>
<thead>
<tr>
<th>Program Access Site</th>
<th>Videoconferencing Programs/Month</th>
<th>Average Number of Faculty Utilizing Program Service</th>
<th>Average Number of Clinical Housestaff Utilizing Service</th>
<th>Average Number of Students Utilizing Service</th>
<th>Total Average Number of Individuals Utilizing Service Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Mary's Hospital/Family Practice</td>
<td>5 continuing education programs per month 10 clinical consultations per month</td>
<td>4-8</td>
<td>8-12</td>
<td>4-6</td>
<td>250</td>
</tr>
<tr>
<td>Veteran's Administration Medical Center</td>
<td>3 continuing education programs per month</td>
<td>6-12</td>
<td>16-28</td>
<td>6-12</td>
<td>40</td>
</tr>
<tr>
<td>High Plains Rural Health</td>
<td>13 continuing education programs per month</td>
<td>20-36</td>
<td>20-36</td>
<td>18-24</td>
<td>900</td>
</tr>
<tr>
<td>Denver Health Medical Center/ Colorado Department of Corrections/ Colorado Access</td>
<td>11 clinical consultations per month 2 continuing education programs per month</td>
<td>4-6</td>
<td>20-36</td>
<td>672</td>
<td></td>
</tr>
<tr>
<td>Children's Hospital</td>
<td>6 continuing education programs per month</td>
<td>50-100</td>
<td>25-50</td>
<td>1,300</td>
<td></td>
</tr>
<tr>
<td>Durango - Four Corners Oncology Practice</td>
<td>5 clinical consultations per month</td>
<td>4</td>
<td></td>
<td>72</td>
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<tr>
<td>Health Care Colorado Consortium</td>
<td>24 clinical consultations per month</td>
<td>16-24</td>
<td>12-18</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Trinidad - Mt. San Rafael Hospital</td>
<td>20 clinical consultations per month 6-8 continuing education programs per month</td>
<td>8-12</td>
<td>10-18</td>
<td>New program began 2/98</td>
<td></td>
</tr>
<tr>
<td>International Programs</td>
<td>6-8 clinical consultations per month</td>
<td>20-150</td>
<td></td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>AHEC (Nursing Programs)</td>
<td>62/Year</td>
<td></td>
<td>60-65</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Dentistry</td>
<td>1 continuing education program per month</td>
<td>10</td>
<td></td>
<td>20-40</td>
<td>400</td>
</tr>
<tr>
<td>Geriatrics Programs</td>
<td>3-4 continuing education programs per month</td>
<td>10-20</td>
<td>10-20</td>
<td>10-16</td>
<td>400</td>
</tr>
<tr>
<td>MAPP Program</td>
<td>Desktop Video</td>
<td>3-5</td>
<td></td>
<td>35-40</td>
<td>52</td>
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<tr>
<td>Pharmacy</td>
<td>1-6 continuing education programs per year</td>
<td>10-15</td>
<td></td>
<td>20-40</td>
<td>135</td>
</tr>
<tr>
<td>Nursing</td>
<td>30-32 per month</td>
<td>3-5</td>
<td></td>
<td>55-60</td>
<td>360</td>
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</table>
tions have been requested from the Poudre Valley Medical Center in Fort Collins. The High Plains Rural Health Network (HPRHN) have received numerous requests for access to nursing and medical continuing education programs. The UCHSC conducting discussions with the HPRHN to determine which continuing education programs can be accessed via mutual efforts.

Denver Health and Hospitals
The University of Colorado Health Sciences Center has completed a T-1 connection to the Denver Health Medical Center. This connection enhances the opportunities to share medical consultations, educational programs including telemedicine, grand rounds, and access to library services, internet, and databases for faculty, staff and students. Additionally, the opportunity for administrative applications between DHMC, UH and UCHSC is now possible via this connection and should serve to save time and costs by allowing communications without travel back and forth between the institutions. Current DHMC Telemedicine and UCHSC and UH partner to provide telemedicine consults for the Department of Corrections/Colorado Access Health Care Maintenance Organization. This is a pilot project with the Limon Correctional Facility from January, 1997 - June, 1998, at which time the expansion of the project will be considered.

The Children's Hospital
A T-1 connection is being used to implement video-conferencing over the T-1 link for regular broadcast of Pediatric Grand Rounds, medical consultations, educational programs, and administrative applications. The Shriners Hospital organization has initiated communications via the UCHSC TeleHealth/TeleEducation Program to develop a telemedicine network (via ISDN/Switch 56 videoconferencing communications) with Children's Hospital for the purpose of ongoing relations with the Orthopedic Department and Teleradiology to support the Shriners care to children. A strong interest in utilizing this connection for Genetic Counseling to remote sites has been expressed. The Pediatric Cardiology Department, the Health Sciences Center and University Hospital have installed equipment to support Neonatal Echocardiogram consults between University Hospital's Neonatal Nursery and Children's Hospital's Cardiology Department. The Pediatric Preceptorship Program has also expressed interest in accessing medical education programs for their students and residents, and, the Fetal Alcohol Syndrome Program which is a component of the MAPP Program has expressed interest in accessing patients residing on the Ute Indian Reservation in Cortez for FAS diagnosis and evaluation.
National Jewish Hospital
The UCHSC and National Jewish Hospital have T-I connectivity which is used for research and data applications. This connection was established for the purpose of administrative communications between the institutions and the research and database applications for ongoing education and research activities. Additional unification of this network is planned for the purpose of delivery of medical consultations, educational programming and administrative telecommunications.

The Given Institute
The UCHSC has upgraded the network communications at the Given Institute in Aspen. The intent is to extend access to the UCHSC campus network from the Given Institute via T-I connection.

CERT (Counsel on Energy Resource Tribes)
The CERT Organization is an nonprofit organization composed of fifty-three federally recognized American Indian Tribes and four affiliate Canadian Indian Nations. CERT recognizes that trained and experienced Indian people are essential to build healthy Tribal communities. CERT is interested in Distance Education and support in the development of telecommunication applications to support the ongoing education and access for their efforts. The Navajo Indian Tribe has a pilot program running which is primarily in northwestern New Mexico and northeastern Arizona. The CERT Organization whose headquarters are in Denver, plans to collaborate on the establishment of a network similar to the Navajo project. CERT has an interest in establishing a partnership with the UCHSC to train Indian students in telemedicine/telecommunications technologies.

Durango - Four Corners Oncology Practice
University Hospital has implemented a videoconferencing clinical consults with physicians at the Four Corners Oncology Practice in Durango for the purpose of conducting medical consultations for potential Bone Marrow Transplant patients. Utilizing a grant from US West, UH has been able to have a T-I connection installed to Durango. Additionally, the UH OB/GYN department has provided medical consultations to an OB/GYN Practice in Durango.

HealthCare Colorado
The University Hospital and the University of Colorado Health Sciences Center TeleHealth/TeleEducation Program has proposed the development of a telemedicine network for the HealthCare Colorado Consortium to
connect all of the sites of the members of the consortium using dial-up (ISDN/Switch 56) technology; to provide equal access for all members to all sites; to allow for simultaneous broadcast to all members for administrative and educational programs; to allow expansion of the network to include new members; and to provide compatible communication capabilities with all of the members. The UCHSCFUH TeleHealth/TeleEducation Program staff will act as a consultant to members planning to purchase and access the network and for programmatic network design and development.

**Trinidad - Mount San Rafael Hospital**

University Hospital provides Teleradiology programming via T-I to the Mount San Rafael Hospital in Trinidad. Trinidad has acquired videoconferencing equipment for the hospital which will allow for expansion of services primarily in Cardiology and Obstetrics.

**DGH/UH, Colorado Access and Department of Corrections**

The University Hospital, Denver Health Medical Center, Colorado ACCESS, and the Department of Corrections have entered into a contract (Pilot Project) to provide telemedical services to the Limon Correctional Facility for the Department of Corrections. The design, and engineering for this project has been completed, equipment has been purchased and installation of T-I's have been completed to support this effort. Clinical protocols, policies and procedures for the program were developed and the 18 month pilot project was initiated on June 1, 1997. To date, 81 medical consults from both the Health Sciences Center and Denver Health Medical Center have been provided.

**International Telemedicine Programs**

The UH is currently in discussion with interested clinicians in Valencia, Spain in an effort to develop a program allowing medical consultations of any discipline between Spain and the UH/UCHSC. To date, three consultations in the areas of pulmonary medicine and neurosurgery have been completed.

**Community Service Programs**

Several community service programs such as the Mini-Medical School Program currently utilize the existing network to deliver educational programs to rural and urban communities.
AHEC (Area Health Education Centers) Programs
The UCHSC is currently networked with the Colorado Area Health Education Centers located in Alamosa, Clifton, Denver (UCHSC), Greeley, and Pueblo. It is expected that the additional sites of Montrose and Craig will be added to this network in 1997-98. The Colorado State CIVICS network is used to deliver ongoing graduate nursing courses and continuing education courses to these sites on a regular basis. The AHEC Program is also a recipient of a grant supporting the MAPP program utilizing web-based information and lan-based videoconferencing via the internet to reach rural areas of Colorado and Wyoming.

Child Health Associate Program
The Child Health Associate/Physician Assistant Program at the Health Sciences Center is a PA program specializing in the care of infants, children and adolescents. This is a three year programs which prepares is graduates to provide comprehensive medical care for children while working under the guidelines set of PA’s. The CHAP’s practice in many settings, including private offices, community health centers, school-based adolescent clinics, emergency rooms, and newborn nurseries. In recent years, graduates are also choosing to practice in family medicine practices, emergency urgent care and rural medical practices. The rural track is the area of primary interest in which to deliver distance education opportunities. Rural rotations are required in the second and third years. The use of interactive video to deliver case conferences and grand rounds would be beneficial for both rural students and HSC students who are unable to attend applicable conferences and programs available at Children’s Hospital due to scheduling or space limitations. Additionally, it would be beneficial to be able to provide access to e-mail, library services, and internet access to the students and preceptors in the rural sites. Coursework in research methods, evaluation of medical literature and epidemiology also lend themselves to delivery via the technology offered by the Health Sciences Center. Plans are underway to deliver coursework for a Clinical Masters Program particularly to certified PA’s working in the communities and unable to access educational program without leaving their jobs. Finally, board review coursework could be delivered to rural sites for those PA’s up for recertification.

Continuing Medical Education
Numerous communities have expressed interest continuing medical education for health care professionals. The UCHSC and UH is planning for medical education program delivery in the near future.
Graduate School Programs

The Graduate School is a University-wide program that encompasses the Boulder, Colorado Springs, Denver and Health Sciences Center Campuses. Over 900 graduate students and more than 300 full-time faculty at the Health Sciences Center participate in 21 graduate programs leading to masters and doctoral degrees. Coursework in biometrics, Child Health Associate, genetic counseling, medical physics, nursing, pharmaceutical sciences, physical therapy, public health, analytic health sciences, biochemistry, cell and developmental biology, experimental pathology, immunology, microbiology, molecular biology, neurosciences, pharmacology, physiology, and toxicology is available. There are numerous courses, primarily in nursing, which are delivered to remote sites on a regular basis presently, with plans for many others to be implemented.

M.A.P.P. (Mountain and Plains Partnership) Program

This program is made up of fifteen public and private educational institutions and agencies, working together to provide training and education for health care providers in Colorado's rural, frontier and urban underserved areas. The goal of this program is to increase the number and quality of primary health care, mid-level, advanced practice providers in the 21 rural counties designated as Health Provider Shortage Areas (HPSAs) and Medical Underserved Areas (MUAs) - a total of 33 areas of the state. The statewide focus of MAPP is the recruitment, education, training, certification and retention of "homegrown" Physicians Assistants (Pas), Nurse Practitioners (Nps) and Certified Nurse Midwives (CNMs) who live and/or work in these 33 underserved areas. The University of Colorado Health Sciences Center is the statewide base for the five Area Health Education Centers (AHECs); (1) Central; (2) Centennial (NE); (3) Southeastern; (4) San Luis Valley; and (5) Western. These field-based AHECs provide outreach health education, training and clinical opportunities for students and health care professionals in medicine, nursing, dentistry, pharmacy and other health-related fields. An estimated one-third of Colorado's 63 counties do not have a primary care work force that meets population needs for access to health care. From 25 to 30 jobs per year estimated to be available for PAs alone. The success of the five AHECs and the MAPP project depends on integrating judicious uses of community-based technologies with institution-based faculty and field-based clinical preceptors. The AHEC/MAPP technology strategy combines currently deployed, classroom-based, interactive video (CIVICS) with desk-top computer-based instruction and clinical preceptor communications, in a "classroom-of-one" model, to link students, faculty, preceptors and health care providers - "anywhere, anytime".
Geriatrics Programs
The University of Colorado Health Sciences Center (UCHSC) and its consortium institutions will continue to support and expand the Colorado Geriatric Education Center (CGEC) in its efforts to enhance geriatric health care throughout Colorado. Their programs reach out to health care professionals who care for rural and urban underserved elderly through various educational formats ranging from six-day intensive review courses to home study programs. The CGEC continues to expand its model collaborative efforts with Colorado's AHEC system, offering such programming as mental health, diagnosis and management of Alzheimer's Disease, Diabetes, High Blood Pressure, and other programs with minority and culturally content relevant to the geriatric population. This coursework includes didactic sessions and case consultations on an interdisciplinary bases involving physicians, nurses, psychologists and social workers.

Nursing Programs
The School of Nursing currently has the most extensive offering of distance education coursework on the HSC campus. Distance education programs provided for nurses by the University of Colorado are administered through the School of Nursing Office of CE/ES. This office has provided a bridge between the School of Nursing and registered professional nurses in the State and across the nation who need to maintain competency in a rapid changing environment. Many of these programs are grant funded and have support for the development of innovative instructional methods and dissemination models. Both credit and noncredit courses are offered and students need not be accepted into a degree granting programs for general enrollment into courses for academic credit. The Academic Credit Option, Degree Program allows students to be accepted into an off-campus, state funded, masters degree specialty program with courses offered via two-way interactive video. Noncredit Courses are offered as "continuing education programs" and may be taken for nursing contact hours via two-way interactive videoconferencing. Program/course delivery methods include the traditional, taught by faculty from the UCHSC-SON faculty who travel to the remote sites; two-way interactive video, where classes are taught using interactive video transmitted from the HSC to the four AHEC sites; Computer Based Instruction, where students can register for on-line courses accessed on the World Wide Web; and Blended, where telecourses are offered to students via two-way interactive video when the cohort of students is located near an AHEC site. Traditional distance education is delivered in LaJunta/Lamar and Durango. A cohort of students is being formed in the Northwestern Colorado in the Steamboat Springs/Craig/and Hayden areas.
Preceptorship Programs/Medicine

The School of Medicine currently conducts preceptorship programs in Primary Care, General Internal Medicine, Family Medicine and Pediatrics as part of the Medical School curriculum. The curriculum is designed to provide the scientific and clinical background to prepare graduates for the practice of medicine. Most of the basic science courses are taught in the first two years. Students attend clerkships during the third and fourth years. The Senior Year consists entirely of electives. As part of the School’s commitment to produce more generalists, a 3-year course is integrated into the required medical school curriculum. The course, entitled "Primary Care", will place students with practicing general physicians one-half day each week to see patients over time to learning interviewing and diagnosis skills. Students may elect a rural health experience which places them in rural communities throughout the state. Family Medicine places students in 49 locales throughout the state including Denver; General Internal Medicine places students in 14 different locales and there are 8 other sites under consideration; and Pediatrics places students in six different locales. While in the rural experiences, the students and preceptors (Clinical Faculty Members) could benefit from access to e-mail, library resources and the internet. This is not a reality to date, but is an area of great need and would benefit the student, faculty and medical communities in educational programming and administration of the program for scheduling, counseling and evaluation purposes. It would also be possible to deliver continuing medical education to the preceptors if network connections were made available and access to resources were granted in reciprocation for their time and energy in training our students.

b. TeleHealth/TeleEducation Program Office

The campus TeleHealth/TeleEducation Office was developed during 1996 with the primary purpose of coordinating and providing the necessary support services for the numerous campus telehealth and teleeducation program activities. The primary goal for the office is to work with other state entities to develop a network to provide consultative medical services and education - including degree granting, continuing and community education - to the state and region. The Office serves as a focal point for the program and work with both the ‘users’ and ‘suppliers’ to assure the success of the telehealth and teleeducation program. The Office is charged with the coordination for all new programs and with facilitating program development and evaluating programs. The telehealth/teleeducation program will improve access to health care and education for the citizens of the state and serves as another mechanism for the UCHSC to fulfill its mission.
The TeleHealth/Teleducation Office is currently staffed by 3 FTE which include the faculty director, administrative director, and support staff member. The Office is housed in 560 square feet of office space located in the basement of the Research Bridge facility. Current staff from the Offices of Educational Support Services and Information Systems also support the technical needs - design, engineering, and technical implementation - for the telehealth and teleeducation projects for both on-campus and remote sites.

B. Program Requirements

1. The Division of American Indian and Alaska Native Programs

The requirements of the existing programs of the Division of American Indian and Alaska Native Programs exceed the current space available at the 9th Avenue and Colorado Blvd. campus site. The Division is among the first programs scheduled for relocation to the University of Colorado Health Sciences Center at Fitzsimons. Approximately 22,400 gross square feet of new space is necessary to adequately accommodate the existing programs and the 41 faculty and staff currently housed in the University North Pavilion facility. Additionally new space is necessary for the development of the new Center for Native American TeleHealth and TeleEducation.

Early in the development of the Native American health programs the need for a means of communication that could a) link a highly dispersed network of professional and institutions collaborating on division activities; b) efficiently disseminate findings and products to private individuals, service agencies, institutions of higher education, advocacy groups, and decision-making bodies; c) facilitate problem-solving and the exchange of ideas, experiences, and perspective among individuals and organizations at work in the Native American health arena; and, d) provide high quality educational opportunities regarding the culturally sensitive diagnosis, treatment, and prevention of physical, alcohol, drug, and mental disorders that plague Indian and Native people was recognized. Toward this end, in August 1996, the Division established internet sites for the three existing
programs: the NACA/ANMHR, HNI, and NEHCR. These particular internet sites provide indexed, searchable data bases with respect to exemplary programs in mental health, substance abuse, and aging services, individual and organizational sources of related program expertise, discussion groups on timely topics in Native American health (e.g., managed care and tribal priorities, cultural competence in delivering care, bridging biomedical and traditional approaches to healing), and otherwise inaccessible bibliographic resources specific to this area of interest.

Users of the programs and services offered by the Division of American Indian and Alaska Native Programs have continued to express a keen desire for distance learning opportunities. The most frequently suggested topics include: a) patient-oriented, case-based instruction in the culturally informed diagnosis of physical, alcohol, drug, and mental disorders; b) a similar approach to training in culturally relevant interventions for treating physical, alcohol, drug, and mental disorders; c) case-based, interactive projections of change in the organization, financing, and delivery of health care services in Native American communities; d) program- and systems-based methods of evaluating health care outcomes; e) cultural issues in research design, with special emphasis on instrumentation, sampling, data collection, analysis, and community partnerships, and f) ethical issues in the delivery of health services to American Indians and Alaska Natives as well as the study of physical, alcohol, drug, and mental disorders in this population. Interactive courses, CD-ROM based workshops, and videoconferencing are the recommended vehicles for instructional delivery.

A second major request from program users is for consultation and liaison with clinical, research, program development, and policy experts in Native American health. Clinical activities of the highest priority include: a) patient-oriented consultation on the cultural dynamics affecting the diagnosis and treatment of physical, alcohol, drug, and mental disorders; b) provision of brief, culturally relevant interventions, and c) targeted supervision as required, for example, by the 1915b waiver for a Medicare managed behavioral health care program. In terms of research, program users have requested assistance in: a) formulating studies capable of attracting external sponsorship; b) identifying measures appropriate to
the substantive focus and cultural context of these studies; c) determining scientifically sound sampling strategies, statistical power, and feasibility of implementation; d) developing reliable, cost-efficient means of collecting data; e) analyzing data, particularly in regard to multivariate procedures, and f) editorial review of reports and manuscripts. Requested program development activities include: a) linkage to and interaction with other, relevant Native American health programs; b) technical assistance in preparing competitive program proposals and contracts; c) constructing management information systems that go beyond staff allocation of time and effort to address service outcomes, and d) increasing awareness of as well as access to funding opportunities. Program users also desire greater and more timely knowledge of health care policy developments, as well as issues experienced by other Indian/Native communities in bridging state and federal differences in financing and organization of care.

A third area of increasing interest by program clientele is bibliographic information access and retrieval. Users repeatedly cite the fugitive nature of publications pertaining to Native American health. A study released by the University of Oklahoma’s American Indian Institute (1994) estimated that Index Medicus and Psychology Abstracts only catalogue 60% of the articles related to Native American affairs. Government reports, particularly those submitted to or released by the Indian health Service and Bureau of Indian Affairs, are widely assumed to be difficult to learn about and almost impossible to obtain. Educators in tribally controlled colleges, health professionals, and program planners characterized this lack of access to the basic literatures in their fields as severely handicapping.

Meeting the needs in these three areas of native American health - namely, distance learning opportunities, consultation/liaison, bibliographic information access and retrieval - is consistent with the missions of the Division of American Indian and Alaska Native Programs and the University of Colorado Health Sciences Center. But it requires new program space and resources aligned in a thoughtful, interrelated fashion that gradually builds toward a comprehensive infrastructure capable of developing, testing, training, and disseminating such technological products and methods. The University of Colorado Health Sciences Center’s vision for the year 2020, entitled the “Bridge to the Future” offers an
unique and timely opening to pursue this agenda. Two components of this vision are especially relevant: an emphasis on a total learning environment that employs state-of-the-art telecommunications technology and eventual transition of the UCHSC campus to the Fitzsimons site which allows for new facility development and necessary space for program expansion.

a. The Center for Native American TeleHealth and TeleEducation

The Center is a new program conceptualized in terms of a set of technological resources drawn from and supported by an existing, but physically limited array of telecommunications services at the UCHSC. These services include: a) TeleHealth Program; b) Educational Support Services; c) Office of Education; d) Medical Informatics Department, and e) Information Systems/Network Services. The major objective of the Center for Native American TeleHealth and TeleEducation will be to coordinate and support the various emerging telehealth and teleeducation program requirements of the Division of American Indian and Alaska Native Programs. This program support will include multimedia development and audiovisual support, media production, computer support, technical assistance in WWW and CD ROM distribution and digital archiving. Immediate staffing requirements for the Center are projected to include an Associate Director and Program Specialist. As now planned, specific program activities of the Center will include digital health education, telehealth resources, telecommunications training, and telecommunications impact assessment.

• Digital Health Education

The Digital Health Education Program will create and disseminate unique, culturally relevant educational opportunities to health care providers, planners, and administrators in Native American communities on a local, regional, as well as national basis. It is currently envisioned that at least seven major initiatives will flow from this component, including problem-oriented, case-based, interactive instructional offerings in: a) Diagnosis and Assessment; b) Treatment;
c) Preventive Intervention; d) Program Evaluation; e) Service System Financing and Organization; f) Research Design, and g) Ethics in Care, all of which address the social and cultural circumstances that affect such activities when working with American Indians and Alaska Natives. As these initiatives mature, it is anticipated that they will be expanded to include the development and dissemination of consumer and family educational opportunities in Native American health. These activity-driven initiatives will be complemented by a Digital Health Education Library which will provide the staff and facilities to archive multimedia content, organize that content into digital documents, lectures, and courses, and develop delivery pathways to off-site trainees, providers, and community based organizations.

**TeleHealth Resources**

The TeleHealth Resources Program will create, organize, and conduct all Center activities related to consultation/liaison and bibliographic information retrieval and access. As envisioned, a wide range of initiatives with regard to the dissemination of clinical, research, program development, and policy expertise in Native American health will be developed. The first will be to establish and equip consultation/liaison offices in some of the Indian and Native communities with whom the Division of American Indian and Alaska Native Programs presently works—choosing from among, for example, Oglala Sioux Nation/Pine Ridge, SD; Rosebud Sioux Tribe/Mission, SD; Navajo Nation/Window Rock and Tuba City, AZ; Seattle Indian Health Board/Seattle, WA; Cherokee Nation of Oklahoma/Tahlequah, OK; Southern Ute Tribe/Ignacio, CO; Salish and Kootenai Confederated Tribes/St. Ignatious, MT; Confederated Tribes of the Warm Springs Reservation/Warm Springs, OR; Minneapolis Indian Center, Minneapolis, MN; Eastern Cherokee Band/Swiftbird, NC—and is heavily involved with the local human services agencies. Division faculty will negotiate the focus, content, format, frequency, and cost of scheduled consultations with local health care providers, planners, and administrators. Center staff will work closely with the other Division faculty and community-
based personnel at the local consultation/liaison offices to implement these consultations via room-based and desktop-video conferencing.

Within the Division, the NCAIANMHR and NEHCRC presently maintain two unique bibliographic data bases specific to the health of Native Americans. One numbers over 3,700 indexed documents, published and unpublished, on the cause, epidemiology, diagnosis, treatment, and prevention of alcohol, drug, and mental disorders among Indian and Native people. The second contains slightly more than 200 publications, also indexed and searchable by key words, pertaining to health, broadly defined, of Native elders, with special emphasis on service-related implications. The latter just became available through the NEHCRC WWW site; the former is not electronically available. Neither provides the complete text of the documents in question. The TeleHealth Resources program will digitalize both, establish means of electronic distribution, and regularly update their content.

- **Telecommunications Training**

  Given the rapid evolution of technologies applicable to health sciences, and the nonuniform distribution of services in Native American communities, many providers, planner, and administrators working with this special population are technologically illiterate as well as unaware of the potential that these new technologies hold for their efforts. Consequently, the Telecommunications Training Program will develop and offer several instructional tracks, the purpose of which is to increase local capacities to consume and extend the resources available through distance health and education. One track will focus on increasing the number and competence of community members in using telehealth resources. In this regard, an 18 month period is envisioned during which an average of three individuals from each of five Indian/Native communities will be selected to participate in the Native American Telecommunications Internship. The internship will provide trainees with a modest stipend, computer hardware and software, and
Internet service. Interns will travel regularly to the American Indian and Alaska Native Programs and Telehealth facility at Fitzsimons over the first six months to receive intensive training in relevant aspects of telehealth technology. The middle six months of the internship will entail the development and implementation of a telehealth project (e.g., WWW site, localized learning materials). During the last six months, interns will be expected, in turn, to each train three other community members in the use of this technology. Center and TeleHealth Program staff will provide ongoing consultation and support. The second track will focus on increasing the number and competence of health professionals from Native American communities in using telehealth and teleeducation resources. Here a 12 month period is envisioned during which two health professionals from each of five Indian/Native communities will be selected to participate in the Native American Telecommunications Fellowship. The fellowship will provide trainees with a modest stipend, computer hardware and software, and internet service. Fellows will travel regularly to the Fitzsimons facility throughout the year to receive intensive training in the relevant technology. During the last three months of the fellowship, trainees will develop and implement telehealth/teleeducation projects specific to their professional expertise. At the conclusion of the training period, Fellows will be provided with travel support and modest discretionary funds to present this work at a major health conference (e.g., National Indian Health Board, Indian Health Service, National Association of American Indian Physicians, American Public Health Association).

**Telecommunications Impact Assessment**

The Telecommunication Impact Assessment Program will employ a range of investigative techniques (e.g., user evaluation, focus groups, participant observation, cost/benefit analyses, targeted marketing surveys, patient outcome assessments), tailored to the goals and methods of the Center’s activities, to answer such questions as relevant to
Native American health. Effectiveness, however, is not the only concern. As evident from the information gleaned through the exit surveys to the existing Division of American Indian and Alaska Native Programs WWW sites, another objective of this program component will be to ensure systematic feedback about each activity in order to optimize its relevance and appeal.

**Staffing Requirements for the Center for Native American TeleHealth and TeleEducation**

The current Division Director, initially will assume responsibility for managing the Center. An Associate Director will be recruited to direct the operational details on a daily basis, and to coordinate collaborative links with the UCHSC telecommunications services that will provide technical and infrastructure support. S/he also will be responsible for administrative and budgetary oversight of the activities in each of the Center's four program components. A Program Specialist will be hired to perform functions, partly secretarial support, but more importantly to serve as the central production scheduler. The Center will utilize the support services to be provided by the technical specialist staff of the Office of Educational Support Services who will be housed in the TeleHealth/TeleEducation Program Office space within the new facility.

2. **The Programs for Public Psychiatry**

As noted earlier, the Programs for Public Psychiatry are deeply engaged in direct clinical care, medication management, clinical supervision, patient- and program-consultation/liaison, in-service training, education, and research at over 20 sites dispersed across the entire state. Recent estimates indicate that the faculty spends nearly 28% of their time in transit among these points. Clearly, more efficient means of conducting this work are necessary, especially in times such as these, which place a premium on reimbursement of program costs. PPP consequently
had envisioned moving aggressively in the application of telehealth and teleeducation technologies to its efforts. This approach promises to extend existing resources in ways not now possible, as well as to pursue new opportunities in the state and Rocky Mountain region that cannot be considered due to the prohibitive expense of current methods. Thus, physical proximity to the Office of TeleHealth and TeleEducation makes this plan much more feasible.

Another major area of growth is more programmatic than technological in nature. The PPP has enjoyed a consultation relationship with Eagle Lodge, Inc., a Denver-based out- and in-patient alcohol and mental health treatment program for American Indian adolescents and adults. Faculty from the Division of American Indian and Alaska Native Programs (DAIANP), which was previously described, have collaborated with PPP faculty in this endeavor. Indeed, based on the success of that partnership, the former have sought to expand the scope of this collaboration to include other Indian communities in the state and region. The DAIANP is heavily involved in consultation, program design, and research in regard to the mental health of Indian youth detained in rural, reservation corrections centers, the treatment and management of seriously mentally ill Native adults, and the local systems of care which seek to address the needs of seriously emotionally disturbed Indian children. Each of these emphases is directly relevant to the mission and experience of the PPP. Hence, relocation to this new facility, in combination with the joint movement toward telehealth and teleeducation, will greatly speed the integration of their respective efforts, and respond to a long-standing need.

The PPP has natural affinities with several other programs in the Department of Psychiatry and the broader university, which will be enhanced by its relocation to this new facility. Detained juveniles and seriously mentally ill adults, notably the poor and indigent, are at high risk of comorbid alcohol, drug, and mental disorders. Thus, it is no accident that the PPP and department’s Addiction Research and Treatment Services (ARTS) are beginning to work closely with one another, as have the DAIANP and ARTS. All concerned will be well served by the telehealth and teleeducation linkages that become possible with this move. The Denver VA Medical Center (DVMAC), which has an ongoing relationship
with the Native American health programs, shares patient populations with the PPP, through the MHCD, which treats many of the homeless mentally ill in the greater metropolitan area. A disproportionate percentage of these individuals are Vietnam veterans who suffer from PTSD and substance dependence. The DVAMC's Psychiatric Services already employs telehealth mechanisms to improve the continuity of the care of provided to eligible veterans. With little effort, their efforts and those of the PPP can be coordinated technologically to reduce service duplication and to ensure more consistent management in the community.

3. The TeleHealth/TeleEducation Program Office and Resource Center

The TeleHealth/TeleEducation program consists of two program elements: a central administrative function with support services and faculty who organize and implement their specific applications in clinical care, education and research areas. Space within the new American Indian and Alaska Native Programs, Public Psychiatry and TeleHealth/Education Facility necessary to house the functions of TeleHealth/TeleEducation Office and Resource Center is being proposed in this program plan. From this new facility, the Office will facilitate all telehealth and teleeducation activities on both the Fitzsimons and 9th Ave. and Colorado Blvd sites. Space is needed by the TeleHealth/TeleEducation Office to accommodate the present shortage and fragmented support for TeleHealth/TeleEducation Programs. As indicated earlier, the Health Sciences Center and University Hospital have a very active and growing network of constituents accessing clinical, educational and research programs. By providing new space to the TeleHealth/TeleEducation Office to allow it to develop a technology resource center, the services presently provided by the TeleHealth/TeleEducation Program, Educational Support Services, the Office of Education, the Medical Informatics Department, and Information Systems Network can be better organized to provide more efficient core services and “One-Stop” access to technology resources. These resources will be used to develop a myriad of teaching tools and materials, a digital library (archive), academic data sets, clinical data sets, and telehealth/teleeducation technologies utilizing state of the art equipment and facilities to support various programs including the Division of American Indian and Alaska Native Programs and Programs for Public Psychiatry.
The primary operational goals of the Office will include:

1) Promote collaborative, multi-disciplinary projects in research, teaching and clinical care;
2) Promote individual creativity and funding activity;
3) Provide basic services in technology consultation;
4) Provide efficiencies of scale and reduce inefficiencies of redundancy in core technologies;
5) Provide assistance to financially sound efforts and not be subsidizing service;
6) Develop collaborative academic research programs in the areas of ethics and anthropology of technology, technology assessment in education and health care;
7) Serve as an information hub providing:
   a) up-to-date descriptions and status of individual projects within the broad domains of distant (off-campus) and on campus clinical activities, education, research, and community service.
   b) archiving of digital teaching materials or directories (academic and clinical) that can be shared (freely or via collaborative arrangements)

The TeleHealth/TeleEducation Program Office and Resource Center will be developed in multiple phases. In the first phase three core programs will be functional and occupy space within the new American Indian and Alaska Native Programs and TeleHealth Facility. In later years, the TeleHealth/TeleEducation Program Office and Resource Center will grow as additional services and departments move to Fitzsimons from the 9th Ave. and Colorado Blvd. campus. It is expected that the TeleHealth/TeleEducation Program Office and Resource Center will become integrated with the other new clinical and educational facilities at Fitzsimons.

As currently planned, in addition to the TeleHealth/TeleEducation Program Office, three core programs will reside in TeleHealth/TeleEducation Program Office and Resource Center utilizing 18,560 square feet of new space. These three core programs include: 1) the TeleHealth Clinical Center; 2) the Digital Health Education Project; and 3) TeleHealth Center for Training and Research.
- **TeleHealth Clinical Center**
  The Telehealth Clinical Center will serve the clinical needs of the Fitzsimons campus as it grows. The Division of American Indian and Alaska Native Programs and Programs for Public Psychiatry of the Department of Psychiatry will reside in a new building along with the TeleHealth/TeleEducation Program Office and Resource Center and share studio and media production space and staff resources. Many of the major clinical activities of the UCHSC have a need for advanced telecommunications support. While desktop videoconferencing will be available throughout the Fitzsimons campus, specialized studios and other support services are most efficiently and cost-effectively concentrated in the TeleHealth/TeleEducation Program Office and Resource Center. The TeleHealth Clinical Center will serve the clinical needs of physicians, nurses, dentists, pharmacists, and other health care professionals. The major clinical programs relocating to Fitzsimons will require modern telecommunications. Outpatient diagnostic and therapeutic services will be supported by telehealth applications involving distant consultations (primary and follow-up), medical records review and transfer, teleradiology, monitoring and infusion therapy. Clinical programs at the UCHSC are increasingly utilizing telecommunication technologies to reach patients and communities. For example, the Cancer Center, the Division of American Indian and Alaska Native Programs, and Programs for Public Psychiatry need immediate and extensive interaction with selected communities for clinical trials, population-based studies, and other education and research activities.

- **Digital Health Education Project**
  The Digital Health Education Project will create and share digital resources for health care providers, the Center for Native American TeleHealth and TeleEducation, and the general public. A major stumbling block in distance health education has been the paucity of high-quality content in a format for digital delivery to remote sites. The Digital Health Education Project will have two components: The Digital Clinical Conferences Initiative and the Digital Library (archive). The Digital Clinical Conferences Initiative will organize, catalog, and broadcast to remote sites the clinical programs and other educational conferences in all areas of health sciences that occur daily.
on the Denver and Fitzsimons campus sites. The Digital Library in health sciences will include facilities and staff to archive unique multimedia content, work with faculty to organize content into digital documents/lecture/courses, and develop delivery pathways to off-site individuals, community organizations and health care providers.

The Digital Health Education Project will have several additional distinctive characteristics:

A. A multi-disciplinary approach in content development will be emphasized. Collaborative teaching/research/clinical education interactions on campus will lead to richer and more widely applicable content for users at a distance. The University of Colorado Health Sciences Center schools include medicine, nursing, dentistry, and pharmacy.

B. Partnerships will be formed with not-for-profit service organizations which share the educational and health mission of the university, with the goal to enhance educational content development and distribution.

C. Core areas of regional public and individual health needs will focus the initial content development and delivery strategy of the Digital Library. These include childhood and adult risk factor modification in atherosclerosis (obesity, sedentary life-style, nutrition, smoking), AIDS education, American Indian health issues, cancer prevention and detection, and childhood illness. Additionally, project in chronic disease management strategies utilizing telecommunication links directly from patients and local health care providers to specialists will translate this educational process to clinical implementation. Patients with severe chronic disease lining remote areas will benefit from enhanced accessibility to specialized care provided in a cost-effective manner with modern telecommunications. Exciting clinical research opportunities exist in geriatrics, malignancies, sever childhood asthma, sleep disorders, and congestive heart failure.

D. Assessment of the impact of these new technologies on the learning process and their cost-effectiveness will be emphasized. These digital initiatives provide a unique opportunity to collect unique research data to be used for programmatic improvement and the development of programs in other regions of the United States.

E. Telecommunication technologies will be appropriate for the nature and purpose of the distance interactions. Desktop Videoconferencing, internet-based interactions, and CD ROM distributions will all be utilized.

F. Alliances with the telecommunication and computer industries will be encouraged to assess new technological opportunities and enhance the ability to reach all remote sites.
• **TeleHealth Center For Training and Research**

The TeleHealth Center For Training and Research will have two primary goals: 1) the training of the next generation of health sciences practitioners, educators, and investigators in telehealth related technologies; and 2) the development of a formal academic program in Health and Telecommunications.

Currently there is rapid evolution of technologies applicable to health sciences, a nonuniform distribution of services in the country, fundamental problem of technology illiteracy of members of the health sciences community, and an ignorance of the ramifications of these new technologies and fields of distance health/education on fundamental aspects of personal interaction, community structure, and societal evolution. Training and research in telehealth are appropriate functions of an academic department that must emerge and mature in the 21st century. Within the TeleHealth/TeleEducation Program Office and Resource Center such a department will be developed.

The initial program emphasis will include:

- Assembling a faculty from the schools of health sciences campus and school and departments on other campuses including law, business, ethics, sociology, engineering, etc.
- Creating a curriculum for trainees in all areas of the health sciences.
- Developing a research program

**Staffing Requirements for the TeleHealth/TeleEducation Program Office and Resource Center**

The TeleHealth/TeleEducation Program Office is currently staffed by three FTE’s including the faculty Director, Administrative Director and Staff Assistant. The UCHSC Office of Educational Support Services (video production and conferencing) and Information Services Network Services (infrastructure development and management) provide the necessary technical support required for program access and delivery to remote sites. The total staff requirements for the TeleHealth/TeleEducation Program Office and Resource Center are projected to
be twelve FTE's. In addition to the three FTE's mentioned above, staff requirements for the TeleHealth/TeleEducation Program Office and Resource Center three technical specialists, two media specialists, one program support staff person, and three faculty/interns.

V. Space Requirements

This program plan involves the construction of a 50,000 gross square foot (34,000 assignable square feet) facility at the Fitzsimons campus site to house the Division of American Indian and Alaska Native Programs, Programs for Public Psychiatry, and the TeleHealth/TeleEducation Program Office and Resource Center. Of this total space, approximately 14,920 assignable square feet (asf) will be office space for both the Division of American Indian and Alaska Native Programs, the Programs for Public Psychiatry, and TeleHealth/TeleEducation Program Office and Resource Center; 7,300 asf is programmed as studio and media production space necessary to support the telehealth and teleducation program requirements of the three programs; the remaining 11,780 asf of space is program support space consisting of records, publications, and equipment storage, conference room space, and miscellaneous staff support space. A program space affinity illustrating the essential relationships among the three programs is provided in Figure 1. A summary of program space requirements by space type is provided in Table IV.

A. The Division of American Indian and Alaska Native Programs

The Division currently employs 111 faculty and staff members, 41 of whom are housed in 10,670 square feet of space located on the third and basement floors of the University North Pavilion facility at the UCHSC campus. The remaining 70 staff members are located in seven field offices in the following locations:
## TABLE IV

American Indian and Alaska Native Programs, Public Psychiatry and TeleHealth/Education Facility
Comparison of Existing to Proposed Program Space by Space Type

<table>
<thead>
<tr>
<th></th>
<th>Current Program Space Inventory</th>
<th>Proposed Program Space</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Square Feet</td>
<td>Units</td>
<td>Square Feet</td>
</tr>
<tr>
<td><strong>American Indian and Alaska Native Programs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>5,351</td>
<td>32</td>
<td>7,830</td>
</tr>
<tr>
<td>Office Service</td>
<td>1,239</td>
<td></td>
<td>460</td>
</tr>
<tr>
<td>Conference Room</td>
<td>722</td>
<td>1</td>
<td>1,170</td>
</tr>
<tr>
<td>Reception</td>
<td>400</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Library Archives/Workroom</td>
<td>188</td>
<td>1</td>
<td>600</td>
</tr>
<tr>
<td>Staff Lounge</td>
<td>188</td>
<td>1</td>
<td>600</td>
</tr>
<tr>
<td>Copy/Fax Areas (Dedicated)</td>
<td>120</td>
<td></td>
<td>120</td>
</tr>
<tr>
<td>Records/File Storage</td>
<td>489</td>
<td>2</td>
<td>1,000</td>
</tr>
<tr>
<td>Publications Storage</td>
<td>135</td>
<td>2</td>
<td>750</td>
</tr>
<tr>
<td>LAN/File Server Room</td>
<td>400</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Demonstration Training Room</td>
<td>400</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Studios</td>
<td>400</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Multimedia Production Laboratories</td>
<td>800</td>
<td></td>
<td>800</td>
</tr>
<tr>
<td>Other</td>
<td>400</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td><strong>Total Space (ASF)</strong></td>
<td>8,124</td>
<td></td>
<td>15,230</td>
</tr>
<tr>
<td><strong>Total Space (GSF)</strong></td>
<td>10,666</td>
<td></td>
<td>22,397</td>
</tr>
</tbody>
</table>

*Current program space is located on basement and third floors of the University North Pavilion facility.*

### Programs for Public Psychiatry

<table>
<thead>
<tr>
<th></th>
<th>Current Program Space Inventory</th>
<th>Proposed Program Space</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Square Feet</td>
<td>Units</td>
<td>Square Feet</td>
</tr>
<tr>
<td>Office</td>
<td>1,610</td>
<td>10</td>
<td>4,050</td>
</tr>
<tr>
<td>Office Service</td>
<td>325</td>
<td></td>
<td>325</td>
</tr>
<tr>
<td>Conference Room</td>
<td>960</td>
<td></td>
<td>960</td>
</tr>
<tr>
<td>Reception</td>
<td>400</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Library Archives/Workroom</td>
<td>500</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>Copy/Fax Areas (Dedicated)</td>
<td>120</td>
<td></td>
<td>120</td>
</tr>
<tr>
<td>Records/File Storage</td>
<td>1,000</td>
<td>2</td>
<td>1,000</td>
</tr>
<tr>
<td>Other</td>
<td>400</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td><strong>Total Space (ASF)</strong></td>
<td>1,610</td>
<td></td>
<td>7,755</td>
</tr>
<tr>
<td><strong>Total Space (GSF)</strong></td>
<td>2,368</td>
<td></td>
<td>11,404</td>
</tr>
</tbody>
</table>

*Current program space is located on first and second floors of the Colorado Psychiatric Hospital facility.*

### TeleHealth/Education Program Office

<table>
<thead>
<tr>
<th></th>
<th>Current Program Space Inventory</th>
<th>Proposed Program Space</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Square Feet</td>
<td>Units</td>
<td>Square Feet</td>
</tr>
<tr>
<td>Office</td>
<td>557</td>
<td>3</td>
<td>1,980</td>
</tr>
<tr>
<td>Office Service</td>
<td>275</td>
<td></td>
<td>275</td>
</tr>
<tr>
<td>Demonstration Training Rooms</td>
<td>2,000</td>
<td></td>
<td>2,000</td>
</tr>
<tr>
<td>Studios</td>
<td>1,600</td>
<td>4</td>
<td>1,600</td>
</tr>
<tr>
<td>Multimedia Production Laboratories</td>
<td>800</td>
<td></td>
<td>800</td>
</tr>
<tr>
<td>CD-Production Room</td>
<td>900</td>
<td>1</td>
<td>900</td>
</tr>
<tr>
<td>Digital Archive/Server Room</td>
<td>400</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Conference Rooms</td>
<td>950</td>
<td>2</td>
<td>950</td>
</tr>
<tr>
<td>Reception Area</td>
<td>400</td>
<td>1</td>
<td>400</td>
</tr>
<tr>
<td>Preparation Rooms</td>
<td>800</td>
<td>4</td>
<td>800</td>
</tr>
<tr>
<td>Equipment Storage</td>
<td>500</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>Other</td>
<td>400</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td><strong>Total Space (ASF)</strong></td>
<td>557</td>
<td></td>
<td>11,015</td>
</tr>
<tr>
<td><strong>Total Space (GSF)</strong></td>
<td>557</td>
<td></td>
<td>16,199</td>
</tr>
</tbody>
</table>

*Current program space is located on basement floor of the Research Bridge facility.*

<table>
<thead>
<tr>
<th></th>
<th>Current Program Space Inventory</th>
<th>Proposed Program Space</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Program Space (ASF)</td>
<td>10,291</td>
<td></td>
<td>34,000</td>
</tr>
<tr>
<td>Total Program Space (GSF)</td>
<td>13,591</td>
<td></td>
<td>50,000</td>
</tr>
<tr>
<td>Location</td>
<td>Staff</td>
<td>Square Feet</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>North Pavilion</td>
<td>41</td>
<td>10,666</td>
<td></td>
</tr>
<tr>
<td>UCHSC Campus, Denver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine Ridge, South Dakota</td>
<td>21</td>
<td>1,380</td>
<td></td>
</tr>
<tr>
<td>Mission, South Dakota</td>
<td>9</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Kyle, South Dakota</td>
<td>9</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>St. Michaels, Arizona</td>
<td>10</td>
<td>650</td>
<td></td>
</tr>
<tr>
<td>Tuba City, Arizona</td>
<td>15</td>
<td>1,200</td>
<td></td>
</tr>
<tr>
<td>Seattle, Washington</td>
<td>4</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Anchorage, Alaska</td>
<td>2</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>111</td>
<td>15,796</td>
<td></td>
</tr>
</tbody>
</table>

Proposed in this program plan is the construction of 22,397 gsf (15,230 asf) for the Division of American Indian and Alaska Native Programs. This space will be used to relocate and expand the programs of the Division of American Indian and Alaska Native Programs currently housed in the University North Pavilion facility on the UCHSC campus. There will be no space impact to the off-campus field offices as a result of this Fitzsimons facility project.

A summary of the program space requirements for the Division of American Indian and Alaska Native Programs to be relocated to the Fitzsimons facility is provided in Table V. As indicated a total of 15,230 asf is being requested for use by the Division’s programs. Included in this total is approximately 8,290 asf of office space necessary to support the projected staffing requirement of 47 faculty and staff members; 1,600 asf of studio and multimedia program production space to be used by the Center for Native American TeleHealth and TeleEducation, as earlier described; and 5,340 asf of program support space which includes storage space for the Division’s publications and records, conference rooms, copy and fax support space and staff lounge/workroom space.
### TABLE IV
American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility
Space Allocation Requirements

<table>
<thead>
<tr>
<th>American Indian and Alaska Native Programs</th>
<th>Quantity</th>
<th>ASP/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Space</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Program Staff Office Requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director</td>
<td>1</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Faculty</td>
<td>18</td>
<td>180</td>
<td>3,240</td>
</tr>
<tr>
<td>Research Staff</td>
<td>19</td>
<td>150</td>
<td>2,850</td>
</tr>
<tr>
<td>Publications Specialist</td>
<td>1</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Administrative Assistant</td>
<td>1</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Accounting Technologist</td>
<td>1</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Visiting Faculty/Intern Offices</td>
<td>4</td>
<td>180</td>
<td>720</td>
</tr>
<tr>
<td>New Program Staff Office Requirements (Center for Native TeleHealth)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Director</td>
<td>1</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Program Specialist</td>
<td>1</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Office Service</td>
<td></td>
<td></td>
<td>460</td>
</tr>
<tr>
<td>Total Office Space (ASF)</td>
<td>47</td>
<td></td>
<td>8,290</td>
</tr>
<tr>
<td>Total Office Space (GSF)</td>
<td></td>
<td></td>
<td>12,191</td>
</tr>
<tr>
<td>Native American TeleHealth Studio and Media Production Space</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstration Training Room</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Studio</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Multimedia Production Laboratory</td>
<td>1</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>Total TeleHealth Studio and Production Space (ASF)</td>
<td></td>
<td></td>
<td>1,600</td>
</tr>
<tr>
<td>Total TeleHealth Studio and Production Space (GSF)</td>
<td></td>
<td></td>
<td>2,353</td>
</tr>
<tr>
<td>Program Support Space</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reception</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Library Archives/Research Workroom</td>
<td>1</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Staff Lounge</td>
<td>1</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>Conference Room</td>
<td>1</td>
<td>840</td>
<td>840</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>330</td>
<td>330</td>
</tr>
<tr>
<td>Copy/Fax Areas</td>
<td>2</td>
<td>60</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>File Server/Lab Rooms</td>
<td>2</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>Project Records/File Storage</td>
<td>2</td>
<td>375</td>
<td>750</td>
</tr>
<tr>
<td>Publications Storage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet</td>
<td>4</td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td>Total Program Support Space (ASF)</td>
<td></td>
<td></td>
<td>5,540</td>
</tr>
<tr>
<td>Total Program Support Space (GSF)</td>
<td></td>
<td></td>
<td>7,853</td>
</tr>
</tbody>
</table>

Assumes 68% building efficiency

### Total Space Requirements - Assignable Square Feet (ASF)

| Total Space Requirements - Assignable Square Feet (ASF) | 15,239 |

Assumes 68% building efficiency

Program Plan for the American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility
1. **Office Space Requirements**

As indicated in Table V, approximately 8,290 asf of office and office service space will be required to support the projected office space requirements for the 47 faculty and staff members to be housed in the new facility. Space guidelines for office space design provided by the Colorado Commission on Higher Education were utilized to determine program office space requirements. Projected staff to be housed in the new space include: Division Director (1), Division Faculty (18), Research Staff - Professional Research Assistants (19), Interns and Visiting Faculty (4) Publications Specialist (1), Accounting Technologist (1), Administrative Support (1), Associate Director of the Center for Native American TeleHealth and TeleEducation (1), and Project Technician/Digital Librarian (1).

2. **TeleHealth Studio and Media Production Space Requirements**

As earlier described, the Center for Native American TeleHealth and TeleEducation is a new program within the Division of American Indian and Alaska Native Programs. In order to generate the media source materials necessary to support teleconsultative Native American health care activities and to facilitate both the technology training and program assessment services to be provided by the Center, 1,600 assignable square feet of studio and media production support space is included in this proposed space allocation plan for the Division of American Indian and Alaska Native Programs.

As indicated in the program space affinity diagram, Figure 1, this space will be collocated with the other similar studio and media production space required for the TeleHealth/TeleEducation Program Office and Resource Center. Technologists from the TeleHealth/TeleEducation Program Office and Resource Center and Educational Support Services will be responsible for the operation and maintenance of this space.
As indicated in Table V, the specific media production space requirements for the Division of American Indian and Alaska Native Programs include the following:

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Quantity</th>
<th>Area (asf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration/training Room</td>
<td>1</td>
<td>400</td>
</tr>
<tr>
<td>Studio</td>
<td>1</td>
<td>400</td>
</tr>
<tr>
<td>Multimedia Production</td>
<td>1</td>
<td>800</td>
</tr>
<tr>
<td>Laboratory</td>
<td></td>
<td>1,600</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1,600</strong></td>
</tr>
</tbody>
</table>

Space design requirements and tentative space floor plans are provided in Appendix B.

3. **Program Support Space**

The program space requirements for the Division of American Indian and Alaska Native Programs also includes a total of 5,340 asf of space categorized as program support space. As indicated in Table V, included in this space allocation plan are the following elements:

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Quantity</th>
<th>Area (asf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception Area</td>
<td>1</td>
<td>400</td>
</tr>
<tr>
<td><strong>This will be centralized reception area to accommodate a maximum of 15 persons.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Quantity</th>
<th>Area (asf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division Library Archive/Research Project Workroom</td>
<td>1</td>
<td>500</td>
</tr>
<tr>
<td><strong>This space will be used to house the journal and information collection for use by the Division faculty and staff. Additionally space is to be designed as open work area for various research project work and material development.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Quantity</th>
<th>Area (asf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Lounge Area</td>
<td>1</td>
<td>600</td>
</tr>
<tr>
<td><strong>Space will be used as informal lounge area by all program staff. The room will be designed to include kitchenette area with refrigerator, microwave and sink. Space will be available for vending machines. Part of the space will accommodate Informal seating.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Copy and Fax Areas
Dedicated space is necessary for the placement of copy, fax machine, and network printers. Storage space for supplies will also be included.

File Server/LAN Room
Space is necessary for the Division's central file/LAN server to support current research project activities as well as the telehealth digital archive requirements. Space will include two workstations, digital scanners, printers and necessary secured storage for hardware and software.

Project Records and File Storage
Space is required for central records and file storage archives to support all Division grant and research project activities. Space will be designed to include file cabinets and wall storage units.

Publication Storage
As described earlier, the Division publishes numerous publications and journals related to Native American health care. Sufficient space is necessary for publications storage.

Conference Rooms
One large (840 asf) conference room for 45 and one (330 asf) small conference room for 15 asf are necessary to support the program activities of the Division.

B. The Programs for Public Psychiatry

The Programs for Public Psychiatry currently employs 56 clinical faculty, 4 administrative faculty, and 28 doctoral and post-doctoral trainees located at six site locations throughout Colorado. Currently, 15 faculty and staff members are housed in approximately 1,610 assignable square feet of program space located in the Colorado Psychiatric Hospital facility at the UCHSC campus.
Proposed in this program plan is the construction of 11,404 gsf (7,755 asf) for the Programs for Public Psychiatry (PPP). This space will be used to relocate and expand the PPP program functions currently housed in the Colorado Psychiatric Hospital facility on the UCHSC campus.

A summary of the program space requirements for the Programs for Public Psychiatry to be relocated to the Fitzsimons facility is provided in Table VI. As indicated a total of 7,755 asf is being requested for use by program. Included in this total is approximately 4,375 asf of office space necessary to support the projected staffing requirement of 24 faculty and staff members and 3,380 asf of program support space which includes storage space for program records, conference room, copy and fax support space, and staff workroom space.

1. **Office Space Requirements**

As indicated in Table VI, approximately 4,375 asf of office and office service space will be required to support the projected office space requirements for the 24 faculty and staff members to be housed in the new facility. Space guidelines for office space design provided by the Colorado Commission on Higher Education were utilized to determine program office space requirements. Projected staff to be housed in the new space include: Program Director (1), Program Faculty (10), Postdoctorates/Fellows (7), Interns and Visiting Faculty (4), and Program Administrative Support Staff (2).

2. **Program Support Space**

The program space requirements for the Programs for Public Psychiatry also includes a total of 3,380 asf of space categorized as program support space. As indicated in Table VI, included in this space allocation plan are the following elements:
## TABLE V
American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility
Space Allocation Requirements

### Public Psychiatry Programs

<table>
<thead>
<tr>
<th>Office Space</th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Program Staff Office Requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director</td>
<td>1</td>
<td>180</td>
<td>180</td>
</tr>
<tr>
<td>Clinical Faculty</td>
<td>5</td>
<td>180</td>
<td>900</td>
</tr>
<tr>
<td>Support Staff</td>
<td>2</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>Forensic Fellows</td>
<td>2</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>Postdoctorate Fellows</td>
<td>5</td>
<td>150</td>
<td>750</td>
</tr>
<tr>
<td>New Program Staff Office Requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Faculty</td>
<td>5</td>
<td>180</td>
<td>900</td>
</tr>
<tr>
<td>Visiting Clinical Faculty</td>
<td>4</td>
<td>180</td>
<td>720</td>
</tr>
<tr>
<td>Office Service</td>
<td></td>
<td></td>
<td>325</td>
</tr>
<tr>
<td>Total Office Space (ASF)</td>
<td>20</td>
<td></td>
<td>4,375</td>
</tr>
<tr>
<td>Total Office Space (GSF)</td>
<td></td>
<td></td>
<td>6,434</td>
</tr>
</tbody>
</table>

Assumes 68% building efficiency

### Program Support Space

<table>
<thead>
<tr>
<th>Program Support Space</th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception</td>
<td>1</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Conference Room</td>
<td>1</td>
<td>960</td>
<td>960</td>
</tr>
<tr>
<td>Copy/Fax Areas</td>
<td>2</td>
<td>60</td>
<td>120</td>
</tr>
<tr>
<td>Program Records/File Storage</td>
<td>2</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>Library Archives/Workroom</td>
<td>1</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Toilet</td>
<td>4</td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td>Total Program Support Space (ASF)</td>
<td></td>
<td></td>
<td>3,380</td>
</tr>
<tr>
<td>Total Program Support Space (GSF)</td>
<td></td>
<td></td>
<td>4,971</td>
</tr>
</tbody>
</table>

Assumes 68% building efficiency

Total Space Requirements - Assignable Square Feet (ASF) | 7,755
Total Space Requirements - Gross Square Feet (GSF)    | 11,404

Assumes 68% building efficiency
Reception Area 1 400 asf
This will be centralized reception area to accommodate a maximum of 15 persons.

Library Archive/Program Workroom 1 500 asf
This space will be used to house the clinical reference collection for use by the Program faculty and staff. Additionally space is to be designed as open work area for various program project work.

Copy and Fax Areas 2 120 asf
Dedicated space is necessary for the placement of copy, fax machine, and network printers. Storage space for supplies will also be included.

Program Records and File Storage 2 1,000 asf
Space is required for central records and file storage archives to support all project activities. Space will be designed to include file cabinets and wall storage units.

Conference Room 1 960 asf
One large (960 asf) conference room for 50 is necessary to support the program activities.

C. TeleHealth/TeleEducation Program Office and Resource Center

The TeleHealth/TeleEducation Program Office was created during 1996 with the primary purpose of coordinating and providing the necessary support services required by the numerous campus telehealth and teleeducation program activities.

The Office, currently comprised of three staff members, is housed in 560 square feet of office space located in the basement of the Research Bridge facility at the UCHSC main campus site. The Office currently utilizes the studio services and
equipment provided by the Office of Educational Support Services, located in the School of Medicine facility. However, due to the increasing demand for teleeducation program development, timely access to the current Educational Support Services studio and services is limited and the existing studio facility cannot meet the increasing demands for telehealth and telemedicine consultative programming of the Health Sciences Center and University Hospital, as earlier described.

In order to meet the increasing campus demand for telehealth/teleeducation program services, a total of 16,200 gsf of space is requested for the relocation and expansion of the TeleHealth/TeleEducation Program Office and Resource Center to be located in the American Indian and Alaska Native Programs and TeleHealth facility at Fitzsimons.

A summary of the program space requirements for the TeleHealth/TeleEducation Program Office and Resource Center is provided in Table VII. A total of 11,015 asf of space is requested for this program. Included in this total is approximately 2,255 asf of office space necessary to support the projected staff requirement of six faculty and six administrative support staff members; 5,700 asf of studio, multimedia production and demonstration/training rooms; and 3,600 asf of various program support space.

1. **Office Space Requirements**

As indicated in Table VII, approximately 2,255 asf of office and office service space will be required to support the projected office space requirements for the 12 faculty and staff members to be housed in the new facility. Space guidelines for office space design provided by the Colorado Commission on Higher Education were utilized to determine program office space requirements. As previously mentioned, the campus telehealth and teleeducation campus program must be integrated with the Office of Educational Support Services (video production and conferencing) and Information Services Network Services (infrastructure development and management) which provide the necessary technical
**TABLE VI**
American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility Space Allocation Requirements

**TeleHealth/TeleEducation Program Office and Resource Center**

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>ASF/Unit</th>
<th>Total Space</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Office Space</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Program Staff Office Requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directors</td>
<td>2</td>
<td>180</td>
<td>360</td>
</tr>
<tr>
<td>Program Support Staff</td>
<td>1</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td><strong>New Program Staff Office Requirements</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>4</td>
<td>180</td>
<td>720</td>
</tr>
<tr>
<td>Program Support Staff</td>
<td>5</td>
<td>150</td>
<td>750</td>
</tr>
<tr>
<td>Office Service</td>
<td></td>
<td></td>
<td>275</td>
</tr>
<tr>
<td><strong>Total Office Space (ASF)</strong></td>
<td>12</td>
<td></td>
<td>2,255</td>
</tr>
<tr>
<td><strong>Total Office Space (GSF)</strong></td>
<td></td>
<td></td>
<td>3,316</td>
</tr>
</tbody>
</table>

*Assumes 68% building efficiency*

| **TeleHealth Studio and Media Production Space** |          |          |             |
| Demonstration Training Rooms | 2        | 800      | 1,600       |
|                               | 1        | 400      | 400         |
| Studios                       | 1        | 800      | 800         |
|                               | 2        | 400      | 800         |
| Multimedia Production Laboratories | 1        | 800      | 800         |
| CD-Production Room           | 1        | 900      | 900         |
| Digital Archive/Server Room  | 1        | 400      | 400         |
| **Total TeleHealth Studio and Media Production Space (ASF)** |          |          | 5,700       |
| **Total TeleHealth Studio and Media Production Space (GSF)** |          |          | 8,282       |

*Assumes 68% building efficiency*

| **Program Support Space** |          |          |             |
| Conference Rooms          | 2        | 480      | 960         | (for 25) |
| Reception Area            | 1        | 400      | 400         |
| Preparation Rooms         | 4        | 200      | 800         |
| Equipment Storage         | 1        | 500      | 500         |
| Toilet Rooms              | 4        | 100      | 400         |
| **Total Program Support Space (ASF)** |          |          | 3,060       |
| **Total Program Support Space (GSF)** |          |          | 4,500       |

*Assumes 68% building efficiency*

| **Total Space Requirements - Assignable Square Feet (ASF)** | 11,015 |
| **Total Space Requirements - Gross Square Feet (GSF)** | 16,199 |

*Assumes 68% building efficiency*

| **Total Facility Space Requirements - Assignable Square Feet (ASF)** | 34,000 |
| **Total Facility Space Requirements - Gross Square Feet (GSF)** | 50,000 |

*Program Plan for the American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility*
support required for program access and delivery. In addition to the current three program staff positions, the projected staff requirements for the TeleHealth/TeleEducation Program Office and Resource Center include three technical specialists, two media specialists, one program support staff person, and three faculty/interns.

2. **TeleHealth Studio and Media Production Space Requirements**

As indicated in the program space affinity diagram, Figure 1, this space is to be collocated with the studio and media production space required for the Division of American Indian and Alaska Native Programs.

As indicated in Table VII, the specific media production space requirements for the TeleHealth/TeleEducation Program Office and Resource Center include the following:

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Rooms</th>
<th>Asf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration/training Rooms</td>
<td>3</td>
<td>2,000</td>
</tr>
<tr>
<td>Studio</td>
<td>3</td>
<td>1,600</td>
</tr>
<tr>
<td>Multimedia Production</td>
<td>1</td>
<td>800</td>
</tr>
<tr>
<td>Laboratory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD-Production Laboratory</td>
<td>1</td>
<td>900</td>
</tr>
<tr>
<td>Digital Archive Server Room</td>
<td>1</td>
<td>400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>5,700</td>
</tr>
</tbody>
</table>

Space design requirements and tentative space floor plans are provided in Appendix B.

The program space in the new Fitzsimons facility will be connected via the microwave network from the UCHSC campus to the Fitzsimons site. The video and network programs will run on a 25-mb capacity over the network. All digital archiving, video and network activity for this building will be coordinated on the network with the digitized video (MPEG-2) integrated with the 3COM network being installed at the Fitzsimons site. The video and digitized image communications will be routed back to he
Health Sciences Center (Office of Educational Support Services) to share access to bridges and switches with the UCHSC campus until such time as those facilities are moved to the Fitzsimons campus. Distribution of video programs and digitized images will be transmitted and managed at the UCHSC campus.

3. **Program Support Space**

The program space requirements for the TeleHealth/TeleEducation Program Office and Resource Center also includes a total of 3,060 asf of space categorized as program support space. As indicated in Table VII, included in this space allocation plan are the following elements:

- **Reception Area**
  - 1
  - 400 asf
  - This will be centralized reception area to accommodate a maximum of 15 persons.

- **Conference Rooms**
  - 2
  - 960 asf
  - Two (480 asf) conference rooms for 25 are necessary to support the program activities of the Office.

- **Preparation/Green Rooms**
  - 4
  - 800 asf
  - These rooms will be utilized by program participants to prepare materials for final production and studio program transmission.

- **Equipment Storage**
  - 500 asf
  - Storage space is required for the various studio and production equipment, supplies and materials needed for program operations.
VI. Building, Site and Utility Requirements

A. Site

U.S. Army Garrison, Fitzsimons is a 576 acre property located in Aurora, Colorado, bordered by East Colfax Avenue on the South, Peoria Street on the West, Potomac Street on the East and 26th Avenue on the North. An Army Medical Center/Hospital since 1941, Fitzsimons is slated for closure through the Base Realignment and Closure Commission Process.

The exact Fitzsimons site for the American Indian and Alaska Native Programs and TeleHealth facility will be determined during the architectural planning phase. Three tentative three site options are provided in Appendix C.

B. Site Utility Infrastructure

A summary of on-site infrastructure and utilities serving the Fitzsimons campus site is provided below.

Potable Water

Denver Water is the current water supplier for Fitzsimons. Upon Fitzsimons' closure, the responsibility to supply water to the base will be transferred to the City of Aurora Water, at which time static water pressures will increase from the existing 60 p.s.i. to 100 p.s.i.. A one-million gallon reservoir is existing on site, with a pumping station capable of drawing from this reservoir and or increasing operating pressures in the Fitzsimons water system.

Sanitary Sewer

Effluent generated on-site is conveyed to the on-site sewage treatment plant through lines varying in size from 4" to 18". The overall system is likely to require replacement since the majority of the system is at least 50 years old. Potentially the treatment plant will be closed in the near future, requiring the Fitzsimons sanitary system to be connected into the Metro Sewage system.
Stormwater Sewer
On-site storm drainage is collected in an underground system and is currently discharged into Toll Gate Creek. Pipe sizes in the overall system range between 4" and 60", with the pipe materials, depths, and slope not determined at this time. These pipes are generally located within or adjacent to existing roadways.

Natural Gas
Public Service Company of Colorado currently supplies Fitzsimons with gas service. It is anticipated that future site development at Fitzsimons will require improvements to the gas distribution system.

Electrical
As with natural gas, PSCO is the supplier of electrical service to Fitzsimons. The existing system includes both above and below grade lines in combination with pad-mounted transformers.

Telecommunications
Building 526 houses the communication center for the Fitzsimons owned telecommunications system. As part of the Building 500 renovation project, a telecommunications control and switch room facility will be constructed. The communication system will be extended from Building 500 to serve the new facility.

Existing Landscape
Large, mature landscape abounds the Fitzsimons site. The landscape is closely tied with Fitzsimons' historic heritage.

C. Applicable Codes and Standards
The University of Colorado Health Sciences Center maintains jurisdiction over the interpretation and enforcement of code requirements for the construction of projects on campus. The American Indian and Alaska Native Programs, Programs for Public Psychiatry, and TeleHealth facility is to be designed to meet the latest UCHSC adoption of the following codes and standards:
Codes
- Uniform Building Code
- Uniform Plumbing Code
- Uniform Fire Code
- Uniform Mechanical Code
- Uniform Building Code Standards
- National Electric Code (NFPA No. 70)
- Line Safety Code (NFPA No. 101)
- Fire Protection for Laboratories Using Chemicals (NFPA No. 45)
- National Fire Codes
- Denver Building Code (supplemental to UBC)

Standards
- State of Colorado Model Energy/Efficiency Construction and Renovation Standards for Non-Residential Buildings
- 1983 CRS (Colorado Revised Statute) Volume 3 - Title 9, Article 2- Safety Glazing Materials
- 1980 ANSI A117.1 Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People
- Americans with Disabilities Act

VII. Equipment Requirements

Provided in Appendix D is a tentative listing of the essential equipment items included within the scope of this project. Equipment costs are estimated to total approximately $384,000. Included in this equipment budget is only the equipment necessary for the studio, demonstration/training, multimedia and CD production rooms. Costs to equip faculty and staff offices are not included in the project equipment budget.
VIII. Life Cycle Costs

A summary of the projected additional operational costs for the utilization of the Division of American Indian and Alaska Native Programs, Public Psychiatry, and the TeleHealth/TeleEducation Program Office and Resource Center at Fitzsimons is provided in Table VII. The cost factors used to determine this estimate is based upon historical cost values of similar functional type facilities at the Health Sciences Center campus. Operational expenses will be the responsibility of the specific program occupants.

Table VIII
American Indian and Alaska Native Programs (AIAN), Public Psychiatry, and TeleHealth/Education Facility
Projected Facility Operational Costs

<table>
<thead>
<tr>
<th></th>
<th>AIAN Programs</th>
<th>Public Psychiatry</th>
<th>TeleHealth/Ed Program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GSF</strong></td>
<td>22,397</td>
<td>11,404</td>
<td>16,199</td>
<td>50,000</td>
</tr>
<tr>
<td><strong>Cost/gsf</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>$2.39</td>
<td>$53,529</td>
<td>$27,256</td>
<td>$38,716</td>
</tr>
<tr>
<td>Building Maintenance and Repair</td>
<td>$2.05</td>
<td>$45,914</td>
<td>$23,378</td>
<td>$33,208</td>
</tr>
<tr>
<td>Environmental Services</td>
<td>$1.53</td>
<td>$34,267</td>
<td>$17,448</td>
<td>$24,784</td>
</tr>
<tr>
<td>Grounds Maintenance</td>
<td>$0.14</td>
<td>$3,136</td>
<td>$1,597</td>
<td>$2,268</td>
</tr>
<tr>
<td>Environmental Health and Safety</td>
<td>$0.47</td>
<td>$10,527</td>
<td>$5,360</td>
<td>$7,614</td>
</tr>
<tr>
<td>Police/Security</td>
<td>$0.79</td>
<td>$17,694</td>
<td>$9,009</td>
<td>$12,797</td>
</tr>
<tr>
<td>Administration</td>
<td>$2.61</td>
<td>$58,456</td>
<td>$29,764</td>
<td>$42,279</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$9.98</td>
<td>$223,522</td>
<td>$113,812</td>
<td>$161,666</td>
</tr>
</tbody>
</table>
IX. Program Plan Capital Budget

The capital construction budget for the construction of the Division of American Indian and Alaska Native Programs and the TeleHealth/TeleEducation Program Office and Resource Center at Fitzsimons is provided in Table IX.

This project will be funded by the following sources

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Grant and/or Research</td>
<td>$10,364,039</td>
</tr>
<tr>
<td>Revolving Fund Debt</td>
<td></td>
</tr>
<tr>
<td><strong>Total Project Cost</strong></td>
<td><strong>$10,364,039</strong></td>
</tr>
</tbody>
</table>

X. Project Development Schedule

The information below reflects the total project implementation schedule for the design and construction of the facility for the Division of American Indian and Alaska Native Programs, Public Psychiatry, and the TeleHealth/TeleEducation Program Office and Resource Center at the Fitzsimons site.

- Program Plan Completion ..................... March 1998
- Regent Approval ............................. April 1998
- Selection of Architect and General Contractor .... July 1998
- Design/Construction Documents ............. July 1998 - April 1999
- Construction ................................ June 1999 - June 2000
- Occupancy ................................... July 2000
| TABLE IX  
American Indian and Alaska Native Programs, Public Psychiatry, and TeleHealth/Education Facility  
Estimated Capital Project Cost |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>American Indian and Alaska Native Programs</strong></td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td>A. Land Acquisition</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
**B. Professional Services** | | | | |
| (1) Master or Program Planning |  | | | |
| (2) Arch/Engs (Bldg) | 519,980 | 264,749 | 376,044 | 1,160,773 |
| (3) Arch/Engs (Other) | 9,285 | 4,728 | 6,715 | 20,728 |
| (4) Construction Management | 139,280 | 70,915 | 100,726 | 310,921 |
| (5) Code Review | | | | |
| (6) Site Information and Tests | 20,186 | 10,278 | 14,598 | 45,061 |
| (7) Other | | | | |
| (8) Total Professional Services | $688,731 | $350,769 | $498,083 | $1,537,583 |
|  
**C. Construction** | | | | |
| (1) Building | | | | |
| (a) New | 20,044 gsf $122 per gsf | 2,445,368 | 1,404 gsf $122 per gsf | 1,391,228 | 7,816 gsf $122 per gsf | 953,552 | 30,264 gsf $122 per gsf | 4,790,208 |
| | 2,534 gsf $155 per gsf | 364,870 | | | 8,382 gsf $155 per gsf | 1,299,210 | 10,736 gsf $155 per gsf | 1,664,080 |
| Total New | 22,578 gsf $125 per gsf | 2,810,238 | 11,404 gsf $122 per gsf | 1,391,228 | 16,198 gsf $139 per gsf | 2,527,762 | 50,000 gsf $129 per gsf | 6,454,288 |
| (b) Renovate | | | | |
| (2) Structural | 41,784 | 21,274 | 30,218 | 93,276 |
| (3) Landscaping & Site Improvements | 20,993 | 10,689 | 15,182 | 46,864 |
| (4) Utilities | 83,568 | 42,549 | 60,436 | 186,553 |
| (5) Total Construction Costs | $3,956,583 | $1,465,800 | $2,358,598 | $6,780,981 |
|  
**D. Equipment and Furnishings** | | | | |
| (1) Equipments | 45,000 | | | 339,200 | 384,200 |
| (2) Furnishings | 46,427 | | | 33,575 | | 103,640 |
| (3) Communications | 232,234 | | | 118,192 | | 167,877 | | 518,203 |
| (4) Total Equipment Costs | $323,561 | $141,830 | $540,651 | $1,066,043 |
|  
**E. Miscellaneous** | | | | |
| (1) Art in Public Places | 30,376 | | | 15,466 | 21,968 | 47,810 |
| 1% Sum C(1) through C(4) | | | | |
| (2) Relocation Costs | 30,000 | | | 6,270 | | 3,000 | | 39,270 |
| (3) Project Contingency | 417,701 | | | 212,673 | | 302,077 | | 932,451 |
| 10% Sum D(B) through E(3) | | | | |
| (4) Total Miscellaneous Costs | $478,077 | $224,409 | $327,046 | $1,029,523 |
|  
**F. Total Project Cost** | | | | |
| (1) CCF | 22,398 gsf $199 per gsf | 4,446,952 | 11,404 gsf $192 per gsf | 2,192,709 | 16,198 gsf $230 per gsf | 3,724,379 | 50,000 gsf $207 per gsf | 10,364,039 |
| (2) CCF Exempt | 0 | | | | | | | |
| (3) CFE (Cash) | | | | | | | | |
| CFE (Cash) Exempt | $4,446,952 | | | | | | | |
| FF (Federal) | | | | | | | | |
| (5) Totals | $4,446,952 | $2,192,709 | $3,724,379 | $10,364,039 |

* Total funding will include both cash and federal funds yet to be determined.
Program Plan for the American Indian and Alaska Native Programs and TeleHealth Facility

Appendices

University of Colorado Health Sciences Center
Program Plan for the American Indian and Alaska Native Programs and TeleHealth Facility

Appendix A1

Summary of Funded Grants and Contracts
American Indian and Alaska Native Programs

University of Colorado Health Sciences Center
American Indian and Alaska Native Programs

Current Grant Support from the Department of Health and Human Services

Principal Investigator, Spero M. Manson, Ph.D., "Native Elder Research Center", National Institute on Aging and National Institute for Nursing Research. P30 AG1 5297. Total direct costs = $2,200,000. 09/31/97-09/30/02.

Principal Investigator, Spero M. Manson, Ph.D., "Circles of Care Evaluation Technical Assistance Center", Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. CMHS Agreement No. AM97CO800A. Total direct costs = $1,000,000. 09/31/97-09/30/00.

Principal Investigator, Spero M. Manson, Ph.D., Co-Principal Investigator, Janette Beals, Ph.D., "Service Utilization and Epidemiology: American Indians," National Institute of Mental Health. Grant #1 R01 MH48174. Total direct costs = $7,400,000. 07/01/95-06/30/00.

Principal Investigator and Director, Spero M. Manson, Ph.D., "Native Elder Health Care Resource Center," Administration on Aging, Grant #90-AM-0757. Total program costs $1,200,000. 02/01/94-01/31/98.

Principal Investigator and Director, Spero M. Manson, Ph.D., "National Center for American Indian and Alaska Native Mental Health Research." National Institute of Mental Health. Grant #1 ROI MH 42473. Total direct costs = $1,500,000. 07/01/86-06/30/91. Renewed Grant #1 ROI MH 42473. Total direct costs = $4,582,173. 07/01/91-06/30/96. Renewed Grant #1 R01 MH 42473. Total direct costs = $3,750,000. 07/01/96-06/30/01.

Principal Investigator, Christina M. Mitchell, Ph.D., Co-Principal Investigator, Janette Beals, Ph.D., "Drug Use Rates, Risk, & Change: American Indian Youth." National Institute on Drug Abuse. Grant #5 R01 DA10039. Total direct costs = $364,751. 09/30/95-08/31/98.

Principal Investigator, Christina M. Mitchell, Ph.D., "Unintended Pregnancy Among Navajo & Lakota Young Adults." National Institute of Child Health and Human Development. Grant #1 ROI HD33275. Total direct costs = $1,348,166. 04/01/95-03/31/00.

Principal Investigator, Douglas K. Novins, M.D., "Comorbidity and Treatment Paths for Indian Adolescents." National Institute of Mental Health. Grant #5 K20 MH01253. Total direct costs = $569,346. 01/01/95-12/31/99.

Principal Investigator, Theresa D. O'Neill, Ph.D., "Cultural Factors in Depression and Comorbid Drinking." National Institute of Mental Health. Grant #5 R29 MH55171. Total direct costs = $344,891. 05/01/96-04/30/01.
American Indian and Alaska Native Programs
Summary of Funded Grants and Contracts
Principal Investigator, Spero M. Manson, Ph.D., Division Director

Principal Investigator, "Native Elder Research Center", National Institute on Aging and National Institute for Nursing Research. P30 AG15297. Total direct costs = $2,200,000. 09/31/97-09/30/02.

Principal Investigator, "Circles of Care Evaluation Technical Assistance Center", Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. CMHS Agreement No. AM97C0800A. Total direct costs = $1,000,000. 09/31/97-09/30/00.


Principal Investigator, "KIDS COUNT: American Indian/Alaska Native Conference". Annie E. Casey Foundation, Baltimore, MD. Total direct costs = $58,000. 09/01/95-09/31/96.

Principal Investigator, "Service Utilization and Epidemiology: American Indians." National Institute of Mental Health. Grant #1 R01 MH48174. Total direct costs = $7,400,000. 07/01/95-06/30/00.

Co-Principal Investigator, "Minority Vietnam Veterans Study." National PTSD Center, Department of Veteran Affairs. Inter-agency transfer and supplement of NIMH R01 MH42473. Total direct costs = $450,000. 04/01/95-03/31/96.

Principal Investigator and Director, "Native Elder Health Care Resource Center," Administration on Aging. Grant #90-AM-0757. Total program costs = $1,200,000. 02/01/94-01/31/98.

Co-Director, National Program Office, "Healthy Nations Initiative: Reducing Harm from Substance Abuse in Native American Communities." Robert Wood Johnson Foundation. Total program costs = $15,000,000. 08/01/92-07/3 1/00.

Principal Investigator, "PTSD Among American Indian and Alaska Native Vietnam-Era Veterans." National PTSD Center, Department of Veteran Affairs. Inter-agency transfer and supplement of NIMH R01 MH42473. Total direct costs = $1,700,000. 10/01/91-09/30/94.

Principal Investigator, "Alcohol Use/Abuse Among Indian High School Students." National Institute on Alcohol Abuse and Alcoholism. Grant #1 R01 AA08747. Total direct costs $3,103,677. 08/01/91-07/30/96.

Principal Investigator, "Substance Abuse Among Indian Boarding School Students." National Institute on Drug Abuse. Grant #1 R01 DA06076. Total direct costs = $272,000. 09/31/90-09/30/93.

Principal Investigator, "Managing Depression in American Indian Primary Care." Research Scientist Development Award, Level 11. National Institute of Mental Health. Grant #1 K02 MH00833. Total direct costs=$450,000. 08/01/90-07/31/95.
Principal Investigator and Director, "National Center for American Indian and Alaska Native Mental Health Research." National Institute of Mental Health. Grant #1 R01 MH 42473. Total direct costs = $1,500,000. 07/01/86-06/30/91. Renewed Grant #1 ROI MH 42473. Total direct costs = $4,582,173. 07/01/91-06/30/96. Renewed Grant 41 ROI MH 42473. Total direct costs $3,750,000. 07/01/96-06/30/01.

Principal Investigator, "Minority Alcoholism Research Scholar." National Institute on Alcohol Abuse and Alcoholism, Grant #1 ROI AA07180. Total direct costs = $350,000. 07/01/86-06/30/91.

Principal Investigator, "Indian/Native Adolescent Suicide Research Conference." National Institute of Mental Health. Grant #1 R13 MH45776. Total direct costs = $88,935. 07/01/90-06/30/91.

Principal Investigator, "Indian Adolescent Suicide Prevention." Portland Area Office, Headquarters, Indian Health Service, Contract #248-88-0026. Total direct costs = $41,000. 09/30/88-09/39-90.

Principal Investigator, "Regional Indian Adolescent Substance Abuse Treatment Center: Evaluation." Behavioral Health Programs, Cherokee Nation of Oklahoma, Contract #88-BHP-126; #89-BHP-110. Total direct costs = $30,000/contract. 10/01/88-09/30/90.

Principal Investigator, "Effects of Treatment and Environmental Segregation of Institutionalized Alzheimer-Type Elderly Victims." American Association of Retired Persons/Andrus Foundation. Total direct costs = $50,000. 07/01/84-06/30/85.

Principal Investigator, "Health and Behavior: A Research Agenda for American Indians." Research conference grant from Center for Studies of Minority Group Mental Health, National Institute of Mental Health, Grant #IMH3921 1. Total direct costs = $82,000. 07/01/84-06/30/85.

Principal Investigator, "New Investigator Research Award in Prevention." Alcohol, Drug Abuse, and Mental Health Administration. Grant #1 R23 MH38861. Total direct costs = $210,000. 07/01/84-06/30/87.

Program Director, "Aging and Culture: Mental Health Research Training" (postdoctoral). Center for Studies of Mental Health of the Aging, National Institute of Mental Health, Grant #1 T32 MH7145 AG. Institute on Aging, Portland State University. Total direct costs = $325,000. 07/01/83-06/30/86.

Principal Investigator, "Early Identification of Depression Among Vietnamese Refugees." Contracts from the Health Division, State of Oregon, and Centers for Disease Control. Total direct costs = $68,000. 07/01/83-06/30/84.

Principal Investigator, "Prevention of Depression among Vietnamese Refugees." Contract with Refugee Health Program, Health Division, State of Washington, #2600-39271(l). Total direct costs = $45,000. 07/01/83-06/30/84.

Principal Investigator, "Community Health Representatives and the Mental Health Care Process." Contract with Indian Health Service, PHS. #84-0176. Total direct costs = $31,000. 07/01/83-06/30/84.
Principal Investigator, "Medical Anthropology: Implications for Stress Prevention." Research conference sponsored by the Office of Prevention, National Institute of Mental Health, Contract #83MO537045. Total direct costs = $25,000. 10/01/83-09/30/84.

Principal Investigator, "Problematic Life Situations: Cross-Cultural Variations in Support Mobilization among Elderly Indian Reservation Residents." Administration on Aging, Grant #0090-AR-0037. Total direct costs = $50,000. 07/01/82-06/30/83.

Principal Investigator, "Navy Family Stress and Coping." Special grant from the Office of the Dean, School of Medicine, OHSU. Total direct costs = $10,000. 07/01/82-06/30/83.

Principal Investigator, "Role of Traditional Belief in Helping Disturbed American Indian\Alaska Native Children and Youth." Most In Need Program, National Institute of Mental Health, Grant #80MI6017501D. Total direct costs = $32,000. 10/01/80-09/30/81.


Program Plan for the American Indian and Alaska Native Programs and TeleHealth Facility

Appendices A2

Overview of Major Research Studies
National Center for American Indian and Alaska Native Mental Health Research

University of Colorado Health Sciences Center
A. Overview of Major Current Research Study

1. American Indian Service Use, Prevalence, Risk and Protective Factors Project

The highest research priority in the area of American Indian mental health is the need for community based estimation of illness and adjustment, and for a better understanding of service utilization and help-seeking for these problems. This project is intended to develop foundation information about lifetime and past year prevalence of psychiatric disorders, level of symptomatology, frequency and placement of mental health service use, and risk and protective factors among two American Indian tribes. The project will also develop ethnographic data to contextualize the results of the descriptive epidemiology, and to explore tribal-specific descriptions of distress which may not conform to the diagnostic nomenclature.

This study follows the pattern of the National Comorbidity Study (NCS), conducted for the United States by the Institute for Social Research. Psychiatric diagnoses are based upon criteria from the Diagnostic and Statistical Manuals, version III-Revised and version IV. The instrument to assess psychiatric status include the CIDI, as revised for the National Comorbidity Study, and further revised by our group to adjust for cultural differences for American Indians. This revised version of the CIDI has been used in a study of American Indian military veterans, in conjunction with the national (US) Vietnam-era veterans study recently conducted by the Research Triangle Institute.

Study Design

This project is a prevalence study of common psychiatric disorders and service utilization employing large samples from two American Indian tribes in the United States. In addition, risk and protective factors will be assessed, and analyzed in conjunction with both psychiatric disorder and the use of mental health services. The study is being conducted by the interdisciplinary research team at the National Center for American Indian and Alaska Native Mental Health Research (NCAIANMHR) at the University of Colorado Health Sciences Center.

The study is being conducted over a five year period, which began in the fall of 1995. Activities are coordinated through a central office in Denver, Colorado, and field offices on the reservations. Year 1 of the study is dedicated to project start-up, finalization of the instrument, and sample development. In Year 2, data collection will begin with one tribal Nation; for the second tribe, the primary activity will be continued sample development. Data collection for the second tribe will begin in Year 3 and continue for both tribes through Year 4. Year 5 will be dedicated to data analysis and writing.

Sample

This is a population-based study among two geographically and culturally distinct American Indian tribes. Tribal rolls are being used as the sampling frame. Typically, individuals are enrolled at birth in only one tribe and are required to have a certain blood quantum (usually 25% in these two groups) for eligibility. Checks are being conducted to assess and eliminate duplication across tribes and across
family groups. Those who are eligible for tribal membership but not enrolled will be excluded, as will those who self-identify as American Indian but who are not eligible for tribal membership. In the initial effort of the project, those who are not living on or near the reservation will also be excluded, but identified so that a sample of individuals living away from the reservation can be developed later.

Respondents will range in age from 15 to 85 years. A total of 2,500 individuals with equal probability of selection will be drawn from the tribal rolls of each of the two tribes, for a total sample of 5,000.

Specific Aims

1. Diagnostic

To obtain prevalence rates of the major DSM disorders among two American Indian nations

To conduct item-level psychometric analyses of the diagnostic data to assess differences in dimensional structure between these two Indian groups and in comparison to the White, African American, and Hispanic groups represented in the NCS study

To obtain prevalence rates for culture-specific syndromes and symptoms, and compare their distribution with DSM-based diagnoses

2. Service Utilization

To obtain utilization rates for mental health services, including those provided by the Indian Health Service, other biomedical service providers, and traditional medicine men and healers

To investigate hypotheses regarding the relationships among respondent background characteristics and mental health service use

To pilot test procedures for comparing self-report service utilization data with Indian Health Service records

3. Risk and Protective Factors

To examine the interrelationships among predisposing factors and mediators with psychiatric morbidity

4. Comparisons

To compare prevalence rates, presence of associated risk and protective factors, and service utilization patterns with similar data obtained in the National Comorbidity Study and the Turner Toronto study. The Epidemiologic Catchment Area (ECA) study will also provide a comparison group for diagnoses that did not change between DSM-III and DSM-III-R.

5. Ethnographic Effort; Contextualization

To ascertain the conceptions of mental illness and explanatory models of illness episodes in these two distinct cultures
To examine the cultural relevance of DSM-III-R and DSM-IV categories by identifying and describing the range, frequency, expression, and treatment of symptoms associated with psychiatric disorders in these two communities

To explore cultural dimensions of help-seeking for mental illness

To construct culturally contextualized case studies of a set of survey respondents diagnosed with depressive and anxiety disorders

2. Youth Health and Services

The National Center for American Indian and Alaska Native Mental Health Research (NCAI ANMHR) is a federally funded research center dedicated to improving the mental health and wellbeing of American Indians. We do that by joining communities in various projects. Some projects are meant to increase our ability to recognize and assess mental health and illness. Still other projects try to determine what causes certain mental health problems, and what can be done to prevent them.

Recently, we have had the opportunity to begin to develop three Cornerstone projects -- pilot projects intended to provide the basis for future collaborative efforts in certain areas. These projects are especially suited for young people. Cornerstone 3, for example, will work with parents of very young children (ages 0 to 3) to describe cultural patterns of parenting, and to identify local resources that are available to parents. Cornerstones 1 and 2 are designed for youths between the ages of 4 and 15, and for their families, teachers, and caregivers. They entail pilot efforts to create and adapt questions that can be used in schools and in treatment settings to evaluate the kinds of problems young people experience, where they go for help, and whether those services work. These questions will be developed through extensive review involving parents and providers from Northern Plains and Southwestern tribes.

The aim of Cornerstone 1 is to develop culturally appropriate tools that can be used in the schools to learn more about students' backgrounds, use of health services, and behaviors compared to others their age. The first part of this effort consists of screening questions that can be answered in the classroom by youths aged 8 to 15. Parents and teachers of these youths and of younger children, aged 4 to 7, will complete a similar set of questions. The questions will provide basic information about problems, aggressive behaviors, and feelings, as well as where students go for help (or if they go for help) when they have problems.

A small subgroup of all these children, and their parents, will be asked to complete a follow-up interview. This will emphasize the different kinds of services youths might use, or their problems getting services when they need them. The subgroup will include young people who are not having problems, as well as those who are.

The aim of Cornerstone 2 is also to develop culturally appropriate tools, but ones that can be used in clinical facilities and other places young people go for care, to evaluate how effective the treatment has been. Adolescents who receive treatment, their parents, and their health care providers will be interviewed. The questions will be about how well the youths are doing, problems they have had, what
kind of care they have received, and whether they are satisfied with that care. They will also ask about social support and other community and family resources, as well as experiences that may put them at risk for problems. This project will take place in at least four treatment facilities, and will include both residential and outpatient care. When the project is completed, it will provide an assessment method that can be used in many facilities to evaluate how well treatments work for young people.

People from several local programs have expressed the need for culturally relevant tools to identify problems, and the ways young people may be helped when problems arise. As we have seen in Northern Plains communities, information like this can be used as the basis for requests for additional funds for treatment guidance for students. Tools such as these can also yield information about the impacts of several local treatment facilities, and can be useful in identifying areas that need further attention and community effort.

3. Pathways of Choice

The Pathways of Choice project is a continuation and expansion of the work accomplished within the Voices of Indian Teens project (see Past Research) and is designed to gather information from a large group of American Indian youth and young adults at the time when they are making the transition from adolescence to adulthood. This can be a very difficult time for many youth as they lose the structure in their life provided by the school system and begin to make decisions about how to make a living, getting married, and beginning a family of their own.

The project began in April 1995 and will continue through March 2000. Four years of the project are dedicated to data collection. The data collection consists of two phases in each of the four years:

1) self-report survey data collection for the full cohort,
2) interviews with a subsample

Anyone who attended one of three American Indian high schools during the 1993-94 school year was asked to participate. In the spring of 1996, the ages of the cohort members ranged from 15-24 with the majority ranging in age from 16-20. A Community Advisory Committee and other members of the participating communities have been instrumental in the development and implementation of the project and in soliciting participation.

During the first wave of survey data collection (Spring 1996), 1294 surveys were gathered representing 85% of the cohort. During the interview phase (Fall 1996), 81% of those selected were interviewed. Confidentiality is emphasized in all phases of the project; each employee is required to sign a statement of confidentiality. The confidentiality of individuals, communities, and tribes is strictly honored.
4. Comorbidity and Treatment Paths for American Indian Adolescents

Study Aims

Adolescents who receive substance abuse treatment have a high prevalence of comorbid psychiatric disorders. Psychiatric comorbidity is associated with a high rate of substance abuse treatment failure, and the treatment of comorbid psychiatric conditions increases the likelihood of treatment completion. In response to grave concerns about substance abuse among American Indian adolescents and lack of appropriate treatment programs, the 1986 Omnibus Drug Act provided new program dollars to establish nine residential drug and alcohol treatment programs specifically intended to serve this population. To date, none of these programs have been examined in terms of their patient population, treatments provided, or the effectiveness of treatment. The potential impact of psychiatric comorbidity on the treatment and outcome of patients served by these programs has not been documented.

This study examines the efficacy of one of these treatment programs within its system of services. It is evaluating the treatment of these patients and the factors that lead to treatment success and failure (such as psychiatric comorbidity).

The following are the specific aims of the study:

1. Determine the effects of comorbid psychiatric disorders as well as individual, social network, and service system characteristics on treatments received and treatment pathways for American Indian adolescents who receive residential substance abuse treatment.

2. Determine the effects of types of treatment received, treatment pathways, and the characteristics listed above (diagnostic, individual, social network, and organizational) on treatment outcome for this population.

Study Design

This study takes place at a tribally-operated residential substance abuse treatment program in the South Central United States. This is a longitudinal study with the following phases of data collection:

Baseline Assessment: 100 patients consecutively entering the residential treatment program (RTP) will complete a thorough assessment battery covering the following areas: psychiatric and substance use diagnoses, psychiatric symptomatology, a variety of psychosocial measures, treatment history, and attitudes towards treatment. Their primary therapist will complete a brief assessment of the patient as well.

Treatments Received: The treatment each patient receives while at the RTP will be reviewed on a weekly basis (e.g., individual counseling, AA, family therapy, sweat lodge, mental health treatment) as well as indicators of performance within the school and treatment program (e.g., points earned, incident reports).

Discharge Assessment: At discharge, all patients who stay at the RTP one month or longer will complete a reduced set of the baseline assessment battery focusing on symptomatology and
psychosocial measures as well as satisfaction with treatment. Their primary therapist will complete a brief symptomatology assessment as well as rate the patient's prognosis.

Aftercare Tracking: After discharge, the former RTP patients will be contacted monthly (as will their primary treatment provider) to track their progress.

Aftercare Follow-up: Three months after discharge, the patient will repeat the reduced discharge assessment and the primary aftercare provider will complete a brief assessment for the patient as well.

Provider and Organizational Characteristics: Characteristics of RTP and Aftercare Providers (e.g., gender, ethnicity, training), Aftercare Organizations (e.g., staffing, services provided), and linkages between the RTP and Aftercare Organizations will be collected regularly throughout the life of the project.

5. Raising A New Generation

The research project described briefly below is titled "Raising A New Generation." The principal goal is to collaborate with professionals and families in two reservation communities to conduct the preliminary work necessary to pursue subsequent funding for family-based interventions. The interest of the National Center for American Indian and Alaska Native Mental Health Research in this area is two-fold. First, we have been privileged to work on other projects in these communities and are extending collaboration on efforts with immediate benefit to them. In fact, professionals working with families in these two communities consistently underscore the need for parenting services. Second, NCAINMHRC staff are interested in the prevention of problems that many children experience. We have learned through our personal as well as professional experiences, and as evident, in the research literature, that nurturing early caregiver-child relationships is a powerful tool for promoting healthy children.

This preliminary work will have two components. First, 40 families will be asked to participate in a series of home visits with project staff. Those visits will focus on gathering information on health and mental health services used by the family and on the families' beliefs and values regarding parenting, child development, and child characteristics.

This first component has several goals:

1. To map the community with respect to early childhood and parenting services.
2. To gather information relevant to aspects of parenting and parental beliefs specific to the tribal cultures.

Both of these goals serve the purpose of developing an intervention that fits in the local service ecology and is culturally acceptable and appropriate. The second component will involve working with groups of community members and professionals to select and adapt an existing intervention acceptable to the community.
The completion of this line of inquiry will position the NCAIANMHR and participating community members to propose the implementation of an intervention. A question that is often asked about this type of project is: "Why not just use the money for services? We already know what is needed. Those of us who provide services understand this frustration well. From the providers perspective, there is always greater need than can be addressed with existing funds. However, because the NCAIANMHR is a research center funded through the National Institute of Mental Health, we must not only demonstrate the need for service, but also document an ability to work with the community, patterns of service utilization, and the utility of available measures and interventions. In addition, the role of culture must be documented as it influences all of the above.

The documentation required in this type of project has proven useful to community or tribal members interested in obtaining funds for services. It also furthers the larger society's understanding of the cross-cultural differences in child-rearing and services utilization.

6. Culture and Depression

Theresa DeLeane O'Neill, director of ethnographic research at the National Center, has been awarded a five-year FIRST award from the National Institute of Mental Health to study the role of culture in depression and problem drinking in an American Indian community. The project combines ethnographic and clinical approaches to understanding how pathological experience is informed by cultural and social factors, and promises to shed light on this topic in a way that can inform clinical practice.

The National Institute of Mental Health (NIMH) award builds on O'Neill's prior work with the Flathead people of Montana. During 18 months of field work, O'Neill investigated the startlingly frequent assertion that the majority of Flathead people were depressed. She is the author of Disciplined Hearts: History, Identity, and Depression in an American Indian Community (University of California Press, 1996). Her investigations show that Flathead stories of depression are poignant tales in which the tellers try to transform personal or collective demoralization into a positive moral charter for modern Indian life.

National Center for American Indian and Alaska Native Mental Health Research (NCAIANMHR)

B. Overview of Major Past Research Study

1. American Indian Vietnam Veterans Project

In 1983, Public Law 98-160 directed the Veterans Administration to conduct a nationwide study of PTSD and other psychological problems in readjusting to civilian life among Vietnam war veterans. This study is commonly referred to as the National Vietnam Veterans Readjustment Survey (NVVRS). The results revealed that 15.2 percent of all male Vietnam theater veterans are current cases of PTSD, with a lifetime prevalence equal to nearly one-third of these veterans, or almost a million men (Kulka, Schlenger, Fairbank, Hough, Jordan, Marmar, & Weiss, 1990). Major racial differences in these rates,
notably increased risk among African American and Hispanic veterans, were observed, but could not be explained. Additional findings underscored the paucity, inadequacy, and underutilization of needed services. Congress subsequently mandated that the NVVRS be replicated among American Indian, Alaska Native, Native Hawaiian, and Japanese American Vietnam veterans, ethnic minority groups that had been significantly underrepresented in the original study.

The American Indian Vietnam Veterans Project (AIVVP) was part of a large, multi-site study conducted to fulfill this mandate. The AIVVP was comprised of four distinct, but related stages of research taking place in two reservation communities situated in the Northern Plains and Southwest. The first stage entailed an item-by-item review of the NVVRS instrumentation, employing focus groups of Vietnam veterans, their family members, service providers, and elders, to identify means of improving comprehension. This effort has been augmented by longer term ethnographic inquiry (life histories, key informant interviews, and participant observation) to illuminate the cultural construction of PTSD and local responses to it. The second stage involved the development of a sound, ecologically relevant sampling frame. Eligible participants were restricted to Vietnam veterans of the two tribes who are enrolled members and lived on or near their reservations. Three hundred veterans from each community were randomly selected for interview. The third stage was a 5-hour lay-administered interview that covered childhood, family and marital history, parenting, education, occupation, military service, physical health status, post-service experiences (M-PTSD), self-perceptions, attitudes, and non-specific distress, stressful and traumatic events, social support, health services utilization, experience in Vietnam, and psychiatric status (CIDI). The fourth stage was a clinical reinterview of all participants deemed probable cases of PTSD based on their Mississippi-PTSD scores reported in the prior stage and a small control group screening below that threshold. Originally 30% of the 300 veterans at each site were presumed likely to screen positive on the M-PTSD; however, actual rates approximated almost 70%. Experienced psychiatrists and clinical psychologists conducted the follow-up Structured Clinical Interviews for Diagnosis (SCID), supplemented by measures of functioning and trauma (IES). The Congressionally mandated final report was submitted in June, 1996. Major findings will be available for dissemination to the Department of Veterans Affairs (DVA) in the near future.

2. Flower of Two Soils Reinterview

Indian adolescents have been found to be at nearly five times greater risk of emotional disorder than their non-Indian counterparts (Beiser & Atteave, 1982). Moreover, the academic performance of Indian students deteriorates significantly over time, which is consistent with their markedly high rates of school dropout. The Flower of Two Soils study (Sack, Beiser, Clarke, & Redshirt, 1987; Sack, Beiser, Baker-Brown, & Redshirt, 1994) was designed to investigate the potential relationship between these two phenomena among youth in four culturally distinct reservation communities in the United States and Canada. Beginning in 1984, cohorts of children in grades two and four from each community were assessed once annually for three years with a battery of measures of their intellectual abilities, academic achievement, and mental health status. The latter was examined from three perspectives: that of the teacher, the parent/guardian, and the child him- or herself. The participating communities were chosen in order to represent quite different cultural areas, namely the Northern Plains, Southwest, Eastern Woodlands, and Northwest Coast.
In 1991, the NCAIANMHR sought to reinterview the 251 Northern Plains children who took part in the prior phase of the study. At the time of the initial interviews, the children were between 8 and 10 years old; during the reinterview, they ranged from 13 to 18 years of age, a period when Indian youth seem to experience particularly high risk for developing emotional disorders. One hundred and nine teenagers (54 females, 55 males; grades 8 to 11) were successfully followed up. The earlier instrumentation included the Diagnostic Interview Schedule for Children (DISC) (Costello, Edelbrock, Dulcan, Kalas, & Klaric, 1984), which, for purposes of the reinterview, was replaced by the much revised DISC-2.1C (Shaffer, Schwab-Stone, Fisher, Davies, Piacentini, & Gioia, 1988). The latter version included the previously mentioned PTSD module. Parent and teacher reports were again gathered, in addition to youth self-report. This particular reinterview included a concurrent assessment by an experienced clinician.

Forty-three percent (43.1%; n=47) of the 109 respondents received a diagnosis of at least one major disorder: Anxiety Disorders 17.4%, Affective Disorders 9.3% (Major Depression, 6.5%), Disruptive Behavior Disorders 22% (Conduct Disorder, 9.5%), Substance Use Disorders 18.4% (Alcohol Dependence, 9.2%), Anorexia and Bulimia 1%, and Post-Traumatic Stress Disorders 5%. Of these individuals, 20.2% qualified for a single diagnosis; the remainder were assigned multiple diagnoses. Almost half of the respondents with a Disruptive Behavior Disorder or an Affective Disorder also qualified for a Substance Abuse Disorder.

3. Home- and Community-Based Long-Term Care in American Indian and Alaska Native Communities

Today, an increasing number of American Indian and Alaska Native Elders need assistance, and most prefer to have long-term care services provided in their homes and communities. While many people associate long-term care only with nursing homes, home- and community-based long-term care (HCBLTC) is actually much broader in scope. It consists of a range of services aimed at helping people with chronic conditions to compensate for limitations in their ability to function independently and helping caregivers to sustain their roles in assisting at-risk family members and friends. These home- and community-based long-term care services range from the least restrictive services, usually provided in the community, to the most restrictive services, usually provided in an institution such as a nursing home.

To learn more about specific issues affecting home- and community-based long-term care in Indian country, the Administration on Aging, the Native Elder Health Care Resource Center at the University of Colorado, and the National Resource Center on Native American Aging at the University of North Dakota surveyed key tribal program administrators from 108 Federally recognized tribes nationwide. Information was collected about:

1. Availability of HCBLTC programs and resources in American Indian and Alaska Native (AI/AN) communities;
2. How these programs and services are funded, and
3. Barriers to establishing such programs and services in AI/AN communities.

This survey found that there is wide disparity between the need for HCBLTC services and their actual availability in Indian communities. There is a frequent need for emergency and acute primary health
care; this need is usually met. Mental health, home health aid, homemaker/personal care, home maintenance, transportation, and outreach services are frequently needed; these needs are only moderately met. Adult day care, respite care, assisted living, and short term rehabilitation also are frequently needed; these needs are rarely or never met.

Although tribal elders face a number of barriers in using HCBLTC services, the most frequently cited obstacle was bureaucratic procedures. Since there is no coordinated system of HCBLTC in most Indian communities, elders often must complete separate application forms for each type of service. Additionally, since there may be different eligibility criteria for each service, different forms of documentation are needed. In order to address this issue, tribes strongly felt the need to develop comprehensive and coordinated systems of HCBLTC.

Additionally, tribes reported that excessive administrative regulations, inadequate information, and limited access to decision-makers are common barriers to developing both federal and state funded programs, but especially true in regard to the latter.

Other service barriers that were identified include elders' lack of awareness and uncertainty about eligibility, and perceived need for services. Since many programs already provide information and referral assistance, it may be of value to review what information is available, how it is being provided to elders, and how the process of information and referral could be improved.

Additional service barriers centered around provider issues, such as provider insensitivity and prejudice. The respondents indicated that all service providers need training in how to work with older adults in order to provide more sensitive and relevant services. Service providers who are not AI/AN were perceived as requiring additional training to develop cultural competence.

Lack of financial resources was seen as a major obstacle in developing HCBLTC programs and services. This includes limited funds to operate current programs as well as difficulty in obtaining new funds to develop additional ones. Respondents argued that advocates for AI/AN elders must be involved in all discussions of Medicare, Medicaid, and health care reform to assure that the needs of the elders are included in any reform.

Many other barriers encountered were reported to be a consequence of inadequate resources. Given sufficient resources, respondents believed that there would be less of a need to prioritize required services and to mandate that some specific services be provided regardless of local needs. However, even with limited resources, most expressed the desire to determine their own priorities based on their local needs. This area of local flexibility should be explored in developing new legislation for HCBLTC services.

The development of comprehensive and coordinated HCBLTC programs and services will be a long process. Legislative reform is one important step along this path. However, equally important are expanding the capacities of administrators and providers and developing a network of providers with the ability to address the scope and depth of potential demands for HCBLTC services.
4. Health Survey of Indian Boarding School Students

Most studies of psychopathology among Indian youth are cross-sectional, offering little insight into the periods of risk, onset, course, and abatement of the various mental health problems that may beset them. This has been true especially with respect to an environment thought to be one of the greatest hazards to their well-being: boarding schools. Consequently, the Health Survey of Indian Boarding School Students was launched in 1988 to establish the prevalence and incidence of symptoms of depression, anxiety, suicidal behavior, and substance abuse in such settings, as well as to clarify the relative contribution of stressful life events, coping strategies, social support, mastery, and self-esteem to these outcomes (Dick, Manson, & Beals, 1993; King, Beals, Manson, & Trimble, 1992). The setting is a fully accredited, tribally controlled secondary school located in the southeastern United States. Of the approximately 200 students, grades 9-12, in attendance, 96% live there in dormitories throughout the school year. The vast majority (92%) are from the region and belong to five local, culturally similar tribes. A self-report questionnaire was administered to the students twice each academic year, typically in October and April.

During the 1989-90 school year, 85 students were selected from the 163 participants in the fall survey for clinical interview based on Suicidal Ideation Questionnaire (SIQ) (Dick, Beals, Manson, & Bechthold, in press) scores. These individuals represented the first (n=42) and third quartiles (n=43) of SIQ scores; 61 of them were successfully questioned about their mental health status, employing the DISC-2.1C and its PTSD module. Due to the 3 month delay between the time at which the students completed the survey and when the DISC interviews were completed, not all of the 85 students were available for interview. In addition, during the week of the interviews, a number of additional students were absent for a variety of reasons and, thus, unavailable for interview. Consequently, a total of 61 DISC interviews were obtained. Of these, all 43 individuals (21 female; 22 male) scoring in the third quartile of the SIQ received the DISC interview. Only 18 (11 female; 7 male) of those belonging to the first quartile completed the interview. This was not surprising given the greater stress and symptomatology reported by the latter group, which predicts more frequent absence, indeed school dropout. The students interviewed ranged from 14 to 20 years of age; all four grades (9-12) are represented.

Diagnostic status was established according to DSM III-R criteria by way of the DISC 2.1C interview. All DISC 2.1C modules were administered so that each student was assessed with regard to the presence of a variety of anxiety disorders, eating disorders, elimination disorders, tic disorders, academic skills disorders, affective disorders, psychotic disorders, disruptive behavior disorders, substance abuse disorders, and for miscellaneous disorders such as elective mutism, pica and trichotillomania. The assessment battery included the PTSD module which was being field-tested by Columbia University at the time.

The three most common diagnoses assigned across both groups were Conduct Disorder (18%), Major Depression (15%), and Alcohol Dependence (13%). Of additional clinical interest is that across both samples, 25% of the students indicated that they had made a previous suicide attempt, 40% within the past 6 months. In comparing the two groups by specific diagnoses, individuals from the first SIQ quartile were significantly more likely to be diagnosed with any psychiatric diagnosis, any anxiety disorder, any mood disorder, and any behavior disorder.
5. Foundations of Indian Teens

Despite general recognition of the influence of cultural factors on assessment methods, only limited progress has been accomplished in regard to American Indians (Ackerson, Dick, Manson, & Baron, 1990; Beals, Keane, Dick, & Manson, 1991; Manson, Ackerson, Dick, Baron, & Fleming, 1990; Manson, Shore, & Bloom, 1985; Manson, Walker, & Kivlahan, 1987). Hence, in 1992-93, the Foundations of Indian Teens project was initiated to develop more reliable and valid measures of psychopathology among Indian adolescents, with special emphasis on trauma. The study proceeded in three phases. Focus groups were convened to discuss the nature of trauma in general, to elicit examples of particularly traumatic events, and to review a portion of a screening survey specific to the PTSD diagnostic criteria. A self-report survey, which included screeners for PTSD, depression, problem-drinking, anxiety, conduct disorder, subsequently was administered to 297 Indian adolescents, grades 9-12, attending a high school in a large southwestern Indian community. Sixty-five students reporting a traumatic event plus eight or more concomitant symptoms underwent a second stage clinical interview, which employed a current version of the DISC (Version 2.3). At present, only data from the school-based self-report survey are available for reporting.

The PTSD screener included in the survey was a modified version of the PTSD Interview (PTSD-I), DSM-III-R version (Watson, 1991). Having reviewed the relevant assessment literature (Davidson, Smith, & Kudler, 1989; Keane, Caddell, & Taylor, 1988; Keane, Malloy, & Fairbank, 1984; McNally, 1991; Saigh, 1989; Solomon, Weisenberg, Schwarzwald, & Mikulincer, 1987; Zilberg, Weiss, & Horowitz, 1982), it became clear that most measures specific to PTSD are designed for administration by interview rather than self-report. Moreover, few are relevant to children and adolescents. Those which do focus primarily on trauma related to sexual abuse. The majority of adult measures continue to emphasize combat-related trauma. Hence, the PTSD-I was chosen and adapted for self-report, largely because of its close correspondence with diagnostic criteria. The original seven-point Likert scale was modified to a dichotomous (yes/no) format, for two reasons. The NCAIANTIFHS's extensive prior experience with Indian youth indicates that such simplification is desirable when possible. For screening purposes, it was assumed that a yes/no format would provide adequate information to distinguish adolescents at high risk of PTSD.

Because of these adaptations, considerable attention was devoted to describing the DSM-III-R criterion A. Drawing from the DIS, the DISC 2.3, and the PTSD-I, the following stimulus was developed for eliciting the traumatic event description:

"Have you ever experienced something that is so horrible that it would be very upsetting to almost anyone? Some examples might be: Situations in which you thought you were going to die, or where your life was seriously threatened. Other examples might be: You saw somebody killed, or get hurt very badly; or, someone you felt close to was killed or got hurt very badly. Has anything like that ever happened to you? How many things like that have happened to you? What was the worst thing like that you have experienced?"

In response, nearly 51% (n=151) of the students reported that they had experienced a traumatic event. Thirty-seven percent described experiencing more than one such event, with 16% numbering four or more. Approximately half of those experiencing a traumatic event endorsed 8 or more PTSD symptoms (of 17 possible) on this self-report measure.
6. Indian Detainee Adolescent Project

The National Center for American Indian/Alaska Native Mental Health Research, University of Colorado Health Sciences Center had funds to conduct a small cross-sectional research project of mental health and service utilization assessment of adolescents who are detained in jails/juvenile detention facilities. It was felt that information was needed to provide a greater understanding of the problems, needs, and services concerning these adolescents.

The American Indian Detainee Adolescent Project (IDAP) was conducted with the help of a Northern Plains Tribe. The study's specific research questions included:

1. What extent do juveniles detained in the detention facility suffer from psychiatric disorders and emotional problems?
2. What is the extent of co-morbidity within this particular sample?
3. What is the impact of selected risk factors for detained youth and on this psychiatric morbidity?
4. What are the basic health service utilization patterns prior to incarceration for these adolescents?

We felt public health and policy implications of this overall project could be considerable. For the first time, the extent to which adolescent detainees suffer from mental health disorders including substance abuse has been described for an American Indian community. This information will hopefully help in planning more integrated services for troubled youth.

Data collection was conducted from July, 1995 through May, 1996. Local community members were hired as lay interviewers. They administered parts of the University of Michigan-Composite International Diagnostic Interview (UM-CIDI) adapted from the National Center's AIVVP Project, the Diagnostic Instrument for Children (2.1), and the Indian Detainee Adolescent Self-Report to 150 Indian adolescent detainees. The age range was between 12-18 and included both male and female. An entire six month population of youth were interviewed, or those consecutively booked into the detention facility. Excluded from the interview were those that fell below age 12 (instruments were not designed for anyone less than 12 years of age), were already interviewed (repeat offenders), non-Indian, held for other jurisdictions, and those that were released prior to interviewing and moved out of the area, thus could not be located. One hundred and fifty interviews were completed.

The potential benefits envisioned for the facility and community are:

1. Identification of mental health and substance problems and diagnoses among adolescents that were detained.
2. Identification of past service utilization including detention and criminal justice services prior to incarceration, as well as other common adolescent risk factors.
3. Implications for current community and detention programming for these adolescents, including culturally appropriate prevention.
4. Hard empirical data results for future service planning and funding acquisition.

Funding for this project was provided by the National Institute of Mental Health (NIMH) as part of the National Center's core grant which began July, 1992 and ended June 30, 1996. The continuation grant included three developmental areas of study of which this was one.
7. Voices of Indian Teens Project

The Voices of Indian Teens project is a five-year research project funded by the National Institute for Alcohol Abuse and Alcoholism, involving semi-annual school-based data collection, with community follow-up of youth not in school. The Voices project is currently located in 10 high schools in five western sites: South Central (1 school), Northern Plains (2 schools), Northwest (1 multi-tribal school), Southwest/non-Pueblo (1 school), and Southwest/Pueblo (5 schools). Participation rates for the first wave of data collection ranged from 52% to 87%, with an average of 74%. The final sample of Wave 1 Indian youth includes 2056 Indian youth, made up of 49% males and 51% females.

During the first year of the Voices project, a pilot study was designed to shorten longer, widely utilized measures to a smaller subset of items that would operate similarly to the longer measures. For Wave 1 data, the internal consistency coefficients of these shortened scales ranged from .54 to .93, with an average of .80. At the same time, focus group work explored whether the measures were comprehensible to Indian youth—whether the youth would be able and willing to answer these questions in a meaningful manner, and whether the questions were not culturally inappropriate for Indian youth. These pilot efforts permitted the inclusion of 26 culturally appropriate and psychometrically sound constructs (for example, substance use/abuse/dependence, depression, anxiety, academic achievement, delinquent behavior, social support, peer values and pressure, ethnic identity, stressful life events, drinking patterns and contexts, community values and attitudes toward alcohol, etc.) within a survey which still can be completed within a 45- to 50-minute class period.

One of the most important set of constructs of the Voices project focus on a number of aspects of alcohol use. As noted earlier, studies relying on surveys typically lack context and phenomenological depth. For example, little quantitative work to date has focused on aspects of the context within which teens drink. The Voices survey includes a number of close-ended questions about a teenager’s patterns and contexts of alcohol use—e.g., when you drink, with whom do you drink? when you drink, where do you drink? Although analyses are currently underway, we expect that we will be able to explore important ecological aspects of alcohol use which might mediate or moderate alcohol use among Indian adolescents.

Moreover, much of the research literature concerning the measurement of alcohol use has utilized rather simplistic approaches to the operationalization of the variable of adolescent alcohol consumption. In general, quantity or frequency measures act as a proxy not only for use, but also for abuse and drinking-related problems (Mitchell et al., 1993). Using a double-cross-validation design, an underlying three-factor structure emerged: alcohol use, negative consequences of drinking, and problem drinking. This more complex conceptualization of adolescent alcohol consumption has opened new avenues for inquiry.

The Voices study just completed data collection, spanning eight (8) waves over four years. Several other publications in addition to those noted above are available. A five year follow-up of youth from two of the communities (Northern Plains and Southwest) has been funded by the National Institute of Child Health and Human Development. This particular project, known as the Pathways of Choice (CHOICES), is examining the developmental transitions, tasks, and markers that young Indian adults experience as they mature from late adolescence, including, but not limited to parenthood, work, marriage, higher education.
Program Plan for the American Indian and Alaska Native Programs and TeleHealth Facility

Appendix A3

Overview of Major Research Study
Native Elder Research Center
Native Elder Research Center (NERC)

Overview of Major Research Study

1. Impact of a Culturally-based Intervention on Cancer Screening Among Older Native Women - June Strickland, Ph.D.

A. Specific Aims
Our goals are to test the impact of a culturally-based intervention on knowledge about breast and cervical cancer and the frequency with which older Native women have Pap smears (PS), mammography (MM), clinical breast examinations (CBE) and perform breast-self examinations (BSE).

B. Background and Significance
Screening for breast and cervical cancer is effective - since 1950 cervical cancer mortality has decreased by -75% due to PS (USPSTF, 1996). Yet, despite their proven benefit, use of preventive services is low and varies by demographic/socioeconomic factors. Surveys show PS are performed in 17%-50% of women, MM in 30%-56% and CBE in 53%-70% (German et al, 1995; Anderson et al, 1995; Tape & Campbell, 1993; Vincent et al, 1995; King et al, 1993). Older and minority women and those with less income and education, rural residence, and no health insurance or telephone are less likely to be screened (Costanza, 1994; King et al, 1993; Moormeier, 1996; Weinrich et al, 1995). Physicians with primarily minority patients less often recommend MM for older women than those with more affluent, predominantly white patients (Gemson et al, 1988). These facts are disturbing since older women have a 10-fold greater rate of breast cancer than those <65 years old (Muss, 1996) and, despite 2 decades of declining cervical cancer mortality, the death rate for older women is unchanged (Silver-berg, 1984). Moreover, MM may be of greatest benefit in women ages 50-70 (Nyström et al, 1993). Although poor compliance with screening may reflect patient or physician factors ‘older women have fewer failed MM appointments than younger ones (Margolis et al, 1993) and in 1/3 of the elderly, MM is ordered at the patients’ request (Vincent et al, 1995).

Culturally-influenced beliefs also play a role, particularly in low income, low-literate women (Davis, 1995). Among African-American women, the most common reasons for not having MM are a belief that it is unnecessary if no breast problems exist, failure of the physician to recommend the procedure, cost, and lack of information about the increases in breast cancer with age. Similarly, compared to Anglo women, Latinas are less likely to recognize breast masses and abnormal vaginal bleeding as signs of cancer and often believe they only need MM if they have a breast mass and a PS for unusual bleeding (Hubbell et al, 1995). Less acculturated women are more likely to hold such beliefs. Congruent with these data is a study in which AI/ANs had high rates of failed MM appointments (Margolis et al, 1993). Among the Yakama, beliefs about PS are rooted in “walking the journey of womanhood”, suggesting that interventions need to have a cultural-specific orientation (Strickland et al, 1996). Older women had more negative attitudes than younger ones.

Breast and cervical cancer are among the most common malignancies in AI/ANs. Although the overall incidence and age-adjusted mortality are lower than for the general population, rates of breast cancer show striking intertribal variations (18/100,000 Tohono O’odham-106/100,000 Athabaskan women, Burhansstipanov, 1994). For unclear reasons, AI women who live in northern states generally have
higher rates than those living in southern areas (Burhansstipanov, 1994). Despite rising breast cancer rates and mortality among AI/ANs (Hampton, 1992 @ O'Brien, 1992), only 77% of urban AI females >50 years reported ever receiving a mammogram (NAWHA, 1996). Although 91% had a CBE at sometime, only 45% were examined in the last year. In the only study actually examining MM screening among AI/ANs, 65% of Pascua-Yaqui women had >1 mammogram over 5 years with the lowest rate among those >50 years. These rates improved dramatically when MM was available on site (Gordon et al., 1994). Additionally, AI/ANs have a disproportionately high incidence and mortality rate for cervical cancer: the incidence among ANs is four times, and among AIs over twice, that of whites (Becker et al., 1993; Burhansstipanov, 1996). AI women also experience cervical malignancies at younger ages and have a poorer survival (61%) than most other racial groups (Burhansstipanov, 1996; 1994). The aggressive nature of the disease has prompted the IHS to recommend annual PS for all Native women, including the elderly. The few data on PS among AI/ANs found that only 1/3 of reservation-based Pascua-Yaqui women who had received PS during the last year (Gordon et al., 1994). Although ANs generally underutilize PS (Lanier & Knutson, 1986), only 27% of women >50 years are screened for cervical cancer versus 71% of younger ones (Samet et al., 1987). In the Pacific Northwest, breast and cervical cancers are among the top 5 cancers in AI/ANs (Sugerman et al., 1994). Sadly, AI/ANs present with larger breast tumors, thus greatly influencing their chances of survival (Frost, 1992).

C. Preliminary Studies
In the Native Elders Primary Care Project (NEPCP, see description Core D) we reviewed the medical records of 553 AI/ANs >50 years of age seen in the past year to evaluate how often preventive procedures were obtained and to identify reasons for noncompliance with such protocols. The characteristics of these 553 (61% of whom are women) patients are available in Core D. Preliminary results suggest that the rates of screening measures ever performed are suboptimal: MM 63%, CBE 71%, PS 72%, pelvic examination 71%. Thus, 125 women never had MM, 75 never had a PS, and 98 never had a CBE. These figures do not include women who had one of these interventions but not within the recommended time frame, nor do they address the many factors that might influence screening, e.g., age, provider type or cultural issues.

D. Design and Methods
This is a randomized, controlled trial of the effectiveness of an intensive, culturally-based intervention to increase knowledge of and screening for breast and cervical cancer among older urban AI/AN women. A major component will be the adaptation of a culturally acceptable mode of communication, the "talking circle" as a means to promote cancer education and to improve adherence to cancer screening. Subjects will be identified using data already collected for NEPCP. Additional subjects will be identified, if needed, using the SIHB computer system to create a list of elder Native women seen since NEPCP completion. Eligible subjects will be elder women without breast or cervical cancer who by chart review, have not had MM, PS, or CBE in the previous 4 months (this time frame was chosen as there are 8 months for study completion and screening is recommended yearly). Elders are those >50 years of age since it is recognized, formally and informally, that AI/ANs <65 years of age should be considered older adults. Eligible subjects will be randomly assigned to an intervention or non-intervention group and baseline characteristics examined for comparability. The non-intervention group will receive usual care. Based on the NEPCP results, we do not anticipate problems in identifying 200 women, and recruiting 100 for the intervention. Women will receive $15 per session and a traditional "give away" present as is customary in the Pacific Northwest.
The intervention will consist of four weekly 1.5 hour sessions. In session 1 women will see a video of a Native physician conducting a CBE and discussing the importance of screening with MM, BSE, CBE, and PS. BSE will be demonstrated and women given the opportunity to practice on a brown skin breast plate model. Session 2 is a "talking circle" during which women will discuss barriers to screening, be educated about cancer, and asked to commit verbally to be screened. An elder Al/AN woman will be trained to be the facilitator. Session 3 focuses on positive health practices and the importance of screening. Women will view an NCI video specifically designed for Native women on breast and cervical health and screening. In session 4, we return to the "talking circle", this time with a Native breast cancer survivor (Alicia Ruflo-Gilbert, Tewa Pueblo) as the facilitator. To encourage participation in screening, older trained Native women who will function as patient advocates, provide information, translate physician messages, and accompany patients to appointments will be available to all study participants.

We have chosen this 4 week, non-physician-based intervention for several reasons. First, a similar, albeit more intensive, culturally appropriate strategy appears successful in cervical cancer screening (Hodge et al, 1996). Second, the 16 week intervention previously used is not practical in most busy practices. Third, provider interventions are not feasible in most Al/AN communities because of high physician turnover. Finally, we have found that the most effective interventions to increase BSE incorporated multiple modalities.

Pre- and post-intervention data collected will consist of an instrument developed for cervical cancer from focus groups of adult Native women which asks about demographics, cancer history, knowledge, attitudes, beliefs, quality of life issues, and acculturation patterns (Hodges et al, 1996); it will be adapted for use with breast cancer. The Lierman scale will assesses BSE knowledge and skills. Standardized reminder cards will be sent every 2 months to remind women to do BSE@ reminders that MM, CBE, and PS are needed will be sent according to screening guidelines. We will also include process evaluations of the intervention by asking the participants to provide feedback. Lastly, patients' medical records will be reviewed to document whether MM, PS, and CBE were performed according to published recommendations in both the intervention and non-intervention group. Women in both the intervention and non-intervention groups will be telephoned at the end of the study to assess use of BSE.

Qualitative and quantitative analytic methods will be used. A descriptive summary of participants' observations and feedback and other programmatic issues will be described, e.g., training for providers, logistics of implementation. Quantitative measure will be used to determine if there is a significant change in rates of MM, CBE, BSE, PS, and MM screening behaviors. Data will be analyzed for compliance with screening protocols using both a culture-appropriate definition of 'elder' as well as a more conservative age cutoff, i.e., >65 years.

2. Cardiovascular Risk Reduction Among Urban Native Elders
Dorothy Rhoades MD, MPH

A. Specific Alms
The specific aims of this Pilot Study are to evaluate the effects of a dietary and exercise intervention to reduce CVD risk factors among a cohort of urban Native elders.

B. Background and Significance
The number of urban Al/AN elders will double by the year 2000 (Baker et al, 1990; AARP, 1988) yet,
because their special needs are generally not recognized and little descriptive information exists, urban AI/ANs, and especially older persons, have been called the "invisible minority" (Kramer, 1992). Studies of urban AI/ANs found that the leading diagnoses are diabetes mellitus (DM) and hypertension (HTN) and modifiable cardiovascular disease (CVD) risk factors like HTN, elevated lipid levels, smoking, obesity, and DM are common in urban AI/ANs (Gillum et al, 1984). In fact, CVD and DM are among the leading causes of morbidity, accounting for the greatest number of clinic visits in urban settings (Kramer, 1992). Although AI/ANs generally have lower blood pressures and cholesterol levels than non-Natives, CVD has become the major cause of death for AI/ANs (Alpert et al, 1991). While coronary heart disease prevalence has decreased in all other races, it has increased among AI/ANs (Alpert et al, 1991). WN rates are also increasing in this population (DeStefano, 1979; Welty et al, 1986), which may be contributing to increasing rates of CVD (Klain et al, 1988). Since risk factor reduction in older adults results in lowered CVD (LaCroix & Omenn, 1992) and AI/AN elders have a large burden of these risk factors, their modification is important.

Rates of HTN among tribes are highly variable (7-17%) but tend to be lower than the overall US rate (Broussard et al, 1993). The Strong Heart Study (SHS), an epidemiological study of CVD risk factors among members of 13 tribes, ages 45-74 years, documented HTN in 38% (Welty et al, 1995). The only data on urban AI/ANs found 31% self-reported high blood pressure (Kramer, 1991). Native people may incorrectly identify themselves as hypertensive, not be aware of their condition, or be poorly-controlled (Deprez et al, 1985; Sharlin et al, 1993). An elevated cholesterol (>200) has been found in 25% of urban Alts and is significantly correlated with age (Gillum et al, 1984). In the SHS, 38% of participants had a cholesterol >200 mg/dl (Welty et al, 1995). Smoking rates vary but in some tribes approach 60-70% (Burhansstipanov, 1994, McIntyre & Shah, 1986). Similar to the US population as a whole, a rate of 29% was observed in the SHS (Welty et al, 1995). Rates of 65-75% are often found among urban Alts (Lando et al, 1992; Gillum et al, 1984), although older adults smoke less (McIntyre & Shah, 1986). Most urban Natives inhale their smoke and use unfiltered, king-sized cigarettes (Gillum et al, 1984). Obesity is epidemic in AI/AN communities (Byers, 1992; Welty, 1991; 1995). Data from a nationally representative sample of AI/ANs show the frequency of overweight and obesity exceeded that for greater US population for all adult age groups (Broussard, 1991). Among females, the rate of obesity was twice that of the comparison sample. Since obesity is a major determinant of DM among AI/ANs (Knowlwer et al 1993), its health implications are clear.

AI/AN have the world's highest prevalence of 2.5 times that of the US population (Muneta et al, 1993). Among AI/AN elders, DM ranks among the 6 leading causes of mortality (USDHHS, 1990) with death rates twice the national average for adults aged >65 years (John, 1994). It accounts for 5-6% of all deaths among those @45 years old (John, 1994). Moreover, a large increase in the prevalence of DM is expected since from 1940-1980 the life expectancy for AI/ANs increased from 51-71 years (IHS, 1988). Information on AI/ANs living in urban areas is scarce. In one study, 20% of an urban, non-clinical AI/AN sample reported having DM (Kramer, 1991). There is also tremendous tribal variation with rates ranging from 5 to >50% among primarily reservation-based people (USDHHS, 1994). In the largest study, the SHS, 52% of subjects were diabetic (Welty et al, 1995). The intertribal variations in DM rates have been attributed to the adoption of high fat, low fiber diets and a sedentary lifestyle. Low rates of DM and obesity are correlated with a traditional diet and more physical activity (Ravussin et al, 1994).

Few studies of interventions to reduce CVD risk factors in adult AI/ANs are available (LeMaster, 1994). For smoking, behavioral modification and nicotine patches succeeded for 20% of AN participants (Hensel et al, 1995). The Zuni developed a community-based exercise and weight control program in
which adult diabetics had significant weight loss and improved glycemic control compared with diabetic nonparticipants (Heath et al, 1991). Yet, compliance with dietary restrictions may be challenging for older AI/ANs: obesity may be seen as desirable (Godhes, 1989), Native languages may lack equivalents for terms used to explain DM, food recall tools do not represent traditional foods, a reduction of dietary fat may be difficult, and the cost of appropriate foods prohibitive. Although CVD risk factors are not evenly distributed across AI/ANs, all tribes should promote more physical activity to reduce the risk of CVD, DM, and obesity (Welty et al, 1995).

2. Preliminary Studies
In the recently-completed SIHB Native Elders Primary Care Project (see description, Core D) we reviewed the medical records of 553 AI/ANs who were @50 years old seen during the prior year (see Core D for patient characteristics). One goal was to document the frequency of medical problems and to determine if published guidelines for the management of DM and HTN were being followed. Overall, 113 (20%) patients were diagnosed with DM, 209 (38%) with HTN, 210 (38%) were smokers, and 270 (49%) had a BMI > 27.5 --indicating a high prevalence of CVD risk factors among these elder, urban AI/ANs.

3. Methods and Design
This is a pre-intervention and multiple post-intervention design with a wait-control group. The effects of two interventions, an exercise program, a cooking class, will be tested separately. The intervention will be presented as an educational experience or 'class' and consist of a combination of lectures on CVD risk factors, class activities, homework assignments, a notebook, cookbook, and an exercise manual, designed to assist participants in adopting healthier lifestyles and modify their CVD risk profile. The class will be taught in a small group format of 8-10 participants per class and consist of 9 2-hou sessions over 8 weeks. Sessions will be held twice a week for the first week then once a week for the final 7 weeks. A 3 month follow-up or 11class reunion" will be held to encourage maintenance of gains and to obtain longer-term outcome data. Three groups of 8-10 elders will be enrolled for the first classes; this will be repeated once. Thus, each cycle of classes will consist of -30 participants 10 in each of three classes and two cycles will be completed - 60 total participants. To test the effectiveness of individual components, all classes will follow the basic curriculum above. However, one class will include cooking instruction and an exercise program (described below), one class will have only the exercise program and the cookbook, and one class will have cooking instruction and an exercise manuals but not an exercise program.

The first two sessions will be devoted to an overview of the curriculum and the course goals, definition of the course ground rules, and collection of pre-intervention data. In subsequent sessions, lectures on high blood pressure, DM, smoking, high cholesterol, obesity, exercise, traditional Native and modern AI/AN diets, and an overview of CVD and risk factors will be presented. For the classes incorporating exercise, a physical therapist will conduct a 30-minute low intensity, graduated, program with walking, stretching, and gentle Weight training. For the cooking class, a Native dietitian (T. Gilbert, Inupiaq/Tsimshian) will train participants in the preparation and cooking of traditional-type, low fat, high fiber meals using "The Gift of Food", a traditionally-based program developed by the IHS Diabetes Program. Of note, although traditional Native diets are much higher in carbohydrate and lower in fat compared with modern diets, a diet similar to a traditional diet has been developed for use in intervention studies, and is largely reproducible with locally and commercially available foods (Boyce & Swinburn, 1993). The slow digestion and absorption of starch in traditional foods is a protective factor against the development of DM (Brand et al, I 990).
Pre-intervention and post-intervention data will be collected at classes 1 and 13 and at the 3 month "class reunion". Data to be collected includes 1) a questionnaire on culturally-influenced beliefs, practices, attitudes and knowledge about CVD risk factors; 2) exercise level; 3) smoking (cigarettes per day); 4) measured blood pressure; 5) fasting lipid levels; 6) 4-day food records; 7) dietary sodium intake; 8) weight; 9) for diabetics, a glycosolated hemoglobin level and use of glucose self-monitoring. Food records will be analyzed using the Nutrition Data Systems Food System for total energy, carbohydrate, protein, fat, and sodium.

Eligible participants will identified through the SIHB and must have 2 of the following: DM, HTN, or obesity. A BMI of >27.5 will define overweight as it the level at which an increased risk for the development HTN, DM, and hypercholesterolemia is observed. Potential participants will be informed at the outset that resources only allow a limited number to participate in each class. Subjects in the wait-control condition will not be contacted again until preceding classes has been completed. Participants will receive $25 per class. Other incentives for behavior change like participation in walking clubs, weight loss competitions and T-shirts will also be used.

This type of intervention and incentives have been shown to be effective among Al's. Involvement with these types of activities is commonplace in Al communities with participation rates of 70%, a 8% dropout rate, and 87% attendance (Manson & Brenneman, 1995). Their experience also suggests that behavioral components of such an intervention were better understood, more thoroughly enjoyed, and more easily mastered than were cognitively-oriented elements. Our proposed intervention strongly focuses on behavioral components. Finally, we believe this proposed approach can be modified to be community-based program (Welty et al, 1995).

3. Allopathic & Traditional Treatments: Patterns of Use Among Reservation-based Elder
J. Henderson, MD

A. Specific Aims
The specific aims of this Pilot Study are to 1) describe the frequency and patterns of use of allopathic and traditional treatments and health practices among community-dwelling, reservation-based Sioux elders; 2) describe how commonly polypharmacy, drug misuse, and potentially harmful treatment interactions occur; 3) ascertain if polypharmacy and misuse are associated with subject-oriented factors such as age, education, diagnosis, acculturation, utilization, etc.; 4) assess understanding of the indications and dosing for allopathic and traditional treatments and to determine if these factors differ by treatment type and 5) to identify areas amenable to interventions to decrease potential problems identified in this Pilot Study.

B. Background and Significance
Overall, 80% of older Americans have >1 chronic health problem (Eraker et al, 1984). The prevalence of somatic complaints and diseases worse with aging, resulting in more indications for drug therapy. Thus, it comes as no surprise that the elderly take an average of 5.5 drugs per person (Bernstein et al, 1989). Patients @65 years old are prescribed twice as many medications as younger ones (Colt & Shapiro, 1989), and nonprescription drug use among the elderly is 7-times that of the general adult population (Cadieux, 1989). The most prescriptions per person are written for those >80 years old (HCFA, 1989a);
35% of office visits by this group results in the prescription of >3 medications (German & Burton, 1989). Cardiovascular drugs, analgesics, anti-inflammatory agents, and psychiatric drugs are used most often (Michocki et al, 1993).

Polypharmacy is the prescription, administration, or use of more medications than are clinically indicated in a given patient. Contributory factors include increasing age, multiple symptoms, medical conditions, or providers; copious prescribing, lack of a primary provider to coordinate drug therapy, use of multiple pharmacies, drug regimen changes, hoarding of medications, and self-treatment. The complications of polypharmacy are multiple - increased problems with medication side effects, adverse drug reactions, drug-drug interactions, noncompliance with the medical regimen, and direct drug costs, as well as indirect costs resulting from hospitalization for iatrogenic illness (Colley & Lucas, 1993). Drug misuse is defined as the inappropriate use of a substance intended for therapeutic purposes (Ramsey & Tucker, 1981). Forms of drug misuse include overuse, underuse, erratic use, or contraindicated use of a prescribed or nonprescribed medication. The importance of nonprescribed (e.g., traditional AI) medications is often not appreciated in this context. Problems common in the elderly such as cognitive and sensory deficits may result in drug misuse.

Due to both the number of medications taken by older adults and their underlying health conditions, between 8-45% of the elderly do not know the correct purpose of their medications (HCFA, 1989b). In one study of the elderly, almost half misused a drug use (most often underuse) and either reported the wrong indication for a drug or took one that was inappropriately prescribed. Patients using psychotherapeutic agents were at greater risk for drug misuse. Noncompliance with the medical regimen, especially the inaccurate use of prescription drugs, may be the most troublesome form of misuse. Noncompliance with medications has been estimated at 25-59% in the elderly (Eraker et al, 1984; Morrow et al, 1988; Col et al, 1990). It is the main reason for outpatient treatment failures as well as a cause for serious medical complications including Hospitalization (Eraker et al, 1984).

Among AIs/ANs, infectious diseases such as tuberculosis and gastroenteritis have been replaced as leading causes of death by diabetes, cardiovascular disease, and hypertension (Nutting et al, 1990). Despite the increase in these chronic health conditions, previously thought nonexistent among AIs/ANs, little is known about the patterns of use of allopathic and traditional treatments among AIs/ANs in general, and elders in particular. This is important as the use of traditional medicines and participation in ceremonies is unrelated to the ease of access to western medical services (Waldram, 1990). In fact, traditional healers often refer freely to other practitioners including non-Native physicians (Avery, 1991). Such parallel use of traditional and allopathic healing systems could lead to unanticipated treatment-related problems like polypharmacy and drug misuse as well as unexpected side effects due to the known pharmacologic properties of some traditional preparations (Ritch et al, 1996). These adverse outcomes may not be recognized since many providers are unfamiliar with Native practices and associated risks and benefits (Zubek, 1994).

For almost a century AI healing practices were suppressed by the US government (Billard et al, 1989). However, since the Indian Religious Freedoms Act was passed in 1978, there has been a resurgence in the use of traditional medicines and religious ceremonies (Blondin, 1990). This was confirmed in a survey of AIs living in the San Francisco area. a third of whom had used some form of traditional medicine in the prior year. The majority used both western and traditional medicine and urged preserving traditional practices.
and culture in urban Indian health programs (Fuchs et al, 1977). Other studies in Canada have observed
that 38% of the medical staff in hospitals and nursing homes refer patients to medicine men/women
practice (MaClure et al, 1992) and half of tribal members with mental health problems are referred to
elders (Waldrum, 1990). Lastly, in some IHS service areas traditional medicine men/women are regu-
larly used in the care of patients (Blondin, 1990), clinics which integrate traditional and western
approaches have been advocated (Wheatley, 1991), and native healing centers employing MDs have
opened their doors (Lowry, 1993).

C. Preliminary Studies
We have recently completed a survey of 1050 Al/ANs seen at SIHB (see Core D for description);
212 were >50 years old. These persons completed a questionnaire that included demographics, a symp-
tom checklist, measures of acculturation, functional status, trauma/victimization, depression and alco-
holism. Four items on traditional Native healing practices were also included. Medical record reviews
are pending so data on correlation of traditional practices with diagnoses or other factors is not yet
available. Nonetheless, the preliminary results on the 212 elders are intriguing: 68% reported enpgng
in traditional Indian healing activities; they were used an average of 14 times in past year. In general,
respondents found traditional treatments helpful: 7% indicated they didn't help at all, for 42% they
helped a little bit or helped some, and 51% reported they helped quite a bit. Finally, 92% indicated that
traditional Indian health activities should be made more available; only 6% reported that they, would
not use traditional services, even if they were more available. In contrast, 46% said that they would use
them quite a bit or all or nearly all the time. Thus, it appears that use of traditional treatments is high,
and is likely to be even more prevalent among Native elders in a reservation-based community.

D. Methods and Design
This study is a nested cohort study of elder Sioux adults imbedded in a larger psychiatric epidemiology
and service utilization study slated to start data collection in late 1997. The larger study, referred to as
Service Utilization, Psychiatric Epidemiology, Risk and Protective Factors Project or SUPERPFP (see
description, Core D), will gather data through interviews on 2,600 tribally-enrolled, primarily reserva-
tion-based members of the Lakota Sioux community, including a sample of 440 adults 55-75 years of
age. Participants will undergo an interview lasting ~2.5 hours which will include a structured psychiatric
interview for the diagnosis of alcohol, drug, and mental illness according to DSM-IV criteria including
an elicitation of culture-specific symptoms and syndromes, a screener for dementia, self-reported phys-
ical health conditions, and measures of impairment, functional status, and symptoms. Other information
will include an assessment of risk and protective factors for psychiatric illness (e.g., demographics),
assessments of ongoing stressors (e.g., poverty), social support, and ethnic identity. Finally, of impor-
tance to this Pilot Study, information on service utilization (total number of visits, visits by provider
type, etc.), type and number of diagnoses given, and pharmacy records will be obtained from the IHS
computerized Patient Care Information System.

Dr. Henderson will interview a subsample of the 440 Lakota elders, working out of the Pine Ridge, SD
field office (described in Core B). Each week he will travel from Rapid City to Pine Ridge and person-
ally perform interviews for three half days per week. Both the interviews Dr. Henderson completes, as
well as those completed by other interviewers, will have items specifically added to address our specific
aims. We also will use the "brown bag" method (Colt & Shapiro, 1989) to ascertain information about
use of allopathic, and to the extent possible, traditional AI treatments. This approach asks subjects to
show the interviewer all their medications and review their indications for use, dose, dosing schedule,
perceived positive and negative effects, etc. For allopathic medications, we will compare the self-

reported information with that shown on the label. If no label is available, information will be gathered from the review of the IHS pharmacy records. Other information will be gathered through the use of structured questions on the frequency and indications for use of traditional practices, participation in ceremonies, and other forms of traditional Native activities. These questions may, in part, be based on a subset of 12 items from the Adult Indian Questionnaire which ascertain the degree of participation in Native traditional and cultural activities (W. Hollow, personal communication, 1997). The items in question have excellent internal reliability (Cronbach’s alpha = 0.84) in adult AI men and women. Additional items will be developed during the first four months of the Investigator Development Core. For the purposes of analysis, each of the 440 participants will be classified by a panel of three physicians or pharmacists, including Dr. Henderson, into one of the following categories: polypharmacy present/absent; drug misuse present/absent; potentially harmful treatment interactions present/absent. Other analyses will focus on the frequency that elders understand the indications for treatments, and the factors associated with polypharmacy, misuse, and treatment interactions.
Program Plan for the American Indian and Alaska Native Programs and TeleHealth Facility

Appendix B
Space Requirement Descriptions

University of Colorado Health Sciences Center
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: American Indian and Alaska Native Programs

Room Name: Conference Room

ASF: 330 (for 15)

Additional Identical Rooms:

Room Proportions: Approximately 20 x 15

Locational Adjacencies

Adjacent to:

Close to: Office of the Division Director

Special Requirements:

Built-In Equipment: White boards with closure doors

Moveable Equipment: Conference tables with 15 chairs, credenza

Other Design Considerations:
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

**Program:** American Indian and Alaska Native Programs

**Room Name:** Conference Room

**ASF:** 840 (for 45)

**Additional Identical Rooms:**

**Room Proportions:** Approximately 20 x 42

**Locational Adjacencies**

**Adjacent to:**
Facility and research staff offices

**Close to:**

**Special Requirements:** Room partition to allow for room division

**Built-In Equipment:** Two white boards with closure doors, computer projection screen

**Moveable Equipment:** Two conference tables with 25 chairs for each

**Other Design Considerations:**
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: American Indian and Alaska Native Programs

Room Name: Copy/Fax Areas

ASF: 60

Additional Identical Rooms: 1

Room Proportions: Approximately 6 x 10

Locational Adjacencies

Adjacent to: Faculty and Staff Offices

Close to: Faculty and Staff Offices

Special Requirements: Wiring for copy and fax machines. Minimize sound

Built-In Equipment:

Moveable Equipment: copy and fax machines, cabinets and shelves for supplies

Other Design Considerations:
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: American Indian and Alaska Native Programs

Room Name: File Server/LAN Room

ASF: 400

Additional Identical Rooms: None

Room Proportions: Approximately 20 x 20

Locational Adjacencies

Adjacent to: Multimedia Production Laboratory

Close to: Multimedia Production Laboratory

Special Requirements: Wiring for workstations, printers and other equipment

Built-In Equipment:

Moveable Equipment: Two digital graphic workstations, work table with four chairs, digital scanners, laser printers, cabinets for hardware and software

Other Design Considerations:
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

**Program:** American Indian and Alaska Native Programs

**Room Name:** Library Archives/Research Workroom

**ASF:** 500

**Additional Identical Rooms:** None

**Room Proportions:** Approximately 20 x 25

**Locational Adjacencies**

**Adjacent to:**
- Faculty and Research Staff Offices

**Close to:**

**Special Requirements:** None

**Built-In Equipment:** Bookshelves to accommodate journal

**Moveable Equipment:** Worktable and chairs, two system workstations

**Other Design Considerations:**
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: American Indian and Alaska Native Programs

Room Name: Offices - Division Director

ASF: 180

Additional Identical Rooms: 0

Room Proportions: Approximately 12 x 15

Locational Adjacencies
Adjacent to: Reception Area

Close to: Support staff office locations, conference rooms, copy areas

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chair, file cabinets, bookshelves, conference table, chairs, computer workstation

Other Design Considerations: Exterior view/ natural light
Program: American Indian and Alaska Native Programs

Room Name: Offices - Faculty

ASF: 180

Additional Identical Rooms: 21

Room Proportions: Approximately 12 x 15

Locational Adjacencies
Adjacent to:

Close to: Support staff office locations, conference rooms, copy areas

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chair, file cabinets, bookshelves, computer workstation

Other Design Considerations: Exterior view/ natural light
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program:  American Indian and Alaska Native Programs

Room Name:  Offices - Research Staff

ASF:  150

Additional Identical Rooms:  18

Room Proportions:  Approximately 10 x 15

Locational Adjacencies
Adjacent to:

Close to:  Support staff office locations, conference rooms, copy areas, research work room

Special Requirements:  None

Built-In Equipment:  None

Moveable Equipment:  Desk, chair, file cabinets, bookshelves, computer workstation

Other Design Considerations:  Exterior view/ natural light
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: American Indian and Alaska Native Programs

Room Name: Offices - Support Staff

ASF: 150

Additional Identical Rooms: 2

Room Proportions: Approximately 10 x 15

Locational Adjacencies
Adjacent to:

Close to: Copy/fax areas, project records, storage

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chair, file cabinets, bookshelves, computer workstation

Other Design Considerations: Exterior view/ natural light
Program: American Indian and Alaska Native Programs

Room Name: Project Records and File Storage Rooms

ASF: 500

Additional Identical Rooms: 1

Room Proportions: Approximately 25 x 20

Locational Adjacencies
Adjacent to: 

Close to: Staff offices and publications storage area

Special Requirements: Good lighting

Built-In Equipment: None

Moveable Equipment: 4-drawer lateral pull file cabinets, wall shelving,

Other Design Considerations: Building control for fire protection
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: American Indian and Alaska Native Programs

Room Name: Publications Storage

ASF: 375

Additional Identical Rooms: 1

Room Proportions: Approximately 25 x 15

Locational Adjacencies
Adjacent to:

Close to: Publications Specialist Staff Office

Special Requirements: Good lighting

Built-In Equipment: None

Moveable Equipment: Wall shelving, 90" H archive shelving, 1 4-place reading table with 4 chairs.

Other Design Considerations: Building control for fire protection. Archive shelving must be 16" D for proper housing of record storage boxes.
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: American Indian and Alaska Native Programs

Room Name: Reception Area

ASF: 400

Additional Identical Rooms: None

Room Proportions: Approximately 20 x 20

Locational Adjacencies
Adjacent to: Offices of Division Director and Administrative Support
Close to: Conference Rooms

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chairs, lounge seating

Other Design Considerations:
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

**Program:** American Indian and Alaska Native Programs

**Room Name:** Staff Lounge

**ASF:** 600

**Additional Identical Rooms:** None

**Room Proportions:** Approximately 20 x 30

**Locational Adjacencies**

**Adjacent to:**

**Close to:**

**Special Requirements:** Plumbing for sink and refrigerator. Wiring for microwave and vending machines

**Built-In Equipment:** Cabinets in kitchenette area

**Moveable Equipment:** Dining tables, chairs to support 15. lounge chairs, magazine rack - wall mounted., vending machines

**Other Design Considerations:** Space should be designed to accommodate various seating arrangements - semi-private areas for small group discussions
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

**Program:**
American Indian and Alaska Native Programs and TeleHealth/TeleEducation Program Office and Resource Center

**Room Name:**
Clinical studio - small

**ASF:**
400

**Additional Identical Rooms:**
2

**Room Proportions:**
Approximately 20 x 20

**Locational Adjacencies**

**Adjacent to:**
Other clinical studios

**Close to:**
Other studio and media production laboratory space

**Special Requirements:**
See following

**Built-In Equipment:**
See following

**Moveable Equipment:**
Picture Tel Venue, PCS Live 200

**Other Design Considerations:**
See following
Small Clinical Studio

- Projector/Conf. Unit
- View Box
- Fax Machine
- Computer
- Desk
- Elmo Camera
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

**Program:** American Indian and Alaska Native Programs and TeleHealth/TeleEducation Program Office and Resource Center

**Room Name:** Demonstration Training Room

**ASF:** 400

**Additional Identical Rooms:** 1

**Room Proportions:** Approximately 22 x 18

**Locational Adjacencies**

**Adjacent to:** Other demonstration training rooms

**Close to:** Other studio and media production laboratory space

**Special Requirements:** See following

**Built-In Equipment:** Video monitor (32")

**Moveable Equipment:** SVHS video recorder

**Other Design Considerations:** See following
Small Demo/Training Facility
Small Demo/Training Facility
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: American Indian and Alaska Native Programs and TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Multimedia Production Laboratory

ASF: 800

Additional Identical Rooms: 1

Room Proportions: Approximately 30 x 26

Locational Adjacencies
Adjacent to: The other multimedia production laboratory
Close to: Other studio and media production laboratory space

Special Requirements: See following

Built-In Equipment: See following

Moveable Equipment: Portable digital camcorder, studio digital camcorder, digital digitizing VTR, server unit, color printers

Other Design Considerations: See following
SPECIAL REQUIREMENTS:

The following special requirements apply to all of the Multimedia production Laboratories and CD ROM Production Lab:

Wall Coverings: Due to the video requirements in these rooms, the walls will need to be covered with acoustical OZITE wall covering. This is normally applied over dry wall much like wallpaper but acts as an acoustical buffer.

Lighting: The conference facilities will need to have two lighting systems: 1) Dimmable incandescent lighting that may be used independently when the room needs to be dimmed for viewing of slides/monitors, etc.; and 2) a fluorescent system located over the desktops and speaker locations for training sessions requiring full light access.

Seating/Workstations: The acoustics, the lighting, and furnishings need to project the atmosphere of a training center. The rooms should optimally be tiered to provide good visibility for all participants (with the workstation for the instructor being raised higher than the trainee workstations) and due to the numerous editing equipment the training stations need to be double tiered. The desktops, fitted with individual computers, should have electrical and computer network access, and be fitted with Communication Circuitry. It is also suggested that these rooms be finished with raised computer floors (6 inches) in order to allow for wiring to remain free from the traffic paths of users. Sample diagrams of suggested layouts for these room are provided. As numerous computer and editing instruments need to be used in this setting, electrical access needs to be generous and accessible all around the room.

Floor Coverings: The floor covering for the large clinical studio should be vinyl tile for easy maintenance. For the small clinical studios, it is suggested that these rooms be carpeted with a durable smooth covering allowing for sound absorption, minimizing traffic noise, and easy moving of video carts, etc. These rooms will be used for consultative (head to head) interactive clinical conference and therefore, carpeting is preferred to vinyl flooring.

Other: Diagrams of suggested layouts of the studios are provided.
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: CD-Production Room

ASF: 900

Additional Identical Rooms: None

Room Proportions: Approximately 30 x 32

Locational Adjacencies
Adjacent to:

Close to: Other studio and media production laboratory space

Special Requirements: See following

Built-In Equipment: See following

Moveable Equipment: 2 digital editing computers, 2 CD ROM mastering/authoring computer systems, 2 CD ROM recorders, flatbed scanners, digital slide scanners

Other Design Considerations: See following
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Clinical studio - large

ASF: 800

Additional Identical Rooms: None

Room Proportions: Approximately 30 x 26

Locational Adjacencies
Adjacent to: Other clinical studios
Close to: Other studio and media production laboratory space

Special Requirements: See following

Built-In Equipment: Video monitor (32")

Moveable Equipment: Picture Tel Venue, diagnostic peripheral equipment, AV remote control system, Elmo camera, Elmo 35 mm video projector, data projector, video recorder, still video recorder, audio PA

Other Design Considerations: See following
SPECIAL REQUIREMENTS:

The following special requirements apply to all of the large and small clinical studios:

The acoustics, the lighting, and furnishings need to project the atmosphere of a clinical exam room. The large studio needs to be equipped with exam table, sink, wall mounted mobile directional lighting, and wall mounted scopic (telemedicine) instruments (i.e., otoscope, dermoscope, opthalmoscope, etc.) Cabinets and counter space to hold typical exam room equipment (sterile gloves, thermometer, steripreps, syringes, etc.) will be required. (We already have an exam table for the large clinical studio.)

Wall Coverings: Due to the video requirements in these rooms, the walls need to be covered in OZITE wall covering. This is normally applied over dry wall much like wallpaper but acts as an acoustical buffer.

Lighting: The clinical studios will need to have two lighting systems: 1) Dimmable incandescent lighting that might be used independently when the room need to be dimmed for viewing of ultrasound or electrocardiograph monitors, etc.; and 2) a fluorescent systems located over the exam table or desktops locations for conference requiring full light access.

Electrical/Network Access: As numerous medical and video instruments need to be used in this setting, electrical access need to be generous and accessible all around the room. There needs to be network access for the desktop and the videoconferencing equipment and video capacity will be required in at least one location in the room.

Floor Coverings: The floor covering for the large clinical studio should be vinyl tile for east maintenance. For the small clinical studios, it is suggested that these rooms be carpeted with a durable smooth covering allowing for sound absorption, minimizing traffic noise, and easy moving of video carts, etc. These rooms will be used for consultative (head to head) interactive clinical conference and therefore, carpeting is preferred to vinyl flooring.

Other: Diagrams of layouts and studios are provided.
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Conference Room

ASF: 480 (for 25)

Additional Identical Rooms: 1

Room Proportions: Approximately 20 x 24

Locational Adjacencies

Adjacent to:

Close to: Studios, faculty offices

Special Requirements: See following

Built-In Equipment: White boards with closure doors, tv monitors

Moveable Equipment: Conference tables with 25 chairs, Picture Tel controller, Elmo insert camera, tv camera

Other Design Considerations: See following
**SPECIAL REQUIREMENTS:**

The following special requirements apply to all of the conference rooms:

**Wall Coverings:** Due to the video requirements in these rooms, the walls will need to be covered with acoustical OZITE wall covering. This is normally applied over dry wall much like wallpaper but acts as an acoustical buffer.

**Lighting:** The conference facilities will need to have two lighting systems: 1) Dimmable incandescent lighting that may be used independently when the room needs to be dimmed for viewing slide/monitors, etc.; and 2) a fluorescent system located over the desktops and speaker locations for conferences requiring full light access.

**Seating/Workstations:** The acoustics, the lighting, and furnishings need to project the atmosphere of a conference room or theatre. The large room should optimally be tiered to provide good visibility from all points in the room and monitors should be low in the desktops to preserve visibility. The desktops, though not fitted with individual computers, should have periodic electrical and computer network access, (i.e., the PowerComm Table System that is fitted with Communication Circuitry modular faceplate). These rooms will be used for interactive video conferences requiring participants to be able to communicate from the seats to remote ends (i.e., microphone access at the desktop is required). It is also suggested these rooms be finished with raised computer floors (6 inches) in order to allow for wiring to remain free from the traffic path of users. Samples diagrams of suggested layouts for these rooms are attached. The small conference rooms need not be tiered (see suggested diagram) but need to maintain good visibility to monitors for all of the audience.

**Floor Coverings:** It is suggested that these rooms be carpeted with durable smooth covering allowing for sound absorption, minimizing traffic noise, and easy moving of video carts etc. The fronts of the rooms must be accessible for mobile video carts when considering the tiered construction.

**Other:** Multiple monitors will need to be mounted or built-in in raised locations for viewing by the audience.
Small Conference Room
Large Conference Room
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Demonstration Training Room

ASF: 800

Additional Identical Rooms: 1

Room Proportions: Approximately 26 x 30

Locational Adjacencies
Adjacent to: Other demonstration training rooms
Close to: Other studio and media production laboratory space

Special Requirements: See following

Built-In Equipment: Video monitor (32")

Moveable Equipment: Picture Tel Venue, AV remote control system (AMX), Elmo camera, Elmo 35 mm video projector, data projector, SVHS video recorder, still video recorder, Audio, PA

Other Design Considerations: See following
SPECIAL REQUIREMENTS:

The following special requirements apply to all of the Large and small demonstration facilities:

Wall Coverings: Due to the video requirements in these rooms, the walls will need to be covered with acoustical OZITE wall covering. This is normally applied over dry wall much like wallpaper but acts as an acoustical buffer.

Lighting: The demonstration facilities will need to have two lighting systems: 1) Dimmable incan-descent lighting that may be used independently when the room needs to be dimmed for viewing of slides/monitors, etc.; and 2) a fluorescent system located over the desktops for conferences requiring full light access.

Seating/Workstations: The acoustics, the lighting, and furnishings need to project the atmosphere of a conference room or theatre. The rooms should optimally be tiered to provide good visibility from all points in the room and monitors should be low in the desktops to preserve visibility. The desktops, though not fitted with individual computers should have periodic electrical and computer network access, (i.e., the PowerComm Table System that is fitted with Communication Circuitry modular faceplates). These room will be used for interactive video conferences requiring participants to be able to communicate from the seats to the remote ends (i.e., microphone access at the desktop is required.). It is also suggested that these rooms be finished with raised computer floors (6 inches) in order to allow for wiring to remain free from the traffic paths of the users. Sample diagrams of suggested layouts for these rooms are attached.

Floor Coverings : It is suggested that these rooms be carpeted with a durable smooth covering allowing for sound absorption, minimizing traffic noise, and easy moving of video carts, etc. The fronts of the rooms must be accessible for mobile video carts, when considering the tiered construction.

Other: Multiple monitors will need mounted or built-in in raised locations for viewing by the audience.
Large Demo/Training Facility
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Digital Archive/Server Room

ASF: 400

Additional Identical Rooms: None

Room Proportions: Approximately 18 x 22

Locational Adjacencies
Adjacent to:

Close to: Multimedia Production Laboratory

Special Requirements: Wiring for workstations, printers and other equipment

Built-In Equipment:

Moveable Equipment: Two digital graphic workstations, work table, digital scanners, laser printers, cabinets for hardware and software

Other Design Considerations:
The following special requirements apply to all of the **Server Room**:

There are no special requirements for this room. Floor coverings should be vinyl tile and the room should be well air conditioned for temperature control; fluorescent lighting is required. Electrical access should be generous and network access is required.
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Equipment Storage

ASF: 500

Additional Identical Rooms: None

Room Proportions: To be determined

Locational Adjacencies

Adjacent to:

Close to: Studio and media preparation laboratories

Special Requirements: None

Built-in Equipment: None

Moveable Equipment: Wall shelving

Other Design Considerations: None
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Offices - Faculty/Directors

ASF: 180

Additional Identical Rooms: 5

Room Proportions: Approximately 12 x 15

Locational Adjacencies
Adjacent to: Support staff office locations, conference rooms, studio and media production area

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chair, file cabinets, bookshelves, computer workstation

Other Design Considerations: Exterior view/natural light
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Offices - Technician and Support Staff

ASF: 150

Additional Identical Rooms: 5

Room Proportions: Approximately 10 x 15

Locational Adjacencies
Adjacent to:

Close to: Studio and media production space

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chair, file cabinets, computer workstation

Other Design Considerations:
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Preparation/Green Rooms

ASF: 100

Additional Identical Rooms: 3

Room Proportions: Approximately 10 x 10

Locational Adjacencies
Adjacent to:

Close to: Studio and media production laboratories

Special Requirements: see following

Built-In Equipment: None

Moveable Equipment: lounge seating, table, workstation

Other Design Considerations: see following
SPECIAL REQUIREMENTS:

The following special requirements apply to all of the Green Rooms (Prep Rooms):

The prep rooms are used for pre-conference preparation of patients, speakers, physicians, etc. These need to be set up much like an office with a couple of exceptions. There needs to be one located adjacent to the large clinical studio, two adjacent to the small clinical studios and one adjacent to the large demonstration/training room. These rooms need to have a dressing area (mirrors, sink) to allow for patients to change clothes, if necessary, or speakers to prepare for their presentations. Accordingly, these rooms need to be equipped with a desk, phone, and desktop network computer access, fax machines etc. A built in monitor for the purpose of viewing (not interacting) programming from the adjacent facilities is required to provide the patient/speaker, etc. to follow their queue’s etc.

There is no special lighting, wall covering, or conferencing requirements. It is recommended that the room be carpeted much like a normal office.
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: TeleHealth/TeleEducation Program Office and Resource Center

Room Name: Reception Area

ASF: 400

Additional Identical Rooms: None

Room Proportions: Approximately 20 x 20

Locational Adjacencies
Adjacent to: Offices of Directors
Close to: Conference Rooms

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chairs, lounge seating

Other Design Considerations:
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: Programs for Public Psychiatry

Room Name: Conference Room

ASF: 960 (for 50)

Additional Identical Rooms:

Room Proportions: Approximately 20 x 48

Locational Adjacencies

Adjacent to:

Close to: Faculty and staff offices

Special Requirements: Room partition to allow for room division

Built-In Equipment: Two white boards with closure doors, computer projection screen

Moveable Equipment: Two conference tables with 25 chairs for each

Other Design Considerations:
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: Programs for Public Psychiatry

Room Name: Copy/Fax Areas

ASF: 60

Additional Identical Rooms: 1

Room Proportions: Approximately 6 x 10

Locational Adjacencies

Adjacent to:

Close to: Faculty and Staff Offices

Special Requirements: Wiring for copy and fax machines.
Minimize sound

Built-In Equipment:

Moveable Equipment: copy and fax machines, cabinets and shelves for supplies

Other Design Considerations:
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: Programs for Public Psychiatry

Room Name: Library Archives/Research Workroom

ASF: 500

Additional Identical Rooms: None

Room Proportions: Approximately 20 x 25

Locational Adjacencies

Adjacent to: 

Close to: Faculty and Staff Offices

Special Requirements: None

Built-In Equipment: Bookshelves to accommodate journal

Moveable Equipment: Worktable and chairs, two system workstations

Other Design Considerations:
<table>
<thead>
<tr>
<th><strong>Program:</strong></th>
<th>Programs for Public Psychiatry</th>
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</thead>
<tbody>
<tr>
<td><strong>Room Name:</strong></td>
<td>Offices - Director</td>
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<td><strong>ASF:</strong></td>
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<td><strong>Room Proportions:</strong></td>
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<td><strong>Locational Adjacencies</strong></td>
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<td><strong>Adjacent to:</strong></td>
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<tr>
<td><strong>Close to:</strong></td>
<td>Support staff office locations, conference rooms, copy areas</td>
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<td><strong>Special Requirements:</strong></td>
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<td><strong>Built-In Equipment:</strong></td>
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<td><strong>Moveable Equipment:</strong></td>
<td>Desk, chair, file cabinets, bookshelves, conference table, chairs, computer workstation</td>
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<td><strong>Other Design Considerations:</strong></td>
<td>Exterior view/ natural light</td>
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</table>
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: Programs for Public Psychiatry

Room Name: Offices - Faculty

ASF: 180

Additional Identical Rooms: 13

Room Proportions: Approximately 12 x 15

Locational Adjacencies
Adjacent to:

Close to: Support staff office locations, conference rooms, copy areas

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chair, file cabinets, bookshelves, computer workstation

Other Design Considerations: Exterior view/ natural light
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: Programs for Public Psychiatry

Room Name: Offices - Postdoctorate Fellows

ASF: 150

Additional Identical Rooms: 6

Room Proportions: Approximately 10 x 15

Locational Adjacencies

Adjacent to: Support staff office locations, conference rooms, copy areas, work room

Close to: Support staff office locations, conference rooms, copy areas, work room

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chair, file cabinets, bookshelves, computer workstation

Other Design Considerations: Exterior view/ natural light
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: Programs for Public Psychiatry

Room Name: Offices - Support Staff

ASF: 150

Additional Identical Rooms: 1

Room Proportions: Approximately 10 x 15

Locational Adjacencies
Adjacent to:

Close to: Copy/fax areas, project records, storage

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chair, file cabinets, bookshelves, computer workstation

Other Design Considerations: Exterior view/natural light
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: Programs for Public Psychiatry

Room Name: Project Records and File Storage Rooms

ASF: 500

Additional Identical Rooms: 1

Room Proportions: Approximately 25 x 20

Locational Adjacencies
Adjacent to: Staff offices and workroom area

Close to: Staff offices and workroom area

Special Requirements: Good lighting

Built-In Equipment: None

Moveable Equipment: 4-drawer lateral pull file cabinets, wall shelving,

Other Design Considerations: Building control for fire protection
Program Plan for American Indian and Alaska Native Programs, Programs for Public Psychiatry and TeleHealth/Education Facility

Program: Programs for Public Psychiatry

Room Name: Reception Area

ASF: 400

Additional Identical Rooms: None

Room Proportions: Approximately 20 x 20

Locational Adjacencies

Adjacent to: Offices of Director and Administrative Support

Close to: Conference Room

Special Requirements: None

Built-In Equipment: None

Moveable Equipment: Desk, chairs, lounge seating

Other Design Considerations:
Program Plan for the American Indian and Alaska Native Programs and TeleHealth Facility

Appendix C

Proposed Site Options

University of Colorado Health Sciences Center
Proposed Site Options
American Indian and Alaska Native Programs and TeleHealth Facility

University of Colorado Health Sciences Center

Proposed Site Options
American Indian and Alaska Native Programs and TeleHealth Facility
Program Plan for the American Indian and Alaska Native Programs and TeleHealth Facility

Appendix D

Equipment Requirements
<table>
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<th>Equipment</th>
<th>Quantity Needed</th>
<th>Cost/Unit</th>
<th>Total Cost</th>
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<td>Event Tracking System</td>
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Appendix E

Current Program Space Floor Plans
1. American Indian and Alaska Native Programs
2. TeleHealth/TeleEducation Program Office
Program Plan for the American Indian and Alaska Native Programs and TeleHealth Facility

Appendix F

Student Headcount Enrollment Report (Annualized)
### UNIVERSITY OF COLORADO HEALTH SCIENCES CENTER

#### Headcount Enrollment Report - 10 Year Plan

**Summary Enrollment Data - Annualized - [June 1997 Update]**

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<tr>
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<td><strong>TOTAL SCHOOL OF MEDICINE</strong></td>
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<td><strong>1,176</strong></td>
<td><strong>1,188</strong></td>
<td><strong>1,192</strong></td>
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</table>

### SCHOOL OF DENTISTRY

|                      |              |              |              |                   |                   |                   |                     |                     |                     |                     |                     |                     |
| Dental Students      | 138          | 138         | 140          | 140               | 140               | 140               | 140                 | 140                 | 140                 | 140                 | 140                 | 140                 |
| Undergraduate Students |              |              |              |                   |                   |                   |                     |                     |                     |                     |                     |                     |
| Dental Hygiene       | 39           | 40          | 40           | 40                | 40                | 40                | 40                  | 40                  | 40                  | 40                  | 40                  | 40                  |
| **TOTAL SCHOOL OF DENTISTRY** | **177** | **178** | **180** | **180** | **180** | **180** | **180** | **180** | **180** | **180** | **180** | **180** |

### SCHOOL OF NURSING

|                      |              |              |              |                   |                   |                   |                     |                     |                     |                     |                     |                     |
| Nursing Doctorate    | 72           | 94          | 103          | 110               | 112               | 112               | 120                 | 125                 | 130                 | 138                 | 145                 | 145                 |
| Graduate             |              |              |              |                   |                   |                   |                     |                     |                     |                     |                     |                     |
| Masters              | 269          | 284         | 343          | 332               | 315               | 315               | 315                 | 320                 | 320                 | 325                 | 325                 | 325                 |
| PhD                  | 84           | 81          | 74           | 74                | 65                | 65                | 65                  | 70                  | 70                  | 70                  | 70                  | 70                  |
| [3] Special Students (MS) | 92           | 68          | 71           | 72                | 70                | 70                | 70                  | 75                  | 75                  | 75                  | 75                  | 75                  |
| **Total Graduates**  | 435          | 431         | 468          | 478               | 450               | 450               | 450                 | 455                 | 465                 | 470                 | 470                 | 470                 |
| Undergraduate (BS)   | 310          | 269         | 257          | 219               | 200               | 190               | 190                 | 190                 | 190                 | 190                 | 190                 | 190                 |
| [3] Special Students (BS) | 5            | 5           | 5            | 5                 | 5                 | 5                 | 5                   | 6                   | 6                   | 6                   | 6                   | 6                   |
| **TOTAL SCHOOL OF NURSING** | **822** | **818** | **853** | **812** | **767** | **757** | **765** | **775** | **790** | **803** | **818** | **818** |

### SCHOOL OF PHARMACY

|                      |              |              |              |                   |                   |                   |                     |                     |                     |                     |                     |                     |
| Undergraduate Students | 372          | 385         | 390          | 380               | 290               | 232               | 115                 | 25                  | 0                   | 0                   | 0                   | 0                   |
| **TOTAL SCHOOL OF PHARMACY** | **401** | **419** | **429** | **428** | **398** | **418** | **412** | **404** | **374** | **367** | **370** | **370** |

### CAMPUS TOTAL

|                      |              |              |              |                   |                   |                   |                     |                     |                     |                     |                     |                     |
| C1Enrol10c.xls       | 2,440        | 2,483        | 2,544        | 2,532             | 2,409             | 2,441             | 2,468               | 2,498               | 2,499               | 2,526               | 2,548               | 2,552               |

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1. Annualized Enrollment includes Fall Term Enrollment plus Summer Term add-on for School of Nursing programs and SOM Basic Science Special Students.
2. Included in this Plan update are enrollment of the programs under the Tuition Differential Plan and the Pharm.D. Track-in program.
3. Special Student enrollment (non-degree students) are included in the plan.