Report to Congress

Radiation Exposure Screening and Education Grant Program
(FY 2006)

Department of Health and Human Services
Health Resources and Services Administration
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Section 417C of the Public Health Service (PHS) Act, “Grants for Education, Prevention, and Early Detection of Radiogenic Cancers and Diseases,” includes a requirement that the Secretary submit an annual report summarizing the expenditures and programs funded under this section.

BACKGROUND

The Radiation Exposure Compensation Act (RECA) Amendments of 2000 (P. L. 106-245), amended the PHS Act to add section 417C, “Grants for Education, Prevention, and Early Detection of Radiogenic Cancers and Diseases.” Section 417C provides the authority for competitive grants to States, local governments, and appropriate health care organizations to initiate and support programs for: (1) individual cancer screening, (2) medical referrals, (3) public information dissemination, and (4) facilitation of RECA claim documentation. Administration for this authority designated as the Radiation Exposure Screening and Education Program (RESEP) was delegated by the Secretary of the Department of Health and Human Services to the Health Resources and Services Administration (HRSA).

PURPOSE

The purpose of the RESEP is to aid those individuals who may have been adversely affected by the mining, transporting and processing of uranium, and the testing of nuclear weapons for the Nation’s weapons arsenal. The people exposed included those who participated onsite in a test involving the atmospheric detonation of a nuclear device within the official boundaries of the Nevada or Trinity Test Sites; or those who were physically present in one of the affected areas downwind of the Nevada Test Site. In addition, uranium mine employees were exposed to large doses of radiation and other airborne hazards in the mine environment that together are presumed to have produced an increased incidence of lung cancer and respiratory diseases among these mine workers. This prevention grant program is designed according to its Congressional intent to help individuals and their families detect potential radiological illnesses earlier, allowing them to be treated more successfully and cost effectively.

In September 2006, HRSA continued awards to seven organizations in five southwestern States (Arizona, Colorado, Nevada, New Mexico and Utah). Table 1 provides a description of the seven grantees, the proposed service area, and the amount awarded. For ease of review, Definitions, Eligibility, and Screening Requirements are defined on pages 12-14 of this report.
Table 1  
FY 2006 Radiation Exposure Screening and Education Program (RESEP) Grantees

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Proposed Service Area</th>
<th>Award Amount</th>
</tr>
</thead>
</table>
| Intermountain Health Services 
*St. George, Utah* | Nye, Lincoln, NE Clarke, NV; Kane, Garfield, Washington, Iron, Beaver, UT; Northern Mohave and Coconino, AZ | $279,180 |
| Mountain Park Health Center 
*Phoenix, Arizona* | Apache, Coconino, Gila, Mohave, Navajo, Maricopa, Yavapai, AZ | $157,915 |
| Northern Navajo Medical Center 
*Shiprock, New Mexico* | Navajo Nation (NM, AZ, UT) | $332,640 |
| St. Mary's Hospital 
*Grand Junction, Colorado* | W. Colorado Grand and San Juan counties, UT | $272,745 |
| Board of Regents 
University of Nevada 
*Reno, Nevada* | Eureka, Lander, Lincoln, Nye, White Pine, Clark (portion), NV | $178,200 |
| University of New Mexico 
*Albuquerque, New Mexico* | Grants, NM; Pueblos of Acoma, Canoncito and Laguna | $182,898 |
| Utah Navajo Health System 
*Montezuma Creek, Utah* | Utah State except Kane, Garfield, Washington, Iron, Beaver counties | $182,903 |

TOTAL: $1,586,481
The seven RESEP grantees have implemented programs consistent with legislative and program requirements. The remainder of this report is based on data and information provided by the grantees and reflects operations during the period September 1, 2006 through August 31, 2007.

**FY 2006 RESEP PROGRAM ACTIVITIES**

**Intermountain Health Services d.b.a. Dixie Regional Medical Center, St. George, Utah:**
- Service Area: Southwestern Utah and adjacent regions in Arizona and Nevada;
- Number of Service Delivery Sites: three;
- Users: Downwinders;
- Screening: 429 patients and made 1,307 medical referrals;
- Education: Disseminated cancer-related educational materials. Held 31 presentations on atmospheric nuclear testing and downwinder risks; and
- Outreach: Distributed over 3,812 pamphlets, brochures and fliers; organized 13 TV spots, and composed three newspaper articles.

**Mountain Park Health Center, Phoenix, Arizona:**
- Service Area: Counties of Apache, Coconino, Gila, Mohave, Navajo and Yavapai Counties;
- Number of Service Delivery Sites: four;
- Users: Downwinders;
- Screening: 59 patients and made 36 medical referrals;
- Education: Conducted 41 educational presentations, disseminated 1,500 educational brochures; and
- Outreach: Disseminated 14 newspaper articles and 17 letters about the program.

**Northern Navajo Medical Center, Shiprock, New Mexico:**
- Service Area: Navajo Nation of NM, AZ; Apache County, AZ; Navajo County, AZ; Coconino County, AZ; McKinley County, NM; San Juan County, NM; and in UT, including San Juan County, UT;
- Number of Service Delivery Sites: five;
- Users: Miners, millers, ore transporters, downwinders;
- Screening: 378 individuals and made 83 medical referrals;
- Education: Educated providers and patients on the importance of screening. Held five presentations and disseminated 1,200 program brochures;
- Outreach: Participated in various activities including public service announcements and continuing medical education programs. Held 34 radio advertisements and wrote 800 letters.
St. Mary’s Hospital, Grand Junction, Colorado:
• Service Area: Western Slope of Colorado, Southeastern Utah, and Wyoming;
• Number of Service Delivery Sites: one;
• Users: Miners, millers, and ore transporters;
• Screening: 176 individuals for radiogenic disease and made 317 medical referrals;
• Education: Conducted four presentations to community organizations; and
• Outreach: Distributed 300 promotional pamphlets; wrote two newspaper articles reaching several thousand individuals.

Board of Regents, University of Nevada, Reno, Nevada:
• Service Area: Eureka, Lander, Lincoln, Nye, White Pine, and portion of Clark counties;
• Number of Service Delivery Sites: one;
• Users: Downwinders, and onsite participants;
• Screening: 246 individuals for radiogenic disease and made 211 medical referrals;
• Education: Disseminated 3,632 program brochures on health risks associated with radiation exposure and 34 presentations; and
• Outreach: Conducted one radio announcement, one TV spot, 43 news articles and wrote 38 letters.

University of New Mexico, Albuquerque, New Mexico:
• Service Area: Residents of New Mexico who do not live on the Navajo Nation;
• Number of Service Delivery Sites: two;
• Users: Miners, millers and ore transporters;
• Screening: 94 individuals for radiogenic disease and made 36 medical referrals;
• Education: Disseminated 1,214 informational brochures on health risks associated with radiation exposure and conducted 14 educational presentations; and
• Outreach: Distributed 802 letters and wrote 4 newspaper articles.

Utah Navajo Health System, Montezuma Creek, Utah:
• Service Area: State-wide Utah except for Washington, Iron, and Kane counties;
• Number of Service Delivery Sites: three;
• Users: Miners, millers, ore transporters, and downwinders;
• Screening: 82 individuals for radiogenic disease and made four medical referrals;
• Education: Conducted 26 group sessions with 867 attendees; and
• Outreach: Held 30 presentations at various community events and venues, disseminated 537 brochures and wrote 2,005 letters and 6 newspaper articles.

RESULTS

Approximately 41,347 individuals were informed through the outreach and education activities including program brochures, presentations, and letters of the possible effects of exposure to radiation as well as the services available through the RESEP. The grantees have also successfully shared information with several thousand individuals through various media including TV ads, radio spots, public service announcements, and newspaper articles.
Table 2 illustrates the number of medical screening exams, medical referrals, and RECA eligibility assistance provided by each grantee. Compared to the FY 2005 program year, the program experienced minor decreases in the number of medical screening exams and the RECA eligibility assistance categories by 87 and 1,873 respectively. However, there was an increase in the number of medical referrals by 334.

Table 2. Number of Program Users by Type of Service

<table>
<thead>
<tr>
<th>Grantee Organization</th>
<th>Screening Exams</th>
<th>Medical Referrals</th>
<th>RECA Eligibility Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dixie Regional Medical Center</td>
<td>429</td>
<td>1307</td>
<td>5137</td>
</tr>
<tr>
<td>Mountain Park Health Center</td>
<td>59</td>
<td>43</td>
<td>381</td>
</tr>
<tr>
<td>Northern Navajo Medical Center</td>
<td>378</td>
<td>83</td>
<td>440</td>
</tr>
<tr>
<td>Utah Navajo Health System</td>
<td>82</td>
<td>4</td>
<td>97</td>
</tr>
<tr>
<td>Board of Regents University of Nevada</td>
<td>246</td>
<td>211</td>
<td>74</td>
</tr>
<tr>
<td>University of New Mexico</td>
<td>94</td>
<td>36</td>
<td>528</td>
</tr>
<tr>
<td>St. Mary’s Hospital</td>
<td>176</td>
<td>317</td>
<td>526</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1464</strong></td>
<td><strong>2001</strong></td>
<td><strong>7183</strong></td>
</tr>
</tbody>
</table>
Chart 1 illustrates that the largest percent of program users screened was White at 59 percent. The second largest number of users was American Indian/Alaskan Native at 37 percent, and the smallest percent of program users were Hispanic at 4 percent.

**Chart 1. Percent Distribution of Program Users by Race and Ethnicity**
Chart 2 illustrates that the largest age group of the program users screened was between the 65-69 years of age, which made up 20 percent of program users. Those between 40 and 44 years of age made up the smallest group, with less than one percent of program users.

**Chart 2. Percent Distribution of Program Users by Age Group**
Chart 3 illustrates the percent distribution of program users with non-malignant disease by exposure category. Downwinders represent the largest exposure category at 42 percent; while miners represent the second largest exposure category at 33 percent of all users. Onsite participants and ore transporters each represent about one percent of program users; and 15 percent of the users are exposed to multiple sources of radiation.

Chart 3. Percent Distribution of Program Users with Non-Malignant Disease by Source of Exposure
Chart 4 illustrates the percent distribution of program users with malignant disease by exposure category. Seventy-two percent of the program users with malignant disease are Downwinders; while uranium miners and millers represent 11 and 6 percent respectively; and nine percent of the users experienced multiple sources of exposure to radiation.

**Chart 4. Percent Distribution of Program Users with Malignant Disease by Source of Exposure**
The following are Definitions, Eligibility, and Screening Requirements for Compensation under the Radiation Exposure Compensation Act amendments of 2000.

**Uranium Miners**

Definition: Individual must have been employed in an above-ground or underground uranium mine located in Colorado, New Mexico, Arizona, Wyoming, South Dakota, Washington, Utah, Idaho, North Dakota, Oregon, or Texas at any time during the period beginning on January 1, 1942, and ending on December 31, 1971.

Eligibility: Individual must have been exposed to 40 or more working level months of radiation while employed in a uranium mine during the time period referenced above.

Screening Requirements: Provided for the following diseases: primary lung cancer and certain non-malignant respiratory diseases including pulmonary fibrosis; cor pulmonale resulting from fibrosis, silicosis, and pneumoconiosis.

**Uranium Millers**

Definition: Individual must have been employed in a uranium mill located in Colorado, New Mexico, Arizona, Wyoming, South Dakota, Washington, Utah, Idaho, North Dakota, Oregon, or Texas at any time during the period beginning on January 1, 1942, and ending on December 31, 1971. The term ‘uranium mill’ includes milling operations involving the processing of uranium ore or vanadium-uranium ore, including both carbonate and acid leach plants.

Eligibility: Individual must have worked for at least 1 year during the time period referenced above.

Screening Requirements: Provided for the following diseases: primary lung cancer, certain non-malignant respiratory diseases (including pulmonary fibrosis, cor pulmonale resulting from fibrosis, silicosis, and pneumoconiosis), renal cancer, and other chronic renal diseases including nephritis and kidney tubal tissue injury.

**Ore Transporters**

Definition: Individual must have been employed in the transport of uranium ore or vanadium-uranium ore from mines or mills located in Colorado, New Mexico, Arizona, Wyoming, South Dakota, Washington, Utah, Idaho, North Dakota, Oregon, or Texas at any time during the period beginning on January 1, 1942, and ending on December 31, 1971.

Eligibility: Individual must have worked for at least 1 year during the time period referenced above.
Screening Requirements: Provided for the following diseases: primary lung cancer, certain non-malignant respiratory diseases, renal cancer, and other chronic renal diseases including nephritis and kidney tubal tissue injury.

Downwinders

Definition: Individual must have been physically present in one of the affected areas downwind of the Nevada Test Site during a period of atmospheric nuclear testing. The individual must have lived or worked downwind of atmospheric nuclear tests in certain counties in Utah, Nevada, or Arizona for a period of at least 2 years during the period beginning on January 21, 1951, and ending on October 31, 1958, or for the period beginning on June 30, 1962, and ending on July 31, 1962.

Eligibility: The designated affected areas for the Nevada Test Site are in the State of Utah, the counties of Beaver, Garfield, Iron, Kane, Millard, Piute, San Juan, Sevier, Washington, and Wayne; in the State of Nevada, the counties of Eureka, Lander, Lincoln, Nye, White Pine, and that portion of Clark County that consists of townships 13 through 16 at ranges 63 through 71; and in the State of Arizona, the counties of Apache, Coconino, Gila, Navajo, and Yavapai.

Screening Requirements: Provided for the following cancers: leukemia (other than chronic lymphocytic leukemia), lung cancer, multiple myeloma, lymphomas (other than Hodgkin’s disease), and primary cancer of the thyroid, male or female breast, esophagus, stomach, pharynx, small intestine, pancreas, bile ducts, gall bladder, salivary gland, urinary bladder, brain, colon, ovary, or liver (except if cirrhosis or hepatitis B is indicated).

Onsite Participants

Definition: The individual must have participated onsite in a test involving the atmospheric detonation of a nuclear device. The individual must have been present “onsite” above or within the official boundaries of the Nevada, Pacific, Trinity, or South Atlantic Test Sites at any time during a period of atmospheric nuclear testing and must have “participated” during that time in the atmospheric detonation of a nuclear device. (While onsite participants at the Pacific and South Atlantic test sites are eligible for RECA compensation, organizations located in these areas are not eligible to apply for RESEP grant funds.)

Eligibility: On-site means physical presence above or within the official boundaries of any of the following locations:

- The Nevada Test Site, Nevada – in the State of Utah, the counties of Beaver, Garfield, Iron, Kane, Millard, Piute, San Juan, Sevier, Washington, and Wayne; in the State of Nevada, the counties of Eureka, Lander, Lincoln, Nye, White Pine, and that portion of Clark County that consists of townships 13 through 16 at ranges 63 through 71; and in the State of Arizona, the counties of Apache, Coconino, Gila, a portion of Mohave County (located north of the Grand Canyon), Navajo, and Yavapai.
• The Pacific Test Sites - Bikini Atoll, Enewetak Atoll, Johnston Island, Christmas Island, the test site for the shot during Operation Wigwam, the test site for Shot Yucca during Operation Hardtack I, and the test sites for Shot Frigate Bird and Shot Swordfish during Operation Dominic I and the official zone around each site from which non-test affiliated ships were excluded for security and safety purposes.
• The Trinity Test Site, New Mexico.
• The South Atlantic Test site for Operation Argus and the official zone around the site from which non-test affiliated ships were excluded for security and safety purposes.
• Any designated location within a Naval Shipyard, Air Force Base, or other official government installation where ships, aircraft or other equipment used in an atmospheric nuclear detonation were decontaminated.
• Any designated location used for the purpose of monitoring fallout from an atmospheric nuclear test conducted at the Nevada Test Site.

Screening Requirements: Provided for the following cancers: leukemia (other than chronic lymphocytic leukemia), primary lung cancer, multiple myeloma, lymphomas (other than Hodgkin’s disease), and primary cancer of the thyroid, male or female breast, esophagus, stomach, pharynx, small intestine, pancreas, bile ducts, gall bladder, salivary gland, urinary bladder, brain, colon, ovary, or liver (except if cirrhosis or hepatitis B is indicated).