Date:     August 3, 2015

To:     Honorable Russell Begay, President of the Navajo Nation
        Honorable Jonathan Nez, Vice President of the Navajo Nation
        Ramona Antone-Nez, Acting Executive Director, Navajo Department of Health
        Mae Gilene Begay, CHR Program, NDOH
        Philene Herrera, Navajo Health Education & HIV Prevention Program, NDOH
        Larry Foster, Navajo Nation Social Hygiene, NDOH
        John Hubbard, MPH, Area Director, NAIHS
        Douglas Peter, MD, Deputy Director/Chief Medical Officer, NAIHS
        Members, Navajo Nation Council, Health, Education, and Human Services
        (HEHS) Committee
        Navajo Area IHS HIV Coordinators
        Navajo Area IHS STD Coordinators
        NAIHS Clinical Directors
        Lisa Neel, Acting IHS HIV/AIDS Consultant

From:     Jonathan Iralu, MD, FACP
        Chief Clinical Consultant for Infectious Diseases
        Navajo Area Indian Health Service

Subject:     Navajo Area 2014 Annual HIV/AIDS Report

**Introduction:**
The year 2014 marked the 27th anniversary of HIV care at Navajo Area Indian Health Service (NAIHS) facilities. This report summarizes NAIHS HIV epidemiology and HIV-related activities over the past year.

**Epidemiology:**
**Cumulative Cases:**
Since 1987, we have treated 503 cases of HIV infection at Navajo Area health facilities. We saw 41 new cases of HIV Infection in our clinics and hospitals in 2014, including 31 who received a new diagnosis of HIV for the first time this past year. In 2014, we followed a total of 262 HIV positive patients in the Navajo Area HIV program.

**New Cases**
Here is a plot of new Navajo Area IHS HIV cases diagnosed since the year 2000:
In 2014, 41 new persons enrolled in care at NAIHS and 638 facilities. Thirty one of these patients received their diagnosis for the first time and 10 had been diagnosed elsewhere but transferred their care to Navajo facilities in 2014. Thirteen of the 31 patients receiving an HIV diagnosis for the first time this year also received an AIDS diagnosis. The incidence of HIV/AIDS on Navajo was 12.6 cases per 100,000 per year, up slightly from 11.3 per 100,000 per year in 2013.

The following is a plot of new cases by calendar year of HIV diagnosis:
This figure demonstrates that peak incidence occurred in 2009 and that there has been a steady decline since that year.

Of the 41 new patients, 85% were male, 12% were female and 3% were Male to Female Transgendered (see Figure 1). The median age was 36.2 years. Among these new cases, Men who have Sex with Men (MSM) was the predominant risk factor this year making up 51% of the total (see Figure 2). Of great concern is the frequency of new HIV diagnoses among younger MSM. Among the 41 new cases, the median age among heterosexual patients (N=10) was 44.7 years, whereas the median age among MSM (N=22) was 33.2, a statistically significant difference (p=0.014). By the end of 2014, 61% of these new cases were living with HIV but not AIDS, 39% had AIDS, and none were deceased (see Figure 3). At the end of 2014, 56% were active cases who kept more than half of their appointments, 27% were intermittent keeping less than half of their appointments, and 5% were diagnosed but had not yet entered into care (see Figure 4). Fifteen percent (15%) of the new cases presented with an opportunistic infection and none were diagnosed with a malignancy in 2014.

The mean CD4 count among new cases was 338, an increase from 306 in 2013, suggesting we are diagnosing patients earlier in the course of their disease. At the end of 2014, 32% had an undetectable HIV viral load, a big improvement compared with 13% in 2013. Undetectable HIV viral load indicates optimal control of the virus by antiretroviral medications. Excellent adherence to medication regimens was noted in 33% of the new patients in 2014 (see Figure 5). Thirty nine percent of the new patients were recognized as abusing alcohol during 2014. Twenty nine percent of the patients in 2014 were diagnosed with depression.

**Current Cases**

We saw 262 HIV/AIDS patients in Navajo Area clinics in 2014, a sixteen percent (16%) from 225 in 2013. This includes patients who were active in follow-up (kept >50% of appointments) and intermittent (kept <50% of appointments). Seventy six percent (76%) were men, 2% were male to female transgender, and 22% were women. The median age was 44 years (see figure 6).

The MSM and heterosexual categories were again the two most important risk factors this year (see Figure 7). At the end of 2014, 49% were living with HIV, but not AIDS, 50% had AIDS, and 1% were deceased (see Figure 8).

The health of the current cases was good, in part explained by good adherence with clinic follow-up and treatment. The median CD4 count was 8 points higher this year, at 413 cells/mm³. Because of treatment, 60% of the patients had an undetectable viral load, compared to 59% last year. There were 10 cases of opportunistic infection diagnosed in 2014 including Candida, Zoster, pneumocystis and tuberculosis. There were 4 cases of malignancy reported, including 3 cases of cervical cancer. There were no HIV-positive pregnancies in the Navajo Area in 2014.
Among the 262 active patients, 242 (or 92%) were on antiretroviral therapy and 157 (or 70%) were seen at the HIV clinic at Gallup Indian Medical Center. The adherence level of the current cases is shown in Figure 9.

Routine health care maintenance for the Active and Intermittent patients was excellent in 2014. Two hundred thirteen (or 82%) of patients were appropriately vaccinated with pneumovax, 130 patients (or 50%) were vaccinated with PCV-13, and 220 patients (or 84%) received hepatitis B vaccines. Ninety seven percent (97%) of the patients were tested for hepatitis C. Ten percent (10%) of the patients had a positive hepatitis C serology and 23 were chronically infected with this virus. Eighty five percent (85%) of the patients were tested for tuberculosis with PPD skin test or Quantiferon (QFT) testing and 7% of the patients had a positive PPD/QTF. (See Figure 10.) Ninety eight percent of the patients were treated for syphilis and eight percent (8%) of the patients had a positive serologic test for syphilis.

Mental illness and substance abuse remained problematic in 2014 (see Figure 11). Of great concern again in 2014 was that about half of the current patients abused alcohol. Depression affected about one third of our patients in 2014, an increase from 24% in 2013.

There was a mortality rate of 1.52/100 patient years in 2014 among HIV infected patients in the Navajo Area, a decrease from the 2013 rate of 2.6/100 patient years.

Epidemiology Summary

1. In 2014, the number of new HIV cases seen at Navajo Area hospitals and clinics increased 46% to 41 cases.

2. The number of persons learning of their HIV diagnosis for the first time peaked in 2009 on Navajo and has trended steadily downward since then. A possible explanation is that local transmission of HIV has slowed due to prevention campaigns and early enrollment in treatment for those found positive for HIV.

3. The total number of patients being followed in NAIHS clinics increased to 262, a 16% increase, and was most likely due to improved access to care.

4. Young MSM are at particularly high risk for acquiring HIV now on Navajo and made up over half of the new cases in 2014.

5. Woman made up only 3% of the newly diagnosed patients in 2014. Male to female transgender persons also made up 3% of the newly diagnosed patients.

6. The majority of the new cases were diagnosed in Gallup Service Unit but HIV is still being diagnosed across the Navajo Nation.
7. **Current cases are getting excellent care** at all 8 Navajo Area Service Units, with 60% demonstrating an undetectable viral load by the end of 2014. Other markers including vaccination and screening for co-infections like tuberculosis (TB) and syphilis indicate excellent care.

8. **The death rate from HIV remained very low in 2014.**

9. **Alcohol abuse still affects half of the current patients who received care in 2014 in Navajo Area health care facilities.**

### 2014 HIV Care Program Activities

**Gallup Indian Medical Center (GIMC) Special ID Clinic:**
The HIV clinic in Gallup served 157 HIV patients in 2014. The HIV clinic has 2 infectious disease physicians. Two new internists joined the team in 2014 to take care of patients with substance abuse issues and other non-HIV comorbidities. A new HIV nurse specialist was hired who has a doctorate in community health nursing. There are four HIV pharmacists and two HIV health technicians also on the team. Referral mechanisms are in place to refer patients for mental health care to the Four Directions program and to the Office of Native Medicine for traditional healing. We have developed more flip charts for home HIV education and expanded to using iPads for use by the HIV team. Monthly meetings continue with First Nations and New Mexico AIDS Services to enhance patient care through case management.

**Project HOPE:**
There are now four HIV health technicians working on Navajo to enhance the care of our patients with HIV through home visitation and support. Two are located in Gallup, 1 is in Shiprock, and 1 is in Chinle. The technicians deliver medication to patients’ homes and teach using flipcharts and iPads about HIV disease and general health. They also assist in the clinics to enhance patient care. The teaching in the Navajo language by Navajo technicians has led to improvements in our ability to assist and encourage our patients to take all of their medications.

**Project ECHO**
We began collaborating with University of New Mexico’s Project ECHO in 2013. We meet once a month through a teleconference link to teach providers how to manage HIV patients at remote IHS sites where there are no HIV specialists available. Dr. Iralu from GIMC and Dr. Iandiorio from University of New Mexico are the mentors for this teleconference. We typically have a 20 minute didactic session on HIV topics and discuss 2 to 3 HIV cases to assist with management of HIV and its complications. The teleconference is attended by IHS providers across Navajo and from Arizona, Alaska, and Oklahoma.
Minority AIDS Initiative (MAI) Grant
The Navajo Area Indian Health Service is funded by a grant from the Minority AIDS Initiative grant to improve patient care in the Gallup HIV clinic and across the Navajo Nation. The grant funds an HIV Nurse Specialist to do nurse case management and outreach to HIV infected patients. The grant also covers a pharmacy position to enhance HIV medication adherence and medication benefits and insurance coverage. The grant pays for the salary of the two HIV Health Technician positions as well.

Prevention Efforts:
Newspaper ads were produced in early 2014. We were without an HIV Nurse specialist for approximately 6 months in 2014 so prevention activities were temporarily on hold in the summer and fall. These ads were resumed in 2015.

Screening Efforts
The NAIHS recommends HIV screening of all patients, ages 13 to 64. We have turned on Electronic Health Record (E.H.R.) reminders to help notify providers which patients need screening. We have tested 48% of eligible patients in this age range. As a result, the NAIHS has one of the highest screening rates in the country in the IHS.

Provider Education
The annual Four Corners TB and HIV program was held in Santa Fe in November 2014 and was very well attended by IHS, state and CDC health care providers and officials. The conference focused on retaining patients in care after diagnosis. A special lecture on antibiotic stewardship was included as this was a hot topic for NAIHS and 638 facilities on Navajo.

Conclusions and Recommendations:

1. HIV INFECTION RATES REMAIN HIGH ON THE NAVAJO NATION but there has been improvement since 2009. Things are better but it is very clear that the HIV epidemic on Navajo is not over. We need to get the screening and prevention message out to all Navajo people in 2015.

2. Alcohol abuse remains a major barrier to HIV care and survival of Navajo people infected with HIV.

3. Prevention and screening efforts in the near future need to focus more on young Men Who Have Sex with Men.

4. Universal screening for HIV is now the standard-of-care on the Navajo Nation in IHS, 638, and tribal programs. We need to aim for universal screening of every Navajo patient, ages 13 to 64, and set a goal to have 90% of the population offered screening over the next five years.
Navajo Area Indian Health Service
2014 HIV/AIDS Annual Report

Jonathan V. Iralu, MD, FACP
NAIHS Chief Clinical Consultant for
Infectious Diseases
Key to Abbreviations

- HIV  Human Immunodeficiency Virus
- AIDS  Acquired Immunodeficiency Syndrome
- MSM  Men Who have Sex with Men
- IDU  Injection Drug User
- MSM-IDU Men Who Have Sex with Men and Injection Drug User
- Hetero  Heterosexual
Figure 1: Sex Distribution
New Navajo Area HIV Cases in 2014
n=41

- Male: 85%
- Female: 12%
- Transgender: 3%
Figure 2  HIV Risk Factor
New Navajo Area HIV Cases in 2014
N =41

- MSM: 51%
- MSM-IDU: 3%
- Hetero: 23%
- IDU: 5%
- Unknown: 16%
- Not Reported: 2%
- Not Reported: 2%
Figure 3 Disease Status
New Navajo Area HIV Cases in 2014  N= 41

Disease Status

- HIV: 61%
- AIDS: 39%
- Deceased: 0%
Figure 4 Follow-Up Status
New Navajo Area HIV Cases in 2014  N =41

- Active: 56%
- Intermittent: 27%
- Elsewhere: 12%
- Not in care: 5%
Figure 5 Adherence to Medication
New Navajo Area HIV Cases in 2014  N = 41

- Excellent: >95%
- Good: 90-95%
- Fair: 80-89%
- Poor: <80%
- Refused: 3%
- No Data: 40%
- Good: 5%
- Fair: 2%
- Poor: 10%
- Refused: 3%
- No Data: 40%
Figure 6  Navajo Area 2014 Active/Intermittent HIV Cases
Sex Distribution  N = 262,  Median age 44 years
Figure 7
Navajo Area 2014 Active/Intermittent HIV Cases
Risk Factors    N= 262

MSM: 47%
MSM IDU: 4%
Hetero IDU: 1%
IDU: 3%
Other: 1%
Unknown: 9%
Hetero: 34%
MSM IDU: 4%
Hetero IDU: 1%
Figure 8
Navajo Area 2014 Active/Intermittent HIV Cases
Disease Status  N= 262

- HIV: 49%
- AIDS: 50%
- Deceased: 1%
Figure 9 Navajo Area 2014 Active/Intermittent HIV Cases Adherence

- Excellent: 35%
- Good: 19%
- Fair: 10%
- Poor: 19%
- Refused: 1%
- Unknown: 10%
- Not available: 3%
### Figure 10
Navajo Area 2014 Active/Intermittent HIV Cases
Screening and Vaccines

#### Screening
- **Hepatitis C**
  - 97%, or 253 patients, tested
  - 10% positives detected
- **Rapid Plasma Reagin (RPR)**
  - 98%, or 258 patients, tested
  - 8% positives detected
- **TB testing (PPD/QFT)**
  - 85%, or 223 patients, tested
  - 7% positives detected

#### Vaccinations
- **Pneumovax**
  - 82%, or 213 patients, vaccinated
- **PCV-13 vaccine**
  - 50%, or 130 patients, vaccinated
- **Hepatitis B**
  - 84%, or 220 patients, vaccinated
  - 3% Vaccinated, but not immune
Figure 11
Navajo Area 2014 Active/Intermittent HIV Cases
Psychiatric/Substance Abuse Prevalence

<table>
<thead>
<tr>
<th>Substance</th>
<th>Prevalence</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Abuse</td>
<td>52%, or 136 patients</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>34%, or 89 patients</td>
<td></td>
</tr>
<tr>
<td>Drugs</td>
<td>26 patients (14%)</td>
<td></td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>14(5%)</td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td>6(2%)</td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td>1(0.5%)</td>
<td></td>
</tr>
<tr>
<td>Marijuana</td>
<td>20(8%)</td>
<td></td>
</tr>
</tbody>
</table>