The 2014 CDC report found that suicide was the second leading cause of death (behind unintentional injuries) for Indian youth ages 15-24 residing in IHS service areas and the suicide death rate for this cohort is four times higher than the national average. In 2007, Dr Julie Nivens a scientist in Alaska whose Inuit Alaskan Native population have the highest suicide rates in the nation wrote that screening to assess for the presence of depressive symptomatology and suicide risk, coupled with immediate triage and treatment when such symptoms and evidence of risk are present, has the potential to alleviate unnecessary suffering of those in psychological pain and prevent untimely and unnecessary loss of life.

Diabetes and its often disabling complications are among the most serious chronic health problems faced by Native Americans (NA). Diabetes is twice as common in NA communities as in the general population and it is steadily increasing. Approximately 30 percent of NA more than 55 years old have been diagnosed with diabetes. NA are 2.8 times as likely to die from diabetes as individuals in the general population (IHS 2011a).
Dr. Don Morisky is a Professor at the UCLA School of Public Health. Dr. Morisky created and validated the Morisky Medication Adherence Scale (MMAS-8) that has been endorsed by the American Medical Association to increase survival rates for chronic and infectious disease patients and reduce health care costs.

https://www.stepsforward.org/modules/medication-adherence

For his Best Practices Around the World Medication Adherence Protocols, Dr. Morisky received the Distinguished Career Award from the American Public Health Association in November 2013.

http://newsroom.ucla.edu/dept/faculty/donald-morisky-receives-distinguished-career-award-from-american-public-health-association

Medication Adherence: WHO Cares?
Dr. Morisky’s Medication Adherence Protocols have been validated to improve treatment adherence & prolong life expectancy for Depression, TB, Diabetes, Hypertension, Asthma, & Cardio chronic disease patients, even medically underserved and vulnerable populations in primary care and mental health professional shortage areas.

http://www.pubfacts.com/detail/17978868/Adherence-to-antiretroviral-medication-regimens:-a-test-of-a-psychosocial-model.
The Passive PDC Ratio that IHS uses to measure adherence is not the best way to assess and improve medication-taking behavior in a Patient Centered Medical Model.

1. We do not know if patients actually took the medication; we only know that the medication was refilled.

2. Patients do not always have their prescriptions refilled at the same pharmacy.

3. The PDC is a passive way of assessing adherence and there is no patient empowerment, communication, or interaction between the Patient and Provider as is required in the Patient Centered Medical Model.

4. The Active MMAS-8 empowers the Patients to self-report on their own medication taking behavior directly to the Provider to identify why the patient is not taking their medicine, whether the nonadherence is intentional and tailor interventions that empower the patient for Self-Management of Medications in the lived experience of chronic illness.
Treatment adherence is essential to optimize diabetes outcomes and control health care costs.

**Evidence Based**

The Morisky Medication Adherence Scale (MMAS-8) was used to identify medication nonadherence in control and intervention groups.

At 4, 8, and 12 months after the provision of the Morisky Medication Adherence protocol, the intervention group has improved medication adherence significantly.

What is CAT-MH?

• Computerized Adaptive Testing for Mental Health (CAT-MH)

• CAT-DI – extract the information out of 389 items using an average of 12 adaptively administered items.

• CAD-MDD – screen patients with 4 items but maintain 95% sensitivity (87% specificity) with a 1 hour clinician-based DSM diagnostic interview.

• CAT-ANX – extract the information out of 431 items using an average of 12 adaptively administered items.

• The CAT-MH routinely utilizes the COLUMBIA-SUICIDE SEVERITY RATING SCALE which is part of a national and international public health initiative involving the assessment of suicidality, including the US Army, VAs, Schools and Primary Care settings. (among others)
In a 2014 editorial in the *American Journal of Psychiatry* written by its senior editor Robert Freedman and Helena Kraelmer, Professor Emeritus of Statistics at Stanford University said that the computerized adaptive tests (CAT-MH) is a truly outstanding contribution to measurement in medicine, and it promises to improve the accuracy and cost-effectiveness of diagnosis of depression. [http://ajp.psychiatryonline.org/article.aspx?articleid=1819676](http://ajp.psychiatryonline.org/article.aspx?articleid=1819676).

**Recommended First Screen Tool**

- PHQ-2 Scaled Version
- Patient Health Questionnaire

**Template: PHQ2 Depression Screening Exam**

(View Only Text)

Depression Screening Guidelines:
- Screen adults 18 years and older annually.
- Report total score 0-2—NEGATIVE
- Report total score 3-6—POSITIVE.

**PHQ-2 DEPRESSION SCREENING:**

Over the past 2 weeks, how often have you been bothered by any of the following problems?

1. **L**ittle **i**nterest or **p**leasure in doing **t**hings.
   - Response: Not at all
   - Value: [x]

2. **F**eeling down, depressed or hopeless.
   - Response: Not at all
   - Value: [x]

**TOTAL Score:** 0 Negative □ Positive □ Refused □ Unable to Screen.

**Plan:**

- [ ] No action required, negative screen.
- [ ] Refer patient to Mental Health for further evaluation. Patient agrees to counseling.
- [ ] Refer to Alcohol Rehab. Patient refuses counseling/treatment.
- [ ] Follow up: [x]

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Robert D. Gibbons Ph.D. Department of Medicine
University of Chicago

As noted in the Institute of Medicine and IHS reports, depressive severity is the primary driver of suicide risk. Detecting, monitoring, and treating depression decreases the risk of suicide and medication nonadherence.
Use Case for MHIS MORISKY Medication Adherence Protocol

- ANYWHERE> ANYTIME Integrated Mental Health, Adherence, & Substance Use Screening and Assessments
- Tailored Interventions OPTIMIZE ART Treatment Adherence for HIV
- Monitoring ART Response & Diagnosis of Treatment Failure
100% Sustainable MHIS Payment Models

Primary Care & FQHCs can submit CMS-1500 claims for 100% reimbursement for the MHIS Morisky Medication Adherence Protocol under Medicare, Medicaid, or Private Insurance. There is no cost for MHIS for Uninsured, Homeless, or Incarcerated Populations.

<table>
<thead>
<tr>
<th>HCPCS, CPT Codes</th>
<th>Type of Code</th>
<th>ICD-9 Diagnosis Code Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>G0108</td>
<td>Diabetes Patient Self Mgmt Trainig</td>
<td>250.00 - 250.93</td>
</tr>
<tr>
<td>96150-155</td>
<td>MHIS Non Medical Behavior Assessment and Brief Intervention</td>
<td>use appropriate</td>
</tr>
<tr>
<td>GO444, 99201-99205</td>
<td>MD Annual Screening Depression/Depression Claim After Annual</td>
<td>296.21 (mild) / 296.22 (moderate) / 296.33 (severe)</td>
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<tr>
<td>G8932</td>
<td>Suicide risk assessed at the initial evaluation</td>
<td>E950.0 - E950.9</td>
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<tr>
<td>90791</td>
<td>Anxiety Disorder Assessment Non Medical</td>
<td>300-300.21</td>
</tr>
<tr>
<td>90791</td>
<td>Mania/Bi-Polar Assessment Non-Medical</td>
<td>296.00 - 296.99</td>
</tr>
<tr>
<td>H0049, 99408</td>
<td>SBIRT Screening</td>
<td>303, 304 alcohol, drug dependence</td>
</tr>
<tr>
<td>99401</td>
<td>Hypertension med adherence screen/ intervention risk 15 minutes</td>
<td>403.00 - 405.99</td>
</tr>
<tr>
<td>90649, 90650</td>
<td>Asthma medication adherence screening</td>
<td>493.00 - 493.92</td>
</tr>
</tbody>
</table>
Medication Adherence Diabetes Medications
Medication Adherence Anti-Depressant Medications
Medication Adherence Hypertension Medications
Medication Adherence Cholesterol Medications
Medication Adherence Psychiatric Medications
HEDIS Medication Adherence Measures

Baseline Screening & Continuous mental health, adherence and substance use assessments with timely and tailored interventions to improve adherence. Pharmacist can submit monthly claims for a $25.00 reimbursement for Medication Therapy Management under Medicare, Medicaid, or Private Insurance.