THE IHS PRIMARY CARE PROVIDER

*A journal for health professionals working with American Indians and Alaska Natives*

**March 2007** **Volume 32 Number 3**

# Medical Nutrition Therapy Works, Saves Money, and Makes Money

**Part 1: Increasing Access to Nutrition Services**

*This article is the first in a series of articles about nutrition services in the IHS. This article provides an overview.*

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## Introduction

The Indian health system is facing a rapidly rising tide of chronic diseases. Diseases such as diabetes, cardiovascular disease, and end-stage kidney disease pose significant challenges to American Indian and Alaska Native (AI/AN) communities. However, we can meet these challenges through effective prevention and management strategies.

Medical nutrition therapy (MNT) is one strategy that has been shown to be an integral component of high-quality, chronic disease care. The scientific literature provides strong and convincing evidence that people with diabetes and metabolic conditions benefit from MNT when delivered by a registered dietitian as part of a comprehensive plan of care by a multidisciplinary team. However, the Indian health system faces a number of barriers to providing MNT to AI/AN communities, including:

- A serious and alarming shortage of registered dietitians in the Indian health system
- A heavy burden of administrative and other responsibilities placed on registered dietitians, which limits the time they can devote to providing MNT
- The lack of reimbursement and funding opportunities for MNT

To examine how the Indian health system can improve access to MNT for AI/AN communities, the IHS Medical Nutrition Therapy Collaborative has developed a series of

## *In this Issue…*

articles to be published in *The IHS Provider*. Over the course of the series, the authors will summarize:

- Access to MNT and nutrition services in the Indian health system
- MNT reimbursement and how MNT can make money
- The role of MNT in chronic disease management and case management of overweight and obesity
- The expanded role of the registered dietitian in effective prevention and management strategies for AI/AN communities
- How to develop registered dietitians among your staff through dietetic internship programs, such as the highly successful program at the Phoenix Indian Medical Center.

This first article in the series will describe MNT and discuss important topics related to accessing nutrition services in AI/AN communities.

### What is Medical Nutrition Therapy?

MNT involves the use of specific nutrition services to treat and control an illness, such as diabetes. When providing MNT, a registered dietitian follows a two-step process:

1. Conduct an in-depth nutrition assessment of the client and make a nutrition diagnosis
2. Provide treatment that includes diet therapy, counseling or use of specialized nutrition supplements, and nutrition evaluation and monitoring

Providers can use lifestyle counseling to enhance MNT. Lifestyle counseling can offer insight into the behaviors or events associated with eating and exercise behaviors.[1-2]

### Who Benefits from Medical Nutrition Therapy?

The Indian health system serves approximately 1.8 million AI/AN. Approximately 110,000 of these individuals have diabetes, and an additional 400,000 have a metabolic related illness (e.g., prediabetes or metabolic syndrome). Therefore, *more than 500,000 individuals could benefit from MNT — if you consider only individuals with prediabetes and diabetes.* MNT could also play a major role in reversing AI/AN mortality trends. Five of the six leading causes of death among AI/AN are heart disease, cancer, accidents, diabetes, and stroke. All of these causes of death are diet-related, except accidents.

### Barriers and Challenges to Nutrition Services in the Indian Health System

Unfortunately, most AI/AN do not have access to nutrition services for two reasons. First, there is a shortage of registered dietitians in the Indian health system. The IHS estimates that only 15% of AI/AN have access to nutrition services provided by a registered dietitian. IHS data from 2002 indicate that the IHS staff includes only 85 full-time registered dietitians. This equates to one registered dietitian for every 18,824 patients. Of these patients, 1,294 have diabetes and 4,706 have a metabolic related illness. The registered dietitian-to-patient ratio for the entire Indian health system (including IHS, tribal, and urban Indian clinics) is one registered dietitian for every 6,666 patients.

The IHS Resource Requirements Methodology (RRM)[3] for public health nutrition recommends one registered dietitian for every 3,333 individuals (based on the Census population).[4] This indicates that the number of registered dietitians needed in the Indian health system must double to provide adequate access to nutrition services. Furthermore, the RRM for ambulatory nutrition services recommends one registered dietitian for each facility with up to 10,000 primary care provider visits per year, and at least one registered dietitian per hospital.[5-6]

However you look at the data, the staffing ratio is abysmal, putting access to nutrition services below 50% of the minimal staffing level.

Second, registered dietitians have a variety of responsibilities. The few registered dietitians who work in the Indian health system struggle to address the demand for MNT while carrying a heavy burden of diverse responsibilities. They are responsible not only for providing MNT to patients, but also for a variety of administrative responsibilities. These responsibilities include reviewing menus for clinical and community programs, providing inservice education to staff, and serving as project directors for the Special Diabetes Program for Indians diabetes grant programs.

These additional responsibilities provide opportunities for career advancement for registered dietitians. However, more registered dietitians are needed to fulfill these responsibilities and increase access to MNT.

Third, there is a lack of reimbursement and funding opportunities. MNT provided by registered dietitians is a reimbursable service under the Medicare program and other major private health plans. The US Department of Defense considers MNT an essential component of clinical practice.[7] However, the potential value of MNT has not been fully recognized by clinic administrators and providers within the Indian health system. This has led to a lack of funding and support at local clinics and hospitals. In addition, MNT has historically been under-reimbursed by Medicare and Medicaid. For example, Medicare pays for MNT only for people with diabetes and end-stage kidney disease. However, Medicare will not pay for MNT for people with prediabetes or cardiovascular disease.[8] Furthermore, some states will not pay for MNT through Medicaid.

### Why is it important to improve access to nutrition services?

First, Medical Nutrition Therapy works. The scientific literature clearly demonstrates that MNT improves health outcomes for patients with chronic diseases. However, the benefits of MNT extend well beyond AI/AN with diabetes, cardiovascular disease, and other chronic diseases. For example, other high-risk individuals, such as children and families with nutrition issues and people with kidney disease, would also benefit from access to MNT services.

*National Research.* A 1999 review found that MNT can reduce morbidity and improve health outcomes for patients with diabetes and cardiovascular disease.[9] In this review, studies specific to diabetes strongly indicate that MNT, provided by a registered dietitian with experience in diabetes treatment and care, is clinically effective in the management of diabetes. A 2002 review of evidence-based research on the effectiveness of MNT in diabetes management confirmed these findings and noted one- to two-unit improvements in HbA1c (i.e., blood sugar control) in randomized, controlled outcomes studies.[2]

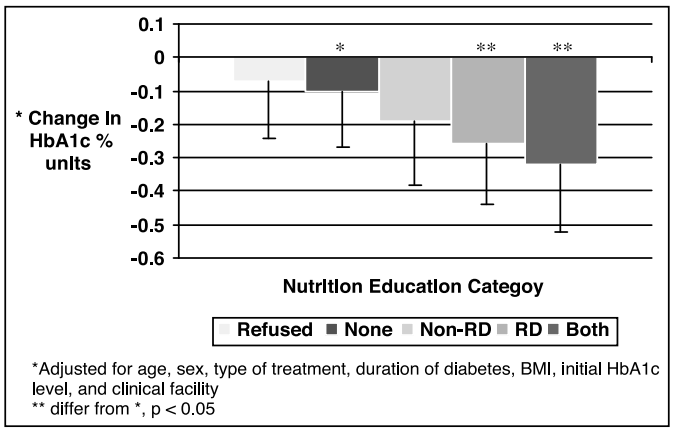
For people with cardiovascular disease, MNT provided by a registered dietitian has been shown to reduce total plasma cholesterol by 6 - 13% and reduce LDL cholesterol by 7 - 14%.[10] An estimated 1 - 1.5% reduction in CVD events occurs with each percentage decrease in LDL cholesterol.[12] Patients with high cholesterol who receive MNT from a registered dietitian report a positive impact on satisfaction and quality of life outcomes when compared to patients receiving usual care from their physicians. The patients receiving MNT were more satisfied with their ability to manage their cholesterol, eating habits, and life in general.[10]

Furthermore, MNT is also effective for managing hypertension. Consuming a diet rich in fruits, vegetables, and low-fat dairy products and low in sodium and saturated fat will reduce systolic blood pressure by 4 - 12 mm Hg and diastolic blood pressure by 1 - 3 mm Hg.[10]

*Indian Health System Research.* In the Indian health system, research suggests that MNT is most effective when a registered dietitian, or a team that includes a registered dietitian, provides clinical nutrition education. One study demonstrated that patients with diabetes experienced significantly improved blood sugar levels when they received MNT from a registered dietitian or a team that included a registered dietitian.[13]

**Figure 1. Effects of clinical nutrition education and educator discipline on blood sugar control outcomes in the IHS.**

Clinical nutrition education in the IHS is associated with favorable trends in blood sugar control. Patients with diabetes experienced significantly improved HbA1c levels when they received MNT from a registered dietitian or a team that included a registered dietitian.[13]




Patients in the Indian health system who have cardiovascular disease experience similar benefits from MNT. In the Native American Cardiovascular Disease Reduction Program, patients who received care from a multidisciplinary team that included a registered dietitian and a pharmacy clinician achieved a 20% decrease in LDL and a 4.6% increase in HDL. These results translate to a potential 29 - 49% reduction in risk for a cardiovascular disease event.[14]

A retrospective chart review at the IHS Warm Springs Service Unit found that three out of four patients improved their cholesterol after seeing a registered dietitian. On average, these patients decreased their cholesterol risk ratio by 28%. Fifty-eight percent (58%) of the patients achieved this outcome with three or fewer visits with a registered dietitian.[15]

Second, Medical Nutrition Therapy saves money. Research indicates that MNT provided by a registered dietitian significantly reduces physician office visits and hospital admissions. Patients with diabetes who received MNT from a registered dietitian reduced their physician office visits by 23.5% and hospital admissions by 9.5%. Patients with cardiovascular disease who received MNT reduced their office visits by 16.9% and hospital admissions by 8.6%.[9]

MNT has also been shown to reduce drug costs for treating cholesterol and diabetes. Further evidence supports the cost-effectiveness of MNT services in reducing blood sugar and LDL levels.[14]

Third, Medical Nutrition Therapy makes money. A growing body of scientific data supports the cost savings associated with MNT. In 1999, a landmark study by the Lewin Group presented powerful evidence that savings can be achieved over time if coverage for MNT is extended to all Medicare beneficiaries.[9] Beginning January 1, 2002, MNT became a distinct Medicare benefit under Section 105 of the Benefits Improvement Protection Act of 2000. Medicare Part B beneficiaries with diabetes or non-dialysis kidney disease can now receive MNT from a registered dietitian. Private insurance companies typically cover the same MNT benefits adopted by the Medicare program.

The second article in this series will provide more information on the cost savings of MNT and how MNT makes money through reimbursement by Medicare and other insurers.

## What is the Indian Health System Doing to Improve Access to Medical Nutrition Therapy?

The role of the registered dietitian as a valued member of an interdisciplinary team is emerging in contemporary health care systems. Initially, registered dietitians functioned as members of clinical specialty teams, such as total parenteral nutrition or rehabilitation teams. More recently, registered dietitians were members of the primary care teams in the Diabetes Prevention Program (DPP). The DPP was a National Institutes of Health-funded study that showed that diabetes could be prevented or delayed through lifestyle changes or medication use. In the DPP, registered dietitians functioned as

case managers, assisted in the central management of the program, and in fact "played a key role in the overwhelmingly positive DPP findings."[17]

The IHS Medical Nutrition Therapy Collaborative first met in 2004 to discuss how to use the compelling evidence that MNT works to improve access to nutrition services in AI/AN communities. The goal of the Collaborative is to create adequate and coordinated access to competent nutrition care. The Collaborative is comprised of a multidisciplinary group of health professionals who are working to develop strategies to achieve this goal. This group includes broad representation from IHS Headquarters leaders, service unit directors, chief medical officers, Commissioned Corps personnel officer, clinical directors, Area diabetes consultants, and registered dietitians representing clinical, ambulatory, and food services.

The Collaborative's major accomplishments include:

- A three-phase plan to improve MNT access and to determine whether the Indian health system can develop an approach to prevent or delay chronic disease at a reasonable cost
- The *IHS Step-by-Step Guide to MNT Reimbursement*, which was co-authored by a team of registered dietitians and business office staff
- Revision of the IHS RRM for nutrition and dietetics services and public health nutrition
- Development of a new IHS RRM for ambulatory nutrition services

At the Collaborative's most recent annual meeting in January 2006, Dr. Charles Grim, IHS Director, expressed his strong support for registered dietitian involvement in the IHS Chronic Care Initiative, stating, "Registered dietitians, as a profession, are uniquely poised to be key providers as we try to merge the Indian health system into chronic care management."

Registered dietitians can help achieve this goal by expanding beyond their routine care to serve as case managers and practitioners of the Chronic Care Model, the model that forms the basis of the IHS Chronic Care Initiative.[18-19] In fact, the initiative's strategic plan presented a model pilot project that involved registered dietitians in these expanded roles. Dr. Edward Wagner, who led the team from the MacColl Institute for Health Care Innovation that developed the Chronic Care Model, has also voiced his support for a prominent role of registered dietitians in the initiative, noting MNT and registered dietitians are "…part and parcel of self-management support."

During the Collaborative meeting in 2006, Dr. Wagner stated, "If obesity is a chronic condition, then we should treat it as one. We need to manage it for the duration, just like we do for high blood pressure and HbA1c." In keeping with this statement, the Collaborative identified obesity management as a critical leadership area for registered dietitians in the Indian health system. In support of the IHS Obesity Strategic Plan, the Collaborative is developing easy-to-understand, evidence-based guidelines for weight management that providers throughout the Indian health system can use, like the recent *Indian Health Diabetes Best Practice for Adult Weight Management*. The Collaborative is also working on several toolkits for registered dietitians who work in clinical, ambulatory care, and community settings to implement a best practice approach to adult weight management.

## Summary

Patients and health care providers have benefited greatly from improved access to nutrition services and MNT. The scientific literature provides strong and convincing evidence that MNT preserves health, reduces illness, and improves the quality of life. But MNT also offers advantages to the Indian health care system by helping the system save money, leverage resources, and obtain a source of revenue through reimbursement. The next article in this series will explore how the Indian health system can maximize MNT as a source of revenue through Medicare reimbursement.

### Helpful Websites

IHS Division of Diabetes Treatment and Prevention: *www.ihs.gov/medicalprograms/diabetes*. This website provides information about:

1. Medicare reimbursement for MNT and diabetes self-management education
2. Training opportunities
3. Education materials
4. IHS Integrated Diabetes Education Recognition Program
5. *Indian Health Diabetes Best Practices for Adult Weight Management*

American Dietetic Association: *www.eatright.org*. This website provides information about:

- Medicare reimbursement for MNT
- Evidence analysis library with information on evidence-based practice
- Food and nutrition
- Dietetics careers
- Continuing education and research

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*Acknowledgement: The authors wish to acknowledge Anthia Nickerson, Consultant for the IHS Division of Diabetes Treatment and Prevention, for her editorial assistance.*

**Medical Nutrition Therapy**
**Works, Saves Money, and Makes Money**

Medical Nutrition Therapy Works:

- In the IHS, patients receiving MNT from a registered dietitian have better diabetes and lipid control:
  - Significantly better HbA1c (i.e., diabetes control) associated with education from a registered dietitian as compared with education from a non-registered dietitian (Wilson *et al*., 2003).
  - 20% reduction in LDL, and 4.6% increase in HDL (Burden *et al*., 2002).
- National research on MNT has found:
  - One- to two-unit improvement in HbA1c (Pastors et al., 2002).
  - LDL decrease of 7–14% (ADA, 2006).
  - Systolic blood pressure decrease of 4–12 mm Hg, diastolic blood pressure decrease of 1–3 mm Hg (ADA, 2006).
- Improved patient satisfaction in programs that provide MNT (Delahanty, 2002).

Medical Nutrition Therapy Saves Money:

- MNT reduces physician visits and hospital admissions for diabetes and cardiovascular disease (Sheils *et al*., 1999).
- MNT reduces drug costs for treating cholesterol and diabetes (Pavlovich *et al*., 2004).

Medical Nutrition Therapy Makes Money:

- Third party payors will reimburse MNT.

# Tracking Feeding Choice – A New Tool in Reducing Obesity and Diabetes

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The epidemic of obesity and subsequent health problems are well known. It is also well documented that American Indian/Alaska Native (AI/AN) communities experience obesity, diabetes, and heart disease at higher rates than the general population).[1-4] The high rates of obesity and overweight (49%) found in AI/AN youth by Zephier, et al[5] suggest that weight-related health problems will continue to increase in the future. Indian Health Service (IHS) data collected by the Clinical Reporting System (CRS) for the Government Performance and Results Act (GPRA) in FY 2006 show that 24% of active clinical patients ages 2 - 5 are at or above the 95th percentile for Body Mass Index (BMI).

Programs like National Institutes of Health Diabetes Prevention Program and Tribal Special Diabetes Programs for Indians have shown positive outcomes using a variety of interventions.[6] However, researchers have not found a single, large scale method that is universally applicable, successful, cost efficient, and safe for reducing obesity rates. It appears that reducing obesity rates requires many intervention methods and at different life-span points.

Research in the last ten years has indicated that early feeding choice may have a significant impact on obesity and overweight rates through childhood. Large scale studies by Gilman,[7-8] von Kries,[9] Gummer-Strawn,[10] and Mayer-Davis,[11] in a wide variety of ages, and socio-economic and ethnic populations, have consistently shown an inverse relationship between overweight and duration of breastfeeding. Breastfeeding can be a useful tool in reducing childhood and adult obesity rates. In addition to other well-researched and accepted breastfeeding benefits, such as significantly reduced risk of bacterial meningitis, diarrhea, respiratory traction infection, necrotizing enterocolitis, otitis media, and urinary tract infections, breastfeeding seems to confer benefits such as reduced rates of sudden infant death syndrome, asthma, and certain childhood cancers.[12] NIH research among American Indian and Alaska Native communities indicates a 50% risk reduction in diabetes from breastfeeding two months or longer.[13]

The IHS GPRA measure on Childhood Weight Control has a long-term goal of reducing the percentage of children ages 2 - 5 who are at or above the 95th percentile for BMI. The Agency recognizes that promotion of breastfeeding is one of the best strategies for meeting this long-term goal. Therefore, as of FY 2007, CRS will begin tracking breastfeeding rates among active patients under the age of 1 year.

CRS will gather data on all active clinical patients seen between the ages of 45 - 394 days who were screened for feeding choice. Data will be generated for infants at 2, 6, 9, and 12 months of age. The age bucket determinations will be:

- 2 month rates: infants 45-89 days old
- 6 month rates: infants 165-209 days old
- 9 month rates: infants 255-299 days old
- 1 year rates: infants 350-394 days old

Service units and tribal health programs will be able to track their data using RPMS. Currently, PCC and PCC+ are the formats for data collection. It is anticipated that by spring 2007, the Electronic Health Records will include Infant Feeding Choice.

### Getting Infant Feeding Information into CRS through PCC and PCC+

To get started, there are three areas to cover:

- Terminology for feeding choice
- Capturing the information.
- Using RPMS to gather data and generate reports

*Terminology*

- The feeding choice options are phrased so that if someone other than the mother brings the child to the appointment, they can still describe the feeding choice
- The feeding choice options include:
  - Breastfeeding only: Formula supplementing less than 3 times per week (< 3x per week)
  - Mostly Breastfeeding: Formula supplementing 3 or more times per week (>3 x per week) but otherwise mostly breastfeeding
  - 1/2 Breastfeeding, 1/2 Formula feeding: Half the time breastfeeding, half the time formula feeding
  - Mostly formula: The baby is mostly formula fed, but breastfeeds at least once a week
  - Formula only: Baby receives only formula

- The other data fields that can be captured are for exploring confounders. They are "one time" entries and are not part of the GPRA measure. The terms include:

- Birth weight: What the baby weighed at birth. The measurement can be in grams, kilograms, or pounds and ounces.
- Birth order: What is the mother's parity with this birth? How many live children does she have now, including this baby?
- Formula started: The age of the baby when formula began to be fed more than 2 times per week. Use number of weeks or months to indicate how old the baby was when formula started.
- Breast stopped: The age of the baby when breastfeeding was stopped. Use number of weeks or months to describe how old the baby was when he or she breastfed for the last time.
- Solids started: The baby's age when he or she started eating solids. Solids includes anything other than breastmilk, formula, or water. So foods like juice, cereal, jarred food, crackers, and table foods are considered to be "solids." Use weeks or months to describe how old the baby was when solids were introduced.
- Mother's Name: This is to associate the mom and baby. Use the baby mother's name or her chart number. Ask your IT staff if there is a way to link them.

*Capturing information*

- Find a consistent place in patient care flow to ask about feeding choice. It may help to use a place like newborn and well child clinic visits where the feeding choice questions are already being asked. However, any staff member can use the terms, ask the question and indicate how the baby is being fed:
  - Breastfeeding only
  - Mostly breastfeeding
  - 1/2 breastfeeding, 1/2 formula
  - Mostly formula
  - Formula feeding only
- The following grid is designed to be used on PCC and PCC+. It was successfully field tested at Phoenix Indian Medical Center (PIMC) for pediatric clinic visits:

| **Feeding Choice (today) X** | | | |
|---|---|---|---|
| Breastfeeding only | | | |
| Mostly Breastfeeding | | | |
| 1/2 Breastfeeding<br>1/2 Formula feeding | | | |
| Mostly Formula feeding | | | |
| Formula feeding only | | | |
| One time data fields | | | |
| Mom's name<br>Or chart# | | | |
| birth order | | birth wt. | |
| started formula | | ___wks/mth | |
| stopped breastfeeding | | ___wks/mth | |
| started solids | | ___wks/mth | |

When the outpatient pediatric part of Electronic Health Records (EHR) is available, it will include the feeding choice questions.

### Entering Data into PCC/PCC+

Talk with your Data Entry or IT department to be sure that the IF patch is in place. If all the updates are "current," the IF patch will be in the system. If the IF patch is not available, check with your service nnit for the patch installation time line. The patch is data entry patch 8 (apcd0200.08k), released October 19, 2005.

IT and Data Entry departments are the vital links between paper and data collection. If they are not familiar with using the IF package, consider the following scenario. There will be site variation for establishing visits. The following is an example of how to enter into RPMS the Feeding Choice information as part of a visit from a PCC or PCC+. In this example, the commands used to establish the visit are:

PDE
ENT
MIN
Clinic (such as Peds clinic, "20")
Provider code (any provider code can use this collection tool)
Purpose of visit (POV): ICD-9 or V code
Provider narrative: as indicated

Then feeding choice data entry begins. **"IF"** is the command for mnemonic entry of the current feeding choice. Feeding choice is defined as what the baby is eating on the day of the clinic/hospital visit. The following codes describe the feeding choice from the above table:

1 = exclusive breastfeeding
2 = mostly breastfeeding
3 = 1/2 and 1/2 formula and breastfeeding
4 = mostly formula
5 = only formula

If the one time data fields are collected, they are entered using the next command, "**PIF**."

Birth weight: can be entered using any of the following formats:
grams (e.g., 3200 g)
kilograms (e.g., 3.2 kg)
pounds and ounces (e.g., 7 lb 9 oz)

Birth order: parity, number of live births

Formula started: age of baby* when formula was fed more than 2 times per week

Breast stopped: age of baby* when breastfeeding was stopped.

Solids started: age of baby* when baby started eating solids

Mother's Name: mother's name or chart number

* Age of baby can be entered as days, weeks or months. For example 1D means 1 day, 2W means 2 weeks, and 3M means 3 months.

Additional information and the Infant Feeding choice template for PCC+ can be found at the IHS MCH Breastfeeding website. Look under Staff Resources, then click on infant feeding practice collection tool (at the end of the page).

**Using RPMS to Gather Data and Generate Reports**

Since there are several ways to search RPMS data, check with those who are already skilled in RPMS data searches. If no one is available, consider a Vgen search, using the following logic:

visit: age in months, location, diagnosis (V20.0-V20.2)
print: name, chart number, birth date, date of visit, clinic type, feeding choice
sort: birth date

Then save it, run the report, and export to Excel. Next use the difference between date of visit and birth date to determine age at visit. Then narrow down the age at visit to the desired age category and calculate the percent of babies in the exclusive and mostly breastfeeding compared to those with any feeding choice indicated.

In addition, the CRS may be used to run a report and patient list for Breastfeeding Rates. The commands for running this measure from within the CRS application are:

CI07
RPT
NTL
LST
Follow the prompts and select Breastfeeding Rates (#34) as the performance measure, then follow remaining prompts.

For additional information or support, please contact Stephanie Klepacki, OIT, at *Stephanie.Klepacki@ihs.gov* (CRS-related questions); or Sue Murphy, at *Suzan.Murphy@ihs.gov* (Infant Feeding Choice and other related Breastfeeding Questions).

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# Is the Drug Safe for Breastfeeding Mothers?

*Diane Cooper, Biomedical Librarian/Informationist, Health Services Research Library, National Institutes of Health Library, Bethesda, Maryland*

Your breastfeeding patient is worried the new medicine you prescribed might be harmful to her baby. How do you find out if it is safe? Here's an easy-to-use database. LactMed is a new, free, online database with information about drugs and lactation. It is one of the newest additions to the National Library of Medicine's TOXNET system, a web-based collection of resources covering toxicology, chemical safety, and environmental health.

### About LactMed

LactMed is targeted toward health care providers and nursing mothers**.** It covers over 500 drugs, both prescription and over-the-counter medications. The information in this database is from the scientific literature and is peer-reviewed by an expert panel. Each drug category is fully referenced with links to PubMed citations supporting the information. Alternative drugs to consider will also be listed. The database is updated monthly. As the database grows, additional substances will be added, such as industrial chemicals and radiation.

### Information Categories for Drugs

Each drug entry contains a summary of "use during pregnancy," drug levels (for infant and for the mother), effects on infants, and possible effects on lactation.

### How to Find LactMed

Go to the HSR Library website, *http://hsrl.nihlibrary.nih.gov*; scroll down the left side panel and click on PubMed. Once on the PubMed site, scroll down the left panel to TOXNET. The TOXNET screen will appear, and now select the database, LactMed.

*Tip: Remember to use PubMed through the HSR Library website. By going through this, your library website, you will have access to full-text journals from cited links.*

### LactMed Searching

In the query box, enter one or more terms that describe your search topic. These may be any combination of words, chemical names, or brand names. On the results screen, click on the drug you are interested in.

For our example, consider a depressed mother who might be taking Prozac. Enter Prozac into the query box. Its chemical name will be recognized and you will be taken to the record *fluoxetine*. Click on fluoxetine to pull-up the information. The record will begin with a summary, as follows:

> The average amount of drug in breastmilk is higher with fluoxetine than with most other SSRIs and the active metabolite, norfluoxetine, is detectable in the serum of most breastfed infants during the first 2 months postpartum and a few thereafter. Adverse effects such as colic, fussiness, and drowsiness have been reported in some breastfed infants. Decreased infant weight gain was found in one study, but not in others. No adverse effects on development have been found in a few infants followed for up to a year. If fluoxetine is required by the mother, it is not a reason to discontinue breastfeeding. However, other agents with lower excretion into breast milk may be preferred, especially while nursing a newborn or preterm infant. The breastfed infant should be monitored for behavioral side effects such as colic, fussiness, or sedation, and for adequate weight gain.

More in-depth information will follow the summary. If you want to print it, click on the download button located at the top of the page. It will then ask if you want only a partial part of the record printed or all of it.

LactMed is up to date, simple, and easy to use. Try it out. And, as always, if you need help, just e-mail me at *cooperd@nih.gov*.

# Sobriety-Focused Self-Help Groups in Alaska's Villages Can Improve Quality of Life in the Alaska Native Population

*Julie A. Niven, LCSW, DCSW, MAC, Clinician, Mobile Adolescent Treatment Team, Norton Sound Health Corporation, Nome, Alaska*

**Abstract**

Both the *Alaska Suicide Prevention Plan* and the *National Strategy for Suicide Prevention* call for increased public access to mental health and substance abuse services. Alaska is a vast state comprised largely of villages with no connecting roads, thus creating barriers to needed services. Regional hub health care providers are mandated by the government to provide mental health and substance abuse services to their respective villages. Currently, there are few and many times no sobriety-focused self-help groups in the majority of Alaska's villages despite the fact that Alaska has one of the highest rates of alcohol use, depression, and suicide in the nation. Creation of sobriety-focused self-help groups within all villages could increase the overall health and life expectancy of Alaska Native people.

## The Interrelatedness between Alcohol Consumption, Depression, and Suicide

Alcohol use, depressive illnesses, and suicide interact in a synergistically dangerous manner. Study after study report that up to 90% of suicides in the US are associated with one or more diagnosable mental illnesses, including substance abuse disorders,[1] and that year after year, between 9 - 10% of all American adults suffer from a mental illness with depressive symptoms.[2] Alcohol use is one of the primary risk factors for both attempted and completed suicide. Many suffering from depressive mental illnesses use alcohol in an attempt to alleviate their symptoms despite the fact that alcohol depresses the brain and the nervous system, lowers serotonin and norepinephrine levels, decreases the ability to make good decisions, increases impulsivity, and is even thought to "activate a gene that is linked to depression and other mental [health] problems."[3] According to the National Mental Health Association, approximately 20% of those who attempt suicide also abuse alcohol with alcohol thought to be involved in approximately 50% of all suicides.[4]

## The Uniqueness of Alaska

According to the latest statistics available, Alaska is ranked number one for suicides in the US with 23.6 deaths per 100,000.[5] An average of 126 Alaskan lives are lost to suicide each year, approximately twice the national average, with Western Alaska having the highest rate of suicide within the state.[6] Statewide, there is a high rate of alcohol use despite the fact that many of the villages have chosen to exercise their local option making it a crime to import, possess, make, and/or consume alcohol within the village limits. Unresolved historical trauma, as well as complicated grief and loss issues, account for a high rate of depression within Alaska.[7] The National Institute of Mental Health reports that the combination of depression and alcohol use are the two most common risk factors for completed suicides in the Alaska Native population.[8]

## Structural Barriers to Needed Services

Alaska's land mass spans an area approximately a third the size of the contiguous "lower 48." Some 95% of all villages within the state are not accessible by road, and 95 - 98% of the villages are comprised of Alaska Natives. If a person lives in a village and a needed resource is not readily available there, then the need often goes unmet. Travel outside of the few metropolitan areas in Alaska occurs primarily by ATV, snow mobile, small boat, and small aircraft. Travel from one village to another is lengthy and difficult, even when the weather cooperates. For a villager to connect to hubs such Nome, Dillingham, Bethel, etc, he or she normally flies by bush plane with fares often starting at $100 one-way. Considering these daily realities, it is easy to understand why services need to be brought to the villages rather than the villagers being expected to travel to regional hubs for the same such services.

## A Workable Proposal to Support Those Who Wish to Stop Drinking

A portion of the services that the regional health care systems in Alaska are mandated to provide is mental health and substance abuse services, with village based counselors (VBC), behavioral health aides (BHA), and itinerant behavioral health clinicians providing the bulk of these services in each respective region. Sobriety-focused self-help groups such as *Alcoholics Anonymous* (AA) and/or secular groups such as *SMART Recovery: Self Management and Recovery Training* have been found to be effective in helping individuals working towards and trying to maintain sobriety. Some such groups have culturally sensitive materials geared toward Alaska Native use. Materials to start new groups are

easy to order from their respective websites, and are clear and simple to use. In addition, ever important in today's budget-tightening climate, start-up materials for such groups are inexpensive and reusable.

### A Feasible Plan

The absence of any affiliation of sobriety-focused self-help groups is ideal since it provides a forum in which attendees feel free to share their ideas; this status also creates a respective freedom on the part of forum initiators. However, waiting for all circumstances to be ideal before any action is taken would mean frequently that no action is ever taken. It is feasible that the VBCs or BHAs could, as residents of their villages, start and initially lead a sobriety-focused self-help group, transferring the leader function of the group to one of the group's members as interest is shown for the position. In the villages where there is no current VBC or BHA, the itinerant behavioral health clinician could begin the initial start up.

According to the Alaska Statewide Suicide Prevention Council, on average six people are intimately affected when one person commits suicide. In Alaska's villages, this number is multiplied many times over as so many villagers are related to one another. Just as one traumatic life event impacts many people negatively, one life-affirming event, such as when a community member stops drinking, regains his or her sense of self-esteem, and begins to function as a full community member again, has the potential to impact positively a great many in the village.

### Another feasible possibility

One regional health care center had for some time maintained a toll-free number that could be accessed statewide for those who wished to call in from the villages to participate in a telephonic AA meeting. Initially villagers had the opportunity to call in to two groups a week. This number dwindled to once a week and has since stopped altogether. Although not every household in every village has a phone, this was at least a feasible service option for a time. Reportedly, this option is no longer available due to issues related to the groups' lack of unaffiliation.

### Prevention is key

One of the "Indicated Prevention Goals" within the *Alaska Suicide Prevention Plan* states that "Behavioral health programs [are] to promote mental health and reduce substance abuse, and [make] relevant social services available and accessible to all Alaskans."[9] Goal 8 of the *National Strategy for Suicide Prevention: Goals and Objectives for Action* urges the "Improve[ment] of Access to and Community Linkages with Mental Health and Substance Abuse Services."[10] These particular goals call for equal access to health care for all. The unavailability of sobriety-focused self-help groups in Alaska's villages due to structural barriers inherent in the state can be remedied by the start up of sobriety-focused self-help groups within the villages themselves. The lack of availability of such groups contributes to the disparity of health care for Alaska Natives and severely handicaps those who wish to remain in their home communities where generations before them have lived. Indeed, the services' disparity places Alaska Native culture at-risk overall. This presents not only a micro and macro level need, but an opportunity for change. The author challenge the managers of the mental health and substance abuse programs in Alaska's various regions to "walk the walk" by working with and supporting their supervisees to put these prevention-focused, feasible plans into action so that quality of life for Alaska Native people can be enhanced, lives can be saved, and Alaska Native culture can survive and thrive.

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*Editor's Note: The following is a digest of the monthly Obstetrics and Gynecology Chief Clinical Consultant's Newsletter (Volume 5, No. 3, March 2007) available on the Internet at* http://www.ihs.gov/MedicalPrograms/MCH/M/OBGYN01.cfm. *We wanted to make our readers aware of this resource, and encourage those who are interested to use it on a regular basis. You may also subscribe to a listserv to receive reminders about this service. If you have any questions, please contact Dr. Neil Murphy, Chief Clinical Consultant in Obstetrics and Gynecology, at* nmurphy@scf.cc.

# OB/GYN Chief Clinical Consultant's Corner Digest

**Abstract of the Month**
**Healing words: The power of 'I'm sorry' in medical practice**

In *Healing Words: The Power of Apology in Medicine*, Dr. Michael Woods addresses the intent of apology and disclosure programs. Dr. Woods later stated "I believe, and I'm speaking from a very physician-centric viewpoint, that we should be doing this because it's the right thing to do, not because it's going to lower our liability. Patients are passive observers of behavior in the environment of care — in the clinics and the hospitals," he said. "If an atmosphere of respect and apology is fostered, even for seemingly inconsequential matters, it becomes clear the provider really does care."

"Apology and disclosure are of equal importance, but they accomplish something very different. Both have to happen in the aftermath of an unanticipated outcome." Dr. Woods cites a reference from an Archives of Internal Medicine article that said, "Data indicate that the likelihood of a lawsuit falls by 50% when an apology is offered and the details of the medical error are disclosed immediately."

"The point is, apology isn't about causality," Dr. Woods said. "Apology is about empathy, and understanding what the patient is going through and feeling badly for that. It's not about, 'Gee, I'm sorry I caused this.'"

"The apology itself, which I consider to be the front-end piece of maintaining the relationship and open communication, does not require any sort of admission of guilt," he said, "even if there's a direct causal relationship on the part of the physician."

"Nobody needs to sue me to make me feel bad about a bad outcome. Every physician, or provider at least, understands that."

"The data," Dr. Woods said, "seems to be suggesting that it's actually far greater than [50%] . . . [The insurance] program called the three Rs [regret, responsibility, and remedy] has shown dramatic reductions in claims being filed in the group of people where they've had this process utilized. The number of patients who go through that process (of the three Rs) who actually end up filing claims is just a handful. It was essentially nothing, compared to the standard approach to this problem." Dr. Woods has expanded the three Rs to five — the original regret, responsibility, and remedy, plus recognition (of when an apology is needed) and remain (engaged; meaning don't just issue a quick apology and then disappear).

"I've become convinced, even more than I was, that the major driver of medical malpractice [lawsuits] is not a litigious society, it is not physician ineptitude, it's anger," he said. "It's patient anger at not being provided with the information that they feel they need, and/or a sense that the physician is not respectful of them."

*Healing Words: The Power of Apology in Medicine, Second Edition*, is published by Joint Commission Resources (JCR), an affiliate of Joint Commission on Accreditation of Healthcare Organizations. To order, call JCR customer service toll-free at (877) 223- 6866, or *www.jcrinc.com*.

**OB/GYN CCC Editorial Comment**
**Full disclosure and compassion are important Indian health tenets**

Our department has supported full disclosure with our patients for years. Not only is it respectful on a very basic human level, but it is also the ethical approach. It may also be the most important conversation you will ever have with that patient, or their family. It will certainly be the one conversation you'll remember for the rest of your career, or whole life for that matter, so please make the most of it.

On a personal note, I have had such conversations and they are the hardest conversations I have ever had to initiate. I also wish I would have done a better job. Perhaps if I had read *Healing Words* prior that conversation, then I wouldn't have as many things I wished I would have said.

**From Your Colleagues**
**Scott Giberson, HQE**
**Ryan White HIV/AIDS Treatment Modernization Act of 2006**

New Language may improve AI/AN opportunities and clarify linkages of care. The Ryan White CARE Act (RWCA) was reauthorized (12/19/2006) as the "Ryan White HIV/AIDS Treatment Modernization Act of 2006 (RWMA)." The language is particularly remarkable for the Indian Health Service (IHS) and AI/AN in that it establishes opportunity for more seamless access to HIV/AIDS care and treatment. Although the intent of previous RWCA language was to assist AI/AN in access and eligibility to treatment and care of

HIV/AIDS, this specific and reauthorized language certainly aims and succeeds in augmenting that intent.

The following RWCA provisions in the reauthorization affect the IHS and AI/AN population:

1. AI/AN individuals are/were always eligible for RWCA services if certain requirements were met (as any other person infected/affected by HIV/AIDS would need to meet various requirements – dependent upon the state of residence).
2. IHS federally operated health facilities will now be eligible to apply for services under Title III and IV through the RWMA (in addition to previously authorized Urban Programs and 638 Tribal Facilities under RWCA).
3. IHS facilities are exempt from the "Payer of Last Resort" restriction for Titles I, II and III. Although RWCA grantees are the payer of last resort, this amendment exempts I/T/U facilities from reimbursement, regardless of referral. In the past, RWCA grantees were asked to coordinate reimbursement of such funds with the tribes and with the IHS.
4. The new legislation supports access for all AI/AN under RWMA regardless of I/T/U utilization/affiliation or geographic location. (Previously, HRSA Policy 00-01 stated that AI/AN could not be turned away from RWCA services, but still held RWCA grantees as Payers of Last Resort. So, if patients were referred from IHS, RWCA grantees could technically go back to IHS for funding (whether or not this actually happened). Now, the RWMA codifies (that IHS is exempt from the Payer of Last Resort restriction) this language into law.
5. Planning council representation should include members from federally recognized Indian tribes as represented in the population.
6. Language surrounding AIDS Education and Training Centers (AETCs) now specifically names "Native Americans" as person(s) to be trained.

**Editorial Comment: IHS HIV/AIDS Principal Consultant**

It is a privilege to note that this revised language is due in large part to the hard work, diligence, and passion of community members and organizations that came from within our AI/AN communities. Some additional explanation may be helpful:

- The changes of eligibility as a grantee for Titles III and IV affect our IHS sites, but did not affect the eligibility that was already offered to Urban and 638 facilities. Links to services provided under Title III and IV can be found on line.
- Although I/T/U sites are eligible for Titles III and IV, this does not mean I/T/U sites are automatically grantees; they must go through the application and approval process. I am gathering information about the grant application process and timelines.
- Previous RWCA language did not specify AI/AN when referring to AETCs; however, we have been working with the AETC leads at HQ for quite some time (prior to RWMA language) and are continuing this activity by integrating resources and ideas to maximize the benefit within our population.

We are working diligently with leadership from HRSA to discuss ramifications and implementation of this language and to disseminate the message of these changes to help with care of our AI/AN persons at risk and living with HIV/AIDS. Additionally, we hope to focus current and future initiatives and collaborations with HRSA around RWMA opportunities and efficient models and linkages of care between our clients, I/T/U facilities, and Ryan White grantees, service providers, and services. We are in the process of renewing and enhancing a Memorandum of Agreement (MOA) between IHS and HRSA that will speak to any potential opportunities and care that may come with the new RWMA Titles I, II, III, and IV. These 'services' (via RWMA) also include but are not limited to, AETCs, Special Projects of National Significance (SPNS), the AIDS Drug Assistance Program (ADAP), etc. We will also be working with HRSA to identify and clarify each agency's comparative advantage in collaborating on this language to best assist AI/AN.

Given these provisions, it is imperative that all AI/AN clients and facilities eligible for these provisions are made aware and assisted in removing any barriers to effective and seamless access and care. It may be advisable for each health facility to contact a RWMA grantee in your respective area/state to link this new language to an action plan and discuss potential linkages or improve existing ones. If there are any significant needs or anecdotal evidence (from the field) that illuminates a specific challenge of implementation with RWMA grantees or services, comments are welcome and appreciated. If you would, please assist in passing this information along to appropriate personnel.

Reference: Online

## Hot Topics

### Obstetrics

**GDM guidelines: Major discrepancies to identify GDM and predict pregnancy outcome**

*Conclusions*: The guidelines of the various professional committees, being based on consensus and expert opinion, show major discrepancies in their ability to identify women with GDM and their capacity to predict adverse pregnancy outcome. Only evidence-based criteria derived from reliable and consistent scientific data will eliminate the confusion caused in clinical practice.

Agarwal MM, et al. Gestational diabetes: dilemma caused by multiple international diagnostic criteria. *Diabet Med*. 2005;22(12):1731-6.

negatively impact patient and provider confidence. They also reference "the triad of error" components: a young woman, a self-detected breast mass, and a normal mammogram, which they describe as the patient most likely to be associated with delay in diagnosis

**Features**
**ACOG, American College of Obstetricians and Gynecologists**
**ACOG opposes sex selection for family planning purposes**

*Abstract*: In this Committee Opinion, the ACOG Committee on Ethics presents various ethical considerations and arguments relevant to both pre-fertilization and post-fertilization techniques for sex selection. The principal medical indication for sex selection is known or suspected risk of sex-linked genetic disorders. Other reasons sex selection is requested are personal, social, or cultural in nature. The Committee on Ethics supports the practice of offering patients procedures for the purpose of preventing serious sex-linked genetic diseases. However, the committee opposes meeting requests for sex selection for personal and family reasons, including family balancing, because of the concern that such requests may ultimately support sexist practices. Because a patient is entitled to obtain personal medical information, including information about the sex of her fetus, it will sometimes be impossible for health care professionals to avoid unwitting participation in sex selection.

Sex Selection. ACOG Committee Opinion No. 360. American College of Obstetricians and Gynecologists. *Obstet Gynecol*. 2007;109:245–8.

**Breastfeeding**
**Suzan Murphy, PIMC**
**ACOG calls on Ob/Gyns, health care professionals, hospitals and employers for increased support for breastfeeding**

In an effort to help increase the rate of breastfeeding in the US, today, the ACOG issued a Committee Opinion, "Breastfeeding: Maternal and Infant Aspects," emphasizing ACOG's strong support for breastfeeding and urging Ob/Gyns, other health care professionals, hospitals, and employers to support women in choosing to breastfeed their infants. Breastfeeding is the preferred method of feeding for newborns and infants, and nearly every woman can breastfeed her child, according to ACOG. ACOG continues to recommend exclusive breastfeeding of infants until approximately six months of age, with longer periods being beneficial. Some exceptions to breastfeeding include women who take illegal drugs, have high alcohol intake, have HIV, have an infant with galactosemia, or have certain other infections.

Research that shows the many health benefits of breastfeeding to infants, women, families, and society continues to accumulate. Education and support for breastfeeding can improve breastfeeding rates for all women and would be a positive economic investment for both health plans and employers because there are lower rates of illness among infants who are breastfed.

Committee Opinion #361, "Breastfeeding: Maternal and Infant Aspects," is published in the February 2007 issue of *Obstetrics & Gynecology*. More detailed information on breastfeeding can be found in ACOG Clinical Review (Vol. 12, Issue 1 (supplement), Jan-Feb 2007) "Special Report from ACOG, Breastfeeding: Maternal and Infant Aspects."

**Featured Website**
**David Gahn, IHS MCH Portal Web Site Content Coordinator**
**The MCH Coordinators Site has a clean new look, plus new functionality**

The MCH Coordinators Site now has a wide open, approachable format that streamlines the reader's navigation to get to the important links. To that end, there is now a schematic map of Indian Country so that one can simply click on the area of the country you want to learn more about. In addition, there is an easy to read MCH Headlines box at the top of the page that gives you access to all the recent headlines generated by Judy Thierry's new MCH Headlines Column in the monthly CCC Corner Newsletter. The combination of these two items increases the user friendly nature of the page, plus makes it timely. Go to *http://www.ihs.gov/MedicalPrograms/MCH/F/MCHC01.cfm.*

What has not changed is the encyclopedic nature of the resources available especially through the National MCH Coordinator's 'More Links of Interest' site. This page serves in many ways as a resource for Child Health links missing after the demise of the Indian Child Health page. Please contact *Judith.Thierry@ihs.gov* for questions or additions.

*Q. How many rubella vaccines does a mother really need to get?*

*A. If negative, then revaccination with one dose of MMR, and no further serologic testing*

*What is the current recommendation from CDC for post partum women who are non-immune and who have had two previous document MMRs? At my past facility we didn't give any further vaccine but at my new facility, it seems to be a mystery. Can you point me in the right direction?*

The CDC "Pink Book," in the section on Rubella, p. 165 the CDC briefly addresses the issue of a patient who has a documented vaccination for rubella, but still has a negative serum IgG by ELISA. In this case, they recommend revaccination with one dose of MMR, and do not recommend further serologic testing. It seems that if you don't have an immune response after two doses of MMR, you do not need to administer another dose.

In reality the 'titer' is more like a "+ or -", depending on whether it's >1:10 or <1:10; getting a repeat titer is often unhelpful. Most women nowadays have been vaccinated in

childhood, and the booster we give them in pregnancy should provoke a satisfactory anamnestic response. It's a good question, but more of a theoretical question at present when the disease is so rare! Even women from Mexico and Central America usually get immunized in childhood now, mostly because measles is such a big public health problem as a cause of childhood mortality, but the vaccine currently comes as MMR, so they get covered for all three.

The Redbook states on page 578 that "routine prenatal screening for rubella immunity should be undertaken. If a women is found to be susceptible than rubella vaccine should be administered in the postpartum period." However, on page 576 of the Redbook, it states "some people in whom antibody has been absent by hemagglutination inhibition testing have been found to be immune when more sensitive testing has been done." So the practical answer is that his patient is immune for all practical purposes. In theory each vaccine administration is 95% effective, so after two vaccines the chance of being truly non-immune is 0.05 X 0.05 = 0.0025 or 2.5/1,000 women with two MMR on record.

For more information, you could send this question to CDC at *NIPINFO@cdc.gov*, and get access to other resources.

Reference: Online

**International Health Update**
**Claire Wendland, Madison, WI**
**Sexual behavior in context: A public health perspective**

Since the 1980s, and especially since the recognition of sex as an important route of HIV transmission, research into sexual behavior has flourished nearly worldwide (the Middle East and some parts of Asia represent exceptions, where proposed research on sexual behavior is rarely approved or funded, while there is a disproportionate amount of data from Africa). In a recent *Lancet* article, Kaye Wellings and international colleagues analyze datasets from 59 countries' surveys on sexual behavior, using research conducted 1996 - 2006. When possible, they compare these data with reports from the 1970s. Most datasets were part of the standard Demographic and Health Surveys, conducted by trained interview teams in developing countries on a regular basis, so the comparability of data is unusually good. The resulting report busts some myths about sexual behavior while leaving other questions unanswered.

Contrary to popular opinion, there is no overall trend toward earlier intercourse. Although considerable intraregional and some inter-gender variability exists, worldwide first intercourse continues to be typically between ages 15 and 19. Premarital sex has increased; however, it appears that this trend is linked to later marriage in many countries and not to increased early sex. Most people are married (in this report cohabitation was counted as marriage since legal standards of marriage vary substantially). Single people have much less sex than married people, especially in Africa, and marriage is not protective against acquisition of HIV; for women in much of Africa and Asia, it is actually a risk factor. The proportion of people using a condom at most recent sexual encounter was higher for men than women worldwide, and this difference appears to be because women were having sex with their husbands and were unwilling or unable to negotiate safe sex. Overall condom use at last intercourse was low worldwide, particularly in developing countries. It is encouraging to note, however, a substantial increase in condom use in both sexes over the past decade, especially dramatic in much of Africa and among women in the US. Ten to fifty percent of women worldwide report they cannot always say no to sex, and first intercourse in young girls was forced in about a third of cases. Multiple partnerships are more common in industrialized countries, and globally more common among men than women. They were especially common where the distance between work and home was substantial. Nonetheless, monogamy remains the dominant pattern worldwide.

This fascinating report has several serious limitations. Data on use of sex workers was so poor, in part due to vexing variations in the definition of sex work, that it cannot be compared properly. Data on same-sex behavior, similarly, is minimal – entirely absent in some regions – and when it exists at all addresses men only. The authors did not correlate sexual risk with socioeconomic status (although they do refer to other studies that have done so). Probably most seriously, sexual health surveys are of course even more vulnerable than other surveys to reporting bias: respondents may tend to report what they think is acceptable behavior, rather than what they actually do. The authors suggest that male over-reporting and female under-reporting may contribute to the substantial gender differences seen here.

Despite its limitations, however, the report is also useful from a public health perspective. On the positive side, it reassures us that there is no pandemic of adolescent promiscuity to worry about. However, it also shows that self-reported sexual behavior does not seem to correlate well with HIV: with the exception of patterns of condom use, sexual behaviors in high-transmission areas are, if anything, less risky than those in low-transmission areas.

Wellings K, et al. Sexual behaviour in context: a global perspective. *Lancet*. 368:1706-28, November 2006.

**MCH Headlines**
**Judy Thierry HQE**
**Scrub Club**

Scrub Club is a kid-friendly website and, as the name implies, gets kids to wash their hands and think about why this is important. It is also for health care providers and definitely for teachers who must engage students (K to 5th grade) and those in early childhood settings and their administrators in promoting a healthy environment, halting spread of diseases, including URI and influenzam, starting with effective hand washing. Go to *http://www.scrubclub.org/home.php?fuseaction=main*.

**Medical Mystery Tour**
**Prolonged second stage with an epidural**

A primigravida at 41 3/7 weeks presented after two days of outpatient vaginal misoprostol cervical ripening, one hour after spontaneous rupture of membranes. The patient's past history was significant for polycystic ovarian syndrome. The patient had a 41 lb. weight gain through eight visits and one abnormal result on a 3-hour glucose tolerance test. The patient was contracting every 1 - 4 minutes, was noted to be 2 cm dilated and 80% effaced, with an estimated fetal weight of "9 + lbs," and reassuring fetal heart tones in cephalic presentation. Initially the patient was managed expectantly, but after four hours of no progress, oxytocin augmentation was begun. The patient was beta strep positive and received IV penicillin. The patient subsequently received epidural anesthesia.

Stage I lasted eight hours. At 5 - 6 cm dilation the patient was noted to have a temperature of 100.6 degrees F and started on intravenous gentamicin and ampicillin. In Stage II the patient was noted to have 'labored down' due a dense epidural status without active pushing for some of Stage II. The patient ultimately regained the sensation to push and the caput descended to +2. As Stage II neared four hours, the risks and benefits of vacuum assistance were discussed with the patient, and it was agreed to proceed. The vacuum extractor was placed during three contractions. Subsequently, the fetal presenting part descended to +3/5 with the scalp visible without pushing. The fetal heart tones were reassuring throughout. Now, the patient is noticeably beginning to tire and subjectively seems to be pushing less effectively.

**What do you want to do now?**

- Allow the patient to push for 30 minutes more and re-evaluate
- Notify the OR team and discuss cesarean delivery
- Wait for the epidural to completely wear off
- Apply the vacuum for a second trial
- Add clindamycin
- Other

**Navajo News**
**Jean Howe, Chinle**
**Clomiphene "bests" Metformin in a NEJM study**

This and similar headlines were used to describe the results of a recent multicenter study published in *The New England Journal of Medicine*. As the treatment of anovulatory infertility is a routine part of our clinical practice, it seemed worthwhile to find out more. The study, entitled "Clomiphene, Metformin, or Both for Infertility in the Polycystic Ovary Syndrome," enrolled women with polycystic ovarian syndrome and infertility. A total of 626 women were enrolled and randomized to one of three groups: clomiphene + placebo, metformin + placebo, and clomiphene + metformin. Each woman received the assigned treatment until pregnancy was achieved or for up to six cycles or 30 weeks.

The live birth rates were as follows: clomiphene 22.5% (47/209), metformin 7.2% (15/208), and clomiphene plus metformin 26.8% (56/209). Although the highest absolute live birth rate was in the group receiving combination therapy, the difference between combination therapy and clomiphene alone was not statistically significant. The study used live births (appropriately) as the primary outcome measure; however the secondary outcome measures are also of interest. The mean number of ovulations per subject was 2.2 in the clomiphene group, 1.4 in the metformin group, and 2.8 in the group receiving combination therapy. The conception rates were 39.5% with clomiphene, 21.7 with metformin, and 46.0 with combination therapy. The multiple gestation rate was 6.0% with clomiphene, 0% with metformin, and 3.1% with combination therapy.

Additional material included stratification by BMI. Those with a BMI <30 had live birth rates of 36.8% (clomiphene), 8.8% (metformin), and 36.9% (combination therapy). This decreased to 16.4% (clomiphene), 3.8% (metformin), and 22.9% (combination therapy) for those with a BMI >35. BMI was noted to increase during the course of the study in women treated with clomiphene alone but decreased in those receiving metformin, either alone or in combination with clomiphene. The study population included many women with high BMI and longstanding infertility (40 months on average, with over half having previously received one or both study drugs in the past). Over 10% of the study participants were American Indian or Alaska Native.

Polycystic ovarian syndrome (PCOS) is a common cause of female infertility. PCOS is characterized by the formation of multiple small ovarian cysts, high androgen levels, high LH levels, and insulin resistance. Obesity is a common finding. It has been proposed that correcting the underlying metabolic abnormalities of PCOS may lead to improved fertility. This premise, and success in small trials, has led to the widespread use of metformin for the treatment of PCOS-related infertility. This study is the first large-scale attempt to rigorously examine this approach. It is important because it demonstrates that clomiphene is actually more effective than metformin in treatment of PCOS-related infertility. What is less clear is if there is still a role for metformin in combination with clomiphene; although the overall live birth rate was higher with combination therapy, the difference achieved was not statistically significant. A review of the treatment of anovulatory infertility by Up to Date Online describes a sequential approach to infertility treatment, with weight loss as the first intervention, followed by clomiphene, then a course of metformin if clomiphene is unsuccessful, followed by resumption of clomiphene after 8 - 12 weeks of metformin use. An update to these recommendations is anticipated later this month.

As I review this literature, I am struck by the central role of weight issues in the treatment of anovulatory infertility. Up to Date Online cites several studies about PCOS and weight

loss and concludes that, in women with PCOS and a BMI over 27, loss of 5 - 10 percent of body weight will restore ovulation in over half of women within six months. Women who can achieve this goal benefit from improved fertility without the increased risk of multiple gestation associated with clomiphene use. For those unable to achieve this weight loss or still requiring treatment, the efficacy of treatment remains higher for those with healthier BMIs. Addressing weight issues is challenging for both patients and health care providers. Attention to healthy diet and increased physical activity remain the core interventions in this endeavor. It will be interesting to see if metformin is abandoned completely in the treatment of PCOS-related infertility or if its use will continue, not necessarily as a primary therapy for ovulation induction, but in an effort to combat the metabolic abnormalities and obesity associated with PCOS.

Resources: Online

**Perinatology Picks**
**George Gilson, MFM, ANMC**
**Ultrasound is better at finding NTD than AFP**

For instance, if one performs first trimester screening, then one does not also need to obtain a second trimester AFP if you have obtained an ultrasound in the interim.

Conclusion: Standard ultrasound improved NTD detection over AFP screening alone, by improving AFP test sensitivity and identifying NTDs in low-risk pregnancies.

Dashe JS, et al. Alpha-fetoprotein detection of neural tube defects and the impact of standard ultrasound *Am J Obstet Gynecol*. 2006 Dec;195(6):1623-8.

**Women's Health Headlines**
**Carolyn Aoyama**
**Menstrual Cycle is a Vital Sign**

The NIH will convene a workshop or conference to facilitate public and professional education about menses in girls and women; the "Menstrual Cycle is a Vital Sign" will probably be the theme. The summary of a previous workshop on this topic held in conjunction with the Society for Menstrual Cycle Research and the New York Academy of Sciences in NYC can be seen at *http://www.medicalnewstoday.com/medicalnews.php?newsid=13805*.

# A First: STD Rates Available by IHS Area

A new sexually transmitted disease (STD) surveillance report is the first to present STD rates by Indian Health Service (IHS) Area. The report, a collaborative effort between IHS and the Centers for Disease Control and Prevention (CDC), uses an innovative methodology, whereby existing nationally notifiable STD data reported to CDC were analyzed using standard IHS populations and methods. The plan is to update this report every two years.

Report Highlights:

- Despite their small numbers, AI/AN are disproportionately affected by STDs
- Chlamydia:
  - Chlamydia remains the most commonly reported STD for all races and ethnicities
  - There are large disparities between IHS and US chlamydia rates: 2.3 times greater for AI/AN than US
  - Three IHS Areas — Aberdeen, Alaska, and Billings — had chlamydia rates 4.9 to 6 times higher than the US rate
  - Compared to men, chlamydia rates are higher among women and reflect the fact that women are far more likely to be screened
- Gonorrhea:
  - Gonorrhea rates for the overall IHS population are stable and similar to US rates
  - Three IHS Areas — Aberdeen, Alaska, and Phoenix — were 1.6 to 2.4 times higher than the US rate
  - IHS gonorrhea rates were higher for women than for men
- Primary & Secondary Syphilis (P&S)
  - Both the US and IHS have experienced increases in P&S in the past 4 years; however increases have been greater in AI/AN
  - IHS P&S cases are primarily occurring in 3 Areas in the southwest: Albuquerque, Navajo, and Phoenix
  - IHS P&S cases are evenly distributed between men and women (this is in contrast to US cases, where many more cases are among men than women)

Electronic copies of this report are available at *http://www.cdc.gov/std/stats-ihs-2004/toc.htm*. Hard copies are available upon request from the IHS National STD Program; send an e-mail to Lori de Ravello at *lori.deravello@ihs.gov*.

**OB/GYN CCC Editorial comment**
**If the criteria have yielded improved outcomes, then adapt them**

Two different classification schemes of GDM based upon results of the three-hour GTT results have been proposed. The Fourth International Workshop-Conference on Gestational Diabetes GTT values cited above are based upon the Carpenter and Coustan modification of earlier value. They are lower than those proposed by the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus and the National Diabetes Data Group (NDDG), which used cutoff values of 105, 190, 165, and 145 mg/dL (5.8, 10.6, 9.2, and 9.1 mmol/L), respectively. The values are lower because the thresholds derived from the older Somogyi-Nelson method of glucose analysis were corrected to account for the enzymatic assays currently in use.

However, Schwartz et al (1999) have suggested that this classification scheme diagnosed more women with GDM at very little benefit and potentially high cost. In this retrospective review of 8857 pregnant women screened for GDM, 284 (3 percent) met the NDDG criteria while 438 (5 percent) met the Fourth International Workshop criteria. Thus, application of the more stringent Fourth International Workshop criteria to all women with positive screening test results would at best have reduced the prevalence of infants weighing 4000 grams from 17.1 to 16.9 percent, and the prevalence of infants weighing 4500 grams from 3.0 to 2.9 percent. Others have come to similar conclusions. (Ricart, 2005)

ACOG considers use of either the Fourth International Workshop or the National Diabetes Data Group criteria acceptable for diagnosis of GDM. The ADA recommends use of the Fourth International Workshop-Conference on Gestational Diabetes criteria.

At this point Naylor, et al reported that simply carrying the diagnosis of diabetes in pregnancy has been shown to increase the rate of cesarean delivery with no difference in pre-op clinical characteristics or post-op improvement in outcome (Naylor 1996). Other factors to consider are the increased fetal monitoring and blood testing associated with a diagnosis of diabetes in pregnancy, e.g., 4 fingersticks/day for 6 months = 672 fingersticks.

Until the HAPO Study is complete the argument above is largely one of conjecture. In the short term, due to the increased morbidity just associated with the diagnosis of diabetes in pregnancy, the diagnosis should be made as accurately as possible based on clinical outcome (HAPO 2006). Some would argue that simply identifying a patient for potential glucose intolerance after pregnancy is a benefit from a public health standpoint. At this writing there is no evidence of improved outcomes with the large number of extra patients diagnosed by Carpenter and Coustan criteria.

As we use ACOG as our benchmark in Indian Country, either criteria are acceptable. In Indian Country we suggest each center decide on one set of criteria within that facility. At this point there is not clinical benefit to either the mother or infant to the large increase in patients diagnosed with diabetes in pregnancy by Carpenter and Coustan criteria. Hence one would need some other compelling rationale to change to those criteria.
Resources: Online

**OB/GYN CCC Editorial Comment**
**The Rest of the Story: Find out at the Albuquerque Meeting**

I would like to thank John Heusinkveld for this valuable contribution. John will be giving an in depth presentation on this and related topics at the National Indian Women's Health and MCH Conference August 15-17, 2007 in Albuquerque, NM. Please plan on attending. John welcomes correspondence with other IHS providers who are interested in this subject. *John.Heusinkveld@ihs.gov*.

**Child Health**
**Does swaddling reduce excessive crying in infants?**

*Conclusion*: For older babies, swaddling did not bring any benefit when added to regularity and stimuli reduction in baby care, although swaddling was a beneficial supplementation in excessively crying infants < 8 weeks of age.

Van Sleuwen BE, et al. Comparison of behavior modification with and without swaddling as interventions for excessive crying. *J Pediatr*. 2006 Oct;149(4):512-7.

**Chronic disease and Illness**
**Does delay in diagnosis of breast cancer impact prognosis?**

*Results*: The mean delay was 14.2 months with a range of three to 36 months. The most common reason for delay in diagnosis was failure to biopsy a palpable mass when mammography and or ultrasonography results were negative. Pathology data were available for 39 of the women, and axillary node information was available for 38. No significant correlations were demonstrated between the delay of diagnosis, the natural log of tumor diameter, or the number of positive axillary nodes. Diagnostic delay also did not correlate with tumor grade or metastatic stage. Six patients died of breast cancer, and death was associated with stage III or stage IV of the disease but not with the length of diagnostic delay.

*Conclusion*: Despite common fears that a diagnostic delay enables the progression of the disease and signifies lost opportunities for a better outcome, the authors conclude that delays in diagnosis of 36 months or less do not appear to worsen the prognosis of breast cancer or patient survival.

Hardin C, et al. The relationships among clinician delay of diagnosis of breast cancer and tumor size, nodal status, and stage. *Am J Surg*. 2006 Oct;192(4):506-8.

**OB/GYN CCC Editorial Comment**
**This is still the number one source of malpractice suits: Failure to diagnose**

The authors do stress that delays are undesirable and

*This is a page for sharing "what works" as seen in the published literature, as well as what is being done at sites that care for American Indian/Alaskan Native children. If you have any suggestions, comments, or questions, please contact Steve Holve, MD, Chief Clinical Consultant in Pediatrics at* sholve@tcimc.ihs.gov.

# IHS Child Health Notes

**Quote of the month**

*"Our capability to prevent and treat disease seems to exceed our willingness to apply our interventions."*
C. Everett Koop, Former Surgeon General of the United States

**Articles of Interest**

Double burden of iron deficiency in infancy and low socioeconomic status: a longitudinal analysis of cognitive test scores to age 19 years. *Arch Pediatr Adolesc Med*. 2006 Nov;160(11):1108-13. *http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=17088512&query_hl=2&itool=pubmed_docsum*.

Middle class Costa Rican infants who had chronic iron deficiency had lower cognitive scores than their counterparts with normal iron stores. This gap was not reduced by later supplementation of iron stores in childhood. The gap in cognitive performance persisted even when these children were followed out to 19 years of age. The difference in cognitive performance was even greater when low income Costa Rican infants with iron deficiency were compared to their counterparts with sufficient iron. In low income children who were iron deficient, the gap in cognitive performance actually increased over time even if their iron stores were repleted in early childhood. These results suggest the value or preventing iron deficiency in infancy.

**Editorial Comment**

Some things can't be undone. Congenital hypothyroidism will result in permanent cognitive deficits unless treated by three weeks of age; later, adequate treatment cannot fully reverse this injury. The article above suggests that iron deficiency in infancy may have permanent cognitive effects that cannot be reversed with later iron therapy.

Every effort to prevent iron deficiency should be made. Breastfed infants should receive iron fortified cereal starting at four months of age. If there is any concern that a breastfed infant is not receiving sufficient iron, they should receive iron supplements. These are most easily given as iron drops at 1 mg/kg/d of elemental iron beginning at six months of age and until 12 months. Breastfed pre-term and low birth weight infants should be supplemented with elemental iron at 2 mg/kg/d beginning at one month of age and until 12 months of age. Non breastfeeding infants should receive only iron fortified formula.

All infants should be screened for iron deficiency anemia at nine months. This is earlier than the previous recommendation to screen at 12 months but will allow for earlier detection of anemia and earlier iron repletion if needed.

**Recent literature on American Indian/Alaskan Native Health**
**Doug Esposito, MD**

Please forgive me, but this month I would like to diverge a little from my usual *modus operandi*. I would like to take a short journey away from Indian Country and travel the literature specifically related to the foreign country. Of course, many of the same health and socioeconomic issues facing the developing world are in force in Indian Country, so it won't be such an exotic vacation after all. Anyway, I promise to ultimately make a point that is relevant to Indian child health, so please bear with me.

The February 2007 issue of the *American Journal of Public Health* is devoted to the topic of international child health priorities. There are several interesting and timely entries that are worth exploring. There is even an article entitled "Changing the Child Labor Laws for Agriculture: Impact on Injury,"[1] a topic once very near and dear to my own heart. Unfortunately, I cannot really link its relevance to Indian child health, so I will simply mention it in passing. Also, for anyone interested in understanding a piece of the insanity that controls public health policy making in this country, you should have a look at "Paternalism and Its Disconnects: Motorcycle Helmet Laws, Libertarian Values, and Public Health."[2]

The opening editorial introduces this topical issue by laying out an important argument.[3] Victora states "It is widely known that 10% of the world's expenditure in health research is for the conditions accounting for 90% of the global burden of disease," the so-called "10/90 gap in funding." Of course, this funding scheme makes no rational sense when one considers that "two thirds of the more than 10 million annual deaths in children could be prevented by universal coverage with off-the-shelf, low-cost interventions." The bottom line? We are not spending enough to develop efficient and effective systems of health care delivery and heath system access/utilization, much to the detriment of child survival and the public health. For a more detailed mathematical discussion of this topic, the reader is referred to Leroy et al, "Current

Priorities in Health Research Funding and Lack of Impact on the Number of Child Deaths per Year."[4]

To bring the topic home, Wolf discusses related issues in "Potential Health and Economic Consequences of Misplaced Priorities" in *JAMA*.[5] He makes the argument that policy decisions should be based on principles of public health more than is the tendency in contemporary America.

So, what does this all mean for us? I knew you would ask that question. The reader might remember my comments in the December 2006 issue of *IHS Child Health Notes*.[6] In that issue, I reviewed an article reporting the preliminary results of a study of a paraprofessional home visitation program designed to improve outcomes for Native American children born to adolescent mothers.[7] The preliminary effectiveness of this model, I said, challenges us to rethink the longstanding model of public health nursing as it is practiced in the IHS and consider how a paraprofessional model might be incorporated into our programs. Needless to say, a multitude of barriers exist that deter innovation when it comes to how health and preventive services are delivered, not the least of which is funding.

In speaking to the authors of this paper, they describe that very few grants are available to fund either new models of service delivery or methods to improve what already exists. Of course, billions of dollars are available out there to investigate new technologies: " . . . of the scarce research funds aimed at reducing child mortality, 97% were directed at the development of new technologies, such as drugs, vaccines, or laboratory diagnostics. Only 3% were spent on operational research to determine how to best deliver existing interventions to mothers and children who need them most."[3] Are you surprised to learn that there appears to be a "10/90 gap in funding" issue in the United States, too?

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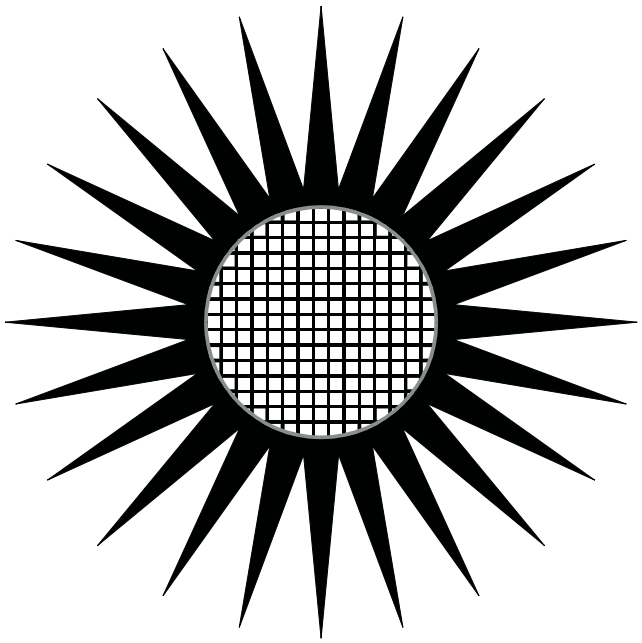

# Third Annual Alaska Palliative Care Symposium Scheduled

The 3rd annual Alaska Palliative Care Symposium is scheduled for April 30 - May 2, 2007 at the Captain Cook Hotel in Anchorage, Alaska. The symposium features nationally respected palliative care speakers and the opportunity for health care providers to come together to share palliative care knowledge and resources. It is designed for physicians, mid-level practitioners, nurses, pharmacists, social workers, and other health care providers interested in palliative care.

The 2007 symposium plenary speakers include Joan Halifax Roshi, PhD, founder of the "Being with Dying" project at the Upaya Zen Center in New Mexico; Tim Moynihan, MD, who is an Education Chair and Consultant in the Division of Medical Oncology at the Mayo Clinic in Rochester, Minnesota; Ross Hays, professor, Department of Rehabilitation Medicine and Pediatrics, University of Washington School of Medicine, and director of Palliative Care Consulting Service; and Marianne Matzo, PhD, APRN, BC, FAAN, Professor and Frances E. and A. Earl Ziegler Chair in Palliative Care Nursing Sooner Palliative Care Institute, at the University of Oklahoma College of Nursing. Lunch presentations on cultural humility and living well to optimize personal health are scheduled the first two days of the symposium. The program will feature both basic and advanced palliative care topics. Attendees will once again receive a tool kit which includes many books and other materials that allow them to easily consult palliative care resources when they return home.

Alaska Native Medical Center is accredited as a sponsor and provider of continuing medical education for physicians by the Alaska State Medical Association and as an Approved Provider of continuing education by the Alaska Nurses Association, an accredited approver by the American Nurses Association Credentialing Center's Commission on Accreditation. Provider Number AP-06-002. Alaska Native Medical Center designates this continuing education activity as meeting the criteria for one hour of AMA PRA Category 1 Credit™ and one Continuing Nursing Education (CE) credit for each hour of participation.

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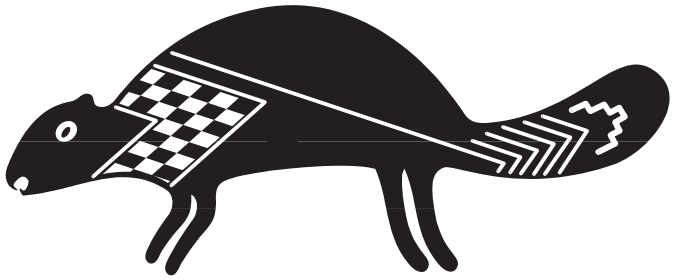

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**Circulation:** The PROVIDER (ISSN 1063-4398) is distributed to more than 6,000 health care providers working for the IHS and tribal health programs, to medical schools throughout the country, and to health professionals working with or interested in American Indian and Alaska Native health care. If you would like to receive a copy, send your name, address, professional title, and place of employment to the address listed below.


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