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Arthritis – Still the Quiet, but Painful, Potentially Devastating Crippler

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Introduction

The University of Arizona Arthritis Center (AAC) has had a long history of providing care to Arizona's Native American populations and offering continuing professional education to the staff on the reservations since the 1970s, not long after the medical school started. Through an Arizona Arthritis Regional Medical Program grant in 1974, regular trips were made to outlying, rural reservations to deliver clinical care and education in rheumatology, a newly developed, board certified subspecialty as of 1971.

Background

The relationship of the University of Arizona Arthritis Center and the Section of Rheumatology at the College of Medicine with Arizona's Native American reservations and populations is especially important as nearly all Native American communities in North America exhibit very high rates of inflammatory arthritis. The Navajo, which represent the largest Native American Nation in the U.S., have a prevalence of rheumatoid arthritis (RA) nearly four to six times that of any Caucasian population in the world. In addition, they also have a prevalence of Reiter's syndrome or "reactive arthritis" that is three to four times of that seen in Caucasians. These high rates are also seen in the Tohono O'odham and Pima tribes. In part, this appears to be due to a hereditary predisposition.

Both rheumatoid arthritis and Reiter's syndrome are forms of inflammatory arthritis that may result in disability within five years after diagnosis and a lifespan shortened by as much as seven to ten years. The peak prevalence of both forms of arthritis is in the third and fourth decades of life. The medical and socioeconomic costs can be staggering. Other forms of arthritis do not appear to be increased in Native Americans. There is some evidence that scleroderma may be increased in some populations.

Reactive Arthritis (Reiter's Syndrome)

Reactive arthritis and Reiter's syndrome are forms of "seronegative" arthritis, identified by a lack of association with rheumatoid factor. This group of diseases includes ankylosing spondylitis and the arthritis that may accompany psoriasis and inflammatory bowel disease. It is often associated with one or

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more extra-articular manifestations. These diseases may appear shortly after certain infections of the genitourinary or gastrointestinal tracts. Reiter's syndrome refers to a tetrad that includes urethritis, conjunctivitis, arthritis (usually asymmetric and predominantly in the lower extremities), and skin lesions. Reactive arthritis is often used to describe patients with similar arthritic presentations that do not fulfill the criteria for Reiter's syndrome. The majority of those affected are young men with the inherited human leukocyte antigen (HLA) B27. This genotype is more common in the American Indian population, especially those of Athabascan origin. Ankylosing spondylitis is a form of arthritis that affects mainly the axial skeleton. Overlaps may be seen.[1]

Reactive arthritis typically begins acutely 2 to 4 weeks after venereal infections or bouts of gastroenteritis. It has been observed after sporadic outbreaks of diarrheal illnesses caused by *Shigella, Salmonella, Yersinia,* and *Campylobacter* microorganisms, among others, as well as after venereally acquired genitourinary infections, especially *Chlamydia trachomatis.*[2] Articular manifestations are additive, asymmetrical, and oligoarticular, affecting an average of four joints. These are most often the joints of the lower extremity including the knees, ankles, and small joints of the feet. Hip disease is uncommon. Joints affected are typically swollen, warm, tender, and painful on active and passive movement. When toes or fingers are affected, the entire digit may be diffusely swollen and referred to as a sausage digit, or dactylitis. Extra-articular manifestations include a papulosquamous skin rash that appears most commonly on the soles or palms but may affect any cutaneous area. Toe- and/or fingernails also may become thickened and opacified, and crumble. Conjunctivitis and sterile urethritis also occur.

Reactive arthritis runs a self-limited course of from 3 to 12 months, in the majority of patients, but some may continue to be plagued by residual musculoskeletal symptoms.[3] Chronic, destructive, disabling reactive arthritis is most often related to foot pain or deformities from arthritis, heel pain (enthesitis; i.e., inflammation of ligamentous and capsular sites of attachment to bones), or vision loss. The diagnosis of reactive arthritis is based on disease manifestations and laboratory findings. Diagnostic criteria, developed by the American College of Rheumatology (ACR), define the disease as the combination of nongonococcal urethritis or cervicitis and a sterile peripheral arthritis occurring within one month of one another. As many have no symptoms or signs of genital inflammation, these criteria are not very sensitive.[4]

The presence of a seronegative, asymmetrical oligoarthritis, heel pain, enthesitis, or dactylitis, especially in a young person, should alert the clinician to the possibility of this syndrome. The presence of an antecedent diarrheal or venereal illness may be helpful, but is often absent. Any of the mucocutaneous lesions increase the likelihood of reactive arthritis. Testing for HLA B27 may be a useful adjunct in diagnosis if the clinical data support a strong likelihood of the disease.[5]

Ankylosing Spondylitis

Ankylosing spondylitis (AS) is a chronic, systemic inflammatory disorder affecting the sacroiliac joints and the spine and usually begins in late adolescence or early adulthood. In distinction to rheumatoid arthritis, this disease has been found in the skeletal remains of Egyptian pharaohs, making it an old world disease. Sacroiliitis is its hallmark, but extraskeletal manifestations involve the eyes (uveitis), lungs (cavitary lesions), and heart. Aortitis of the ascending aorta and resulting fibrosis can cause dilation of the aortic ring and aortic valve incompetence.

AS should be suspected when there is insidious back pain and stiffness, onset before age 40, persistence of symptoms for more than three months, worse symptoms in the morning or after inactivity, and improvement of symptoms with exercise. Juvenile-onset spondyloarthropathies and recurrent enthesitis or peripheral arthritis may precede the onset of definite axial disease by many years.[6]

Until recently, little could be done to alter the natural history of the seronegative spondyloarthropathies. Nonsteroidal anti-inflammatory drugs (NSAID) and physical therapy helped with pain and stiffness, and there is some experimental evidence that sulfasalazine was useful for peripheral joint manifestations. In the last few years, it has become apparent that anti-tumor necrosis factor (TNF) drugs used for the treatment of rheumatoid arthritis since 1999 are very useful for halting the progression of inflammation, joint damage, and bony fusion that may characterize these disorders.

Rheumatoid Arthritis

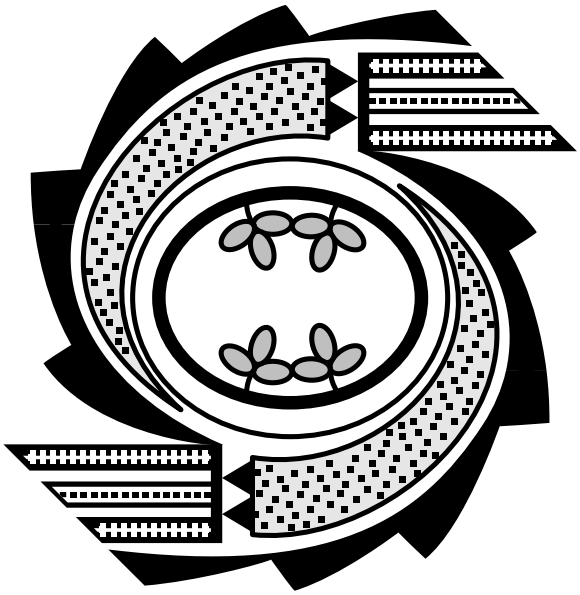
Rheumatoid arthritis (RA) is a chronic, systemic, inflammatory disease that affects the joints. The initial event inciting the inflammatory response is unknown. Both genetic and environmental factors seem to control the progression, extent, and pattern of the disease, resulting in heterogenous clinical presentation. A long term latent process often precedes the onset, thus clouding its etiology.[7] RA may be chronically progressive with varying degrees of joint destruction and extra-articular features. RA is an autoimmune disease that occurs when the body's own immune system inappropriately stimulates an inflammatory response in the synovium. This inflammatory process causes pain, stiffness, swelling, and, if unchecked, loss of function in the joints and erosion of the cartilage, as well as the juxtaarticular bone. Joint destruction may ensue, involving the articular cartilage, ligaments, tendons, and bone.

RA was first described in the mid-18th century and has not been found in skeletal remains from ancient European or Asian civilizations. Erosive polyarthritis, however, was documented in the skeletons of prehistoric Native Americans (3000 to 5000 years ago), which might indicate an infectious agent confined to a small geographic area before the 18th century.[8] There are no other reports that support an infectious origin. The high prevalence rate of 5% to 6% seen in some Native American

populations suggest that genetic factors may predispose them to RA. The American College of Rheumatology 1987 revised criteria for the classification of RA estimates the prevalence to be from 0.3% to 1.5% in the North American population. It is about 2.5 times higher in females than males. Support for a genetic predisposition comes from studies of RA clusters in families, and it has been estimated that a first-degree relative of an RA patient has about a 16-fold increased risk over the general population. It may be that there is no single primary cause of RA and that different mechanisms may lead to the initial tissue injury and precipitate synovial inflammation in susceptible individuals.

Diagnosis during the early weeks of the disease is essentially one of exclusion, but symmetric sterile synovitis with typical serologic features such as rheumatoid factor or anti-CCP antibodies suggest RA. Erosions on x-ray become apparent only after the disease has been present for several months, but recent studies conducted at the Arizona Arthritis Center and elsewhere show them as early as six weeks using ultrasound or magnetic resonance imaging, suggesting the need for earlier, more aggressive therapy.

The ACR has established criteria for the diagnosis of RA, the classification of severity by x-ray, functional class, and the definition of remission. These criteria provide a frame of reference and help describe clinical phenomena, but are not designed for managing individual patients. The *Primer on the Rheumatic Diseases, Edition 12,* published by the Arthritis Foundation, is the primary resource for rheumatology for new clinicians.



The ACR's guidelines for the management of RA call for a baseline evaluation of patients including the following:

Subjective
- Degree of joint pain
- Duration of morning stiffness
- Presence or absence of fatigue
- Limitation of function

Physical Examination
- Documentation of actively inflamed joints
- Documentation of mechanical joint problems; loss of motion, crepitus, instability, malalignment and/or deformity
- Documentation of extraarticular manifestations

Laboratory
- Erythrocyte sedimentation rate, C-reactive protein
- Rheumatoid factor*
- CBC or complete blood cell count
- Electrolytes+
- Creatinine+
- Hepatic panel+
- Urinalysis+
- Synovial fluid analysis@
- Stool quaiac+

Radiography
- x-ray of selected involved joints#

* performed only at baseline to establish diagnosis; may be repeated 6 - 12 months after disease onset if negative initially.

\+ performed at baseline to assess organ dysfunction due to comorbid diseases, before starting medications.

@ performed at baseline if necessary, to rule out other diseases; may be repeated during flares to rule out septic arthritis.

\# may have limited diagnostic value early in the disease, but helps to establish a baseline for periodically monitoring disease progression and response to treatment.

No laboratory test, histologic finding, or radiographic feature confirms a diagnosis of RA, but rather diagnosis is made over a period of time by a number of findings observed. Articular manifestations include morning stiffness (a gelling phenomena lasting over two hours), synovial inflammation, and structural damage due to cartilage loss and erosion of periarticular bone.

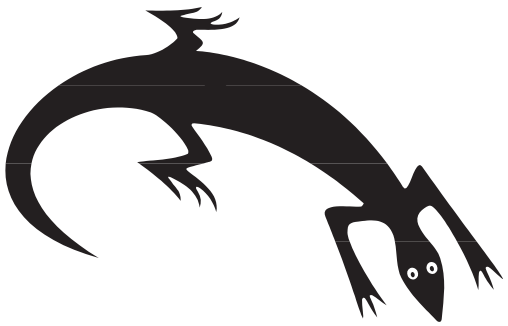
Extra-articular manifestations include rheumatoid nodules, conjunctivitis, vasculitis, serositis, neuropathy, and respiratory involvement. Because RA imposes limitations that make physical exertion difficult, the latter may be asymptomatic. However, the mortality from pulmonary disease in RA is twice that of the general population.[9] Pericardial effusion or other pericardial abnormality is seen in almost 50% of RA patients who have no clinical symptoms.[10] Gastrointestinal complications of NSAID therapy are a

significant cause of morbidity and mortality. Proteinuria and interstitial renal disease are also related to the use of NSAIDs, and occasionally amyloidosis or immune complex deposition may damage the kidneys. Neurologic complications such as cervical spine instability and peripheral nerve entrapment may result over time, as well as mononeuritis multiplex accompanying vasculitis. Anemia is a frequent finding in patients with active RA, often due to the anemia of chronic disease or gastrointestinal bleeding associated with NSAID use. Marrow suppression may be due to immunosuppressive or cytotoxic therapy.

Although criteria for remission from RA have been established, prevalence of remission, either spontaneous or induced by therapy, is unknown. The presence of rheumatoid factor, anti-CCP antibodies, bony erosions on radiographs, nodules, and the HLA-DR4 haplotype predict a more severe, persistent disease course.[11] Past studies have shown an increased mortality rate in RA patients. Those with severe forms of the disease may die 10 to 15 years earlier than expected.[9] Although a potentially devastating disease, the newer biologic therapies have greatly diminished the joint destruction and crippling effects of the disease in patients. As with all medications, however, potential side effects may be life threatening and must be considered carefully, especially infectious complications.

Osteoporosis

Osteoporosis is defined as a disease of low bone mass and strength leading to an increased risk of fragility fractures. Risk factors include but are not limited to low calcium diets, genetic predisposition, age, prior fractures, low body mass index, smoking, consumption of more than nine alcoholic drinks per week, and a propensity to fall. Women are more prone than men to develop osteoporosis, probably related to smaller skeletal mass at baseline. One in two Caucasian women will sustain a fracture after the age of 50. The prevalence in Native American populations is unknown. Early studies done with dual photon absorptiometry, a technique no longer in use, suggested that premenopausal American Indians had higher bone densities than Caucasians. However, more recent information suggests that postmenopausal American Indian women may lose bone more rapidly.[12]



Dual x-ray absorptiometry or DXA is currently the gold standard for diagnosis of osteoporosis and the only method certified to follow therapy. Heel ultrasound and quantitative CT scanning have both been used as screening methods. Each has its limitations. DXA should be used whenever possible in patients who need to be diagnosed and treated. The criteria for screening, as well as therapy, are beyond the scope of this article. Suffice it to say that there are effective therapies currently on the market, when supplemented with oral calcium and vitamin D. Our current understanding of osteoporosis in these patient populations is that it is an important medical problem, and prevalence may be similar to Northern European populations.

Rheumatology Clinical Activities on the Reservations

Since 1986 the Arizona Arthritis Center has been conducting regular monthly clinics for the Tohono O'odham Nation in Sells and both the Tohono O'odham and Pascua Yacqui Nations at San Xavier IHS clinic. Since the early 1990s the AAC has been providing monthly clinics to the Navajo, Apache, and Hopi and more recently the Zuni Nations. On a typical trip to northern Arizona, over 200 patients are seen in a single week. At present the center provides clinics at eight different sites around Arizona. Osteoporosis screening has also been provided using a mobile dual x-ray absorptiometry machine mounted in a bus.

Identifying Needs and Partnerships

The arthritis clinics and outreach to the reservations have been designed to do as much as possible to help primary care providers and patients diagnose, properly treat, and avoid the pain, disability, and early mortality of these arthridities. The University of Arizona Medical School in Tucson is dedicated to maintaining and expanding the clinical and educational outreach to the reservations.

Recently, the University of Arizona's Native American Research and Training Center, under the directorship of Jennie Joe, PhD, identified the need for more preventative education about arthritis for Native Americans. Dr. Joe designated Rueben Naranjo, MA, a doctoral student in American Indian Studies, in collaboration with Gail Kershner Riggs, MA, CHES, Research Specialist, Principal at the Arizona Arthritis Center, to develop patient education brochures about arthritis that are culturally specific to Arizona's Native American populations. A first brochure on rheumatoid arthritis for the Tohono O'odham patient has been developed and is available. It will serve as a prototype for more materials to be developed for other reservations.

The University of Arizona Arthritis Center is part of the Arizona Arthritis Partnership established by the Arizona

Department of Health Services and is funded in part by the Centers for Disease Control National Arthritis Program. Jeffrey Lisse, MD is holder of the Bilby Endowed Chair for Clinical Osteoporosis Research at the University of Arizona Arthritis Center.

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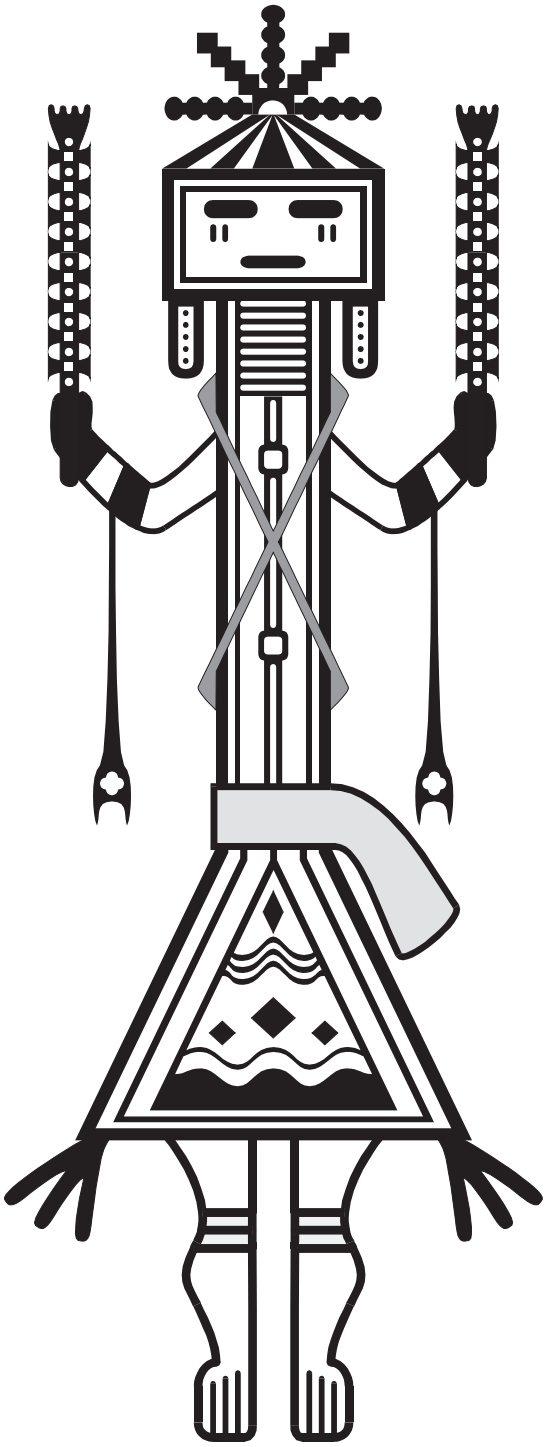


Editor's Note: The following is a digest of the monthly Obstetrics and Gynecology Chief Clinical Consultant's Newsletter (Volume 3, No. 10, October 2005) available on the Internet at http://www.ihs.gov/MedicalPrograms/MCH/M/OBGYN01.cfm. *We wanted to make our readers aware of this resource, and encourage 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

Family cohesion and conflict in an American Indian community.

This American Indian sample reflects a support-oriented family profile despite the coexistence of high conflict. Despite the recognized importance of family environment in influencing health behaviors, few studies have attempted to assess or address distinctive attributes of American Indian families. The article presents findings from an assessment of specific characteristics of the family environment within one American Indian community.

Study Design. The study was conducted as part of a formative assessment of diet, activity, and family behaviors prior to the implementation of a community-based family wellness program. Members of one American Indian community were trained to administer the assessment instrument by random household sample to participants ages 16 and older. The assessment analyzed responses to a survey instrument composed of a food and physical activity frequency questionnaire as well as four subscales of the Family Environment Scale (FES). Use of the FES with American Indian families has not been previously reported in the published literature.

Results.

- In comparison to the non-Native, nondistressed family sample, American Indian families were comparable in expressiveness and cohesion, higher in conflict, and lower in participation in social and recreational activities.
- In comparison to the national sample of distressed families, the American Indian family sample was more cohesive and expressive but no different in conflict and in participation in social and recreational activities.
- In comparison with nondistressed minorities, the American Indian sample scored higher in expressiveness and conflict but lower in cohesion.

Summary. In comparison to these national samples, the American Indian sample projects a distinctive family profile. FES results can be useful in establishing a baseline assessment of family strengths and challenges and could serve as an evaluation tool in tracking the impact of social and public health services within Native communities.

Teufel-Shone NI, Staten LK, Irwin S, et al. Family cohesion and conflict in an American Indian community. *American Journal of Health Behavior*. 2005. 29(5):413-422.

Guest Editorial
Peter Stuart, Chinle

What exactly does "being culturally sensitive" mean?

Someone, somewhere will certainly take a study such as this and say "We need to develop programming for American Indian families to help them reduce conflict and participate more in social and recreational activities." This study demonstrates well some of the hazards in research involving American Indians/Alaskan Natives. When does a study reflect conditions for "American Indians" as a whole, and when should we be particularly sensitive to the unique cultural, economic, social, and environmental contributors to distress and wellness? The most one can argue from a study of this nature is that a particular community demonstrated a particular constellation of family environmental processes. Even calling the study a study of American Indians is problematic as it conflates all of our communities under that label despite their incredible diversity.

The study also raises issues about the construction of goodness and the assigning of precedence to culturally-moderated perceptions of behavior in a scale such as the FES. Is "expressiveness" as defined by the study a universal good? Is "conflict" a universal negative? What are the risks involved using research such as this in the design of community interventions? What types of processes need to be in place to respect the perspectives of the communities involved and to avoid the neocolonialist error of attributing ascendance to the researcher's community norms? How can providers and health managers involved in funding and program priority issues acknowledge their own inherent biases and make balanced and respectful decisions?

From Your Colleagues
Judy Thierry, HQE

Maternal mortality in Indian Country: a follow-up to the September abstract.

The RPMS analysis of maternal morbidity ICD 9 codes gleaned from over 6,000 files over a two-year period from five

IHS sites with surgical obstetric capacity now provides MCH health care providers, epidemiologists, researchers, and program planners access to data not previously available.

Maternal morbidity figures prominently in IHS admissions, outpatient services, lab assessment, and medical imaging. Outcomes must be framed in terms of both maternal and infant indicators. Hidden morbidities of injury and mental health, while queried, were found to be universally underreported. This was not unexpected, but we need the data to confirm what we observe. Data quality is being addressed through several activities. One of these is with the Office of Information Technology and the analysis of reported data entered at the service unit and captured through exports to the national data warehouse. Ultimately, an MCH Data Mart will be able to frame key MCH health issues and protective factors as we advance in both quantity and quality of data entry and timeliness.

The goal of an MCH Data Mart is a perinatal data set of real time clinical utility for service units and one that, in the aggregate, could reliably describe AI/AN maternal health trends. Just as we rely on timely information for medical action, so too for health care planning and health policy. Census data, midcensus data, and mortality vital statistics are essential public health data sets but cannot describe the MCH population here and now. Delivery log aggregate information and contract health referred patients aggregate information placed in a registry of some sort can and will meet the needs of those providing health care and those seeking to improve MCH health care at the population level.

The development of the RPMS data query and resultant poster presentation entitled "Maternal Morbidity during Delivery Hospitalizations in American Indian and Alaska Native Women" sought to address several underlying questions. The basic morbidity questions which are addressed in the poster and which will be presented for publication are nicely laid out in tables and correlated with intervention of cesarean section and length of stay. Back to the underlying questions.

1. Could we get reliable data from RPMS using ICD-9 codes to describe maternal morbidity? Would there be consistency in the use of codes.
2. Would the data quality hold up across Areas and between service units? Were we indeed seeing and documenting the same morbidities across facilities?
3. Could we describe somewhat the workforce parameters and provision of care by professional category, i.e., midwife and obstetrician?
4. Could we capture such elements as length of stay (LOS), health factors (tobacco, alcohol), patient education, injuries (E&M codes), and outpatient visits?
5. We wanted the data to answer questions that OB department chiefs, as well as MCH committees, directors of nursing, health educators, and IHS leadership would want to know.

The RPMS data required statistical software to provide percent prevalence from this non-random sample population. We wanted a workable number of files. We wanted direct IHS and tribal hospitals to participate – they did. The basic question, Could we obtain useable data to make sense of maternal morbidity, was answered in the four tables presented. Could we do this for all Areas, including tribal, direct and contract health care programs? Perhaps. Our CHS data were nil to nonexistent and would require a specific query and follow-up. Insurance data were obtained through a second query. The Nashville United South and Eastern Tribes Tribal Epidemiology Center is currently developing and testing a prenatal registry working directly with CHS personnel in the entry and tracking of prenatal care as rendered to AI/AN patients in the private sector. This will have great impact, as only 10,000 of the near 40,000 AI/AN births each year are delivered in IHS facilities.

This brings us to the denominator issue, and what this study can say about prenatal care and maternal morbidity and what it cannot. We have insufficient information from our participating facilities to say what occurs with patients transferred antenatally or intrapartum and how this might have altered the picture of maternal morbidity. Fetal-maternal issues that may drive transfer cannot be described here. A fundamental issue arises in our inability to link maternal parameters with fetal and infant outcomes. Prematurity, low birth weight, and infant complications are not to be found in these data. The individual sites can be expected to use their individual files for further secondary analysis. Linkage of files to a chart audit sampling methodology is required. I look forward to these secondary analyses as they are important and necessary next steps in using these data to inform local care, staff training, community awareness, and the women themselves.

OB/GYN CCC Editorial comment

This dataset is available for five Areas now, but if your Area isn't one of them, then you can request a review of your Area data. This is a great opportunity for you to tease out trends in maternal mortality that might save future "near misses" or actual fatalities in your own patient population. Contact *Judith.Thierry@ihs.gov*.

Hot Topics

Obstetrics

Do pregnant women require rectal swabs for GBS?

Conclusion: The group B streptococci detection rate from vaginal-perianal specimens is not significantly different from the detection rate from vaginal-rectal specimens. Therefore, pregnant women do not need to be subjected to the discomfort of collection of a rectal specimen. Level of evidence: II-2.

Jamie WE, et al. Vaginal-perianal compared with vaginal-rectal cultures for identification of group B streptococci. *Obstet Gynecol*. November 2004;104:1058-61.

OB/GYN CCC Editorial comment

While this article is of interest, it is Level II-2 evidence based on a small study of 200 patients in a prospective cohort. The current CDC guidelines still recommend a combined vaginal-rectal swab.

Gynecology

Paroxetine curbs premenstrual dysphoric disorder.

Conclusion: For the treatment of PMDD, luteal phase dosing with 12.5 mg and 25 mg of paroxetine CR is effective and generally well tolerated.

Steiner M, et al. Luteal phase dosing with paroxetine controlled release (CR) in the treatment of premenstrual dysphoric disorder. *Am J Obstet Gynecol*. 2005 Aug;193(2):352-60.

Child Health

The Number 1 cause of pediatric deaths!

The number one cause of death for children younger than 14 years is vehicular injury. Child safety seats and automobile safety belts protect children in a crash if they are used correctly, but if a child does not fit in the restraint correctly, it can lead to injury. A child safety seat should be used until the child correctly fits into an adult seat belt. It is important for physicians caring for children to know what child safety seats are available and which types of seats are safest. Three memory keys will help guide appropriate child safety seat choice:

1. Backwards is best
2. 20-40-80
3. Boost until big enough

"Backwards is best" cues the physician that infants are safest in a head-on crash when they are facing backward. The "20-40-80" reminds the physician that children may need to transition to a different seat when they reach 20, 40, or 80 lb. "Boost until big enough" emphasizes that children need to use booster seats until they are big enough to fit properly into an adult safety belt.

Biagioli F. Child safety seat counseling: three keys to safety. *Am Fam Physician*. 2005 Aug 1;72(3):473-8.

Chronic disease and Illness

Native Americans with highest rates of major depressive disorder.

Findings from the largest survey ever mounted on the co-occurrence of psychiatric disorders among U.S. adults afford a sharper picture than previously available of major depressive disorder (MDD) in specific population subgroups and of MDD's relationship to alcohol use disorders (AUDs) and other mental health conditions. The new analysis of data from the 2001-2002 National Epidemiologic Survey of Alcohol and Related Conditions (NESARC) shows for the first time that middle age and Native American race increase the likelihood of current or lifetime MDD. Native Americans showed the highest (19.17 %) lifetime MDD prevalence, followed by whites (14.58 %), Hispanics (9.64 %), Blacks (8.93 %t), and Asian or Pacific Islanders (8.77 %). Since information is scarce on diagnosed mental disorders among Native Americans, this finding appears to warrant increased attention to the mental health needs of that group, the authors maintain. Major depression is a prevalent psychiatric disorder and a pressing public health problem. That it so often accompanies alcohol dependence raises questions about when and how to treat each diagnosis. Today's results both inform clinical practice and provide researchers with information to advance hypotheses about common bio-behavioral factors that may underlie both conditions.

The NESARC results demonstrate a strong relationship of MDD to substance *dependence* and a weak relationship to substance *abuse*, a finding that suggests focusing on dependence when studying the relationship of depression to substance use disorders. This research direction is supported by earlier genetic studies that identified factors common to MDD and alcohol dependence and at least one epidemiologic study that demonstrated excess MDD among long-abstinent former alcoholics.

Coexisting substance dependence disorder and MDD predict poor outcome among clinic patients. A decade ago, many treatment leaders discouraged treating MDD in patients with substance dependence on the grounds that arresting substance dependence was the more immediate need and that its resolution well might also resolve MDD. Results from foregoing epidemiologic surveys and several clinical trials over time altered that picture, so that treating both disorders simultaneously is today common practice.

Grant BR et al. Epidemiology of major depressive disorder. *Archives of General Psychiatry*. 2005 October 3. National Institute on Alcohol Abuse and Alcoholism (NIAAA) Laboratory of Epidemiology and Biometry, NIH.

Features

ACOG

Racial and ethnic disparities in women's health.

ACOG Committee Opinion No. 317.

Abstract: Significant racial and ethnic disparities exist in women's health. These health disparities largely result from differences in socioeconomic status and insurance status. Although many disparities diminish after taking these factors into account, some remain because of health care system-level, patient-level, and provider-level factors. The American College of Obstetricians and Gynecologists strongly supports the elimination of racial and ethnic disparities in the health and the health care of women. Health professionals are encouraged to engage in activities to help achieve this goal.

Racial and ethnic disparities in women's health. ACOG Committee Opinion No. 317. American College of Obstetricians and Gynecologists. *Obstet Gynecol*. 2005;106:889-92.

OB/GYN CCC Editorial comment:

ACOG has long been dedicated to the improvement of AI/AN women's health disparities through the many projects of the ACOG Committee on American Indian Affairs. The AAP has also had a strong commitment to the care of AI/AN children. Just a few of the ACOG projects include:

- ACOG/IHS Postgraduate Course on Obstetric, Neonatal, and Gynecologic Care
- ACOG Fellows in Service Program
- ACOG Committee on American Indian Affairs
- ACOG annual IHS Area site visits
- Liaison relationship with AAP, Committee on Native American Child Health (CONACH)

I strongly encourage other professional organizations to consider matching or exceeding the above two organizations efforts; e.g., family medicine organizations need to step up to the plate.

Ask a Librarian: Diane Cooper, MSLS/NIH

Help us establish a free electronic patient education resource center.

Studies show that Native Americans react more favorably when educational materials include Native Americans in the pamphlets, videos, and posters. While there is an abundance of patient educational materials out there, few of them are Native American-specific. But now a new project will collect Native American-oriented patient education materials for IHS clinicians. You can help. The goal is to have an electronic resource that is available IHS-wide. Clinicians will be able to download and print materials in the clinic or hospital setting, at the point of care. Providing patient education materials in conjunction with the clinician's advice strengthens the message and improves health behavior.

This project is the joint effort of Mary Wachacha, IHS Health Education Consultant and Dr. Charles (Ty) Reidhead, Internal Medicine Chief Clinical Consultant. If you have any questions, please contact Mary Wachacha, Dr. Reidhead or myself, Diane Cooper, via e-mail. We are all on the Global Outlook email system.

Help build this IHS-wide electronic National Patient Education Library. Send me any patient education materials that you are using now and have found useful in your patient care. If they are in electronic format you can send by e-mail. If not, just mail a copy and, it can be scanned to make it an electronic version. Please note in your correspondence if the material is copyrighted. I will get the permission from the originating organization if it is used. I can be reached at *cooperd@mail.nih.gov*.

Family Planning
Tony Ogburn, MD, University of New Mexico

ParaGard® approved for nulliparous women in stable relationships from age 16.

The U.S. Food and Drug Administration (FDA) has approved an updated label for its intrauterine device (IUD), ParaGard® T 380A Intrauterine Copper Contraceptive. The new prescribing information for ParaGard excludes nulliparity as a contraindication, confirming that the risk of pelvic infection is more related to a patient's sexual behavior than her contraceptive choice. Hormone-free ParaGard is also no longer contraindicated for women with a history of sexually transmitted diseases or pelvic inflammatory disease unless a patient currently has acute PID or engages in sexual behavior suggesting a high risk for PID. Finally, mutual monogamy is no longer a user requirement, although use by women in a stable relationship is encouraged. "The FDA's approval of a less restrictive patient profile for ParaGard confirms what many health care providers have known for years," said Dr. Laura MacIsaac, Director of Family Planning at Albert Einstein Medical College and Chief Medical Officer at FEI Women's Health. "ParaGard is safe, effective, and the most appropriate contraceptive for many women to use throughout their reproductive lives – from age 16 through menopause."

Medical Mystery Tour

HCG curves redefined: Symptomatic patients with an early viable intrauterine pregnancy.

Just to review, last month we described a patient with an early pregnancy with symptoms of pelvic pain and bleeding. The patient said that the Emergency Department (ED) provider told her that you would know what dose of methotrexate to prescribe in this particular situation. She said she heard the ED physician was concerned that her HCG had not increased by 66% during the previous serial two-day intervals. She said the ED physician said that you might want to call a specialist to find out, because this was her third ectopic pregnancy.

What dose of methotrexate would you prescribe to this patient? The answer is zero. The clinical pearl here is that normal pregnancies can be associated with a 53 percent HCG rise over 48 hours. If clinically stable, this particular patient should have a repeat HCG in 48 hours. This patient's HCG was 2142, i.e., slightly over a discriminatory zone of 2000. Shouldn't we be able to demonstrate an intrauterine pregnancy in all cases by an HCG of 2000? Actually, some would argue that the discriminatory zone should be an HCG up to 2,500. Or, better yet, each institution should determine its own discriminatory zone based on their local HCG lab techniques and ultrasound capability.

The beta-hCG concentration in a normal intrauterine pregnancy rises in a curvilinear fashion until 41 days of gestation at which time it plateaus at approximately 100,000 IU/L; the mean doubling time for the hormone is from 1.4 to 2.1 days. Studies in viable intrauterine pregnancies have demonstrated that in 85 percent of these gestations the beta-hCG concentration rises by at least 66 percent every 48 hours during the first 40 days of pregnancy; in only 15 percent of viable pregnancies is the rate of rise less than this threshold.

The data supporting the old adage that normal pregnancies increase by 66 percent every 48 hours was based on studies of

29 and 36 patients (Daya, Kadar). More recent data from 287 patients showed the slowest or minimal rise for a normal viable intrauterine pregnancy was 24% at 1 day and 53% at 2 days (Barnhart).

The Barnhart, et al data redefine the slowest rise in serial hCG values for a potentially viable gestation and will aid in distinguishing a viable early pregnancy from a miscarriage or ectopic pregnancy. The minimal rise in serial hCG values for women with a viable intrauterine pregnancy is "slower" than previously reported, suggesting that intervention to diagnos and treat an abnormal gestation should be more conservative**.** The use of the more conservative data on HCG rise may lead to fewer invasive procedures and/or unnecessary use of methotrexate.

One thought to ponder for next month, if the HCG curve has been redefined in symptomatic patients with an early viable intrauterine pregnancy, just how accurate is our other major diagnostic modality for diagnosing ectopic pregnancy? What it accuracy of ultrasound in this setting?

Navajo News; Jean Howe

Syphilis treatment issues — azithromycin use not encouraged for syphilis treatment.

The Navajo Area is continuing to cope with a syphilis outbreak. Over the past five years, more than 275 cases of syphilis have been documented in the Navajo Area, leading to aggressive screening efforts in many care settings, including emergency departments, detox facilities, and community outreach campaigns. All patients diagnosed with any STD are offered syphilis screening. In pregnancy, patients are screened on entry to care, early in the third trimester, and on admission to Labor and Delivery. Although progress has been made, more than 35 cases have been diagnosed in the first eight months of 2005.

Concurrently, we have experienced intermittent shortages of penicillin G benzathine (LA-Bicillin), the treatment of choice for syphilis. A recent article suggesting that azithromycin may be an acceptable treatment alternative was of great interest locally. This article described a randomized trial of a 2 gram oral dose of azithromycin vs. a 2.4 million unit IM dose of LA-Bicillin in 328 subjects in Tanzania. Patients were evaluated based on a two-fold change in titer by nine months or by healing of the primary lesion. Cure rates are reported as 97.7 % in the azithromycin group (CI 94 – 99.4%) and 95% in the LA-Bicillin group (CI 90.6-97.8%).

Despite these findings, and the ease of use of a single-dose oral preparation, there may be cause to hold off on adopting this new treatment regimen. In a commentary accompanying the article, King Holmes points out that penicillin has been the mainstay of treatment for five decades with no demonstrated resistance. Azithromycin resistance has been documented. He suggests that the upcoming 2006 CDC STD treatment guidelines continue to recommend the use of penicillin. Efforts to secure and maintain an adequate supply of LA-Bicillin are indicated, and working with local pharmacies to assure appropriate use of limited supplies may be necessary.

Oklahoma Perspective; Greggory Woitte, Hastings Indian Medical Center

Fewer prenatal visits with higher quality: outcome-based analysis.

The natural disasters that Katrina and Rita have caused in the coastal Gulf States are having an effect nationally. We have all heard about the effects on the offshore oil rigs and the refineries and how gas prices are going to affect the cost of living. Here in Oklahoma we are beginning to see the affect on prenatal care. As the cost of gasoline has topped the $3 mark, we are seeing more patients missing appointments due to the gas costs. Additionally, I have had patients ask if they could space out some appointments in order to keep their gas costs down.

We all know that prenatal care is vital to decreasing the maternal and neonatal morbidity; however, does missing a few visits really affect the patient? How about if my facility systematically looks into the content our prenatal care and intentionally decides to reduce our average number of visits to increase our overall access to patients?

A systematic review of ten randomized trials (over 60,000 women) in the Cochrane Review by Villar, et al revealed that decreasing the number of visits did not jeopardize health outcomes. A reduction in the number of antenatal care visits with or without an increased emphasis on the content of the visits could be implemented without any increase in adverse biological maternal and perinatal outcomes.

OB/GYN CCC Editorial comment

The Cochrane Review by Villar, et al confirms the tenets of the 1989 Public Health Service Expert Panel on the Content of Prenatal Care. The Panel looked carefully at the data supporting the quantity and quality of prenatal care and suggested nine visits. The proposal is a reduction of approximately 3 - 6 visits, depending on a facility's current pattern. That reduction represents a 25 - 40 percent decrease in appointments per patient with no change in outcome. McDuffie, et al reported a RCT with a decrease of 2.7 visits per patient with good patient outcomes and patient satisfaction.

In addition, the PHS Panel suggested an emphasis on use of proven screening techniques vs traditional testing methods that have little supporting data, e.g., discontinue practice of routine urine testing for glucose and protein at each visit.

When a facility changes to the more effective prenatal system, I would suggest that patients' expectations be managed from the outset to maintain patient satisfaction. This can include a careful setting of expectations starting at their first appointment, or first prenatal educational session. The nature of what to expect should be reinforced throughout the gestation.

Perinatology Picks; George Gilson

Newly Released Perinatology Corner Module: Shoulder Dystocia

A great source of information and/or free CEU/CME can be found at
http://www.ihs.gov/MedicalPrograms/MCH/M/shdyst.cfm.

Thyroid stimulating hormone decreases significantly during the first trimester.

Conclusion: If thyroid testing is performed during pregnancy, nomograms that adjust for fetal number and gestational age may greatly improve disease detection. Values expressed as multiples of the median may facilitate comparisons across different laboratories and populations. Level of evidence: II-2.

Dashe JS, et al. Thyroid stimulating hormone in singleton and twin pregnancy: importance of gestational age-specific reference ranges. *Obstetrics & Gynecology*. 2005;106:753-757.

OB/GYN CCC Editorial comment

This article presents more evidence that we must remember that thyroid stimulating hormone decreases significantly early in pregnancy. This is clinically significant because many patients have their TSH level checked for various clinical indications during the first trimester and early second trimester, e.g., hyperemesis gravidarum. Although the TSH is physiologically decreased, some clinicians assume the decreased TSH is related to true hyperthyroidism, and the patient is begun on antithyroid agents. If the patient is not clinically hyperthyroid, then a better approach is not to consider treatment based on TSH levels until after 20 weeks gestation.

The best way to screen/evaluate a pregnant woman for thyroid disease is to look at the free T4. The free T4 tells you directly what amount of thyroid hormone she and the fetus are seeing. If it's normal, and you still suspect hyperthyroidism, then get a free T3. In the woman with known hypothyroidism, the free T4 may still be low normal, but then a high TSH may clue you that you need more L-thyroxine replacement.

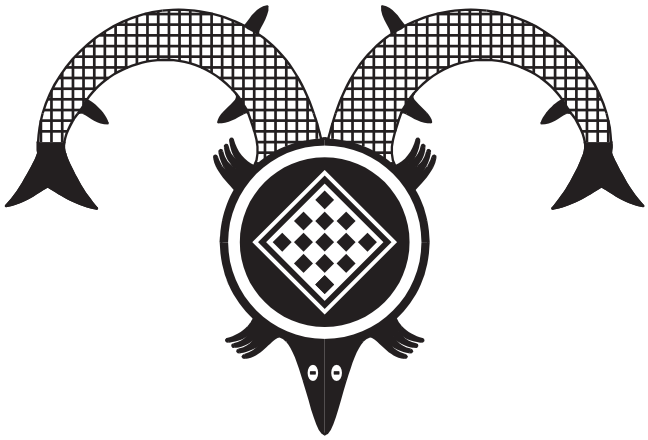
The continuing education module on this topic offers many more details and resources.

STD Corner Lori de Ravello

Which comes first in adolescence: sex and drugs, or depression?

Conclusions: Engaging in sex and drug behaviors places adolescents, and especially girls, at risk for future depression. Future research is needed to better understand the mechanisms of the relationship between adolescent behavior and depression, and to determine whether interventions to prevent or stop risky behaviors will also reduce the risk of later depression.

Hallfors DD, et al. Which comes first in adolescence — sex and drugs or depression? *Am J Prev Med*. 2005 Oct;29(3):163-70.



This 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

"If everyone is thinking the same thing, then not everyone is thinking."

General George Patton, 1885 - 1945

Articles of Interest

A developmental model for rural telepsychiatry. *Psychiatr Serv*. 2005 Aug;56(8):976-80. *http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=16088015&query_hl=1*.

Summary. The authors describe their experience in setting up and operating telepsychiatry clinics for rural American Indian veterans suffering from posttraumatic stress disorder. They suggest that this modality can serve to partially alleviate disparities in access to mental health services for this underserved population. "The isolation, poverty, and lack of relevant services in rural American Indian communities combine to render telepsychiatry an attractive means of increasing access to care." They present their model as a potential "road map" to be used by others in the development of telepsychiatry clinics in other rural underserved locations.

Editorial Comment

It is no secret that American Indian/Alaska Native people face significant barriers to health care access. Nowhere are the barriers greater and access more limited than for mental illness. Here at Fort Defiance, we are seeking to open the first on-Reservation Adolescent Acute Care Unit. Successful development of this program has been hampered by our inability to recruit an appropriately trained psychiatrist. Difficulty in recruiting good mental health professionals is, unfortunately, not an uncommon experience within IHS.

Currently, our program is vigorously investigating the promise of telepsychiatry as a means to move forward. For us, telepsychiatry may be the sole modality available which will allow us to open our doors to this much-needed service. Others might consider investigating telepsychiatry in an effort to address the specific mental health needs of their communities.

Infectious Disease Updates.
Rosalyn Singleton, MD, MPH

Hepatitis B Infection and Vaccine – Who is still at risk? Is it time to boost yet?

Shepard CW, Finelli L, Fiore AE, Bell BP. Epidemiology of hepatitis B and hepatitis B virus infection in United States children. *Pediatr Infect Dis J* 2005;24:755-760.

Dentinger CM, McMahon BJ, Butler JC, et al. Persistence of antibody to hepatitis B and protection from disease among Alaska Natives immunized at birth. *Pediatr Infect Dis J* 2005;24:786-792.

Summary. Before hepatitis B (HB) vaccination, Alaska Native (AN) children were at extremely high risk for HB infection, primarily by child-to-child transmission. Since 1983 universal vaccination has nearly eliminated hepatitis B infections in AN children. In a 1993-4 serosurvey in Bristol Bay, Alaska, no child < 10 years old had chronic HB infection, in contrast to 16% of older persons. The incidence of acute icteric hepatitis B among all AN decreased from 53/100,000 in 1982 to ~1.7/ 100,000 in 2002. The U.S. incidence of acute hepatitis B in < 18 year olds decreased to 0.3/100,000 during this same time. However, acute hepatitis B rates among 15-19 year olds in the U.S are still higher (1.1/100,000) than in younger children, because of high-risk behaviors and a smaller proportion of vaccinated individuals. High rates of hepatitis B infection, associated with high-risk behaviors, such as injection drug use, have been reported among urban American Indian adolescents.

After a 3-dose series of HB vaccine, >95% of infants develop protective antibodies (>10 mIU/mL) but the duration of protection has not been established. The Alaska Viral Hepatitis Program and CDC recently reported data on the duration of antibody to hepatitis B (anti-HBs) in 334 children successfully immunized in infancy and followed for a median of 10 years. Among 10 year olds only 8% still had protective anti-HBs concentrations. However, during >3000 person years of follow-up only six children acquired anti-HBc. None of these children had detectable surface antigen or developed symptomatic hepatitis, suggesting that these were successfully defended exposures rather than clinical infections. This study adds to the evidence that, while antibody titers decline over time, immune memory remains, and booster doses of HB vaccine are not required at this time.

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

Outbreak of invasive *Haemophilus influenzae* serotype a disease. *Pediatr Infect Dis J*. 2005 May;24(5):453-6. *http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15876947&query_hl=13*.

Highlights

- The authors report a cluster of 5 cases of *H. Influenza* type a (Hia) invasive disease occurring in 3 infants from a remote area in western Alaska.
- Two of the 3 infants experienced recurrent disease. However, both proved to be true reinfections and not treatment failures.
- This is apparently the first report of recurrent Hia invasive disease in children. It is notable that invasive non-*H. influenzae* type b (Hib) disease is overall fairly uncommon.
- Each infant with recurrent disease was found to be in contact with at lease one identified close-contact carrier.
- No guidelines exist for chemoprophylaxis of close contacts of cases of Hia invasive disease. Nevertheless, chemoprophylaxis (based on Hib disease guidelines) was dispensed to close contacts of the recurrent cases due to the suspicion that household transmission might have been occurring. Patients and contacts were retested following treatment and found to be free of the organism.
- The authors could not prove or disprove increased virulence of the disease causing strain.
- It was found that a single Hia strain was the cause of invasive disease in this outbreak. Additionally, an absence of Hia carriage was found in one of the outbreak villages during a previously conducted and unrelated oropharyngeal carriage study done for unrelated reasons. Therefore, it is surmised that either introduction or emergence of a new pathogenic strain occurred in this geographically isolated region.
- A relationship between the reduction in nasopharyngeal carriage of Hib resulting from the successful Hib vaccination campaign and the emergence of Hia in its place could generally not be substantiated.

Editorial Comment

Despite apparent threats to the job security of pediatric providers, successful vaccination campaigns are wonderful, and Hib ranks as one of the true triumphs. Of course, smallpox figures as the granddaddy of them all, and polio is poised to become the grand mommy! So when are we going to get after RSV? Anyway, Hib disease has all but disappeared from the American medical scene since introduction of conjugate vaccine in the mid 1990s.

A concern of many public health officials has been that other invasive bugs might occupy the ecologic niches vacated by the microorganisms targeted by successful immunization programs. As the bad bugs are forced from the neighborhood, will other possibly more virulent riffraff move in? In the case of Hib, it has been feared that rising rates of non-Hib carriage and disease might be observed following widespread immunization. So far, nothing so dire appears yet to have occurred.

The article by Hammitt *et al* serves as a reminder to the medical community that we must not let our guard down. As they suggest, "Continued surveillance is necessary to monitor *H. Influenzae* invasive disease." Rapid recognition on the part of practicing clinicians and public health officials of the occurrence of disease clusters and their possible relationship to the emergence of disease is crucial. Great job, Alaska! Such articles also require us all to recall our basic sciences, and to apply our public health knowledge.

Additional Reading

For more eloquent and expert prose on the subject, the interested reader will certainly want to refer to the excellent articles listed below.

Nature abhors a vacuum, but public health is loving it: the sustained decrease in the rate of invasive *Haemophilus influenzae* disease. *Clin Infect Dis*. 2005;40(6):831-3. *http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15736016&query_hl=1*.

Epidemiology of invasive *Haemophilus influenzae* type A disease among Navajo and White Mountain Apache children, 1988-2003. *Clin Infect Dis*. 2005;40(6):823-30. *http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15736015&query_hl=3*.

Invasive serotype a *Haemophilus influenzae* infections with a virulence genotype resembling *Haemophilus influenzae* type b: emerging pathogen in the vaccine era? *Pediatrics*. 2001;108(1):E18. *http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=11433097&query_hl=6*.

American Academy of Pediatrics – Indian Health Special Interest Group
Sunnah Kim, AAP Staff
Pediatric Locums Service

If you have a short- or long-term opportunity at an IHS, tribal or urban facility that you'd like for us to publicize (i.e., AAP website or complimentary ad in AAP News), please forward the information to *indianhealth@aap.org* or complete the online *locum tenens* form at *http://www.aap.org/nach/locumtenens.htm.*

The Impact of Medicaid Reform on Indian Health Programs

The Kaiser Network has recently made this webcast available online. A roundtable event involving the Northwest Portland Area Indian Health Board, the National Indian Health Board, and the Urban Institute, this brought together tribal leaders and health directors to understand the implications for American Indians and Alaska Natives of Medicaid reform proposals under consideration by the Medicaid Commission, the National Governors Association, the Administration, and Congress. This webcast is available at *http://cme.kff.org/Key=9048.L0.D.D.MxWm4W*.

It's Time to Change the Way We View a Child's Growth

CDC Promotes Greater Awareness of Early Childhood Developmental Milestones

At two years of age, Connor didn't talk. His mom, Lisa, was told that boys talk later than girls. He was not interested in playing with other kids. His mom was told he was shy. He threw severe temper tantrums because of little things. His mom was told he was spoiled. He didn't pay attention when his name was called. She was told he would grow out of it — that every child is different.

A year later, he was diagnosed with autism.

During their child's early years, parents are keenly aware of changes in physical development, such as height and weight. But there are also important milestones children should reach in terms of how they play, learn, speak, and act. Smiling for the first time, making eye contact, and pointing are a few of these developmental milestones.

Parents need to know about developmental milestones — they are an important way to track a child's overall development. Also, if a child with a developmental delay is diagnosed early on, the child has a better chance to achieve his or her full potential.

The Centers for Disease Control and Prevention (CDC), in collaboration with a coalition of national partners, launched a public awareness campaign, *"Learn the Signs. Act Early."* in 2004. The campaign is designed to educate parents about childhood development, including early warning signs of autism and other developmental disorders, and promote early action among parents and health care professionals.

"By recognizing the signs of developmental disorders early, parents can seek effective treatments that can improve their child's future," said Dr. José Cordero, director of CDC's National Center on Birth Defects and Developmental Disabilities.

As of now, about half of children with developmental disorders are not diagnosed until school age. Many signs of delay can be easy to see. For example, a two-year-old should be able to do the following:

- Point to an object when asked
- Use two- to four-word sentences
- Follow simple instructions

Every child is different and develops at his or her own pace, but most children reach major milestones within a certain range of time. Parents should learn the milestones, but recognize that their child might develop some skills earlier and some later than other children of the same age.

If parents suspect a delay, the first step is to consult the child's doctor or health care professional. Sometimes a parent's concern might be resolved by the passage of time; but in many cases, taking a "wait-and-see" approach could delay opportunities to take helpful action.

If, after talking with a health care professional, parents still have concerns, they can seek a second opinion. They could ask a pediatrician specializing in child development or another qualified professional. Parents may also contact their local early intervention agency or public school.

How To Find Out More About CDC's "Learn the Signs. Act Early."

Parents and health care professionals can receive **FREE** materials, available in English and Spanish, as well as other resources and referral information in their local area by calling **1-800-CDC-INFO** or visiting ***www.cdc.gov/ActEarly*.**

Sexually Transmitted Disease Training Available for I/T/U Staff

The IHS National STD Program announces the availability of financial support for up to ten IHS, tribal health, or urban Indian health (I/T/U) staff per year to attend STD/HIV training. The training will be provided by the CDC-funded STD/HIV Prevention Training Centers (PTCs). The PTCs provide STD training in three areas: clinical care, behavioral and social interventions, and partner services/program support. For more information on the courses, locations, and dates of PTC training, visit *http://depts.washington.edu/nnptc/*.

I/T/U staff are encouraged to apply if they 1) diagnose, treat, and manage patients with STDs; 2) deliver STD interventions directly to clients, are supervisors of those providers, or are persons who plan STD/HIV intervention programs in a community- or clinic-based setting; or 3) work in STD/HIV prevention programs.

Completed applications are due January 31, 2006. A team with representatives from the Centers for Disease Control and Prevention (CDC), PTCs, and IHS will review completed applications; successful applicants will be informed by February 28, 2006. The selection will be based on an expressed training need, the availability of other STD training resources, and future plans in the area of STD/HIV prevention and care.

Interested I/T/U staff should contact Lori de Ravello at the IHS National STD Program for more information or to request an application; telephone (505) 248-4202, or e-mail *lori.deravello@ihs.gov*.

Grants Available to Support Conferences

This funding opportunity provides updated guidelines for National Institutes of Health (NIH) support of conferences and scientific meetings. Because the nature and scope of the proposed activities will vary from application to application, it is anticipated that the size and duration of each award will also vary. The total amount awarded and the number of awards will depend upon the number of applications, quality, duration, and costs of the applications received. This funding opportunity announcement (FOA) will use the NIH conference grant (R13) and conference cooperative agreement (U13) award mechanisms. For more information, go to http://grants.nih.gov/grants/guide/pa-files/PA-06-041.html

Eligible applicants include state governments, county governments, city or township governments, special district governments, independent school districts, public and state controlled institutions of higher education, Native American tribal governments (Federally recognized), public housing authorities/Indian housing authorities, Native American tribal organizations (other than Federally recognized tribal governments), nonprofits having a 501(c)(3) status with the IRS, other than institutions of higher education, nonprofits that do not have a 501(c)(3) status with the IRS, other than institutions of higher education, private institutions of higher education, for-profit organizations other than small businesses, others (see text field entitled "Additional Information on Eligibility" for clarification).

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

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Opinions expressed in articles are those of the authors and do not necessarily reflect those of the Indian Health Service or the Editors.

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Publication of articles: Manuscripts, comments, and letters to the editor are welcome. Items submitted for publication should be no longer than 3000 words in length, typed, double-spaced, and conform to manuscript standards. PC-compatible word processor files are preferred. Manuscripts may be received via e-mail.

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