# IHS PEDS NOTES

## A Newsletter for American Indian/Alaska Native Child Health

*This edition of the newsletter is dedicated to the memory of Sandra Taft, who brought an energetic signature style to child health advocacy as audiologist, program director, wife, mother and Harley-Davidson biker. In particular, over the past six years she helped plan, provide and sustain a home for four pediatricians' "medical home" project, "Helping Indian Children of Albuquerque" at the All Indian Pueblo Council. Thanks, Sandy.*

**June, 2001 Volume 18 Bill Green, Editor**
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***Recent comprehensive reviews by the Institute of Medicine and American Academy of Pediatrics conclude that available evidence does not support the hypothesis that the MMR vaccine causes autism or associated disorders or inflammatory bowel disease….***The Institute of Medicine Report summary is available at the IOM website. The AAP conference committee report is in the May issue of *Pediatrics* electronic pages (vol. 107 No.5 e84 May 2001). The AAP statement (e85) is immediately followed by a technical report, ***"The Pediatricians Role in the Diagnosis and Management of Autistic Spectrum Disorder in Children," that has an excellent discussion of diagnostic criteria and critical review of the evidence base for various proposed therapies.*** "All children with autism demonstrate some degree of qualitative impairment of communication, and restricted, repetitive, and stereotypic patterns of behaviors, interests and activities…Although no single pathognomonic developmental deficit or behavior is characteristic…most children have some degree of impairment in joint attention and pretend play." Evidence for a genetic basis has been provided by twin studies that reveal a monozygotic concordance rate of 60% for AD and 92% for the broader spectrum vs 0% and 10-30% for dizygotic twins. Data support a polygenic model of inheritance of 3 to 20 gene loci. Early diagnosis depends on listening to parental concerns about their child's development. Early screening tools include the CHAT (Checklist for Autism in Toddlers), reproduced in the article. In treatment, the importance of parental support and genetic counseling are stressed. Best treatment programs are those that initiate intervention early, individualize services, use systematic and structured teaching, are intensive and involve families. Unconventional therapies are defined and reviewed extensively; in general, these are based on overly simplified scientific theories, claims of dramatic response or cure, anecdotal evidence, fail to identify specific treatment objectives or target behaviors and deny adverse effects or the need for controlled studies. Because of the amount of press that this hypothesized association has received and the honest concerns and difficulties families have when dealing with affected children, I urge everyone to read all these reports carefully. We need to be prepared to give accurate information to families on both the safety and indications for MMR vaccine and the diagnosis and treatment of autism.

***The May 10 –12 conference in Phoenix drew over 80 participants…***Special thanks to Dot Meyer and Pam Taylor for finding a wonderful meeting site and making all the arrangements and to the planning committee for selecting an outstanding program. I was particularly encouraged by the enthusiastic attendee participation and informal networking during the meeting! Dr. Michael Trujillo, Director of the Indian Health Service, stopped by to thank participants for their care of children, "our most important future resource." Ken Fleshman, our "senior" senior clinician, was honored for his energetic and pioneering work in the development of public health and evidence-based approaches to solving health problems in Indian children before such concepts were fashionable. Some of the topics below came from the meeting:

***"Conjugate Pneumococcal Vaccine (Prevnar) Extremely Effective for High-Risk Native American Communities" …***Kate O'Brien presented results of the Johns Hopkins study of over 8,000 Navajo and Apache children in 38 communities. (See the news article on-line.) The seven strains included in the vaccine were less prevalent than in the general US population, which may have caused the somewhat lower overall efficacy than achieved in the Kaiser study. **The vaccine was "83% effective at preventing serious pneumococcal infections among infants who received at least one dose of the vaccine prior to seven months of age; and 86% effective overall in infants who received one dose prior to two years of age**." Last fall, the CDC released data suggesting that nationally 30% of pneumococcal strains isolated from children under 5 are now moderately or highly resistant to penicillin, and 78% of these are included in the vaccine (Whitney, "Increasing Prevalence of MultiDrug-Resistant Streptococcus Pneumoniae in the United States, NEJM, 343 (26): 1917-1924 December 28, 2000). This spring, a study from Finland showed that the PCV7 vaccine reduced episodes of otitis media due to these strains by 57% and overall reduction of otitis due to this organism by 34%(Eskola, "Efficacy of a Pneumococcal Conjugate Vaccine against Acute Otitis Media, NEJM, 344(6):403-409, February 8, 2001). In an era of increasing antibiotic resistance, the importance of this vaccine to our vulnerable population of infants and children can only increase with time.

***Public health approaches to obesity in children need to focus on breastfeeding promotion, control of television time and avoiding attempts by parents to control what their children eat.*** William Dietz emphasized these points at the May meeting during a plenary presentation followed by workshops that focused on community prevention initiatives. Reducing sedentary behavior may be more important than promoting exercise. In terms of diet, "the Cardinal Rule is: parents are responsible for what children are offered; children are responsible for what and whether they eat." Forbidden foods and attempting to micromanage the diet of young children can actually be counter-productive in terms of allowing them to develop their own "satiety signals."

Two recent articles lend support to these perspectives: Myles Faith, et al, "Effects of Contingent Television on Physical Activity and Television Viewing in Obese Children," (Pediatrics 107 (5) 1043-48 May, 2001) made TV viewing contingent upon pedaling a stationary bicycle for the intervention group. Compared to the control group, the intervention group pedaled 64 minutes a week vs 8 minutes per week by controls,

watched TV only 1.6 hours compared to 21 hours and had significant reductions in total body fat [pedaling time correlated with greater reduction in body fat (r= -.68)]. Susan Johnson, "Improving Preschoolers' Self-Regulation of Energy Intake," (*Pediatrics*, 106(6) 1429-1435) reviewed current understanding of eating behaviors and concluded that "cues can be provided that help children to focus on internal signals and improve their ability to self-regulate energy intake."

***Perri Klass, Director of the National Reach Out and Read Program, outlined the stages of literacy development in a keynote address at the Phoenix meeting.*** There is now additional evidence that literacy promotion by child health providers in office settings can actually have measurable positive impacts on both reading behaviors by parents and other caregivers and subsequent development of language skills. See last June's newsletter for additional information on the components of the Reach Out and Read Program and how to participate. (Archived copies can be found on the child health page or requested by contacting me by e-mail.) Reach Out and Read's new address is 29 Mystic Avenue Sommerville, MA 02145; phone: 617/629-8042; or on the Web.

***Ann Bullock and Amy Hyde discussed approaches to children and adolescents with Type 2 Diabetes…*** Obesity is obviously the most prominent risk factor— the mean Body Mass Index of patients with Type 2 DM is 36 at time of diagnosis, and 30% have BMI greater than 40. Mean age of diagnosis is 13-14 years, with a female to male ratio of 1.7/1 near onset of puberty. Suggestive and associated symptoms include acanthosis, hypertension and signs or symptoms of hyperglycemia. Teens are challenging to treat because of educational level, level of independence, denial or rebellion, outside influences and preconceptions and perceptions, often based on family member experience. A team approach is advocated to educate, individualize and allow control and choices in treatment. Dietary changes involve portion control and modifying teen eating pattern of grazing and need to involve the family. Exercise prescription is more successful if it is kept simple, time specific and uses available community resources. In terms of use of medications, initiate one drug at a time, go slowly and be patient. A specific practical statement on management of Type 2 Diabetes in children has been prepared by the Committee on Native American Child Health (Sheila Gahagan, FAAP, directed the workgroup) and will be available by September in *Pediatrics*.

***Ros Singleton announced at the meeting for business that Version 7.1 of the RPMS Immunization package was recently released…*** Summary of the changes and a teaching manual are available at the Child Health Page of the IHS website. There is also a need for volunteers to test algorithms for import/export of data. For more information, contact Ros at 970/729-3418 or by e-mail.

***Steve Holve shared information about the Fluoride Varnish Initiative for Navajo infants and children…***Dental caries are 5 times higher in Navajo children than the US average, with an untreated caries rate of 73%, and there is chronic lack of access to dentists prior to school age. Fluoride varnishes are safe (with 25 years of use in Europe), can cause caries reductions of 30-70% and have been licensed for use in the US since 1994. Steve received a CATCH grant to train pediatricians to apply varnish during well-child visits and conducted three training sessions at different locations during April 2001. At the meeting, the importance of early intervention in infant and child dental decay was also emphasized during workshops by Candace Jones, Chief of IHS Dental Programs. Steve will share more about this program in future issues.

***Recent reports emphasize that kernicterus can rarely occur in otherwise normal breastfed babies…*** In an article in the May issue of the *Pediatrics* electronic pages, Mary Harris, et al, discussed the "Developmental Follow-up of Breastfed Term and Near-Term Infants with marked Hyperbilirubinemia" (*Pediatrics* 107:1075-1080). Early discharge practices, inadequate preparation for breastfeeding and less vigilance in screening and treatment under the "kinder, gentler approach" are speculated as causes of a recent rise in number of cases. Six identified infants were readmitted with bilirubin values from 26.4 to 36.9. Five of the six presented with abnormal neurologic signs, and of the four infants who had initial MRI scans, three were positive for increased signal intensity in the basal ganglia, compatible with kernicterus. Five of six received exchange transfusions and all were treated with phototherapy and fluids, with resolution of neurologic abnormalities in all but one infant who developed encephalomalacia not characteristic of kernicterus. A recent review article in the New England Journal, "Neonatal Hyperbilirubinemia," (P. Dennery, et al, NEJM, 344(8) 581-590) summarizes current concepts in pathophysiology, diagnosis and management. Estimates based solely on clinical examination are not reliable. Newer transcutaneous devices using "multi-wavelength spectral reflectance" correlate reasonably well with serum concentrations and eliminate errors caused by skin pigment. Evaluation of serum bilirubin concentrations by means of a percentile-based nomogram allows physicians to predict subsequent risk (Bhutani, *Pediatrics* 1999;103: 6-14; Maisels, Predicting hyperbilirubinemia in newborns: the importance of timing, *Pediatrics* 1999;103:493-5). Recommendations for treatment in the otherwise healthy newborn have essentially remained unchanged since the consensus-based expert panel practice parameter was published in *Pediatrics* (October 1994;94 (4), 558-565). The NEJM review concludes that "all newborn infants who are discharged 48 hours of less after delivery should meet the criteria of AAP for early discharge and should be examined within two to three days after discharge. Ultimately, serious consideration should be given to a universal screening program in the first 24 to 48 hours after delivery…Kernicterus leads to devastating neurologic injury, occurs infrequently, and can be prevented by continued vigilance and available therapies."

***New guidelines for PALS and Adult Life Support should encourage all of us to recertify.*** Diana Hu has a 52-slide Power-Point presentation emphasizing all the changes, which include the use of videos and case scenarios rather than lectures, new modules, drugs and devices for airway management and discussion of death and family presence during resuscitation. Contact Diana by e-mail or me if you would like to review the changes. New courses will commence in July.

***David Grossman and Ana Garcia report on recent CONACH activities…*** The AAP Committee on Native American Child Health has been working with Diana Hu, Navajo Area MCH Consultant, to plan a consultation visit to the Navajo Area during the weekend of September 20-23, 2001. As part of the preparations and to improve the CONACH consultation visit process overall, CONACH member George Brenneman took time during the recent IHS Pediatricians meeting to talk with 16 pediatricians involved in previous CONACH consultation visits. We appreciate your feedback and look forward to continuing to meet and work with you through our consultation visits.

As many of you heard during the Pediatrician's meeting, **you are encouraged to join the Indian Health Special Interest Group** (SIG) the CONACH is cosponsoring within the AAP Section on Community Pediatrics (SOCP). This group, along with the SOCP Rural SIG, will be holding a reception from 5:30 pm to 7:00 pm on October 22, 2001, during the AAP National Conference and Exhibition (NCE) in San Francisco, CA. If you would like to attend, please contact Ana Garcia at the number listed below. The reception is open to all IHS pediatricians and others interested in Indian child health. You may also be interested in attending the Community Pediatrics reception on Sunday, October 21, from 6:00 pm to 7:30 pm, during which we will honor the recipient of the 2001 Native American Child Health Advocacy Award. We hope to see you there!

The CONACH last met on February 3-4, 2001, in Washington, DC. While there, CONACH members visited the offices of 23 legislators on Capitol Hill to discuss issues such as addressing MCH issues in the IHCIA and transportation safety on Indian reservations. You can take part in our advocacy efforts by joining the CONACH Legislative Advocacy Group. This group has a ListServ for AAP members willing to contact their legislators when important Native American child health legislation is pending. Join by sending a note by e-mail indicating your interest.

The committee is finalizing "Guidelines for the Prevention and Treatment of Type 2 Diabetes in Children." We hope to publish them later this year. We are also completing a technical report, entitled "Ethical Considerations in Undertaking Community-based Medical Research with Vulnerable Populations."

Please know that the Academy continues to receive calls from pediatricians interested in *locum tenens* opportunities in Indian Country. If you have an opening you need filled, please call Ana at the number listed below.

Lastly, please know that we always welcome your comments. You can reach the CONACH by contacting our staff person at the Academy, Ana Garcia, at 800/433-9016, ext 4739, or by e-mail.

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Dear Bill,

I have the following information for the next newsletter or comments on this one:

I have visited the child health page at:
www.ihs.gov/MedicalPrograms/MaternalChildHealth/ChildHealth.asp
and have suggestions for content or links to the page:

**The following pediatricians or practitioners need to be added to your mailing list: (you can also e-mail or fax these changes to Ana Garcia at the American Academy of Pediatrics—agarcia@aap.org, 847/228-6432.)**