NORTHWEST PORTLAND AREA
MATERNAL CHILD HEALTH NEWSLETTER

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Cliff O'Callahan, MD, PhD
Puyallup Tribal Health Authority , 2209 E. 32nd St, Tacoma, WA 98404
(253) 593 0232 #478; fax (253) 593 3311; cocal@u.washington.edu

Topics: Highlights from IHS Research Conference, Sports and Well Child Check thoughts, Urinary Tract Infections in kiddos, new ADHD guidelines (I know you're thrilled), and early reading programs.

IHS Research Conference: This was the 12th annual, held April 24-26th in Albuquerque, NM. This was the first time I have attended and I was impressed at the variety of research being done in Indian country...and dismayed that, as a clinician, I haven't heard about much of it. So my goal here is to let us all know a smattering of MCH relevant research in progress.

There was a major theme of alcohol and drug abuse research but the two underlying themes were very powerful. One was ***community- based participatory research***, where the issues to be studied come from community discernment (not a researcher with pet interests), the data is owned or controlled by the tribe (not the university), and the research is performed in a culturally appropriate manner. The experiences of native Hawaiians in Hawaii and Maori in New Zealand as they developed their community-controlled IRB's and research programs were very powerful. It challenged me to think about how we in health centers are assessing the perceived needs of the community. Is there dialogue? Are we sharing with the community what we see and feel are priorities, and visa versa?

The second theme that arose throughout the days was the need for more research into, and collection of information about, the notion of ***multi-generational, post-colonial, PTSD***. This refers to the cycle of alcoholism, drug abuse, domestic violence, poverty etc that seems to pervade Native families generation after generation resulting from forced migration, extermination, boarding schools, etc. People spoke of the similarity between this and Holocaust survivor families, and would like to see an AI/AN Foundation funded to research this.

Alcohol research highlights: About 17% of deaths annually are alcohol related. 80% of families with abuse and domestic violence problems also had alcohol problems. A study in N and S Dakota of 1,500 adults with average age of 38 years old and 50% married, found the following: 90% of them considered themselves to be bi-cultural, they start drinking early in life and taper off, tend to binge drink (5-6 drinks or more) a few times a month (males 3-5 days/ month, females1-3 d/m). 64% of males and 40% of women admit to driving drunk but 80% said that DUI laws should be enforced! They stop drinking because it takes money and time away from kids, they feel guilty in front of their children, and shame. They keep sober through AA, sober friends, and faith.

A different project in Oregon working with teens found the only strong protective factor was involvement in the Native American Church. They, the Shadow Project, are providing a ***family*** check-up and a welcome home ceremony from treatment program for teenagers with a monthly follow-up.

There was lots on **Diabetes**. It is becoming more common to see type 2 diabetes in teenagers so we should be conscious about screening them at Well Child/Adol Visits and Sports Physicals. That means getting height and weight to calculate Body Mass Index (BMI), and asking about family history. If there is some risk (eg. Obesity with family history diabetes, and Acanthosis nigricans) then they should get a fasting plasma glucose every two years. Please see the new AAP guidelines for Type 2 diabetes in children and adolescents, *Pediatrics* 105;3:671-680,2000

(www.aap.org/policy/diabetes2.htm). We can determine if someone is obese by using the newly revised growth and BMI charts from the CDC, available to download at www.cdc.gov/growthcharts, and find that they are above the 95th percentile. You can use a built-in RPMS function to check on the levels of obesity (BMI .95%) and overweight (BMI 85-95%) for your clinic population...ask your MIS guru for details.

Other diabetes work documented that the **psychological stress** in diabetics is very high and can significantly complicate therapy. Another showed that **home-based education** incorporating family improved overall care significantly over just clinic based interventions. Another reminded us that diabetes increases your risk 3-5 times for **activating Tuberculosis** and that we should be placing PPDs on all diabetics. They found very poor coverage in their audits.

One of the more exciting developments was a presentation on an internet web-based data management system called ***DiabetesWeb***. It provides web-based 1) training for providers and 2) data on quality improvement of diabetes care that is provider or clinic specific. For example, I could connect from any computer, check on how I am doing with ***my*** documentation of diabetic QI parameters compared to clinic or area standards, *and* against other providers in my clinic (although they would not be individually identified). Our clinical directors could see how each of us is doing individually and as a group, using the data for competency evaluations etc.

Tobacco. A culturally appropriate Youth Tobacco Survey for use in 6-12 grades was developed and is available through Teresa Aseret, ITCA CTEPP, 2214 N Central Ave, Suite 100, Phoenix, AZ 85004. 602-307-1510 or Teresa.aseret@itcaonline.com.

Dental. Some very interesting work by the dental group at UCLA emerged as they were doing *Strep mutans* assays. They assumed that the level of Strep would correlate with the number of cavities, and it did, but also found that cavity development is much more due to the **hygiene environment**. That is, some children with beautiful teeth had tons of *Step m* (but did everything right), while other children with rotting teeth had lowish levels of Strep (but not brushing and lots of sucrose). The levels do vary throughout the day but my takehome message was that brushing and fluoride is still the mainstay.

As an aside, I'm sure many have heard about the Surgeon General's report on Oral Health in the US in late May. It's at www.nidcr.nih.gov/sg and we know the highlights: it's a "silent epidemic" that disproportionately affects some population groups. Some health risk factors like tobacco and excessive alcohol use as well as poor dietary practices negatively affect oral health. It is largely preventable. Further aside, there is a *very* good review of Fluoride Varnishes in *JADA*, Vol 131, May 2000, 589-595. This is very cheap and quick to do as part of a Well Child Visit.

The EpiCenter is expected to get an award for a new clinical, preventive, and epi dental support center!

News Blips

Accutane. An MMWR 2000;49:28-31 report by the CDC documents continued birth defects caused by the use of Isotretinoin (Accutane) for acne in fertile women. Some were not on contraception while half didn't even meet criteria of severe, disfiguring nodular acne in the first place. Please, be very careful about using this. I prefer to refer to a reputable dermatologist if their acne is that bad, and DO NOT trust those teens espousing abstinence.

E.coli 0157. A study in NEJM, found at www.nejm.org, shows that treating children who have bloody diarrhea which turns out to be E. coli 0157 with antibiotics increases by ***17 times*** the likelihood that they will develop hemolytic-uremic syndrome. Phil Tarr, from Children's in Seattle, had published on this years ago after that big Jack In The Box outbreak in 1992 when we found (I was a resident) that both antibiotics and anticholinergics seemed to lead to HUS and dialysis. Lesson: culture bloody stool and delay antibiotic or anti-motility medicine until you know what you are treating. Kids can get 0157 from undercooked meat, swallowing contaminated lake water, and unwashed veggies

and fruit that were watered with contaminated water (the apple juice and strawberry outbreaks).

SIDS. There is a new policy statement that can influence those of us who counsel parents about SIDS prevention in the *Pediatrics* 105;3:650-656,2000 (www.aap.org/policy/re9946.html). Besides supine position we should probably also talk about soft surfaces, loose bedding, smoking, overheating, bed sharing, and awake tummy time! Regarding nicotine and apnea, see *Pediatrics* 105;4:853/e52, 2000.

Neonatal Hypoglycemia. I hope this recent AAP statement will clarify some of the uncertainty regarding glucose levels. For all who care for newborns, it is in *Pediatrics*105;5:1141-1145,2000. My summary is that:
*healthy FT infants do not require monitoring.
*breastfed infants will have lower levels but don't need intervention.
*infants with risk factors need intervention if glucose drops <36 mg/dL to keep it above 45.
*infants with abnormal signs need intervention if glucose drops <45 mg/dL to keep it above 60.

Sports/School Health Assessments.
We're coming up on sports physical season so it's timely that the AAP updated their guidelines on this in Pediatrics 105,4:875-877, 2000. For many youth it is the only time each year that they see a provider. I would encourage us all to resist the temptation to perform a brisk physical screen and roll in the next but, rather, to provide a comprehensive evaluation. This would include a perusal of the chart, a good physical to include the **"2-minute orthopedic exam"** as outlined in *Sports Medicine: Health Care for Young Athletes* by the AAP, or *Pediatric Annals* 26:1, 1997 (I'll send a copy to anyone interested), and a brief psycho social assessment. This would include questions about
*personal and family **history** of chronic illness (diabetes!)
***immunizations**: Hep B, varicella if never had chickenpox, tetanus booster
***menstrual** history
***school** level and whether they are in regular or special ed
***diet**, with emphasis on iron and calcium for teen women (provide a list of calcium rich food and let them figure out if they are getting the 1200mg they need)
***substance** use of tobacco, drug, and alcohol (I use the alcohol as a lead-in to ask about weekend parties, driving with drunk drivers, and risky sexual situations while drunk/high)
***sexual** activity and the need for HIV and chlamydia testing if having unprotected sex
***contraception** (stressing to the young men that they need to insure that the woman is on birth control before having sex; condoms are for STD's because they are only 50-75% effective in teens)
*physical **safety** by seat belt and helmet use, breast and testicular self exam cards
***depression** and/or history of suicidal thoughts or attempts.

We facilitate remembering all this and documentation by overprinting a PCC. I will send our copy to anyone interested and you can modify it as you wish. If others have similar templates, I would like to see them to improve ours!

We do the same type of overprinting for **Well Child Visits** in order to customize the exam, anticipatory guidance, safety, and nutrition reminders while making it easy to document by simply circling what has been covered. I tend to use the Denver Developmental chart because it's more commonly used and understood by others if I have to refer a child. We just sent the new growth charts (www.cdc.gov/growthcharts) to the printer: they should better reflect our big breast-fed babies' growth. I'm sure many of you use the age specific TIPP sheets, the "Home Safety Checklist," and the car seat guide from the AAP. They are relatively cheap and a great way to bring up safety issues.

One of the more fun parts of our 6 month to 5 year WCVs is giving a new age appropriate book to the child, and talking about "brain feeding." The ***Reach Out And Read*** program got us started and we have tailored it so that many of the books have a Native theme and all the books in the reading library for waiting room reading volunteers are Native themes. It took a little time to fund raise, and there are loops to jump through if it is an IHS facility (accepting outside funds), but the kids and

parents love it, and we feel we are doing some little bit in improving literacy and bonding.

Again, if anyone is using WCV templates, or would like to see our attempt, let's communicate! Likewise for information on ordering TIPP and safety sheets, starting up a Reach Out And Read program, or whatever. We can learn from each other.

Attention-Deficit/ Hyperactivity Disorder.
The AAP has published a guideline for us to consider using as we evaluate children for ADHD and its variations. It is in *Pediatrics* 105,5:1158- 1170, 2000. It helps one become systematic about the evaluation and avoid the accusation of doling out drugs to kids whenever a mother mentions hyperactivity. They stress the importance of using some tool to evaluate the child: the ADHD specific checklist that I use is the ACTeRS parent and school forms, available through the ADD Warehouse 1-800-233-9273. They are easy to fill out and score and explain. I'd be pleased to chat to anyone about doing ADHD and behavioral evaluations.

Urinary Tract Infections:
UTIs in infants and children are VERY different from UTIs in older folk. This is because it is much more likely that a UTI can result in renal scarring, leading to complications later in life like hypertension and reduced renal function. Unfortunately, at the ages when they are least likely to be able to tell us their symptoms, they are most at risk. The AAP has produced a very comprehensive guideline for what to do in children between 2 months and 2 years *Pediatrics* 103,4:843-852, 1999 (www.aap.org/policy/ac9830.htm), and the Univ of Cincinnati has one for kids below 6 years that can be found under the National Guideline Clearinghouse at www.guideline.gov.

The gist of it all is that UTIs in febrile infant/toddlers are relatively common and we should rule it out if no other source is glaring. A urinalysis does not make the diagnosis, a culture does. A bagged specimen is OK only if it comes back entirely normal. If the bagged urine is suggestive of infection, then one has to get a cath or suprapubic specimen for culture. To minimize problems with bags, clean the child's perineum very well, dry, apply bag carefully, and remove specimen from it with syringe (not pouring it out the hole!) immediately after urination. I've found kids will pee promptly after putting their legs in a sink of cool water. None of this may work well for uncircumcised boys!

Aside: UTIs in boys under 1 year are ten times more common if they are uncircumcised. They also get balanitis and balanoposthitis more often. A bag urine at that time is useless to examine the state of the urine in the bladder (urine passing through a pus-filled environment will be contaminated).

Diagnosis is *suggestive* if the urinalysis has pyuria >5 WBCs/hpf (sens 73%, spec 78%), LE positive (sens 83%, spec 78%), nitrite positive (sens 53%, spec 98%), and gram stain positive (sens 81%, spec 83%). Diagnosis is *definitive* if culture by *suprapubic* has any gram neg or >1000 gram pos, by *cath* has >10,000, and by *clean catch* >10,000 in boys and >100,000 in girls.

Treatment depends on severity. Hospitalize the child if less than 2 years old (most susceptible to long term renal damage), and all <5 yrs with pyelonephritis, or if systemically ill: ampicillin and gentamycin are still the gold standard and more specific than cephalosporins, and are continued IV until afebrile for 72 hrs with a total antibiotic course of 2 weeks. Outpatient therapy, if uncomplicated cystitis is presumed, is with 7-10 days of oral TMP/SMX or amoxacillin, checking sensitivities.

The structural evaluations seem to most contentious. They recommend a renal ultrasound for all patients under 6 with first UTI. A voiding cystourethrogram is indicated for pyelo at any age, first UTI in males, first UTI in females <6 yrs, and 2nd UTI in females >6 yrs. The tests can be done during the course of treatment, or later with child on prophylaxis.

I'm open for suggestions about other topics.