THE IHS PRIMARY CARE PROVIDER

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Performance Achievement in the Indian Health Service

Gayle Riddles, Performance Officer, Indian Health Service, Rockville, Maryland

In fiscal year (FY) 2006, the Indian Health Service Performance Achievement Team contributed significantly to its chartered responsibility to institutionalize performance management as a hallmark of the IHS organizational climate. It marked the first full performance year that the Team monitored a variety of performance measurements. The 14-member Team was chartered by IHS Director Dr. Charles W. Grim in 2005 and is co-chaired by Phyllis Eddy, Deputy Director for Management Operations at Headquarters, and Gayle Riddles, IHS Performance Officer.

Dr. Grim is committed to making the IHS a consistently high-performing federal agency. He relies on the Team to ensure that the organizational culture includes an increased emphasis on performance management and federal accountability in carrying out the Agency's mission. The successful alliance of leadership commitment and the Team's vigilant monitoring of performance measurements have resulted in successful and consistent organizational performance achievements.

The Agency's performance is measured in a variety of ways. The first performance measure applies to all federal agencies and was initiated by the Administration to address government-wide management/performance deficiencies. This performance measure is the President's Management Agenda (PMA) and is a scorecard approach to measuring an agency's status and progress in meeting the Administration's management goals. There are five government-wide management initiatives to improve federal management: Strategic Management of Human Capital, Competitive Sourcing, Improved Financial Performance, Expanded Electronic Government, and Budget and Performance Integration. The IHS is scored in all five areas. There are also several PMA program initiatives, but IHS is scored in only one: Real Property Asset Management.

The PMA scores are assigned to agencies by the Department of Health and Human Services (HHS) and by the Office of Management and Budget (OMB) for status and for progress quarterly and annually. A score of green means all standards have been completed by the agency. Agencies participate in developing the standards for a green score and in assessing their scores. The IHS achieved green scores for progress for all four quarters of FY 2006 for all six assigned areas of the PMA. More information about the PMA and what HHS is achieving as a result of fulfilling the PMA commitments is available at *http://www.hhs.gov/pma/*.

Two government-wide performance measures meet federal accountability requirements and link to public laws.

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First, is the annual Government Performance and Results Act of 1993 (GPRA) evaluation results. In FY 2006, the IHS achieved 79 percent of its GPRA performance targets and 75% of these measures are either efficiency and/or outcome measures, including sentinel indicators. The GPRA was designed to focus Government programs and managers on results and accountability for those results. Important features of the IHS GPRA are its emphasis on the integration of performance data with budget data in Agency decision-making and its incorporation throughout the Agency's budget narrative to clearly link the relationship between funding and performance. The IHS continues to embrace GPRA as a cornerstone of ongoing commitment to clinical quality improvement. More information is available at *http://www.ihs.gov/NonMedicalPrograms/PlanningEvaluation/pe-gpra.asp*. More information about the Clinical Reporting System (CRS) is available at *http://www.ihs.gov/cio/crs/*.

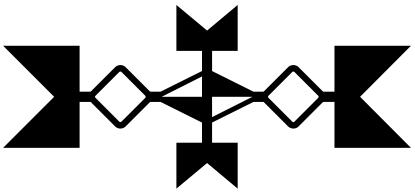
A second government-wide performance measure linked to public law meets the IHS's reporting responsibilities for the HHS Performance Accountability Report (PAR). The PAR provides reasonable assurance that an agency upholds fiscal responsibility and good stewardship of the people's money. The PAR links an agency's program performance measure to a Department strategic goal and reports how the Department invested resources in such a way as to improve future outcomes. The HHS PAR reports how HHS resources were used to improve the health of Indian people.

For the 2006 PAR, the IHS reported on one program performance measure — glycemic control. In addition to the program performance measure, the IHS also reported three agency highlights: 1) expanded enrollment of American Indian and Alaska Native Medicare-eligible patients in prescription drug coverage to help HHS to provide greater prescription drug coverage to all people with Medicare, 2) enhanced access to specialist care through the IHS Telehealth program, especially for Indian health facilities in remote locations, and 3) receipt of the Nicholas E. Davies Award of Excellence from the Healthcare Information and Management Systems Society for the IHS's role as a national leader in information technology and management systems such as the Clinical Reporting System. The PAR serves to strengthen financial controls to continue to improve agency audit results. As such, the PAR contains the Agency's audited financial statements and verification of the effectiveness of internal control over financial reporting. The IHS participates in PAR measurement via the PMA Budget and Performance Integration Scorecard. The IHS's progress ratings were green for FY 2006.

In 2002, the OMB introduced the Program Assessment Rating Tool (PART) evaluations to examine the effectiveness of Federal programs by assessing program performance and results. The PART evaluation contains four sections: program purpose and design, strategic planning, program management, and program results. Programs receive numerical scores for each section with the program results section accounting for 50% of the overall score. Programs also receive narrative ratings of Effective, Moderately Effective, Adequate, Ineffective, and Results Not Demonstrated. Since 2002, the OMB has reviewed six IHS programs using the PART and they all received ratings of Adequate or higher. No IHS program has had a rating of Ineffective or Results Not Demonstrated. The IHS Sanitation Facilities Construction Program, the Resource and Patient Management System, and Health Care Facilities Construction Program were rated Effective with scores of 80%, 88% and 92%, respectively. Federally Administered Health Program was rated Moderately Effective with a score of 77%. The Urban Indian and Tribally-Operated Health Programs were rated Adequate with scores of 69% each. No IHS programs were scheduled for review in 2006 because the OMB determined that all major programs within the IHS had been PARTed. The IHS continues to implement recommendations of previous PART program evaluations.

Recently, more accountability for specific agency program and management performance is being linked directly to federal leaders and their employees through the cascading of performance objectives from the Department Secretary to the agency director to senior executives and to their employees. The annual cascading starts with the Director's Performance Contract which is agreed upon by the HHS Deputy Secretary and the IHS Director. For the last three consecutive fiscal years, the IHS Director agreed to meet IHS-specific management and program objectives that incorporated required performance measures and aligned with Departmental strategic goals and the HHS Secretary's priorities. At the end of the fiscal year, the IHS performed a self-assessment report on the organization's progress in meeting the objectives that is reviewed by the Department. For the last two consecutive years, the IHS has received a rating of Exceptional for the IHS's organizational assessment, further demonstrating how leadership support and performance management contribute to the enhancement of Agency performance.

Editor's Note: The 2007 Department of Health and Human Services objectives may be found at http://www.hhs.gov/pma/depObj.html. *A speech given on October 12, 2006 by IHS Director, Dr. Charles W. Grim to the National Indian Health Board discusses these goals as they apply to the Indian Health Service; it may be read by going to* http://www.ihs.gov/PublicInfo/PublicAffairs/Director/index.asp. *A copy of the 2005 – 2007 IHS Performance Plan, found at* http://www.ihs.gov/nonmedicalprograms/planningevaluation/pe%2Dgpra.asp*, will be of special interest to IHS clinicians.*



The Start Up of a Pharmacy-Based Immunization Delivery Program at the Walker River Pharmacy

CAPT Stewart Jorgensen, RPh, Chief, Schurz Service Unit Pharmacy Program, Schurz, Nevada

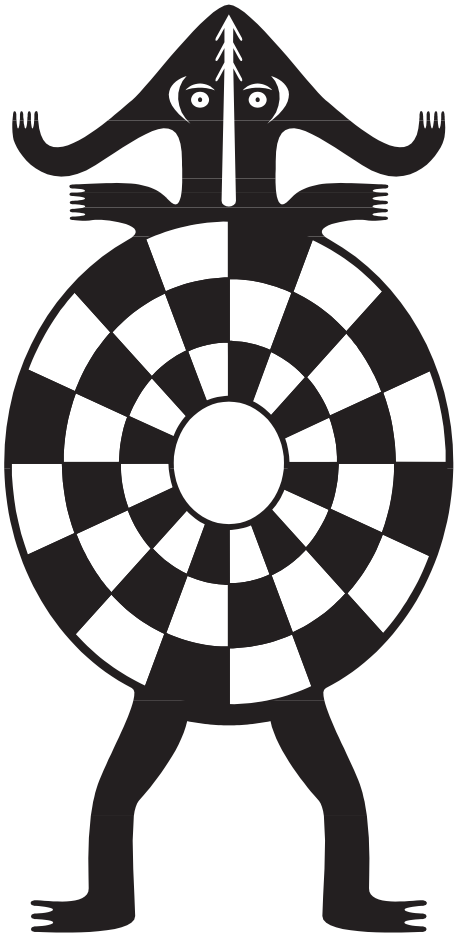
There has been a great amount of interest in getting pharmacists more involved in the immunization process other than acting only as vaccine advocates and a center for dissemination of vaccines. In the past, retail pharmacies have hosted nurses who administered immunizations in specialty flu clinic, and these have proved to be very successful. The newer trend is to have pharmacists who have completed a formal training program, which leads to a certificate of competence for pharmacist-immunizers, to administer the immunizations. I was fortunate in that I was able to attend one of these training programs developed by the American Pharmacist Association (APhA) and receive such a Certificate of Achievement.

The Pharmacy-Based Immunization Delivery Program consists of two parts. The first part is a self-study learning component, and the second part is a live training seminar. The self-study component consists of an approximately one hundred page booklet that covers different types of vaccines, clinical considerations, practical considerations, case studies, and a self-study test. The live training seminar goes over the self-study component and discusses all aspects of immunizations; it also includes hands-on injection technique training. The live training concludes with a written test and an assessment of intramuscular and subcutaneous injection technique.

Once I had obtained the necessary immunization training, I next focused on setting up a Pharmacist-Based Immunization Delivery program at the Walker River Clinic Pharmacy. I secured a policy and procedure for the Pharmacist-Managed Immunization Delivery Program and presented it to the Pharmacy and Therapeutics Committee for comments and approval.

Once the policy and procedures had been approved, the next step was to set up standing orders for immunization protocols with authority to initiate immunizations. We set up standing orders for each of the pharmacists involved; these included restrictions of the ages of patients who could be vaccinated, the locations of the injection site, the type of vaccinations, and the course for treating adverse events. We also decided to require current basic cardiac life support (BLS), that safety needles be used for all injections (except in the case of pre-loaded vaccines), and that using latex gloves during injections would be strongly recommended.

The next step was gathering the patient information sheets for all the vaccines that were approved in the standing orders and preparing the screening questions for all vaccines. Arrangements were then made with the nursing staff for the pharmacist to act as a secondary immunizer for the clinic with the nursing staff acting as the primary personnel in charge of immunizations. We then coordinated with the nursing staff to follow their documentation procedures for charting immunizations in the patients' charts and for state monthly usage and inventory reporting. The goal of our pharmacist immunization delivery program is to assist, not compete with, the nursing staff in administering immunizations to patients.



RPMS Software Training Available

David White, RPMS Training Coordinator, Albuquerque, New Mexico

The Indian Health Service's Office of Information Technology (OIT) offers an integrated solution for the management of clinical, business practice, and administrative information in health care facilities of various sizes. This system is known as the Resource and Patient Management System (RPMS). Flexible hardware configurations, over 50 software applications, and appropriate network components combine to provide a comprehensive clinical, financial, and administrative solution. This solution is in use at most health care facilities within the Indian health care delivery system.

You may ask yourself, "Where can I learn how to use the RPMS software applications?" OIT offers training on a variety of these software applications. In fact, OIT offered more than 140 training classes to 2500+ RPMS users in fiscal year 2006. These classes were offered as instructor-led training events as well as online training sessions via WebEx (please see the article by Ms. Powers on page 275 for a more detailed description of some of these courses). Some of the RPMS clinical software application training events are sponsored by the Clinical Support Center for continuing education credit.

RPMS training last year included:

- Behavioral Health Graphical User Interface (GUI)
- Behavioral Health Systems Reports and Manager Utilities
- Clinical Reporting System
- Immunization
- Laboratory
- Patient Registration v7.1
- PCC + v2.5 User
- Pharmacy Outpatient 7.0/Inpatient 5.0
- PIMS (Scheduling/ADT/Sensitive Patient Tracking)
- POS Pharmacy Billing
- Radiology
- Third Party Billing/Accounts Receivable
- Women's Health

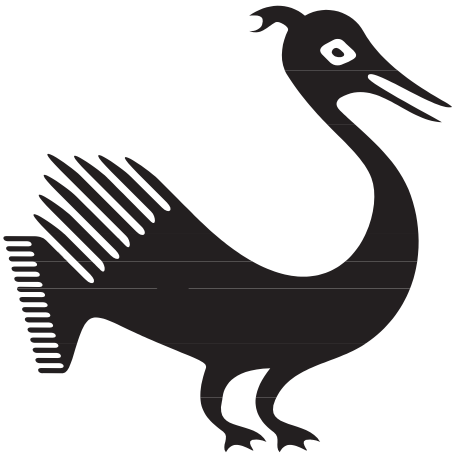
Training is offered at IHS Area training facilities as well as the OIT Training Center in Albuquerque. We will continue offering nationally sponsored RPMS training events in FY2007, with additional national events to be conducted at the Phoenix Area.

If you would like to learn more about RPMS training and/or view upcoming RPMS training opportunities, visit our RPMS training website at: *http://www.ihs.gov/Cio/RPMS/index.cfm?module=Training&option=hhsTrans&sortChoice=Date&newquery=1*.

Our OIT Training Website will soon be decommissioned and RPMS training advertisements will be moving to the HHS Learning Portal. In order to view and register for upcoming training events you will be required to have an account with the Learning Portal. To learn more about the HHS Learning Portal, visit the website at: *http://lms.learning.hhs.gov/MaestroC/*.

To learn more about RPMS, visit our RPMS website at: *http://www.ihs.gov/Cio/RPMS/index.cfm?module=home&option=index*

For more information on RPMS training please contact the RPMS Training Coordinator, David White, at (505) 248-4358.



Get on Board with EHR

Megan Powers, Deployment Coordinator, Electronic Health Record Implementation, Phoenix, Arizona

As you may already know, Electronic Health Records (EHR) have come to IHS and are being implemented across the country. The EHR software is based on the Resource and Patient Management System (RPMS) clinical information system. If you are considering moving toward EHR or are already in the process of EHR implementation, there are several OIT-sponsored trainings that could assist you. Please note that attendance at all of these trainings requires approval by the National EHR team, which ensures that attendees have met the prerequisites for each course.

To request registration for any of these courses, please visit the following website:*http://www.ihs.gov/Cio/RPMS/index.cfm?module=Training&option=index.*

EHR: Overview, Implementation, and Lessons Learned

Prerequisites: Interested in implementing EHR

This class is ideal for sites that are beginning the EHR preparation process and want to see it in the clinical practice setting. Clinical staff will demonstrate a patient visit from start to finish. There are presentations from the nursing, physician, pharmacy, lab, diabetes program/case management, and coding staff. Attendees will break into small groups and visit with specific departments including pharmacy, physician, nursing, medical records, computer support, dental, coding and billing. Experience EHR first hand: practice entering lab, pharmacy, nursing orders, and progress notes in the EHR training lab. Discuss preparations, process issues, and lessons learned, and understand metrics that are used to evaluate EHR. As a result of having attended this activity, participants will be able to:

- Gain insight on utilizing the IHS EHR in the ambulatory practice setting
- Describe preparations, roles and responsibilities, policies and procedures that are essential for EHR implementation and success
- Practice using the EHR to document a simulated patient visit
- Identify metrics that can be used to measure the impact of the EHR
- Describe potential risk management issues

EHR CAC and Implementation Team (Basic Setup)

Prerequisites: Facilities that have had Pharmacy 5/7 installed for at least two months and are about to set up the EHR Graphical User Interface

Implementation of an electronic medical record at any health care organization is a complex and lengthy process, requiring preparation and changes in essentially all areas of a medical facility. Rolling out an electronic record system at any facility will require a considerable training effort at the time of implementation, as well as an ongoing program of training and support. The clinical application coordinator (CAC) and members of the RPMS-EHR implementation team provide ongoing operational support for certain RPMS packages that comprise and/or interface with the EHR. This training will provide CACs, pharmacists, site managers and other implementation team members with basic skills for setting up and implementing the RPMS-EHR at their facility.

The first part of this hands-on class provides an overview of the RPMS packages and preparation required for EHR implementation. At the end of this session participants will be able to:

- Provide an overview of the RPMS EHR
- Review the utilization of the new Radiology Version 5.0 package
- Define the expectations, roles and responsibilities of the a) clinical application coordinator (CAC), b) EHR super end user, c) site manager, d) RPMS AdPacs and e) other EHR implementation team members
- Delineate effective project management processes and techniques essential for EHR implementation and success

The second part will provide participants with the knowledge, skills, and abilities to fully utilize the EHR and instruct other clinicians in its use. At the end of this session participants will be able to:

- Navigate throughout EHR tabs
- Process notifications
- Create or select a visit
- Review cover sheet information
- Enter allergies and vital signs
- Enter and correct progress notes
- Document exams, health factors, patient education, and immunizations
- Enter consult requests
- Complete a consult
- Perform pharmacy, laboratory, and radiology order entry
- Assign a purpose of visit
- Update the problem list
- Document historical services

The third part of this class is the most intense and will provide participants with the tools necessary for setting up the EHR. At the end of this session participants should be able to:

- Summarize basic EHR setup

- Set up a user
- Turn specific notifications on or off
- Set, enable, and disable order checks
- Enter and edit order menus
- Set up basic document parameters
- Create, edit, finish, and import a text integration utility (TIU) template
- Set up a consult service
- Set up keys and parameters needed to enter Patient Care Component (PCC) data to include a) making a superbill, b) making an ICD-9 pick-list, and c) setting up a health summary.
- Examine the EHR framework

EHR for Techies

Prerequisites: IT professionals CURRENTLY supporting EHR

This advanced course is designed to provide information technology professionals (site managers, clinical application coordinators, Area IT support staff) *currently* supporting EHR with the basic knowledge and skills necessary to support and manage their facility's EHR system on a daily basis.

The course covers a) the role of information technology professionals; b) hardware infrastructure to run EHR; c) complete configuration of EHR and its components; d) issues related to security and migration from Windows to AIX; e) installation and troubleshooting; f) issues related to "off-normal" loads; g) general support in the production environment; h) definition and functional requirements of an "object"; and j) parameter definitions.

EHR for Inpatient

Prerequisites: Facilities that have Pharmacy 5.0 fully implemented

This training will provide CACs, pharmacists, site managers, and inpatient implementation team members (to include nursing and medical staff) with basic skills for setting up and implementing the RPMS EHR for inpatient use at their facility.

At the end of this session participants will be able to:

- Delineate work flow process and business rules for inpatient
- Set up "delayed orders" and "auto discontinue"
- Establish teams and notifications
- Set, enable, and disable order checks
- Establish nursing, generic, inpatient medications, IV, laboratory, and radiology quick orders
- Enter and edit order sets and order menus
- Utilize template fields
- Print orders according to established work flow

EHR for Health Information Management (HIM) and Business Office

Prerequisites: Facilities that have Pharmacy 7.0 and EHR installed

Implementation of an electronic medical record at any health care organization is a complex and lengthy process, requiring preparation and changes in essentially all areas of a medical facility. Rolling out the EHR will require a considerable training effort at the time of implementation, as well as an ongoing program of training and support. Health information management (HIM) and the business office provide ongoing operational support for certain RPMS packages that are part of or interface with the EHR. The goals of this training are to a) provide HIM and business office professionals with basic skills for supporting the IHS EHR and b) delineate recommendations for specific HIM and business office issues. *The target audience for this course is the health information management professionals, business office staff including patient registration and third party billing.*

The first part of this hands-on class will provide participants with the knowledge, skills, and abilities to fully utilize the EHR in both the HIM and business office setting. At the end of this session participants will be able to:

- Navigate throughout EHR tabs
- Set up personal preferences and views
- Enter and amend progress notes
- Document exams, patient education, immunizations, and skin tests
- Assign ICD-9, CPT, HCPC, and E-Codes
- Perform late entry of notes
- Complete a consult
- Enter allergies and vital signs
- Perform pharmacy, laboratory, and radiology order entry
- Update the problem list

The second part of this class is the most intense and will review the tools necessary for setting up the EHR for optimal HIM and business office utilization. At the end of this session participants should be able to:

- Set up a user (Chief MIS, medical records technician, coder, biller)
- Review specific notifications that affect HIM and business office
- Set up basic document parameters that affect HIM and business office
- Import a text integration utility (TIU) template
- Set up a consult service
- Set up keys and parameters needed to enter Patient Care Component (PCC) data to include a) making a superbill, b) making an ICD-9 pick-list, and c) setting up a health summary
- Delete a progress note

The third part of this training will a) identify specific HIM and business office issues surrounding the use of EHR and b) delineate recommendations concerning these issues. Issues identified by both EHR sites and users to date include:

- Documentation of immunizations and skin tests
- Documentation of phone calls and coordination of care
- Review PCC error reports
- Documentation of paperless refills
- Documentation of patients who leave
- Review the "MITRE Recommendations"
- Recommend coding tools

EHR Reminders

Prerequisites: Facilities that have deployed EHR for at least one year

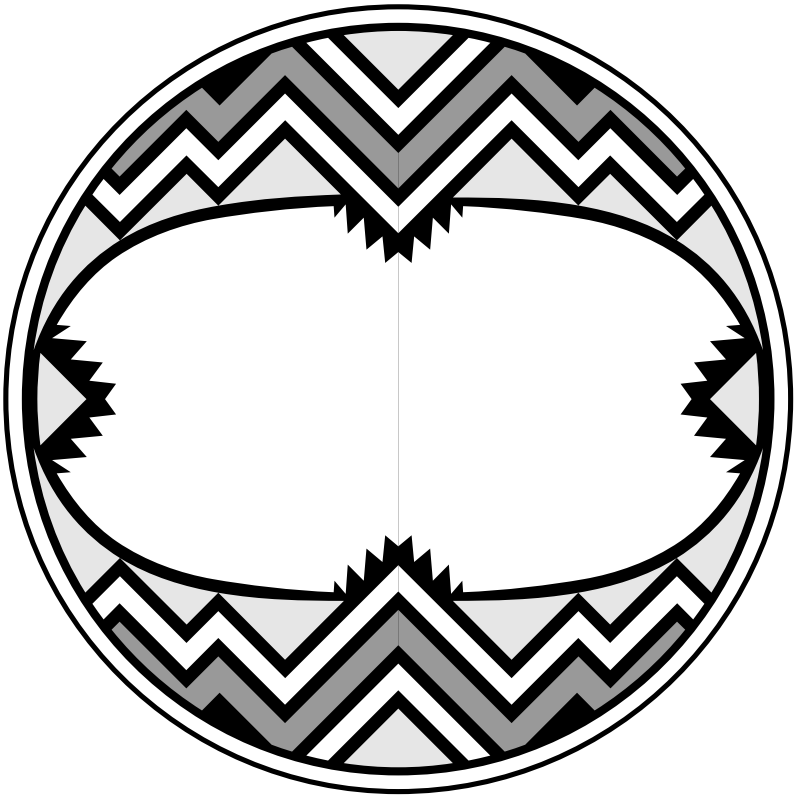
The new Clinical Reminders package adds another powerful decision support tool for clinicians to use with the EHR. Clinicians can interactively resolve reminders through the Notes and Consults tabs in the EHR. Reports can be designed to provide many different views of patients' health maintenance schedules. Clinical Reminders can be defined and used for many purposes, including the following:

- Patients in a panel or a clinic who have a reminder due
- Aggregate reporting
- Patient-specific reports for intervention
- Inpatients with a reminder due
- Intervention prior to discharge
- Identify patients who will be in clinic in the next month who need an intervention
- Identify patients who have left the clinic in the past week who missed having an intervention
- Identify patients with lab findings but no diagnosis made
- Employee health tracking
- Inpatient education, exams, immunizations
- Reports on patients eligible for a study
- Identify high risk patients
- Disease-specific reminders: HCV, HIV, melanoma, AAA, diabetes
- Comparisons of disease distribution or severity of illness between panels or clinics

This advanced three day class is most intense and will provide reminders managers with the tools necessary to manage reminders at their site. Course content includes:

- Definition of clinical reminders
- National reminders
- How to make a reminder
- Reminder test
- Reminder dialogs
- Reminder exchange
- Reminder reports
- Health summary
- Health summary objects

You can also view the information presented here on the EHR website at *http://www.ihs.gov/CIO/EHR/index.cfm?module=rpms_ehr_training*. Please contact Megan Powers at *megan.powers@ihs.gov* with any questions.



Editor's Note: The following is a digest of the monthly Obstetrics and Gynecology Clinical Consultant's Newsletter (Volume 4, No. 10, October 2006) 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
CDC Advocates for Routine Voluntary Testing of HIV

The US Centers for Disease Control and Prevention (CDC) released revised HIV testing recommendations for adults, adolescents, and pregnant women in health care settings on September 22, 2006, which marks the first time the recommendations have been revised since 2001. After a thorough 2-plus year process of consultations, literature review, and evidence-based research, the recommendations were further refined by a panel. The guidelines illuminate the need for voluntary HIV screening as a routine part of medical care, which, in turn, should increase the percentage of the population that is aware of their status and form the foundation for an enhanced public health measure against the pandemic. Here is a list of the major changes:

- Routine, voluntary screening for all persons 13 to 64 years of age, regardless of risk profile;
- Annual repeat of screening in persons with known risk;
- Opt-out screening process with opportunity to ask questions and ability to decline (declination should be documented in health record). Include HIV consent within general consent for medical care. Specific and separate HIV consent not required. Oral or written pretest information should be provided and the patient should be well informed that they will be screened for HIV;
- "Prevention counseling" in health care settings is **not required**. Patients are still to be linked with clinical care and support. High risk patients advised re testing and offered or referred for prevention counseling. Note: the CDC does **not** support removal of prevention counseling in appropriate settings or when it can be done. Rather, it gives the option to streamline the process to remove barriers and include broad screening in the general population or low risk groups;
- For pregnant women, routine opt-out prenatal screening is recommended, repeat screening in third trimester is recommended in certain areas of elevated rates of HIV infection among pregnant women, and opt-out rapid testing in labor and delivery recommended for women with undocumented status;
- General screening for HIV should be considered distinct from HIV counseling and testing conducted as prevention intervention for persons at perceived or known higher risk. There is still a need for community based prevention education, but it is a separate process.

Rationale for the changes included new research that awareness of serostatus substantially reduces high-risk behaviors, data that support screening is cost-effective, and evidence that late testing and diagnosis are common. The CDC remains committed to the process for minimizing barriers to implementation and will work with state health departments as well as individual agencies for successful implementation.

Editorial comment: Scott Giberson, IHS HIV Principal Consultant
A Call to Action for the Indian Health System

Previous recommendations and efforts have not turned the tide of transmission, nor reduced the number of new infections each year in our population. From a public health perspective, release of these guidelines truly represents a step forward in HIV/AIDS mitigation efforts. The revisions have appropriately stimulated discussion and revealed the challenges and barriers of implementation, yet this gives us an opportunity to utilize them as a springboard for action. In the spirit of the release and rationale, it is critical that we do not create unnecessary barriers to screening within our system.

There may be concerns surrounding specific recommendations such as "general consent" or the "guidelines surrounding prevention counseling," as well as the potential for stigma and discrimination, and conflicting state health regulations. Given these revisions, there have been concerns raised surrounding the removal of specific informed consent, the quality of care if prevention counseling is not required, the cost to implement, and issue of stigma and discrimination.

The alternative — not taking advantage of these revisions — could keep us locked into a pattern that will not improve or protect the health of our people. These recommendations are for streamlining general procedures and must be interpreted and applied with competence. The American Indians/Alaskan Natives represent a specific population with unique sub-

populations of higher risk. This situation must be taken into consideration with the science behind the revisions. There are behavioral health, education, and health disparity components and issues that will surface.

These guidelines are intended to improve *population* health by lowering or preventing disease transmission (read as: Health Promotion/Disease Prevention, which is one of our Director's priorities).

Attempt to adopt the methods and be mindful of the individual, cultural, and system barriers and perspectives with good communication and collaboration as they arise (read as: both a GPRA indicator and a Healthy People 2010 goal).

At Headquarters, we are addressing the current HIV/AIDS testing policy, since the information is outdated. In lieu of new IHS HIV/AIDS policy, we suggest implementing the CDC guidelines and realize there is more work to be done. Additional comments and progress on the revisions will be forthcoming.

OB/GYN CCC Editorial comment:
HIV Transmission is a Sentinel Event, Signaling a Missed Opportunity for Prevention

Important take home points are:

- Awareness of serostatus substantially reduces high risk behaviors, and screening is cost-effective.
- Hence, the revised recommendations call for routine HIV testing for **all** individuals between the ages of 13 and 65 years in the United States.
- No separate written consent form is needed for screening; high risk patients should be tested for HIV annually
- The revised recommendations advocate for streamlining general procedures and should be applied with competence

Two clinical pearls and some food for thought. First, there is no central Indian health system requirement for written consent. Having said that, you still need to provide pre-test teaching, either verbal or written. This is a very important teachable moment with your patient that you should not let slip through your fingers. Pre-test teaching is very different from prevention counseling. Prevention counseling is relatively long and involved, while pre-test counseling can be concise and to the point. In a way, a negative HIV screen result may be more important than a positive result, because you still have the chance to prevent that patient with a negative result from becoming a future HIV patient.

I suggest you coordinate with your patient educators and develop age appropriate materials that you can give to all your patients. The CDC is a great resource, and the Indian health system's patient education team can help you adapt those materials to be more culturally specific. Our goal is to decrease HIV transmission and all the barriers to that goal.

Second, the Indian health system respects state laws, but be wary of information from other staff who say your individual state requires written consent. In most cases, your state does not actually require a written consent. Rather, the state lab may require a written consent to perform free HIV testing at their lab. If you send your HIV tests out, perform them in your own lab, or perform rapid testing at the bedside, then you would not need a written consent. When in doubt, check this out yourself. Don't depend on the conventional wisdom without asking the right questions of the appropriate state officials. I have included a great resource from Charlton Wilson, which answers that question on a state by state basis below.

Every perinatal HIV transmission is a sentinel health event, signaling either a missed opportunity for prevention or, more rarely, a failure of interventions to prevent perinatal transmission. When these infections occur, they underscore the need for improved strategies to ensure that all pregnant women undergo HIV testing and, if found to be HIV positive, receive proper interventions to reduce their transmission risk and safeguard their health and the health of their infants.

Data confirm that testing rates are higher when HIV tests are included in the standard panel of screening tests for all pregnant women. Women also are much more likely to be tested if they perceive that their health care provider strongly recommends HIV testing. As universal prenatal screening has become more widespread, an increasing proportion of pregnant women who had undiagnosed HIV infection at the time of delivery were found to have seroconverted during pregnancy. A second HIV test during the third trimester for women in settings with elevated HIV incidence (>17 cases per 100,000 person-years) is cost-effective and might result in substantial reductions in mother-to-child HIV transmission.

For those outside the perinatal and neonatal arena, you now have an opportunity to apply the success the perinatal and neonatal disciplines have shown with reducing perinatal transmission . . . but you can apply to all persons from 13-64.

CDR Scott Giberson, the National IHS HIV/AIDS Principal Consultant, has served 13 years (10 in the IHS) both domestically and abroad in roles as Chief Pharmacist, Public Health Advisor, Medical Unit Lead (for an international health program), and member of Family Practice medical staffs. In his previous position, he was responsible for operational oversight of HIV/AIDS public health programs spanning multiple countries in the Asian Pacific region for the Department of Defense. He has authored articles and spoken on HIV/AIDS topics at numerous venues across the US and Asian Pacific. Please contact Scott Giberson with questions at *Scott.Giberson@ihs.gov*.

From Charlton Wilson, PIMC

Here is the link for a great resource for all the state laws as of summer 2006. This resource is vast, so use the "Find" function after you have read the background material at the beginning; e.g., Arizona page 54, New Mexico page 689, North

Dakota page 745, and South Dakota page 914. Go to *http://www.ucsf.edu/hivcntr/PDFs/WEB2006State%20Laws.pdf.*

References:

1. Branson et al. 2006. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings. *MMWR Recommendations and Reports*. September 22;55(RR14):1-17.
2. CDC Press Release. September 21, 2006.

From Your Colleagues

Sunnah Kim, American Academy of Pediatrics

Forty Years in Partnership: the American Academy of Pediatrics and Indian Health

Fifty years ago, American Indian and Alaska Native (AI/AN) children faced an overwhelming burden of disease, especially infectious diseases such as pneumonia, meningitis, tuberculosis, hepatitis A and B, and gastrointestinal disease. Death rates of AI/AN infants between 1 month and 1 year of age were much higher than in the US population as a whole, largely because of these infectious diseases. The health care of AI/AN patients was transferred to the Department of Health, Education, and Welfare in 1955 and placed under the administration of an agency soon to be known as the Indian Health Service (IHS). The few early pediatricians in the IHS recognized the severity of the challenges facing AI/AN children and asked for help.

The American Academy of Pediatrics (AAP) responded by creating the Committee on Indian Health in 1965. In 1986 the Committee on Native American Child Health replaced the Committee on Indian Health. Through the activity of these committees, the AAP participated in and influenced IHS policies and services and, combined with improved transportation, sanitation, and access to vaccines and direct services, led to vast improvements in the health of AI/AN children. In 1965, American Indian/Alaska Native postneonatal mortality was more than three times that of the general population of the US. It is still more than twice as high as in other races but has decreased 89% since 1965. Infectious diseases, which caused almost one fourth of all AI/AN child deaths in 1965, now cause less than 1%. The IHS and tribal health programs, authorized by the Indian Self-Determination and Education Assistance Act of 1976 (Pub L. 93-638), continue to seek AAP review and assistance through the Committee on Native American Child Health to find and implement interventions for emerging child health problems related to pervasive poverty of many AI/AN communities. Acute infectious diseases that once were responsible for excess morbidity and mortality now are replaced by excess rates resulting from harmful behaviors, substance use, obesity, and injuries (unintentional and intentional). Through strong working partnerships such as that of the AAP and the IHS, progress hopefully will occur to address this "new morbidity." In this article we document the history of the IHS and the AAP committees that have worked with it and present certain statistics related to AI/AN child health that show the severity of the health status disparities challenging AI/AN and youth.

Brenneman G, Rhoades E, Chilton L. Forty years in partnership: the American Academy of Pediatrics and the Indian Health Service. Pediatrics. 2006 Oct;118(4):e1257-63.

Editorial comment: Elaine Locke, ACOG

In the same era that the pediatricians were responding to the needs of AI/AN children, the obstetricians were responding in parallel. The American College of Obstetricians and Gynecologists (ACOG) established a Committee on American Indian Affairs in 1970 for the purpose of studying and developing expertise in the area of maternal and gynecologic health problems among AI/AN women. The following is a brief description of what ACOG currently offers, links to documents on the history of ACOG involvement, as well as the Fellows in Service Program.

ACOG's Indian health activity began in 1970 and now includes programs that:

- Provide medical care when it is most needed to AI/AN women; obstetrician-gynecologists from the private sector fill short-term vacancies in Indian hospitals.
- Offer an annual four-day course on Obstetric, Neonatal, and Gynecologic Care for IHS and tribal nurses and physicians who are not trained in the specialty. An optional Neonatal Resuscitation Program offers certificates of completion and additional education credits.
- Produce a practical reference text for the use of nonspecialists in IHS and tribal hospitals.
- Conduct site visits to IHS and tribal hospitals; reports can support improvements in equipment, staffing, management, and clinical care.

ACOG continues to support the Committee on American Indian Affairs as an expression of the College's concern for the health and well-being of AI/AN women and their offspring. For more information, please Contact Yvonne Malloy or Elaine Locke at (202) 863-2580. For historical background of ACOG AI/AN involvement, go to *http://www.ihs.gov/MedicalPrograms/MCH/F/documents/HistACOG101206.doc*. For information about the ACOG Fellows in Service Program, go to *http://www.ihs.gov/MedicalPrograms/MCH/F/documents/ACOGFell101206.doc*. For information about other various ACOG programs, go to *http://www.ihs.gov/MedicalPrograms/MCH/F/documents/ACOG%20Prog101206.doc*.

Hot Topics

Obstetrics

Can a 29% Cesarean Delivery Rate Possibly Be Justified?

Have there been measurable improvements in fetal outcome from the use of EFM and its associated increase in the

cesarean delivery rate? There is a very high false-positive rate for "nonreassuring" heart rate patterns used to predict a depressed newborn. It did not achieve its promise because it was designed to prevent intrapartum death, an event so rare that it was not possible to show a significant difference, and to prevent cerebral palsy, which we now know is attributable to birth asphyxia in term infants only about 6 - 17% of the time. In fact, although most labors are followed with EFM, there has been no reduction in the incidence of cerebral palsy over the last three decades.

What about the maternal benefits of cesarean delivery? There is little argument that vaginal delivery is associated with a higher frequency of subsequent stress urinary incontinence and uterine and vaginal prolapse. However, it is also clear that nulliparous women and those who have had only cesarean delivery may also be symptomatic, suggesting that the aging process, pregnancy per se, genetic factors, and just walking upright for more than 50 years are significant contributors to the problem.

In contrast, the risks of the current cesarean delivery rate are not difficult to discern. Getahun and co-workers have reported a 50% increase in the risk of placenta previa and a doubling of the risk of abruptio placenta in the subsequent pregnancy after one previous cesarean delivery. These risks increased with multiple prior cesareans.

Resnik R. Can a 29% cesarean delivery rate possibly be justified? *Obstet Gynecol*. 2006;107:752-4.

Gynecology

A New Era in Ovulation Induction: Aromatase Inhibitors

Conclusions: Aromatase inhibitors are as effective as or superior to clomiphene citrate in ovulation induction and in superovulation. Unlike CC, they do not carry an antiestrogenic effect on the endometrium. Given the advantages of aromatase inhibitors, they can be used to replace CC as ovulation-inducing drugs. Their role in IVF remains to be determined.

Holzer H, et al. A new era in ovulation induction. *Fertility and Sterility*. 2006;85(2):277-85.

Child Health

Fetal Injury at Cesarean Delivery: Related to Indication and Type of Uterine Incision

Results: A total of 37,110 cesarean deliveries were included in the registry, and 418 (1.1%) had an identified fetal injury. The most common injury was skin laceration (n=272, 0.7%). Other injuries included cephalohematoma (n=88), clavicular fracture (n=11), brachial plexus (n=9), skull fracture (n=6), and facial nerve palsy (n=11). Among primary cesarean deliveries, deliveries with a failed forceps or vacuum attempt had the highest rate of injuries (6.9%). In women with a prior cesarean delivery, the highest rate of injury also occurred in the unsuccessful trial of forceps or vacuum (1.7%), and the lowest rate occurred in the elective repeat cesarean group (0.5%). The type of uterine incision was associated with fetal injury, 3.4% "T" or "J" incision, 1.4% for vertical incision, and 1.1% for a low transverse (P=.003), as was a skin incision–to–delivery time of three minutes or less. Fetal injury did not vary in frequency with the type of skin incision, preterm delivery, maternal body mass index, or infant birth weight greater than 4,000 g.

Conclusion: Fetal injuries complicate 1.1% of cesarean deliveries. The frequency of fetal injury at cesarean delivery varies with the indication for surgery as well as with the duration of the skin incision-to-delivery interval and the type of uterine incision.

Alexander JM, et al. Fetal injury associated with cesarean delivery. *Obstet Gynecol.* 2006 Oct;108(4):885-90.

Chronic Disease and Illness

Aspirin to Prevent Heart Attack and Stroke: What's the Right Dose?

Despite hundreds of clinical trials, the appropriate dose of aspirin to prevent myocardial infarction (MI) and stroke is uncertain. In the US, the doses most frequently recommended are 80, 160, or 325 mg per day. Because aspirin can cause major bleeding, the appropriate dose is the lowest dose that is effective in preventing both MI and stroke because these two diseases frequently co-exist. Five randomized clinical trials have compared aspirin with placebo or no therapy for the prevention of stroke and MI. These trials varied with regard to the dose of aspirin, the duration of treatment, and, most important, the populations selected for study varied in their baseline risk of stroke and MI. These studies indicate that the most appropriate dose for the primary and secondary prevention of stroke and MI is 160 mg/day.

Dalen J. Aspirin to prevent heart attack and stroke: what's the right dose? *American Journal of Medicine*. 2006 119: 198-202.

Features

ACOG

Amnioinfusion Does Not Prevent Meconium Aspiration Syndrome

Abstract: Amnioinfusion has been advocated as a technique to reduce the incidence of meconium aspiration and to improve neonatal outcome. However, a large proportion of women with meconium-stained amniotic fluid have infants who have taken in meconium within the trachea or bronchioles before meconium passage has been noted and before amnioinfusion can be performed by the obstetrician; meconium passage may predate labor. Based on current literature, routine prophylactic amnioinfusion for the dilution of meconium-stained amniotic fluid is not recommended. Prophylactic use of amnioinfusion for meconium-stained amniotic fluid should be done only in the setting of additional clinical trials. However, amnioinfusion remains a reasonable approach in the treatment of repetitive variable decelerations, regardless of amniotic fluid meconium status.

Amnioinfusion does not prevent meconium aspiration syndrome. ACOG Committee Opinion No. 346. American College of Obstetricians and Gynecologists. Obstet Gynecol 2006;108:1053–5.

Ask a Librarian: Diane Cooper, MSLS/NIH
Updated Cochrane Systematic Reviews
Aerobic Exercise and Pregnancy

A review of eleven trials involving 472 pregnant women suggested that pregnant women who engage in vigorous exercise at least two to three times per week improve or maintain their physical fitness, and there is some evidence that these women have pregnancies of the same length as those who maintain their usual activities. There is too little evidence to show whether there are other effects on the woman and her baby. The trials reviewed included non-contact exercise such as swimming, static cycling, and general floor exercise programs. Most of the trials were small and of insufficient methodologic quality, and larger, better trials are needed before confident recommendations can be made about the benefits and risk of aerobic exercise in pregnancy. Aerobic exercise is physical activity that stimulates a person's breathing and blood circulation.

Kramer MS, McDonald SW. Aerobic exercise for women during pregnancy. Cochrane Database of Systematic Reviews 2006, Issue 3.

Calcium Supplementation Safe and Cheap

Calcium supplementation during pregnancy is a safe and relatively cheap means of reducing the risk of pre-eclampsia in women at increased risk, and women from communities with low dietary calcium, according to a recent review. Preterm birth (birth before 37 weeks) is often caused by high blood pressure and is the leading cause of newborn deaths, particularly in low-income countries. No adverse effects have been found from calcium supplementation, but further research is needed into the ideal dosage.

Hofmeyr GJ, Atallah AN, Duley L. Calcium supplementation during pregnancy for preventing hypertensive disorders and related problems. Cochrane Database of Systematic Reviews 2006, Issue 3.

Preclampsia Drugs: No Clear Choice

A review of 24 trials including 2949 women found that while antihypertensive drugs lower blood pressure, there is not enough evidence to show which drug is the most effective when taken by pregnant women with hypertension. There is some evidence that diazoxide may result in the woman's blood pressure falling too quickly, and that ketanserin may not be as effective as hydralazine. Further research into the effects of antihypertensive drugs is needed.

Duley L, Henderson-Smart DJ, Meher S. Drugs for treatment of very high blood pressure during pregnancy. Cochrane Database of Systematic Reviews 2006, Issue 3.

OB/GYN CCC Editorial comment

Thanks to Diane Cooper at the NIH library, the link below will take you to the NIH Health Services Research Library. The Cochrane Library is the definitive evidence-based medicine resource. It reviews only randomized controlled trials. Paste the link into your browser. Click on the Cochrane Library link. This will take you to the NIH Library site. Scroll across the top menu to RESEARCH TOOLS. In the drop down box select DATABASES, and scroll down the list to COCHRANE. Go to *http://www.ihs.gov/MedicalPrograms/CIR/index.cfm?module=cir_answering_clinical_questions*. For more information, contact Diane Cooper at *cooperd@ors.od.nih.gov*.

Breastfeeding: Suzan Murphy, PIMC

The IHS MCH Breastfeeding webpage has been updated. To see the new look, go to *www.ihs.gov*, click on Medical Programs, then Maternal Child Health, and then Breastfeeding. Once on the Breastfeeding home page, you will find quick access to helpful resources like the Easy Guide to Breastfeeding for AI/AN Families, the new Lactation Support Policy in the Workplace, and a list of topics designed to make breastfeeding support a reality.

If you are curious about breastfeeding reducing risk of diabetes and obesity, look in the Breastfeeding, diabetes, and obesity section for information and references. If you want to know what to tell a mom about commonly asked concerns like sore nipples and how-do-I-know-that-my-baby-is-getting-enough-milk, click on FAQs and scroll to the topic. How about breastfeeding benefits? The Breastfeeding Benefits section has a quick list of benefits, plus a link to the American Academy of Pediatrics' most recent position paper on breastfeeding. The paper includes numerous landmark studies about breastfeeding benefits with links to Pubmed for abstracts.

Need ideas for breastfeeding moms who work or go school? Take a look at the Going Back to Work or School section. Also, look at the homepage link to the New IHS Circular for Lactation Support Policy in the Workplace (July 2006). This has the most current information about supporting breastfeeding employees in the IHS workplace.

Want to know about medications and breast milk? The section on Medications is the spot for you. Jim Bresette and other IHS pharmacists have collaborated to create this section; there is even a link to the NIH Lactnet page where a medication can be typed in and the studies, issues, AAP reviews, possible alternative drugs, etc. are listed.

What about the nitty gritty stuff — the things that staff need to make the real work of patient care come together, like patient education materials/videos/posters, ways to easily keep track of feeding choice rates, PCC templates, job descriptions, policy/procedure ideas, what other agencies/coalitions are doing, etc? Don't recreate the wheel; go directly to Staff Resources and use what fits, edit what you need, and send suggestions.

Weary of limiting breastfeeding karma to just mom and baby? Be in awe of the beautiful dad and child picture on the Dads and Family Page – and e-mail us your pictures. Want to know about what other groups are doing or what other resources are available for lactation support? Try out the Links and Contact info page. Got a bone to pick or question to ask about lactation support? Put your thoughts on line with the ListServ/Discussion Forum. Lactation is an evolving science; practice and research change the fact of what we do. No one knows all the answers; together we are better.

What is next for the web page? Possible additions include updates, more links, conference announcements, and continuing education credit. Please send pictures, ideas, suggestions, and thoughts to *suzan.murphy@ihs.gov*. Go to A New Look for Lactation Support – The New Breastfeeding web page at *http://www.ihs.gov/MedicalPrograms/MCH/M/bf.cfm*.

Family Planning

Ortho Evra Patch Linked to Risk for Venous Thromboembolism

On September 21, 2006 the US Food and Drug Administration (FDA) and Ortho-McNeil Pharmaceutical (a Johnson & Johnson company) notified health care professionals regarding changes in the safety labeling for a weekly norelgestromin/ethinyl estradiol transdermal system (Ortho Evra).

The label has been updated to reflect new data from two US epidemiologic studies that evaluated the relative risk for developing nonfatal venous thromboembolism (VTE) in women using the contraceptive patch vs oral contraceptives containing 35 µg of ethinyl estradiol, according to an alert sent recently from MedWatch, the FDA's safety information and adverse event reporting program. Both studies were conducted using electronic health care claims data, and the second study also included patient chart reviews.

Although findings from the first study revealed no significant difference in VTE risk for patch users compared with those taking oral contraceptives containing 35 µg of ethinyl estradiol (odds ratio [OR] = 0.9; 95% confidence interval [CI], 0.5 - 1.6), the second study linked the patch to more than double the risk for the event (OR = 2.4; 95% CI, 1.1 - 5.5). The FDA notes that the latter finding supports the agency's concerns regarding the risk for VTE in women using the contraceptive patch.

Health care professionals are advised to balance the higher estrogen exposure and the possible increased risk of VTE against the chance of pregnancy if the patch is not used; contraceptive options other than the patch should be considered for women with risk factors for thromboembolic disease.

Adverse events related to use of the norelgestromin/ethinyl estradiol contraceptive patch should be reported to the FDA's MedWatch reporting program by phone at 1-800-FDA-1088, by fax at 1-800-FDA-0178, online at *http://www.fda.gov/medwatch*, or by mail to 5600 Fishers Lane, Rockville, MD 20852-9787

International Health Update: Claire Wendland, Madison, WI

Maternal Survival Worldwide: Consensus and Controversies

In the year 2000, 189 countries and many major international agencies signed a "Millennium Declaration" that was to provide a blueprint for improving conditions around the world – in particular, the conditions of the poor. The blueprint was divided into eight goals. Millennium Development Goal #5 committed signatory countries to improve maternal health; since improving health is difficult to measure, the agreement was to try to reduce maternal mortality by two thirds by 2015.

Anyone interested in maternal and child health will want to take a look at the Lancet's new series on maternal survival. In a series of five review articles and several associated commentaries, major figures in maternal health review what we know about maternal mortality (and to a lesser extent morbidity) and what to do about it. The upshot? Six years into the millennium, progress on maternal mortality does not look good. Statistics are unreliable, but it appears that maternal deaths have stabilized at about 400 per 100,000 live births (far from the MDG target of 141 per 100,000 by 2015). Improvements in some countries, like Bangladesh, have been offset by worsening in others, such as Afghanistan and much of sub-Saharan Africa. Inequality is worse for obstetric risk than for any other health indicator: a woman in Sweden has a 1 in 30,000 lifetime risk of death in childbirth, while for a woman in Sierra Leone that risk is 1 in 6.

Readers will find both consensus and controversy here. All contributors agree that political commitment and financial investment fall short of what they should be. All contributors seem to agree that funding competition between maternal health programs and child health programs, and between community-based and clinic-based programs, has been a waste of opportunity and time. To use the memorable Cameroonian proverb quoted in one editorial, "When the elephant and the rhino fight, it is the grass that suffers." All contributors agree that women have a right to birth in a safe facility attended by a skilled health worker – preferably a midwife. Major areas of controversy remain, however: chief among them are the role of home birth with skilled attendants in the developing world; the contribution of iatrogenic illness, especially infection, to maternal death; and the importance of providing safe abortion.

Review articles by C Ronsmans and WJ Graham; OMR Campbell and WJ Graham; and V Filippi et al are especially helpful overviews of global research on maternal health and survival. The authors provide evidence debunking some myths many of us will find hard to let go (for instance, that risk screening during antenatal care will improve maternal mortality). They also provide heartening evidence that many different strategies can improve maternal health, from improving control of infectious diseases, to ensuring access to hospital care, to providing midwifery in the community.

You can access all five articles and several related commentaries at *www.thelancet.com*. This requires free

registration. Look for the Maternal Survival Series, September 30, 2006.

Medical Mystery Tour
The Words 'Bizarre' and 'Atypia' in the Same Pathology Report Sentence . . . hmmm . . ..

A 53 yo G6 P5015 presented to a field facility with ongoing menometrorrhagia despite conservative therapy with medroxyprogesterone 10 mg for 10 days a month for three months. Initial ultrasound revealed a 2.7 x 2.4 cm endometrial structure felt to be consistent with an endometrial polyp or a leiomyoma. A follow-up ultrasound two months later at the field facility revealed two complex masses involving the endometrium with the appearance of some myometrial extension. The first was located in the mid-uterus and endometrium and was larger than the second, which was located in the lower uterine segment. An endometrial biopsy was obtained at the initial visit and was consistent with benign proliferative phase endometrium.

Examination revealed an eight-week-size uterus and no adnexal masses. There was urethral hypermobility, but no visible incontinence with Valsalva maneuver. The examination was otherwise unremarkable. A discussion with the patient ensued and it was felt that further imaging modalities were indicated. In addition, the patient was offered a hysteroscopy, further endometrial sampling, and possible hysteroscopic resection. As both the above management options required transportation to a distant referral facility, the patient stated she would prefer a definitive operative intervention, if she needed to make such a trip. The patient subsequently underwent an uncomplicated total vaginal hysterectomy with a left salpingo-oophorectomy. She was discharged on the second post operative day.

Pathologic evaluation revealed cytologic atypia present throughout the neoplasm that was of a degenerative and bizarre type. Occasional mitotic figures were identified. No tumor type necrosis was seen. The cellularity was felt to be somewhat increased over what one normally sees in a highly cellular leiomyoma. The pathologic material was sent to a second site for pathologic evaluation and the above impression was confirmed.

What do you think this patient's diagnosis is? What is the risk of recurrence? Stay tuned to next month's Medical Mystery Tour for the rest of the story

Midwives Corner: Lisa Allee, CNM, Chinle
External Fetal Monitors - Can you Kick the Habit?

Hindley, et al, undertook a three-year research project due to the indiscriminate use of electronic fetal monitoring (EFM) in the United Kingdom despite evidence that states it should be used sparingly. They point out that extensive research in the last 30 years has shown limited benefit of EFM in low risk women and an increase in cesarean section rates when women are monitored continuously during labor. The evidence instead states that the most appropriate method of fetal monitoring for women of low obstetric risk is intermittent auscultation (IA).

Hindley, et al, present their qualitative research interviewing midwives about EFM and IA. They interviewed 58 midwives practicing in northern England with an average of 15 years of experience. For IA they found three main categories: freedom/liberating effects for the woman; closeness/proximity of the midwife; and quicker progress in labor. For EFM the categories included: oppressive/restrictive; midwife by proxy; and increased requirements for pain medications. For both monitoring methods the interviews also revealed paradoxes. For IA there was a paradox that the midwives' positive comments were tempered by fears that they would miss some pathological event between auscultations. The paradox for EFM was that the midwives' negative comments and their insights that EFM is causing midwives to attend less to women and more to machines and to lose sight of what is normal are contradicted by their practice realities of continuing to work with EFM, even for low risk women.

In their discussion, Hindley, et al, illuminate what occurs for many midwives — a belief in the normal process of birth and a desire to work with women to support and enhance that process, but then the realities of where they work, including the reliance on EFM resulting in a devaluation and decreased use of the traditional, watchful, hands-on approach of the midwife and an increased likelihood of the cascade effect leading to increasing numbers of interventions in the process of birth. They point out a persistent paradox in our practices — the evidence shows overwhelmingly that the use of EFM is not beneficial and may be harmful to patients and to midwifery practice, but we keep on using it.

The authors bring to the forefront the quandary we are in — we know that evidence-based care would mean not using EFM, especially with low risk women, as it has not been shown to improve outcomes and has been shown to increase interventions, yet we continue to use it with virtually all laboring women. The authors discuss the many influences that make this so, including: lack of institutional support for IA; staffing issues causing EFM to be used as a midwife proxy — "a substitute for the presence of the midwife who would otherwise use the clinical skills of perception, auscultation, palpation, and communication"; trust in machines; that it's easier to busy oneself with the monitor than to engage deeply with a laboring woman; medical policies; and the persistent belief by many obstetricians that birth is inherently dangerous and should be risk managed. They also make suggestions for finding our way out of the quandary: where guidelines exist for appropriate use of EFM, audit compliance with the guidelines; provide resources for one-to-one midwifery care in labor to stop the use of EFM as a proxy; continued debate and discussion about routine use of oxytocin and epidurals that often necessitate EFM use; and about precise clinical risk indicators for the use of EFM. They also offer a first step in the process of change: Simple strategies such as removing

fetal monitors from rooms might also help the midwife to consciously question the need for EFM rather than applying it routinely, merely because it is proximal.

English midwives' views and experiences of intrapartum fetal heart rate monitoring in women at low obstetric risk: conflicts and compromises. *J Midwifery Womens Health*. 2006 Sep-Oct;51(5):354-60.

Editorial Comment: Lisa Allee, CNM

First, I have got to say that I love qualitative research because the results sound like actual humans and not just numbers. For example, the quotes the authors put in this article will likely ring true with many of us:

> *"I think it (IA) gives the woman more freedom. She can mobilise. I think the labour tends to get quicker because she is not pinned to the bed in one position. She can move around, it's more natural, it's more normal."*
>
> *"I think a lot of the women feel really restricted by monitoring. It also means that as a midwife, your time is taken up with analysing and looking at the machine a lot of the time when you could be giving other support to the woman."*
>
> *"I think, especially with the monitors, they are waiting for the next pain. The focus is on the pain. Certainly, there are more epidurals as opposed to the woman who is labouring in the bath or moving about."*
>
> *"I think IA brings you closer to them, and it's just more natural and normal, so it's less technology that I am in favour of."*

Second, when I got to the end of this article I let out a whoop and did a little happy dance — someone finally said in print "take the monitor out of the room." Wow, what a concept. There are some many reasons to do this, but most of all it would mean that everyone would have to really think about using EFM, its appropriateness and its implications, because to use it you would have to drag the thing into the room. This change would also make it all right to not use EFM, as appropriate, using doptones instead and, thus, make the focus of our care the laboring woman, the baby, and the family instead of the machine. Those of us who have practiced in home birth, birth centers, and internationally know that this really is ok, safe, and so satisfying for all involved. I would love to hear from any site that makes this change or has already done so! E-mail me at *lisa.allee@ihs.gov* and I will include the information in a future column.

One last thing: it is time to update the midwifery page on the IHS website. A few ideas I have are a patient education section, midwifery conferences, an ask the midwife column, why you are lucky to have midwifery care, and profiles of the different midwifery services in IHS. Please send me your comments on these ideas and your suggestions for other items. Also, please send me pictures that could be used on the page.

Oklahoma Perspective: Greggory Woitte – Hastings Indian Medical Center
Asthma in Pregnancy

Your next patient is a new OB physical. After scanning her history, you note that she reports having a medical history significant for asthma in the past. Given the high prevalence of asthma in the general population, it is one of the more common complications of pregnancy. Pregnancies complicated with asthma are more likely to also be complicated by preterm birth, hyperemesis gravidarum, pre-eclampsia, IUGR, and neonatal mortality. The goals that should be met in taking care of this patient include:

1. objectively evaluating the maternal/fetal clinical condition
2. control of asthma symptoms and prevention of acute attacks by avoidance/control of triggers
3. Maximize lung function with medications while minimizing side effects
4. patient education

Placing a patient into a category of mild-intermittent, mild-persistent, moderate, or severe, based on her pre-pregnancy condition will assist in your treatment of the patient during pregnancy. However, the foundation of management of these patients is the peak expiratory flow rate (PEFR). Use of the peak flow meter can assist in management, recognition, and prevention of exacerbations. Here are the National Asthma Education and Prevention Program recommendations.

Asthma and pregnancy report. NAEPP report of the Working Group on Asthma and Pregnancy: management of asthma during pregnancy. Go to *http://www.nhlbi.nih.gov/health/prof/lung/asthma/astpreg.txt*.

NAEPP expert panel report 2: guidelines for the diagnosis and treatment of asthma. Go to *http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm*.

NAEPP expert panel report: guidelines for the diagnosis and treatment of asthma—update on selected topics 2002. Go to *http://www.nhlbi.nih.gov/guidelines/asthma/asthupdt.htm*.

Managing Asthma During Pregnancy: Recommendations for Pharmacologic Treatment—Update 2004. Go to *http://www.nhlbi.nih.gov/health/prof/lung/asthma/astpreg/astpreg_qr.pdf*.

Perinatology Picks: George Gilson, MFM, ANMC
Fetal Lung Maturity Assessment

The evaluation of fetal lung maturity by use of lipid chromatography analysis of amniotic fluid surfactant with the lecithin-sphingomyelin ratio and per cent phosphatidyl glycerol ("L/S and PG") has been standard obstetric practice for over 40 years. Over the last 20 years however, this test has been largely supplanted by the fluorescence polarization assay, which, in its current iteration, is known as the "TDx-FLM II" test (Abbott Laboratories). There is an extensive literature (see below for partial list of references) evaluating its accuracy, both its correlation with L/S and PG, as well as its clinical efficacy

in predicting infants diagnosed with respiratory distress syndrome (IRDS).

The accuracy of the TDx-FLM is now considered excellent, and, in the latest studies, demonstrates that it is probably superior to L/S and PG determinations. Our consultants at the University of Washington and our reference lab have now largely abandoned the L/S and PG in favor of the TDx-FLM II. I would therefore like to propose that we also exclusively use this simpler and less costly test, which can be done locally, with results provided within several hours, and which only requires 1 mL of amniotic fluid. Currently, if the FLM is negative or indeterminate, Providence sends the specimen out for confirmation with an L/S and PG determination. This is called the "sequential" or "cascade" strategy, and was likewise proposed over 20 years ago. This takes about 48 hours for the result, accrues a substantial additional charge, and is probably not necessary with the accuracy of the current TDx-FLM II.

While most laboratories report specific cut-off points (immature: <39; indeterminate: 40-54; mature: >55 mg/g), gestational age-specific risk estimates are more accurate (see references online), and do not give just a "yes or no" answer. For example, a FLM of 50 at 36 weeks predicts a risk of IRDS of 4.3%, probably an acceptable risk depending on the indication for early delivery. Like the L/S, amniotic fluid specimens contaminated with significant quantities of blood, meconium, or bilirubin may give erroneous results. Insufficient data have been accrued on vaginal pool amniotic fluid specimens. All tests of fetal lung maturity, including the L/S, have over a 95% negative predictive value (if the test is reported mature, there is only a 5% chance of IRDS), but only a 60% positive predictive value (test reported as immature, but infant does not develop IRDS).

Amniocentesis for fetal lung maturity is currently only thought to be useful in two clinical situations: 1) between 34-36 weeks where delivery is thought to be indicated for maternal or fetal reasons, but the need is not urgent (under 34 weeks: rarely ever mature results, over 36 weeks: rarely ever severe IRDS), and 2) in a woman with unsure dating with a differential diagnosis of possible fetal growth restriction (requiring delivery) versus lesser (premature) gestational age. In other situations, if there is an urgent indication for delivery, the pregnancy should be delivered regardless of the results of fetal lung maturity testing.

References: online

STD Corner: Lori de Ravello, National IHS STD Program
Prevalence of HPV Infection among Men: A Systematic Review of the Literature

Background: Human papillomavirus (HPV) infection is estimated to be the most common sexually transmitted infection; an estimated 6.2 million persons are newly infected every year in the United States. There are limited data on HPV infection in heterosexual men.

Results. We included a total of 40 publications on HPV DNA detection and risk factors for HPV in men; 27 evaluated multiple anatomic sites or specimens, 10 evaluated a single site or specimen, and three evaluated risk factors or optimal anatomic sites/specimens for HPV detection. Twelve studies assessed site- or specimen-specific HPV DNA detection. HPV prevalence in men was 1.3% - 72.9% in studies in which multiple anatomic sites or specimens were evaluated; 15 (56%) of these studies reported ≥20% HPV prevalence. HPV prevalence varied on the basis of sampling, processing methods, and the anatomic site(s) or specimen(s) sampled. We included 15 publications reporting HPV seroprevalence. Rates of seropositivity depended on the population, HPV type, and methods used. In nine studies that evaluated both men and women, all but one demonstrated that HPV seroprevalence was lower in men than in women.

Conclusion: HPV infection is highly prevalent in sexually active men and can be detected by use of a variety of specimens and methods. There have been few natural-history studies and no transmission studies of HPV in men. The information that we have reviewed may be useful for future natural history studies and for modeling the potential impact of a prophylactic HPV vaccine.

Dunne E, et al. Prevalence of HPV infection among men: a systematic review of the literature. *J Infect Dis*. 2006:194 (15 October).

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

IHS Child Health Notes

Quote of the month

A long habit of not thinking a thing wrong, gives it a superficial appearance of being right, and raises at first a formidable outcry in defence of custom. But the tumult soon subsides. Time makes more converts than reason."

Thomas Paine, 1776

Article of Interest

Tall girls: the social shaping of a medical therapy. *Arch Pediatr Adolesc Med*. Oct 2006;160(10):1035-9.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=17018462&query_hl=2&itool=pubmed_docsum.

During the latter half of the 20th century, estrogen therapy was given to prevent otherwise healthy girls with tall stature from becoming tall adults by inhibiting future linear growth. Estrogen therapy represented the logical application of scientific knowledge regarding the role of estrogen for closure of the growth plates, but it also reflected prevailing societal and political beliefs about what it meant to be a tall girl. The authors also discuss the rise and fall in popularity of this therapy and suggest that it has implications for the current therapy of short stature with growth hormone.

Editorial Comment

Here was a medical therapy being applied to what was clearly not a medical problem. Especially interesting is how the definition of "unacceptable" height for girls changed over time while this therapy was never applied to males to make them less tall. The article reminds us how medical knowledge and therapy is always applied within a particular social context.

Infectious Disease Updates.
Rosalyn Singleton, MD, MPH

Rotavirus vaccine licensed: How do diarrhea-associated hospitalization rates among American Indian and Alaska Native children compare with the rates for children in the US general population? It often appears that that AI/AN children have higher rates of just about any infectious disease. But what's the story with gastroenteritis and rotavirus?

In 1980 - 1982, the rate of diarrhea-associated hospitalizations in American Indian and Alaska Native (AI/AN) children < 5 years (236 per 10,000) was nearly twice as high as the US rate (136). However, by 1993 - 1995, the AI/AN hospitalization rate (71) was similar to the US rate (89). An updated analysis reveals that the hospitalization rate for 2000 - 2004 for AI/AN children < 5 years of age (66) is similar to or lower than the 2003 US childhood rate (79). The AI/AN hospitalization rate varied by region, with the highest rate in the Southwest region (93), followed by the East (79) and Alaska (77). However, there are still areas of disparity. The 2000 - 2004 AI/AN hospitalization rate in infants (262) is significantly higher than the US rate (154), and the rate of outpatient visits for AI/AN children < 5 years (2,255 per 10,000) is also higher than the US outpatient rate (1,648).

What about the burden of rotavirus disease? Unfortunately, only 2.7% of the AI/AN diarrhea-associated hospitalizations and 0.2% of outpatient visits were coded as rotavirus. This proportion underestimates the true burden of rotavirus. Epidemiologic characteristics, such as the age range and seasonal peak of diarrhea-associated hospitalizations, suggest that the proportion of diarrhea-associated hospitalizations caused by rotavirus among AI/AN children may be similar to proportion seen in the US population (~ 30 - 50% of diarrhea-associated hospitalizations). RotaTeq™, a live oral pentavalent rotavirus vaccine, is now licensed and available for use in infants 6 - 32 weeks of age.

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

Prevalence and comorbidity of mental disorders among American Indian children in the northern Midwest. *J Adolesc Health.* 2006 Sep;39(3):427-34. Epub 2006 Jul 10.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=16919807&query_hl=7&itool=pubmed_DocSum.

The authors report on the prevalence of 11 mental disorders in 10 - 12-year old American Indian children in the northern Midwest. This study compliments a previous article published by the same group of researchers that described the 12-month and lifetime prevalence of five mental disorders seen in the caretakers of these same children. That article was reviewed for the August 2006 edition of the *IHS Child Health Notes* (*http://www.ihs.gov/MedicalPrograms/MCH/M/documents/ICHn806.doc*).

Information on the 11 disorders was gathered from DISC-R diagnostic surveys conducted by trained non-clinician community members who interviewed the children and their parents/caretakers. Study subjects resided on or near one of four rural American Indian reservations in the northern midwest or one of five rural or remote Canadian First Nations reserves in Ontario. All sites are of one culture and language, with only minor dialectic variations. The disorders investigated were substance abuse disorders (alcohol abuse, alcohol dependence, marijuana abuse, marijuana dependence, and nicotine dependence), major depressive episode, dysthymic disorder, general anxiety disorder, oppositional defiant disorder, conduct disorder, and inattention/hyperactivity disorder.

The authors report that 22.8% of the children satisfied the 12-month diagnostic criteria for at least one of the 11 mental disorders under investigation, while 9% met criteria for two or more disorders. The most prevalent disorder was conduct disorder (8.6%), followed by oppositional/defiant disorder (7.9%), and then inattention/hyperactivity disorder (7.6%) and general anxiety disorder (4.1%). Major depressive disorder (3.6%) rounded out the top five most prevalent conditions. The reported prevalence rates represent a combination from both caretaker and child reports. The rationale behind this methodology is discussed in detail in the article, but is beyond the scope of this review. Obviously, however, rates combined from both data sources will exceed those reported individually by either the caretaker or the child.

The authors contend that their results support the contemporary theory that ineffective parenting plays a pivotal role in the development of mental and behavioral disorders in offspring. Conditions and realities that negatively influence the effectiveness of parenting would be expected to increase the likelihood that children would develop these mental conditions. In multivariate analysis, they found an association between female caretaker depression and alcohol abuse with mental disorders in their children. As reported in their initial published article of mental disorders among the parents/caretakers of these same children (see link above), lifetime alcohol abuse was found to be nearly five times that observed in a national cohort. Thus, they contend, children in this study are at increased risk of exposure to "nonoptimal parenting," and by association, a high prevalence of certain mental disorders would be expected. Additionally, approximately 20% of the female caretakers of these children were found to have a lifetime prevalence of major depression in the previous report. Given that depression is known to be disruptive of the parenting process, the authors imply that the development of mental disorders in children exposed to a depressed female caretaker would be more likely to occur.

The authors warn about the generalizability of their results to other American Indian cultures. Other limitations of the data are discussed, and can be examined by the interested reader in the article itself.

Editorial Comment

There seems to be a recent proliferation of articles scrutinizing mental and behavioral health problems in American Indian/Alaska Native (AI/AN) communities. Individually, I believe many of these papers simply point out some of the things we perhaps already intuitively know. *In toto*, however, I am hopeful that this body of data and knowledge will serve to focus attention on the mental and behavioral problems and needs of these populations. Ultimately, this might lead to an increase in resources and programs devoted to dealing with the prevalent mental health issues of AI/AN populations.

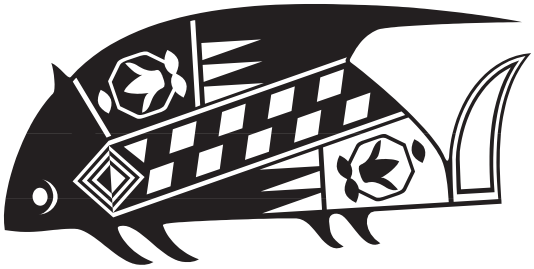
QuickStats: adolescent death rates by race/ethnicity and sex — United States, 2001-2003. *MMWR Morb Mortal Wkly Rep*. 2006 Sept 1;55(34):943. *http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5534a5.htm*.

Editorial Comment

Just an "FYI." American Indian/Alaska Native children ages 15 - 17 years as a group lead the pack in both male and female death rates. Although AI/AN females are nearly twice as likely to die as the next closest ethnic group (White, non-Hispanic, 60.4 vs. 36.6 deaths/100,000 population), males are barely ahead of Black, non-Hispanic youth (89.6 vs. 89.3 deaths/100,000 population). As acknowledged in the footnotes of the *QuickStats*, AI/AN death rates are known to be underestimated, often by sizeable margins. Translation: the disparity might be a whole lot more dramatic, in reality, than this bar graph suggests.

Announcements from the AAP Indian Health Special Interest Group
Sunnah Kim, MS
Locums Tenens and Job Opportunities

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



Report on the Annual Business Meeting for Advanced Practice Nurses

Judith Whitecrane, CNM, Phoenix Indian Medical Center, Phoenix, Arizona

The Annual Business Meeting for Advanced Practice Nurses (APNs) was held May 22 - 23, 2006 in conjunction with the IHS PA/APN Continuing Education Conference in Scottsdale, Arizona. Approximately 50 APNs attended the day-and-a-half business meeting representing many Indian health facilities throughout the nation.

Carolyn Aoyoma MPH, CNM, IHS Headquarters APN representative, attended the first full day of the business meeting. CAPT Aoyoma shared with us her duties as IHS Nurse Consultant for Women's Health and Advanced Practice Nursing. Among her many projects are promotion of telemammography in Indian health, increasing Pap and mammography screening rates, attending IHS/ACOG obstetrical site reviews, and project management of the annual IHS/ACOG postgraduate obstetrical course in Denver, Colorado. She works closely with the Office of Women's Health, is part of the Surgeon General's workgroup for Women's Health, and is the project officer for seven women's health grants. She was warmly received by the APNs attending this meeting.

This year's attendees chose four items to address for this years workplan.

Integrating Behavioral Health and Primary Care

Model programs were shared at the meeting. At Phoenix Indian Medical Center, this model uses nurse midwives to manage prenatal care and social workers who see patients immediately afterward in the same clinic to assess and treat substance abuse problems, primarily methamphetamine abuse. It has been effective in reducing methamphetamine use during pregnancy. There is a clinic in southwestern Michigan that is utilizing shared clinical space in a similar manner. APNs strongly support the use of mental health care nurse practitioners and other behavioral health professionals in the clinical setting. It is a combination that enhances successful medical outcomes.

GS-11 Issues

There is still a ceiling of GS-11 for Civil Service APN ratings in some IHS Areas. Unfortunately, this has been a recurrent theme at our business meeting for several years that has not found remedy. Areas of concern include Alaska, Billings, and Tucson. This issue was presented to Dr. Grim at the 2006 NCCD meeting in Phoenix. Dr. Grim voiced concern and assured us of his support. The classification process was presented and discussed as a means to better understand how the classification standards are developed. It was noted that APN classifications have not been updated since 1977. Since then, our practice has expanded and become significantly more complex and independent. Dr. Grim recently signed the APN National Scope of Practice, which supports higher GS ratings by defining APN practice as it exists today. We will continue to support a minimal GS-12 rating for nurse practitioners.

Marketing and Communication

We will continue to market how APNs are serving American Indian/Alaska Natives' health care needs. APNs have developed brochures to teach both patients and personnel about their style of practice. Judy Whitecrane, CNM shared the powerpoint program that she presents at IHS business meetings promoting the utilization of APNs. We promote APN practice because it is cost effective, patient and education centered, and often more available, especially in rural areas. APNs also tend to be the stable core of Indian health facilities.

Women's Health Issues

The advanced practice nurses at this meeting enthusiastically support work to improve women's health care in the Indian health system. They pledged their support to work with CAPT Aoyama to improve Women's Health GPRA indicators, especially domestic violence and depression screening, mammography, and pap smear screening and treatment rates.

The financial support and assistance of the Clinical Support Center and Nursing Headquarters for this annual event are gratefully acknowledged. We look forward to meeting again in 2007.

Websites Worth a Look

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

Here are some websites that may be interesting and useful to you.

MedPage Today

This information service offers daily coverage of breaking medical news, accompanied by professional medical analysis. Its aim is to "provide clinicians with real-time information they need to address their patients' questions, and help them understand how new developments might impact their clinical practice." The website features news by specialty, and gives users the option of signing up for daily morning e-mail updates. The website is co-developed by the University of Pennsylvania School of Medicine and MedPage Today, an independent information services company. Go to: *www.medpagetoday.com*.

Ready.gov

Disaster preparedness is the subject of this website. This site provides abundant disaster preparedness information aimed at educating Americans on an ongoing basis about how to prepare for national emergencies, including natural disasters, biological or chemical accidents, and terrorist attacks. The home page consists of three links: Ready Business, Ready America, and Ready Kids. Health care institutions will find that the information and suggested guidelines can be easily adapted for their needs. The site is from the US Department of Homeland Security. Go to: *www.ready.gov*

NIH MedlinePlus Magazine

The latest and most authoritative medical and health care information from the National Institutes of Health (NIH) is available from MedlinePlus Magazine, a new quarterly guide for patients and their families. You can sign up for a copy to be sent to you free. Go to: *www.nlm.nih.gov/medlineplus/magazine.html*

For more information or for assistance in meeting your clinical information needs, e-mail me at *cooperd@mail.nih.gov*.

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