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Illness Prevention and Health Promotion for American Indian Elders

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Illness prevention and promotion of positive behavior changes are of considerable value in reducing morbidity and mortality among older adults. Previous May issues of The IHS Primary Care Provider have included specific suggestions for illness prevention.¹⁻³ Encouraging health promotion is also valuable. For example, changes in diet to include more fresh fruits and vegetables, less fat, and fewer processed foods, and increases in physical activity are of benefit to older people.⁴⁻⁶ Many American Indian and Alaska Native (AI/AN) elders fall into the group of relatively sedentary older citizens for whom such changes could be of great benefit.7 Since the recommendation or "prescription" of the primary care provider is influential in the patient's process of making lifestyle changes, it is worthwhile considering what providers might do to further promote positive behaviors in the form of more exercise, less smoking, improved diet, and higher vaccination rates. Changes

Annual Elders Issue

This May 2005 issue of THE IHS PROVIDER, published on the occasion of National Older Americans Month, is the tenth annual issue dedicated to our elders. We are grateful for the opportunity to honor our elders with a collection of articles devoted to their health and health care. Indian Health Service, tribal, and urban program professionals are encouraged to submit articles for the May 2006 issue on elders. We are also interested in articles written by Indian elders themselves giving their perspective on health care issues. Inquiries can be addressed to the attention of the editor at the address on the back page of this issue.

elders might be encouraged to make would benefit the elders as well as the community in which the elders live. Moreover, patient satisfaction has been linked to provision of prevention information by the primary health care provider.⁸

Rates of "lifestyle" diseases among AI/AN are high, and perhaps increasing: smoking occurs at as high or higher rates compared to the general population⁹; obesity⁷ and diabetes rates are alarmingly high¹⁰; and many elders do not exercise as much as is generally recommended.^{11,12} Vaccination rates for influenza and pneumonococus, as well as tetanus are below

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those of the general population.¹³ All these statistics suggest that increased attention to promotion of healthy behaviors would be of considerable benefit to elders. Increased functional capacity and perhaps longevity of elders represent substantial potential contributions to the AI/AN communities in which they reside, given the important role elders play in teaching and transmitting cultural history and values to younger community members, as well as their influential family roles. Furthermore, with strong involvement of community members, interventions can recognize and utilize the existing community organizations and structures to support the elder in making positive changes. More active, healthy elders are more effective teachers and models for the younger community members.

Addressing the need to increase physical activity might serve as an example. The generally accepted guidelines suggest a minimum of 30 minutes of moderate exercise most days of the week for those without contraindicating health conditions. Tailored, community-based programs for individuals and groups can have a notable impact. Recent intervention trials have resulted in improvements in blood pressure and respiration rate, subjective improvement in both physical and mental health, self-reported improvement in the ease of doing chores, and improvements in blood chemistry. 12,15

The primary care provider's office personnel could furnish information about available exercise/activity groups to each patient, and each patient's family, along with the provider's "prescription" of, or strong recommendations for, increasing the amount of physical activity to obtain the benefits of prevention of health problems, as well as ameliorating their effects. Nurses or other clinic staff could assist patients and their families in making the required contacts, and structure follow-up as well. Telephone contacts, even phone-developed individual exercise programs, have been found to be effective in intervention programs.¹⁵ In addition, care providers could provide a form for the elder to record his or her physical activity, and another for one or more family members to record theirs. This encourages continued participation and mutual support, and capitalizes on the documented role of parents in the exercise of their children.16 The local AI/AN community should develop and carry out specific programs, as much as possible, since each will have different perspectives, resources, and options, but every primary care provider could suggest, facilitate, and follow up on a "prescription" to increase physical activity. A provider's suggestion can help patients become active.17,18

The same general process could be applied to smoking cessation as well. Smoking cessation programs have been carried out in American Indian communities successfully.¹⁹ If the primary care provider prescribes/recommends smoking cessation and has a comprehensive system that involves other office/clinic staff also recommending smoking cessation,

provides information about how to initiate these changes, and incorporates the patient and his or her family into a system of follow-up, increased patient compliance should follow.

In the case of vaccination, again, successful attempts to increase vaccination rates have shown that elders will obtain vaccination when it is available.²⁰ Even mild encouragement from a health care provider is often enough to convince vulnerable elders that they should get necessary vaccinations, especially influenza and pneumonococcal vaccines. Specific strategies for increasing vaccination rates involve taking the service to nontraditional sites to diminish transportation difficulties, providing a wallet-sized card to record vaccinations, and reminding the elder to obtain vaccinations at appropriate times.¹³

Although IHS health care providers will be fully aware of the importance of including tribal leadership and community members in the development of any program, it bears emphasizing that when the community is included in every part of the structuring, planning, implementing, and monitoring of education and outreach programs, participation increases, trust is built, appropriateness increases, and innovative ideas emerge. A community-based program, supported by, and "prescribed" by the primary care provider, can secure health benefits for elders, as well as supporting his or her role in the community, thereby also increasing the community's physical and psychosocial health.

Guest Editorial

Tenth Anniversary May Elders Issue

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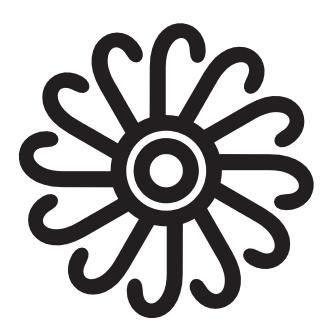
In 1996 the editor and staff of *The IHS Primary Care Provider* made a commitment to the elders of Indian Country. In honor of Older Americans Month they designated the May Issue of *The Provider* as the Elders Issue. In doing so, they promised American Indian and Alaska Native elders that they would place their needs and concerns squarely in front of the Indian health system. They have done this for ten years now, with the May Elders Issue and throughout the year; *The Provider* has been a powerful force for improving care of American Indian and Alaska Native Elders.

On behalf of all of us who care for and about elders I want to thank the editor, Dr. John Saari, and the staff of *The IHS Primary Care Provider*.

References

- 1. Attico NB. The elder female: A preventative care plan and health watch. *IHS Primary Care Provider*. May, 1997; 22:80-87.
- 2. Finke B. Prevention in the elderly. *IHS Primary Care Provider*. May, 2003;28:101-105.
- 3. Jackson MY. Healthy People 2010: Reaching American Indian/Alaska Native elders. *IHS Primary Care Provider*. May, 2000;25: 73-77.
- Knoops KTB, deGroot LC PGM, Kromhout D, Perrin A-E, Moreiras-Varela O, Menotti A, van Staveren WA. Mediterranean diet, lifestyle factors, and 10-year mortality in elderly European men and women: The Hale Project. *JAMA*.2004;292:1433-1439.
- 5. Abbott RD, White LR, Ross GW, Masaki KH, Curb JD, Petrovitch H. Walking and dementia in physically capable elderly men. *JAMA*.2004;292:1447-1453.
- 6. Weuve J, Kang JH, Manson JE, Breteler MMB, Ware JH, Grodstein F. *JAMA*. 2004; 92:1454-1461.
- Denny CH, Holtzman D, Cobb N. Surveillance for health behaviors of American Indians/Alaska Natives. MMWR. 2003;52(SS07):1-13.
- 8. McFall SL, Solomon TGA, Smith DW, Kelley M. Preventive services and satisfaction of Cherokee Nation patients. *J Pub Health Management and Practice*. 2001;7:76-83.
- 9. Husten C, Jackson K, Lee C. Cigarette smoking among adults United States. *MMWR*. 2004:53:427-431.
- Liao Y, Tucker P, Giles WH. Health status of American Indians compared with other Racial/Ethnic minority populations — Selected States, 2001-2002. *JAMA*. 2004;291:935-937.
- 11. Henderson KA, Ainsworth BE. Enablers and constraints to walking for older African American and American Indian women: The cultural activity participation study. *Res Q for Exercise and Sport*. 2000;71:313-321.
- 12. Kochevar AJ, Smith KL, Bernard MA. Effects of a community-based intervention to increase activity in American Indian elders. 2001. *J Oklahoma St. Med Assoc.* 94:455-460.
- 13. Donnelly A, Crawford S. Improving the health of Oklahomans: Status and goals of adult immunization. *J Oklahoma St Med Assoc.* 94:12-17.
- 14. Sigal RJ, Kenny GP, Wasserman DH, Casteneda-Sceppa C. Physical activity/exercise and type 2 diabetes. *Diabetes Care*. 2004;27:2518-2539.
- King AC, Rejeski WJ, Buchner DM. Physical activity intervention targeting older adults: A critical review and recommendations. *Am J Prev Med.* 1990;15:316-333.

- Sallis JF, Patterson TL, McKenzie TL, Nader PR. Family variables and physical activity in preschool children. J Dev Beh Pediatr. 1988;9:57-61.
- 17. Bull FC, Jamrozik K. Advice on exercise from a family physician can help sedentary adults to become more active. *Am J Prev Med.* 1998;15:85-95.
- 18. Calfas KJ, Long BJ, Sallis JF, Wooten WJ, Pratt M, Pattrie K. A controlled trial of physician counseling to promote the adoption of physical activity. *Prev.Med.* 1996; 25:225-233.
- Lichtenstein E, Lopez K, Glasgow RE, Gilbert-McRae S, Hall R. Effectiveness of a consultation intervention to promote tobacco control policies in northwest Indian tribes: Integrating experimental evaluation and service delivery. *Am J Community Psychol.* 1996;24:639-656.
- Anonymous. Reasons reported by Medicare beneficiaries for not receiving influenza and penumonococcal vaccinations — United States, 1996. MMWR. 1999;48:886-890.
- 21. Keltner B, Kelley FJ, Smith D. Leadership to reduce health disparities. *Nurs Admin Q.* 2004;28;181-190.
- 22. Orians CE, Erb J, Kenyon KL, Lantz P. et al. Public education strategies for delivering breast and cervical cancer screening in American Indian and Alaska Native populations. *J Pub Health Mgmt Pract*. 2004;10:46-53.
- 23. Spangler JG, Bell RA, Dignan MB, Michielutte R. Prevalence and predictors of tobacco use among Lumbee Indian women in Robeson County, North Carolina. *J Commun Health*. 1997;22:115-125.



Palliative Care Services: A Survey of Tribal Health Directors

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Palliative care represents an issue of emerging importance in Indian Country. This is a direct result of demographic changes, including an ever-expanding elder population, increasing numbers of individuals afflicted with chronic diseases, and advances in chronic disease management. The proportion of Native Americans over age 65 increased by 33% between 1980 and 1998, compared to 9% in the white population. Life expectancy also has increased, from 63 years in the mid-1970s to 71 years today. Tribal-specific and national data have documented the gradual changes in the most frequent causes of death.^{2,3} Currently, five of the top six causes are from chronic diseases, with the sole exception being accident-related deaths. Gains in life expectancy, coupled with a greater prevalence of chronic diseases, are leading to increased demands for palliative care services in the population at large, but little is known about the perceived needs and availability of these services in Native American communities. We therefore conducted a national survey of tribal health directors on these issues.

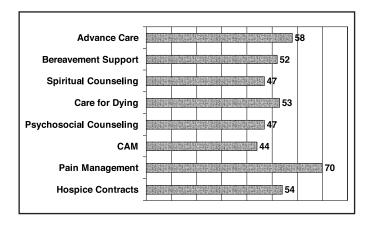
Methods

A 38-item questionnaire was designed to assess available and desired services related to palliative care. This survey was commissioned by the Spirit of EAGLES, which is a National Cancer Institute funded Special Population Network (U01-CA86098-05). Study methodology was similar to that which was employed in a previous national survey.4 Surveys were mailed to those tribal health directors listed in the on-line IHS Health Directory. Two mailings resulted in a 37% response rate. Questions ranged from perceived changes in disease incidence to the educational needs of professional staff. Two series of questions, which will be the main focus of this report, looked at the availability of and the need for ten areas of palliative care: hospice, pain management, alternative medicine, psychosocial counseling, interdisciplinary care, spiritual counseling, bereavement support, advance care planning, staff support, and respite care for family care providers.

Results

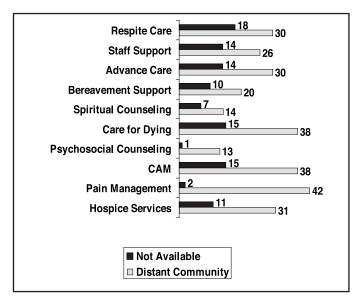
Respondents were queried regarding their perception of the temporal trends for specific diseases/conditions. More than three-quarters reported perceived increases in rates of cancer, cardiovascular disease, and diabetes. Tribal Health Directors were next asked to rate their community's level of need for each of the ten areas of palliative care listed above. They were asked to score each area using a five point scale, ranging from urgently needed to not needed. Figure 1 presents frequencies of responses indicating the greatest levels of need for each one. Seventy percent of respondents indicated an urgent need for pain management services, while between 50 and 60% reported an urgent need for advance care planning, traditional medicine, physical therapy, bereavement support, care for the dying, and hospice contracts.

Figure 1. Percent reporting urgent level of need for each service



To further characterize the need for these services, Tribal Health Directors were asked whether each service was available on reservation, in the local community, in the distant community (>15 miles), or not available. Figure 2 presents the percent reporting that such services are only available outside the local community or not at all available. Responses show that the majority of services were either not available or only available outside the local community. Services most frequently cited as being not available included: Alternative medicine (15%), Advance care planning (14%), Staff support (14%), Hospice services (11%), and Bereavement support (10%). Those services

Figure 2. Availability of Palliative Care Services



most frequently identified as being only available outside the local community included: Pain management (42%), Interdisciplinary care for dying patients (38%), Alternative medicine (38%), Hospice (31%), and Advance care planning (30%).

Discussion

Palliative care issues have rarely been assessed in Native American communities. Reasons for this are uncertain, but it may be due to a perceived lack of need (e.g., historical low rates of cancer) or a lack of adequate resources. However, despite incidence data suggesting an expanded need for these services, it appears that limited attention has been given to these issues. To illustrate, a recent literature review using the key term "palliative care" identified 31,518 articles. However, among these, only seven made reference to Native Americans, and only two^{5,6} of these substantively addressed the issue of palliative care in Native American communities.

Hotson, et al presented a description of issues surrounding palliative care provision to Aboriginal communities in northern Manitoba.⁵ They concluded that the provision of such services needs to be culturally sensitive and readily available in the local community. Finke, et al presented a comprehensive description of palliative care services among the Zuni and provides a possible model that could be followed by other communities.⁶ Finke also concluded that cultural sensitivity and the rural setting present major barriers to palliative care and offered strategies to deal with each.

It is equally apparent from our own survey findings that local solutions must be developed that are both sensitive to local needs and that can be delivered in the immediate geographic community. Foremost is the need to develop effective pain management programs, as well as those directed

towards advanced care planning, staff support, and respite care. Pain management was cited by 70% of respondents as urgently needed, and nearly half of all respondents indicated that such programs were either not available or only available outside the local community. Similar levels were noted for respite care, advanced care planning, and staff support.

Respondents were less than enthusiastic with their assessment as to how well they have met their community's needs. Only 18% reported doing an adequate job, and nearly 40% reported meeting little if any of their community's needs. Respondents report very high levels of interest (70%) among their medical team in learning more about palliative care. They also report less than adequate (60%) community access to end of life care. There is a clear need for infrastructure building to meet this burgeoning need. That will include training for clinicians, caregivers, and patients in the methods currently available to relieve human suffering.

There is no question that there is an emerging need for palliative care services, as evidenced by the growing numbers of elders and the increasing incidence rates of chronic diseases within our communities. We should mount effective palliative care programs now or expect that it will reach crisis proportions. These programs must recognize the heterogeneity of our people, be culturally sensitive, and address differing disease rates. The Spirit of EAGLES program stands ready to be a leader in the development of programs to meet these needs.

References

- US Census Bureau, Statistical Abstract of the United States: 1999. 119th ed. Washington, DC:US Census Bureau.
- Mahoney MC, Michalek AM, Cummings KM, Nasca PC, Emrich L. Cancer surveillance in a Northeastern Native American population. *Cancer*. 64(1):191195,1989.
- 3. Trends in Indian Health, 1998-99. Available at: http://www.ihs.gov/PublicInfo/Publications/trends98/trends98.asp
- 4. Michalek AM, Mahoney MC, Tome D, Tenney M, Burhannstipanov L. Tribally-based cancer control activities: Services and perceptions by Tribal Health Directors. *Cancer* Supplement. Oct 1996;78(7):1574-1578.
- 5. Hotson KE, Macdonald SM, Martin BD. Understanding death and dying in select First Nations communities in northern Manitoba. International *Journal of Circumpolar Health*. 2004;63(1):25-38.
- 6. Finke B, Bowannie T, Kitzes J. Palliative care in the Pueblo of Zuni. *Journal Palliative Medicine*. 2004;7(1):135-143.

Chronic Disease in American Indian/Alaska Native Elders

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Health care problems facing rural white and minority populations (e.g., African Americans, Hispanics) are documented in regard to elder populations; however, research is limited regarding American Indians and Alaska Natives (AI/AN), and even less is known about the relationship between chronic disease and access to healthcare in this population. Although the percent of American Indians/Alaska Natives (including those who also indicated another race) in rural areas increased by 78 percent between 1990 and 2000, national studies focusing on health and access to health care rarely include AI/AN populations, which is likely due to the expense of accessing small populations residing in isolated areas. Conversely, if AI/AN are included, the sample size is frequently insufficient for analysis.

In terms of longevity, the Indian Health Service (IHS) Division of Statistics,² reported that overall life expectancy of American Indians (71.1 years) was lower than the U.S. general population life expectancy (76.9 years) for all races.³ The IHS Division of Statistics reported a regional difference of approximately 12 years in American Indian life expectancy between the California Area (76.3 years) and the Aberdeen Area (64.3 years). Lower life expectancy is correlated with higher chronic disease rates, while the ability to diagnose and manage chronic disease is correlated with one's ability to access health care services in a timely manner.

Increased morbidity related to limited access to primary, secondary, and tertiary health care is an important concern for all elderly individuals in rural communities. Rural Healthy People 2010⁴ identified access to health care as a top priority for rural America, and the Institute of Medicine's 2002 report⁵ on racial and ethnic disparities indicated that improved access to health care is an important step in eliminating racial and ethnic health disparities.

According to the U.S. Commission on Civil Rights,⁶ Native Americans are affected by social and cultural barriers such as racism, ethnic bias, discrimination, patient health behaviors, environmental factors, and lack of culturally appropriate health care. Structural barriers include inadequate/uncoordinated IHS services, poor geographic

access to health facilities, long wait times for health care provider appointments, outdated facilities, difficulty with recruitment and retention of qualified health care providers, misdiagnosis or late diagnosis of disease, and rationing of health care services. Additionally, many AI/AN elders experience high rates of poverty, language barriers, and lower education levels.

Characteristics of rural health care delivery systems are often distinctly different from urban systems, and across rural areas, there is considerable variation in health care infrastructure. Furthermore, rural elders tend to use a different mix of health care services compared to their urban counterparts, such as greater reliance on inpatient and outpatient hospital services and fewer visits to physicians.7 The infrastructure of rural health care systems should meet the needs of individual communities, which can account for the wide variety of infrastructure. For example, rural hospitals can range from a five-bed facility to a 250-bed rural regional referral hospital. Variation is also evident across rural Native American and rural non-Native American communities. For example, nursing homes in non-Native rural communities across the United States tend to be quite common. Among rural Indian communities, in spite of substantial elderly populations, nursing homes are uncommon, with tribally owned skilled nursing facilities currently serving only 12 of 570 tribes.8

These dynamics prompt an array of information needs and policy solutions that reflect both the within-rural variation as well as rural-urban infrastructure differences. In addition, environmental features, such as long distances, geographical barriers, diverse cultures, poor economic conditions, and inadequate distribution of services and health care providers often limit access to health care for many rural communities. ^{9,10} The majority of reservations face similar challenges in isolated rural areas.

Methodology

The Native elder data file was derived from an ongoing Native elder needs assessment project at the National Resource Center on Native American Aging (NRCNAA), entitled "Identifying Our Needs: A Survey of Elders." The NRCNAA was funded by the Administration on Aging (AoA) in 1997 to construct a standardized survey instrument for use as a needs assessment tool across Native American elderly populations. The NRCNAA is located in the Center for Rural Health, University of North Dakota School of Medicine and Health

Sciences. The collaborative project between the tribes and the NRCNAA provides data to assist with designing and building long-term care infrastructure in tribal communities.

The survey instrument was constructed to be consistent with national questionnaires to ensure that comparative data would be available. Native elder providers administered the survey instrument face to face with elders in their community. The survey includes 64 questions on general health status, chronic disease, activity limitations, health risk, social support, and demographics. Two questions at the end of the survey asked elders if they have any unmet health needs or advice for young people. Variables from the Native elder data set used in this paper included demographics (age, gender) and chronic disease (Has a doctor ever told you that you had arthritis, asthma, breast cancer, cataracts, colon/rectal cancer, congestive heart failure, diabetes, high blood pressure, lung cancer, stroke?).

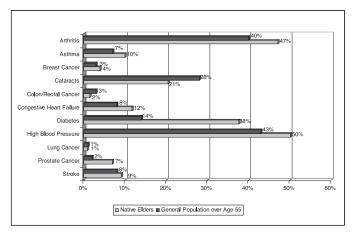
In order to produce reliable data, systematic random sampling was used to select participants from larger tribal populations; reservations or tribes with smaller numbers of elders (N=200 or less) were encouraged to involve all elders in the survey process. The dataset represents over 171 tribes from 88 different sites with 11 of the 12 IHS Areas represented, including Aberdeen, Alaska, Albuquerque, Bemidji, Billings, California, Navajo, Nashville, Oklahoma, Phoenix, and Portland. Thirty-one states are represented, with a total of 9,403 Native elders (age 55 and greater) having completed the survey. The cumulative file resulting from this project is not only a single representative sample of the nation's Native American elders, but also represents an aggregation of representative samples from tribes electing to participate. Given the size and breadth of the aggregate file, it is believed to be reflective of the nation's Native American elders.

Native Elder data were linked with the Area Resource File using county FIPS codes. From this linkage, a variable indicating urban, rural or frontier status was created. Those elders who reside in a county listed as large or small metropolitan (Urban Influence Codes 1 & 2) were coded as urban. Those elders who reside in a county listed as nonmetropolitan (Urban Influence Codes 3-9) and who do not reside in a county listed as a frontier county were coded as rural. Lastly, those elders who reside in a county listed as nonmetropolitan (Urban Influence Codes 3-9) and who are also listed as a frontier county were coded as frontier. Frontier counties were determined by population density and distance in miles and travel time in minutes from a market-service area.12 Two-way chi-square analyses were used to determine if there were significant differences for age, gender, and rural/frontier status, for each chronic disease under study.

Results

Native elders had a greater prevalence of arthritis, asthma, breast cancer, congestive heart failure, diabetes, high blood pressure, prostate cancer, and stroke as compared to the U.S. general population over age 55¹³ (see Figure 1).

Figure 1. Frevalence of chronic disease in comparison with U.S. general population over age 55¹³



Note. Females are excluded from the prostate cancer analysis and males are excluded from the breast cancer analysis.

Older Native elders had a significantly greater prevalence of arthritis, cataracts, colon/rectal cancer, congestive heart failure, high blood pressure, prostate cancer, and stroke than elders in the youngest age group (55-64). In contrast, the prevalence of asthma and diabetes among Native elders significantly decreased with increasing age (see Table 1).

Table 1. Prevalance of chronic disease by age cohort

	55-64 N=3,634	65-74 N=3,403	75-84 N=1,562	85+ N=490	$\mathbf{X}^2(3)$
Arthritis	44.2%	48.5%	50.5%	55.3%	34.92***
Asthma	11.1%	9.9%	9.5%	5.7%	15.09***
Breast Cancer	3.5%	4.0%	4.4%	4.1%	1.86
Cataracts	11.3%	21.7%	35.1%	60.8%	498.88***
Colon/Rectal Cancer	.9%	1.7%	2.4%	2.4%	22.95***
Congestive Heart Failure	8.2%	11.5%	17.9%	22.0%	150.47***
Diabetes	36.5%	40.6%	38.1%	30.2%	25.80***
High Blood Pressure	47.5%	51.3%	54.7%	52.4%	26.19***
Lung Cancer	.7%	1.0%	.9%	.6%	2.07
Prostate Cancer	3.4%	6.7%	13.7%	18.2%	100.51***
Stroke	6.7%	10.0%	11.7%	16.5%	72.79***

Note.***p<.001. Females are excluded from the prostate cancer analysis and males are excluded from the breast cancer analysis.



Female Native elders had a significantly higher prevalence of arthritis, asthma, cataracts, high blood pressure, and diabetes than male elders. Male Native elders had a significantly higher prevalence of congestive heart failure and lung cancer (see Table 2).

Table 2. Prevalance of chronic disease by age gender

	Male N=3,595	Female N=5,525	$\mathbf{X}^2(1)$
Arthritis	39.7%	52.6%	145.18***
Asthma	7.8%	11.7%	36.99***
Cataracts	17.9%	22.5%	27.54***
Colon/Rectal Cancer	1.8%	1.4%	2.14
Congestive Heart Failure	13.4%	10.7%	15.86***
Diabetes	36.1%	39.1%	8.48***
High Blood Pressure	48.7%	51.9%	8.79***
Lung Cancer	1.1%	.6%	4.92
Stroke	9.9%	8.9%	2.71

Note.* p<.05, ***p<.001.

Native elders in urban areas had a significantly higher prevalence of cataracts and asthma when compared with rural and frontier elders. Rural Native elders had a significantly higher prevalence of arthritis, stroke, and high blood pressure when compared with urban and frontier Native elders (see Table 3).

Table 3. Prevalance of chronic disease by age locale

Chronic Disease	Urban N=1,927	Rural N=2,591	Frontier N=4,641	$X^2(2)$
Arthritis	48.5%	50.8%	44.5%	28.98***
Asthma	12.2%	11.1%	8.7%	22.26***
Breast Cancer	4.7%	3.6%	3.6%	2.92
Cataracts	22.4%	20.2%	19.6%	6.58*
Colon/Rectal Cancer	1.7%	1.7%	1.4%	1.22
Congestive Heart Failure	11.8%	12.7%	11.1%	4.22
Diabetes	35.9%	38.5%	39.1%	5.90
High Blood Pressure	51.6%	53.1%	47.6%	23.29***
Lung Cancer	.6%	.7%	.9%	2.10
Prostate Cancer	6.6%	7.7%	6.7%	1.14
Stroke	9.2%	11.2%	8.2%	20.03***

Note.* p<.05, ***p<.001.Females are excluded from the prostate cancer analysis and males are excluded from the breast cancer analysis.

Discussion and Policy Implications

The protection of community health, prevention of disease and injury, the understanding of the impact of environment on individual and community health, and the notion of wellness as integrally tied to spiritual, physical, mental, and social harmony are all key elements of Native elders' value systems, and of public health. Given these common elements, public health programs can be developed that incorporate Native elders' values to address chronic illness prevention and

management. Because of limited federal and tribal resources, targeted public health interventions, based on health needs and input from Native elders, should be developed and implemented to improve the health of Native elders.

Numerous studies have found that self-management is effective in improving outcomes and reducing costs in individuals with chronic disease. Adequate disease management may prevent premature death, and may lead to better quality of life and decrease the development of comorbid conditions. A joint Centers for Medicare and Medicaid Services (CMS) and IHS disease management demonstration program could target the most prevalent chronic diseases in Native elders such as diabetes, arthritis, and high blood pressure. Such a program would provide an opportunity to identify elements that work well for the Native elder population as well as elements that may not be effective in helping Native elders manage their chronic diseases.

A key finding in this study was the significant relationship between lower prevalence of diabetes and increase age. One possible explanation is that Native elders with diabetes were less likely to participate in the survey process, perhaps due to poor health. Another possibility is that there are simply few Native Americans with diabetes who live into their elder years.

Increased efforts are needed to ensure that Native elders with chronic diseases have adequate access to health care resources that assist in effectively managing their health status. There are diabetes disease management programs that have demonstrated effectiveness¹⁵; however, there is little information pertaining to disease management programs specifically designed to meet the needs of Native elders. A targeted diabetes disease management program may help to increase the life expectancy of Native elders with diabetes by helping them better manage their disease and prevent comorbidities.

Another significant finding of this research pertains to the higher prevalence of asthma among Native elders in urban areas. Two ways to address this disease are to examine air quality and to see what asthma management programs may be available through the Environmental Protection Agency. It is anticipated that by improving air quality for urban Native elders, their respiratory health will also improve. In addition, air quality improvements have the potential to improve the respiratory health of all the people living in the community. Asthma management programs have also demonstrated success in helping asthma patients manage their disease. For example, better self-management of asthma results in fewer emergency department visits and fewer inpatient hospitalizations. It would be important to review what elements have contributed to the success of asthma management programs, and to identify issues that may need to be considered when designing an asthma management program for urban Native elders.

Future research should focus on the efficacy of demonstration disease management programs and should identify what elements may be unique for success among Native elders. These elements should then be incorporated in disease management programs that can be widely disseminated among Native elder communities to improve overall health status. Improved health status has the potential of increasing Native elders' quality of life and life expectancy, and ultimately, healthier Native elders will contribute to their communities through their wisdom, and preservation of their Native value system, which is beneficial to all Natives.

References

- Randolph R, Gaul K, Slifkin R. Rural Populations and Health Care Providers: A Map Book. North Carolina Rural Health Research and Policy Analysis Center: University of North Carolina at Chapel Hill; 2002.
- Indian Health Service. Life Table for the American Indian and Alaska Native by Gender in the Indian Health Service Areas. Unpublished report. Office of Public Health, Division of Community and Environmental Health Program Statistics Team: Rockville, Maryland; 1998.
- 3. National Center for Health Statistics. Health United States, 2001 with Urban and Rural Health Chartbook. Hyattsville, Maryland; 2001.
- Gamm L, Hutchison L, Dabney B, Dorsey A. Rural Healthy People 2010: A Companion Document to Healthy People 2010. Southwest Rural Health Research Center, School of Rural Public Health: Texas A & M University System Health Science Center; 2003.
- 5. Institute of Medicine. Unequal treatment: Confronting Racial and Ethnic Disparities in Health Care. National Academies Press: Washington, D.C.; 2002.
- 6. U.S. Commission on Civil Rights. Broken Promises: Evaluating the Native American Health Care System: Draft report for the Commissioners' Review; 2004.
- 7. Medicare Payment Advisory Commission. Medicare in Rural America. Washington, D.C.; 2001.
- Finke, B. American Indian and Alaska Native Roundtable on Long Term Care: Final Report 2002.
 Agency on Aging, Indian Health Service: National Indian Council on Aging; 2002.
- 9. Congdon JG, Magilvy JK. Themes of rural health and aging from a program of research. *Ger Nurs*. 2001;22(5):234-8.
- Davis R, Magilvy, JK. Quiet pride: The experience of chronic illness by rural older adults. *J Nurs Sch*. 2000;32:385-390.
- 11. Area Resource File (ARF). Available at: http://www.arfsys.com/main.htm Accessed on December 27, 2004.

- 12. Frontier Education Center. Frontier Counties from 2000 Census. Available at: http://www.frontierus.org/index.htm?p=2&pid=6003&spid=6019. Accessed on Dec. 27, 2004.
- National Health and Nutrition Examination Survey III. (1988-1994). U.S. Department of Health and Human Services, Data Dissemination Branch, National Center for Health Statistics, Centers for Disease Control and Prevention: Hyattsville, Maryland.
- 14. Bodenheimer T, Lorig K, Holman H, Grumbach K. Patient self-management of chronic disease in primary care. *JAMA*. 2002;288:2469-2475.
- 15. Garvin CC, Cheadle A, Chrisman N, Chen R, Brunson E. A community-based approach to diabetes control in multiple cultural groups. *Ethnic Dispar*. 2004 Summer;14(3 Suppl 1):S83-92.



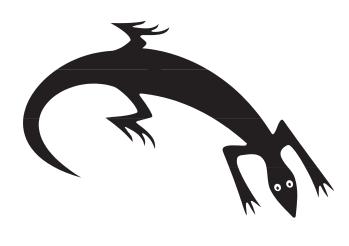
Notes from the Elder Care Initiative

Bruce Finke, MD, Nashville Area IHS Elder Health Consultant, IHS Elder Care Initiative, Northampton, Massachusetts

The Food and Drug Administration (FDA) has issued an advisory regarding the use of atypical antipsychotics in the elderly with dementia. The text of the advisory is below. For details, go to the FDA website at: http://www.fda.gov/cder/drug/infopage/antipsychotics/default.htm.

FDA Public Health Advisory: Deaths with Antipsychotics in Elderly Patients with Behavioral Disturbances

The Food and Drug Administration has determined that the treatment of behavioral disorders in elderly patients with dementia with atypical (second generation) antipsychotic medications is associated with increased mortality. Of a total of seventeen placebo controlled trials performed with olanzapine (Zyprexa), aripiprazole (Abilify), risperidone (Risperdal), or quetiapine (Seroquel) in elderly demented patients with behavioral disorders, fifteen showed numerical increases in mortality in the drug-treated group compared to the placebo-treated patients. These studies enrolled a total of 5106 patients, and several analyses have demonstrated an approximately 1.6 - 1.7-fold increase in mortality in these studies. Examination of the specific causes of these deaths revealed that most were either due to heart related events (e.g., heart failure, sudden death) or infections (mostly pneumonia).



The atypical antipsychotics fall into three drug classes based on their chemical structure. Because the increase in mortality was seen with atypical antipsychotic medications in all three chemical classes, the Agency has concluded that the effect is probably related to the common pharmacologic effects of all atypical antipsychotic medications, including those that have not been systematically studied in the dementia population. In addition to the drugs that were studied, the atypical antipsychotic medications include clozapine (Clozaril) and ziprasidone (Geodon). All of the atypical antipsychotics are approved for the treatment of schizophrenia. None, however, is approved for the treatment of behavioral disorders in patients with dementia. Because of these findings, the Agency will ask the manufacturers of these drugs to include a Boxed Warning in their labeling describing this risk and noting that these drugs are not approved for this indication. Symbyax, a combination product containing olanzapine and fluoxetine, approved for the treatment of depressive episodes associated with bipolar disorder, will also be included in the request.

The Agency is also considering adding a similar warning to the labeling for older antipsychotic medications because the limited data available suggest a similar increase in mortality for these drugs.

Comment

The atypical antipsychotics are widely used to treat behavioral disturbances such as agitation and aggressive behavior that can accompany moderate to severe dementia. They can be a useful tool, when behavioral and environmental interventions do not succeed by themselves. Behavioral disturbances are often "the straw that breaks the camel's back," making it too difficult for families to care for elders with dementia in the home and prompting institutional placement. What should we do about the FDA Advisory? The key issue is to recognize that dementia is a life-limiting disease. In a recent community-based study, the diagnosis of Alzheimer's disease reduced life expectancy by half across all age groups. More severe dementia (associated with more behavioral symptoms) was associated with an even greater reduction of life expectancy (Larson, et al). As the authors of an editorial accompanying that article point out, "A dementia diagnosis should prompt a clinician to define a patient's palliative care needs by carefully considering the best way to sustain the quality of life for both the patient and the caregiver" (Covinsky and Yaffe). Most families of an elder with late stage dementia with behavioral disturbances will want to focus on quality of life rather than prolongation of life.

The first line of treatment of agitation and other behavioral problems of dementia is always nonpharmacologic. We should focus intensely on identifying and attending to triggers for agitation or aggressive behavior and creating a soothing environment before resorting to medications. This focus should continue, even if medications are used. One of our tasks in the Indian health system is to improve our ability to provided skilled nonpharmacologic interventions in the home for elders with dementia.

This is an off-label use for these medications, a use for which FDA approval has not been sought, but for which there is evidence of benefit in the literature. Families should know this. How much benefit? A recent review cites the atypical antipsychotics risperidone and olanzapine as the only antipsychotics for which there is good evidence of efficacy "with minimal side effects at lower doses." The authors conclude that the evidence supports a "modest benefit" for these agents with an increased risk of stroke (Sink, et al).

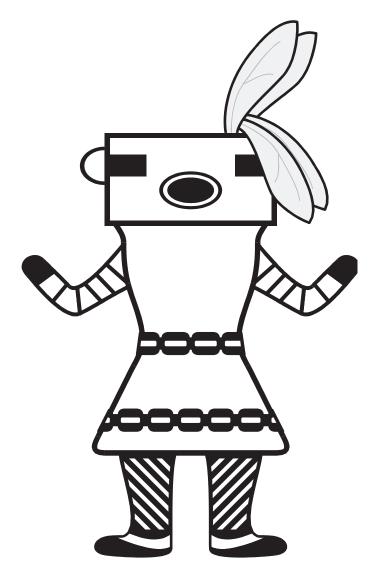
But when behavioral disturbances, in spite of nonpharmacologic interventions, threaten the quality of life of an elder with dementia, careful use of atypical antipsychotics has a role. Families should understand that there is likely to be a trade off: these medicines have the potential for improving quality of life, while also possibly reducing the length of life. This discussion should be documented. The families will make a decision based on the degree to which the behavioral disturbance is diminishing the quality of life of the elder with dementia. In many cases they will opt for quality of life. Either way, we are doing what we can to provide the best possible care for the elder with dementia.

Mary Jo Crissler, MD, New Clinical Lead in Palliative Care

Dr. Mary Jo Crissler, enrolled member of the Turtle Mountain Tribe of Chippewa Indians, has agreed to serve as the clinical lead in palliative care for the Indian Health Service. Dr. Crissler is a passionate advocate for improved palliative and end-of-life care for Indian people. In addition to her general internal medicine practice at the White Earth Service Unit, she serves as the volunteer Medical Director of the Hospice of the Red River Valley in Detroit Lakes, Minnesota. Dr. Crissler will be working on a variety of strategies to support IHS clinicians, clinics, and hospitals in our continued efforts to improve quality of life and reduce suffering for those nearing the end of life.

Join this effort by signing on to the Palliative and End of Life Care listserv at: http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm?module=list&option=list&num=42 &startrow=26.

To subscribe to this monthly e-mail newsletter, go to http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cf m?module=list&option=list&newquery=1.



The Case for Palliative Care

Mary Jo Crissler, MD, White Earth Service Unit, Ogema, Minnesota

Mrs. R, a 74-year-old, widowed female, presented to her primary care internist, Dr. B, at a small Indian Health Service (IHS) clinic after her neighbor told her that her eyes looked yellow. Subsequent evaluation led to a diagnosis of locally invasive pancreatic cancer, and the patient was referred out to a cancer center 75 miles away. She underwent external beam radiation therapy along with concurrent chemotherapy and did fairly well for eight months, with frequent visits to her oncologist but little contact with her primary provider. Over time the patient had significant weight loss, increasing pain, and progressive disease, and she returned to her internist and asked for his help. Mrs. R admitted to being quite depressed, and told Dr. B that she felt very alone.

This case illustrates some of the challenges our IHS providers may encounter when confronted with patients who need palliative care. Dr. B was suddenly faced with resuming care for a patient followed in an outside system for several months, now having physical symptoms, in need of evaluation and treatment, but greatly in need of social and spiritual support as well. Dr. B tried to call the patient's oncologist for advice but was told he was out of town for two weeks. Dr. B wasn't sure who else to call, or if any palliative care consultants were available in the area. Although the community had a good home health program, he knew that none of the nurses had specific training in palliative care and advanced pain and symptom management. Dr. B was aware of a hospice in a neighboring town, but didn't know if Mrs. R would want the help of people perceived as strangers, unfamiliar with her culture and her beliefs about death and dying. Dr. B had to admit to himself that he was feeling very alone as well.

The unique needs of patients as they near the end of their lives can be overwhelming for a provider. It is vital for our providers to know where to turn in situations like the one presented, and for appropriate resources to be in place to ensure the best care for our patients. We plan to work on developing palliative care standard of care for the IHS, with achievable goals, as well as provision of the necessary tools to attain these goals. We also hope to develop consultative resources for our providers, and to facilitate dissemination of palliative care information via the Palliative Care listsery and future development of the Palliative Care website. The IHS is committed to the future of palliative care and the support of its providers, and it is an exciting opportunity to work with the IHS in this endeavor. We look forward to your input and to collaborating with you on this journey to improve the care we provide for our patients as they reach the end of their lives.

To cure sometimes, To relieve often,

To comfort always.

-Anonymous



Taking the Initiative on Elder Care

Bruce Finke, MD, Nashville Area IHS Elder Health Consultant, IHS Elder Care Initiative, Northampton, Massachusetts

At the IHS National Combined Councils Annual Conference in February, 2004, Dr. Charles Grim, Indian Health Service Director, outlined a new framework of initiatives to guide the Indian Health Service (IHS). He focused our attention in three areas: health promotion and disease prevention, community and clinical behavioral health interventions to reduce depression, and chronic disease management.

In this brief article, we'll look at care of the elder through the window of these three initiatives, thinking together about how we can ensure that the elders we serve receive the best care possible.

Health promotion and disease prevention

Healthy aging is contingent upon health in youth and the middle years. Care we provide to the elder cannot undo a lifetime of chronic disease. The efforts underway to prevent and treat diabetes, cardiovascular disease, and tobacco and substance abuse will have profound implications for the health of the elders of the future. But a healthy lifestyle also has huge benefits for the current elderly. Exercise has been shown to reduce arthritis pain, may improve sleep, and reduces rates of fall and injury and resultant disability. Use of evidence-based clinical preventive care services can add both years and quality to the lives of our elders. IHS Guidelines for Preventive Care Services for the Elderly are available at www.ihs.gov/medical-programs/eldercare/Resources_For_Professionals.asp.

Chronic Disease Management

Choose any elder and evaluate their care and you will find a case study for why the current design of our health care system, focused as it is on the episodic, problem oriented visit, fails us in the care of chronic disease. New models of chronic disease care recognize the individual in the context of their family; integrate home, community and clinic-based care; educate and empower the individual and family; and improve access to care and information.⁴ These principles underlie ideal elder care as well.

Behavioral Health

Elders teach us our complete interdependence, our need for others. While we strive to reduce disability with aging, we know that most of us will require some help in our later years. Traditional cultures have well developed clan and family structures that support the individual throughout the lifespan. A spiritually and mentally healthy family and community are essential to the health and well-being of the elder.

What are some of the steps we can be taking at our hospitals, clinics, and health centers to support improved care of the elderly within the framework of these three initiatives?

Commit to a periodic comprehensive elder exam for every elder. This can be done in the home, in the clinic, or in other settings like the Senior Center. It can be done by a clinician or a community health nurse. It gives us the opportunity to assess function and understand the need for support in activities of daily living, to screen for health risks like falls and sleep problems, to offer preventive cancer screening. It allows us to talk about exercise and diet and support healthy lifestyle and to ask the difficult questions about depression, substance use and abuse, or exploitation. For the frail elder it gives us the opportunity to focus on function and quality of life rather than on management of specific diseases. The PCC Comprehensive Elder Exam or PCC+ elder exam template can help you to do and document this. This is also found at www.ihs.gov/medicalprograms/eldercare/Resources For Professionals.asp.

Think about **the community as the long term care setting**. Clinical services provided in the home are critical to managing the complex medical and social issues facing the frail elder and their family. Coordination between long term care services and clinical services is essential if we are to support the more severely impaired elder in the home setting. There will be exciting opportunities to explore the emerging asset of telehealth home care as a tool in our care of frail elders in the home.



Develop clinical competence and programmatic resources for palliative care and care at the end of life. Competent, compassionate care focused on symptom management and quality of life at the end of life is an essential element of good health care. It is the most important thing we can do to relieve suffering and aid in the healing of those left behind. Elsewhere in these pages you will be introduced to Dr. Mary Jo Crissler, a terrific new resource in palliative and end-of-life care for the Indian health system.

Identify clinical indicators to **track quality of care for the elderly**. The new Elder Care Report, a CRS (Clinical Indicators Reporting System) report, will be available soon to help you. It will allow you to focus on the care you are providing to those age 55 and older, with a new and valuable indicator for rates of functional status assessment.

Our elders tell us that the usual way of doing business in our health system isn't working. A vision for health care that recognizes the mental and spiritual health of the community as critical, focuses efforts on healthy choices and prevention of illness and injury, and addresses management of chronic disease in novel and effective ways points us in the direction optimal elder care.

References

- American Geriatrics Society Panel on Exercise and Osteoarthritis. Exercise prescription for older adults with osteoarthritis pain: consensus practice recommendations. A supplement to the AGS Clinical Practice Guidelines on the management of chronic pain in older adults. *J Am Geriatr Soc.* Jun 2001;49(6):808-23.
- 2. Montgomery P, Dennis J. A systematic review of non-pharmacological therapies for sleep problems in later life. *Sleep Med Rev.* Feb 2004;8(1):47-62.
- Chang JT, Morton SC, Rubenstein LZ, Mojica WA, Maglione M, Suttorp MJ, Roth EA, Shekelle PG. Interventions for the prevention of falls in older adults: systematic review and meta-analysis of randomised clinical trials. *BMJ*. Mar 2004;328(7441):680.
- 4. Bodenheimer T, Wagner EH, Grumbach K. Improving primary care for patients with chronic illness. *JAMA*. Oct 2002;288(14):1775-9.



Editor's Note: The following is a digest of the monthly Obstetrics and Gynecology Chief Clinical Consultant's Newsletter (Volume 3, No. 4, April 2005) available on the Internet at http://www.ihs.gov/MedicalPrograms/MCH/M/OBGYN01.cfm. We wanted to make our readers aware of this resource, and encourage those who are interested to use it on a regular basis. You may also subscribe to a listsery 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@anmc.org.

OB/GYN Chief Clinical Consultant's Corner Digest

Abstract of the Month

Human Papillomavirus: ACOG Practice Bulletin Number 61, April 2005.

Summary of Recommendations and Conclusions

The following recommendations are based on good and consistent scientific evidence (Level A):

- Because HPV DNA testing is more sensitive than cervical cytology in detecting CIN 2 and CIN 3, women with negative concurrent test results can be reassured that their risk of unidentified CIN 2 and CIN 3 or cervical cancer is approximately 1 in 1,000.
- Studies using combined HPV testing with cervical cytology have reported a negative predictive value for CIN 2 and CIN 3 of 99 100%.
- Human papillomavirus DNA testing is not recommended in women with LSIL, atypical squamous cells that cannot exclude high-grade squamous intraepithelial lesions, or atypical glandular cell cytology.
- The triage of women with ASC-US cytology using reflex HPV DNA testing for high-risk types when liquid-based cytology was used at the time of the initial visit eliminates the need for a repeat office visit and is a more sensitive triage tool than repeat cytology while referring fewer women to colposcopy.
- Women with high-risk HPV who have ASC-US or LSIL cytology but are not found to have CIN 2 or CIN 3 at their initial colposcopy have approximately a 10% risk of having CIN 2 or CIN 3 within 2 years.

The following recommendations are based on limited or inconsistent scientific evidence (Level B):

- Although evidence is lacking that condoms offer complete protection from HPV infection, condom use may reduce the risk of HPV-related disease, such as genital warts and cervical neoplasia.
- Studies show that condoms may be effective in the clearance of HPV or HPV-associated lesions.
- Use of a combination of cervical cytology and HPV DNA screening is appropriate for women aged 30 years and older. If this combination is used, women who receive negative results on both tests should be rescreened no more frequently than every 3 years.

 Because of a similar risk of recurrence, no single treatment for external genital warts can be recommended over another.

The following recommendations are based primarily on consensus and expert opinion (Level C):

- Women older than 30 years with a negative cytology result who have high-risk HPV DNA positive test results should have both tests repeated in 6 - 12 months. Those with persistent high-risk HPV (on repeat testing) should undergo colposcopy regardless of the cytology result.
- Human papillomavirus DNA testing could be used as a test of cure for women with CIN 2 or CIN 3 at 6-12 months following excision or ablation of the transformation zone. Those with high-risk HPV should be referred for colposcopy.
- Treatment for genital warts should be guided by the preference of the patient and the experience of the heath care provider.

OB/GYN CCC Editorial comment

ACOG has provided a great deal of information that should help guide our screening for cervical cancer among Native American women. I suggest providers utilize the above Practice Bulletin and the American Society for Colposcopy and Cervical Pathology Consensus Guidelines as benchmarks. http://www.asccp.org/consensus.shtml

Indian health providers and Native American patients should be aware that there are proprietary vendors aggressively marketing HPV tests directly to patients under the guise of patient education and public health information. Proprietary vendors can present an unrealistically flattering portrayal of their products and may have motivations other than attaining the high possible health status of Native American women.

Human papillomavirus. ACOG Practice Bulletin No. 61. American College of Obstetricians and Gynecologists. *Obstet Gynecol*. 2005;105:905-18.



From your colleagues

Burt Attico, Phoenix

DMPA, Bone Mineral Density, and Teens: Recent and Reassuring Data.

Question. With recent studies showing that there is 3% to 6% bone density loss per year when a patient is using depot medroxyprogesterone acetate (DMPA, Depo Provera), is there a length of time after which alternative contraception should be used? Is there any role for "add-back therapy"? Bone density does not always correlate with bone strength, but a lot of our younger generations do not take in much calcium, and we may have lower bone masses aggravated by DMPA.

Answer: Depot medroxyprogesterone acetate injectable contraception is widely used in the United States, particularly by teens. Use of DMPA not only suppresses ovulation (resulting in highly effective, long-acting birth control), but it also reduces ovarian production of estradiol. Recognizing that bone mineral density (BMD) declines during DMPA use, and given the dearth of BMD data related to DMPA use in young women, concerns have been raised regarding DMPA's skeletal safety in teens. The US Food and Drug Administration recently placed a black-box warning on DMPA package labeling indicating that women who use DMPA may lose significant BMD and that the loss may not be completely reversible. It also notes that it is unknown whether DMPA use during adolescence or early adulthood will reduce peak bone mass and increase the risk for osteoporotic fracture in later life.

However, DMPA use has not been linked to menopausal osteoporosis or fractures. In addition, reassuring evidence of complete recovery of subsequent BMD in former DMPA users has come from cross-sectional data.

The good news is that two recent publications should allow clinicians to offer DMPA to their adolescent patients with confidence that they are not putting them at risk for osteoporosis later in life. In a two-year, double-blinded, randomized controlled trial of 123 adolescents, Cromer and her colleagues in Cleveland, Ohio, found that when estradiol supplementation was added to DMPA, the BMD did not drop. Similar observations that DMPA + estrogen result in stable BMD in adult women have been made by Cundy and his colleagues in New Zealand. Reassurance regarding recovery of BMD following use of DMPA in teens can be derived from the results found in a cohort study by Scholes and her colleagues in Seattle, Washington. A cohort of 170 adolescents (including 80 who used DMPA at baseline) found that recovery of BMD is complete within 12 months post DMPA discontinuation: "Adjusted mean BMD values for discontinuers were at least as high as those of nonusers for all anatomic sites at 12 months and at all subsequent follow-up intervals." Duration of DMPA use was not observed to affect speed of BMD recovery after DMPA discontinuation. These observations led to the authors' concluding sentence: "... these results in teens and those from our previous cohort provide reassurance that bone loss is regained, even in younger users."

The Cromer study emphasizes that in teens, as in adult women, the transient loss of BMD associated with DMPA use can be attributed entirely to reduced ovarian estradiol production with use of this injectable contraceptive. Although 'add-back' estrogen supplementation indeed prevents BMD loss in teen and adult DMPA users, the recovery of BMD that occurs after DMPA discontinuation in both teens and adults means that the need for such 'add-back' would be unusual. As both Cromer and Scholes point out in their respective publications, the transient impact of DMPA on endogenous estradiol levels and BMD is similar to trends noted with lactation, which has not been found to have a long-term impact on skeletal health. Although calcium supplementation is appropriate for North American teens, such a recommendation should apply regardless of contraceptive use. Available by Andrew M. Kaunitz, MD, Medscape.

Hot Topics

Obstetrics

Antibiotic treatment for bacterial vaginosis or *Trichomonas vaginalis* during pregnancy does not reduce the risk of preterm birth or other adverse perinatal or maternal outcomes.

Conclusion: Contrary to the conclusions of three recent systematic reviews, we found no evidence to support the use of antibiotic treatment for bacterial vaginosis or *Trichomonas vaginalis* in pregnancy to reduce the risk of preterm birth or its associated morbidities in low- or high-risk women.

Okun N, et al. Antibiotics for bacterial vaginosis or *Trichomonas vaginalis* in pregnancy: a systematic review. *Obstet Gynecol*. 2005 Apr;105(4):857-868.

Obstetric Anal Sphincter Injury Persists Over Long Term

Conclusion: Subjective and objective anal function after anal sphincter injury deteriorates further over time and with subsequent vaginal deliveries. Thin perineal body and internal sphincter injury seem to be important for continence and anal pressure.

Fornell EU, et al. Obstetric anal sphincter injury ten years after: subjective and objective long term effects. *BJOG*. 2005 Mar;112(3):312-6.

Gynecology

Antibiotics for Recurrent Urinary Tract Infections: Cochrane for Clinicians. A 26-year-old woman visits your clinic with dysuria. She is diagnosed with her fourth urinary tract infection (UTI) of the year.

Clinical Question. Should we use prophylactic antibiotics in patients with recurrent UTIs? If so, which antibiotic and schedule are best?

Evidence-Based Answer. Prophylactic antibiotics can reduce the number of recurrent UTIs in nonpregnant women while they are taking the medication (relative risk [RR], 0.21;

number needed to treat [NNT], 2). No antibiotic was significantly better than others at decreasing the number of UTIs, and all antibiotics caused side effects such as candidiasis, rash, and nausea in some patients. Postcoital prophylaxis was as effective as daily prophylaxis in young women. Limited evidence suggests that weekly prophylaxis is better than monthly prophylaxis, but the former has not been compared with daily or postcoital prophylaxis.

Child Health

FASlink. The approach is directed at maternal drinking behavior and dose. The content itself grabs you right off in the first sentence. Canadian data could be extrapolated to US data. The physiology and effects remain the same. The depth and scope and the various media allow you to access a basic and user friendly resource kit. Go to https://www.faslink.org/.

Chronic disease and Illness

Impact of Community-Based Yoga on Quality of Life. Quality of life related to physical, emotional, and social functioning and mental health can be improved for some persons after three months of a community-based mind-body training program. While the study participants initially reported more anxiety and depression than community norms, their higher self-efficacy scores indicate that persons who choose alternative medicine tend to regard health as subject to individual control. Stress reduction and social support may be mediators of the improvements observed.

Lee SW, et al. Prospective study of new participants in a community-based mind-body training program. *J Gen Intern Med.* July 2004;19:760-5.

Ask a Librarian: Diane Cooper, MSLS, NIH

Access to the NIH Library web resources explored for Indian health tribal staff. There has been some initial confusion about Indian health staff's access to the NIH Library webpage. At this time, current federal employees of IHS have access to the website below through our wide area network

(WAN). The NIH is exploring access issues for tribal employees. http://hsrl.nihlibrary.nih.gov/cooperd@ors.od.nih.gov.

STD Corner: Laura Shelby, STD Director, IHS

Natural mentoring and adolescent health: evidence from a national study. This article analyzes the mentoring database of the National Longitudinal Study of Adolescent Health. According to the authors, mentoring relationships (with nonparent adults) had some positive effect on health and related outcomes, but individual and environmental factors had a greater impact on these outcomes, outweighing the impact of mentors.

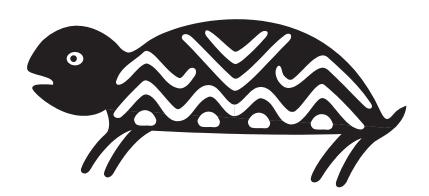
DuBois DL, Silverthorn N. Natural mentoring relationships and adolescent health: evidence from a national study. *Am J Public Health*. 2005 Mar;95(3):518-24.

Barbara Stillwater, Alaska State Diabetes Program

A Decline in Life Expectancy in the US. A nine-month fall in life span would be greater than the negative effect of all deaths from accidents, murder, and suicide. The magnitude of that effect may sound trivial to some, but in fact it is greater than the negative effect of all accidental mortality, such as car accidents, suicides, and homicides combined.

Conclusion. Forecasts of life expectancy are an important component of public policy that influence age-based entitlement programs such as Social Security and Medicare. Although the Social Security Administration recently raised its estimates of how long Americans are going to live in the 21st century, current trends in obesity in the United States suggest that these estimates may not be accurate. From our analysis of the effect of obesity on longevity, we conclude that the steady rise in life expectancy during the past two centuries may soon come to an end.

Olshansky SJ, et al. A potential decline in life expectancy in the United States in the 21st century. *N Engl J Med*. 2005 Mar 17;352(11):1138-45.



Clinical Reporting System (CRS) Update

Stephanie Klepacki, CRS Project Coordinator, Albuquerque, New Mexico; and Theresa Cullen, MD, MS, National Medical Informatics Consultant, Tucson, Arizona

CRS 2005 Software

The Clinical Reporting System (CRS, formerly known as GPRA+) 2005, Version 5.0 software was released nationally on October 21, 2004. Key changes for this version include:

- New National GPRA report (replaces the GPRA Performance and Area Director Performance reports). This report will be used for quarterly and annual GPRA reporting. It automatically selects American Indian/Alaska Natives as population, report period July 1, 2004 - June 30, 2005, and 2000 as baseline year.
- Revised CVD and Cholesterol Screening and Prenatal HIV Testing to GPRA indicators.
- Five new indicator topics:
 - O Childhood Immunizations (GPRA indicator for 2005)
 - Childhood Obesity Reduction (proposed GPRA indicator for 2006)
 - o Chronic Kidney Disease Assessment
 - Comprehensive CVD-Related Assessment for At-Risk Patients
 - o Diabetes Comprehensive Care
- New option to print Patient Lists for patients who meet or do not meet indicators included in the National GPRA report.

Patch 1 for this software was released on January 31, 2005. Key features included in the patch are:

- Change to Diabetes: Nephropathy Assessment GPRA indicator that removes requirement for an Estimated GFR test.
- Added logic now requiring users to have security keys to run patient lists, edit site parameters, and edit sitedefined taxonomies.
- Added new report (GPU option from Other National Reports menu) that enables users to run the same indicators included in the National GPRA report but for a report period they specify.

Development of CRS Version 5.1 is complete and beta testing is underway, with national release in early June. Key changes for this version include:

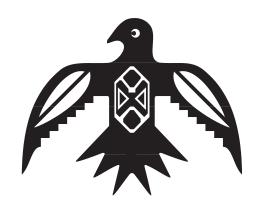
- New CMS report, includes 10 quality measures for heart attack, heart failure, and pneumonia
- Six new indicators (also included in HEDIS report):
 - o Topical Fluoride (GPRA indicator for 2005)
 - o Three CVD-related
 - O Osteoporosis Management in Women
 - o Asthma Quality of Care
- New Elder Care report (patients 55+)
- New Graphical User Interface (GUI)
 - Windows-based
 - o Will be in addition to current roll-and-scroll

CRS 2005 Training

Two types of CRS training were offered this year: a class providing an overview of GPRA, PART, and CRS, and a CRS Hands-on Training class. Training has been conducted at Ten Area Offices and concluded the end of March. Training materials are available online at http://www.ihs.gov/cio/crs/crs_fy05.asp.

GPRA Quarterly Reporting

Quarterly GPRA reporting began in February. GPRA reporting sites should have exported their report data to their respective Area Offices by February 22, 2005, and Area Offices should have exported their data to CAO (carol.goodin@ihs.gov) by Tuesday, March 1, 2005. The CRS software will be used for all GPRA reporting. Instructions for both site and Area Office reporting are available at the CRS website at http://www.ihs.gov/cio/crs/crs_reporting.asp.



What is GPRA and How Does it Affect Me?

Stephanie Klepacki, CRS Project Coordinator, Albuquerque, New Mexico; and Theresa Cullen, MD, MS, National Medical Informatics Consultant, Tucson, Arizona

Overview

Contrary to popular belief, "GPRA" is <u>not</u> something IHS invented to "Get People Really Angry!" Well, what exactly is GPRA and how does it affect you, as a physician, nurse, dentist, data entry operator, GPRA Coordinator, IT expert, Area Director, or most importantly, a patient of IHS?

- GPRA = Government Performance and Results Act
- Is a Federal law.
- Shows Congress how the Indian Health Service is performing based on a set of specific measures.
- Information that is reported to Congress must be backed up by a data supported audit trail that can be verified and validated.
- IHS is subject to having its GPRA report audited.
- An annual GPRA Report is required every year.
- IHS (federally) operated facilities are required to report for GPRA.
- Tribal and urban operated facilities are not required but are highly encouraged to report on GPRA measures.
- The Clinical Reporting System (formerly GPRA+) is the RPMS application the IHS Director has chosen to help obtain clinical data for GPRA.
- GPRA data is used to support the Program Assessment Rating Tool (PART) and the IHS Strategic Plan
- GPRA reporting is directly linked_to the annual budget request for IHS.

What Type of Information is Reported for GPRA?

Primarily clinical information is reported, in the categories of prevention and treatment, such as:

- Quality of care for patients with diabetes. Did a patient with diabetes have:
 - O His/her glycemic level and blood pressure under control?
 - O A lipids test, nephropathy assessment, retinopathy exam, and dental exam in the past year?
- Cancer Screening
 - O Are women age 21 64 getting a Pap smear at least every 3 years?
 - O Are women age 50 65 getting a mammogram at least every 2 years?
 - O Are adults age 50 and older being checked for colorectal cancer?

Immunizations

- O Are children receiving the immunizations they need by 35 months of age?
- O Are at-risk populations (e.g., adults age 65+ and patients with diabetes) receiving the immunizations they need?

Where Does the GPRA Data Come from?

- All of the data come from different sources in RPMS:
 - o Patient Care Component (PCC)
 - O Women's Health
 - o Behavioral Health
- Data also come from RPMS supporting packages that
 - o pass data to PCC, including:
 - O Contract Health Service/Management Information System (CHS/MIS) (requires CHS to PCC link to be "on" at the facility)
 - o Immunization Package
 - o Lab Package

If the data are only in the patient's chart and is not entered into RPMS, they cannot be reported for GPRA.

How Do I Report for GPRA?

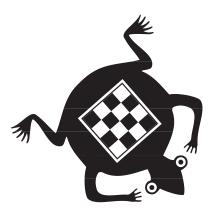
- Use the Clinical Reporting System (CRS) in RPMS.
- Facilities run the National GPRA report. This report shows sites how they are doing on their GPRA indicators compared to how they did in the past and how they compare to last year's national average.
- Direct facilities and reporting tribal facilities export their data to their respective Area Offices.
- Area GPRA Coordinators load the facility reports to produce an Area aggregate report. This report shows if the overall Area GPRA indicators are being met.

What Can I Do to Help IHS Improve the Health Status of Its Patients?

- Patients
 - O Ask your health care provider if you are due for any screenings/tests and ensure appointments are scheduled for you for the needed tests.
 - O Tell your provider if you drink alcohol and/or smoke.
 - O Communicate to your provider about any tests/procedures/immunizations you had at a facility other than where you normally receive care.
 - O Ensure you show up for your appointments whenever possible and call to reschedule if you cannot make it so the appointment can be used by someone else.
 - Take care of yourself!

Providers

- O Communicate with data entry staff on what they should look for on the encounter forms and ensure they know how to enter it into PCC.
- o Ensure you and/or others are asking the questions that need to be asked (e.g., do you smoke, drink) and getting heights, weights, and BP. Ensure that the information is being documented on the encounter form in the appropriate place.
- O Document patient refusals, patient education, and health factors.
- O Ask patients about tests/ immunizations/ procedures that s/he may have received outside of your clinic and document them on the encounter form according to the policy in place at your facility.
- O If you are responsible for running the CRS reports, ensure you have received training on how to run the reports and which reports are best to
- O Review the National GPRA report for the indicators that are applicable to you. For example, if you are a dentist, review the GPRA dental indicators, or if you are the Diabetes Coordinator, review the diabetes indicators. Do not wait until the last minute to do this!
 - Do the rates look reasonable? If not, obtain a copy of the patient list(s) for the indicator(s) and compare with the charts to see where problems may exist:
 - Are the data in the chart but not in PCC?
 Do the data entry staff need to be advised on how to enter it in PCC?
 Were they documented in the correct place on the encounter form?
 - Were the data in PCC but documented with a code CRS is not looking for? Should CRS be looking for it?
 - Did the patient not receive the screening/test/immunization? If not, schedule an appointment for the patient.



Data Entry

- O Ensure you understand how everything on the encounter form is to be entered into PCC. If you don't, ask the provider.
- O If a provider writes something on the encounter form that is not in the correct place, let him/her know where it should be notated.
- O Ensure you know the mnemonics for entering refusals and historical data. Obtain a copy of the CRS Clinical "Cheat" Sheet that provides information on entering data for several GPRA indicators.

IT Staff

- Ensure the current version of CRS and all required patches are installed in a timely manner at your facility.
- Assist personnel with locating their CRS report files.
- O If you are responsible for running the CRS reports, ensure you have received training on how to run the reports and which reports are best to run.
- o nsure the CHS to PCC link is on at the facility. If it isn't, CHS data are not being passed to PCC. This could negatively impact your GPRA rates for procedures paid with CHS funds, like mammograms or dental care.

GPRA Coordinators

- O If you are responsible for running the CRS reports, ensure you have received training on how to run the reports and which reports are best to run.
- O Review your site parameters to ensure they are setup correctly.
- O At least annually, review the site-defined taxonomies for lab tests.
 - If a lab test your facility commonly uses is not included in the taxonomy for a GPRA indicator, your results could be very low!
 - Ensure lab tests that were used from 1995 until now are included since the reports compare to performance in 2000; some indicators look back 5 years for a test, such as colorectal cancer screening.
 - Deactivated tests may be prefixed with a "z" or "Z" or some other convention. Ask your lab staff how they deactivate old tests.
- Review your GPRA community taxonomy to see if all communities that should be included <u>are</u> included.

- O Review the National GPRA report. Also provide the report to providers who are responsible for the indicators to get their input. Do not wait until the last minute to do this!
 - Do the rates look reasonable? If not, obtain a copy of the patient list(s) for the indicator(s) and compare with the charts to see where problems may exist:
 - Are the data in the chart but not in PCC?
 Do the data entry staff need to be
 advised on how to enter it in PCC?
 Were they documented in the correct
 place on the encounter form?
 - Were the data in PCC but documented with a code CRS is not looking for? Should CRS be looking for it?
 - Did the patient not receive the screening/test/Immunization? If yes, schedule an appointment for the patient.
- Management Staff (e.g., Area Directors, Service Unit Directors)
 - Attend the GPRA/PART Overview presentation offered by Theresa Cullen, MD, MS, National Medical Informatics Consultant and Clinical Lead for the CRS application. This presentation will help you understand how GPRA reporting

- impacts your performance contract, and understand the GPRA indicators and the CRS application that is used for reporting on GPRA.
- O Recognize employees who take the initiative to improve GPRA performance.
- O Solicit information from facilities who are GPRA achievers to see if there are processes they have implemented that may be implemented at facilities that need improvement with their GPRA rates.
- O Communicate with your staff the importance of GPRA and how it can make a difference in our patients' health status.

The Bottom Line

- GPRA isn't going away.
- You can either ignore it and watch your GPRA rates drop, or you can become educated about GPRA, be proactive, take the time and the actions needed to improve your GPRA performance, and improve the health status of our patients.
- It takes an entire team to improve our performance; one person cannot do it all!

Together, we can make GPRA stand for Great People Realizing Achievement.

UDS 2004 Software

Stephanie Klepacki, UDS Project Coordinator, Albuquerque, New Mexico; and Theresa Cullen, MD, MS, National Medical Informatics Consultant, Tucson, Arizona

The Uniform Data System (UDS) 2004, Version 2.0 software was released nationally on January 5, 2005. RPMS UDS reporting is intended for use by tribal or urban health facilities receiving grant funds for primary care system development programs administered by the Bureau of Primary Health Care (BPHC), Health Resources and Services Administration (HRSA). The RPMS UDS Reporting System provides passive extraction of patient and visit data from the

IHS Resource and Patient Management System (RPMS) to produce four of the nine UDS reports. For each of the four reports, RPMS UDS also produces lists of all patients and related visits that are counted in the reports.

This version included changes to the format and logic for Table 5, Staffing and Utilization, and Table 6, Selected Diagnoses and Services Rendered, as required by BPHC, and changes to the definition of encounters for all RPMS visits. Section 1.1 of the UDS User Manual contains a complete list of changes.

UDS reports were due to BPHC on or before February 15, 2005 for calendar year 2004.

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

IHS Child Health Notes

Quote of the month

"... Full of sound and fury, signifying nothing"

William Shakespeare

Articles of Interest

The clinical significance of asymptomatic gross and microscopic hematuria in children. *Arch Pediatr Adolesc Med.* 2005 Apr;159(4):353-5. *http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15809388.*

Asymptomatic microscopic hematuria: time to look the other way? *Arch Pediatr Adolesc Med*. 2005 Apr;159(4):398-9. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve &db=pubmed&dopt=Abstract&list_uids=15809399.

- Asymptomatic microscopic hematuria is common at 5% at any visit, and 1% of children have persistent microscopic hematuria.
- Serious disease is rare in these children and investigation rarely identifies an etiology or need for treatment
- Gross hematuria has an identifiable and treatable cause in over 50% of cases.
- Workup for microscopic hematuria in well children should be abandoned, but is needed for gross hematuria.

Etiology of community-acquired pneumonia in hospitalized, school-age children: evidence for high prevalence of viral infections. *Clin Infect Dis.* 2004 Sep 1;39(5):681-6. Epub 2004 Aug 13. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15356783.

- Viruses were the leading cause of pneumonia at 65%.
- Surprisingly, rhinovirus was the most common pathogen recovered at 45%.
- *Mycoplasma pneumoniae* was the most common bacteria found at 35%.
- Streptococcus pneumoniae was recovered in only 7% of patients.
- Clinical, laboratory and radiological criteria could not distinguish viral from bacterial infections.
- Given the high incidence of Mycoplasma infections, it would be prudent to use a macrolide antibiotic as first line therapy in this age group.

Editorial Comment

The three articles above address common clinical scenarios. The paper on pneumonia in school age children reminds us that amoxicillin is *not* always the best choice in pediatrics. In children 4 - 18 years of age, a macrolide antibiotic is the best choice. It is frustrating that there is still no combination of clinical, laboratory, and radiological values that will allow us to reliably differentiate viral from bacterial infections.

The first two papers on hematuria address an even more common and annoying problem: what to do with patients who present with asymptomatic hematuria? The first answer is to stop obtaining urinalyses on well children: the recommendation to screen urine in well children was abandoned over ten years ago by the AAP and the US Preventive Services Task Force because no benefit could be shown. This study confirms that recommendation.

Recent literature on American Indian/Alaskan Native Health

Infant mortality statistics from the 2002 period: linked birth/infant death data set. *Natl Vital Stat Rep.* 2004 Nov 24;53(10):1-29. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=1562 2996.

- American Indian neonatal mortality is similar to US all races now at 4.3/1000.
- Unfortunately, post neonatal mortality for American Indians is nearly twice that of US all races.
- The excess mortality for Indians is almost entirely due to a rate of SIDS that is twice the US all races average.

Meetings of Interest for Child Health

IHS/ACOG Postgraduate Course: Obstetric, Neonatal, and Gynecologic Care, June 19 - 23, 2005 in Denver, Colorado. Contact Yvonne Malloy at *YMalloy@acog.org*; telephone (202) 863-2580. Brochure available at http://www.ihs.gov/MedicalPrograms/MCH/M/Documents/Brochure2005EL.doc.

Neonatal Resuscitation Program, 8:00 am, June 19; go to http://www.ihs.gov/MedicalPrograms/MCH/M/CN01.cfm#June05.



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