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Government Computer-Based Patient Record (GCPR): Working Toward Improved Patient Care

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Note: This article presents the points of view of the authors only and is not intended to represent the opinions or policies of the other participating agencies.

Abstract

The Government Computer-based Patient Record (GCPR) program is an interagency effort between the Indian Health Service (IHS), the Department of Defense (DoD), and the Department of Veterans Affairs (VA). The goal of the program is to improve public and individual health care by using existing technology to share patient health-related information in a secure manner at a level unachievable with a paper record. The GCPR Framework Project's first step is to develop an electronic method to translate and share comprehensive clinical patient information between a variety of existing clinical information systems, including the Resource and Patient Management System (RPMS) of the Indian Health Service.

A Scenario: Fantasy or Reality?

Joseph Doublerunner (a fictional name) is an American Indian living on a reservation in the Southwestern United States. He has always lived on this reservation, and has received his medical care from the three different clinics that

are scattered throughout his tribal land. At a recent scheduled clinic appointment, he was noted to be anemic and have guaiac positive stools. His primary care physician recommended that he have colonoscopic evaluation.

Under a sharing agreement with the local VA hospital, Mr. Doublerunner had this appointment scheduled. Prior to Mr. Doublerunner's arrival at the VA, the gastroenterologist, with Mr. Doublerunner's consent, used the GCPR Framework to electronically review the health summary, lab data, and pertinent history from the referring facility. The VA physician was also able to compare recent lab results from each of the three different IHS direct care facilities the patient had visited over the past year. After the procedure and biopsies were successfully performed, the VA physician entered the results into Mr. Doublerunner's medical record using the VA medical record program. When Mr. Doublerunner returned for a follow-up visit to his usual care site, the referring provider at the Indian health facility, again with Mr. Doublerunner's

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consent, was able to quickly access the VA results which had been transmitted by the GCPR Framework, using the familiar RPMS computerized medical record system.

This scenario illustrates the near-term reality that could be achieved with a true computer-based patient record (CPR). The patient's CPR record is "virtual." This means that the information is displayed as if it were all stored in one database, when in fact the data are being gathered from various locations and transmitted by the GCPR Framework into the format familiar to the provider.

Sharing Clinical Information

The need to share clinical information is not unique to the Indian health care delivery system. Caregivers all over the country are dealing with numerous computerized and paper-based information systems, which do not share information — often within the same healthcare system! Every health care provider knows the frustration of looking for the results of a consult, a lab test value done at another facility, or previously prescribed medications. In the best case, missing or conflicting information may only be an annoyance, requiring a phone call, completing and mailing a records release authorization, or redundant data entry. In the worst case, lack of accurate information can have severe health consequences.

Many health care organizations have developed extensive computerized data systems, capable of storing comprehensive data about each patient, including medications, clinical procedures, and lab tests. By 1996, the health care industry was spending approximately \$10-15 billion annually on information technology, and it is predicted that this figure will increase 15-20% per year.¹

However, even extensive patient data do not help the provider treat a patient unless the right information gets to him/her at the right time, in a form that is useful and understandable. Because medical information systems typically were developed to operate as "stand alone" systems and to perform specialized functions, their lack of "connectivity" and their incompatible data structures often make it difficult or impossible to share data without programming expensive, individualized interfaces between their systems.

Even within healthcare facilities that are extensively computerized, the primary medium for patient records usually remains paper-based. The paper record does not facilitate evaluating a patient's health care over time, or reviewing population data to measure health care trends or perform epidemiologic studies. The paper record also does not meet the requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA). One of the goals of this act is to improve "... the efficiency and effectiveness of the health care system, by encouraging the development of a health information system through the establishment of standards and requirements for the electronic transmission of certain health information" (Public Law 104-19, Title II, Subtitle F, Section 261). Many of the existing health information systems are either undergoing or planning for change to meet these same

requirements.

The good news is that advanced technologies already exist to enable different computer systems to achieve secure and accurate "interoperability," that is, to share patient data with no loss of meaning or usefulness and to cooperate in the joint execution of tasks. Thus, completely new tools do not have to be designed and built, but existing ones can be adapted to this task.

The GCPR Framework

The goal of the Government Computer-based Patient Record (GCPR) Framework Project is to create an electronic method to translate comprehensive clinical patient information from a variety of existing systems. Information from each cooperating agency's clinical system (i.e., the IHS's RPMS, the VA's VistA, or DoD's CHCS) can then be shared across all points of clinical care. This will allow the patient's lifelong medical record to be seen as one unified record.

In pursuit of this goal, an interagency GCPR Coordinating Committee was formed as a collaborative effort initiated by IHS, DoD, and VA in 1998. These three agencies have a history of resource sharing in health care and clinical information systems and were already individually pursuing their own CPR initiatives.

As the first step in the overall GCPR Program, the Framework will begin with two key goals:

- encouraging nationally and internationally recognized health care informatic standards by utilizing existing standards and contributing to the development of new ones; and
- establishing the technical infrastructure required to provide secure access to electronic clinical information on a shared patient population.

Phase I of the Framework Project has a limited focus: to demonstrate secure and confidential sharing of patient demographics and a subset of clinical information, specifically laboratory test results, between the three agencies. The architecture and processes will be established for rapid expansion to other clinical, and possibly business subsets. In some ways this is very similar to the PCC's Multi-facility Integration Project within the Tucson Area and Alaska Federations in that the same concepts are embraced. However, the GCPR implementation is technology independent, standards-based, and able to share data with non-RPMS information systems.

The primary technical aim of the GCPR Framework is to present a seamless interface to the existing legacy systems of the cooperating agencies, including IHS's RPMS, DoD's CHCS, and the VA's VistA systems. Work began on April 14, 1999, when Litton PRC, a government contractor, was awarded the task delivery order for the first phase of the Framework Project under the D/SIDDOMS contract. A lab-based proof of concept and prototype test will begin in winter 1999 and conclude in April 2000. Full testing is planned shortly thereafter at a pilot health care facility from each cooperating

agency.

Privacy, Confidentiality and Security

Protection of patient privacy is a great concern to individuals as well as to the participants in the GCPR Framework project. Modern innovations in information technology will enable us to better provide this protection. Access to health care information can be limited by each patient's consent, restricting not only which health care providers are authorized to view that patient's health information, but also specifying how much of his/her information they may view. Audit trails can track who accesses each record, when they access it, and for what reason.

Security measures exist that can authenticate users with transmission-secure encrypted digital signatures, or even biometric identifiers like fingerprints or retinal scans. Health care information can be transmitted using secure public and private key encryption methods to assure confidentiality. Highly sophisticated network "firewalls" can be used to prevent unauthorized entry to health care databases.

Studies of health care information aggregated for epidemiologic and public health use can be performed on data, in which individual records are stripped of identifiers and made anonymous to ensure patient privacy.

Benefits of the GCPR Framework

The GCPR Framework should enable participating IHS facilities and providers to obtain needed health care information from IHS, DoD, and VA facilities irrespective of geographic location. The information would only be a network connection away. This improved access should reduce costs and improve quality by helping to eliminate duplicate services, prevent prescription errors, alert providers to important comorbidities, and so forth. This should lead to improvements in the health status of individuals and their communities.

Some of the specific anticipated benefits are in the areas of:

1. *Improving public health:* Collecting data across facilities and agencies will provide us the ability to query and conduct epidemiologic studies to assess population as well as individual health status.
2. *Lab sharing:* Efficient electronic transmission of lab data between partners should promote interagency lab services sharing agreements. This can result in improved care and decreased costs to the involved agencies.
3. *Outsourcing of care:* I/T/Us purchase a large percentage of the care they provide from outside sources, including physician's offices, private hospitals, VA facilities, and so forth. Better transmission of information between IHS and these outside sources of care can improve that care by ensuring that necessary information is made available in a timely and accurate manner.
4. *Shared patient populations:* American Indian and Alaska Native people are increasingly mobile, making the crucial

job of sharing clinical information between IHS, tribal and urban sites, as well as outside sources of care (including VA and DoD facilities), far more difficult. For those American Indians and Alaska Natives who become members of the Armed Services, and subsequently veterans, separate health care records could exist in the IHS, DoD, and VA systems. If these health care information systems can better share appropriate information, care can be improved.

5. *Program evaluation and research:* Standardizing clinical information will allow us to collect data across facilities and Agencies, providing us the ability to better perform outcomes analyses, benchmarking, treatment protocol development and dissemination, and other evaluation and research studies.

Why Else is the IHS Involved?

The concepts of health care and disease have changed over the past decade. Currently, lifestyle-related diseases play a major role in the morbidity and mortality of American Indian and Alaska Native populations. Access to meaningful and important information is a critical component of any public health system. Without it, an individual, community, tribe, or nation cannot know where they are, where they need to go, or how successfully they are getting there. In addition, there are, and will continue to be, innumerable reporting requirements from various funding sources. If the Indian health care system is to continue expanding as a direct care provider as well as a public health system for Indian people, Indian health programs must maintain the ability to gather, compile, analyze, and report essential information.

The GCPR Framework project will help us better achieve this goal. By leveraging resources in combination with other federal agencies, the Indian health care system will ensure that American Indian and Alaska Native health care systems are involved in setting the data and technical standards that will govern future public and private health care information systems.

How is the IHS Involved?

The IHS has been involved in the GCPR program since its formal inception in January 1998, represented by Dr. Richard Church, Chief Information Officer (CIO) for the IHS, on the GCPR Board of Directors. Many information technology and clinical representatives from the field have already participated in the planning and start up of this endeavor. Individuals in the IHS Division of Information Resources (DIR) have been actively involved in the planning and management of the GCPR Framework Project. Jim Garvie, Deputy Director of DIR, is the chairman of the GCPR Executive Committee, and Jim McCain is the Chief Technical Officer for the GCPR project. Overall functional direction from the IHS has been provided by Drs. Terry Cullen, Tim Mayhew, and Stan Griffith.

To ensure that the GCPR Framework meets the clinical

and administrative requirements of the user community while being technologically appropriate, numerous other information technology and program staff have contributed time to this project. In particular, since the system is being designed to be used by physicians, nurses, laboratory technicians, those in medical administration, and others, each agency has provided subject matter experts with program expertise in each of these areas. These subject matter experts are helping describe how each agency does business, when and how these various business practices trigger an exchange of information, and what information needs to be exchanged in each instance.

The combined work of these technical and clinical subject matter experts from the IHS, DoD, and VA will help ensure that any new information standards that will be promulgated by the GCPR Framework Project truly reflect the needs of each agency as well as the people and communities that are served. In addition, by participating throughout this process, IHS will help tribes maintain involvement and choice in the future of medical information systems.

Where Will We Be in the Future?

Although the stated purpose for this project is the seamless transfer of clinical information among partners, there is also excitement about the far greater potential for this project. In particular, many in IHS feel that the GCPR Framework, if successful, could set the standards and serve as the basis for the next generation of clinical information systems — fully computer-based patient records. By establishing nonproprietary standards for data, communications, and security, private commercial entities would be encouraged to proceed with the

development of the next generation of health care applications, ones that could more easily integrate with each other in a manner that more closely approximates true “plug-and-play” interoperability.

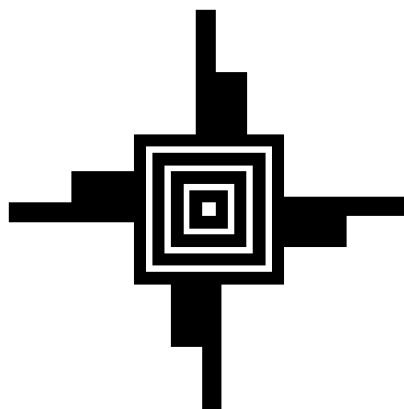
Thus an organization might be able to choose an outpatient information system from one vendor and readily integrate it with a lab package from another, and so forth. Furthermore, such a strategy would better mitigate an organization’s risk in investing in such a system, since it would be easier to replace a given system with another system from a completely different vendor, as long as both met the same interoperability standards. All of this would significantly promote the development of newer and better applications by commercial entities, something that clearly needs to be done.

Conclusion

The IHS’s participation in the GCPR project has many inherent benefits. The most important value will be to our patients. The case scenario at the beginning of this article illustrates some of the tangible advantages to the patient and the provider. The public health benefits of the GCPR framework are consistent with the desire of the partnership of the Indian health system of the Indian Health Service, tribal, and urban Indian health programs to continue to work to provide both individuals and their communities the opportunity to be healthy. □

Reference

1. Munro N. Infotech Reshapes Health Care Marketplace. *Washington Technology*, August 8, 1996,1



Phoenix Area Division of Commissioned Corps Personnel Customer Satisfaction Survey Results

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The Indian Health Service (IHS) employs 2400 of the 6000 officers in the United States Public Health Service (USPHS) Commissioned Corps. The Phoenix Area Indian Health Service (the Phoenix Area Office) Commissioned Corps Personnel Office provides comprehensive personnel services to 400 officers as well as to service unit and tribal program management in the states of Arizona, Utah, and Nevada that employ these officers. The office staff consists of a Branch Chief, a Health Professional Recruiter, a Personnel/Military specialist, a Liaison Officer, and a secretary.

In 1996, the Vice President's Customer Service Initiatives were established as part of a National Performance Review. Surveys were encouraged to establish and assess partnerships with customers and to find ways to provide more effective and efficient services with fewer resources. In October 1997, the Phoenix Area Commissioned Corps Personnel Office undertook an initiative to improve service delivery to its customers.

A Customer Satisfaction Questionnaire was developed and distributed to all commissioned officers and management within the Phoenix Area. A total of 350 questionnaires were distributed throughout the Phoenix service area, and 204 responses were returned. The questionnaire focused on six major program functions. These included pay and benefits, personnel processing, career development, awards, recruitment, and site visit arrangements; there was an opportunity to make additional comments. The data collected from the questionnaires were analyzed using both descriptive and statistical methods, and are described in this brief article.

General Findings

The overall response rate was 58%. The questionnaire response scale ranged from 1 to 5, with 1 being least satisfied to 5 being most satisfied. In general, most ratings in almost all categories were satisfied to most satisfied. The areas that received the most critical comments had to do with awards and promotions, and particularly the Agency recommendations

process.

The following are some characteristics of the officers who responded to the questionnaire. Most officers fell in the range of having 11-20 years of service (35.5%) or 7-10 years of service (18.7%). The professional categories with the most responses were medical officer (23.8%), nurse (21.1%) and pharmacist (14.6%). This is representative of the three largest categories in the IHS.

Pay And Benefits Issues

Inquiries from officers on pay and benefits were responded to in a timely and courteous manner, and the information was perceived as accurate (see Tables 1 and 2). Respondents thought that the Phoenix Area Commissioned Personnel Office returns calls in a timely manner (Table 3), and that the verification of leave record is generally received on time in the first week of October (Table 4). There were few difficulties with ID cards and enrollment (Table 5).

Table 1. Timeliness of response to pay and benefit inquiries

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	3	1.5%
2	10	5.0%
3	14	7.0%
4	75	37.5%
5	56	28.0%
NA	42	21.0%
TOTAL	200	100.0%

Table 2. Accuracy of information about pay and benefits

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	3	1.5%
2	8	4.0%
3	12	6.1%
4	74	37.4%
5	65	32.8%
NA	36	18.0%
TOTAL	198	100.0%

Table 3. Timeliness of returned calls

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	10	5.0%
2	12	5.9%
3	28	13.9%
4	69	34.0%
5	72.8	35.0%
NA	11.0	5.4%
TOTAL	202	100.0%

Table 4. Leave record verification received 1st week of October

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	8	4.2%
2	19	1.0%
3	25	13.2%
4	51	26.8%
5	68	35.8%
NA	19	10.0%
TOTAL	190	100.0%

Table 5. Difficulties with ID cards/enrollment

YES	NO
19 10%	158 89.3%

Processing Applications and/or Transfer Documents

Assistance provided to applicants and management was quite satisfactory and was judged to be accurate, helpful, courteous, and timely (Tables 6, 7, and 8). There were few difficulties with travel during a move to the Phoenix Area (Table 9).

Table 6. Assistance provided to applicants and management

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	6	3.0%
2	8	3.9%
3	19	9.4%
4	60	29.6%
5	64	31.5%
NA	46	22.7%
TOTAL	203	100.0%

Table 7. Accuracy and helpfulness of assistance

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	4	2.0%
2	12	5.9%
3	16	7.9%
4	75	36.9%
5	68	33.5%
NA	28	13.8%
TOTAL	203	100.0%

Table 8. Courtesy and timeliness of assistance

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	3	1.5%
2	11	5.5%
3	18	9.0%
4	72	36.9%
5	79	39.5%
NA	17	8.5%
TOTAL	200	100.0%

Table 9. Difficulties with travel during a move to the Phoenix Area

YES	NO
25 14%	154 86%

Career Development

Most respondents had been in the Corps for at least seven years (Table 10) and were typically physicians, nurses, or pharmacists (Table 11). Only about half had received career counseling (Table 12), and most of this was provided by Division of Commissioned Personnel, in Rockville, Maryland (Table 13). In general, the counseling and career opportunity information provided met the needs of those responding (Tables 14 and 15). For unexplained reasons, almost half of those replying had no opinion about the timeliness of the assimilation information they received (Table 16). Most felt that help with COERs was adequate (Tables 17 and 18). Less than half of the respondents responded to the query about adverse actions (Table 20). Three-fourths of those responding felt that the Agency criteria for promotions are clear (Table 21); a similar proportion thought that communication of Agency recommendations allowed adequate time to meet deadlines (Table 22).

Table 10. Length of Service

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
< 1 yr.	5	2.5%
1-3 yrs	30	14.8%
4-6 yrs	30	14.8%
7-10 yrs	38	18.9%
11-20yrs	71	35.0%
> 20 yrs	29	14.3%
TOTAL	203	100.0%

Table 11. Professional categories of respondents

DENT 19 10.3%	DENT HY 1 0.5%	DIET 7 3.8%	ENG 13 7.0%	HSO 13 7.0%	NURSE 39 21.1%
OPTOM 3 1.6%	PHARM 27 14.6%	MEDICAL 44 23.8%	SANT 13 7.0%	SCIET 3 1.6%	THERP 3 1.6%

Table 12. Career counseling received

YES 108 52.2%	NO 96 47.8%
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Table 13. Sources of career counseling

Resp	Freq	Percent
DCP	60	5.5%
*MULTI	27	25.0%
PEERS	10	9.3%
PHX-CO	9	8.3%
SU	2	1.9%
TOTAL	108	100.0%

*Multiple sources identified.

Table 14. Counseling information met needs

YES 97 80%	NO 24 19.8%
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Table 15. Career opportunity information current

Resp	Freq	Percent
1	7	3.6%
2	15	7.9%
3	30	15.7%
4	61	31.9%
5	28	14.7%
NA	50	26.2%
TOTAL	191	100.0%

Table 16. Assimilation information timely

Resp	Freq	Percent
1	6	3.1%
2	4	2.1%
3	10	5.2%
4	39	20.4%
5	41	21.5%
NA	91	47.6%
TOTAL	191	100.0%

Table 17. Timely staff response to COER issues

Resp	Freq	Percent
1	4	2.0%
2	4	2.0%
3	15	7.2%
4	49	24.4%
5	49	24.4%
NA	53	26.9%
TOTAL	197	100.0%

Table 18. Accuracy of COER information

Resp	Freq	Percent
1	4	2.1%
2	3	1.5%
3	14	7.2%
4	53	26.8%
5	56	28.3%
NA	68	34.3%
TOTAL	198	100.0%

Table 19. Accuracy and helpfulness of technical assistance regarding adverse actions

Resp	Freq	Percent
1	7	2.1%
2	2	1.0%
3	9	4.2%
4	34	17.8%
5	37	18.3%
NA	109	55.1%
TOTAL	198	100.0%

Table 20. Agency Recommendations criteria for promotions are clear.

YES 121 74.5%	NO 42 25.8%
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Table 21. Communication of Agency Recommendations allowed for adequate time to meet deadlines.

YES 128 78.5%	NO 35 21.5%
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Awards

A significant proportion of those responding expressed less than complete satisfaction with the support they received with the awards process (Tables 22-24).

Table 22. Responsiveness to questions about a wards

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	5	2.5%
2	11	5.6%
3	13	6.6%
4	33	16.8%
5	42	21.3%
NA	93	47.2%
TOTAL	197	100.0%

Table 23. Commissioned Corps Awards Coordinator keeps management informed as to status of a wards.

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	10	5.5%
2	21	10.6%
3	25	12.6%
4	28	14.1%
5	31	15.3%
NA	83	41.9%
TOTAL	198	100.0%

Table 24. Difficulties experienced in a wards process

YES		NO
62 51.2%		59 48.8%

Recruitment

With regard to how well applicants/referrals meet service unit needs, and recruitment services in general, although there is reasonable satisfaction, there is clearly room for improvement (Tables 25-28).

Table 25. Applicants/referrals meet service unit needs

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	4	2.1%
2	5	2.6%
3	20	10.6%
4	36	18.9%
5	32	16.8%
NA	93	48.9%
TOTAL	190	100.0%

Table 26. Recruiter provides accurate information

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	4	2.1%
2	7	3.7%
3	17	8.6%
4	33	17.3%
5	41	21.5%
NA	89	46.5%
TOTAL	191	100.0%

Table 27. Recruiter responds in a timely manner

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	4	2.1%
2	5	2.6%
3	21	10.9%
4	28	14.6%
5	44	22.9%
NA	90	46.9%
TOTAL	192	100.0%

Table 28. Recruitment process met your needs.

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	12	6.4%
2	5	2.7%
3	24	12.8%
4	27	14.4%
5	35	18.5%
NA	84	44.9%
TOTAL	187	100.0%

Site Visits Arrangements

Coordination with service units in making arrangements was perceived to be fairly good, and arrangements are responded to in a courteous/timely manner (Tables 29 and 30). There were few difficulties with reimbursement (Table 31).

Table 29. Good coordination with service unit

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	3	1.8%
2	8	4.8%
3	13	7.8%
4	27	14.4%
5	35	18.5%
NA	107	64.0%
TOTAL	165	100.0%

Table 30. Arrangements responded to in a courteous/timely manner

<i>Resp</i>	<i>Freq</i>	<i>Percent</i>
1	3	1.8%
2	1	0.6%
3	5	3.0%
4	14	8.4%
5	34	20.5%
NA	109	65.8%
TOTAL	166	100.0%

Table 31. Difficulties with reimbursement

YES		NO
7 14.9%		40 85.1%

Comments

Pay and Benefits. In general most comments were positive in this area. The strongest opinions were expressed in relation to DEERS enrollment issues; there was criticism about poor communication and delays. There were, however, favorable comments about the PAIHS Commission Corps Personnel Office staff.

Processing Applications and or Transfer Documents. Officers were critical of the turnaround time for travel reimbursements and about misinformation given regarding moving arrangements.

Career Counseling. There were some unfavorable comments about career counseling; some expressed the need for more and better services, and more accurate information. The strongest criticisms were about Agency Recommendations, particularly in the Nurse and Medical categories. Of those officers who have had career counseling, most received it from the DCP Officer Development Branch (ODB); some were critical of these services. Although some difficulties were noted in making appointments and promptness of returning calls from staffing officers, most seemed satisfied with services from the Area Office.

Agency Recommendations for Promotion. Some felt uninformed about this process; others were openly critical of it.

Awards. This subject received the strongest criticism. Officers are very critical of IHS headquarters processing of awards, citing delays and poor communication. Most were positive regarding the processing and follow up at the service unit and Area level.

Recruitment and Site Visits. There were few comments about this. Comments were positive regarding the Area recruiter. A few comments cited the lack of candidates and inadequate information about the site visit process.

Additional Comments. There were many additional general comments; most were positive. Among the suggestions received were such ideas as placing the application process on the Internet and having O-6 officers mentor and look out for officers in lower grades.

Summary

Several concerns have surfaced among respondents in the Phoenix Area that will need the attention of the IHS Commissioned Corp Support Team (CPST), the Phoenix Area Commissioned Personnel Office, and the Division of Commissioned Personnel.

The Awards program at the headquarters level continues to be a major concern. Although there seems to be some improvement in the turnaround time on lower level awards in the past year, it is the perception in the field that prior awards have been lost and that there is a lack of ability by IHS awards program to follow up. There is a perceived lack of service commitment by the CPST Awards program, which creates frustration and anger among many of our officers and management.

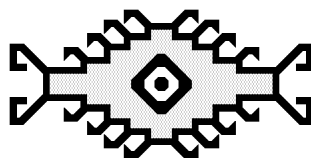
The Commissioned Corps Application process is slow. This is compounded by the cumbersome federal hiring process. Such delays can mean that good applicants become frustrated and go elsewhere, or can lead to a sense of not being of value to the system to which they are applying.

There is a need for more new officer orientation and career development programs, especially at the local level. Due to the restructuring of the IHS and downsizing, most Areas do not have the staff to be consistent with new officer and supervisor orientations. Generally they are done one-on-one, or not all. Infrequent Area presentations are done when funds are available for this activity. The PHS/DCP orientations are all in Rockville, Maryland, which would preclude attendance by most IHS officers.

The Agency Recommendation promotion process is now in its third year and continues to have some specific problems. Nursing and medical categories express concern about the process and a lack of understanding of the criteria/tool. The promotion rates for the IHS medical category continue to be below the general promotions percentage rates. Nursing promotions rates have improve in promotion year 1998. The IHS Nursing program has recognized the problem and organized a task force to examine the process, the tool, and the criteria.

The Phoenix Area Commissioned Corps Personnel Office is part of a network that responds to intra- and extra-Agency influences. The questionnaire described in this article has provided this program with valuable information for the network to address and incorporate into their various work plans to improve customer satisfaction. Greater satisfaction will ultimately enhance our Agency's mission to continue to raise the status of health care to the American Indians and Alaska Natives we serve. □

Special thanks to Patricia Osborne, Statistician, OPER&IR, Phoenix Area.



NLM LOCATORplus

The following item may be of interest to those who use the Internet to research health care subjects. It was contributed by Katy H. Ciacco-Palatianos, MD, MPH, Medical Officer, IHS Headquarters, Rockville, Maryland.

In April the National Library of Medicine (NLM) unveiled its new web catalog, called LOCATORplus, which will allow anyone with Internet access to find out what books, journals, audiovisuals, manuscripts, and other items are contained in the world's largest medical library.

There are many exciting features available via LOCATORplus. Customers using the catalog from the Web can search by author, MeSH subject, title, conference name, keyword, and many other specific fields, then e-mail the results to themselves. Current receipts of both serial and monograph material will be displayed along with information about material which is on order or available electronically. Hotlinks to online journals will be available from many records. Direct access to a variety of other resources will be available from

LOCATORplus including MEDLINE, MEDLINEplus, Images of the History of Medicine, TOXNET, HSTAT, and other U.S. medical library catalogs.

LOCATORplus is part of NLM's new integrated library system (ILS) which was installed for in-house use in November 1998. The ILS is being used for acquisitions, serials control, cataloging, collection management, circulation, and preservation. LOCATORplus is the ILS's online public access catalog and serves as the retrieval engine for the Library's cataloging records, replacing existing online access methods, such as Locator, CATLINE, AVLINE and SERLINE. LOCATORplus brings together a number of previously disparate databases, along with information formerly available only to staff, using state-of-the-art information retrieval technology.

NLMs LOCATORplus can be found at <http://www.nlm.nih.gov/locatorplus/>. The site is updated daily. For a preview of the system, a Quick Start Tutorial can be found at: <http://www.nlm.nih.gov/locatorplus/tutorials/quickstart/sld001.htm> □

Avoid Fireworks Injuries

LCDR Don Williams, Injury Prevention Specialist, Tucson Area Indian Health Service, Tucson, Arizona

The Indian Health Service (IHS) is one of many Federal and state agencies partnering with the Consumer Product Safety Commission to promote firework safety. Firework use, and resultant injuries are expected to increase with Fourth of July and millennium celebrations. The campaign is emphasizing "Leave Fireworks To The Professionals" but includes the following safety tips for persons living in areas where fireworks are legal.

- Never allow children to play with or ignite fireworks.
- Read and follow all warnings and instructions.
- Be sure other people are out of range before lighting fireworks.
- Only light fireworks on a smooth, flat surface away from the house, dry leaves, and flammable materials.
- Never try to relight fireworks that have not fully functioned.
- Keep a bucket of water handy in case of a malfunction or fire.

Further information including firework legality by state is available at www.cpsc.gov, as well as from the IHS website. □

Editorial Note: Dr. Cox recommends eye examinations by Optometry/Ophthalmology for our elderly patients at least every two years, and annual or more frequent exams for those with risk factors (e.g., diabetes mellitus or known eye disease). These recommendations are supported by the United States Preventative Services Task Force (USPSTF) 1996 report. Our elders should have regular eye examinations to protect their vision and enhance their lives.

Common Eye Complaints of Elderly Native Americans

James E. Cox, MD, IHS Senior Clinician in Ophthalmology, Gallup Indian Medical Center, Gallup, New Mexico

Reduced or Impaired Vision

By far the most common eye complaint of elderly patients is reduced vision. This is true of most population groups including American Indians and Alaska Natives (AI/AN). The patient may complain of decreased acuity (discriminatory or sharp vision), difficulty seeing in certain situations or under certain conditions, or just “not seeing as well as I used to see.” The most common cause is refractive error, which indicates a need to obtain or change one’s glasses for better distance vision. Near vision complaints are also common due to a loss of accommodation (focusing power) with age. This loss of accommodation is referred to as presbyopia, and requires a different lens be used for reading and near tasks, resulting in a prescription for either a bifocal lens or separate reading glasses.

Reduced vision due to cataract (cloudy lens) is the next most common cause. If this condition is interfering with the patient’s lifestyle or work, it can be corrected by surgery. The surgery is performed under a local anesthetic as an outpatient procedure, and it need not be an intimidating event, since patients tolerate the surgery well, even when in their 80s and 90s. Cataract surgery is occasionally done to enable examination or treatment of the retina, as in diabetic patients, but vision improvement is usually a benefit as well for these patients. Rarely, patients wait so long for treatment that they develop hypermature cataracts requiring surgery to control eye inflammation or intraocular pressure.

Reduced vision due to complications of diabetes mellitus is probably the third most common cause in AI/AN. The possible reasons for a patient with diabetes to develop reduced vision are: 1) capillary drop-out in the macula, 2) macular edema due to leaky vessels or aneurysms in the macula (referred to as clinically significant diabetic macular edema, or

CSDME), 3) traction on the retinal surface from proliferative diabetic retinopathy or frank separation of the retina from the back of the eye (referred to as traction retinal detachment), or 4) vitreous hemorrhage due to neovascular vessels of proliferative diabetic retinopathy. All but the first of these diabetic eye complications are treatable, at least in part. All patients stand a better chance of avoiding serious loss of vision from diabetic eye disease by carefully monitoring and controlling their blood sugar (and blood pressure and lipids, if elevated). Early detection and laser treatment of diabetic eye disease is also helpful for the best preservation of vision.

The final common cause of reduced vision among AI/AN is age-related macular degeneration, often abbreviated as AMD. This presents as a gradual deterioration of visual acuity even in the best glasses that can be prescribed, and is usually bilateral and fairly symmetric, unless complications occur. People do not lose ambulatory vision since only the central area of vision (the macula) is affected. The risk of related complications is low but they can be severe, with vision deteriorating to 20/200 or finger counting ability in some cases. These complications arise due to a weakening of the pigment layer in the back of the retina resulting in a leak of fluid into the central retina from the choroidal circulation behind the retina, or a growth of vessels into the retina with or without hemorrhage from the same choroidal layer. Although the use of laser therapy can stop these events by sealing the leaky area, frequently the leak or the vessels themselves are too close to the patient’s central vision such that the laser and the subsequent scar do not benefit the patient. Magnifiers and other low vision aids, good lighting, and the best glasses that can be prescribed often help these patients.

Dry Eyes

Most of us have had patients complain of dryness or a burning sensation in their eyes. Among elderly patients, this is usually a symptom of dry eyes or decreased moisture around the eyes. In elderly patients, itchy eyes is usually a symptom of

dryness rather than allergy or other causes. This does not mean that the patient lacks reflex tearing to noxious stimuli or cannot cry with tears. Rather, the surface of the eye, and especially the cornea, needs more moisture. When corneal changes develop due to dryness, it is usually referred to as keratitis sicca, but the shortened term “sicca” is often used, with or without corneal changes, to mean dry eyes. Treatment for dry eyes consists of adding moisture to the surface of the eyes with various artificial tear drops and ointments. If more aggressive treatment is needed, punctal plugs are used. The punctal plug decreases the removal of tear fluid around the eye as the patient blinks by blocking the entrance of tears to the lacrimal drainage system.

Floaters

Probably the next most common complaint elderly patients have about their eyes is floaters. Most floaters develop from age-related changes in the vitreous gel of the eye. Although chiefly liquid, this gel has thin fibers that can create web-like structures that produce shadows on the retina behind, giving the illusion of floaters. Any floater should appear to be in one eye only, and will shift at least somewhat as the eye is moved. Unless large or unusually dense, they do not usually interfere with visual acuity. If flashing lights are associated with them, if they are dark and distinct, or if they form a blurry cloud in the patient’s vision, then the patient needs a dilated retinal exam within a day or two to check for retinal tears, retinal

detachment, or vitreous hemorrhage.

Glaucoma

Although not a common presenting complaint, glaucoma is often a concern among elderly patients. This is because the risk of developing glaucoma increases with age. The prevalence of glaucoma in AI/AN over age 40 is probably between 2-5%. Glaucoma is often asymptomatic, and patients are diagnosed with this condition only on routine eye examination. In glaucoma, the eye pressure is high enough to damage the optic nerve. By lowering the eye pressure, this damage can be prevented or greatly forestalled. Since there is a range of normal pressure, there is no clear cutoff for elevated pressure such that all patients with pressures above that point need to be treated and those under it need not be treated. In fact, the greatest clustering of ocular pressure values for normal eyes is near the high end of the range, and a significant number of new glaucoma patients are identified with ocular pressures at the upper end of this range or only slightly above it. This makes glaucoma screening by ocular pressure alone difficult. Acute glaucoma occurs when there is a sudden, rapid rise in eye pressure to high levels, causing pain, usually due to angle closure. Acute glaucoma is relatively rare. Treatment of glaucoma usually involves one or more eye drops, laser surgery, and/or an operation on the eye. □

NCME VIDEOTAPES AVAILABLE □

Health care professionals employed by Indian health programs may borrow videotapes produced by the Network for Continuing Medical Education (NCME) by contacting the IHS Clinical Support Center, 1616 East Indian School Road, Suite 375, Phoenix, Arizona 85016.

These tapes offer Category 1 or Category 2 credit towards the AMA Physician’s Recognition Award. These CME credits can be earned by viewing the tape(s) and submitting the appropriate documentation directly to the NCME.

To increase awareness of this service, new tapes are listed in The IHS Provider on a regular basis.

NCME 748

Current Concepts in Hypertension (60 minutes) What’s new in the management of hypertension? Among other things, a greater emphasis on aggressive blood pressure reduction in the millions of patients with hypertension and related comorbidities. Using simulated patient interactions based on situations that commonly occur in primary care practice, this video offers

timely advice for the diagnosis and treatment of hypertension. Epidemiology, risk stratification, and management insights from the Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC-VI) are also featured.

NCME 749

Avoiding the Pitfalls of Polypharmacy (60 minutes) When does rational, multiple drug therapy become polypharmacy, with its inherent use of unnecessary or nonindicated medications? How can we avoid turning the cure we prescribe for our patients into the added problem of polypharmacy, making patients more vulnerable to drug interactions, adverse drug reactions, and noncompliance? Find out about the clinical and economic impact of polypharmacy, methods to simplify the prescription regimen, and specific techniques to partner with patients in order to avoid polypharmacy and improve compliance.

POSITION VACANCIES □

Editor's note: As a service to our readers, The IHS Provider will now publish, on a space available basis, notices of clinical positions available. Indian health program employers should send brief announcements on an organizational letterhead to: Editor, The IHS Provider, The IHS Clinical Support Center, 1616 East Indian School Road, Suite 375, Phoenix, Arizona 85016. Submissions will be run for two months, but June be renewed as many times as necessary. Tribal organizations that have taken their tribal "shares" of the CSC budget will need to reimburse CSC for the expense of this service. At this time we do not plan to run ads for "positions wanted." The Indian Health Service assumes no responsibility for the accuracy of the information in such announcements.

Family Physician Sisseton, South Dakota

The Sisseton Indian Health Service Hospital has immediate openings for two family practice physicians to practice the full scope of family medicine, to include obstetrics. Competitive salary and career benefits as a federal employee are offered. To discuss this opportunity, please contact Audrey German at (800) 553-2145; e-mail agerman@tnics.com; or mail your CV to the Sisseton IHS, P.O. Box 189, Sisseton, SD 57262.

RN Float Positions Whiteriver, Arizona

The Whiteriver Service Unit is a 45-bed hospital nestled in the tall, cool pines of the White Mountains of Arizona, serving the White Mountain Apache Tribe and surrounding areas.

Because the area abounds in beauty and nature, with more than 40 lakes and 600 miles of rivers, there is virtually every outdoors activity available. The Whiteriver Service Unit has three openings for RN GS-10 float positions. The incumbent will float between the Outpatient, Ambulatory Surgery, and Emergency Departments, and the Obstetrics, Pediatrics, and Adult Care Units. Knowledge in the above mentioned areas is required. Certification is required in two of the following areas: ACLS, PALS, TNCC, NRP, and ALSO. Come and join one of the stellar service units in the Indian Health Service and enjoy year round mild weather and rewarding work in a beautiful setting. For further information, please contact Donna Huber, RN, Nurse Executive, at (520) 338-4911.

Nurses Navajo and Phoenix Areas (Arizona, New Mexico, Nevada, and Utah)

The Indian Health Service is looking for qualified nurses in all specialty areas to join the team of health care specialists providing care to the nation's American Indians. If you are interested in a career that is challenging, and want to learn about new cultures, we would like you to join us. The Indian Health Service is currently looking for nurses for our Navajo Area, covering the states of Arizona and New Mexico. We are also seeking applicants for our Phoenix Area, encompassing Arizona, Nevada, and Utah. We have positions available in all units. We are particularly recruiting for specialty nurses in the areas of obstetrics, operating room, and public health nursing. Please call Carol Dahozy, Nurse Recruiter, at (602) 364-5258 or (800) 828-9849 for additional information or applications.

MEETINGS OF INTEREST □

IHS EMS Medical Directors Training July 13-14, 1999; Denver, Colorado

This two-day course should be attended by physicians who have been given EMS responsibility in the IHS; non-physicians with EMS responsibilities, including nursing staff and EMS coordinators would also benefit. Topics covered include medical direction, quality improvement, the EMS system, communications and dispatch, education and manpower, pre-hospital research, medicolegal issues in EMS, and disaster EMS.

This course will be held at the Hyatt Hotel, 7800 East Tufts Boulevard, Denver, Colorado; phone (303) 779-1234. For more information contact Jim Upchurch, MD, PHS Indian hospital, Crow Agency, Montana 59022.

Native American Women's and Children's Health; the 28th Annual Meeting of the AAIP July 23-27, 1999; Asheville, North Carolina

The Association of American Indian Physicians' (AAIP) annual meeting will offer a number of activities including the ever popular Women's Retreat, medical student/resident program, Gourd Dance/Pow Wow, and plenary sessions focusing on Native American women's and children's health. Topics for the plenary sessions will cover a variety of areas such as teen suicide, behavioral issues, asthma, fetal alcohol syndrome, substance abuse, breast cancer, menopause, nutrition, diabetes, Indian child welfare, foster care and adoption, pregnancy, injury prevention, gang violence, breast feeding, immunizations, and much more.

Exhibitors such as universities, medical schools, government agencies, tribes, educational programs, as well as arts and craft vendors are invited to participate. The conference draws Indian and non-Indian physicians, physician assistants, nurses, medical students, tribal leaders, and others interested in Indian health. Everyone is invited to attend.

The meeting will be held at the Holiday Inn Great Smokies Sunspree Resort. For more information, contact the Association of American Indian Physicians, 1235 Sovereign Row, Suite C-9, Oklahoma City, Oklahoma 73108; phone (405) 946-7072; e-mail aaip@ionet.net.

American Indian Elders . . . Following Their Ways August 3-5, 1999; Oklahoma City, Oklahoma

With a theme of "aging successfully through life's journey," this conference celebrates the International Year of the Older Person, with an emphasis on American Indian Elders. It is sponsored by the Lawton Indian Hospital, the Oklahoma Area IHS, the South West Area Health Education Center, IHS Elder Care Initiative, and the IHS Clinical Support Center (the accredited sponsor). The target audience includes consumers (elders) and health care providers (nurses, physicians, midlevel providers, social workers, community health workers, etc.). Its goals are to provide up-to-date information about elder health care, develop elder health care teams at Indian Health Service, tribal, and urban program sites, discuss rural health issues, and identify and promote access to resources.

The meeting will be held at the Clarion Meridian Hotel and Convention Center. Brochures will be available in June. For more information, contact SwAHEC at (580) 581-2284 or Diana Parish-Larocque at (580) 353-0350, ext. 246; or e-mail at dlarocque@smtpl.ihs.gov.

Mental Health for the Health Professional: Survival Skills for Caregivers Sept. 21-23, 1999; Reno, Nevada

The Oklahoma State University Wellness Center will host a conference designed for health professionals who work with American Indians, Alaskan natives, and Hawaiian natives. The conference will be held in Reno, Nevada at the Peppermill Hotel and Casino, Sept. 21-23, 1999. Among the topics to be presented will be personality characteristics; understanding differences; building unity; the personality of families; dysfunctional families; abuse – not taking care of oneself and others; stress management; and conflict resolution. Special room rates of \$50 plus tax for single or double occupancy and free airport shuttle apply. For more information contact Dr. Mac McCrory at (405) 744-6477; fax (405) 744-7670; or e-mail at macwell@okway.okstate.edu.

Seventh National Indian Nations Conference: "Old Medicine/New Voices of the 7th Generation: Reconnecting Partnerships and Reclaiming Traditions" September 28-30, 1999; Tulsa, Oklahoma

This is a two and a half day conference bringing together Native American victims, victim advocates, volunteers, prosecutors, judicial and law enforcement personnel, family violence and sexual assault specialists, social services and mental health professionals, corrections, crime and justice and juvenile justice personnel as well as tribal leaders to share their knowledge, experiences and ideas for developing programs that serve the unique needs of crime victims in Indian Country. It is conducted by the Center on Child Abuse and Neglect, University of Oklahoma Health Sciences Center. Sponsors include the Office for Victims of Crime, U.S. Dept. of Justice; the Corrections Program Office, U.S. Dept. of Justice; and the Office of Juvenile Justice and Delinquency Prevention, U.S. Dept. of Justice. The meeting will be held at the Adam's Mark Hotel, 100 East 2nd Street, Tulsa, OK.

For More information, contact the Center on Child Abuse and Neglect, P.O. Box 26901, CHO 3B3406, Oklahoma City, OK 73190, Attn: Tricia Williams or Janie Braden; phone (405) 271-8858; fax (405) 271-2931; or e-mail Tricia-Williams@ouhsc.edu.

Diabetes in American Indian Communities: Creating Partnerships for Prevention in the 21st Century October 27-29, 1999; Albuquerque New Mexico

The partners planning this conference include the Center for Native American Health at the University of Arizona Health Sciences Center, the Indian Health Service Clinical Support Center (the accredited sponsor), the Centers for Disease Control and Prevention, the National Institutes of Health, the American Diabetes Association Native American Design Team, and the Association of American Indian Physicians, as well as several Indian tribes and health care organizations. The conference objectives are to provide a forum for Indian communities to develop partnerships in diabetes related activities; to share information on American Indian community-based activities in diabetes; and to share information on current research on diabetes relevant to American Indian communities. To meet the objectives the format of the conference will include plenary sessions with joint presentations by community members and researchers, as well as workshops in the following areas: prevention strategies, clinical interventions, research programs, and skills building. The conference will provide networking opportunities, brainstorming sessions, and abstract/poster sessions. The target audience includes the professional diabetes community (scientists, physicians, nurses, community health representatives, health educators, and other health-care workers), tribal health department personnel, and Indian health program workers. For more information, contact ComputerCraft Corporation. at (301) 493-9674; fax (301) 530-0634.

NATIVE AMERICAN MEDICAL LITERATURE □

The following is an updated MEDLINE search on Native American medical literature. This computer search is published regularly as a service to our readers, so that you can be aware of what is being published about the health and health care of American Indians and Alaska Natives.

The Clinical Support Center cannot furnish the articles listed in this section of The Provider. For those of you who may wish to obtain a copy of a specific article, this can be facilitated by giving the librarian nearest you the unique identifying number (UI number), found at the end of each cited article.

If your facility lacks a library or librarian, try calling your nearest university library, the nearest state medical association, or the National Library of Medicine (1-800-272-47887) to obtain information on how to access journal literature within your region. Bear in mind that most local library networks function on the basis of reciprocity and, if you do not have a library at your facility, you may be charged for services provided.

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THE IHS PRIMARY CARE PROVIDER



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

Authors should submit at least one hard copy with each electronic copy. References should be included. All manuscripts are subject to editorial and peer review. Responsibility for obtaining permission from appropriate tribal authorities and Area Publications Committees to publish manuscripts rests with the author. For those who would like more information, a packet entitled "Information for Authors" is available by contacting the CSC at the address below or through our fax retrieval service. Call 602-640-2140, ask for the fax retrieval service, and request document #3005. After business hours, press 8, and follow the instructions.

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