

WHEN INSURANCE IS NOT ENOUGH: RACIAL AND ETHNIC DISPARITIES IN IMMUNIZATIONS FOR THE MEDICARE POPULATION

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This review article discusses disparities in immunization rates for beneficiaries of the US Medicare program. The review considers: 1) historical and statistical information on rates of immunization; 2) goals set forward by the Centers for Medicaid and Medicare Services (CMS) to eliminate racial and ethnic health disparities related to adult immunization; 3) barriers experienced by Medicare beneficiaries in receiving immunizations; 4) barriers experienced by health professionals in providing adult immunizations; and 5) CMS efforts to increase influenza and pneumococcal immunization rates and to eliminate immunization rate disparities among Medicare beneficiaries. (*Ethn Dis.* 2005;15:[suppl 3]:S3-7-S3-12)

Key Words: Disparities, Immunization, Influenza, Insurance, Medicare, Quality Improvement

INTRODUCTION: HISTORICAL AND STATISTICAL INFORMATION ON RATES OF IMMUNIZATION

More than 200,000 hospitalizations and 36,000 deaths annually throughout the United States have been attributed to influenza, with most of the deaths occurring in persons 65 years of age and older.¹ The burden of pneumococcal disease, while lower, remains a significant problem and a preventable disease. Annually, 50,000 cases of invasive pneumococcal disease are reported in the United States, with approximately 33% of these cases occurring in persons 65 years of age and older. At the same time, pneumococcal disease is responsible for 12,000 deaths (50% among the elderly) each year.²

While these illnesses and deaths could be preventable if higher rates of immunization occurred, the disproportionately lower rates of influenza immunization among minority ethnic groups is cause for alarm. According to data from the Consumer Assessment of Health Plans Survey (CAHPS), only 61% of African Americans received vaccination in 2002, compared to 72% of Caucasians, 75% of Asian/Pacific Islanders, and 68% of both American Indian/Alaska Natives and Hispanics.³ Similar disparities exist for immunization rates for pneumococcal disease, with African Americans again having the lowest rate of immunization (Table 1).⁴

CMS Goals to Eliminate Racial and Ethnic Health Disparities Related to Adult Immunization

Medicare coverage for pneumococcal immunizations began in 1981 and similar coverage for influenza vaccines began in 1993. While policies are in place for ben-

eficiary reimbursement and physician payment, Centers for Medicaid and Medicare Services (CMS) works toward the goal of increasing the percentage of Medicare beneficiaries age 65 and older who receive an annual immunization for influenza and a lifetime immunization for pneumococcal disease. In particular, CMS is dedicated to the elimination of racial and ethnic disparities in rates of immunization for Medicare beneficiaries through various multi-pronged programs.

BARRIERS EXPERIENCED BY MEDICARE BENEFICIARIES IN RECEIVING IMMUNIZATIONS

There are many reasons why individuals do not get a flu shot, including beliefs that the vaccine: 1) causes flu or side effects; 2) is not effective; 3) is not needed; 4) was not recommended (or recommended against) by the doctor; and 5) is not available. In addition, some individuals: 1) believe they are not at risk; 2) fear needles or shots; 3) cannot get to the clinic or doctor's office; or 4) simply, do not think about getting the vaccine. For minority populations, the barriers to receiving immunizations also include: decreased access to health care, language barriers, and inadequate knowledge about vaccine-preventable diseases. For immigrants, fear of immigration laws may prevent reporting to the community health clinic for immunization.⁵⁻⁸

BARRIERS EXPERIENCED BY HEALTH PROFESSIONALS IN PROVIDING ADULT IMMUNIZATIONS

From a health professional perspective, providing immunizations to mi-

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IMMUNIZATIONS FOR THE MEDICARE POPULATION - Farris

Pneumococcal vaccination status since 1991 of 1998 Medicare beneficiaries by race

State	Caucasian		African American		Other	
	Number of Beneficiaries	Percent Vaccinated	Number of Beneficiaries	Percent Vaccinated	Number of Beneficiaries	Percent Vaccinated
Alabama	385,295	27.77	80,484	15.80	5,652	19.52
Alaska	22,699	22.64	599	18.53	5,143	6.47
Arizona	281,113	35.17	3,748	20.94	20,926	13.97
Arkansas	284,440	32.07	31,529	14.50	3,754	23.28
California	1,273,892	24.44	76,817	14.04	311,857	18.49
Colorado	203,225	33.44	4,137	21.17	10,725	24.23
Connecticut	302,218	34.62	12,225	21.43	7,740	22.95
Delaware	67,492	32.29	8,185	22.44	1,755	25.41
District of Columbia	14,758	30.91	31,481	15.76	1,852	18.84
Florida	1,478,024	33.22	77,243	15.79	73,107	15.54
Georgia	507,975	31.30	118,192	16.86	10,675	20.06
Hawaii	18,920	26.70	484	18.60	59,206	29.68
Idaho	115,774	29.91	164	21.34	2,719	21.48
Illinois	1,043,300	30.52	84,358	13.54	36,224	19.86
Indiana	612,239	36.97	32,058	19.02	9,645	27.11
Iowa	380,489	38.97	3,019	23.68	4,409	29.42
Kansas	288,306	34.92	8,463	22.04	6,443	25.16
Kentucky	402,967	30.06	20,649	19.55	5,444	22.72
Louisiana	275,320	27.48	77,524	12.02	6,164	19.19
Maine	163,224	36.70	289	34.26	1,869	30.60
Maryland	342,439	32.60	65,045	17.25	12,329	22.41
Massachusetts	510,733	25.79	14,533	11.93	16,460	16.15
Michigan	953,922	33.83	95,026	18.45	17,604	23.75
Minnesota	425,004	37.30	3,120	22.50	7,879	23.90
Mississippi	223,456	28.35	75,563	13.37	3,831	19.16
Missouri	542,951	34.75	33,385	19.22	7,979	26.57
Montana	104,369	37.57	135	26.67	2,941	21.42
Nebraska	194,000	39.75	2,477	28.26	3,273	28.41
Nevada	102,098	23.94	3,694	15.46	5,704	15.04
New Hampshire	115,420	33.86	305	28.52	1,273	27.81
New Jersey	715,207	32.41	59,767	18.03	35,222	17.58
New Mexico	112,717	28.34	1,788	16.44	22,555	16.30
New York	1,419,606	31.61	140,651	12.32	113,554	14.16
North Carolina	681,505	38.83	131,782	21.92	14,715	25.74
North Dakota	84,893	38.60	89	30.34	1,707	25.48
Ohio	1,032,287	38.40	76,510	25.84	15,917	29.06
Oklahoma	336,839	28.50	15,298	16.45	11,279	15.35
Oregon	220,844	34.79	1,456	24.31	5,797	26.08
Pennsylvania	1,164,989	36.40	64,423	22.96	21,981	27.55
Rhode Island	82,207	34.86	1,830	25.19	2,215	21.26
South Carolina	325,311	35.65	87,117	18.97	5,681	25.84
South Dakota	96,413	31.07	127	25.98	2,488	12.46
Tennessee	523,723	37.69	61,634	19.58	7,543	28.25
Texas	1,217,025	30.69	110,308	18.31	132,593	18.51
Utah	131,218	27.27	507	19.72	4,332	22.74
Vermont	66,716	36.46	136	27.94	773	29.50
Virginia	531,186	36.88	96,490	20.64	16,635	26.62
Washington	378,884	32.65	5,787	19.66	19,338	22.53
West Virginia	225,114	31.06	5,354	21.37	3,051	23.99
Wisconsin	585,108	36.67	10,785	23.41	9,494	25.98
Wyoming	48,895	28.52	229	29.69	1,458	24.97
Total	21,616,749	33.01	1,836,999	17.59	1,112,910	19.69
American Samoa	55	16.36	—	0.00	992	4.33
Guam	366	4.92	35	2.86	3,532	2.63
Northern Marianas	43	2.33	—	0.00	408	2.45
Puerto Rico	151,354	8.79	13,007	8.13	107,331	9.25
Virgin Islands	1,373	12.45	5,079	2.30	644	3.11
Other	29,231	9.92	2,559	3.63	7,994	5.20
Total	21,799,171	32.81	1,857,687	17.46	1,233,811	18.61



Virginia Health Quality Center
2004 IMMUNIZATION
RESOURCE CATALOG ORDER FORM

All materials are provided free of charge while supplies last. An online order form and some immunization materials are also available for download from the VHQC Website at http://www.vhqc.org/index/immunization_pneumonia.

QUANTITY:	INFLUENZA & PNEUMOCOCCAL IMMUNIZATION MATERIALS:	
	HEALTH CARE WORKER EDUCATION MATERIALS	
	a. "Answers to Health Care Workers' Questions" Brochure	
	b. "Adult Immunization Schedule" Reference Sheet	
	c. "Standing Orders" form	
	d. "Virginia Medicare Pneumonia Fact Sheet"	
	HEALTH CARE REMINDERS	
	e. "Flu and Pneumonia Vaccine Reminder" Sticker (10 Stickers = 1 Unit)	
	f. "Vaccine Candidate" Chart Post-it Note Reminder (30 Notes = 1 Unit)	
	PATIENT EDUCATION TOOLS	
	g. "I Got My Pneumonia Shot Today" Sticker (20 stickers = 1 Unit)	
	h. "I Got My Flu Shot Today" Sticker (20 stickers = 1 Unit)	
	i. "Get the Flu Shot / Pneumonia Shot" Table Tent Card	
	j. "My Immunization Record" Wallet Reminder Card	
	PATIENT EDUCATION MATERIALS	
	k. "Congratulations: You Just Took a Positive Step to Protect Yourself" Brochure	
	l. "Life Savers for Seniors" Brochure	
	m. "Inactivated Influenza Vaccine: What You Need to Know" Flyer	CDC
	n. "Pneumococcal Polysaccharide Vaccine: What You Need to Know" Flyer	CDC
	o. "Questions about the Pneumococcal Shot" English and Spanish Flyer	CDC
	p. "Flu Vaccine Facts & Myths" Flyer	CDC
	q. "You Can Stop Influenza Before It Knocks You Flat" Poster (Limit = 3)	CDC

ADDITIONAL RESOURCES

VDH Website: <http://www.vdh.virginia.gov>

Roster Billing Information (October 2004): http://www.vhqc.org/index/immunization_pneumonia

CDC Patient Education Materials: <http://www.cdc.gov/flu/professionals/flugallery/index.htm>

CDC Health Care Provider Materials: http://www.cdc.gov/flu/professionals/flugallery/provider_kit.htm

Return this order form by September 10, 2004 to receive your materials in early October.

All fields below must be completed to receive an order. Requests submitted after September 10 will be filled if materials are available.

Today's Date: _____

Name: _____ Title: _____

Company: _____ Phone: _____

Mailing address: _____

City/State/ZIP: _____ Email: _____

Separate form & fax to: VHQC Immunization Campaign at 804-289-5324

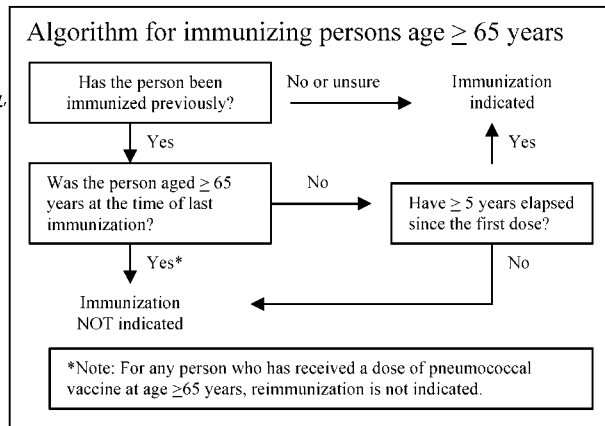
For further information call: David Collins at 804-289-5320 or e-mail at dcollins@vaqio.sdps.org

Fig 1. 2004 Immunization Resource Catalog Order Form from the Virginia Health Quality Center.

PATIENT ASSESSMENT AND IMMUNIZATION ADMINISTRATION

<p style="text-align: center;">INFLUENZA IMMUNIZATION <i>(give October through March)</i></p> <hr/> <p style="text-align: center;">STANDARD* ORDER All patients age 50 or older Prior to discharge, administer 0.5 ml I.M. influenza vaccine</p> <hr/> <p><input type="checkbox"/> Inactivated Influenza vaccine NOT given</p> <p><input type="checkbox"/> Contraindicated</p> <ul style="list-style-type: none"> <input type="checkbox"/> Allergic to eggs or thimerosal <input type="checkbox"/> Previous adverse reaction to influenza vaccine <input type="checkbox"/> Physician order not to give vaccine <input type="checkbox"/> Acute febrile illness <input type="checkbox"/> Previously immunized this "flu season" <p><input type="checkbox"/> Patient declined</p> <ul style="list-style-type: none"> <input type="checkbox"/> Believes not at risk for disease <input type="checkbox"/> Fear of adverse effects <input type="checkbox"/> Believes vaccine won't work <input type="checkbox"/> Wants further advice (e.g., physician or family) <input type="checkbox"/> Other _____ <p>Assessed by: _____</p> <p>Date: ____/____/____</p> <p><input type="checkbox"/> Inactivated Influenza vaccine given Lot #: _____ Date: ____/____/____ Administered by: _____</p> <p><small>Source: MMWR; May 29, 2004/Vol. 53/No. RR-6</small></p>	<p style="text-align: center;">PNEUMOCOCCAL IMMUNIZATION</p> <hr/> <p style="text-align: center;">STANDARD* ORDER All patients age 65 or older Prior to discharge, administer 0.5 ml I.M. or S.Q. pneumococcal vaccine</p> <hr/> <p><input type="checkbox"/> Pneumococcal vaccine NOT given</p> <p><input type="checkbox"/> NOT indicated per algorithm</p> <p><input type="checkbox"/> Contraindicated</p> <ul style="list-style-type: none"> <input type="checkbox"/> Previous adverse reaction to pneumococcal vaccine <input type="checkbox"/> Hypersensitivity (to any component of vaccine) <input type="checkbox"/> Physician order not to give vaccine <input type="checkbox"/> Febrile respiratory illness or other active infection <input type="checkbox"/> Previously immunized for pneumococcal pneumonia within the last 5 years <p><input type="checkbox"/> Patient declined</p> <ul style="list-style-type: none"> <input type="checkbox"/> Believes not at risk for disease <input type="checkbox"/> Fear of adverse effects <input type="checkbox"/> Believes vaccine won't work <input type="checkbox"/> Wants further advice (e.g., physician or family) <input type="checkbox"/> Other _____ <p>Assessed by: _____</p> <p>Date: ____/____/____</p> <p><input type="checkbox"/> Pneumococcal vaccine given Lot #: _____ Date: ____/____/____ Administered by: _____</p> <p><input type="checkbox"/> Given Vaccine Information Statement (VIS)</p> <p><small>Source: MMWR; April 4, 1997/Vol. 46/No. RR-8, p. 13</small></p>
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*Board of Nursing "Protocol for Adult Immunization": www.dhp.virginia.gov, [Licensing Board, Nursing, then regulations, once in the regulation section click on regulations effective July 1, 2004 or September 8, 2004, go to section 18 VAC 90-20-410 for the regulation pertaining to immunization protocol]



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Fig 2. Patient assessment and immunization administration form.

nority populations may be prohibitive because of an uncertainty about who is at risk and true contraindications to immunization. Often, physicians miss opportunities for immunizations because of the myriad other medical problems with which patients present. The burden of the paperwork and requirements for written consent, as well as the perception of low reimbursement rates to the physician, may be two additional physician barriers to immunizing patients.^{9,10}

CMS Efforts to Increase Influenza and Pneumococcal Immunization Rates

The CMS Quality Improvement Organizations (QIO contractors, formerly known as Peer Review Organizations) interact with physician and patient communities to influence behaviors by assessing claims and other data, as well as identifying gaps in service and disparities in health status. The QIO design and implement culturally sensitive and appropriate interventions, which seek to fulfill goals within the QIO Scope of Work. For immunizations, projects and activities focus on the goals: 1) to reduce beneficiary mortality due to pneumonia; and 2) to increase immunization rates for influenza and pneumococcal disease in each state.

To reach these goals, CMS maintains 10 federal regional offices, serving between four and eight states each. Immunization coordinators in each regional office conduct specific outreach activities, such as health fairs; marketing campaigns; regional task forces; and coalitions. The regional offices and QIOs work together with partnering agencies, including the Centers for Disease Control and Prevention (CDC); American Medical Association (AMA); the National Influenza Vaccine Summit; the National Foundation for Infectious Diseases/National Coalition for Adult Immunization; the National Medical Association; the National Hispanic Medical Association, and others. (*Editor's*

note: Virginia's QIO [the Virginia Health Quality Center] has compiled a rich set of quality improvement resources for practices attempting to increase their adult immunization rates. These are free and downloadable from their web site, and print copies are available for bulk purchase [Figure 1]).¹¹

Other CMS activities include newsletters to providers, Medicare summary notices, and national marketing materials. For example, to address the low rates of immunization among healthcare professionals (only 36% are immunized against flu annually),¹² CMS publishes ads in major health professional journals. Also, from April–June 2004, CMS instructed Medicare carriers to publish notices in their newsletter and on web sites reminding physicians and providers to order influenza vaccine early.

In a program that follows the directive of the Medicare Modernization Act, CMS has developed the "Welcome to Medicare Physical Examination Program." Beginning in January 2005, individuals who reach the age of 65 will be provided a Medicare-paid physical exam during which the patient will be introduced to preventive benefits of Medicare, offered influenza and pneumococcal immunization, as appropriate, and screened for cardiovascular disease and diabetes risk. To implement this and other programs, the agency collaborates with ongoing programs, such as the Oklahoma Foundation for Medical Quality and the Racial and Ethnic Adult Disparities in Immunization Initiative (READII) program of CDC.

In policy efforts related to immunization, CMS works to refine rulings such as the Standing Orders Regulations. With its recent revision, the regulation is now written to remove the federal barrier related to the requirement for a physician to order influenza and pneumococcal immunizations in Medicare and Medicaid participating hospitals, long-term care facilities, and home health agencies. The newly developed standing orders programs autho-

rize nurses or pharmacists, where allowed by state law, to administer immunizations according to an institution- or physician-approved protocol, without the need for a physician's order or signature. An example of a nursing standing order is shown in Fig 2.¹³

Payment and physician reimbursement have also been priorities for CMS. Since 2000, CMS has progressively increased reimbursement rates for influenza and pneumococcal vaccine, with flu vaccine rates at \$10.10 per dose, pneumococcal at \$23.28 per dose. Billing can be done by individual patient, or a roster of patients vaccinated in a mass campaign can be billed on a billing roster. These and other billing details are available at the CMS preventive services website (www.cms.hhs.gov).

CONCLUSIONS

Medicare provides nearly universal insurance coverage to the elderly in America, and yet many enrollees still remain without immunization and, vaccine-preventable pneumonias still account for thousands of hospitalizations and deaths. This morbidity and mortality disproportionately impacts racial and ethnic minority populations, as well as those of low socioeconomic status. Quality improvement and community outreach interventions must not only address the Medicare population broadly, but must also target these disparities.

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