office of Rural Health & Primary Care
MINNESOTA DEPARTMENT OF HEALTH

October 2003

Profile of Pharmacies in Rural Minnesota

Background

Licensed Pharmacies

Minnesota law mandates that in order to distribute prescription drugs in Minnesota a pharmacist must have a current license and practice out of a licensed pharmacy. According to the Minnesota Board of Pharmacy, there were 1168 licensed pharmacies located in Minnesota as of March 2003 with 88 percent identifying themselves as retail pharmacy.[1] This number is up from 1147 licensed pharmacies reported in Minnesota during 2002. Map 1 shows the distribution of pharmacies throughout Minnesota. Between 2002 and 2003, the overall number of non-chain, independent community pharmacies decreased in number at a rate of 3.2 percent (489 to 473) while the number of non-independent, chain pharmacies increased 5.8 percent (511 to 541). Table 1 shows the number of Minnesota pharmacies in each of the licensing categories. Some pharmacies are licensed under more than one category. Certain types of pharmacy are experiencing greater declines in rural Minnesota compared to the 7-county metro region. For example, pharmacies licensed as non-chain and independent declined 15 percent in rural Minnesota between 2002 and 2003, while the 7-county metro region experienced a 42.5 percent increase among pharmacies licensed under the same category. See Table 1.

Quick Facts:

- As of 2000, half of all active pharmacists in Minnesota were over 45 years.
- Rural Minnesota pharmacists are on average nearly 4 years older than their urban counterparts.
- Pharmacist employment in Minnesota grew 30 percent between 1986 and 1999, and is expected to increase 11 percent by 2008.
- Approximately 35 percent of Minnesota's low income seniors pay more than $500 per year for prescription drugs.[1]
- To be viable, a pharmacy needs to serve a population of 4,500 people.[2]

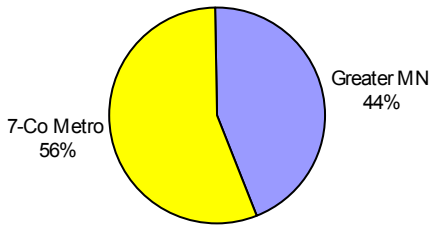
[1] Department of Human Services, MN Drug Assistance Program Website, http://www.dhs.state.mn.us

[2] National Rural Health Association, *Protecting Rural Beneficiaries with a Medicare Prescription Drug Benefit.*

Pharmacist Workforce

The latest workforce data indicate there are 4,895 actively licensed pharmacists in Minnesota, 56.6 percent working in the 7-county metro area and 44.4 percent employed in greater Minnesota. See Figure 1. Although the number of pharmacists per 1,000 population in Minnesota is equal to the national rate of 1.2, pharmacy services are not all the same.[2] In rural areas, often there is only a privately owned pharmacy run by a single pharmacist or a partnership of two or three pharmacists. A study focusing on retail pharmacies located in rural areas of Minnesota revealed that 56 percent are independently owned, half

Figure 1. Active Licensed Pharmacists, Minnesota 2002



[1] Minnesota Board of Pharmacy, Annual Pharmacist Survey, 2000 & 2001.
[2] Population numbers based on Census 2000 data.

(49.8 percent) have two pharmacists on staff and 25.4 percent have a single pharmacist.[3] This often translates into reduced services in rural areas compared to urban areas that can support larger, commercial chains or hospital pharmacies that have longer hours. Small town pharmacies may be forced to close when the pharmacist is ill or on vacation and cannot find someone to relieve them. The permanent closing of a pharmacy becomes an even greater possibility for rural pharmacists who are close to retirement and unable to find a person willing to assume the business of the local pharmacy.

Table 1: Minnesota Pharmacies by Licensing Category – From 2002 to 2003

(Columns cannot be totaled because some pharmacies are licensed under more than one category.)

	2002			2003		
Pharmacies	7-county Metro Area	Greater MN	**Grand Total**	7-county Metro Area	Greater MN	**Grand Total**
Retail Pharmacy/Chain	246	265	511	306	235	541
Retail Pharmacy/Non-Chain	101	388	489	144	329	473
Private Hospital	18	86	104	23	77	100
Nursing Home	7	53	60	12	37	49
Parenteral-Enteral/Home Heath Care	11	28	39	16	23	39
Public Hospitals	1	27	28	2	30	32
Nuclear	1	4	5	4	2	6
Federal	1	7	8	1	6	7
Satellite Hospital	1	1	2	1	3	4

Mail Order Pharmacy

While the primary sources of pharmacy competition come from chain or other independent retail pharmacies located in the same community, mail order pharmacy was a competitor for 19 percent of rural pharmacies surveyed in Minnesota.[4] This trend could be potentially beneficial for consumers if these types of pharmacy services increase access for rural residents. However, it could be financially detrimental for independently owned pharmacies. It is also more difficult to provide the patient counseling that a local pharmacy can provide as well as regulate online pharmacies because they cross over state and national boundaries. To address such issues, the National Association of Boards of Pharmacy has developed a database of (Verified Internet Pharmacy Practice Sites [VIPPS]) which consumers can view online at: www.nabp.net/vipps/intro.asp. VIPPS is a voluntary certification program for Internet pharmacy practice sites. Currently, there are up to 23 VIPPS providing prescription drug services to residents of Minnesota. These Internet pharmacy sites must comply with the licensing and inspection requirements of Minnesota and each state to which they dispense pharmaceuticals.

Given the higher rates of prescription drug use among elderly rural residents and their limited capacity for travel, most rural pharmacies also find it essential to provide prescription delivery services. A vast majority of rural pharmacies in Minnesota report delivering prescriptions to private homes and nursing homes (81 percent and 79 percent respectively).[5]

[3] Casey, M., Klingner, J., & Moscovice, I. (2002) *Pharmacy Services in Rural Areas: Is the Problem Geographic Access or Financial Access?* The Journal of Rural Health, 18(3), 467-477.
[4] Ibid.
[5] Ibid.

Issues

Financial Viability

The annual number of pharmacy closures in greater Minnesota has been steady since 1996. See Table 2. A study analyzing rural pharmacy closures in the Midwest from 1996-1999 revealed that nine of the 38 closures that occurred in Minnesota resulted in a rural community no longer having pharmacy services available, forcing some residents to travel an average distance of 15 miles to the next closest community with a pharmacy.[6] The same study also indicated that financial viability is a common concern among independent rural pharmacists in Minnesota. Rural pharmacies are being confronted with 1) increasing competition from major chain, mail order and online pharmacies, 2) reductions in third-party reimbursement levels, 3) higher overhead costs due to increased volume and variety of medications, 4) federally mandated counseling services for consumers without provisions for reimbursement, and 5) expansion of prescribing rights to mid-level practitioners, resulting in increased consultations about such issues as dosages and interactions.[7] Financial sustainability depends on a stable workforce, which requires the successful recruitment and retention of pharmacists to rural areas.

Pharmacist Shortage

National data show an increasing need for pharmacists given the growing volume of prescriptions and the expected transformation of the profession to a more patient-care centered model.[8] For many rural Minnesota communities, it is a great challenge to attract and retain a new generation of pharmacists that possesses a commitment to the community. Most retail rural pharmacies are staffed with only one to two lead pharmacists typically working long hours and serving entire communities without any available relief coverage. Also, a majority of independent pharmacists in rural areas are approaching retirement age. According to the latest workforce data, Minnesota's current pharmacist shortage remains significant. Although the percentage of pharmacist vacancies is almost evenly split between urban and rural Minnesota (51 percent and 49 percent), demand for pharmacists is stronger in rural Minnesota and vacancies go unfilled for a longer time period compared to urban vacancies.[9] A 2002 pharmacist vacancy survey revealed that 45 percent of all rural pharmacist positions had been vacant for more than 10 months compared to only 25 percent of urban pharmacist vacancies.[10] Northwest Minnesota has the greatest demand for pharmacists followed closely by the Southwest Central and West Central regions. See Map 2.

Table 2
Number of Pharmacy Closures*
Minnesota 1996-2002

Year	Greater Minnesota	7-County Metro Area	Total
1996	13	18	31
1997	15	12	27
1998	17	6	23
1999	13	16	29
2000	16	10	26
2001	11	15	26
2002	17	10	27
Total	102	87	189

*Excludes pharmacies that remained opened after changing ownership.
Source: Minnesota Board of Pharmacy

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[6] Casey, M., Klingner, J., & Moscovice, I. *Access to Rural Pharmacy Services In Minnesota, North Dakota, and South Dakota,* Working Paper Series, Rural Health Research Center – University of Minnesota, July 2001.
[7] Ibid.
[8] *Report to Congress: The Pharmacist Workforce: A Study of the Supply and Demand of Pharmacists,* U.S. Department of Health and Human Services, HRSA, Bureau of Health Professions, December 2000.
[9] *Findings from the Minnesota Pharmacy Vacancy Survey*, Office of Rural Health and Primary Care, April 2003.
[10] Ibid.

Medicare Prescription Drug Benefit

A future possibility affecting the financial sustainability of rural pharmacies could be the implementation of a Medicare prescription drug benefit currently under consideration in Congress. Rural health advocates warn that such a benefit could adversely affect rural pharmacies and the communities they serve. A survey of pharmaceutical services in the Midwest reports that a Medicare prescription drug benefit will potentially impact rural pharmacies in the following two ways: 1) create a significant loss of current private pay business if the benefit is administered by companies that exclusively rely on the major chain or mail order pharmacies, and 2) reduce profit margins if Medicare reimbursement rates for prescription drugs are significantly lower than private pay rates previously paid by many beneficiaries.[11]

If protections for rural communities are not included in the legislation, rural health advocates assert that the direct benefit of insuring prescription drugs for Medicare beneficiaries will indirectly result in the elimination of local access to pharmaceutical care.[12] Rural pharmacies deliver a wide range of services to local communities, which are as important to patient health as other components of the health care system. The loss of local access to pharmaceutical care may ensure less equitable health care delivery to rural consumers.

It is evident that pharmacies are important suppliers of health care in communities. In some rural areas of Minnesota, the local pharmacist may be one of a limited number of health care providers serving a community. Ensuring access to health care in rural Minnesota will mean addressing many financial and workforce challenges facing rural pharmacies. Preserving consumer access to pharmaceutical care, however, will mean not only improving financial and geographic access to prescription drugs, but also recognizing the greater patient care role pharmacies play in rural communities.

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[11] Casey, M., Klingner, J., & Moscovice, I. (2002) *Pharmacy Services in Rural Areas: Is the Problem Geographic Access or Financial Access?* The Journal of Rural Health, 18(3), 467-477.

[12] *Protecting Rural Beneficiaries with a Medicare Prescription Drug Benefit*, National Rural Health Association, 2003.

Resources

Publications:

American Society of Health-System Pharmacists, *2003 ASHP Pharmacy Staffing Survey Results*.

Rural Health Research Center, *Access to Rural Pharmacy Services in Minnesota, North Dakota, and South Dakota,* Working Paper #36, Division of Health Services Research and Policy, School of Public Health University of Minnesota, July 2001.

Minnesota Department of Health, Office of Rural Health and Primary Care, *Pharmacist Workforce Profile*, Health Workforce Analysis Program, September 2001.

Minnesota Department of Health, Office of Rural Health and Primary Care, *Findings from the Minnesota Pharmacy Vacancy Survey,* April 2003

National Rural Health Association, *Protecting Rural Beneficiaries with a Medicare Prescription Drug Benefit*, Report from a Meeting of National Experts 2003.

Websites:

http://www.phcybrd.state.mn.us/

The website of the Minnesota Board of Pharmacy. Contains activities of the Pharmacy Board, pharmacy regulations for the State of Minnesota, and statistics on the pharmacists and pharmacies licensed in Minnesota.

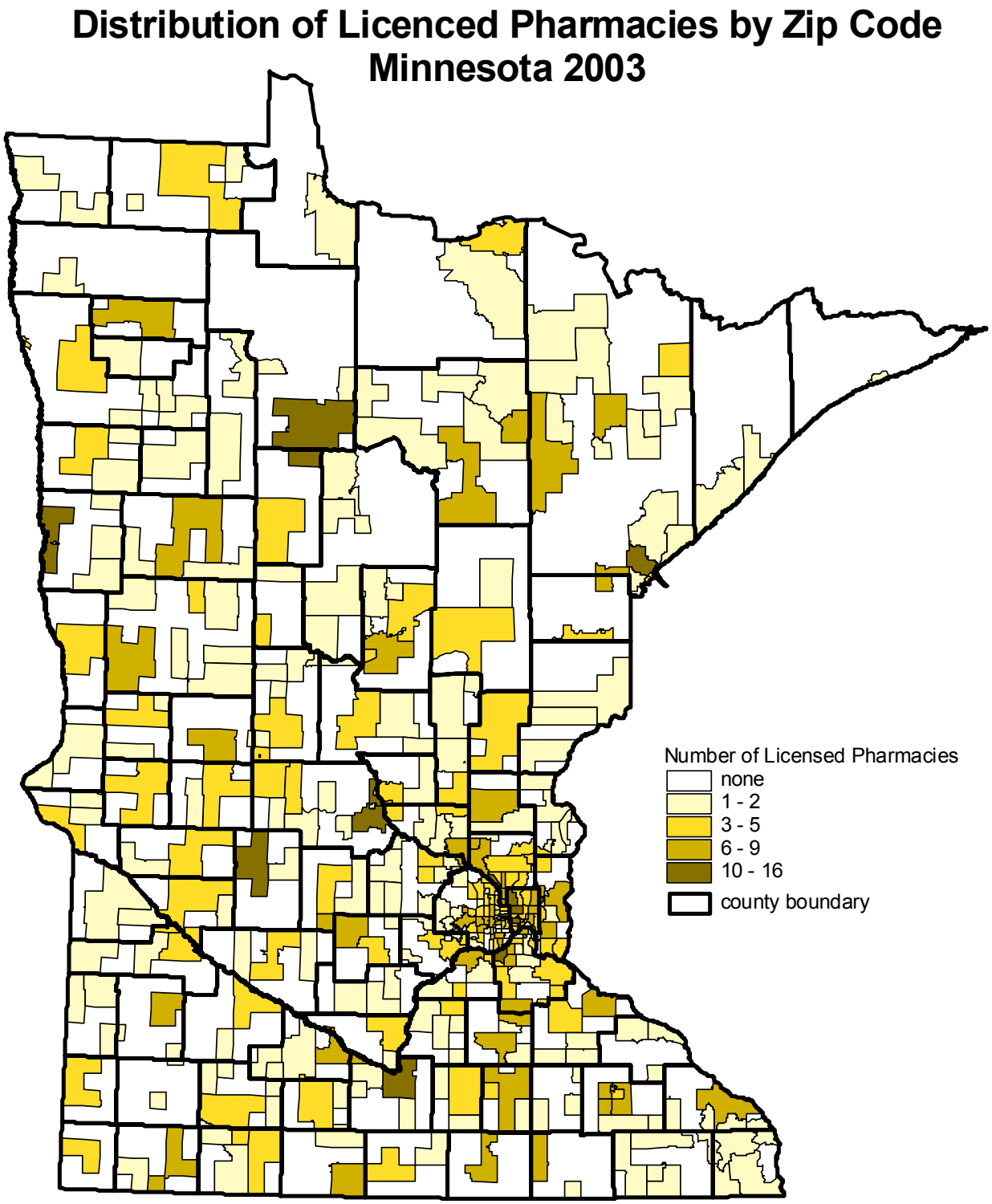
http://www.nrharural.org/

The website of the National Rural Health Association. Contains information on the health and health care of rural Americans and provides leadership on rural issues through advocacy, communications, education and research.

http://www.health.state.mn.us/divs/chs/workforce.htm

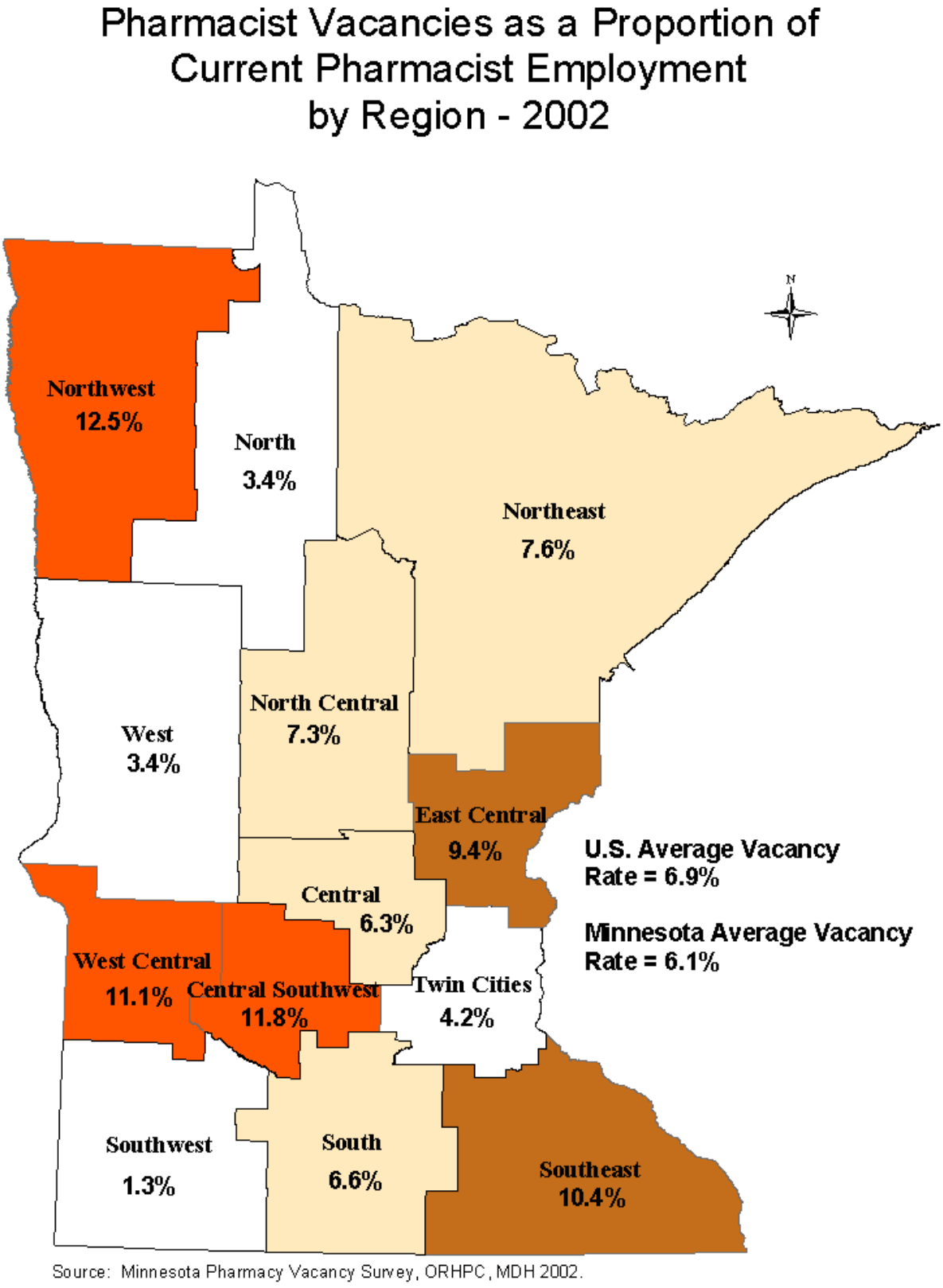
The website for Health Workforce Analysis Program of the Minnesota Department of Health's Office of Rural Health and Primary Care. Contains the latest data and research on the health care workforce of Minnesota.

Map 1



Source: Minnesota Board of Pharmacy

Map 2


Pharmacist Vacancies as a Proportion of
Current Pharmacist Employment
by Region - 2002
N
Northwest
12.5%
North
3.4%
Northeast
7.6%
West
3.4%
North Central
7.3%
East Central
9.4%
U.S. Average Vacancy
Rate = 6.9%
Central
6.3%
Minnesota Average Vacancy
Rate = 6.1%
West Central
11.1%
Central Southwest
11.8%
Twin Cities
4.2%
Southwest
1.3%
South
6.6%
Southeast
10.4%
Source: Minnesota Pharmacy Vacancy Survey, ORHPC, MDH 2002.