Safety Net Activities of
Independent Rural Health Clinics
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EXECUTIVE SUMMARY

Rural Health Clinics (RHCs) are an important part of the rural health care infrastructure as they provide a wide range of primary care services to the rural residents of 45 states. Since RHCs are located in underserved rural areas and serve vulnerable populations, many consider them safety net providers. In this paper we explore whether and to what extent independent RHCs are serving a safety net role, or have the capacity to serve that role. We address this question through a telephone survey of 392 randomly selected independent RHCs. Response rate for the survey was 93%. We investigated whether and to what extent RHCs offer free or discounted care and serve Medicaid populations. We also sought to determine if the proximity of a federally funded Community Health Center (CHC) might have an effect on the extent to which an RHC serves the safety net role.

We find that 86% of the RHCs surveyed provide free or discounted care, and an estimated 27% of their visits are from Medicaid patients, while 47% reported that they help their patients enroll in Medicaid. We also find that proximity of a CHC, either in the same county or in the same zip code, is not associated with offering free or discounted care, but is associated with the percentage of total patient visits attributable to Medicaid patients. Using 30% or more of patients on Medicaid as a threshold, we find that RHCs with a CHC in the same county are significantly less likely to meet this threshold (38%) as compared with RHCs without a CHC in their county (65%).

In some rural states, we find very few rural CHC sites, while in others, rural sites are numerous. In general the overlapping catchment areas, populations and services of RHCs and CHCs must be examined more thoroughly before new policy initiatives can be considered. In light of health reform initiatives, it is likely that the definition of "safety net" will change, and that the roles of federally designated primary care providers will also need to be re-defined.

BACKGROUND

The Rural Health Clinic (RHC) is a federally designated primary care provider type that addresses access to primary care in underserved rural areas. RHCs were established under the Rural Health Clinic Services Act in 1977 to improve access to primary health care for rural Medicare and Medicaid beneficiaries by expanding the use of physician extenders (nurse practitioners and physician assistants) and providing cost-based reimbursement to stabilize these clinics. To be designated as an RHC, a clinic must be located in a U.S. Census Bureau non-urbanized area and either a Health Professional Shortage Area, Medically Underserved Area, or a Governor's Designated Shortage Area. An RHC must offer a defined package of RHC services and employ a physician extender at least 50% of the time the clinic is open. As of June 2008, 3,782 RHCs were serving residents of rural underserved areas.[1]

Rural Health Clinics are an important part of the rural health care infrastructure as they provide a wide range of primary care services to the rural residents of 45 states. The patient populations served by these RHCs include a high proportion of rural elderly and poor through the Medicare and Medicaid programs.[2] Since RHCs are located in underserved rural areas and serve these vulnerable populations, many consider RHCs safety net providers [3,4,5,6] although the fact that they are not legally mandated to provide such services excludes them from the Institute of Medicine's (IOM) list of core safety net providers.

As defined by the IOM, safety net providers "organize and deliver a significant level of health care and other health-related services to uninsured, Medicaid, and other vulnerable populations."[7] The IOM further identified a subset of the safety net known as "core safety net providers" that have a legal mandate or an explicit mission to offer services to patients regardless of their ability to pay and whose patient mix includes a substantial proportion of uninsured,

Medicaid, and other vulnerable individuals. Based on this definition, the IOM did not include RHCs, in its list of core safety net providers.

As noted in the opening paragraph, the act establishing RHCs did not conceive of them as safety net providers. That RHCs have been thought of as such may stem from a perspective on access to care that is broader than the more focused perspective of the IOM. Underserved populations may experience barriers to care based on their inability to pay for it, due to being poor, uninsured or under-insured, or based on lack of providers within a reasonable distance of home. Addressing the financial barrier is the charge of Community Health Centers CHCs), while RHCs were authorized primarily to address geographic access, especially as regards Medicare and Medicaid beneficiaries.

A CHC is a Federally Qualified Health Center (FQHC) that has applied for and received a Community Health Center grant under Section 330 of the Public Health Services Act. These grants help the CHC to provide care regardless of a person's insurance status or ability to pay. CHCs were established in 1975 under Section 330 to provide primary health care services to medically underserved communities and vulnerable populations. The Bureau of Primary Health Care reports approximately 7000 sites delivering care under the Health Centers Act. Our most recent data found 5837 of these sites delivering primary care in the 50 states, of which 1586 are located in rural counties. [i]

CHCs differ from RHCs in that they receive grant funds from the Bureau of Primary Health Care (Health Resources and Services Administration, USDHHS) to provide comprehensive preventive and primary health care services to medically underserved populations

[i] In addition to program expansion, the difference between our count of CHC sites and that of the Bureau of Primary Health Care is due, in part, to sites that do not provide sufficient primary care services to be considered a primary care medical home. These include sites delivering dentistry only, those delivering services to the homeless, and several other service categories. The difference is also due, in part, to sites which we could not identify as urban or rural, due to an incomplete or ambiguous address.

regardless of their insurance status or ability to pay. Although many RHCs also offer sliding fee scales, they do not receive Section 330 funding to offset the free or discounted care they provide. Providing free and reduced cost care is a key criterion to be considered a "safety net" provider. While some RHCs also provide reduced-cost care they are not mandated to do so. Moreover, CHCs have been encouraged, and funded, to add a number of services needed by the vulnerable populations they serve, such as oral health, mental health and pharmacy services. Very few RHCs offer such services.[2,8] Noting these significant differences between the two federal programs, there is some overlap between the services offered and the populations served by RHCs and CHCs. It may be that RHCs "substitute" for CHCs in areas where there is no CHC, it may also be that demand for such services is very high in underserved areas, exceeding the capacity of CHCs, and thus, RHCs may complement CHCs by accommodating excess demand.

As of March 31, 2006, 54 percent of RHCs were independent RHCs which are free standing clinic or office-based practices.[4] Organizationally, they can either be for profit or not for profit entities. Independent RHCs operate very much like independent practices. A provider-based RHC, in comparison, must be an integral and subordinate part of a hospital participating in the Medicare program and operate with other departments of that hospital under common licensure, governance, and professional supervision. In this paper we explore whether and to what extent independent RHCs are serving safety net populations, or have the capacity to serve in that role.

RESEARCH QUESTIONS

This project seeks to determine the extent to which independent RHCs are providing, or have the capacity to provide, safety net services, and the extent to which they are more likely to adopt a safety net mission in areas where CHCs are not present. Our specific questions are:

1. What proportion of independent RHCs offer free or discounted care and how often?
2. Do RHCs place limits on Medicaid and uninsured patients?
3. Are RHCs able to serve those populations served by CHCs including those with limited English proficiency?
4. What proportion of independent RHCs are located in areas also served by a CHC?
5. Is there a relationship between the proximity of a CHC (a mandated safety net provider) and the safety net services offered by an RHC?

METHODS

In December, 2008 and January 2009, the Maine Rural Health Research Center conducted a telephone survey of 392 randomly selected, free-standing RHCs to determine the extent to which they are now serving safety net populations. Response rate for this survey was 93 percent. We obtained a current list of all FQHCs in the US, with a listing for each site operated by each grantee, from the Bureau of Primary Health Care.[ii] Determination of which sites are metropolitan, micropolitan or rural was made by staff at the Sheps Center, University of North Carolina, using street addresses.

FINDINGS

Table 1 presents descriptive statistics that address several of the research questions. Each question is based on services typically provided by the IOM's "core safety net providers". Specifically, we found that of our RHC sample:

[ii] The data file was provided to researchers at the Sheps Center, University of North Carolina, by the Bureau of Primary Health Care. We collaborated with that center in addressing rural primary care capacity under our cooperative agreement with the Federal Office of Rural Health Policy, and Sheps Center staff shared the file with us with consent of BPHC staff. It should be noted that expansion of the CHC program has increased the total number of primary care sites since this analysis was completed.

- 58% have language interpreters;
- 47% assist with Medicaid and SCHIP enrollment;
- 86% offer free care, sliding fee scales, or both;
- 97% were currently accepting new Medicaid/SCHIP patients;
- 81% were currently accepting free or discounted patients;
- 92% stated that provision of free and discounted care had either stayed the same or increased over the previous two years;
- 53% are located in a county where a CHC is also located; and
- 26% are located in a zip code where a CHC is also located.

Table 1: Characteristics of Independent Rural Health Clinics
(n=392, except as noted)

	Total	Confidence Interval
Provide free or discounted care?	336 (86%)	(±3.5%)
Currently accepting free or discount patients	319 (81%)	(±3.9%)
Place limits on free or reduced cost care (n=320)	43 (13%)	(±3.1%)
In past 2 years, free and discounted care same or increased (n=336)	308 (92%)	(±3.0%)
Percent of billings – free, discounted or bad debt (mean, n=270)	13.2%	(±1.7%)
Percent of visits paid by Medicaid (mean) (n=358)	27.3%	(±1.5%)
Accepting new Medicaid/SCHIP patients	382 (97%)	(±1.6%)
Place limits on Medicaid/SCHIP patients	45 (11%)	(±3.2%)
Offer language interpreter service	228 (58%)	(±4.9%)
Offer help enrolling in Medicaid/SCHIP	184 (47%)	(±4.9%)
CHC site in same county	206 (53%)	(±4.9%)
CHC site in same zip code	100 (26%)	(±4.3%)

These findings suggest that many independent RHCs are delivering "… a significant level of health care and other health-related services to uninsured, Medicaid, and other vulnerable populations." However, these findings are not conclusive on that point. For example, while a majority of these RHCs are providing free or discounted care, we were not able to determine what portion of their total visits are accounted for by this policy. We attempted to address that question by asking "What percent of billings are accounted for by free and discounted care or bad debt?" Many of our respondents were not able to answer this question. Of the 270 who were able to respond, the average percent of billings accounted for as free, discounted or bad debt was 13%. However, 13 percent of billings does not necessarily mean that free care is 13 percent of the payer mix. While our finding on this point is, therefore, inconclusive, it suggests that RHCs are delivering a significant amount of free and reduced cost care. As there is no requirement mandating that RHCs provide reduced cost care, there is also nothing requiring them to help patients enroll in Medicaid or SCHIP. Our finding that 47% of our respondents do offer such help is, thus, somewhat surprising and an indication of the extent to which RHCs have accepted service to this population as part of their mission.

To address our research questions regarding proximity between RHCs and CHCs, we obtained a file of all FQHC primary care sites in the US, current as of December 2008. [iii] Using county FIPS codes and zip codes, we were able to determine which of the RHCs in our survey had a CHC located in the same county and in the same zip code. We sought to determine if the proximity of a "mandated safety net provider" is associated with providing free or discounted care, serving Medicaid/SCHIP patients, or offering specific services such as pediatric care, prenatal and obstetric care and mental health care. Table 2 presents findings from this analysis.

[iii] Determination of which sites offer primary care was made by researchers at the Sheps Center, University of North Carolina, as part of a policy brief addressing CHC capacity.

While proximity of a CHC is not associated with whether an RHC offers free or discounted care, it is significantly associated with whether an RHC serves a significant Medicaid/SCHIP population (30% or more of the total patient population). Similarly, the only service offered by RHCs that is significantly associated with proximity to a CHC is prenatal and obstetric care. In both cases, it appears that the need for basic primary care services to families is being addressed by RHCs in areas where those services are not otherwise available.

Table 2: How does proximity of a CHC affect services offered by an RHC?

	CHC in same County? (n=206, 53%))		CHC in same zip code? (n=100, 26%)	
	yes (n=206)	no (n=186)	yes (n=100)	no (n=292)
Offer free or discounted care	175 (85%)	161(87%)	83 (83%)	253 (87%)
30% or more of [iv]patients on Medicaid	75 (38%)	115(65%) **	39 (40%)	151 (55%) *
Offer help enrolling in Medicaid/SCHIP	98 (48%)	86 (46%)	50 (50%)	134 (46%)
Offer pediatric care	167 (81%)	153 (82%)	85 (85%)	235 (80%)
Offer prenatal and OB	46 (22%)	74 (40%) **	22 (22%)	98 (34%) *
Offer Mental health services	51 (25%)	52 (28%)	27 (27%)	76 (26%)

Results for 4-cell chi-square, * $p \leq .05$, ** $p \leq .01$

Does this mean that RHCs might substitute for CHCs in some areas? To explore that question further, we used our listing of CHCs and RHCs.

[iv] We chose 30% as an indication that a RHC is serving a Medicaid population of significant size, based on our observation that approximately half of survey respondents meet this threshold.

DISTRIBUTION OF RURAL CHCs AND RHCs

While recent increases in funding for CHCs[9] should increase capacity to meet future demand for primary care in some underserved areas, it is important to realize that many regions of the country have very few CHCs. In many of these areas, RHCs are a more common vehicle for addressing the needs of rural underserved populations. Table 3 provides total numbers of rural CHC and RHC primary care sites for the US, and for all states that have relatively few rural CHCs. Surely, access is better measured at the county level, and, without knowing specifically where the CHCs and RHCs are located in each state, Table 3 is inconclusive. However, this table suggests that there are rural areas in several states that are most likely not served by CHCs and may be served by RHCs, further suggesting that, in some areas, RHCs might be another vehicle for increasing access for underserved populations. Indiana is perhaps the most extreme example, with three rural CHC sites and 58 RHCs. A listing of all states can be found in the appendix. It should be noted that an accurate picture of the distribution of CHCs and RHCs in rural areas is difficult to establish due to recent policy developments. Increased funding for CHCs has occurred under both the Bush and Obama administrations, resulting in new primary care sites and new services at existing sites. The service area and volume standards needed to qualify as a CHC have made it difficult for independent practices (RHCs) in sparsely populated areas to obtain FQHC status. However, two organizational options exist that could overcome this barrier. A CHC can provide services at multiple sites under a single Section 330 grant. Many rural primary care sites are satellite offices of a larger clinic. In some cases, a CHC may approach an existing RHC and "acquire" it, putting its medical staff on salary, and subsidizing free or reduced cost care through its 330 grant.

Table 3: Rural Community Health Center Sites* and Rural Health Clinics in Selected States

STATE	TOTAL PRIMARY CHCs	RURAL PRIMARY CHCs	RURAL HEALTH CLINICS
INDIANA	60	3	58
KANSAS	29	14	178
LOUISIANA	67	18	108
MINNESOTA	46	10	82
NORTH DAKOTA	16	12	62
NEBRASKA	16	9	125
OKLAHOMA	30	15	38
SOUTH DAKOTA	32	21	61
UTAH	36	15	18
WISCONSIN	55	18	47
WYOMING	10	5	17
US TOTAL	5837	1586	3782

*Many Section 330 grantees operate multiple sites. Rural classification of CHC sites is determined by street address of site. Micropolitan counties are classified as rural.

Alternatively, the CHC may enter into a contract with an RHC to provide services at a cost per visit. The Patient Protection and Affordable Care Act includes language explicitly authorizing such contracting arrangements:

> Nothing in this section shall be construed to prevent a community health center from contracting with a Federally certified rural health clinic (as defined in section 1861(aa)(2) of the Social Security Act), a low-volume hospital (as defined for purposes of section 1886 of such Act), a critical access hospital, a sole community hospital (as defined for purposes of section 1886(d)(5)(D)(iii) of such Act), or a medicare-dependent share hospital (as defined for purposes of section 1886(d)(5)(G)(iv) of such Act) for the delivery of primary health care services that are available at the clinic or hospital to individuals who would otherwise be eligible for free or reduced cost care if that individual were able to obtain that care at the community health center. Such services may be limited in scope to those primary health care services available in that clinic or hospitals. [10]

Guidance for how CHCs and RHCs will approach that is not yet available, but will be in the fall of 2011.

Both of these arrangements offer benefits to low-income patients, both in helping defray the cost of a visit, and in providing access to additional services (e.g. mental health, oral health, pharmacy) and clinical and administrative support (disease management programs, quality improvement protocols, etc.) These partnering options have not been widely adopted, however, and questions remain as to which configuration of services best serves vulnerable populations, especially as regards financing and governance.

DISCUSSION

Our findings suggest that a majority of RHCs partially meet the IOM definition of "safety net provider." That is, they offer free or reduced cost care, they serve the Medicaid population, and few place limits on service to these populations. In addition, they deliver these services in designated shortage areas. The distribution of RHCs relative to CHCs in those states shown in Table 3 further suggests that RHCs are located in many rural areas not currently served by CHCs. While it is clear that RHCs were established by Congress to address geographic access to primary care, as opposed to financial access, our findings suggest that some of them are addressing both barriers.

By virtue of the respective acts of Congress establishing these primary care provider types, RHCs have a smaller scope of services than CHCs, and are less likely to offer oral and mental health services. (Based on cost reports from 2006-07, about 3.5% offer mental health services.)[1] Independent RHCs tend to be private physician practices, either sole proprietorships or partnerships. Lacking the grant funds and federal technical assistance provided to CHCs to build such capacity, few RHCs have had the resources to expand their scope of services. The Affordable Care Act has made it clear that partnering with CHCs is an option for RHCs that find themselves serving safety net populations. More study is needed laying out the details of such

arrangements, the reimbursement and governance implications, and the relative advantages and disadvantages from the perspectives of the CHC, the RHC, the physician, and, especially, the patient.

Finally, if health reform is successful in extending health insurance to all Americans, our definition of "safety net provider" may change, though we anticipate a continuing need for free or discounted care. The health services infrastructure in most rural areas is supported through three key programs of the Health Resources and Services Administration, critical access hospitals, community health centers, and rural health clinics. As the ranks of the uninsured decline, the missions of these three programs may need to be re-examined to assure that the changing needs of rural populations are addressed with effective, efficient, equitable access initiatives.

LIMITATIONS

Primary care services may be available from primary care practitioners (PCPs) who do not practice in either an RHC or a CHC, and we did not include those providers in our analysis. It is likely that any such additional PCPs would not be practicing independently, since they would most likely be able to qualify for RHC status if they were in the same area as one of our survey respondents. However, there may be a few such PCPs who have not chosen to participate in the RHC program. In addition, there may be PCPs practicing in provider-based RHCs in the same county or zip code who are not accounted for in this analysis.

REFERENCES

1. Maine Rural Health Research Center. *Unpublished data, based on analysis of 2006 CMS Cost Reports*
2. Gale JA, Coburn AF. *The Characteristics and Roles of Rural Health Clinics in the United States: A Chartbook*. Portland, ME: University of Southern Maine, Edmund S. Muskie School of Public Service, Maine Rural Health Research Center; 2003.
3. Gaston M. *Testimony on Safety Net Health Care Programs before the House Committee on Government Reform and Oversight, Subcommittee on Human Resources.* [Web Page]. 1997, February 13. Available at: http://www.hhs.gov/asl/testify/t970213b.html. Accessed November 7, 2001.
4. Buto KA, Associate Administrator for Policy, Health Care Financing Administration. *Statement of Kathleen A. Buto on Rural Health Clinics Before the House Committee on Government Reform and Oversight, Subcommittee on Humans Resources and Intergovernmental Relations.* [Web Page]. 1997, February 13. Available at: http://www.cms.hhs.gov/apps/media/press/release.asp?Counter=512. Accessed November 7, 2001
5. Gage LS, President, National Association of Public Hospitals and Health Systems. *Statement of Larry S. Gage Before the Senate Health Education, Labor, and Pensions Subcommittee on Public Health.* [Web Page]. 2000, March 23. Available at: http://naph.activematter.com/Content/ContentGroups/Advocacy_Issues/Statements_And_Testimony/IAST-LarrySGageTest.pdf. Accessed July 2, 2002.
6. Hartley D, Gale J. Rural health care safety nets. In: Weinick RM, Billings J, Eds. *Monitoring the Health Care Safety Net. Book III: Tools for Monitoring the Health Care Safety Net*. Rockville, MD: Agency for Healthcare Research and Quality, AHRQ Pub. No. 03-0027; 2003:117-127.http://www.ahcpr.gov/data/safetynet/hartley.htm
7. Institute of Medicine. *America's Health Care Safety Net: Intact but Endangered*. Washington, DC: National Academy Press; 2000.
8. Gale, J. Shaw, B, and Hartley, D (2010) The Provision of Mental Health Services by Rural Health Clinics. Working Paper # 43, Portland, ME: University of Southern Maine, Edmund S. Muskie School of Public Service, Maine Rural Health Research Center.
9. National Association of Community Health Centers. *American Recovery and Reinvestment Act of 2009: Frequently Asked Questions*. Bethesda, MD: National Association of Community Health Centers; 2009. http://www.nachc.org/client/documents/NACHC%20ARRA%20FAQ.pdf
10. *Patient Protection and Affordable Care Act,* Public Law 111–148, 111th Congress (March 23, 2010), Title V, Subtitle G, §5601.

APPENDIX. Total supply of primary care Community Health Center sites, rural Community Health Center sites, and Rural Health Clinics for all states, including Washington, DC and Puerto Rico

	Total Primary CHCs[1]	Rural CHCs[1]	RHCs[2]
AK	145	133	3
AL	120	44	67
AR	51	37	68
AZ	96	15	13
CA	766	42	260
CO	110	25	46
CT	84	4	0
DC	36	0	0
DE	9	3	0
FL	238	34	144
GA	119	54	95
HI	58	20	2
IA	65	32	145
ID	50	23	48
IL	421	51	226
IN	60	3	58
KS	29	14	178
KY	66	36	130
LA	67	18	108
MA	208	0	1
MD	76	14	0
ME	97	47	38
MI	117	45	162
MN	46	10	82
MO	139	43	336
MS	102	61	149
MT	63	38	44
NC	134	72	96
ND	16	12	62
NE	16	9	125
NH	28	13	12
NJ	94	0	0
NM	116	70	12
NV	23	10	6
NY	390	28	8
OH	117	35	11
OK	30	15	38
OR	123	39	56
PA	179	46	55
PR	51	2	0
RI	28	0	
SC	126	48	107
SD	32	21	61
TN	122	49	61
TX	235	66	327
UT	36	15	18
VA	108	44	53
VT	30	19	18
WA	170	28	130
WI	55	18	47
WV	130	76	59
WY	10	5	17

Sources:
1. Bureau of Primary Health Care, US Department of Health and Human Services, 2008. Rural designation assigned by Sheps Center, University of North Carolina.
2. CMS, Provider of Service file, June 2008

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Recent Working Papers

WP 43. Gale, J, Loux, S, Shaw, B, Hartley, D. (2010, May). *The Provision of mental health services by Rural Health Clinics*.

WP42. Race, M., Yousefian, A., Lambert, D., & Hartley, D. (2009, September). *Mental health services in rural jails*.

WP41. Lenardson, J., Race, M., & Gale, J.A. (2009, December). *Availability, characteristics, and role of detoxification services in rural areas*.

WP40. Ziller, E., Anderson, N.J., Coburn, A.F., & Swartz, J. (2008, November). *Access to rural mental health services: Service use and out-of-pocket costs*.

WP39. Lambert, D., Ziller, E., Lenardson, J. (2008). *Use of mental health services by rural children.*

WP38. Morris, L., Loux, S.L., Ziller, E., Hartley, D. *Rural-urban differences in work patterns among adults with depressive symptoms.*

WP37. Yousefian, A. Ziller, E., Swartz, J, & Hartley, D. (2008, January). *Active living for rural youth.*

WP36. Loux, S. L., Hartley, D., Gale, J., & Yousefian, A. E. (2007, August). *Inpatient Psychiatric Unites in small rural hospitals: A national survey*.

WP35. Lenardson, J. D., & Gale, J. A. (2007, August). *Distribution of substance abuse treatment facilities across the rural-urban continuum*.

WP34. Ziller, E.C, Coburn, A.F., Anderson, N., Loux, S. (2006). *Uninsured rural families.*

WP33. Ziller E, Coburn, Yousefian AE. (2005). *Out-of-pocket health care spending and the rural underinsured.*

WP32. Hartley D, Ziller E, Loux S, Gale J, Lambert D, Yousefian AE. (2005). *Mental health encounters in CAH ERs: A national survey.*

WP31. Hartley D, Hart, V, Hanrahan N, Loux, S. (2004). *Are advanced practice psychiatric nurses a solution to rural mental health workforce shortages?*