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A Survey of Patients and Providers at Free Clinics Across the United States

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Abstract This study set out to demonstrate the need for free clinics on a national level, to identify difference among types of free clinics in the US, to identify which services were commonly used, and to determine where else patients would seek care if not at the free clinics. Two separate, distinct surveys were sent out, one to free clinic directors and another to free clinic patients. Chi-squared tests, two tailed t-tests, and percentages were used to describe results and significant differences. 1,114 free clinics were identified in the US. 172 free clinics and 362 patients responded. Most clinics (44%) were independent. A mean of 4,310 annual visits was reported. Most patients used primary care (86%) and pharmacy (80%) services. If the free clinic did not exist, 24% would not seek care, 21% due to cost. Most would seek care at another free clinic (47%), or the emergency room (23%). Most patients were satisfied with their care at the free clinic (97%). Patient satisfaction correlated with use of primary care ($P = 0.0143$). Most patients (77%) reported greater satisfaction with the care they received at the free clinic than with their prior care. Free clinics provide primary care to a substantial number of uninsured and working poor. They provide an alternative to patients who might otherwise seek primary care in the emergency room. Even with reform of the national health care system, free clinics will provide primary care to millions of uninsured. How they will adapt to provide this care is yet to be seen.

Keywords Free clinics · Service utilization · Survey study

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Introduction

Free clinics provide care to the uninsured, to the working poor and to many others. Despite the tight budgets and understaffing seen at most free clinics across the country, many continue to operate. This study demonstrates that there is a need for free clinics in the United States, a need from both the patient perspective as well as from a national, systems-level perspective. Additionally, with health care reform just around the corner, the role of free clinics will almost surely be changing in the next decade. This study documents the current role free clinics are playing in today's health care system so that we may trace the evolution of that role in the coming years.

During the past several decades, free clinics have served a variety of populations [1]. Since the 1970s, there has been a dramatic increase in free clinics due to the rising numbers of uninsured and underinsured [2–6]. In 1980 the number of people without insurance was 30 million; that number has risen in the past 25 years by 50% and now hovers

around 45 million. These numbers are even higher in minority and lower socioeconomic populations [7–9]. Free clinics face many challenges, including operating on shoestring budgets, a constant need for grant support, and continual reliance on their local communities. Yet, despite these challenges, many continue to operate efficiently while still providing high-quality care [10].

In the last two decades, a number of published studies and reports have focused on free clinics in specific regions of the country, single states, and two on the nation as a whole. Directors of the free clinics, providers at free clinics as well as other free clinic staff, have additionally frequently written descriptions of individual free clinics and their operations [10–48]. The descriptions of individual clinics vary widely in terms of locations, staff, and services offered, but many report having one ore more of the following characteristics: (1) Most tend to target particular populations, such as the uninsured, working-class poor, immigrants, or homeless; (2) Many serve indigent populations and minority groups; (3) Many offer primary, urgent, or acute care; (4) Most provide prescription drugs; (5) Many offer additional services such as dental, addiction treatment, obstetrics and gynecology, and mental health services; (6) Many are associated with other community organizations; (7) Many are open only a few days per week; and (8) Most offer at least some sort of preventive services such as screenings and counseling [10–48]. There is a large body of health utilization research among underserved populations [29, 49–56] but little focused specifically on free clinics at a national level.

The specific aims of the current research were to identify difference among types of free clinics in the US; to identify which services were commonly used; and to determine where else patients would seek care if not at the free clinics.

Methods

Study Design

This study employed a cross-sectional survey design. Two distinct surveys were conducted of a convenience sample of both free clinic directors (for the provider survey) and patients (for the patient survey).

Nationally, 1,141 free clinics were identified; of these, e-mail addresses for 465 were found. Of those, 368 were functional. From the 368 emails sent, 172 providers participated in the online survey of providers. A second distinct, paper survey was sent to all of these clinics to be handed out to patients. Ten paper surveys were sent to each clinic Forty-one free clinics returned some or all of the paper surveys. In all, 362 surveys were received

that were completed by patients. Patient surveys were sent via priority mail and clinics were provided with return priority mail packaging. All clinics that returned any of the 10 surveys were sent a check for $25 as a donation to their free clinic. A study flowchart can be seen in Fig. 1.

To be eligible to complete the provider survey, subjects were required to meet the following inclusion criteria: 18 years or older and a health care provider at a free medical clinic in the US. Directors of the free clinics were encouraged to fill out the survey themselves, but proxies for the director were also acceptable respondents. People unable to understand written English were excluded. To be eligible to complete the patient surveys, patients had to be 18 years or older; however, if a patient was younger than 18 but with his/her parent or guardian, the parent or guardian was allowed to fill out the survey on behalf of the child.

Survey Development

The majority of the questions used in the surveys were revised versions of questions used in the health service utilization survey developed by Aday et al. [49, 50]. Building on findings from Aday et al., we hypothesized that health service utilization would be influenced by different factors at free medical clinics, in a similar manner to that of other health care settings. Characteristics investigated such as environmental related stressors, health stressors, and characteristics of the clinics themselves, have been identified as factors that determine utilization in hospitals and community settings [49–55].

Cognitive testing of questionnaires was performed using 10 patients and 10 providers in order to ensure readability and understanding of the questionnaire and to ensure that participants would have a common understanding of the meaning of questions. Eligibility criteria for participation in the cognitive testing were described above.

Analysis

JMP version 7.0 [57] was used to analyze patient and provider characteristics. For observational data reporting, missing data in each category listed was less than 10% and therefore excluded from the tables and observational analyses. Contingency tables were created for each variable of interest. Each variable identified was analyzed to look for difference in demographic information, clinic characteristics, structural information, and service question responses. Pearson chi-squared tests determined significant difference in the observational data and two tailed Fisher-exact *t*-tests determined significance in the association data analysis.

Fig. 1 Study flow chart
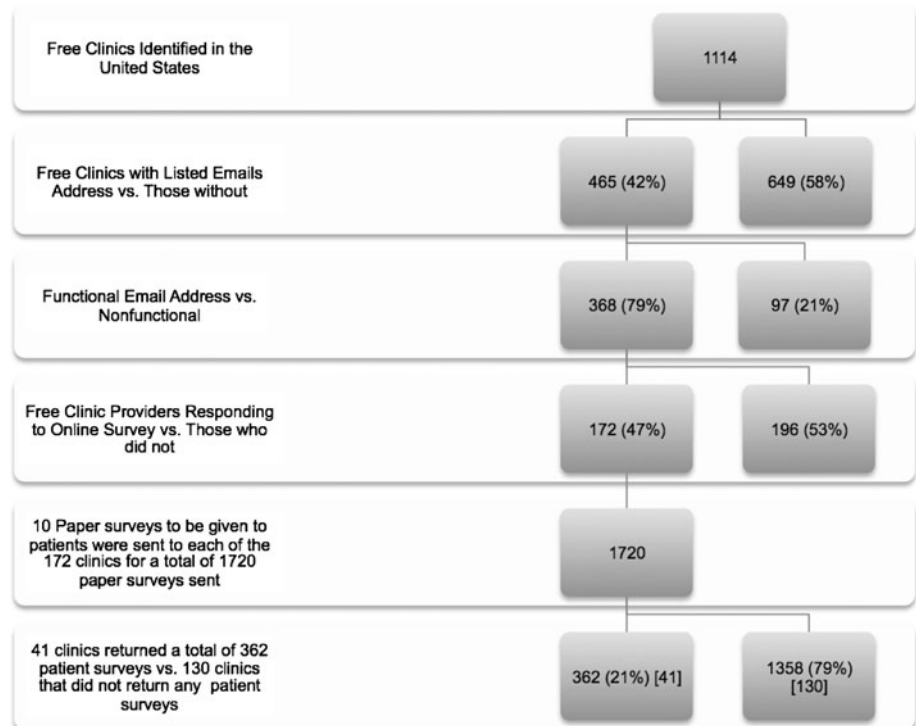
Results

Clinic Characteristics and Provider Responses

The provider survey results (which can be seen in Table 1) demonstrated similar findings (for those measures that were comparable between studies) to the only other nation-wide study published by Nadkarni et al. utilizing the Free Clinic Foundation Database. In the Nadkarni study, only providers were surveyed and it is unclear whether there was a substantial number of student-run clinics included [12]. The patient demographics seen in both studies reflect demographics of the uninsured population in the US. In both studies, free clinics reported between 4,000 and 6,000 mean patient visits per year, a mean annual budget between $4,40,000 and $4,60,000, 156.7 volunteers on average, 6.9–7.5 paid staff, and a majority of free clinics located in the South. Most clinics reported a target population of the uninsured, seeing a majority of female, adult, non-Hispanic, Caucasian, adult patients [14].

Results from the student run clinic group were also comparable to the only other published nation-wide study of student-run clinics, conducted by Simpson and Long in 2007 [58] In Simpson and Long's study, 59 clinics reported a total of 36,000 annual patient visits (610.2 per clinic), while in this study 39 student-run clinics reported a total of 21,386 annual patient visits (548.4 per clinic). Simpson and Long reported that student-run clinics saw mostly minority patients: 31% Hispanic, 31% African American, 25% non-Hispanic White, and 13% other, while in this study student-run clinics reported seeing on average 5.5% African American, 25% non-Hispanic White, 53% Hispanic, and 17% other. In their study, most clinics were funded by private grants (71%) with a median annual operating budget of $12,000, while in this study the main source of funding listed by student-run clinics was foundations (59%) followed by grants (22%), and the median annual budget was $10,000 [58].

Table 2 describes clinic characteristics by clinic type. On average, clinics reported being open 4.04 half days per week (median 2, SD 3.6), with independent free clinics open most (5.6 half days per week, on average) and student-run free clinics least (1.2 half days per week, on average). Clinics reported a mean of 7.5 (median 3, SD 16.9) paid employees (most in church-run free clinics, 12.9 on average; least in student-run free clinics, 1.0 on average) and a mean of 156.7 (median 84.5, SD 235.5) volunteers (most in Other free clinics, 224.9; least in church-run free clinics, 76.6). The mean clinic age was 13.3 years (median 10, SD 11.3). Clinics reported having on average an annual budget of $447,730 (median $150,000.00, SD $1,148,812.00). Largest budgets were for independent free clinics ($654,292.90), smallest for student-run free clinics ($34,300.00). The mean annual number of patient visits was 4,310.15 (median 1,741, SD 8,312.6). Independent free clinics saw the most patients annually (6,412), Student-run

Table 1 Provider responses: characteristics of responding free clinics

Average	This study
Patient visits per year	4,310 (6,413 for independent free clinics and 587 for student-run free clinics)
Annual budget	$447,730
Hours open per week	4 half days (16 h, estimating an 8 h work day) (5.6 half days or 22.4 h for independent free clinics)
Volunteers	156.7
Paid staff	7.5
Pharmacy	90.5% (dispense medications)
South	38.4%
Midwest	30.2%
West	15.7%
Northeast	15.7%
Target population	71% uninsured, 67% working poor
Female	51.1% of clinics saw majority females (67% of patients answering surveys were female)
19–64 years	67.4% clinics said main age group was this age group (96% of patients answering the surveys were in age group)
Non-Hispanic White	41.9% of clinics reported seeing majority non-Hispanic White(74% of patients answering survey were non-Hispanic White)

free clinics the least (548). The mean number of new patients annually was 797.6 (median 410.5, SD 1,105.9). The mean number of established patients returning on a weekly basis was 68.9 (median 23.5, SD 159.2). Other free clinics demonstrated the greatest degree of continuity (129 weekly returning patients). The mean number of patients turned away each week was 7.8 (median 2, SD 12.3). Church free clinics turned the most patients away per week (13.0), student-run free clinics the least (5.7). The mean reported proportion of patients without insurance was 87.3% (Median 95%, SD 19.4%).

Patients' Characteristics and Responses

The patient survey results demonstrated that most patients reported being between the ages of 18–64, speaking mostly English or English plus another language, and nearly all patients made less than $41,600 per year. Although no participants were under the age of 18, a small group of parents filled out surveys on behalf of a child who was the free clinic patient attending. The majority of patients had a high school diploma/GED or less education. Most patients said they were working or enrolled as a student. Overall, 6.1% identified their sexual orientation as lesbian/gay/bisexual/transgender (LGBT).

Table 3 also demonstrates patterns of patient characteristics by free clinic type. Most patient responses came from independent free clinics (70.2%) with nearly equal numbers from church (12.7%) and student-run free clinics (11.9%). There were significant differences among patients seen in free clinics by region, race, language, and age

group; no significant differences were seen in gender, income, education, employment, or sexual orientation.

Table 4 shows that a majority of free clinic patients reported using the emergency room at least once in the past year (51.2%), while 32.6% of patients reported using a community hospital, 29.1% reported using a public hospital, and 28.2% reported using another free clinic. Nearly one-quarter of patients (23.9%) said they would not seek care if the free clinic did not exist, with the most frequent reason being cost (20.7%). Among patients reporting on where they would seek care if the free clinic did not exist, most said they would seek care at another free clinic (47.0%), followed by the emergency room (22.7%) and a public hospital (15.2%). Their usual place of care for patients prior to the free clinic was most often private practice (32.6%), followed by the emergency room (26.2%) and a public hospital (13.3%).

Of patients reporting on satisfaction with their current free clinic, the majority in all categories reported being satisfied with the care they received in their current free clinic (97%). The majority of patients reported that the care they received at the free clinic was better than the care they received at their prior health care provider (77.3%). Ninety-five point three percent said they were likely to use their free clinic again, and 66.1% said they were likely to use any free clinic again. Significant differences were noted only in the LGBT/other *versus* heterosexual variable (88.2% of LGBT vs. 97.4% of heterosexual patients reported being satisfied; Pearson test $P = .0358$, two tailed Fisher's exact t-test $P = .0936$). This observation is in accord with data from other health care settings, which

Table 2 Provider responses: difference in free clinic characteristics among different types of free clinics as well as totals

Characteristics	Type of free clinic				
	Independent ($N = 74$)	Student-run ($N = 52$)	Other ($N = 34$)	Church ($N = 10$)	Total ($N = 172$)
Half days open per week					
Mean	5.6	1.2	4.9	4.5	4.4
Median	6.0	1.0	4.5	3.0	2.0
SD	3.6	0.9	3.5	3.8	3.6
Whole model test—prob > Chi-squared				<0.0001*	
Total number of paid workers					
Mean	10.4	1.1	8.0	12.9	7.5
Median	6.5	0.0	5.0	3.5	3.0
SD	21.2	1.8	9.9	27.3	16.9
Whole model test—prob > Chi-squared				<0.0001*	
Total number of volunteers					
Mean	162.9	118.7	224.8	76.6	156.7
Median	113.0	70.0	72.0	70.5	84.5
SD	155.3	126.1	457.7	64.7	235.5
Whole model test—prob > Chi-squared				0.1449*	
Clinic age in years					
Mean	13.5	9.0	15.7	23.2	13.3
Median	11.0	5.0	12.5	11.0	10.0
SD	10.0	7.8	11.6	22.3	11.3
Whole model test—prob > Chi-squared				0.0019*	
Annual budget					
Mean	654,292.9	34,300.0	564,738.0	134,113.2	447730.3
Median	325000.0	10000.0	330000.0	68450.0	150000.0
SD	1532941.5	64110.5	683430.0	166123.4	1148812.0
Whole model test—prob > Chi-squared				<0.0001*	
Annual patient visits					
Mean	6412.5	548.4	5274.9	2626.9	4310.2
Median	2700.0	450.0	4392.0	2000.0	1741.0
SD	11197.0	493.1	5014.3	1682.3	8312.6
Whole model test—prob > Chi-squared				<0.0001*	
Annual number of new patients					
Mean	996.4	289.2	1188.3	333.9	797.6
Median	692.0	175.0	452.0	250.0	410.5
SD	1132.6	377.3	1539.2	243.3	1105.9
Whole model test—prob > Chi-squared				<0.0001*	
Weekly number of established patient visits					
Mean	87.9	6.4	128.9	46.7	68.9
Median	36.0	3.0	37.5	33.0	23.5
SD	147.1	7.2	276.0	42.0	159.2
Whole model test—prob > Chi-squared				<0.0001*	
Weekly number of patients turned away					
Mean	10.0	2.6	8.2	13.0	7.8
Median	5.0	0.0	1.5	6.0	2.0
SD	14.1	4.7	12.3	15.3	12.3

Table 2 continued

Characteristics	Type of free clinic				
	Independent ($N = 74$)	Student-run ($N = 52$)	Other ($N = 34$)	Church ($N = 10$)	Total ($N = 172$)
Whole model test—prob > Chi-squared				0.0021*	
Percent of patients seen without insurance					
Mean	92.3	76.7	90.2	93.6	87.3
Median	95.0	85.0	95.0	95.0	95.0
SD	12.7	25.1	19.6	3.8	19.4
Whole model test—prob > Chi-squared				0.0007*	

Table 3 Patient responses: difference in patient demographics among different types of free clinics as well as totals

Characteristics	Type of free clinic				Total ($N = 362$)	
	Independent ($N = 254$) Col %	Church ($N = 46$) Col %	student-run ($N = 43$) Col %	Other ($N = 19$) Col %	% of total	N
Region of the country						
Midwest	23.2	60.9	20.9	52.6	29.3	106
Northeast	11.4	0.0	23.3	0.0	10.8	39
South	61.4	39.1	34.9	47.4	54.7	198
West	3.9	0.0	20.9	0.0	5.3	19
Pearson test—prob > Chi-squared				<0.0001*		
Race/Ethnicity						
African american	12.2	11.6	14.0	33.3	13.4	47
Non-Hispanic White	79.0	69.8	51.2	61.1	73.5	258
Hispanic	6.1	11.6	34.9	5.6	10.3	36
Other	2.8	7.0	0.0	0.0	2.9	10
Pearson test—prob > Chi-squared				<0.0001*		
Gender						
Female	67.7	66.7	54.8	68.4	66.1	234
Male	32.3	33.3	45.2	31.6	33.9	120
Pearson test—prob > Chi-squared				0.4304		
Age group						
0–18	0.0	4.9	0.0	0.0	0.6	2
18–44	28.8	34.2	37.5	5.3	29.2	100
45–64	68.3	58.5	55.0	94.7	67.1	230
65+	2.9	2.4	7.5	0.0	3.2	11
Pearson test—prob > Chi-squared				0.0018*		
Language, current						
English or English and other	98.0	95.2	85.4	100.0	96.2	333
Other	0.4	0.0	0.0	0.0	0.3	1
Spanish	1.6	4.8	14.6	0.0	3.5	12
Pearson test—prob > Chi-squared				0.0001*		
Income						
≤$10.400	49.8	56.4	75.7	38.9	52.9	173
$10.400–$41.600	48.1	43.6	24.3	61.1	45.6	149
More than $41.600	2.2	0.0	0.0	0.0	1.5	5
Pearson test—prob > Chi-squared				0.0665		

Table 3 continued

Characteristics	Type of free clinic				Total (N = 362)	
	Independent (N = 254) Col %	Church (N = 46) Col %	student-run (N = 43) Col %	Other (N = 19) Col %	% of total	N
Education						
At least some college. Trade school or grad school	41.7	35.7	42.9	29.4	40.5	138
Did not finish HS	24.6	35.7	23.8	17.7	25.5	87
High school graduate/GED	33.8	28.6	33.3	52.9	34.0	116
Pearson test—prob > Chi-squared				0.5043		
Employment						
Not working	37.9	34.9	51.2	37.5	39.1	135
Other	4.9	4.7	9.3	0.0	5.2	18
Working or student	57.2	60.5	39.5	62.5	55.7	192
Pearson test—prob > Chi-squared				0.3328		
Sexual orientation						
LGBT	4.9	9.8	12.8	0.0	6.1	21
Heterosexual	95.1	90.2	87.2	100.0	93.9	323
Pearson test—prob > Chi-squared				0.1197		

Table 4 Patient responses: services that patients reported using as alternatives to their free clinic, differences among different types of free clinics as well as totals

Question	Type of free clinic				Total (N = 362)	
	Church (N = 46) Col %	Independent (N = 254) Col %	Other (N = 19) Col %	Student run (N = 43) Col %	% of Total	N
In the past year. I have used the emergency room						
Never used	51.2	48.1	38.9	55.0	48.8	166
Used	48.8	51.9	61.1	45.0	51.2	174
Pearson test—prob > Chi-squared				0.6907		
In the past year. I have used a community hospital						
Never used	72.2	66.2	87.5	61.5	67.4	209
Used	27.8	33.8	12.5	38.5	32.6	101
Pearson test—prob > Chi-squared				0.2535		
In the past year. I have used a public hospital						
Never used	81.6	68.4	76.5	72.5	70.9	231
Used	18.4	31.6	23.5	27.5	29.1	95
Pearson test—prob > Chi-squared				0.3759		
In the past year. I have used another free clinic						
Never used	51.2	73.6	72.2	82.5	71.8	244
Used	48.8	26.4	27.8	17.5	28.2	96
Pearson test—prob > Chi-squared				0.0085*		
If the free clinic didn't exist. I would seek care elsewhere						
No	16.3	25.8	27.8	18.6	23.9	84
Yes	83.7	74.2	72.2	81.4	76.1	268
Pearson test—prob > Chi-squared				0.4431		
Cost is the reason i would not seek care elsewhere if the free clinic did not exist						
Agree	21.7	22.1	21.1	11.6	20.7	75

Table 4 continued

Question	Type of free clinic				Total (N = 362)	
	Church (N = 46) Col %	Independent (N = 254) Col %	Other (N = 19) Col %	Student run (N = 43) Col %	% of Total	N
Unmarked	78.3	78.0	79.0	88.4	79.3	287
Pearson test—prob > Chi-squared				0.4813		
If the free clinic did not exist. I would seek care at another free clinic						
Unmarked	43.5	54.3	42.1	60.5	53.0	192
Yes	56.5	45.7	57.9	39.5	47.0	170
Pearson test—prob > Chi-squared				0.2931		
If the free clinic did not exist. I would seek care at the emergency room						
Unmarked	82.6	78.4	79.0	65.1	77.4	280
Yes	17.4	21.7	21.1	34.9	22.7	82
Pearson test—prob > Chi-squared				0.2061		
If the free clinic did not exist. I would seek care at a public hospital						
Unmarked	91.3	83.9	94.7	79.1	84.8	307
Yes	8.7	16.1	5.3	20.9	15.2	55
Pearson test—prob > Chi-squared				0.2370		
The emergency room was my usual place of care before the free clinic						
Unmarked	76.1	74.4	57.9	74.4	73.8	267
Yes	23.9	25.6	42.1	25.6	26.2	95
Pearson test—prob > Chi-squared				0.4463		
A private practice was my usual place of care before the free clinic						
Unmarked	80.4	63.0	73.7	76.7	67.4	244
Yes	19.6	37.0	26.3	23.3	32.6	118
Pearson test—prob > Chi-squared				0.0491*		
A public hospital was my usual place of care before the free clinic						
Unmarked	89.1	87.0	94.7	79.1	86.7	314
Yes	10.9	13.0	5.3	20.9	13.3	48
Pearson test—prob > Chi-squared				0.3207		

Table 5 Patient responses: services patients reported using at their free clinics and their associations with patient demographics and satisfaction

If received	Primary care		Counseling or psychiatric		Women's health		Pharmacy	
	Use	No use	Use	No use	Use	No use	Use	No use
Total (N)	257	42	45	154	72	143	230	58
% Total	86	14	23	77	34	66	80	20
	Row%		Row%		Row%		Row%	
I am likely to use this free clinic again								
Agree	89	11	24	76	38	62	81	19
Disagree	75	25	20	80	0	100	70	30
Two tailed fishers		0.1624		1.0000		0.0151*		0.4174
I am satisfied with the care i receive at this free clinic								
Agree	89	11	24	76	36	64	82	18
Disagree	40	60	0	100	0	100	40	60
Two tailed fishers		0.0143*		0.5909		0.3004		0.0499*
Race/Ethnicity								
African american	78	22	14	85	36	64	79	21

Table 5 continued

If received	Primary care		Counseling or psychiatric		Women's health		Pharmacy	
	Use	No use	Use	No use	Use	No use	Use	No use
Non-Hispanic White	90	10	25	75	35	65	29	71
Hispanic	85	15	13	87	30	70	62	38
Other	38	62	0	100	0	100	80	20
Pearson test		0.0001*		0.2769		0.2672		0.0882
Gender								
Female	89	11	25	75	49	51	84	16
Male	81	19	16	84	5	95	72	28
Two tailed fishers		0.0715		0.1450		<0.0001*		0.0374*
Sexual orientation								
LGBT	74	26	17	83	39	61	57	43
Heterosexual	87	13	22	78	33	67	81	19
Two tailed fishers		0.1597		1.0000		0.7633		0.0410*
Employment								
Not working	86	14	24	76	24	76	76	24
Other	94	6	60	40	25	75	81	19
Working or student	84	16	17	83	39	61	83	17
Pearson Test		0.5845		0.0067*		0.0841		0.4174
Income								
≤$10,400	89	11	28	72	33	67	80	20
$10,400–$41,600	85	15	13	87	36	64	83	17
More than $41,600	67	33	66	34	0	100	67	33
Pearson test		0.3626		0.0091*		0.4274		0.7439

often shows that the LGBT population is in general less satisfied with their health care services than the heterosexual population [53].

Analyses were conducted regarding four types of health care services: primary care, women's health care, psychiatric and counseling care, and pharmacy services. Table 5 describes these results. Most patients reported using primary care (86.0%) and pharmacy services (79.9%) at the free clinic, while 33.5% reported using women's health services, and 22.6% reported using psychiatric or counseling services.

Discussion

Interpretation

The most meaningful findings from this study concern the high percentage of patients utilizing free clinics as primary care providers and for routine women's health services. Patients report a very high degree of satisfaction with these services, to the point that they would first choose to attend

another free clinic if their current free clinic were to closed (47%), followed by care seeking at emergency rooms (22.6%), and public hospitals (15.2%). Patients also report greater satisfaction with their care at free clinics than with care in other health care settings, and a high degree of intent to continue pursuing care at their present free clinic. This is particularly true for those patients receiving primary care, women's health care, and pharmacy services. While it is difficult to estimate the cost savings resulting from free clinic care, 76.1% of patients report they would seek care elsewhere if the free clinic were not available. More than half of free clinic users had also used the emergency room during the past year, with about one-third also using community hospitals and another third using public hospitals.

This study identifies meaningful differences between various types of free clinics that have not been previously examined. The majority of clinics are located in the South. Independent free clinics are distinct from student and run free clinics church based free clinics, and other types of free clinics in a number of ways. They are usually larger and better staffed, and have larger budgets. Church-run and

student-run clinics are generally much smaller, with fewer staff, and are open fewer days per week. Another large difference is that while overall clinics reported seeing a majority of non-Hispanic White patients, student-run free clinics reported more than a third of their patients to be Hispanic. Church-run clinics reported having been open for the longest amount of time, yet were less likely than other types of clinics to offer primary care, and the least likely to require appointments ahead of time. Student-run free clinics were evenly distributed throughout the country, most likely reflecting the distribution of medical schools rather than areas with greater need for a free clinic.

Conclusions

Free clinics constitute a large part of the current health care safety net with over 1,000 identified in the US each with an average of over 4,000 patient visits per year and almost 800 new patients per year. Free clinics are a medical home for many patients in the US, especially for the underserved, uninsured, and working poor. Though some may not always be fully equipped, often offering fewer services than a large community hospital or private practice, many free clinics are large-scale operations offering more than the average private practice group or community hospital. By decreasing the number of patients who might otherwise be using the emergency rooms as their only source of primary health care, free clinics are saving hospitals huge amounts of money that may otherwise be spent on unnecessary emergency room visits. For-profit hospitals and private practices (apart from emergency room services) also benefit from their services as free clinics care for patients who might otherwise end up as patients unable to pay for care at these hospitals and clinics. Whatever the size of the free clinic, it is clear that they are providing an important service to both the individuals they serve as well as the US health care system.

Free clinics provide primary care to a substantial number of uninsured and working poor. They provide an alternative to patients who might otherwise seek primary care in the emergency room. Even with reform of the national health care system, free clinics will provide primary care to millions of uninsured. How they will adapt to provide this care is yet to be seen.

References

1. Zon, C. (1979). Free clinic movement is alive and well. *Voluntary Action Leadership*, 11.
2. Smith, D. E. (1974). The free clinic movement in the U.S. *Medical Journal of Australia, 2*(4 Suppl), 34–36.
3. Seizer, F. (1984). The role of a free clinic in the mid eighties. *Urban Health, 13*(8), 32–33.
4. Smiley, C. W. (1975). The flower children of sudbury. The story of a street clinic for hippies. *Scandinavian Journal of Social Medicine, 3*(3), 139–142.
5. A milwaukee clinic fills a need but faces failure—NYTimes.com. Available at: http://www.nytimes.com/2009/09/02/health/policy/02clinic.html?_r=2&hp. Accessed 4 Sep 2009.
6. Andrulis, D., Christina, A., & Carol, P. (2001). Getting health care when you are uninsured: A survey of uninsured patients at three community clinics in berkeley, California.
7. DeNavas-Walt, C, Proctor, B. D., & Lee. C. H. (2005). Income, poverty, and health insurance coverage in the U.S.: 2004. US Census Bureau, 2005.
8. Census bureau: number of US uninsured rises to 47 million americans. Available at: http://www.medscape.com/viewarticle/567737. Accessed 28 Aug 2009, 2009.
9. Health insurance—main. Available at: http://www.census.gov/hhes/www/hlthins/hlthins.html. Accessed 28 Aug 2009, 2009.
10. Pell, T., & Feller, E. R. (2005). A collaborative management model for mental health care at the rhode island free clinic. *Medicine and Health, Rhode Island, 88*(8), 265–267.
11. Finke, M. (1997). Free clinics. *Iowa Medicine, 87*(8), 314–316.
12. Nadkarni, M. M. M., & Philbrick, J. T. M. (2005). Free clinics: A nation-wide survey. *American Journal of the Medical Sciences, 330*(1), 25–31.
13. Grimes, W. R. (2004). Starting a free clinic in a rural area. People in a small kentucky town pool their talents to solve the access problem. *Health progress, 85*(2), 23–25, 51.
14. Wynne, S. W. (1930). Free clinics for the preschool child. *American Journal of Public Health and the Nation's Health, 20*(3), 263–268.
15. Alexander, R. J. (1972). People's free clinic. *Texas Medicine, 68*(2), 94–100.
16. Amenta, M. M. (1974). Free clinics change the scene. *American Journal of Nursing, 74*(2), 284–288.
17. Asbell, M. B. (1967). Free dental clinic of salem county memorial hospital 1921–1926. *Outlook and Bulletin. Southern Dental Society of New Jersey, 36*(4), 46–47.
18. Bardack, M. A., Thompson,S.H. (1993). Model prenatal program of rush medical college at st. basil's free peoples clinic, Chicago. *Public Health Rep, 108*(2), 161–165.
19. Barlow, R. (1982). Empirical findings on the association between education and child health status: Discussion. *Health Policy and Education, 2*(3–4), 375–378.
20. Bauer, S. (1993). Community clinic offers access to care. A system and a city collaborate to care for an immigrant population. *Health Progress, 74*(8), 42–44, 65.
21. Beck, E. (2005). The UCSD student-run free clinic project: Transdisciplinary health professional education. *Journal of Health Care for the Poor and Underserved, 16*(2), 207–219.
22. Bell, R. A., Camacho, F., Goonan, K., et al. (2001). Quality of diabetes care among low-income patients in north carolina. *American Journal of Preventive Medicine, 21*(2), 124–131.
23. Berry, J. S. (1975). A model free clinic. *IMJ. Illinois Medical Journal, 147*(6), 562–563, 581.
24. Bibeau, D. L., Taylor, M. L., Rife, J. C., & Howell, K. A. (1997). Reaching the poor with health promotion through community free clinics. *American Journal of Health Promotion, 12*(2), 87–89.

25. Black, P. M. (1977). Chief complaints in a free walk-in clinic: A study of 3, 009 consecutive patient visits. *Public Health Reports, 92*(2), 150–153.

26. Blewett, L. A., Casey, M., & Call, K. T. (2004). Improving access to primary care for a growing latino population: The role of safety net providers in the rural midwest. *The Journal of Rural Health, 20*(3), 237–245.

27. Buchanan, D., & Witlen, R. (2006). Balancing service and education: Ethical management of student-run clinics. *Journal of Health Care for the Poor and Underserved, 17*(3), 477–485.

28. Campos-Outcalt, D. E. (1985). Specialties chosen by medical students who participated in a student-run, community-based free clinic. *American Journal of Preventive Medicine, 1*(4), 50–51.

29. Carter, K. F., Green, R. D., Green, L., & Dufour, L. T. (1994). Health needs of homeless clients accessing nursing care at a free clinic. *Journal of Community Health Nursing, 11*(3), 139–147.

30. Clark, D. L., Melillo, A., Wallace, D., Pierrel, S., & Buck, D. S. (2003). A multidisciplinary, learner-centered, student-run clinic for the homeless. *Family Medicine, 35*(6), 394–397.

31. Creighton, H. (1973). Law for the nurse-supervisor. Free clinics. *Supervisor Nurse, 4*(4), 64–68.

32. Davis, A. (2005). Physician assistant volunteers belong in free clinics. *JAAPA, 18*(4), 16–17.

33. Deniaud, F., Collignon, A., Guesnon, M. S., et al. (2006). Schistosoma haematobium among immigrants consulting in municipal free clinics in paris in 2003. *Bulletin de la Société de Pathologie Exotique, 99*(2), 110–112.

34. Doll, W. (1985). Whatever happened to the '60s free clinics? *New Physician, 34*(3), 8–11.

35. Easton, J. D. (1971). The berkeley free clinic. *Journal California Dental Association, 47*(2), 16–17.

36. Fleming, O., & Mills, J. (2005). Free clinics in north carolina: A network of compassion, volunteerism, and quality care for those without healthcare options. *North Carolina Medical Journal, 66*(2), 127–129.

37. Garvin, J. M. (1978). Free clinics: The forgotten alternative. *Virginia Medical, 105*(9), 662–664.

38. Geller, S., Taylor, B. M., & Denman Scott, H. (2004). Free clinics helping to patch the safety net. *Journal of Health Care for the Poor and Underserved, 15*, 42–51.

39. Geller, S., Taylor, B. M., & Scott, H. D. (2004). Free clinics helping to patch the safety net. *Journal of Health Care for the Poor and Underserved, 15*(1), 42–51.

40. Gordon, J. B. (1976). Quality of care in free clinics. *American Journal of Public Health, 66*(10), 955–956.

41. Isaacs, S. L., & Jellinek, P. (2007). Is there a (volunteer) doctor in the house? free clinics and volunteer physician referral networks in the united states. *Health Affairs(Millwood), 26*(3), 871–876.

42. Keis, R. M., DeGeus, L. G., Cashman, S., & Savageau, J. (2004). Characteristics of patients at three free clinics. *Journal of Health Care for the Poor and Underserved, 15*(4), 603–617.

43. Kelleher, K. C. (1991). Free clinics. A solution that can work. now!. *JAMA, 266*(6), 838–840.

44. Kent, C. (1991). Perspectives. free clinics: Hippie holdover or wave of the future?. *Faulkner & Gray's Medicine & Health. 45*(43), Suppl 4 p.

45. Lenehan, G. P. (1998). Free clinics and parish nursing offer unique rewards. *Journal of Emergency Nursing, 24*(1), 3–4.

46. Nadkarni, M. M., & Philbrick, J. T. (2003). Free clinics and the uninsured: The increasing demands of chronic illness. *Journal of Health Care for the Poor and Underserved, 14*(2), 165–174.

47. Reed, K. (2007). Free clinics and iowa's uninsured: The last safety net. *Iowa Medicine, 97*(2), 23.

48. TF, S., Jr, & Day, C. M. (1974). Survival potential and quality of care among free clinics. *Public Health Reports, 89*(6), 558–562.

49. Andersen, R. M., McCutcheon, A., Aday, L. A., Chiu, G. Y., & Bell, R. (1983). Exploring dimensions of access to medical care. *Health Services Research, 18*(1), 49–74.

50. Phillips, K. A., Morrison, K. R., Andersen, R., & Aday, L. A. (1998). Understanding the context of health care utilization: Assessing environmental and provider-related variables in the behavioral model of utilization. *Health Services Research, 33*(3 Pt 1), 571–596.

51. Arora, N. K. P., Ayanian, J. Z., & Guadagnoli, E. (2005). Examining the relationship of patients' attitudes and beliefs with their self-reported level of participation in medical decision-making. *Medical Care, 43*(9), 865–872.

52. Williams, G. O., & Dueker, D. L. (1985). The nonuse of free health-screening by rural elderly. *American Journal of Preventive Medicine, 1*(4), 52–57.

53. Tjepkema, M. (2008). Health care use among gay, lesbian and bisexual canadians. *Health Reports, 19*(1), 53–64 Accessed 4 Sep 2009.

54. de Bocanegra, H. T., & Gany, F. (2004). Good provider, good patient: Changing behaviors to eliminate disparities in health care. *The American Journal of Managed Care, 10*, 20–28.

55. Sofaer, S., & Firminger, K. (2005). Patient perceptions of the quality of health services. *Annual Review of Public Health, 26*(1), 513–559.

56. Centers for Disease Ccontrol (2004). Health care in america: Trends in utilization. *US Deptartment of Health and Human Services.*

57. JMP software—data analysis—statistics—six sigma—DOE. (2009). Available at: http://www.jmp.com/. Accessed 8/31/2009, 2009.

58. Simpson, S. A., & Long, J. A. (2007). Medical student-run health clinics: Important contributors to patient care and medical education. *Journal of General Internal Medicine, 22*(3), 352–356.