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Integrated Models of Education and Service Involving Community-Based Health Care for Underserved Populations: Tulane Student-Run Free Clinics

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Abstract

Objectives—Throughout the United States numerous models of local programs, including student-run clinics, exist to address the issue of access to care. The role of these clinics in serving the local community and contributing to medical education has been documented only in limited detail, however. The purpose of this article is to describe the clinic models, patient demographics, and services provided by four student-run clinics in New Orleans.

Methods—This is a retrospective, multisite chart review study of adult patients examined at student-run clinics between January 1, 2010 and July 31, 2011.

Results—During a 19-month period, 859 patients collectively were seen at the clinics, for a total of 1455 visits. The most common reasons for seeking care were medication refills (21.6%) and musculoskeletal pain (12.0%). Counseling and health education were provided primarily for smoking cessation (9.0%), diabetes management (7.1%), and hypertension management (5.8%). Nearly one-fifth of patients were given a referral to primary care services. In the 2010–2011 academic year, 87.6% of preclinical medical students volunteered at ≥1 of these clinics and spent 4508 hours during 1478 shifts.

Conclusions—This article highlights the role of student-run clinics in the community, the safety-net healthcare system, and medical education. Future directions include the establishment of a new clinic, fundraising, and prospective studies to further assess the impact of student-run clinics.

Keywords

ambulatory care facilities; community medicine; delivery of health care; medical students; undergraduate medical education

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A lack of insurance and underinsurance in the United States constitutes a significant national public health problem.¹ In the United States, 50.7 million individuals, 16.7% of the population, are uninsured and many more experience barriers to obtaining health care.^{2,3} Certain population subgroups have a low amount of health insurance coverage, including ethnic minorities, residents of southern and urban locations, and low-income households.³ In Louisiana, 17.4% of the population is uninsured and the highest uninsured rate for the state is in Orleans Parish (24.3%).³ There is a substantial need for safety-net services to provide care for uninsured individuals in the United States and Louisiana in particular.

Many medical students are exposed to the safety-net healthcare environment for underserved populations, either on a volunteer basis or as part of their education. Approximately half of US medical schools have at least one student-run clinic, with most serving poor and uninsured patients.⁴ In addition to providing a needed service to patients, these clinics have the potential to teach students clinical skills, medical humanism, systems-based practice, collaborative and multidisciplinary approaches to medicine, and leadership skills.⁴⁻⁶ Participating in community-based, student-run clinics has the added advantage of potentially influencing students' choice to practice in primary care.⁷ The purpose of this article is to describe the clinic models, patient demographics, and services provided by four student-run clinics: Bridge House Wednesday Clinic, Ozanam Inn Weekend Clinic, Fleur de Vie at Covenant House, and Fleur de Vie in New Orleans East—and to examine the relevance of these clinics for medical education and healthcare service delivery for underserved populations in New Orleans.

Methods

We conducted a retrospective, multisite chart review of all adult patients (18 years old or older) examined between January 1, 2010 and July 31, 2011 at four student-run clinics. Data regarding date of visit, age, sex, race/ethnicity, number of visits, reason for seeking care, topics of health education and counseling, prescriptions written, referrals given, and administration of vaccines and tuberculosis skin tests were abstracted from electronic and paper medical records and entered into a Microsoft Access 2010 database. Data on first- and second-year medical student involvement in the student-run clinics, including number of volunteers and number of volunteer hours from August 1, 2010 to May 31, 2011 were provided by the Foundations in Medicine course. Medical students are required to self-report duration and location of service learning experiences through an Internet-based system to receive academic credit. Student leaders of service learning programs review these records for accuracy before the information is submitted to the Foundations in Medicine course coordinators. Information regarding clinic models and medical education opportunities was gathered through discussions with student leaders and faculty advisors of the clinics and service learning council members. Basic descriptive statistics were generated using SAS 9.2 (SAS Institute, Cary, NC). The Tulane institutional review board approved the study protocol with a waiver of written informed consent via expedited review.

Results

There are four Tulane medical student–run clinics in operation: Bridge House Wednesday Clinic, Ozanam Inn Weekend Clinic, Fleur de Vie at Covenant House and Fleur de Vie in New Orleans East. These clinics provide disease-specific treatment, and medical students are primarily responsible for managing operations and taking histories, performing examinations, and developing treatment plans. Physicians supervise all encounters by examining all of the patients and approving treatment plans. Each clinic is focused on providing free services to help meet the basic health needs of a wide variety of New Orleans area patient populations that are known to experience disparities in health and healthcare access. The clinic models, including services provided and volunteer staff, are summarized in Table 1.

The Bridge House Wednesday Clinic was founded in 1999 by a third-year medical student to provide primary health care to men living and participating in the rehabilitation program at Bridge House. Bridge House is a nonprofit New Orleans-based substance abuse rehabilitation facility that provides free rehabilitation therapy to both court-mandated and volunteer patients. The clinic takes place on Wednesday evenings inside the rehabilitation facility and provides state-mandated intake physical examination and tuberculosis testing to all new patients. It also provides free treatment for clients' acute and chronic medical needs. The clinic houses its own medication dispensary and provides on-site human immunodeficiency virus testing and a referral process for cases beyond the clinic's capability. First- and second-year students begin the initial intake and physical examination and present to a third- or fourth-year student who further guides the assessment. This team then presents to an attending family medicine physician, discusses the case, and decides on a treatment plan.

A student-run clinic at the Ozanam Inn men's homeless shelter existed from the mid-1990s until the early 2000s. Ozanam Inn Weekend Clinic was refounded in January 2010 by two second-year student leaders of the tuberculosis testing and vaccination programs. The clinic is open to the entire community, but primarily sees men who seek other services at Ozanam Inn. The clinic takes place one to three times per month on Sunday afternoons in the homeless shelter and is staffed by volunteer medical, public health, and social work students and faculty. Preclinical and clinical medical student volunteers conduct physical examinations, measure vital signs, provide blood pressure and glucose measurements, write prescriptions, test for tuberculosis, administer influenza and hepatitis A and B vaccines, and counsel on health promotion and disease prevention. Social work and public health student teams provide case- and group-based assistance, including health education, psychosocial counseling, and referrals to medical care, community programs, and case-management services. A Spanish-language interpreter is on call for all clinic dates. A volunteer physician and licensed clinical social worker are on-site during clinic hours to supervise students.

The Fleur de Vie student-run clinic at Covenant House opened in 2007 to provide urgent care services after Hurricane Katrina. In 2010, Fleur de Vie opened a second clinic in New Orleans East, an area with minimal access to care as a result of the closure of all of the hospitals in the vicinity post–Hurricane Katrina. Fleur de Vie operates in affiliation with

Tulane Community Health Centers and is recognized as a patient-centered medical home by the National Committee for Quality Assurance. In April 2012, Covenant House and Fleur de Vie relocated to a new space, which will allow for expanded programming and services. The New Orleans East clinic is located in a Vietnamese community and is operated by a Vietnamese-led nonprofit organization during the week.

Patients seen at the Fleur de Vie sites typically are uninsured and have limited access to urgent or primary health care. The sites work closely with their weekday affiliates to promote continuity of care and coordinate referral services. Urgent healthcare services are provided by volunteer medical students and internal medicine residents and attending physicians. The mental health team provides basic screening for depression, anxiety, posttraumatic stress disorder, and bipolar disorder and provides referrals to psychiatric care as needed. The patient education team provides counseling on nutrition, exercise, disease management, and smoking cessation. Students in public health assist medical students at both Fleur de Vie clinic sites in developing patient education programming in a culturally appropriate context. Likewise, social work student volunteers provide information on local resources to patients. Medical students also provide language interpretation at both sites. A wide range of point-of-care tests are available at both Fleur de Vie sites, including pregnancy, blood glucose, electrocardiogram, streptococcal pharyngitis (rapid testing), hepatitis B, dipstick urinalysis, and chlamydia, gonorrhea, and bacterial vaginosis (rapid testing), and vaccinations.

All student-run clinics are approved service learning programs through the Foundations in Medicine course for preclinical medical students. The service learning program is designed to promote immersion in community-based health care and an understanding of social determinants of health, especially for vulnerable patient populations. Patients themselves are valuable teachers and are the primary reason for required clinic-based service learning. First- and second-year students learn from their peers and attending physicians about medical history and physical examination, and third- and fourth-year students learn about developing assessments and plans to meet patient needs that often are fraught with both social and medical challenges. In the case presentation program, clinical students mentor preclinical students on translating clinical findings to differential diagnoses and creating treatment plans. Attending physicians oversee all of the clinics' activities and instruct students on taking medical histories, performing physical examinations, presenting cases, documenting in medical charts, and writing prescriptions.

A total of 319 (87.6%) first- and second-year students reported earning service learning hours at one or more of the student-run clinics between August 1, 2010 and May 31, 2011 (Table 2). Students volunteered a total of 1478 shifts for 4508 hours at the student-run clinics and associated programs. Of the 319 student volunteers, 118 (37.0%) volunteered at 1 project, 99 (31.0%) volunteered at 2 projects, 64 (20.1%) volunteered at 3 projects, and 38 (11.9%) volunteered at ≥ 4 projects.

Table 3 presents demographic characteristics, health conditions, and services used by the patients seen at the Tulane student-run clinics. For all four student-run clinics combined, there were 155 clinic dates, 1455 visits, and 859 patients seen between January 1, 2010 and

June 30, 2011. Nearly all of the patients were seen only once at Ozanam Inn Weekend Clinic and both Fleur de Vie sites. In contrast, patients were seen an average of three times at the Bridge House Wednesday Clinic. Of the 859 patients seen, the average age was 40.7 years. All of the patients examined at Bridge House and nearly all of the patients seen at Ozanam Inn Weekend Clinic were men, while the Fleur de Vie sites had a slight majority of women in their patient population. At Fleur de Vie in New Orleans East, there is an approximately equal distribution of Asian, Latino, and African American patients. At Fleur de Vie at Covenant House, the majority of the population is African American, one-fourth is Latino, and one-fifth is white. There were few Asian and Latino patients seen at Ozanam Inn Weekend Clinic.

The most common reasons for seeking care were medication refills (30.7%) and intake physical examinations (17.2%) at the Bridge House Wednesday Clinic, musculoskeletal pain (19.0%) and upper respiratory symptoms (19.0%) at Ozanam Inn Weekend Clinic, musculoskeletal pain (14.7%) and dermatologic issues (12.1%) at Fleur de Vie at Covenant House, and dermatologic issues (13.2%) and abdominal pain (8.8%) at Fleur de Vie in New Orleans East. Counseling and health education often were a part of clinic visits at the Fleur de Vie sites, with the most frequent topic being diabetes management. At the Bridge House Wednesday Clinic and Ozanam Inn Weekend Clinic, smoking cessation was the most frequent health education topic. The most common referrals were given for primary care at Fleur de Vie at Covenant House (55.4%), Fleur de Vie in New Orleans East (52.9%), and Ozanam Inn Weekend Clinic (29.4%). The most common referrals were given for psychiatric treatment at the Bridge House Weekend Clinic (4.2%). For all of the sites combined, the most common prescriptions were written for pain relievers (21.4%), antihypertensive medication (15.4%), and antibacterial or antifungal medication (10.7%). Tuberculosis tests were administered at one-third of Bridge House Wednesday Clinic visits. Ozanam Inn Weekend Clinic offered tuberculosis tests, influenza vaccines, and hepatitis A and B vaccines at 4.0% to 7.3% of weekend clinic visits, in addition to those provided Monday through Friday.

Discussion

The Tulane student-run clinics aim to address similar educational and service-based objectives to reach underserved populations in settings that are culturally appropriate and accessible. This study demonstrates the range of patients seen by volunteer students, defines some of the characteristics of those seeking free health care in the community, and highlights the services provided by volunteer health professional students to these patient populations.

From January 1, 2010 to July 31, 2011, the clinics collectively saw 859 patients for a total of 1455 visits. The majority of patients seen at two of the clinics (Bridge House Wednesday Clinic, Ozanam Inn Weekend Clinic) were men, whereas slightly more than half at the two Fleur de Vie clinics were women. This observation is reflective of the fact that the Bridge House Wednesday Clinic and Ozanam Inn Weekend Clinic are located in community-based organizations that serve men either predominantly or exclusively. In February 2012, a second-year medical student founded a student-run clinic for Grace House, the all-female

rehabilitation program run in conjunction with Bridge House, to expand access to health care for women in New Orleans.

The patient populations of the clinics were racially and ethnically diverse, with the majority of patients seen at all of the sites being African American, followed by white, Hispanic, and Asian. Bridge House Wednesday Clinic was excluded because of the lack of reporting on patient race. Fleur de Vie in New Orleans East clinic opened in January 2010 with the intention of serving a largely Vietnamese population, as reflected in the data. It is apparent, therefore, that the student-run clinics are increasing access to healthcare services for a variety of patient populations throughout the area, including immigrant populations and ethnic and minority communities.

A wide range of chief complaints from patients across the clinics was recorded, with the most visits for medication refills, musculoskeletal pain, and upper respiratory complaints. In addition, a high proportion of patients were referred to primary care facilities, especially at Fleur de Vie at Covenant House, Fleur de Vie in New Orleans East, and Ozanam Inn Weekend Clinic. These findings highlight that student-run clinics may help lower barriers and facilitate access to primary care, including the maintenance of care plans. The student-run clinics help patients navigate the system through targeted referrals, detailed instructions, and collaboration with the staff of community partner organizations. With student-run clinics nationally having 36,000 annual patient–physician visits, this represents an important safety net for those with limited access to health care.⁴

Another common reason for seeking care was blood pressure and glucose checks. Hypertension and diabetes management were some of the most common counseling and health education topics. Furthermore, antihypertensive medications often were prescribed during patient visits. These findings and other studies indicate that cardiometabolic diseases are frequently detected among urban underserved populations.⁸ To address this issue, medical students have started a blood pressure monitoring program at Ozanam Inn, with ongoing quality assessment. This initiative highlights the importance of the patient-education component offered at these clinics, which could aid in prevention and early diagnosis.

New Orleans continues to recover from the mental health implications of Hurricane Katrina, with psychological disorders such as depression and anxiety still affecting many individuals.⁹ Studies have shown that student-run clinics can offer mental health services that can meet or even exceed the quality of treatment provided to insured populations.¹⁰ The Tulane clinics were able to address mental health issues using several strategies. For example, Fleur de Vie at Covenant House has a dedicated team of medical students that provides mental health screening and referral services. At Ozanam Inn Weekend Clinic, social work volunteers screen for psychological disorders, refer as necessary, conduct psychosocial counseling, and collaborate with case managers at the homeless shelter for continuity of care. Otherwise, student-run clinics refer to psychiatric treatment and prescribe medications to address the high burden of mental illness.

The present study documents how these clinics provide medical care in the context of underlying social issues such as poverty, substance dependence, mental health issues, and unstable housing status. By providing services for community members who experience difficulties accessing care because of these competing factors, these clinics directly address the local population-specific barriers to health care.¹¹ In addition, the clinics have interdisciplinary teams, involving social work and public health students and professionals with expertise in screening, counseling, and educating on these topics. There are several educational benefits of these community-specific student-run clinics, such as cultural competency, basic clinic skills, and practical clinical teaching experience.¹²

The limitations of the clinics include limited financial resources and shortage of volunteer physicians. The individual student-run clinics and the Interclinic Council, a collaboration among all four clinics, attempt to address these issues through fundraising events, publicity efforts, grant applications and formalized institutional support. Because of the retrospective study design, we were limited to the recorded parameters and the quality of chart documentation. Future prospective studies could ensure standardized data collection across sites. Other limitations include the descriptive study design without patient outcomes, quality assessment, or evaluation. In addition, *International Classification of Diseases-9* codes were not used for reason for the visit and some patients were seen only once without being followed up.

Future areas of inquiry include assessing both student and patient outcomes. These clinics are participating in multi-institutional projects to assess chronic disease outcomes and update estimates of the prevalence and operation of student-run clinics at US medical schools.⁴ Future areas of expansion for the clinics include the initiation of two new student-run clinics and a council of clinics at Tulane to support knowledge transfer and improve the quality of services.

Conclusions

In conclusion, this study delineates and compares the range of patients seen at four different student-run clinics in the New Orleans area. These clinics not only serve the urgent healthcare needs of an underserved population but also act as a gateway into the primary care system and ancillary health and social services through referrals. The impact on student volunteers and leaders at these clinics may be far-reaching because the range of medical complaints and the need for patient education and counseling provides for an experience that will help students excel in their future careers and leadership positions. These clinics have the potential to teach student volunteers and student leaders in particular leadership skills and various systems-based practice principles.^{4,5} In addition, such exposure may influence career choice and the decision to practice in community-based healthcare settings.

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Key Points

- Tulane University student-run clinics provide medical evaluations, health education and counseling, prescriptions, vaccinations, screening programs, and referrals for additional care to marginalized and hard-to-reach populations in New Orleans.
- Nearly all preclinical Tulane medical students are involved with at least one of the four student-run clinics through direct service or leadership roles.
- Novel aspects of the Tulane student-run clinics include community-based settings, interdisciplinary health teams, and early medical student opportunities for clinical training and leadership development.

Table 1

Description of Tulane student-run clinic models

	Bridge House Wednesday Clinic	Ozanam Inn Weekend Clinic	Fleur de Vie at Covenant House	Fleur de Vie in New Orleans East
Setting	Substance abuse treatment center	Homeless shelter	Clinic	Clinic
Day of operation	Wednesdays	Sundays	Saturdays	Saturdays
Time of operation	4–8 pm	12–5 pm	8 am–2 pm	8 am–2 pm
Services offered during clinic hours	H & P	H & P	H & P	H & P
	Prescriptions	Prescriptions	Mental health screening	Patient education
	Prescription and OTC dispensary	OTC medication dispensary	Patient education	Prescriptions
	TB testing	Referrals	Prescriptions	
	HIV testing	Group-based health education	STD testing	
		Psychosocial counseling	Pregnancy testing	
		TB testing	Electrocardiograms	
		Vaccines	Referrals	
			Social work	
Other services offered on-site (outside clinic hours)	TB testing	TB testing	Social work	Social work
		Vaccines	Referrals for HIV and hepatitis B testing	Referrals for HIV and hepatitis B testing
		HIV testing/education		
		Social work		
Volunteer staff				
Preclinic medical students	8	6	10	4
Clinical medical students	4	2	4	2
Physician	1	1	2	1
Public health students	0	1–2	1	1
Social work students	0	1–2	1	1
Social work supervisor	0	1	0	0

H & P, history and physical; HIV human immunodeficiency virus; OTC, over the counter; STD, sexually transmitted disease; Tb, tuberculosis

Table 2

First- and second-year medical student involvement in student-run clinics and associated programs, August 1, 2010–May 31, 2011

Program	No. volunteers (%) (N = 364 students)	Total hours
Bridge House Wednesday Clinic	174 (47.8)	1389.0
Bridge House tuberculosis testing program	51 (14.0)	195.13
Bridge House HIV testing program	40 (11.0)	178.25
Ozanam Inn Weekend Clinic	80 (22.0)	713.5
Ozanam Inn tuberculosis testing and vaccination program	149 (40.9)	718.9
Fleur de Vie (Covenant House and New Orleans East)	153 (42.0)	1313.5
Total		4508.28

HIV human immunodeficiency virus.

Table 3

Characteristics of patient population and patient visits, January 1, 2010–July 31, 2011

	Frequency (n [%]) or average (mean [SD])				
	Bridge House Wednesday Clinic	Ozanam Inn Weekend Clinic	Fleur de Vie at Covenant House	Fleur de Vie in New Orleans East	Total
No. clinic dates	75	35	28	17	155
No. visits	915	248	224	68	1455
No. patients	362	211	219	67	859
No. visits per patient	3.0 (2.8)	1.2 (0.5)	1.0 (0.2)	1.0 (0.1)	2.3 (2.4)
No. patients per clinic date	11.0 (3.7)	7.1 (2.9)	8.0 (1.9)	4.0 (2.3)	8.9 (3.9)
Age, y	37.9 (11.4)	45.9 (11.2)	41.3 (13.4)	37.7 (12.7)	40.7 (12.4)
Male sex	362 (100)	203 (96.2)	101 (46.1)	32 (48.5)	698 (81.4)
Race/ethnicity					
African American	—	108 (54.0)	88 (54.3)	21 (34.4)	217 (51.3)
White	—	84 (42.0)	32 (19.8)	0 (0)	116 (27.4)
Hispanic/Latino	—	3 (1.5)	40 (24.7)	21 (34.4)	64 (15.1)
Asian	—	1 (0.5)	2 (1.2)	19 (31.2)	22 (5.2)
Other	—	4 (2.0)	0 (0)	0 (0)	4 (0.9)
Reason for seeking care (chief complaint)					
Musculoskeletal pain	89 (9.7)	47 (19.0)	33 (14.7)	5 (7.4)	174 (12.0)
Upper respiratory symptoms	51 (5.6)	47 (19.0)	26 (11.6)	5 (7.4)	129 (8.9)
Blood pressure check	56 (6.1)	23 (9.3)	16 (7.1)	3 (4.4)	98 (6.7)
Skin problems	68 (7.4)	22 (8.9)	27 (12.1)	9 (13.2)	126 (8.7)
Foot problems	1 (0.1)	14 (5.7)	5 (2.2)	1 (1.5)	21 (1.4)
Oral health issues	15 (1.6)	13 (5.3)	4 (1.8)	0 (0)	32 (2.2)
Vaccine	4 (0.4)	12 (4.9)	0 (0)	0 (0)	16 (1.1)
Medication refill	281 (30.7)	11 (4.5)	20 (8.9)	2 (2.9)	314 (21.6)
Abdominal pain	0 (0)	10 (4.0)	13 (5.8)	6 (8.8)	19 (1.3)
Tuberculosis test/treatment	0 (0)	8 (3.2)	0 (0)	0 (0)	8 (0.6)
Glucose check	0 (0)	6 (2.4)	11 (4.9)	3 (4.4)	20 (1.4)
Gastrointestinal symptoms	25 (2.7)	5 (2.0)	0 (0)	0 (0)	30 (2.1)
Intake physical	159 (17.2)	0 (0)	0 (0)	0 (0)	159 (10.9)
Neuropathic pain	12 (1.3)	0 (0)	0 (0)	0 (0)	12 (0.8)
Psychiatric issues	55 (6.0)	4 (1.6)	0 (0)	0 (0)	59 (4.1)
Sleep issues	51 (5.6)	1 (0.4)	0 (0)	0 (0)	52 (3.6)
Gynecological issues	0 (0)	0 (0)	16 (7.1)	5 (7.4)	21 (1.4)
Urological issues	0 (0)	0 (0)	0 (0)	2 (2.9)	2 (0.1)
Other	50 (5.5)	24 (9.7)	41 (18.3)	27 (39.7)	142 (9.2)
Counseling and health education topics					
Smoking cessation	49 (5.4)	27 (10.9)	44 (19.6)	11 (16.2)	131 (9.0)
Upper respiratory symptom management	9 (1.0)	20 (8.1)	3 (1.3)	2 (2.9)	34 (2.3)
Hypertension management	24 (2.6)	11 (4.4)	33 (14.7)	16 (23.5)	84 (5.8)

	Frequency (n [%]) or average (mean [SD])				Total
	Bridge House Wednesday Clinic	Ozanam Inn Weekend Clinic	Fleur de Vie at Covenant House	Fleur de Vie in New Orleans East	
Diabetes management	2 (0.2)	5 (2.0)	76 (33.9)	20 (29.4)	103 (7.1)
Other	1 (0.1)	6 (2.4)	13 (5.8)	7 (10.3)	27 (1.9)
Referrals					
Primary care	35 (3.8)	73 (29.4)	124 (55.4)	36 (52.9)	268 (18.4)
Dental care	20 (2.2)	22 (8.9)	7 (3.1)	1 (1.5)	50 (3.4)
Psychiatric treatment	38 (4.2)	20 (8.1)	12 (5.4)	1 (1.5)	71 (4.9)
Emergency department	2 (0.2)	16 (6.5)	3 (1.3)	0 (0)	21 (1.4)
Substance abuse treatment	0 (0)	9 (3.6)	4 (1.8)	0 (0)	13 (0.9)
Social work	0 (0)	8 (3.2)	0 (0)	0 (0)	13 (0.9)
Orthopedics	7 (0.8)	5 (2.0)	1 (0.4)	0 (0)	13 (0.9)
HIV testing/treatment	6 (0.7)	5 (2.0)	0 (0)	0 (0)	11 (0.8)
Gastroenterology clinic	0 (0)	5 (2.0)	0 (0)	2 (2.9)	7 (0.5)
Hepatitis C clinic	5 (0.5)	5 (2.0)	2 (0.8)	0 (0)	12 (0.8)
Tuberculosis clinic	0 (0)	4 (1.6)	0 (0)	0 (0)	4 (0.3)
Sexually transmitted disease clinic	1 (0.1)	4 (1.6)	0 (0)	0 (0)	5 (0.3)
Other	28 (3.1)	14 (5.6)	36 (16.1)	10 (14.7)	88 (6.0)
Prescriptions					
Nonsteroidal anti-inflammatory drugs/aspirin	198 (21.6)	57 (23.0)	46 (20.5)	10 (14.7)	311 (21.4)
Antibacterial or antifungal medication	54 (5.9)	37 (14.9)	49 (21.9)	15 (22.1)	155 (10.7)
Antihypertensive medication	147 (16.1)	24 (9.7)	47 (21.0)	6 (8.8)	224 (15.4)
Lipid-lowering medication	7 (0.8)	4 (1.6)	4 (1.8)	1 (1.5)	16 (1.1)
Gastroesophageal reflux disease medication	56 (6.1)	5 (2.0)	5 (2.2)	1 (1.5)	67 (4.6)
Psychiatric medication	139 (15.2)	12 (4.8)	12 (5.4)	0 (0)	163 (11.2)
Sleep medication	173 (18.9)	0 (0)	0 (0)	0 (0)	173 (11.9)
Allergy medication	51 (5.6)	6 (2.4)	6 (2.7)	0 (0)	63 (4.3)
Asthma medication	10 (1.1)	7 (2.8)	7 (3.1)	2 (2.9)	26 (1.8)
Cold and cough medication	16 (1.8)	14 (5.6)	0 (0)	0 (0)	30 (2.1)
Topical skin treatment	18 (2.0)	7 (2.8)	4 (1.8)	2 (2.9)	31 (2.1)
Smoking cessation	15 (1.6)	2 (0.8)	0 (0)	0 (0)	17 (1.2)
Other	178 (19.5)	21 (8.5)	47 (21.0)	11 (16.2)	257 (17.7)
Hepatitis A and B vaccines	0 (0)	18 (7.3)	0 (0)	0 (0)	18 (1.2)
Influenza vaccine	6 (0.7)	17 (6.9)	1 (0.5)	1 (1.5)	25 (1.8)
Tuberculosis test	325 (35.5)	10 (4.0)	0 (0)	0 (0)	335 (23.0)

HIV, human immunodeficiency virus; SD, standard deviation.