Operation Access: A Proven Model for Providing Volunteer Surgical Services to the Uninsured in the United States

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BACKGROUND: Numerous studies have shown that patients without insurance lack coordinated health care and access to surgical procedures. Operation Access (OA) has coordinated uncompensated, low-risk outpatient surgical and specialty services to the uninsured in a volunteer setting for 15 years. Our objective was to evaluate the quality of outpatient surgical care provided by OA volunteers.

STUDY DESIGN: Retrospective cohort study using data from OA's secure database to evaluate the quality of care provided to all patients eligible for OA services from 1994 through 2008. Primary outcomes included quality of care as measured by the Institute of Medicine's six quality aims, ie, safety, efficiency, effectiveness, timeliness, patient-centered care, and equity.

RESULTS: Six-thousand five-hundred and forty-two patients were referred to OA during the past 15 years; 83.4% met eligibility criteria. Of these, 3,518 unduplicated patients received 3,098 surgical, endoscopic, and minor procedures. Only 12 of 1,880 surgical patients experienced a complication requiring hospitalization. Patient care was efficient, with a 95.3% overall compliance rate; approximately $7.56 of services were provided for every dollar of philanthropic support. OA's strong emphasis on case management, focus on continuity of care, and patient-selection criteria contributed to the organization's provision of safe, efficient, effective, timely, and patient-centered care. A higher percentage of Latinos and a lower percentage of African Americans relative to the geographic demographics received OA services.

CONCLUSIONS: A volunteer program providing low-risk outpatient operations using the OA model delivers safe, efficient, effective, timely, and patient-centered care. (J Am Coll Surg 2009;209:769–776.

Numerous studies have shown that patients without insurance lack access to timely coordinated care and face numerous barriers to specialty services.[1-5] Although public safety-net hospitals and clinics exist to serve the uninsured, this system is now widely understood to be stretched beyond capacity.[6-8]

In the early 1990s, two surgeons in San Francisco championed the idea of local surgical volunteerism[9,10] to respond to the growing specialty care needs of the uninsured. In partnership with a team of individuals experienced in hospital administration, nursing, law, and primary care, Operation Access (OA) was established as a 501(c) (3) nonprofit corporation. OA strives to improve access to care, strengthen the safety net and reduce disparities in health care delivery. OA partners with medical volunteers, hospitals, and local clinics to provide nonemergent surgical and specialty services to the uninsured. The program's administrative functions are supported by philanthropic donations.

The mechanics of the program have been described previously[9,11,12]; they are briefly reviewed here and are illustrated in Figure 1. An OA staff program director coordinates patients, volunteer teams, and participating institutions through the OA program office. Participating clinics and pri-

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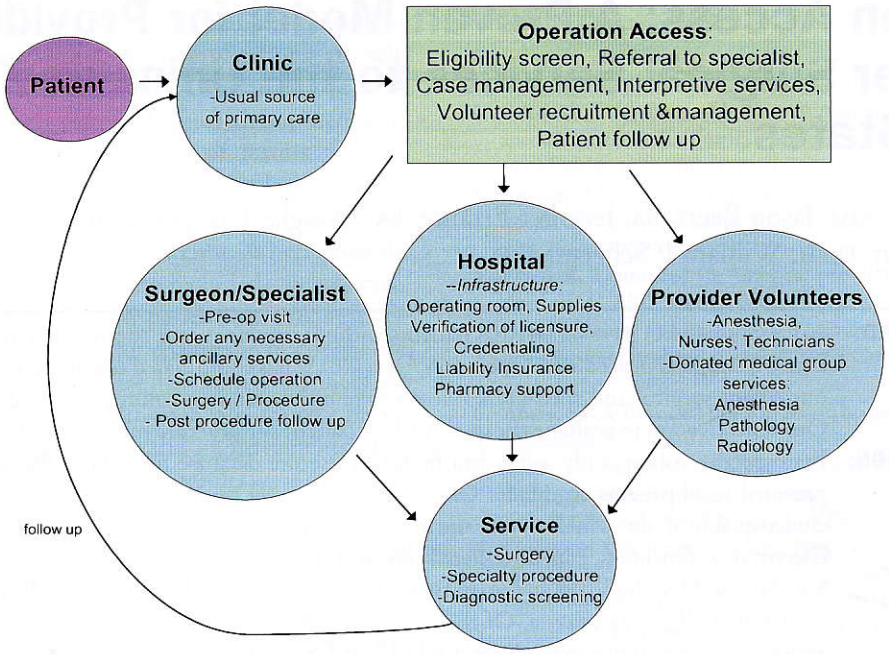

Figure 1. The mechanics of Operation Access.

mary care providers refer patients who fulfill medical eligibility; patients are then screened for financial eligibility by OA staff. After screening by OA staff, patients are assigned to a volunteer surgery team and scheduled for preoperative appointments with volunteer surgeons. If an operation is indicated, the patient is scheduled for the next available surgical session. Surgical sessions take two possible forms. Some hospitals have a special "Surgery Saturday" session that consists of volunteer teams gathering to perform operations on patients referred through OA. Other hospitals use an integrated model in which OA patients are integrated into a volunteer surgeon's regular schedule. Surgeons see patients for one or more postoperative followup visits as needed; patients are followed longterm for ongoing medical care at the referring clinic. Hospitals provide the operating room space, medical supplies, and medications. Hospital partnership with OA is documented with memoranda of understanding that outline the hospitals' roles and responsibilities, including assurance that hospital policies and procedures concerning quality assurance, medical records, and similar activities will apply to OA patients. As all volunteers work regularly at the participating institutions, hospitals are able to ensure that providers' credentialing and licensure are up to date; nonphysician volunteers are covered by the hospital's liability insurance and physicians remain covered by their own malpractice insurance.[11]

The OA network started with one hospital, 15 medical volunteers, and seven community clinics in San Francisco. For several early years, the program was funded largely by the Robert Wood Johnson Foundations' Reach Out America Program,[13] in support of volunteer physician efforts. During the past 15 years, OA has grown substantially; today, there are 23 participating hospitals with >500 volunteers who serve patients in six counties within the greater Bay Area of northern California.

This study was undertaken to review the 15-year experience of surgical and specialty volunteer outreach efforts through OA. We retrospectively studied the 15-year OA experience in the context of the Institute of Medicine's (IOM) definitions of quality.[14]

METHODS

Data

We retrospectively reviewed the OA database for all patients referred to OA from 1994 through 2008. Data were coded for demographics, diagnosis, procedure, complications, and patient satisfaction. Aggregate data were available to measure time to appointment, time to procedure, and value of services provided.

Variables

Primary outcomes measures included quality of care. Quality of care was measured using the IOM's six quality aims, ie, safety, efficiency, effectiveness, timeliness, patient-centered care, and equitability.

Safety is defined by the IOM as ". . . avoiding injury to patients from the care that is intended to help them."[14]

Safety was measured by assessing complication rates and types associated with OA operating room procedures during the 15-year period. For the purposes of this study, any hospitalization was deemed a complication, but some hospitalizations were appropriate in the setting of unanticipated operative findings. Because patients leave the OA network and return to their primary care provider for followup, we were unable to capture minor complications that were not evident at initial specialist followup and that did not require hospitalization.

Efficiency is defined by the IOM as ". . . avoiding waste, in particular waste of equipment, supplies, ideas and energy."[14] Efficiency was assessed by examining compliance and analyzing the value of donated services. Overall compliance was broken down by patient no-show rates for routine appointments and procedures, cancellations within 24 hours of appointment or procedure, and noncompliance with preoperative instructions. A higher measure of overall compliance suggests a more efficient use of donated services. Compliance measures were evaluated for 2008 only. Previously, OA's database did not capture the status of all appointments but captured only whether the case was closed because of a no-show. Beginning in 2005, these data were collected more comprehensively and the most recent data are presented here. OA annually assesses the monetary unit value of service provided per monetary unit of philanthropic support. The methodology for this assessment has evolved over time; most recently, the OA board has adopted methodology based on waived provider and hospital charges. Regular audits are done between OA and medical center staff to verify services rendered and cross-check hospital charges for like services. Given the changes in measurement technique, only the most recent data from 2008 using the waived charges methodology are included here.

Effectiveness is defined by the IOM as ". . . providing services based on scientific knowledge to all who could benefit and refraining from those not likely to benefit (avoiding overuse and underuse)."[14] To measure effectiveness, the organizational structure and patient-selection criteria of OA were reviewed. Additional data were derived from patient surveys administered 6 to 10 weeks after each procedure to assess self-reported improvement in health, quality of life, ability to work, mobility, and relief of pain or symptoms. Only the most recent data from the 2008 survey were evaluated in this study. Throughout OA's history, there have been consistent questions on patient surveys rating quality of various aspects of the service received and rating self-reported health outcomes on a scale of 1 (poor) to 5 (excellent). These ratings have provided feedback on the quality of service and prompted followup if the reported outcomes of the operation were rated ≤ 3. The survey wording has changed considerably over time, precluding the presentation of aggregate results.

Timeliness is defined as ". . . reducing waits and sometimes harmful delays for both those who receive and those who give care."[14] Timeliness was assessed by measuring the time from referral until time of first appointment and operative intervention, where indicated. This captures timeliness with an implicit understanding that these patients have a number of barriers to accessing care before OA referral.

Patient-centeredness is defined as ". . . providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions."[14] Patient-centeredness was evaluated qualitatively through both the patient-survey results and a review of OA's organizational structure. Components of the system that enhance or detract from a patient-centered structure were noted.

Equitable care has been defined as that which ". . . does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status."[14] We evaluated equity by both an organizational review and by assessment of the demographics of eligible patients referred to OA during 15 years.

The RAND Human Subjects Protection Committee exempted this study from review.

RESULTS

During the past 15 years, 6,542 patients were referred to OA. Of these, 5,459 (83.4%) were eligible for OA services. Patients were declared ineligible for financial, medical, or geographic reasons. Indigent patients qualifying for publicly funded insurance or patients with an income exceeding 250% of the federal poverty level were not financially eligible for services. Patients requiring inpatient surgical care or high-risk complex procedures were ineligible for medical reasons, as were patients with substantial comorbidities associated with an American Society of Anesthesiology Patient Severity Class of >2.[15] Patients living outside of OA's geographic service area were not eligible for coverage.

Of 5,459 eligible patients, 3,518 unduplicated patients received 3,098 surgical, endoscopic, and minor procedures; there were 1,103 specialist consultations. In addition, there were 5,905 preoperative and postoperative evaluations. Table 1 provides more detail on the types of services provided. Some eligible patients did not receive services because they had been treated previously, declined care, could not be located, obtained insurance, or did not require treatment. There has been an increase in use of services over time (Fig. 2).

Table 1. Services Rendered by Operation Access Provider Volunteers 1994–2008

Interventions (n = 4,201)	n	%
Surgical and specialty evaluations (not resulting in procedures)	1,103	26.3
Non–operating room procedures	1,218	29.0
Minor procedures	790	64.8
Gastroenterology procedures	309	25.4
Radiology procedures	114	9.4
Physical therapy treatments	5	0.4
Operating room procedures	1,880	44.8
General operation	1,204	64.0
Hernia repair	646	53.7
Cyst and lipoma removal	270	22.4
Minor anorectal	140	11.6
Cholecystectomy	80	6.7
Breast	68	5.6
Orthopaedic	154	8.2
Gynecology	131	7.0
Otolaryngology	122	6.5
Ophthalmology	121	6.4
Urology	66	3.5
Vascular	60	3.2
Plastic	10	0.5
Dermatology	7	0.4
Other	5	0.3

Safety was assessed by reviewing surgical complications. Only 12 patients required hospitalization after 1,880 procedures during the 15-year period of study. Details of these complications are outlined in Table 2. Three patients were hospitalized for postoperative infections and three stayed overnight for management of postoperative pain. Two patients required more intervention than originally planned.

Table 2. Complications and Associated Hospital Length of Stay 1994–2008

Initial procedure	Complications	LOS (d)
Hernia	Size of hernia required larger incision than planned	1
	Postoperative infection	3
	Postoperative pain control	2
Cholecystectomy	Apnea intraoperative	3
	Postoperative pain	5
	CBD stones requiring ERCP, sphincterotomy	2
	Postoperative pain control	4
Anal fistula	Postoperative infection	2
Tendon repair (hand)	Infection	3
Vein stripping	Postoperative emesis	1
Prostate biopsy	Hypoglycemia	3
Tonsillectomy	Adverse reaction to anesthesia	1

CBD, common bile duct; LOS, length of stay.

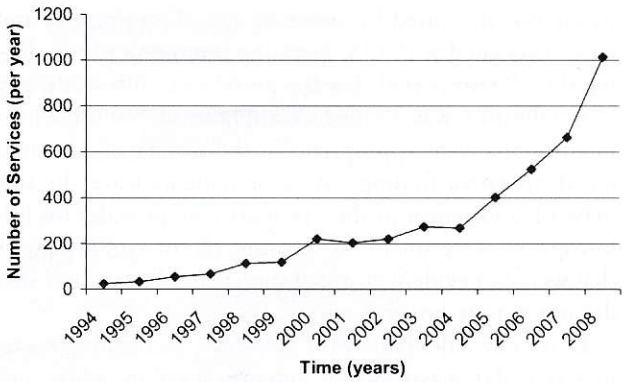

Figure 2. Growth of outreach services through Operation Access (1994–2008).

One of these patients had an inguinal hernia that was larger than appreciated preoperatively, resulting in a larger incision. This patient stayed 1 night in the hospital. The second patient was found to have common bile duct stones during a laparoscopic cholecystectomy with intraoperative cholangiography; this patient underwent endoscopic retrograde cholangiopancreatography and sphincterotomy with stone retrieval intraoperatively and remained in the hospital for 2 days. One patient each was hospitalized for hypoglycemia, adverse reaction to anesthesia, apnea, and emesis. Average length of stay for all patients admitted for a complication was 2.5 days (range 1 to 5 days). There was a 0.46% complication rate for herniorrhaphy and a 3.8% complication rate for laparoscopic cholecystectomy.

Efficiency was measured based on patient compliance and the computed value of donated services. Of 2,250 patients who had an appointment with a surgeon or specialist in 2008, overall compliance rate was 95.3%; 3.7% of patients did not appear on the day of the appointment and 0.7% cancelled within 1 day of the appointment (Table 3). Of 345 operative procedures scheduled in 2008, there was a 94.8% compliance rate; 3.8% failed to appear on the date of operation, 0.3% cancelled the day before operation, and an additional 1.1% were noncompliant with preoperative instructions. As reflected by waived provider and hospital charges, the value of services provided in 2008 was

Table 3. Patient Compliance Rates with Appointments and Instructions, 2008

	Routine appointment (%)	Operation (%)
Compliance rate	95.3	94.8
Patient no-show	3.7	3.8
Cancellation within 24 h (by patient)	0.7	0.3
Noncompliant with preoperative instructions	NA	1.1

Table 4. Time from Referral to Specialist Appointment and Intervention, 2008

	Median	Mean
Time (d) from referral to first doctor's appointment	68	78
Time (d) from referral to operation	83	98

$7,536,021. Because OA had cash expenditures of $996,604 during 2008, this equated to approximately $7.56 of services for every dollar of philanthropic support spent.

OA was judged to be a highly effective organization based on a number of observations. Community clinics and private practitioners can refer low-risk patients requiring ambulatory operations or specialty care directly to OA. Patients undergo specialist evaluation including any necessary laboratory or radiologic tests. When indicated, patients are offered appropriate intervention, including outpatient operations, endoscopy, or other minor procedures. Clinical outcomes were assessed at the patients' followup visit with the specialist. Additional measures of effectiveness were derived from patient surveys sent out 6 to 10 weeks after specialist intervention in 2008. Patients self-reported changes in health-related quality of life. Surveys were based on standard surveys used by OA hospital partners for followup after routine patient care. Questions about improvements in health, mobility, pain, and quality of life were simple yes-or-no questions. Surveys were administered in English Spanish, and Chinese. Ninety-three percent of respondents reported improvement in health, 90% noted an improved ability to work, and 96% reported improved quality of life. Ninety-three percent reported improvement in mobility and 91% reported improvement in pain or symptom relief.

Timeliness was measured from time of referral to OA to time of first appointment and intervention, where applicable. As indicated in Table 4, in 2008 the median time from community clinic referral to first appointment with a surgeon was 68 calendar days; median time from community clinic referral to operative intervention was 83 calendar days.

In addition to evaluating patient-centeredness based on responses to patient surveys, we assessed the ability of OA's case managers to serve as effective patient advocates. They guided patients through each appointment with detailed discussions, reminder calls, maps, directions and social support where needed. The case manager spoke the patient's primary language 95.9% of the time. When interpretive services were needed, they were provided for all OA-related patient interactions. In 2008, 70% of patient appointments involved an interpreter.

Table 5. Demographics of Eligible Patients 1994–2008 (n = 5,459)

Patient demographics	
Male, n (%)	2,347 (43)
Female, n (%)	3,112 (57)
Race/ethnicity, n (%)	
Latino	3,458 (63.3)
Asian/Pacific Islander	433 (7.9)
Caucasian	1,093 (20.0)
African American	221 (4.0)
Middle Eastern	39 (0.7)
Other/unknown	32 (0.4)
Native American	182 (3.3)
Age (y), n (%)	
0–17	135 (2.5)
18–29	1,324 (24.3)
30–49	2,503 (45.9)
40–64	1,232 (22.7)
64+	209 (3.8)
Unknown	56 (1.0)
Mean income (US$)	
Individual	7,827.00
Family of four	20,411.00

With reference to equity, the demographics of the patient population eligible for services during the 15-year period are shown in Table 5. The average patient age was 44 years old; 43% were male. Nonelderly adults of working age represented 92.7% of OA patients and 63.3% were of Latino race/ethnicity. The remaining patients were principally Caucasian (20%), Asian/Pacific Islander (7.9%), and African American (4.0%).

DISCUSSION

Recent estimates suggest that the numbers of uninsured patients in the United States are rising because of the current recession.[1,2,16,17] The majority of uninsured patients have traditionally been from a family with at least one working adult. Numerous studies have shown that patients without insurance lack coordinated care, appropriate timely preventive care, and access to necessary services.[3,7,8,14] Gaps in the safety net present considerable challenges to the uninsured. Efforts to care for the underserved take many forms, including charity care, low-cost health clinics, and health fairs.[18] Private physicians provide a large proportion of uncompensated care to those in need.[2,18] Uninsured patients who do not qualify for publicly funded insurance face substantial obstacles accessing necessary specialty services,[2,7,8] such as surgery.

Operation Access is a longstanding program of organized surgical and specialist volunteers that aims to address

the needs of the uninsured. Organized medical volunteer efforts provide comprehensive, coordinated outreach. Such programs reduce administrative barriers for vulnerable populations, distribute care among providers, and provide a structure in which health care professionals can volunteer. This study demonstrates that high-quality outpatient surgical care can be provided safely in a volunteer model.

In *Crossing the Quality Chasm,* the IOM suggests a paradigm shift away from safety as solely an individual provider responsibility and toward safety as a system issue.[14] Data from 15 years of experience with OA reveal patient- and system-level evidence of safety. In 1,880 operative procedures during 15 years, overall complication rate was only 0.64%. This reflects the careful attention to screening eligible patients who are low-risk but still in need of a life-changing outpatient surgical procedure. OA had a low threshold for defining a complication. The majority of complications were minor. For example, although the complication rate for laparoscopic cholecystectomy was 3.8%, there were no incidents of hemorrhage, bile duct injury, or conversion to open procedure. Because we were unable to capture minor complications that did not require hospitalization and that were not evident at initial specialist followup examination, the reported complication rate might underestimate the overall number of complications.

In establishing a program like OA, it is important to start with low-risk procedures. When OA was established in 1994, few services were provided and there were no early complications. Establishing a track record of safety has been important in developing partnerships with new communities, hospitals, and volunteers. It is imperative that standards of quality care are comparable with or better than the routine care setting. The decision to broaden the scope of services to include more complex operations, such as laparoscopic cholecystectomy, was made years into the program. Surgical volunteers encouraged the gradual expansion of services, which has grown to include more surgical subspecialties, endoscopy, and other diagnostic and screening procedures. Final decisions to expand the scope of services are made by OA's Program Committee, which is made up of physicians and surgeons. In 2002, laparoscopic cholecystectomies were considered safe for outpatient operations with a possible 23-hour hospital stay and the first laparoscopic cholecystectomy in OA was performed in November of 2002. These procedures are only performed in hospitals that follow the integrated model and can incorporate volunteer care into the surgeon's daily schedule. In OA's experience, development of longstanding, positive relationships with clinical volunteers and hospital partners has been critical to both expansion of services and continued participation of volunteers.

The organizational structure of OA promotes a culture of safety and enhances overall quality. Highlights of this structure include patient selection, continuity of care, and the unique role of OA case managers. Risk of adverse outcomes is minimized by prudent selection of low-risk patients. Additionally, continuity of care is a prerequisite for patient referral. It is essential that patients have a reliable source of care to manage comorbidities and provide long-term followup. Achieving these objectives requires effective communication between community clinic providers and specialists. OA case managers coordinate the sharing of information among medical providers. Medical charts are sent to volunteer specialists for review before patient evaluation; after evaluation and intervention, patients follow up with both the specialist and their primary care provider. OA sends a copy of each patient record back to the primary care provider.

Throughout the process of care, from referral to followup, case managers serve a role that is similar to that of a patient navigator. Case managers screen patients for eligibility, schedule all appointments, and provide guidance and support throughout the continuum of care under OA. Case managers speak the same language as the patient in a majority of cases and they coordinate interpretive services when necessary. We believe the critical role of the OA case manager accounts for the low cancellation and high compliance rates of patients served in the program. Such program efficiency is not only beneficial to patients, but also ensures that valuable volunteer efforts are not wasted.

Patients are not sought out by OA, but are referred from local community clinics and private primary care offices. Only 4% of OA patients are African American, compared with 63.3% who are Latino. In 2000, 7.3% of the Bay Area population (including OA service areas of Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Sonoma counties and nonservice areas of Santa Clara and Solano counties) was estimated to be African American. In the 2000 Census, the population of people who self-identified as Hispanic or Latino was 19.4% in the Bay Area.[19]

This imbalance in racial/ethnic representation persisted when comparing OA and census demographics by each OA service region. Overall population comparisons can be inaccurate when measuring equitable distribution of services; the true comparison group for OA would be the total population of low-income, uninsured, and uninsurable patients (under public programs). To the best of our knowledge, a local breakdown of demographics for this group is unknown. It is possible that there are relatively greater numbers of uninsured, low-income Latino or Hispanic pa-

tients in the service regions than African Americans. Additionally, clinic referrals are potentially affected by the dominant ethnocultural groups served by specific clinics, including those with a known focus on Latino and Chinese communities. Additional analysis of the demographics of the referring clinics is necessary to identify potential disparities in referral patterns.

By providing access to surgical and specialty services for a vulnerable population, OA seeks to bridge a gap in the safety net. OA has strict patient-eligibility criteria and has not accommodated high-risk patients with multiple comorbidities. This policy was established to reduce the risk of high-cost care to the hospitals and practitioners. The success of this volunteer model has been predicated on establishing conservative and pragmatic objectives. OA's ability to obtain continuing major financial donations from health systems, hospitals, foundations, and individuals to cover staffing costs is the result of building and maintaining credibility among major stakeholders. OA does not remove all barriers to timely access to ambulatory surgical care by the uninsured, but it is able to capitalize on the enthusiasm of volunteer surgeons, anesthesia providers, nurses, other specialists, and staff support personnel to provide clinical services for selected uninsured patients. Given the strict eligibility criteria, unmet needs remain for high-risk patients with more complex diseases who are unable to be treated in an outpatient setting. Barriers of access to specialty care will persist until comprehensive health care reform is passed that results in real, not just potential, access to care for all people in need.

When OA was started 15 years ago, it was not intended to be a longterm solution to the problems of access to care in our health care system, but in the absence of wide-sweeping health care reform, demand has continued to grow and OA has responded by expanding its services and network of provider volunteers. OA has begun mentoring other organizations that are interested in developing similar programs in their communities. In the past 2 years, the program has been successfully replicated in southern California by Access OC. Other mentoring relationships are underway.

A replication manual has been developed to highlight key elements of the process and lessons learned from OA's experience. We will briefly outline a few of the key components here; more details are available in reprints of the replication manual, which are available on request.

Every member along the OA chain of service is important; the full complement of providers is critical for a functioning program. Physician leadership has proved to be critical in the early stages of initiating a program of organized surgical volunteerism. In some hospitals, surgeons have taken the reins and in others anesthesiologists have led the way. Regardless of specialty, physician leadership is important for engaging other health care provider volunteers and for building institutional support. In most cases, a physician champion is identified who takes responsibility for the partnership and promotes the program's mission within their institution.

Additional elements that have proved important in the startup phase include the establishment of a multidisciplinary planning team and clearly defined objectives for the planning phase. In establishing a program like OA, it is important to anticipate and satisfy legal and administrative requirements. Obtaining guidance from experts in law and business is prudent. An organization can be successful as an independent nonprofit corporation or folded under the umbrella of a larger organization, such as a medical society, public agency, or hospital system. When implementing a program like OA, internal operations must be organized to deal with patient referrals, followup plans, information flow, and scheduling processes. Scope of services and patient eligibility requirements (both medical and financial) must be established as well.

Community clinics are necessary partners for patient referrals and longterm patient followup. Hospitals are crucial partners providing the operating rooms, supplies, and support for the medicolegal infrastructure necessary for health care workers to participate. Surgeons, nurses, and anesthesiologists must be partners to provide the donated surgical care. In addition, the program must be careful to distribute referrals equitably to avoid volunteer burnout. Radiologists, laboratories, and support staff are necessary partners for comprehensive patient care. Finally, there must be a dedicated OA program staff and engaged board of directors for ongoing operations.

A key to the success of such a venture is to start small and to build expectations slowly. Sensitivity to the political and environmental community issues increases the probability of community support. Longterm planning must take business strategy, especially fundraising and marketing, into account.

In this study, we have reviewed the quality of care provided by a longstanding organized surgical volunteer program. This study has a number of potential limitations. Because of its retrospective nature, certain details of patient profiles and care are not available for review, including specific comorbidities, duration of symptoms before referral, and duration of time before accessing primary care at a community health center. Lack of information about comorbidities precludes risk adjustment of the population served. Patient-selection criteria are strict and patients who qualify for OA by definition have a low surgical risk. The

OA database does not capture complications treated by providers unaffiliated with OA. Complications are self-reported by providers and patients. In general, the most serious complications are captured as noted, but there is no independent, third-party assessment of results, and reported complication rate might be an underestimation. Additionally, data were not available for all quality measures across the 15-year period of interest. Where possible, the most comprehensive data were included, such as measures of safety, equitability, and patient-centeredness. Finally, patient surveys assessing for changes in quality of life, mobility, pain, and symptoms are distributed routinely at 6 to 10 weeks postprocedure. Although preliminary results from these surveys suggest dramatic improvements in all measures after surgical intervention, results were only available for 2008 and patient response rates were modest at around 44%. In addition, the survey is not yet a validated tool for health-related quality of life. Consequently, although the positive results are gratifying, it is possible that some unhappy patients did not complete the survey or that the tool did not adequately capture the desired outcomes. Future efforts to refine the survey and enhance the response rates would contribute to improving care even more.

This study demonstrates that a volunteer program providing low-risk outpatient operations using the OA model provides safe, efficient, effective, and patient-centered care. The timeliness of care is limited by both access of patients to the network of community health clinics referring to OA and the capacity of the network of OA-affiliated hospitals and providers. It is important to ensure adequate capacity before marketing surgical services to referring providers and clinics. This study demonstrates that the OA patient population has a disproportionately high percentage of Latinos and a disproportionately low percentage of African Americans. The reasons for this disproportion are unknown but might reflect the demographics of uninsured and uninsurable people and the locations and populations served by the Bay Area community clinics. OA provides important life-changing medical and surgical care for patients in need. OA and similar programs could be expanded to address the surgical and specialty care needs of the uninsured. However, comprehensive health care reform is necessary to ensure timely appropriate access and specialty care for all patients in need.

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