Abstract
This study provides a profile of some of the characteristics of 114 Community Acupuncture Network (CAN) clinics as of June, 2011. Characteristics of clinics that affect their accessibility are examined. Most clinics offered a sliding scale fee structure to patients; the lower end of this scale ranged from $10 to $25 and the higher end ranged from $35 to $45. On average, CAN clinics were open for 31 hours per week but had limited opening hours during hours at the start and end of weekdays and on Sundays. The typical clinic was operated by 1.48 acupuncturists, 69% of whom were women. Clinics typically had 7.6 chairs/recliners and 0.8 treatment tables (but half of all clinics had no tables). Suggestions are made for increasing clinic accessibility that focus on the number of practitioners, opening hours, and clinic configuration.

Keywords: Community acupuncture

BACKGROUND
The practice of acupuncture in Western countries has its origins in traditional Chinese medicine (TCM). Subhuti Dharmananda, director of the Institute for Traditional Medicine in Portland, Oregon, observes a disconnect between what is regarded as best practice for acupuncture under TCM principles versus the reality of treatment in most U.S. clinics. 'Dharmananda notes that case reports of acupuncture in China typically involve an initial regime of daily treatments over ten days or more (with some breaks in treatment, depending on what is being treated). In addition, Lisa Rohleder (one of the founders of the Community Acupuncture Network) notes that treatment in a traditional TCM setting...
typically takes place in a group setting, with multiple patients being treated in a larger room. In contrast, Western acupuncture clinics typically provide individual treatment (one practitioner/one patient at a time) that occurs once a week, with the consequence that "a course of ten acupuncture treatments can easily take 3 months, compared to 10-20 days in China." 3

While daily treatments are likely to be more effective they are also more costly, particularly relative to the income of working-class patients. As Rohleder observes, one alternative to the conventional one practitioner/one patient at a time model is community acupuncture (CA):

"I stopped thinking of "treatment" as a singular experience, consisting of one patient, one table, one medical-looking cubicle, one hour, with lots of one-on-one attention from me, and one financial unit of $65. Instead, I decided that "treatment" means having acupuncture available frequently and regularly, with four to six patients an hour receiving care in the same quiet, soothing space, sitting in recliners, relaxing with distal points, each paying what they felt they could afford on a sliding scale of $15 to $35 per person. There would be no involvement with third-party payers in any form; no depending on grants or government money; and no interaction with any system outside my little community of patients." 4

The practice model for CA clinics has been developed based largely on the experiences and philosophies of Rohleder and her colleagues, who have authored two books on this topic (The Remedy and Acupuncture is Like Noodles). 5 The number of Community Acupuncture Network (CAN) clinics has grown substantially since 2002 when Rohleder co-founded her first clinic, Working Class Acupuncture in Portland, Oregon. The CAN network grew to 40 members in 2007 and 120 clinics in 2010. 6

CA is also known as "working class acupuncture" owing to its goal of making acupuncture more accessible to the working class. Here, "accessible" means that CA should be accessible both financially, i.e., affordable relative to patients' incomes and financial obligations and psychologically. Rohleder proposes that the conventional one acupuncturist/one patient approach is not accessible to the working class. 7 She believes that the nature of the "privileged" position of conventional acupuncturists and their patients leads the parties involved in treatment to make various assumptions. In this regard Rohleder contends that the middle class patients of conventional acupuncture clinics may not be all that aware of the ways in which their experience of acupuncture is not accessible to others. Among the assumptions that Rohleder proposes that middle class clients make are:

- Fees of $75 or so charged by conventional acupuncture clinics are "reasonable" for the treatment being offered. Those who view such fees as too high are (rather than being less economically well-off) not committed to treatment that improves their own health.
- Most people have health insurance.
- Patient comfort means that treatment should occur within an upscale environment that is akin to the environment of a traditional physician's office or day spa.
- The acupuncturist should adopt a professional orientation to patients (akin to the expert/patient model adopted by traditional physicians), and patients will not feel alienated or demeaned by such a model. 8

Rohleder's concerns about the accessibility of this traditional acupuncture model are shared by others. For example, David Lesseps (who now practices at a CAN clinic and is on the CAN Board of Directors) comments on his experiences as a third year student at the American College of Traditional Chinese Medicine, where he took a class on how to develop a professional practice:

"The instructor promoted a business model that emphasized charging high fees to individual patients and relying on insurance payments. She painted a picture of a busy solo practice with a gorgeous color scheme for the private treatment rooms, a supportive staff of insurance billing experts, and plenty of services for patients that add to their comfort and also happen to be billable on insurance forms. She also strongly urged us not to offer discounted rates to patients with the argument that doing so was selling the profession short. ... I left the course with a sense of how to run a business, yet I could not shake the feeling that it was not the type of business I wanted or that best served the people I knew."
"CA is an example of social entrepreneurship, whereby the business model itself is created to help solve social problems. Community acupuncturists use their professional expertise to establish businesses that take a fundamentally different approach to pricing."

The CA model provides one response to such perceptions. CA is an example of social entrepreneurship, whereby the business model itself is created to help solve social problems. Community acupuncturists use their professional expertise to establish businesses that take a fundamentally different approach to pricing (typically using a sliding payment scale) and to the clinical setting in which treatment occurs, i.e., treatment generally occurs in a group setting, with multiple patients being treated at any given time. With these features, community acupuncturists make their services more accessible to those with lower incomes and to those without insurance. By making acupuncture more accessible, CA clinics seek to increase accessibility to multiple treatments per week, which, in turn, should lead to more effective treatment. Further, while CA has its origins in making acupuncture accessible to the working class, its appeal seems to have spread. For example, in a survey of three CA clinics, Lumiere, Miller, and Miller found that 5% of "Clinic A" patients had incomes of over $100,000; as did 28% of "Clinic B" patients; and 6% of "Clinic C" patients.

By using group treatment and a sliding scale, Rohleder sees three main benefits for practitioners and their patients. First, CA restores options for health care to those who may be otherwise restricted by class, giving people more choices in terms of where they seek treatment. Second, it increases the opportunity for people to try acupuncture, thereby benefiting the entire acupuncture profession. Third, CA does not exclude high-income consumers who can seek this treatment option if they prefer or if they cannot afford more expensive treatments at the time.

The Sliding Scale and Group Treatment

Clients at conventional Western acupuncturist clinics are typically upper middle class. However, the upper middle class comprises only around 15% of the population. Further, Jordan Van Voast, a CA practitioner in Seattle, WA, observes that:

"Even when an acupuncturist is lucky enough to develop a stable clientele, the baggage that comes with a third-party payer system works to block an effective healing process in many ways. …

When treatment cost is no longer a limiting factor, several things happen. First, clients have the freedom to get better, coming in with whatever recommended frequency a particular condition requires in order to get results. Two, the practitioner learns to streamline treatments. By seeing up to six clients per hour, jettisoning nonessential chit-chat, placing the needles, and then stepping aside, the client is able to easily tap into the communal energy of many people resting deep within their qi."

Aside from group treatment rooms, another defining feature of CA clinics is that they tend to offer patients a sliding payment scale, with no proof of income required. Sliding scales recognize that individual patients have different income levels and financial obligations.

Rohleder discusses how a sliding schedule can be used to create inclusion. First, she proposes that community acupuncturists need to define the ethical objective within the economic reality of the acupuncture business. This involves acupuncturists coming to the conclusion that sliding scales are not a form of charity or, as Rohleder observes, adopting the thinking that "(while) Health care as a whole is deeply divided along class lines; my practice isn't."

Community acupuncturists also need to recognize that the acupuncture needs of patients are likely not covered by insurance; therefore, designing a practice and fee structure mainly around the proportion of the population that can afford insurance does not make for an accessible practice. The sliding scale is also seen as a means of separating payment from treatment and for maintaining clinic independence from insurance companies.

Rohleder also discusses how to utilize a sliding scale as a sustainable revenue model. In essence, treating multiple clients at one time at lower fee rates than traditional acupuncturists may well increase repeat visits — visits that would be less likely if patients were paying, say, $75 per visit.

The following is a study that is intended to look at some of the characteristics of CA clinics and how these affect accessibility.

METHODS

This research provides insights into some of the key features of CA clinics. It will help better articulate what this business model looks like — what are both its philosophical underpinnings and its issues of accessibility. Two key features of community acupuncture practices are examined that influence their accessibility — opening hours and fee structures. Also examined are the number of practitioners per clinic and the number of patients that clinics can accommodate at any given time.

In mid-June, 2011, a list was downloaded of all U.S.-based CAN clinics from the "Locate a Clinic" link on the CAN website at www.communityacupuncturenetwork.org/clinics. Where available, the first author and two research assistants independently collected the following information from the websites of CAN clinics: number and gender of acupuncture practitioners, hours of operation, fees charged, and whether health intake forms were available online. Data on clinic capacity (number of recliners/seats and number of tables) were obtained from the CAN website. The CAN website was used for this information as it had more comprehensive information on capacity than did the websites of individual clinics.

Complete data was available for 114 of the 173 CAN clinics, i.e., 66% of all CAN clinics. The first author looked for discrepancies and omissions between those collecting the data and corrected these after checking with the clinic websites of the CAN listing.

One weakness of this research is that it was not verified with the clinics or with CAN that the information on these websites was up to date. Having said this, it is believed that the clinics themselves have incentives to make sure their details are up to date so as to provide clients with current information.
Statistical Analyses
Statistical analyses were done using Microsoft® Office Excel 2007 (12.0.6565.5003). Tests and tools included means, percentages, and Pearson-moment correlations.

RESULTS
Number of Practitioners and their Gender
CA clinics tend to be small, with 54% being operated by a single acupuncturist and 30% by two acupuncturists (see Table 1). The average number of acupuncturists per CA clinic is 1.48. Women are much more likely than men to operate CA clinics. There are 154 acupuncturists working in the 114 clinics we examined, 107 of whom (69%) are women. Of the 62 CA clinics that were operated by a single acupuncturist, 42 (68%) were operated by women. Of the 34 clinics that had two acupuncturists, half were operated by two women, 15 by a man and a woman, and two were operated by men only. The gender composition of CA acupuncturists appears to mirror that of patient demographics. Lumiere, Miller, and Miller found that 67% of the patients at three CA clinics were female.20

Table 1. General Characteristics of CA Clinics

<table>
<thead>
<tr>
<th>Number of Acupuncturists</th>
<th>Number of Clinics</th>
<th>% of Clinics</th>
<th>% Women Acupuncturists</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>62</td>
<td>54</td>
<td>68%</td>
</tr>
<tr>
<td>2</td>
<td>34</td>
<td>30</td>
<td>72%</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>8</td>
<td>63%</td>
</tr>
<tr>
<td>4 or 6</td>
<td>9</td>
<td>8</td>
<td>82%</td>
</tr>
</tbody>
</table>

Clinic Capacity
In order to treat multiple patients at once, CA clinics typically have a number of chairs/recliners and may also have one or more tables. While chairs and recliners are usually placed in a single large treatment area, tables are typically located in a separate area and are intended for use by patients who need needles inserted into parts of the body that necessitate some privacy.

From our data, it is noted that the number of chairs/recliners per clinic ranged from a low of zero to thirty, with an average of 7.6. The number of treatment tables ranged from zero to eight, with an average of 0.8 (half of CA clinics had no treatment tables whatsoever).

It is also instructive to look at the number of tables/chairs relative to the number of acupuncturists (see Table 2) because it is expected that clinics with more acupuncturists have the ability to treat more patients at any given time. This is clearly the case with the number of seats/recliners (which average 6.3 for sole practitioner clinics but increase to 13.3 when there are four or more acupuncturists).

A Pearson moment-correlation between acupuncturists per clinic and the number of chairs yields a positive relationship of r=0.57, p=0.001. The number of tables is not influenced by the number of acupuncturists (r=0.06, not significant). There are a number of possible reasons for this. First, tables are more costly and take up more space than chairs. Second, it likely requires considerably more time to treat additional patients on a table than those who are seated. Third, treating some patients on tables while others are seated elsewhere means that patients who are seated may receive less attention.

Table 2. Number of Chairs/Recliners and Tables by Clinic Size

<table>
<thead>
<tr>
<th>Number of Acupuncturists</th>
<th>Number of Clinics</th>
<th>Average Number of Seats/Recliners</th>
<th>Average Number of Tables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>62</td>
<td>6.3</td>
<td>0.8</td>
</tr>
<tr>
<td>2</td>
<td>34</td>
<td>7.8</td>
<td>0.9</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>10.1</td>
<td>0.8</td>
</tr>
<tr>
<td>4 or 6</td>
<td>9</td>
<td>13.3</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Fee Structures
Sliding scales were the most common fee system for CA clinics. Three clinics out of 114 offered a flat fee structure ($30 for two clinics, $25 for another). One clinic offered a flat fee for the first visit ($30), then a sliding scale of $20 to $40 for subsequent visits. Of the remaining 111 clinics that consistently offered a sliding scale the low end of the scale ranged from $10 to $25 (and averaged $16.91). At the high end of the scales the range was from $35 to $45, with an average of $38.23.

For those clinics that did charge an additional fee for the initial intake session (71.8%), this ranged from $10 to $15 and averaged $11.01. As the intake session typically involves more time for the acupuncturist to discuss a patient’s background and possible issues needing treatment, charging an additional fee for initial visit makes sense.

The initial session typically also involves having patients complete a background information sheet relating to their medical history and any issues that may prompt the acupuncturist to enquire about as they may impact or need treatment. The initial session also helps build rapport and empathy between acupuncturist and patient.

To speed up the initial intake process 72 of the 114 clinics (63%) provide health history paperwork completion online. Patients can then complete this information in advance of their first visit. Twenty-three out of the 114 clinics (20%) also often provided income scales with suggested corresponding fees.

Open Hours
Open hours of clinics provide another measure of clinic accessibility. If CA clinics are indeed focused on the “working class” then we would expect them to have some hours available during weekends or other times that fall outside the traditional working hours of 8AM to 5PM. Unlike higher-paid, salaried employees it is likely that much of the target clientele (the working class) for CA clinics comprise waged employees with less workplace flexibility. The mean number of hours per week that CA clinics were open ranged from 6 to 76, with a mean of 31 hours.
Open hours for the clinics are also correlated with the number of acupuncturists practicing at any given clinic (see Table 3). A Pearson product-moment correlation coefficient was computed to assess the relationship between the number of acupuncturists per clinic and total hours that each clinic was open per week. There was a positive correlation between these two variables (r=0.67, p=0.001); that is, clinics with more acupuncturists tend to be open for more hours each week. The average one acupuncturist-operated clinic is open for 24.77 hours per week, whereas those clinics operated by 4 or 6 acupuncturists are open for an average of 54.44 hours per week. These findings indicate that group practices may be able to increase accessibility to patients. All acupuncturists need not work at the same time, increasing hours of clinic service per day and days open per week.

During weekdays it was also recorded whether clinics were open before 8AM or 9AM and after 5PM or 6PM. Only 17.5% of clinics had any opening hours before 9AM on weekdays, and only one clinic had any opening hours before 8AM. On average, individual clinics were open an average of 3.36 hours per week before 9AM. Pearson product-moment correlations show no relationship between the number of acupuncturists and the number of hours that a clinic is open before 9AM (r=0.02, not significant), but they do show a positive relationship between number of acupuncturists and the number of hours a clinic is open before 9AM (r=0.20, p=0.05).

However, during the weekdays, 94.7% of clinics had some opening hours after 5PM, and 79.8% had some opening hours after 6PM. At the end of weekdays, clinics were open for an average of 5.88 hours per week after 5PM and only 2.90 hours per week after 6PM. Pearson product-moment correlations show positive relationships between the number of acupuncturists and the number of hours a clinic is open after 5PM (r=0.51, p=0.001) or after 6PM (r=0.41, p=0.001).

The total number of hours clinics were open during weekends was also examined, and it was found that 70.1% of clinics had some Saturday opening hours, whereas only 14.9% had some Sunday opening hours. However, opening hours on both days was limited (for all clinics these averaged only 3.2 hours on Saturdays and 45 minutes on Sundays).

**DISCUSSION**

One of the underlying precepts of CA is that more frequent treatment is desirable and should be made accessible to the working class. Dharamananda observes that:

"To effectively offer daily acupuncture, it would be important for at least two practitioners of acupuncture to work together, so that when one is off on vacation or out sick, the other can help cover critical cases for their daily acupuncture. ... Practitioners working together can offer services where a patient can be treated by two practitioners over a course of several days of therapy. This might occur, for example, as a means to assure that the patient can come at a convenient time every day: perhaps one practitioner is busy at a time and day that the patient has available; the other practitioner might provide the service at that time."[21]

This research highlights several possible issues that CA practitioners may wish to address if they are to make treatment more accessible. First, as 54% of CA clinics are only operated by a single acupuncturist, this makes it difficult to offer treatment hours that are conducive to multiple treatments per week. The typical one-person clinic is only open for around 25 hours per week, whereas clinics operated by four or six acupuncturists were open for an average of around 54 hours per week (see Table 3). That the typical CA clinic is open for an average of 31 hours a week (also see Table 3) indicates that these are part-time endeavors for many practitioners.

CA clinics also appear to be open mainly during hours that may not best suit the needs of the working class clients they seek to help. In particular, opening hours at the start and end of the workday, and at weekends, tend to be limited, with the exception of Saturday opening hours (when the typical clinic is open for over three hours). Understanding the time restrictions of potential patients who are constrained by work or other activities may help drive the practice model toward being increasingly accessible.

The configuration of clinics themselves is also cause for reflection. The CA model of group treatment is no doubt effective in making treatment more affordable (as is reflected in the sliding scale data, which averaged from $16.91 at the low end to $38.25 at the high end). While the typical CA clinic had 7.6 chairs/recliners

### Table 3. CA Clinic Opening Hours

<table>
<thead>
<tr>
<th>Number of Acupuncturists</th>
<th>Clinics</th>
<th>Average Hours Open/Week</th>
<th>Average Hours Open before 9AM (weekdays total)</th>
<th>Average Hours Open before 8AM (weekdays total)</th>
<th>Average Hours Open after 5PM (weekdays total)</th>
<th>Average Hours open After 6PM (weekdays total)</th>
<th>Average hours Open on Saturdays</th>
<th>Average Hours Open on Sundays</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>62</td>
<td>24.77</td>
<td>0.33</td>
<td>0.00</td>
<td>4.55</td>
<td>2.25</td>
<td>2.46</td>
<td>0.34</td>
</tr>
<tr>
<td>2</td>
<td>34</td>
<td>32.89</td>
<td>0.22</td>
<td>0.01</td>
<td>6.46</td>
<td>2.96</td>
<td>3.44</td>
<td>0.32</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>43.06</td>
<td>0.44</td>
<td>0.00</td>
<td>8.44</td>
<td>4.33</td>
<td>5.33</td>
<td>2.06</td>
</tr>
<tr>
<td>4 or 6</td>
<td>9</td>
<td>54.44</td>
<td>1.06</td>
<td>0.00</td>
<td>10.28</td>
<td>5.61</td>
<td>5.17</td>
<td>3.89</td>
</tr>
<tr>
<td>Overall</td>
<td>114</td>
<td>30.98</td>
<td>3.36</td>
<td>0.00</td>
<td>5.88</td>
<td>2.90</td>
<td>3.20</td>
<td>0.75</td>
</tr>
</tbody>
</table>
and 0.8 tables, half of all clinics had no treatment tables at all. The absence of tables need not be a concern when clinics are dealing with patients whose treatment requires the insertion of needles at acupoints on the extremities. To some extent, these issues may also be dealt with more effectively in clinics where there are multiple acupuncturists, thereby allowing for both group and individual treatment at the same time. However, clinic configuration involves trade-offs in terms of cost and space, with tables taking up more space and being more costly than armchairs.

Decisions about clinic practice models inevitably involve trade-offs. These trade-offs can impact the attractiveness of CA for practitioners and patients alike. From the acupuncturists' perspective, treating more patients at once may be inherently fulfilling, particularly if those patients would otherwise have limited access to acupuncture treatment.

If one of the goals of CA is to make acupuncture more accessible to the working class, it is expected that patients (particularly those from working class backgrounds) would seek treatment more frequently and have improved treatment outcomes. In this regard, research in three CA clinics by Lumiere, Miller, and Miller found that patients typically had median or lower than median incomes relative to the incomes within the ZIP code where the clinics were located. That study also examined the frequency of visits: 33% of patients were first-time visitors; 49% visited once per week; 19% visited two to four times a week; 11% visited twice per month; and the remainder visited once a month or less frequently. However, we have no idea how these figures compare to income levels and treatment frequencies for non-CAN clinics or if more beneficial treatment outcomes are being achieved. Clearly this is a fruitful avenue for future research.

This also suggests that, while adopting a sliding scale payment model may make CA practices accessible to the working class, acupuncturists also need to consider accessibility in terms of opening hours and the treatment setting itself. Along these lines, the following research questions are worthy of future consideration:

- Do multi-acupuncture practices help improve accessibility and treatment options for patients? If so, who is accessibility increased for; and how is it increased?
- Do patients at CAN clinics typically have lower incomes and/or higher financial obligations than clients at other acupuncture clinics?
- Does the gender of acupuncturists influence perceptions of accessibility?
- Do patients at CAN clinics seek treatment more frequently than clients at other clinics?
- Are there patients who would like lower-cost treatments, but the configuration of CAN clinics does not meet their needs? If so, how else could these needs be met?
- What additional stressors are placed on acupuncturists at CAN clinics versus acupuncturists at other clinics? If so, how can such stressors be managed?

In summary, we have examined several key characteristics that influence the accessibility of CA clinics. Most clinics operate a sliding scale, with the lower end of the scale ranging from $10 to $25 and the higher end ranging from $35 to $45. Seventy-two percent of clinics also charged clients an initial intake fee (which averages $11.01). Clinics with more acupuncturists tend to have the ability to treat more patients at one time. The number of seats/recliners per clinic increased from an average of 6.3 for sole practitioner clinics to 13.3 for clinics with four or more acupuncturists. On average CA clinics were open for 31 hours per week but had limited opening hours at the start and end of the working day and during weekends. However, clinics with more acupuncturists tended to have longer opening hours with the average one acupuncturist clinic being open for 24.77 hours per week, whereas clinics with four or more acupuncturists were open for an average of 54.44 hours per week.

REFERENCES
8. Ibid.
15. Ibid.
17. Ibid.
18. The absence of involvement with insurance companies also means that CA clinics do not have to comply with the Health Insurance Portability and Accountability Act. This is important as the group treatment provides an environment where patients may overhear the acupuncturist and other clients discussing sensitive health information.