



## “House & Garden in the City” - A Post Occupancy Evaluation of the “Recovery” Model of Care

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# CAMH

The Centre for Addiction and Mental Health  
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### Background

The Centre for Addiction and Mental Health (CAMH), the largest mental health care and research facility in Canada, is undergoing a major transformation on its 27 acre site, in a mixed retail and residential neighbourhood of downtown Toronto. Built originally as a Provincial Asylum in 1849, CAMH evolved over the years as an institutional campus of administration and patient-care buildings connected with links, creating an internalized environment for clients and staff alike.

In combating the stigma associated with mental health, CAMH developed a vision in 1998 to create an “urban village” for its redevelopment. The goal is to fully integrate mental health and addiction care into the community, in order to provide a more normalized treatment environment. By extending the existing grid of city streets surrounding the site, the hospital’s new buildings will be located on different city blocks. They will be dispersed amongst other non-CAMH mixed-use buildings, to be built over the next 12 to 15 years in three phases.

The very first phase of this redevelopment is a pilot project known as “Alternate Milieu” (AM), designed for transitional residential and outpatient care for 72 clients in the Addiction and Mood & Anxiety programs. The concept of “urban community integration” is supported physically by the construction of three distinct apartment-like buildings, each accommodating 24 clients, on a tree-lined city street. The architectural expression blends in and is in harmony with the surrounding neighbourhood. The main goal of the Alternate Milieu’s “House and Garden” setting is to fully support each individual client in their transition back to the community, on the path to recovery.

The facility was completed and occupied in April of 2008. This Post Occupancy Evaluation has been conducted over the last 14 months, in conjunction with the research department at CAMH.

### Objective

1. To evaluate the effects of the urban village, residential concept on treatment outcome
2. To evaluate the healing effects of the qualitative design of the physical environment

### Methodology

Client and staff focus groups were conducted on several units including the Mood & Anxiety Program (one-month), Addiction Residential Program (21-day) and the Addiction Medical Unit (7-day). A total of 33 clients and four staff members were interviewed using a set of standard questions under the themes of House, Garden and the Urban Village. Below is a summary of anecdotal responses to the essential questions:

### “THE HOUSE”

1. What was your first impression when you first arrived at the AM facility?
  - The buildings feel non-clinical, inviting with lots of windows and natural light which makes it less overwhelming
  - The building is welcoming, very warm and in general very appealing

- The clients’ Pods (six-bed unit on each floor) are amazing, clean and bright
  - The design makes us feel normal, accepted and very safe
  - It is much better than any other hospital
2. Upon your arrival, did you find the building easy to navigate?
    - The buildings are easy to navigate
    - The clients Pods are easy to get around without any problems, the units are small
    - Individual paintings (clients’ artwork) at each door helps with wayfinding
3. How do you feel about the “house” concept of six clients sharing each floor?
    - The house concept is very well thought out where small of community is formed on each floor, we like living together and participate in the same group treatment
    - The house concept is amazing, six people in one Pod is not crowded, just right and very conducive to socialize with and support each other
    - It’s nice to have a kitchen and a fridge full of snacks
    - It is a luxury to have others to do the cleaning for the clients; in this sense there is more support than at home
4. How do you find the common areas?
    - It feels like being at home – in my own studio – with the kitchen, fridge and dining table, TV and comfortable furniture
    - We usually talk or watch TV together, sometimes work on projects, do arts and crafts
    - When we feel better, we like spending time together in the lounge (common space) which is inviting and comfortable
    - It would be nice to have more space for gym (fitness set-up) on the unit
    - It would be great to have free access to the stove in the kitchen since it is provided
5. Has the provision of private bedroom and ensuite bathroom given you a sense of privacy, personal space and independence?
    - Security is tremendous and we feel safe
    - We are happy with the amount of personal space, rooms are spacious and comfortable
    - I appreciate the private bedrooms with ensuite bathrooms, I enjoy that my privacy is being respected
6. What do you like most about the design?
    - Pretty much everything
    - The spaciousness, open concept
    - Lots of choices and options for quiet privacy or social activities
7. What would you change?
    - one shared laundry for every floor
    - each Pod to be painted a different colour
    - convenient stair access as an option to elevator access
    - provision of shared bathtub will be beneficial for clients with withdrawal symptoms
    - More space given to gym (fitness equipment) on the unit for recreation, yoga, taichi

### “THE GARDEN”

1. What do you think of the courtyard gardens? How would you use the outdoor space?
  - The design of the buildings blends in with the beautiful landscape which makes it a well coming place
  - I like to use the lounge and the patio. I would welcome to have a barbecue with other clients together. The premises feel friendly and look like the setting for normal people.
  - It would be nice to be able to grow vegetables in the garden and make fresh salads in the kitchen
  - I would like to be able to play badminton in the garden
  - Even though it is not permitted, we wish we can smoke in the garden sometimes
  - We like to use the public park and we like that the public uses it walking their dogs, etc.

### “THE URBAN VILLAGE”

1. Do you think the urban integration of this new AM client care residential facility has helped with reducing stigma? Has this encouraged you to seek treatment?
  - CAMH has been doing a tremendous work in reducing stigma with Transforming Lives
  - Some clients think that new, bright, comfortable service will prompt people with addiction problems to seek treatment
  - The new buildings are definitely more conducive to treatment than any other programs; it is less institutional and more home-like which encourages and reassures families
  - the new design can normalize mental health institutions and help reduce stigma
  - Clients feel supported, respected and embraced by this environment
  - Others feel that it will take a lot of time for the urban village to change people’s minds about mental health institutions. The buildings maybe more humane but the location is infamous for its affiliation with mental health hospital
  - It is time to break barriers and build more programs like this one

### Conclusion

Based on the clients’ positive feedback, the design of the physical environment has succeeded in providing the clients with a sense of safety, security, privacy and community in a home-like setting. In furthering the goal to support clients’ recovery and transitioning back to independent living in the community, the notion of the “House and the Garden in the City” can be expanded by considering the following:

- Allowing clients the opportunity to have some responsibility for cleaning of their space
- With some supervision from volunteers or OT/PT staff, provide clients’ access to use the stove for some meal preparation, as part of Assisted Daily Living activity
- As part of the therapeutic activities, provide opportunities for clients’ participation to plant a kitchen garden and cook with fresh produce

Finally, continuing evaluation and measuring of the success of the Alternate Milieu model of care may require further tracking of selected group of clients for a period of time after they leave the facility and return to the community, in order to assess the ultimate and long term benefits of this care model.

### SCENE:

*Interview conducted on the Medical Unit of the Addictions Program  
Six clients sitting around the dining table*

*Characters: (real names are not used)*

*Pam – a woman in her forties, just arrived the night before  
Bob – a man in his late forties, at the end of his 7-day stay  
Thomas – a young man of early twenties, university student  
Sandra – a young, gregarious young woman, late teens, has been homeless  
Jane – a quiet young woman in her late teens, early twenties  
Mary – a young woman in her late teens, restless and reserved*

### Conversation:

*Thomas: I feel really safe here (painting at the dining table throughout our conversation) and it is so comfortable and bright. I like the beautiful landscape.*

*Pam: (offering to make tea at the kitchen) My husband dropped me off last night and I did not want him to leave until I checked the place out. When I saw the beautiful private bedroom with washroom I told him I would be fine and let him leave.*

*Sandra: (chatting excitedly while fetching yogurt and cereal from the fridge) The spacious bedroom and bathroom are awesome. The whole place is very inviting and welcoming. I was homeless and had doubts about coming here initially. We are so well cared for here.*

*Thomas: The six-bed grouping feels like a real community.*

*Jane: Sometimes if I don’t feel well and stay in my own room, if I hear laughter or chatting from the living room, I would decide to join in doing board game or watching TV or just talk.*

*Sandra: It’s great to have choices to stay in your room, socialize with the group in the living room the kitchen or spend time in the quiet room.*

*Pam: I can do my work in the living room (she brought her job-related work) and can negotiate with the group if the TV is too distracting. I also wish that we can use the stove to make meals. It would be nice if there are vegetables growing in the garden to make salads.*

*Bob: It would be great to have more provision for physical activities like setting up badminton nets in the garden, have access to fitness set-up for yoga, taichi, etc.*

*Sandra: It’s great that we are all from different walks of life and we can get along well.*



View of the courtyard and surrounding neighbourhood.



The New Patio and Courtyard at 30 WSW Features Comfortable Furniture and BBQ

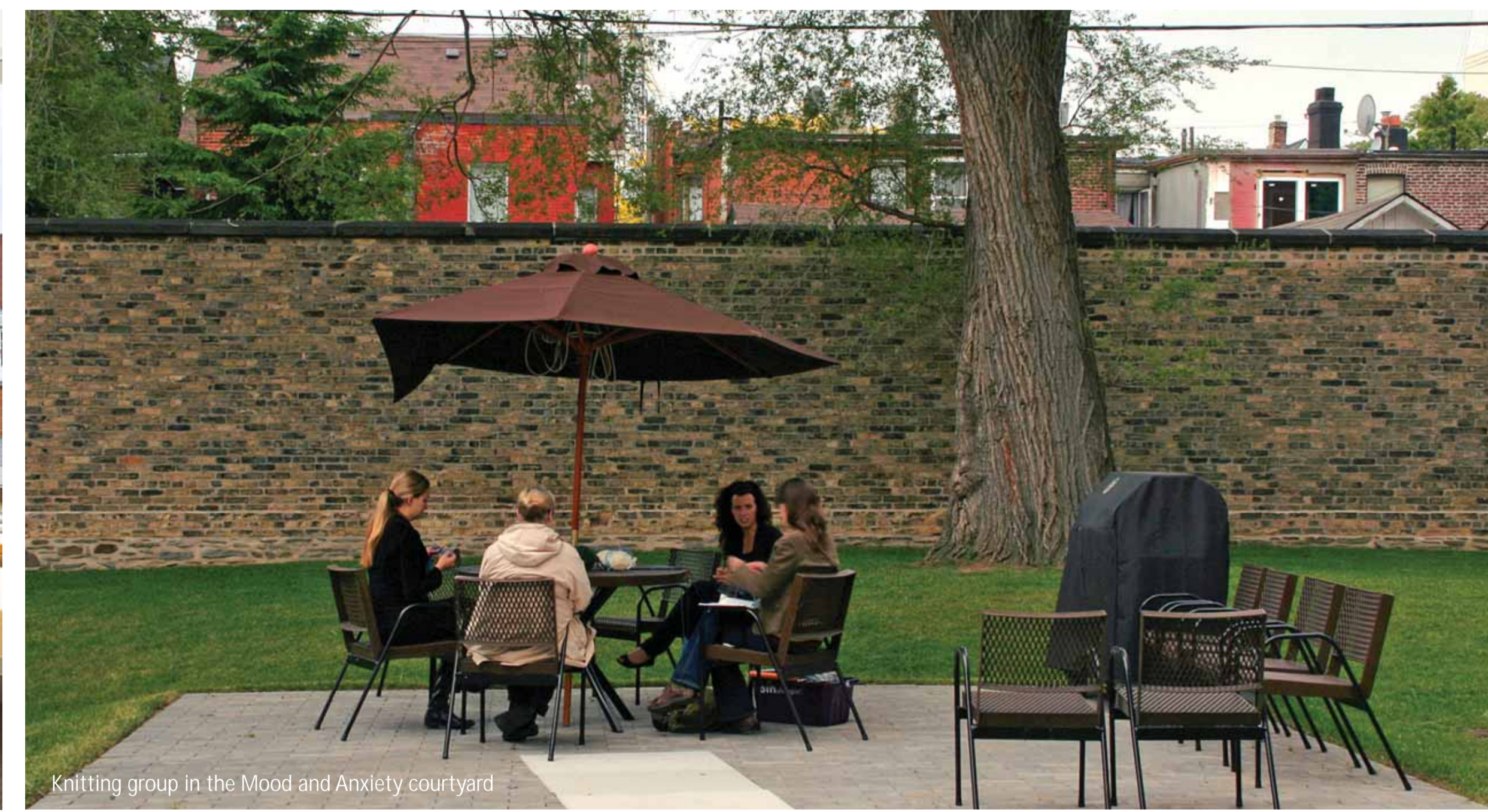
*“How it feels like home, like your own backyard,” says Lakshmi Kacapa (KH), in the new AMU unit at 30 WSW. Feels like home? Yes, that’s the point!*

*With the freedom of a private room, common areas and quiet rooms inside, the next logical step is to make the environment around the new buildings just as relaxing. And now, with the warm weather finally here (almost), clients and staff can take advantage of a furnished and landscaped patio for their enjoyment.*

*“As soon as you walk through the front door of 30 WSW or Squared Way, you are not looking down a long, sterile hallway,” says Transition Manager Steven Spratt, who adds, “It’s a wonderful view of the courtyard that highlights the fact that this is NOT your traditional inpatient setting.”*



Rest space in the client bedroom area



Knitting group in the Mood and Anxiety courtyard



Addictions Client Room



Breathing exercises in the house living room



Neighbourhood Streetscape



## Post-Occupancy Evaluation Of A Mental Health And Addiction Residential Service: Focusing On Program

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# CAMH

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### Background and Objectives

The Centre for Addiction and Mental Health (CAMH) is a large psychiatric hospital and research institution located in a mixed retail/residential neighbourhood in Toronto, Canada. CAMH is currently undergoing a major redevelopment to transform the hospital grounds into an urban village, integrating services with the surrounding neighbourhood. In line with this vision, the redevelopment includes the introduction of an Alternate Milieu (AM) residential therapeutic setting.

The AM units are designed to provide a progressive and dignified therapeutic environment. Focus placed on fostering peer support, independence, and client involvement in recovery. The units offer private rooms with ensuite bathrooms, plenty of natural light, and indoor and outdoor communal spaces to promote socialization. Treatment services are located in an adjacent building; thus, physically separated from clients' living spaces. The setting is designed to provide a more home-like environment for recovery, with reduced barriers between staff and client space and increased client control over the immediate environment.

This post-occupancy evaluation involves the first set of AM units introduced on the hospital grounds. The units began operation in April 2008 in two clinical programs: the Mood and Anxiety Program and Addictions Residential Program. The evaluation includes comparisons of perceptions and recovery processes among clients in the year prior to and following occupancy. Focus is placed on assessing aspects of the program atmosphere and its impact on recovery.

The objectives are to examine the influence of environmental perceptions on client outcomes in both years of the evaluation and to consider changes pre- versus post-occupancy.

### Context

Clients in the Mood and Anxiety AM units typically stay for 28 days, and participate in a mix of individual therapy and structured group programming designed to promote recovery from mood and anxiety disorders (for instance, bipolar, major depressive, phobic and panic disorders). The programming and setting are both novel, and so the pre-occupancy comparison group consists of clients of the standard inpatient unit in the same program. The AM units in the Addictions Program offer two distinct services: a 7-day Medical Unit and a 21-day Residential Program. Clients in the Medical Unit receive medical and pharmacological assistance through the active phase of withdrawal from alcohol and drugs. The longer Residential Program offers a structured, group-based course of therapy, designed to assist clients in developing skills for health living, stress management, and relapse prevention. The Addictions care settings changed location within the city, transferring to a more urban setting in the post-occupancy year; however, the therapeutic programming did not change. The comparison groups consist of clients obtaining a similar complement of services in a different geographic and physical setting.

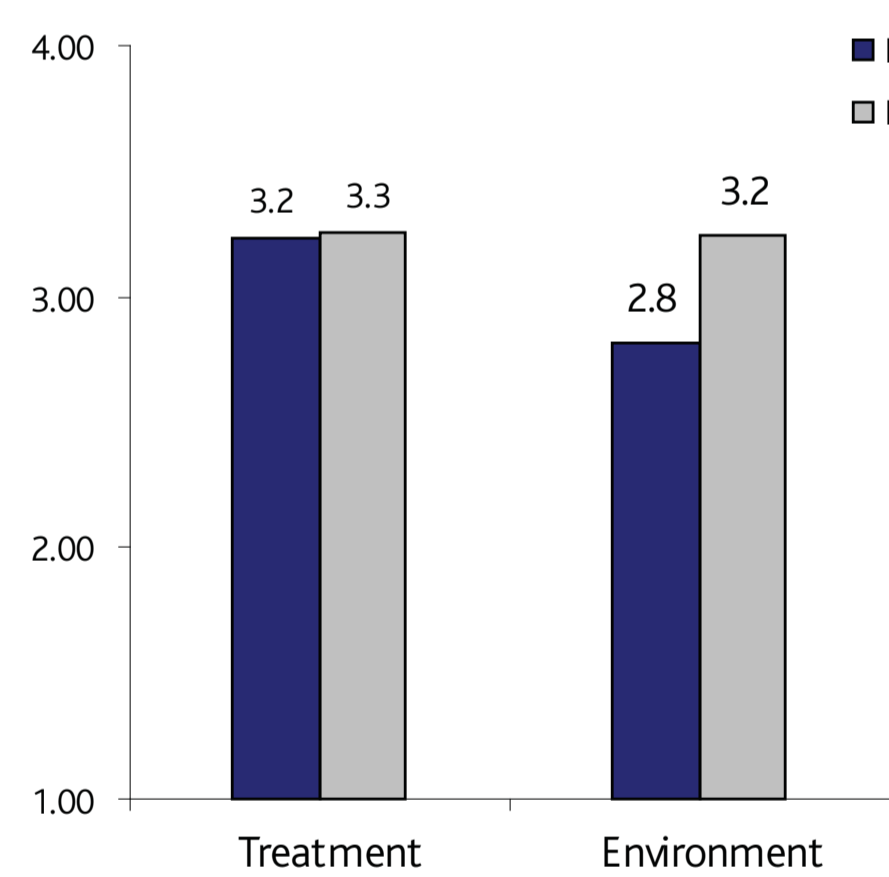


Figure 1: Client Satisfaction, Mood and Anxiety Program

### Methods

A number of strategies were used to assess client and staff perceptions of unit design and recovery processes: paper and pencil surveys with clients at admission and discharge (except in the Medical Unit, where the shorter stay and health status of the clientele permitted only one survey), clinical chart review, semi-structured interviews with clients, focus groups with staff, and behavioural observation of designed spaces. The multi-method approach allows for triangulation of findings across different perspectives and formats. Data collection took place between April 2007 and May 2009, covering a year in the pre-existing residential settings and the first year of operation of the AM units. All newly admitted clients were invited to participate.

A series of bivariate statistical comparisons are made of quantitative indicators of client-reported recovery and satisfaction with the care experience in the pre- versus post-occupancy setting. Indicators include empowerment, satisfaction with treatment, satisfaction with the physical setting, program atmosphere, and the degree of change achieved over the course of treatment in health-related quality of life, social support, and self-efficacy for abstinence from alcohol and drugs. Information obtained from qualitative interviews is used to provide additional context and assist with interpretation.

### Results

A total of 1139 clients participated in the evaluation, representing approximately 74% of those admitted during the two years. Of these, 967 completed discharge surveys and are included in this analysis (see Table 1 for information on the breakdown of participants across years and programs).

	Mood and Anxiety Program		Addictions Residential Program		Addictions Medical Unit	
	Pre	Post	Pre	Post	Pre	Post
Total surveyed at admission and discharge	94	87	195	212	----	----
Total surveyed at discharge	106	98	273	250	115	125

Table 1: Client Survey Pre and Post Occupancy

There were few differences in the quantitative indicators of recovery across the pre- and post-occupancy years; and, among those that did show a statistically significant difference, the magnitude of change was relatively small. One exception was ratings of satisfaction with the treatment environment among clients in the Mood and Anxiety Program. For this measure, clients rate the degree to which they were satisfied with the physical design of the building and surrounding areas. Ratings are made along a 4-point scale, with 4 indicating high satisfaction. Client ratings were significantly higher in the post-occupancy year on this measure (Figure 1). This lies in contrast to ratings of satisfaction with treatment, which were high throughout both years of study. Ratings of satisfaction with treatment dropped slightly in the post-occupancy year in the Addictions Residential Program (from 3.6 to 3.5); however this difference is very slight.

Ratings of empowerment were made on a similar 4-point scale, with 4 indicating high empowerment. This measure also showed a significant drop in the post-occupancy year in the Addictions Residential Program (from 2.8 to 2.7); however, this is again most likely too small to signify any meaningful difference.

Clients in both years showed notable improvement over the course of treatment in health-related quality of life and self-efficacy for abstinence from alcohol and drugs; however, there were no differences in the magnitude of change between the pre- and post-occupancy years. No differences were seen in perceived social support between admission and discharge, although this time period may be too short to allow for measurable change in social relationships.

Some of the more interesting findings are noted in terms of program atmosphere. This measure is designed to generate a profile of mental health programs along 10 dimensions, including level of peer support, focus on practical skill development, and clarity of program rules. Higher percentage scores are considered to represent a more favourable treatment environment for all dimensions except for anger and aggression and staff control. The profile of the Mood and Anxiety Program is shown in Figure 2 as an example. A significant increase was seen in client perceptions of autonomy in the post-occupancy year. Significant drops were seen in both anger and aggression and staff control in the post-occupancy year. The increase in autonomy (from 52% to 57%) and decrease in staff control (from 46% to 41%) were also seen in the Addictions Residential Program. Other changes in the Addictions units were indicative of potential problems. These included drops of 4 to 5 percentage points in order and organization and program clarity, as well as a 4-point increase in anger and aggression.

Qualitative information from the semi-structured interviews support many of these quantitative findings, and offer further testimony of the existence of both positive and negative aspects to treatment in the new AM settings. Clients in the Addictions units voiced both support for and criticism of the level of organization and clarity of the program. In contrast, there was unanimous appreciation among clients in all programs of the physical design of the new units. Clients cited specific aspects such as the private rooms and bathrooms, natural light, and kitchen facilities, as well as broader factors such as increased warmth, respect and hominess. Some comments relayed a sense that the design exceeded expectations: "It is much better than any other hospital" (client, Mood and Anxiety Program). Many positive comments were made concerning the staff and their contribution to client recovery. There was also overwhelming agreement on the part of staff, many of whom had lingering apprehensions on various aspects of design, that the AM units were more client-centred than the pre-occupancy settings.

### Conclusions

The role of environment and setting in hospital-assisted recovery from mental and substance use disorders is supported by previous empirical and theoretical work. It is equally consistent with conceptual frameworks for treatment evaluation that play greater attention to internal and external processes of treatment and recovery. More work is needed to evaluate the specific mechanisms through which this is accomplished. For instance, a progressive and dignified physical setting may promote recovery processes through reduced stigma, enhanced self-esteem, and a host of other clinical and functional factors.

The present evaluation offers a highly structured, empirical examination of client characteristics and recovery processes, guided by a conceptual framework that explicitly incorporates aspects of the treatment environment in modelling outcomes (adapted from R. Moos and colleagues). These preliminary analyses failed to find a significant difference between clients who received services in the pre-existing versus newly designed spaces on the selected measures: that is, empowerment, health-related quality of life, and social support.

There are a number of potential explanations for these findings, including confounding variables such as differences in client characteristics, programming, and location of services. For instance:

- In the Mood and Anxiety Program, the changes in treatment setting occurred simultaneously with changes in programming and client base.
- In the Addictions Program, the opening of the AM units marked a significant relocation of services from spacious and relatively isolated grounds adjacent to a large wooded park, to a busy downtown urban location.

Isolating the effects of design is not possible without randomizing clients to alternative treatment settings – an alternative that was not feasible in the present context. Future analyses will adjust for client characteristics and measures of clinical status and functioning to investigate the role of these factors in the association between design and recovery. It is possible, for instance, that the design of the AM units plays a different part in recovery in particular client groups. Such differences may be masked when clients are examined as a whole, as in the present analysis.

With the evaluation taking place at such an early stage in the life of the AM units, the lack of findings with respect to the measured recovery processes may equally reflect "growing pains", as clients and staff become accustomed to the new setting and programming. Support for this was found in the program atmosphere profiles, as well as the qualitative findings. While clients were overall very positive about the physical design and setting of treatment, there were concerns over clarity and organization of the program. Such factors can be expected to impact on recovery. Future analysis will examine the degree to which program atmosphere factors mediate between client characteristics and recovery.

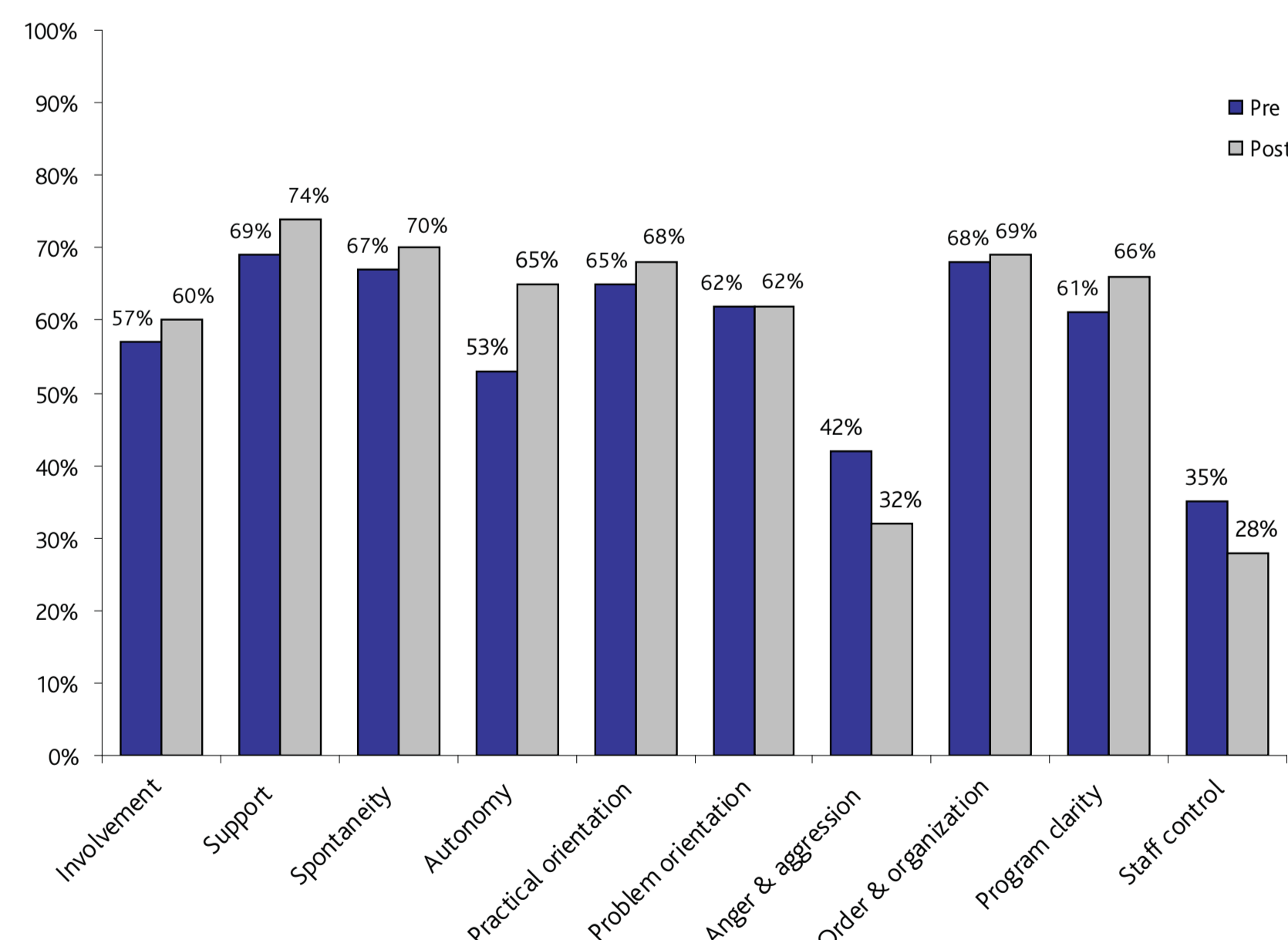
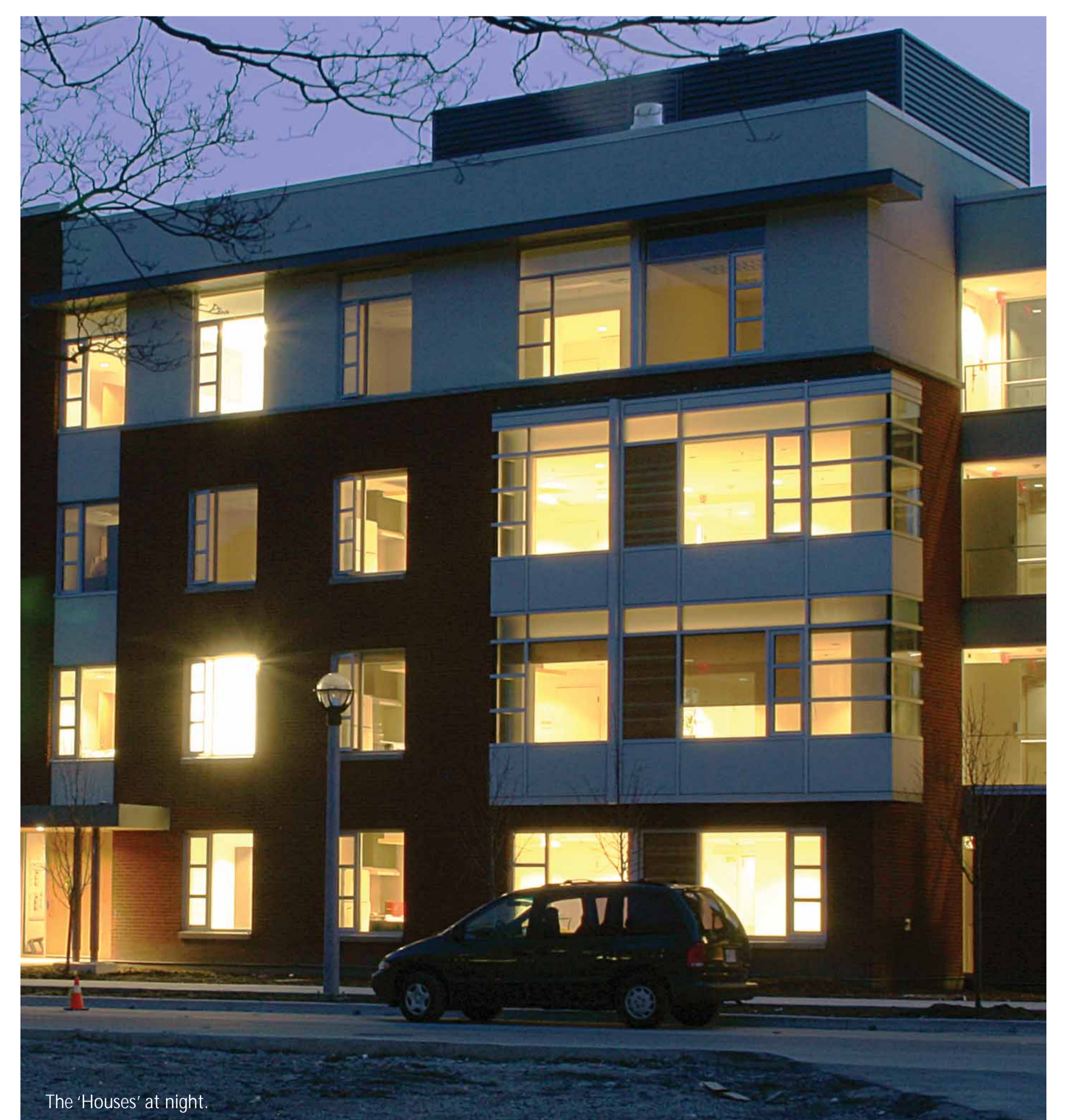


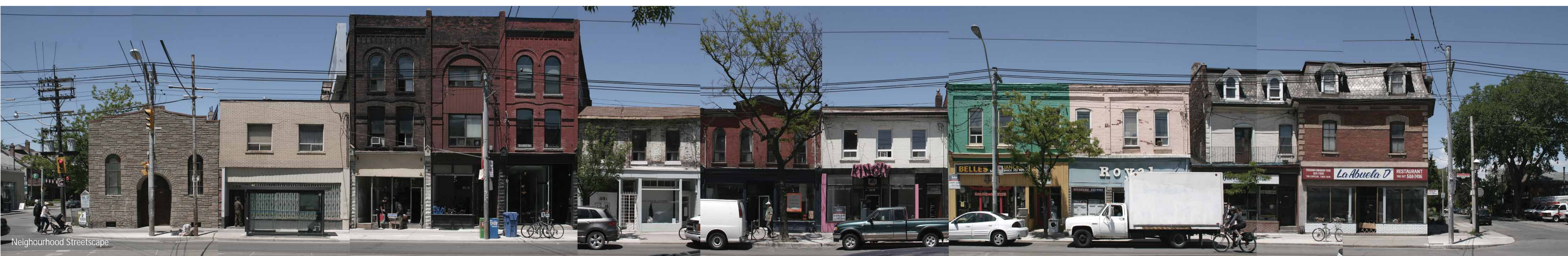
Figure 2: Program Atmosphere, Mood and Anxiety Program



Top: The current CAMH site. Bottom: CAMH in 2018. Pink buildings are CAMH developments. Yellow are non-CAMH.



The 'Houses' at night.



Neighbourhood Streetscape