

*Father Bill's & Mainspring Analysis of
Shelter Utilization Patterns*

Overview

The two major individual emergency shelters in the South Shore of Massachusetts, operated by [Father Bill's & MainSpring](#) (FBMS), found early success with Housing First initiatives¹. In 2004, the nightly bed occupancy at Father Bill's Place in Quincy averaged 125 clients yet in 2007, after the creation of 40 Housing First units, this figure dropped to an average of 110 clients. The HUD Point In Time (PIT) data reflects some interesting trends that occurred as a result of these efforts. The chronic homeless population in the area dwindled significantly as Housing First units came online during this time period, from 142 to 63, and have continued to decline since. The total number of homeless individuals in shelter or on the streets showed a similar reduction from 2004 to 2007, from 252 to 139. Unfortunately, despite the continued success in reducing the counts of chronic homeless individuals in the region the total number of homeless individuals is still well above the counts from 2006 and 2007. See Exhibits A and B below.

Exhibit A - Chronic Homeless Trends in Quincy, MA 2004 to 2012

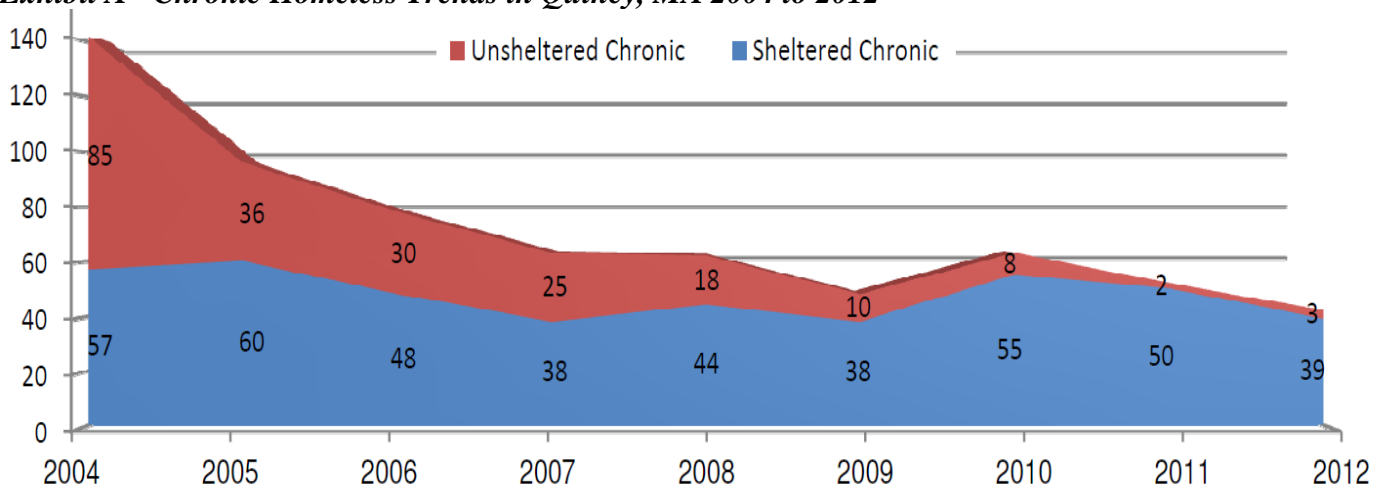
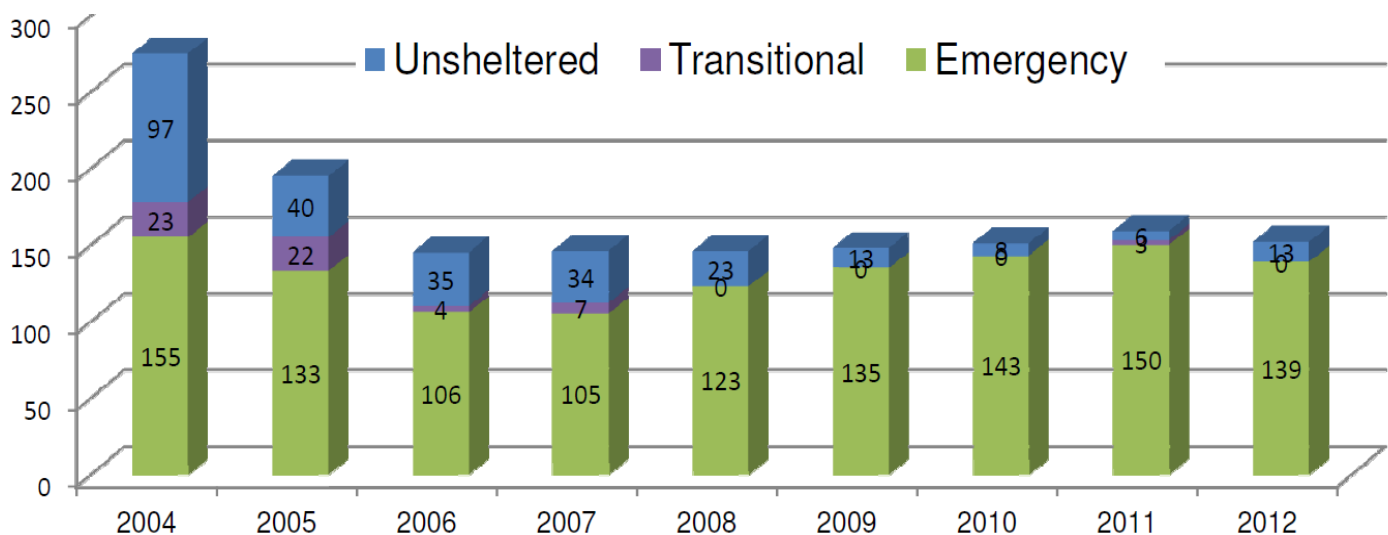


Exhibit B - Individual Adult Homeless Trends in Quincy, MA 2004 to 2012



¹ [Comprehensive Usage of Data Analysis in Developing and Supporting 10-Year Plans](#)

Reviewing these charts led to follow on questions including:

- Does the practice of strictly adhering to the HUD chronic homeless definition when allocating housing resources cause unintended consequences?
- Are there heavy users of shelter services that are in serious need of focused attention that the chronic homeless definition ignores?
- Is the data being collected effectively? Is it clean and accurate?
- Does weather play a part in influencing the counts from one year to the next?
- How do the trends for this region compare to trends for other regions?
- Does the data inform us about areas (both physical locations and practice areas) that are under or over-served?

Simtech Solutions decided to develop a new series of analytical reporting tools to help answer these questions. The result of the research that was derived from these reporting tools is a cohort of individuals that have been left behind by the HUD chronic homeless definition that could reap the same benefits as the Housing First model has provided to those that were able to meet the strict definition. Targeting efforts towards the sub-group of clients that is putting the most demand on shelter resources will return the highest rate of return on investment (ROI). The work helps to explain why the region faced rising occupancy rates during a time when chronic homeless counts were on the decline and identifies the next area in need of attention.

These reports were developed using the *distributing reporting model* which is a methodology that allows for the reporting tools to be used by any user of any HMIS software that can produce data in a HUD endorsed data exchange format. The reports derived from this, and the related findings from each, are below.

Daily Census Trends and Impacts of Weather on Shelter Utilization

We applied national weather service data to the *daily* census charts of both of the main shelters operated by Father Bill's and MainSpring to better understand the impacts of bad weather on shelter utilization. What we found was a significant inverse relation with temperature and shelter utilization in Brockton, where both the street counts and number of chronically homeless individuals tend to be higher, and little to no weather induced fluctuation in the Quincy trends. To demonstrate this point, for December, the Brockton location had a low of 73 clients served and a high of 108 (or a 47.9% variance). Quincy however had a low of 116 and high of 128 which is only a 10.3% variance.

Exhibit C – Impact of Weather on Daily Client Census

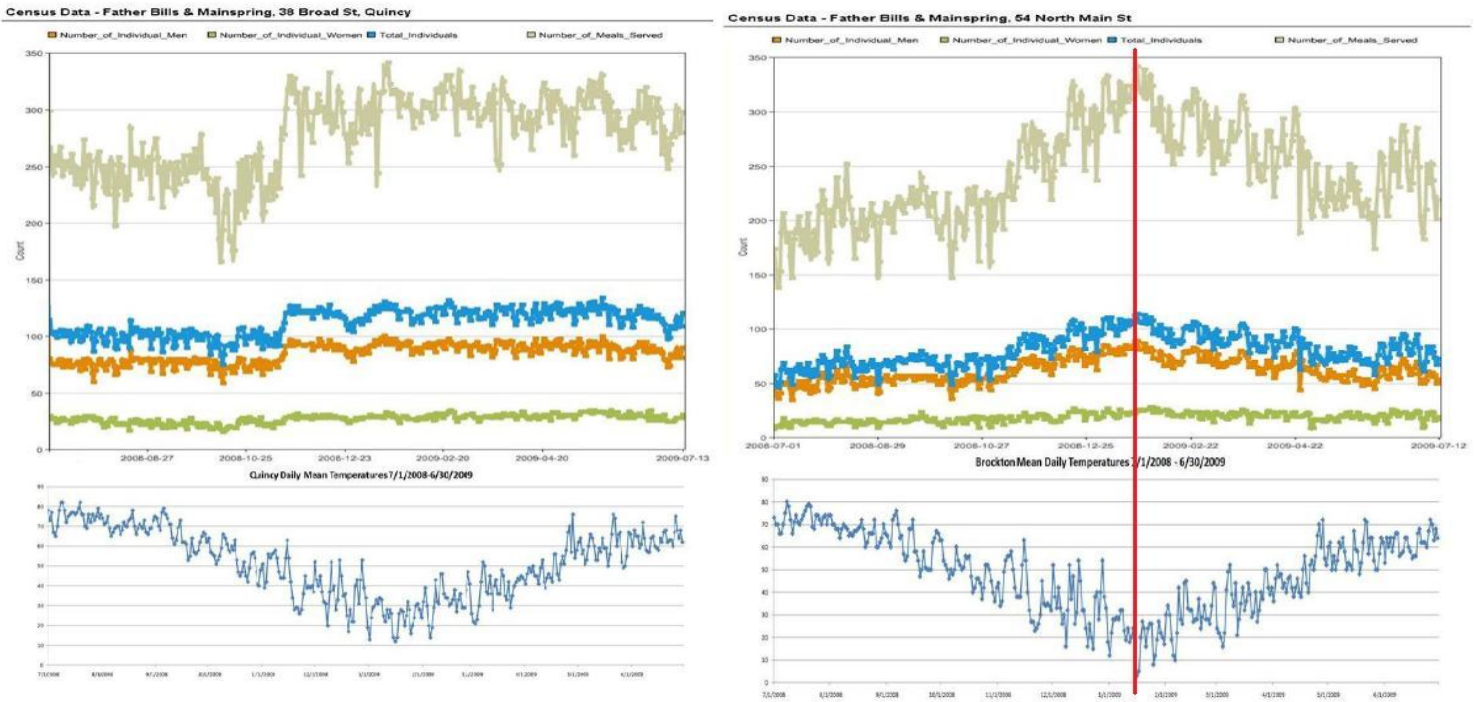
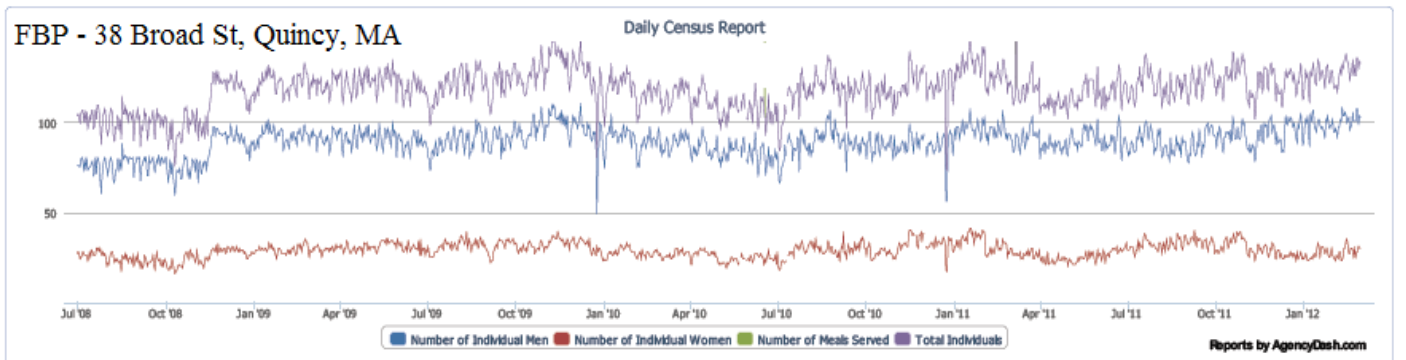
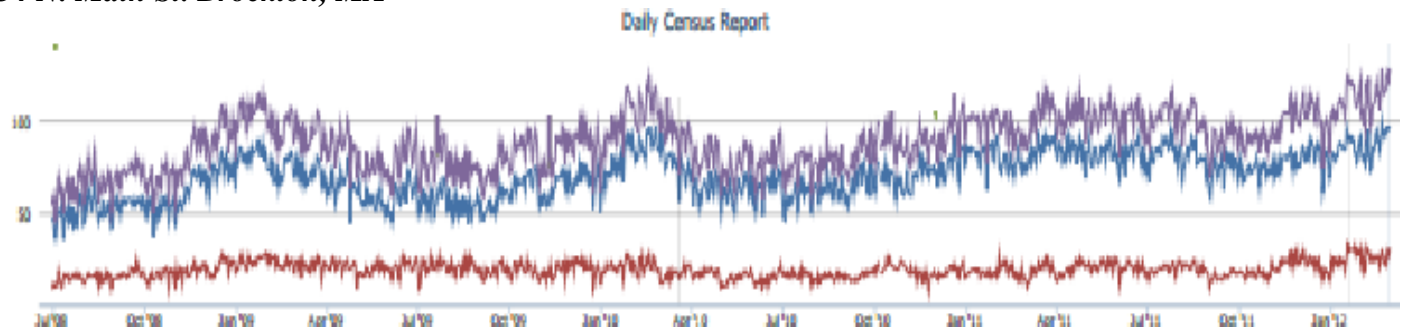


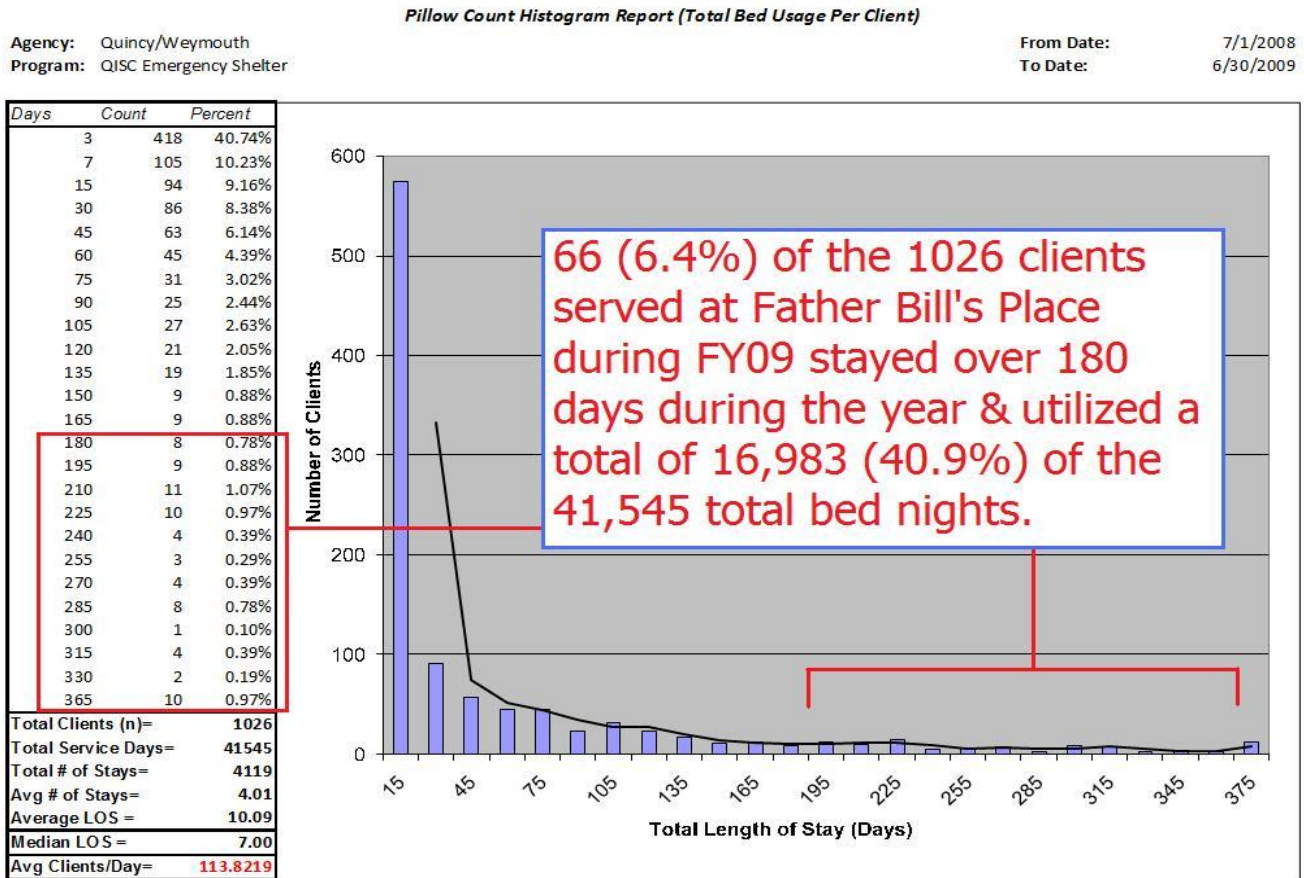
Exhibit D – Daily Client Census Trends from July 2006 to February 2012

54 N. Main St. Brockton, MA



This led us to look deeper at the stay patterns of clients staying at Father Bill’s in Quincy to ascertain why there was less of a fluctuation despite the fact that the region’s chronic homeless counts were relatively low. The research that was conducted in order to isolate the cause of this stability in shelter figures included comparisons of recidivism rates, average length of stay, and an analysis of total bed utilization. When looking at total bed utilization per client over the course of FY 2009 we uncovered that 66 out of the 1024 clients (6.4%) had stayed for over 180 days in FY09 at Father Bill’s. ***These clients utilized a total 16,983 total bed nights out of the total bed nights provided of 41,545, or 40.8 percent of the total bed utilization.***

Exhibit D – Using Bed Utilization to Determine Chronic Users of Shelter Services



In looking deeper at this subpopulation we discovered that 36 out of the 66 clients were indicated to have had a disability. 18 out of these 36 (50%), circled in red on the following page, were not considered chronically homeless by a case manager. These 36 clients cost an estimated \$11,530/year/client to keep in shelter for a total cost of \$415K and a cost to FBMS above what they are reimbursed by the state of \$184,500. There were 30 clients that did not have a disability indicated and therefore may not need significant supportive services. The 30 clients that are heavy users *without* a disability cost a total of \$11,263/year/client to keep in shelter for a total cost of 349K and a cost to FBMS of over 155K. This is a breakeven of \$938/month in total and \$417/month for just FBMS covered expenses in excess of the reimbursed rate from the state. The most expensive client without a disability, received \$16,335 in total services for shelter alone with a cost to FBMS of \$7,260 above what is reimbursed by the state.

Exhibit E - Heavy Users of Shelter Services Vs. Chronic Homeless Determination

Client ID	Pillow Count	Total Distinct Episodes	Gender	Chronic?	Disability?	Total Nightly Bed Rate @ \$45	True Cost to FBMS at \$20	Total Breakeven for Monthly Subsidy (All Sources)	Breakeven Costs for FBMS on Monthly Subsidy
156667	363	3	F	No	No	\$16,335.00	\$7,260.00	\$1,361.25	\$605.00
56674	363	3	F	No	Yes	\$16,335.00	\$7,260.00	\$1,361.25	\$605.00
46703	361	4	M	Yes	Yes	\$16,245.00	\$7,220.00	\$1,353.75	\$601.67
155920	361	5	F	No	Yes	\$16,245.00	\$7,220.00	\$1,353.75	\$601.67
144424	358	6	M	No	Yes	\$16,110.00	\$7,160.00	\$1,342.50	\$596.67
155572	357	7	F	No	No	\$16,065.00	\$7,140.00	\$1,338.75	\$595.00
156633	352	11	M	No	Yes	\$15,840.00	\$7,040.00	\$1,320.00	\$586.67
47768	352	12	F	No	Don't Know	\$15,840.00	\$7,040.00	\$1,320.00	\$586.67
156634	347	13	M	No	Yes	\$15,615.00	\$6,940.00	\$1,301.25	\$578.33
156770	337	20	F	No	No	\$15,165.00	\$6,740.00	\$1,263.75	\$561.67
156483	323	18	F	No	No	\$14,535.00	\$6,460.00	\$1,211.25	\$538.33
46681	322	11	F	No	No	\$14,490.00	\$6,440.00	\$1,207.50	\$536.67
155342	308	6	M	No	No	\$13,860.00	\$6,160.00	\$1,155.00	\$513.33
156954	305	19	F	Yes	Yes	\$13,725.00	\$6,100.00	\$1,143.75	\$508.33
157017	302	5	F	Yes	Yes	\$13,590.00	\$6,040.00	\$1,132.50	\$503.33
156870	301	17	M	Yes	Yes	\$13,545.00	\$6,020.00	\$1,128.75	\$501.67
155967	295	3	M	No	Yes	\$13,275.00	\$5,900.00	\$1,106.25	\$491.67
129535	285	21	F	No	No	\$12,825.00	\$5,700.00	\$1,068.75	\$475.00
156582	282	15	F	No	No	\$12,690.00	\$5,640.00	\$1,057.50	\$470.00
17878	281	11	F	No	Yes	\$12,645.00	\$5,620.00	\$1,053.75	\$468.33
111036	281	17	M	Yes	Yes	\$12,645.00	\$5,620.00	\$1,053.75	\$468.33
156680	279	13	F	No	No	\$12,555.00	\$5,580.00	\$1,046.25	\$465.00
55804	278	37	F	No	No	\$12,510.00	\$5,560.00	\$1,042.50	\$463.33
156627	278	5	M	No	Yes	\$12,510.00	\$5,560.00	\$1,042.50	\$463.33
155270	276	26	F	No	No	\$12,420.00	\$5,520.00	\$1,035.00	\$460.00
156666	270	16	F	Yes	Yes	\$12,150.00	\$5,400.00	\$1,012.50	\$450.00

Benefits of Shelter Utilization Analysis to Guide the Chronic Homeless Determination

Using shelter utilization reports to identify clients that are heavy users of shelter resources appears to offer some advantages in helping to assist in the determination of chronic homelessness. One significant benefit of this approach is that the analysis is not predicated on the ability of a case manager, whom often lacks clinical training, to make an accurate disability diagnosis at first program entry. This practice also does not require staff to remember to go back into the HMIS software on the date that a client has been homeless for more than 1 full year, or has had their fourth episode of homelessness in the past three years, to indicate that the client is now considered chronically homeless. Similarly, clients can lose their chronic homeless status by having too few episodes in the past three years or having a break within one that would have otherwise been over a year.

To understand where these flaws in the definition are, it is important to first break down the Federal definition adopted by HUD which at the time of the study was...

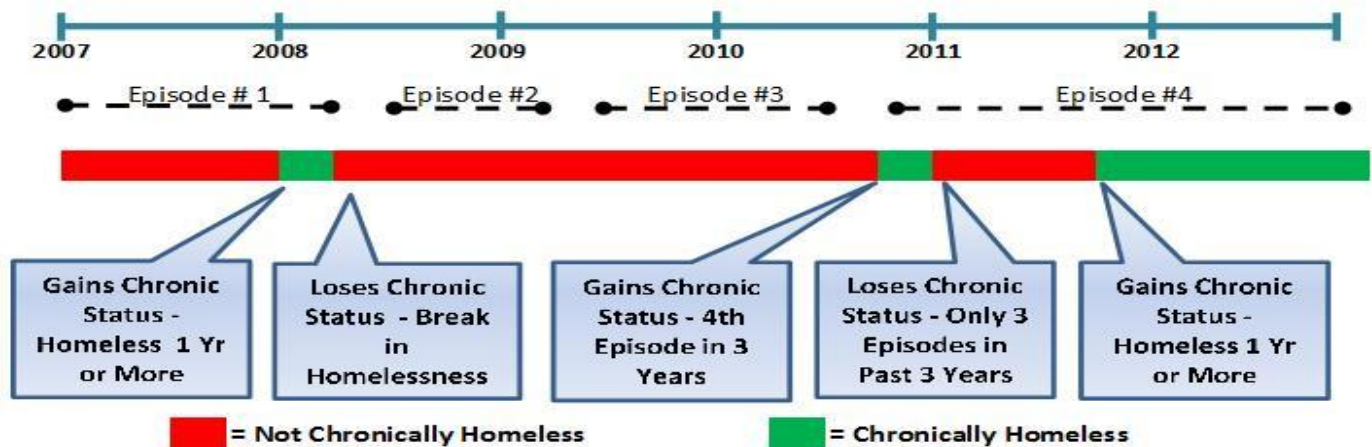
“either (1) an unaccompanied homeless individual with a disabling condition who has been continuously homeless for a year or more, OR (2) an unaccompanied individual with a disabling condition who has had at least four episodes of homelessness in the past three years.”²

The primary reasons cited for the implementation of this definition to be prone to error are:

- 1) The term “episode” that is used within the Federal definition is undefined. Can a disabled individual client be chronically homeless in one week if they were to be at a shelter on Monday, Wednesday, Friday and Sunday but out the other days? Is that four episodes?

² Defining Chronic Homelessness: A Technical Guide for HUD Programs, September 2007

- 2) A client’s chronic homeless status is traditionally asked when the client enters the program. Since a homeless episode can cover a long duration the criteria used to ascertain whether or not someone is chronic must be rechecked on a daily basis. Clients can “graduate” into chronic homelessness just as easy as they can lose their chronic status. The exhibit below demonstrates how a client can gain and lose chronic status over time based on the Federal definition.



The hope of these efforts is to help develop similar resource allocation strategies as Housing First but to do so in a manner that prioritizes demonstrated need using a set of hard and fast rules. This is in contrast to the approach of allocating housing resources to those who are indicated by a staff member to be chronically homeless as, while the end-result is positive, the chronic homeless definition tends to be prone to error. For this reason, it needs to be monitored to ensure it is accurate and distributed reporting tools can help to do this.

Study of Shelter Utilization by Tiers

After running *Bed Service Utilization* reports it was apparent that a small cohort of clients was using a disproportionate number of beds when compared to other shelter guests. To understand the scope of their service utilization the clients were grouped according to the total nights they stayed at the shelter during a one year period. The clients were grouped according to their bed service utilization as follows:

- 1) **Extremely Light** - clients that stay at the shelter for less than 7 nights.
- 2) **Light Users** – clients that stay in excess of the median length of stay of 7 nights but less than the 90 night cutoff for moderate users.
- 3) **Moderate Users** - any client staying for a total of 90 to 180 nights over the course of a one year period.
- 4) **Heavy Users** – the determination of what constitutes a heavy user is any individual that has been served for over 180 nights in total over the course of one year.

These groups were broken down further based on whether or not the clients have a disability since disabling conditions often require more intensive stabilization services which need to be factored into the cost of housing.

Allocating Resources and Efforts According to Bed Utilization

“Providing the right resources, to the right clients, at the right time” is a mantra throughout the Commission to End Homelessness Plan that spawned the Massachusetts Interagency Council on Housing and Homelessness (ICHH) Pilot projects. By dissecting the client population into tiers there is an opportunity to target resources more effectively by allocating efforts and funds according to the demand each client has placed on the shelter. Below is an outline of potential allocation strategies that are intended to be in line with the concept of ending homelessness in a manner that is as cost effective as possible.

Extremely Light Users (less than 7 days)

Those with extremely light bed usage might be candidates for generalized needs assessments considering that over 50% (523/1026) of the total client population were able to move out of shelter in FY09 without considerable supports and triage. Services targeted towards more broadly supporting the large numbers that comprise this group including information and referral directories and resource areas might be the most cost effective considering the likelihood of the client to rebound on their own.

Light Users (7 to 90 days)

Light users might be candidates for moderate case management and triage services potentially coupled with one time assistance such as help with a security deposit and first month's rent. The rationale for this is the cost of rental subsidy is less likely to outweigh the \$129.86/month it is estimated to have cost in providing this group with shelter. However, if these clients were to be provided with a one-time financial assistance they could receive up to \$1500 each which, if effective, would result in a savings an average of \$58 per client. Moderate case management would entail more detailed assessment of areas outlined within a *Uniform Needs Assessment* where it is apparent that the client is in need of more intensive assistance.

Moderate Users (90 to 180 days)

Moderate users could be the next subpopulation to look more deeply at for targeting re-housing efforts. While they offer a less substantial return on investment, on average, if the 57 clients that are in this group were provided aid of \$450 a month in housing assistance it would still be less expensive than providing them the \$460 per month it has cost in total to provide them with shelter.

Heavy Users (180 days and over)

With the nightly cost of shelter services estimated at \$45/client it is actually 54 cents cheaper per client per month to provide the group of 66 “heavy users” with \$950 a month in housing assistance than it is to provide those same clients with shelter beds. If these 66 clients were to be housed there would be a reduction of 40% of the demand on shelter. ***As Father Bill's Place served an average of 113 clients per night in FY09, a 40% reduction in demand would result in the average nightly census dropping to 68 clients per night.***