

## Bed bug impact survey results November 2015

Summary and **trends to monitor as the data set increases over time.**

A coalition of partnering institutions developed a survey for residents to determine the impact and social cost of dealing with bed bugs. The voluntary survey takes about 10 minutes and is available in English and Spanish. There is no compensation for participation. We requested responses from people who currently live with bed bugs, people who have dealt with them in the past, and people lucky enough not to have experienced living with bed bugs at all.

A total of 540 respondents were obtained by December 2, 2015, of which 34.8% had bed bugs at home, 16.7% had experienced bed bugs in the past and 48.5% had never lived with bed bugs.

36.9% of residents with bed bugs had pest control experts identify the bed bugs, 41.4% identified their bed bugs using internet or literature resources. 8.9% relied on neighbors or family members to identify the bugs, 3.2% asked landlords or property managers. Only 2.5% received identification help from extension or university entomologists, and 7.0% were never sure if they actually had bed bugs or not.

64.4% of residents currently living with bed bugs report noticing bites within the last 6 months. 13.1% had experienced bites for over a year, and 7.5% report that they have not noticed bites at all. 59% of residents report swollen, itchy bumps or sores, an additional 9% had similar reactions which resulted in the need for medical attention. Residents reporting bite reactions who no longer live with bed bugs indicated similar reactions with 55.6% reporting swollen, itchy bumps or sores, an additional 11.1% had similar reactions which resulted in the need for medical attention. 15.9% indicated they had no reaction to the bites.

Almost 51.2% of residents with bed bugs had moved at least once in the last 5 years. 19.1% had moved 2 or 3 times in the same period, compared to 17.6% of residents who had historically had bed bugs in the past. Residents who have never lived with bed bugs reported also that 18.3% had moved 2-3 times in the last 5 years. **People living with bed bugs may move more.**

27.3% of residents living with bed bugs stayed in hotels/motels or medical facilities 2-3 times each year, 14.9% stayed more than 6 times a year. Residents who have experienced bed bugs in the past reported 33.8% of residents traveling for stays 2-3 times a year, and 33.8% more than 6 times a year. Residents who had never experienced bed bugs indicated 32.1% of residents traveling for stays 2-3 times a year, and 25% more than 6 times a year. **No clear correlation.**

29.5% of residents with bed bugs stayed with friends or relatives more than 6 times per year, compared to 35.8% of residents who had experienced bed bugs in the past, and 21.4% of residents who have never experienced bed bugs. **People with bed bugs stay with friends and family. Residents with no bed bug history may stay with friends and family less often.**

25.3% of residents with bed bugs had friends, family or students coming to stay more than 6 times per year, compared to 32.4% of residents who had experienced bed bugs in the past and 20.7% of residents with no bed bug history. **Residents with no bed bug history may host visitors less often.**

37.5% of residents with bed bugs purchase used furniture or clothing 2 or more times per year, compared to 37.3% of residents who have experienced bed bugs in the past and 36.8% of residents with no bed bug history. **Residents with bed bug experience may avoid second hand articles.**

Residents currently with bed bugs report the following quality of life impacts: 86.9% suffer sleep loss; 26.3% cannot eat properly; 36.9% cannot fulfill work duties as well as usual; 17.5% cannot parent or care for dependents as well as usual; 80.6% cannot relax; 60.0% report financial losses; 30.6% have lost personal relationships; 50.0% feel isolated socially; 26.3% have lost friends and family connections; 11.3% increase their alcohol consumption; 18.8% increase smoking; 8.1% increase prescription drug use; 7.5% increase recreational drug use; 4.4% have lost a job; 3.8% have lost a home; 15.6% increase or decrease body weight; 26.3% report a decline in health; 45% suffer a loss of self-esteem; 69.4% have feelings of depression; 24.4% suffer increases in mental health problems; 65.6% have concerns that they have transferred bed bugs to other homes or locations.

Residents who have had experience living with bed bugs in the past report the following quality of life impacts still persisting after successful remediation: 87.5% suffer sleep loss; 12.5% cannot eat properly; 20.3% cannot fulfill work duties as well as usual; 6.3% cannot parent or care for dependents as well as usual; 87.5% cannot relax; 40.6% report financial losses; 18.8% have lost personal relationships; 26.6% feel isolated socially; 7.8% have lost friends and family connections; 7.8% increase their alcohol consumption; 7.8% increase smoking; 1.6% increase prescription drug use; 6.3% increase recreational drug use; 0.0% have lost a job; 1.6% have lost a home; 3.1% increase or decrease body weight; 17.2% report a decline in health; 18.8% have suffered a loss of self-esteem; 39.1% have feelings of depression; 12.5% suffer increases in mental health problems; 54.7% have concerns that they transferred bed bugs to other homes or locations.

Residents living with bed bugs had used the following methods to combat bed bugs: 30.2% applied 2-3 retail pesticides; 19.4% used total release foggers; 36.7% had a pest management company apply pesticides; 8.6% had a pest management company conduct a heat treatment; 7.9% had used a bed bug detection dog service; 6.5% had received a pro bono treatment from a pest control company; 8.6% had employed multiple pest control companies to get rid of bed bugs. 34.7% of residents had personally applied chemicals of some kind 2-3 times, 20.3% had applied chemicals more than 8 times. 24.6% of residents reported using chemicals such as gasoline and cleaning agents.

Residents who have experienced bed bugs in the past reported the following pest management practices: 22.8% used 2-3 retail store products; 19.3% use total release foggers; 52.6% have a pest management service that applies a pesticide every month; 15.8% of residents worked with more than 1 pest control company to get rid of the bed bugs. 28.6% of residents report applying chemicals more than 8 times themselves within a year, and 9.5% used none pesticide chemicals such as gasoline.

Residents with no bed bug history reported the following pest management practices: 10.8% used 2-3 retail store products; 1.2% use total release foggers; 3.3% have a pest management service that applies a pesticide every month; 17% of residents have a contract with a pest management company which only applied pesticides if they are needed. **Residents with no history of bed bugs are exposed to a lot less pesticide.**

33.3% of residents who has battled bed bug in the past successfully resolved the infestation within 1-6 months. 42.2% indicated that remediation took less than a month. 8.9% indicated remediation took over a year, and 6.6% indicated that their infestation was never resolved and they vacated the home.

76% of residents who have experienced living with bed bugs in the past report that they modified the way they live to avoid bed bugs in the future. 57.7% of residents with no bed bug history report a modification of their habits in order to avoid acquiring bed bugs.

### **No bed bug history**

Income: 0.5% earn \$0-10K; 1.8% earn \$11-19K; 3.2% earn \$20-29K; 5.5% earn \$30-39K; 13.3% earn \$40-49K; 11.9% earn \$50-59K; 12.4% earn \$60-69K; 7.8% earn \$70-79K; 9.6% earn \$80-89K; **33.9% earn \$90K or higher.**

Buying, renting, or staying with family/friends: **72.6% homes are being purchased or are owned**; 25.2% of homes are being rented; 1.7% of responders are staying with friends and family; 0.4% of responders are living in a shelter.

### **Bed bug history**

Income: 3.4% earn \$0-10K; 3.4% earn \$11-19K; 5.1% earn \$20-29K; 10.2% earn \$30-39K; 10.2% earn \$40-49K; 20.3% earn \$50-59K; 6.8% earn \$60-69K; 8.5% earn \$70-79K; 6.8% earn \$80-89K; **25.4% earn \$90K or higher.**

Buying, renting, or staying with family/friends: 53.8% homes are being purchased or are owned; **41.5% of homes are being rented**; 3.1% of responders are staying with friends and family; 1.5% of responders are homeless.

### **Current infestation**

Income: **17.5% earn \$0-10K**; 18.2% earn \$11-19K; 14.6% earn \$20-29K; 11.7% earn \$30-39K; 7.3% earn \$40-49K; 5.1% earn \$50-59K; 5.1% earn \$60-69K; 4.4% earn \$70-79K; 3.6% earn \$80-89K; 12.4% earn \$90K or higher.

Buying, renting, or staying with family/friends: 39.6% homes are being purchased or are owned; **52.1% of homes are being rented**; 4.9% of responders are staying with friends and family; 2.1% are homeless or live in sheltered accommodation; 0.7% live in medically assisted living facilities; 0.7% live in their vehicle.