



# INFORMATION REPORT

<b>TO:</b> Mayor and Members Board of Health	<b>WARD(S) AFFECTED:</b> CITY WIDE
<b>COMMITTEE DATE:</b> April 26, 2011	
<b>SUBJECT/REPORT NO:</b> Information on Actions to Control and Prevent Bed Bugs in Hamilton (BOH11010) (City Wide)	
<b>SUBMITTED BY:</b> Elizabeth Richardson, MD, MHSc, FRCPC Public Health Services Department	<b>PREPARED BY:</b> Matthew Lawson 905-546-2424 ext. 5823 Marie McKeary 905-546-2424 ext. 1308
<b>SIGNATURE:</b>	

**Council Direction:** Not applicable

## Information:

There have been growing concerns within the Hamilton community regarding bed bugs. Although bed bugs are not known to transmit infectious disease, they can cause a variety of negative physical health, mental health, social and economic consequences. Though the exact reasons are not known, experts suspect that the international resurgence of bed bugs is associated with:

- restrictions on the use of pesticides that are intended to protect consumers from health effects of pesticide exposure;
- increased resistance of bed bugs to available pesticides;
- greater international and domestic travel; and
- a lack of knowledge about controlling bed bugs due to their prolonged absence in the latter half of the 20<sup>th</sup> century.

Information from the Health Protection Division complaint database indicates an average annual increase of 110% in calls requesting an inspection and/or information related to bed bugs from 2006 through 2010. In 2006, PHS received 38 calls, compared to 605 calls in 2010, an approximate total increase of 1600%.

### **Hamilton Bed Bug Action Group (BBAG)**

Historically, community stakeholders and City departments have provided a variety of response activities to address bed bug prevention and control ranging from dissemination of literature about bed bugs, to inspection and identification of infestations in rental dwellings. In October of 2010, representatives from the City of Hamilton (Public Health Services, Emergency Services, Community Services, City Manager's Office and Police Services) along with representatives from community stakeholder organizations (Good Shepherd, Housing Help Centre, and Victoria Park Community Homes) met to discuss strategies for dealing with increased bed bug activity in Hamilton. It was decided that a Hamilton Bed Bug Action Group (BBAG) should be formed to facilitate a coordinated, community-wide effort to control and prevent bed bugs based upon currently available information and best practices. The key objectives of the BBAG are to: 1) facilitate a coordinated, efficient approach to respond to the issue of bed bugs, and 2) create a forum for acquiring and sharing available information and resources. To achieve these objectives the following working groups and associated tasks have been assembled and these working groups will report back to the BBAG to create an integrated city-wide response:

- **Bed Bug Control.** Development of common, evidence based bed bug control strategies (immediate interventions and longer term maintenance) that are flexible and best meet the needs of the various identified stakeholders. This working group will also be responsible for providing recommendations to PHS for revising/creating a stand-alone Pest Control By-law.
- **Messaging & Communication.** Development and delivery of effective education and outreach strategies. Effective education on bed bug issues as a best practice to develop primary preventative and treatment strategies.
- **Evaluation.** Develop a framework of relevant indicators that will be used to evaluate Bed bug Action Group initiatives, and to provide recommendations related to surveillance of bedbug activity in Hamilton.
- **Workplace Issues.** Development of tools to assist employers and employees with bed bug concerns about the prevention and treatment of bedbugs in the workplace.
- **Financial Resources.** Identification of existing resources available, and identifying possible new sources (internal and external) for addressing financing gaps that could help provide resources to control bedbugs.

The development of BBAG and the participation of community partners will allow for community-based leadership on this issue. BBAG is a community-based group that is supported by Public Health Services (PHS) and other City departments and is co-chaired by one community agency representative and one City staff representative.

### **Provincial Funding**

On January 10, 2011, the Ontario Ministry of Health and Long-Term Care (MOHLTC) announced \$5 million in one-time funding for Ontario health units to access for the purposes of 1) providing education and outreach activities about bed bugs within communities, and 2) providing support to vulnerable populations affected by bed bugs. The application for funding was received by PHS on January 27, 2011, and the provincial funding announcement was welcomed by the BBAG members, who met on February 2, 2011 to discuss plans for how to proceed in light of one-time funding for 2011 becoming available.

Initial information from the MOHLTC indicates that Hamilton may expect to receive between \$144,000 and \$240,000 in funding. An application was prepared and submitted by PHS to the ministry on February 10, 2011, requesting a total of \$555,827 in funding, due to the large impact bed bugs are having in Hamilton (see appendix "A"). The MOHLTC has stated that actual funding awards will be announced on or before April 1, 2011.

### **Next Steps**

Staff are currently working with community partners to develop plans to utilize the provincial funding that was awarded to PHS on April 1, 2011. Staff will plan to report back to the BOH in spring of 2012 on the use of the one-time provincial funding.

## FUNDING APPLICATION

**SECTION 1: ISSUE OF BED BUGS IN YOUR PUBLIC HEALTH UNIT AREA**

1. Please describe the current level of bed bug infestations in your health unit area, including any details you can provide on particular settings and populations that are impacted. Please provide any available data/evidence to support your assessment.

There have been growing concerns within the Hamilton community regarding bed bugs due to the social, health, economic and physical consequences that may arise from their presence. In the past few years, a growing number of bed bug infestations have been reported within the Hamilton community. Reports of infestations have come from tenants renting units in privately owned and operated apartments and/or homes, as well as tenants residing in dwellings that are owned and/or operated by not-for-profit social housing agencies. Hamilton Housing Corporation reports that in the year 2010 they processed 2179 work orders among the 7069 housing units they operate in order to treat and/or prevent bed bug infestations. Hamilton Public Health Services has received reports of bed bug infestations in 28 of 90 (31.1%) residential care facilities licensed to operate in the city. Information provided in the response to the next question illustrates the number of complaints received by HPHS regarding bed bug infestations primarily in privately owned and operated apartment units.

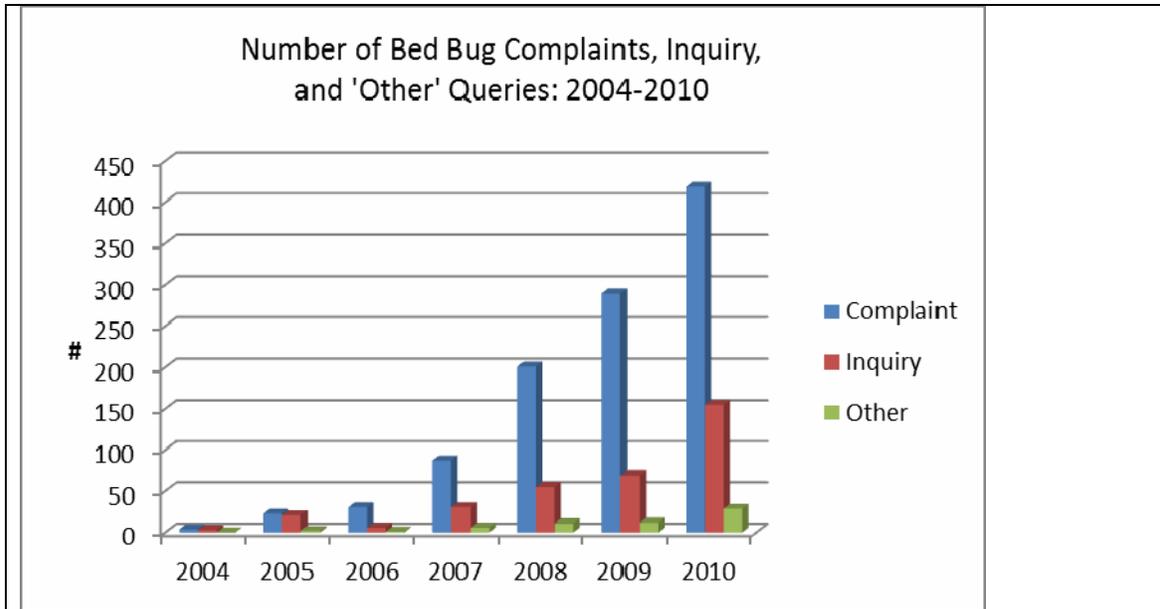
2. Has there been an increase in bed bug infestations in your public health unit area in 2010-2011?
  - a. **Yes**
  - b. No

If yes, please describe and provide examples of available data/evidence to support the increase in infestations (e.g. increase in reports of infestations and complaints, anecdotal evidence).

Hamilton Public Health Services (HPHS), based on the data collected from the electronic Health Protection Complaint Data Base (see Appendix "A") has experienced a substantial increase in complaints and investigations in the past six years. Also, due to the responsibility of Hamilton Public Health to enforce a municipal "Pest" By Law, an increased demand on program resources has been the result. Overall, relative to all 'Health Hazard' complaints, Bed Bug complaints have increased from eight percent (**8 %**) in **2007** to twenty-two percent (**22%**) in **2009** and finally, this past year (**2010**) they accounted for **thirty-seven (37%)** of all 'Health Hazard' complaints.

As evidenced by the data, retrieved and analyzed from the Complaint Data Base, there has been a steady and increasing rate of complaints with regards to Bed Bugs. Preliminary results indicate an **average increase of 151%** annually, in requests for service to the duty line and an **overall level increase of 86 times** the 2004 level by 2010. The greatest increases are recorded from 2006-2007 (226% increase) and the increasing demand from the public and subsequently on PHS resources has continued steadily each subsequent year. The steady increase in 2008 was 115% over 2007; in 2009 over 2008 it was 83%; and finally, in 2010 over 2009 there was a 63% increase.

The recorded complaints also allow capture of brief 'comments' describing the nature of the bed bug situation provided by the complainant. This qualitative data has been retrieved by MIEH and totals one hundred and fifty-three pages of data. MIEH is in the process of conducted a thematic analysis on this data, in terms of percentage change, resource management, P & P review, program directives, finally, knowledge transfer to meet general public educational needs.



## SECTION 2: EXISTING SERVICES AND SUPPORTS

- Select the statement(s) that best describe how bed bug related services and supports are **currently** delivered by your public health unit and/or by community partners?

Example	Check if relevant (✓)
Provision of information, advice and guidance on preventing and controlling infestations (e.g. addressing complaints over the phone, developing and disseminating pamphlets, brochures, a website, etc.)	✓
Pro-active education such as media advertising, promotion of a central website with resources related to bed bugs, educational events, outreach to specific settings and/or populations, etc.	✓
Inspection and assessment services	✓
Insect identification	✓
Assistance with, and coordination of, cleaning services and unit preparation	
Tracking of reports of infestations and complaints	✓
Our public health unit does not currently provide any services related to bed bugs	
Other (please describe below):	
The inspection and assessment services provided by HPHS are a result of enforcing section 26 (pests) of the City of Hamilton By-law no.10-221 - Property Standards By-law.	

- Does your public health unit currently have staff providing bed bug-related services?

If so, which staff, e.g. public health inspectors, public health nurses, etc.? Please also indicate the number of FTEs and whether they were re-assigned due to need or are permanent assignments.

In 2008 as demand began to increase with regards to bed bug complaints, HPHS chose to take not only a reactive but a proactive stance, by instituting a pilot education/community outreach project. This was achieved by leveraging an existing relationship between HPHS and the McMaster Institute of Environmental Health (MIEH). A review of the scientific literature was conducted by MIEH, regarding the history and latest scientific evidence regarding the re-emergence of "**CIMEX LECTULARIUS**" (Bed Bugs). Utilizing the findings of the research HPHS and MIEH staff created a presentation that was offered to local community groups at their request. A dedicated PHI team was available to conduct presentations, distribute literature and answer any questions/concerns from the audience. In 2008, the information was presented in power point format to over **one hundred and forty one (141)** individuals including **tenants, housing/shelter staff, nurses, Property Managers, Mental Health Workers and Pest Control professionals**.

Due to community need and demand for information, PHS resumed offering the presentation in 2010 with one dedicated PHI available for presentations. HPHS staff worked with MIEH to revise the public presentation, as well as, develop an evaluation form to track community awareness, concerns and level of knowledge regarding bed bugs. The presentation was also posted on the MIEH website thus it became available to members of the academic and non-academic community. From September to November 2010, the designated PHI conducted community educational presentations to **residents, landlords, tenants, employees, RCF operators, and health care employees** for a total of **two hundred and thirty four (234) attendees**. To date there has been a **66% increase in educational requests** over the time period of two (2) months in 2010 versus the previous eight (8) of the pilot in 2008. A template has been created by MIEH to not only 'track and profile' the socio-demographic identity of those requesting information but an evaluation component that allows us to research the specific educational needs, awareness and experience with the issues of the attendees.

Currently, there is one PHI (0.25 FTE) assigned to providing educational presentations about bed bugs to interested community groups and PHIs assigned to inspection and enforcement of Hamilton's pest by-law (2.0 FTE). These are permanent staff assignments.

### SECTION 3: PROPOSED ACTIVITIES/STRATEGY

#### Stream One: Education and Outreach:

3. If you are requesting funding through this stream, please describe what activities you will undertake.

Education and outreach to the public and other stakeholders on preventing, identifying and controlling bed bugs (i.e. municipal partners, pest control companies/organizations, community partners/agencies) can include but are not limited to the following:

- a. Referral to other service providers and/or educational resources (e.g. [www.bedbugsinfo.ca](http://www.bedbugsinfo.ca), Toronto Public Health website and resources)
- b. Public health unit dedicated contact number/phone line for guidance and referral services related to bed bugs
- c. Educational and outreach events, e.g. educational sessions for municipal partners, institutional settings, community partner agencies, etc.
- d. Consultation and collaboration with community partners including organizations serving vulnerable populations to identify and address educational/information needs

Please describe:

Funding provided for the purpose of education and outreach would allow HPHS to leverage existing partnerships with community/social services agencies to increase community educational presentations and workshops about bed bug prevention and control, with an emphasis on vulnerable groups.

HPHS could also develop specialized educational packages, for distribution to various sectors, and also assist in a 'train the trainer' mentoring model, in order to achieve broad communication. These packages could take the form of 'give aways' in HPHS presentations for follow-up purposes and could be mailed and distributed in different formats (including posting on PHS website) for other community groups. Listed below are some of the possible sectors in need of information, as identified by both the Complaint Data Base information and Community Presentation evaluations.

#### **Specialized Educational packages by Sector**

- Landlords/Property Managers
- Tenants
- Shelters
- Seniors
- Health Care Workers
- Occupational Health and Safety Issues
- Newcomers<sup>1</sup>
- Social Services Organizations (also Liaison's to 'vulnerable' clients)
- Hospitality/Tourism
- RCF's
- Transportation (HSR)
- Educational Workers/Board Members
- Post Secondary Students (McMaster and Mohawk and other private institutions)

In addition to the initiatives described above, additional funding would allow a public awareness campaign about bed bugs to be developed and implemented in the community. The messaging will consist of two streams: General Messaging for the protection of the Hamilton community (in keeping with the mandate of Public Health) and Targeted messaging focused on vulnerable groups.

4. Outside of the tools and resources available on the [www.bedbugsinfo.ca](http://www.bedbugsinfo.ca) website, what additional tools and/or resources will you use to support your plan for education and outreach?

Additional tools to be used to support education and outreach planning includes transit shelter ads, bus ads, mall posters, billboards, printed brochures, instructional DVD, translator costs, text box creation, TV ads, radio ads, newspaper ads. A complete list of proposed materials and resources to be used can be found in response to Question 13 – Stream one, found within this application.

All printed materials would make use of any existing templates available on the [www.bedbugsinfo.ca](http://www.bedbugsinfo.ca) website.

5. Describe how you will collaborate with community service providers and/or municipalities to implement your plan for addressing bed bugs under this stream.

In September 2010, representatives from the City of Hamilton (HPHS, Emergency Services, Community Services, Hamilton Housing Corporation) and the community (Good Shepherd, Housing Help Centre, Victoria Park Community Homes) met to discuss the issue of bed bugs and to discuss actions that might be taken to reduce their impact in the Hamilton community. It was agreed that a Bed Bug Action Group (BBAG) should be formed to facilitate a coordinated, community-wide effort based on current available information and best practices. The key

<sup>1</sup> Newcomers are a 'vulnerable' group but are also diverse and unique in terms of pedagogical messaging. The current staff researcher at MIEH (and liaison to Public Health) has over twenty years of experience working and teaching community methodology within vulnerable groups and would assist in training the designated PHI team regarding the community presentations.

objectives of the BBAG are to:

- facilitate a common effective and efficient approach to respond to the issue; and to
- create a platform for acquiring and sharing available resources

To achieve these objectives the following working groups and associated tasks have been assembled and these working groups will report to the BBAG to create an integrated city-wide response:

1. **Bed Bug Control.** Development of common, evidence based bed bug control strategies (immediate interventions and longer term maintenance) that are flexible and best meet the needs of the various identified stakeholders. This working group will also be responsible for providing recommendations to PHS for revising/creating a stand-alone Pest Control By-law.
2. **Messaging & Communication.** Development and delivery of effective education and outreach strategies. Effective education on bed bug issues as a best practice to develop primary preventative and treatment strategies.
3. **Evaluation.** Develop a framework of relevant indicators that will be used to evaluate Bed Bug Action Group initiatives, and to provide recommendations related to surveillance related to bedbug activity in Hamilton.
4. **Workplace Issues.** Development of tools to assist employers and employees with bed bug concerns about the prevention and treatment of bedbugs in the workplace.
5. **Financial Resources.** Identification of existing resources available, and identifying possible new sources (internal and external) for addressing financing gaps that could help provide resources to control bedbugs.

Please find the BBAG Terms of Reference attached as Appendix "B"

6. How do you intend to measure and demonstrate impact under this stream?

HPHS will continue to collaborate with MIEH for tracking/surveillance, knowledge transfer and evaluation/outcome activities. MIEH will continue to analyze the HPHS electronic data base for both qualitative and quantitative data. MIEH will utilize a mixed method approach to evaluation activities, including focus groups, interviews, surveys and a review of national and international 'Best Practices' research and policy review. All media campaign activities will be evidence based relying on past media campaigns with other Health Protection Programs and knowledge of the socio-demographic profiles of Hamilton population. Newcomer diversity will be evaluated with the accompaniment of translation and cultural interpretation services. A workshop will be offered by the MIEH staff person assigned to HPHS entitled 'Methodology for collaboration with Diverse Communities'. The MIEH staff person is presently a consultant with the Health Protection Division and has over twenty years of experience both working and teaching methodology with diverse communities. Each specialized educational package will be evaluated for efficacy of knowledge transfer. Thus, HPHS offers a tripartite collaboration with both community and academic partners.

## Stream Two: Supports to vulnerable populations

If you are requesting funding through this stream, please describe what activities you will undertake.

7. Please describe your strategy for providing supports to vulnerable populations.
- What supports are currently available and can be leveraged to access these populations (e.g. counselling and outreach through public health nurses, inspections and investigations by public health inspectors)?
  - What existing or future partnerships can be brokered to access these populations (e.g. social services, social housing providers, shelter services)?

Inspection of rental dwellings and public premises for bed bugs is currently performed by a PHI and will continue to be performed, if a complaint is made to HPHS. The PHI responds by investigating the complaint to ensure compliance with City's pest by-law. Social Housing providers such as Hamilton Housing Corporation, Good Shepherd, and Victoria Park Community Homes all report that their property management staff perform unit inspections for bed bugs whenever an infestation is reported by the tenant.

HPHS proposes that with receipt of additional funding, assistance could be provided to vulnerable individuals who are unable to properly prepare their apartment unit for pest control treatment due to physical and/or mental disability. Resources are currently available to such vulnerable individuals that reside within Hamilton Housing Corporation, Good Shepherd, Victoria Park Community Homes and other social housing agencies, however, many individuals living within privately owned/operated residences remain vulnerable to situations where the landlord and/or property manager is unwilling to accommodate their needs. A process could be developed by the Financial Resources Working Group of the BBAG to identify such vulnerable individuals to whom assistance could be provided.

Funds could also be designated towards both translation and cultural interpretation services, since the City of Hamilton, consists of an extremely diverse population both in terms of socio-economic but also race and ethnicity (over sixty-five languages spoken). It also contains a number of residential care facilities, shelters, nursing and residential homes, and two major post-secondary institutions. All of these groups including students and newcomers are especially vulnerable in terms of knowledge of prevention and eradication of bed bug infestations but more importantly, the protections afforded them under municipal law.

8. How will existing public health resources be leveraged?

Responding to inquiries and inspection of rental dwellings and public premises for bed bugs is currently performed by PHIs and will continue to be performed, if a complaint is made to HPHS. The PHI responds by investigating the complaint to ensure compliance with City's pest by-law. Social Housing providers such as Hamilton Housing Corporation, Good Shepherd, and Victoria Park Community Homes all report that their property management staff perform unit inspections for bed bugs whenever an infestation is reported by the tenant.

9. Describe how you will collaborate with community service providers and/or municipalities to implement your plan for addressing bed bugs under this stream.

Please see response to question # 5.

10. How do you intend to measure and demonstrate impact under this stream?

As outlined in **number nine** existing community partners (BBAG) as well as new community partners may be offered a share of the requested budget allocation (see Budget section) in order to develop support for existing vulnerable client populations. Each community partner who enters into this collaboration with HPHS will be responsible for tracking/surveillance and evaluation of these resources and reporting via the BBAG. Ultimately, MIEH will collect and analyze the data into a cohesive whole for reporting purposes.

### SECTION 3: MANDATORY ELEMENTS – SURVEILLANCE AND EVALUATION

In order to collect data on the extent of the issue of bed bug infestations across the province and to evaluate the effectiveness of implemented interventions, the province will request health units to report on the degree of infestations in their health unit. This will include an assessment of those populations and settings that are most impacted, and the activities that were implemented to address the issue. The methods and timelines for these reporting requirements will be communicated to health units.

11. What surveillance techniques do you plan to use to evaluate the degree of bed bug infestations in your health unit area?

HPHS will continue to collect data on the number of complaints and inquiries received by the department regarding bed bug complaints in rental housing and public premises. HPHS will also leverage relationships within BBAG to collect data on the number of bed bug infestations occurring within social housing providers that are also members of BBAG (ie., Good Shepherd, Victoria Park Community Homes, Hamilton Housing Corporation).

With the award of Provincial funds, HPHS in collaboration with MIEH could create a GIS mapping layer of the addresses included in the Complaint Data Base and analyze the most affected areas of the city, in terms of community needs for assessment, inspection services, assistance with Landlord/Tenant relations and enforcement of the pest by-law.

HPHS will continue to collaborate with MIEH for tracking/surveillance, knowledge transfer and evaluation/outcome activities. MIEH will continue to analyze the HPHS electronic data base for both qualitative and quantitative data. As mentioned above, GIS mapping may be applied to develop a 'snapshot' of geographic concern and MIEH will assist the accompanying socio-demographic mapping. If available other community data bases/community organizational tracking systems will be 'mined', incorporated and analyzed by HPHS/MIEH.

12. What surveillance techniques do you plan to use to evaluate the effectiveness of bed bug activities/services?

HPHS will continue to collaborate with MIEH for tracking/surveillance, knowledge transfer and evaluation/outcome activities. MIEH will continue to analyze the HPHS electronic data base for both qualitative and quantitative data. MIEH will utilize a mixed method approach to evaluation activities, including focus groups, interviews, surveys and a review of national and international 'Best Practices' research and policy review. All media campaign activities will be evidence based relying on past media campaigns with other Health Protection Programs and knowledge of the socio-demographic profiles of Hamilton population. Newcomer diversity will be evaluated with the accompaniment of translation and cultural interpretation services. A workshop will be offered by the MIEH staff person assigned to HPHS entitled 'Methodology for collaboration with Diverse Communities'. The MIEH staff person is presently a consultant with the Health Protection Division and has over twenty years of experience both working and teaching methodology with diverse communities. Each specialized educational package will be evaluated for efficacy of knowledge transfer. Thus, HPHS offers a tripartite collaboration with both community and academic partners.

### SECTION 4: FUNDING REQUEST

Please identify the funding being requested for bed bug services and supports and provide as much detail as possible to support the request.

13. One-Time Funding

<b>What is the total amount of funding you are requesting?</b>
Total request: \$555,827

Please provide a detailed breakdown of the projected costs and funding being requested. (If your total funding request exceeds the maximum amount for your health unit stated in Appendix 1, please prioritize each activity/item as priority 1 (highest priority) or priority 2 (lower priority). Please ensure that those activities/items identified as priority 1 do not exceed the maximum amount specified.)

<b>Stream One: Please include detail for each activity/item e.g. staffing, educational events/activities, goods, etc. (please add rows as required).</b>			
<b>Activity/Item</b>	<b>Funding Requested</b>	<b>Description</b>	<b>Priority (1 or 2)</b>
Brochures	\$15,000	*500,000 quantity *4/4 on 80lb. Gloss Text 8.5 x 11	1
Fact Sheets/Info Sheets (Tenants, Landlords)	\$18,000	*800,000 quantity *4/4 on 80lb. Gloss 8.5 x 11, left flat	1
Transit Shelter Ads	\$37,667	*Space Rental for 1 month per bus shelter ad would cost \$251.11 including taxes	2
Internal Bus Ads	\$11,240	200 buses per month for 6 month period	1
External Bus Ads	\$3,000	*10 bus ads per month for period of 6 months	1
Billboards	\$46,104	10 billboards per month for 6 month period	2
Mall Posters	\$54,240	20 mall posters per month (split between 2 malls) for 6 month period	2
TV Ad Production	\$11,300	*Video Production *we need to supply the actors/actresses *based on 2 day location shoot *includes 3 variations of a 30 sec spot	2
TV Ads on CHCH	\$60,000	20 ads per week for 12 weeks on CHCH TV	2
Text Box Creation	\$226	*Can be placed on ads and posters to be scanned by smartphones to access relevant webpages	1
Radio Ads	\$ 25,000	this amount would allow for a very comprehensive campaign on the various radio stations in Hamilton among Astral Media and	1

		Corus Radio stations	
Ads in The Hamilton Spectator	\$30,000	*4col x 150lines (1/4 page), colour *12 ads (2 per month for 6 months)	2
Ads in the Hamilton Community News	\$32,700	1/4 page ad in 6 weekly editions for 12 weeks	2
11' X 17' Posters	\$450	*1,000 quantity *80 lb. Gloss	1
DVD Production	\$28,250	5-7 minute information video	2
Extra DVDs	\$1,350	1000 copies of produced DVD	2
Provincial IPM Manuals	\$800	*Digital black printed *1,000 quantity	1
<b>Total Request Stream One:</b>		\$375,327	

<b>Stream Two: Please include detail for each activity/item e.g. staffing, educational events/activities, goods, etc. (please add rows as required).</b>			
<b>Activity/Item</b>	<b>Funding Requested</b>	<b>Description</b>	<b>Priority (1 or 2)</b>
Unit Preparation Services	\$100,000	Estimated cost for 125 units to be prepared for pesticide treatment	1
Community Outreach Educators	\$60,000	Community Outreach Educator(s) – for tenants and landlords	1
ONPHA Outreach Workshop	\$3,500	1 workshop with estimated 100 attendees	1
Telephony System	\$15,000	Telephony system would allow Good Shepherd to receive calls from the public regarding bed bug inquires. Ongoing staffing of the line would be maintained by Good Shepherd within their year to year operating budget	2
Interpreter Services for Educational Presentations	\$1000	Estimated cost for approximately 30 hours of real-time language interpretation	1
Development of a GIS Map layer	\$1000	To be developed by MIEH and HPHS – will enhance surveillance activities	1
<b>Total Request Stream Two</b>			
	\$ 180,500		

**Public Health Unit Approvals**

Signature – Business Administrator	Print Name	Date
Signature – Medical Officer of Health / Chief Executive Officer	Print Name	Date
Signature – Chair of the Board of Health	Print Name	Date

## Appendix A

### Hamilton Public Health Services Complaints Data Base Analysis - Bed Bugs, 2004-2010

#### All Health Hazards without Bed Bugs: 2004-2010

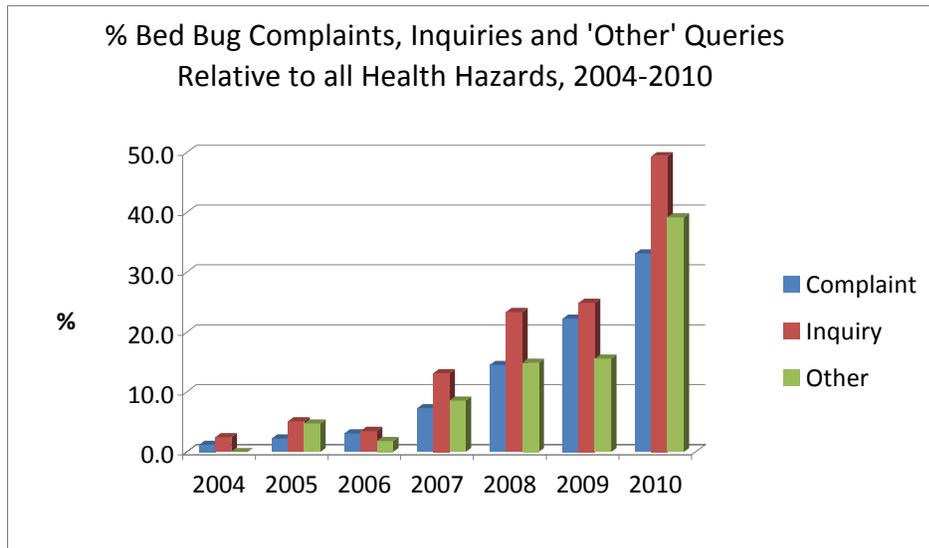
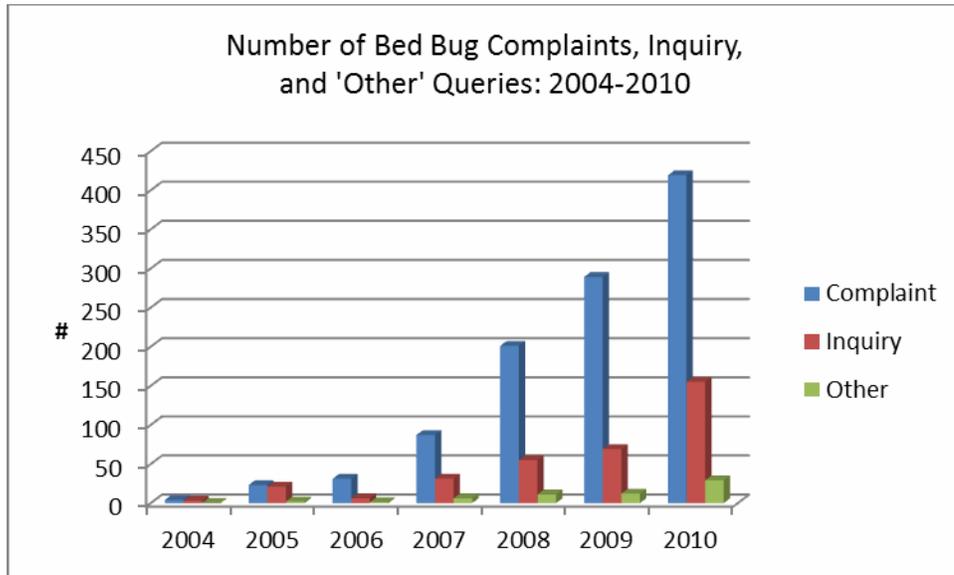
	Complaint	Inquiry	Other	Total
<b>2004</b>	336	119	8	463
<b>2005</b>	993	388	40	1421
<b>2006</b>	960	165	54	1179
<b>2007</b>	1108	205	64	1377
<b>2008</b>	1183	180	63	1426
<b>2009</b>	1009	208	65	1282
<b>2010</b>	846	159	45	1050
<b>Total</b>	6435	1424	339	8198

#### % Bed Bugs (relative to All Health Hazards) : 2004-2010

	Complaint	Inquiry	Other	Total
<b>2004</b>	1.2	2.5	0.0	1.5
<b>2005</b>	2.3	5.1	4.8	3.1
<b>2006</b>	3.1	3.5	1.8	3.1
<b>2007</b>	7.3	13.1	8.6	8.3
<b>2008</b>	14.5	23.4	14.9	15.8
<b>2009</b>	22.3	24.9	15.6	22.4
<b>2010</b>	33.1	49.4	39.2	36.5
<b>Total</b>	14.1	19.3	15.3	15.1

## Appendix A

### Hamilton Public Health Services Complaints Data Base Analysis - Bed Bugs, 2004-2010



## Appendix B

### Terms of Reference for the Hamilton Bed Bug Action Group (BBAG)

#### PREAMBLE

There have been growing concerns within the Hamilton community regarding bed bugs. Bed bugs may have social, health, economic and physical consequences.

A range of response activities by various community agencies and levels of government have taken place to address this matter. In September 2010, a number of representatives from the City of Hamilton and the community met to discuss these activities. It was agreed that a Bed Bug Action Group (BBAG) should be formed to facilitate a coordinated, community wide effort based on current available information and best practices.

#### A. KEY OBJECTIVES

The key objectives of the BBAG are to:

- facilitate a common effective and efficient approach to respond to the issue; and to
- create a platform for acquiring and sharing available resources

To achieve these objectives the following working groups and associated tasks will be struck and these working groups will report to the BBAG to create an integrated city-wide response:

1. **Bed Bug Control.** Development of common, evidence based bed bug control strategies (immediate interventions and longer term maintenance) that are flexible and best meet the needs of the various identified stakeholders. This working group will also be responsible for providing recommendations to PHS for revising/creating a stand-alone Pest Control By-law.
2. **Messaging & Communication.** Development and delivery of effective education and outreach strategies.
3. **Evaluation.** Develop a framework of relevant indicators that will be used to evaluate Bed bug Action Group initiatives, and to provide recommendations related to surveillance related to bedbug activity in Hamilton.
4. **Workplace Issues.** Development of tools to assist employers and employees with bed bug concerns about the prevention and treatment of bedbugs in the workplace.
5. **Financial Resources.** Identification of existing resources available, and identifying possible new sources (internal and external) for addressing financing gaps that could help provide resources to control bedbugs.

The research and developmental work will take place at the workgroup level, and it is the role of the BBAG to synthesize these inputs into an integrated community based plan and approach.

## **B. MEMBERSHIP**

The BBAG will include representation from the following groups:

City of Hamilton departments: Public Health Services, Hamilton Housing Corporation, Community Services, Human Resources, Police, Fire, and Emergency Services.

Community stakeholders: Good Shepherd, Victoria Park Community Homes, Housing Help Centre, a representative of the Tenant Advisory Committee to Hamilton City Council; a member of the Hamilton District Apartment Association, and other key community stakeholders.

The BBAG will be co-chaired by one member of the Community agencies and one member from the City of Hamilton.

## **C. Membership Values and Guiding principles**

Upon accepting membership in the Committee, each member agrees to comply with and abide by the following rules of conduct:

1. The BBAG will draw upon the views and recommendations of all key stakeholders.
2. Every member is recognized to have a right to their opinion and to discuss their respective views and opinions within the group;
3. Members agree to consider and act on the best evidence available;
4. Members will conduct themselves in such a manner as to preserve the integrity of the group.
5. Members are asked to review all documents, agendas and minutes presented to them to make informed decisions;
6. Some activities of the Committee will require additional time commitments dependent upon the nature of the issue/task;
7. Members are advised to refer inquiries from the media, if any, to the Chair(s) for any matters related to the group's work.

## **D. SUPPORT SERVICES**

The Co-chairs will share the provision of supporting the group and facilitating meeting places.

## **E. MEETINGS**

1. The BBAG will meet once every two months with working groups meeting the alternate two months that will feed into the task force. Additional meetings may be scheduled at the call of the Chair, or in the case of the working groups, by the working group chair/lead.
2. A meeting schedule shall be set for the year.
3. The task force will be lead by alternative Chairs.

4. The location of meetings shall be at barrier free access locations, as designated by the Chairs.
5. In the absence of the Chair, a Vice-Chair shall assume the role and rights of the Chair.
6. The Chair has the responsibility of facilitating the meeting, providing a safe and neutral space for members.
7. Decision-making will be based on the principle that everyone has a right to express his or her opinion. Decisions should be reached on a consensus basis.

#### **F. MINUTES AND AGENDA**

The Minutes of the meetings shall note the topic of the discussion and the action item arising. They should be included in the subsequent meeting agendas. Amendments to the Minutes, if required, shall be dealt with in the subsequent meeting.

#### **G. AMENDMENTS TO THE TERMS OF REFERENCE**

Any amendment(s) to these Terms of Reference shall be forwarded to the Chairs and brought to the Task force for consideration.