

A microscopic view of several bed bugs on a dark fabric surface. The bugs are small, oval-shaped, and reddish-brown. One bug is prominently shown in the center-left, and another is in the center-right. A third bug is visible in the upper-left corner. The background is a dark, textured fabric with some fine fibers visible.

Toronto's Response to Bed Bugs

NCCEH - November 28, 2013

Ron de Burger and Tracy Leach

Toronto Public Health

Bed bugs are back!

Toronto Public Health reports a big increase in the number of requests for help from the public

.....

Councilor wants bed bugs declared a health hazard

Toronto Public Health continues the battle against bed bugs

Pesky bed bugs not dangerous, researchers say

For the single mom with two infants, the battle against this pesky pest is tiring and expensive.....

Bed bugs not a health hazard

Are bed bugs a health hazard?

He was scratching, he was told by someone to douse himself in gasoline to rid himself of the bugs.....ARE BED BUGS A HEALTH HAZARD?

Why Are They Back?

- Greater human mobility (international travel, hotels, hostels, etc.)
- Increase in high-density living
- Lifestyle practices (i.e. second-hand items)
- Eradication of infestations difficult and time intensive
- Changes in pesticide use
- Insecticide resistance

A Public Health Quandary

- No Funding
- No resources
- Not a traditional TPH role
- A vague sense of the extent of the problem

The Standard Response

- Bed bugs are a nuisance pest
- Bed bugs do not spread communicable diseases
- Educational materials may or may not be provided
- No inspection work undertaken

Cimex lectularius

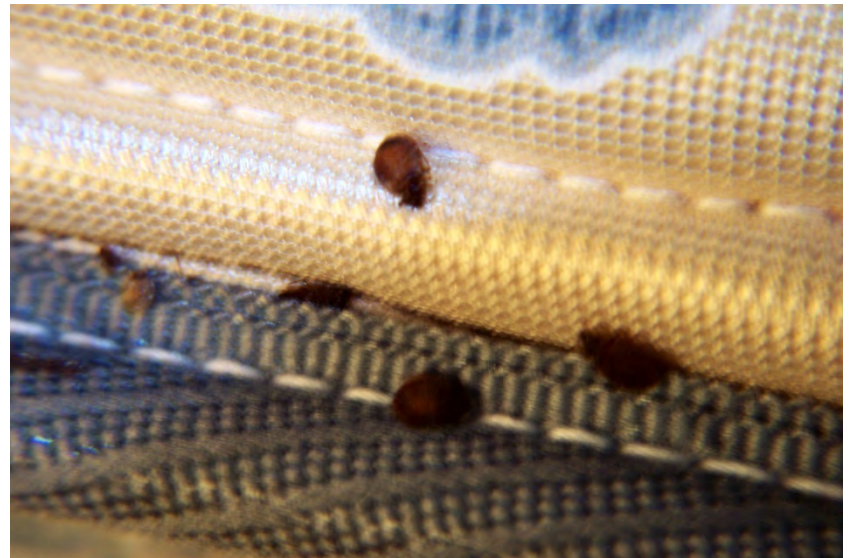


Life Cycle

- Each female can produce about 200 eggs
- Eggs attach onto surfaces
- Eggs hatch within 10 days to 14 days
- Adult bed bugs can survive for more than a year without feeding
- All stages (except for eggs) feed on blood of the host

Signs of an Infestation

- Bloodstains on sheets and mattresses
- Flecks of excrement near hiding places
- Insect bites on body
- Presence of live insects and eggs



Health Effects

- Bites result in reaction in varying degrees (no reaction/delayed/immediate)
- Reactions are due to salivary proteins
- Secondary bacterial infections and scar formation
- Severe reactions may require medical attention
- Serious social stigma - psychological effects

Psychological Effects

- Itching for no reason
- Insect bites cause excessive alarm
- Stress
- Insomnia
- Sleep deprivation
- Entomophobia (fear of all insects)

Pressures for Public Health Intervention

- Statistical trends
- Complex investigations with case management
- Community Town Hall events
- Political pressure
- Media coverage

2008 – History of TPH Response

- Assessed agency/community activity
- Drew on existing expertise
- Don't reinvent the wheel.....
- Woodgreen Bed Bug Manual Partnership

BOH endorsed the creation of a ***Bed Bug Action Committee – Focus on Action***

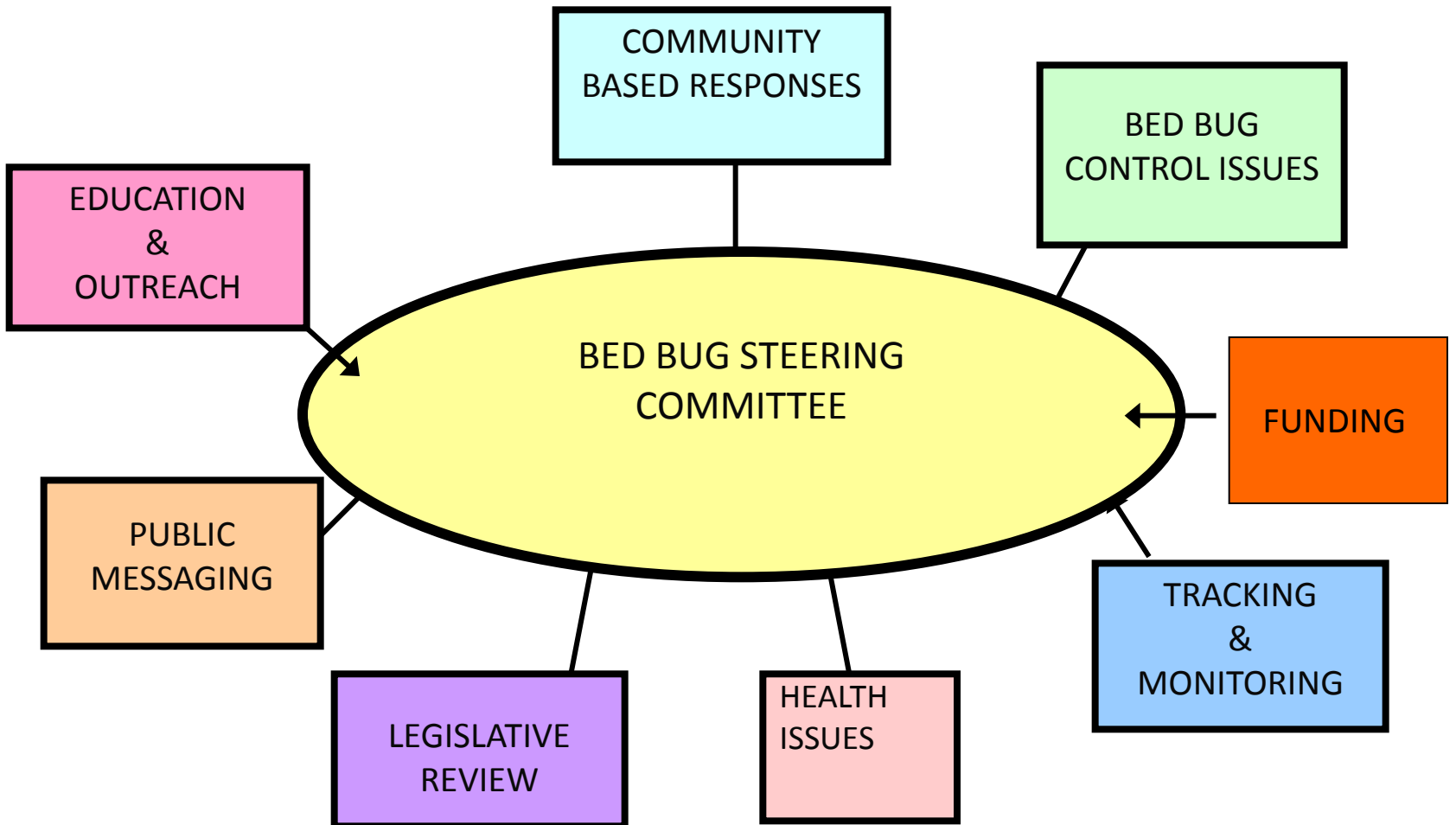
The Toronto Bed Bug Project

Multi-Stakeholder approach:

Landlords, tenants, pest control, social housing, shelters, community agencies, etc.

- Steering Committee
- Work groups
- Pilot Studies
- Partnerships

Report to the Board of Health on an integrated Toronto plan



Determining the Extent of the Problem

- 50 pest control contractors - limited data
- Public and private housing agencies reluctant to share data
- Community agencies / Toronto Public Health data and trends across Canada, USA, Europe, Australia, etc.

Roles of Toronto Public Health

- Assist with identification of bugs
- Provide direction on IPM measures
- Liaise with property management and tenants to achieve optimal outcome
- Provide in-services upon request
- Liaise with external agencies to provide assistance with bed bug remediation

Health Hazard?

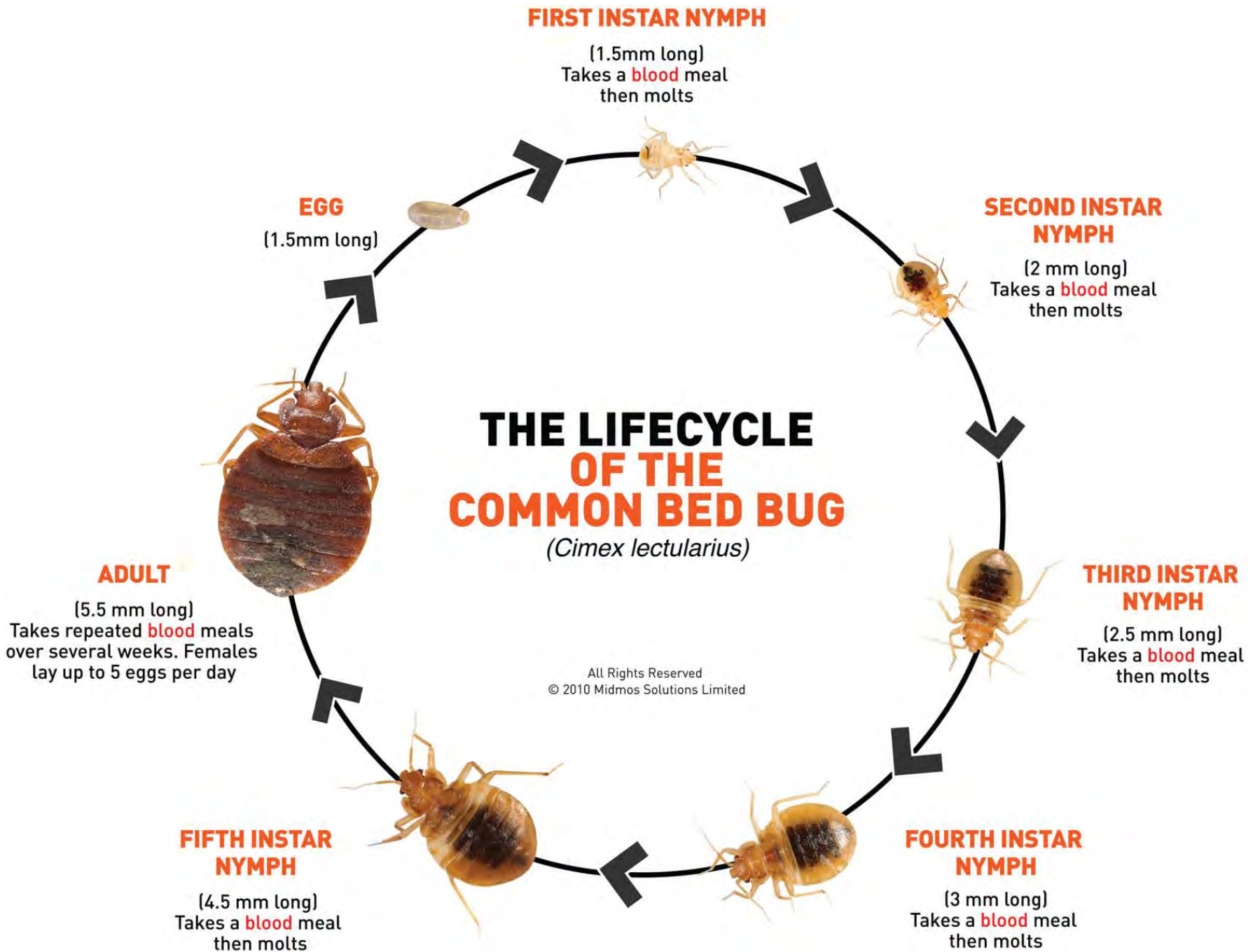
- Case-by-case assessment
- Vulnerabilities of client
- Bed bug life cycle
- Migration

Vulnerable Clients

- The frail elderly
- Those living with reduced physical and/or mental capacity
- Those living in crushing poverty
- Those struggling with dependency/addiction issues
- The underhoused

THE LIFECYCLE OF THE COMMON BED BUG

(Cimex lectularius)



Interventions for Vulnerable Clients

- Inspection and investigation – block inspections
- Nursing assessments – referrals to health and social supports
- Coordination of financial supports – TPH and TESS
- Coordination of unit preparation – successful tenancy
- Replacement of beds, other supplies

One-time Provincial Funding

- \$1.2 million Health Unit Bed Bug Support Fund
- dedicated Bud Bug Team
- support to Toronto Community Housing and Shelter Support and Housing
- operational accomplishments served to provide an advocacy position for ongoing funding

1,605 Bed Bug service requests

88 education presentations
▪ 2,606 people reached

4,719 unit assessments
▪ Total units assessed as a result of TPH investigations.
▪ Includes initial inspection and resulting block inspections

Other service requests
Examples:
▪ Bed Bug identifications
▪ General enquiries

1,294 units found to have bed bugs
▪ 181 extreme cleaning/unit preparations for vulnerable clients co-ordinated/facilitated by Bed Bug Team (148 financially supported by TPH)
▪ 179 vulnerable clients referred to Bed Bug Team PHNs
▪ Provided advice and direction to property management, landlords, & tenants

Funding Issue

- Provincial funding ends despite accomplishments and ongoing need
- Team disbanded
- Messaging to public and City partners

Funding Issue continues...

- City Council voted unanimously to support the Bed Bug Team during negotiations with the province
- The province required an ongoing City commitment
- The Bed Bug Control Initiative is now a permanent initiative under the TPH Health Hazard Management and Control Program with an annual budget of 1 million dollars

Focus – From Funding to Operations

- Funding was main focus – advocacy, reports to the province, reports to the Board of Health, etc.
- Contracts with extreme cleaning/unit preparation companies
- Virtual stock of replacement beds
- Supply of client supplies – mattress encasements, pillows, bedding, vacuum cleaners, plastic tote bins, water soluble laundry bags

Storage Unit



Client Supplies



Co-ordination

- Now aim to increase and improve coordination for enhanced response to vulnerable clients
- Joint response for Toronto Community Housing clients
- Coordinated response with Toronto Employment and Social Services
- Municipal Licensing and Standards – Property Standard 629-9 (Pest Control)

Data Collection

- Bed Bug Investigation Data Collection Form to systematically and proactively collect investigation data
- Structural Pest Management Association of Ontario (SPMAO)

