

Bedbug municipal management. City of Madrid (Spain)



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Introduction

Last years have showed a huge resurgence of bedbugs infestations (U.S. - Canada and Europe).

In spite of bedbug indoor context and not always well defined municipal roles, local Health, Environmental and Human Services departments are demanded for intervention (citizen and community stakeholders, hotel industry, etc.). Best municipal practices are essential for integrated bedbug management.



BedBug (Cimex lectularius)

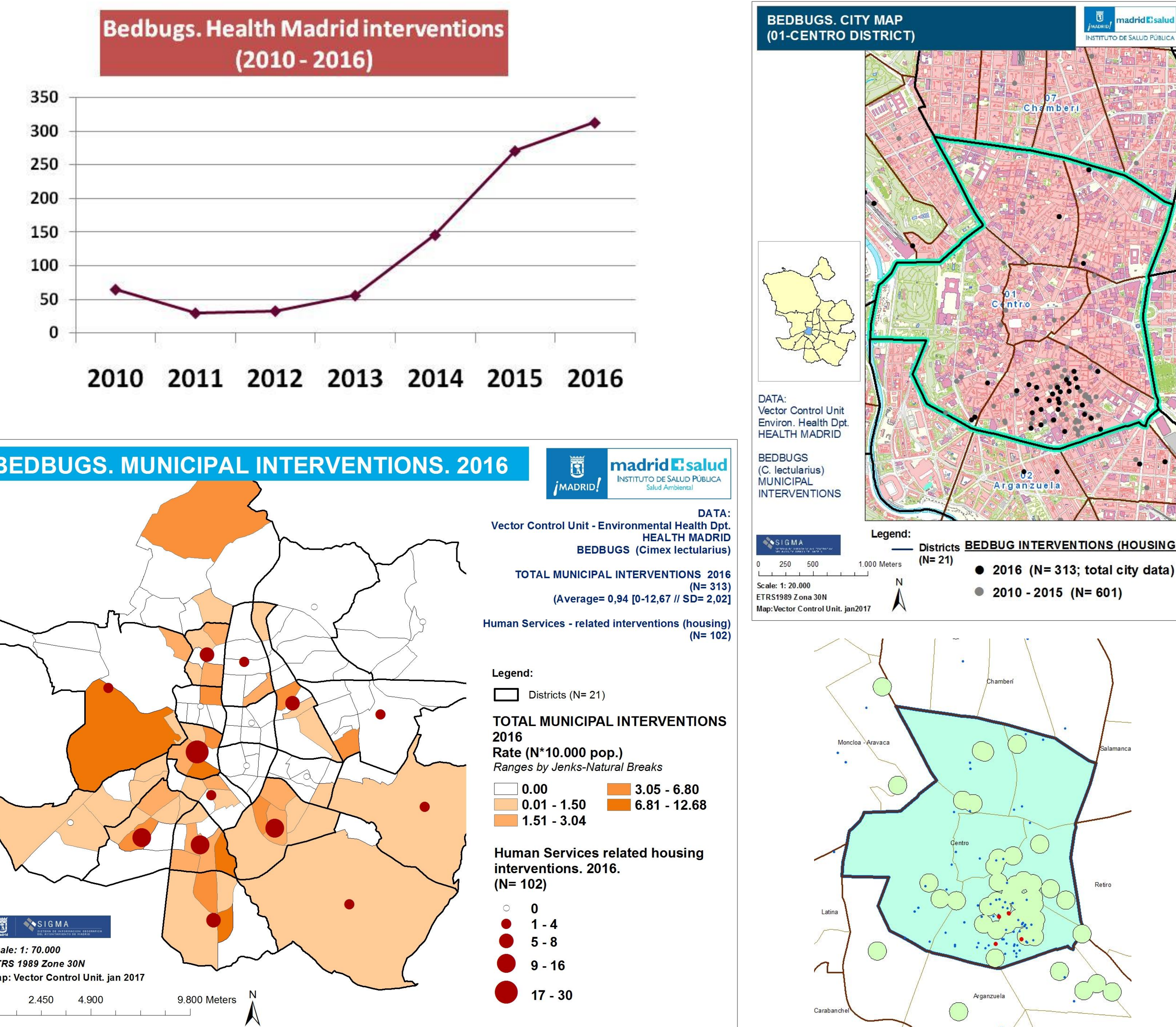
Methods

In Madrid, municipal approach implicates a comprehensive management plan for multiple and complex bedbug possible needs and sceneries:

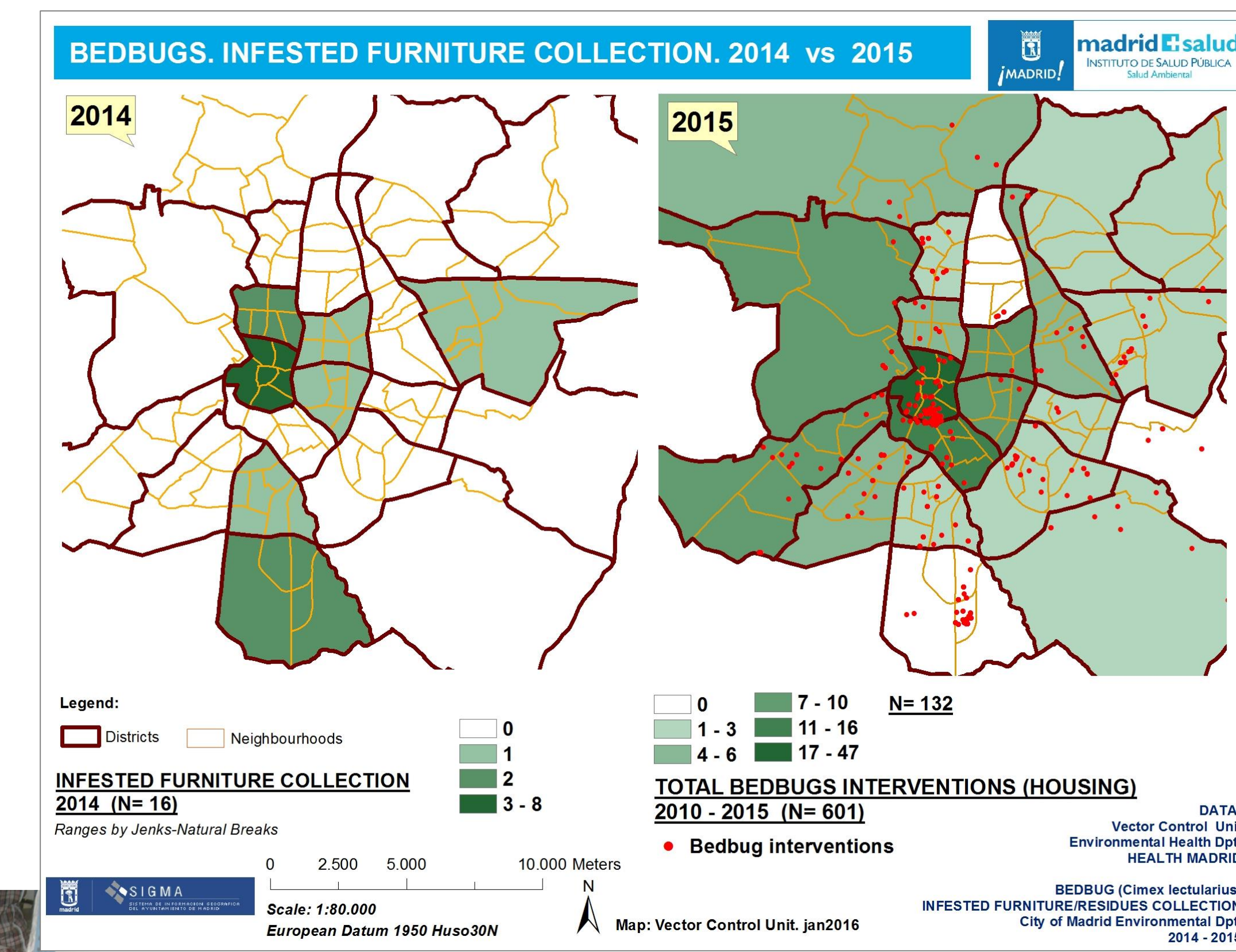
- Promotion of education, information and citizen commitment.
- "Bedbug high risk" municipal facilities management (homeless shelters, youth-hostels, etc.)
- Other public facilities potentially affected (public transports, schools, human services administrative buildings, hospitals, etc.).
- Hotel and tourist-related industry.
- Indoor infestations, specially in human services "clients" and multiinfestated building situations, etc.
- Furniture and other contaminated premises management.
- Coordination with private pest control companies.
- Centralise and evaluate information (City base data).

Results

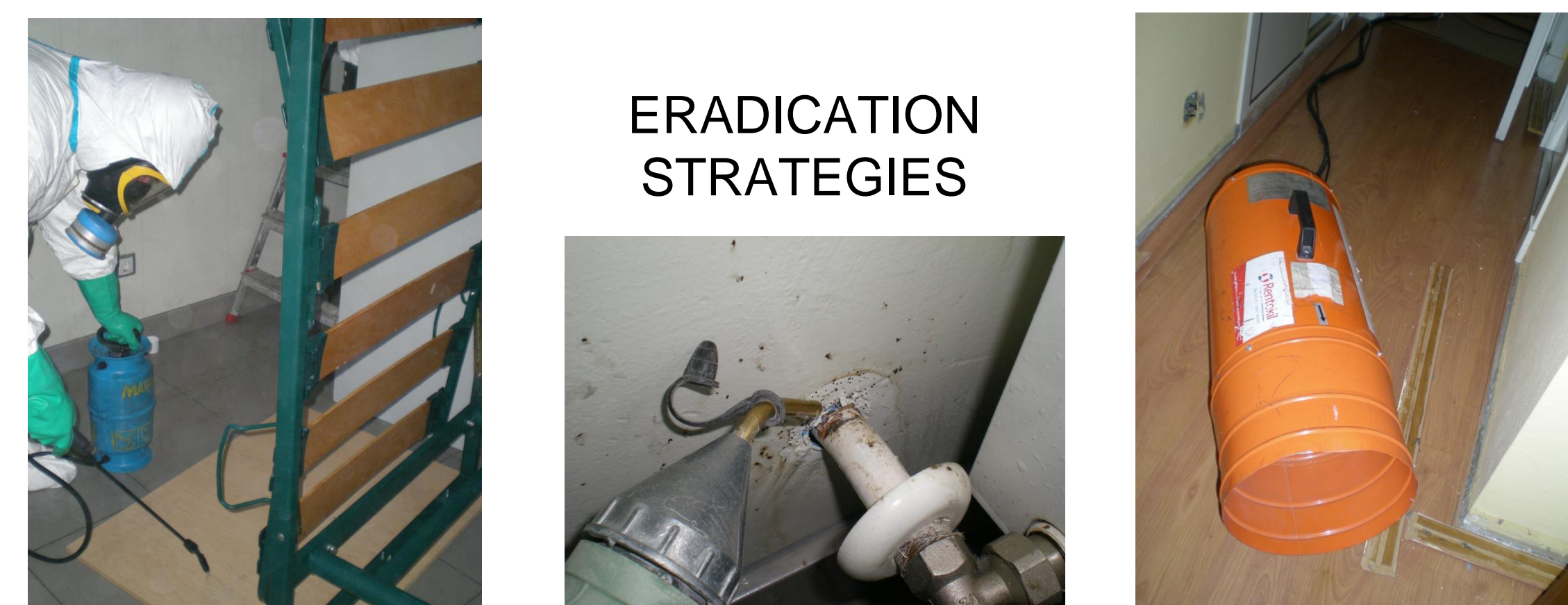
- ❖ Bedbugs data show a continuous increase (2010-2016) and we expect this tendency to consolidate.
- ❖ Implementation of effective bedbug citizen information (insect recognition, prevention and adequate control) is a very difficult and "delicate" task specially due to bedbug pejorative perceptions.
- ❖ Hotel, and tourism industry, as well as human services municipal facilities and services have been specially assisted and best practices guides have been developed.
- ❖ A municipal plan for furniture and other infected residues collection (City Call-Center activated) have been implemented.
- ❖ Bedbug sniffing-dogs have been trained . This diagnostic tool have demonstrated to be essential for managing rare conditions (transports, multiinfested buildings, schools, etc.).
- ❖ Indoor cases, specially when social and economic backgrounds are implicated are probably the most complicate sceneries and resources consuming (and sometimes disappointing) situations for municipal pest services.
- ❖ Non-chemical control strategy is not always a feasible approach as well as citizen commitment and indoor housing situation are not favourable. Biocide overexposing and insecticide bedbug resistance are still huge problems to solve.



BEDBUGS SNIFFING DOGS



INFESTED ITEMS



ERADICATION STRATEGIES

References

www.madridsalud.es
City corporative environmental and pest prevention and control information.



INSTITUTO DE SALUD PÚBLICA



Conclusions

- Bedbugs infestations damage personal and city image and therefore jeopardize eradication efforts.
- In order to promote effective prevention, citizen information and commitment are both critical.
- An early and well designed municipal multidisciplinary implication is necessary, including not traditional municipal sceneries (indoors) and strategies.
- Bedbug infestations are always a very difficult and costly pest problem to solve (eradicate). Not all people implicated (e.g. citizen, municipal managers, etc.) would be well enough aware.
- Bedbug sniffing dogs are useful tools.
- Efficient biocide availability and resistance insecticide management must be strengthened. Chemical overexposure (indoor treatments) is a real public health threat .
- Geographic Information Systems (GIS) technologies are actually essential tools for pest prevention and control in urban areas.

Further Research

- Municipal commitment and strategies.
- Non chemical eradication tools availability. Biocides and resistance management.