COMMUNITY HYGIENE CONCERN

The Louse, The Concern, The Comb and The Charity

OUR UNUSUAL MISSION

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Jennifer Osborne
Joanna Ibarra

Community Hygiene Concern – Our Unusual Mission

Community Hygiene Concern (CHC) was established in 1988 to protect people and their pet dogs and cats from common UK parasites. Our work has covered *Toxocara*, toxoplasmosis and threadworms but in recent years the **Head Louse** - its detection and eradication - has been the main focus of our activity and we are often known as the **Bug Busters**.

Background

Head lice have always been with us. They have been found in the hair of Egyptian and Peruvian mummies. Nit combs have been known for some 3.500 years. They are often found in the graves of Romans, Saxons and Vikings. In fact the Romans advocated bathing in viper broth as a cure! In more recent times, head lice have stopped the production of a Harry Potter movie and they have made it to a feature article by Anne Treneman in *The Times*! They are completely egalitarian.

Robert Burns in his poem 'To a Louse' has a verse:
O Jeany, dinna toss your head,
An' set your beauties a'spread
Ye little ken what cursed speed
The blasties's makin:

The sentiments expressed by Robert Burns – lice are disgusting, the well-off should be protected from them, and the poor deserve them – are common in Western society. They are still enshrined in sections 521-5 of the 1996 Education Act, lifted from section 54 of the 1944 Butler Education Act. The acts imply that lice are caught by wilful negligence, the direct result of low standards of hygiene. They empower a medical officer 'to ensure cleanliness' if a pupil at a state maintained school is found 'infested with vermin or in a foul condition', thus heightening the stigma attached to catching lice. In ministerial correspondence on child health, no subject features more frequently! The social stigma has prevailed.

With the advent, in the 1950s, of synthetic pesticide medication, a process began of de-skilling families in the early recognition and control of head lice. Attention was displaced to the cure of noticeable cases. By the mid 1970s public expectation of a modern cure, pandering to the 'quick fix and forget' syndrome, was realisable. A single dose of the organo-phosphate (OP) malathion, or the carbamate, carbaryl, did initially kill lice and their eggs in an overnight lotion application. Health professionals recommended it and never mind doubts raised by garden products with the same ingredients, carrying a warning 'keep off the skin'!

For many of the Baby Boomer generation, head lice were a thing of the past or so they thought. Today there is no quick-fix treatment that you can pour on and then forget the lice were there. None of the lotions, crème rinse or mousse that doctors and nurses may prescribe can guarantee success. Studies are recording up to an 87% failure rate. There is now general recognition that pest resistance is rampant.

Development of the Bug Busting method

Head louse detection

In 1986, Joanna Ibarra, the mother of children who caught lice with monotonous regularity, conducted studies of them as her BSc project. These established incidence data. Although on average 1 in 18 of the general UK population was dosed with pesticide medication per annum, she found 80% was applied to the 4 – 16 year olds. A major feature of outbreaks was repeated treatment of the same individual child – up to 10 times in a row. This was due to re-infestation, after successful treatment, from undiagnosed contacts. Joanna developed a method of

detecting a low level of head lice before the itching sets in. These lice are all the more contagious because they are overlooked.

The main habitat of head lice is near the scalp, their feeding ground. They move rapidly away from disturbance in dry or damp hair, evading probing fingers and combs. However, modern shampoos contain wetting agents, which take moisture to the roots of the hair and Joanna discovered that, when thoroughly wet, lice can be lifted out efficiently and comfortably with a *plastic* comb. The moisture temporarily immobilises them and they are clearly visible on the comb. Even a single louse can be found easily this way.

CHC called this method **Bug Busting**. The charity aims to teach all vulnerable families the art and science of easy head louse detection – making it fun without tears. CHC also co-ordinates informed action on national Bug Busting Days to stop the lice in their tracks. We opened a Help Line in 1989.

Bug Busting for the treatment of head lice

In 1993 Joanna was joined by Frances Fry – a hairdresser by profession – also concerned by the constant re-appearance of lice on the heads of her children and their schoolmates. She discovered independently that the sweeter smelling pyrethroid pesticides, of which phenothrin and permethrin formulations were launched in 1990, did not kill the egg-stage. Complete kill was and is claimed on the products; Frances reported this to CHC Help Line.

By then we were receiving up to 80 calls a week describing failure with all 4 active ingredients licensed for head louse medication. The sales figures for 1995 showed an average of one in 9 of the population was dosed. Increasingly concerned by dependence on unhealthy levels of pesticide of doubtful value, Joanna and Frances worked to develop Bug Busting, empowering the community to cope successfully with head lice without using any pesticide.

Frances recognised the importance of introducing ordinary hair conditioner into the method. This was found to prolong the immobility of the lice and make fine-tooth combing easier, even in tight curly hair. Joanna and Frances designed the ideal plastic comb. Trained nurse and health educator Clarice Wickenden, a long-standing CHC member, validated their results. The charity produced full instructions, not only for detection, but also on how to completely clear head lice

So the Bug Busting method came of age. It is based on research, science, commonsense and history. Since 1998, CHC has produced a family Bug Buster Kit containing all the combs necessary for cheerful and effective Bug and Nit Busting. The kit is *re-usable* with a family's normal shampoo and any hair conditioner of their choice.

Following a successful pilot trial by community nurses, in September 2002 the Bug Buster Kit became available on NHS prescription. It replaces pesticide treatment at the discretion of GPs and prescribing nurses. By 2002, medical researchers had recorded a failure rate for OPs and carbamates ranging from 22 to 64% and a staggering 87% for pyrethroids.

That year, on average, every 6th member of the population was dosed with a product containing one of these, three times the number in 1986.

Design of the Bug Buster comb

The Bug Busting detection method was first shown to be effective using a comb designed in 1982. This is a plastic copy of the Derbac metal comb (1956) and shares its tooth shape. The points are slightly bevelled on one side and completely flat on the other side. Both the Derbac comb and the plastic rendition were intended for the removal of louse eggs and eggshells – nit combs, in fact.

The Derbac comb is itself a cheap inexact copy of the famous Sacker comb. John Sacker developed his Hygienic Comb during extensive field tests in North London from 1913 to 1942. John was a Jewish émigré, originally a wig dresser working at Sadler's Wells Theatre in London. The purpose of the Sacker comb is to get under louse eggs stuck on hairs very near the roots and lift them off. It is an expensively produced precision tool, highly successful in the hands of a skilled operator.

The 1982 plastic comb proved to be more comfortable but much less efficient nit comb than the Derbac comb. It underwent a 'make-over' when Joanna Ibarra used it for *louse* detection in 1985. CHC 'made-do' with this model until we won the 1998 IMPACT Award for our contribution to community health. This enabled us to commission the best comb for the purpose of louse detection.

CHC greatly appreciated the help of Henry Sacker and Sian Kirk and her colleagues at the Department of Hairdressing, Isle of Wight College, in the development of the new 1998 Bug Buster comb. This Bug Buster is, unlike the earlier model, specially designed for louse detection and has certain distinguishing characteristics.

The tooth edge is bevelled at the exact angle of the original Sacker comb, reducing to a minimum the chance of slipping over lice living at the roots of the hair, as can happen with the more rounded teeth of other combs, metal and plastic. The teeth are also precisely spaced: close enough to pick up the smallest, newly hatched lice, whilst still allowing for easy movement through the hair, and easy cleaning. It is child-friendly and louse lethal. The accuracy of the 1998 Bug Buster comb increases the speed of the Bug Busting process. Frances then discovered that we could sweep off unsightly eggshells using a comb with narrower tooth spacing in the wet hair after Bug Busting. We called this comb the Nit Buster. This completes our system to rid a patient of all signs of head infestation.

None of the other wet combing routines, or combs, that have come onto the market since Bug Busting began, has proved better. Bug Busting is more effective, more comfortable and more affordable.

July 2003

Community Hygiene Concern reports on head lice 1988 to 2003

1988

Ibarra J. How to detect head lice: the changing emphasis in health education *Health at School* 1988; **3**: 109-112

The National Union of Teachers magazine *Teacher* announces the establishment of Bug Busting Day on 31 October

1989

Ibarra J. Head lice in Schools. *Health at School* 1989;**4**:147-151

Ibarra J. Reflections on the new video 'Let's Lose Lice'. *Health at School* 1989; **4**: 284-286

Ibarra J. Does combing twice a day keep the lice away? *Midwife Health Visitor & Community Nurse* 1989; 25: 442-444

Shared Wisdom Issue 1:
Anon. Editorial. In *Shared Wisdom* 1989;**1**: 1-2
Ibarra J. Why rotating insecticides for the treatment of head lice is expensive nonsense. *Shared Wisdom* 1989;**1**: 3-6

1990

Ibarra J. *To be a Bug Buster, 1990.* London: Community Hygiene Concern

1991

Shared Wisdom Issue 2:
Ibarra J. Bug Busting. *Shared Wisdom* 1991; **2**: 16-19

1992

Ibarra J. "Bug busting": a strategy to combat head lice. *Professional Care of Mother and Child* 1992; **2**: 241-244

1993

Shared Wisdom Issue 3:
Anon. A guide to the Bug Busting programme to defeat head lice. *Shared Wisdom* 1993; **3**: 4-7 (includes Repelling Rappell. *Shared Wisdom* 1993; **3**:7)

Ibarra J. Bug busting. Letters. *Professional Care of Mother and Child* 1993; **3**: 16-17

Ibarra, J. Lice (*Anoplura*). Ch. 15 in *Medical Insects and Arachnids* 1993; (Eds. Lane, RP and Crosskey, RW) London: Chapman & Hall

1994

Ibarra J. Coping with head lice in the 1990's. *Primary Health Care* 1994; **4:** 19-21

Ibarra J. Incidence of pediculosis capitis. (Letter to the Editor.) *Journal of Royal Society of Health* 1994; **114:** 107-8

Ibarra J, Williams B. Head Louse Repellents.(Letter to the Editor.) *Journal of Royal Society of Health* 1994; **114:** 108

Ibarra J, Hill N. *Towards the establishment of Bug Busting in the public health calendar.* 1994; London: Report to the King's Fund

1995

Stallbaumer M, Ibarra J. Counting head lice by visual inspection flaws trials' results. *British Medical Journal* 1995; **311**: 1369

Shared Wisdom Issue 4:
Anon. Bug Busting comes of age. *Shared Wisdom* 1995; **4**: 8-9
Fry F, Ibarra J. Case Study. *Shared Wisdom* 1995; **4**: 8

1996

Ibarra J. The bug stops here. *Health Education* 1996; **4**: 7-12

Ibarra J, Hall DMB. Head Lice in Schoolchildren. *Archives of Disease in Childhood* 1996; **75**:471-3

Community Hygiene Concern. *Review of the safety and efficacy of head lice treatment.* 1996; London: CHC

1997

Fry F, Muthuveloe SR, Ibarra J. *Consumer satisfaction with the Bug Busting method to remedy head infestation (pediculosis capitis)* Report for the Department of Health and the King's Fund on a pilot trial February 1996 - March 1997 (Conniburrow, Milton Keynes)

Ibarra J. Human lice: Busting the bugs. *Practice Nursing* 1997; **8**: 29-31

Community Hygiene Concern. *Response to the Interim Statement on Head Lice by the "Stafford Group" 10 September 1997*. 1997; London: CHC

Ibarra J. Tackling head lice in the community. *Pulse* 1997; **57:** Nov

Ibarra J. *Controversies in head lice treatment*. Proceedings of North Thames Symposium 13 November 1997: 13-17

1998

Ibarra J. Pediculosis. Ch. 1 in *Primary Health Care Guide to Common UK Parasitic Diseases* 1998; (Eds. Figueroa J, Hall S, Ibarra J.) London: Community Hygiene Concern

Ibarra J. Pesticides for topical use. Ch. 3 in *Primary Health Care Guide to Common UK Parasitic Diseases* 1998; (Eds. Figueroa J, Hall S, Ibarra J.) London: Community Hygiene Concern

Wickenden C, Ibarra J. *Consumer satisfaction with the Bug Busting method to remedy head infestation (pediculosis capitis)* Report for the Department of Health and the King's Fund on a pilot trial April 1996 - July 1997 (Portland Isle, Dorset)

1999

CHC Pilot of Department of Health leaflet *Head Lice - happy to be on any head* Camden & Islington February / March 1999 Report to the Department of Health June 1999

2000

Brooks P. 1999 *Report on Milton Keynes Bug Busting Project, Stage 1: Single School Pilot, October 21-November 4, 1999* (presented to project funders, the Department of Health and the National Lottery Charities Board, Community Involvement Programme)

Ibarra J, Fry F, Brooks P, Scott E, Smith J. *Bug Busting we will go! Head lice beware!* Poster presentation to Research: Who's Learning? Consumers in NHS Research Conference 28 January 2000

Ibarra J. The head louse debate; in support of the Bug Busting Programme. *Professional Care of Mother & Child* 2000; **10**: 107-108

Ibarra J. The head louse debate. *Professional Care of Mother & Child* 2000; **10**: 134

Ibarra J, Fry F, Wickenden C. Treatment of head lice. *Lancet* 2000; **356**:2007

Shared Wisdom Issue 5:
Anon. Head Lice: The gentle skill of Bug Busting. *Shared Wisdom* 2000; **5**:4-5, 21-22
Anon. Mistaken advice on head lice- countering the confusion. *Shared Wisdom* 2000; **5**:6-9, 21-22
Ibarra J, Fry F, Brooks P, Scott E, Smith J. Study comparing visual inspection at school with use of the 1998 Bug Buster Kit at home for the detection of head infestation. *Shared Wisdom* 2000; **5**:10-11, 21-22
Anon. The Bug Stops Here. *Shared Wisdom* 2000; **5**:12-13, 21-22

2001

Ibarra J. Head lice: changing the costly chemotherapy culture. *British Journal of Community Nursing* 2001; **6**: 146-151.

Ibarra J. The economics of combating pesticide resistance in head lice. bmj.com/cgi/eletters/323/7321/1084 (Rapid Responses for Dodd, *BMJ* 2001; **323**: 1084 posted 13 Nov)

Ibarra J, Smith JL, Fry F. Re: Any evidence for electronic combs? bmj.com/cgi/eletters/323/7321/1084 (Rapid Responses for Dodd, *BMJ* 2001; **323**: 1084 posted 17 Nov)

2002

Community Hygiene Concern. Comments on the Cochrane review *Interventions for treating head lice.* www.chc.org

Fry F, Smith J, Ibarra J. *Testing the Bug Busting approach to head lice. Stage 2: Pan Milton Keynes Bug Busting Day, 31 January 2001.* Report to the Department of Health and Community Fund, January 2002

Ibarra J, Fry F, Wickenden C, Smith J, Scott E. *Louse detection methods and comb designs.* Poster presentation to International Congress on Phthiraptera (Lice) University of Queensland, July 2002

Ibarra J, Fry F, Wickenden C, Smith J, Scott E. *Combing in head louse control: Busting the Bug – Breaking the life cycle.* Poster presentation to International Congress on Phthiraptera (Lice) University of Queensland, July 2002

Fry F, Ibarra J, Smith J, Wickenden C. Wet combing to eradicate head lice. *Journal of the Royal Society of Medicine* 2002; **95**:630-1

2003

Ibarra J. Hope and honour in head lice. bmj.com Smith 326 (7401): 0-g (Rapid Responses for Smith, *BMJ* 2003; **326**: *Editor's choice* Head lice: boring for doctors, important to patients, posted 11 June)

Ibarra J, Fry F, Wickenden C, Smith J, Scott E. *Contribution of the Bug Busting Centre, Conniburrow, Milton Keynes, UK, to the eradication of head lice, November 1998-March 2002.* Report to the Department of Health and Community Fund, July 2003

Denmark 2000 – 2002 (Originals in Danish)

Olsen A. *Management of head lice problems in Copenhagen County schools and kindergartens with Bug Buster combing 1998-1999.* Evaluation funded by the Danish Ministry of Environmental Protection, 2000

Olsen A. Bug Busting for the control of head lice. *Farmaci* April 2001; **4**: 24-27

Olsen A. Lice controlled with conditioner and comb. *The Nurse Journal* January 2002; **25**: 24-27

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Shared Wisdom is the journal of Community Hygiene Concern. We also produce the *Bug Buster Teaching Pack*, first issued in 1992 and regularly up-dated since then.