

# **Annual Report of The LEAD Group Inc 2002 Ten Year Review of Objectives**

**By Elizabeth O'Brien, Manager, Lead Advisory Service Australia (LASA)  
and Coordinator of The LEAD Group Incorporated**

## **Aims and Objectives of The LEAD Group Inc – an Update**

## The LEAD Group - Annual Report - 2002

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### Aims and Objectives of The LEAD Group Inc – an Update

The aims and objectives (see italicized bits below) of The LEAD Group, were formulated in July 1992. Following each aim or objective is a report on progress toward that objective, as at October 2002. Statements as to whether the objective has been achieved or not, are bolded.

Aims:

- *To eliminate childhood and foetal lead poisoning within one decade.*

**2002 REPORT: The achievement of this LEAD Group aim would mean that 100 percent of children (under 18) and 100 percent of pregnant women (as a surrogate for the foetus) would have a blood lead level below 10 µg/dL (10 micrograms per decilitre), which is equivalent to 0.48 µmol/L (0.48 micromoles per litre), by the year 2002.**

The NHMRC in November 1993, “set target dates for the reduction of lead in all Australians to less than 15 µg/dL by the end of 1998, with the exception of occupational exposures. Strategies in place to achieve this first target should be such as to result in blood lead levels in 90% of children between 1-4 years below 10 µg/dL by the end of 1998.”

**Even the less stringent NHMRC target for all Australians to be less than 15 µg/dL by the end of 1998 was definitely not achieved by Oct 2002. Therefore it is highly improbable that The LEAD Group's aim will be achieved by the end of 2002. The NHMRCs expected incidental result of blood lead in 90% of children being below 10 µg/dL was definitely not achieved in metropolitan areas such as inner Sydney by 1996 when the last statistically valid blood lead survey was carried out on children under 5.**

**Hopefully The LEAD Group's target of zero % of children and fetuses having a blood lead level above 10 µg/dL in the next 4 years, is still achievable by 2012.**

The greatest difficulty is in knowing how many individuals in these sensitive sections of the population, exceed the blood lead level, when Australia has never carried out a comprehensive national survey of blood lead levels in the population. A 1993 literature review by Berry et al, for the NHMRC (National Health and Medical Research Council) estimated that 45% of 0-4 year old Australians were lead poisoned (ie exceeded 10 µg/dL).

The closest we've come to a representative national survey is the National Blood Lead Survey by Donovan (1996) of children aged 1-4 years in which 1575 blood lead tests were carried out when 4000 was the preferred number of tests for statistical accuracy. Of these 1575 children from 1300 households, 93% were below or equal to 10 µg/dL in early 1995. This led to a possible estimate of the number of 1-4 year olds in Australia who might exceed 10 µg/dL being 75,000 children.

**The National Blood Lead Survey also apparently convinced all Australian governments except the NSW Government, that the NHMRC targets for 1998 had already been achieved by 1996. What other governments failed to acknowledge was that the NHMRC targets are community targets, not targets for the whole nation as an average, and so need to be met community by community. These governments appear to believe that only point source communities such as Port Pirie in South Australia require further blood lead level reduction programs. Cities other than NSW cities seem to be regarded by State EPA's as lead-safe for children. The LEAD Group (and NSW Government) know this is not true - a child can be lead poisoned anywhere in Australia and all older urban areas or old houses pose a particular risk of lead poisoning for children.**

- *To reduce the exposure to lead of all organisms by reducing a) future lead pollution such as from industry and lead in petrol; b) the effects of past lead uses such as in paint; c) the effects of current lead contamination.*

2002 REPORT: **It is very difficult to gauge changes in the level of emissions of lead to the environment and even harder to gauge changes in the exposure to lead of all organisms.**

a) It is probably true to say that the greatest reduction in lead exposure of all organisms in general, is achieved by reducing the emissions of lead from motor vehicles. And that the greatest reduction in lead exposure of organisms in close proximity or downstream from industry is achieved by reducing lead emissions from mines and smelters. So the following points can be made:

- The phase-out of leaded petrol in Australia as at 1<sup>st</sup> January 2002 is possibly one of the greatest lobbying victories of The LEAD Group and has apparently resulted in universal achievement of the National Environment Protection Measure for Ambient Air Quality lead in air goal of less than 0.5 µg/m<sup>3</sup> by 2008, in all major cities.
- With the closing of the Port Kembla Copper Smelter in 1996, clearly the claimed “largest lead emitter in NSW” has drastically cut its emissions. However, the smelter re-opened in 1999, with significant emissions likely. The Pasminco lead zinc smelter at Boolaroo has been allowed to expand its operations on the condition that it achieve reductions in emissions of sulphur dioxide and heavy metals. The EPA licence requires that an ambient air lead level of 1.0 µg/m<sup>3</sup> be met outside the “buffer zone” (children are not permitted to live inside the buffer zone). It was one of the consent conditions of DUAP (Dept Urban Affairs and Planning NSW) for approval of Pasminco's expansion and upgrade, that all toxic effluent discharge (of lead and other heavy metals to the local creek) must cease by the year 2000 and this was apparently achieved thanks to the excellent lobbying and tenacious watchdogging by Theresa Gordon of No LEAD.
- The Broken Hill mining operations and freight movement of ore have contributed significant quantities of lead to the environment for more than 100 years. Only since 1998 was Pasminco forced to cover the train loads of ore which previously spread lead dust along the entire length of the train line to Port Pirie.
- New lead mines have opened since 1993 and the very large Century mine in Nth Qld was transporting ore to the MIM smelter at Mt Isa (Qld) in 1999. The Fitzroy Crossing (WA) mine began shipping ore overseas via the port at Derby (WA) in 1998. Aboriginal members of both communities sought information about possible effects on ecosystems from The LEAD Group, and have fought hard for strict emissions controls.
- In September 1997 the Pasminco lead zinc smelter in Hobart stopped dumping jarosite (a waste product containing lead and arsenic) at sea, after making 9,089 dumpings.
- The Northern Territory and South Australian parks and wildlife services had placed a ban on lead shot in the duck season by 1998 and the Victorian government banned the use of lead shot over wetlands in 2001 but no other states have followed the 1996 ANZECC recommendation that lead shot be banned in wetlands (for waterfowl protection etc) by the year 2000.
- There is no proposal in Australia to consider legislation similar to US legislation which ensures that prospective buyers of housing or prospective tenants must be notified of lead hazards in the home. The NSW Greens have however taken this up in their lead policy for the 2003 NSW election.

Objectives:

*1.0 to convince the National Health and Medical Research Council (NHMRC) to change, at the June 1993 meeting, from recommending a blood lead 'level of concern' of 25 µg/dL (micrograms per decilitre) to recommending blood lead standards in line with the US Centers for Disease Control's intervention levels – 10 µg/dL to spark community prevention activities, and 15 µg/dL as the intervention level for individual children.*

2002 REPORT: This objective, precisely as written, was **achieved** in June 1993.

*2.0 to convince employers in lead and lead-related industries, and government agencies dealing with them, to foster responsible employment practices in accord with the principles of ecologically sustainable development and the rights of all workers, their children and future children to protection from the health hazards of the working environment.*

2002 REPORT: The National Standard for the Control of Inorganic Lead at Work was declared by WorkSafe Australia in October 1994. It aims, among other things to “progressively reduce lead exposure and blood lead levels to convert existing lead-risk jobs to non lead-risk jobs.” The National Lead Standard is based on the principle that employers have a “duty of care” obligation to worker health and safety as well as to the unborn child, and employers must discharge their obligations under the sex discrimination act and equal opportunity act at the same time as protecting workers health (including reproductive health).

The National Lead Standard does not however mention the principle of ecologically sustainable development. The LEAD Group is not aware of a single employer in lead or lead-related industries who fosters responsible employment practices in accord with the principle of ecologically sustainable development. At the United Nations conference on Sustainability in Newcastle in 1997, a leading researcher on zero emissions industries declared that lead mining and smelting operations were simply **not ecologically sustainable**.

The LEAD Group is happy to report that there are now manufacturers or distributors in Australia, of lead-free products which we hope to see being substituted for what are currently leaded products such as:- fishing sinkers, shot (used in hunting), bullets, flashing, PVC cable sheathing, PVC plastic products (such as mini-blinds), mirror-backings, line-marking paints, solder, collector's metal miniatures, chess pieces, artist's paints, industrial paints, lead-core wicks for candles.

A requirement of the National Lead Standard is that the Standard be reviewed in 4 years, ie in 1998. As of October 2002 the review has still not occurred.

Unfortunately, the National Standard has still not been adopted in any state or territory legislation in Australia. In NSW this results in various lead workers coming under 5 different NSW acts, including the Mineral Resources Act which does not even require that workers be blood lead tested.

**The NSW Police Department had the evidence to justify blood lead testing its 350 pistol instructors since the Lead Advisory Service (LAS) NSW presented the information to their OHS [Occupational Health and Safety] section) in 1996, but only a self-reported result in one shooter of 70 µg/dL and a result of 24 µg/dL in a pregnant police officer, inspired universal testing of instructors to begin in September 1998.**

*3.0 To raise awareness among parents and health care providers, and/or to bring about legislative and policy changes, in order to achieve targeted blood lead screening of all 'at risk' 12-48-month-old children by the end of 1994. Knowing a child's blood lead level provides the motivation for lowering it.*

2002 REPORT: Project Officers at the Lead Advisory Service Australia (LASA), and before that at the Lead Advisory Service (LAS) NSW and National LEADLINE Service, (all run by The LEAD Group Inc) have advised thousands of parents of at-risk children, to ask their doctor for a blood lead test. For example, in the five years since October 1997 our database records that 1959 callers were referred (after identifying specific risk factors) during parent-to-caller (mostly parents) advisory calls, to their GP. Parents were given the same advice in over 60 seminars conducted by LAS, and hundreds of thousands of factsheets with this message were distributed at major shows or by post-out.

In 1994, the commonwealth government published and distributed a booklet to every GP in Australia, with the guidelines for determining whether a child was at risk and therefore should be blood lead tested. The booklet was written by two members of The LEAD Group's Technical Advisory Board.

A proposal to include a page about lead in the "Blue Book" which every mother receives when her child is born in NSW, was refused in 1997 by the NSW Health Department. The cost of adding the lead page, \$75,000, was considered "too high". By the NSW government's own reckoning every child under 5 who has an average blood lead level of 10 µg/dL will lose two IQ points and the consequent cost of this to the community (in remedial education costs, health costs and lost earning potential) is estimated to be \$5,190 per IQ point lost, or \$10,380 for two IQ points. In 1996, there were an estimated 5,617 children under 5 years in inner (Central) Sydney alone, whose blood lead level exceeded 10 µg/dL (Mira et al 1996). So the cost to the community if these children had a blood lead level of 10 µg/dL, (5,617 times \$10,380 equals) is **\$58,304,460**. But the estimate was that these children actually all had a blood lead level **above** 10 µg/dL, so \$58,304,460 is a very conservative estimate. There is a greater IQ loss and therefore a greater cost per child as the blood lead level rises above 10 µg/dL.

Since June 1997 the NSW Health Dept has distributed "Pregnancy Care" with a page on lead poisoning and the phone number for LASA, to every antenatal class attendee at hospitals throughout NSW. In 2002, Bounty Services began distributing a listing for LASA in a magazine in their free Bounty bag provided to new mothers in Australian hospitals.

In 1997, the Lead Advisory Service NSW achieved a coup in terms of lead poisoning awareness (which could possibly impact on the rate of blood lead testing) in that we requested that Lead Poisoning Awareness Day be declared to mark the 100<sup>th</sup> anniversary of a landmark publication by an Australian doctor, in a medical journal, noting the possible causes of childhood lead poisoning, on 20<sup>th</sup> October 1897. The NSW Health Department, gazetted Lead Poisoning Awareness Week which was launched by Health Minister Andrew Refshauge on 20<sup>th</sup> October 1997. In 1998, there was national interest in Lead Poisoning Awareness Week as it was noted in several events calendars. Since 2000, the LEAD Group has marked International Lead Poisoning Awareness Day as the 20<sup>th</sup> October with International Lead Poisoning Awareness Week hinged around the 20<sup>th</sup> October but also taking into account that the US marks the last week of October each year as Lead Poisoning Prevention Week.

A Lead Safe booklet entitled "A Guide for Health Professionals" was published in 1997 by the NSW Lead Reference Centre (LRC), but was not distributed generally to doctors, even in NSW. Through the General Practice Education Program (GPEP) of the NHMRC, The LEAD Group assisted in taking a copy of the NSW booklet at least to doctors in inner Sydney in 1999-2001. The LRC booklet was distributed along with a special doctor issue of The LEAD Group's publication, LEAD Action News entitled, "A Doctor-Lead Recovery".

LEAD Action News vol 6 no 2 contains new LEAD Group policy, borne out of frustration at the low rate of blood lead testing of children in Australia. Professor Michael Mira of The LEAD Group's Technical Advisory Board, estimated, based on population and the results of the most recent community survey (Mira et al 1996), that 1,960 children under the age of five years living in

Central Sydney, have blood lead concentrations greater than 15 µg/dL. As mentioned above, in 1994 the NSW EPA estimated that, allowing only 2 IQ points loss (some studies find a 7 IQ point loss) for each 10 µg/dL, the cost of the IQ change of having a blood lead level of 15 µg/dL for the first four years of life was \$15,570 per child. Again, there is a greater IQ loss and therefore a greater cost per child as the blood lead level rises above 15 µg/dL. So a conservative estimate of the cost to the Central Sydney community of having 1,960 children with a blood lead level greater than 15 µg/dL (1,960 times \$15,750 equals) is **\$30,870,000**. As of December 1996 pathology laboratories in NSW were required, under the Public Health Act 1991, to report to Public Health Units all patients with a blood lead level above 15 µg/dL. In 1997, out of the estimated 1,960 children, only five children were sent by their doctor for blood testing **and** reported by the pathology laboratory as having a blood lead level greater than 15 µg/dL. When only five children are identified, clearly the maxim Knowing a child's blood lead level provides the motivation for lowering it, never has a chance of operating. By comparison, around the Pasminco Cockle Creek lead smelter, where the Public Health Unit carries out 6 monthly blood lead testing, the December 1998 round identified 246 children with blood lead levels greater than 15 µg/dL.

The new LEAD Group policy is for opportunistic blood lead screening whenever a child is having blood taken for any other purpose. The LRC was hopeful of achieving this at every hospital in NSW before their funding ran out in June 1999. The report of 700 opportunistic blood lead tests organised by the LRC still has not been published as at October 2002. The other component of the new LEAD Group policy is for universal questionnaire screening of children by having every parent fill in a questionnaire on lead risk. Apart from some of the Central Sydney doctors involved in the lead GPEP in 1999-2001, very few doctors are known to use questionnaire screening. The NSW Health Minister advised The LEAD Group in 2001 that the Health Dept would soon be incorporating lead questions into a questionnaire to be used to determine which children should be screened for which health problems, but The LEAD Group has never seen any evidence that this was actually done.

The newsletter (LEAD Action News, vol 6 no 2 1998) contained a Questionnaire for Parents on Child Lead Risk Factors which was handed out by the thousand at the 1999 Parent, Baby, Toddler Show.

**In conclusion, awareness has been raised and a policy change was achieved by the end of 1994. Unfortunately, targeted blood lead screening of all at-risk 12-48 month-olds has still not been achieved, except in smelter and mining communities in NSW and SA.**

*4.0 To raise awareness within the community and the various environment protection agencies, and/or to bring about legislative, policy and behavioural changes in order to achieve 3-monthly average air lead levels on major roadways and adjacent to stationary point sources of lead emissions, below 1.0 µg/m<sup>3</sup> by 1995 and below 0.5 µg/m<sup>3</sup> by 2000.*

**2002 REPORT: Unfortunately, air lead levels on major roadways are not regularly measured in Australia and ambient air monitors do not purport to be relevant to people living or attending childcare on major roadways. Based on the urban monitoring that has been done, this objective was apparently achieved.**

The National Environment Protection Measure for Ambient Air (June 1998) declared that:

“Current monitoring indicates that with respect to metropolitan areas, ambient lead levels are generally below 1 µg/m<sup>3</sup> three month average and falling, and that in the capital cities they are already below 0.5 µg/m<sup>3</sup> (three month average)...

“Accordingly, the standard for lead, as measured at each performance monitoring station is:

- 0.5 µg/m<sup>3</sup> (micrograms per cubic metre) averaged over a one year period, reported as a fraction of TSP (total suspended particulates).

[The Goal being to meet the standard within a 10 year timeframe. No exceedences are allowed.]”

This federal policy, which has already been adopted into legislation in every State and Territory, is mystifying in its claim that lead in air levels are already low, while persisting with giving industry 10 years in which to comply with the goal, a timeframe The LEAD Group tried hard to shorten to 2 years.

*5.0 To convince environment protection agencies:*

*5.1. to lower the maximum allowable lead content of leaded petrol to 0.3 g/L immediately, in line with the 1983 Victorian standard and to 0.15 g/L in line with Europe, by June 1993;*

2002 REPORT: **This objective was not achieved within the specified times in any state and has still not been achieved by any state or territory although the average lead content of leaded petrol sourced from Victoria and NSW fell to 0.15 g/L at the end of 1994.**

In general, levels of lead in petrol were lowered as at 1998, by between 25% and 72.5% among the various states. Specifically the Lead Roundtable agreement (29<sup>th</sup> July 1993) was that "petrol sourced from Victoria and NSW move to 0.2 g/L at 96 RON by the end of 1994 and that other States move to 0.3 g/L at 96 RON by 1994 and aim to get to 0.2 g/L by 1995. A total phase-out should be achieved as soon as practical."

The NSW Clean Air Act revision of 1997, reduced the regulated limit on lead in petrol from 0.8 g/L in country areas and 0.4 g/L in metropolitan areas, to 0.2 g/L throughout NSW. Shell Half-Lead contained only 0.1 g/L, so on average in NSW, the level of lead in petrol was 0.15g/L when leaded petrol was still being sold. The same average level was true of Victoria also since the end of 1994, due to Shell Half-Lead.

By 1<sup>st</sup> January 2002 all petrol for on-road use was unleaded (ie containing less than 0.013 g/L lead.

*5.2. to organise the public education campaign required to achieve parts a), b) and c) of the second aim above, by for instance, informing motorists who unnecessarily use leaded petrol, why they should convert to unleaded petrol or other fuels, informing employees in all lead-related industry how to prevent lead poisoning in their children.*

2002 REPORT: The federal Labor Government assigned \$4 million in 1994-6 to a public education campaign organised through CEPA, called the "Lead Alert" campaign, which had a major focus on informing motorists to use unleaded petrol, as well as informing renovators about lead-safe techniques. Hobbyists were a minor focus and unfortunately, informing employees in lead-related industry about lead, seems to be restricted to requiring an MSDS [Material Safety Data Sheet] for all hazardous products. Fortunately:

- The CEPA Lead Alert campaign included funding of a national LEADLINE telephone service run by The LEAD Group;
- The NSW Government's Lead Safe campaign has included funding of LAS [Lead Advisory Service NSW] community education service run by The LEAD Group.
- By dint of receiving the initial funding, the Lead Advisory Service Australia received funding sufficient to pay staff wages from the NSW government up until November 2000 and administrative (non-wages) funding from Environment Australia up until July 2002.

*5.3 to train and provide as a service to householders and proprietors of premises frequented by young children, environmental health officers to perform environmental sampling and/or interpretation of the results in order to list what steps should be taken to reduce the risks of lead exposure for children at that property;*

2002 REPORT: Notification of elevated blood lead levels was introduced in Queensland in 1995 and in NSW and Tasmania in 1996. In both states, Environmental Health Officers (EHO's) from the Health Department (Public Health Units in NSW) are required to do a free assessment of a lead poisoned person's home, to identify lead sources.

**This objective has been achieved in NSW, Tasmania and Queensland but not in other states or territories, although the South Australian and Victorian Departments of Human Services are able to provide this service IF a doctor or lead poisoned person or family member requests it.**

*5.4. to facilitate the assessment of the efficacy of products and processes which claim or are perceived to aid in lead hazard abatement;*

2002 REPORT: The Federal government commissioned the writing of an Australian Standard to assess the efficacy of devices and systems purported to aid in the switch from using leaded petrol to unleaded petrol (AS 4430.1-1996 "Evaluation of devices and additives which claim to improve vehicle performance. Part 1: Engines designed for leaded petrol to operate on unleaded petrol").

The Australian Standards for Lead Paint Management (1998), developed with the significant contribution of The LEAD Group's President, also determine which are the acceptable methods for lead paint removal. The simple claim of "lead-free" allows other products to not need to be assessed.

The great gap in environment protection agency's efforts to assess the efficacy of products for lead abatement, is that there has been no research which consistently looks at all claims by vacuum cleaner manufacturers and manufacturers of air filters in general, for their ability to reduce the lead contamination and total dust load of a room or space. The Lead Advisory Service Australia (LASA) has corresponded with Australian Consumers Association (ACA) researchers in an effort to ensure that their next article on the subject (due to be published in Choice magazine in July 1999) adequately addressed the issue. Unfortunately, this was not achieved.

*5.5. to oversee the training of lead abatement workers and inspectors;*

2002 REPORT: **Achieved to some extent.** The CEPA Lead Alert campaign included some effort to develop a TAFE [Technical and Further Education] course for lead paint management at Holmesglen TAFE in Melbourne, but the course apparently never was approved. Granville TAFE attempted to write a similar course which was piloted in late 1997 and early 1998, but the NSW EPA determined that the course needed major revision before it would be acceptable. It was a low priority for the Lead Reference Centre, to assist in the revision of the course and although LRC eventually wrote a course it has never been run in any NSW TAFE.

Two members of The LEAD Group's Technical Advisory Board, have since 1995 run a lead paint management course at Macquarie University and elsewhere throughout Australia. All of the painters certified to work on structures painted with hazardous industrial coatings under the Paint Contractors Certification Program, have attended lead paint training run by The LEAD Group's President and one of the Committee Members, as co-directors of CTI Consultants.

The Lead Reference Centre in NSW EPA has undertaken training sessions for Council EHOs (environmental health officers), in regional centres throughout NSW in 1997 and 1998. Michelle Calvert from LAS assisted in the training of EHO's to be able to undertake a home inspection to determine lead sources and pathways for people with a notifiable blood lead level (>15 µg/dL).

*5.6. to ban or otherwise eradicate the use of unsafe lead paint removal practices and other practices which may increase lead hazards (eg indiscriminate dumping of sump oil from leaded petrol cars);*

2002 REPORT: **No ban on unsafe lead paint removal practices seems likely in the current anti-regulatory Australian environment. Other practices which increase lead hazards, for instance dumping leaded used sump oil on the ground is now banned in NSW and dumping jarosite at sea is now banned federally. However it is still legal to use untreated sump oil as a fuel in industrial processes.**

The closest we come to a ban on unsafe lead-paint removal, is that the Australian Standards on Lead Paint Management specify acceptable methods of paint removal. The NSW Protection of



the Environment Operations Bill (commenced July 1999 but passed in 1997) disallows paint debris (whether leaded or not) from entering storm-water drains so, to some extent, this discourages the use of dispersive methods of paint removal. Actually stopping lead paint from getting into drains is however dependent on paint removalists being responsible (and hopefully trained and licensed), residents reporting incidents and councils responding appropriately to incident reports. The LEAD Group's Council LEAD Project of 2001-2 has gone a long way to educating NSW Council officers on their responsibilities in this regard.

The Protection of the Environment Operations Bill also disallows the dumping of sump oil in storm-water or sewerage systems. The use of sump oil as a weed-suppressant or dust-suppressant became illegal under the NSW Contaminated Land Act 1997. The use of untreated sump oil (that is used oil which has not had heavy metal contamination removed from it) as a fuel for industrial processes is not legislated against under the Protection of the Environment Operations Bill. The practice of using re-use oil as an industrial fuel is said to be rife.

As pointed out above, Pasmafinco has been forced to cover their loads in ore trucks leaving Broken Hill and to cease dumping jarosite at sea from the Hobart lead smelter.

*5.7 to limit new uses of lead and facilitate research into replacements for current uses;*

**2002 REPORT: We know of no Australian legislation which limits new uses of lead and no government-supported research into replacements for current uses, with the single exception that the NSW RTA [Roads and Traffic Authority] has encouraged the development of non-leaded line-marking paint.**

**The first draft of the OECD [Organisation for Economic Cooperation and Development] lead monograph (1991) certainly expounded a philosophy of limiting new uses of lead. This policy seems to have been taken up by a number of countries, especially Sweden, the Netherlands and the United States. Australian delegations to the OECD lead meetings however, argued against such policies and the final lead monograph (1993) reflects this, as the list of substitutes for lead in products was removed in the final monograph.**

The impacts of other countries' legislation and standards are fortunately felt within Australia, even if not to the same extent as in the country of origin. For example, Japanese vehicle manufacturers attempt to make vehicles for export which will comply with the environmental regulations in every country which will import the vehicles, so LAS has been asked for instance, whether leaded bronze components of car air-conditioning units or lead insulation blankets for engine casings would breach any Australian regulations. Other examples are that when Sweden banned lead crystal and California banned lead capsules for wine-bottles, the ripple was felt in the Australian market. The larger wine producers agreed to stop using lead capsules altogether so that their companies exports to California would be acceptable. Smaller companies however, continue to use lead capsules. The Australian wine industry, under no pressure from government and the ignorant consumers, opted for the "companies-can-suit-themselves" policy, along with an unobtrusive "education" campaign designed only to avert a panic. The wine industry felt consumers were incapable of determining the difference between leaded and non-leaded metal capsules, and they did not want to lose sales by alerting (especially pregnant or lactating) people to the possibility of lead contamination of the wine.

LASA has handled 75 calls on the subject of alternatives to lead in products and 580 calls on the subject of bans or recalls of leaded consumer products since 1999. We assist people wherever possible on their research into alternatives to lead and have written a factsheet called "Alternatives to Lead in Products" and web-published a list of lead-free products and lead hazard reduction services and products on our website [www.lead.org.au](http://www.lead.org.au) in July 2001. In addition, in September 2002, our Council LEAD Project distributed a factsheet called "Lead-Free Products" to every Local Council in NSW.

*5.8. to maintain a register of lead-contaminated domestic and childcare properties as well as parks, and ensure that contaminated sites have their lead risks abated before sale of the property;*

2002 REPORT: **Not achieved in NSW, where only industrial properties are included in contaminated sites registers. "Let the buyer beware" is the operating policy. Domestic properties are however included in contaminated sites registers in Queensland and Victoria and presumably childcare properties can also be included.**

In NSW, a warning on the 149 Certificate is used in the Boolaroo and Broken Hill areas to notify prospective buyers of a soil lead level above 300 ppm [parts per million], though local property owners strenuously object to the practice. Having an excessive soil lead level does not preclude a property from being sold, though lending institutions are less likely to support a loan to buy a contaminated property. The soil lead result must only be recorded on the 149 Certificate if the soil has been tested. The lack of a requirement that soil be tested, even in known areas of contamination, leads to many people choosing never to allow soil lead testing (even when it is offered free of charge) on their property.

Councils have no statutory responsibility to maintain a register of contaminated sites independently of the EPA. Councils may require evidence that a site proposed for re-zoning is not, or is no longer, contaminated or will not harm people if re-zoned as proposed. Thus no register is kept of contaminated domestic properties in NSW. Even Councils can hire out a site that has been determined to be a lead hazard, for use by, for instance, a childcare centre.

*5.9. to map the information contained in such a register, as well as all the available information on past and present land use (eg the locations of premises licensed to emit lead) for use in directing resources for testing for other contaminated sites and for blood lead screening of preschoolers;*

2002 REPORT: **Not achieved. This remains a good idea.** The good guide for Sydney siders is that the CBD [Central Business District] has the highest contamination level, with levels decreasing with distance from the city. Soil researchers from Sydney University mapped soil lead levels in the Glebe area and Jason Bawden-Smith, mapped soil and dust lead levels for 50 houses in Balmain for his Masters Thesis in 1992. The International Lead and Zinc Study Group (ILZSG) has published a map of lead and zinc smelters in Australia (and other countries) in "World Directory: Lead and Zinc Mines and Primary Metallurgical Works" (1994)

*5.10. to oversee the purchase and hire to the public of lead testing and abatement equipment.*

2002 REPORT: **This has only been achieved in point source towns where HEPA vacs are available for free use by residents eg in Port Pirie, Boolaroo, Broken Hill and Port Kembla. Commercial interests have ensured that HEPA vacs are available for hire in Melbourne and Sydney. LASA was unable to gain funding for our proposed project to encourage all equipment hiring companies in NSW to have HEPA vacs in early 1999.**

**LASA has also encouraged hardware stores and lead assessors to stock lead check kits (which change colour to show lead is present in paint, ceramics and plastics).**

**The ACT Department of Housing has purchased XRF machines for lead assessment in public housing – though these are not appropriate for use by the public as they require an operator's licence. An XRF machine is also used in Broken Hill by the Environmental Lead Centre.**

*5.11. to fund a Lead Information Centre and service for parents in the Central and Southern Sydney Area Health Service, operated by the LEAD Group.*

2002 REPORT: The LEAD Group has successfully convinced various agencies to fund us to run an information service for parents and the rest of the community, continuously since 1991, with funding from Environment agencies and other government and non-government agencies, targeted at residents in the local area, and in the peak coverage since the LEADLINE service, the

whole of Australia. **The LEAD Group has achieved way in excess of this objective** through the grants won to run the services as listed below:

- \$1,000 from Leichhardt Council in 1992 to run lead presentations;
- \$5,000 from the NRMA in 1993 to run The LEAD Group's information service;
- \$10,000 from (federal) Grants for Voluntary Community Organisations to run The LEAD Group's information service in 1994;
- \$150,000 from the Commonwealth Environment Protection Agency in 1995 to run LEADLINE National freecall telephone information and referral service;
- \$290,000 from the NSW Environment Protection Agency in 1996 to run the NSW Community Lead Advisory Service community outreach, information development and phone service; and
- \$290,000 from the NSW Government in 1997 to run Lead Advisory Service NSW.
- \$300,000 from the NSW Government in 1998 to run Lead Advisory Service NSW.
- \$215,000 from the NSW Government in 1999 to run Lead Advisory Service NSW.
- \$88,000 from the NSW Government in 2000 to run Lead Advisory Service NSW until November 2000.
- \$15,000 per annum from Environment Australia in 1999-2000 to run Lead Advisory Service Australia (LASA).
- \$20,000 has been promised from Environment Australia for FY 2002-3 to run Lead Advisory Service Australia but the funding had not been received as at 23<sup>rd</sup> October 2002.

#### **6.0 To convince health agencies:**

**6.1.** *to train paediatric health care providers to ask parents at each visit about any changes in their child's behaviour or circumstances which may increase the child's lead poisoning risk (eg child has started to crawl, or was present during removal of carpet) and by informing parents of the appropriate nutritional, hygiene, housekeeping, gardening and renovating measures required to reduce the risks of lead poisoning;*

2002 REPORT: With the failure of the recommendation to include a page about lead in the Blue Book, alluded to above, **this objective is unlikely to be achieved.** There are perhaps a handful of doctors and early childhood centre nurses who have come into contact with The LEAD Group over the years who actually ask parents at each visit about children's lead risk factors.

**6.2** *to achieve the goal of universal blood lead screening of all 6-72-month-old children by the year 1995;*

2002 REPORT: **This objective has proven to be totally unachievable ever, in Australia.**

**6.3** *to produce educational material which supports the above objectives, for dissemination to doctors (through liaison with continuing education authorities, curriculum development units, doctors' organisations and media aimed at doctors), early childhood centres, day-care centres, playgroups, Nursing Mother's Association groups, antenatal classes, local councils (similarly through organisations which have input into these groups such as the Australian Institute of Environmental Health, Australian Community Health Association, Kindergarten Union Children's Services, local government etc, and through the media aimed at these groups).*

2002 REPORT: **The LEAD Group has convinced health and environmental agencies to create two major sets of information products on lead, including booklets for healthcare professionals** (as described above):

- 1. The Lead Alert series of factsheets (one factsheet in 10 community languages), booklets, posters and a media campaign produced by the Commonwealth government in 1994-5. In all, one million items were published and distributed nationally. And,**
- 2. The Lead Safe series of factsheets (one factsheet in 8 community languages), booklets and media campaign produced by the NSW government in 1997-8.**

**Instead of relying on government to produce timely and credible education materials, the LEAD Group has felt the need and acted on it, to supply the community with LEAD Group-produced education materials since 1991 until the present.**

With the typical timeliness and thoroughness that can only be achieved by a non-government organisation, The LEAD Group has always filled information gaps that the government was unable or unwilling to fill. Since 1991, The LEAD Group has produced over 40 information packs, over 60 factsheets, 33 newsletter issues, **a website which has over 1000 readers every week**, a chapter in each of two books and generated hundreds of media items on TV, radio, and in newspapers, newsletters and magazines. Hundreds of thousands of information products are estimated to have been distributed by The LEAD Group directly since 1991 but in the 5 years since October 1997 our database records **359,073 information products distributed**. As well, The LEAD Group has encouraged business organisations to produce factsheets and generate media about lead abatement or assessment products and services, and lead-substitute products.

*6.4 to investigate other sources of lead exposure with a view to legislating against them or otherwise lessening their effects. For example, to investigate the level of lead in packaging and its contribution to heavy metal fallout around municipal incinerators.*

2002 REPORT: **No health department, as far as we know, has done any more than the NHMRC which commissioned an intense investigation of other sources of lead in 1993, resulting in some 15 major and 30 minor recommended strategies for lead poisoning prevention, hardly any of which were followed. The NSW policy development process began with the writing of the Lead Issues Paper (March 1993) which covered many sources of lead exposure, and culminates with the year-long process of developing the Multi Criteria Analysis which unfortunately is not yet available. Thus very little has been done in NSW by the Health Department or any department to investigate less obvious sources of lead exposure. The Lead Reference Centre has had the intention of testing for lead in food cling wrap for nearly two years.**

In LEAD Action News vol 1 no 1 Feb 1993, The LEAD Group published a list of 51 sources of lead and 22 pathways of lead poisoning. Since 1992, The LEAD Group has investigated and advocated against the following less-easily recognised sources of lead:- hair-colour restorers, packaging inks, printing inks, explosives, brass and bronze, soldered food cans, solder for radiator repair, leaded PVC, fishing sinkers. In 1997, Elizabeth O'Brien came up with the true statement: "Every source of lead hurts someone, somewhere, sometime"; and had a supporting article published in the most widely distributed parents newspaper in Sydney (Sydney's Child).

*7.0 To convince health and environment protection agencies to cooperate:*

*7.1 to set up lead task forces which steer lead poisoning prevention activities and further research, with the involvement of community groups and;*

2002 REPORT: **No government has set up a lead taskforce which includes community representatives on the task force though the Federal and NSW Labor governments both set up lead taskforces which involved community groups on working groups / consultative committees.**

The National Health and Medical Research Council (NHMRC) (a member agency of the Federal Lead Taskforce) commissioned a report "Reducing Lead Exposure in Australia" published in July 1993. The report contained "Recommendations for a National Strategy" (see below), but the Federal Lead Taskforce was disbanded following the 1995 Lead Alert education campaign and with the exceptions noted below, most of the priority and other recommendations were never carried out.

The NSW Lead Taskforce was disbanded in February 1994 and its NSW Lead Management Action Plan was published in November 1994.

*7.2 to set up and operate community lead centres to carry out the relevant above objectives.*

2002 REPORT: The only lead centre that was operational at the time this objective was written was the Environmental Lead Centre (ELC) in Port Pirie. In 1992, the then Shadow Health Minister Dr Andrew Refshauge officially opened the Community Lead Information Centre in the front room of the home of The LEAD Group's then President, Elizabeth O'Brien. The Centre was not government funded until 1994. In 1993, the Broken Hill ELC was set up as a matter of urgency, even before the Broken Hill lead strategy had been finalised. In 1994 the fine campaigning efforts of NO-LEAD [Northern Lakes Environment Action Defence] resulted in the North Lake Macquarie EHC [Environmental Health Centre] being set up. Despite the fine efforts of IRATE [Illawarra Residents Against the Smelter], Wollongong remains without an ELC, although Illawarra PHU [Public Health Unit] has employed an education officer specifically for lead education in 1998. A funding application from The LEAD Group in 1996 to NSW EPA for a Community Lead Centre for Central Sydney failed to get up, although the LAS funding covers many of the above objectives, but for residents throughout the state. LAS funding was cut by 27% for its third year of operation (FY 1998-9) and continued funding past June 1999 seems threatened by the notion that the lead problem is solved.

*7.3 to form a strategy to achieve the elimination of childhood and foetal lead poisoning within one decade.*

**2002 REPORT: The Victorian and NSW Governments and the Federal Government are to be congratulated for formulating lead strategies. Other States and Territories have not even formulated a lead strategy though ACT Housing Department has acted on lead in public housing and the training of painters.**

Victoria seems to have developed a Lead Strategy (1993) without any community consultation and the NSW Government has developed two strategies – one resulting from the Lead Taskforce process, involving 200 recommendations, and one which came out of the 1994 Parliamentary Select Committee Upon Lead Pollution, also involving 200 recommendations. The Multi Criteria Analysis process (long-awaited) and the Strategic Plan of the Lead Reference Centre (1997) are designed to rationalise and prioritise all 400 recommendations. The NSW EPA is currently undertaking the task of comparing what has been achieved to what was proposed and assessing the need for further actions.

The Federal Government had a Lead Taskforce which was disbanded following the Lead Alert education campaign. With the following exceptions, none of the priority or other recommendations of the National Strategy developed by the Lead Taskforce, were carried out. Only the cheapest and easiest strategies were acted on by CEPA [Commonwealth Environment Protection Agency] / EPA [later called just "EPA"] / EA [later called Environment Australia]. EA has wound up all activities regarding lead.

Priority recommendations of the National Strategy which were wholly or partly carried out are:-

1. Disseminate Guidelines for Lead to Health Professionals, and
2. Review current ambient air objectives for lead.
4. (in part) Increase excise on leaded petrol by at least two cents per litre...
5. (in part) Develop and implement high-profile program for home renovator's to warn of dangers and recommend safe techniques...

Other recommendations of the National Strategy which **were** carried out are:-

- Encourage fuel efficiency among drivers of pre-1986 cars;
- Develop information materials for people engaged in hobbies involving lead; and
- Work with plastics industry to identify current uses of lead additives and develop alternatives.

The priority recommendations of the National Strategy which were wholly or partly **not** carried out, are:-

3. Lower the limit for lead in petrol to 0.15 grams per litre. Refine costings for lowering to 0.026 grams/litre. Impose controls on benzene and other aromatics in petrol.
4. (first part which was done:) Increase excise on leaded petrol by at least two cents per litre, (second part which was not done:) with the revenue earmarked for lead abatement activities. Implement on-going information / education program targeted to drivers, car mechanics.
5. (first part which was done:) Develop and implement high-profile program for home renovator's to warn of dangers and recommend safe techniques. (Second part which was not done:) Provide appropriate subsidies for temporary accommodation during renovation.
6. Identify housing with high risk of lead paint exposure. Implement inspection program. Abate paint in high-risk houses. Develop training program for paint abatement workers. Develop methods for disposal of wood painted with lead-based paint.
7. Inspect and abate lead-based paint in public housing.
8. Implement pilot program for testing lead in first flush drinking water, rainwater tanks and drinking fountains. Conduct education program to inform home handy persons of the dangers in using lead solder in plumbing. Review drinking water guidelines for lead in context of an overall lead reduction strategy.
9. Develop a screening and monitoring program
10. Develop and implement nutrition programs to reduce iron deficiencies among young children.
11. Implement coordinated remediation programs in smelter/mining communities.
12. Adopt and implement a broadly-based consultative strategy to ensure that a national strategy meets the needs of individuals affected as well as of government departments.

The other recommendations of the National Strategy which were **not** carried out, are:-

- Undertake a program to rationalise the many and varied regulations covering lead use in products;
- Prohibit sale and use of lead shot, lead in children's toys, paints and crayons, lead fishing weights, lead curtain weights and other products in which lead can be readily replaced;
- Evaluate sources of lead in food. If the primary contributor is found not to be petrol, identify and implement programs for reducing lead content,

- Review air pollution requirements for incinerators
- Examine availability and labelling of paint containing lead. Determine if lower lead content is feasible. Determine if greater restrictions, warnings and/or information programs are required to prevent use in domestic situations,
- Develop mechanisms for notification of potential purchasers by vendors of homes containing lead-based paint,
- Examine the extent of current recycling programs for products containing lead, such as batteries, television sets, electronic devices, light bulbs and others. Identify barriers and opportunities for recycling. Where appropriate, develop programs for greater recycling of these products,
- Work with plastics industry to identify current uses of lead additives and develop alternatives,
- Examine cosmetics and hair dyes in Australia to determine if they currently contain lead. If so, adopt appropriate regulations to eliminate its use,
- Determine if traditional medicines containing lead are in use in Australia. If so, working with the relevant community, develop information materials and programs to warn of dangers and to discourage use,
- Examine the current status of sump oil recycling programs and determine if efforts are needed to encourage further recycling.

**There is much work remaining to be done on the national lead strategy, which, if not carried out by the Federal Government using the millions of dollars raised in the leaded fuel tax, falls to corporations, community groups or State or Territory Governments.**