LEAD CONCENTRATIONS IN HUMAN BLOOD, GUIDELINES

1432. Mr B.K. Masters to the Minister for Health

(1) Under state and federal guidelines, what are the recommended maximum concentrations of lead in human blood above which there may be a risk to human health?

(2) What studies have been done in Western Australia in recent years to show the average and range of concentrations of lead in humans, in particular, to show what impact the banning of leaded petrol has made to overall lead levels in the community?

(3) What are the most common sources of lead in the Western Australian environment, now that leaded petrol is no longer available?

(4) What research has been conducted to show a correlation between the level of lead in children and their intellectual development?

Mr R.C. KUCERA replied:

1. The National Health and Medical Research Council has not recommended a maximum concentration of lead in human blood, as the level at which there is no risk to human health has not been definitively established. However the Council has set, as a national goal to be worked towards for all Australians, a blood lead level of less than 10ög/dL. The Council also recommends that cases of blood lead in excess of 15ög/dL should be investigated to see if a source of lead exposure can be identified and removed.

2. Recent studies of blood lead concentrations of Western Australians with no point source exposure to lead were conducted in 1991 (Health Department of Western Australia, Perth), 1995 (Australian Institute of Health and Welfare) and 2003 (Department of Health, Brookdale). The Brookdale survey, the first of any significant size known to have been carried out in Australia since the phase out of leaded petrol, shows a very substantial decline on levels previously detected. All petrol has been lead-free in Western Australia since January 2001.

3. The most common exposure for the wider population would be paint in older houses, which was lead-based. Renovation of older (pre-1970) houses poses special risks of inhalation of lead-containing dusts or ingestion of flakes of lead paint. Occupational exposure is still possible in industries such as the manufacture of pigments, battery manufacture, lead light windows etc.

4. A substantial body of well recognised research shows the association between exposure to lead and reduced intellectual capacity in exposed children.