

In Confidence

Office of the Associate Minister of Health

Chair, Cabinet Social Wellbeing Committee

Proposed revision of the notifiable level for lead absorption under the Health Act 1956

Proposal

1. This paper seeks Cabinet agreement to issue drafting instructions to amend Section B of Schedule 2 of Health Act 1956 to lower the notifiable level for lead absorption from 0.48 micromoles per litre of blood ($\mu\text{mol/l}$) to 0.24 $\mu\text{mol/l}$.

Background

2. Lead exposure, even at a low level, is well known for its harmful effects on children, resulting in lowered IQ and behavioural issues.
3. The blood lead level at which non-occupational lead absorption is a notifiable condition under the Health Act was amended in 2007 from 0.72 $\mu\text{mol/l}$ to 0.48 $\mu\text{mol/l}$. Currently just over 100 cases are notified to medical officers of health each year. However, multiple studies and reviews have concluded that blood lead levels below 0.48 $\mu\text{mol/l}$ are associated with several health effects, which include:
 - decreased IQ and academic achievement in children
 - adverse behavioural effects (attention, impulsivity and hyperactivity) in children
 - delayed sexual maturity or puberty onset in adolescents
 - increased blood pressure and risk of hypertension among adults and pregnant women.
4. The effect of childhood lead exposure on cognitive development appears to be irreversible. Children under six years are the group within the population that is most susceptible to lead exposure because:
 - their activities and behaviour (eg, hand-to-mouth) result in greater exposure
 - they absorb about 50% of ingested lead compared to 10-15% in adults
 - their developing nervous system is sensitive to lead
 - their diet may be low in calcium or iron thus increasing lead absorption in the body.
5. With the removal of lead from petrol in 1996, the main source of non-occupational lead exposure in New Zealand is from lead-based paint on and around pre-1980s houses.

Comment

6. It is proposed to further reduce the notifiable level to 0.24 µmol/l. A level below 0.24 µmol/l is not recommended, because there is limited evidence of the effectiveness of public health interventions below this level.
7. The Centers for Disease Control and Prevention (CDC) in the United States adopted 0.24 µmol/l as their reference value to identify children with elevated blood lead levels. In Australia, the National Health and Medical Research Council recommends investigating and reducing lead exposure if a person's blood lead level is greater than 0.24 µmol/l, particularly if the case is a child or pregnant woman.
8. In New Zealand, current notifications above 0.48 µmol/l are just over 100 per year. It is recognised that this is unlikely to be an accurate representation of elevated lead absorption in the New Zealand population. Many individuals with elevated blood lead go undetected as they do not show symptoms, or the symptoms are non-specific until lead levels are markedly higher.
9. It is expected that the increase in numbers of notified cases will be managed within existing DHB resources. For example, the Auckland Regional Public Health Service estimates a doubling of the notifications they receive, but noted that this would not necessarily double their workload. If notifications occur in adults with workplace exposures, these are referred to WorkSafe New Zealand. Adults with non-occupational exposures will be given advice on possible exposures, particularly if children may also be exposed, but are less at risk at these low levels of exposure because they are not subject to developmental defects.
10. The process for reducing the notifiable level for lead absorption requires amending Section B of Schedule 2 of the Health Act 1956. This is done via Section 3(a) which allows the Governor-General by Order in Council to add (or omit) any of the notifiable diseases set out in Schedules 1 and 2.
11. In 2019 the Ministry of Health circulated a proposal to lower the notifiable blood lead level to colleges of general practice, public health medicine, pathologists, obstetricians and gynaecologists, and physicians. We also consulted with the nursing and midwifery councils, medical association, paediatric society, medical laboratories (including Southern Community Laboratories, LabPlus, LabTests), DHB public health units, and relevant NGOs (e.g. Plunket, National Poisons Centre, Women's Health Action Trust, National Council of Women, Parents Centres NZ). There was a general consensus supporting the Ministry of Health's proposal to lower the current notifiable blood lead level from 0.48 µmol/l to 0.24 µmol/l.

Consultation

12. The following government agencies have been consulted on this paper: Department of the Prime Minister and the Cabinet, Environmental Protection Authority, Ministry of Education, Ministry for the Environment, Ministry of Housing and Urban Development,

Ministry for Primary Industries (New Zealand Food Safety), Ministry of Social Development, Ministry for Women, Te Puni Kōkiri, Treasury and WorkSafe New Zealand. The State Services Commission has been informed.

Financial Implications

13. There are no financial implications arising from this proposal. Costs from increased numbers of notifications will be managed within DHB baselines.

Legislative Implications

14. An amendment to the Health Act 1956 by regulations is required. An Order in Council will be prepared pursuant to section 3(a) of the Health Act 1956 to amend Section B of Schedule 2 of the Health Act 1956 to reduce the notifiable level for lead absorption.

Impact Analysis

15. The Treasury Regulatory Quality Team has determined that the proposal is exempt from the Regulatory Impact Analysis requirements as it has no or only minor impacts on businesses, individuals or not-for-profit entities.

Human Rights

16. The proposal in this paper is consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Gender Implications

17. It is expected that there will be benefits for pregnant women from a lower notifiable level as they would be assessed and managed earlier, thereby preventing further exposure and mitigating any adverse health effects.

Disability Perspective

18. It is expected there will be benefits from a disability perspective as the lower notifiable level will reduce the cognitive and neurodevelopmental effects of lead on children.

Publicity

19. The Ministry of Health will issue a media statement when the amendment is passed and in effect.

Proactive Release

20. I propose to proactively release this paper along with Cabinet's decision, subject to redactions as appropriate under the Official Information Act 1982.

Recommendations

21. I recommend that the Committee:

1. **Note** that multiple studies and reviews have shown that blood lead levels below 0.48 µmol/l are associated with adverse health effects, particularly in children, adolescents and pregnant women.
2. **Note** that reducing the notifiable level for lead absorption from 0.48 µmol/l to 0.24 µmol/l means that more lead-exposed individuals will be assessed and managed earlier, thereby preventing further exposure and mitigating the adverse health effects.
3. **Note** that section 3 of the Health Act 1956 enables the Governor-General to amend schedule 2 of the Health Act 1956 by Order in Council.
4. **Authorise** me to instruct Parliamentary Counsel Office to amend Section B of Schedule 2 of the Health Act 1956 to lower the notifiable blood lead level from 0.48 µmol/l to 0.24 µmol/l.

Authorised for lodgement

Hon Julie Anne Genter

Associate Minister of Health