DEPARTMENT OF THE
PRIME MINISTER AND CABINET
TE TARI O TE PIRIMIA ME TE KOMITI MATUA

Proactive Release

Submissions on the Child and Youth Wellbeing Strategy

August 2019

The Department of the Prime Minister and Cabinet has released the following submission received during its public consultation on the child and youth wellbeing strategy.

Some of the information contained within this release is considered to not be appropriate to release and, if requested, would be withheld under the Official Information Act 1982 (the Act).

- Where this is the case, the information has been withheld, and the relevant section of the Act that would apply, has been identified.
- Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

Key to redaction codes and their reference to sections of the Act:

- **9(2)a** – Section 9(2)(a): to protect the privacy of natural persons, including deceased people.

child & youth wellbeing

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Child and Youth Wellbeing Strategy – Submission Dec 2018

Contact Name:	9(2)□(a)
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Executive Summary:	In the face of emerging evidence that environmental chemicals contribute to chronic disease and neurological impairment, New Zealand *cannot be the best place in the world for children* if: (1) our chemical regulation does not reflect new scientific evidence on low dose chemical synergies, and if (2) there is no funding for complex, multidisciplinary research in the area of environmental toxicants and prenatal, postnatal and paediatric health. Neurological impairment and disability is placing profound stress on the health and education system, on government budgets and on families. Neurological problems can have motor/spatial; learning; mood and/or behavioural components. While attention is being paid to genetic, social, and psychological factors that contribute to the tsunami of problems health providers and educators are witnessing, there appears to be no research committment in New Zealand to assessing or preventing environmentally mediated disability from environmental chemical exposures. While NZ commits funding to understanding genetic mechanisms and the brain, most impaired children are demonstrably less functional than functioning parents, which indicates that environmental toxicants play a role in impacting gene function. There has been no political, social, cultural or economic will to understand the role environmental chemicals play in development of neurologically connected disability that can frequently express as comorbidities and place greater financial and social costs on society and on parents. Parents are overwhelmed with comorbidities yet research does not emcompass the role of synthetic environmental exposures and the brain. Statutory authorities operating under such legislation as the Health Act, the HSNO Act, New Zealand Public Health and Disability Act have a clear mandate – a fiduciary obligation – to protect public health. This can only be achieved if New Zealand has best practice research – *knowledge* - and regulation concerning environmental chemicals in our children. Our universities also have a moral obligation to take on the challenges of the 21st century, even if this involves enquiry, research and education that is unpalatable to corporate interests. How else can we ensure that our children thrive and grow up to be strong, healthy adults?

Submission Content
Proposed focus areas in the Child Wellbeing Strategy cannot be claimed to be best practice and in the best if the Ministry of Health and the NZ government continues to ignore clear scientific evidence that environmental chemicals can harm health and wellbeing: the particular **focus areas** that are immediately relevant to this area include: 6.Equity of Outcomes, 10.Healthy lifestyle decisions, 11. Improved outcomes for disabled people, 12.Mental Wellbeing, 14. Best development in first 1000 days., 15. Thriving developmentally – The focus areas are all dependent on safe environments and diets that nourish and enhance wellbeing. There is emerging evidence environmental chemicals that act as endocrine disruptors and/or neurotoxicants are damaging to developmental health. ***(1) The 2013 Disability Survey noted that neurodevelopmental disorders represent the most common impairment type for children.*** It also noted that forty-eight percent of children had multiple impairments, of which learning, psychological/psychiatric, and speaking difficulties were the most common. Māori children had higher-than-average disability rates which may reflect socio-economic status. Babies and children are especially vulnerable. They consume more by bodyweight; their organs are not fully developed (and can be damaged by environmental chemicals) and they cannot process toxic chemicals as efficiently as adults. See: Landrigan and Goldman Children's Vulnerability To Toxic Chemicals: A Challenge And Opportunity To Strengthen Health And Environmental Policy. doi: 10.1377/hlthaff.2011.0151 Prüss-Üstün et al 2016 Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks. WHO ***(2) Endocrine disruption is a massive elephant in the room.*** It is well recognised that environmental chemicals may be neurotoxic, but also act as endocrine disruptors at hormonally relevant levels and contribute to chronic disease. Endocrine disruptors can exhibit non-linear effects where greater harm can occur at a low level, rather than the dose-response mechanism used to understand risk used commonly by regulators. Disease and dysfunction from endocrine disruption has **been estimated to cost between 1-2+% of GDP in Europe and the USA**. Potential adverse impacts from endocrine disrupting chemicals can include breast and testicular cancer, heart disease, obesity, diabetes and birth defects. See: Attina et al 2016 Exposure to endocrine-disrupting chemicals in the USA: a population-based disease burden and cost analysis. The Lancet. DOI:https://doi.org/10.1016/S2213-8587(16)30275-3 ***(3) Chemicals that act as neurotoxicants are rarely studied in NZ.*** This can include lead, methylmercury, polychlorinated biphenyls, arsenic, and toluene, manganese, fluoride, chlorpyrifos, dichlorodiphenyltrichloroethane, tetrachloroethylene, and the polybrominated diphenyl ethers. However there is evidence a broader range of environmental chemicals may be neurotoxic than previously estimated – and chemical synergies are a 'black box'.

See: Grandjean and Landrigan 2014 Neurobehavioural effects of developmental toxicity The Lancet. DOI:https://doi.org/10.1016/S1474-4422(13)70278-3

(4) Current food safety regimes do not sufficiently protect children. The regulators are siloed and do not reflective of new knowledge. ADIs are derived from single chemical data and do not allow for retail formulation synergies, nor daily exposure to the 'exposome'. It is not representative of 21st century scientific knowledge, nor in the public interest, that the Ministry for Primary Industries simply analyses food ingredients separately and does not include pesticide formulation ingredients and the toxic synergies from formulation ingredients in analysis of dietary risk (For example bread may have glyphosate, glufosinate and 2,4-D in it). It is not representative of 21st century scientific knowledge that the Environmental Protection Authority places more weight on data supplied by chemical applicants; does not use formulation toxicity to arrive at important endpoints and ignores the fact that must agricultural crops have multiple applications of different pesticides (for example cereal crops can have fungicides, insecticides and herbicides applied to them). It is not representative of 21st century knowledge that FSANZ ignores combined risks from genetically engineered food that includes not only risk of hazard from the plant, but the toxicity arising from stacking technologies which includes multiple herbicide applications on the food product children will consume.

Together these Agencies have avoided consideration of toxic mixtures in their risk assessment; they have avoided new science that indicates pesticides (and other chemicals) act at hormonally relevant levels and may not act in a dose relevant manner and they do not consider the greater vulnerability of children in their risk assessment, as they follow the precedent of other regulators that also ignore childhood vulnerability and primarily use industry data to establish permitted exposure levels. Importantly these agencies have been unable to demonstrate leadership to advocate publicly for greater government protection of children from environmental chemicals, despite the fact that, as statutory authorities, they are required to protect the public. These agencies have demonstrated a reticence and resistance to considering these important new issues, and as such, the Ministry of Health must take greater leadership in this area and build close relationships with public health experts at arms length from industry influence (this includes the food industry, pharmaceutical industry, chemical industries and associations and lobby groups, for example the New Zealand Food & Grocery Council or AgCarm).

(5) Childhood exposures originate from multiple complex pathways. New Zealand families deserve a ministry with independent funding for researchers with a mandate to do independent science and prioritiese decision-making for children's health that acknowledges that publicly funded research must carry more political weight than corporate funded data, that is frequently unpublished and unavailable for public consultation. Agencies protecting pregnant mothers, infants and children must be at arms length from industry, and fully resourced so they are not reliant on industry data.

They require closer relations, for example, for independent cross-disciplinary relationships with experts in endocrinology, haematology, toxicology and nephrology, rather than with industry actors that so frequently select and supply the data used by our current Agencies and Authorities which include Food Standards Australia New Zealand, Ministry for Primary Industries and Environmental Protection Authority. The lack of scientists in this area is frightening.

This does not result from the lack of good academics and good scientists – but the lack of access to research funding so that this new biological pollution risk can be pursued, understood and acted apon.

(6) We cannot fail to account for the total cost of comorbidities in child and teenage health. It is not simply that environmental chemicals may be implicated in neurological impairment (this includes dyspraxia, motor/spatial skills, autism spectrum disorders, learning difficulties, reading challenges and ocular problems and behavioural issues). Long term other comorbidities may express, including but not limited to cancer, anxiety, depression, diabetes, obesity and so on. Lower-socioeconomic families are particularly vulnerable and inequality creates greater barriers to healthy food and healthy living environments. We live in an age where complex algorythms for selling advertising online, for studying RNA and DNA are commonplace. A dedicated effort to a twenty-first understanding of risk is possible.

(7) There appears to be no research being undertaken in New Zealand. Weekly, new agrichemicals, food ingredients, pharmacological products, household cleaning and personal care products are developed. Industry profits from this. GST tax is drawn. Does the public benefit? Without independent science to understand the role of environmental chemicals, to work with other independent groups, the only science that will be produced is industry safety studies produced to ensure their products can be marketed. There is substantial evidence that demonstrates corporate selection and supply of safety data is not in the public interest.

Which research arena will lead? The Centre for Brain Research and Brain Research New Zealand does not appear to study environmental chemicals and infant and paediatric health; and this is also outside of the 'research themes' of the Maurice Wilkins Centre. There is no brain research that seeks to understand cumulative effects of current infant and childhood exposures, nor seek to understand if toxic synergies from exposure mixtures happen at lower levels than estimated from single chemical exposure estimations. It would be helpful if the Child Wellbeing Strategy strategy was developed to acknowledge modern chemical risk as a factor that can limit and restrict outcomes and dedicate meaningful research funding to this cross-sector challenge. This is an issue that is not going to disappear and government leadership is essential so that the research have an independent basis

(8) The decision to commit scientific resourcing to this problem is political. The biggest limitation is political will, and this can be hampered by secrecy in political donations (in New Zealand four out of five political donations are not declared) which can drive political discretion; and by a media that relies on funding from the retail industry (including food, beverage, personal care, agrichemical and industrial) to support it. It is recognised fact that these industries will defend the use of chemicals in their products, produce research that supports and promotes retail sales, and seek to avoid disclosure of chemical ingredients.

We live in a time of 'fake news', and one of the most strategic ways democracy can navigate the health minefield is through independent funding in the public interest. For the sake of our babies, our children, and future generations, please can the Department of Prime Minister and Cabinet, Ministry of Health and the Childrens Commissioner, propose a strategy for moving forward, in the public interest.