

Agency: 303 Department of Health
Decision Package Code/Title: N1 Reducing Toxics in Early Life
Budget Period: 2015-17
Budget Level: PL-Performance Level

Recommendation Summary Text:

A significant and growing body of evidence indicates that fetal and early childhood exposures to everyday chemicals contribute to a number of childhood diseases and disabilities. The Department of Health (DOH) proposes to reduce these negative outcomes by developing and launching proactive efforts to prevent toxic chemical exposure during pregnancy and early life. DOH will identify priorities for exposure reduction, identify effective methods to reduce toxic threats, and direct policy and educational campaigns. Biomonitoring studies will be conducted to assess actual exposure levels and to evaluate reduction activities.

Fiscal Detail

Operating Expenditures		<u>FY 2016</u>	<u>FY 2017</u>	<u>Total</u>
173-1	State Toxics Control Account	411,000	919,000	1,330,000
Total Cost		411,000	919,000	1,330,000
Staffing		<u>FY 2016</u>	<u>FY 2017</u>	<u>Annual Avg</u>
	FTEs	3.8	8.0	5.9

Package Description:

A number of toxic chemicals can be found in consumer products, in people’s homes, and in the broader environment. These toxic chemicals in our everyday lives can interfere with normal development of the fetus and child, producing profound and lasting effects across a person’s lifetime. Asthma, lower IQ, behavioral disability (such as attention disorders), certain cancers, birth defects, reproductive abnormalities, and obesity have all been associated with early life exposures to toxic chemicals. These chronic diseases and disabilities are costly to individuals, families, the state budget, and the health care system. They prevent children from reaching their full potential and often disproportionately affect minority and low income populations. Early intervention to reduce chemical exposures during a child’s development will reduce the burden of chronic disease and disability. Currently, there is no coordinated public health effort in Washington State to prevent toxic chemical exposures during the critical early life period.

The goal of this request is to develop a coordinated public health effort to assess and prioritize top toxic chemical threats to children’s health, identify public health actions to reduce exposures to women of childbearing age and young children, and evaluate and demonstrate the impact of our work. The four elements of the proposed effort are outlined below.

Identify exposures of concern in Washington and establish priorities for prevention efforts

In fiscal year (FY) 2016, and every two years following, The DOH will review existing scientific evidence to assess chemicals that are:

- detected or suspected to be in women’s bodies
- known to adversely impact fetal development in animals or people
- likely to impact Washington residents

The review will prioritize chemicals expected to contribute to widespread children's health problems such as learning and behavioral problems, asthma, birth defects, and obesity. This analysis will build on existing toxicological and epidemiological research, biomonitoring studies, environmental monitoring studies, and other available information. Assessment work will also identify where more information, such as biomonitoring data, is needed to understand exposures to toxic chemicals in Washington or to identify populations potentially at risk of higher exposures.

DOH will convene an advisory panel of scientists and other experts to prioritize which chemicals and exposures to target for prevention efforts. This panel will further identify a list of priority environmental public health actions to carry forward into educational and policy work through FY 2017. As new chemical threats are discovered every year, DOH will re-evaluate and identify new priorities with the Advisory Panel every two years to ensure the department continues to address the chemicals and exposures of greatest concern for children's health.

In FY 2017 and ongoing, DOH will conduct biomonitoring studies to evaluate chemical exposures among women of child bearing age, pregnant women or children in Washington State based on priorities and data needs identified in FY 2016. Biomonitoring measures chemicals or their breakdown products (metabolites) in clinical specimens from people (e.g. blood and urine). Biomonitoring is a highly effective tool to estimate how much people are exposed to chemicals from all sources combined, such as from air, soil, water, dust, and food. These studies will use existing laboratory methods and/or develop new laboratory methods, as needed, to measure toxic chemicals in people. Biomonitoring activities will also include developing specimen collection protocols, recruiting participants and assuring compliance with human subjects requirements. When appropriate, DOH will partner with university researchers to develop and conduct biomonitoring studies.

Conduct education and outreach to women and health care providers:

DOH will develop and implement educational strategies for woman of childbearing age and their health care providers. In FY 2016, DOH will begin with priority education messages already identified by the American College of Obstetricians and Gynecologists (ACOG), the American Academy of Pediatrics, and other medical experts to protect the growing fetus from toxic chemicals. In FY 2017, education priorities identified by the FY 2016 assessment and prioritization exercise will be incorporated into this effort. DOH will integrate messages into existing departmental public health educational programs. DOH will work with health promotion experts within the agency and with existing DOH outreach programs and their partners. DOH expects this effort to have a broad reach; partnering with just two programs that serve Women Infants and Children (WIC) and Medicaid clients could allow the department to reach half of the 90,000 women who become pregnant each year in Washington.

DOH will collaborate with programs such as the Safe Deliveries Roadmap (<http://www.wsha.org/0513.cfm>) to engage and inform health care providers. This is a joint educational effort between the Washington State Hospital Association, DOH, and a number of professional associations to provide evidence-based recommendations to providers of pre-conception, pregnancy, and postpartum care. DOH will also conduct health care provider education through collaborations with the Pediatric Environmental Health Specialty Unit at the University of Washington.

The educational activities will develop key relationships and provide for the flow of vetted and trusted health information to the public and across the pediatric and women's health care system.

Develop and support policy actions

While educational efforts can provide an important reduction in exposure, DOH will also actively develop and support policy solutions to achieve more permanent toxic chemical exposure prevention. For example, most

products do not disclose the chemicals used to produce them. This makes it impossible for consumers to be aware of what chemicals they may be exposed to during use of a product. Policy solutions might include helping manufacturers utilize safer alternatives, improving labeling, or banning a chemical from certain products or uses in Washington State. Policy initiatives will be conducted in concert with stakeholders including the Department of Ecology and other regulatory and non-regulatory organizations.

Evaluate impact of public health action and program effectiveness

DOH will evaluate prevention efforts to ensure we are meeting the goal of reducing people’s exposures to targeted toxic chemicals. The Department will develop an evaluation plan with input from the advisory panel. Biomonitoring study will be used to monitor the impact of public health action on exposures in Washington and to evaluate the effectiveness of exposure reduction activities over time. DOH will also consider using traditional questionnaire tools such as the Pregnancy Risk Assessment Monitoring System (PRAMS), the Behavioral Risk Factors Surveillance System (BRFSS), or the Healthy Youth Survey to evaluate the effectiveness of the outreach and education efforts with at-risk populations as well as solicit direct feedback from health care practitioners on the value of resources developed for their continuing education courses and their patient education.

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Narrative Justification and Impact Statement:

What specific performance outcomes does the agency expect?

The outcome of this request will be:

1. Clear public health priorities for chemical reduction efforts (that will inform the Chemical Action Plan prioritization process and decisions made by policy makers, businesses, and consumers).
2. An increase in public and clinician awareness about the top chemical threats in Washington.
3. Reduced early life exposures to toxic chemicals targeted by prevention campaigns.

The long-term outcome will be reduced chronic disease and disabilities associated with toxic chemical exposures, decreased costs in school disability programs, reduced health care costs, and reduced social and economic costs to affected individuals and their families.

Performance Measure Detail

Activity: A005 Community Environmental Health

Is this DP essential to implement a strategy identified in the agency’s strategic plan?

This request is essential to implementing a strategic priority in the Department of Health’s strategic plan because it supports:

Goal 1: “Protect everyone in Washington from communicable diseases and other health threats”, Objective 3: “Ensure the safety of our environment as it impacts human health”

Goal 2: “Prevent illness and injury and promote ongoing wellness across the lifespan for everyone in Washington, Objective 1: “Give all babies a healthy start in life.”

Does this decision package provide essential support to one or more of the Governor’s Results Washington priorities?

This request provides essential support to the Governor’s Results Washington Goal 4, Healthy and Safe Communities.

Reducing fetal exposure to toxic chemicals will improve community health measures and reduce the financial burden on the health care system to treat disabilities and diseases associated with these exposures.

What are the other important connections or impacts related to this proposal?

This request supports Gov. Inslee’s Clean Water Initiative to update water quality standards and reduce the use of toxic chemicals. The Governor’s package includes the following 5 actions:

1. Advancing Safer products and Processes
2. Implementing toxics reduction in priority watersheds
3. Chemical Action Plans
4. WSU Stormwater Research Center
5. Healthy Starts - Preventing fetal exposure to toxic chemicals

Biomonitoring in this request will support chemical assessment and prioritization work for Ecology’s Chemical Action Plans.

What alternatives were explored by the agency and why was this alternative chosen?

Compared to other state, local or federal organizations that might carry out this work, DOH is in a better position to leverage expertise from medical, research, and public health partners, effect state-wide coverage, and focus on the unique populations of Washington State. DOH efforts are efficient as it is already home to a number of public health programs that conduct and evaluate interventions to improve maternal, infant, childhood health and promote healthy communities. Integrating new environmental health efforts into existing efforts will maximize efficiency of public dollars and ensure that messages are communicated in the proper context of overall child wellbeing.

What are the consequences of adopting or not adopting this package?

Without prevention, the burden of disease and disability associated with toxic chemicals will continue. Reducing exposures to toxic chemicals during fetal development and early life will reduce the burden of disability and disease and provide for the healthiest start for Washington children.

What is the relationship, if any, to the state capital budget?

None.

What changes would be required to existing statutes, rules, or contracts, in order to implement the change?

None.

Expenditure and revenue calculations and assumptions:

Revenue:

None.

Expenditures:

In FY 2016 and ongoing, DOH will require:

1.5 FTE Health Services Consultant 3 to develop evidence-based messaging and strategies; conduct outreach to clinicians, the public and other stakeholders about priority threats and steps to reduce exposure; and evaluate effectiveness of messaging and activities. This will include market research, pre-testing of materials, and collaboration with partners to leverage our outreach. This position will start with chemicals exposures to phthalates, pesticides, metals, and solvents in FY 2016 and will add priorities identified by the assessment exercise in FY 2017.

1.0 FTE Toxicologist 1 to support the review of recent health research, surveys of chemicals in people or their direct environment, and primary sources of exposure; to work with a panel of experts to identify an initial group of chemicals which are of concern to the developing fetus and have been detected in people or their direct environment. This position will support ongoing assessment of additional chemicals every two years to identify new priorities for public health action and put emerging concerns in context of other known hazards for the public and our program partners.

0.5 FTE Environmental Epidemiologist 2 to review and analyze epidemiological data in FY 2016 and support the advisory panel with data analysis in FY 2017. This position will also support public health investigations into primary sources of exposure, ensure that communities at higher risk for exposure or health impacts are adequately represented in the data collected, and support health promotions staff with data for prevention efforts.

There will be a Laboratory purchase of \$50,000 per year for biomonitoring equipment (GC/MS-MS) to support laboratory analysis of flame retardants, PCBs and other persistent organic chemicals.

Beginning FY 2017 and ongoing DOH will also require (assuming one biomonitoring study per year):

1.0 FTE Chemist 3 for developing and validating new laboratory methods

1.0 FTE Chemist 2 for testing biomonitoring specimens

1.0 FTE Epidemiologist 3 for developing biomonitoring studies, human subjects applications and field protocols, and data analysis.

0.1 FTE WMS2 Laboratory director for oversight of laboratory activities and approval and reporting of lab results.

\$95,000 per year for lab supplies, materials, and equipment repairs and maintenance.

In addition, estimated expenditures include 0.8 FTE in FY 2016 and 1.9 FTE in FY 2017 to assist with increased division and agency workload.

(FY 2016 – 3.8 FTE, \$411,000, and FY 2017 8.0 FTE, \$919,000)

Which costs and functions are one-time? Which are ongoing? What are the budget impacts in future biennia?

All costs are ongoing.

For Federal Grants: Does this request require a maintenance of effort or state match?

Not Applicable.

For all other funding: Does this request fulfill a federal grant's maintenance of effort or match requirement?

No.

<u>Object Detail</u>		<u>FY 2016</u>	<u>FY 2017</u>	<u>Total</u>
A	Salaries and Wages	237,000	521,000	758,000
B	Employee Benefits	70,000	155,000	225,000
C	Personal Service Contracts			
E	Goods and Services	38,000	176,000	214,000
G	Travel		5,000	5,000
J	Capital Outlays	60,000	50,000	110,000
T	Intra-Agency Reimbursements	6,000	12,000	18,000
	Total Objects	411,000	919,000	1,330,000

**Attachment A:
Healthy Starts
Proposal Summary and Timeline**

Year one (Fiscal year 2016):

Prioritize exposures of concern for pregnant women in Washington State and identify data gaps.

- Review scientific literature and Washington State specific exposure information to identify priority chemicals for public health action. → Supports Ecology's Chemical Action Plans (CAPs)
- Identify data gaps where more exposure or other information/data are needed to either prioritize or prevent toxic chemical exposure in women of child bearing age.

Develop and implement initial prevention/education activities.

- Starting with chemical exposures identified by ACOG and others, work with the Office of Health Promotion to develop and launch health care provider and consumer education to reduce exposure among women of child bearing age.
- Develop a plan for evaluating effectiveness of prevention activities/messages.

Year two (Fiscal year 2017):

- Work with advisory panel and internal/external partners to prioritize exposures for prevention. Identify relevant audiences for prevention efforts, appropriate methods to disseminate information, and potential professional and community partners.
- Integrate priorities into health care provider and consumer education.
- Expand prevention strategies to include policy efforts, as necessary. → Supports CAPs
- Collect biomonitoring data to fill data gaps. → Supports CAPs
- Identify partnerships or other funding sources to help fill data gaps.

Ongoing:

- Assess new chemicals of concern. → Supports CAPs
- Work with advisory panel to identify and prioritize prevention work on newly assessed chemicals (every 2 years).
- Collect biomonitoring data to understand exposures in women and children (one survey per year). → Supports CAPs
- Integrate recommendations from assessment and prioritization into DOH policy and educational efforts.
- Integrate recommendations from CAPS into health care provider and consumer education. → Supports CAPs
- Continue to evaluate the impact of our prevention work. Collect biomonitoring data to support evaluation (one survey every 3 years).