Health Impact Assessment of HB 2800 **FARM TO SCHOOL AND SCHOOL GARDEN POLICY** EXECUTIVE SUMMARY OF FINDINGS • MAY 2011

Farm to School and School Garden (F2S & SG) programs have gained momentum and visibility over the past decade for their potential contributions to stimulate local economies, foster healthy school food environments, support nutrition education, and build relationships among farmers and school districts.

Oregon House Bill (HB) 2800 would guarantee school districts could purchase Oregon produced, processed, packed and packaged foods with 15 cents for lunch and 7 cents for breakfast in reimbursement funds. The bill also ensures students learn how to choose healthy, local food options in their cafeteria through grants that support school gardens, agriculture and nutrition education.

From fall 2010 to spring 2011, Upstream Public Health collaborated with Farm to School and school garden stakeholders to conduct a Health Impact Assessment (HIA) on HB 2800, evaluating its potential effects on Oregonians' health. This report summarizes the findings of that assessment. The goal of the HIA is to inform legislative decision-making on HB 2800, focusing on the bill's impact upon five health determinants: **1. Employment, 2. Diet and Nutrition, 3. F2S & SG K-12 Education Opportunities, 4. Environmental Health** and **5. Social Capital**.

This HIA is supported by grants from the Health Impact Project (a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts) and the Northwest Health Foundation. The opinions are those of the authors and do not necessarily reflect the views of the Health Impact Project, the Robert Wood Johnson Foundation, The Pew Charitable Trusts or the Northwest Health Foundation. A review of research evidence and an economic analysis establish that HB 2800 will have significant positive public health benefits.

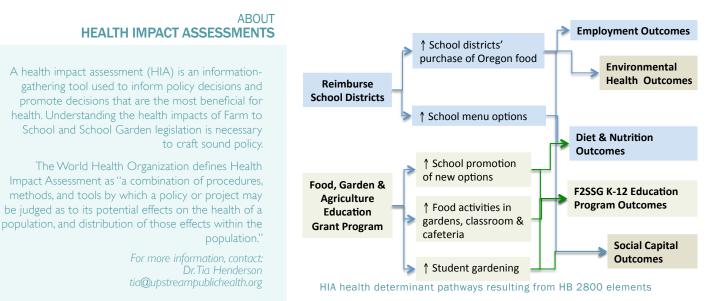
KEY FINDINGS ON IMPACT OF HB 2800

Farm to School reimbursement funds would:

- Create and maintain jobs for Oregonians
- Increase student participation in school meal programs
- Improve household food security
- Strengthen connections within Oregon's food economy

Food, Garden & Agriculture grants would:

- Increase childhood food preferences for fruits and vegetables
- Shape long-term healthy diet choices that affect children's learning & academic achievement while preventing obesity



To view the full report and references, please visit www.upstreampublichealth.org/f2sHIA



EMPLOYMENT outcomes

MAJOR FINDINGS

MPACTS

CURRENT CONDITIONS

- Oregon's unemployment rate was 10.5% in December 2010, higher than the national average of 9%.
- The recession has hurt Oregon's farms: almost 2/3 of farms reported net losses. Small & mid-sized farms especially are struggling to compete.
- In 2009, **Oregon was one of** the hungriest states in the nation: 14% of households were food insecure and 6% of them were hungry.
- 19% of Oregon kids live in poverty.
- Kids on free and reduced meals are more likely to be from food insecure families.
- In the 2009-'10 school year 33% of kids eligible for free or reduced lunches did not participate.
- 22% of low-income kids did not graduate during the 2006-'08 school years.
- Current Oregon learning standards do not require children to learn where food comes from or how it is made.
 Cafeterias are not connected
- Cafeterias are not connected to classroom curriculum.
- I in 4 Oregon adolescents are overweight or obese.
- 2009: 58% of 11th graders eat three or less servings of fruits and vegetables a day.

The meal reimbursement program would create jobs and stimulate economic growth.

• **Employment leads to health:** The unemployed are up to twice as likely to die earlier than others of the same age and sex.

Kind of Impact	New Jobs (Full & Part-time)
Direct effect	101
Indirect effect	101
Induced Effect	67
Total Effect	269
Multiplier	2.67

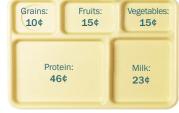
A 2.67 employment multiplier means that for every job created by school districts purchasing local foods, additional economic activity would create another 1.67 jobs.

Estimated economic effects of Oregon purchases during the first bieunnium (\$19.6 million in reimbursements)

HB 2800 would improve child diet and nutrition.

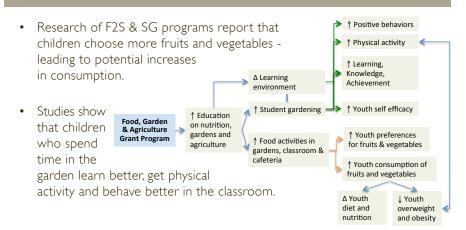
- Students who participate in school meal programs learn better and have a better chance of academic achievement.
- HB 2800's reimbursement and garden grant programs improve the quality and diversity of food offered during school meals.
- Studies of Farm to School initiatives show increases in meal participation (for free, reduced, and full-priced meals) between 1.3% and 16%. This helps families buy more food at home, lowering household food insecurity.

Oregon has been an innovator in finding creative ways to provide its children with fresh and healthy school meals. Without statewide infrastructure to support Farm to School efforts, limited funding for school meals can offer only inconsistent options to support Oregon's children and the farmers who feed them.



2009-'10 estimates for school lunch budget in Oregon

Food, Garden and Agriculture education grants would increase kids' understanding of what they eat, how it is grown and how it affects their bodies.



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F2S & SG K-12 EDUCATION OPPORTUNITIES



EALTH OUTCOMES

OUTCOMES

SOCIAL CAPITA

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MAJOR FINDINGS cont'd.

MPACTS CURRENT CONDITIONS

Oregonians currently demand food produced and processed with alternative methods.

Between 2006 and 2008, the total land in organic production nearly doubled, an 86.7% increase from almost 70,000 to over 130,000 acres in response to this demand.

Social capital is a bank of resources, such as job referrals, that individuals gain through strong relationships to others. This improves people's health and access to opportunities.

If schools build connections with producers, other institutions can build upon these relationships, connecting with those who want to buy Oregon food.

The reimbursement program gives more flexibility to buy sustainably produced food; this can impact environmental health factors

- A stable product demand helps farmers and processors try new practices such as solar-heated greenhouses or integrated pest management plans. These practices reduce health issues from soil and water contamination.
- A more stable product demand also helps keep farmland in production, which can reduce greenhouse gasses. If all districts just served Oregon fruit or vegetables at lunch one day a month, it would support \$756,000 in sales.
- Buying Oregon products does not reduce greenhouse ٠ gas emissions from transportation significantly, depending on the food source.

The reimbursement program will help farmers and nutrition staff build food system connections; the grants will help students work better together.

- Preliminary studies indicate school garden participants have positive changes in social skills and their ability to work with others.
- "Supporting local farmers" is a reported primary benefit for Farm to School programs; research is needed to examine the impact on social isolation and depression.

RECOMMENDATIONS for HB 2800: CHANGES TO IMPROVE HEALTH

- 1. The current policy allows food produced or processed in other states or countries to qualify for a reimbursement. Amend HB 2800 to specify that schools can only get reimbursed for foods produced or processed in Oregon to increase economic activity in our state.
- 2. To improve health outcomes for vulnerable populations, specify that while grants are open to all school districts, Food, Agriculture and Garden education grants will be preferentially given to school districts serving:
 - a low-income student population, defined where 40% are eligible for free or reduced meals, or,
 - schools with a racially diverse student population, defined as 20% or more non-white, or 0
 - 0 schools in rural or urban areas with limited food access, defined as 12% or more of residents are lowincome and live more than 10 miles from a grocery store.
- 3. To improve child health outcomes, specify funding criteria for Food, Agriculture and Garden education grants to support schools developing multiple-component programs that increase child health benefits. Garden grants should be preferentially awarded to programs working toward having at least one element in each of the following categories: Education, Promotion, Procurement and Community Involvement.

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CONCLUSIONS

SUMMARY OF HEALTH OUTCOMES AND IMPACTS HIGHLIGHTS ON HB 2800 (\$23 MILLION)

Health Outcome or Health DeterminantMagnitude of Impact w/ HIA Recs.Distribution			Quality of Evidence	
Employment Impacts				
Health & life expectancy		Farm sector and related jobs	****	
Job creation		~270 new jobs	****	
Oregon product demand		100—197 School Districts ⁴	****	
Workers' ability to pay bills		~270 new jobs	****	
Economic activity		3.16 economic multiplier	****	
Impacts on Child Diet and Nutrition				
Meal program participation		561,698 public school children ¹	**	
Child learning & academic attainment		561,698 public school children ¹	****	
Household food security		210,446 households ²	***	
School meal nutrition	+	561,698 public school children ¹	*	
Child overweight & obesity	+	1 in 4 children	**	
Farm to School and School Garden Education Impacts				
Gardening education		~15,000 new children ³	****	
Child fruit & vegetable consumption		561,698 school children ¹	****	
Agriculture & nutrition education	 +	~15,000 new children ³	***	
Child nutrition knowledge	+	~15,000 new children ³	***	
Nutrition staff knowledge		100—197 School Districts	**	
Child achievement		~15,000 new children ³	*	
Child self-efficacy		~15,000 new children ³	*	
Child physical activity		~15,000 new children ³	*	
Impacts on Environmental He	ealth			
Oregon fruit & vegetable crops maintained		\$756,000 — \$15,120,000 in school purchases ⁶	***	
Demand for food grown with sustainable practices		Oregon food sectors	*	
Greenhouse gas emissions from food transport	None	3,844,195 Oregonians ⁵	**	
Impacts on Social Capital				
Student relationships		~15,000 new children ³	*	
Producer, processor & school staff connections		~100 School Districts	***	
Parent school participation		~15,000 new children ³	*	

LEGEND

▲▲▲▲ Strong impact on many ▲▲▲ Strong impact for few or small impact on many ▲▲ Moderate impact on medium number or strong impact on few ▲ Small impact on few None No effect **** 10+ strong studies *** 5 -10 strong studies or data analysis ** 5 or more studies of weak and moderate quality; or studies have mixed results * <5 studies and claim consistent with public health principles

I Enrolled children in Oregon public school system, Oregon Department of Education, 2009-10. 2 Household Food Security in the United States, 2009, US Dept. of Agriculture, Economic Research Service, 2010. 3 Low estimate based on 2007 ODE survey of reported participation in

survey of reported participation in school gardens; would be over two year grant time period.

4 Low estimate from 2010 Oregon Department Education number of School Districts that purchase local. 5 Certified estimate of Oregon population from US Census data, Population Research Center; 2010.

6 Conservative estimates from: (280,000 school lunches served in 2009-10 × \$.30 for fruits and vegetables) × 9 to 180 school days.

+ Indicates schools will have to take action beyond the reimbursement program in the policy.

† See report for full summary table, including impacts without HIA policy recommendations.