

# Evaluation of Using Expanded Practice Dental Hygienists to Provide Expanded Services in Oregon's School-based Dental Sealant Program



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## Evaluation Background

In 2013, the Oregon Public Health Division's Oral Health Program piloted a workforce development program that allows Expanded Practice Dental Hygienists (EPDHs) to utilize their full scope of practice in a school-based setting.

The "EPDH expanded services" delivery model has EPDHs providing children identified as high-risk during the screening process with expanded services over three visits:

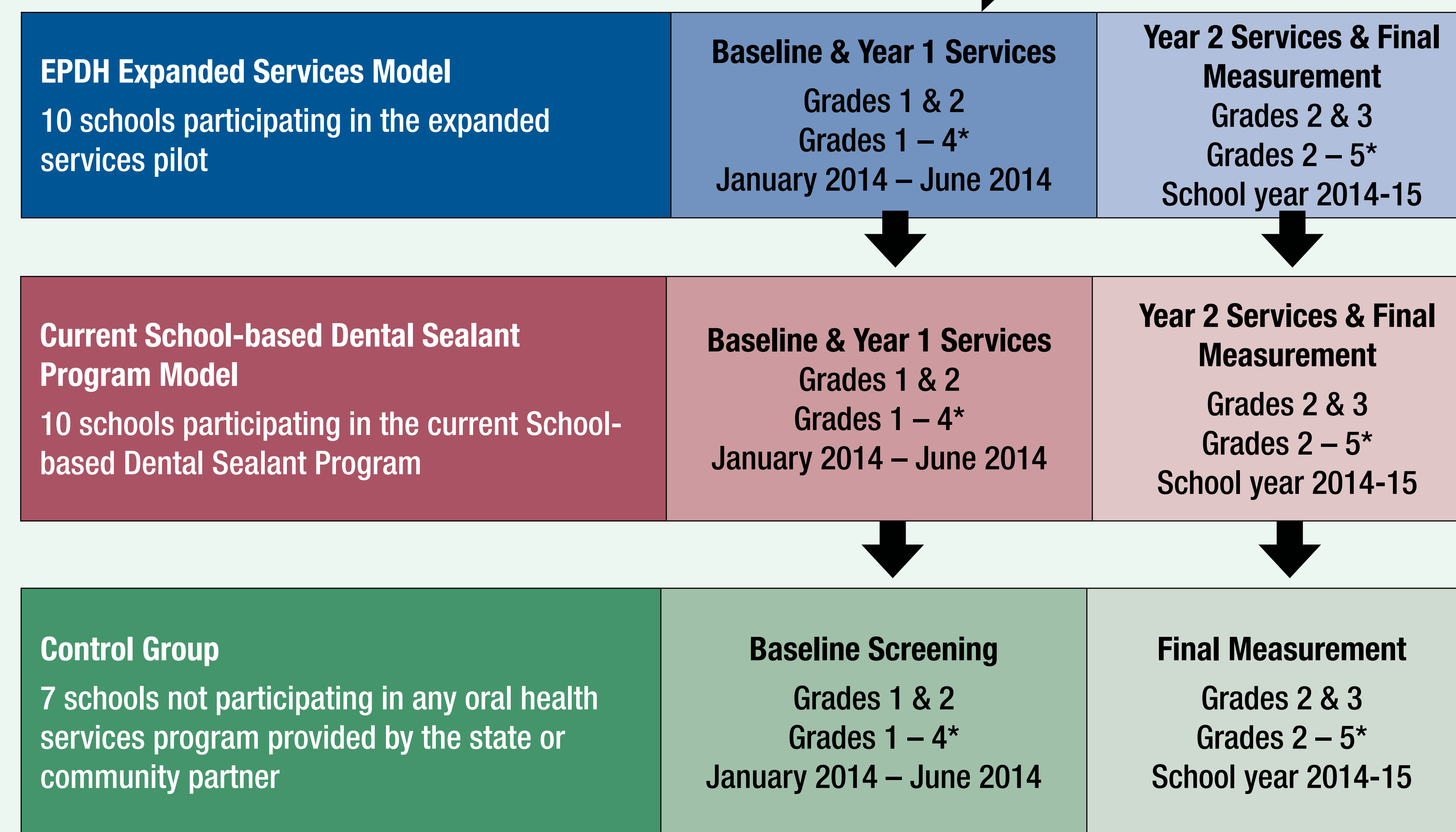
- **First Visit:**
  - Screenings
  - Dental Sealants
- **Second Visit:**
  - Prophies (teeth cleanings)
  - 1st fluoride varnish application
  - Hands-on education (disclosing solution, flossing, tooth brushing technique)
  - Limited case management
- **Third Visit:**
  - 2nd fluoride varnish application
  - Hands-on education (disclosing solution, flossing, tooth brushing technique)

Between the second and third visits, the hygienist partners with the school nurse, Medicaid office and Coordinated Care Organizations (CCOs) to assist the child in finding a dental home. Data is being collected electronically using iPads.

The Oral Health Program is now conducting an evaluation to look at the feasibility, effectiveness and barriers of the expanded services delivery model compared to the current School-based Dental Sealant Program delivery model in order to inform future program activities.

## Methods

Same cohort of children: Data collection at baseline and Year 1



\* In small schools, where children in 1st thru 5th grade receive services, only those in 1st thru 4th grade will be included in the study.

### Selection Criteria

- Schools are eligible if at least 50% of the students are eligible for the federal Free-and Reduced Lunch (FRL) Program.
- Students are eligible if they have parental permission.

	EPDH Expanded Services Model Schools	Current State School-based Dental Sealant Program Schools	Schools Not Receiving Any Oral Health Services
<b>Urban Elementary Schools</b>	5	5	2
<b>Rural Elementary Schools</b>	5	5	5

### Model Types

	EPDH Expanded Services Model	Current School-based Dental Sealant Program	Schools Not Receiving Any Oral Health Services
Screenings	X	X	X
Dental Sealants	X	X	
Prophies	X		
Fluoride Varnish	X		
Hands-on Education	X		
Educational Information	X	X	X
Limited Case Management	X		
Data Collection	Electronic (iPad)	Paper	Paper

## Anticipated Outcomes

1. Children participating in the EPDH expanded services pilot will have less manifestations of infection and pre-cursors of decay than children participating in the current state school-based dental sealant program and those schools that do not receive any school-based oral health services.
2. The cost of providing EPDH expanded services will be similar to the cost of providing services under the current state school-based dental sealant program.
3. The EPDH expanded services delivery model is efficient in reaching a substantial proportion of children qualified for expanded services.

## Results

### Sample Baseline Data

Child-level baseline data will be compared to service year 2 data. This is an example of the aggregate-level data for the Expanded Services Model Schools during the 2013-14 school year.

School	Gearhart	Warrenton	Jewell	Central	Highland Hills	Elk Meadow	Chehalem	Periwinkle	Turner	Aumsville
	Rural 1st & 2nd Grades	Rural 1st & 2nd Grades	Rural 1st - 4th Grades	Rural 1st & 2nd Grades	Rural 1st & 2nd Grades	Urban 1st & 2nd Grades	Urban 1st & 2nd Grades	Urban 1st & 2nd Grades	Urban 1st & 2nd Grades	Urban 1st & 2nd Grades
% of children who returned a Parental Permission form (yes and no forms)	14.7%	32.3%	44.7%	43.7%	43.9%	74.1%	44.9%	37.9%	81.3%	39.8%
% of children who returned a Parental Permission form allowing them to be screened	12.6%	20.6%	26.3%	30.5%	26.6%	42.0%	26.4%	22.6%	42.7%	20.5%
Number of children screened	12	30	9	50	35	72	47	26	30	35
Average time screened	1:44	2:26	2:00	1:53	1:33	1:15	1:27	2:41	2:07	2:53
Number of children who received sealants	12	25	9	38	32	58	37	25	24	27
Average time for sealants	21:42	18:18	18:48	10:40	12:17	16:55	11:23	20:28	24:36	19:41
Number of sealants placed	43	84	34	124	113	195	127	87	80	83
Number of children identified as high-risk (triaged 2 or 3)	5	8	2	16	1	25	11	7	12	14
% of children who needed dental treatment due to active decay, infection, or injury	41.7%	26.7%	22.2%	32.0%	2.9%	34.7%	23.4%	26.9%	40.0%	40.0%
Number of expanded services permission forms submitted	5	8	1	5	1	9	6	5	4	9
% of children who returned a Parental Permission form allowing them to receive expanded services	100.0%	100.0%	50.0%	25.0%	100.0%	32.0%	45.5%	42.9%	33.3%	64.3%
Number of children who received prophies & first fluoride varnish application	3	8	1	4	1	8	5	3	4	9
Average time for 1st expanded services visit	31:54	26:55	38:41	23:02	34:28	23:39	22:06	31:41	50:22	27:50
Number of children who received 2nd fluoride varnish application	3	8	1	4	1	8	5	3	4	8
Average time for 2nd expanded services visit	16:12	11:13	12:29	6:28	8:10	6:49	5:04	7:01	3:43	7:27
Number of Children Who Saw Improvement in Plaque Index	3	2	1	3	1	2	3			2
Number of Children Who Saw No Change in Plaque Index		3		1		5	1		3	1
Number of Children Who Were Worse in Plaque Index		3				1	1	3	1	5

## Next Steps

- During the 2014-15 school year, we will be providing services and collecting year 2 data.
- Final evaluation results should be available in August 2015.
- Results of the evaluation will be used internally to improve the statewide School-based Dental Sealant Program.
- Community partners may use the different workforce models to inform dental sealant program development.

- There are potential opportunities to collaborate with partners to leverage and share resources effectively:
  - Coordinated Care Organizations (CCOs) that provide services for Oregon's Medicaid population
  - Dental Care Organizations
  - Medical Teams International
  - Early Learning Council hubs