



STATE OF VERMONT
JOINT FISCAL OFFICE

MEMORANDUM

To: Joint Fiscal Committee Members
From: Nathan Lavery, Fiscal Analyst
Date: April 18, 2014
Subject: Grant/Position Requests

Enclosed please find three (3) items that the Joint Fiscal Office has received from the administration. One (1) limited service position is associated with these items.

JFO #2677 – \$2,543,490 grant from the Federal Emergency Management Agency (FEMA) to the Vermont Department of Public Safety. These funds will provide assistance for emergency work and the repair/replacement of facilities damaged during the December 2013 ice storm in Caledonia, Chittenden, Essex, Franklin, Grand Isle, Lamoille and Orleans Counties.
[JFO received 04/10/14]

JFO #2678 – \$150,000 grant from the Vermont Low Income Trust for Electricity, Inc. (VLITE) to the Vermont Public Service Department. These funds will support credit enhancements that lower the cost of financing residential thermal energy efficiency upgrades. The credit enhancements may take the form of loan loss reserves, interest rate buy downs, loan guarantees, or a combination of these options.
[JFO received 04/10/14]

JFO #2679 – \$225,000 grant from Fletcher Allen Health Care to the Department of Health (VDH). This grant will fund **one limited service public health dental hygienist position**.
[JFO received 04/17/14]

Please review the enclosed materials and notify the Joint Fiscal Office (Nathan Lavery at (802) 828-1488; nlavery@leg.state.vt.us) if you have questions or would like an item held for legislative review. Unless we hear from you to the contrary by May 2 we will assume that you agree to consider as final the Governor's acceptance of these requests.

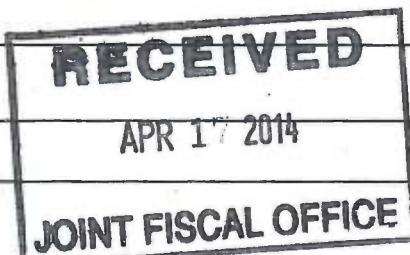
State of Vermont
 Department of Finance & Management
 109 State Street, Pavilion Building
 Montpelier, VT 05620-0401

[phone] 802-828-2376
 [fax] 802-828-2428

Agency of Administration

JFO 2679

**STATE OF VERMONT
 FINANCE & MANAGEMENT GRANT REVIEW FORM**

Grant Summary:		Funding for one public health dental hygienist			
Date:		4/14/2014			
Department:		Department of Health			
Legal Title of Grant:		Fletcher Allen Health Care Public Health Dental Hygienists			
Federal Catalog #:		N/A			
Grant/Donor Name and Address:		Fletcher Allen Health Care, 111 Colchester Ave, Burlington, VT 05401			
Grant Period:	From:	9/11/2013	To:	9/10/2016	
Grant/Donation		\$225,000			
	SFY 1	SFY 2	SFY 3	Total	Comments
Grant Amount:	\$18,751	\$75,000	\$75,000	\$168,751	\$56,249 will be spent in the final fiscal year the grant spans.
Position Information:		# Positions	Explanation/Comments		
		1	This grant will allow VDH to higher one public health dental hygienist.		
Additional Comments:		See attached memo.			
Department of Finance & Management				4/14/14	(Initial) EB 4/14/14
Secretary of Administration				4/15/14	(Initial) [Signature] 4/15/14
Sent To Joint Fiscal Office				4/16/14	Date 4/16/14



STATE OF VERMONT REQUEST FOR GRANT (*) ACCEPTANCE (Form AA-1)

BASIC GRANT INFORMATION				
1. Agency:	Human Services			
2. Department:	Health			
3. Program:	Oral Health			
4. Legal Title of Grant:	Fletcher Allen Health Care Public Health Dental Hygienists			
5. Federal Catalog #:				
6. Grant/Donor Name and Address:	Fletcher Allen Health Care, 111 Colchester Avenue, Burlington, VT 05401			
7. Grant Period:	From:	9/11/2013	To:	9/10/2016
8. Purpose of Grant:	Please see attached summary.			
9. Impact on existing program if grant is not Accepted:	None			
10. BUDGET INFORMATION				
	SFY 1	SFY 2	SFY 3	Comments
	FY 14	FY 15	FY 16	
Expenditures:				
Personal Services	\$16,416	\$65,666	\$65,666	
Operating Expenses	\$2,335	\$9,334	\$9,334	
Grants	\$	\$	\$	
Total	\$18,751	\$75,000	\$75,000	
Revenues:				
State Funds:	\$	\$	\$	
Cash	\$	\$	\$	
In-Kind	\$	\$	\$	
Federal Funds:	\$0	\$0	\$0	
(Direct Costs)	\$0	\$0	\$0	
(Statewide Indirect)	\$0	\$0	\$0	
(Departmental Indirect)	\$0	\$0	\$0	
Other Funds:	\$18,751	\$75,000	\$75,000	
Grant (source FAHC)	\$18,751	\$75,000	\$75,000	
Total	\$18,751	\$75,000	\$75,000	
Appropriation No:	3420021000	Amount:	\$18,751	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
		Total	\$18,751	
Has current fiscal year budget detail been entered into Vantage? <input type="checkbox"/> Yes <input type="checkbox"/> No				

APR 10 2014

STATE OF VERMONT REQUEST FOR GRANT (*) ACCEPTANCE (Form AA-1)

PERSONAL SERVICE INFORMATION

11. Will monies from this grant be used to fund one or more Personal Service Contracts? Yes No
 If "Yes", appointing authority must initial here to indicate intent to follow current competitive bidding process/policy.

Appointing Authority Name: _____ Agreed by: _____ (initial)

12. Limited Service Position Information:	# Positions	Title
	1	Public Health Dental Hygienists
Total Positions	1	

12a. Equipment and space for these positions: Is presently available. Can be obtained with available funds.

13. AUTHORIZATION AGENCY/DEPARTMENT

I/we certify that no funds beyond basic application preparation and filing costs have been expended or committed in anticipation of Joint Fiscal Committee approval of this grant, unless previous notification was made on Form AA-1PN (if applicable):	Signature: <i>[Signature]</i>	Date: <i>2/28/14</i>
	Title: <i>Commissioner of Health</i>	
	Signature: <i>[Signature]</i>	Date: <i>4/4/14</i>
	Title: <i>Deputy Secretary, AHS</i>	<i>06/23</i>

14. SECRETARY OF ADMINISTRATION

<input checked="" type="checkbox"/> Approved:	<i>[Signature]</i> (Secretary or designee signature)	Date: <i>4/15/14</i>
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15. ACTION BY GOVERNOR

<input checked="" type="checkbox"/> Accepted		Date: <i>4/15/14</i>
<input type="checkbox"/> Rejected	<i>[Signature]</i> (Governor's signature)	Date:

16. DOCUMENTATION REQUIRED

Required GRANT Documentation	
<input type="checkbox"/> Request Memo	<input type="checkbox"/> Notice of Donation (if any)
<input type="checkbox"/> Dept. project approval (if applicable)	<input type="checkbox"/> Grant (Project) Timeline (if applicable)
<input type="checkbox"/> Notice of Award	<input type="checkbox"/> Request for Extension (if applicable)
<input type="checkbox"/> Grant Agreement	<input type="checkbox"/> Form AA-1PN attached (if applicable)
<input type="checkbox"/> Grant Budget	

End Form AA-1

(*) The term "grant" refers to any grant, gift, loan, or any sum of money or thing of value to be accepted by any agency, department, commission, board, or other part of state government (see 32 V.S.A. §5).

MEMORANDUM

TO: Michael Clasen, Deputy Secretary, Agency of Administration
THRU: Jim Reardon, Commissioner, Department of Finance and Management
FROM: Emily Byrne, Budget Analyst, Department of Finance and Management
RE: AA-1 Grant Acceptance from Fletcher Allen Health Care Public Health Dental Hygienists
DATE: 4/14/2014

Fletcher Allen awarded this grant in September of 2013. VDH and AHS Central Office have been working since September to determine if these funds can be used as Medicaid match to support additional oral health services or a position. Initially, the department was going to wait until CMS approved or denied the use of these funds as Medicaid match before routing the AA-1 for approval. However, the department is still waiting a federal decision and decided to route the grant now so as not to further delay acceptance of the funds and initiation of the program.

The delayed routing of the grant will not affect the total amount awarded. Fletcher Allen Health Care will fund the position for three full years from the time of hire.



VERMONT DEPARTMENT OF HEALTH

SFY14 FAHC Dental Hygenist Budget

<u>VISION Account</u>	<u>Public Health</u> (3420021000)	<u>VDH Total</u>
Employee Salaries	\$11,726	\$11,726
Fringe Benefits	\$4,690	\$4,690
3rd Party Contracts	<u>\$0</u>	<u>\$0</u>
Total Personal Services	\$16,416	\$16,416
Equipment	\$0	\$0
Supplies	\$2,335	\$2,335
Other	\$0	\$0
Travel	<u>\$0</u>	<u>\$0</u>
Total Operating Expenses	\$2,335	\$2,335
Subgrants	\$0	\$0
Total Direct Costs	\$18,751	\$18,751
Total Indirect Costs	<u>\$0</u>	<u>\$0</u>
Total SFY14 Grant Costs	\$18,751	\$18,751

Appropriation Summary

Total Personal Services	\$16,416	\$16,416
Total Operating Expenses	\$2,335	\$2,335
Total Subgrants	<u>\$0</u>	<u>\$0</u>
	\$18,751	\$18,751

* Grant does not support Indirects

VERMONT DEPARTMENT OF HEALTH

SFY15 FAHC Dental Hygenist Budget

<u>VISION Account</u>	<u>Public Health</u> (3420021000)	<u>VDH Total</u>
Employee Salaries	\$46,904	\$46,904
Fringe Benefits	\$18,762	\$18,762
3rd Party Contracts	<u>\$0</u>	<u>\$0</u>
Total Personal Services	\$65,666	\$65,666
Equipment	\$0	\$0
Supplies	\$0	\$0
Other	\$9,334	\$9,334
Travel	<u>\$0</u>	<u>\$0</u>
Total Operating Expenses	\$9,334	\$9,334
Subgrants	\$0	\$0
Total Direct Costs	\$75,000	\$75,000
Total Indirect Costs	<u>\$0</u>	<u>\$0</u>
Total SFY15 Grant Costs	\$75,000	\$75,000

Appropriation Summary

Total Personal Services	\$65,666	\$65,666
Total Operating Expenses	\$9,334	\$9,334
Total Subgrants	<u>\$0</u>	<u>\$0</u>
	\$75,000	\$75,000

Request for Grant Acceptance
Fletcher Allen Health Care Public Health Dental Hygienist
Summary 09/27/13

The Department of Health has received a grant from Fletcher Allen Health Care, providing \$225,000 over three years to enable the Department to meet local oral health needs, focusing on pregnant mothers and children (ages 0-5) in the Burlington District Office.

This funding will strengthen the Department's capacity to prevent serious dental health needs in the future. Goals include: (1) early prevention efforts for low SES and minority/ethnic populations, especially pregnant women and children 0-5 eligible for Medicaid/Dr. Dynasaur; and 2) integrate oral health into health care, establishing close communication at the local level with pediatricians, obstetrics/gynecologists, family physicians, child care facilities, Head Start and other entities, such as Federally Qualified Health Centers.

The funds will be used to establish a Public Health Dental Hygienist position in the Burlington District Office to reach the highest need group for early oral health prevention, therapeutic intervention and care coordination. Supplies will also be funded.

The Health Department is hereby seeking approval to receive \$18,751 in new funds in State Fiscal Year 2014 and the establishment of a limited service position. The remainder of the funding will be included in the Department's future budget requests. We have attached the grant award document, a copy of the grant application, Position Request Form, as well as additional information provided by J. Steve Arthur, Director, Office of Oral Health, VDH.

**STATE OF VERMONT
Joint Fiscal Committee Review
Limited Service - Grant Funded
Position Request Form**



This form is to be used by agencies and departments when additional grant funded positions are being requested. Review and approval by the Department of Human Resources must be obtained prior to review by the Department of Finance and Management. The Department of Finance will forward requests to the Joint Fiscal Office for JFC review. A Request for Classification Review Form (RFR) and an updated organizational chart showing to whom the new position(s) would report must be attached to this form. Please attach additional pages as necessary to provide enough detail.

Agency/Department: AHS, VT Department of Health Date: 02/20/2014

Name and Phone (of the person completing this request): J. Steve Arthur, 802-363-0880

Request is for:

- Positions funded and attached to a new grant.
- Positions funded and attached to an existing grant approved by JFO # _____

1. Name of Granting Agency, Title of Grant, Grant Funding Detail (attach grant documents):

Fletcher Allen Health Care, Public Health Dental Hygienists

2. List below titles, number of positions in each title, program area, and limited service end date (information should be based on grant award and should match information provided on the RFR) position(s) will be established only after JFC final approval:

<u>Title* of Position(s) Requested</u>	<u># of Positions</u>	<u>Division/Program</u>	<u>Grant Funding Period/Anticipated End Date</u>
Public Health Dental Hygienist	1	VDH/HPDP	09/11/2013 - 09/10/2016

*Final determination of title and pay grade to be made by the Department of Human Resources Classification Division upon submission and review of Request for Classification Review.

3. Justification for this request as an essential grant program need:

This position will accomplish the project objectives for the Fletcher Allen Health Care (FAHC) Public Health Dental Hygienists grant as outlined in the application submitted to FAHC.

I certify that this information is correct and that necessary funding, space and equipment for the above position(s) are available (required by 32 VSA Sec. 5(b)).

[Signature] _____ Date 3/25/2014

[Signature] _____ Date 4/10/14

[Signature] _____ Date 4/15/14

[Signature] _____ Date 02/15/14

Comments:

APR 10 2014



Agency & Project Information

State of Vermont
Office of Oral Health, Department of Health
Steve Arthur, DDS, MPH
863-7497
steve.arthur@state.vt.us

Project Summary

In order to adequately meet local oral health needs, The Office of Oral Health proposes the placement of half-time public health dental hygienists (PHDH) in each of the 12 district health offices in Vermont. These hygienists would focus on the needs of pregnant mothers and children (ages 0-5) and coordinate current local programs, such as the tooth tutor and fluoride mouth rinse programs. Because of the population and overwhelming need in the Burlington area, we are requesting multi-year funding for one full-time public health dental hygienist (PHDH) in the Burlington District Office.

Project Description

In FY 2009, 421 Vermont children ages 0-5, were hospitalized to treat Early Childhood Cavities (ECC), with an average cost \$6,500 for total cost of \$2.7 million. 351 (82%) of the 421 were Medicaid patients, costing \$2.2 million. In the same year, an additional nearly \$1.0 million of Medicaid expenditures were for children ages 0-5 for routine restorative care in dental offices - fillings, stainless steel crowns and extractions. **Total cost – approximately \$3 million to treat preventable dental decay for children in Vermont UNDER 5 years of age.**

The Current Situation in Vermont & Nationally

- OB/Gyns do not routinely counsel pregnant women concerning the importance of oral health for the pregnant woman OR the implications for the oral health of the new baby.
- Primary care physicians (pediatricians and family physicians) do not routinely incorporate oral health risk assessment and counseling in well baby visits.
- Dentists do not routinely accept children under age 3.
- WIC programs in district health offices do not routinely counsel pregnant women and mothers/caregivers of children under age 5 about the importance of oral health.

One Innovative Solution

Public Health Hygienists (PHDH) are an innovative and upstream approach to preventing serious dental health needs in the future. This project has two main goals. One of the goals of the Health Promotion and Disease Prevention division (HPDP), in which the Office of Oral Health is positioned, is to focus our preventive efforts on low SES and minority/ethnic populations. The local district health offices see families in WIC that reflect those demographic concerns for our oral health program. Our Office of Oral Health primary goal is to change this devastating health outcome with very early prevention at the local level, focused on pregnant women and children 0-5 eligible for Medicaid/Dr. Dynasaur.



A major secondary goal is to integrate oral health into healthcare. The proposed PHDH would work towards establishing close communication, at the local level, with pediatricians, obstetrics/gynecologists and family physicians, as well as dentists, dental hygienists and tooth tutors. Additionally, the public health dental hygienist in the district offices would connect, and work with, child care facilities, Head Start and other entities, such as Federally Qualified Health Centers.

Public Health Dental Hygienist responsibilities in the district office would be:

- Education of all District Health office staff in oral health
- Participation in WIC – pregnant mothers and children 0-5.
 - Risk Assessment
 - Prevention and oral health education
 - Locating a dental home
 - Therapeutic intervention (fluoride varnish)
- Support of all Tooth Tutors in the district.
- Support, training and coordination of fluoride mouth rinse programs in the district.
- Communication with local dentists, other hygienists, pediatricians & family physicians
- Working relationships with Head Start, childcare facilities and schools
- Communication with other dental providers (FQHCs; school based clinics, etc.)
- Surveillance – participation in oral health surveys to determine oral health status of children, adolescents, adults and seniors.
- Community water fluoridation
- Member of the Community Health Team

WIC is the right place for early prevention

A recent study was conducted by the Health Surveillance Division of VDH. In that study, 2,201 Medicaid eligible Vermont children aged 0-5 years, with a diagnosis of dental caries or unspecified disorder of the teeth, received dental restoration, endodontic or extraction procedures in 2009, accounted for 3,205 visits. Of these 3,205 visits, 421 (13%) took place in a hospital outpatient setting. Total costs to Medicaid: \$2,210,131! These Medicaid data were matched or linked to birth data and WIC data with the following results:

- 81% of the mothers of the children requiring hospitalization had been enrolled in WIC either pre- or post-partum.
- 76% of the mothers of the children requiring routine restorative care (fillings, extractions, etc.) had been enrolled in WIC either pre- or post-partum.

Placing a Public Health Hygienist in the Burlington District Health Office will allow her/him to reach the highest need group. The average monthly (unduplicated count) of children ages 0-5 attending WIC clinics in the Burlington district is 1665. The monthly average number for pregnant women in the Burlington district office is 212. As the table below details, the greatest number of serious needs dental visits (which includes fillings, caps, extractions) was in the Burlington (please see attached 2009 Medicaid Claims analysis report for further details).

AHS District Office	Number of Children			
	Office Visits (excl. FQHC)	FQHC	Outpatient Visits	All Visits
Burlington	267	29	52	338
St. Albans	143	56	37	231
Barre	94	62	18	169
Rutland	142	0	22	162
Morrisville	88	42	33	156
St. Johnsbury	91	11	25	126
Newport	87	13	26	122
Brattleboro	102	1	19	118
Springfield	80	0	42	116
Bennington	52	1	61	112
White River Jct.	87	4	17	108
Middlebury	76	3	12	90

Early Prevention Works

Low-income children who have their first preventive dental visit by age one are not only less likely to have subsequent restorative or emergency room visits, but their average dental related costs are almost 40% lower (\$263 compared to \$447) over a five year period than children who receive their first preventive visit after age one.¹ In addition, cost-estimation modeling of preventive interventions predict cost savings of \$66-\$73 per tooth surface prevented from needing repair among young Medicaid-enrolled children.² Another study estimates a savings of 7.3 percent from regular screening and early intervention.³

An oral health promotion program based on repeated rounds of anticipatory guidance initiated during the mother's pregnancy was successful in reducing the incidence of early childhood tooth decay in these very young children.⁴ Most recent 2012 research:

- Interventions targeting the youngest children (0-3) exerted the greatest benefit in reducing early childhood tooth decay.

¹ Savage Matthew, Lee Jessica, Kotch Jonathan, and Vann Jr. William. "Early Preventive Dental Visits: Effects on Subsequent Utilization and Costs". Pediatrics 2004; 114 pp.418-423

² Ramos-Gomez FJ, Shepard DS. "Cost-effectiveness Model for Prevention of Early Childhood Caries". J Calif Dent Association. 1999 Volume 27, pp. 539-44

³ Zavras AI, Edelstein BL, Vamvakidis A. "Health Care Savings from Microbiological Caries Risk Screening of Toddlers: a Cost Estimation Model" Journal of Public Health Dentistry. Summer 2000. 60(3) pp. 182-8

⁴ Plutzer K, Spencer AJ., "Efficacy of an oral health promotion intervention in the prevention of early childhood caries." Community Dent Oral Epidemiol. 2008 Aug;36(4):335-46.

- Interventions targeting the highest-risk children provide the greatest return on investment.
- All interventions produced substantial reductions in subsequent dental repair cost.⁵

Conclusion

For early oral health prevention and intervention, WIC is the place to be. Whether the mother is enrolled in WIC for pre-natal or post-partum counseling and nutrition, this is a unique opportunity for early oral health prevention, therapeutic intervention and care coordination to establish meaningful dental homes. Additionally, the Public Health Dental Hygienist in WIC is in the perfect place, at the local community level, to “connect” with all other health care providers.

How We Will Measure Success

Baseline data will be collected in the District Health Office with the public health dental hygienist. The Division of Health Surveillance can merge databases from WIC, Medicaid claims, birth registry and residence location to arrive at the following measurements. For the data not available through Medicaid claims, data will be collected by the PHDH (for instance, % of pregnant women referred to a dentist for oral health care). Currently, italicized measures below indicate data that is readily available through Medicaid claims data: The other data measures will be collected by the PHDH.

A calendar year will be selected PRIOR to employment of the PHDH for baseline data and then the same indicators will be measured each year for 5 years:

- % of children, ages 0-5, who had oral health risk assessments
- % of children, ages 0-5, identified as “high” risk
- % of children, ages 0-5, who had at least one FL varnish procedure
- *% of children, ages 0-5, hospitalized for dental decay*
- *% of children, ages 0-5, treated in dental offices for dental decay*
- % of pregnant women receiving oral health consultation in WIC
- % of pregnant women referred to a dentist for oral health care
- *% of pregnant women receiving restorative dental care during pregnancy or within 60 days postpartum*

Budget

See attached.

⁵ Gary B. Hirsch, SM; Burton L. Edelstein, DDS, MPH; Marcy Frosh, JD; Theresa Anselmo, MPH, BSDH, RDH, “A Simulation Model for Design

Project Budget for Public Health Dental Hygienist in Burlington District Health Office

Expenses for ONE 1.0 FTE

Public Health Dental

Hygienist:

Wages	\$ 46,904.00
Employee Benefits	\$ 18,760.00
Miscellaneous	\$ 9,336.00
Total Expense for 1.0 FTE	<u>\$ 75,000.00</u>

Salary for 0.5 FTE @ \$22.55 per hour
Fringe Benefits - 40% of salary
Laptop computers, supplies and misc.

VDH In-Kind Indirect Costs \$ 28,142.00

Indirect costs would be 60% of direct salary (60% x 46,904 = \$28,142)

Two is Too Late

New York Times - March 6, 2012

“Preschoolers in Surgery for a Mouthful of Cavities”



THE PROBLEM

In the photo above, a 2 1/2 year old is going under general anesthesia for treatment of dental decay. **2 1/2 years old!** Although the scene above took place in Seattle, the exact same thing happens every Wednesday morning at Fletcher Allen hospital in Burlington (actually about 7 days per month ... 4 patients per day), as well as in other hospitals around Vermont each year.

In FY 2009, **421 Vermont children** ages 0-5, were hospitalized to treat Early Childhood Cavities (ECC) - Average cost **\$6,500** for total cost of **\$2.7 million**. **351 (82%) of the 421 were Medicaid, costing \$2.2 million**. In the same year, an additional nearly \$1.0 million of Medicaid expenditures were for children ages 0-5 for routine restorative care in dental offices - fillings, stainless steel crowns and extractions. **Total cost - approximately \$3 million to treat dental decay for children in Vermont UNDER 5 years of age.**

ONE INNOVATIVE SOLUTION

The Office of Oral Health, Vermont Department of Health, is proposing placing dental hygienists in each of the 12 district health offices in Vermont – half time positions – with the goal of more appropriately addressing local oral health care needs (*specific focus on pregnant mothers and children from 0-5 years old - the WIC program*) and coordinating current local programs (tooth tutors and fluoride mouth rinse programs, for example).

These Public Health Dental Hygienists (PHDH) would work towards establishing close communication, at the local level, with pediatricians, obstetrics/gynecologists and family physicians, as well as dentists, dental hygienists and tooth tutors. Additionally, the public health dental hygienist in the district offices would connect, and work with, child care facilities, Head Start and other entities, such as Federally Qualified Health Centers. Prevention works.

Early Prevention is the key - Two is Too Late!

J. Steve Arthur, Dir. Office of Oral Health, VT Dept. of Health - May 2013

The Dental Black Hole

pregnant women &
children under 3
&
on Medicaid
or Dr. Dynasaur

THE CURRENT SITUATION IN VERMONT & NATIONALLY

- Obgyns **do not** routinely counsel pregnant women concerning the importance of oral health for the pregnant woman OR the implications for the oral health of the new baby.
- Primary care physicians (pediatricians and family physicians) **do not** routinely incorporate oral health risk assessment and counseling in well baby visits.
- Dentists **do not** routinely accept children under age 3.
- WIC programs in district health offices do not routinely counsel pregnant women and mothers/caregivers of children under age 5 about the importance of oral health.

A Public Health Dental Hygienist in WIC can:

- Educate all District Health office staff in oral health
- Participate in WIC – pregnant mothers and children 0-5.
- Provide Oral Health Risk Assessments for children 0-5
 - Provide oral health education and counseling
 - Assist families in locating a dental home
 - Therapeutic intervention (fluoride varnish)
 - Support of all Tooth Tutors in the district
- Support, training and coordination of fluoride mouth rinse programs in the district
- Communicate with local dentists, other hygienists, pediatricians & family physicians
- Establish working relationships with Head Start, childcare facilities and schools
 - Communicate with other dental providers (FQHCs, school based clinics, etc.)
 - Collect data and participate in oral health surveys to determine oral health status of children, adolescents, adults and seniors
 - Assist community water fluoridation efforts
- Participate as member of the Community Health Team

Early Prevention is the key - Two is Too Late!

J. Steve Arthur, Dir. Office of Oral Health, VT Dept. of Health - May 2013



Public Health Dental Hygienist in WIC clinic
Burlington District Health Office

WIC is the right place for early prevention!

A recent study was conducted by the Health Surveillance Division of VDH. In that study, **2,201** Medicaid eligible Vermont children aged 0-5 years, with a diagnosis of dental caries or unspecified disorder of the teeth, received dental restoration, endodontic or extraction procedures in 2009, accounting for 3,205 visits. Of these 3,205 visits, **421 (13%)** took place in a hospital outpatient setting. **Total costs to Medicaid: \$2,210,131!**

These Medicaid data were matched or linked to birth data and WIC data with the following results:

- **81% of the mothers of the children requiring hospitalization** had been enrolled in WIC either pre- or post-partum.
- **76% of the mothers of the children requiring routine restorative care** (fillings, extractions, etc.) had been enrolled in WIC either pre- or post-partum.

Conclusion: For early oral health prevention and intervention, WIC is the place to be. Whether the mother is enrolled in WIC for pre-natal or post-partum counseling and nutrition, this is a unique opportunity for early oral health prevention, therapeutic intervention and care coordination to establish meaningful dental homes.

Additionally, the Public Health Dental Hygienist in WIC is in the perfect place, at the local community level, to “connect” with all other health care providers who can impact oral health outcomes for pregnant women and children ages 0-5.

Early Prevention is the key - Two is Too Late!

J. Steve Arthur, Dir. Office of Oral Health, VT Dept. of Health - May 2013

Early Prevention Works!

- Low-income children who have their first preventive dental visit by age one are not only less likely to have subsequent restorative or emergency room visits, but **their average dentally related costs are almost 40% lower (\$263 compared to \$447)** over a five year period than children who receive their first preventive visit after age one.

Savage Matthew, Lee Jessica, Kotch Jonathan, and Vann Jr. William. "Early Preventive Dental Visits: Effects on Subsequent Utilization and Costs". Pediatrics 2004; 114 pp.418-423

- In addition, cost-estimation modeling of preventive interventions predict **cost savings of \$66-\$73 per tooth surface** prevented from needing repair among young Medicaid-enrolled children.

Ramos-Gomez FJ, Shepard DS. "Cost-effectiveness Model for Prevention of Early Childhood Caries". J Calif Dent Association. 1999 Volume 27, pp. 539-44

- Another study estimates a **savings of 7.3 percent from regular screening and early intervention.**

Zavras AI, Edelstein BL, Vamvakidis A. "Health Care Savings from Microbiological Caries Risk Screening of Toddlers: a Cost Estimation Model". Journal of Public Health Dentistry. Summer 2000. 60(3) pp. 182-8

- An oral health promotion program based on repeated rounds of anticipatory guidance **initiated during the mother's pregnancy** was successful in reducing the incidence of early childhood tooth decay in these very young children.

Plutzer K, Spencer AJ., "Efficacy of an oral health promotion intervention in the prevention of early childhood caries." Community Dent Oral Epidemiol. 2008 Aug;36(4):335-46.

- Most recent 2012 research:
 - Interventions targeting the youngest children (0-3) exerted the greatest benefit in reducing early childhood tooth decay.**
 - Interventions targeting the highest-risk children provide the greatest return on investment.**
 - All interventions produced substantial reductions in subsequent dental repair cost.**

Gary B. Hirsch, SM; Burton L. Edelstein, DDS, MPH; Marcy Frosh, JD; Theresa Anselmo, MPH, BSDH, RDH, "A Simulation Model for Designing Effective Interventions in Early Childhood Caries". Prev Chronic Dis. 2012;9:E66. Epub 2012 Mar 1.

Early Prevention is the key - Two is Too Late!

J. Steve Arthur, Dir. Office of Oral Health, VT Dept. of Health - May 2013

Early Prevention Saves Money!

FY2009 – 421 children 0-5 were hospitalized to treat serious early childhood dental decay.

- Of the 421 children, 351 (82%) were paid for by Medicaid at a cost of approximately \$6,500 per surgery for a total of \$2.2 million.
- In addition to that \$2.2 million, routine fillings and extractions for kids ages 0-5, on Medicaid, cost an approx. \$1.0 million
- Bottom line: Approximately \$3.0 million spent for kids age 0-5.

Hygienist costs:

- One 0.5 FTE hygienist cost approximately \$30,000 (including benefit package)
- 12 0.5 FTE hygienists would cost approximately \$360-400K

Prevention savings: by investing \$360-400K, we only have to save 16% of the \$3.0 million to recoup those dollars. In other words, by preventing only 55 children (of the 351) from hospitalization, we pay for all 12 dental hygienists in the district offices. This is feasible and achievable. Not only does this make good business sense, we would be saving many young children countless hours of pain and suffering.

How We Will Measure Success

Select a District Health Office with public health dental hygienist. The Division of Health Surveillance can merge databases from WIC, Medicaid claims, birth registry and residence location to arrive at the following measurements. For the data not available through Medicaid claims, data will be collected by the PHDH and/or CHW (*for instance, % of pregnant women referred to a dentist for oral health care*).

- Select a calendar year PRIOR to employment of PHDH for baseline data and then measure the same indicators each year for 5 years :
 - % of children, ages 0-5, who had oral health risk assessments
 - % of children, ages 0-5, identified as “high” risk
 - % of children, ages 0-5, who had at least one FL varnish procedure
 - % of children, ages 0-5, hospitalized for dental decay
 - % of children, ages 0-5, treated in dental offices for dental decay
 - % of pregnant women receiving oral health consultation in WIC
 - % of pregnant women referred to a dentist for oral health care
 - % of pregnant women receiving restorative dental care during pregnancy or within 60 days postpartum

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