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Improving Dental Health Screening in the Primary Care Setting

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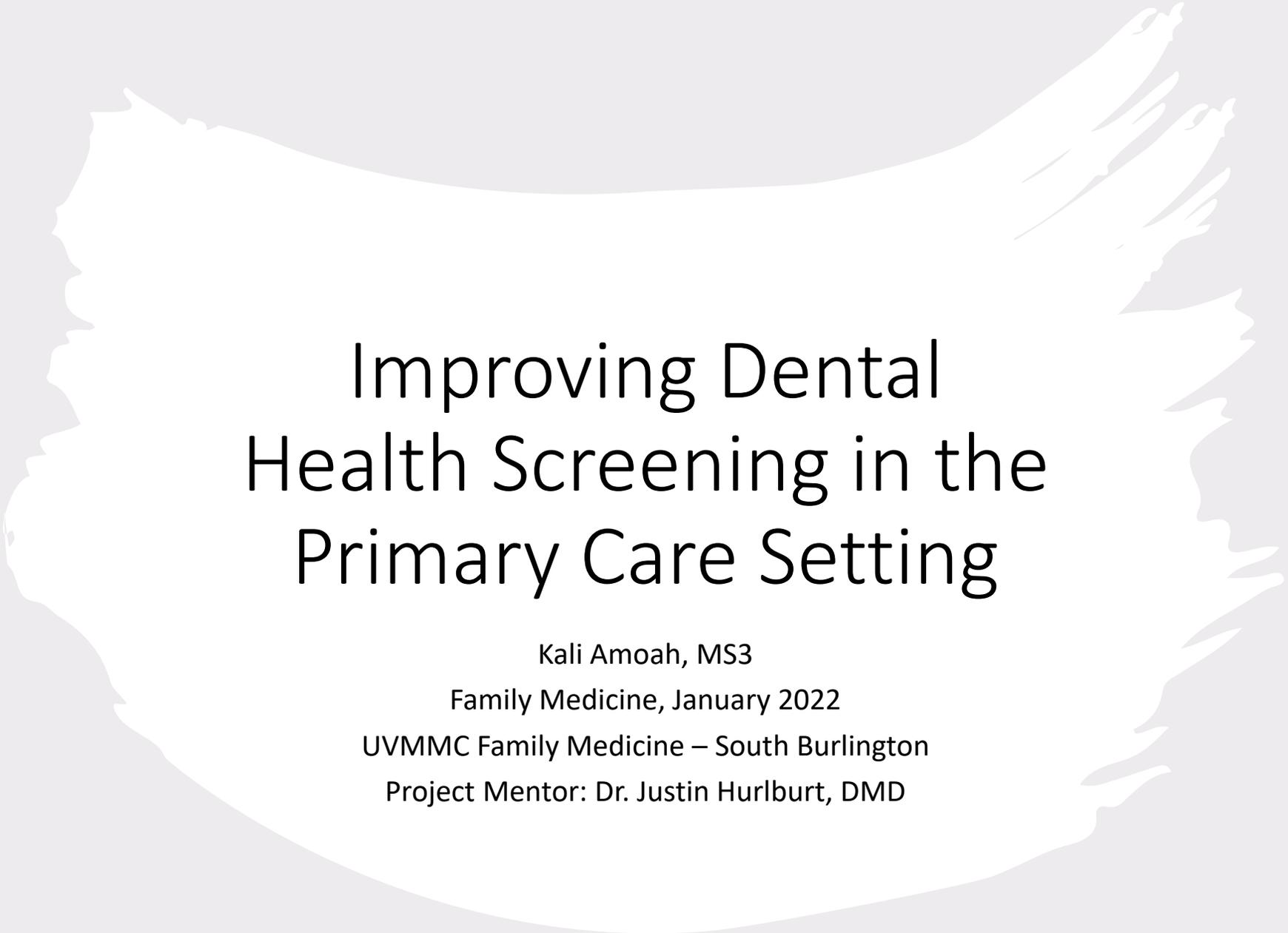
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Improving Dental Health Screening in the Primary Care Setting

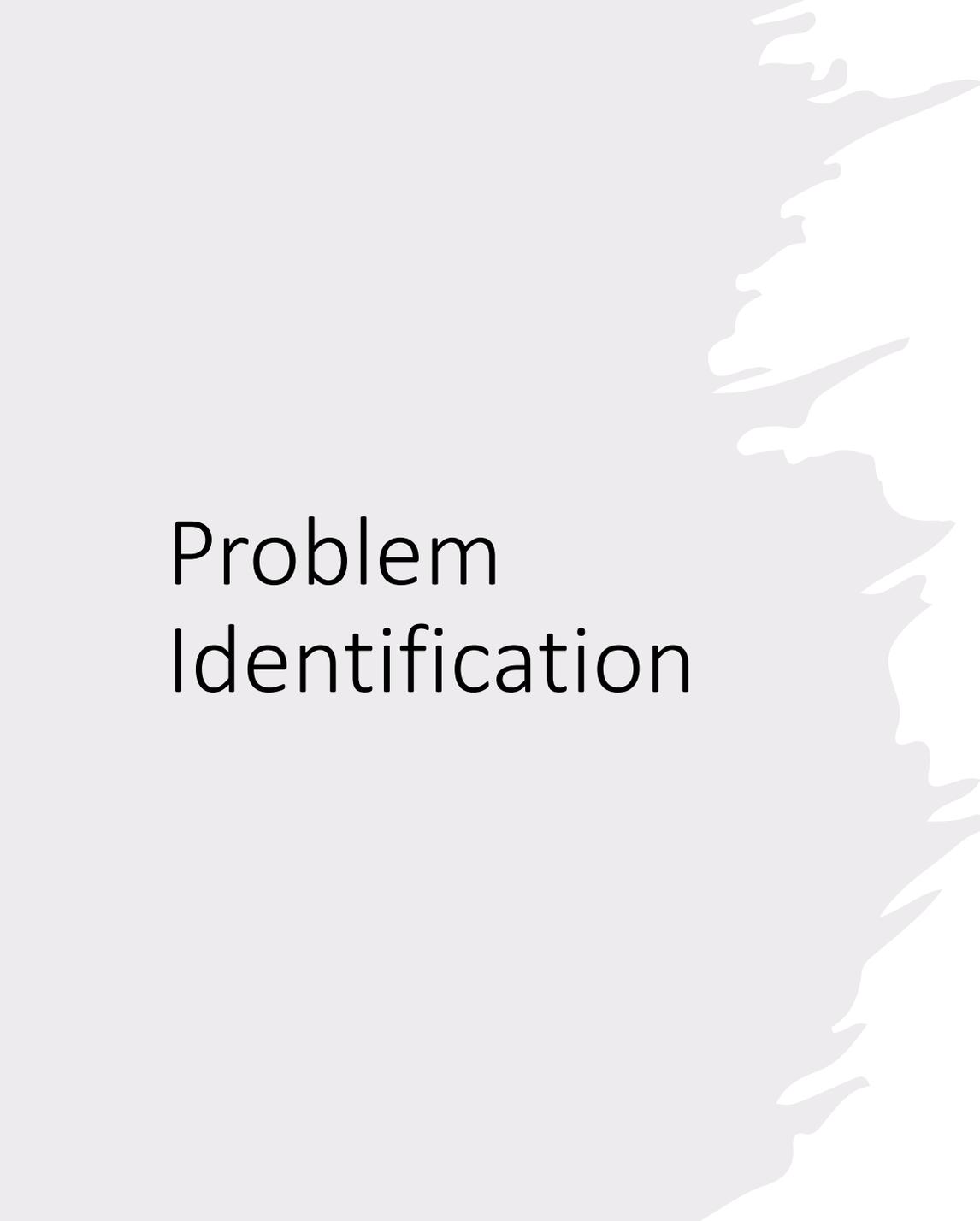
Kali Amoah, MS3

Family Medicine, January 2022

UVMHC Family Medicine – South Burlington

Project Mentor: Dr. Justin Hurlburt, DMD

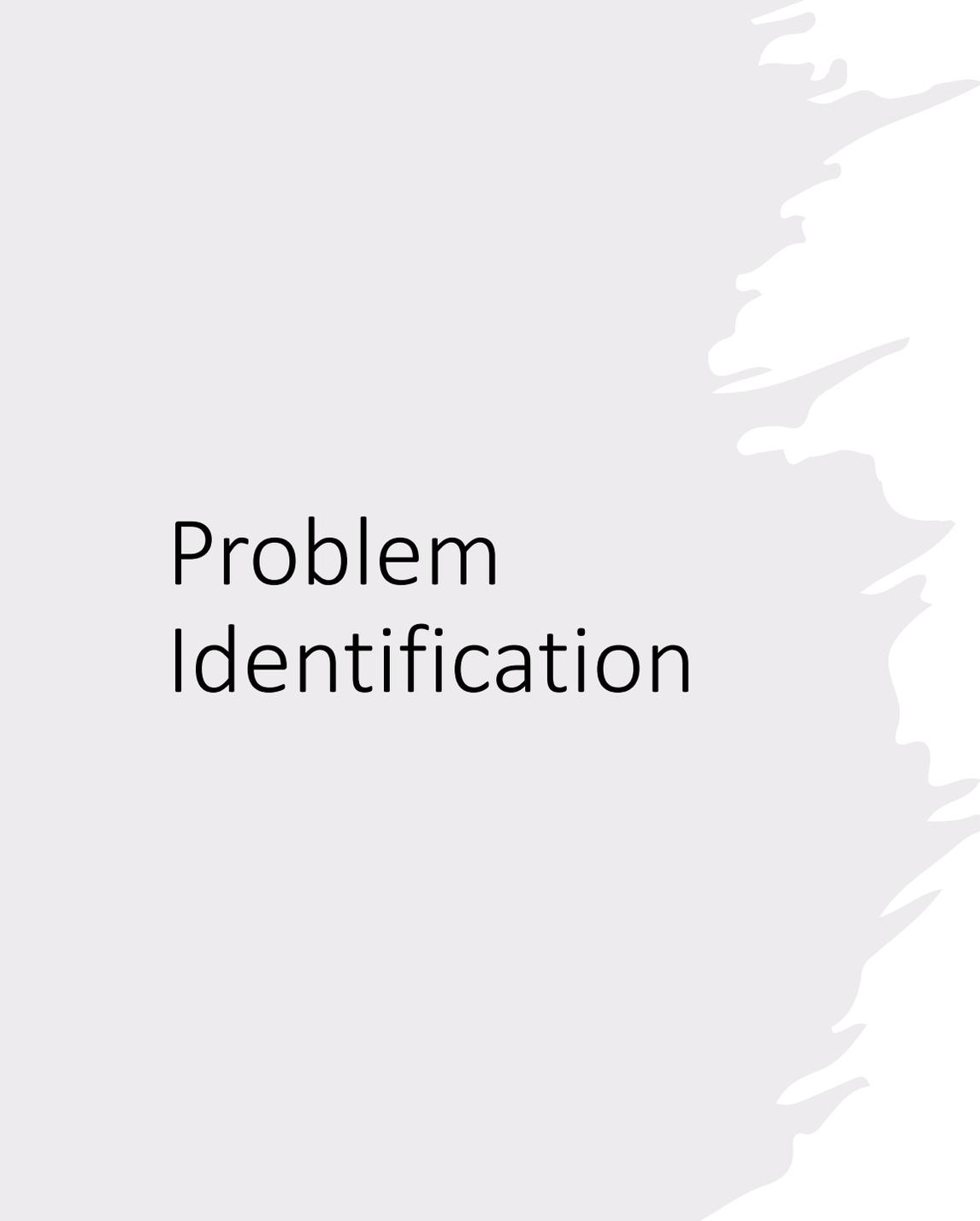
Problem Identification



Disease Prevalence:

- Dental caries are one of the most common chronic childhood diseases
 - Prevalence of untreated dental caries is about 20% for U.S. children aged 5-11 years old and about 13% for U.S. children aged 12-19 years old.³
 - Prevalence of dental decay in Vermont third graders is about 37%⁸
- In the United States, about 26% of adults have untreated tooth decay and about 46% of adults over 30 years old have signs of gum disease.²
- In 2018, the Vermont Department of Health reports that 48% of adults aged 45-64 years old have had at least 1 tooth extracted due to tooth decay or gum disease.⁸
- The CDC's Division of Oral Health reports that in 2018, about 34% of Vermont adults 65 or older have lost 6 or more teeth due to tooth decay or gum disease.¹

Problem Identification



Oral Health and Systemic Health

- Association with atherosclerotic disease: bacteremia and chronic inflammation triggered by periodontal disease and poor oral hygiene can stimulate the atherogenesis process.⁴
- Bidirectional relationship with diabetes mellitus: periodontitis has a negative impact on glycemic control and hyperglycemia has a negative impact on oral health.⁴
- Pregnancy complications: maternal periodontal disease results in 7.5 times increased risk for preterm delivery and low birth weight infants.⁴
- Consequences of dental caries in children: impaired nutrition, infection, poorer school performance, poor self-esteem, difficulty sleeping.⁹



Need for Increased Dental Screening

- A study conducted in Ohio in 2021, found that surveyed providers perceived there to be minimal integration of oral health in the medical setting.¹⁰
 - There has been success with the integration of oral health in the pediatric population. Reportedly, 78% of pediatricians have endorsed that increased dental screening has resulted in increased utilization of dental care.
 - However, integration in adult primary care remains lacking.
- In the United States, there are 111 million people who see their primary care provider annually but do not see a dentist.⁹
 - Barriers to dental care include; financial barriers, lack of dental insurance, geographic location, lack of knowledge regarding the importance of oral health.

Public Health Cost



- The CDC reports that the total annual cost for dental care is about \$136 billion⁷
 - Greater than 34 million hours of school are missed every year because emergency dental care.
 - Each year in the United States, greater than \$45 billion is lost in productivity due to untreated oral disease.
 - There were about 2.1 million visits to the ED due to dental emergencies.
 - About 18% of adults report that the appearance of their teeth affect their ability to interview for a job. This percentage increases to 29% for people with low income.
- A study in 2020 investigated the integration of oral health services in medical offices and its effect on the number of dental visits.⁵
 - The study demonstrated that an expansion in oral health services provided by medical offices was not associated with a reduced number of dental visits. Rather, the evidence suggested that there may be an association with increased dental care utilization.
 - Therefore, the study is in support of increased integration of oral health services in medical offices.

Community Perspective



What would be your ideal way of integrating dental care and primary care?

- “Ideally dentists would actually just be in the same offices and covered under the same insurance. Dental care just often feels so disconnected from primary care” –Dr. Dave Reisman, MD
- “Creating a better team environment and integrating dental earlier into services around the hospital. A lot of time our services are an afterthought, or only become important when surgery or patients' health is a risk. If we were to be able to intervene earlier, it would be easier for us, for the patient, and for their outcomes to be improved I believe. I also think a quick referral network is important- but like I said with us on a different medical record system that's not always smooth. (as an aside, we also need to concentrate on the oral health of our medical students and residents, as well as hospital staff- we see A LOT of dental disease among them)” –Dr. Justin Hurlburt, DMD

What do you think are the biggest barriers for patients in regard to seeking dental care?

- “Insurance, many just don't seem to have dental insurance.” –Dr. Dave Reisman, MD
- “The biggest barriers that we find are financial, access, and fear. Financial- even if patients have commercial insurance, benefits are not great, and typically have a max of \$1500/year. This means that if they have one dental issue, those benefits are gone- and most everyday folks can't/won't afford to pay out of pocket for dental care. Access- especially with Medicaid patients, it can be hard to find a provider in Vermont. Overall, Vermont only has less than 400 general dentists, and even less specialists. That means even if you NEED care, there are some people who might not be able to get care. Fear- a lot of people are not comfortable coming to see us, so just avoid it.” –Dr. Justin Hurlburt, DMD

How do you educate your patients on the importance of dental care?

- “Briefly, I often say ‘make sure to brush your teeth and see your dentist, it is important to your health’” –Dr. Dave Reisman, MD
- “We have a direct connection with the medical center, which serves a huge geographic area of patients. This means we see a lot of sick people, and people with health issues. This is an easy connection for us to stress and show to patients how important oral health can be. In our regular everyday practice- we educate educate educate, and hope it sticks. We try and break down barriers about things like fluoride importance, x-ray safety, and seeing the dentist when pregnant.” –Dr. Justin Hurlburt, DMD

Community Perspective



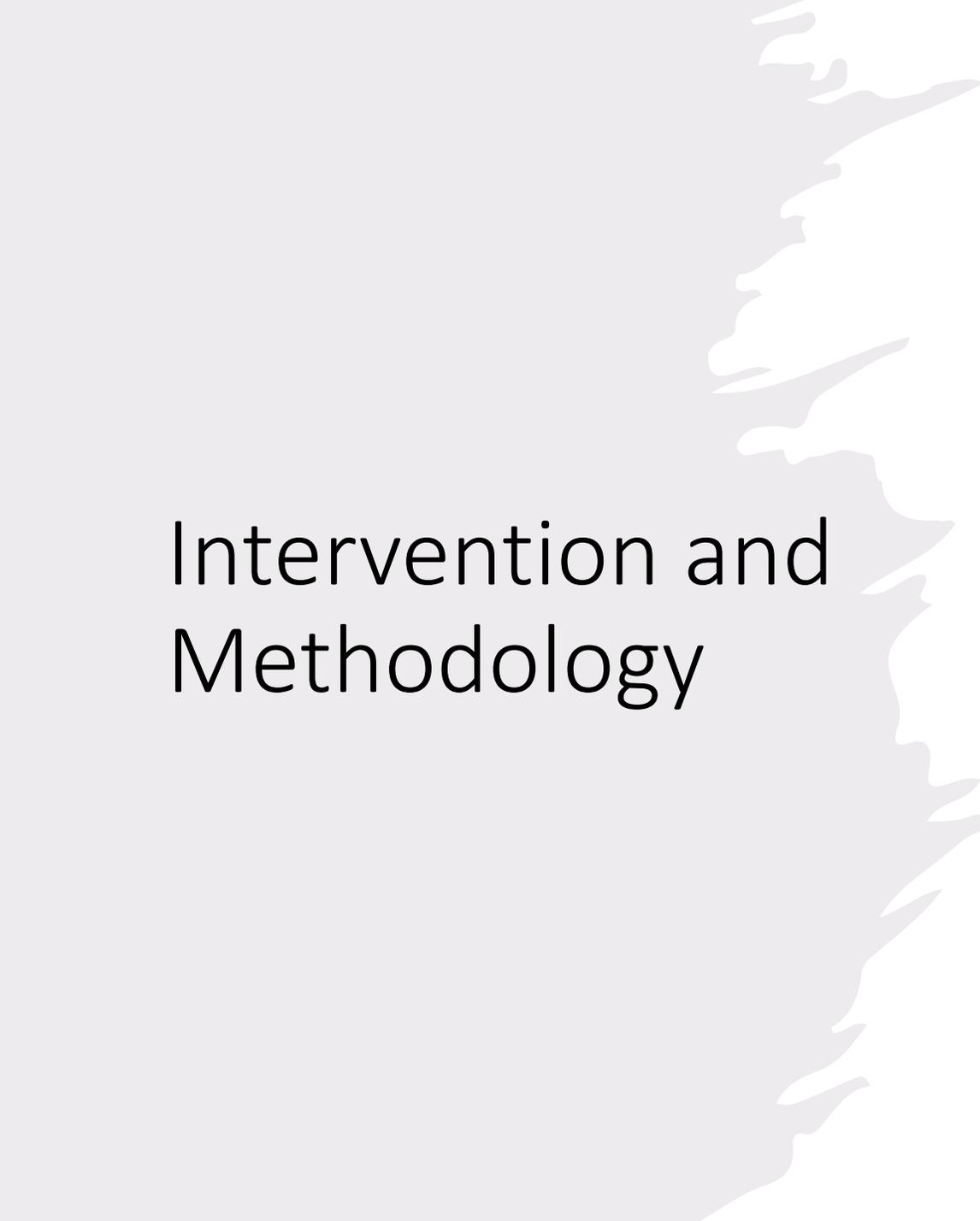
What do you think are some of the biggest barriers for PCPs when it comes to implementing dental health screening during preventative care visits?

- “Time often feels like the biggest barrier, I often ask almost in passing about dental care unless I notice that dentition is clearly a big issue.” –Dr. Dave Reisman, MD

What do you think would be the biggest benefit of increasing dental health screening in the primary care setting?

- “I see the biggest benefit as finding pathology and acute dental issues before they are at end stage dental disease- meaning need for radical surgery or edentulation. There is a large segment of the population- for the above reasons- that avoid us so a primary care visit may be the only time they see a medical professional. If we can identify pathology or poor dentition quickly, we may be able to help the patient from a poor outcome.” –Dr. Justin Hurlburt, DMD

Intervention and Methodology



- Collaborated with local dentist to gain insight, assess need, and determine the most relevant intervention.
- Conducted a literature review to better understand the connection between oral health and systemic health, to assess patient barriers to seeking dental care, and discover the public health perspective on the integration of medical and dental care.
- Created a list of dental clinics in Vermont that take Medicaid/Medicare and offer sliding scale payment options.
 - To address the potential financial barrier that may prohibit patients from seeking dental care.
- Created a condensed list of the most pertinent dental health screening questions.
 - To identify and treat patient dental concerns before they progress in severity.
 - The screening questions were created to identify pertinent patient information in a minimal amount of time.

Results

- Created two separate SmartPhrases in EPIC: (1) for the list of affordable dental clinics in Vermont and, (2) for the pertinent dental health screening questions.
 - To allow for easy access by providers to incorporate into patient care
- Distributed a step-by-step guide to instruct providers on how to access the SmartPhrases.
- Received positive feedback from providers about usefulness.

Clinic	Vermont City	Location	Phone Number
Battenkill Valley Health Center	Arlington	9 & 18 Church Street Arlington, VT	(802) 375-6567, option 7 for Dental
Vermont Dental Care	Barre	248 S. Main St. Barre, VT 05641	(802) 476-6785
Esteys Dental Center	Brattleboro	130 Birge Street Brattleboro, VT	(802) 251-1031
Windham County Dental Center	Brattleboro	375 Canal Street Brattleboro, VT	(802) 490-2923
Red Clover Family Dentistry (part of Mountain Health Center)	Bristol	61 Pine Street Bristol, VT	(802) 453-3911
Community Health Centers of Burlington	Burlington	617 Riverside Ave Burlington, VT	(802) 652-1050
Ellsworth Memorial Health Center	Chester	55 VT 11, Main Street Chester, VT	(802) 875-2878
Northern Counties Dental Center	Hardwick	151 North Main Street, Hardwick, VT	(802) 472-2260
Island Pond Health & Dental Center	Island Pond	82 Maple Street Island Pond, VT	(802) 723-4300
Ludlow Dental Center	Ludlow	8 Main Street Ludlow, VT	(802) 228-4446
Lamoille Health Family Dentistry (Lamoille Health Partners)	Morrisville	66 Morrisville Plaza Morrisville, VT	(802) 888-7585
Orleans Dental Center	Orleans	11 Union Street, Orleans, VT	(802) 754-6973
The Health Center	Plainfield	157 Towne Ave., Plainfield, VT	(802) 454-1047
Gifford Health Care (dental services by referral only)	Randolph	44 South Main St., Randolph, VT	(802) 728-7000 (802) 431-6060
Richford Dental Clinic (Northern Tier Center for Health)	Richford	44 Main Street, Suite 400 Richford, VT	(802) 255-5520
Community Dental Rutland	Rutland	69 Allen Street, Suite 10 Rutland, VT	(802) 774-5050
Community Kids Dental – Rutland	Rutland	69 Allen Street, Suite 7 Rutland, VT	(802) 772-4413
Rutland Free Clinic	Rutland	145 State Street Rutland, VT	(802) 775-1360
Community Dental Shorewell	Shoreham	2987 VT Route 22A Shoreham, VT	(802) 897-7716
UVMMC Dental and Oral Health Practice	South Burlington	1060 Hinesburg Road Suite 201 South Burlington, VT	(802) 847-1777
Swanton Health Center & Dental Clinic (Northern Tier Center or Health)	Swanton	26 Canada Street Swanton, VT	(802) 868-2454
Little Rivers Health Care – Mobile Van provides dental services to children 1-21 years old only	Wells River	65 Main St N, Wells River, VT	(802) 757-2325
Red Logan Dental Clinic	White River Junction	70 N. Main Street White River Jct., VT	(802) 295-7573
Vermont Tech Dental Hygiene Clinic	Williston	301 Lawrence Place Williston, VT	(802) 879-5643
Vermont Dental Care	Winooski	32 Malletts Bay Ave Ste B, Winooski, VT	(802) 655-2385

Dental Screening:

1. Do you currently see a dentist regularly? When was the last time you saw the dentist?
2. How often do you brush your teeth? How often do you floss your teeth?
3. Do you have any family history of caries or dental procedures?
4. Do you have any personal history of caries or dental procedures?
5. Do you currently have any dental concerns such as, pain in your mouth, toothaches, chipped/ broken teeth, etc.?

Limitations



- Due to the time constraint of this rotation, the final results have not yet been assessed.
 - Effectiveness of this intervention could be measured in the future by tracking the usage of the SmartPhrases.
 - Effectiveness of dental health screening questions could be measured by monitoring the number of referrals to dental providers and by tracking the number of patient dental concerns identified by primary care providers.
- The limited amount of time given to primary care providers to address patient concerns and conduct preventative health screening also poses a limitation to the incorporation of dental screening into preventative care visits.



Recommendations for Future Interventions

- Increasing the duration of preventative care visits
 - To give primary care providers the time to address patient health concerns, conduct preventative health screening, and incorporate dental health screening.
- Use of the same electronic health record by primary care providers and dental providers.
 - To allow for comprehensive access of patient information, patient medical history and current medications.
 - To improve communication between medical and dental providers.
- Incorporation of a dental care provider within primary care offices.
 - To allow for increased access to dental health screening and overall dental health by dental health professionals.
- On a larger scale: addressing the issue of separate insurances for dental health and medical health.
 - To allow for dental health and medical health to be covered under one plan, and to improve patient access.

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