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Increasing Access to Dental Services in Windham County, Vermont: A Proposal for a Mobile Dental Clinic

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Problem Identification

• Adults and children in Windham County, VT have limited access to dental care

• This is exacerbated by:
  • Low percentage of people with dental insurance in the community
  • Lack of dentists (especially those who accept Medicaid)

• A goal of the Community Health Team at Grace Cottage Hospital is to increase dental care to those in need
  • Implementation of a subsidized dental clinic that uses dental hygienist students to reduce cost
  • Proposal for a mobile dental clinic
Dental Caries and Public Health Costs in the United States

• Dental caries:
  • The **most common** chronic disease in adolescents in the US\(^1\)
  • The **fourth most expensive** disease to treat in the US\(^1\)
  • Accounts for **5-10%** of all healthcare expenditures in the US\(^1\)

• Poor access to affordable dental health services is the biggest risk factor for poor dental health\(^2\)

• Poor dental health can be a risk factor for:
  • Cerebrovascular disease\(^3\)
  • Coronary heart disease\(^4\)
  • COPD\(^5\)
  • Quality of Life\(^6\)
Dental Health and Public Health in Windham County, Vermont

• Grace Cottage Community Health Needs Assessment
  • Goal to identify health needs in the community
  • 699 adults completed a 12 question survey to identify community health needs
  • Question #1: “What are the most significant health issues or concerns facing you or your family?”
  • Question #2: “What are the most significant health issues or concerns facing your neighbors or your community?”
  • Given a list of 25 health issues to rank for both of these questions

• “Dental” ranked as the 3rd and 8th most significant health issue for questions #1 and #2, respectively
### 2015 Community Health Needs Assessment

If you are at least 18 years of age, please take a minute to complete the survey below. All responses will remain anonymous. The purpose of this survey is to get your opinions about community health issues. Thank you for your time and interest in helping us to identify our most pressing problems and issues.

1. **What are the most significant health issues or concerns facing you or your family?** (Circle all that apply).

   - Alcoholism
   - Arthritis
   - Asthma
   - Cancer
   - Chronic pain
   - Contagious diseases (e.g., measles, TB, etc.)
   - Dental problems
   - Depression
   - Diabetes
   - Drug abuse or addiction
   - Hearing problems
   - Heart disease
   - High Blood Pressure
   - High Cholesterol
   - Home health services for the elderly
   - Flu/pneumonia
   - Lung Disease
   - Lyme Disease
   - Mental health issues
   - Nutrition
   - Obesity/Overweight
   - Osteoporosis
   - Physical fitness
   - Pre-natal care
   - Smoking/tobacco use
   - Sexually transmitted diseases
   - Stress
   - Suicide
   - Teen Pregnancy
   - Vision
   - Other:

2. **What are the most significant health issues or concerns facing your neighbors or your community?** (Circle all that apply).

   - Alcoholism
   - Arthritis
   - Asthma
   - Cancer
   - Chronic pain
   - Contagious diseases (e.g., measles, TB, etc.)
   - Dental problems
   - Depression
   - Diabetes
   - Drug abuse or addiction
   - Hearing problems
   - Heart disease
   - High Blood Pressure
   - High Cholesterol
   - Home health services for the elderly
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   - Lung Disease
   - Lyme Disease
   - Mental health issues
   - Nutrition
   - Obesity/Overweight
   - Osteoporosis
   - Physical fitness
   - Pre-natal care
   - Smoking/tobacco use
   - Sexually transmitted diseases
   - Stress
   - Suicide
   - Teen pregnancy
   - Vision
   - Other:
Determining a Way to Address the Issue

• The Community Health Needs Assessment also asked: “What most prevents you and your family from obtaining good health and well-being?”
  • 107 Participants selected, “Don’t have a dentist.”
  • This was the 4th highest ranked response to this question overall

• Therefore, by increasing accessibility to dentists and hygienists, Grace Cottage Hospital and Windham County could solve a health problem that residents of the community identify as one of the most significant health concerns to them
Community Perspective: Interviews

• “For all of the schools I work at, dental health is a significant health issue for my students. When my students’ dental health starts to deteriorate, so does the rest of their health. There are few other more important issues for the health of my students.” – Lois Thibault, school nurse of 5 elementary schools in Windham County, Vermont

• “The biggest issue we face in bringing dental care to people of the community is the lack of medical insurance coverage for many of the programs currently available.” – Bill Monahan, RN, Grace Cottage Community Health Team
Intervention and Methodology: Grace Cottage Dental Clinic

• Bill Monahan of Grace Cottage Hospital’s Community Health Team helped implement a **dental clinic that brings subsidized dental care to Medicaid patients**
  • This current dental clinic is stationed in Townshend, Vermont adjacent to Grace Cottage Hospital
  • Bill connects patients in need of dental health to this dental clinic
    • (See slide 6 for an example of the impact)
  • The clinic provides **subsidized dental care to Medicaid patients**, therefore **increasing access to dental care** for the people who need it most
  • Made possible by allowing dental students to work for the clinic, which reduces overall cost
The Next Step: Mobile Dental Clinic

• Bill is now taking the next step for the dental clinic
• He is applying for funding to design and implement a mobile dental clinic that can bring this same dental care to middle schools and high schools in Windham County
  • This would further increase access to care
• He estimates that he needs $1,000,000 for the mobile clinic to be possible, and he currently has raised about 50% of that money
• He plans to present his idea to potential funders in May 2017 to help cover the remaining 50%
• My specific intervention and role was to design a presentation on the impact of dental health on systemic health, and to present my research with him in May.
• Together, we hope to convince potential funders about the need for this mobile clinic
Initial Successes of the Dental Clinic

• Out of the 75 students of Townshend Elementary School, 17 received dental services via the Grace Cottage dental clinic
  • 15 of those 17 students did not have access to dental care before the clinic

• Self-identified limitations to dental health care before the clinic:
  • Single parent household in which the parent works full time
  • Lack of transportation
  • Poverty level incomes

• Largest obstacle to providing dental care in Windham County:
  • Dentists in Windham County limit the amount of Medicaid patients that they can see

• (This data was collected in collaboration with Lois Thibault, RN)
Evaluation of Effectiveness

• If Bill and I are successful in convincing private funders and the Board of Directors at Grace Cottage Hospital to fund Bill’s mobile dental clinic, we plan to evaluate its effectiveness in many ways:
  1. During next year’s Community Health Assessment for Grace Cottage Hospital, we will include a question that asks: “Has your access to dental health services increased over the past year? And if so, how?”
  2. We will also design surveys to be distributed by the mobile dental unit once it is functioning
     1. See next page for example questions
Example Questions for Evaluation of Mobile Dental Clinic

• We plan to create a survey to hand out to patients receiving care at the mobile dental clinic when it starts running

• Examples of questions, with option to rank on a scale from 1-5 based on level of agreement:
  1. BEFORE this mobile clinic, I had adequate access to dental care
  2. AFTER this mobile clinic, I had adequate access to dental care

• Examples of other questions:
  • Before today, how many times did you have your teeth cleaned?
  • Before today, when was the last time you had your teeth cleaned?
Future Directions

• Analysis of responses to surveys handed out at the mobile dental clinic
  • This would allow us to see the impact of the clinic on the community

• Investigation of additional dental schools and dental hygienist schools who could provide more students to help with the clinic

• Fundraising for the mobile dental clinic through community events

• Design pamphlets to distribute in middle schools and high schools about the clinic
Limitations

• Although both Bill and I are excited about the potential of this project, the additional funding that we would require is significant
  • This might delay his ability to begin the implementation of the mobile dental clinic

• If the mobile dental clinic is successfully initiated, the cost of its maintenance will also be a factor to take into consideration

• In addition, finding adequate numbers of students to work in the mobile clinic will be difficult
References