**Community-Academic Partnerships to Improve the Oral Health of Schoolchildren in Rural North Carolina**

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**BACKGROUND**

- Community-academic partnerships are an important factor to the success of school-based health programs. We present a model of a community-academic partnership formed to develop and implement a school-based oral health prevention, promotion, and education program among schoolchildren in Bertie County, North Carolina. The oral health program aims to increase access to preventive oral health services and a dental home to children in Bertie County. Bertie County is designated by the Health Resources and Services Administration as a Health Professions Shortage Area, a Medically Underserved Community, and a Dental Health Professions Shortage Area.

**OBJECTIVES**

- Describe partnership principles
- Describe planning, implementation, process evaluation, and facilitating factors
- Describe lessons learned in program development and implementation

**METHODS**

- East Carolina University School of Dental Medicine formed a partnership with the Bertie County school district.
  - The PRECEDE-PROCEED model was used to guide the planning, implementation, and evaluation of the program.
  - Several planning and advisory sessions were held with members of the school board, administrators, and staff to assist in program planning and implementation.
  - Process evaluation was used to provide feedback and refine the program.

**RESULTS**

- Phase 1: Social Assessment
  - Bertie County student racial/ethnic distribution
    - 47.7% non-Hispanic black
    - 34.6% Hispanic
    - 17.7% non-Hispanic white
  - 3.6% of fifth graders in the county have untreated decay
  - 61% non-Hispanic black
  - 27.7% Hispanic
  - 11.9% non-Hispanic white

- Phase 2: Epidemiological and Environmental Assessment
  - 30.3% of kindergarteners in the county have untreated decay
  - 6.5% of children qualify for free/reduced lunch program
  - 2.3% of children have untreated decay
  - 64.5% of fifth graders in the county have untreated decay
  - 31.9% of kindergarteners in the county have untreated decay

- Phase 3: Educational and Ecological Assessment
  - 5.8% of children qualify for free/reduced lunch program
  - 38% of children have untreated decay
  - 2.3% of children have untreated decay
  - 62% of fifth graders in the county have untreated decay
  - 44.2% of kindergarteners in the county have untreated decay

- Phase 4: Administrative and Policy Assessment
  - Healthy People 2030 objectives:
    - Reduce the proportion of children and adolescents with lifetime tooth decay experience
    - Reduce the proportion of children and adolescents with active and currently untreated tooth decay
    - Increase the proportion of low-income youth who have a preventive dental visit
    - CDC; Community Preventive Services Task Force – support school-based sealant programs

- Phase 5: Implementation
  - Phase 6: Process Evaluation
  - Phase 7: Impact Evaluation

**LESSONS LEARNED**

- The community-academic partnership achieved positive outcomes by embracing a joint mission with principles of understanding and sharing responsibility and recognition.
  - Cultural competency and motivational interviewing skills are valuable tools.
  - Attendance at school events is important.
  - Market the program among schools to build trust and recognition.
  - Evaluate to better meet the needs of the schools, teachers, parents, and students.
  - Communicate the program's expectations to each school.
  - Ensure all children receive follow-up care.
  - Success and sustainability of the program is dependent on insurance reimbursement, enrollment, and the continued strengthening of the community-academic partnership.

- Facilitating factors included:
  - Fostering and maintaining collaborations within a rural context.
  - An equitable community-academic partnership.
  - Culturally relevant practices.
  - Emphasis on bi-directional learning and capacity building.

- Challenges faced were related to:
  - Communication with parents.
  - Information gathering.
  - Transportation barriers.
  - Process issues.

**COVID-19 CHALLENGES**

- Inability to access children at school for extended period of time.
- Increased infection control measures.

**CONCLUSIONS**

- Despite challenges, the Bertie County Oral Health Prevention Program demonstrates a successful community-academic partnership for the development and implementation of a program to provide access to dental care and a dental home for a vulnerable population of school children.
- Lessons learned highlight issues to examine before furthering this work.

**NEXT STEPS**

- Assess how oral health relates to quality of life.
- Assess the impact of COVID-19.
- Develop protocol to assure follow-up care.
- Establish a site within the local health department.

**ACKNOWLEDGMENTS**

- The Duke Endowment.
- The Bertie County School District, children, parents, teachers, and staff.